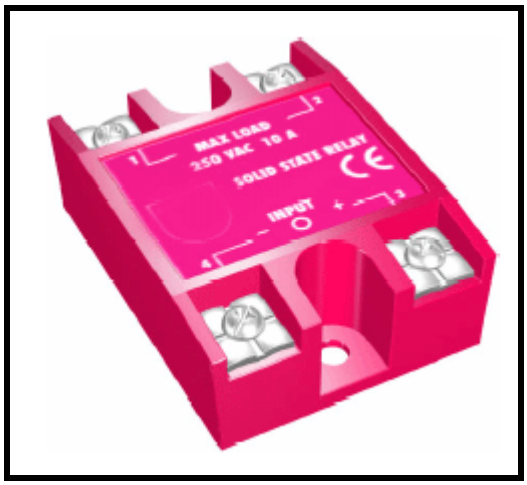
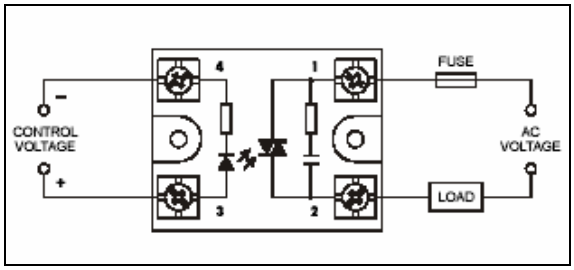
Low-cost Single-phase AC Solid State Relays BSSRP

- **Zero-cross output switching**
- **Up to 275 VAC operating voltage**
- **10-16-25-40 A switching RMS current**
- **Three input ranges**
- **4000 V input/output insulation**
- **Heatsinks available optionally**



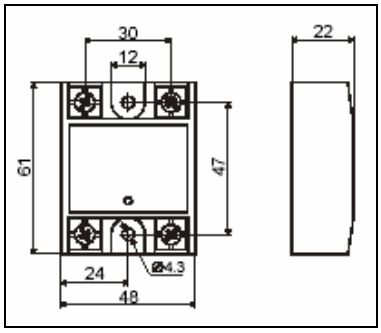
DESCRIPTION

BSSRP Solid State Relays, are zero-cross operating electronic modules designed to switch single-phase AC power loads. The BSSRP modules are non-contact and convenient substitutes of power contact relays thanks to their higher switching frequency and practically complete absence of electromagnetic interference. The life and reliability of the BSSRP modules, compared to these of the contact relays, are much higher because there are no moving parts, noise, shocks, and vibration during the operation. The BSSRP electronic relays can switch active or small inductive loads from 10 to 40 A at power voltage up to 275 VAC. The control input is optically isolated from the output and accepts AC or DC voltage signals. An operating LED indicates ON/OFF device status. Heatsinks are available as an option.



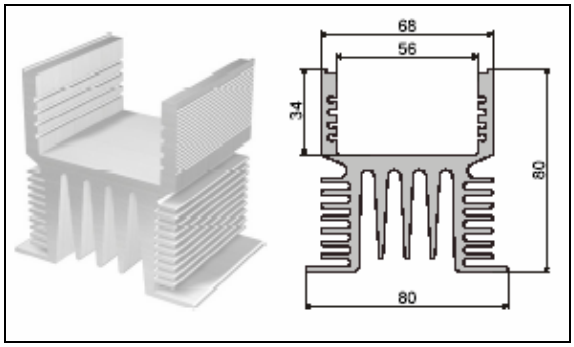
TECHNICAL SPECIFICATIONS

Construction	:	Panel design to standard DIN
Casing	:	Glass-filled plastic
Base plate (heatsink) material	:	Aluminum
Isolation	:	Input to output 4000V, output to casing 2500V
Max. operating AC voltage	:	275Vrms
Min. operating AC voltage	:	24Vrms
Rep. off-state peak voltage	:	600Vp
Non rep. off-state peak voltage	:	700Vp
Power factor	:	> 0.6
Ambient temp	:	-20 to +65°C
Protection class	:	IP00
Connection	:	M4 screws
Mounting	:	Heatsink rail clamp (ABS)
Indication	:	3mm LED
Weight	:	100g



INPUT

Control voltage	:	4-36VDC, 6-26VAC/DC, 100-240VAC
Input current	:	5-12mA, 6-12mA, 6-12mA
Turn on/off voltage	:	3VDC, 4VAC/5VDC, 90VAC
Reverse voltage protection	:	-32VDC



OUTPUT

On-state current at proper heatsink	:	<10 , 16, 25, 40 Arms
Minimum holding current	:	50, 50 , 80, 80mA
None rep. surge current at t=20mS	:	100, 160, 250, 400A
Maximum leakage current	:	1, 2, 3, 5mA
Critical rate of current rise dI/dt	:	50A/uS
I^2t value for fusing at t=10ms	:	$78A^2S$
On-state voltage at rated current	:	1,6Vrms
Critical off-state voltage rise dV/dt	:	400V/uS
Operational frequency	:	45-65 Hz
Thermal resistance (junction-case)	:	2,3, 2,1, 1,1, 1,2 °C/W

We highly recommend using SSRP at no more than 80% of maximum on-state current!

EMC	:	EN 50081-1, EN 50082-2, EN 61010-1 73/23/EEC & 89/336/EEC

CE

ORDER INFORMATION

BSSRP

TYPE	INPUT	HEATSINK	RAIL MOUNTING
1 10A	C 100-240VAC	X None	X None
2 16A	D 4-36VDC	HS Heatsink	R ABS-clamp
3 25A	P 6-26VAC/DC	(Specify)	
4 40A			

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Heatsink specifications

Variant	10	16		25			40		
Current → / Ambient temperature ↓	10 A	10 A	16 A	15 A	20 A	25 A	20 A	30 A	40 A
20 °C	72 / 62	60 / 62	214 / 62	134 / 62	287 / 62	499 / 62	237 / 62	607 / 62	1280 / 120
40 °C	150 / 62	124 / 62	445 / 62	278 / 62	601 / 62	1041 / 100	494 / 62	1275 / 120	2668 / 250
60 °C	485 / 62	400 / 62	1435 / 135	907 / 85	1924 / 180		1600 / 150		

* Heatsink surface [cm_2] /BASI model length [mm] (at 85 °C heatsink temperature)