

SOLID STATE RELAYS

with

**DIRECT COPPER BONDED TECHNOLOGY
PLANAR GLASS PASSIVATED CHIPS**

Current Ratings: 40 - 205 AMPS

Blocking Voltage: upto 1800 Volts



registered, E197669



Weight = 146 g

The SSR output is a back to back SCR configuration (two SCRs are connected antiparallel). These are direct copper bonded planar glass passivated thyristor chips. The DCBs offer very unique advantages like:

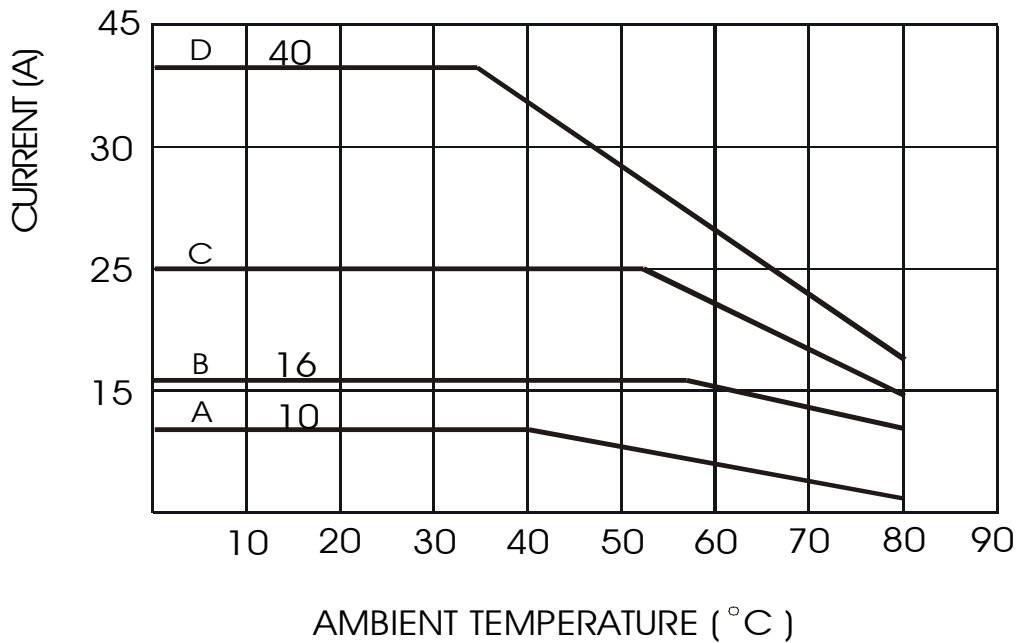
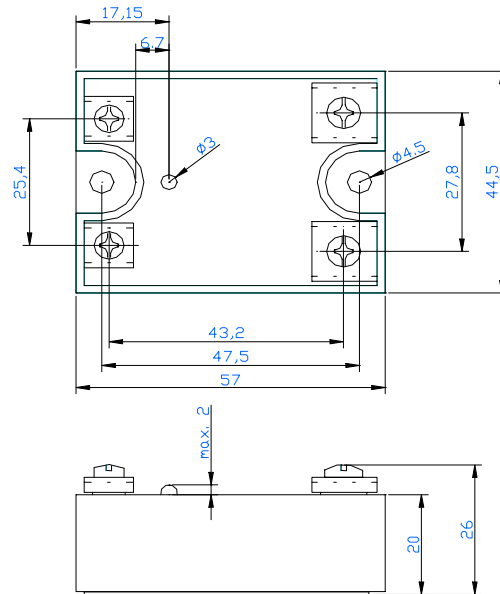
- Much higher load cycle resistance due to very strong mechanical interconnection between copper and ceramic
- Lower thermal coefficient of expansion
- Ideal heat spreading without any hot spots
- Higher fusing current
- The life-time of the SSR is 10 to power of 9 load switchings compared to the 10 to the power of 6 mechanical switchings for an electromechanical relay
- The SSR features an isolation of 4000 volts (I/P and O/P) and 1500 volts between chassis and the terminals
- The I/P control is compatible to TTL logic (AC I/P control also available for control panel application)
- The I/P control is protected against reverse polarity
- Available in single and three phase versions
- Same casing right from 10-175 Amps and conformed to ``UL `` standards
- Safety cover available to protect against live terminals
- LED is standard

Main applications for SSRs are M/C Tools, SPMs (SPL. Purpose M/Cs), Process Control Equipments, Traffic Controls, Vending M/Cs, Heating Applications, Textile Industries, Microprocessed Based Systems and Food Industry.

Single Phase Solid State Relays

MECHANICAL SPECIFICATIONS

Dimensions in mm



EXTERNAL HEAT SINK THERMAL RESISTANCE:

$$A = 3,2 \text{ K/W}$$

$$B = 1,0 \text{ K/W}$$

$$C\&D = 0,5 \text{ K/W}$$

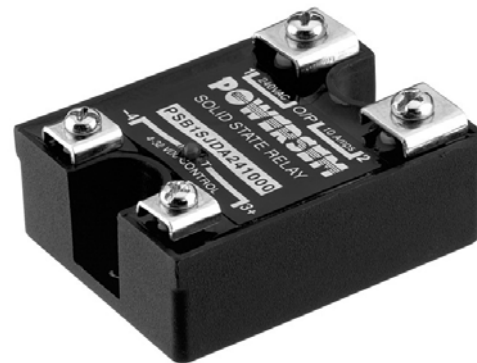
VALID FOR SERIES: PSB 1 SJK (10 A - 40 A)

Single Phase Solid State Relays

HIGHLIGHTS

- INPUT: DC CONTROL (TTL or CMOS COMPATIBLE)
- OUTPUT: BACK-TO-BACK SCR (NO or NC CONFIGURATION)
- OPTO ISOLATION 2500 VAC (4000 V optional)
- ZERO VOLTAGE TURN-ON or RANDOM TURN-ON
- SAFETY COVER (optional)
- REVERSE VOLTAGE PROTECTION FOR DC/AC RELAYS
- BUILT IN SNUBBER
- CHASSIS MOUNTABLE
- LED INDICATOR SHOWING RELAY 'ON' STATUS
- Weight = 106 g

Series: 1 SJ/K



10 – 40 A

(J: Zero voltage turn-on; K: Random turn-on)

ELECTRICAL SPECIFICATIONS

Parameter	Symbol	Type				Unit
		PSB 1 SJDA 241000	PSB 1 SJDA 241600	PSB 1 SJDA 242500	PSB 1 SJDA 244000	
DC CONTROL						
Control voltage range		4-32	4-32	4-32	4-32	Vdc
Control current range		8-30	8-30	8-30	8-30	mA
Pick-up voltage		4-0	4-0	4-0	4-0	Vdc
Drop-out voltage		1-0	1-0	1-0	1-0	Vdc
Input resistance		Current regulator				
OUTPUT						
Mains control voltage	V_{RMS}	24-240	24-240	24-240	24-240	Vac
Repetitive peak off state voltage	V_{DRM}	600	600	600	600	Vpk
RMS on-state current	I_T	10	16	25	40	A
Zero turn-on voltage		35	35	35	35	Vac
On-state voltage drop	V_{TM}	1.6	1.6	1.6	1.6	Vac
Off-state leakage current @ rated voltage	I_{DRM}	10	10	10	10	mA
Peak one cycle surge current (non-rep)	I_{TSM}	100	160	500	500	A
Holding current	I_H	50	70	120	250	mA
Critical rate of rise of off-state voltage	dv/dt	200	200	200	200	V/ μ s
Thermal resistance (junction to case)	R_{thjc}	2.0	1.6	1.0	0.85	K/W
Frequency range	f	47-63	47-63	47-63	47-63	Hz
Operating temperature	T_O	-30 to +80	-30 to +80	-30 to +80	-30 to +80	$^{\circ}$ C
Turn-on time	T-on	10	10	10	10	ms
Turn-off time	T-off	10	10	10	10	ms
Fusing current	I^2t	50	128	1250	1250	A ² s

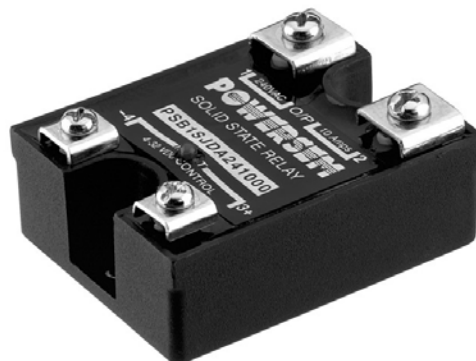


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Series: 1 SJ/K



10 – 40 A

ELECTRICAL SPECIFICATIONS

Parameter	Symbol	Type				Unit
		PSB 1 SJAA 241028	PSB 1 SJAA 241628	PSB 1 SJAA 242528	PSB 1 SJAA 244028	
AC CONTROL						
Control voltage range		180-280	180-280	180-280	180-280	Vac
Control current range		9-18	9-18	9-18	9-18	mA
Pick-up voltage		180	180	180	180	Vac
Drop-out voltage		45	45	45	45	Vac
Input resistance		Current regulator				
OUTPUT						
Mains control voltage	V_{RMS}	24-240	24-240	24-240	24-240	Vac
Repetitive peak off state voltage	V_{DRM}	600	600	600	600	Vpk
RMS on-state current	I_T	10	16	25	40	A
Zero turn-on voltage		35	35	35	35	Vac
On-state voltage drop	V_{TM}	1.6	1.6	1.6	1.6	Vac
Off-state leakage current @ rated voltage	I_{DRM}	10	10	10	10	mA
Peak one cycle surge current (non-rep)	I_{TSM}	100	160	500	500	A
Holding current	I_H	50	70	120	250	mA
Critical rate of rise of off-state voltage	dv/dt	200	200	200	200	V/ μ s
Thermal resistance (junction to case)	R_{thjc}	2.0	1.6	1.0	0.85	K/W
Frequency range	f	47-63	47-63	47-63	47-63	Hz
Operating temperature	T_O	-30 to +80	-30 to +80	-30 to +80	-30 to +80	°C
Turn-on time	T-on	40	40	40	40	ms
Turn-off time	T-off	80	80	80	80	ms
Fusing current	I^2t	50	128	1250	1250	A ² s

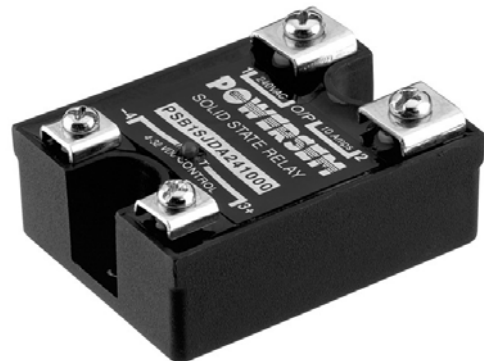


Single Phase Solid State Relays

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Series: 1 SJ/K



10 – 40 A

(J: Zero voltage turn-on; K: Random turn-on)

ELECTRICAL SPECIFICATIONS

Parameter	Symbol	Type				Unit
		PSB 1 SJDA 481000	PSB 1 SJDA 481600	PSB 1 SJDA 482500	PSB 1 SJDA 484000	
DC CONTROL						
Control voltage range		4-32	4-32	4-32	4-32	Vdc
Control current range		8-30	8-30	8-30	8-30	mA
Pick-up voltage		4-0	4-0	4-0	4-0	Vdc
Drop-out voltage		1-0	1-0	1-0	1-0	Vdc
Input resistance		Current regulator				
OUTPUT						
Mains control voltage	V_{RMS}	50-480	50-480	50-480	50-480	Vac
Repetitive peak off state voltage	V_{DRM}	800	800	800	800	Vpk
RMS on-state current	I_T	10	16	25	40	A
Zero turn-on voltage		35	35	35	35	Vac
On-state voltage drop	V_{TM}	1.6	1.6	1.6	1.6	Vac
Off-state leakage current @ rated voltage	I_{DRM}	10	10	10	10	mA
Peak one cycle surge current (non-rep)	I_{TSM}	100	160	500	500	A
Holding current	I_H	50	70	120	250	mA
Critical rate of rise of off-state voltage	dv/dt	200	200	200	200	V/ μ s
Thermal resistance (junction to case)	R_{thjc}	2.0	1.6	1.0	0.85	K/W
Frequency range	f	47-63	47-63	47-63	47-63	Hz
Operating temperature	T_o	-30 to +80	-30 to +80	-30 to +80	-30 to +80	$^{\circ}$ C
Turn-on time	T-on	10	10	10	10	ms
Turn-off time	T-off	10	10	10	10	ms
Fusing current	I^2t	50	128	1250	1250	A ² s

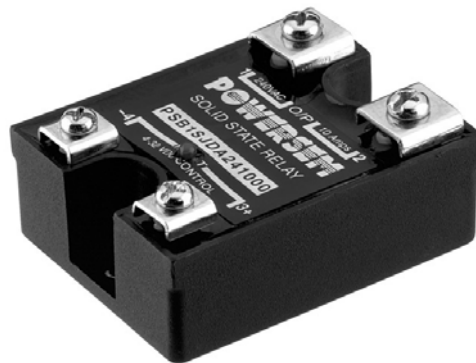


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10 – 40 A

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ELECTRICAL SPECIFICATIONS

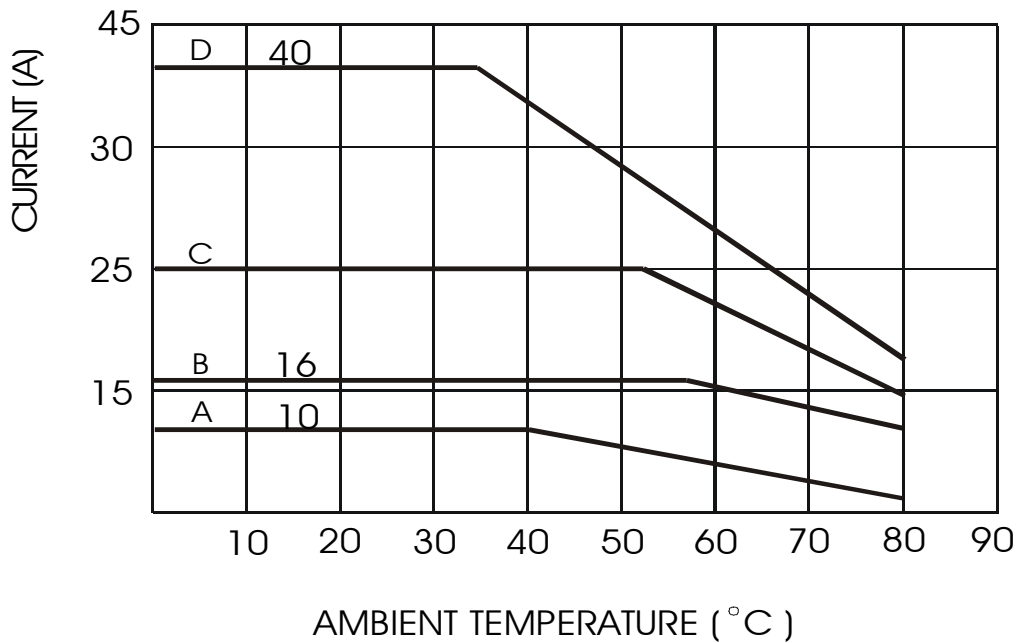
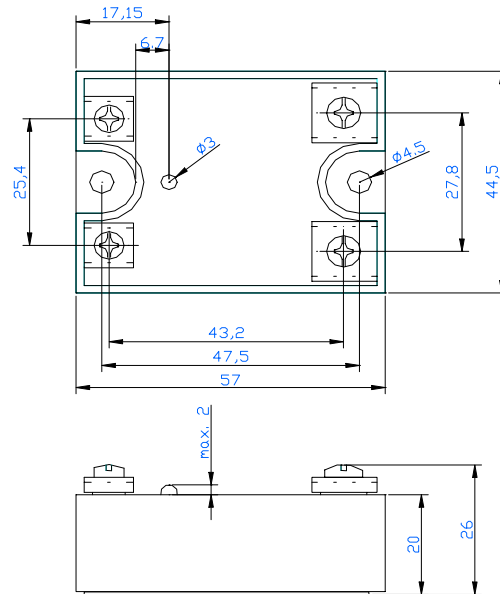
Parameter	Symbol	Type				Unit
		PSB 1 SJAA 481028	PSB 1 SJAA 481628	PSB 1 SJAA 482528	PSB 1 SJAA 484028	
AC CONTROL						
Control voltage range		180-280	180-280	180-280	180-280	Vac
Control current range		9-18	9-18	9-18	9-18	mA
Pick-up voltage		180	180	180	180	Vac
Drop-out voltage		45	45	45	45	Vac
Input resistance		Current regulator				
OUTPUT						
Mains control voltage	V_{RMS}	50-480	50-480	50-480	50-480	Vac
Repetitive peak off state voltage	V_{DRM}	800	800	800	800	Vpk
RMS on-state current	I_T	10	16	25	40	A
Zero turn-on voltage		35	35	35	35	Vac
On-state voltage drop	V_{TM}	1.6	2.0	2.0	2.0	Vac
Off-state leakage current @ rated voltage	I_{DRM}	10	10	10	10	mA
Peak one cycle surge current (non-rep)	I_{TSM}	100	160	500	500	A
Holding current	I_H	50	70	120	250	mA
Critical rate of rise of off-state voltage	dv/dt	200	200	200	200	V/ μ s
Thermal resistance (junction to case)	R_{thjc}	2.0	1.6	1.0	0.85	K/W
Frequency range	f	47-63	47-63	47-63	47-63	Hz
Operating temperature	T_O	-30 to +80	-30 to +80	-30 to +80	-30 to +80	°C
Turn-on time	T-on	40	40	40	40	ms
Turn-off time	T-off	80	80	80	80	ms
Fusing current	I^2t	50	128	1250	1250	A ² s



Single Phase Solid State Relays

MECHANICAL SPECIFICATIONS

Dimensions in mm



EXTERNAL HEAT SINK THERMAL RESISTANCE:

$$A = 3,2 \text{ K/W}$$

$$B = 1,0 \text{ K/W}$$

$$C\&D = 0,5 \text{ K/W}$$

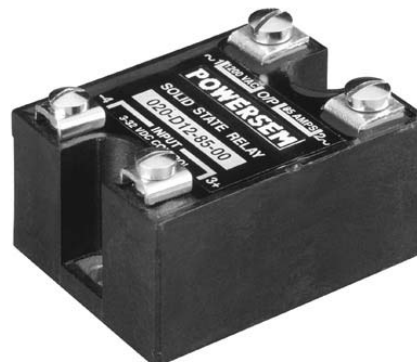
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- CHASSIS MOUNTABLE
- LED INDICATOR SHOWING RELAY 'ON' STATUS
- Weight = 106 g

Series: 20 SJ/K



25 – 90 A

(J: Zero voltage turn-on; K: Random turn-on)

ELECTRICAL SPECIFICATIONS

Parameter	Symbol	Type				Unit
		PSB 20 D 122500	PSB 20 D 125000	PSB 20 D 127500	PSB 20 D 129000	
DC CONTROL						
Control voltage range		4-32	4-32	4-32	4-32	Vdc
Control current range		8-30	8-30	8-30	8-30	mA
Pick-up voltage		4-0	4-0	4-0	4-0	Vdc
Drop-out voltage		1-0	1-0	1-0	1-0	Vdc
Input resistance		Current regulator				
OUTPUT						
Mains control voltage	V_{RMS}	100-480	100-480	100-480	100-480	Vac
Repetitive peak off state voltage	V_{DRM}	1200-1600	1200-1600	1200-1600	1200-1600	Vpk
RMS on-state current	I_T	25	50	75	90	A
Zero turn-on voltage		35	35	35	35	Vac
On-state voltage drop	V_{TM}	1.6	2.0	2.0	2.0	Vac
Off-state leakage current @ rated voltage	I_{DRM}	10	10	10	10	mA
Peak one cycle surge current (non-rep)	I_{TSM}	400	500	1150	1350	A
Holding current	I_{HO}	250	250	250	250	mA
Critical rate of rise of off-state voltage	dv/dt	1000	1000	1000	1000	V/ μ s
Thermal resistance (junction to case)	R_{thjc}	1.38	0.7	0.6	0.56	K/W
Frequency range	f	47-63	47-63	47-63	47-63	Hz
Operating temperature	T_O	-30 to +80	-30 to +80	-30 to +80	-30 to +80	°C
Turn-on time	T-on	10	10	10	10	ms
Turn-off time	T-off	10	10	10	10	ms
Fusing current	I^2t	600	1250	5000	5000	A ² s

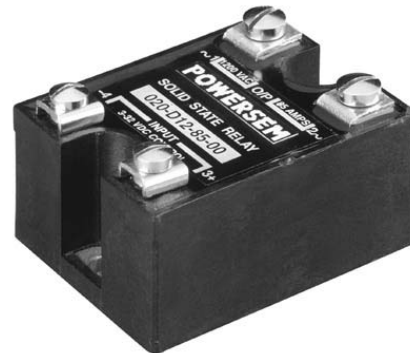


Single Phase Solid State Relays

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- OUTPUT: DIRECT COPPER BONDED BACK-TO-BACK SCR
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Series: 20 SJ/K



(J: Zero voltage turn-on; K: Random turn-on)

25 – 90 A

ELECTRICAL SPECIFICATIONS

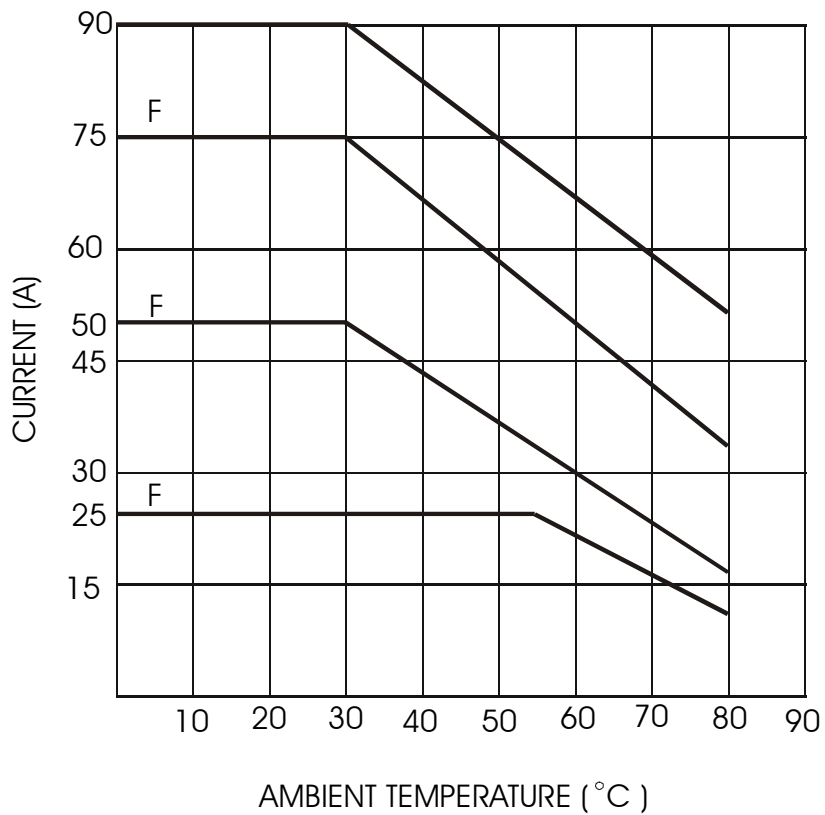
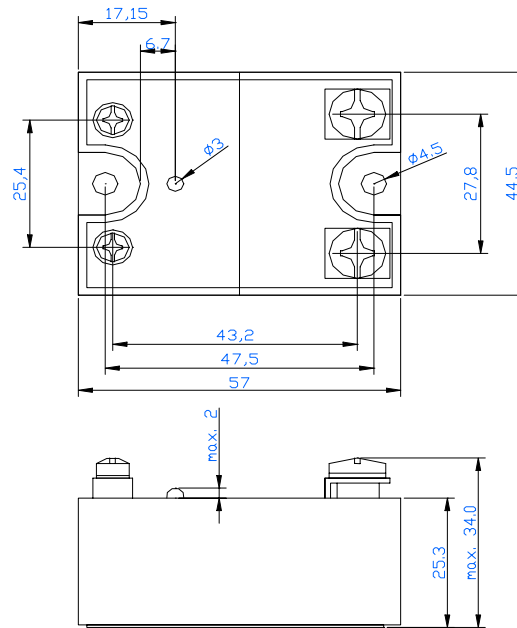
Parameter	Symbol	Type				Unit
		PSB 20 A 122528	PSB 20 A 125028	PSB 20 A 127528	PSB 20 A 129028	
AC CONTROL						
Control voltage range		90-280	90-280	90-280	90-280	Vac
Control current range		4-25	4-25	4-25	4-10	mA
Pick-up voltage		90	90	90	90	Vac
Drop-out voltage		10	10	10	10	Vac
Input resistance		Current regulator				
OUTPUT						
Mains control voltage	V_{RMS}	100-480	100-480	100-480	100-480	Vac
Repetitive peak off state voltage	V_{DRM}	1200-1600	1200-1600	1200-1600	1200-1600	Vpk
RMS on-state current	I_T	25	50	75	90	A
Zero turn-on voltage		35	35	35	35	Vac
On-state voltage drop	V_{TM}	1.6	2.0	2.0	2.0	Vac
Off-state leakage current @ rated voltage	I_{DRM}	10	10	10	10	mA
Peak one cycle surge current (non-rep)	I_{TSM}	400	500	1150	1350	A
Holding current	I_H	250	250	250	250	mA
Critical rate of rise of off-state voltage	dv/dt	1000	1000	1000	1000	V/ μ s
Thermal resistance (junction to case)	R_{thjc}	1.38	0.7	0.6	0.56	K/W
Frequency range	f	47-63	47-63	47-63	47-63	Hz
Operating temperature	T_O	-30 to +80	-30 to +80	-30 to +80	-30 to +80	$^{\circ}$ C
Turn-on time	T-on	40	40	40	40	ms
Turn-off time	T-off	80	80	80	80	ms
Fusing current	I^2t	600	1250	5000	5000	A ² s



Single Phase Solid State Relays

MECHANICAL SPECIFICATIONS

Dimensions in mm



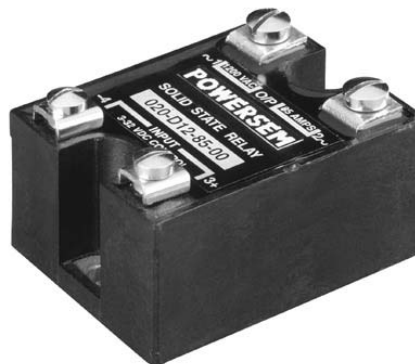
EXTERNAL HEATSINK THERMAL RESISTANCE: 0,14 K/W
 VALID FOR SERIES: PSB 20 SJK (25 - 90 A)

Single Phase Solid State Relays

HIGHLIGHTS

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- OUTPUT: DIRECT COPPER BONDED BACK-TO-BACK SCR
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- ZERO VOLTAGE TURN-ON or RANDOM TURN-ON
- HIGH DV/DT
- SAFETY COVER (optional)
- REVERSE VOLTAGE PROTECTION FOR DC/AC RELAYS
- BUILT IN SNUBBER
- CHASSIS MOUNTABLE
- LED INDICATOR SHOWING RELAY 'ON' STATUS
- Weight = 106 g

Series: 20 SJ/K



125 – 205 A

(J: Zero voltage turn-on; K: Random turn-on)

ELECTRICAL SPECIFICATIONS

	Symbol	Type				Unit
		PSB 20 D 1212500	PSB 20 D 1215000	PSB 20 D 1217500	PSB 20 D 1220500	
DC CONTROL						
Control voltage range		4-32	4-32	4-32	4-32	Vdc
Control current range		18-30	18-30	18-30	18-30	mA
Pick-up voltage		4.0	4.0	4.0	4.0	Vdc
Input impedance		Current regulator				
Drop out voltage		1.0	1.0	1.0	1.0	Vdc
OUTPUT						
Main voltage range	V_{RMS}	48-660	48-660	48-660	48-660	Vac
Repetitive peak off state voltage	V_{DRM}	1200/1600	1200/1600	1200/1600	1200/1600	Vpk
Rated Load current	I_T	125	150	175	205	A
Zero turn-on voltage		35	35	35	35	Vac
Off-state leakage current @ rated voltage	I_{DRM}	1	1	1	1	mA
Peak one cycle surge current (non-rep)	I_{TSM}	1250	1350	1500	2250	A
Holding current	I_H	250	250	250	250	mA
Critical rate of rise of off-state voltage	dv/dt	1000	1000	1000	1000	V/ μ s
Thermal resistance (junction to case)	R_{thjc}	0.35	0.35	0.25	0.1	K/W
Frequency range	f	47-63	47-63	47-63	47-63	Hz
Operating temperature	T_o	-25 to +80	-25 to +80	-25 to +80	-25 to +80	$^{\circ}$ C
Turn-on time	T-on	10	10	10	10	ms
Turn-off time	T-off	10	10	10	10	ms
Fusing current @ 25 $^{\circ}$ C (8.3ms)	I^2t	5000	8000	15000	25000	A 2 s

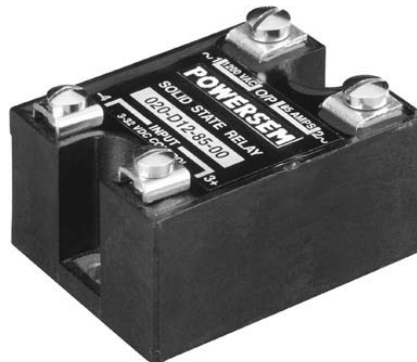


Single Phase Solid State Relays

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125 – 205 A

ELECTRICAL SPECIFICATIONS

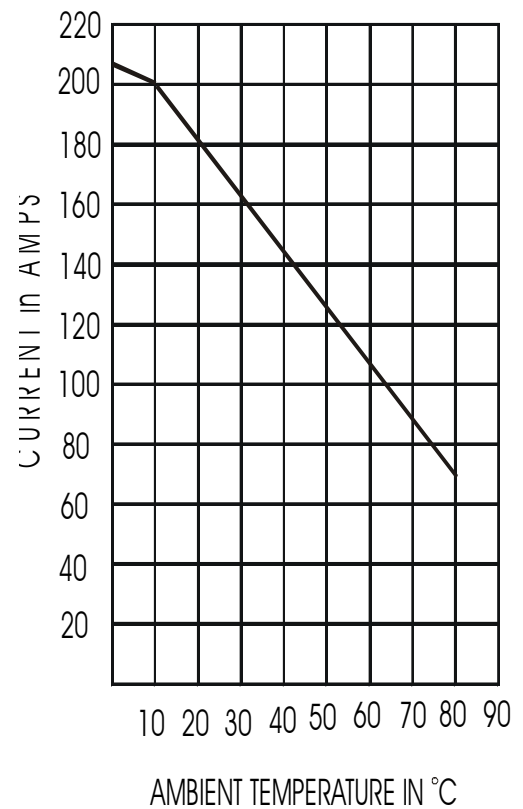
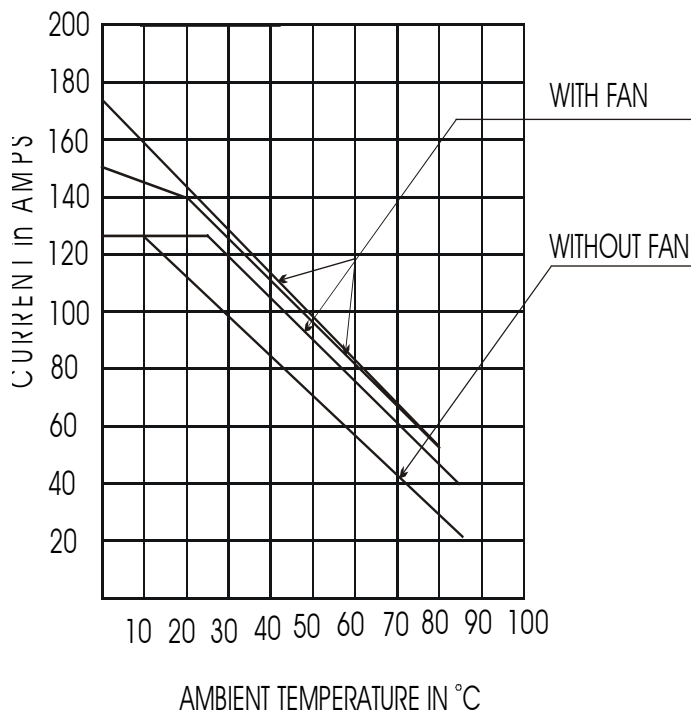
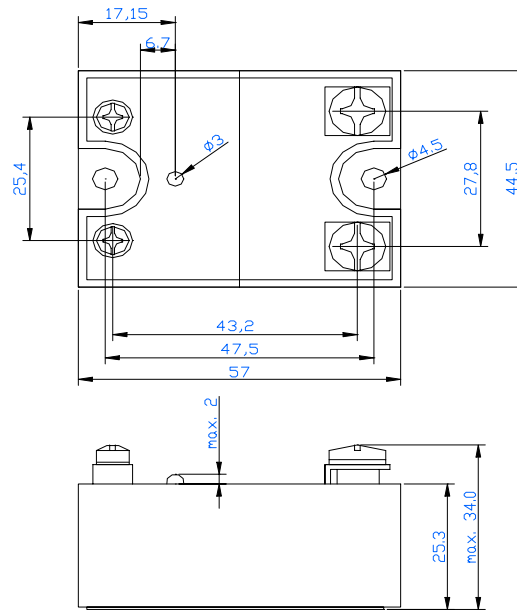
Parameter	Symbol	Type				Unit
		PSB 20 A 1212528	PSB 20 A 1215028	PSB 20 A 1217528	PSB 20 A 1220528	
AC CONTROL						
Control voltage range		90-280	90-280	90-280	90-280	Vac
Control current range		4-10	4-10	4-10	4-10	mA
Pick-up voltage		90	90	90	90	Vac
Drop out voltage		10	10	10	10	Vac
Input impedance		25	20-26	20-26	20-26	K Ohms
OUTPUT						
Main voltage range	V_{RMS}	48-660	48-660	48-660	48-660	Vac
Repetitive peak off state voltage	V_{DRM}	1200/1600	1200/1600	1200/1600	1200/1600	Vpk
RMS on-state current	I_T	125	150	175	205	A
Zero turn-on voltage		35	35	35	35	Vac
Off-state leakage current @ rated voltage	I_{DRM}	1	1	1	1	mA
Peak one cycle surge current (non-rep)	I_{TSM}	1250	1350	1500	2250	A
Holding current	I_H	250	250	250	250	mA
Critical rate of rise of off-state voltage	dv/dt	1000	1000	1000	1000	V/ μ s
Thermal resistance (junction to case)	R_{thjc}	0.35	0.35	0.25	0.1	K/W
Frequency range	f	47-63	47-63	47-63	47-63	Hz
Operating temperature		-25 to +80	-25 to +80	-25 to +80	-25 to +80	°C
Turn-on time	T-on	40	40	40	40	ms
Turn-off time	T-off	80	80	80	80	ms
Fusing current @ 25°C (8.3ms)	I^2t	5000	8000	15000	25000	A ² s



Single Phase Solid State Relays

MECHANICAL SPECIFICATIONS

Dimensions in mm



HEAT SINK USED: 0,14 kW

FAN USED: 70 CFM FOR 125 A

FAN USED: 100 CFM FOR 150 A - 175 A

VALID FOR SERIES: PSB 20 SJK (125 A - 175 A)

HEAT SINK USED: 0,1 kW

FAN USED: 100 CFM FOR 205 A

Three Phase Solid State Relays

HIGHLIGHTS

- INPUT: DC CONTROL
- HIGH DV/DT
- OUTPUT: DIRECT COPPER BONDED BACK-TO-BACK SCR
- OPTO ISOLATION 2500 VAC (4000 V optional)
- VOLTAGE RANGE 100 TO 660 VAC
- LOAD CURRENT 3x25A / 50A / 75A / 90A
- REVERSE POLARITY PROTECTION FOR DC INPUT CONTROL
- Weight = 344 g

Series: 12 SJ/K



(J: Zero voltage turn-on; K: Random turn-on)

ELECTRICAL SPECIFICATIONS

Parameter	Symbol	Type				Unit
		PSD 12 D 122500	PSD 12 D 125000	PSD 12 D 127500	PSD 12 D 129000	
DC CONTROL						
Control voltage range		4-32	4-32	4-32	4-32	Vdc
Control current range		8-80	8-80	8-80	8-80	mA
Pick-up voltage		4-0	4-0	4-0	4-0	Vdc
Drop-out voltage		1-0	1-0	1-0	1-0	Vdc
Input resistance		Current regulator				
OUTPUT						
Mains control voltage	V_{RMS}	100-660	100-660	100-660	100-660	Vac
Repetitive peak off state voltage	V_{DRM}	800-1600	800-1600	800-1600	800-1600	Vpk
RMS on-state current (per phase)	I_T	25	50	75	90	A
Zero turn-on voltage		35	35	35	35	Vac
On-state voltage drop	V_{TM}	1.8	2.0	2.0	2.0	Vac
Off-state leakage current @ rated voltage	I_{DRM}	1	1	1	1	mA
Peak one cycle surge current (non-rep)	I_{TSM}	400	500	1150	1150	A
Holding current	I_H	250	250	250	250	mA
Critical rate of rise of off-state voltage	dv/dt	1000	1000	1000	1000	V/ μ s
Thermal resistance (junction to case)	R_{thjc}	1.38	0.7	0.6	0.56	K/W
Frequency range	f	47-63	47-63	47-63	47-63	Hz
Operating temperature	T_O	-30 to +80	-30 to +80	-30 to +80	-30 to +80	$^{\circ}$ C
Turn-on time	T-on	10	10	10	10	ms
Turn-off time	T-off	10	10	10	10	ms
Fusing current	I^2t	600	1250	5000	5000	A ² s



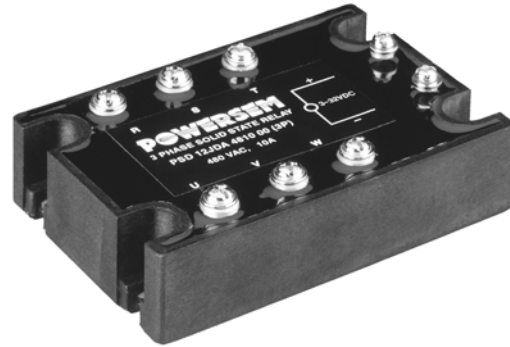
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Three Phase Solid State Relays

HIGHLIGHTS

- INPUT: AC CONTROL
- OUTPUT: DIRECT COPPER BONDED BACK-TO-BACK SCR
- OPTO ISOLATION 2500 VAC (4000 V optional)
- VOLTAGE RANGE 100 TO 660 VAC
- LOAD CURRENT 3x25A / 50A / 75A / 90A
- HIGH DV/DT
- Weight = 344 g

Series: 12 SJ/K



(J: Zero voltage turn-on; K: Random turn-on)

ELECTRICAL SPECIFICATIONS

Parameter	Symbol	Type				Unit
		PSD 12 A 122528	PSD 12 A 125028	PSD 12 A 127528	PSD 12 A 129028	
AC CONTROL						
Control voltage range		90-280	90-280	90-280	90-280	Vac
Control current range		8-80	8-80	8-80	8-80	mA
Pick-up voltage		90	90	90	90	Vac
Drop-out voltage		10	10	10	10	Vac
Input resistance		Current regulator				
OUTPUT						
Mains control voltage	V_{RMS}	100-660	100-660	100-660	100-660	Vac
Repetitive peak off state voltage	V_{DRM}	800-1600	800-1600	800-1600	800-1600	Vpk
RMS on-state current	I_T	25	50	75	90	A
Zero turn-on voltage		35	35	35	35	Vac
On-state voltage drop	V_{TM}	1.6	2.0	2.0	2.0	Vac
Off-state leakage current @ rated voltage	I_{DRM}	1	1	1	1	mA
Peak one cycle surge current (non-rep)	I_{TSM}	400	500	1150	1150	A
Holding current	I_H	250	250	250	250	mA
Critical rate of rise of off-state voltage	dv/dt	1000	1000	1000	1000	V/ μ s
Thermal resistance (junction to case)	R_{thjc}	1.38	0.7	0.6	0.56	K/W
Frequency range	f	47-63	47-63	47-63	47-63	Hz
Operating temperature	T_O	-30 to +80	-30 to +80	-30 to +80	-30 to +80	$^{\circ}$ C
Turn-on time	T-on	40	40	40	40	ms
Turn-off time	T-off	80	80	80	80	ms
Fusing current	I^2t	600	1250	5000	5000	A ² s

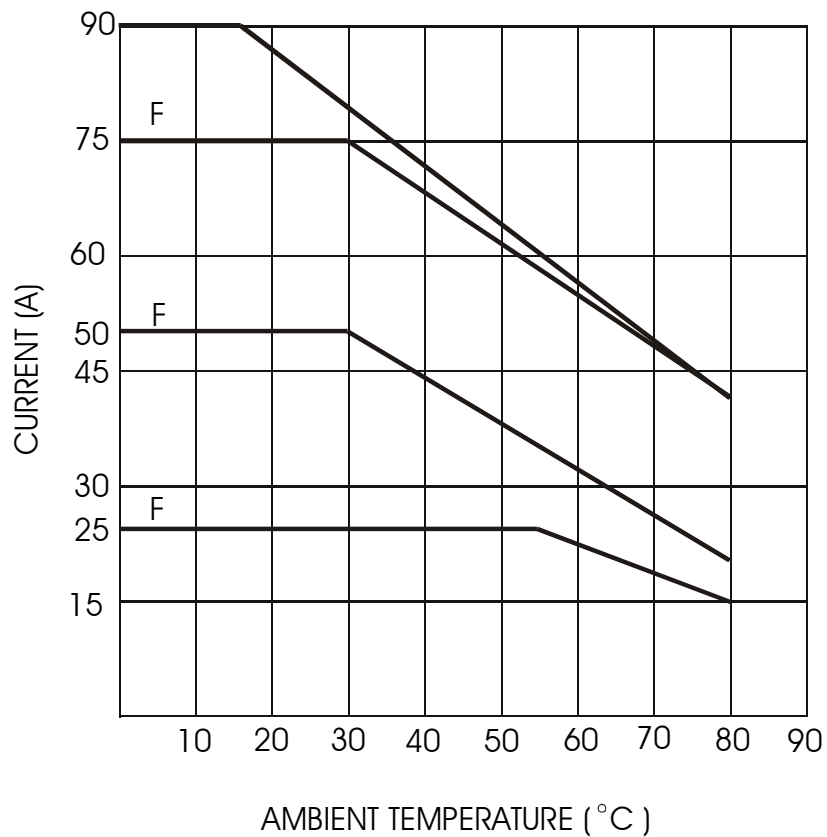
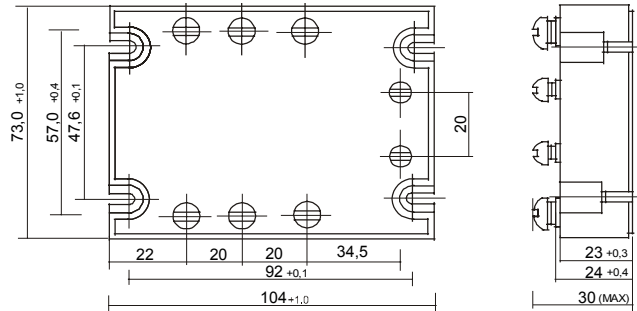


Three Phase Solid State Relays

MECHANICAL SPECIFICATIONS

Dimensions in mm

Three Phase Solid State Relay



HEAT SINK USED: 0,14 K/W

FAN USED: 70 CFM

VALIED FOR SERIES: PSD 12 SJK

DIN Ready Solid State Relay

HIGHLIGHTS

- INPUT: DC CONTROL (TTL or CMOS COMPATIBLE)
- OUTPUT: BACK-TO-BACK SCR
- OPTO ISOLATION 2500 VAC (4000 V optional)
- ZERO VOLTAGE TURN-ON or RANDOM TURN-ON
- BUILT IN SAFETY COVER
- REVERSE VOLTAGE PROTECTION FOR DC/AC RELAYS
- BUILT IN SNUBBER FOR HIGH DV/DT
- DIN MOUNT OR BACK PLATE MOUNTING
- LED INDICATOR SHOWING RELAY 'ON' STATUS



(J: Zero voltage turn-on; K: Random turn-on)

ELECTRICAL SPECIFICATIONS

Parameter	Symbol	Type				Unit
		PSB DIN 30D 661000	PSB DIN 30D 661600	PSB DIN 30D 662500	PSB DIN 30D 664000	
DC CONTROL						
Control voltage range		4-32	4-32	4-32	4-32	Vdc
Control current range		8-30	8-30	8-30	8-30	mA
Pick-up voltage		3.0	3.0	3.0	3.0	Vdc
Drop-out voltage		1.0	1.0	1.0	1.0	Vdc
Input resistance		Current regulator				
OUTPUT						
Mains control voltage	V_{RMS}	48-660	48-660	48-660	48-660	Vac
Repetitive peak off state voltage	V_{DRM}	1200	1200	1200	1200	Vpk
RMS on-state current	I_T	10	16	25	40	A
Zero turn-on voltage		35	35	35	35	Vac
On-state voltage drop	V_{TM}	1.6	1.6	1.8	1.8	Vac
Off-state leakage current @ rated voltage	I_{DRM}	5	5	5	5	mA
Peak one cycle surge current (non-Rrep)	I_{TSM}	100	250	1000	1000	A
Holding current	I_H	75	120	250	250	mA
Critical rate of rise of off-state voltage	dv/dt	200	200	700	700	V/ μ s
Thermal resistance (junction to case)	R_{thjc}	1.8	1.3	0.43	0.43	K/W
Frequency range	f	47-63	47-63	47-63	47-63	Hz
Storage temperature	T_o	-30 to +100	-30 to +100	-30 to +100	-30 to +100	$^{\circ}$ C
Operating temperature	T_o	-30 to +80	-30 to +80	-30 to +80	-30 to +80	$^{\circ}$ C
Turn-on time	T-on	10	10	10	10	ms
Turn-off time	T-off	10	10	10	10	ms
Fusing current	I^2t	72	128	3700	5000	A ² s

ALL ELECTRICAL PARAMETERS MEASURED @ $T_A = 25$ DEG C



DIN Ready Solid State Relay

HIGHLIGHTS

- INPUT: AC CONTROL
- OUTPUT: BACK-TO-BACK SCR
- OPTO ISOLATION 2500 VAC (4000 V optional)
- ZERO VOLTAGE TURN-ON or RANDOM TURN-ON
- BUILT IN SAFETY COVER
- REVERSE VOLTAGE PROTECTION FOR DC/AC RELAYS
- BUILT IN SNUBBER FOR HIGH DV/DT
- DIN MOUNT OR BACK PLATE MOUNTING
- LED INDICATOR SHOWING RELAY 'ON' STATUS



(J: Zero voltage turn-on; K: Random turn-on)

ELECTRICAL SPECIFICATIONS

Parameter	Symbol	Type				Unit
		PSB DIN 30A 661028	PSB DIN 30A 661628	PSB DIN 30A 662528	PSB DIN 30A 664028	
AC CONTROL						
Control voltage range		90-280	90-280	90-280	90-280	Vac
Control current range		4-25	4-25	4-25	4-25	mA
Pick-up voltage		90	90	90	90	Vac
Drop-out voltage		10	10	10	10	Vac
Input resistance		16-25	16-25	16-25	16-25	K
OUTPUT						
Mains control voltage	V_{RMS}	48-660	48-660	48-660	48-660	Vac
Repetitive peak off state voltage	V_{DRM}	1200	1200	1200	1200	Vpk
RMS on-state current	I_T	10	16	25	40	A
Zero turn-on voltage		35	35	35	35	Vac
On-state voltage drop	V_{TM}	1.6	1.6	1.8	1.8	Vac
Off-state leakage current @ rated voltage	I_{DRM}	5	5	5	5	mA
Peak one cycle surge current (non-Rrep)	I_{TSM}	100	250	1000	1000	A
Holding current	I_H	75	120	250	250	mA
Critical rate of rise of off-state voltage	dv/dt	200	200	700	700	V/ μ s
Thermal resistance (junction to case)	R_{thjc}	1.8	1.3	0.43	0.43	K/W
Frequency range	f	47-63	47-63	47-63	47-63	Hz
Storage temperature	T_s	-30 to +100	-30 to +100	-30 to +100	-30 to +100	$^{\circ}$ C
Operating temperature	T_o	-30 to +80	-30 to +80	-30 to +80	-30 to +80	$^{\circ}$ C
Turn-on time	T-on	40	40	40	40	ms
Turn-off time	T-off	80	80	80	80	ms
Fusing current	I^2t	72	128	3700	5000	A ² s

ALL ELECTRICAL PARAMETERS MEASURED @ TA= 25 DEG C



DIN Ready Solid State Relay

HIGHLIGHTS

- INPUT: DC CONTROL (TTL or CMOS COMPATIBLE)
- OUTPUT: BACK-TO-BACK SCR
- OPTO ISOLATION 2500 VAC (4000 V optional)
- ZERO VOLTAGE TURN-ON or RANDOM TURN-ON
- BUILT IN SAFETY COVER
- REVERSE VOLTAGE PROTECTION FOR DC/AC RELAYS
- BUILT IN SNUBBER FOR HIGH DV/DT
- DIN MOUNT OR BACK PLATE MOUNTING
- LED INDICATOR SHOWING RELAY 'ON' STATUS



(J: Zero voltage turn-on; K: Random turn-on)

ELECTRICAL SPECIFICATIONS

Parameter	Symbol	Type				Unit
		PSB DIN 30D 241000	PSB DIN 30D 241600	PSB DIN 30D 242500	PSB DIN 30D 244000	
DC CONTROL						
Control voltage range		3-32	3-32	3-32	3-32	Vdc
Control current range		8-30	8-30	8-30	8-30	mA
Pick-up voltage		3.0	3.0	3.0	3.0	Vdc
Drop-out voltage		1.0	1.0	1.0	1.0	Vdc
Input resistance		Current regulator				
OUTPUT						
Mains control voltage	V_{RMS}	24-240	24-240	24-240	24-240	Vac
Repetitive peak off state voltage	V_{DRM}	600	600	600	600	Vpk
RMS on-state current	I_T	10	16	25	40	A
Zero turn-on voltage		35	35	35	35	Vac
On-state voltage drop	V_{TM}	1.6	1.6	1.8	1.8	Vac
Off-state leakage current @ rated voltage	I_{DRM}	5	5	5	5	mA
Peak one cycle surge current (non-Rrep)	I_{TSM}	100	250	800	800	A
Holding current	I_H	75	120	250	250	mA
Critical rate of rise of off-state voltage	dv/dt	200	250	500	500	V/ μ s
Thermal resistance (junction to case)	R_{thjc}	1.5	1.3	0.43	0.43	K/W
Frequency range	f	47-63	47-63	47-63	47-63	Hz
Storage temperature	T_s	-30 to +100	-30 to +100	-30 to +100	-30 to +100	$^{\circ}$ C
Operating temperature	T_o	-30 to +80	-30 to +80	-30 to +80	-30 to +80	$^{\circ}$ C
Turn-on time	T-on	10	10	10	10	ms
Turn-off time	T-off	10	10	10	10	ms
Fusing current	I^2t	72	128	3700	3700	A ² s

ALL ELECTRICAL PARAMETERS MEASURED @ TA= 25 DEG C



DIN Ready Solid State Relay

HIGHLIGHTS

- INPUT: AC CONTROL
- OUTPUT: BACK-TO-BACK SCR
- OPTO ISOLATION 2500 VAC (4000 V optional)
- ZERO VOLTAGE TURN-ON or RANDOM TURN-ON
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(J: Zero voltage turn-on; K: Random turn-on)

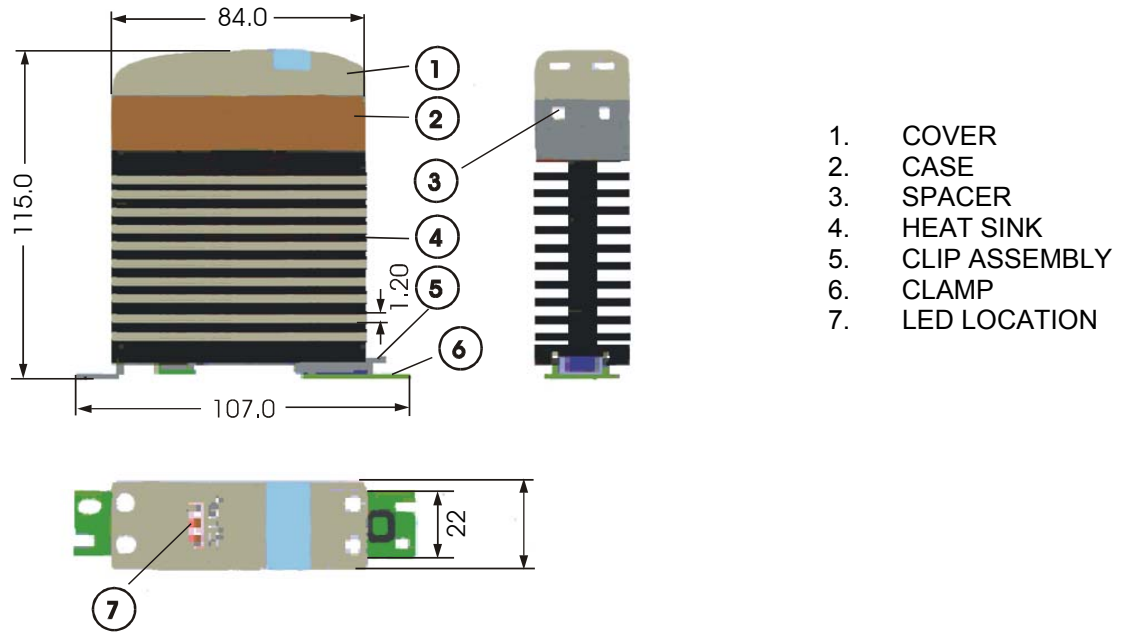
ELECTRICAL SPECIFICATIONS

Parameter	Symbol	Type				Unit
		PSB DIN 30A 241028	PSB DIN 30A 241628	PSB DIN 30A 242528	PSB DIN 30A 244028	
AC CONTROL						
Control voltage range		90-280	90-280	90-280	90-280	Vac
Control current range		4-25	4-25	4-25	4-25	mA
Pick-up voltage		90	90	90	90	Vac
Drop-out voltage		10	10	10	10	Vac
Input resistance		16-25	16-25	16-25	16-25	K ohm
OUTPUT						
Mains control voltage	V_{RMS}	24-240	24-240	24-240	24-240	Vac
Repetitive peak off state voltage	V_{DRM}	600	600	600	600	Vpk
RMS on-state current	I_T	10	16	25	40	A
Zero turn-on voltage		35	35	35	35	Vac
On-state voltage drop	V_{TM}	1.6	1.6	1.8	1.8	Vac
Off-state leakage current @ rated voltage	I_{DRM}	5	5	5	5	mA
Peak one cycle surge current (non-Rrep)	I_{TSM}	100	250	1000	1000	A
Holding current	I_H	75	120	250	250	mA
Critical rate of rise of off-state voltage	dv/dt	200	500	500	500	V/ μ s
Thermal resistance (junction to case)	R_{thjc}	1.5	1.3	0.43	0.43	K/W
Frequency range	f	47-63	47-63	47-63	47-63	Hz
Storage temperature	T_s	-30 to +100	-30 to +100	-30 to +100	-30 to +100	$^{\circ}$ C
Operating temperature	T_o	-30 to +80	-30 to +80	-30 to +80	-30 to +80	$^{\circ}$ C
Turn-on time	T-on	40	40	40	40	ms
Turn-off time	T-off	80	80	80	80	ms
Fusing current	I^2t	72	128	3700	3700	A 2 s

ALL ELECTRICAL PARAMETERS MEASURED @ TA= 25 DEG C

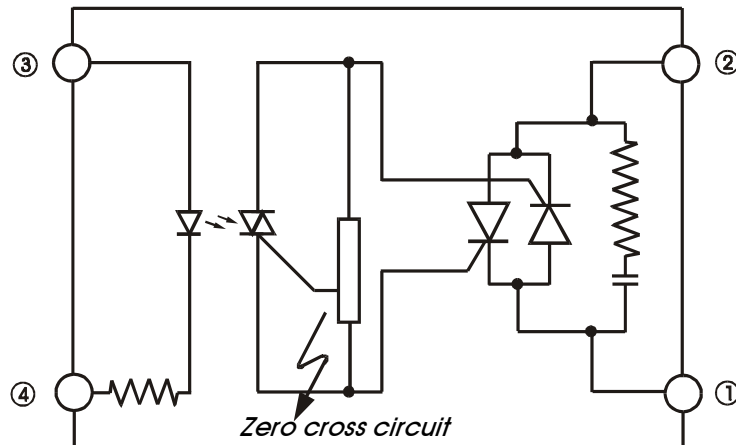


DIN Ready Solid State Relay



Features of DIN Ready SSR

- AC SOLID STATE CONTRACTOR IN 30 mm HOUSING
- ZERO SWITCHING FOR HEATING AND MOTOR APPLICATIONS/RANDOM SWITCHING
- RATED OPERATIONAL CURRENT 10 A, 16 A & 25 A (40 A WITH FORCED COOLING
- RATED OPERATIONAL VOLTAGE 120/230 VAC, 400/480/660
- TRANSIENT OVER VOLTAGE PROTECTION (OPTICAL)
- LED INDICATOR SHOWING RELAY "ON" STATUS
- IP 20 PROTECTION
- DIN – RAIL AND BACK PLATE MOUNTABLE
- CONNECTING TERMINALS LAYOUT AS CONTRACTOR OR SSR STANDARD
- OPTO-ISOLATION > 400 V
- BUILT IN SNUBBER

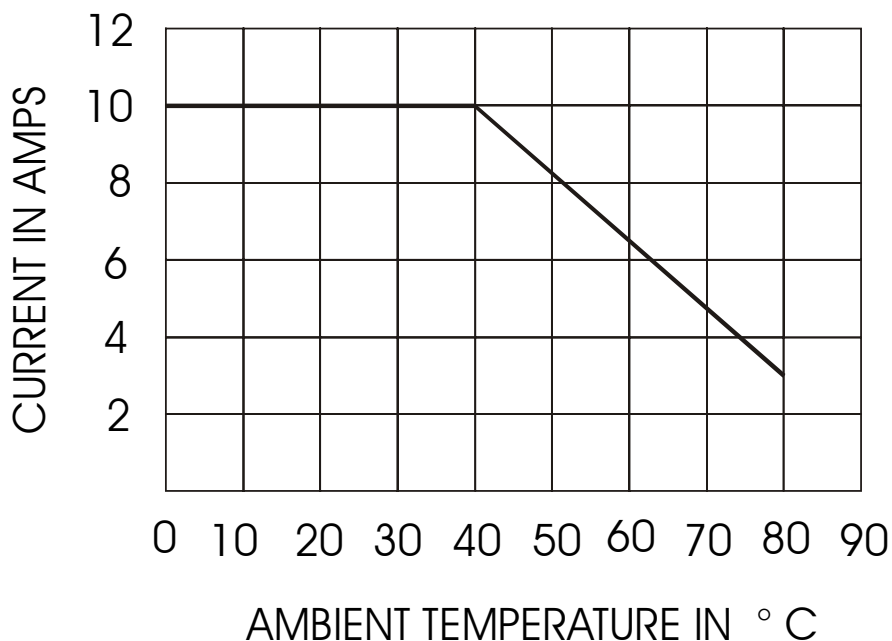


1 Output 3 Input (+)
2 Output 4 Input (-)

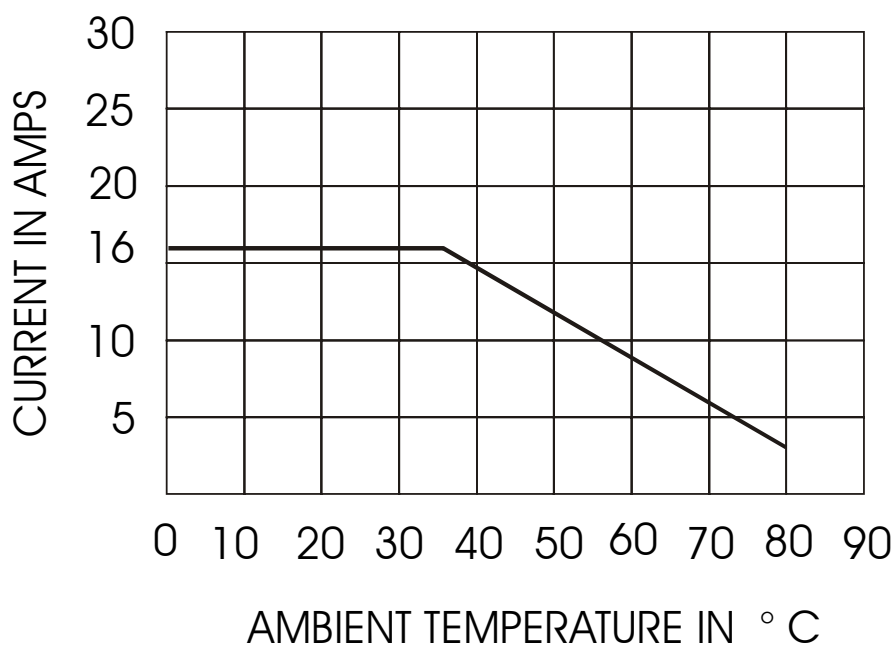
SCHEMATIC OF J & K SERIES
DC / AC RELAYS *DIN SSR's*

DIN Ready Solid State Relay

DERATING CURVE FOR 10 A DIN SSR

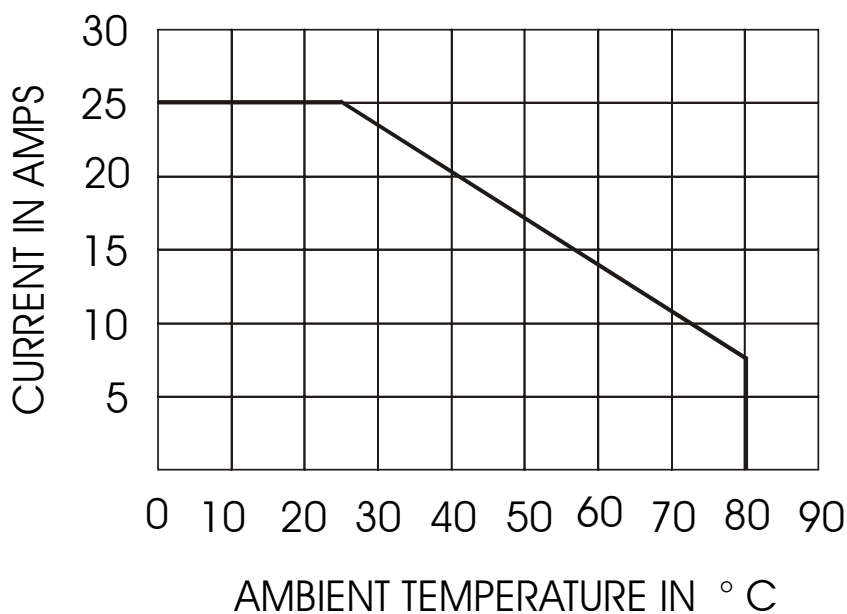


DERATING CURVE FOR 16 A DIN SSR



DIN Ready Solid State Relay

DERATING CURVE FOR 25 A DIN SSR



DERATING CURVE FOR 40 A DIN SSR

