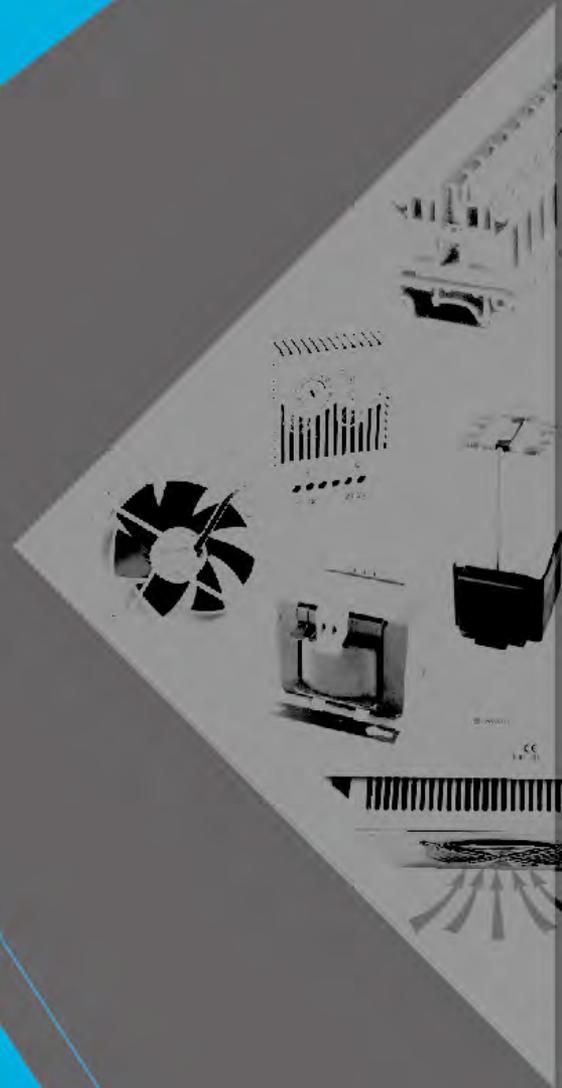




**LINKWELL**  
ELECTRIC

# Thermal Solution & Panel Accessories



Innovation - Quality - Global

## Thermal Solution & Panel Accessories



We are mainly dealing with low voltage electrical products for switchgear board and automation industry, such as panel filter and fan, panel heater, thermostat and hygostat for panel, flexible busbar, terminal block, din rail, wiring duct, etc. we are aiming to provide one- stop-solution for panel builder.

Now we are mainly exporting to European countries and Middle East Area, our products now are being well sold to more than 60 countries all over the world and we enjoy very good reputation in the market for the sake of our good quality and competitive prices, kind and prompt services to clients.

LINKWELL ELECTRIC policy is to offer a full support to Clients:

- pre-after sales assistance
- customized products
- fast delivery
- monitoring of customers' satisfaction

Rather than a supplier, LINKWELL ELECTRIC aims to be a Client's industrial PARTNER!

Our company always pays special attention to protecting the benefits of clients' so that both the clients and our company are able to gain the maximum benefits from the relations between us.

We warmly look forward to establishing, reinforcing and expanding long term fruitful relationship with the reliable clients all over the world.

Let's get busy and pull together to create a better future!

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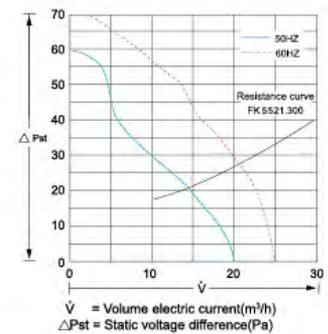
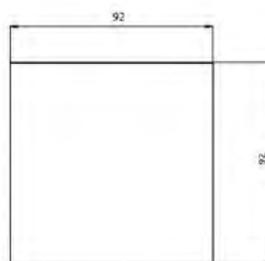
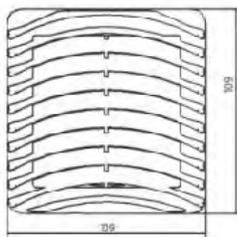
# Cabinet Ventilation



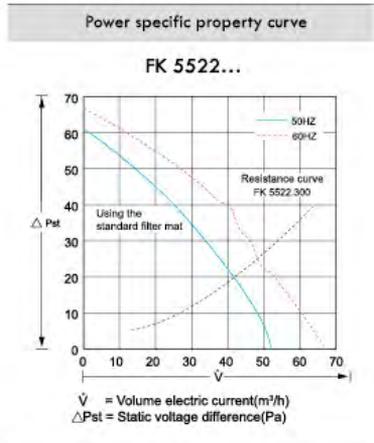
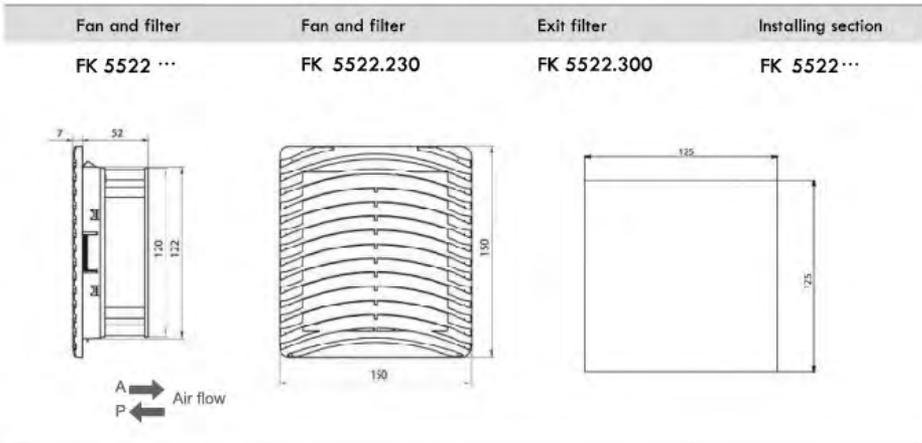
Cabinet Ventilation

Fan and filter	Fan and filter	Exit filter	Installing section
FK 5521 ...	FK 5521.230	FK 5521.300	FK 5521 ...

Power specific property curve
FK 5521...



CODE		Exit filter	Fan and filter	Fan and filter	Fan and filter
TYPE	M.U	FK5521.300	FK5521.230	FK5521.115	FK5521.024
Voltage/phase/frequency	V-ph-Hz		220-240/1/50-60	110-120/1/50-60	24DC
Height/Width/Depth	mm	109×109×21	109×109×59	109×109×59	109×109×59
Power/Current	W/A		13/0.07-0.08	15/0.13-0.15	9.6/0.4
Temperature limits	°C		-10/+70	-10/+70	-10/+70
Protection degree	IP	54	54	54	54
Noise level	dB(A)		35	30	30
Air flow	m <sup>3</sup> /h		35	35	100
Air flow (+FK5521.300)	m <sup>3</sup> /h		24/27	24/27	70/70
Air flow direction			A/P	A/P	A/P

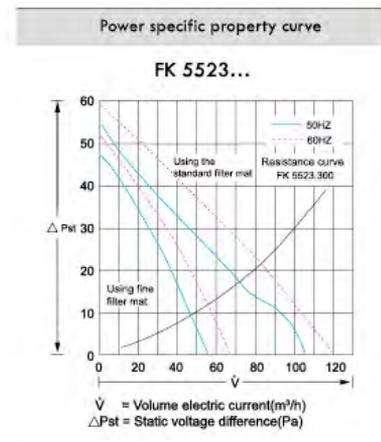
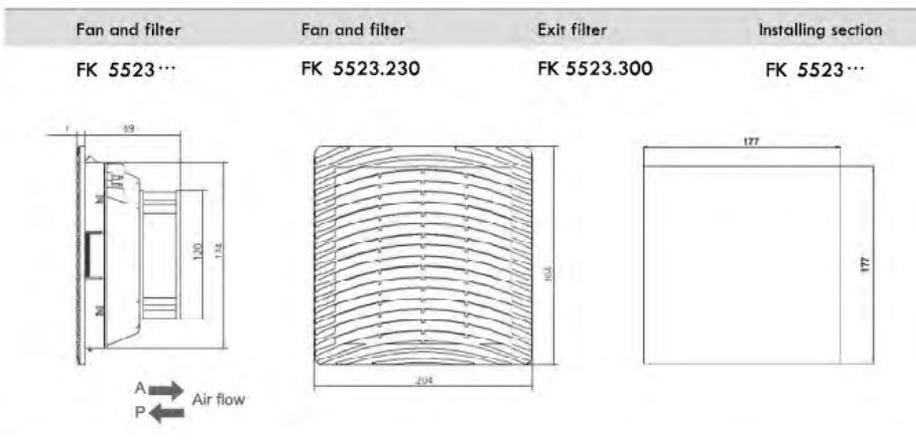


CODE		Exit filter	Fan and filter	Fan and filter	Fan and filter
TYPE	M.U	FK5522.300	FK5522.230	FK5522.115	FK5522.024
Voltage/Phase/Frequency	V-ph-Hz		230-1-50/60	115/1/50-60	24DC
Height/Width/Depth	mm	150×150×21	150×150×59	150×150×59	150×150×59
Power/Current	W/A		22-30/0.1-0.14	22-26/0.21-0.24	7.2/0.43
Temperature limits	°C		-10/+70	-10/+70	-10/+70
Protection degree	IP	54	54	54	54
Noise level	dB(A)		45	45	45
Air flow	m <sup>3</sup> /h		67	67	67
Air flow (+FK5522.300)	m <sup>3</sup> /h		50/58	50/58	50/58
Air flow direction			A/P	A/P	A/P

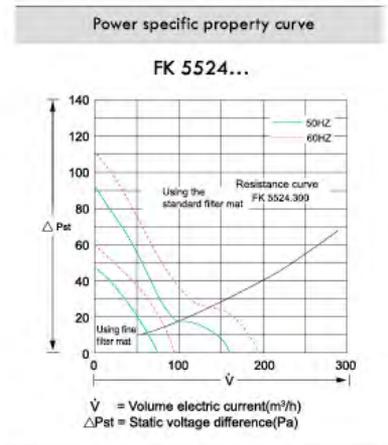
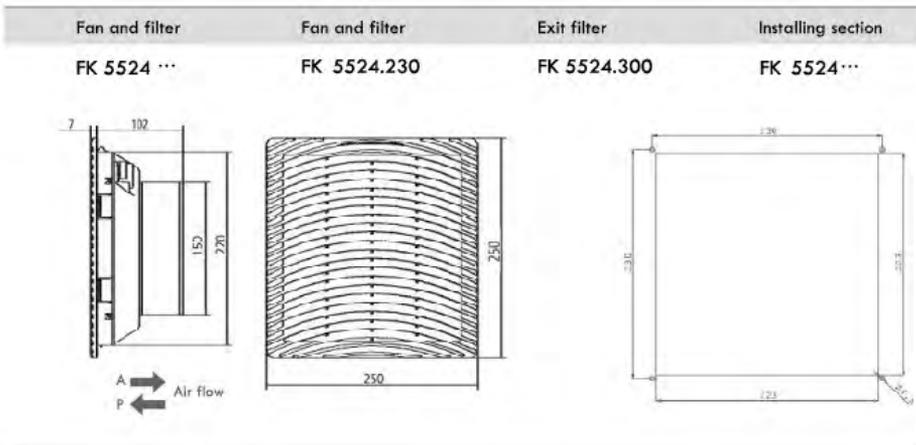
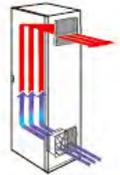
# IP54 FK55 series fan and filter



Cabinet Ventilation

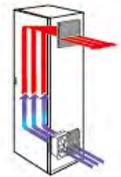


CODE		Exit filter	Fan and filter	Fan and filter	Fan and filter
TYPE	M.U	FK5523.300	FK5523.230	FK5523.115	FK5523.024
Voltage/Phase/Frequency	V-ph-Hz		230-1-50/1/60	115/1/50-60	24DC
Height/Width/Depth	mm	204×204×25	204×204×96	204×204×96	204×204×96
Power/Current	W/A		22-30/0.1-0.14	22-26/0.21-0.24	7.2/0.43
Temperature limits	°C		-10/+70	-10/+70	-10/+70
Protection degree	IP	54	54	54	54
Noise level	dB(A)		45	45	45
Air flow	m <sup>3</sup> /h		105/120	105/120	105/120
Air flow (+FK5523.300)	m <sup>3</sup> /h		85/100	85/100	85/100
Air flow direction			A/P	A/P	A/P

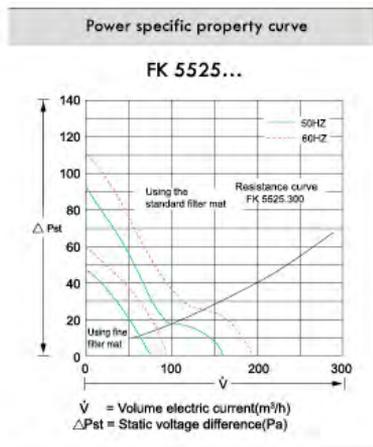
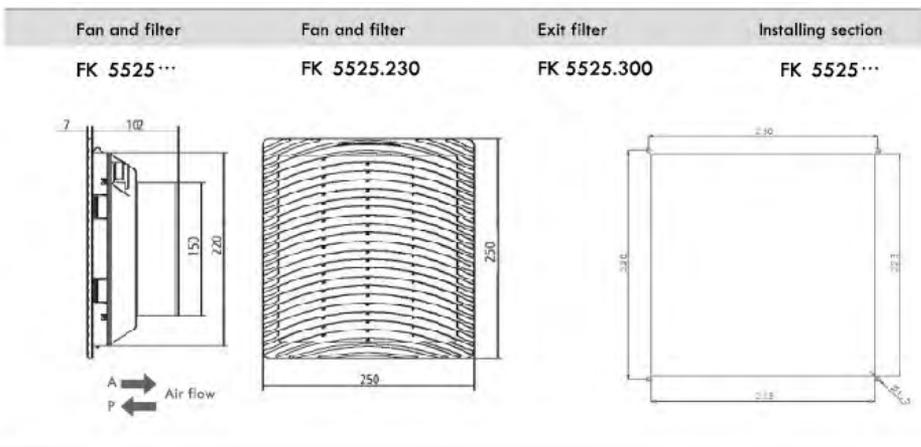


CODE		Exit filter	Fan and filter	Fan and filter	Fan and filter
TYPE	M.U	FK5524.300	FK5524.230	FK5524.115	FK5524.024
Voltage/Phase/Frequency	V-ph-Hz		230-1-50/60	115-1-50/60	24DC
Height/Width/Depth	mm	250×250×25	250×250×109	250×250×103	250×250×109
Power/Current	W/A		41-47/0.21-0.24	40-45/0.39-0.41	14/0.40
Temperature limits	°C		-10/+70	-10/+70	-20/+70
Protection degree	IP	54	54	54	54
Noise level	dB(A)		50	50	50
Air flow	m <sup>3</sup> /h		160/180	160/180	160/180
Air flow (+FK5524.300)	m <sup>3</sup> /h		120/150	120/150	120/150
Air flow direction			A/P	A/P	A/P

# IP54 FK55 series fan and filter



Cabinet Ventilation



CODE		Exit filter	Fan and filter	Fan and filter	Fan and filter
TYPE	M.U	FK5525.300	FK5525.230	FK5525.115	FK5525.024
Voltage/Phase/Frequency	V-ph-Hz		230-1-50/60	115-1-50/60	24DC
Height/Width/Depth	mm	250×250×25	250×250×109	250×250×103	250×250×109
Power/Current	W/A		46-59/0.28-0.33	42-47/0.50	15/0.40
Temperature limits	°C		-10/+70	-10/+70	-20/+70
Protection degree	IP	54	54	54	54
Noise level	dB(A)		52	52	52
Air flow	m <sup>3</sup> /h		230/265	230/265	230/265
Air flow (+FK5525.300)	m <sup>3</sup> /h		170/230	170/230	170/230
Air flow direction			A/P	A/P	A/P



FK5526.230 Fan and filter

Fan and filter  
FK 5526 ...

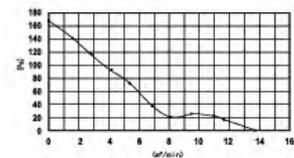
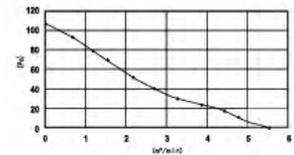
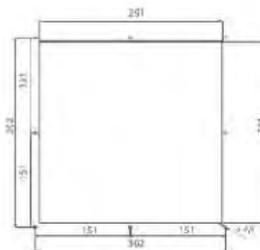
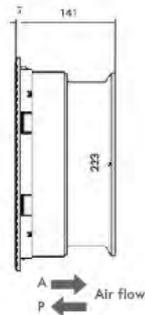
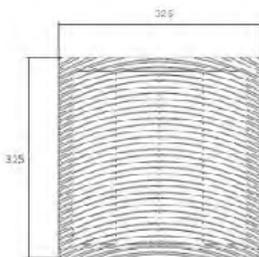
Fan and filter  
FK 5526.230

Exit filter  
FK 5526.300

Installing section  
FK 5526 ...

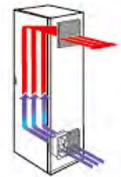
Power specific property curve

FK 5526...

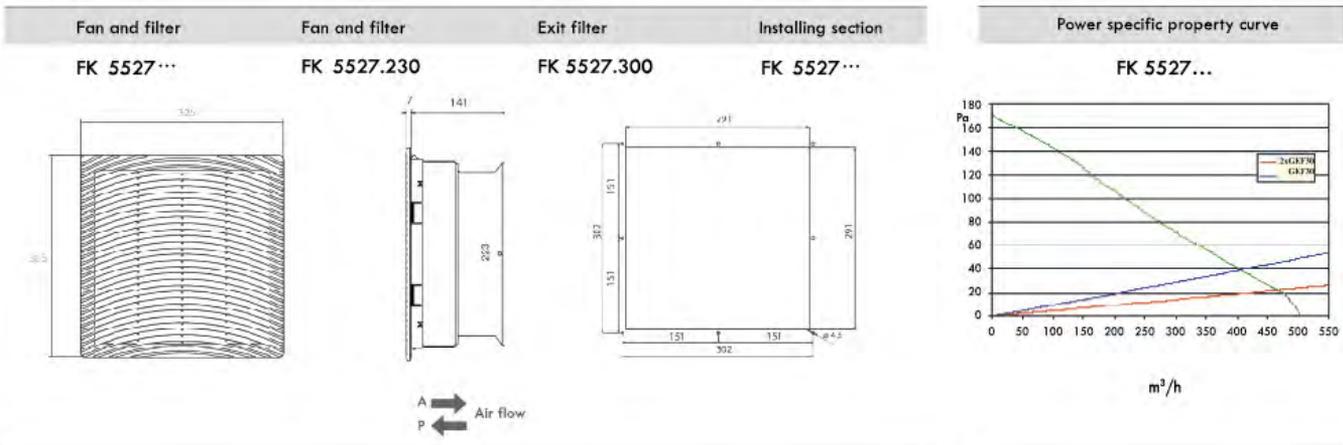


CODE		Exit filter	Fan and filter	Fan and filter
TYPE	M.U	FK5526.300	FK5526.230	FK5526.115
Voltage/Phase/Frequency	V-ph-Hz		230-1-50/1/60	115/1/50-60
Height/Width/Depth	mm	325×325×25	325×325×141.5	325×325×141.5
Power/Current	W/A		63/0.29	61/0.61
Temperature limits	°C		-10/+80	-10/+80
Protection degree	IP	54	54	54
Noise level	dB(A)		59	59
Air flow	m³/h		550/600	550/600
Air flow (+FK5526.300)	m³/h		360/490	360/490
Air flow direction			A	A

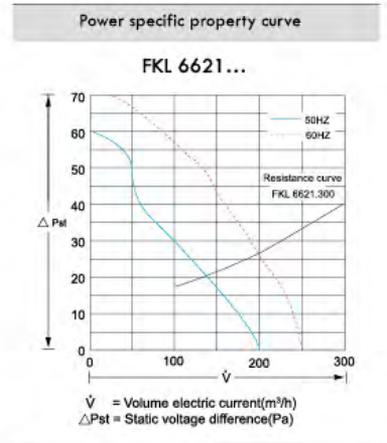
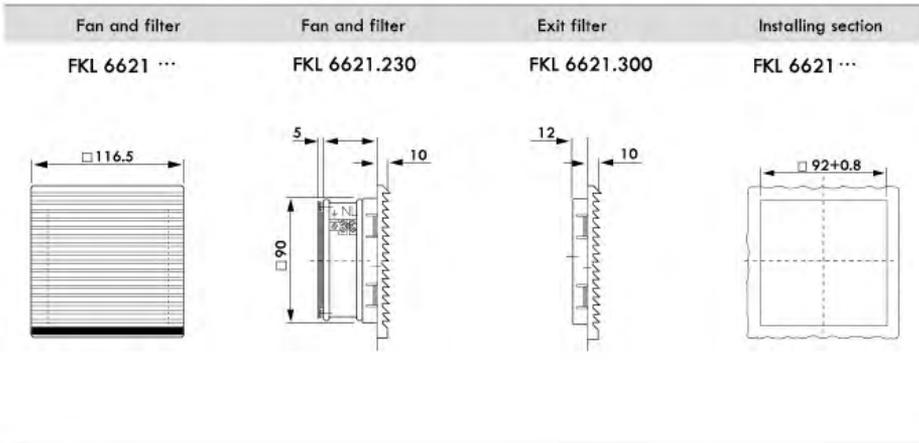
# IP54 FK55 series fan and filter



Cabinet Ventilation

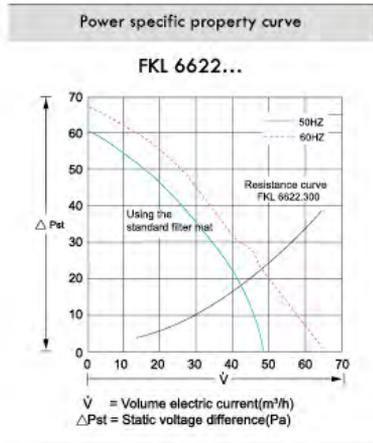
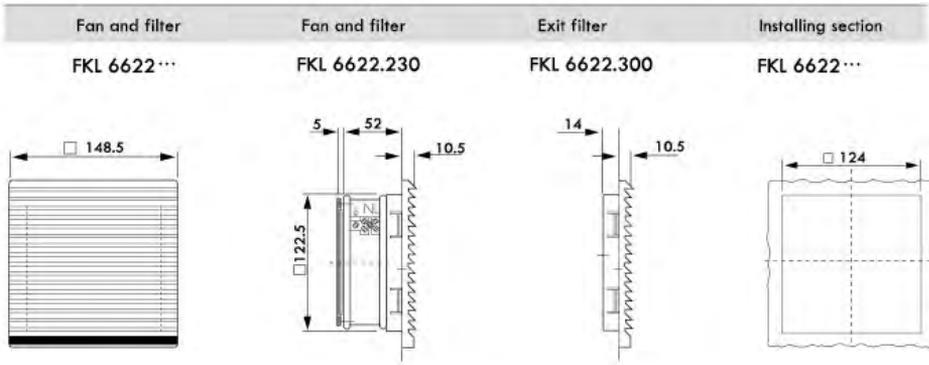


CODE		Exit filter	Fan and filter	Fan and filter
TYPE	M.U	FK5527.300	FK5527.230	FK5527.115
Voltage/Phase/Frequency	V-ph-Hz		230-1-50/1/60	115/1/50-60
Height/Width/Depth	mm	325×325×25	325×325×140	325×325×140
Power/Current	W/A		50/0.26	50/0.46
Temperature limits	°C		-10/+60	-10/+60
Protection degree	IP	54	54	54
Noise level	dB(A)		59	59
Air flow	m³/h		650/800	650/800
Air flow (+FK5527.300)	m³/h		500/600	500/600
Air flow direction			A	A

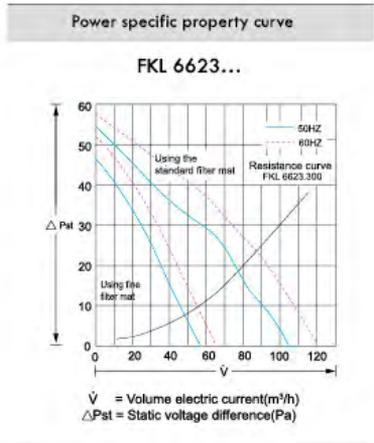
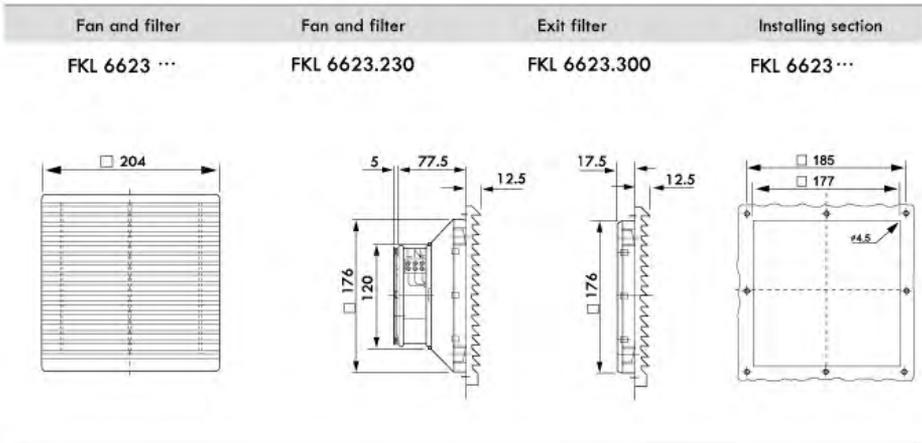


Fan and filter	FKL6621.230	FKL6621.115	FKL6621.024
Voltage/Frequency	230/50/60	115/50/60	24(DC)
Air flow, free blowing	20/25m <sup>3</sup> /h		
Air flow With Exit filter	1×FKL 6621.300:15/18m <sup>3</sup> /h		
Axial fan	Self-start shielded pole motor		DC motor
Rated current	0.08A	0.14A	0.18A
Power	18W/15W	16W/14W	4.3W
Noise level	37/41dB(A)		
Scope of temperature	-10°C~+55°C		
Exit filter	Type	FKL 6621.300	
Contact us if special voltage required			

# FKL6622 series fan and filter



Fan and filter	FKL6622.230	FKL6622.115	FKL6622.024
Voltage/Frequency	230/50/60	115/50/60	24(DC)
Air flow, free blowing		55/66m <sup>3</sup> /h	
Air flow With Exit filter		1×FKL 6622.300:43/50m <sup>3</sup> /h 2×FKL 6622.300:48/55m <sup>3</sup> /h 1×FKL 6623.300:48/55m <sup>3</sup> /h	
Axial fan	Self-start shielded pole motor		DC motor
Rated current	0.14A/0.10A	0.24A/0.21A	0.30A
Power	22W/30W	22W/26W	7.2W
Noise level		41/46dB(A)	
Scope of temperature		-10°C~+55°C	
Exit filter	Type	FKL 6622.300	
Contact us if special voltage required			

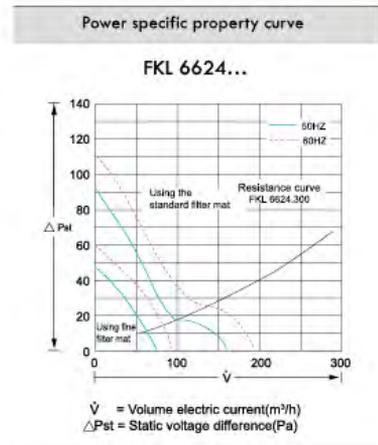
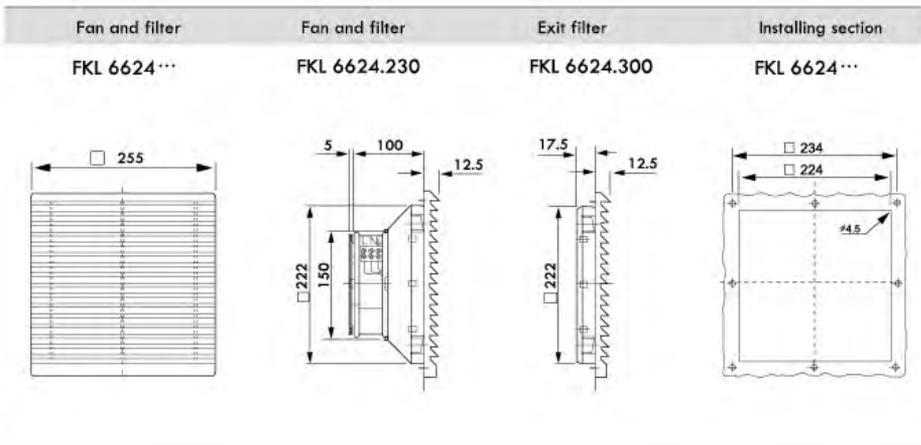


Fan and filter	FKL6623.230	FKL6623.115	FKL6623.024
Voltage/Frequency	230/50/60	115/50/60	24(DC)
Air flow,free blowing	105/120m <sup>3</sup> /h		
Air flow With Exit filter	1×FKL 6623.300:71/82m <sup>3</sup> /h 2×FKL 6623.300:85/98m <sup>3</sup> /h 1×FKL 6625.300:78/90m <sup>3</sup> /h		
Axial fan	Self-start shielded pole motor		DC motor
Rated current	0.14A/0.10A	0.24A/0.21A	0.30A
Power	22W/30W	22W/26W	7.2W
Noise level	46/49dB(A)		
Scope of temperature	-10°C~+55°C		
Exit filter	Type	FKL6623.300	
Contact us if special voltage required			

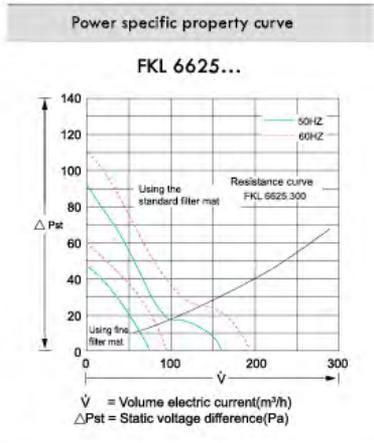
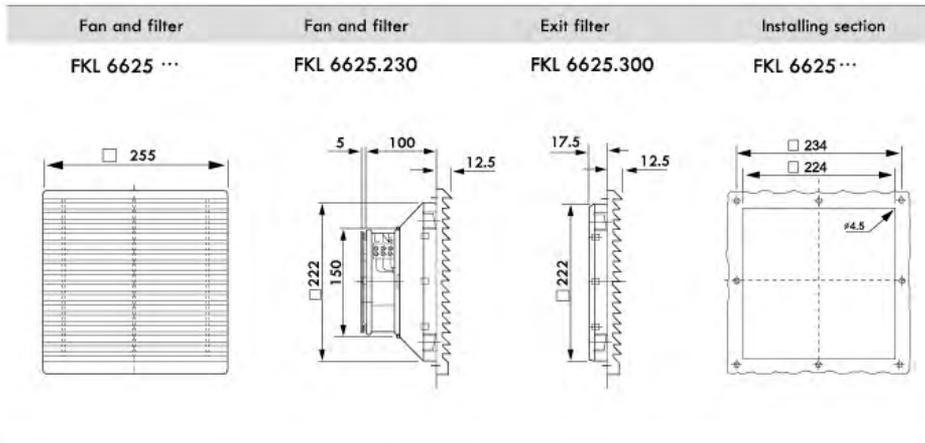
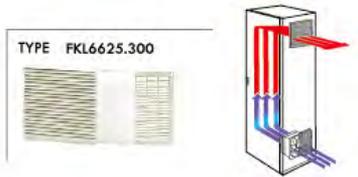
# FKL6624 series fan and filter



Cabinet Ventilation



Fan and filter	FKL6624.230	FKL6624.115	FKL6624.024
Voltage/Frequency	230/50/60	115/50/60	24(DC)
Air flow, free blowing	160/180m <sup>3</sup> /h		
Air flow With Exit filter	1×FKL 6624.300:95/115m <sup>3</sup> /h 2×FKL 6624.300:140/165m <sup>3</sup> /h 1×FKL 6626.300:130/155m <sup>3</sup> /h		
Axial fan	Self-start shielded pole motor		DC motor
Rated current	0.26A/0.21A	0.42A/0.39A	0.58A
Power	47W/59W	43W/48W	14W
Noise level	52/54dB(A)		
Scope of temperature	-10°C~+55°C		
Exit filter	Type	FKL6625.300	
Contact us if special voltage required			

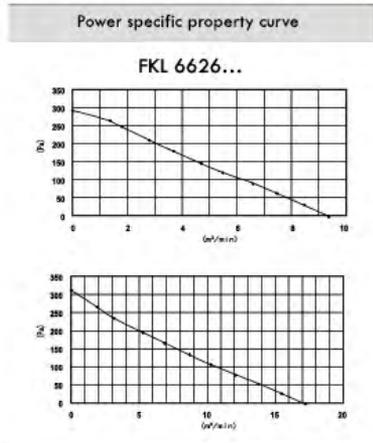
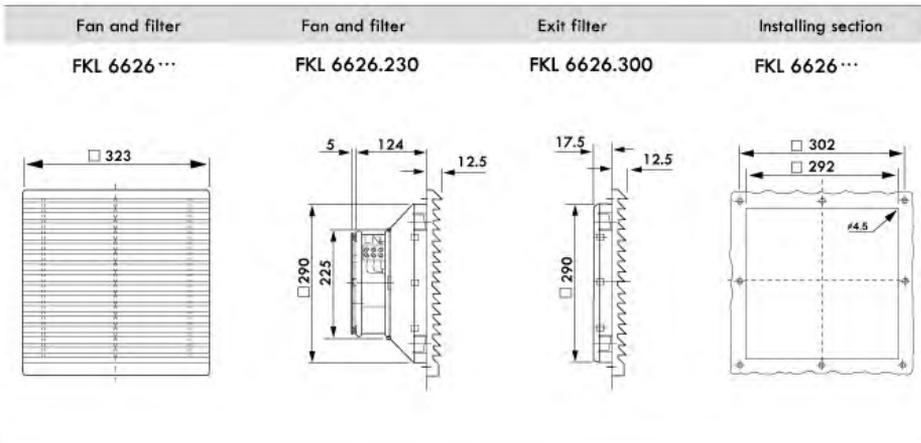


Fan and filter	FKL6625.230	FKL6625.115	FKL6625.024
Voltage/Frequency	230/50/60	115/50/60	24(DC)
Air flow, free blowing	230/265m <sup>3</sup> /h		
Air flow With Exit filter	1×FKL 6625.300:170/205m <sup>3</sup> /h 2×FKL 6625.300:200/230m <sup>3</sup> /h 1×FKL 6626.300:190/215m <sup>3</sup> /h		
Axial fan	Self-start shielded pole motor		DC motor
Rated current	0.33A/0.28A	0.56A/0.50A	0.58A
Power	46W/59W	42W/47W	14W
Noise level	54/56dB(A)		
Scope of temperature	-10°C~+55°C		
Exit filter	Type	FKL6625.300	
Contact us if special voltage required			

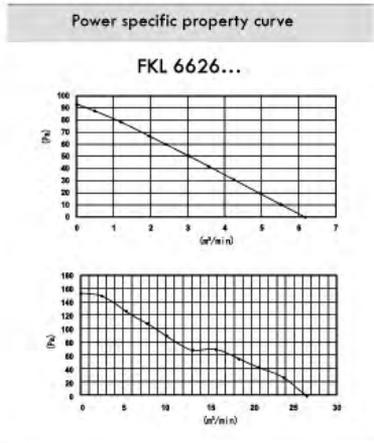
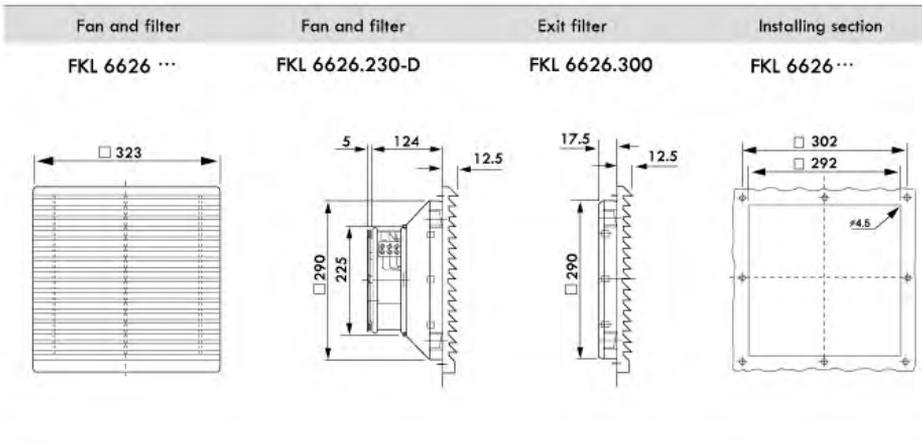
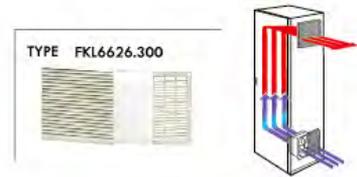
# FKL6626 series fan and filter



Cabinet Ventilation



Fan and filter	FKL6626.230	FKL6626.115
Voltage/Frequency	230/50/60	115/50/60
Air flow, free blowing	500/560m <sup>3</sup> /h	
Air flow With Exit filter	1×FKL 6626.300:360/390m <sup>3</sup> /h 2×FKL 6626.300:440/495m <sup>3</sup> /h	
Axial fan	Capacitor operated	
Rated current	0.29A/0.34A	0.61A/0.63A
Power	63W/79W	61W/71W
Noise level	59/61dB(A)	
Scope of temperature	-10°C~+55°C	
Exit filter	Type	FKL6626.300
Contact us if special voltage required		

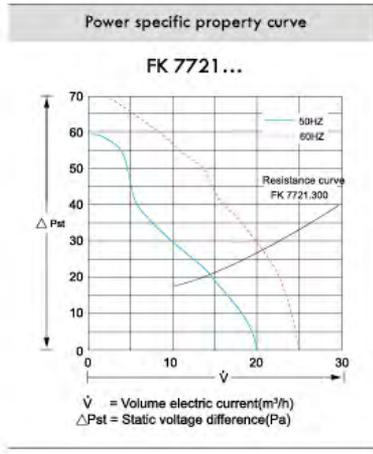
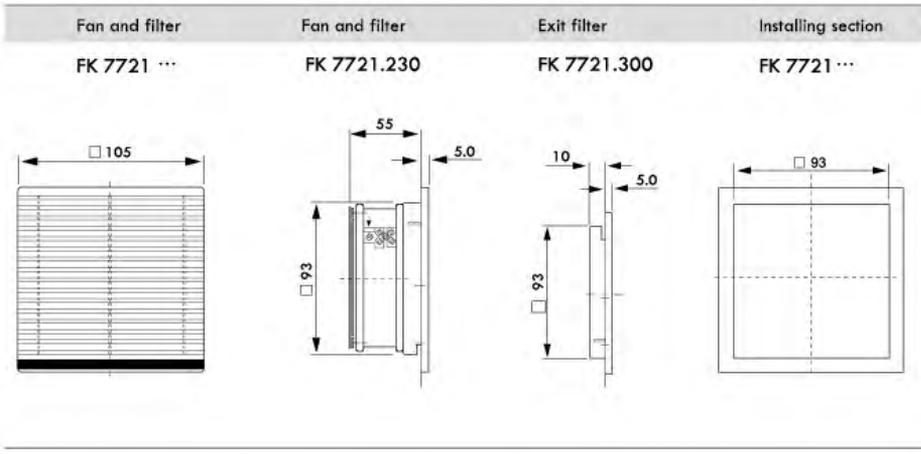


Fan and filter	FKL6626.230-D	FKL6626.115-D
Voltage/Frequency	230/50/60	115/50/60
Air flow, free blowing	1200/1350m³/h	
Air flow With Exit filter	1×FKL 6626.300:360/390m³/h 2×FKL 6626.300:440/495m³/h	
Axial fan	Capacitor operated	
Rated current	0.51A/0.70A	0.97A/1.36A
Power	115W/160W	110W/155W
Noise level	59/68dB(A)	
Scope of temperature	-10°C~+55°C	
Exit filter	Type	FKL6626.300
Contact us if special voltage required		

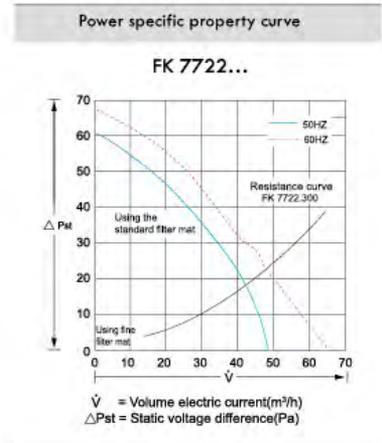
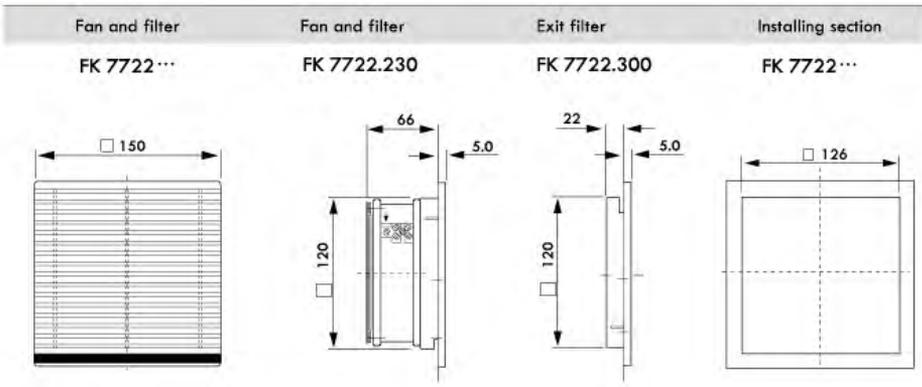
# FK7721 series fan and filter



Cabinet Ventilation



Fan and filter	FK7721.230	FK7721.115	FK7721.024
Voltage/Frequency	230/50/60	115/50/60	24(DC)
Air flow, free blowing	20/25m <sup>3</sup> /h		
Air flow With Exit filter	1×FK 7721.300:15/18m <sup>3</sup> /h		
Axial fan	Self-start shielded pole motor		DC motor
Rated current	0.07-0.09A	0.13-0.16A	0.18A
Power	15W/12W	15W/12W	4.3W
Noise level	41/46dB(A)		
Scope of temperature	-10°C~+55°C		
Exit filter	Type	FK7721.300	
Contact us if special voltage required			



Fan and filter	FK7722.230	FK7722.115	FK7722.024
Voltage/Frequency	230/50/60	115/50/60	24(DC)
Air flow, free blowing		55/66m <sup>3</sup> /h	
Air flow With Exit filter		1×FK 7722.300:43/50m <sup>3</sup> /h 2×FK 7722.300:48/55m <sup>3</sup> /h	
Axial fan	Self-start shielded pole motor		DC motor
Rated current	0.14A/0.10A	0.24A/0.21A	0.42A
Power	22W/30W	22W/26W	7.2W
Noise level		46/49dB(A)	
Scope of temperature		-10°C~+55°C	
Exit filter	Type	FK7722.300	
Contact us if special voltage required			

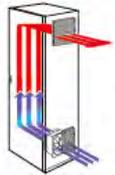
# FK7724 series fan and filter



FK 7724.230 Fan and filter

FK 7724.300 Exit filter

TYPE FK7724.300



Cabinet Ventilation

Fan and filter

Fan and filter

Exit filter

Installing section

FK 7724 ...

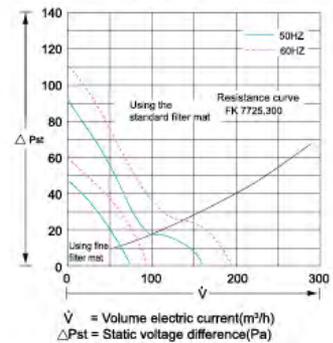
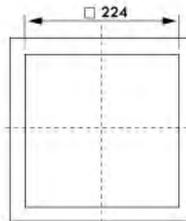
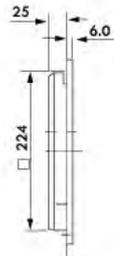
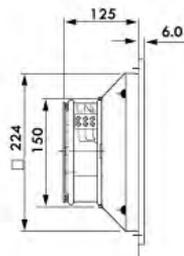
FK 7724.230

FK 7724.300

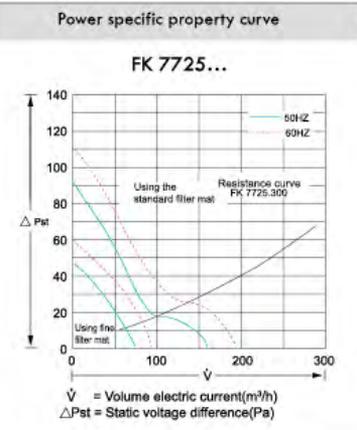
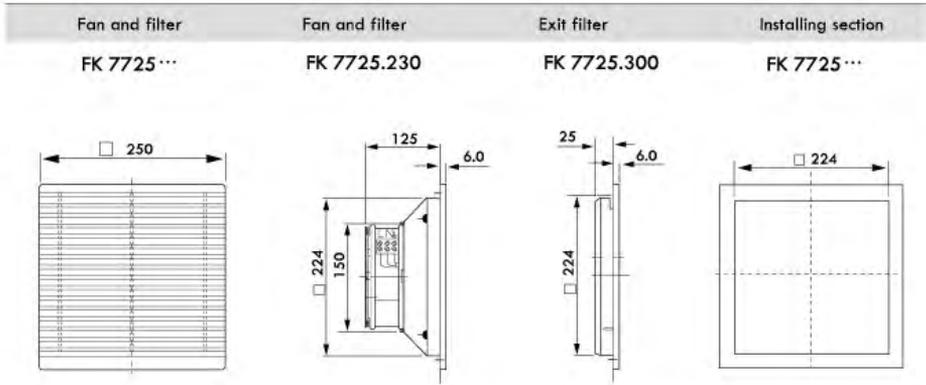
FK 7724 ...

Power specific property curve

FK 7724...



Fan and filter	FK7724.230	FK7724.115	FK7724.024
Voltage/Frequency	230/50/60	115/50/60	24(DC)
Air flow, free blowing		160/180m <sup>3</sup> /h	
Air flow With Exit filter		1×FK 7725.300:95/115m <sup>3</sup> /h 2×FK 7725.300:140/165m <sup>3</sup> /h	
Axial fan	Self-start shielded pole motor		DC motor
Rated current	0.26A/0.21A	0.42A/0.39A	0.58A
Power	47W/59W	43W/48W	14W
Noise level		54/56dB(A)	
Scope of temperature		-10°C~+55°C	
Exit filter	Type	FK7724.300	
Contact us if special voltage required			



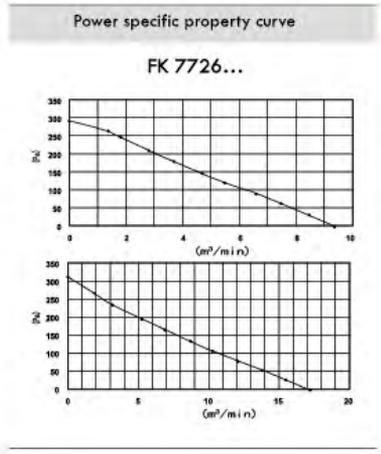
Fan and filter	FK7725.230	FK7725.115	FK7725.024
Voltage/Frequency	230/50/60	115/50/60	24(DC)
Air flow, free blowing	230/265m <sup>3</sup> /h		
Air flow With Exit filter	1×FK 7725.300:170/205m <sup>3</sup> /h 2×FK 7725.300:200/230m <sup>3</sup> /h		
Axial fan	Self-start shielded pole motor		DC motor
Rated current	0.33A/0.28A	0.56A/0.50A	0.58A
Power	46W/59W	42W/47W	14W
Noise level	54/56dB(A)		
Scope of temperature	-10°C~+55°C		
Exit filter	Type	FK7725.300	
Contact us if special voltage required			

# FK7726 series fan and filter



Cabinet Ventilation

Fan and filter	Fan and filter	Exit filter	Installing section
FK 7726 ...	FK 7726.230	FK 7726.300	FK 7726 ...

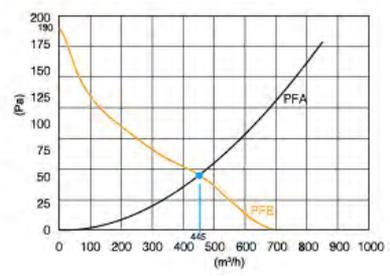
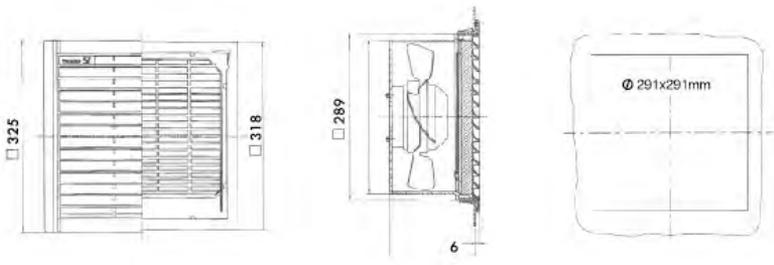


Fan and filter	FK7726.230	FK7726.115
Voltage/Frequency	230/50/60	115/50/60
Air flow, free blowing	1020/1050m³/h	
Air flow With Exit filter	1×FK 7726.300:550/580m³/h 2×FK 7726.300:620/685m³/h	
Axial fan	Capacitor operated	
Rated current	0.55A/0.60A	1.40A/1.70A
Power	120W/138W	150W/180W
Noise level	68/71dB(A)	
Scope of temperature	-10°C~+55°C	
Exit filter	Type	FK7726.300
Contact us if special voltage required		



Fan and filter	Fan and filter	Exit filter	Installing section
LFB 5000...	LFB 5000.230	FK 7726.300	LFB 5000...

Power specific property curve  
LFB 5000...



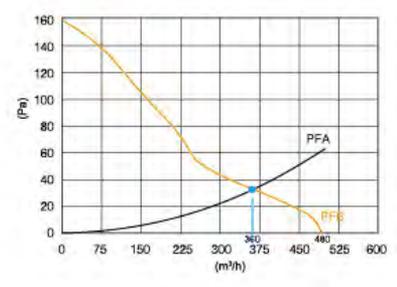
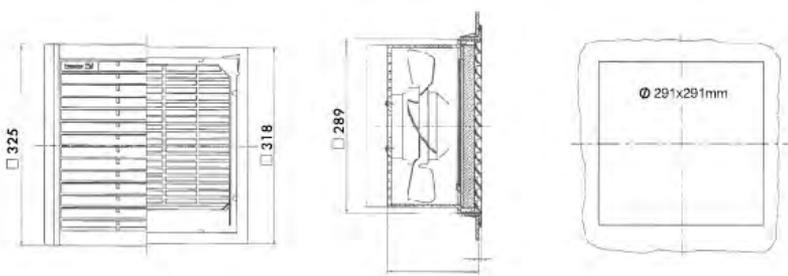
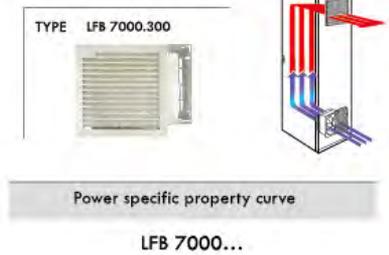
Fan and filter	LFB 5000.230	LFB 5000.115
Voltage/Frequency	230/50/60	115/50/60
Air flow, free blowing	500/560m³/h	
Air flow With Exit filter	360/390m³/h	
Axial fan	Capacitor operated	
Rated current	0.29A/0.35A	0.61A/0.63A
Power	120W/138W	150W/180W
Noise level	59/61dB(A)	
Scope of temperature	-10°C~+55°C	
Exit filter	Type	FK 7726.300
Contact us if special voltage required		

# LFB 7000 series fan and filter

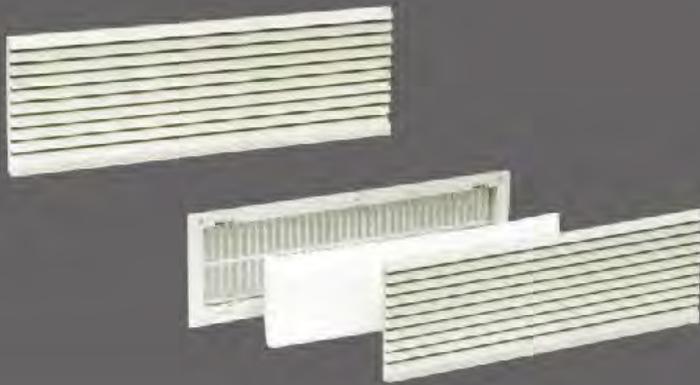


Cabinet Ventilation

Fan and filter	Fan and filter	Exit filter	Installing section
LFB 7000 ...	LFB 7000.230	FK 7726.300	LFB 7000...



Fan and filter	LFB 7000.230	LFB 7000.115
Voltage/Frequency	230/50/60	115/50/60
Air flow, free blowing	1200/1350m³/h	
Air flow With Exit filter	600/780m³/h	
Axial fan	Capacitor operated	
Rated current	0.46A/0.60A	0.95A/1.20A
Power	120W/138W	150W/180W
Noise level	59/68dB(A)	
Scope of temperature	-10°C~+55°C	
Exit filter	Type	FK 7726.300
Contact us if special voltage required		

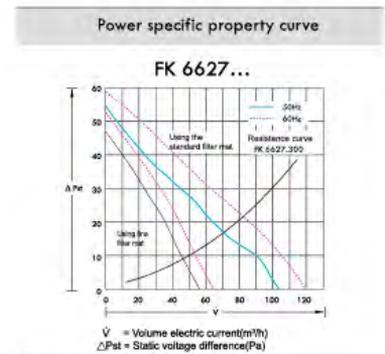
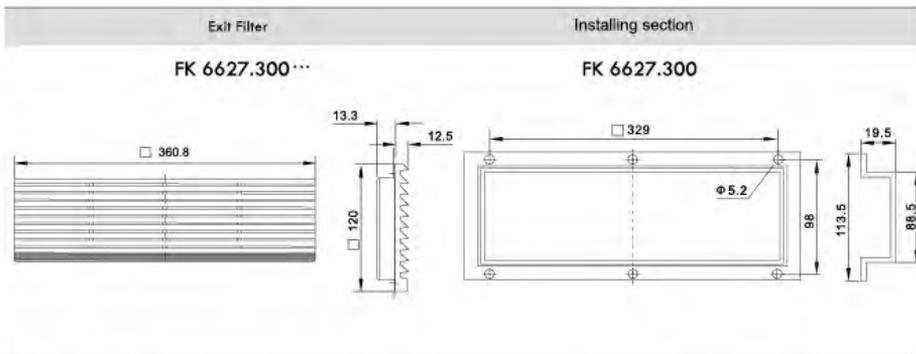


**Functions**

The big power axial fan can be installed in the way of "blow" or "pump". The rain-proofing function of ventilation cascade could prevent not only mechanical damage but also the entry of humidity. According to the EN60529/10.91, the protection can reach level IP54.

A spray-proof cover will make the protection level IP55. The filter mat can be easily changed by the trough-shaped handle on the leaf paling.

The non-woven fibre filter mats can filter dust grains of over 10 micrometers while the fine filter mats can filter dust grains of below 10 micrometers.



**Ultra-thin fan and filter**

**Type FK6628**

**Fan and Filter**

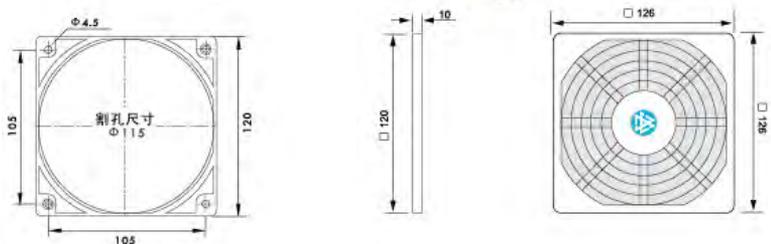
Type: FK6628.230

The filter fan is suitable for discharging high temperature load. The premise of using is the temperature of environment should be lower than the one of the inside case



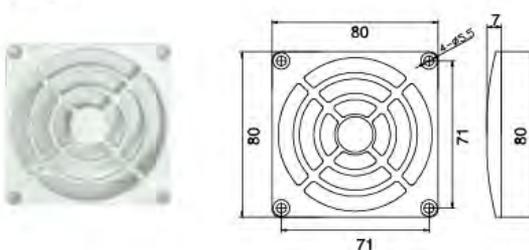
**Exit Filter**

Type: FK6628.300

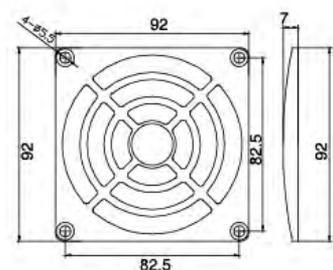


**Plastic Finger Guard For Fans**

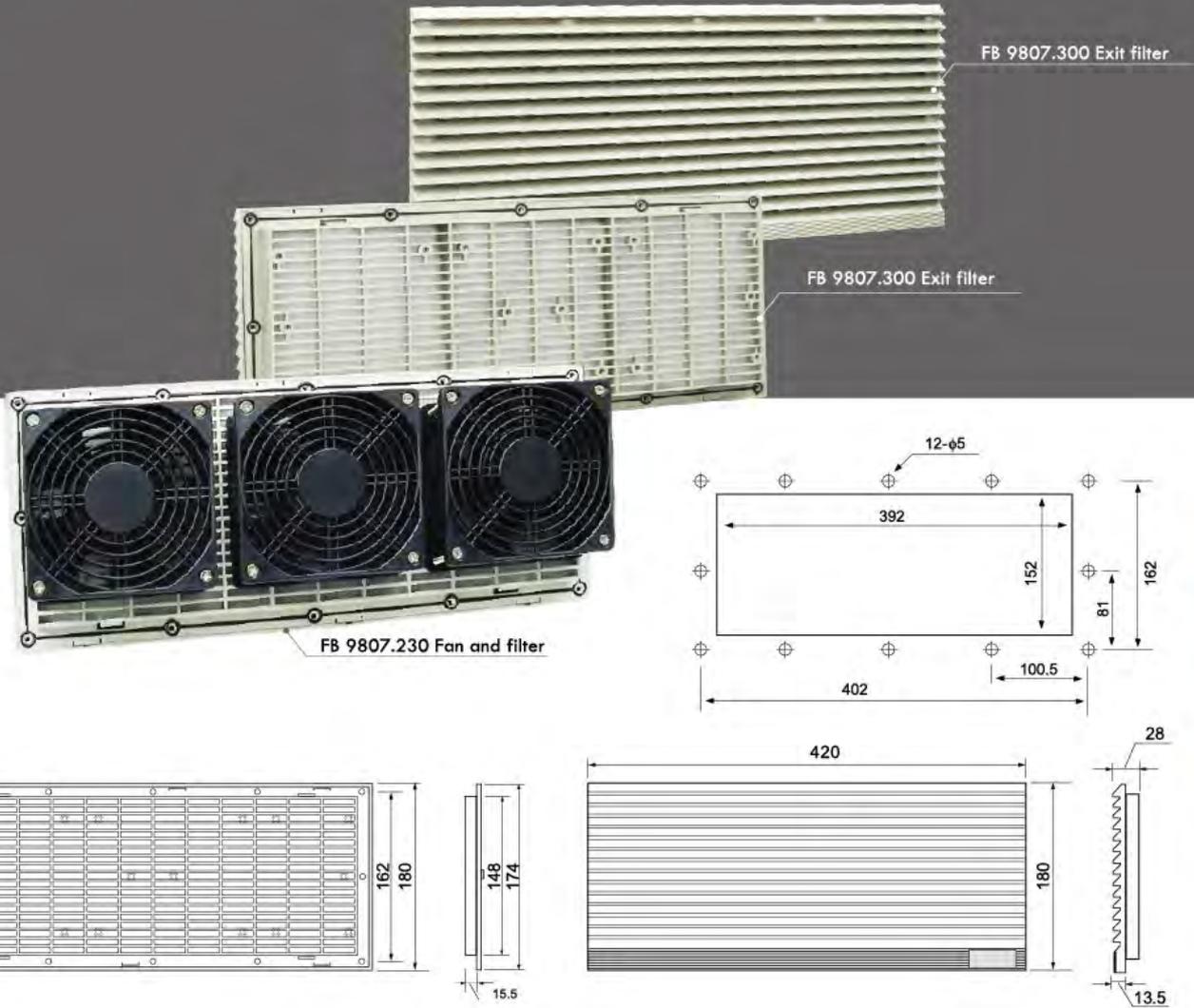
PFG-80



PFG-92



# FB9807 series fan and filter



Cabinet Ventilation

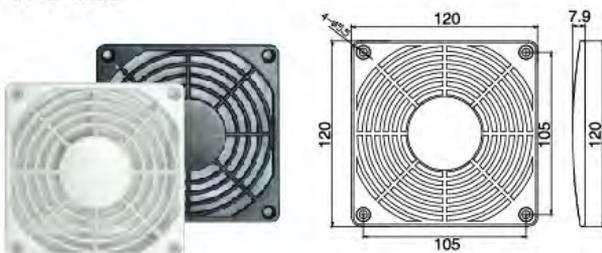
This filter can install 2 pieces F2E-162B-230, or 3 pieces F2E-120B-230

Model	Dimension	Air flow	Wind speed	dust-removing
FB9807	420×180×13.5 (mm)	100.0m³/MIN	2.0M/SEC	80%

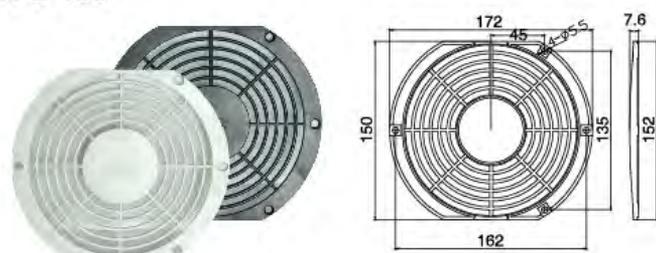
Damage range	Temperature	Material	IP
6.7~20 INCH-H <sub>2</sub> O	Indoor -10℃+85℃	ABS (Anti-firing,UV) 94V-0 UL	IP44

## Plastic Finger Guard For Fans

PFG-120



PFG-150





Item	Exit filter	Fan and filter	
Fan and filter	FBL9803	FBL9803-230	FBL9803-115
Designed working voltage V/H		230/50/60	115/50/60
Air flow, free blowing	105/120m <sup>3</sup> /h		
Air flow With Exit filter	1 × FBL 9803: 71/82 m <sup>3</sup> /h 2 × FBL 9803: 85/98 m <sup>3</sup> /h		
Axial fan	Self-start screened magnetic pole motor		Direct current motor
Rated current		0.12A 0.11A	0.24A 0.23A
Power		19W/18W	19W/18W
Noise level	46/49dB(A)		
Scope of temperature	-10°C~+55°C		
Exit filter	Type	FBL9803	

It is possible to write to our company to consult if needing special voltage.

Fan and filter	Fan and filter	Exit filter	Installing section	Installing method
FBL 9803 ...	FBL 9803.230	FBL 9803.300	FBL 9803 ...	FBL 9803...



Item	Exit filter	Fan and filter	
Fan and filter		FBL9804-230	FBL9804-115
Designed working voltage V/H		230/50/60	115/50/60
Air flow, free blowing	120/128m <sup>3</sup> /h		
Flux of air equip filter exported Include filtering pad of standard	1 × FBL 9804: 71/82 m <sup>3</sup> /h 2 × FBL 9804: 85/98 m <sup>3</sup> /h		
Axial fan	Self-start screened magnetic pole motor		Direct current motor
Rated current		0.12A 0.11A	0.24A 0.23A
Power		19W/18W	19W/18W
Noise level	46/49dB(A)		
Scope of temperature	-10°C~+55°C		
Exit filter	Type	FBL9804	

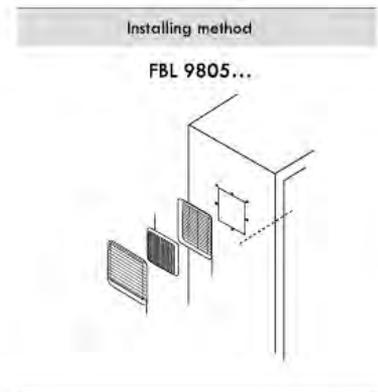
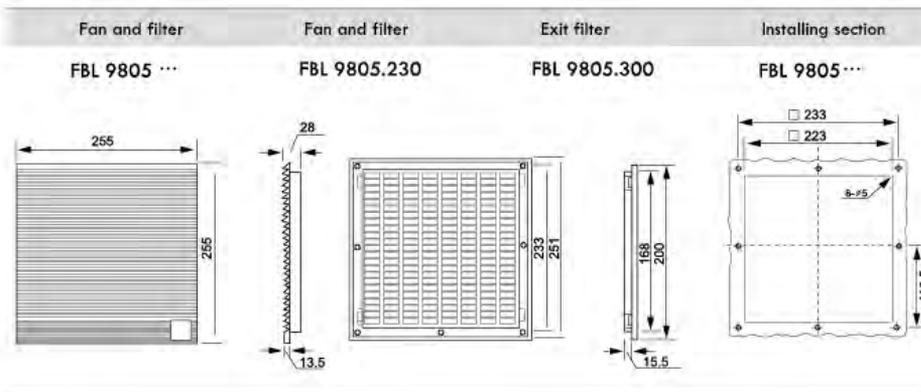
It is possible to write to our company to consult if needing special voltage.

Fan and filter	Fan and filter	Exit filter	Installing section	Installing method
FBL 9804 ...	FBL 9804.230	FBL 9804.300	FBL 9804 ...	FBL 9804...

## IP54 new FBL series fan and filter

Item	Exit filter	Fan and filter	
Fan and filter	FBL9805	FBL9805-230	FBL9805-115
Designed working voltage V/H		230/50/60	115/50/60
Air flow, free blowing	190/220m <sup>3</sup> /h		
Flux of air equip filter exported Include filtering pad of standard	1 × FBL 9805: 170/205 m <sup>3</sup> /h 2 × FBL 9805: 210/235 m <sup>3</sup> /h		
Axial fan	Self-start screened magnetic pole motor		Direct current motor
Rated current		0.28A 0.35A	0.48A 0.55A
Power		41W/38W	45W/52W
Noise level	54/56dB(A)		
Scope of temperature	-10°C~+55°C		
Exit filter	Type	FBL9805	

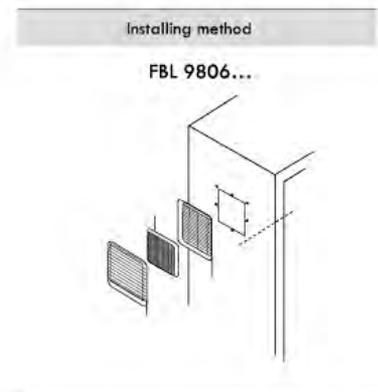
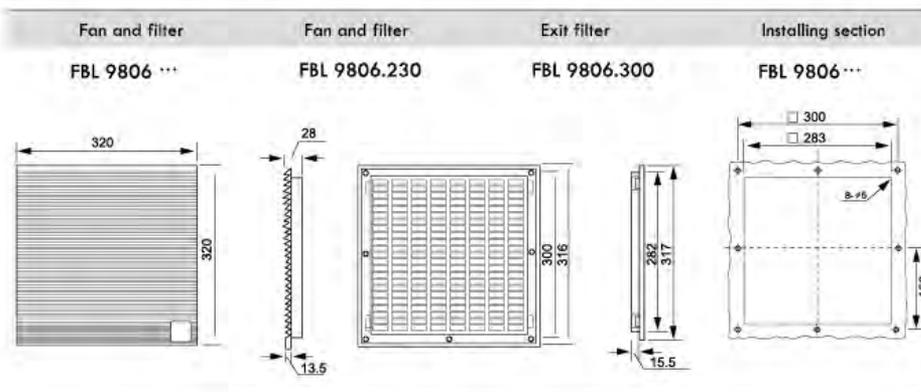
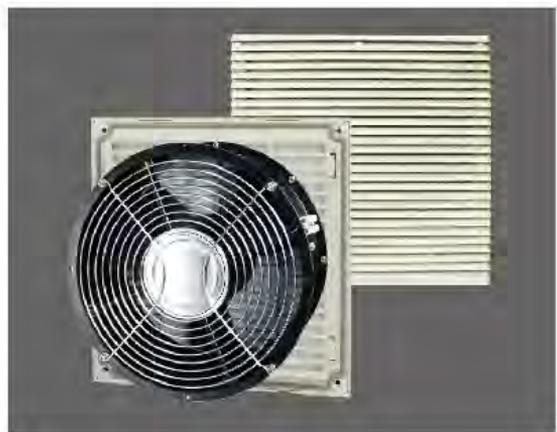
It is possible to write to our company to consult if needing special voltage.

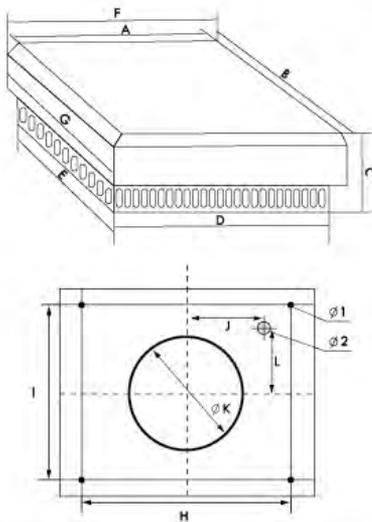
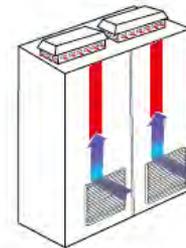


Cabinet Ventilation

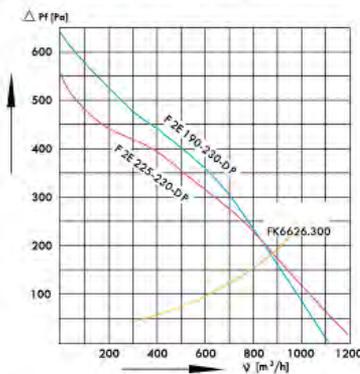
Item	Exit filter	Fan and filter	
Fan and filter	FBL9806	FBL9806-230	FBL9806-115
Designed working voltage V/H		230/50/60	115/50/60
Air flow, free blowing	960/1020m <sup>3</sup> /h		
Flux of air equip filter exported Include filtering pad of standard	1 × FBL 9806: 185/205 m <sup>3</sup> /h 2 × FBL 9806: 215/230 m <sup>3</sup> /h		
Axial fan	Self-start screened magnetic pole motor		Direct current motor
Rated current		0.16A 0.22A	0.36A 0.40A
Power		31W/33W	40W/48W
Noise level	59/61dB(A)		
Scope of temperature	-10°C~+55°C		
Exit filter	Type	FBL9806	

It is possible to write to our company to consult if needing special voltage.





Power specific property curve



### Interior

The precondition to use the top fan is that the ambient temperature should be lower than the temperature required in the cabinet.

### Function

The high-power centrifugal top fan can vent the high heat load by the greatest degree. The centrifugal fan not only can avoid the vortex vented by the general shield magnetic fan, but also can reduce the noise caused by the friction of air. The FK series of Exit Filter can be used in the inlet in order to prevent from entering the humidity and dust.

### Design

The centrifugal top fan is larruping. It is handsome and it has the good function and reasonable structure. It also doesn't take up the interior space. It can well satisfy requirement of the present market with it's unique design.

Type	A/B	C	D/E	F/G	H/I	J	ΦK	Φ1	Φ2	L
F2E190-230-DP	270	130	267	310	226.8	98.4	195	7.8	15	97
F2E 220-230-DP	270	130	267	310	226.8	98.4	195	7.8	15	97
F2E 225-230-DP	270	130	267	310	226.8	98.4	195	7.8	15	97

Exhauster on the top	Type	F2E190-230-DP	F2E220-230-DP	F2E225-230-DP
Voltage Frequency		230V 50/60HZ	230V 50/60HZ	230V 50/60HZ
Air flow, Ventilation freely		570/620m³/h	860/900m³/h	1200/1340m³/h
Flux of air equip filter exported Include filtering pad of standard		1xFK6626.300	1xFK6626.300	1xFK6626.300
Axle flow blower		456/496m³/h	688/540m³/h	960/1072m³/h
Rated current		Capacitance electromotion	Capacitance electromotion	Capacitance electromotion
Power		0.26A/0.34A	0.38A/0.40A	0.60A/0.88A
Noise level		58/75W	85/90W	135/200W
Temperature range		62/64 dBA	73/74 dBA	69/71 dBA
		-10°C~55°C	-10°C~55°C	-10°C~60°C

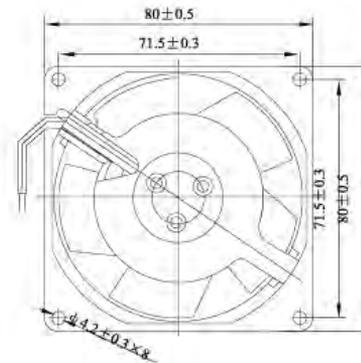
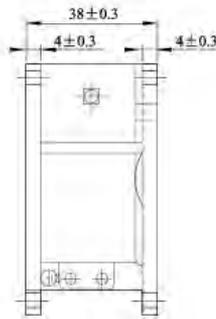
The quantity and size of the wind inlet filter can be decided according to the concrete requirement

## 80×80×38mm



Motor Structure	Shaded pole motor.
Safety	Impedance Protected
Operation System	Dual high Precision ball bearings. (single sleeve bearing)
Allowable Ambient Temperature Range	(under unconcretionary condition) -20°C~+65°C(ball bearing) , -10°C~+45°C.(Sleeve bearing)
Insulation	B Class
Protection Grade	IP34

Type	F2E-80S/B-230	F2E-80S/B-115
Bearing	Sleeve/Ball	Sleeve/Ball
Voltage(V)	220/230	110/115
Frequency(Hz)	50/60	50/60
Current(A)	0.06/0.07	0.13/0.15
Power(w)	15/12	15/12
Speed(RPM)	2600/3000	2600/3000
Wind volume	45/55	45/55
Noise dB(A)	29/35	29/35
Weight(g)	335g	335g

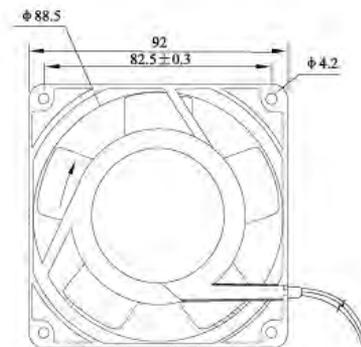
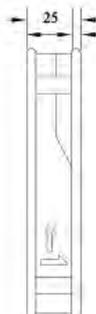


## 92×92×25mm



Motor Structure	Shaded pole motor.
Safety	Impedance Protected
Operation System	Dual high Precision ball bearings (single sleeve bearing).
Allowable Ambient Temperature Range	(under unconcretionary condition) -20°C~+65°C(ball bearing) , -10°C~+45°C.(Sleeve bearing)
Insulation	B Class
Protection Grade	IP34

Type	F2E-92S/B-230	F2E-92S/B-115
Bearing	Sleeve/Ball	Sleeve/Ball
Voltage(V)	220/230	110/115
Frequency(Hz)	50/60	50/60
Current(A)	0.07/0.08	0.12/0.14
Power(w)	13.2/15.4	13.2/15.4
Speed(RPM)	2200/2600	2200/2600
Wind volume	60/68	60/68
Noise dB(A)	29/35	29/35
Weight(g)	255g	255g

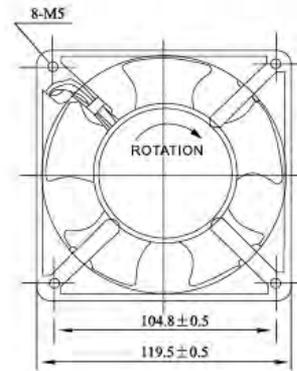
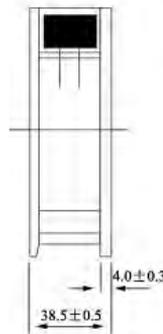


**120×120×38mm**



Motor Structure	Shaded pole motor.
Safety	Impedance Protected
Operation System	Dual high Precision ball bearings. (single sleeve bearing)
Allowable Ambient Temperature Range	(under unconcretionary condition) -20°C~+65°C(ball bearing) , -10°C~+45°C.(Sleeve bearing)
Insulation	B Class
Protection Grade	IP34

Type	F2E-120S/B-230	F2E-120S/B-115
Bearing	Sleeve/Ball	Sleeve/Ball
Voltage(V)	220/230	110/115
Frequency(Hz)	50/60	50/60
Current(A)	0.14/0.10	0.24/0.21
Power(w)	22/30	23/26
Speed(RPM)	2700/3100	2700/3100
Wind volume	150/185	150/185
Noise dB(A)	38/41	38/41
Weight(g)	520g	520g

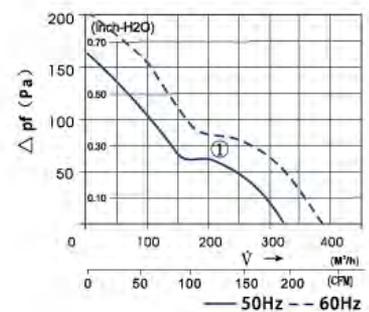
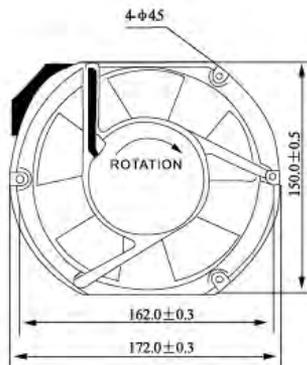
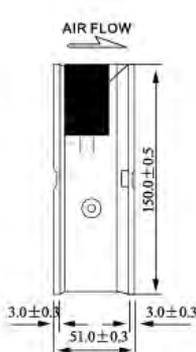


**172×150×51mm**



Motor Structure	Shaded pole motor.
Safety	Impedance Protected
Operation System	Dual high Precision ball bearings (single sleeve bearing).
Allowable Ambient Temperature Range	(under unconcretionary condition) -20°C~+65°C(ball bearing) , -10°C~+45°C.(Sleeve bearing)
Insulation	B Class
Protection Grade	IP34

Type	F2E-150S/B-230	F2E-150S/B-115
Bearing	Sleeve/Ball	Sleeve/Ball
Voltage(V)	220/230	110/115
Frequency(Hz)	50/60	50/60
Current(A)	0.21/0.24	0.39/0.43
Power(w)	46/59	42/48
Speed(RPM)	2800/3100	2800/3100
Wind volume	280/320	280/320
Noise dB(A)	38/41	38/41
Weight(g)	920g	920g

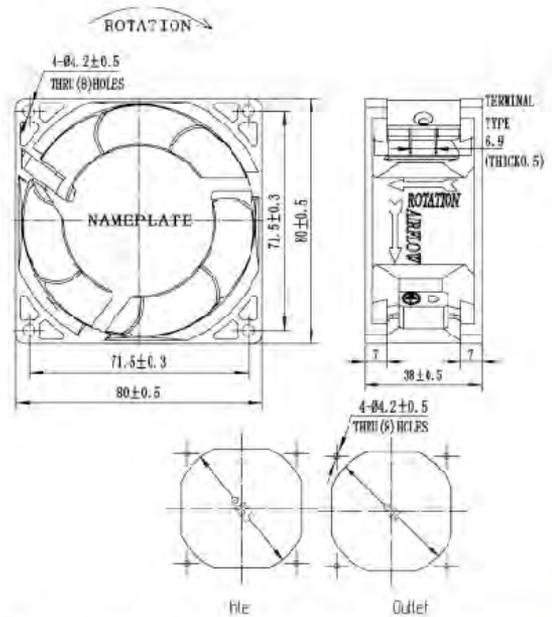


80×80×38mm



Metal Blades

Size	80x80x38mm
Airflow	42-54m <sup>3</sup> /hr 25-33CFM
Weight	403g
Noise	28-36dBA
Impeller	Metal
Frame	Aluminum Alloy
Terminals	0.5mm
Lead Wire	Teflon 22#UL 1332(Optional)
Motor	Shaded Pole And External Rotor Induction Motor
Operating Temperature	-10°C~+105°C



Model	Bearing System	Voltage VAC	Freq. Hz	Current A	Power W	Speed RPM	Noise dBA	Air Flow		Phase	Capacitor
								M <sup>3</sup> /hr	CFM		
FL8038HA <sub>1</sub> B-7P	Ball	100/125	50/60	0.18	17/14	2700/3100	30/36	44/54	28/33	1	/
FL8038HA <sub>2</sub> B-7P		200/240	50/60	0.1	17/14	2700/3100	30/36	44/54	28/33	1	/
FL8038MA <sub>1</sub> B-7P		100/125	50/60	0.12	11	2300/2700	28/30	42/49	25/29	1	/
FL8038MA <sub>2</sub> B-7P		200/240	50/60	0.07	11	2300/2700	28/30	42/49	25/29	1	/

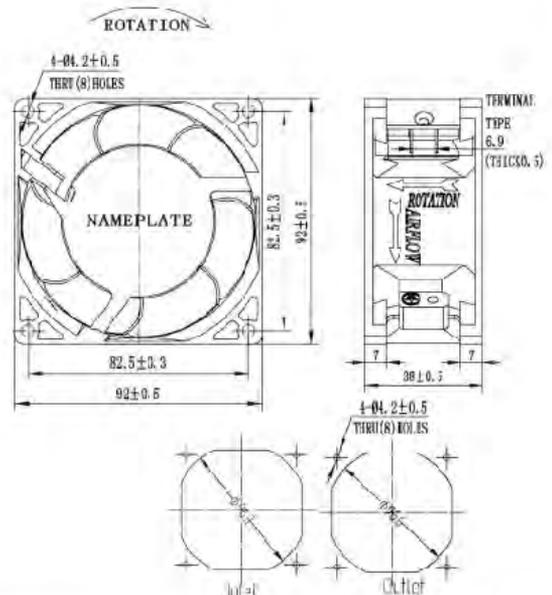
Cabinet Ventilation

92×92×25mm



Metal Blades

Size	92x92x38mm
Airflow	71-91m <sup>3</sup> /hr 42-54CFM
Weight	480g
Noise	35-40dBA
Impeller	Metal
Frame	Aluminum Alloy
Terminals	0.5mm
Lead Wire	Teflon 22#UL 1332(Optional)
Motor	Shaded Pole And External Rotor Induction Motor
Operating Temperature	-10°C~+105°C



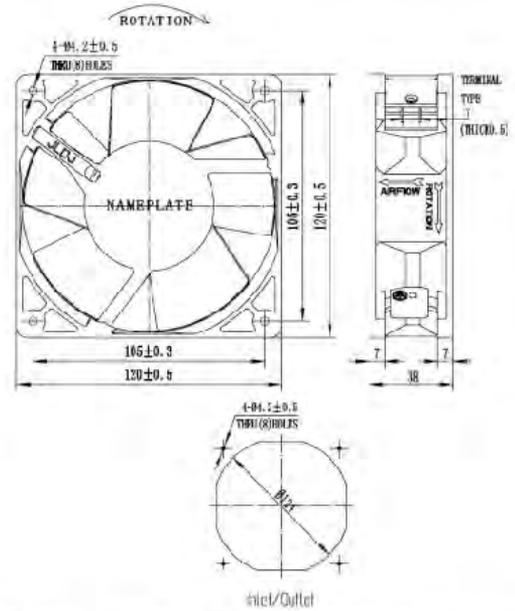
Model	Bearing System	Voltage VAC	Freq. Hz	Current A	Power W	Speed RPM	Noise dBA	Air Flow		Phase	Capacitor
								M <sup>3</sup> /hr	CFM		
FL9238HA <sub>1</sub> B-7P	Ball	100/125	50/60	0.18	17/14	2600/3000	38/40	78/91	46/54	1	/
FL9238HA <sub>2</sub> B-7P		200/240	50/60	0.1	17/14	2600/3000	38/40	78/91	46/54	1	/
FL9238MA <sub>1</sub> B-7P		100/125	50/60	0.12	11	2300/2700	35/40	71/85	42/50	1	/
FL9238MA <sub>2</sub> B-7P		200/240	50/60	0.07	11	2300/2700	35/40	71/85	42/50	1	/

**120x120x38mm**



Metal Blades

Size	120x120x38mm
Airflow	134-204m <sup>3</sup> /hr 79-120CFM
Weight	600g
Noise	39-50dBA
Impeller	Metal
Frame	Aluminum Alloy
Terminals	0.5mm
Lead Wire	Teflon 22#UL 1332(Optional)
Motor	Shaded Pole And External Rotor Induction Motor
Operating Temperature	-10°C~+105°C



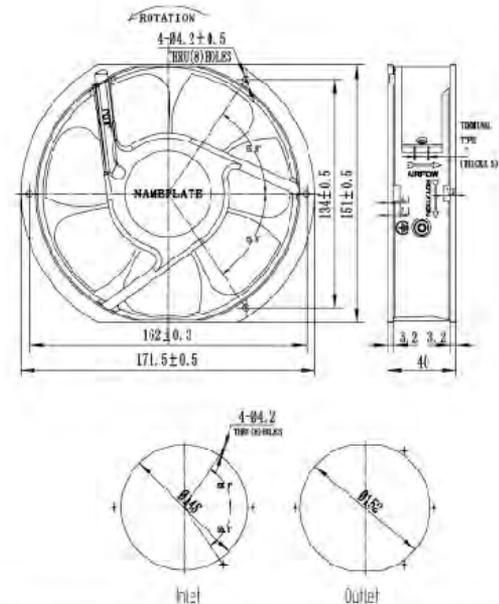
Model	Bearing System	Voltage VAC	Freq. Hz	Current A	Power W	Speed RPM	Noise dBA	Air Flow		Phase	Capacitor
								M <sup>3</sup> /hr	CFM		
FL12038HA <sub>1</sub> B	Ball	100/125	50/60	0.21	21	2600/3000	46/50	180/204	106/120	1	/
FL12038HA <sub>2</sub> B		200/240	50/60	0.11	19	2600/3000	46/50	180/204	106/120	1	/
FL12038MA <sub>1</sub> B		100/125	50/60	0.21	17	2000/2200	39/41	134/149	79/87	1	/
FL12038MA <sub>2</sub> B		200/240	50/60	0.10	16	2000/2200	39/41	134/149	79/87	1	/

**172x150x38mm**



Metal Blades

Size	172x150x38mm
Airflow	348-390m <sup>3</sup> /hr 205-230CFM
Weight	860g
Noise	56-59dBA
Impeller	Metal
Frame	Aluminum Alloy
Terminals	0.5mm
Lead Wire	Teflon 22#UL 1332(Optional)
Motor	Capacitor-Run And External Rotor Induction Motor
Operating Temperature	-10°C~+105°C



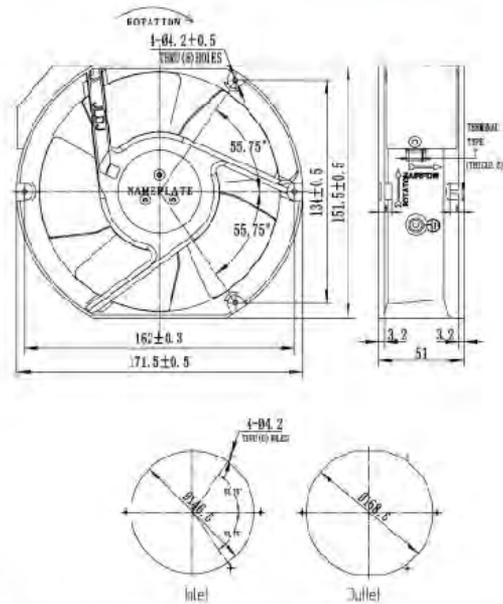
Model	Bearing System	Voltage VAC	Freq. Hz	Current A	Power W	Speed RPM	Noise dBA	Air Flow		Phase	Capacitor
								M <sup>3</sup> /hr	CFM		
FL17040HA <sub>1</sub> B	Ball	100/125	50/60	0.2/0.2	24/24	2700/3200	56/59	348/390	205/230	1	3.3uf/250v
FL17040HA <sub>2</sub> B		200/240	50/60	0.1/0.1	24/24	2700/3200	56/59	348/390	205/230	1	1uf/630v

172x150x51mm



Metal Blades

Size	172x150x51mm
Airflow	210-390m <sup>3</sup> /hr 205-230CFM
Weight	900g
Noise	56-59dBA
Impeller	Metal
Frame	Aluminum Alloy
Terminals	0.5mm
Lead Wire	Teflon 22#UL 1332(Optional)
Motor	Capacitor-Run And External Rotor Induction Motor
Operating Temperature	-10°C~+105°C



Model	Bearing System	Voltage VAC	Freq. Hz	Current A	Power W	Speed RPM	Noise dBA	Air Flow		Phase	Capacitor
								M <sup>3</sup> /hr	CFM		
FL17050HA,B	Ball	100/125	50/60	0.38/0.34	37/35	2700/3200	54/57	357/419	210/247	1	3.3uf/250v
FL17050HA <sub>2</sub> ,B		200/240	50/60	0.13/0.15	29/33	2700/3200	54/57	357/419	210/247	1	1uf/630v

Cabinet Ventilation

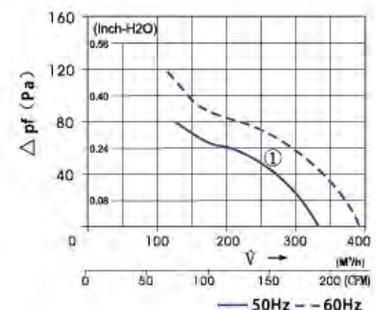
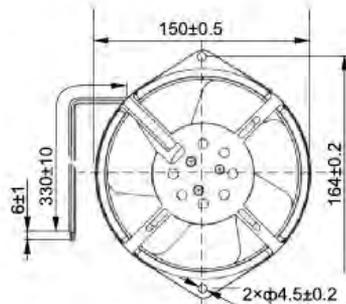
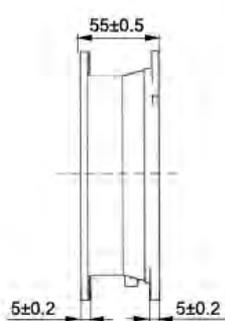
172x162x51mm



Metal Blades

Motor Structure	Cage type structure motor.
Safety	Impedance Protected
Operation System	Dual high Precision ball bearings. (single sleeve bearing)
Allowable Ambient Temperature Range	(under unconcretionary condition) -20°C~+65°C(ball bearing) , -10°C~+45°C.(Sleeve bearing)
Insulation	B Class
Protection Grade	IP34

Type	F2E-162B-230	F2E-162B-115
Bearing	Ball	Ball
Voltage(V)	220/230	110/115
Frequency(Hz)	50/60	50/60
Current(A)	0.20/0.26	0.42/0.51
Power(w)	53/43	40/35
Speed(RPM)	2700/3000	2700/3000
Wind volume	325/380	325/380
Noise dB(A)	48/52	48/52
Weight(g)	1100g	1100g

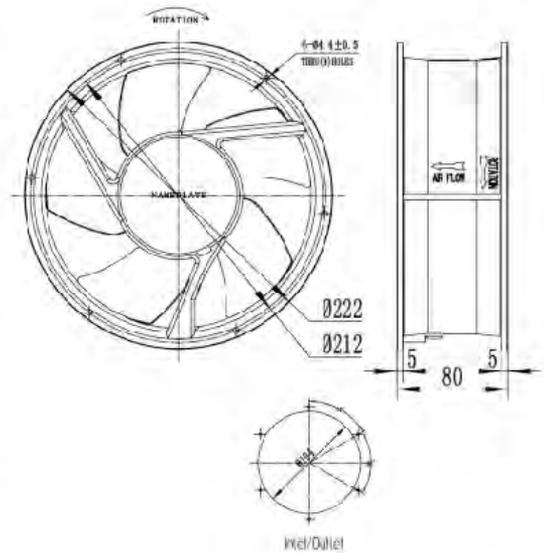


**Φ 220×80mm**



Metal Blades

Size	Φ220x80mm
Airflow	849-925m <sup>3</sup> /hr 500-545CFM
Weight	2000g
Noise	59-61 dBA
Impeller	Metal
Frame	Aluminum Alloy
Terminals	0.5mm
Lead Wire	Teflon 22#UL 1332(Optional)
Motor	Capacitor-Run And External Rotor Induction Motor
Operating Temperature	-10°C~+105°C



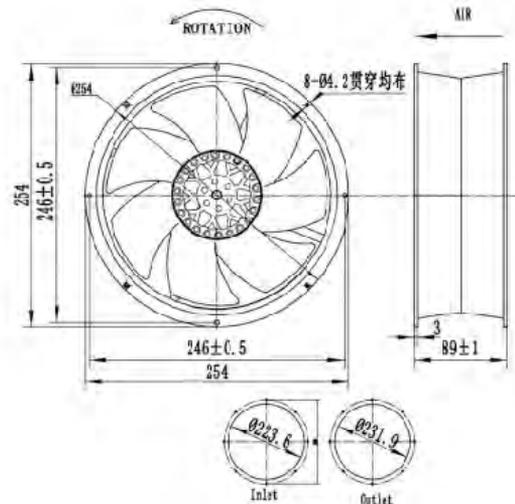
Model	Bearing System	Voltage VAC	Freq. Hz	Current A	Power W	Speed RPM	Noise dBA	Air Flow		Phase	Capacitor
								M <sup>3</sup> /hr	CFM		
FL22080HA <sub>1</sub> B-C	Ball	100/125	50/60	0.58/0.65	67/77	2600/2800	59/61	849/925	500/545	1	4.0uf/250v
FL22080HA <sub>2</sub> B-C		200/240	50/60	0.28/0.35	62/80	2600/2800	59/61	849/925	500/545	1	2uf/630v
FL22080HA <sub>3</sub> B		380/420	50/60	0.25	65	2600/2800	59/61	849/925	500/545	3	/
FL22080HA <sub>6</sub> B-C		380/420	50/60	0.25	65	2600/2800	59/61	849/925	500/545	1	1uf/630v

**Φ 254×89mm**



Metal Blades

Size	Φ254x89mm
Airflow	1392-1528m <sup>3</sup> /hr 800-900CFM
Weight	2600g
Noise	59-61dBA
Impeller	Metal
Frame	Aluminum Alloy
Terminals	0.5mm
Lead Wire	Teflon 22#UL 1332(Optional)
Motor	Capacitor-Run And External Rotor Induction Motor
Operating Temperature	-10°C~+105°C



Model	Bearing System	Voltage VAC	Freq. Hz	Current A	Power W	Speed RPM	Noise dBA	Air Flow		Phase	Capacitor
								M <sup>3</sup> /hr	CFM		
FL25489HA <sub>1</sub> B-C-7P	Ball	100/125	50/60	0.98/1.15	67/77	2700/3100	59/61	1392/1528	500/545	1	4.0uf/250v
FL25489HA <sub>2</sub> B-C-7P		200/240	50/60	0.5/0.65	62/80	2700/3100	59/61	1392/1528	500/545	1	2.2uf/400v
FL25489HA <sub>3</sub> B-7P		380/420	50/60	0.25	65	2700/3100	59/61	1392/1528	500/545	3	/
FL25489HA <sub>6</sub> B-C-7P		380/420	50/60	0.25	65	2700/3100	59/61	1392/1528	500/545	1	1uf/630v

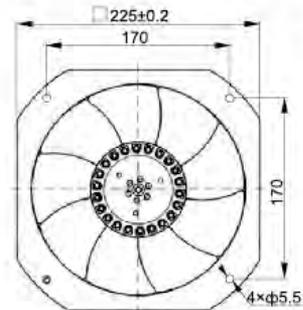
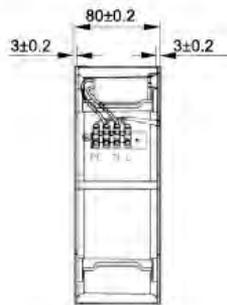
260×225×80mm



Metal Blades

Motor Structure	Cage type structure motor.
Safety	Impedance Protected
Operation System	Dual high Precision ball bearings. (single sleeve bearing)
Allowable Ambient Temperature Range	(under unconcretionary condition) -20°C~+65°C(ball bearing) , -10°C~+45°C.(Sleeve bearing)
Insulation	B Class
Protection Grade	IP34

Type	F2E-260B-230	F2E-260B-115
Bearing	Ball	Ball
Voltage(V)	220/230	110/115
Frequency(Hz)	50/60	50/60
Current(A)	0.34/0.29	0.63/0.61
Power(w)	63/79	61/71
Speed(RPM)	2450/2700	2500/2750
Wind volume	915/1010	925/1030
Noise dB(A)	59/61	59/61
Weight(g)	2200g	2200g



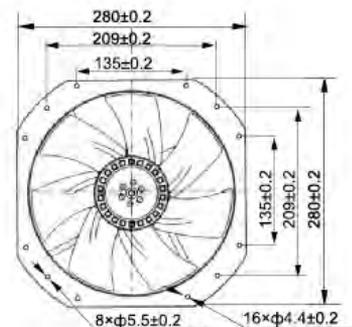
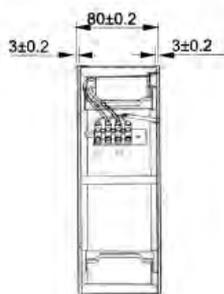
320×280×80mm



Metal Blades

Motor Structure	Cage type structure motor.
Safety	Impedance Protected
Operation System	Dual high Precision ball bearings. (single sleeve bearing)
Allowable Ambient Temperature Range	(under unconcretionary condition) -20°C~+65°C(ball bearing) , -10°C~+45°C.(Sleeve bearing)
Insulation	B Class
Protection Grade	IP34

Type	F2E-320B-230	F2E-320B-115
Bearing	Ball	Ball
Voltage(V)	220/230	110/115
Frequency(Hz)	50/60	50/60
Current(A)	0.46/0.60	0.95/1.20
Power(w)	140/100	140/100
Speed(RPM)	2500/2650	2480/2600
Wind volume	1800/1950	1800/1950
Noise dB(A)	68/70	68/70
Weight(g)	2900g	2900g

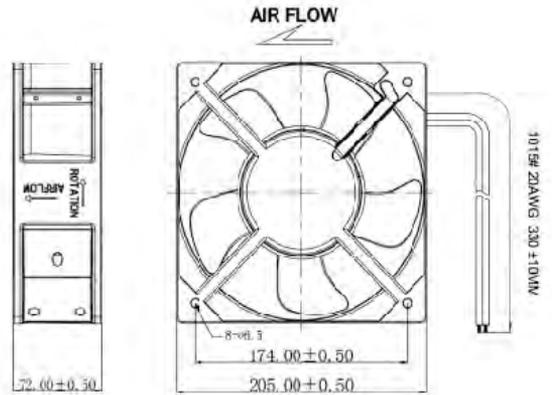


**205×205×72mm**



Metal Blades

Size	205x205x72mm
Airflow	905-1248m <sup>3</sup> /hr 533-735CFM
Weight	2100g
Noise	61-68dBA
Impeller	Metal
Frame	Aluminum Alloy
Terminals	0.5mm
Lead Wire	Teflon 22#UL 1332(Optional)
Motor	Capacitor-Run Induction Motor
Operating Temperature	-10°C~+65°C



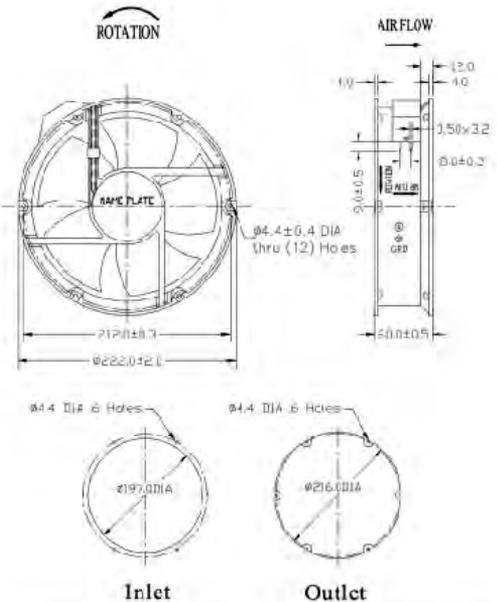
Model	Bearing System	Voltage VAC	Freq. Hz	Current A	Power W	Speed RPM	Noise dBA	Air Flow		Phase	Capacitor
								M <sup>3</sup> /hr	CFM		
FL20572HA <sub>1</sub> B-C	Ball	100/125	50/60	0.8/0.9	88/98	2850/3250	61/68	905/1248	533/735	1	10uf/250v
FL20572HA <sub>2</sub> B-C		200/240	50/60	0.35/0.45	68/78	2850/3250	61/68	905/1248	533/735	1	5uf/500v

**Φ 200×60mm**



Metal Blades

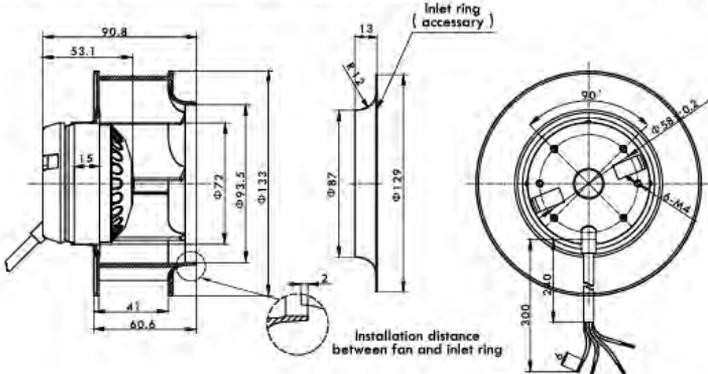
Size	Φ200x60mm
Airflow	730-824m <sup>3</sup> /hr 430-485CFM
Weight	1250g
Noise	55-67dBA
Impeller	Metal
Frame	Aluminum Alloy
Terminals	0.5mm
Lead Wire	Teflon 22#UL 1332(Optional)
Motor	Capacitor-Run Induction Motor
Operating Temperature	-10°C~+65°C



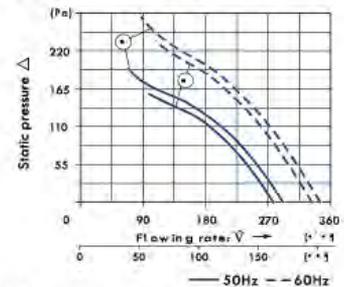
Model	Bearing System	Voltage VAC	Freq. Hz	Current A	Power W	Speed RPM	Noise dBA	Air Flow		Phase	Capacitor
								M <sup>3</sup> /hr	CFM		
FL22060HA <sub>1</sub> B-C	Ball	100/125	50/60	0.42/0.46	50/60	2800/3100	55/67	730/824	430/485	1	3.3uf/630v
FL22060HA <sub>2</sub> B-C		200/240	50/60	0.25/0.26	50/60	2800/3100	55/67	730/824	430/485	1	1.8uf/630v

**Motor Structure:** External rotor motor  $\Phi 72\text{mm}$ .  
**Safety:** Thermally protected.  
**Operation System:** Dual high Precision ball bearings.  
**Dielectric Withstand Voltage:** AC 1,800V , at 0.5mA, 50/60 Hz.  
**Allowable Ambient Temperature and Humidity Range:**  
 (under unconcretionary state)  
 -25 ~+65 C (temperature) 10% ~+80%. (humidity)

**Insulation System:**  
 Design according to Class F of IEC61858 standard.  
**Protection Class:** IP44  
**Unit weight:** 0.66 kg  
**Capacitor Life:** A Class  
**Motor Life:** 60,000hrs at 25 C



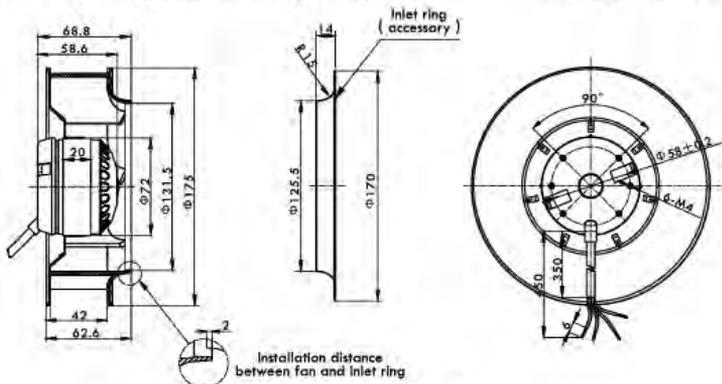
$\Phi 133 \times 41$



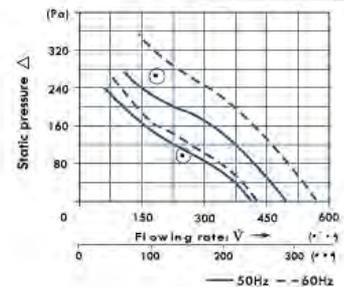
Type	Rated Voltage	Frequency	Current	Input Power	Speed	Max Air Flow		Static Pressure	Noise
						CFM	m <sup>3</sup> /h		
C2S-133.41A	115	50	0.22	49	2740	171	290	260	56
		60	0.25	53	3230	203	345	180	60
C2E-133.41A	230	50	0.11	24	2750	171	290	260	56
		60	0.13	27	3200	203	345	180	60
C2S-133.41C	115	50	0.51	38	2650	162	275	240	55
		60	0.42	35	3100	195	331	160	68
C2E-133.41C	230	50	0.25	36	2650	162	275	240	55
		60	0.20	34	3100	195	331	160	58

**Motor Structure:** Outer rotor motor  $\Phi 72\text{mm}$ .  
**Safety:** Thermally protected.  
**Operation System:** Dual high Precision ball bearings.  
**Dielectric Withstand Voltage:** AC 1,800V , at 0.5mA, 50/60 Hz.  
**Allowable Ambient Temperature and Humidity Range:**  
 (under unconcretionary state)  
 -25 ~+75 C (temperature) 10% ~+80%. (humidity)

**Insulation System:**  
 Design according to Class F of IEC61858 standard.  
**Protection Class:** IP44  
**Unit weight:** 0.85 kg  
**Capacitor Life:** A Class  
**Motor Life:** 60,000hrs at 25 C



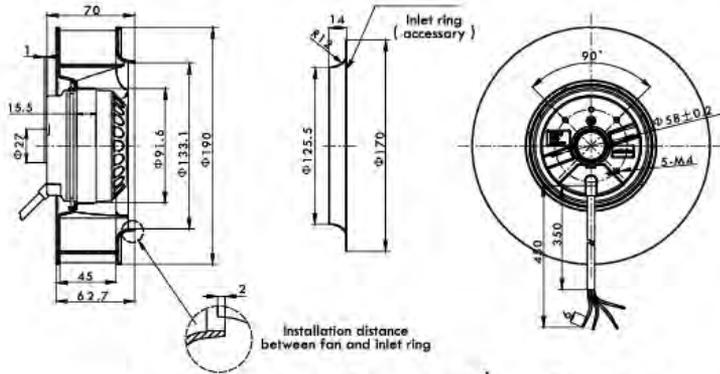
$\Phi 175 \times 42$



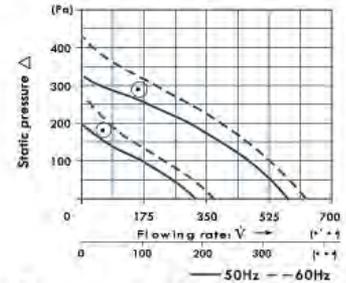
Type	Rated Voltage	Frequency	Current	Input Power	Speed	Max Air Flow		Static Pressure	Noise
						CFM	m <sup>3</sup> /h		
C2S-175.42B	115	50	0.50	50	2600	289	490	260	63
		60	0.46	52	3000	336	570	350	69
C2E-175.42B	230	50	0.25	49	2600	289	490	260	63
		60	0.23	51	3000	336	570	360	68
C2S-175.42C	115	50	0.68	54	2400	254	430	250	61
		60	0.62	52	2500	265	450	260	62
C2E-175.42C	230	50	0.34	55	2400	254	430	250	61
		60	0.30	53	2500	265	450	260	62

**Motor Structure:** Outer rotor motor  $\Phi 92\text{mm}$ .  
**Safety:** Thermally protected.  
**Operation System:** Dual high Precision ball bearings.  
**Dielectric Withstand Voltage:** AC 1,800V, at 0.5mA, 50/60 Hz.  
**Allowable Ambient Temperature and Humidity Range:**  
 (under unconcretionary state)  
 -25 ~+75 °C (temperature) 10% ~+80%. (humidity)

**Insulation System:**  
 Design according to Class F of IEC61858 standard.  
**Protection Class:** IP44  
 Unit weight: 1.27 kg  
 Capacitor Life: A Class  
 Motor Life: 60,000hrs at 25 °C



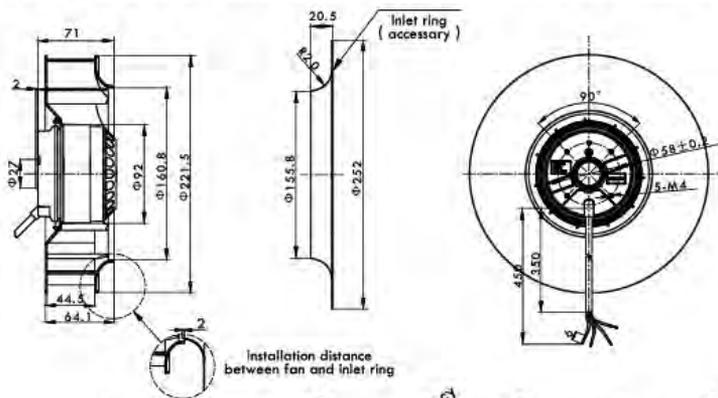
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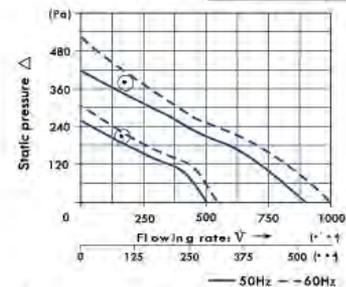
Type	Rated Voltage	Frequency	Current	Input Power	Speed	Max. Air Flow		Static Pressure	Noise
	V	Hz	(A)	(W)	(min <sup>-1</sup> )	CFM	m <sup>3</sup> /h	(Pa)	(dB)
C2S-190.45A	115	50	0.62	60	2500	336	570	325	62
		60	0.65	70	2700	366	620	420	64
C2E-190.45A	230	50	0.28	65	2500	336	570	325	62
		60	0.33	75	2700	366	620	420	64
C2D-190.45A	400	50	0.17	61	2500	336	570	325	62
		60	0.19	72	2700	366	620	420	64
C4E-190.45A	230	50	0.13	27	1400	182	310	200	48
		60	0.12	27	1600	212	360	280	51

**Motor Structure:** Outer rotor motor  $\Phi 92\text{mm}$ .  
**Safety:** Thermally protected.  
**Operation System:** Dual high Precision ball bearings.  
**Dielectric Withstand Voltage:** AC 1,800V, at 0.5mA, 50/60 Hz.  
**Allowable Ambient Temperature and Humidity Range:**  
 (under unconcretionary state)  
 -25 ~+65 °C (temperature) 10% ~+80%. (humidity)

**Insulation System:**  
 Design according to Class F of IEC61858 standard.  
**Protection Class:** IP44  
 Unit weight: 1.8 kg  
 Capacitor Life: A Class  
 Motor Life: 60,000hrs at 25 °C



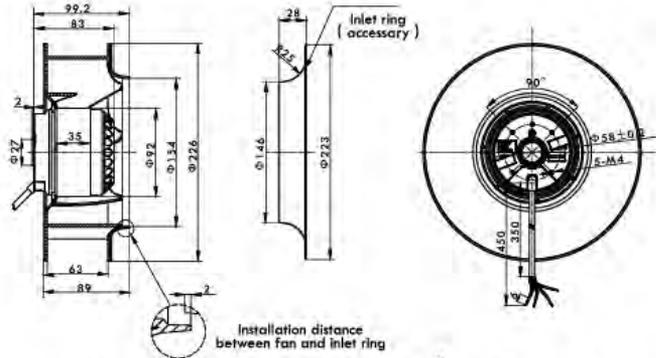
Ø 220x44



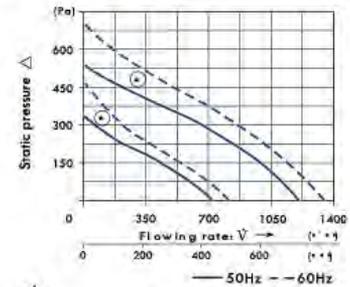
Type	Rated Voltage	Frequency	Current	Input Power	Speed	Max. Air Flow		Static Pressure	Noise
	V	Hz	(A)	(W)	(min <sup>-1</sup> )	CFM	m <sup>3</sup> /h	(Pa)	(dB)
C2S-220.44B	115	50	0.95	98	2600	528	896	420	72
		60	1.10	120	2950	590	1000	520	74
C2E-220.44B	230	50	0.46	98	2580	525	890	420	72
		60	0.51	118	2950	590	1000	520	74
C2D-220.44B	400	50	0.29	100	2600	528	896	420	72
		60	0.35	125	3000	600	1020	520	74
C4E-220.44B	230	50	0.23	48	1450	295	500	250	62
		60	0.24	58	1650	336	570	300	65

Motor Structure: Outer rotor motor  $\Phi 92\text{mm}$ .  
 Safety: Thermally protected.  
 Operation System: Dual high Precision ball bearings.  
 Dielectric Withstand Voltage: AC 1,800V, at 0.5mA, 50/60 Hz.  
 Allowable Ambient Temperature and Humidity Range:  
 (under unconcretionary state)  
 -25 ~+75 °C (temperature) 10% ~+80%. (humidity)

Insulation System:  
 Design according to Class F of IEC61858 standard.  
 Protection Class: IP44  
 Unit weight: 2.3 kg  
 Capacitor Life: A Class  
 Motor Life: 60,000hrs at 25 °C



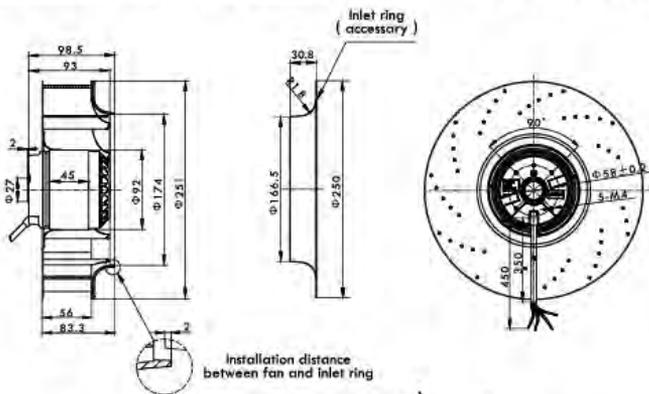
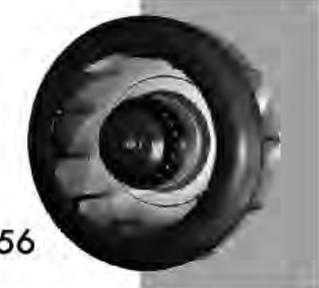
$\Phi 225 \times 63$



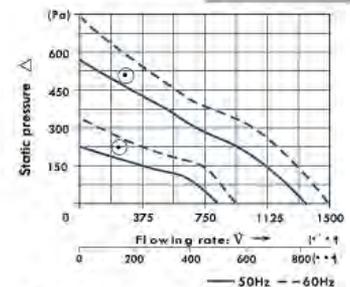
Type	Rated Voltage	Frequency	Current	Input Power	Speed	Max Air Flow		Static Pressure	Noise
	V	Hz	(A)	(W)	(min <sup>-1</sup> )	CFM	m <sup>3</sup> /h	(Pa)	(dB)
C2S-225.63C	115	50	1.18	130	2650	708	1200	550	69
		60	1.53	168	2950	791	1340	725	71
C2E-225.63C	230	50	0.62	135	2650	708	1200	550	69
		60	0.77	170	2950	791	1340	725	71
C2D-225.63C	400	50	0.34	130	2500	708	1200	550	69
		60	0.44	170	2700	791	1340	725	71
C4E-225.63C	230	50	0.30	65	1480	419	710	320	61
		60	0.37	80	1650	483	818	440	63

Motor Structure: Outer rotor motor  $\Phi 92\text{mm}$ .  
 Safety: Thermally protected.  
 Operation System: Dual high Precision ball bearings.  
 Dielectric Withstand Voltage: AC 1,800V, at 0.5mA, 50/60 Hz.  
 Allowable Ambient Temperature and Humidity Range:  
 (under unconcretionary state)  
 -25 ~+75 °C (temperature) 10% ~+80%. (humidity)

Insulation System:  
 Design according to Class F of IEC61858 standard.  
 Protection Class: IP44  
 Unit weight: 2.9 kg  
 Capacitor Life: A Class  
 Motor Life: 60,000hrs at 25 °C



$\Phi 250 \times 56$

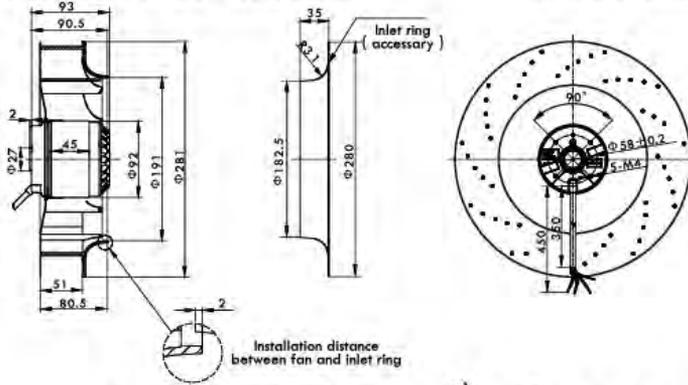


Type	Rated Voltage	Frequency	Current	Input Power	Speed	Max Air Flow		Static Pressure	Noise
	V	Hz	(A)	(W)	(min <sup>-1</sup> )	CFM	m <sup>3</sup> /h	(Pa)	(dB)
C2S-250.56A	115	50	1.38	155	2600	856	1450	580	74
		60	1.90	208	2800	897	1520	750	76
C2E-250.56A	230	50	0.70	152	2550	856	1450	580	74
		60	0.93	205	2750	897	1520	750	76
C4S-250.56B	115	50	0.64	70	1400	478	810	220	61
		60	0.81	89	1600	548	930	310	64
C4E-250.56B	230	50	0.32	70	1450	484	820	220	61
		60	0.39	88	1650	555	940	310	64

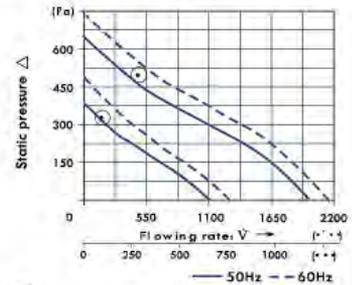
Cabinet Ventilation

Motor Structure: Outer rotor motor  $\Phi 92\text{mm}$ .  
 Safety: Thermally protected.  
 Operation System: Dual high Precision ball bearings.  
 Dielectric Withstand Voltage: AC 1,800V, at 0.5mA, 50/60 Hz.  
 Allowable Ambient Temperature and Humidity Range:  
 (under unconcretionary state)  
 -25 ~ +75 °C (temperature) 10% ~ +80%. (humidity)

Insulation System:  
 Design according to Class F of IEC61858 standard.  
 Protection Class: IP44  
 Unit weight: 3.2 kg  
 Capacitor Life: A Class  
 Motor Life: 60,000hrs at 25 °C



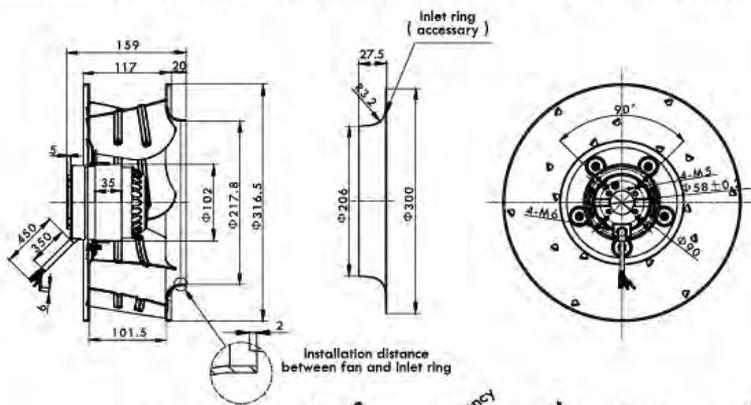
$\Phi 280 \times 51$



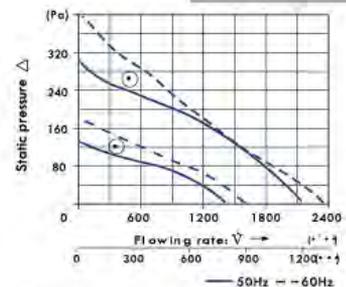
Type	Rated Voltage	Frequency	Current	Input Power	Speed	Max Air Flow	Static Pressure	Noise
	V	Hz	(A)	(W)	(min <sup>-1</sup> )	CFM m <sup>3</sup> /h	(Pa)	(dB)
C2E-280.51C	230	50	1.03	230	2550	1174 1990	700	72
		60	1.30	305	2700	1245 2110	750	75
C4E-280.51C	230	50	0.48	110	1400	649 1100	380	63
		60	0.64	145	1650	760 1290	500	65
C4S-280.51C	115	50	0.98	115	1400	649 1100	380	63
		60	1.27	145	1650	760 1290	500	65

Motor Structure: Outer rotor motor  $\Phi 102\text{mm}$ .  
 Safety: Thermally protected.  
 Operation System: Dual high Precision ball bearings.  
 Dielectric Withstand Voltage: AC 1,800V, at 0.5mA, 50/60 Hz.  
 Allowable Ambient Temperature and Humidity Range:  
 (under unconcretionary state)  
 -25 ~ +65 °C (temperature) 10% ~ +80%. (humidity)

Insulation System:  
 Design according to Class F of IEC61858 standard.  
 Protection Class: IP44  
 Unit weight: 3.8 kg  
 Capacitor Life: A Class  
 Motor Life: 60,000hrs at 25 °C



$\Phi 316 \times 102$



Type	Rated Voltage	Frequency	Current	Input Power	Speed	Max Air Flow	Static Pressure	Noise
	V	Hz	(A)	(W)	(min <sup>-1</sup> )	CFM m <sup>3</sup> /h	(Pa)	(dB)
C4E-315.101	230	50	0.50	110	1360	1250 2120	300	59
		60	0.65	150	1540	1390 2370	400	62
C4ED-315.101	230/400	50	0.62/0.33	136	1380	1250 2120	300	59
		60	0.58/0.32	137	1600	1390 2370	400	62
C4S-315.101	115	50	1.18	130	1370	1250 2120	300	59
		60	1.52	170	1550	1390 2370	400	62
C6E-315.101	230	50	0.32	68	940	826 1400	130	48
		60	0.37	83	1100	968 1640	180	54



# Heater/Thermostat /Hygromstat



**Benefits:**

- Integrated integration: AC input, AC output, offering convenience in use.
- With LED indicator, easier to recognize working state.
- Small size for a variety of applications.
- Stable long - time operating.
- ROHS compliant.

**Features:**

- Humidity control: If the relative humidity exceeds the value set on the humidity dial, the electric circuit is cut off. Return difference is 5 - 10% RH.
- Temperature control: If the ambient temperature rises above the value set on the temperature dial, the electric circuit is cut off. A tolerance of 1 - 3°C is allowed.
- Power: AC220V. Other voltage is alternative.
- Current: Max 46mA.
- Operating conditions: Temperature: - 10 to 50°C; Humidity: 40 - 90%RH.
- Storage conditions: Temperature: - 20 to 60°C; Humidity: 20 - 95%RH.
- Humidity sensor: Polymer humidity resistance.
- Temperature sensor: Bimetal sensor.

**Elements:**

- Set up the operation range by adjusting the knob. When the relative humidity drops below the value pre - set, the electric circuit is closed via terminal LED illuminates. When the relative humidity rises above the value pre - set, the electric circuit is cut off via terminal LED blacks out. In order to protect the loads not to work too frequently, the return difference is 5 - 10%RH, means the electric circuit is closed when the humidity drops 5 - 10% below more than the value pre - set.
- Set up the operation range by adjusting the knob. When the ambient temperature drops below the value pre - set, the electric circuit is closed via terminal LED illuminates. When the ambient temperature rises above the value pre - set, the electric circuit is opened via terminal LED blacks out.

Humidity switching difference	4%RH(±3% tolerance)
Temperature switching difference	7k(±4k tolerance)
Temperature sensor element	Bimetal sensor
Relative humidity range	35% - 95%RH
Temperature control contact mode	Step type contact point
Humidity control contact mode	Chang - over switch
Mean life	750,000 cycles
Min Switching capacity	20VAC/DC 100m A
Max Switching capacity	250VAC/DC 5(1)A DC30W
Connection	5 - pole terminal,clamping torque 0.5Nm Max for solid wire 2.5mm <sup>2</sup> and stranded wire(with wire and ferrule) 1.5mm <sup>2</sup>
Installation	35mm Din rail
Casing	UL94V - 0, light grey
Dimension	70x63x40mm
Weight	90g
Fitting position	Cabinet top
Operating temperature	0 - +60°C(+32 - +140°F)
Storage temperature	- 20 - +80°C(- 4 - +176°F)
Protection level	IP20

# KTO 011 / KTS 011 Thermostat

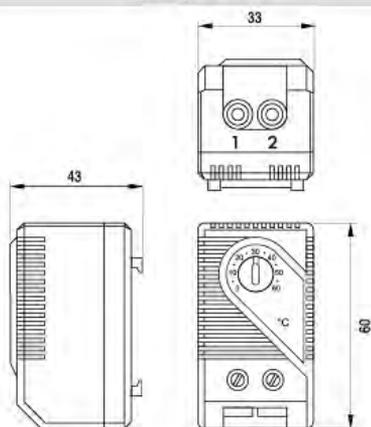


- Large setting range
- Small size
- Simple to mount
- High switching performance

**KTO 011:** Thermostat (normally closed); contact breaker for regulating heaters.

**KTS 011:** Thermostat (normally open); contact maker for regulating filter fans and heat exchangers or for switching signal device when temperature limit has been exceeded.

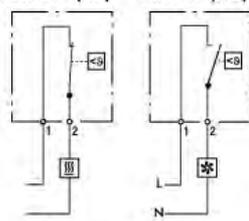
### Installing method



Temperature range	0-60°C
KTO 011 NC(Normally closed)	When the temperature reaches the set value, open circuit
KTS 011 NO(Normally open)	When the temperature exceeds the set value action, closed circuit
Switch temperature difference	7K(±4K tolerance)
Sensor element	thermostatic bimetal
Contact type	Snap-action
Contact resistance	<10m ohm(Incidental connection line)
Service life	>100,000 cycles
Max. Switching capacity	250VAC,10(2)A
	120VAC,15(2)A
	30WDC at 24VDC to 72VDC
Connection	2-pole terminal, clamping torque 0.5Nm max.: rigid wire 2.5mm <sup>2</sup> , stranded wire (with wire end ferrule) 1.5mm <sup>2</sup>
Casing	plastic according to UL94 V-0, light grey
Installation	35mm DIN Installation guide
Dimensions	60×33×43mm
Weight	40g
fitting position	variable
Operating/Storage temperature	-20°C to +80°C
Protection type	IP20

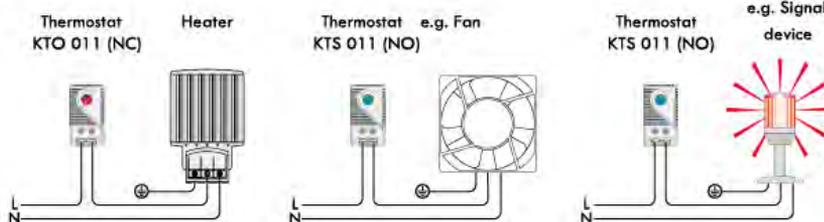
Heater / Thermostat / Hygrosat

Thermostat KTO 011 (NC)      Thermostat KTS 011 (NO)



Connection diagrams

Heater  
Filter fan,  
Cooling equipment,  
Signal device



Examples of connection

Setting range 0 to +60°C	Art. No. Contact Breaker (NC) KTO 011	Art. No. Contact Maker (NO) KTS 011	Approvals CE
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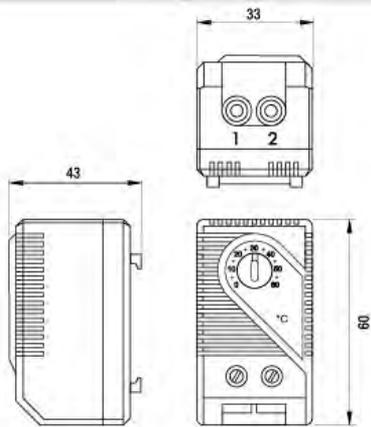


- Large setting range
- Small size
- Simple to mount
- High switching performance

**KTS 011-2:** Thermostat (normally closed); contact breaker for regulating heaters.

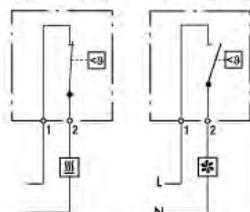
**KTO 011-2:** Thermostat (normally open); contact maker for regulating filter fans and heat exchangers or for switching signal device when temperature limit has been exceeded.

**Installing method**



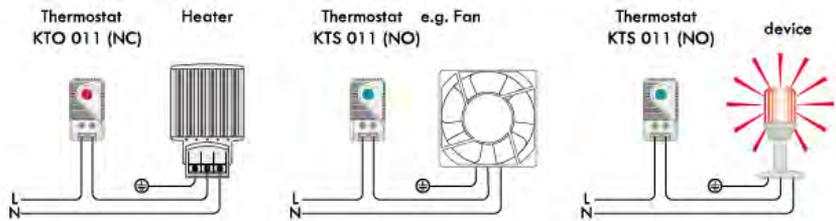
<b>KTO 011-2 NC(Normally closed)</b>	When the temperature reaches the set value, open circuit
<b>KTS 011-2 NO(Normally open)</b>	When the temperature exceeds the set value action, closed circuit
<b>Switch temperature difference</b>	7K(±4K tolerance)
<b>Sensor element</b>	thermostatic bimetal
<b>Contact type</b>	Snap-action
<b>Contact resistance</b>	< 10m ohm(incidental connection line)
<b>Service life</b>	>100,000 cycles
<b>Max. Switching capacity</b>	250VAC,10(2)A
	120VAC,15(2)A
<b>Connection</b>	30WDC at 24VDC to 72VDC
	2-pole terminal, clamping torque 0.5Nm max.: rigid wire 2.5mm <sup>2</sup> , stranded wire (with wire end ferrule) 1.5mm <sup>2</sup>
<b>Casing</b>	plastic according to UL94 V-0, light grey
<b>Installation</b>	35mm DIN Installation guide
<b>Dimensions</b>	60×33×43mm
<b>Weight</b>	40g
<b>fitting position</b>	variable
<b>Operating/Storage temperature</b>	-20°C to +80°C
<b>Protection type</b>	IP20

**Thermostat KTO 011 (NC)**      **Thermostat KTS 011 (NO)**



**Connection diagrams**

- Heater
- Filter fan, Cooling equipment, Signal device



**Examples of connection**

Setting range	Art. No. Contact Breaker (NC)	Art. No. Contact Maker (NO)	Approvals
0 to +60°C	01140.0-00	01141.0-00	CE
-10 to +50°C	01142.0-00	01143.0-00	CE
+20 to +80°C	01159.0-00	01158.0-00	CE
0 to +60°C	01146.9-00	01147.9-00	CE

# ZR 011 Dual Thermostat



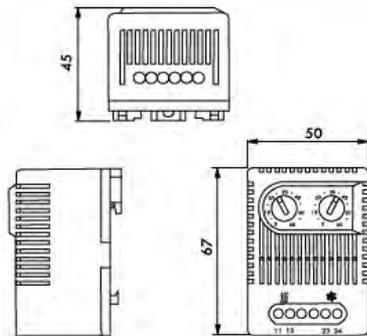
- NO and NC in one casing
- Separate adjustable temperatures
- High switching capacity
- Terminals easily accessible
- Clip Fixing

Two thermostats in one casing:

Thermostat(contact breaker, normally closed)for regulating heaters  
Thermostat(contact make, normally open) for regulating filter fans and heat exchangers or switching signal devices when temperature limit has been exceeded.

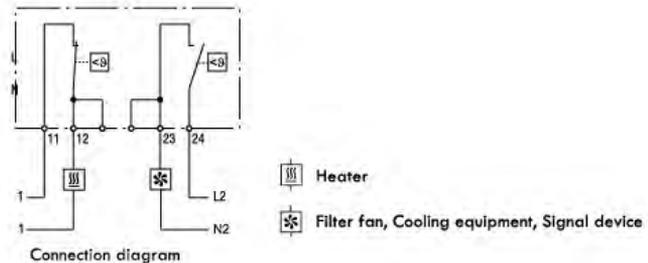
Heaters and cooling equipment can be switched independently from each other with a temperature offset a he usual change-over contacts.

Size chart



Temperature range	NO/NC:0-60°C
Switch temperature difference	7K(+4K tolerance)
Sensor element	thermostatic bimetal
Contact type	Snap-action
Contact resistance	< 10m ohm
Service life	>100,000 cycles
Max. Switching capacity	250VAC,10(2)A 120VAC,15(2)A DC 30W
Connection	4-pole terminal, clamping torque 0.5Nm max.: rigid wire 2.5mm <sup>2</sup> , stranded wire (with wire end ferrule) 1.5mm <sup>2</sup>
Installation	35mm DIN Installation guide
Casing	UL94 V-0 Plastic, light gray
Dimensions	67×50×46mm
Weight	90g
fitting position	variable
Operating/Storage temperature	-20°C to +80°C
Protection type	IP20

Thermostat  
ZR 011(NC/NO)



Art. No.	Setting Range		Setting Range	
	ZR 011	Contact breaker (NC)	0 to +60°C	Contact maker (NO)

Heater/Thermostat/Hygrostat



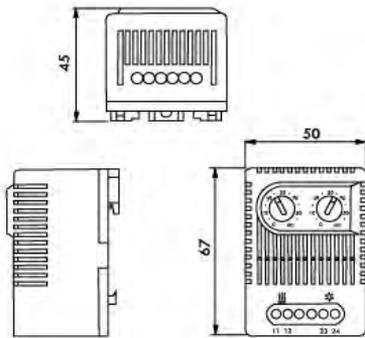
- NO and NC in one casing ■ Separate adjustable temperatures
- High switching capacity ■ Terminals easily accessible ■ Clip Fixing

Two thermostats in one casing:

Thermostat(contact breaker, normally closed)for regulating heaters  
Thermostat(contact make, normally open) for regulating filter fans and heat exchangers or switching signal devices when temperature limit has been exceeded.

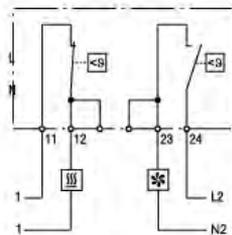
Heaters and cooling equipment can be switched independently from each other with a temperature offset as opposed to the usual change-over contacts.

Size chart



Temperature range	NO/NC:0-60°C
Switch temperature difference	7K(+4K tolerance)
Sensor element	thermostatic bimetal
Contact type	Snap-action
Contact resistance	< 10m ohm
Service life	>100,000 cycles
Max. Switching capacity	250VAC,10(2)A
	120VAC,15(2)A
Connection	DC 30W
	4-pole terminal, clamping torque 0.5Nm max.: rigid wire 2.5mm <sup>2</sup> , stranded wire (with wire end ferrule) 1.5mm <sup>2</sup>
Installation	35mm DIN Installation guide
Casing	UL94 V-0 Plastic, light gray
Dimensions	67×50×46mm
Weight	90g
fitting position	variable
Operating/Storage temperature	-20°C to +80°C
Protection type	IP20

Thermostat  
ZR 011(NC/NO)

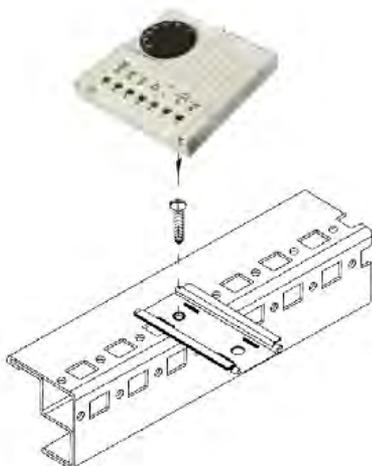
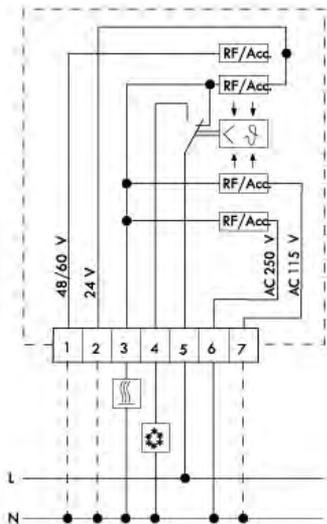


- Heater
- Filter fan, Cooling equipment, Signal device

Connection diagram

Art. No.	Setting Range		Setting Range	
ZR 011-2	Contact breaker (NC)	0 to +60°C	Contact maker (NO)	0 to +60°C

# JWT6011 Enclosure Internal Thermostat



- Bi-metal controller as a temperature sensitive element with thermal feedback.
- Contact population: Single-pole change-over contact as a quick-break contact.
- Permissible contact load:  
Cat. 5 - 3 (heating) AC 10 (4\*) A, DC = 30 W Cat. 5 - 4 (cooling) AC 5 (4\*) A, DC = 30 W  
\* ( ) = inductive load at  $\cos \phi = 0.6$   
Setting range: 0 °C to + 60 °C
- Weight: 105g appr Size: 71x71x33.5mm Switch discrepancy: 1K  $\pm$  0.8K
- Voltage scope is wide, any type could be used from 24V to 230 V
- Time-saving connection, terminal block could be installed screw from outside
- Easy installation, could be installed to 35mm din rail vertically or horizontally, according to EN50 022, it could be clipped to TS/35 cabinet profile with its accessory adapter.

Application Especially suitable for controlling fan-and-filter units, heaters and heat exchangers, this thermostat can also be used as a signal generator for monitoring the enclosure internal temperature.

Sensing element	Bimetallic
Shock configuration	Conversion of electric shock as a transient unipolar switching elements
Permissible contact load	Cat. 5 - 3 (heating) AC 10 (4*) A, DC = 30 W Cat. 5 - 4 (cooling) AC 5 (4*) A, DC = 30 W * ( ) = inductive load at $\cos \phi = 0.6$
Temperature adjustment range	0°C to +60°C
Rated voltage	230/115/60/48/24V (AC) 60/48/24V (DC)
Weight	105g
Size	71X71X33.5mm
Switching difference	1K $\pm$ 0.8K

**Rated voltage**  
230/115/60/48/24V(AC)  
60/48/24V (DC)

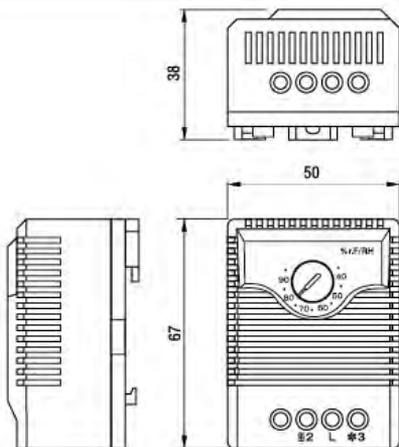
48V 60V N	24V N			(L1*) L	(L2*) 250V N	115V N
1	2	3	4	5	6	7



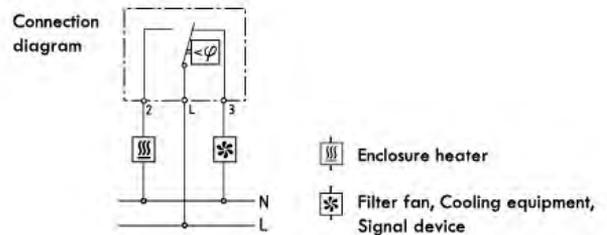
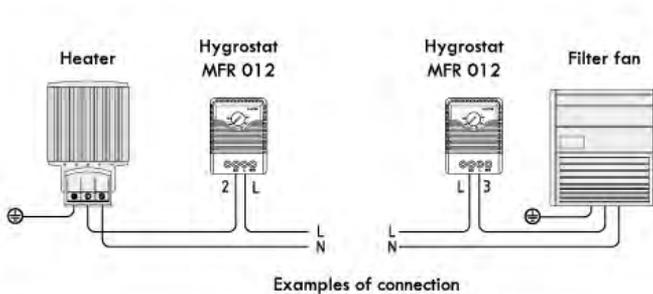
- Adjustable relative humidity
- Change-over contact
- High switching capacity
- Easily accessible terminals
- Clip fixing

The electromechanical hygrostat is designed to control enclosure heaters so that the dew point is raised when a critical relative humidity of 65% is exceeded. In this way condensation and corrosion in enclosures with electric/electronic components is effectively prevented.

**Connection**



Switching error	4% RH ( $\pm 3\%$ tolerance)
Relative humidity range	35%-95%
Allow wind speed	1.5m/sec
Contact type	Changeover contact
Contact resistance	< 10m ohm
Service life	> 50,000 cycles
Mix. Switching capacity	20V AC/DC 100 mA
Max. Switching capacity	25 VAC, 5 A
Connection	3-pole terminal for 2.5mm <sup>2</sup> , clamping torque 0.5Nm max.: rigid wire 2.5mm <sup>2</sup> , stranded wire (with wire end ferrule) 1.5mm <sup>2</sup>
Installation	35mm DIN Installation guide
Casing	UL94 V-0 Plastic, light gray
Dimensions	67x50x38mm
Weight	about 60g
Fitting position	variable
Operating/Storage temperature	0 ~ +60°C (+32 ~ +140°F) / -20 ~ +80°C (-4 ~ +176°F)
Protection type	IP20



Art. No.	Setting range
MFR 012	35 to 95% RH

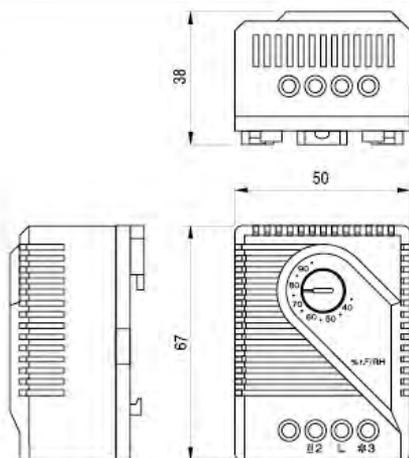
# MFR012-2 Mechanical Hygrostat



- Adjustable relative humidity
- Easily accessible terminals
- Change-over contact
- Clip fixing
- High switching capacity

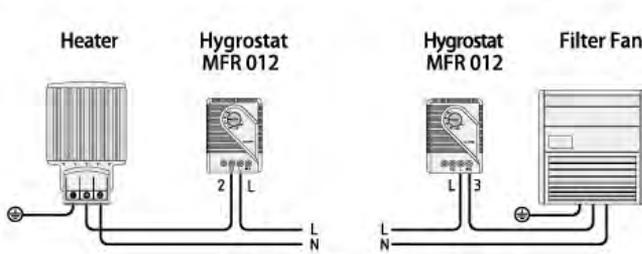
The electromechanical hygrostat is designed to control enclosure heaters so that the dew point is raised when a critical relative humidity of 65% is exceeded. In this way condensation and corrosion in enclosures with electric/electronic components is effectively prevented.

### Connection

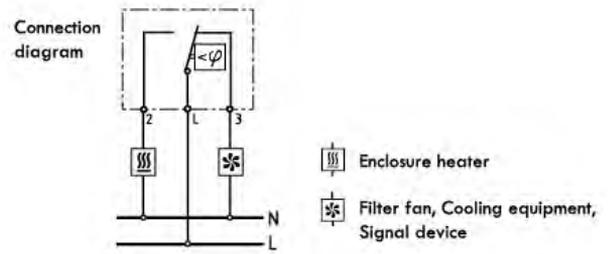


Switch difference*	4% RH (± 3% tolerance)
Permissible air velocity	15m/sec.
Contact type	change-over contact
Service life	>50,000 cycles
Mix. Switching capacity	250VAC, 5A 20WDC
Max. Switching capacity	5AAC
Connection	3-pole terminal for 2.5mm <sup>2</sup> , clamping torque 0.5Nm max.:rigid wire 2.5mm <sup>2</sup> stranded wire (with wire end ferrule) 1.5mm <sup>2</sup>
Mounting	clip for 35mm DIN rail, EN 60715
Casing	plastic according to UL94 V-0, light grey
Dimensions	67 x 50 x 38mm
Weight	approx. 60g
Fitting position	variable
Operating / Storage temperature	0 to +60°C (+32 to +140°F) / -40 to +60°C (-40 to +140°F)
Operating / Storage humidity	max. 90% RH (non-condensing)
Protection type	IP20
Approvals	UL File No. E164102

Heater / Thermostat / Hygrostat



Examples of connection



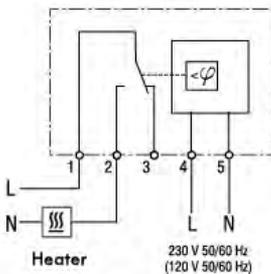
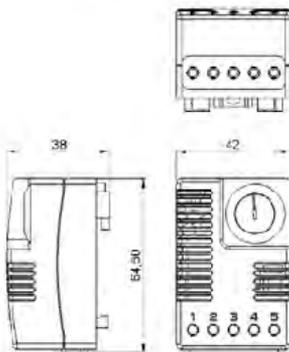
Art. No.	Setting range
MFR012-2	35 to 95% RH



- Temperature and humidity adjustable
- High switching capacity
- Optical operating display (LED)
- Clip fixing

The electronic hygrotherm senses the ambient temperature and relative humidity in an enclosure with electric / electronic components and turns on a heater (or alternatively a fan) at either set point, helping prevent the formation of condensation in the enclosure. The LED integrated in the adjustment knob on the active controller is lit when the connected device is in operation.

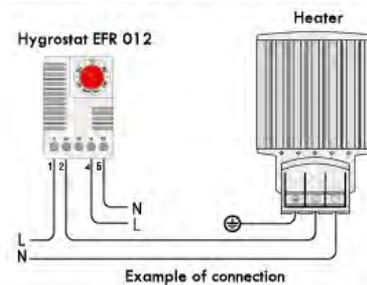
Size chart



Connection diagram

Switch difference	5% RH ( $\pm 1\%$ RH tolerance) at 25°C/77°F (50% RH)
Reaction time	5 sec.
Contact type	change-over contact (relay)
Service life	> 50,000 cycles
Max. switching capacity (relay output)	240VAC, 8(1.6) A ; 120VAC, 8 (1.6)A ; 100WDC at 24VDC
EMC	acc.to EN 55014-1-2, EN 61000-3-2, EN 61000-3-3
Optical indicator	LED
Connection	5-pole terminal, clamping torque 0.5Nm max.rigid wire 2.5mm <sup>2</sup> stranded wire (with wire end ferrule) 1.5mm <sup>2</sup>
Mounting	clip for 35mm DIN rail, ( EN50022 )
Casing	UL94 V-0, light grey
Dimensions	64.5 x 42 x 38mm
Weight	approx. 70g
Fitting position	vertical
Operating / Storage temperature	0 to +60°C(+32 to +140°F) / -20 to +70°C(-4 to +158°F)
Operating / Storage humidity	max. 90 % RH (non-condensing)
Protection type	IP20

Art. No.	Operating voltage	Setting range
01 245.0-00	230VAC, 50/60Hz	40 to 90% RH
01 246.0-00	230VAC, 50/60Hz	65% RH pre-set
01 245.9-00	120VAC, 50/60Hz	40 to 90% RH
01 246.9-00	120VAC, 50/60Hz	65% RH pre-set



Art. No.	Operating voltage	Setting range	Approvals
01 245.0-00	230VAC, 50/60Hz	40 to 90% RH	CE
01 246.0-00	230VAC, 50/60Hz	65% RH pre-set	CE
01 245.9-00	120VAC, 50/60Hz	40 to 90% RH	CE
01 246.9-00	120VAC, 50/60Hz	65% RH pre-set	CE

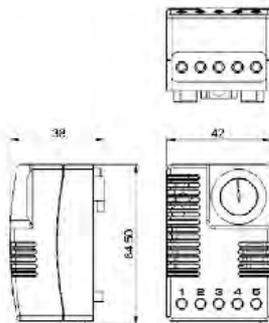
# ETR 011 Electronic Thermostat



- Large setting range
- Optical operating display (LED)
- Change-over contact
- Small hysteresis
- Clip fixing

The electronic thermostat is used for controlling heating and cooling equipment, filter fans or signal devices. The thermostat registers the surrounding air and can switch both inductive and resistive loads via relay with change-over contact. The LED integrated in the adjustment knob is lit when the NC contact is closed (e.g. when a connected heater is operating).

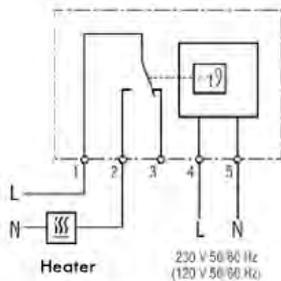
Size chart



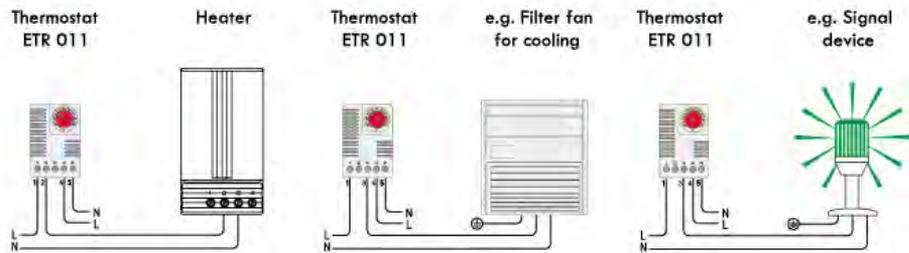
Switch difference	4K (±1K tolerance) at 20 °C/68 °F
Sensor element	NTC
Reaction time	5 sec
Contact type	change-over contact (relay)
Service life	> 50,000 cycles
Max. switching capacity (relay output)	240VAC,8(1.6)A/120VAC,8(1.6)A 100WDC at 24VDC
Max. Inrush current	16AAC for 10 sec.
Optical indicator	LED
Connection	5-pole terminal, clamping torque 0.5Nm max.; rigid wire 2.5mm <sup>2</sup> stranded wire (with wire end ferrule) 1.5mm <sup>2</sup>
Mounting	clip for 35mm DIN rail, EN 60715
Casing	plastic according to UL94 V-0, light grey
Dimensions	64.5 x 42 x 38mm
Weight	approx. 70g
Fitting position	vertical
Operating / Storage temperature	-40 to +85°C (-40 to +185°F)
Operating / Storage humidity	max. 90 % RH (non-condensing)
Protection type	IP20

Art. No.	Operating voltage	Setting range
01131.0-00	230VAC, 50/60Hz	-20 ~ 60°C

heater / thermostat / Hygrostat



Connection diagram



Examples of connection

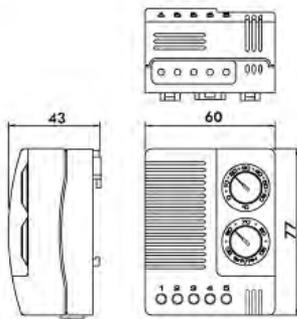
Art. No.	Operating voltage	Setting range	Approvals
01131.0-00	230VAC, 50/60Hz	-20 to 60°C	CE



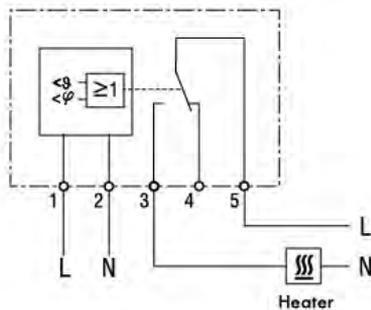
- Temperature and humidity adjustable
- High switching capacity
- Optical operating display (LED)
- Clip fixing

The electronic hygrotherm senses the ambient temperature and relative humidity in an enclosure with electric / electronic components and turns on a heater (or alternatively a fan) at either set point, helping prevent the formation of condensation in the enclosure. The LED integrated in the adjustment knob on the active controller is lit when the connected device is in operation.

Size chart

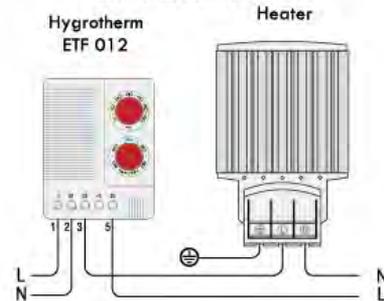


Connection diagram



Switch difference (temperature)	2K ( $\pm 1$ K tolerance) at 25°C/77°F (50% RH)
Switch difference (humidity)	4% RH ( $\pm 1$ % tolerance) at 25°C/77°F (50% RH)
Reaction time (humidity)	5 sec.
Contact type	change-over contact (relay)
Contact resistance	< 10m ohm
Service life	NC: 50,000 cycles NO: 100,000 cycles NC: 240VAC, 6(1)A NO: 120VAC, 8(1.6)A
Max. Switching capacity (relay output)	NC: 240VAC, 6(1)A NO: 120VAC, 8(1.6)A 100WDC at 24VDC
EMC	acc.to EN 55014-1-2, EN 61000-3-2 EN 61000-3-3
Optical indicator	LED
Connection	5-pole terminal for 2.5mm <sup>2</sup> , clamping torque 0.5Nm max, rigid wire 2.5mm <sup>2</sup> stranded wire (with wire end ferrule) 1.5mm <sup>2</sup>
Mounting	clip for 35mm DIN rail, EN 60715
Casing	plastic according to UL94 V-0. light grey
Dimensions	77×60×43mm
Weight	approx. 0.2kg
Fitting position	vertical
Operating / Storage temperature	0 to +60°C ( +32°C to +140°F ) / -20°C to +80°C ( -4°C to +176°F )
Protection type	IP20

Example of connection



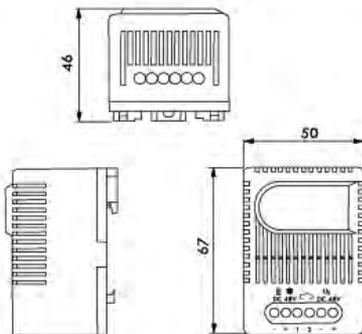
Art. No.	Operating voltage	Setting range temperature	Setting range humidity	Approvals
01230.0-00	230VAC, 50/60Hz	0 to +60°C	50 to 90% RH	CE
01230.9-01	120VAC, 50/60Hz	0 to +60°C	50 to 90% RH	CE

# Switch Module SM010 (24VDC+48VDC)



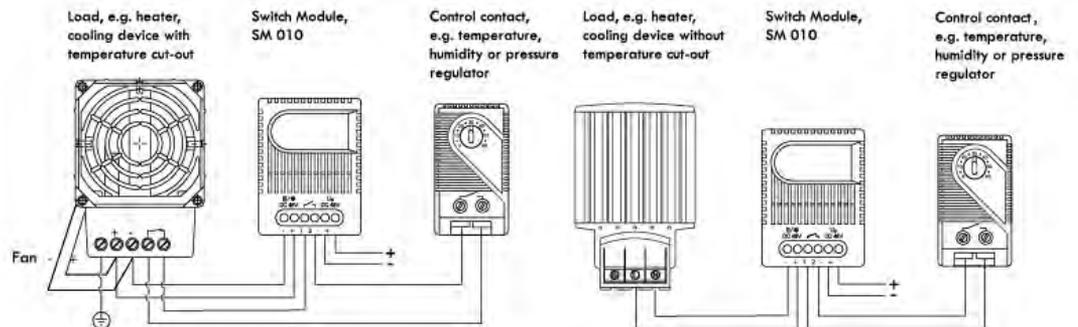
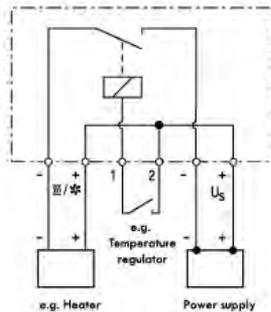
- High DC switching capacity
  - Variety of applications
  - Compact design
  - Simple connection
  - Clip fixing
- Switch module for switching DC appliances with high switching capacity. A Separate conventional switch contact is used as contoler (e.g. temperature regulator, humidity regulator),The switch module is available in 24VDC and 48VDC versions.

Size chart



Contact type	contact maker, normally open(Relay/MOSFET)
Contact resistance	< 10m ohm
Service life	> 100 000 cycles
EMC	acc. to EN 55014-1-2, EN 61000-3-2, EN 61000-3-3
Connection	6-pole terminal,clamping torque0.5Nm max, rigid wire 2.5mm <sup>2</sup>
Mounting	clip for 35mm DIN rail, EN50022
Casing	plaitic according toUL94 V-O,light grey
Dimensions	67 x 50 x 46mm
Weight	approx,85g
Fitting position	variable
Operating/Storage temperature	-45 to +70°C (-49 to +158°F)
Protection type	IP20
Certificate	VDE inteded

Art.No.	Operating voltage.	Max.Switching capacity
01001.0-00	24VDC (20-28VDC)	28VDC 16A
01000.0-00	48VDC (38-56VDC)	56VDC 16A



Art. No.	Operating voltage	Max. switching capacity	Max. inrush current
01001.0-00	24VDC (20-28VDC)	28VDC 16A	16ADC
01000.0-00	48VDC (38-56VDC)	56VDC 16A	16ADC



### General

LKHP 20 series dehumidifier is designed specifically for the needs of the various cabinet anti-condensation, use thermoelectric semiconductor with high thermoelectric conversion efficiency, compact, high efficiency dehumidifier, can effectively prevent equipment insulation level decline due to condensation and attached filth on equipment insulating surface, avoid creepage and flashover accidents caused by condensation.

### Technical parameter

Power supply	AC/DC 110~220V±10% DC 48V±10%; DC24V±10%
Humidity accuracy	±5%RH
Temperature accuracy	±1℃

### Advantage

- ◆ Compact, suitable for switchgear, small impact on the structure and layout of the cabinet.
- ◆ High humidity gas entering the dehumidifier will dew after contacted with thermoelectric semiconductor, and condensation will be discharge cabinet. It is a high efficiency dehumidifier.
- ◆ With strong ability of dehumidification, 30W power consumption to ensure 1m<sup>3</sup> switchgear internal humidity is maintained at 60% RH.
- ◆ Non-heat sources, can protect switch cabinet equipment. Dehumidification equipment in more traditional switchgear is heater, although certain dehumidifying effect, but the long-term use will due to high temperature that may cause switchgear equipment damage.
- ◆ Semiconductor dehumidifier can reduce the moisture content of unit volume, which can effectively prevent the generation of condensation; heater dehumidification mode only reduces the relative humidity and does not reduce the water content in a unit volume of air, so once match temperature conditions, condensation will happen.
- ◆ Automatic control based on temperature and humidity, can effectively reduce energy consumption.
- ◆ Dehumidification function failure alarm contact output.
- ◆ Semi-permanent lossless parts as the main components, long life, long-term use without maintenance.

### Model explanation

Model	Dehumidification 30℃ 85%RH	Cubage	Humidity	Temperature	Power Supply	Power	Dimension H×W×D mm
LKHP20-A1	10ml/Hr	1m <sup>3</sup>	≥55%RH Dehumidify ≤45%RH Stop Dehumidify	Suction air ≥50℃ or ≤5℃ Stop Dehumidify	AC/DC 110~220V±10%	≤30W	200×134×70.5
LKHP20-B1					DC 48V±10%		
LKHP20-C1					DC 24V±10%		
LKHP20-A2	22ml/Hr	2m <sup>3</sup>	Stop Dehumidify	Stop Dehumidify	AC/DC 110~220V±10%	≤60W	
LKHP20-B2					DC 48V±10%		
LKHP20-C2					DC 24V±10%		

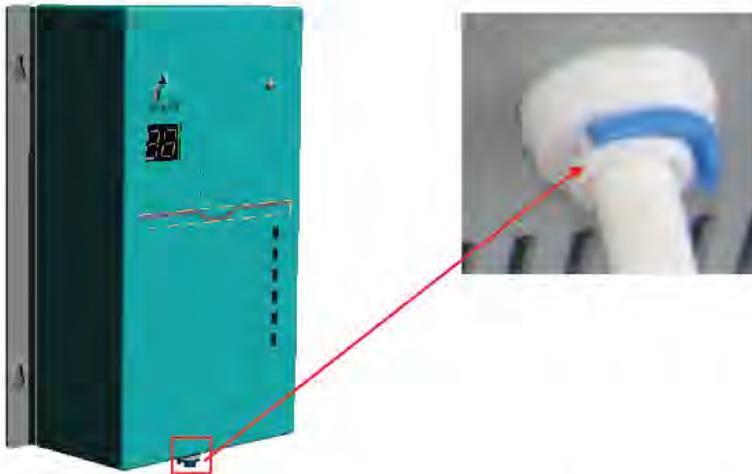
Note: If without control based on humidity and temperature, model is add "-NC", e.g. LKHP20-A1-NC.

**Terminal and Interface**

Terminal	1、 2	Power supply.1: L (+) ; 2: N(-)
	3、 4	Alarm output contact, Passive contact,AC250V 5A. NO,close while function of dehumidifier is out of order. Function out of order defined: Temperature sensor or humidity sensor fault; Duration of Dehumidifier work is over 24 hours, RH≥80%RH.
Indicator	Power indicator. On front panel of dehumidifier, lights up if power supply normal, Green.	
Display	Display windows display real-time humidity.	

**Installation Instructions**

**6.1 Drainage tube installation**



**Drainage tube connector**

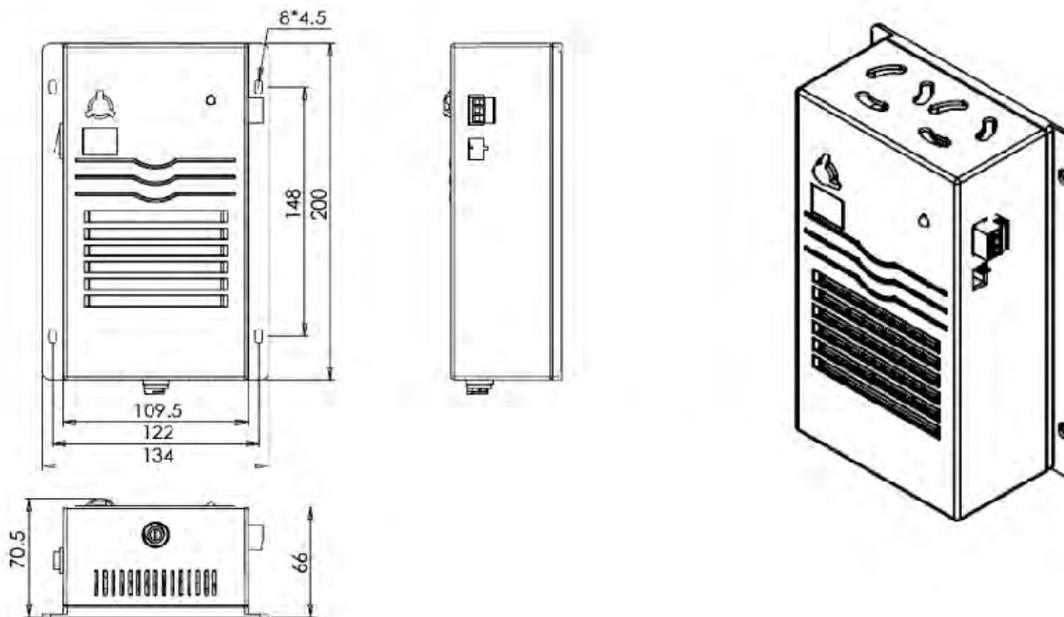
**Install drainage tube:** Drainage tube inserted into this connector, and put on the blue clamp to complete the installation  
**Dismounting drainage tube:** Remove the blue clamp, draw out the drainage tube after press the white tube tongue to bottom.  
 External diameter of drainage of tube is 6.5mm.

**Note:** Drainage tube should be kept straight, winding, and other end leads to the outer cabinet.

6.2 Please ensure the dehumidifier and the horizontal plane is vertical, not tilted installation.

6.3 10 cm space around the dehumidifier and other devices; guarantee that the blower outlet flow, shall not be covered.

**Dimension**



Heater/Thermostat/Hygrosat



**Features:**

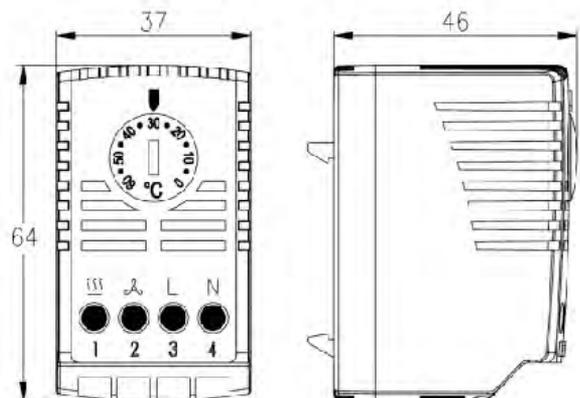
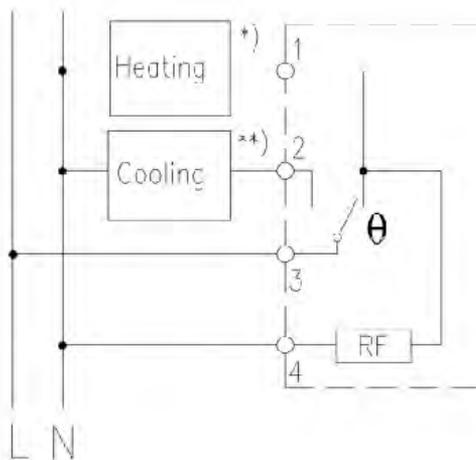
- Easily mounted on 35mm DIN rails with snap on attachment per EN50022

**Product Description:**

Temperature controller for controlling cabinet heaters, filter fans, slide-in fans, heat exchangers etc.

- Locking adjusting knob grey scale
- Standard thermic reduction

Storage temperature	-20° bis + 80°C
Switching current	100-250VAC
Heating (opened con.)	10 A (2) DC 30W
Cooling (closed con.)	5 A (2) DC 30W
Switching hysteresis	Approx. 5 K (with thermic reduction approx.1K)
Contact	2 way
Connection	4 screw terminals 2,5 mm <sup>2</sup>
Sensor element	Bimetal
Service life time	> 100.000 switching cycles
Temperature control range	0...+60°C
Surface finish	Plastic light grey UL94VO
Dimension (WxHxD)	37x64x46mm
Weight	0.06 kg
Protection type	IP20



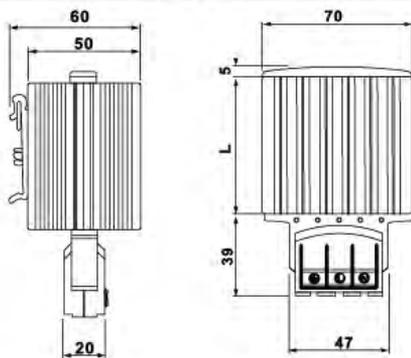
# HG140 Type Heater



- Pressure clamp connectors
- Dynamic heating up
- wide voltage range
- Temperature limiting
- Energy saving
- Clip fixing
- Quick installation

These heaters are used in enclosures where damage from condensation must be prevented or where the temperature may not fall below a minimum value. The aluminium profile heater body design has a chimney effect and distributes the heat evenly. The pressure clamp connectors save time and simplify installation.

Size chart



Operating voltage	120-250V AC/DC
Heating element	PTC resistor, self regulating and temperature limiting
Heater body	extruded aluminium profile, anodised
Connection casing	3 pressure clamps for stranded wire 0.5-1.5mm <sup>2</sup> (with wire and ferrule) and rigid wire 0.5-2.5mm <sup>2</sup> plastic according to UL94 V-0, black
Mounting	clip for 35mm DIN rail, EN 50022
Fitting position	vertical
Operating/Storage temperature	-45 to +70°C (-49 to +158°F)
Protection type/Protection class	IP20/I(earthed)
Certificate	CE

Operating with voltages below 140V AC/DC reduces heating performance by approx, 10%

Type	Heating capacity	Inrush current max.	Length(L) (mm)	Weight (approx)
HG 140	15W	1.5	75	0.3
HG 140	30W	3	75	0.3
HG 140	45W	3.5	75	0.3
HG 140	60W	2.5	75	0.3
HG 140	75W	4	75	0.3
HG 140	100W	4.5	145	0.5
HG 140	150W	9	145	0.5

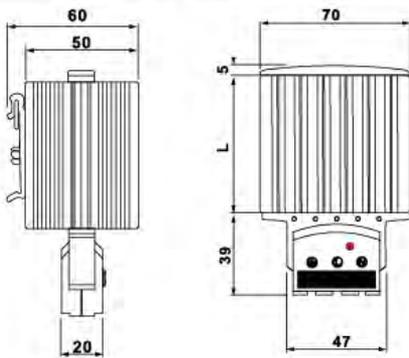




- Screw terminal connector
- Dynamic heating up
- wide voltage range
- Temperature limiting
- With indicator showing on/off
- Energy saving
- Clip fixing
- Quick installation

These heaters are used in enclosures where damage from condensation must be prevented or where the temperature may not fall below a minimum value. The aluminium profile heater body design has a chimney effect and distributes the heat evenly. The pressure clamp connectors save time and simplify installation.

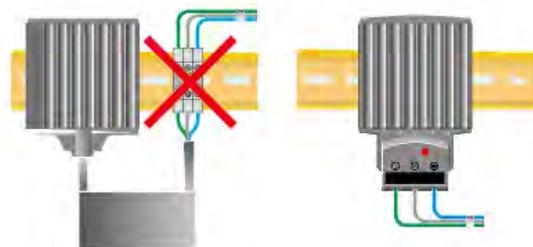
Size chart



Operating voltage	120-250V AC/DC
Heating element	PTC resistor, self regulating and temperature limiting
Heater body	extruded aluminium profile, anodised
Connection casing	3 pressure clamps for stranded wire 0.5-1.5mm <sup>2</sup> (with wire and ferrule) and rigid wire 0.5-2.5mm <sup>2</sup> plastic according to UL94 V-0, black
Mounting	clip for 35mm DIN rail, EN 50022
Fitting position	vertical
Operating/Storage temperature	-45 to +70°C (-49 to +158°F)
Protection type/Protection class	IP20/I(earthed)
Certificate	CE

Operating with voltages below 140V AC/DC reduces heating performance by approx, 10%

Type	Heating capacity	Inrush current max.	Length(L) (mm)	Weight (kg)
LK 140	15W	1.5	65	0.2
LK 140	30W	2.5	65	0.2
LK 140	45W	3	65	0.2
LK 140	60W	3.5	65	0.2
LK 140	75W	4	65	0.2
LK 140	100W	4.5	145	0.4
LK 140	150W	9	145	0.4



# Small semiconductor Heater HGK 047 Series 10W to 30W



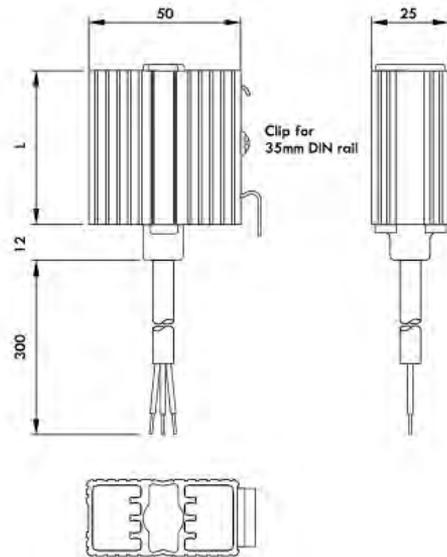
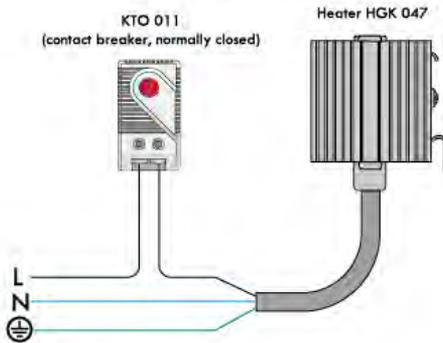
- Dynamic heating up
- Energy saving
- Wide voltage range
- Clip fixing

The heaters are used in enclosures where condensation is to be prevented or the temperature may not fall below a minimum value. In this way corrosion is avoided and an even temperature is ensured. The heaters are designed for permanent operation.

Heating element	PTC resistor - temperature limiting
Heater body	extruded aluminium profile, anodised
Mounting	clip for 35mm DIN rail, EN 60715
Fitting position	vertical airflow (air outlet up, connection on bottom)
Operating / Storage	-45 to +70°C (-49 to +158°F)
Operating / Storage humidity	max. 90% RH (non-condensing)
Protection type / Protection class	IP44 / I (earthed)
Accessories	screw fixing
Note	other voltages on request

Heater / Thermostat / Hygrostat

Example of connection



Art. No.	Operating voltage	Heating capacity <sup>1)</sup>	Inrush current max.	Pre-fuse T (time-delay)	Length (L)	Weight (approx.)	Connection	Approvals
04700.0-00	120-240V AC/DC <sup>2)</sup>	10W	1.0A	1A	52mm	0.1kg	3 x 0.5mm <sup>2</sup> x 300mm cable (silicone)	CE
04701.0-00	120-240V AC/DC <sup>2)</sup>	20W	2.5A	2A	60mm	0.2kg	3 x 0.5mm <sup>2</sup> x 300mm cable (silicone)	CE
04702.0-00	120-240V AC/DC <sup>2)</sup>	30W	3.0A	2A	70mm	0.2kg	3 x 0.5mm <sup>2</sup> x 300mm cable (silicone)	CE
04700.9-00	110-120V AC/DC	10W	1.0A	1A	52mm	0.1kg	3 x AWG 20 x 300mm cable	CE
04701.9-00	110-120V AC/DC	20W	1.5A	2A	70mm	0.2kg	3 x AWG 20 x 300mm cable	CE
04702.9-00	110-120V AC/DC	30W	1.5A	2A	100mm	0.2kg	3 x AWG 20 x 300mm cable	CE

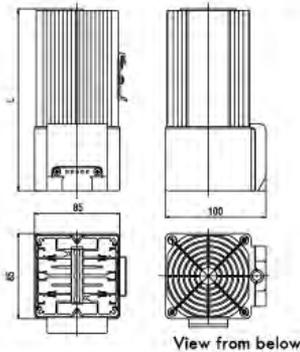
<sup>1)</sup> at 20°C (68°F) ambient temperature; <sup>2)</sup> (min. 110V, max 265V) Operating with voltages below 140V AC/DC reduces heating performance by approx. 10%.



- Compact Design
- Maintenance free
- Clip fixing
- Temperature safety cut-out
- Long service life

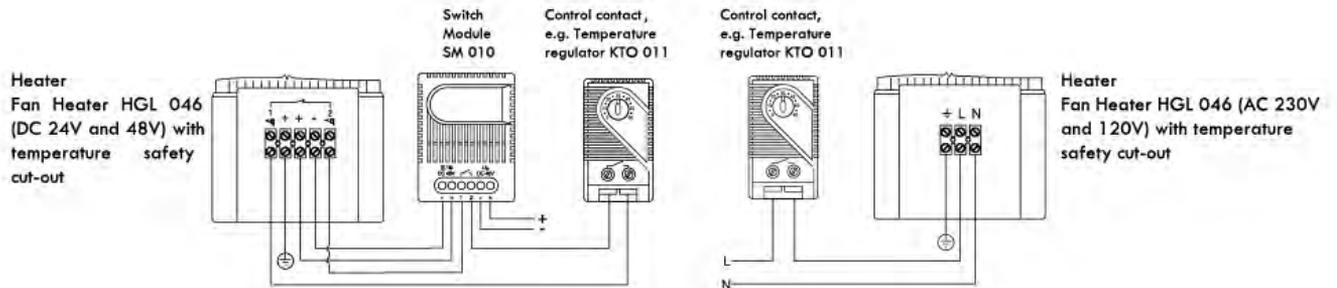
Compact fan heater prevents formation of condensation. The integrated high performance axial fan provides forced air circulation and so guarantees an even temperature in enclosures. With internal terminal connector.

Size chart



Operating voltage	230V AC 50/60Hz
Heating element	PTC resistor, self regulating and temperature limiting
Temperature safety cut-out	to protect against overheating in case of fan failure
Heater body	anodised extruded aluminium profile
Surface temperature	max. 75 °C(400W)
Axial fan, ball bearing	Airflow, free flow AC: 45m <sup>3</sup> /h (50HZ) or 54m <sup>3</sup> /h (60Hz) DC: 54m <sup>3</sup> /h service life 50 000h at 25°C (77°F)
Connection	internal connection terminal 1.5mm <sup>2</sup> with strain relief clamping torque 0.8Nm max.
Connection casing	plastic according to UL94 V-0,black
Mounting	clip for 35mm DIN rail, EN 50022
Fitting position	vertical
Operating/Storage temperature	-45 to +70 °C(-49 to+158°F)
Protection type/Protection class	IP20 / I (earthed)

Type	Operating voltage	Heating capacity	Length (L)	Weight (approx.)
HGL046-250	230VAC, 50/60HZ	250W	85x182x85mm	1.10kg
HGL046-400	230VAC, 50/60HZ	400W	85x222x85mm	1.40kg



Heater  
Fan Heater HGL 046  
(DC 24V and 48V) with  
temperature safety  
cut-out

Heater  
Fan Heater HGL 046 (AC 230V  
and 120V) with temperature  
safety cut-out

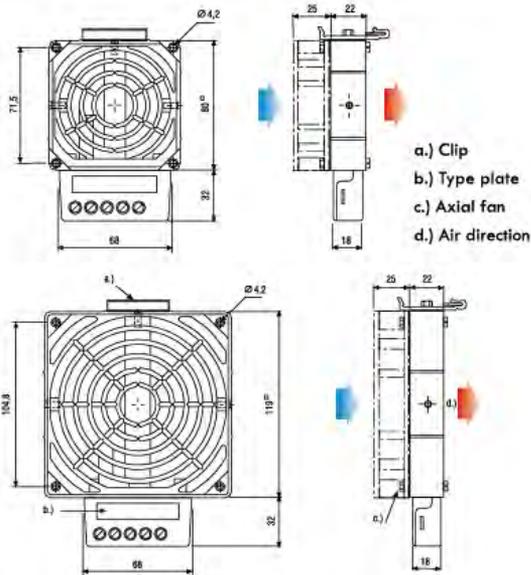
# HV/HVL 031 Heater



- Compact / Flat design
- High air through-flow
- Temperature safety cut-out
- Clip fixing

Compact high-performance fan heater prevents formation of condensation and frost and provides an evenly distributed interior air temperature in enclosures with electric/electronic components. This fan heater is available without fan (HV 031) and with fan (HVL 031).

Size chart



**Important!** Heater may only be operated together with fan. Danger of overheating!

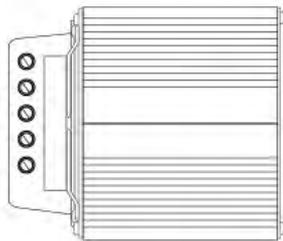
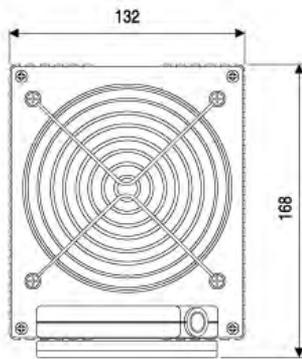
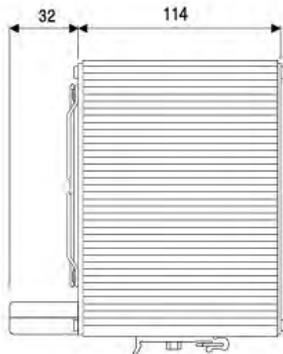
HV 031	Heater without fan (fan mounting kit included)
HVL 031	Heater with fan
Heating element	high performance cartridge
Temperature safety cut-out	to protect against overheating in case of fan failure
Heater body	die-cast aluminium(glass bead blasted)
Connection	3-pole screw connector 2.5mm <sup>2</sup> , clamping toeque 0.8Nm max
Connection casing	plastic according to UL94 V-0, BLACK
Mounting	clip for 35mm DIN rail, EN50022
Fitting position	horizontal
Operating/Storage temperature	-45 to +70°C / (-49 to +158°F)
Protection type/Protection class	IP20/1 (earthed)
Service life	service life 50,000h at 25°C / (77°F)
Connection(axial fan)	2-pole screw connector 2.5mm <sup>2</sup> (L2/N2)

Art.no.HV 031	Art.no.HV 031	Heating capacity	Dimensions	Weight(approx.)
230vac,50/60Hz	120 vac,50/60Hz			
03100.0-00	03100.9-00	100W	80×112×22mm	0.40kg
03101.0-00	03101.9-00	150W	80×112×22mm	0.40kg
03110.0-00	03110.9-00	200W	119×151×22mm	0.50kg
03111.0-00	03111.9-00	300W	119×151×22mm	0.50kg
03112.0-00	03112.9-00	400W	119×151×22mm	0.50kg

Art.no.HVL 031	Art.no.HVL 031	Heating capacity	Airflow min	Dimensions	Weight(approx.)
230vac,50/60Hz	120 vac,50/60Hz		free flow		
03102.0-00	03102.9-00	100W	35m <sup>3</sup> /h	80×112×47mm	0.60kg
03103.0-00	03103.9-00	150W	35m <sup>3</sup> /h	80×112×47mm	0.60kg
03113.0-00	03113.9-00	200W	108m <sup>3</sup> /h	119×151×47mm	0.90kg
03114.0-00	03114.9-00	300W	108m <sup>3</sup> /h	119×151×47mm	0.90kg
03115.0-00	03115.9-00	400W	108m <sup>3</sup> /h	119×151×47mm	0.90kg



Fan Assisted PTC Heaters



Heating Capacity		W	800W	1000W	1200W	1500W
Aticie number	230	V/HZ	800.0-00	1000.0-00	1200.0-00	1500.0-00
	110		800.9-00	1000.9-00	1200.9-00	1500.9-00
Max. current		A	8.0	9.0	12.0	13.0
Heating element	PTC					
Thermal protection	Thermal out out fuse in cose of fan failure					
Radiater	Extruded aluminium profile, anodized					
Axial fan	Ball bearing, service life 50.000 hrs at 25°C(77°F), air flow rate 35m³/h, free flow					
Electrical connections	5 screw terminals for stranded or rigid wire 2.5mm²					
Terminal block	plastic according to V-0, black					
Protection class IEC	Class°C ,Earthed					
Protection degree EN80529	IP20					
Operating/Storage temperature	-25/+70°C					
Mounting	clip for 35MM DIN rail, EN 50022					
Fitting position	vertical					
Dimensions H*W*D		mm	132×168×146			
Weight		KG	1.5			
Conformity	CE					



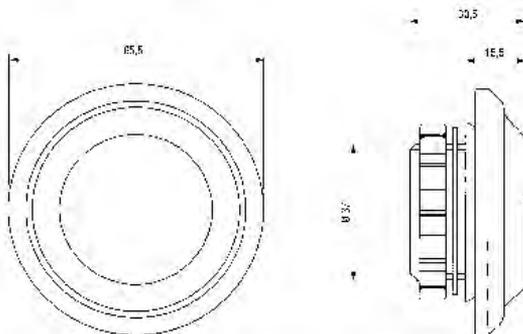
- High degree of protection
- Easy to install

It has become more and more important to provide a protected enclosure environment for valuable and crucial electrical and electronic components. In a tightly closed enclosure, pressure differentials can occur during extreme temperature variations. The specially designed pressure compensation device DA 084 permits a controlled change in pressure and avoids the entering of dust and water. The pressure compensation device is suitable for the use in enclosures and housings in accordance with DIN EN 62208.

Mounting	PG 29 thread with union nut
Material	plastic according to UL94 V-0
Air interface	approx. 7cm <sup>2</sup>
Dimensions	∅ 65.5x30.5mm
Operating / Storage temperature	-45 to +70°C (-49 to +158°F)
Art. No.	DA 084
Description	mount pressure compensation device
Protection type	IP45
1 packing unit	2 pieces
Weight	31g/pieces

#### Installation

Make cut-out ∅ 37 mm in enclosure wall and mount pressure compensation device with nut. Please make sure that the sealing gasket is put in place on the outer side panel of the enclosure. For optimal pressure compensation we recommend to use two devices on opposite sides towards the top of the enclosure.



Art. No.	Protection type	1 packing unit	Weight (approx.)
08400.0-04	IP55	2 pieces	62g (31g/piece)

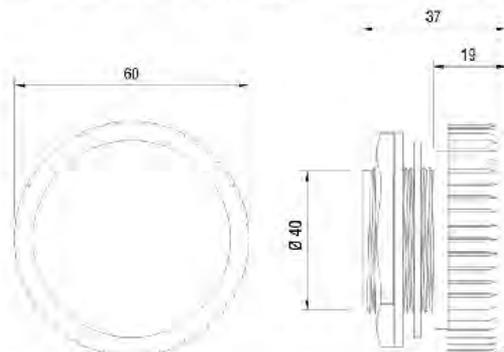
- High degree of protection
- Easy to install
- Waterproof membrane

Pressure differentials in enclosures with a high degree of protection are a result of internal and external temperature changes. In the case of negative pressure or partial vacuum, dust and humidity can enter the enclosure through the door seal. When the air inside the enclosure cools down, condensation may occur because the humidity cannot escape the enclosure. The easy-to-install pressure compensation device DA 284 provides compensation of pressure at a protection degree of IP66. Even with a slight overpressure, a waterproof membrane inside the plug allows the humidity to escape whilst blocking water and dirt from entering the enclosure.

Mounting	thread M40 x 1.5 with nut
Torque	5Nm (max. 10Nm)
Depth in enclosure	approx. 16mm
Sealing	sealing gasket NBR
Filter	waterproof membrane
Air permeability	1200l/h at a pressure difference of min. 70mbar
Dimensions	∅ 60 x 37mm
Fitting position	variable
Operating/Storage temperature	-35 to +70°C (-31 to +158°F)

#### Installation

Make cut-out ∅ 40.5+0,5mm in enclosure wall and mount pressure compensation device with nut. Please make sure that the sealing gasket is put in place on the outer side panel of the enclosure. For optimal pressure compensation we recommend to use two devices on opposite sides towards the top of the enclosure.



Art. No.	Protection type	1 packing unit	Weight (approx.)
28400.0-00	IP66/IPX9K	2 pieces	90g (45g/piece)



# Terminal Connection

- Space saving: compact
- Tinned copper block: high conductivity
- IP 20 protection/UL finger-safe: improved safety
- Cable fixing screw diameters >95% fill ratio: excellent electrical contact, safe connections
- Visual inspection of wire: confirmation of connection
- Hinged or removable cover: easy wiring
- Clip-on DIN rail or mount to panel with screws: easy fixing

### Attachment



## LK-80A CE RoHS

80A IEC 60947-7-1

85 Amp (UL certification application)

Modular: keeping only one input, the blocks can be connected in parallel using a jumper wire. Easily double or triple the neutral.

Metric system	mm <sup>2</sup>			I(N.m)
	6...16	x1		3.5
	2.5...6	x4		1.2
	2.5...16	x2		3.5

U.S. Regulations	AWG			Torque
	16...4	x1		19.5
	16...8	x4		10.6
	16...4	x2		19.5

- I=80 A IEC
- I=85 A UL/CSA
- low KA rms Is: 3
- IPk KA: 22
- UL: 690V IEC
- Vin: 600 V UL



Installation Hole: 54mm



## LK-125A CE RoHS

125A IEC 60947-7-1

150 Amp (UL certification application)

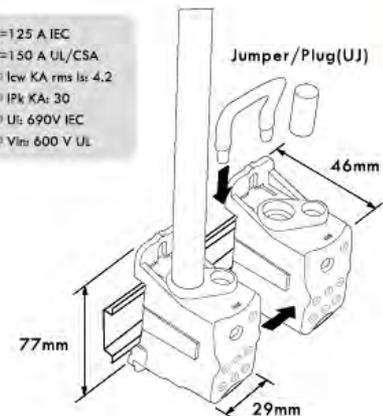
Modular: keeping only one input, the blocks can be connected in parallel using a jumper wire. Easily double or triple the neutral.

Metric system	mm <sup>2</sup>			I(N.m)
	10...35	x1		8.5
	6...16**	x1		3.5
	2,5...16	x6  x4		3.5

\*\* or common jumper

U.S. Regulations	AWG			Torque
	8...1/0	x1		57
	14...4	x1		31
	14...4	x6		31

- I=125 A IEC
- I=150 A UL/CSA
- low KA rms Is: 4.2
- IPk KA: 30
- UL: 690V IEC
- Vin: 600 V UL



Installation Hole: 64mm



## LK-160A CE RoHS

160A IEC 60947-7-1

200 Amp (UL certification application)

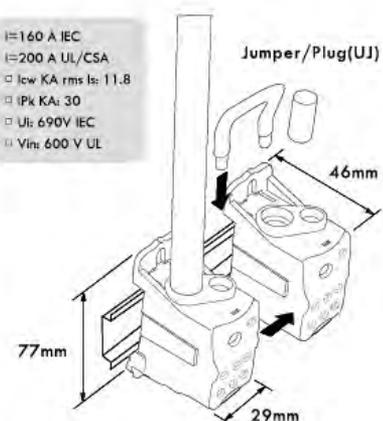
Modular: keeping only one input, the blocks can be connected in parallel using a jumper wire. Easily double or triple the neutral.

Metric system	mm <sup>2</sup>			I(N.m)
	10...70	x1		8.5
	6...16**	x1		3.5
	2,5...16	x6  x4		3.5

\*\* or common jumper

U.S. Regulations	AWG			Torque
	8...3/0	x1		75
	14...4	x1		31
	14...4	x6		31

- I=160 A IEC
- I=200 A UL/CSA
- low KA rms Is: 11.8
- IPk KA: 30
- UL: 690V IEC
- Vin: 600 V UL



Installation Hole: 64mm



LK 250 A



**LK-250A** CE RoHS

**250A IEC 60947-7-1**  
**255 Amp** ( UL certification application )

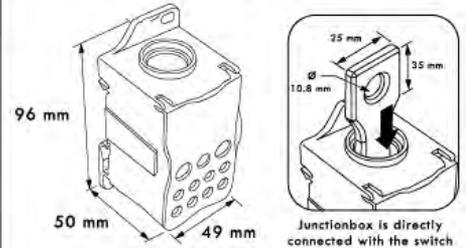
Modular:allows versatile building of power blocks single pole, two pole,three pole or four pole.

Metric system	mm <sup>2</sup>	mm <sup>2</sup>		I(N.m)
	35...120		x1	19
	6...35	6...25	x2	4.4
	2.5...16	2.5...16	x5	2.7
	2.5...10	2.5...10	x4	2.7

U.S. Regulations	AWG		Torque
	6...250 Kcmil	x1	221
	14...1	x2	39
	14...4	x5	24
	14...6	x4	24

- I=250 A IEC
- I=255 A UL/CSA
- Icw KA rms Is: 24.5
- IPk KA: 51
- Ui: 690V IEC
- Vin: 600 V UL

Flexible with TF 250A busbar connection with the TH



Installation Hole:85×29mm



LK 400 A



**LK-400A** CE RoHS Conform to

**400A IEC 60947-7-1**  
**335 Amp** ( UL certification application )

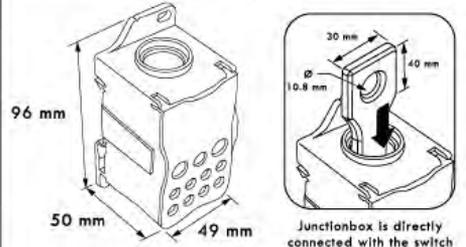
Modular:allows versatile building of power blocks single pole, two pole,three pole or four pole.

Metric system	mm <sup>2</sup>	mm <sup>2</sup>		I(N.m)
	95...185		x1	25
	6...35	6...25	x2	4.4
	2.5...16	2.5...16	x5	2.7
	2.5...10	2.5...10	x4	2.7

U.S. Regulations	AWG		Torque
	3/0...400 Kcmil	x1	221
	14...1	x2	39
	14...4	x5	24
	14...6	x4	24

- I=400 A IEC
- I=335 A UL/CSA
- Icw KA rms Is: 24.5
- IPk KA: 51
- Ui: 690V IEC
- Vin: 600 V UL

Flexible with TF 400A busbar connection with the TH



Installation Hole:85×29mm



LK 500 A



**LK-500A** CE RoHS

**500A IEC 60947-7-1**  
**520 Amp** ( UL certification application )

Modular:allows versatile building of power blocks single pole, two pole,three pole or four pole.

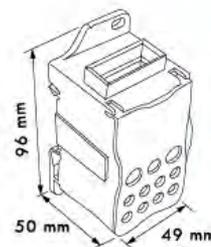
Metric system	mm <sup>2</sup>	mm <sup>2</sup>		I(N.m)
	4x15.5x0.8 ...8x24x1	4x15.5x0.8 ...8x24x1		10
	6...35	6...25	x2	4.4
	2.5...16	2.5...16	x5	2.7
	2.5...10	2.5...10	x4	2.7

U.S. Regulations	AWG		Torque
	4x15.5x0.8 ...8x24x1		88.5
	14...1	x2	39
	14...4	x5	24
	14...6	x4	24

- I=500 A IEC
- I=520 A UL/CSA
- Icw KA rms Is: 24.5
- IPk KA: 51
- Ui: 690V IEC
- Vin: 600 V UL

TH flexible busbar

	4 x 15.5 x 0.8
	6 x 15.5 x 0.8
	2 x 20 x 1
	3 x 20 x 1
	4 x 20 x 1
	5 x 20 x 1
	6 x 20 x 1
	2 x 24 x 1
	3 x 24 x 1
	4 x 24 x 1
	5 x 24 x 1
	6 x 24 x 1
	8 x 24 x 1



Installation Hole:85×29mm







### KE60 Universal Terminal for Al/Cu Conductors

#### Technical Specification

Conductor Cross-section(mm<sup>2</sup>) : 1.5-16 mm<sup>2</sup>

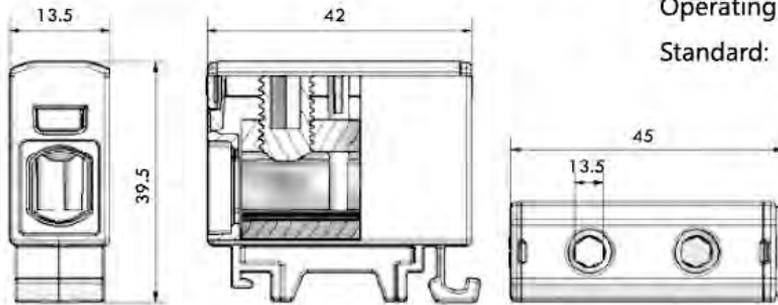
Housing: Polyamide

Mounting: DIN rail

Screw: Hexagon, 4mm

Operating Temperature (°C): Max 80°C

Standard: EN61238-1, EN60947-7-2



Model no.	Code	Color	Pole	Tighten torque(Nm)	Nominal Current(A)	Nominal Voltage(V)	Weight ( g )
KE60.1	1914100	Grey	1 pole Al/Cu 1.5-16 mm <sup>2</sup>	1.5Nm(1.5 mm <sup>2</sup> )	85A	1000V	15
KE60.2	1914101	Blue		3.5Nm(2.5-6 mm <sup>2</sup> )			
KE60.3	1914102	Yellow/Green		7Nm(10-16 mm <sup>2</sup> )			



### KE61.4 3pole Universal Terminal for Al/Cu Conductors

#### Technical Specification

Pole: 3 pole

Conductor Cross-section(mm<sup>2</sup>) :

Cu 2.5-50 mm<sup>2</sup> Al 6-50 mm<sup>2</sup>

Conductor Size (AWG): 1/0-6

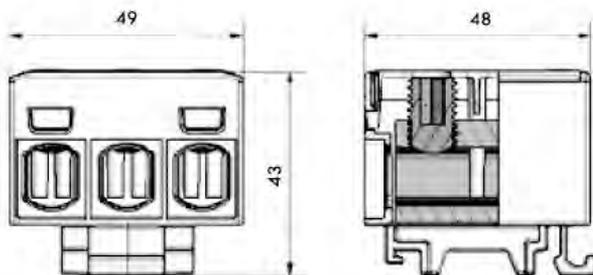
Housing: Polyamide

Mounting: DIN rail

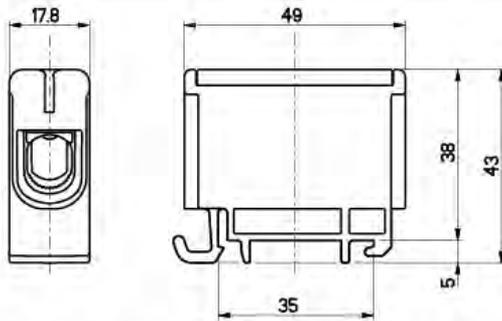
Screw: Hexagon, 5mm

Operating Temperature (°C): Max 80°C

Standard: EN61238-1, EN60947-7-2



Model no.	Code	Color	Pole	Tighten torque(Nm)	Nominal Current(A)	Nominal Voltage(V)	Weight ( g )
KE61.4	1914109	Grey	3 pole Al/Cu 2.5-50 mm <sup>2</sup>	4Nm(2.5-4 mm <sup>2</sup> )	Cu 160A Al 145A	800V	35
KE61.5	1914110	Blue		12Nm(6-50 mm <sup>2</sup> )			
KE61.6	1914111	Yellow/Green					



## KE61 Universal Terminal for Al/Cu Conductors

### Technical Specification

Conductor Cross-section(mm<sup>2</sup>) :

Cu 2.5-50 mm<sup>2</sup> Al 6-50 mm<sup>2</sup>

Conductor Size (AWG): 1/0-6

Housing: Polyamide

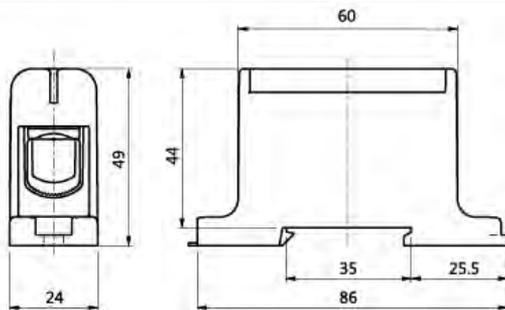
Mounting: DIN rail

Screw: Hexagon, 5mm

Operating Temperature (°C): Max 80°C

Standard: EN61238-1, EN60947-7-2

Model no.	Code	Color	Pole	Tighten torque(Nm)	Nominal Current(A)	Nominal Voltage(V)	Weight ( g )
KE61.1	1914103	Grey	1 pole Al/Cu2.5-50 mm <sup>2</sup>	4Nm(2.5-4 mm <sup>2</sup> ) 12Nm(6-50 mm <sup>2</sup> )	Cu 160A Al 145A	800V	35
KE61.2	1914104	Blue					
KE61.3	1914105	Yellow/Green					



## KE62 Universal Terminal for Al/Cu Conductors

### Technical Specification

Conductor Cross-section(mm<sup>2</sup>) : 16-95 mm<sup>2</sup>

Conductor Size (AWG): 4/0-4

Housing: Polyamide

Mounting: DIN rail

Screw: Hexagon, 5mm

Operating Temperature (°C): Max 80°C

Standard: EN 61238-1, EN 60947-7-1

Model no.	Code	Color	Pole	Tighten torque(Nm)	Nominal Current(A)	Nominal Voltage(V)	Weight ( g )
KE62.1	1914113	Grey	1 pole Al/Cu16-95 mm <sup>2</sup>	20Nm	Cu 245A Al 220A	800V	90
KE62.2	1914114	Blue					
KE63.3	1914115	Yellow/Green					



### KE63 Universal Terminal for Al/Cu Conductors

#### Technical Specification

Conductor Cross-section(mm<sup>2</sup>) : 35-150 mm<sup>2</sup>

Conductor Size (AWG): 300-2

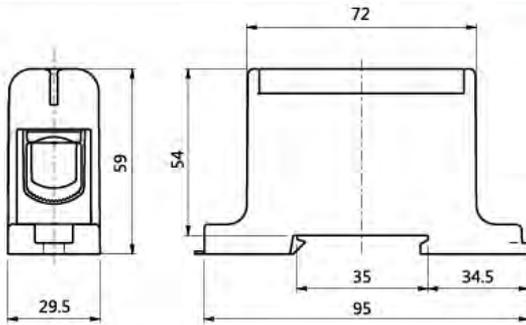
Housing: Polyamide

Mounting: DIN rail

Screw: Hexagon, 8mm

Operating Temperature (°C): Max 80°C

Standard: SFS 2663



Model no.	Code	Color	Pole	Tighten torque(Nm)	Nominal Current(A)	Nominal Voltage(V)	Weight (g)
KE63.1	1914118	Grey	1 pole Al/Cu 35-150 mm <sup>2</sup>	14Nm(35-95mm <sup>2</sup> ) 24Nm(120-150mm <sup>2</sup> )	Cu 320A Al 290A	750V	160
KE63.2	1914119	Blue					
KE63.3	1914120	Yellow/Green					



### KE64 Universal Terminal for Al/Cu Conductors

#### Technical Specification

Conductor Cross-section(mm<sup>2</sup>) : 35-240 mm<sup>2</sup>

Conductor Size (AWG): 500-3/0

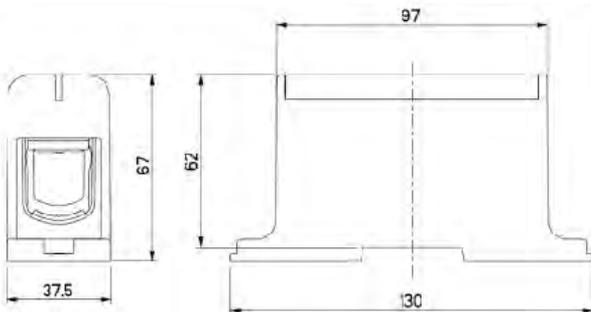
Housing: Polyamide

Mounting: Screw

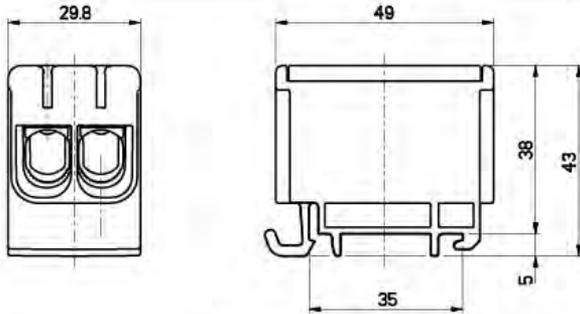
Screw: Hexagon, 8mm

Operating Temperature (°C): Max 80°C

Standard: EN 61238-1, EN 60947-7-1



Model no.	Code	Color	Pole	Tighten torque(Nm)	Nominal Current(A)	Nominal Voltage(V)	Weight (g)
KE64.1	1914130	Grey	1 pole Al/Cu 35-240 mm <sup>2</sup>	12Nm(35-70mm <sup>2</sup> ) 40Nm(95-240mm <sup>2</sup> )	Cu 425A Al 380A	800V	305
KE64.2	1914131	Blue					
KE64.3	1914132	Yellow/Green					



## KE66 Universal Terminal for Al/Cu Conductors

### Technical Specification

Conductor Cross-section(mm<sup>2</sup>) :

Cu 2.5-50 mm<sup>2</sup> Al 6-50 mm<sup>2</sup>

Conductor Size (AWG): 1/0-6

Housing: Polyamide

Mounting: DIN rail

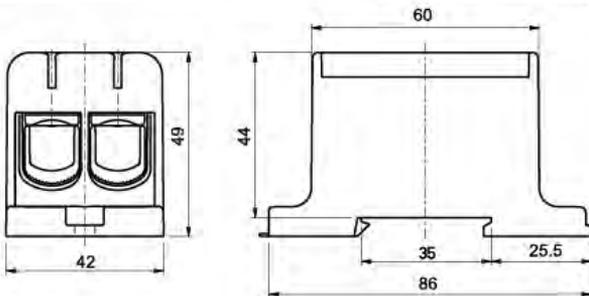
Number of termination points : 4

Screw: Hexagon, 5mm

Operating Temperature (°C): Max 80°C

Standard: EN 61238-1, EN 60947-7-1

Model no.	Code	Color	Pole	Tighten torque(Nm)	Nominal Current(A)	Nominal Voltage(V)	Weight ( g )
KE66.1	1914106	Grey	1 pole Al/Cu 2.5-50 mm <sup>2</sup>	4Nm(2.5-4 mm <sup>2</sup> ) 12Nm(6-50 mm <sup>2</sup> )	Cu 160A Al 145A	800V	60
KE66.2	1914107	Blue					
KE66.3	1914108	Yellow/Green					



## KE67 Universal Terminal for Al/Cu Conductors

### Technical Specification

Conductor Cross-section(mm<sup>2</sup>) : 16-95 mm<sup>2</sup>

Conductor Size (AWG): 4/0-4

Housing: Polyamide

Mounting: DIN rail

Number of termination points : 4

Screw: Hexagon, 8mm

Operating Temperature (°C): Max 80°C

Standard: EN 61238-1, EN 60947-7-1

Model no.	Code	Color	Pole	Tighten torque(Nm)	Nominal Current(A)	Nominal Voltage(V)	Weight ( g )
KE67.1	1914125	Grey	1 pole Al/Cu 16-95 mm <sup>2</sup>	20 Nm	Cu 245A Al 220A	800V	165
KE67.2	1914126	Blue					
KE67.3	1914127	Yellow/Green					



**KE68 Universal Terminal for Al/Cu Conductors**

**Technical Specification**

Conductor Cross-section(mm<sup>2</sup>) : 35-150 mm<sup>2</sup>

Conductor Size (AWG): 300-2

Housing: Polyamide

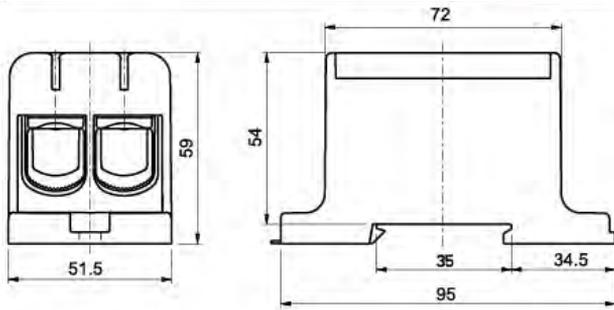
Mounting: DIN rail

Number of termination points : 4

Screw: Hexagon, 8mm

Operating Temperature (°C): Max 80°C

Standard: EN 61238-1, EN 60947-7-1



Model no.	Code	Color	Pole	Tighten torque(Nm)	Nominal Current(A)	Nominal Voltage(V)	Weight ( g )
KE68.1	1914124	Grey	1 pole Al/Cu35-150 mm <sup>2</sup>	20 Nm (35-95mm <sup>2</sup> ) 30 Nm (120-150mm <sup>2</sup> )	Cu 320A Al 290A	800V	290
KE68.2	1914125	Blue					
KE68.3	1914126	Yellow/Green					



**KE69 Universal Terminal for Al/Cu Conductors**

**Technical Specification**

Conductor Cross-section(mm<sup>2</sup>) : 35-240 mm<sup>2</sup>

Conductor Size (AWG): 500-3/0

Housing: Polyamide

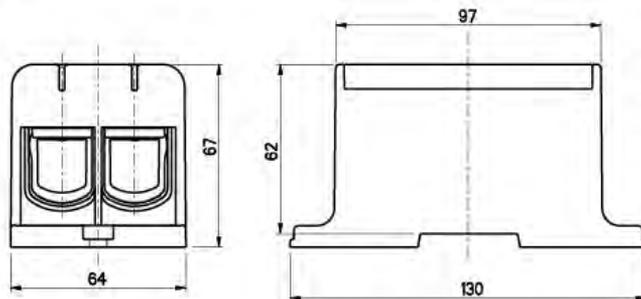
Mounting: Screw

Number of termination points : 4

Screw: Hexagon, 8mm

Operating Temperature (°C): Max 80°C

Standard: EN 61238-1, EN 60947-7-1



Model no.	Code	Color	Pole	Tighten torque(Nm)	Nominal Current(A)	Nominal Voltage(V)	Weight ( g )
KE69.1	1914133	Grey	1 pole Al/Cu 35-240 mm <sup>2</sup>	12 Nm (35-70mm <sup>2</sup> ) 45 Nm (95-240mm <sup>2</sup> )	Cu 425A Al 380A	800V	550
KE69.2	1914134	Blue					
KE69.3	1914135	Yellow/Green					



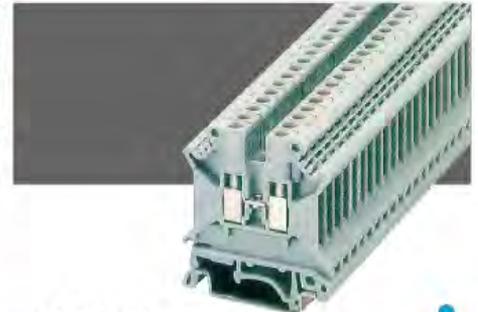


CE RoHS



## LUK 2.5B

solid cross section: 0.2-4mm<sup>2</sup>  
 stranded cross section: 0.2-2.5mm<sup>2</sup> IEC 60947-7-1  
 size: T6.2×H40.6×W42.6 Zack Strip(ZB6)  
 rated current: 32A rated voltage: 800V



CE RoHS



## LUK 3N

solid cross section: 0.2-4mm<sup>2</sup>  
 stranded cross section: 0.2-2.5mm<sup>2</sup> IEC 60947-7-1  
 size: T5.2×H46×W42.7 Zack Strip(ZB5)  
 rated current: 32A rated voltage: 800V

(1)end cover : T1.5mm	grey		D-LUK 2.5	D-LUK 4/10
(2)fixed bridge : 2 poles 3 poles			FBI 10-6	FBI 10-5
(3)insertion bridge poles: 2 poles 3 poles 10 poles			EB 2-6 EB 3-6 EB 10-6	EB 2-5 EB 3-5 EB 10-5
(4)switching jumper			LUSBR 2-7	
(5)separating plate				TS-K
(6)partition plate : T1.5mm			ATP-LUK	
(7)end clamp			E/LUK	E/LUK

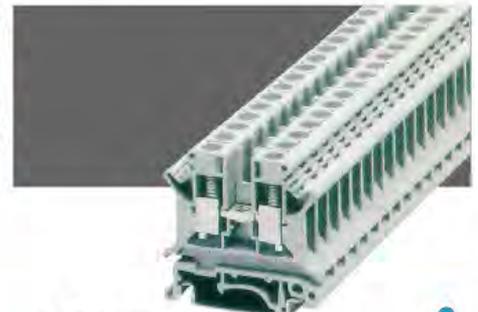


CE RoHS



## LUK 5N

solid cross section: 0.2-6mm<sup>2</sup>  
 stranded cross section: 0.2-4mm<sup>2</sup> IEC 60947-7-1  
 size: T6.2×H46.2×W42.6 Zack Strip(ZB6)  
 rated current: 41A rated voltage: 800V



CE RoHS



## LUK 6N

solid cross section: 0.2-10mm<sup>2</sup>  
 stranded cross section: 0.2-6mm<sup>2</sup> IEC 60947-7-1  
 size: T8.2×H46×W42.7 Zack Strip(ZB8)  
 rated current: 57A rated voltage: 800V

(1)end cover : T1.5mm	grey		D-LUK 4/10	D-LUK 4/10
(2)fixed bridge : 2 poles 3 poles			FBI 10-6	FBI 10-8
(3)insertion bridge poles: 2 poles 3 poles 10 poles			EB 2-6 EB 3-6 EB 10-6	EB 2-8 EB 3-8 EB 10-8
(4)switching jumper			LUSBR 2-7	LUR 2-8/13
(5)separating plate			TS-K	TS-K
(6)partition plate : T1.5mm			ATP-LUK	ATP-LUK
(7)end clamp			E/LUK	E/LUK



CE RoHS



**LUK 10N**

solid cross section: 0.5-1.6mm<sup>2</sup> stranded cross section: 0.5-1.0mm<sup>2</sup>  
 size: T10.2×H42.8×W42.5 IEC 60947-7-1  
 rated current: 76A rated voltage: 800V Zack Strip(ZB10)

(1)end cover : T1.5mm	grey		D-LUK 4/10
(2)fixed bridge : 2 poles 3 poles			FBI 10-10
(3)insertion bridge poles:	2 poles 3 poles 10 poles		EB 2-10 EB 3-10 EB 10-10
(4)switching jumper			
(5)separating plate			TS-K
(6)partition plate : T1.5mm			ATP-LUK
(7)end clamp			E/LUK



CE RoHS



**LUK 16N**

solid cross section: 2.5-25mm<sup>2</sup> stranded cross section: 4-16mm<sup>2</sup>  
 size: T12.2×H52.2×W42.5 IEC 60947-7-1  
 rated current: 100A rated voltage: 800V Zack Strip(ZB10)



CE RoHS



**LUK 35N**

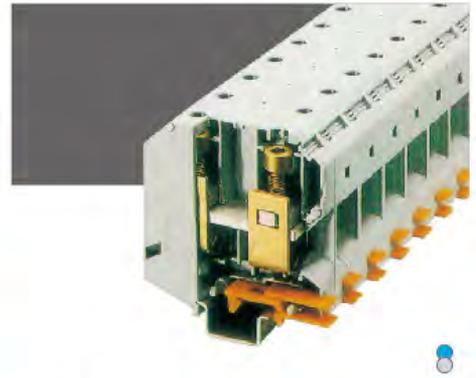
solid cross section: 10-35mm<sup>2</sup> stranded cross section: 10-35mm<sup>2</sup>  
 size: T15.2×H52.7×W50.7 IEC 60947-7-1  
 rated current: 125A rated voltage: 800V Zack Strip(ZB10)

(1)end cover : T1.5mm	grey		D-LUK 16	
(2) fixed bridge			FBI 10-12	FBI 2-15 FBI 3-15
(3)insertion bridge poles:	2 poles 3 poles 10 poles		EB 2-12 EB 3-12 EB 10-12	EB 2-15 EB 3-15 EB 10-15
(4)switching jumper			TS-K	TS-K
(5)partition plate : T1.5mm			ATP-LUK	
(6)end clamp			E/LUK	E/LUK



## LUKH 50

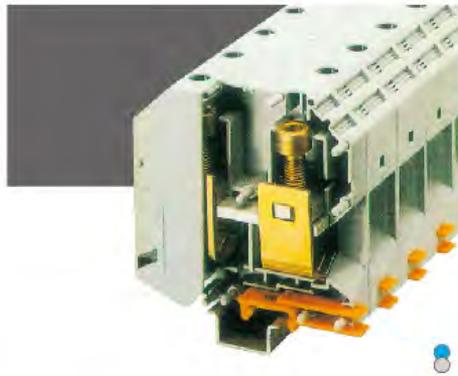
solid cross section: 16-50mm<sup>2</sup> stranded cross section: 25-50mm<sup>2</sup>  
 size: T20×H76.2×W71.2 IEC 60947-7-1  
 rated current: 150A rated voltage: 1000V Zack Strip(ZB10)



## LUKH 95

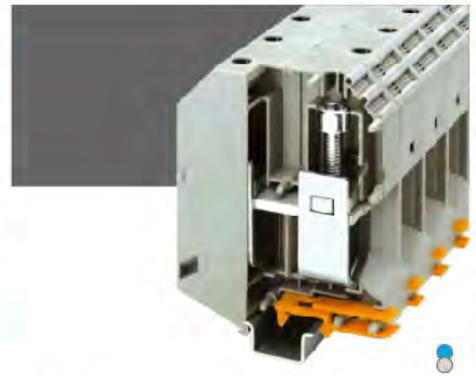
solid cross section: 25-95mm<sup>2</sup> stranded cross section: 35-95mm<sup>2</sup>  
 size: T25×H91×W83.9 IEC 60947-7-1  
 rated current: 232A rated voltage: 1000V Zack Strip(ZB10)

Insertion bridge:	2 poles 3 poles			EB 2-25 EB 3-25
Din Rail type			E/AL-NS 35	E/AL-NS 35



## LUKH 150

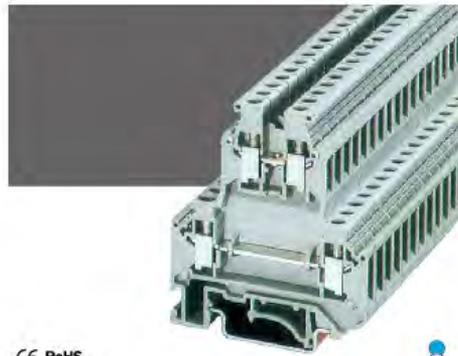
solid cross section: 35-150mm<sup>2</sup> stranded cross section: 50-150mm<sup>2</sup>  
 size: T31.5×H111.2×W100.1 IEC 60947-7-1  
 rated current: 309A rated voltage: 1000V Zack Strip(ZB10)



## LUKH 240

solid cross section: 70-240mm<sup>2</sup> stranded cross section: 70-240mm<sup>2</sup>  
 size: T36×H122.5×W101.5 IEC 60947-7-1  
 rated voltage: 1000V Zack Strip(ZB10)

Insertion bridge:	2 poles 3 poles		EB 2-31 EB 3-31	
Din Rail type			E/AL-NS 35	E/AL-NS 35



CE RoHS

## LUKK 5

solid cross section: 0.2-4mm<sup>2</sup> stranded cross section: 0.2-4mm<sup>2</sup>  
 size: T6.2×H61.2×W56.5 IEC 60947-7-1  
 rated current: 32A rated voltage: 500V Zack Strip(ZB6)

(1) end cover	grey		D-LUKK 3/5
(2) space compensation plate	grey		DG-LUKK 3/5
(3) space compensation plate			DP-LUKK 3/5
(4)insertion bridge poles:	2 poles 3 poles 10 poles		EB 2-6 EB 3-6 EB 10-6
(5) with insulation pads bridge pieces			FBI 10-6

## Fuse Terminal Block



## LUK 5-HESI

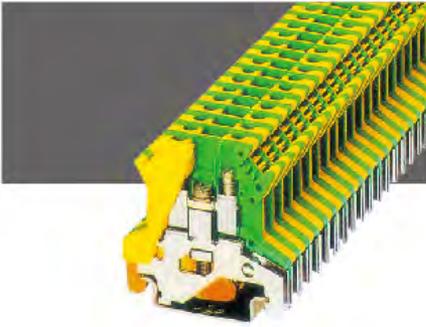
solid cross section: 0.2-4mm<sup>2</sup> stranded cross section: 0.2-4mm<sup>2</sup>  
 size: T8.2×H46.2×W72.6 IEC 60947-7-1  
 rated current: 6.3A rated voltage: 800V Zack Strip(ZB8)



## LUK 10-DREHSI

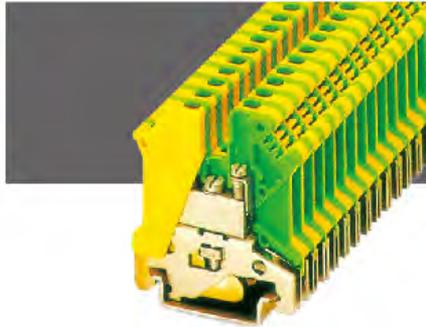
solid cross section: 0.5-16mm<sup>2</sup> stranded cross section: 0.5-16mm<sup>2</sup>  
 size: T12.3×H55×W61.5 IEC 60947-7-1  
 rated current: 10A rated voltage: 800V Zack Strip(ZB8)

For fuse 5x20, indicators are optional			LUK10-DREHSI 5×20
Consumed current with indicator	15-24 V AC/DC 3.5-7.5 mA		LUK10-DREHSILED 24 5×20
Consumed current with indicator	110-250 V AC/DC 1.5-3.5 mA AC, 0.2-0.8 mA DC		LUK10-DREHSILED 250 5×20
Consumed current with indicator	15-24 V AC/DC 3.5-7.5 mA	LUK5-HESILED 24	
Consumed current with indicator	110-250 V AC/DC 1.5-3.5 mA AC/0.2-0.8 mA DC	LUK5-HESILED 250	
(1) fixed bridge			FBI 10-12
(2)insertion bridge poles:	2 poles 3 poles 10 poles		EB 2-8 EB 3-8 EB 10-8
			EB 2-12 EB 3-12 EB 10-12



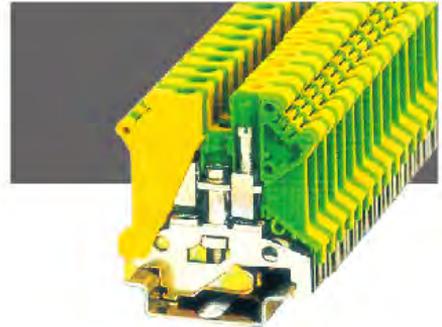
## LUSLKG 2.5

solid cross section: 0.2-4mm<sup>2</sup>  
 stranded cross section: 0.2-2.5mm<sup>2</sup>  
 size: T6.2×H42×W42.9  
 IEC 60947-7-2  
 Zack Strip(ZB6)



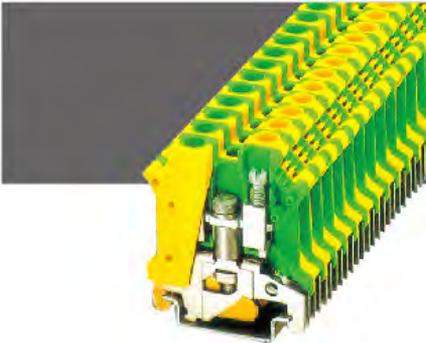
## LUSLKG3

solid cross section: 0.2-4mm<sup>2</sup>  
 stranded cross section: 0.2-2.5mm<sup>2</sup>  
 size: T5.2×H46×W42.9  
 IEC 60947-7-2  
 Zack Strip(ZB5)



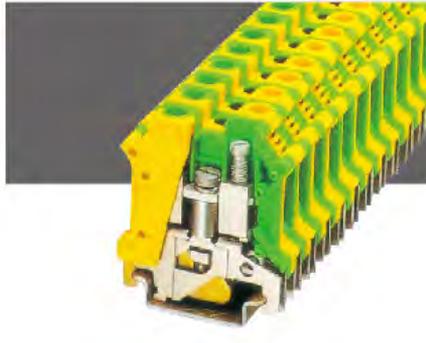
## LUSLKG 5

solid cross section: 0.2-4mm<sup>2</sup>  
 stranded cross section: 0.2-4mm<sup>2</sup>  
 size: T6.2×H46×W43.1  
 IEC 60947-7-2  
 Zack Strip(ZB6)



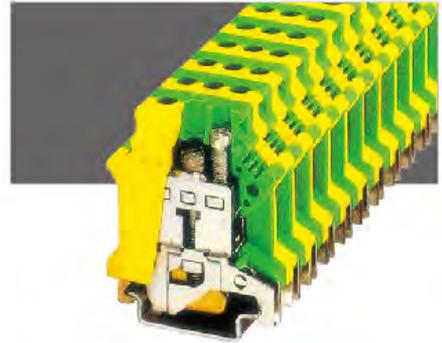
## LUSLKG 6

solid cross section: 0.2-10mm<sup>2</sup>  
 stranded cross section: 0.2-6mm<sup>2</sup>  
 size: T8.2×H46×W42.6  
 IEC 60947-7-2  
 Zack Strip(ZB8)



## LUSLKG 10

solid cross section: 0.5-16mm<sup>2</sup>  
 stranded cross section: 0.5-10mm<sup>2</sup>  
 size: T10.2×H46×W42.4  
 IEC 60947-7-2  
 Zack Strip(ZB10)



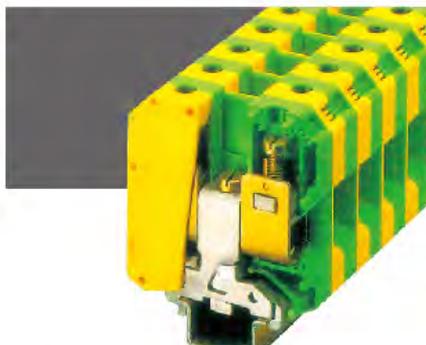
## LUSLKG 16

solid cross section: 2.4-25mm<sup>2</sup>  
 stranded cross section: 4-16mm<sup>2</sup>  
 size: T12.2×H46×W43.1  
 IEC 60947-7-2  
 Zack Strip(ZB10)



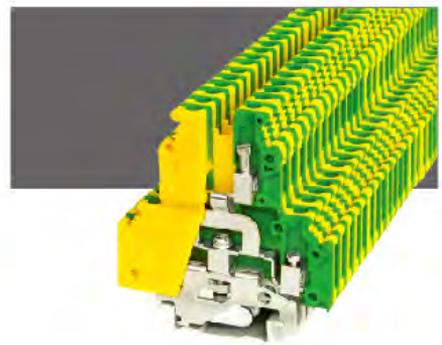
## LUSLKG 35

solid cross section: 10-35mm<sup>2</sup>  
 stranded cross section: 10-35mm<sup>2</sup>  
 size: T15.2×H62×W50.3  
 IEC 60947-7-2  
 Zack Strip(ZB10)



## LUSLKG 50

solid cross section: 16-50mm<sup>2</sup>  
 stranded cross section: 25-50mm<sup>2</sup>  
 size: T20.5×H83.5×W71  
 IEC 60947-7-2  
 Zack Strip(ZB10)



## LUKK5-PE

solid cross section: 0.2-4mm<sup>2</sup>  
 stranded cross section: 0.2-4mm<sup>2</sup>  
 size: T6.2×H63×W56.8  
 IEC 60947-7-2  
 Zack Strip(ZB6)

## LSAK(SAK)series



### LSAK 2.5EN

Approval	CE RoHS
Insulating Material	PA66
Inflammability Class	UL 94 V0
Connection Standard	IEC 60947-7-1

### LSAK 4EN

Approval	CE RoHS
Insulating Material	PA66
Inflammability Class	UL 94 V0
Connection Standard	IEC 60947-7-1

### LSAK 6EN

Approval	CE RoHS
Insulating Material	PA66
Inflammability Class	UL 94 V0
Connection Standard	IEC 60947-7-1

size	T6.1×H40.4×W40.9	T6.5×H45.3×W40.6	T7.9×H45×W39.9
rated current/voltage	24A/800V	32A/800V	41A/800V
stranded cross section	0.2mm <sup>2</sup> -2.5mm <sup>2</sup>	0.2mm <sup>2</sup> -4mm <sup>2</sup>	0.2mm <sup>2</sup> -6mm <sup>2</sup>
packing	50	50	50
connection type	screw connection	screw connection	screw connection
Din Rail type	TS 35/7.5, TS 35/15, TS 32	TS 35/7.5, TS 35/15, TS 32	TS 35/7.5, TS 35/15, TS 32

(1)end cover: T1.5mm	AP 2.5	AP 4-10	AP 4-10
(2) Centre type jumper bar: 10 potential, 3,5,10 potential	2.5 EN Q2poles, 3poles, 10poles	4 EN Q2poles, 3poles, 10poles	6 EN Q2poles, 3poles, 10poles
(3)end clamp	LEW 35	LEW 35	LEW 35
(4)Continuous number of printing	DEK 5/6(1...10)	DEK 6(1...10)	DEK 6(1...10)



### LSAK 10EN

Approval	CE RoHS
Insulating Material	PA66
Inflammability Class	UL 94 V0
Connection Standard	IEC 60947-7-1

### LSAK 16EN

Approval	CE RoHS
Insulating Material	PA66
Inflammability Class	UL 94 V0
Connection Standard	IEC 60947-7-1

### LSAK 35EN

Approval	CE RoHS
Insulating Material	PA66
Inflammability Class	UL 94 V0
Connection Standard	IEC 60947-7-1

size	T10×H45.2×W40.5	T12×H51.2×W50.3	T18.2×H61.6×W58.5
rated current/voltage	57A/800V	76A/800V	125A/800V
stranded cross section	0.5mm <sup>2</sup> -10mm <sup>2</sup>	0.5mm <sup>2</sup> -16mm <sup>2</sup>	10mm <sup>2</sup> -35mm <sup>2</sup>
packing	50	50	50
connection type	screw connection	screw connection	screw connection
Din Rail type	TS 35/7.5, TS 35/15, TS 32	TS 35/7.5, TS 35/15, TS 32	TS 35/7.5, TS 35/15, TS 32

(1)end cover: T1.5mm	AP 4-10	AP 16	AP 35
(2) Centre type jumper bar: 10 potential, 3,5,10 potential	10 EN Q2poles, 3poles, 10poles	16 EN Q2poles, 3poles, 10poles	35 EN Q2poles, 3poles, 10poles
(3)end clamp	LEW 35	LEW 35	LEW 35
(4)Continuous number of printing	DEK 6(1...10)	DEK 6(1...10)	DEK 6(1...10)

## LSAK(SAK)series



### LSAK 70/35

Insulating Material PA66  
Inflammability Class IEC 60947-7-1

### LDK 4QV/35

Insulating Material PA66  
Inflammability Class IEC 60947-7-1

### LASK1 EN

Insulating Material PA66  
Inflammability Class IEC 60947-7-1

size	T22×H78×W75	T6×H60×W54.6	T8.1×H39×W52.1
rated current/voltage	192A/800V	32A/500V	6.3A/500V
stranded cross section	25mm <sup>2</sup> -70mm <sup>2</sup>	0.2mm <sup>2</sup> -4mm <sup>2</sup>	0.2mm <sup>2</sup> -4mm <sup>2</sup>
packing	50	50	50
connection type	screw connection	screw connection	screw connection
Din Rail type	TS 35/7.5, TS 35/15	TS 35/7.5, TS 35/15	TS 35/7.5, TS 35/15, TS 32
(1)end cover: T1.5mm	AP 70/35	AP DK 4	AP-LASK 1
(2) Centre type jumper bar: 10 potential,3,5,10 potential	70 Q2poles, 3poles, 10poles	DK4 Q2poles, 3poles, 10poles	
(3)end clamp	LEW 35	LEW 35	LEW 35
(4)Continuous number of printing	DEK 6(1...10)	DEK 6(1...10)	DEK 6(1...10)

## EK series



### EK 2.5/35

Insulating Material PA66  
Inflammability Class IEC 947-7-1

### EK 4/35

Insulating Material PA66  
Inflammability Class IEC 947-7-1

### EK 6/35

Insulating Material PA66  
Inflammability Class IEC 947-7-1

size	T6×H36.5×W56.8	T7×H40.3×W57.4	T6×H40.4×W57.1
stranded cross section	0.2mm <sup>2</sup> -2.5mm <sup>2</sup>	0.2mm <sup>2</sup> -4mm <sup>2</sup>	0.2mm <sup>2</sup> -6mm <sup>2</sup>
packing	50	50	50
connection type	screw connection	screw connection	screw connection
Din Rail type	TS 35/7.5, TS 35/15	TS 35/7.5, TS 35/15	TS 35/7.5, TS 35/15



### EK 10/35

Insulating Material PA66  
Inflammability Class IEC 60947-7-1

### EK 16/35

Insulating Material PA66  
Inflammability Class IEC 60947-7-1

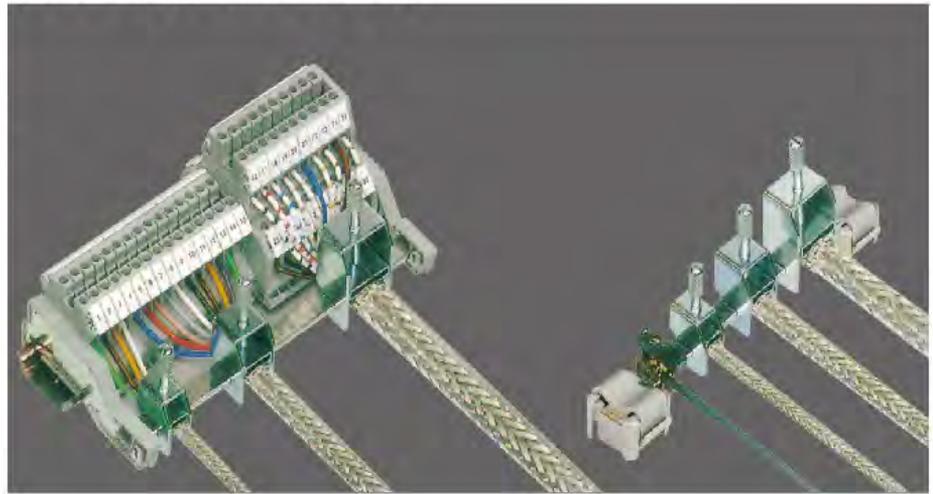
### EK 35/35

Insulating Material PA66  
Inflammability Class IEC 60947-7-1

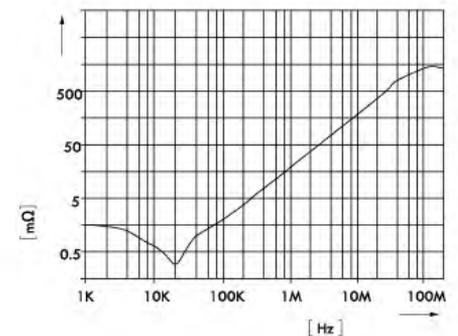
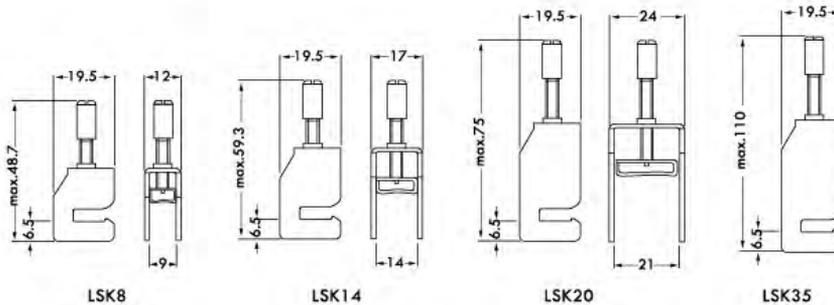
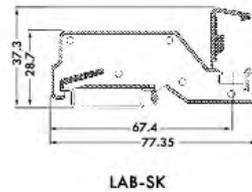
size	T10×H40.3×W56.8	T12×H46.5×W57.2	T16×H56.6×W58.6
stranded cross section	0.5mm <sup>2</sup> -10mm <sup>2</sup>	0.5mm <sup>2</sup> -16mm <sup>2</sup>	10mm <sup>2</sup> -35mm <sup>2</sup>
packing	50	50	50
connection type	screw connection	screw connection	screw connection
Din Rail type	TS 35/7.5, TS 35/15	TS 35/7.5, TS 35/15	TS 35/7.5, TS 35/15

**LSK 8 LSK 14 LSK 20 LSK 35**

Shielding terminal block can be easily used with the holder LAB-SK. It is convenient to install by connecting with busbar.



	Model	Cable Diameter	Packing
(1) Holder: installing with 10 x 3mm busbar	LSK 8	φ 8mm	10
	LSK 14	φ 14mm	10
	LSK 20	φ 20mm	10
	LSK 35	φ 35mm	10
	LAB-SK		10
(2) Copper busbar: 10 x 3mm, 1000mm, Tin plated	NLS-CU 3/10	I <sub>max</sub> : 140A	10
(3) Insulating holder:	AB/SS		10



## SFZ/SKL EMC Shield clamps



### Product description

The shield clamps SFZ/SKL range are used for shielding single cables in combination with strain relief. Simple to use and effective shielding of cables.

Cables are secured with a cable tie. Strain relief in accordance with VDE standards is achieved.

For assembly on 35 mm DIN rails.

Type	Order No.	Shield diameter	PU
SFZ   SKL 3-5	36855	3.0-5.0mm	10
SFZ   SKL 6-8	36860	6.0-8.0mm	10
SFZ   SKL 9-11	36865	9.0-11.0mm	10

### Advantages

- Simple and tool-free assembly
- Cost effective solution
- Strain relief of the cable with shielding in a single device
- Optimal contact of the cable shielding
- Permanent and continuous spring pressure on the cable shield, adjustment of spring load not necessary

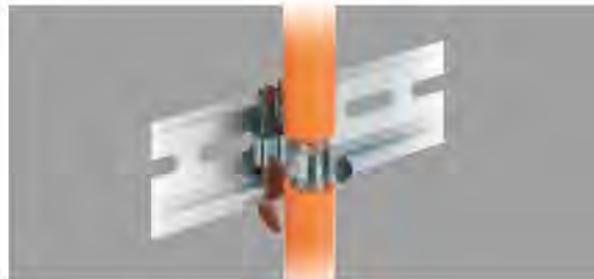
#### Material

Spring steel zinc-plated

SF-/SFZ-foot Spring steel

Terminal Connection

## SF/SKL EMC Shield clamps



### Product description

The shield clamps SKL range are used for shielding single cables.

Simple to use and effective shielding of cables.

For assembly on 35 mm DIN rails.

Type	Order No.	Shield diameter	PU
SF   SKL 3-5	36244	3.0-5.0mm	10
SF   SKL 6-8	36245	6.0-8.0mm	10
SF   SKL 9-11	36246	9.0-11.0mm	10

### Advantages

- Optimal contact of the cable shield
- Simple and tool-free assembly
- Permanent and continuous spring pressure on the cable shield - adjustment of the pressure is not necessary
- Space saving by an optimized arrangement
- Cost effective solution

#### Material

Spring steel zinc-plated

SF-foot Spring steel

## LFZ/SKL EMC Shield clamps



### Product description

SKL shield clamps can be used for shielding single cables. The shield clamps enable an easy to use and reliable shielding of cables.

Cables are secured with a cable tie. Strain relief in accordance with VDE standards is achieved.

Shield clamps are easily attached to mounting plates via screw.

Type	Order No.	Shield diameter	Fixing hole	PU
LFZ   SKL 3-5	36915	3.0-5.0mm	4.1 mm	10
LFZ   SKL 6-8	36920	6.0-8.0mm	4.1 mm	10
LFZ   SKL 9-11	36925	9.0-11.0mm	4.1 mm	10

### Advantages

- Integrated strain relief
- Optimal contact of the cable shielding
- Simple and tool-free assembly
- Permanent and continuous pressure on the cable shield - no adjustment of the spring load required
- Cost effective solution

#### Material

Spring steel zinc-plated

## Clamping yoke

The electromagnetic compatibility (EMC) of electrical machines and installations has become a very important aspect. These are available in different versions.

Material: Steel

### LK 2X2-6



#### Dimensions and weights

Length	24 mm
Width	15 mm
Height	18 mm
Net weight	9.9 g
Cable diameter, min.	2 mm
Cable diameter, max.	6 mm

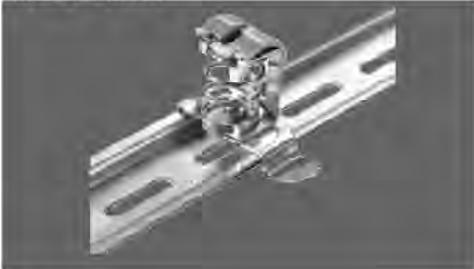
### LK 3-8



#### Dimensions and weights

Length	26 mm
Width	13 mm
Height	18 mm
Net weight	9 g
Cable diameter, min.	3 mm
Cable diameter, max.	8 mm

### LK 3-8 FM4



#### Dimensions and weights

Length	50 mm
Width	14.5 mm
Height	26 mm
Net weight	17.5 g
Cable diameter, min.	3 mm
Cable diameter, max.	8 mm

### LK 4-13.5



#### Dimensions and weights

Length	24 mm
Width	15 mm
Height	18 mm
Net weight	15.5 g
Cable diameter, min.	4 mm
Cable diameter, max.	13.5 mm

Material: Steel

### LK 4-13.5 FM4



#### Dimensions and weights

Length	50.5 mm
Width	20.5 mm
Height	31.5 mm
Net weight	21.941 g
Cable diameter, min.	4 mm
Cable diameter, max.	13.5 mm

### LK 10-20



#### Dimensions and weights

Length	40 mm
Width	25 mm
Height	26 mm
Net weight	29.848 g
Cable diameter, min.	10 mm
Cable diameter, max.	20 mm

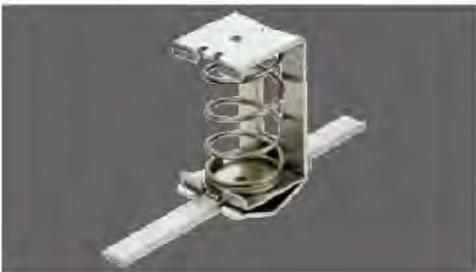
### LK 10-20 FM4



#### Dimensions and weights

Length	50.5 mm
Width	25 mm
Height	40 mm
Cable diameter, min.	10 mm
Cable diameter, max.	20 mm

### LK 15-32



#### Dimensions and weights

Length	64 mm
Width	36 mm
Height	32 mm
Net weight	80.8 g
Cable diameter, min.	15 mm
Cable diameter, max.	32 mm

### LK 15-32 FM4



#### Dimensions and weights

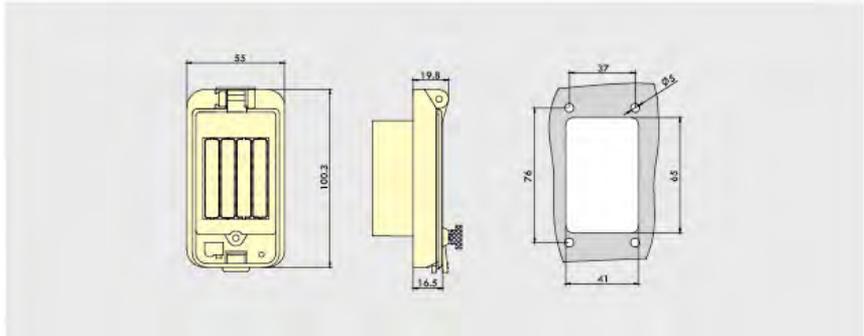
Length	50.5 mm
Width	34.5 mm
Height	64 mm
Cable diameter, min.	15 mm
Cable diameter, max.	32 mm

# LK08 series Inspection Window for Enclosures

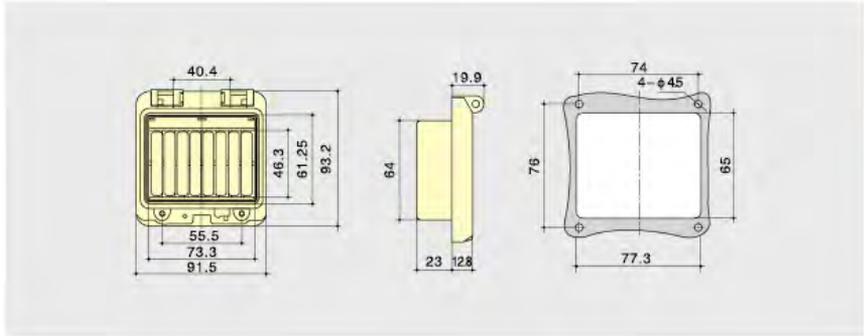
It is applicable for special waterproof ,dustproof and corrosion-proof locations

Executive standard: IEC60529 IP67

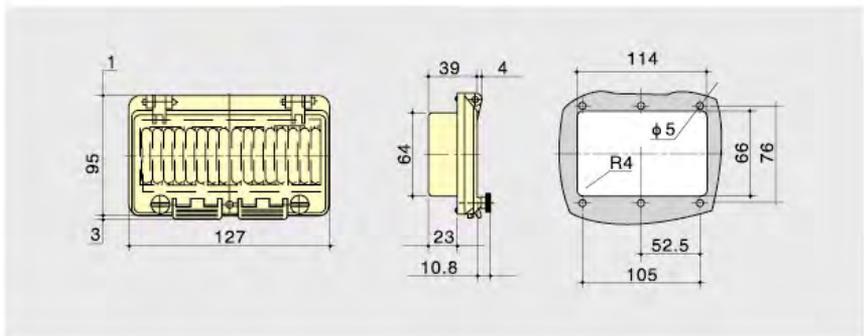
EN 60309



Model No.	Specification
LK08-02	2 ways, with base
LK08-02NBS	2 ways, without base
LK080200	Foothold frame for 2 ways

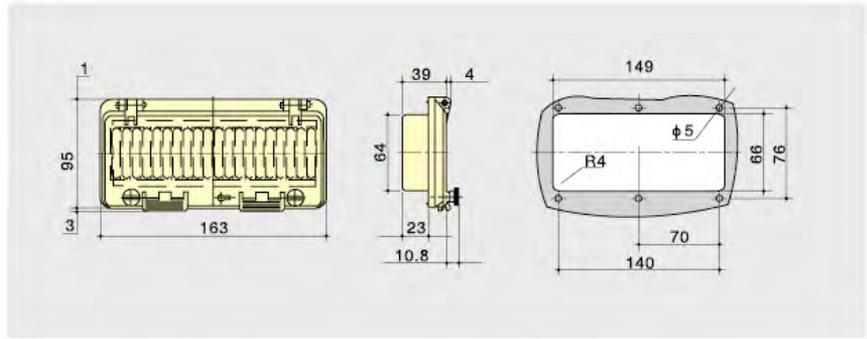


Model No.	Specification
LK08-04	4 ways, with base
LK08-04NBS	4ways, without base
LK080400	Foothold frame for 4ways

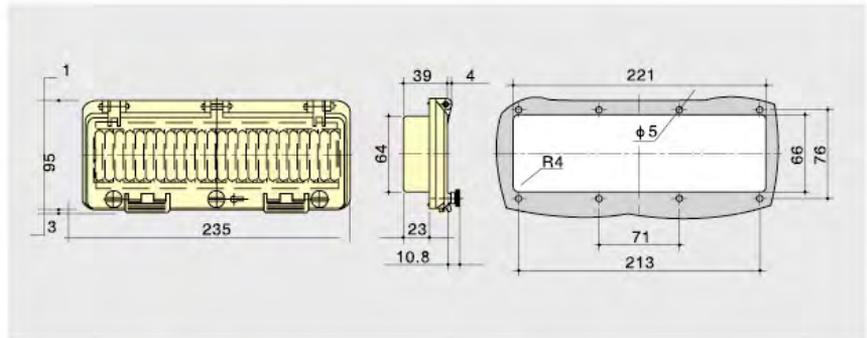


Model No.	Specification
LK08-06	6 ways, with base
LK08-06NBS	6ways, without base
LK080600	Foothold frame for 6 ways

Terminal Connection



Model No.	Specification
LK08-08	8 ways, with base
LK08-08NBS	8ways, without base
LK080800	Foothold frame for 8 ways



Model No.	Specification
LK08-12	12ways, with base
LK08-12NBS	12ways, without base
LK081200	Foothold frame for 12 ways



Foothold Frame



# Transformer



**Overview**

LDZ DC power supply compact construction, good looking, small ripple, low power consumption, big capacity and so on. Suitable for circuit with AC 50/60Hz, input voltage less than 500V and output voltage 20V.

**Features**

1. Comply with IEC standard and integrate transformer and rectify power.
2. Rated input voltage has  $\pm 5\%$  tapping, Iron core adopt air protection argon welding .
3. Swift fuse protection, protection grade up to IP20.

Rated input voltage: AC220V $\pm 5\%$ , AC380V $\pm 5\%$

Rated output voltage: DC24V

Rated input current: 2A, 5A, 10A

Rated load input voltage:  $95\% U_n \leq U_m \leq 105\% U_n$

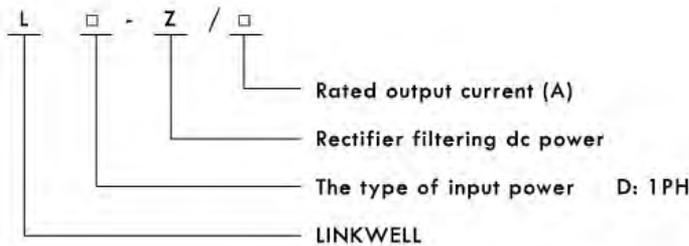
Efficiency:  $>75\%$

Ripple coefficient:  $\leq 5\%$  ( JSZ  $\leq 2\%$  )

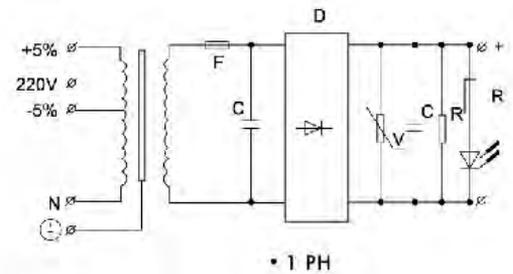
frequency withstand voltage: AC2500V 1min / AC1000V 1min

Environment temperature:  $-5^\circ\text{C} \sim +40^\circ\text{C}$

**Type and meaning**

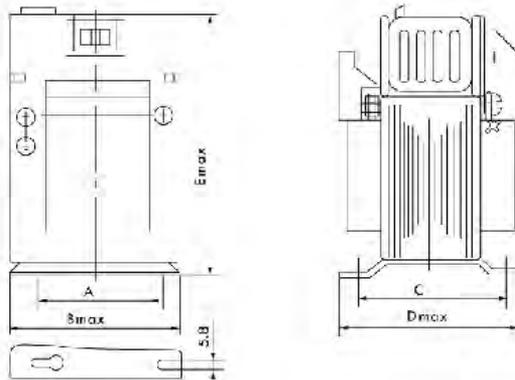


**Circuit diawing**



**Appearance and installing size**

LDZ-2、5、10



Model	LDZ-2	LDZ-5	LDZ-10
B max	78	96	120
D max	72	93	100
E max	100	133	168
A	56	84	90
C	46	73.5	85

## Three-phase dry type transformer (servo transformer)

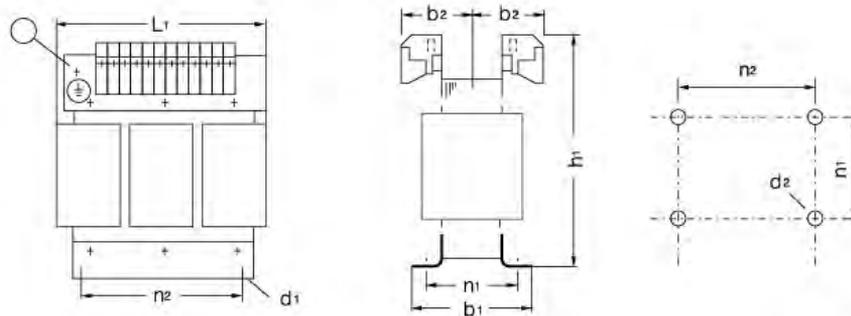


Adopting technology of Siemens company, we design and manufacture JSG series three phase transformer with voltage between 160VA and 16KVA. The figure and installation size have been standardized and can be used together with 4AP series of Siemens.

JSG series transformer used for equipment with input and output voltage less than 500V and frequency 50-60Hz.

Product comply with VDE0550, IEC439, JB5555, GB5226 standard.

### Appearance and installing size



JSG-0.16~JSG-5

Model	Capacity KVA	b1 max	b2 max	d1	d2	h1 max	L1 max	n1	n2
JSG-0.16	0.16	64	50	5×8	M4	140	122	49	90
JSG-0.25	0.25	67	48	6×12	M5	162	156	49	113
JSG-0.4	0.4	82	56	6×12	M5	162	156	64	113
JSG-0.63	0.63	76	51	7.4×13	M6	187	181	56	136
JSG-1	1	97	61	7.4×13	M6	187	181	76	136
JSG-1.6	1.6	115	98	7.4×13	M6	214	229	94	170
JSG-2.5	2.5	133	102	10×18	M8	241	264	101	200
JSG-4	4.0	148	104	10×18	M8	250	270	118	224
JSG-6.3	6.3	155	129	10×18	M8	320	360	118	264
JSG-8	8	170	134	12×20	M10	380	420	140	315
JSG-10	10	170	134	12×20	M10	380	420	140	315



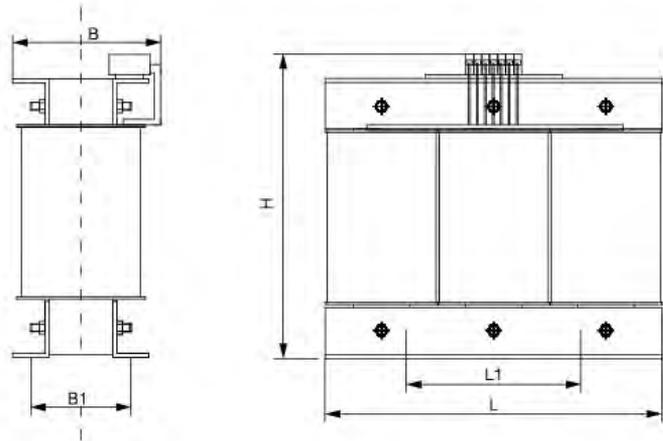
Mainly used for power exchange, illumination electric, power and current rectify.

Capacity: 0.5-100KVA.

Input voltage: 660 and 380 V.

Way of connection: Y or Delta.

Appearance and installing size

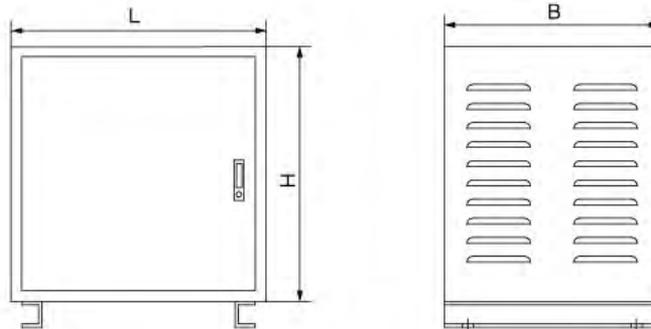


Model	Capacity KVA	Input voltage		Outline size			Installation size		Hole radius
				L	B	H	L1	B1	
SG-2.5	2.5	660	△ 或 Y	270	180	260	200	102	8.5
SG-3	3			270	190	260	200	102	8.5
SG-4	4			300	190	290	224	120	8.5
SG-5	5			300	210	290	224	135	8.5
SG-6	6			360	200	350	264	127	8.5
SG-7	7			360	200	370	264	127	8.5
SG-8	8			360	240	370	264	142	8.5
SG-10	10			420	240	420	315	150	12.5
SG-12	12			420	240	420	315	150	12.5
SG-15	15			420	280	420	315	170	12.5
SG-20	20	380	△ 或 Y	480	240	450	360	150	12.5
SG-25	25			480	240	450	360	180	12.5
SG-30	30			480	270	450	360	220	12.5
SG-40	40			540	300	450	360	250	12.5
SG-45	45			600	300	560	450	250	12.5
SG-50	50			600	350	560	450	220	12.5
SG-60	60			600	350	560	450	220	15
SG-80	80			660	380	660	550	250	15
SG-100	100			660	380	660	550	250	15

## SGC series three phase dry-type transformer shell



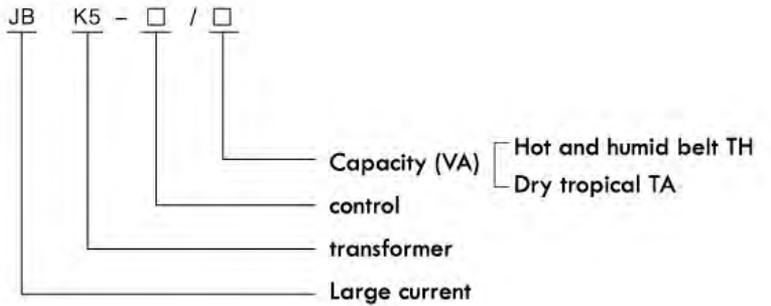
Appearance and installing size



Type	Rated volume (KVA)	Outline size		
		L	B	H
SGC-2.5KVA	2.5	300	240	280
SGC-3KVA	3	300	240	280
SGC-4KVA	4	390	280	320
SGC-5KVA	5	390	280	320
SGC-6KVA	6	390	280	320
SGC-8KVA	8	500	350	450
SGC-10KVA	10	500	350	450
SGC-12KVA	12	500	350	450
SGC-15KVA	15	500	350	450
SGC-20KVA	20	600	420	520
SGC-25KVA	25	600	420	520
SGC-30KVA	30	600	420	520
SGC-40KVA	40	600	420	520
SGC-45KVA	45	740	500	650
SGC-50KVA	50	740	500	650
SGC-60KVA	60	740	500	650
SGC-80KVA	80	840	530	650
SGC-100KVA	100	840	530	650



### Type and meaning



Type	Rated volume (VA)	Efficiency (%)	voltage of output under load		Voltage of output unloaded		rated input voltage (v)	rated output voltage (v)	Remarks
			Signal winding (%)	Control winding (%)	Signal winding (%)	Control winding (%)			
JBK5-40	40	80	6≥Um > 5 12≥Um > 10	95%-105% UH	6或12	1.1 Um	AC380 ±5%	AC220 (127) 110	Control
JBK5-63	63								
JBK5-100	100								
JBK5-160	160	85	6≥Um > 4.5 12≥Um > 9	95%-105% UH	6或12	1.1 Um	AC220 ±5%	48 35 24	Light or Control
JBK5-250	250								
JBK5-400	400								
JBK5-630	630								
JBK5-800	800	90	12.8≥Um > 9.6 13.5≥Um > 10	95%-105% UH	6或12	1.1 Um	AC220 ±5%	12 6	Signal
JBK5-1000	1000								
JBK5-1600	1600								
JBK5-2500	2500								
JBK5-3000	3000								
JBK5-4000	4000	90	15.2≥Um11	95%-105% UH	6或12	1.1 Um	0-380 or 0-220 without ±5%	12 6	Signal
JBK5-5000	5000								
JBK5-6000	6000								
JBK5-7000	7000								
JBK5-8000	8000								
JBK5-10000	10000								
JBK5-15KVA	15000	90	15.2≥Um11	95%-105% UH	6或12	1.1 Um	0-380 or 0-220 without ±5%	12 6	Signal
JBK5-20KVA	20000								
JBK5-30KVA	30000								
JBK5-40KVA	40000								
JBK5-50KVA	50000	90	15.2≥Um11	95%-105% UH	6或12	1.1 Um	0-380 or 0-220 without ±5%	12 6	Signal
JBK5-60KVA	60000								

The distribution of every winding capacity can be made according to user's demand



# Series JBK5 machine controlling transformer

## Series JBK5 machine controlling transformer

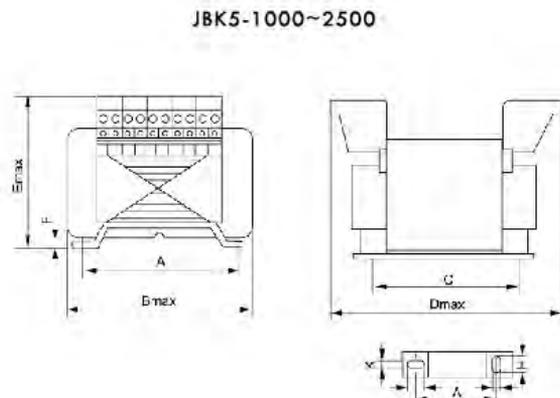
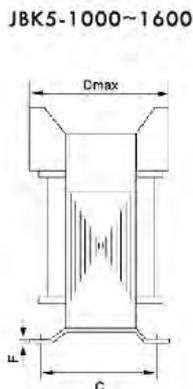
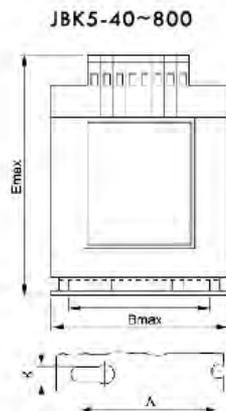


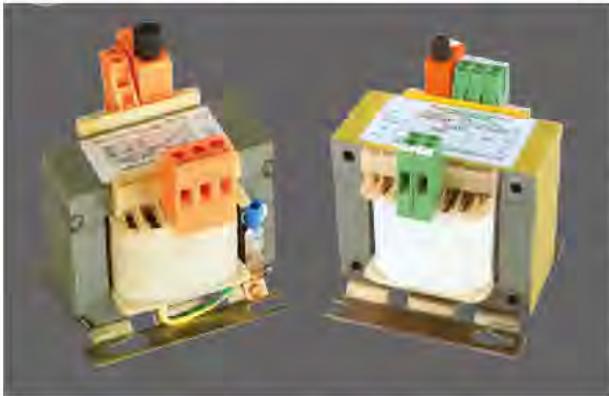
Type	B max	D max	E max	Hole distance A	Hole distance C	Installing hole K	F max	Remarks
JBK5-40、63	78	72	90	56±0.15	46±0.125	4.6	1.5	
JBK5-100	85	75	96	64±0.15	62±0.15	4.6	1.5	
JBK5-160	96	92	105	84±0.175	73.5±0.15	5.5	1.5	
JBK5-250	96	100	104	84±0.175	85±0.175	5.8	1.5	
JBK5-400	120	100	122	90±0.175	85±0.175	5.8	2	
JBK5-500	120	110	122	90±0.175	96±0.175	5.8	2	
JBK5-630	150	110	140	122±0.2	90±0.175	7	2	
JBK5-800	150	128	142	122±0.2	105±0.2	7	2	
JBK5-1000	150	190	142	155±0.2	126±0.2	7	3	Horizontal
JBK5-1000	168	125	155	138±0.2	105±0.2	9	2	Vertical
JBK5-1600	170	225	153	176±0.2	140±0.2	7	3	Horizontal
JBK5-1600	168	138	155	138±0.2	116±0.2	9	2	Vertical
JBK5-2500	194	250	170	200±0.2	170±0.23	7	4	Horizontal
JBK5-3000	194	250	190	200±0.2	170±0.23	7	4	Horizontal
JBK5-4000	194	250	200	200±0.2	170±0.23	7	4	Horizontal
JBK5-5000	220	286	215	240±0.5	208±0.5	9	6	Horizontal
JBK5-6000	220	286	215	240±0.5	208±0.5	9	6	Horizontal
JBK5-7000	280	205	260	200±0.5	180±0.5	12	7	Vertical
JBK5-8000	280	205	260	200±0.5	180±0.5	12	7	Vertical
JBK5-10000	280	250	260	200±0.5	215±0.5	12	7	Vertical

### Main Technical Parameter

Type	Rated volume (VA)	Efficiency (%)	voltage of output under load		Voltage of output unloaded		rated input voltage (v)	rated output voltage (v)	Remarks
			Signal winding (%)	Control winding (%)	Signal winding (%)	Control winding (%)			
JBK5-40	40	80	$6 \geq U_m > 5$ $12 \geq U_m > 10$	95%-105% UH	6 or 12	1.1U <sub>m</sub>	AC380 ±5%	AC220 (127) Control 110	The distribution of every winding capacity can be made according to user's demand
JBK5-63	63								
JBK5-100	100								
JBK5-160	160								
JBK5-250	250								
JBK5-400	400	85	$6 \geq U_m > 4.5$ $12 \geq U_m > 9$	95%-105% UH	6 or 12	1.1U <sub>m</sub>	AC220 ±5%	48 Light or Control 35 24	
JBK5-630	630								
JBK5-800	800								
JBK5-1000	1000								
JBK5-1600	1600								
JBK5-2500	2500	90	$12.8 \geq U_m > 9.6$ $13.5 \geq U_m > 10$	95%-105% UH	6 or 12	1.1U <sub>m</sub>	AC220 ±5%	12 Signal 6	
JBK5-3000	3000								
JBK5-4000	4000								
JBK5-5000	5000								
JBK5-6000	6000								
JBK5-7000	7000	96	$15.2 \geq U_m > 11$	95%-105% UH	6 or 12	1.1U <sub>m</sub>	0-380 or 0-220 without ±5%	12 Signal 6	
JBK5-8000	8000								
JBK5-8000	8000								
JBK5-10000	10000								

### Appearance and installing size





## Series JBK5 machine controlling transformer

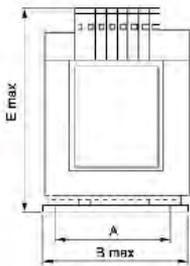
### Summary

Series JBK6 machine controlling transformer is our company introduces the series of the foreign latest transformer, on the basis of the JBK5 controlling transformer, develop the new generation transformer, JBK6 transformer's appearance size, installation size, and the occasion of using are same as JBK5 transformer, besides JBK5 transformer's advantage, JBK6 transformer has the following characteristic:

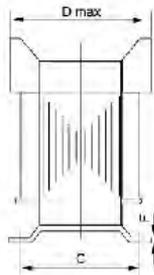
1. The terminal screw is bigger than JBK 5, it is more convenient and firmer to wire.
2. With shortcut and hot protector, it is more reliable to use.
3. The transformer adopts the craft of vacuum soak painting, the insulating material import from foreign country, insulating ability is more steady.

### Appearance and installing size

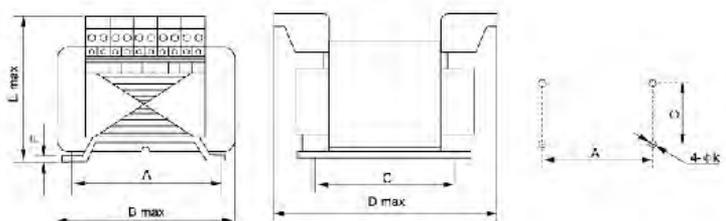
JBK6-40~800



JBK6-1000~1600 Vertical



JBK6-1000~2500



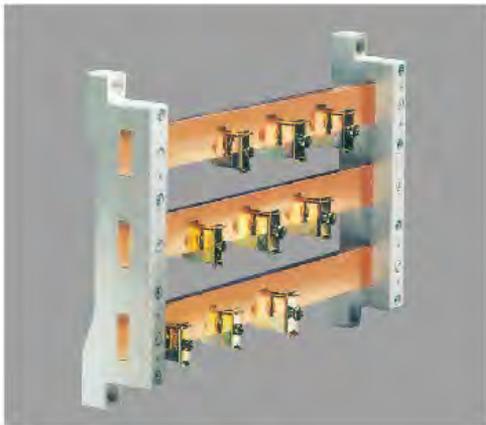
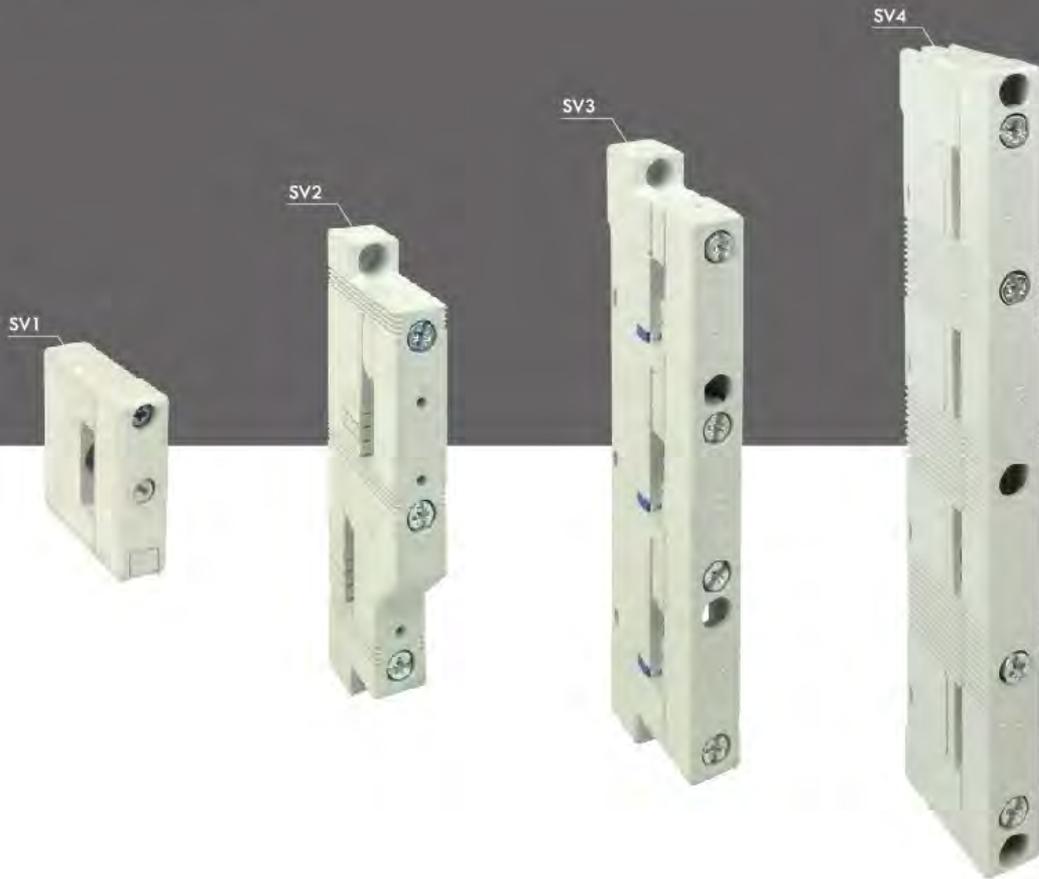
Type	B max	D max	E max	Hole distance A	Hole distance C	Installing hole K	F max	Remarks
JBK6-40、63	78	72	90	56±0.15	46±0.125	4.6	1.5	
JBK6-100	85	75	96	64±0.15	62±0.15	4.6	1.5	
JBK6-160	96	92	105	84±0.175	73.5±0.15	5.5	1.5	
JBK6-250	96	100	104	84±0.175	85±0.175	5.8	1.5	
JBK6-400	120	100	122	90±0.175	85±0.175	5.8	2	
JBK6-630	150	110	140	122±0.2	90±0.175	7	2	
JBK6-800	150	128	142	122±0.2	105±0.2	7	2	
JBK6-1000	150	190	142	126±0.2	155±0.2	7	3	Horizontal
JBK6-1000	168	125	155	105±0.2	138±0.2	9	2	Vertical
JBK6-1600	170	225	153	140±0.2	176±0.2	7	3	Horizontal
JBK6-1600	168	138	155	116±0.2	138±0.2	9	2	Vertical
JBK6-2500	194	160	165	172±0.2	195±0.23	7	4	Horizontal

### Main Technical Parameter

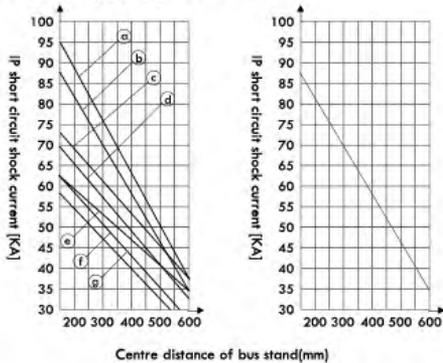
Type	Rated volume (VA)	Efficiency (%)	voltage of output under load		Voltage of output unloaded		rated input voltage (v)	rated output voltage (v)	Remarks
			Signal winding (%)	Control winding (%)	Signal winding (%)	Control winding (%)			
JBK6-40	40	80	6≥Um>5 12≥Um>10	95%-105% UH	6 or 12	1.1Um	AC380 ±5%	AC220 (127) } Control	The distribution of every winding capacity can be made according to user's demand
JBK6-63	63							110	
JBK6-100	100							110	
JBK6-160	160	85	6≥Um>5 12≥Um>10	95%-105% UH	6 or 12	1.1Um	AC380 ±5%	48 } Light or Control	
JBK6-250	250							35	
JBK6-400	400							24	
JBK6-630	630	90	6≥Um>4.5 12≥Um>9	95%-105% UH	6 or 12	1.1Um	AC220 ±5%	12 } Signal	
JBK6-800	800							6	
JBK6-1000	1000							6	
JBK6-1600	1600								
JBK6-2500	2500								



# Cabinet Accessories



SV1/SV2/SV3/SV4



**New type adjustable busbar holder**

**Design:**

With the wiring techniques of wire section material and bus-bar without pinholes adopted, the bending-proof intensity and short-circuit-proof capacity of the bus-bar are improved, and it also helps to cool the bus-bar, lower the temperature and increase current capacity.

The Linkwell bus-bar system has been used to develop various switches. The system is also widely used in low-voltage electricity supply and distribution devices and industrial and building electric appliances.

**Material:**

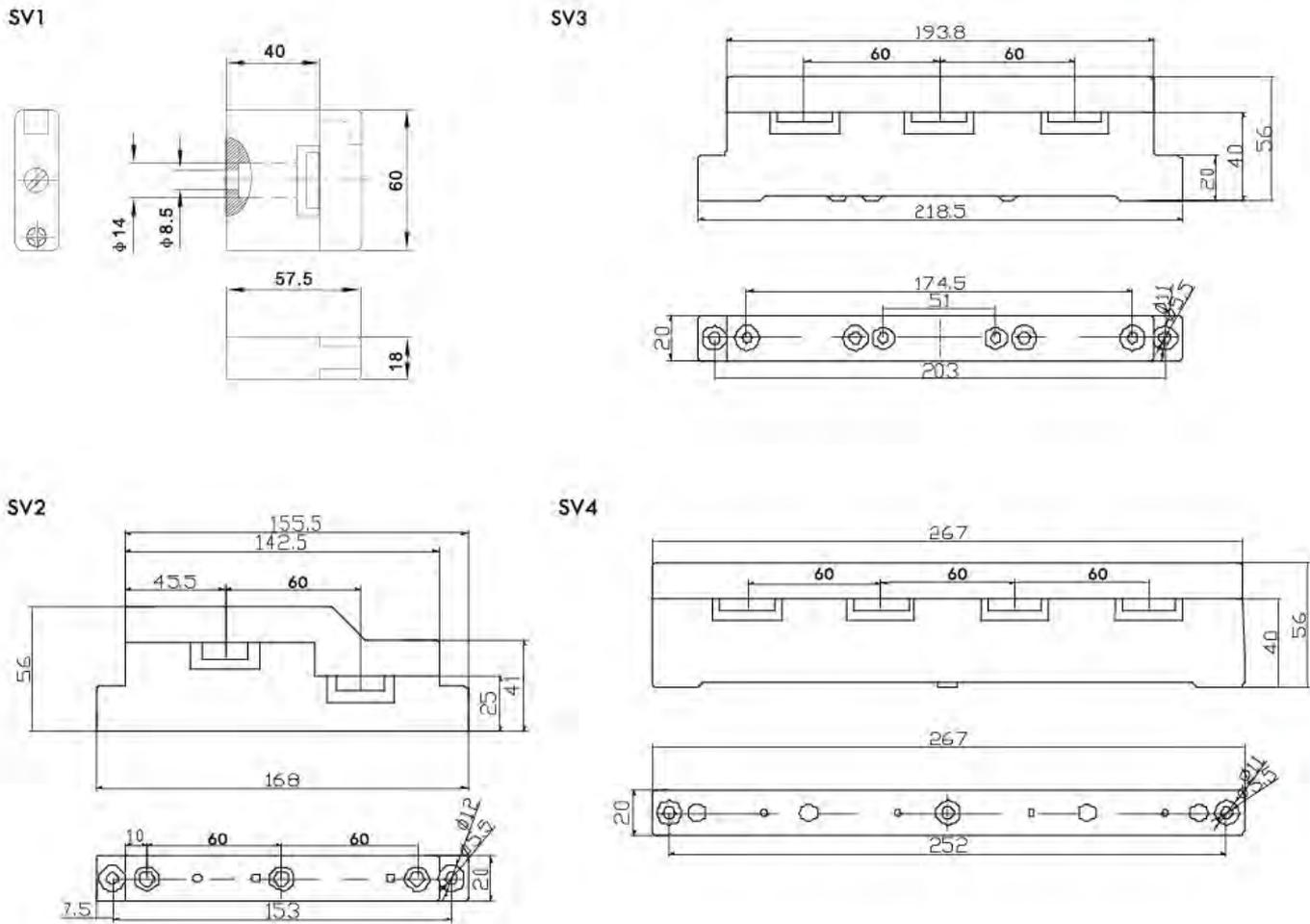
Glass fibre strengthened, thermoplastic polyester (PBT), continuous working temperature maximum 140°C.  
Fireproofing function based on UL94-V0

**Short-circuit-proof intensity graph**

Testing base: VDE 0660/IEC 439

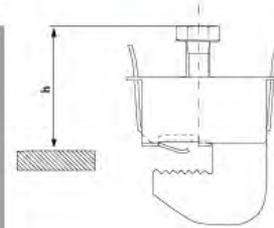
Testing process: according to dynamic short-circuit intensity of IEC 439.

# New Generation SV Bus-bar Holder



Rated working voltage up to 1000 volt,50/60 Hz. according to VDE 0660

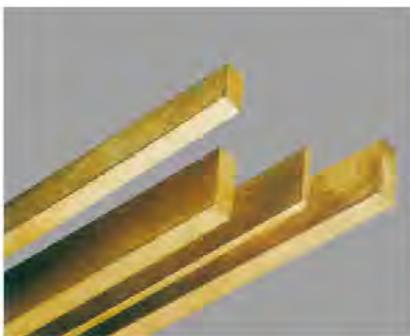
Rated current up to	Number of poles	Centre distance of bus stand	Suitable for Busbar size	Tightening turning moment		Per package	Model
				Fixed screw	Fixed the cover		
800	1	—	30X10mm	5-8Nm	1-3Nm	2	SV1
800	2	60mm	30X10mm,30X5mm,25x10mm,25x5mm,20x10mm,20x5mm,15x10mm,15x5mm,12x10mm,12x5mm	3-5Nm	1-3Nm	2	SV2
800	2	60mm	30X10mm,30X5mm,25x10mm,25x5mm,20x10mm,20x5mm,15x10mm,15x5mm	3-5Nm	1-3Nm	2	SV3
800	4	60mm	30X10mm,30X5mm,25x10mm,25x5mm,20x10mm,20x5mm,15x10mm,15x5mm	3-5Nm	1-3Nm	2	SV4



SV Busbar terminal

Minimum H (mm)	Maximum H (mm)	Model NO.
17	23	SV201/206
22	29	SV202/207
26	39	SV203/208
39	57	SV204/209
44	66	SV205/210

Thickness of bus	Round lead wiring*	Piled copper bus terminal space	Torque	Per package	Model NO.
4-5mm	1-4mm <sup>2</sup>	-	2Nm	50pcs	SV201
4-5mm	2.5-16mm <sup>2</sup>	8 x 8mm	3Nm	50pcs	SV202
4-5mm	16-50mm <sup>2</sup>	10.5 x 11mm	6-8Nm	50pcs	SV203
4-5mm	35-70mm <sup>2</sup>	16.5 x 15mm	10-12Nm	50pcs	SV204
4-5mm	70-185mm <sup>2</sup>	22.5 x 20mm	12-15Nm	50pcs	SV205
9-10mm	1-4mm <sup>2</sup>	-	2Nm	50pcs	SV206
9-10mm	2.5-16mm <sup>2</sup>	8 x 8mm	3Nm	50pcs	SV207
9-10mm	16-50mm <sup>2</sup>	10.5 x 11mm	6-8Nm	50pcs	SV208
9-10mm	35-70mm <sup>2</sup>	16.5 x 15mm	10-12Nm	50pcs	SV209
9-10mm	70-185mm <sup>2</sup>	22.5 x 20mm	12-15Nm	50pcs	SV210

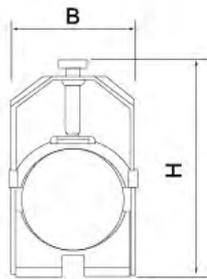


### Copper Busbar

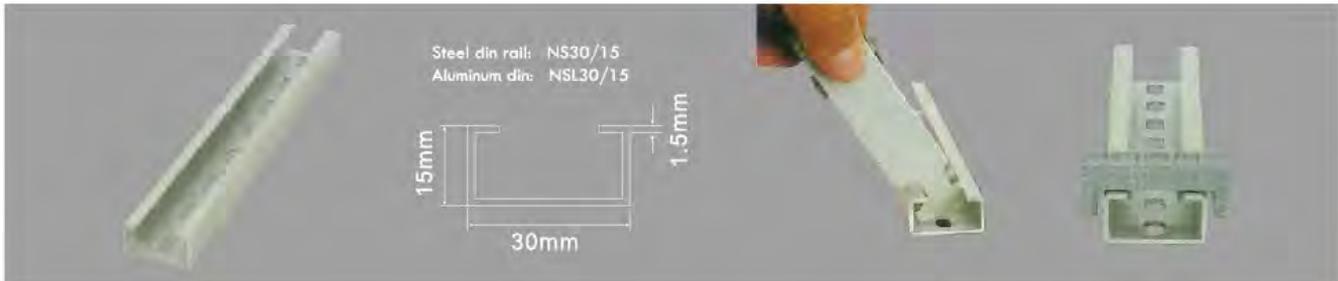
Model	Cu221	Cu222	Cu223	Cu224	Cu225
Specifications(mm)	30×5	25×5	20×10	20×5	30×10
Rated current	447A	384A	497A	319A	800A

1.Up to 2 meters copper plating    2.Length optional electroless copper

## New BK Cable clamp series



Material & Specification		Cable diameter ∅ (mm)	Size(mm)	
Galvanized steel	Stainless steel		B	H
BK14	BK14E	6-12	21	70
BK18	BK18 E	12-18	23	70
BK22	BK22 E	18-22	27	75
BK30	BK30 E	22-30	39	85
BK38	BK38 E	30-38	45	90
BK42	BK42E	38-42	47	95
BK50	BK50E	42-50	57	120
BK64	BK64 E	50-64	70	130
BK70	BK70 E	64-72	77	165
BK80	BK80 E	72-82	87	183
BK100	BK100 E	95-102	108	217



## Cable entry sleeve

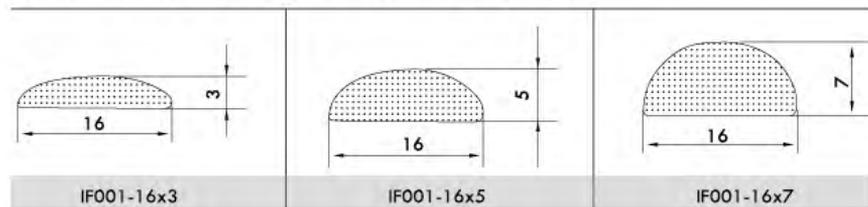
It could tightly clutch different cable on the bottom of the case. It is used together with a cable leading bar.



Model	Diameter mm	Cable Number
US1	47	1
US3	21	3
US8	13	8



## Adhesive tape for panel IF001-16x3 / 5 / 7




**Technical data of electrical conductor**

- Copper strips ( $\geq 99.9\% \text{Cu}$ ).
- Surface: uncoated or tinned.
- Resistivity:  $\leq 1.785 \mu\Omega/\text{cm}^2$ .
- Electrical conductivity:  $\geq 55 \text{ Sm}/\text{mm}^2$ .
- Tensile strength:  $\geq 200 \text{ N}/\text{mm}^2$ .
- Extensibility:  $\geq 30\%$ .

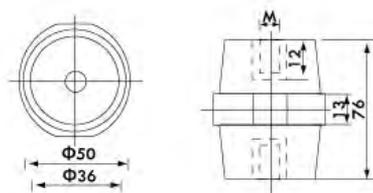
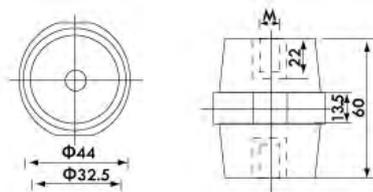
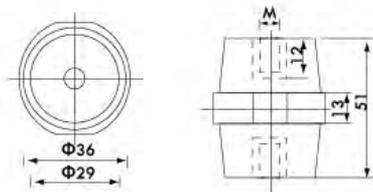
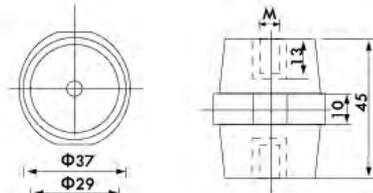
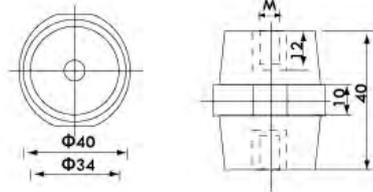
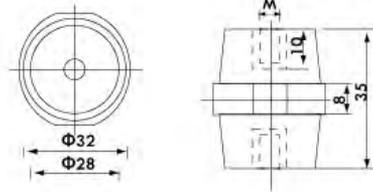
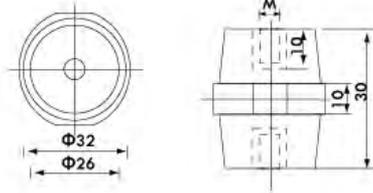
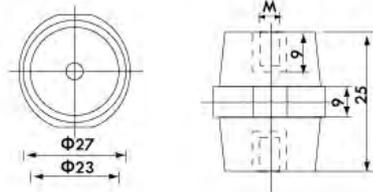
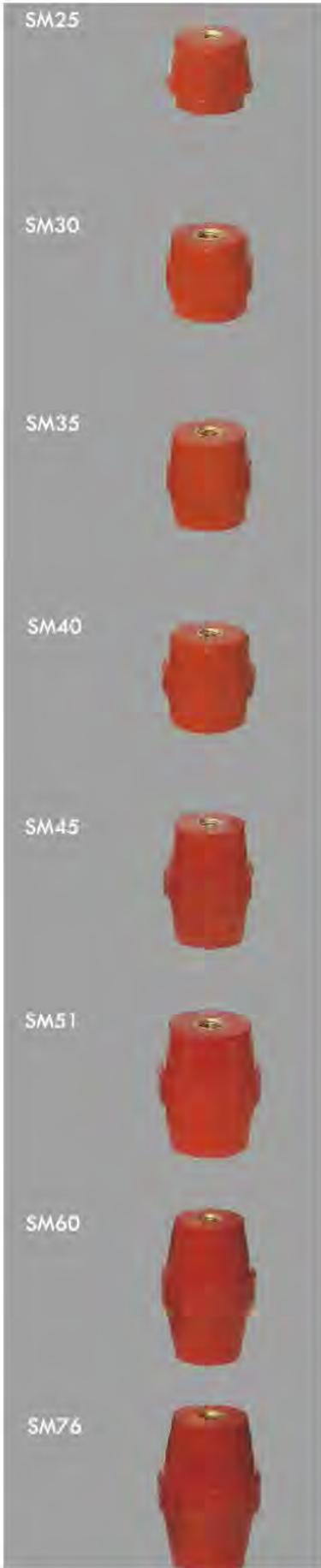
**Technical data of insulation**

- Material: PVC. Color: black.
- Thickness: 1.8-2.1 mm.
- Shore hardness: A70-80.
- Electrical strength:  $\geq 23 \text{ kV}/\text{mm}$ .
- Oxygen index: 30%.
- Flame retardant; self-extinguishing.
- Elasticity:  $\geq 180\%$  after 7-day aging-test with  $135^\circ\text{C}$ .
- Tensile strength:  $\geq 20 \text{ MPa}$ .

**Technical data of flexible insulated busbars**

- Operating temperature:  $-30^\circ\text{C}$  to  $+105^\circ\text{C}$ .
- Operating voltage: 750V.
- Voltage withstand performance with 15min / 50Hz AC:
  - between flexible insulated busbar and earth:  $\geq 1.5 \text{ kV}$ .
  - between two flexible insulated busbars:  $\geq 30 \text{ kV}$ .

Dimensions and Qty. of strips	Cross section (mm <sup>2</sup> )	Ampacity (A)			Dimensions and Qty. of strips	Cross section (mm <sup>2</sup> )	Ampacity (A)		
		$\triangle$ T=20K (3)	$\triangle$ T=40K (4)	$\triangle$ T=50K (5)			$\triangle$ T=20K (3)	$\triangle$ T=40K (4)	$\triangle$ T=50K (5)
15.5 x 0.8 x 2	24.8	125	175	200	40 x 1 x 2	80	240	330	380
15.5 x 0.8 x 3	37.2	160	210	240	40 x 1 x 3	120	330	480	540
15.5 x 0.8 x 4	49.6	195	265	295	40 x 1 x 4	160	400	560	630
15.5 x 0.8 x 6	74.4	225	320	360	40 x 1 x 5	200	450	630	710
15.5 x 0.8 x 8	99.2	265	380	430	40 x 1 x 6	240	480	680	750
15.5 x 0.8 x 10	124	300	420	480	40 x 1 x 8	320	600	830	920
20 x 1 x 2	40	170	240	270	40 x 1 x 10	400	670	920	1030
20 x 1 x 3	60	230	320	360	50 x 1 x 3	150	400	570	650
20 x 1 x 4	80	270	380	440	50 x 1 x 4	200	490	700	790
20 x 1 x 5	100	300	430	490	50 x 1 x 5	250	540	780	880
20 x 1 x 6	120	330	470	530	50 x 1 x 6	300	590	840	950
20 x 1 x 8	160	400	560	620	50 x 1 x 8	400	680	1000	1130
20 x 1 x 10	200	420	580	650	50 x 1 x 10	500	750	1100	1300
24 x 1 x 2	48	200	280	320	63 x 1 x 5	315	650	900	1000
24 x 1 x 3	72	250	360	410	63 x 1 x 6	378	690	980	1100
24 x 1 x 4	96	280	410	460	63 x 1 x 8	504	840	1200	1350
24 x 1 x 5	120	330	470	530	63 x 1 x 10	630	920	1300	1450
24 x 1 x 6	144	360	510	570	80 x 1 x 5	400	700	1100	1230
24 x 1 x 8	192	420	590	670	80 x 1 x 6	480	780	1210	1360
24 x 1 x 10	240	500	700	790	80 x 1 x 8	640	950	1400	1570
32 x 1 x 2	64	230	320	360	80 x 1 x 10	800	1090	1550	1730
32 x 1 x 3	96	280	410	460	100 x 1 x 5	500	860	1250	1400
32 x 1 x 4	128	320	460	520	100 x 1 x 6	600	950	1380	1530
32 x 1 x 5	160	390	550	610	100 x 1 x 8	800	1100	1580	1760
32 x 1 x 6	192	440	620	700	100 x 1 x 10	1000	1220	1710	1920
32 x 1 x 8	256	510	720	822	100 x 1 x 12	1200	1300	1800	2010
32 x 1 x 10	320	600	840	930					



Tensile strength(LBS)	500
Torgue strength(LBS)	6
Voltage withstand(KV)	6
screw(mm)	6
weight(G)	28

Tensile strength(LBS)	550
Torgue strength(LBS)	8
Voltage withstand(KV)	8
screw(mm)	8
weight(G)	44

Tensile strength(LBS)	800
Torgue strength(LBS)	10
Voltage withstand(KV)	10
screw(mm)	8
weight(G)	50

Tensile strength(LBS)	650
Torgue strength(LBS)	10
Voltage withstand(KV)	12
screw(mm)	8
weight(G)	86

Tensile strength(LBS)	1000
Torgue strength(LBS)	20
Voltage withstand(KV)	15
screw(mm)	10
weight(G)	70

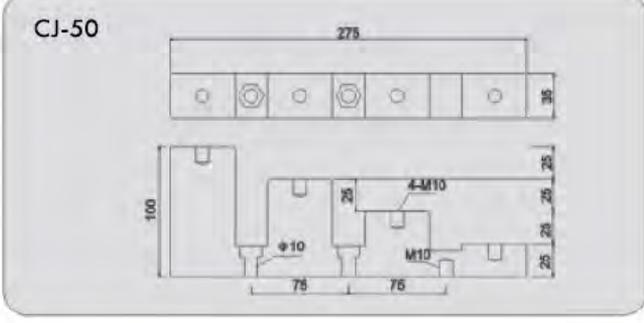
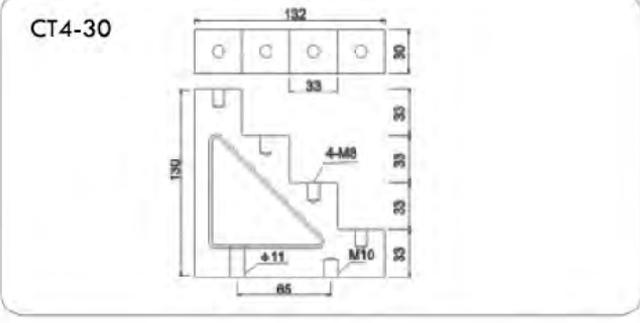
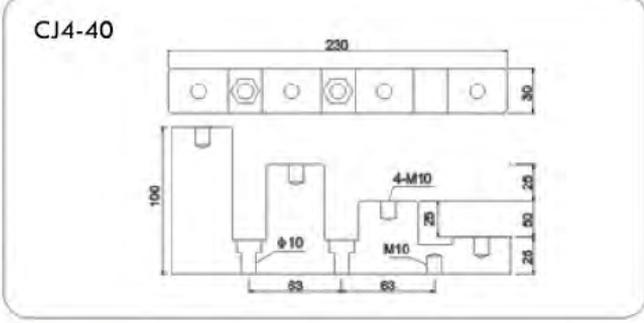
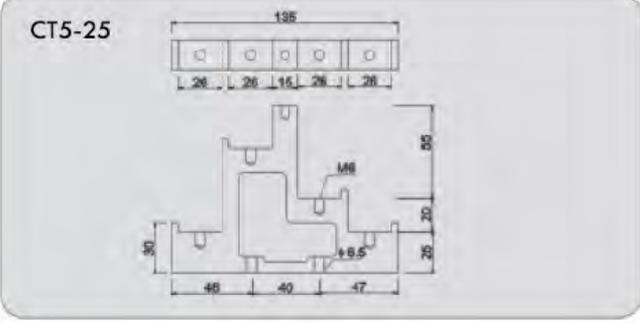
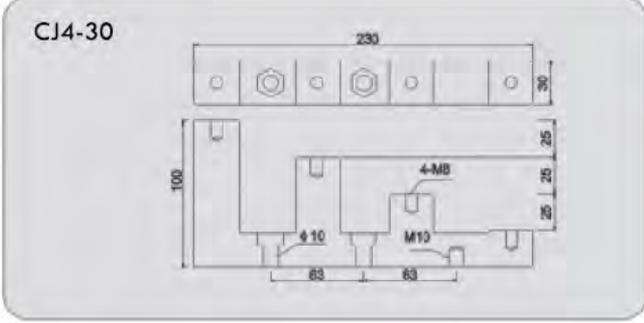
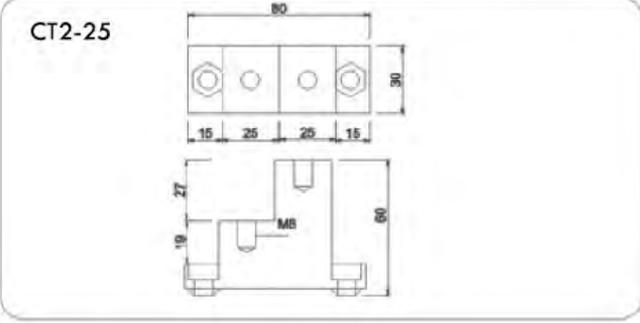
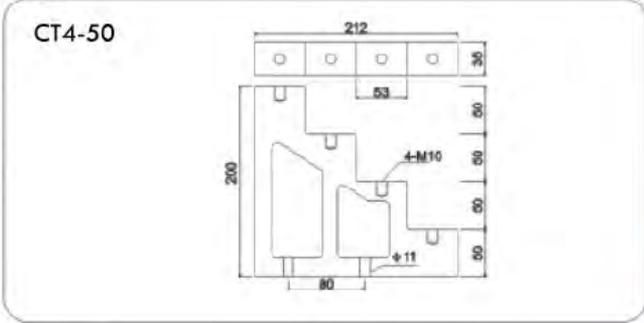
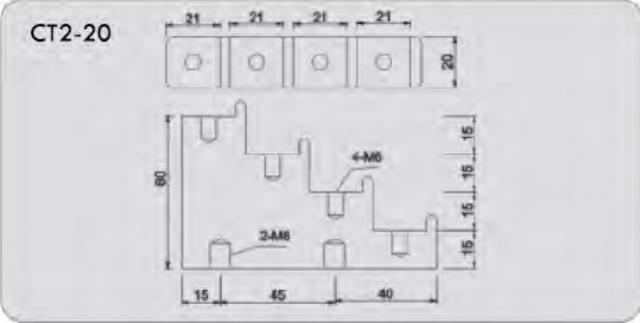
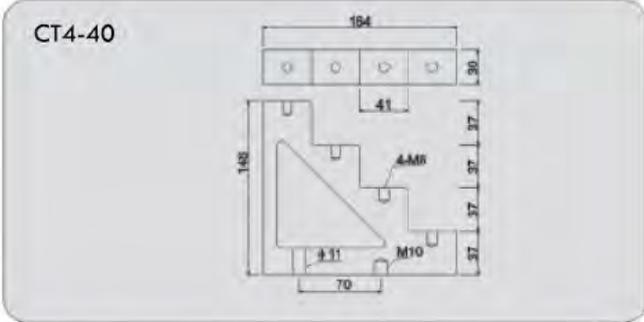
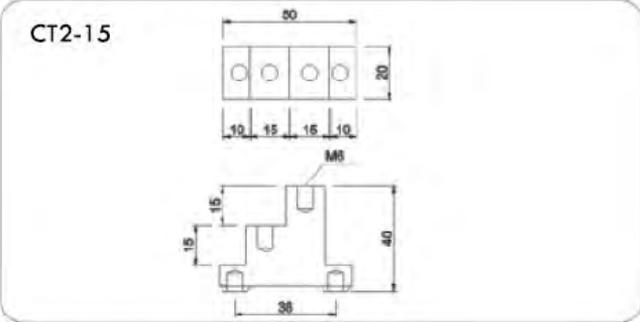
Tensile strength(LBS)	1000
Torgue strength(LBS)	20
Voltage withstand(KV)	15
screw(mm)	8
weight(G)	83

Tensile strength(LBS)	1500
Torgue strength(LBS)	40
Voltage withstand(KV)	25
screw(mm)	10
weight(G)	170

Tensile strength(LBS)	1500
Torgue strength(LBS)	40
Voltage withstand(KV)	25
screw(mm)	10
weight(G)	233



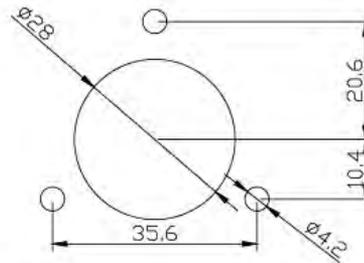
STEP INSULATORS



Cabinet Accessories

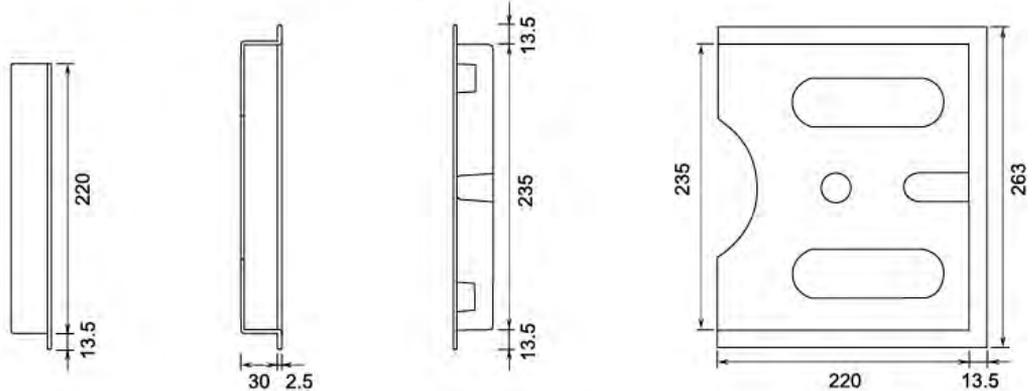
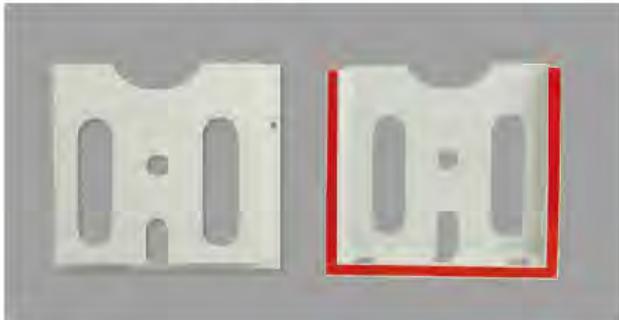
**LK-705**

Sealed enclosures when subject to external temperature fluctuations develop pressure differential toward the ambient. As a consequence entrance of dust and/or humidity is likely to happen through leakage points. Installing a LK-705 prevents this risk while preserving a high protection degree for the enclosure.



Features	unit	Characters
Material	-	ABS self-extinguishing
Color	-	Grey(RAL7035), Black(RAL9005)
Protection degree	-	IP54
Fixing	-	Screws with rubber gasket
Dimensions HxWxD	mm	70x50x21
Weight	kg	0.03

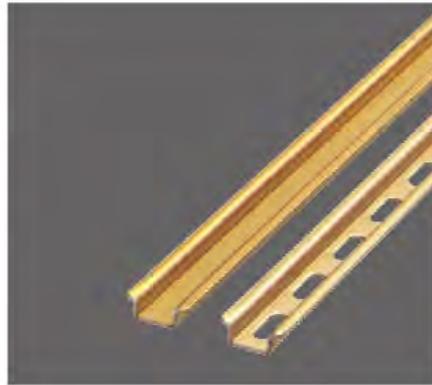
**Documents Pocket WJ-1**



The installing guide is designed according to the new Europe standard EN 50 022,EN 50 035,EN50 045.

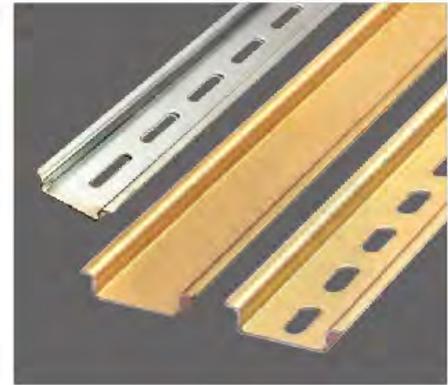
It has a precise height,strict tolerance,fine surface and good finish.The steel guide has been zinc-plated and yellow processed.

For the convenience of installing and making holes,there is a line printed on the center of guide which also exists on the aluminum and copper guide.length and can be with round hole,long hole,or trough.



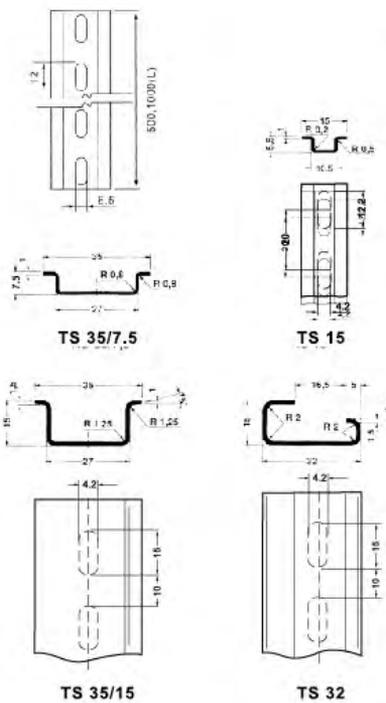
**TS 15/5.5**

Model	Packing
According to EN 50 045-15×5mm Made of steel,yellow, Without hole length:2m	
NS 15/5.5 Without hole	1



**TS 35/7.5**

Model	Packing
According to EN 50 022-35×7.5mm Made of steel,yellow, Without hole length:2m	
NS 35/7.5 Without hole	1



**TS 35/15**

Model	Packing
According to EN 50 022 35×15mm Made of thick steel plate of 1.5mm High section,Without hole length:2m	
TS 35/15 Without hole	1



**TS 32**

Model	Packing
According to EN 50 035-G 32 Made of steel,Without hole length:2m	
TS 32 Without hole	1

### DIN rail retainer TSTW



### Aluminum DIN rail



Din Rail Cutter



LKDC-002 Standard Din Rail Cutter.

Used for: Din Rail W35\*H7.5\*T1.0mm or W35\*H15\*T1.5mm, customizable for other size Din Rail.

Use Method and Notes:

- 1, Lift the handle, insert the Din Rail into the matching cavity, make it vertical to the cavity surface at the same time and Din Rail will go through, press the handle, Din Rail will be cut off.
- 2, Choose the flat ground during the operation, it ensures the cutter base bear stress evenly and reduces the stress on cavity.



LKDC-003 Bench Type Din Rail Cutter

This cutter needs to be installed on a workbench, it can cut any size Din Rail with the assistance of a measure gauge. Humanization design, no need to bend over when operate it.

Use Method and Notes:

- 1, Lift the handle, insert the Din Rail into the matching cavity, make it vertical to the cavity surface at the same time and Din Rail will go through, press the handle, Din Rail will be cut off.
- 2, Choose the flat ground during the operation, it ensures the cutter base bear stress evenly and reduces the stress on cavity.



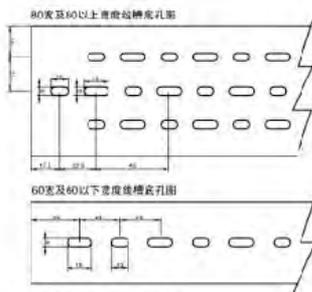
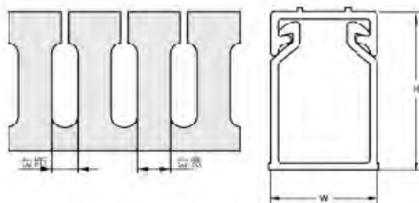
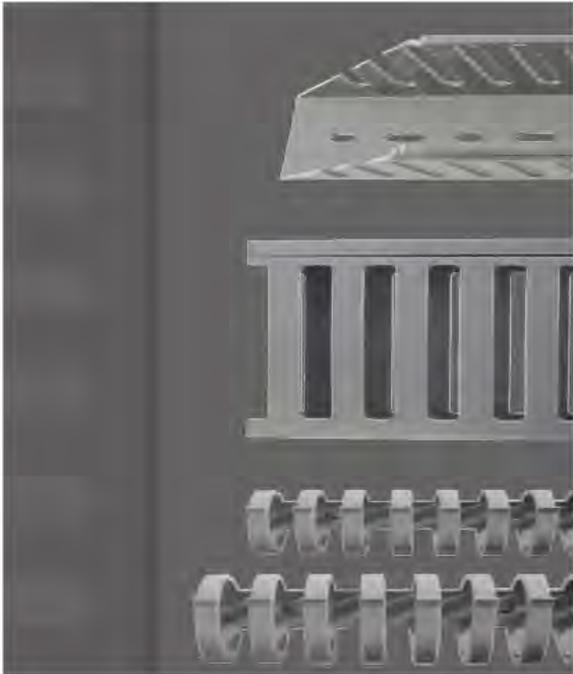
LKWC-001 Wiring Duct Cutter

Used to cut wiring duct and cover, Max available width: 125mm

High strength cutting blade, anti-abrasion.

High efficient, free of burrs after cutting.





图例系列选型: SWD 高H宽W

## Description

### Material

Manufactured with high quality rigid PVC, ROHS compliant, low smoke

### Flammability rating

UL94 Flammability Rating of V-0, inflaming retarding material with good self extinguishing ability

### Construction

1. Consist of base and cover, Easy and firm snap-on assembly, smooth joining for a better finish
2. With aligned slot, Smooth corners and edges will not damage or disfigure wires.
3. Variable sizes and multi type side holes, easily for installation and wiring digrame.
4. Special mark line design on the cover can allow a quick tag of relevant components.

### Color

Grey (White. Blue. and Black colors are available)

### Temperature

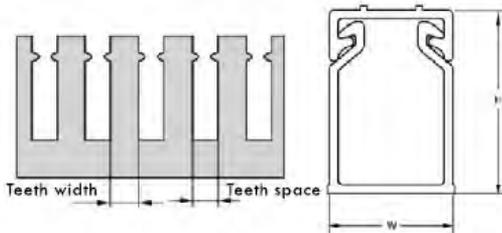
-20°C ~ 85°C

### LD series

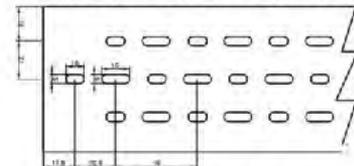
Wide slot/finger	Dimension		Teeth space/Teeth width (mm)			package meter
	H(mm)	W(mm)	6-8	8-10	10-10	
LD 50 25	50	25	•			100
LD 50 35		35	•			100
LD 50 45		45	•			80
LD 50 50		50	•			80
LD 50 60		60	•			64
LD 50 80		80	•			48
LD 60 40	60	40		•		64
LD 60 60		60		•		48
LD 60 80		80		•		36
LD 65 33	65	33		•		80
LD 65 45		45		•		80
LD 65 65		65		•		48
LD 80 25	80	25		•		60
LD 80 35		35		•		60
LD 80 40		40		•		48
LD 80 45		45		•		48
LD 80 50		50		•		48
LD 80 60		60		•		36
LD 80 80		80		•		36
LD 80 100		100		•		24
LD 80 120		120		•		24
LD 100 35		100	35			•
LD 100 40	40				•	48
LD 100 50	50				•	48
LD 100 60	60				•	36
LD 100 80	80				•	24
LD 100 100	100				•	24
LD 100 120	120				•	24
LD 100 140	140				•	24
LD 130 100	130	100			•	24

## LFD series

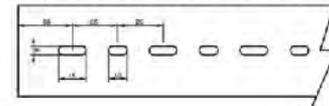
Round	DimensiOfns		Teeth space/Teeth width (mm)			package
	H(mm)	W(mm)	6-6	6-8	10-10	
TYPE						meter
LFD 50 25	50	25	•		•	100
LFD 50 35		35	•		•	100
LFD 50 45		45	•		•	80
LFD 50 50		50	•		•	80
LFD 50 60		60	•		•	64
LFD 50 80		80	•		•	48
LFD 80 25	80	25		•		60
LFD 80 35		35		•		60
LFD 80 40		40		•		48
LFD 80 45		45		•		48
LFD 80 50		50		•		48
LFD 80 60		60		•		36
LFD 80 80		80		•		36
LFD 80 100		100		•		24
LFD 80 120		120		•		24



Bottom view for duct above 80mm(width)

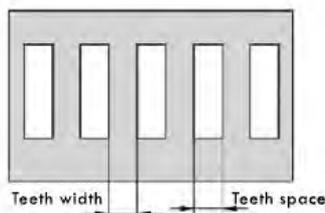
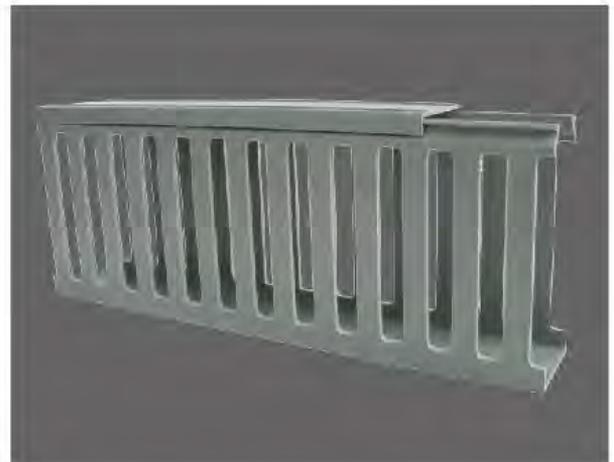


Bottom view for duct below 60mm(width)

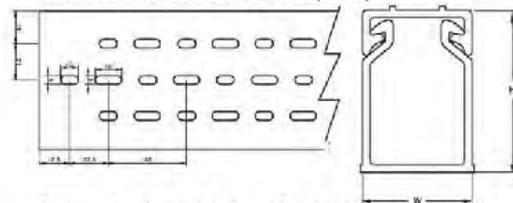


## KFD series

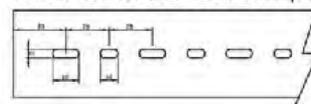
Close/Square	DimensiOfns		Teeth space/Teeth width (mm)			package	
	H(mm)	W(mm)	6-6	6-8	10-10		
TYPE						meter	
KFD 60 40	60	40	•			64	
KFD 60 60		60	•			48	
KFD 60 80		80	•			36	
KFD 100 30	100	35			•	48	
KFD 100 40		40			•	48	
KFD 100 50		50			•	48	
KFD 100 60		60			•	36	
KFD 100 80		80			•	24	
KFD 100 100		100			•	24	
KFD 100 120		120			•	24	
KFD 100 140		140			•	24	
KFD 150 100		150	100			•	16

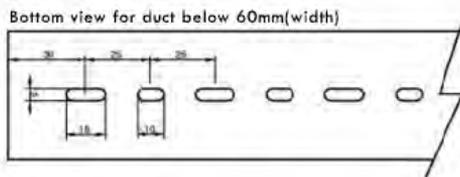
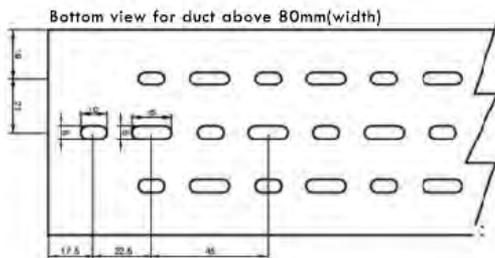
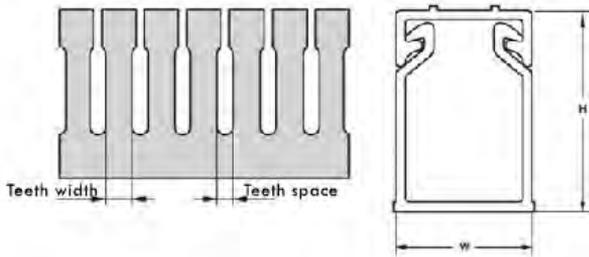


Bottom view for duct above 80mm(width)



Bottom view for duct below 60mm(width)





## KD series

Narrow Slot/Finger TYPE	Dimension		Teeth space/Teeth width (mm)			Package meter
	H(mm)	W(mm)	4-6	6-6	6-8	
KD 25 25	25	25	•			100
KD 30 20		20	•			100
KD 30 35		35	•			100
KD 30 30		30	•			100
KD 30 35		35	•			100
KD 35 35	35	35	•			100
KD 40 25		25	•			100
KD 40 40	40	40	•			80
KD 40 60		60	•			60
KD 50 25		25	•			100
KD 50 35		35	•			100
KD 50 45		45	•			80
KD 50 50	50	50	•			80
KD 50 60		60	•			64
KD 50 80		80	•			48
KD 60 40		40	•			64
KD 60 60	60	60	•			48
KD 60 80		80	•			36
KD 65 33		33	•			80
KD 65 45		45	•			80
KD 65 65		65	•			48
KD 80 25		25	•		•	60
KD 80 35		35	•		•	60
KD 80 40		40	•		•	48
KD 80 45		45	•		•	48
KD 80 50		50	•		•	48
KD 80 60		60	•		•	36
KD 80 80		80	•		•	36
KD 80 100		100	•		•	24
KD 80 120		120	•		•	24
KD 100 35		35		•		48
KD 100 40		40		•		48
KD 100 50		50		•		48
KD 100 60		60		•		36
KD 100 80		80		•		24
KD 100 100		100		•		24
KD 100 120		120		•		24

**MKD series**

Close Type	Dimension		Package
	TYPE	H(mm)	W(mm) meter
MKD 25 25	25	25	100
MKD 30 20	30	20	100
MKD 30 35		35	100
MKD 30 30		30	100
MKD 30 35		35	100
MKD 35 35	35	35	100
MKD 40 25	40	25	100
MKD 40 40		40	80
MKD 40 60		60	60
MKD 50 25	50	25	100
MKD 50 35		35	100
MKD 50 45		45	80
MKD 50 50		50	80
MKD 50 60		60	64
MKD 50 80		80	48
MKD 60 40	60	40	64
MKD 60 60		60	48
MKD 60 80		80	36
MKD 65 33	65	33	80
MKD 65 45		45	80
MKD 65 65		65	48
MKD 80 25	80	25	60
MKD 80 35		35	60
MKD 80 40		40	48
MKD 80 45		45	48
MKD 80 50		50	48
MKD 80 60		60	36
MKD 80 80		80	36
MKD 80 100		100	24
MKD 80 120		120	24
MKD 100 35	100	35	48
MKD 100 40		40	48
MKD 100 50		50	48
MKD 100 60		60	36
MKD 100 80		80	24
MKD 100 100		100	24
MKD 100 120		120	24
MKD 100 140		140	24
MKD 130 100	130	100	24
MKD 150 100	150	100	16


**Cover**
**Model: KB-width**

Art. No	Art. No	Art. No	Art. No
KB-15	KB-35	KB-60	KB-120
KB-20	KB-40	KB-65	KB-140
KB-25	KB-45	KB-80	KB-535
KB-30	KB-50	KB-100	
KB-33	KB-55		

## LED Light Used For Switchgear Instrument Cabinet LKL10-W / LKL10-W-3



### Application

LKL10-W Series LED light is designed for instrument cabinet illumination of various switchgear.

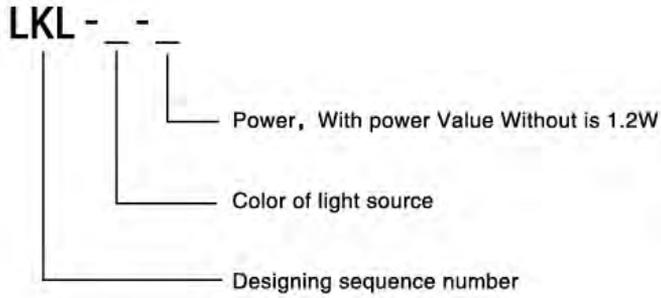
### Features and advantage

- ◆ Economize on energy, In the case of illuminate effect same alike the traditional light, economizing on energy is 75% above.
- ◆ Life span is long, the LED light source, someone call it the longevity light, meaning to extinguish never. It's the solid cold light source, adopt a special electric circuit design, the life span can reach to for 100,000 hours, comparing traditional light source life span to grow 1000% above.
- ◆ The environmental protection performance is better, without ultraviolet ray and infrared rays in the spectrum, without calories and radiate, the dizzy light is small, and the castoff can recover, without pollution and do not contain the mercury chemical Element. The cold light source, can be touched, belong to typical model of the green illuminate light source.
- ◆ Special circuit design, if anyone LED is bad, it isn't without influence to normal lumination of others LED.
- ◆ Special structure design, light body position can be adjusted, that solves the problem of less lumination angle of LED.
- ◆ The power supply adapt to AC/DC110~230V, suitable in application case of switchgear especially .
- ◆ With two mounting methods of clamp and fixation.

### Technique parameters

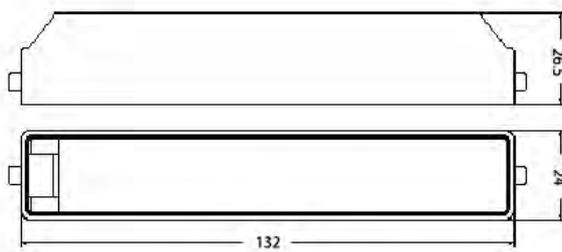
Enclosure material	PC-ABS(halogen-free)
Protection category	IP 20
Power supply	AC(50/60Hz)/DC 110V~230V
Wire connection	1 × 4mm <sup>2</sup> or 2 × 1.5mm <sup>2</sup>
Insulating strength	AC2500V, 1Min
luminescence component	LED
Ambient temperature	-25℃~50℃
Relative humidity	25% ~ 95%
Life span	More than 100,000hours

Models explanation

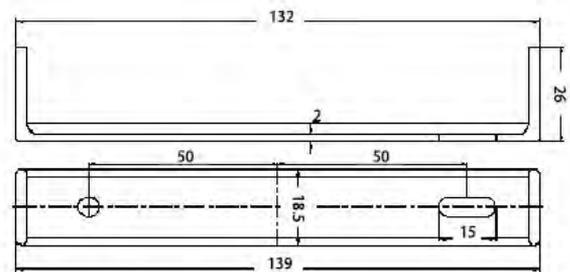


TYPE	LKL10-W	LKL10-W-3
Color of light source	White	Black
Power	1.2W	3W

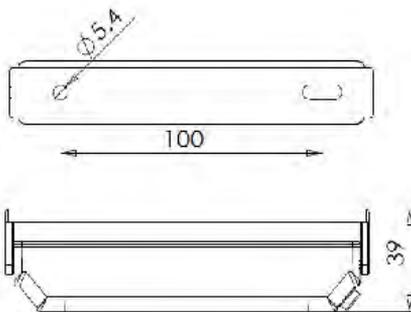
Dimension diagram



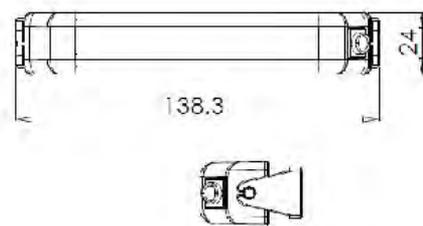
Dimension of LKL10-W light body



Dimension of LKL10-W light bracket



Dimension of LKL10-W-3 light body



Dimension of LKL10-W-3 light bracket

Installation

Assemble by clamp or bolt fixation. Assemble bracket first, then connect the power cable into light body terminal, insert the terminal side of light body into assemble hole of bracket, another side insert into the another side of bracket with screwdriver.

The angle between the support and the light body can be adjust according to the lumination need.

LKL10-W Light body

LKL10-W Bracket

LKL10-W assembled



# Cable Cabinet Lamp LKCL 20



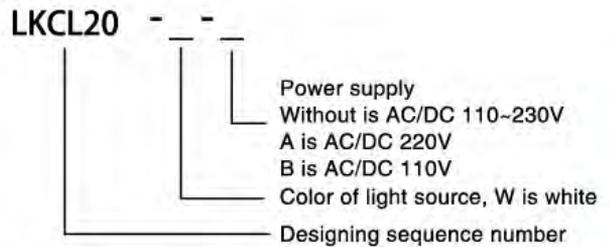
### Application

The LKCL 20-W is the substitute of the traditional cable cabinet lamp, adopt LED as light source, and adopt metal shell, carry out low cost and high reliability and use easily .

### Features and advantages

- ◆ Choose the LED that suitable with the cable cabinet illuminance, ensure illuminance effect with lower power consumption
- ◆ Since LED life is long, replacing is not be acted as normal situation.
- ◆ The material of shell adopt metal.

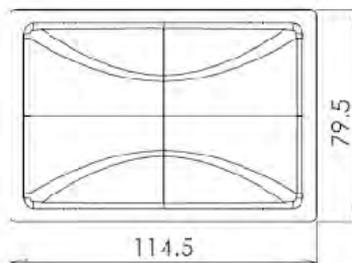
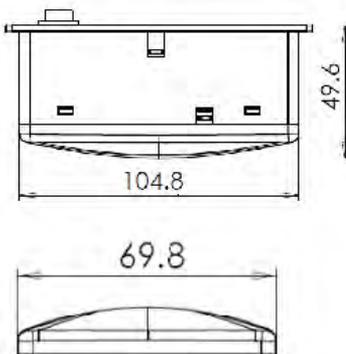
### Models explanation



Rated power voltage	AC(50/60Hz)/DC110V~230V / AC(50/60Hz)/DC220V / AC(50/60Hz)/DC110V
Power Consumption	< 4W
Illuminance	Center point 30cm from lamp, >350Lx
Life span	Use highlight LED, the life span is no less Than for 50000 hours
Arc accident shock strength	>10000N
Insulating strength	AC2500V,1Min
Ambient temperature	-25℃~50℃
Relative humidity	25%~95%
Mount method	Fix

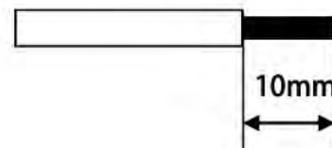
TYPE	LKCL 20-W	LKCL 20-W-A	LKCL 20-W-B
Color of light source	White	White	White
Power supply	AC/DC 110-230V	AC/DC 240V	AC/DC 110V

### Dimension diagram



Cut-out dimension  
107 × 71

Terminal Cross Section



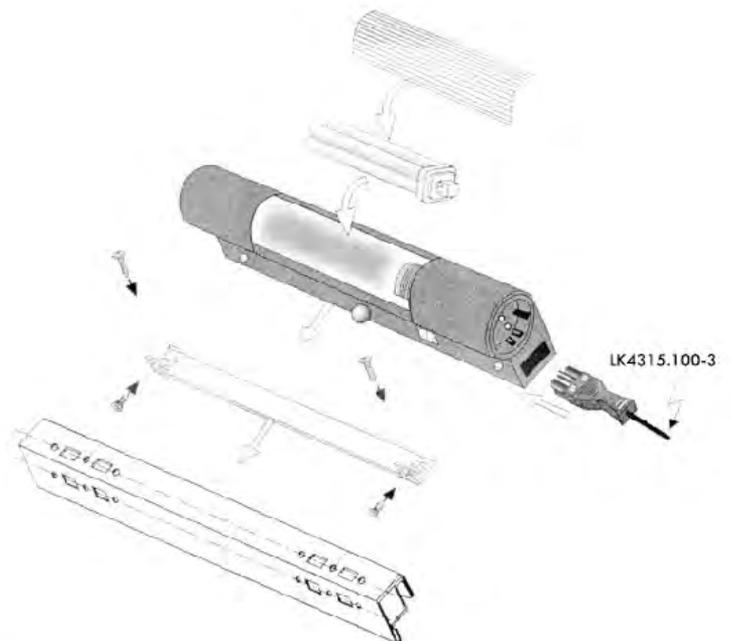
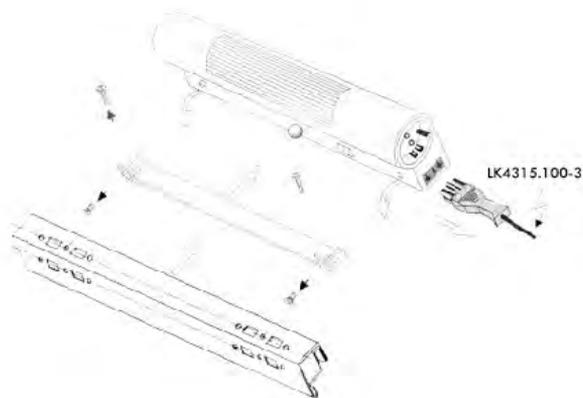
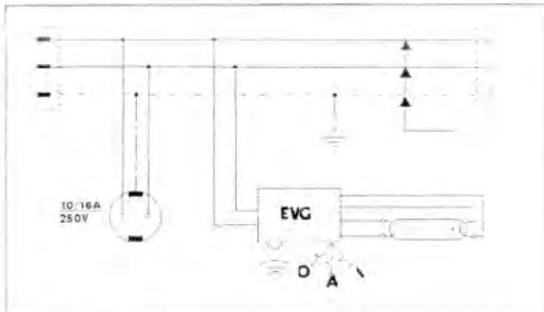
Nominal Cross Section: 2.5mm<sup>2</sup>



**Universal light**

With integral motion detector

- With motion sensor, so it can be automatically on/off when open/close the panel door
- Special structure design ,light body can be adjusted so it can change the angel of lighting
- Compact size with compact fluorescent lamp 174mm and wide voltage 110-240V AC



Technical specifications	Socket	W mm	H mm	D mm	Model No. LK	Code
26W, 110-240V	No	345	95	55	LK-212	4155.000
50-60 Hz	Yes	345	95	55	LK-213	4155.100

## T5 Fluorescent Cabinet Lamp



- High brightness, small size, with on/off switch
- High lighting effect, save 55% power
- Long life non flicker and can start by low voltage
- T5 Fluorescent with Opal Cover, Or with Striate Cover

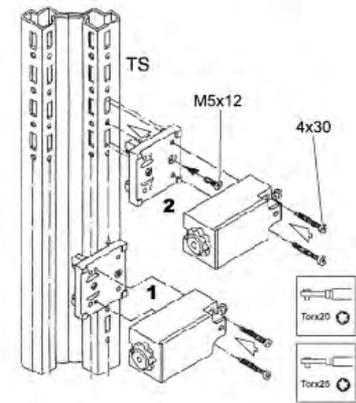
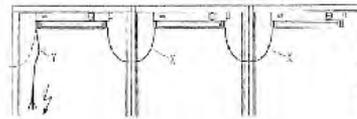
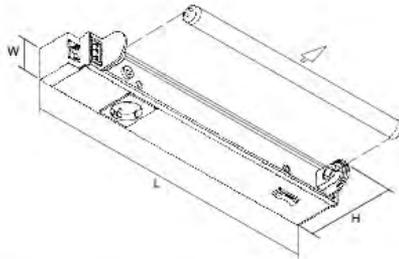
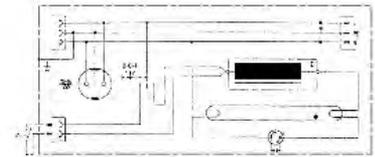
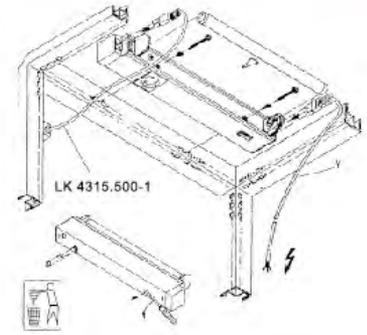
Model	Name	voltage	Power	PF	Dimension	Color temperature	QTY/CTN
LK-Y5Z04/YW01	T5 Aluminum Profile Fluorescent	220V/50HZ	4W	0.55	156x24x36	2700K/6500K	30
LK-Y5Z06/YW01			6W		255x24x36	2700K/6500K	30
LK-Y5Z08/YW01			8W		309x24x36	2700K/6500K	30
LK-Y5Z12/YW01			12W		486x24x36	2700K/6500K	30
LK-Y5Z14/YW01			14W		571x24x36	2700K/6500K	30
LK-Y5Z18/YW01			18W		731x24x36	2700K/6500K	30
LK-Y5Z21/YW01			21W		871x24x36	2700K/6500K	30

## T5 LED Cabinet Lamp



- The LED Lighting has no strobe, no infrared and ultraviolet, radiation free, Mercury free protect the natural environment
- High-quality LED chips as the illuminant, save more power, LED chip is antistatic.
- LED chips are solid encapsulation, they belong to cold light type, impact resistance, shockproof, easy for installation.
- Start fast, Long life: operation life about 50 thousand hours.

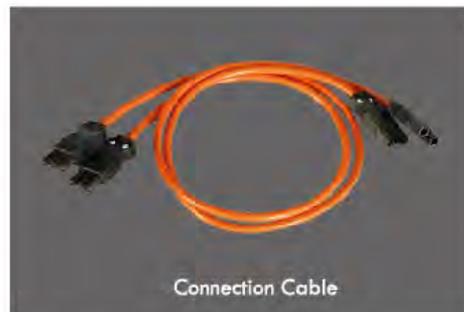
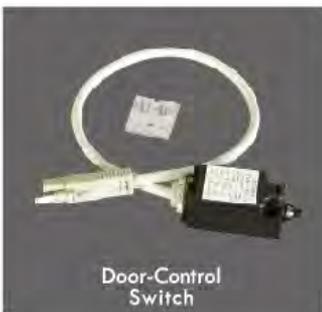
Model	LED Qty	Input voltage	Power	Luminous flux	Life (H)	Ra	External dimension	Color temperature	Qty
LK-L5X10A	96	AC110-240V	10W	870	>50000	≥80	850mm	3000/6400	30
LK-L5X10A	102	AC110-240V	10W	890	>50000	≥80	871mm	3000/6400	30
LK-L5X9A	80	AC110-240V	9W	700	>50000	≥80	731mm	3000/6400	30
LK-L5X6A	60	AC110-240V	6W	530	>50000	≥80	550mm	3000/6400	30
LK-L5X6A	64	AC110-240V	6W	560	>50000	≥80	571mm	3000/6400	30
LK-L5X5A	52	AC110-240V	5W	450	>50000	≥80	486mm	3000/6400	30
LK-L5X4A	38	AC110-240V	4W	330	>50000	≥80	309mm	3000/6400	30



	Type	Type
	LK-4138.10-1	LK-4138.18-1
L mm	425	685
W mm	50	50
H mm	117	117
Pw	10w	18w

	X	Y
	LK4315.200-1	LK4315.100-1
	LK4315.400-1	
	LK4315.600-1	

## Lamp Cable

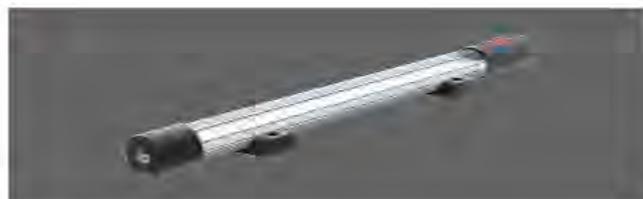


Type	LK4315.500-1
Cable length(mm)	500
Colour	White

Type	LK4315.200-1	LK4315.600-1	LK4315.4000-1
Cable length(mm)	1000	600	4000
Colour	Orange	Orange	Orange

Type	LK4315.100-3	LK4315.100-2	LK4315.100-1
Cable length(mm)	3000	2000	1000
Colour	Orange	Orange	Orange

## Lamp LK 025-LED



Wide voltage range  
Integrated power unit

Long-lived and maintenance-free by LED technology  
On/off switch or movement sensor

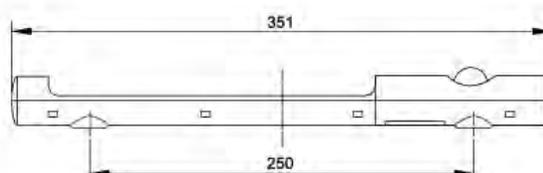
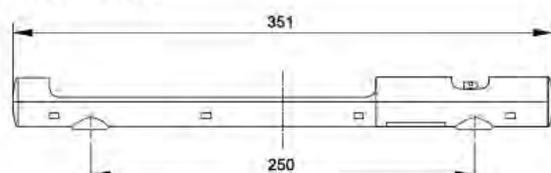
The lamp series LED 025 is suitable for all types of panels and enclosures, especially where space is at a premium. The lamps have a very long service life thanks to the use of LED technology. They are available with powerful non-slip rubberized magnets allowing them to be quickly positioned in any steel enclosure. Alternatively they can be fixed mechanically. The power output allows up to 10 lamps to be connected to each other (daisy chain). Both the power input and output connectors snap lock into their sockets. With the integrated power unit and the plugs the lamp can quickly be connected.

### Technical Details

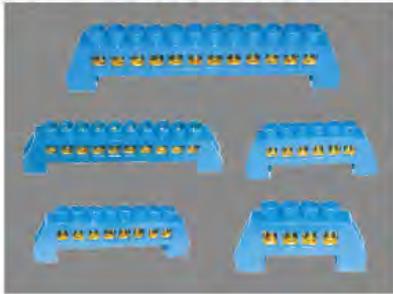
Power consumption	max. 5W
Luminosity	290Lm at 120° (870Lm at 360° or equivalent 75W light bulb)
Lamp type	LED, angle of radiation 120° light color: daylight, color temperature: 6,500K
Service life	60,000h at +20°C (+68°F)
Connection	2-pole connector with snap lock AC: max. 2.5A / 240VAC, color: white DC: max. 2.5A / 60VDC, color: blue
Mounting	magnet fixing or screw fixing (M5), torque 2Nm max., 250mm centers
Casing	plastic, transparent
Dimensions	see drawings
Operating/Storage temperature	-30 to +60°C (-22 to +140°F) / -40 to +85°C (-40 to +185°F)
Operating/Storage humidity	max. 90% RH (non-condensing)
Protection type/Protection class	IP20 / II (double insulated)

Art. No. Magnet fixing	Art. No. Screw fixing	Operating voltage	Switch	Weight (approx.)
02540.0-00	02540.0-01	100-240VAC, 50/60Hz (min. 90VAC, max. 265VAC)	on/off light switch	0.2kg
02540.1-00	02540.1-01	24-48VDC (min. 20VDC, max. 60VDC)	on/off light switch	0.2kg
02541.0-00	02541.0-01	100-240VAC, 50/60Hz (min. 90VAC, max. 265VAC)	PIR movement sensor <sup>1</sup>	0.2kg
02541.1-00	02541.1-01	24-48VDC (min. 20VDC, max. 60VDC)	PIR movement sensor <sup>1</sup>	0.2kg

### Technical Drawing

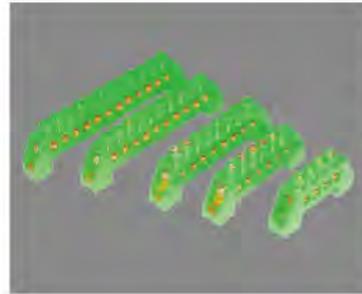


Lamp Series LK 025-LED



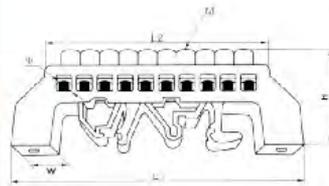
There are 8x12 copper rows in insulating crust

- D-8x12/12 Potential**
- D-8x12/10 Potential**
- D-8x12/8 Potential**
- D-8x12/6 Potential**
- D-8x12/4 Potential**



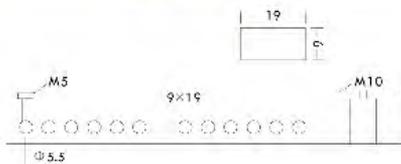
G-8x12 copper rows in insulating crust with earthing in one end.

- G-8x12/12 Potential**
- G-8x12/10 Potential**
- G-8x12/8 Potential**
- G-8x12/6 Potential**
- G-8x12/4 Potential**



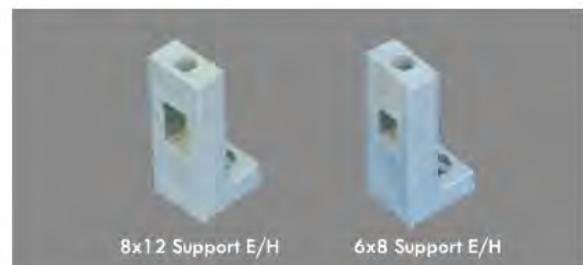
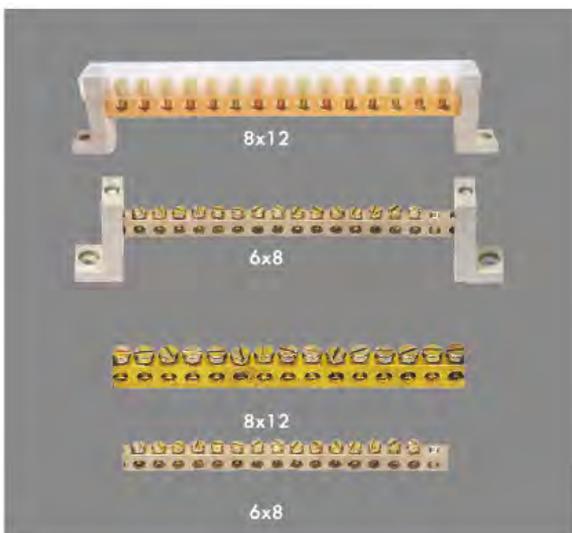
Item no.	Spec. w x h -hole	L1	L2	H	W	Φ	screw size	Plastic setting
LK 033-01	6x9-4	57.5	34	34.5	10.5	5.0	M4	PA
LK 033-02	6x9-6	57.7	46.7	34.5	10.5	5.0	M4	PA
LK 033-03	6x9-8	78.5	60	34.5	10.5	5.0	M4	PA
LK 033-04	6x9-10	89	72.8	34.5	10.5	5.0	M4	PA
LK 033-05	6x9-12	102	85.7	34.5	10.5	5.0	M4	PA
LK 033-06	8x12-4	77.5	40.6	38.6	12.6	7.0	M5	PA
LK 033-07	8x12-6	77.5	57.3	38.6	12.6	7.0	M5	PA
LK 033-08	8x12-8	94.3	74.4	38.6	12.6	7.0	M5	PA
LK 033-09	8x12-10	111.0	91	38.6	12.6	7.0	M5	PA
LK 033-10	8x12-12	128.4	108.6	38.6	12.6	7.0	M5	PA
LK 033-11	8x12-14	145.8	135.6	38.6	12.6	7.0	M5	PA

### DRB series

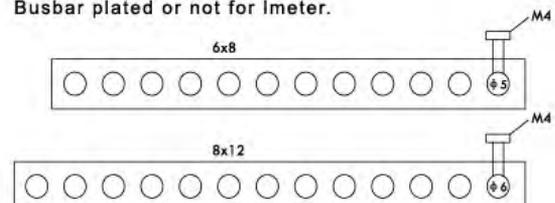


### Double row brass terminal series

Model No.	Way	Brass specification (mm)	Rated current (A)	Dimension (mm)	Screw no.s	Installation hole Distance(mm)
DRB-9x19/6	6	9x19	180A	102x45x45	2 x M10 12 x M5	50 (M5)
DRB-9x19/12	12	9x19	180A	144x45x45	2 x M10 24 x M5	50 (M5)
DRB-9x19/18	18	9x19	180A	187x45x45	2 x M10 36 x M5	120 (M5)
DRB-9x19/24	24	9x19	180A	230x45x45	2 x M10 48 x M5	120 (M5)
DRB-9x19/36	36	9x19	180A	315x45x45	2 x M10 72 x M5	120 (M5)

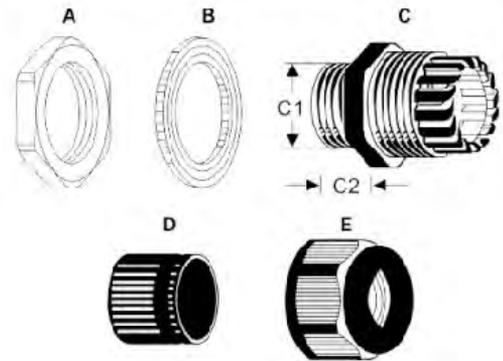


Busbar plated or not for Imeter.





# Cable Glands Series

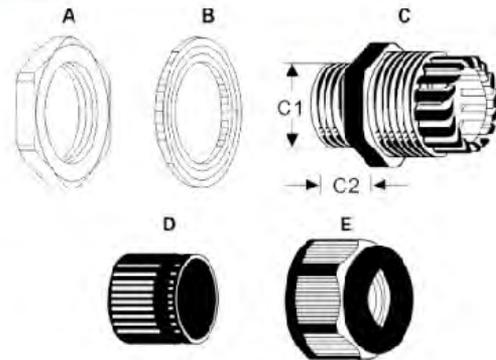


## Product Overview

- ◆ Thread: PG, Metric, G, and NPT thread
- ◆ Materials: UL approved Nylon PA66 (Flammability) UL 94V-2) for A. C. E parts, (Accept to make flammability UL 94V-0); EPDM rubber for B. D parts, (Also accept to make super rubber: resist high temperature rubber, resist strong acid/alkali, etc).
- ◆ Protection degree: IP68
- ◆ Working temperature: -40 °C to 100 °C
- ◆ Features: The claws and seals of excellent design, sealing nut have a "click" sound and re-open, can hold cable firmly and have a wider cable range. Resistant to salt water, weak acid, alcohol, oil, grease and common solvency.
- ◆ Colours: Black(RAL9005), gray(RAL7035), other color available upon request.

PG Type	PG Thicken Type	Applicable to cable	Thread diameter C1	Thread length C2	Wrench diameter
PG7	PG7-T	3~6.5	12.5	8	16
PG9	PG9-T	4~8	15.2	8	19
PG11	PG11-T	5~10	18.6	8	22
PG13.5	PG13.5-T	6~12	20.4	10	24
PG16	PG16-T	10~14	22.5	10	27
PG19	PG19-T	12~16	24	10	27
PG21	PG21-T	13~18	28.3	10	33
PG25	PG25-T	16~21	30	11	35
PG29	PG29-T	18~25	37	12	42
PG36	PG36-T	22~32	47	14	52
PG42	PG42-T	32~38	54	14	60
PG48	PG48-T	37~44	59.3	15	64
PG63	PG63-T	42~50	71	28	77

# Nylon Cable Glands (Metric) M type



## Product Overview

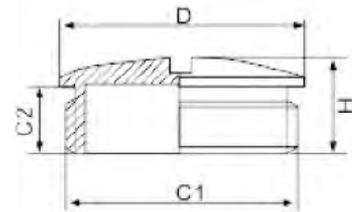
- ◆ Thread: Metric, PG, G(PF), and NPT thread
- ◆ Materials: UL approved Nylon PA66 (Flammability) UL 94V-2) for A. C. E parts, (Accept to make flammability UL 94V-0); EPDM rubber for B. D parts, (Also accept to make super rubber: resist high temperature rubber, resist strong acid/alkali, etc).
- ◆ Protection degree: IP68
- ◆ Working temperature: -40 °C to 100 °C
- ◆ Features: The claws and seals of excellent design, sealing nut have a "click" sound and re-open, can hold cable firmly and have a wider cable range. Resistant to salt water, weak acid, alcohol, oil, grease and common solvency.
- ◆ Colours: Black(RAL9005), grey(RAL7035), other color available upon request.

PG Type	PG Thicken Type	Applicable to cable	Thread diameter C1	Thread length C2	Wrench diameter
M12x1.5	M12x1.5-T	3~6.5	12	8	16
M16x1.5	M16x1.5-T	4~8	16	8	19
M18x1.5	M18x1.5-T	5~10	18	8	22
M20x1.5	M20x1.5-T	6~12	20	10	24
M22x1.5	M22x1.5-T	10~14	22	10	27
M24x1.5	M24x1.5-T	12~16	24	10	27
M25x1.5	M25x1.5-T	13~18	25	10	33
M27x1.5	M27x1.5-T	13~18	27	10	33
M30x1.5	M30x1.5-T	16~21	30	11	35
M32x1.5	M32x1.5-T	16~21	32	11	35
M36x1.5	M36x1.5-T	18~25	36	12	42
M40x1.5	M40x1.5-T	22~32	40	14	52
M50x1.5	M50x1.5-T	32~38	50	14	60
M63x1.5	M63x1.5-T	37~44	63	15	64
M71x1.5	M71x1.5-T	42~50	71	28	77



**Product Overview**

- ◆ Material: Nylon PA66
- ◆ Protection degree: IP68
- ◆ Working temperature: -40°C to 100°C
- ◆ Application: Dust-proof for spare holes
- ◆ Colours: Black and gray



**Nylon Screw Plugs PG Type**

PG Type	Thread diameter C1	Thread length C2	Main Dimensions H	Cover Dimensions D
PG7	12.5	8.5	12.5	15
PG9	15.2	8.5	13	19
PG11	18.6	9	13	22
PG13.5	20.4	9	13	25
PG16	22.5	10.5	15	27
PG21	28.3	10.5	15.5	33
PG29	37	11.5	16	44
PG36	47	13.5	18	55
PG42	54	13.5	18.5	62
PG48	59.3	14.5	19.5	68

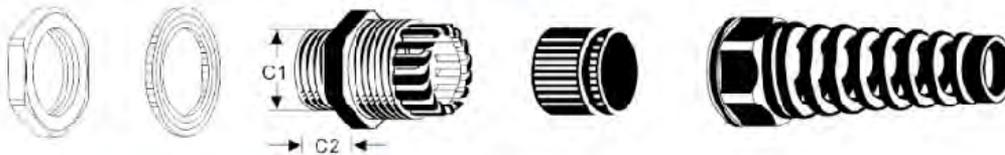
**Nylon Screw Plugs M Type**

M Type	Thread diameter C1	Thread length C2	Main Dimensions H	Cover Dimensions D
M12x1.5	12	8.5	12.5	15
M16x1.5	16	8.5	13	19
M18x1.5	18	9	13	22
M20x1.5	20	9	13	25
M22x1.5	22	10.5	15	27
M25x1.5	25	10.5	15.5	30
M27x1.5	27	10.5	15.5	33
M32x1.5	32	10.5	16	38
M40x1.5	40	11.5	16	46
M50x1.5	50	13.5	18	56
M63x1.5	63	14.5	19	68



## Product Overview

- ◆ Thread: PG, Metric, G, and NPT thread
- ◆ Materials: UL approved Nylon PA66 (Flammability) UL 94V-2) for A. C. E parts, (Accept to make flammability UL 94V-0); EPDM rubber for B. D parts, (Also accept to make super rubber: resist high temperature rubber, resist strong acid/alkali, etc).
- ◆ Protection degree: IP68
- ◆ Working temperature: -40 °C to 100 °C
- ◆ Features: The claws and seals of excellent design, sealing nut have a "click" sound and re-open, can hold cable firmly and have a wider cable range. Resistant to salt water, weak acid, alcohol, oil, grease and common solvency.
- ◆ Colours: Black(RAL9005), gray(RAL7035), other color available upon request.



## Spiral Cable Glands PG type

PG Type	Cable Range	Thread diameter C1	Thread length C2	Wrench diameter
PG7	3~6.5	12.5	8	16
PG7	2~5	12.5	8	16
PG9	4~8	15.2	8	19
PG9	2~6	15.2	8	19
PG11	5~10	18.6	8	22
PG11	3~7	18.6	8	22
PG13.5	6~12	20.4	9	24
PG13.5	5~9	20.4	9	24
PG16	10~14	22.5	10	27
PG16	7~12	22.5	10	27
PG21	13~18	28.3	10	33
PG21	9~16	28.3	10	33

## Spiral Cable Glands M type

M Type	Cable Range	Thread diameter C1	Thread length C2	Wrench diameter
M12x1.5	3~6.5	12	8	16
M12x1.5	2~5	12	8	16
M16x1.5	4~8	16	8	19
M16x1.5	2~6	16	8	19
M18x1.5	5~10	18	8	22
M18x1.5	3~7	18	8	22
M20x1.5	6~12	20	9	24
M20x1.5	5~9	20	9	24
M22x1.5	10~14	22	10	27
M22x1.5	7~12	22	10	27
M25x1.5	13~18	25	10	33
M25x1.5	9~16	25	10	33
M27x1.5	13~18	27	10	33
M27x1.5	9~16	27	10	33



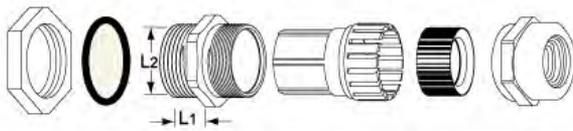
Material: Parts A, C, F are made of brass plated with nickel, part D is made of UL approved nylon PA66, parts B and E are made of nitrile butadiene rubber (NBR).

Thread spec.: Metric, PG, G, NPT.

Working temperature: -40 °C to 100 °C, instantaneous heat resistance up to 120 °C.

Characteristics: Special design of clamping die and rubber part, large range in clamping the cable, ultrastrong stretching resistance, waterproof, dustproof, and high ability to resist salt, acid, alkali, alcohol, grease and general solvent.

A Lock Nut    B O Ring    C Body    D Claw    E Seal    F Sealing Nut



Model	Thread Size	Cable Range (mm)	Thread O. D. L2 (mm)	Thread Length L1 (mm)	Spanner Size (mm)
PG7-M	PG7	3~6.5	12.5	5	14
PG7-M	PG7	2~5	12.5	5	14
PG9-M	PG9	5~9	15.2	6	17
PG9-M	PG9	2~6	15.2	6	17
PG11-M	PG11	6.5~11	18.6	6	20
PG11-M	PG11	3~7	18.6	6	20
PG13.5-M	PG13.5	7~13	20.4	6.5	22
PG13.5-M	PG13.5	5~9	20.4	6.5	22
PG16-M	PG16	9~14	22.5	6.5	24
PG16-M	PG16	6~12	22.5	6.5	24
PG21-M	PG21	11~18	28.3	7	30
PG21-M	PG21	9~16	28.3	7	30
PG29-M	PG29	18~26	37	8	40
PG29-M	PG29	13~20	37	8	40
PG36-M	PG36	24~33	47	9	50
PG36-M	PG36	20~26	47	9	50
PG42-M	PG42	30~39	54	10	58
PG42-M	PG42	25~31	54	10	58
PG48-M	PG48	34~45	59.3	10	63
PG48-M	PG48	29~35	59.3	10	63

## Metallic cable gland PG-LM/M-M type

### Metallic cable gland PG-LM type

Model	Thread Size	Cable Range (mm)	Thread O. D. L2 (mm)	Thread Length L1 (mm)	Spanner Size (mm)
PG7-LM	PG7	3~6.5	12.5	10	14
PG7-LM	PG7	2~5	12.5	10	14
PG9-LM	PG9	5~9	15.2	10	17
PG9-LM	PG9	2~6	15.2	10	17
PG11-LM	PG11	6.5~11	18.6	10	20
PG11-LM	PG11	3~7	18.6	10	20
PG13.5-LM	PG13.5	6~13	20.4	10	22
PG13.5-LM	PG13.5	5~9	20.4	10	22
PG16-LM	PG16	10~14	22.5	10	24
PG16-LM	PG16	6~12	22.5	10	24
PG21-LM	PG21	11~18	28.3	12	30
PG21-LM	PG21	9~16	28.3	12	30
PG29-LM	PG29	18~26	37	12	40
PG29-LM	PG29	13~20	37	12	40
PG36-LM	PG36	22~33	47	15	50
PG36-LM	PG36	20~26	47	15	50
PG42-LM	PG42	30~39	54	15	58
PG42-LM	PG42	25~31	54	15	58
PG48-LM	PG48	34~45	59.3	15	63
PG48-LM	PG48	29~35	59.3	15	63

### Metallic cable gland M-M type

Model	Thread Size	Cable Range (mm)	Thread O. D. L2 (mm)	Thread Length L1 (mm)	Spanner Size (mm)
M12-M	M12x1.5	3~6.5	12	5	14
M14-M	M14x1.5	3~6.5	14	6	17
M16-M	M16x1.5	5~9	16	6	17
M18-M	M18x1.5	6.5~11	18	6	20
M20-M	M20x1.5	7~13	20	6	22
M22-M	M22x1.5	9~14	22	6	24
M24-M	M24x1.5	9~14	24	7	30
M25-M	M25x1.5	9~14	25	7	30
M27-M	M27x1.5(2)	11~18	27	7	30
M30-M	M30x1.5(2)	11~18	30	7	37
M32-M	M32x1.5(2)	15~22	32	8	37
M33-M	M33x1.5(2)	15~22	33	8	37
M36-M	M36x1.5(2)	18~26	36	8	42
M40-M	M40x1.5(2)	18~26	40	8	46
M42-M	M42x1.5(2)	18~26	42	9	46
M48-M	M48x1.5(2)	24~33	48	9	52
M50-M	M50x1.5(2)	30~38	50	9	60
M54-M	M54x1.5(2)	30~38	54	9	60
M60-M	M60x1.5(2)	34~45	60	9	70
M63-M	M63x1.5(2)	34~45	63	10	70
M64-M	M64x1.5(2)	34~45	64	10	70

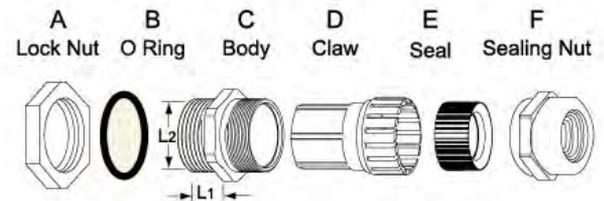


**Material:** Parts A, C, F are made of brass plated with nickel, part D is made of UL approved nylon PA66, parts B and E are made of nitrile butadiene rubber (NBR).

**Thread spec.:** Metric, PG, G, NPT.

**Working temperature:** -40 °C to 100 °C, instantaneous heat resistance up to 120 °C.

**Characteristics:** Special design of clamping die and rubber part, large range in clamping the cable, ultrastrong stretching resistance, waterproof, dustproof, and high ability to resist salt, acid, alkali, alcohol, grease and general solvent.



Model	Thread Size	Cable Range (mm)	Thread O. D. L2 (mm)	Thread Length L1 (mm)	Spanner Size (mm)
M12-LM	M12x1.5	3~6.5	12	10	14
M14-LM	M14x1.5	3~6.5	14	10	17
M16-LM	M16x1.5	5~9	16	10	17
M18-LM	M18x1.5	6.5~11	18	10	20
M20-LM	M20x1.5	7~13	20	10	22
M22-LM	M22x1.5	9~14	22	10	24
M24-LM	M24x1.5	9~14	24	11	30
M25-LM	M25x1.5	9~14	25	12	30
M27-LM	M27x1.5(2)	11~18	27	12	30
M30-LM	M30x1.5(2)	11~18	30	14	37
M32-LM	M32x1.5(2)	15~22	32	14	37
M33-LM	M33x1.5(2)	15~22	33	14	37
M36-LM	M36x1.5(2)	18~26	36	14	42
M40-LM	M40x1.5(2)	18~26	40	15	46
M42-LM	M42x1.5(2)	18~26	42	15	46
M48-LM	M48x1.5(2)	24~33	48	15	52
M50-LM	M50x1.5(2)	30~38	50	15	60
M54-LM	M54x1.5(2)	30~38	54	15	60
M60-LM	M60x1.5(2)	34~45	60	15	70
M63-LM	M63x1.5(2)	34~45	63	15	70
M64-LM	M64x1.5(2)	34~45	64	15	70

## Metallic cable gland NPT-M/PG-MA type

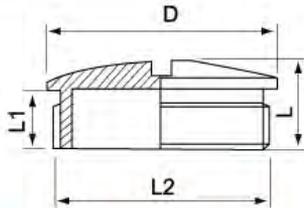


### Metallic cable gland NPT-M type

Model	Thread Size	Cable Range (mm)	Thread O. D. L2 (mm)	Thread Length L1 (mm)	Spanner Size (mm)
NPT3/8" -M	NPT3/8"	4~8	17.1	13	18
NPT3/8" -M	NPT3/8"	2~6	17.1	13	18
NPT1/2" -M	NPT1/2"	6~12	21.3	13	22
NPT1/2" -M	NPT1/2"	5~9	21.3	13	22
NPT3/4" -M	NPT3/4"	13~18	26.6	15	30
NPT3/4" -M	NPT3/4"	9~16	26.6	15	30
NPT1" -M	NPT1"	18~25	33.5	16	40
NPT1" -M	NPT1"	13~20	33.5	16	40
NPT1" -M	NPT1 1/4"	22~33	42	18	50
NPT1" -M	NPT1 1/4"	18~25	42	18	50
NPT1" -M	NPT1 1/2"	32~38	48	18	57
NPT1" -M	NPT1 1/2"	20~26	48	18	57

### Metallic cable gland PG-MA type

Model	Thread Size	Cable Range (mm)	Thread O. D. L2 (mm)	Thread Length L1 (mm)	Spanner Size (mm)
PG7-MA	PG7	3~6.5	12.5	6	14
PG7-MA	PG7	2~5	12.5	6	14
PG9-MA	PG9	4~8	15.2	7	18
PG9-MA	PG9	2~6	15.2	7	18
PG11-MA	PG11	5~10	18.6	7	20
PG11-MA	PG11	3~7	18.6	7	20
PG13.5-MA	PG13.5	6~12	20.4	7.5	22
PG13.5-MA	PG13.5	5~9	20.4	7.5	22
PG16-MA	PG16	10~14	22.5	7.5	24
PG16-MA	PG16	6~12	22.5	7.5	24
PG21-MA	PG21	13~18	28.3	8	30
PG21-MA	PG21	9~16	28.3	8	30
PG29-MA	PG29	18~25	37	9	40
PG29-MA	PG29	13~20	37	9	40
PG36-MA	PG36	22~33	47	9	50
PG36-MA	PG36	20~26	47	9	50
PG42-MA	PG42	32~38	54	10	57
PG42-MA	PG42	25~31	54	10	57
PG48-MA	PG48	37~44	59.3	11	64
PG48-MA	PG48	29~35	59.3	11	64



**Material:** Made of brass plated with nickel.

**O-sealing element:** Made of nitrile butadiene rubber (NBR).

**Working temperature:** -40 °C to 100 °C.

### Metallic threaded plug PG-TM type

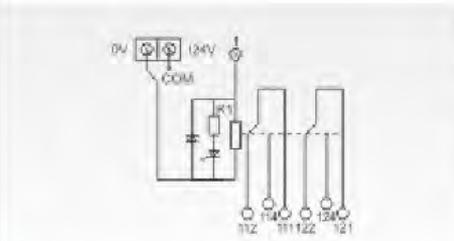
Model	Thread Size	Thread O. D. L2 (mm)	Thread Length L1 (mm)	Main body Dimensions L (mm)	Cover Dimensions D (mm)
PG7-TM	PG7	12.5	5	8	14
PG9-TM	PG9	15.2	6	9	17
PG11-TM	PG11	18.6	6	9	20
PG13.5-TM	PG13.5	20.4	6.5	9.5	22
PG16-TM	PG16	22.5	6.5	9.5	24
PG21-TM	PG21	28.3	7	11	30
PG29-TM	PG29	37	8	12	39
PG36-TM	PG36	47	9	15	50
PG42-TM	PG42	54	10	16	57
PG48-TM	PG48	59.3	10	16	64

### Metallic threaded plug M-TM type

Model	Thread Size	Thread O. D. L2 (mm)	Thread Length L1 (mm)	Main body Dimensions L (mm)	Cover Dimensions D (mm)
M12-TM	M12x1.5	12	5	8	114
M16-TM	M16x1.5	16	6	9	18
M18-TM	M18x1.5	18	6	9	20
M20-TM	M20x1.5	20	6.5	9.5	22
M22-TM	M22x1.5	22	6.5	9.5	24
M25-TM	M25x1.5	25	7	11	28
M32-TM	M32x1.5	32	8	12	35
M40-TM	M40x1.5	40	9	15	44
M50-TM	M50x1.5	50	10	16	54
M63-TM	M63x1.5	63	10	16	70



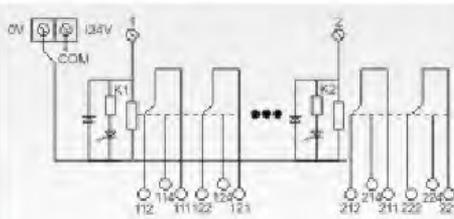
# Relay Module



LK-1-2Z-NP

■ Character

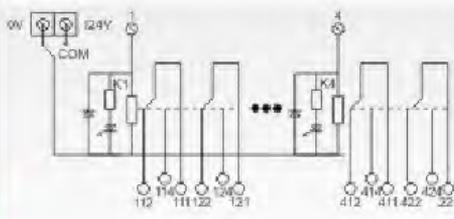
Input type	Terminal block input, NPN and PNP is common
Relay	OMRON
Coil voltage	12,24,48,110,220VAC/DC
Relay quantity	1
Contact rating	250VAC/30VDC/8A 2Z
Outer dimension	15x85x66mm



LK-2-2Z-NP

■ Character

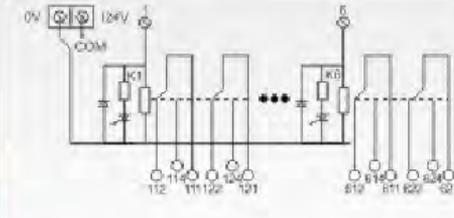
Input type	Terminal block input, NPN and PNP is common; AC/DC is common
Relay	OMRON
Coil voltage	12,24,48,110,220VAC/DC
Relay quantity	2
Contact rating	250VAC/30VDC/8A 2Z
Outer dimension	15x85x66mm



LK-4-2Z-NP

■ Character

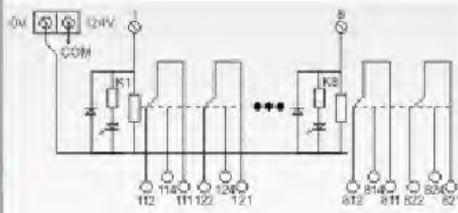
Input type	Terminal block input, NPN and PNP is common; AC/DC is common
Relay	OMRON
Coil voltage	12,24,48,110,220VAC/DC
Relay quantity	4
Contact rating	250VAC/30VDC/8A 2Z
Outer dimension	70x85x70mm



LK-6-2Z-NP

■ Character

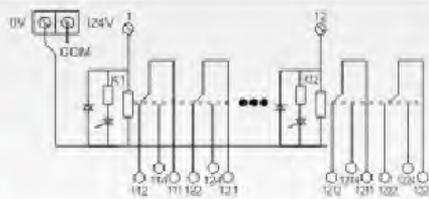
Input type	Terminal block input, NPN and PNP is common; AC/DC is common
Relay	OMRON
Coil voltage	12,24,48,110,220VAC/DC
Relay quantity	6
Contact rating	250VAC/30VDC/8A 2Z
Outer dimension	70x85x70mm



LK-8-2Z-NP

■ Character

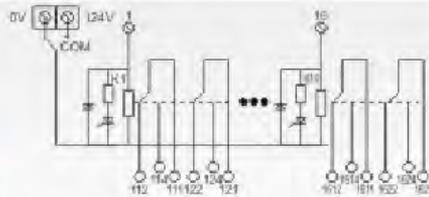
Input type	Terminal block input, NPN and PNP is common; AC/DC is common
Relay	OMRON
Coil voltage	12,24,48,110,220VAC/DC
Relay quantity	8
Contact rating	250VAC/30VDC/8A 2Z
Outer dimension	130x85x70mm



LK-12-2Z-NP

■ Character

Input type	Terminal block input, NPN and PNP is common; AC/DC is common
Relay	OMRON
Coil voltage	12,24,48,110,220VAC/DC
Relay quantity	12
Contact rating	250VAC/30VDC/8A 2Z
Outer dimension	190x85x70mm



LK-16-2Z-NP

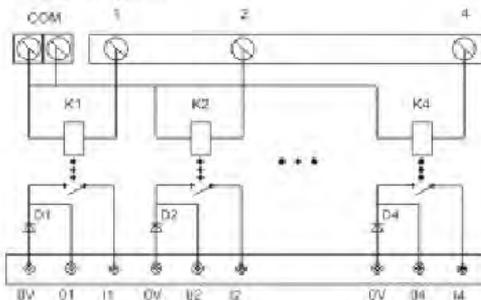
■ Character

Input type	Terminal block input, NPN and PNP is common; AC/DC is common
Relay	OMRON
Coil voltage	12,24,48,110,220VAC/DC
Relay quantity	16
Contact rating	250VAC/30VDC/8A 2Z
Outer dimension	250x85x70mm



LK-04-CR

**Wiring Diagram**



**Character**

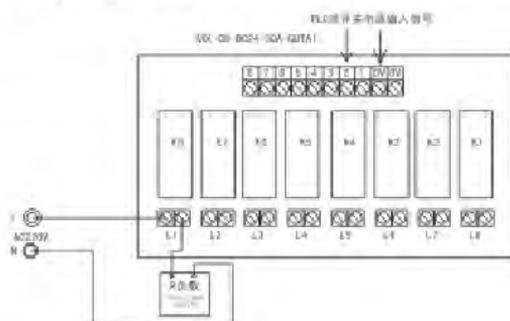
Input type	Terminal input, NPN and PNP is common
Relay	OMRON
Input voltage	2-32VDC
SSR quantity	2,4,6,8,12,16
Load voltage	280VAC/DC80V/5A
Load current	0.1-5A
Arc extinction circuit	Diode
Outer dimension	70x85x73mm

- This product output using CRYDOM relay, is designed for control AC and DC load, for example, DC motor for avoid motor of electromagnetic relay is rase spare and burn out contact, improving the reliability of module.
- SSR relay module's respond speed is fast.
- SSR relay module have small interference, no noise, long life, ability of electromagnentic compatibility is good, attordability of impact current is high.
- Input and output have protect circuit, to avoid dargne to the upper and lower pole.
- The module is design is small size, save space, easy wiring and improve efficienly.



LK-08-DC24V-30A-GUTAI

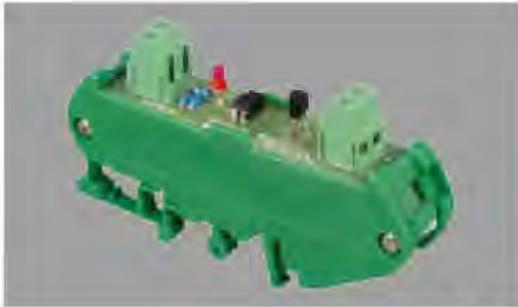
**Wiring Diagram**



**Character**

Input type	Pluggable terminal input
SCR	PHILLIPS tube
Input voltage	3-32VDC
SCR quantity	2,4,6,8,12,16
Load voltage	AC220V/30A
Load current	40A
Outer dimension	210x110x70mm

- This product is designed for control AC and DC load, for example, heating rod contactor AC motor, etc.
- The price is lower than solid state relay.
- Speed is fast, no contact.
- Input and output terminals have fault indication circuit.

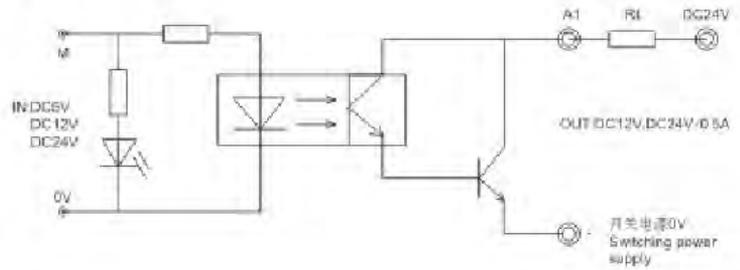


LKO-1CP

### Specifications

Power Output	NN, NP, PN, PP
Driving Voltage	DC5V, 12V, 24V
Optocoupler Quantity	1
Output Current	DC24V/500mA
Outer Dimension	15x73x66mm

### Wiring Diagram



- This product output using CRYDOM relay, is designed for control AC and DC load, for example, DC motor for avoid motor of electromagnetic relay is raise spare and burn out contact, improving the reliability of module.
- SSR relay module's respond speed is fast.
- SSR relay module have small interference, no noise, long life, ability of electromagnetic compatibility is good, affordability of impact current is high.
- Input and output have protect circuit, to avoid damage to the upper and lower pole.
- The module is design is small size, save space, easy wiring and improve efficiently.

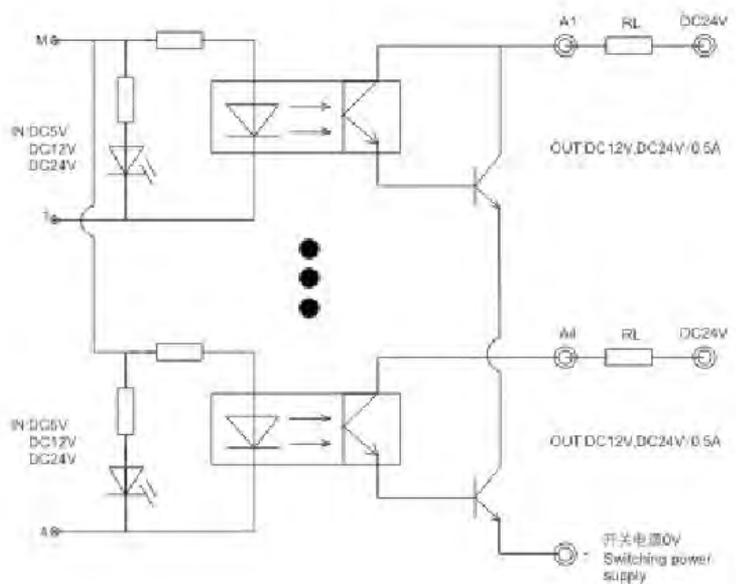


LKO-4CP

### Specifications

Power Output	NN, NP, PN, PP
Driving Voltage	DC5V, 12V, 24V
Optocoupler Quantity	4
Output Current	DC24V/500mA
Outer Dimension	30x73x66mm

### Wiring Diagram



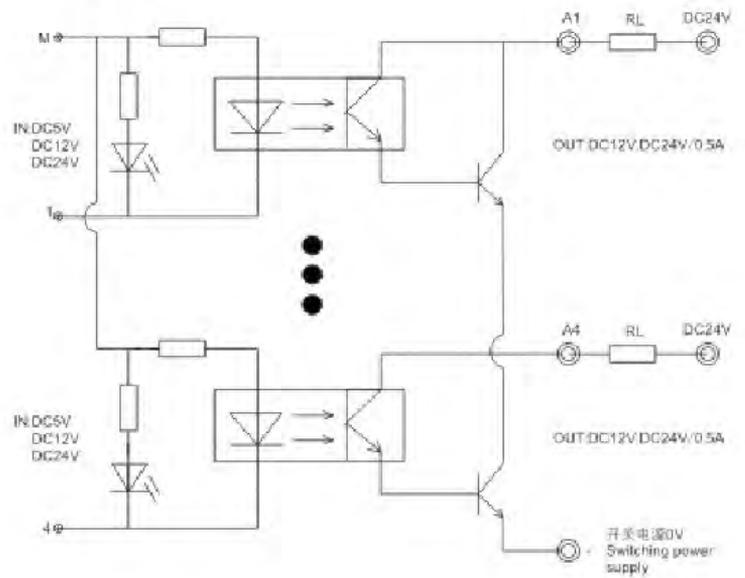


**LKO-8CP**

**Specifications**

Power Output	NN, NP, PN, PP
Driving Voltage	DC5V, 12V, 24V
Optocoupler Quantity	8
Output Current	DC24V/500mA
Outer Dimension	55x73x66mm

**Wiring Diagram**

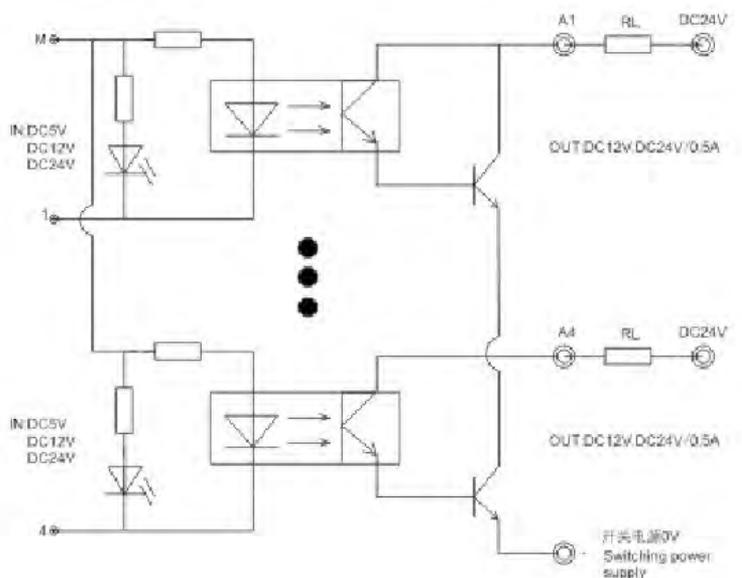


**LKO-16CP**

**Specifications**

Power Output	NN, NP, PN, PP
Driving Voltage	DC5V, 12V, 24V
Optocoupler Quantity	16
Output Current	DC24V/500mA
Outer Dimension	110x73x66mm

**Wiring Diagram**





LK-8-PN-PA1A-50MM

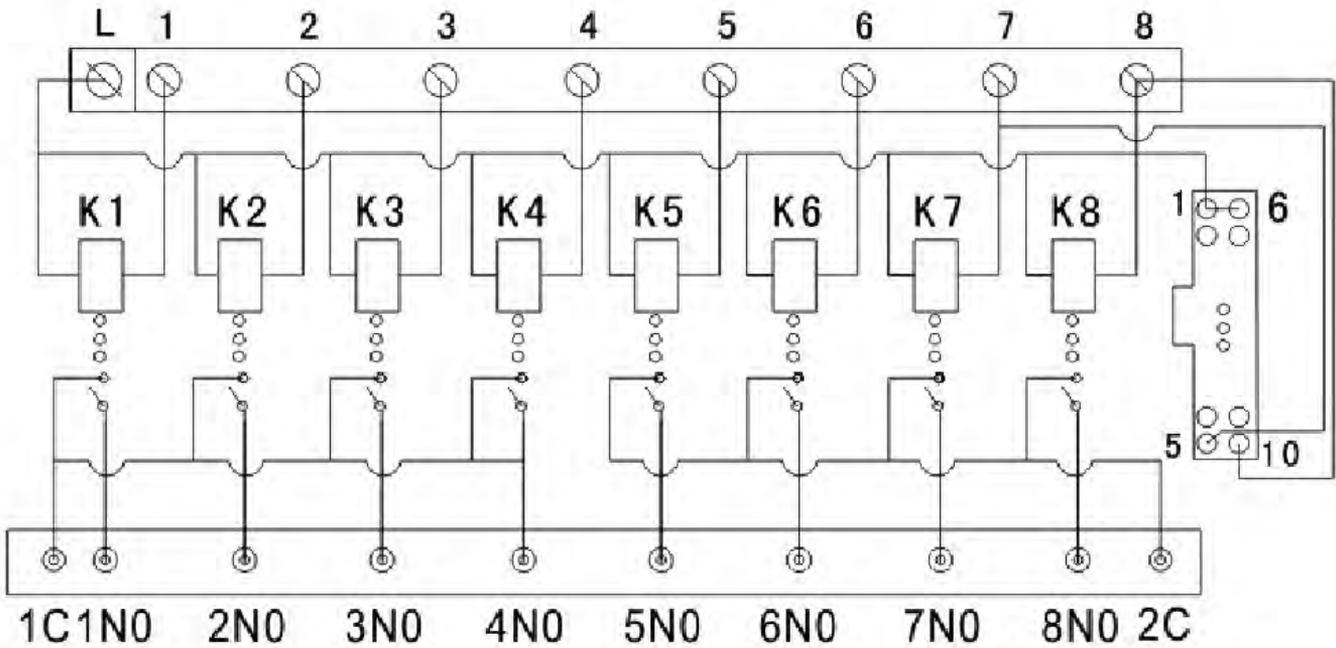
■ Character

Input type	Terminal input, NPN and PNP is common; AC and DC is common
Relay	PA1A
Coil voltage	DC24V
Relay quantity	4,6,8,12,16
Contact rating	250VAC/30VDC/5A/1Z
Outer dimension	70x50x66mm

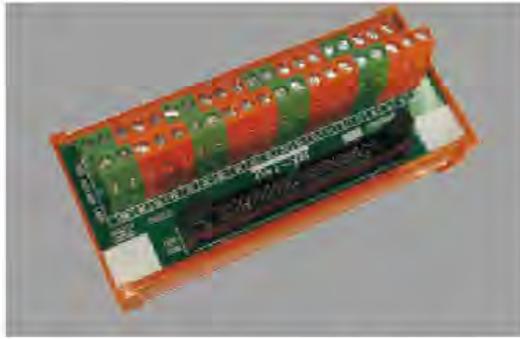
Product advantages

- Input Method: IDC terminal block horns and two input methods;
- Space saving, specifically for small control cabinet space, old-fashioned MY2 series quarter;
- Product output common terminal using two different load Convenient customer access time savings wire input uses a common ground line, so that saves wires, space-saving role.

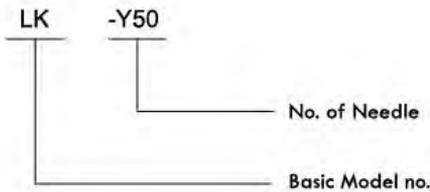
Wiring Diagram



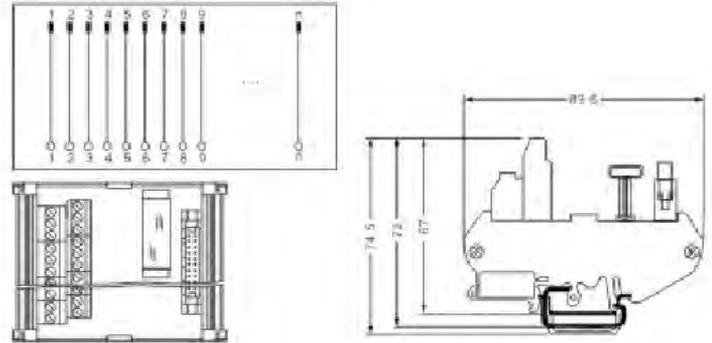
Relay Module



Mitsubishi QX series PLC  
input dedicated board



### Wiring Diagram



### Product performance Comparison

LK-F Series plug-in terminal module connects the basic pin 10 to pin 64 of pin socket with double screw terminals via a circuit board. To select pin position, use multi-pin flat cable plug (Follow IEC603-1/DIN41651 standard) and leading to the industrial field's double terminal wire. Thus, to connect by numbers corresponding to the standard rail of NS 35/7.5 or NS32 which is versatile, reliable, easy and safe usage. Module can be labeled by mark base or use ZB. mark on cover, but it needs to order separately.

### Technical Parameter

Wire cross-section	0.2-2.5mm <sup>2</sup>
I Allowable current	1A
U Allowable voltage	AC/DC 60V

### Performance Parameters

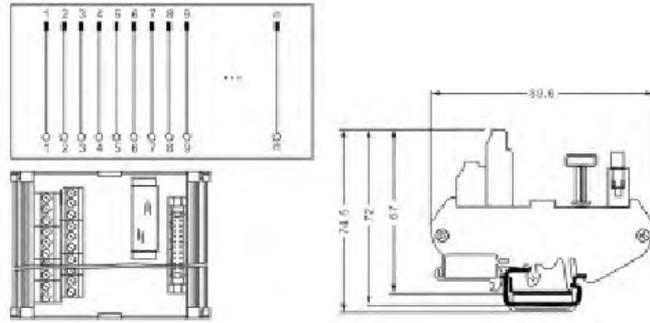
Model	Pin No.	Thickness of module board	Layout for connector and terminal No.
LK-F10	10	45	
LK-F14	14	45	
LK-F16	16	67.5	
LK-F20	20	67.5	
LK-F26	26	96	
LK-F34	34	112.5	
LK-F40	40	112.5	
LK-F50	50	135	
LK-F60	60	180	
LK-F64	64	180	

# Module Splitter Series (LK-F-2.54 Terminal Plug-in Module)

LK-F26-2.54



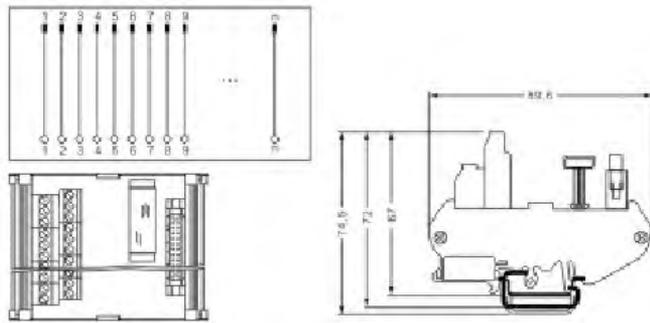
Wiring Diagram



LK-F34-2.54



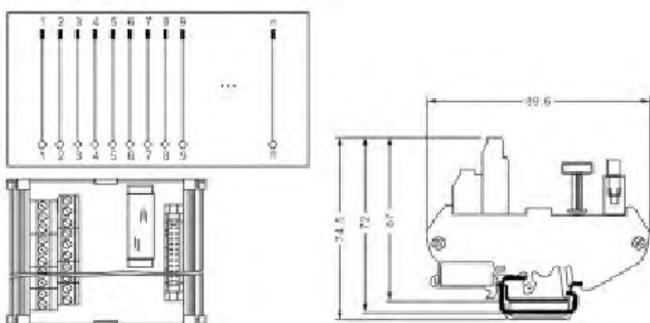
Wiring Diagram



LK-F40-2.54



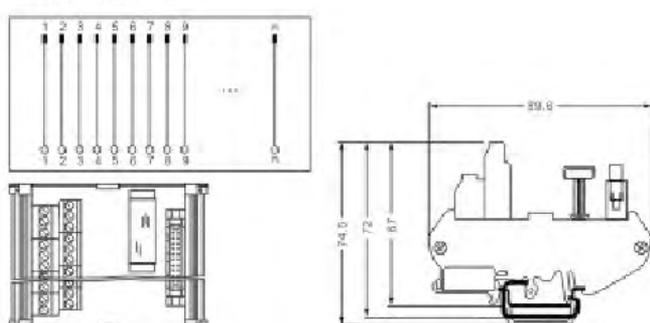
Wiring Diagram



LK-F50-2.54



Wiring Diagram



## Product Performance Comparison

This product is used to connect with I/O of CNC interface and corresponding control panel and switch module, circular cable can effectively

save cabinet space, optimization electrical performance, and it has good shielding.

## Character

Max. operating voltage	60VAC/DC
Conductor impedance	≤0.16W/M
Conductor section	AWG26/0.14mm <sup>2</sup>
Withstand voltage test	0.5KV/HZ/60 seconds
Max.current single stranded cable	1A
Temperature range	-20℃-50℃
Conductor structure	7 Stranded, tin-plated copper
Shield Grade	Double-shield



MX-KB40S-4F1H-nM



Mitsubishi Q series input and output dedicated line

MX-KB50S-3M-nM



OMRON dedicated line driver output

MX-KB40S-AMP-nM

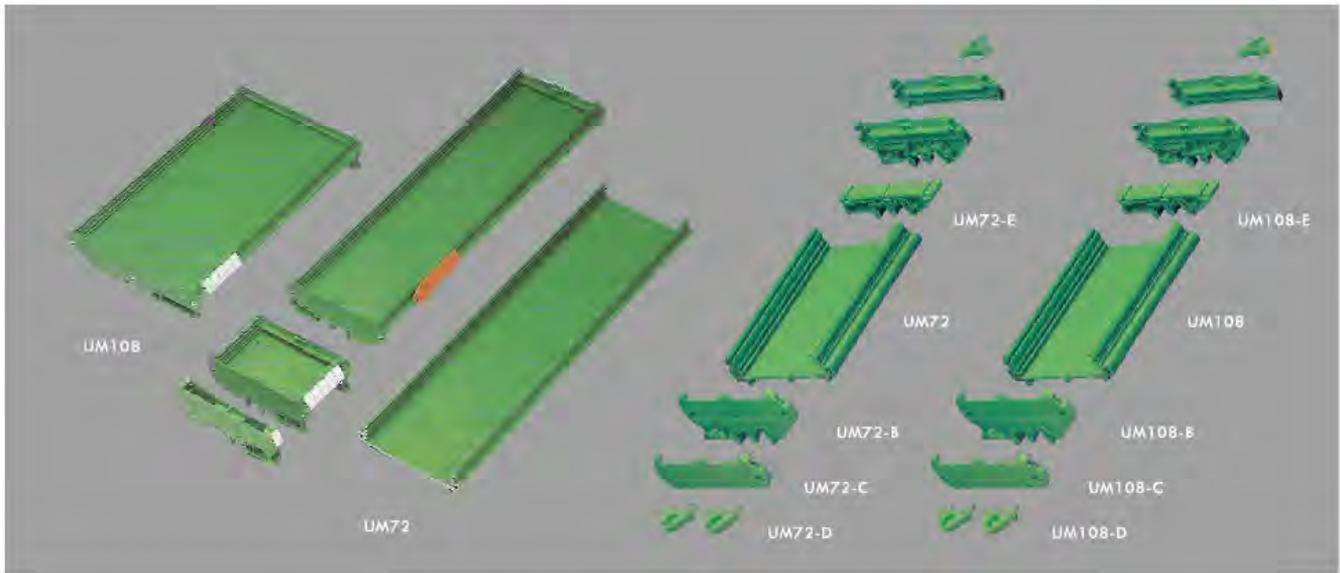


Mitsubishi Q series input and output dedicated line

MX-KB50S-HONDA-nM



HONDA dedicated line interface

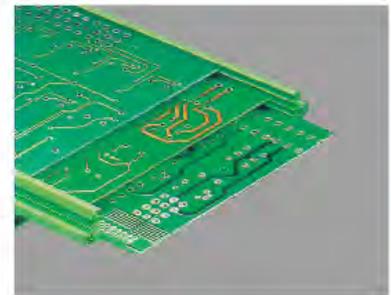


### Cut length of section bar according to actual need

It's possible to cut length of section bar according to your need, precision is mm and there is no fixed size, which can have shell and installed electron circuit match.

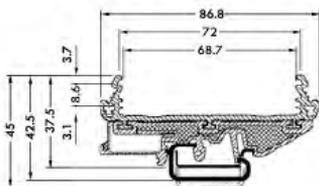
### It is possible to put three-layer printing circuit board

Section bar has leading slot and it can place three-layer printing circuit board. If applying SMD technology, it is possible to come true compact electron circuit.

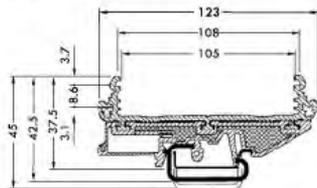


Relay Module

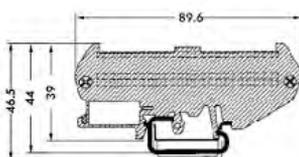
### Size picture of shell of UM72/108 strip



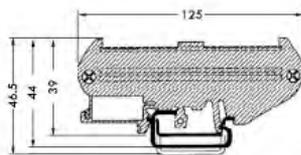
Extrusion section bar of UM72-E universal installation feet cell



Extrusion section bar with UM108 universal installation feet cell



UM72-B board of side with universal installation feet



UM 108B board of side with universal installation feet

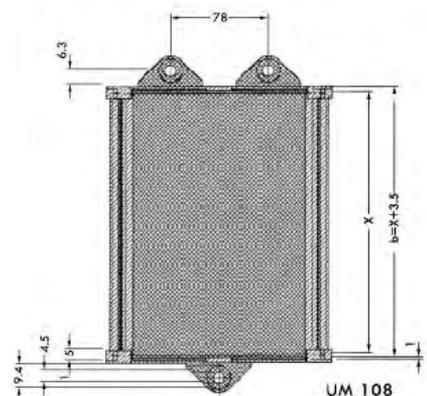
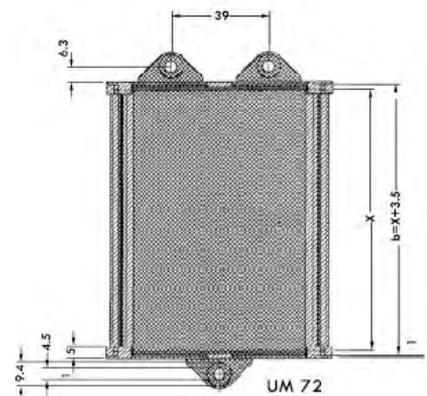


UM72-C board of side without universal installation feet



UM72-C board of side without universal installation feet

UM72/108 extrusion section bar with UM72/108-B universal installation feet and UM-D fixed flange (directly install to use on the wall of board)



X=length of section bar  
b=length of printing circuit board



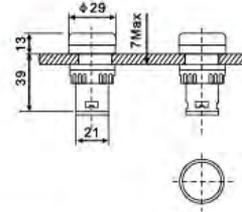
## Push Button & Indicator

# Indicator Lights AD22 Series



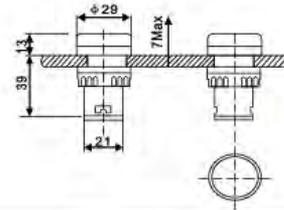
**AD16-16DS**

- 21-DC.AC6V
- 22-DC.AC12V
- 23-DC.AC24V
- 24-DC.AC36V
- 25-DC.AC48V
- 26-DC.AC110V
- 27-DC.AC127V
- 28-DC220V
- 31-AC220V
- 32-AC380V



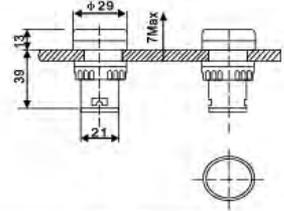
**AD22-22DS**

- 21-DC.AC6V
- 22-DC.AC12V
- 23-DC.AC24V
- 24-DC.AC36V
- 25-DC.AC48V
- 26-DC.AC110V
- 27-DC.AC127V
- 28-DC220V
- 31-AC220V
- 32-AC380V



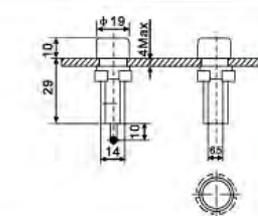
**AD22-30DS**  
φ 30

- 21-DC.AC6V
- 22-DC.AC12V
- 23-DC.AC24V
- 24-DC.AC36V
- 25-DC.AC48V
- 26-DC.AC110V
- 27-DC.AC127V
- 28-DC220V
- 31-AC220V
- 32-AC380V



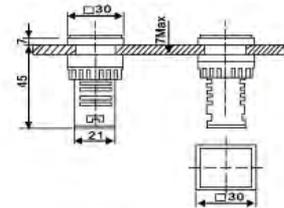
**AD22-16B**

- 21-DC.AC6V
- 22-DC.AC12V
- 23-DC.AC24V
- 24-DC.AC36V
- 25-DC.AC48V
- 26-DC.AC110V
- 27-DC.AC127V
- 28-DC220V
- 31-AC220V
- 32-AC380V



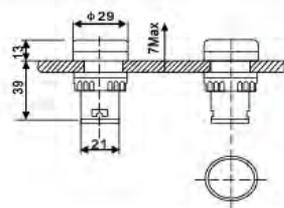
**AD22-22FS/**

- 21-DC.AC6V
- 22-DC.AC12V
- 23-DC.AC24V
- 24-DC.AC36V
- 25-DC.AC48V
- 26-DC.AC110V
- 27-DC.AC127V
- 31-AC220V
- 32-AC380V



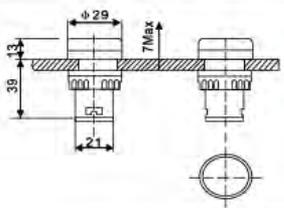
**AD22-22BS**

- 21-DC.AC6V
- 22-DC.AC12V
- 23-DC.AC24V
- 24-DC.AC36V
- 25-DC.AC48V
- 26-DC.AC110V
- 27-DC.AC127V
- 28-DC220V
- 31-AC220V
- 32-AC380V

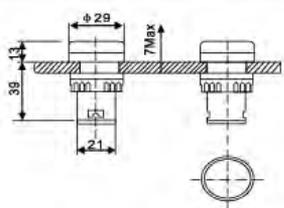


**AD22-22CS**

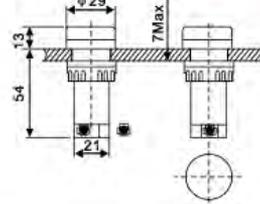
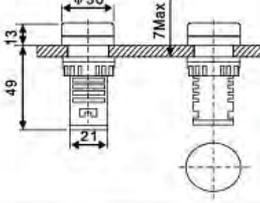
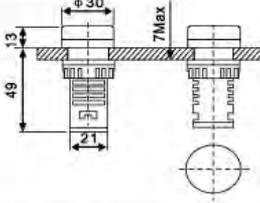
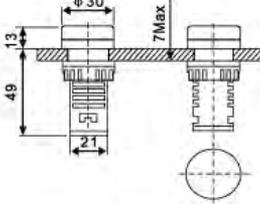
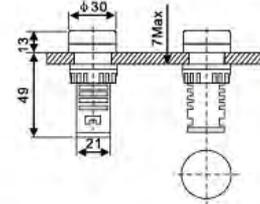
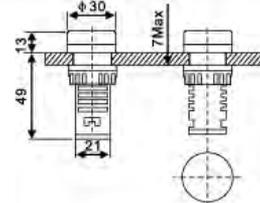
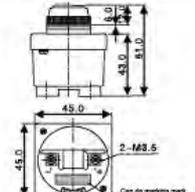
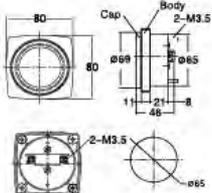
- 21-DC.AC6V
- 22-DC.AC12V
- 23-DC.AC24V
- 24-DC.AC36V
- 25-DC.AC48V
- 26-DC.AC110V
- 27-DC.AC127V
- 28-DC220V
- 31-AC220V
- 32-AC380V

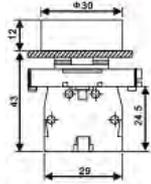
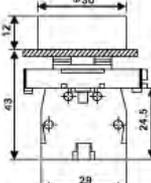
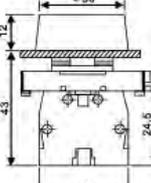
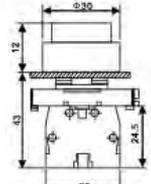
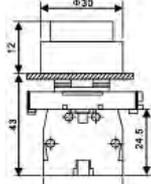
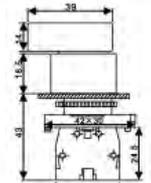
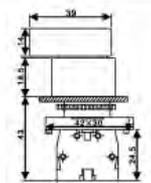
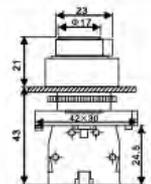


- |            |            |
|------------|------------|
| 220V       | 380V       |
| XB2-BVM1LC | XB2-BVQ1LC |
| XB2-BVM3LC | XB2-BVQ3LC |
| XB2-BVM4LC | XB2-BVQ4LC |
| XB2-BVM5LC | XB2-BVQ5LC |
| XB2-BVM6LC | XB2-BVQ6LC |
| 24V        | 110V       |
| XB2-BVB1LC | XB2-BVF1LC |
| XB2-BVB3LC | XB2-BVF3LC |
| XB2-BVB4LC | XB2-BVF4LC |
| XB2-BVB5LC | XB2-BVF5LC |
| XB2-BVB6LC | XB2-BVF6LC |



Push Button & Indicator

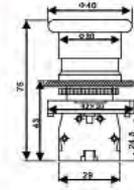
	<p>Double color indicator light</p> <p><b>AD22-22DRG/</b></p>	<p>26-DC.AC110V 27-DC.AC127V 28-DC220V 31-AC220V 32-AC380V</p>		
	<p>Isolation brake position indicator</p> <p><b>AD22-22W/G</b></p>	<p>23-DC.AC 24V 24-DC.AC 36V 25-DC.AC 48V 26-DC.AC 110V 27-DC.AC 127V 28-DC.AC 220V 31-AC 220V 32-AC 380V XOX1 power on - Red light XOX2 power on - Green light</p>		
	<p>Circuit breaker position indicator</p> <p><b>AD22-22W/D</b></p>	<p>23-DC.AC 24V 24-DC.AC 36V 25-DC.AC 48V 26-DC.AC 110V 27-DC.AC 127V 28-DC.AC 220V 31-AC 220V 32-AC 380V XOX1 power on <math>\psi</math> Red light XOX2 power on <math>\psi</math> Green light</p>		
	<p>Grounding position indicator</p> <p><b>AD22-22W/N</b></p>	<p>23-DC.AC 24V 24-DC.AC 36V 25-DC.AC 48V 26-DC.AC 110V 27-DC.AC 127V 28-DC.AC 220V 31-AC 220V 32-AC 380V X1X2 power on <math>\psi</math> Red light</p>		
	<p>Flash Buzzer</p> <p><b>AD22-22SM/R</b></p>	<p>22-DC.AC12V 23-DC.AC24V 24-DC.AC36V 25-DC.AC48V 26-DC.AC110V 27-DC.AC127V 28-DC220V 31-AC220V 32-AC380V</p>		
	<p>Buzzer</p> <p><b>AD22-22FMD/</b></p>	<p>21-DC.AC6V 22-DC.AC12V 23-DC.AC24V 24-DC.AC36V 25-DC.AC48V 26-DC.AC110V 27-DC.AC127V 28-DC220V 31-AC220V 32-AC380V</p>		
	<p><math>\phi</math> 25 Buzzer</p> <p><b>KH-4025-D <math>\phi</math> 25</b> <b>HRB-PS60A2 <math>\phi</math> 30</b></p>	<p>AC/DC12V AC/DC24V AC/DC110V AC220V AC380V Power consumption DC: 25ma Maximum power 1W(PEAK) Volume More than 60 dB IP40 Withstand voltage: 1,000VAC 1 Minute</p>		
	<p><math>\phi</math> 65 Cover up into the type buzzer</p> <p><b>HRB-P80A2</b></p>	<p>A2(220VAC) A1(110VAC) D2(12VAC/DC) D4(24VAC/DC) D1(110VAC/DC)</p>		

	<p><b>Even button spring return</b></p> <p>LAY5-EA11(XB2-EA11)            LAY5-EA21(XB2-EA21)            LAY5-EA31(XB2-EA31)            LAY5-EA42(XB2-EA42)            LAY5-EA51(XB2-EA51)            LAY5-EA61(XB2-EA61)            LAY5-EA25(XB2-EA25)            LAY5-EA35(XB2-EA35)            LAY5-EA45(XB2-EA45)</p> <p>NO            NO            NO            NC            NO            NO            NO+NC            NO+NC            NO+NC</p>	 
	<p><b>Even button spring return With symbol logo</b></p> <p>LAY5-EA3311(XB2-EA3311)            LAY5-EA3361(XB2-EA3361)            LAY5-EA3341(XB2-EA3341)            LAY5-EA3351(XB2-EA3351)            LAY5-EA4322(XB2-EA4322)            LAY5-EA4342(XB2-EA4342)            LAY5-EA5331(XB2-EA5331)            LAY5-EA5321(XB2-EA5321)</p> <p>NO I            NO II            NO ↑↓            NO ⇕            NC ○            NC STOP            NO START            NO START</p>	 
	<p><b>Button with protective cover</b></p> <p>LAY5-EP11(XB2-EP11)            LAY5-EP21(XB2-EP21)            LAY5-EP31(XB2-EP31)            LAY5-EP42(XB2-EP42)            LAY5-EP51(XB2-EP51)            LAY5-EP61(XB2-EP61)</p> <p>NO            NO            NO            NC            NO            NO</p> <p>IP 65</p>	 
	<p><b>Protruding button</b></p> <p>LAY5-EL21(XB2-EL21)            LAY5-EL31(XB2-EL31)            LAY5-EL42(XB2-EL42)            LAY5-EL51(XB2-EL51)            LAY5-EL61(XB2-EL61)</p> <p>NO            NC            NO            NO            NO</p>	 
	<p><b>Protruding button spring return With symbol logo</b></p> <p>LAY5-EL3311(XB2-EL3311)            LAY5-EL3361(XB2-EL3361)            LAY5-EL3341(XB2-EL3341)            LAY5-EL3341(XB2-EL3341)            LAY5-EL4322(XB2-EL4322)            LAY5-EL4342(XB2-EL4342)</p> <p>NO I            NO II            NO ↑↓            NO ⇕            NC ○            NC STOP</p>	 
	<p><b>Standard handle knob</b></p> <p>LAY5-ED21(XB2-ED21)            LAY5-ED25(XB2-ED25)            LAY5-ED33(XB2-ED33)            LAY5-ED41(XB2-ED41)            LAY5-ED45(XB2-ED45)            LAY5-ED53(XB2-ED53)</p> <p>NO 2-position locked            NO+NC 3-position locked            NO+NO 2-position locked            NO 2-position reset            NO 2-position reset            NO+NO 3-position reset</p>	 
	<p><b>Long handle knob</b></p> <p>LAY5-EJ21(XB2-EJ21)            LAY5-EJ25(XB2-EJ25)            LAY5-EJ33(XB2-EJ33)            LAY5-EJ41(XB2-EJ41)            LAY5-EJ45(XB2-EJ45)            LAY5-EJ53(XB2-EJ53)</p> <p>NO 2-position locked            NO+NC 3-position locked            NO+NO 2-position locked            NO 2-position reset            NO 2-position reset            NO+NO 3-position reset</p>	 
	<p><b>Key button</b></p> <p>LAY5-EG21(XB2-EG21)            LAY5-EG25(XB2-EG25)            LAY5-EG03(XB2-EG03)            LAY5-EG33(XB2-EG33)            LAY5-EG41(XB2-EG41)            LAY5-EG45(XB2-EG45)            LAY5-EG53(XB2-EG53)</p> <p>NO 2-position locked            NO+NC 2-position locked            NO+NO 3-position locked            NO+NO 3-position locked            NO+NC 2-position reset            NO+NC 2-position reset            NO+NO 3-position reset</p>	 



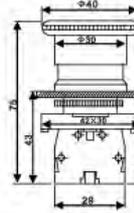
**Even button spring return**

LAY5-EC21(XB2-EC21)	φ40	NO
LAY5-EC31(XB2-EC31)	φ40	NO
LAY5-EC42(XB2-EC42)	φ40	NC
LAY5-EC51(XB2-EC51)	φ40	NO
LAY5-ER21(XB2-ER21)	φ60	NO
LAY5-ER31(XB2-ER31)	φ60	NO
LAY5-ER42(XB2-ER42)	φ60	NC
LAY5-ER51(XB2-ER51)	φ60	NO



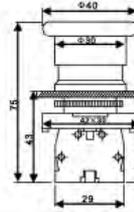
**Even button spring return With symbol logo**

LAY5-ES442(XB2-ES442)	φ30	NC
LAY5-ES542(XB2-ES542)	φ40	NC
LAY5-ES642(XB2-ES642)	φ60	NC



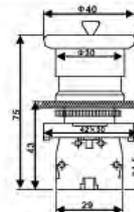
**Button with protective cover**

LAY5-ET42(XB2-ET42)	φ40	NC
LAY5-ET845(XB2-ET845)	φ40	NO+NC



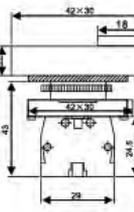
**Protruding button**

LAY5-ES142(XB2-ES142)	φ40	NC
LAY5-ES8445(XB2-ES8445)	φ40	NO+NC



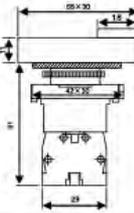
**Protruding button spring return With symbol logo**

LAY5-EL8325(XB2-EL8325)	NO+NC
LAY5-EL8425(XB2-EL8425)	NO+NC



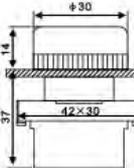
**Standard handle knob**

LAY5-EW8365(XB2-EW8365)	NO+NC	Directness
LAY5-EW8465(XB2-EW8465)	NO+NC	Directness
LAY5-EW8375(XB2-EW8375)	NO+NC	Resistance
LAY5-EW8475(XB2-EW8475)	NO+NC	Resistance



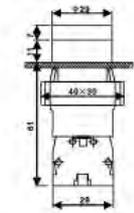
**Long handle knob**

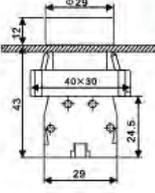
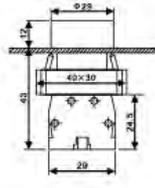
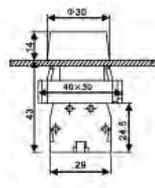
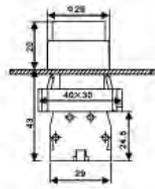
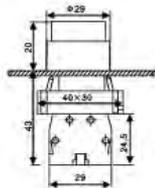
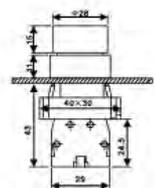
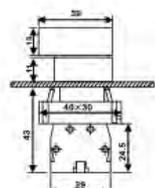
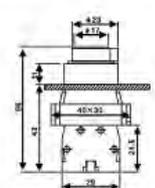
LAY5-EV61(XB2-EV61)	Directness
LAY5-EV63(XB2-EV63)	Directness
LAY5-EV64(XB2-EV64)	Directness
LAY5-EV65(XB2-EV65)	Directness
LAY5-EV66(XB2-EV66)	Directness
LAY5-EV71(XB2-EV71)	Directness
LAY5-EV73(XB2-EV73)	Resistance
LAY5-EV74(XB2-EV74)	Resistance
LAY5-EV75(XB2-EV75)	Resistance
LAY5-EV76(XB2-EV76)	Resistance



**Key button**

LAY5-EW3161(XB2-EW3161)	NO	
LAY5-EW3361(XB2-EW3361)	NO	
LAY5-EW3462(XB2-EW3462)	NC	Directness
LAY5-EW3561(XB2-EW3561)	NO	220V-240V
LAY5-EW3661(XB2-EW3661)	NO	



	<p><b>Even button spring return</b></p> <p>LAY5-BA11(XB2-BA11)            LAY5-BA21(XB2-BA21)            LAY5-BA31(XB2-BA31)            LAY5-BA42(XB2-BA42)            LAY5-BA51(XB2-BA51)            LAY5-BA61(XB2-BA61)            LAY5-BA25(XB2-BA25)            LAY5-BA35(XB2-BA35)            LAY5-BA45(XB2-BA45)</p>	<p>NO            NO            NO            NC            NO            NO            NO+NC            NO+NC            NO+NC</p>	 
	<p><b>Even button spring return With symbol logo</b></p> <p>LAY5-BA3311(XB2-BA3311)            LAY5-BA3361(XB2-BA3361)            LAY5-BA3341(XB2-BA3341)            LAY5-BA3351(XB2-BA3351)            LAY5-BA4322(XB2-BA4322)            LAY5-BA4342(XB2-BA4342)            LAY5-BA5331(XB2-BA5331)            LAY5-BA5321(XB2-BA5321)</p>	<p>NO I            NO II            NO ⬆️            NO ⬆️⬇️            NC ⬆️            NC STOP            NO START            NO START</p>	 
	<p><b>Button with protective cover</b></p> <p>LAY5-BP11(XB2-BP11)            LAY5-BP21(XB2-BP21)            LAY5-BP31(XB2-BP31)            LAY5-BP42(XB2-BP42)            LAY5-BP51(XB2-BP51)            LAY5-BP61(XB2-BP61)</p>	<p>NO            NO            NO            NC            NO            NO</p> <p>IP65</p>	 
	<p><b>Protruding button</b></p> <p>LAY5-BL21(XB2-BL21)            LAY5-BL31(XB2-BL31)            LAY5-BL42(XB2-BL42)            LAY5-BL51(XB2-BL51)            LAY5-BL61(XB2-BL61)</p>	<p>NO            NC            NO            NO            NO</p>	 
	<p><b>Protruding button spring return With symbol logo</b></p> <p>LAY5-BL3311(XB2-BL3311)            LAY5-BL3361(XB2-BL3361)            LAY5-BL3341(XB2-BL3341)            LAY5-BL3351(XB2-BL3351)            LAY5-BL4322(XB2-BL4322)            LAY5-BL4342(XB2-BL4342)</p>	<p>NO I            NO II            NO ⬆️            NO ⬆️⬇️            NC ⬆️            NC STOP</p>	 
	<p><b>Standard handle knob</b></p> <p>LAY5-BD21(XB2-BD21)            LAY5-BD25(XB2-BD25)            LAY5-BD33(XB2-BD33)            LAY5-BD41(XB2-BD41)            LAY5-BD45(XB2-BD45)            LAY5-BD53(XB2-BD53)</p>	<p>NO 2-position locked            NO+NC 3-position locked            NO+NO 2-position locked            NO 2-position reset            NO 2-position reset            NO+NO 3-position reset</p>	 
	<p><b>Long handle knob</b></p> <p>LAY5-BJ21(XB2-BJ21)            LAY5-BJ25(XB2-BJ25)            LAY5-BJ33(XB2-BJ33)            LAY5-BJ41(XB2-BJ41)            LAY5-BJ45(XB2-BJ45)            LAY5-BJ53(XB2-BJ53)</p>	<p>NO 2-position locked            NO+NC 3-position locked            NO+NO 2-position locked            NO 2-position reset            NO 2-position reset            NO+NO 3-position reset</p>	 
	<p><b>Key button</b></p> <p>LAY5-BG21(XB2-BG21)            LAY5-BG25(XB2-BG25)            LAY5-BG03(XB2-BG03)            LAY5-BG33(XB2-BG33)            LAY5-BG41(XB2-BG41)            LAY5-BG45(XB2-BG45)            LAY5-BG53(XB2-BG53)</p>	<p>NO 2-position locked            NO+NC 2-position locked            NO+NO 3-position locked            NO+NO 3-position locked            NO+NC 2-position reset            NO+NC 2-position reset            NO+NO 3-position reset</p>	 

Push Button & Indicator

2014~2015



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