

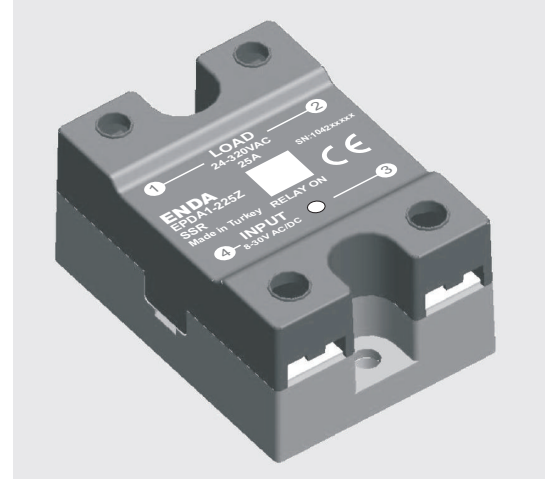


Read this document carefully before using this device. The guarantee will be expired by device damages if you don't attend to the directions in the user manual. Also we don't accept any compensations for personal injury, material damage or capital disadvantages.

ENDA EPGA1 / EPDA1 / EPAA1 Panel Mounted Solid State Relays

Thank you for choosing ENDA EPGA1 / EPDA1 / EPAA1 Series Solid State Relays

- ▶ 12-25-40-50-70-100-120A AC Load current.
- ▶ 320-480 AC Load voltage.
- ▶ 3-30V DC or 8-30V AC/DC or 90-240V AC input voltage.
- ▶ LED status indicator for input voltage.
- ▶ Zero-cross switching.
- ▶ Applicable for three phase loads.
- ▶ Built-in varistor protection.
- ▶ Panel mounted.
- ▶ CE Marked according to European Norms.



RoHS Compliant

ORDER CODE

Product Basic Code	EPDA1	Switching	Z
Panel type SSR	EP	Load current	25
Input voltage	D	Load voltage	2
3-30V DC	G	24-320V AC	2
8-30V AC/DC	D	50-480V AC	4
90-240V AC	A		
Load voltage	A		
AC	A		
Pole number	1		
Single-pole	1		

ENVIRONMENTAL CONDITIONS	
Ambient-storage temperature	0 ... +50°C/-25 ... +70°C (with no icing)
Relative humidity	80% Relative humidity for temperatures up to 31°C, decreasing linearly to 50% at 40°C.
Pollution degree	2
Overvoltage category	II
Altitude	Max. 1000m
Protection	IP20 According to EN60529

Do not use the device in locations subject to corrosive and flammable gases.

OUTPUT											
Order Code	EPxA1-212Z	EPxA1-225Z	EPxA1-240Z	EPxA1-250Z	EPxA1-270Z	EPxA1-425Z	EPxA1-440Z	EPxA1-450Z	EPxA1-470Z	EPxA1-4100Z	EPxA1-4120Z
Load current, AC51/25°C (Arms)	12	25	40	50	70	25	40	50	70	100	120
Load voltage (Vrms)	24 - 230						50 - 480				
Overload current t=1s/25°C (Arms)	50	85	150	160	225	70	110	150	360	540	720
Non rep.surge current/25°C (Arms)	120	250	400	280	725	190	290	380	900	1350	1800
On-state voltage drop (Vrms)	1,6					1,8		1,8			
Leakage current (mArms)	5					8		10	15	20	20
I ² t For fusing t=10ms (A ² s)	78	340	880	650	950	265	610	720	4000	9100	16200
Frequency (Hz)	50 - 60					50 - 60		50 - 60			
Minimum operating current (mArms)	160					200	300	300	400	500	500

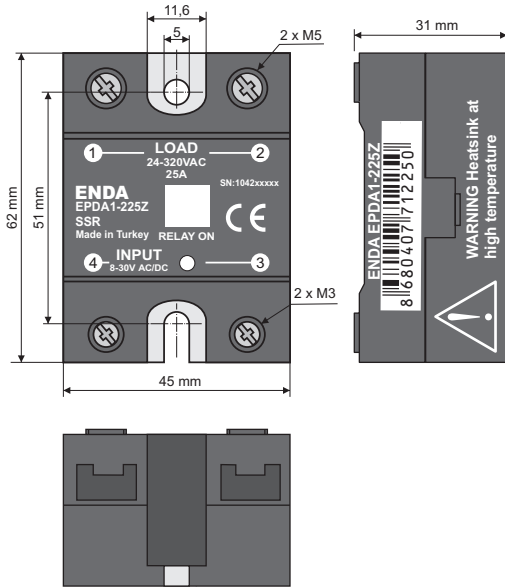
THERMAL SPECIFICATIONS											
T _j Junction temperature (°C)	≤125	≤125	≤125	≤125	≤125	≤125	≤125	≤125	≤125	≤125	≤125
R _{th(j-c)} Junction-case thermal resistance (°C/W)	≤2,3	≤1,2	≤0,7	≤0,5	≤0,4	≤1,2	≤1,0	≤0,6	≤0,4	≤0,3	≤0,25
R _{th(j-a)} Junction-ambient thermal resistance (°C/W)	≤20	≤20	≤20	≤20	≤20	≤20	≤20	≤20	≤20	≤20	≤20

INPUT			
Order code	EPGA1-xxxZ	EPDA1-xxxZ	EPAA1-xxxZ
Input voltage	3 - 30VDC	8 - 30VAC/DC	90 - 240Vac
Pick-up voltage	> 3VDC	> 6VAC/DC	> 75Vac
Drop-out voltage	< 2VDC	< 2VAC/DC	< 6Vac
Input current	< 10mAdc	< 17mAac/10mAdc	< 8mAac
Turn-on time	Max. ½ Period	Max. ½ Period	Max.1 Period
Turn-off time	Max. ½ Period	Max. ½ Period	Max. 2 Period
LED indicator	If input voltage is AC/DC >3V, LED lights up.	If input voltage is AC/DC >6V, LED lights up.	If input voltage is AC/DC >75V, LED lights up.

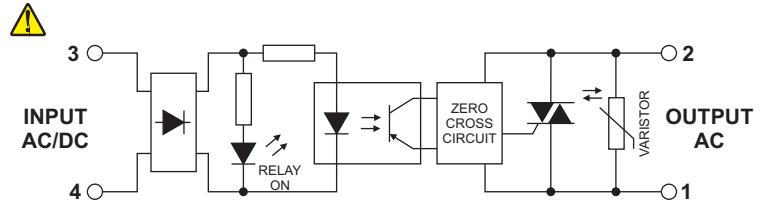
GENERAL	
Order code	EPxA1-xxxZ
Dimensions	W45xH62xD31mm
Weight (After packaging)	EPxA1-2xx/4xxZ, 95g. / EPxA1-550/570Z, 110g. / EPxA1-5100/5120Z, 115g.
Isolation voltage	2500Vrms between I/O terminals for 1 min.
Connection	For power line 16mm ² (with cable terminal 25mm ²) cable, for signal line 4mm ² cable can be connected.
Terminal screw torque	For power line max. 2,2Nm, for signal line max. 1,2Nm.
Product standard	EN 60947-4-3
Mounting	Mounted to the panel by using M4 screws.
Enclosure material	Self extinguishing plastics. (According to EN 60695-11-10 V-O)

While cleaning the device, solvents (thinner, gasoline, acid etc.) or corrosive materials must not be used.

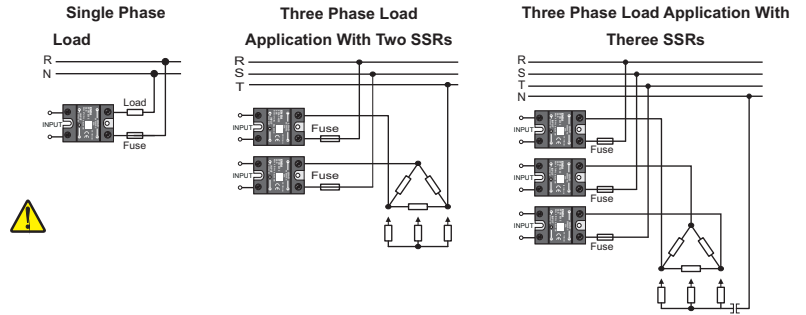
DIMENSIONS



CONNECTION DIAGRAM



CONNECTION EXAMPLES



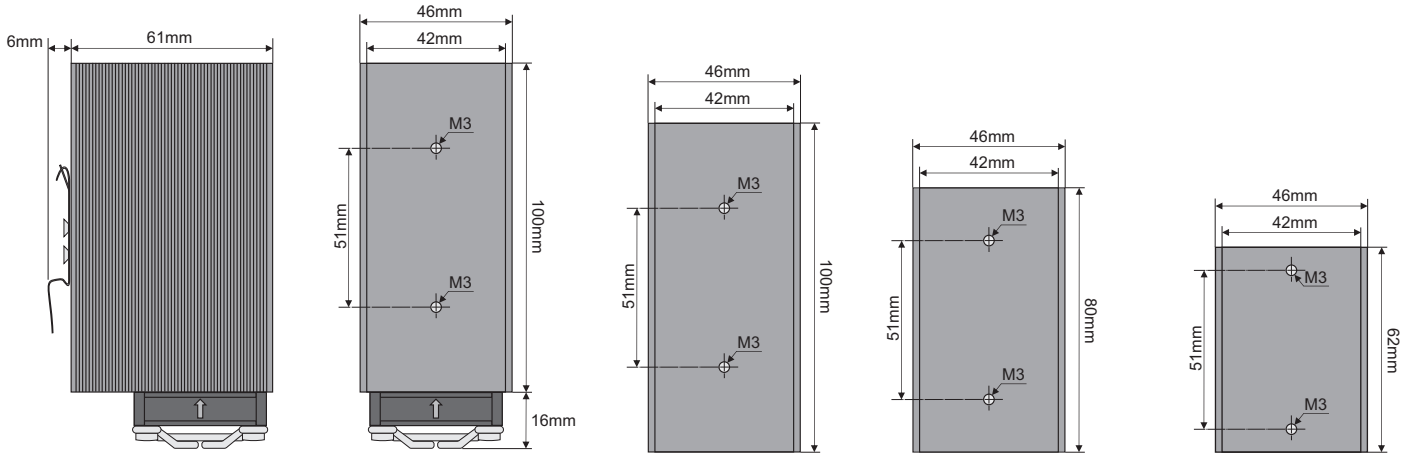
ENDA ETS SERIES RAIL MOUNTED HEAT SINKS

ENDA ETS-46-100 RAIL MOUNTED HEAT SINK

ENDA ETS-46-100

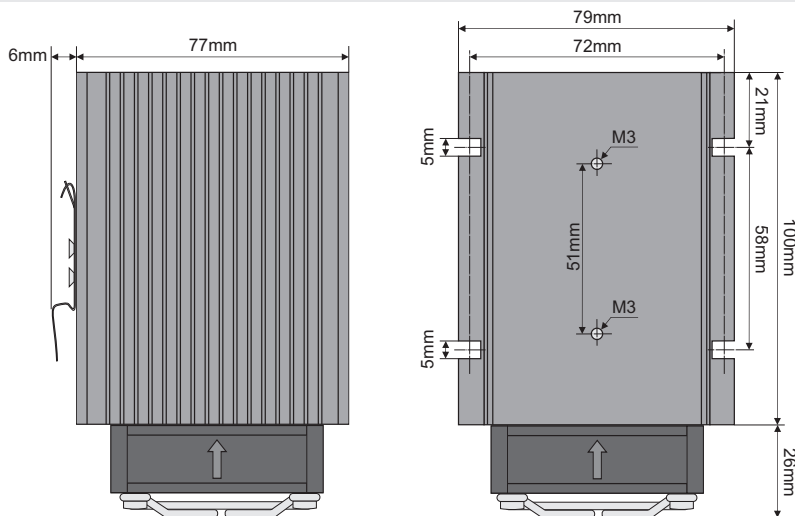
ENDA ETS-46-80

ENDA ETS-46-62



! Fan Supply : 24VDC, 100mA.
Fan side of the device must be at the bottom.

ENDA ETS-62-100F RAIL AND PANEL MOUNTED HEAT SINK



Heat Sink	SSR Current (A)	Dimensions WxHxD (mm)	Thermal Resistance (°C/W)
ETS-46-62	12-25	46x61x62	2,0
ETS-46-80	20-25	46x61x80	1,7
ETS-46-100	25-40	46x61x100	1,5
ETS-62-100	40-50	62x77x100	1,0
ETS-46-100F	50-70	46x61x116	0,7
ETS-62-100F	70-120	62x77x126	0,4

For details on heat sinks, please refer to the "ENDA ETS Series Rail and Panel Mounted Heat Sinks" manual.

! Fan Supply : 24VDC, 220mA.
Fan side of the device must be at the bottom.