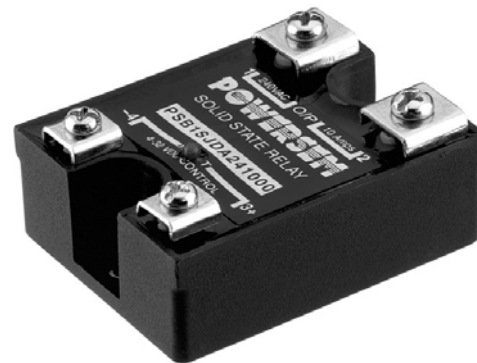


Single Phase Solid State Relays

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

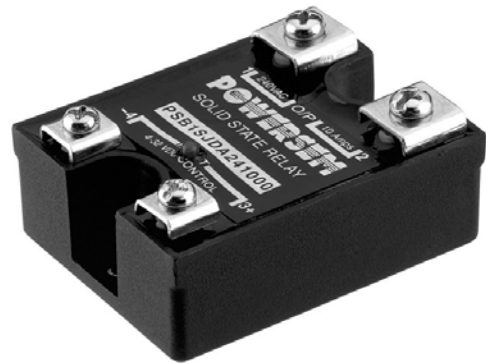


Single Phase Solid State Relays

HIGHLIGHTS

- INPUT: AC CONTROL
- OUTPUT: BACK-TO-BACK SCR
- OPTO ISOLATION 2500 VAC (4000 V optional)
- ZERO VOLTAGE TURN-ON or RANDOM TURN-ON
- SAFETY COVER (optional)
- BUILT IN SNUBBER
- CHASSIS MOUNTABLE
- LED INDICATOR SHOWING RELAY 'ON' STATUS
- Weight = 106 g

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	$^{\circ}$ 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	50	128	1250	1250	A ² s

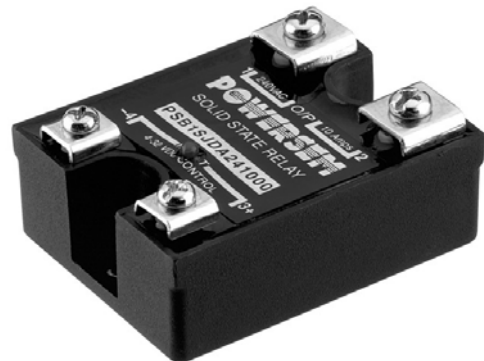
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Single Phase Solid State Relays

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 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

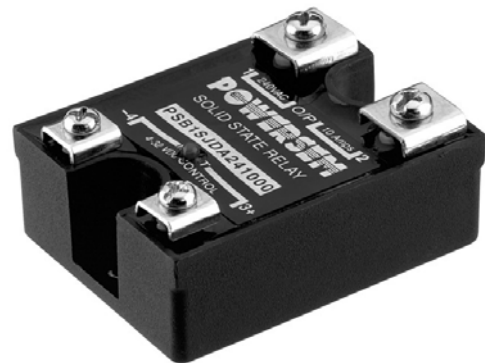


Single Phase Solid State Relays

HIGHLIGHTS

- INPUT: AC CONTROL
- OUTPUT: BACK-TO-BACK SCR
- OPTO ISOLATION 2500 VAC (4000 V optional)
- ZERO VOLTAGE TURN-ON/ RANDOM TURN-ON
- SAFETY COVER (optional)
- BUILT IN SNUBBER
- CHASSIS MOUNTABLE
- LED INDICATOR SHOWING RELAY 'ON' STATUS
- Weight = 106 g

Series: 1 SJ/K



10 – 40 A

ELECTRICAL SPECIFICATIONS

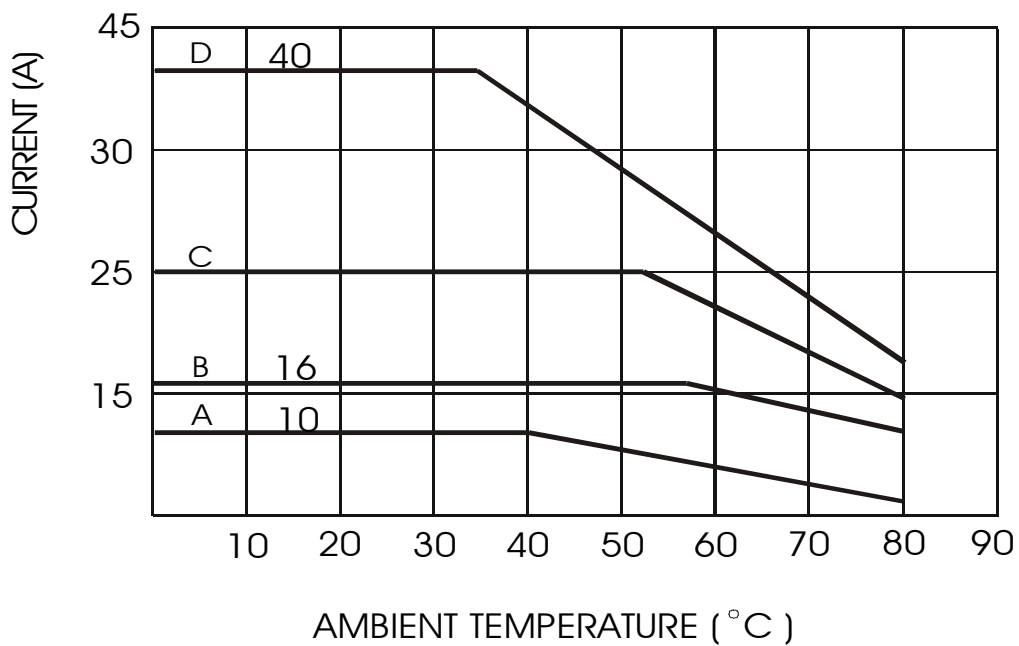
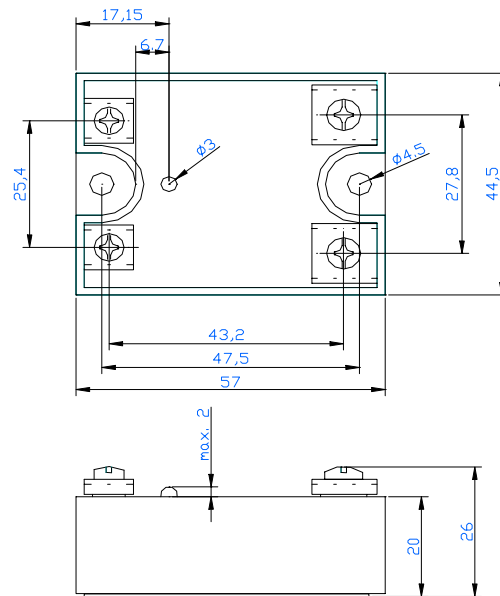
Parameter	Symbol	Type				Unit
		PSB 1 SJAA 481028	PSB 1 SJAA 481628	PSB 1 SJAA 482528	PSB 1 SJAA 484028	
AC CONTROL						
Control voltage range		180-280	180-280	180-280	180-280	Vac
Control current range		9-18	9-18	9-18	9-18	mA
Pick-up voltage		180	180	180	180	Vac
Drop-out voltage		45	45	45	45	Vac
Input 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:

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

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

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

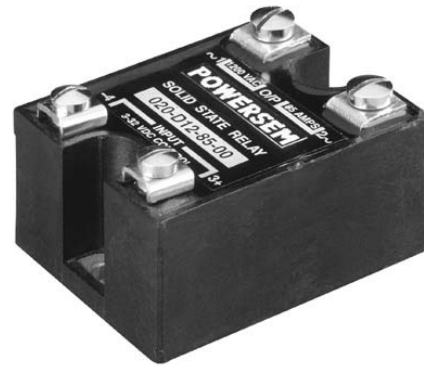
VALID FOR SERIES: PSB 1 SJK (10 A - 40 A)

Single Phase Solid State Relays

HIGHLIGHTS

- INPUT: DC CONTROL (TTL or CMOS COMPATIBLE)
- OUTPUT: DIRECT COPPER BONDED BACK-TO-BACK SCR (NO or NC CONFIGURATION)
- OPTO ISOLATION 2500 VAC (4000 V optional)
- HIGH DV/DT
- 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: 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

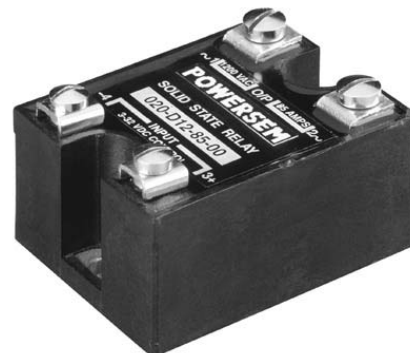


Single Phase Solid State Relays

HIGHLIGHTS

- INPUT: AC CONTROL
- OUTPUT: DIRECT COPPER BONDED BACK-TO-BACK SCR
- OPTO ISOLATION 2500 VAC (4000 V optional)
- ZERO VOLTAGE TURN-ON or RANDOM TURN-ON
- HIGH DV/DT
- SAFETY COVER (optional)
- BUILT IN SNUBBER
- CHASSIS MOUNTABLE
- LED INDICATOR SHOWING RELAY 'ON' STATUS
- Weight = 106 g

Series: 20 SJ/K



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

25 – 90 A

ELECTRICAL SPECIFICATIONS

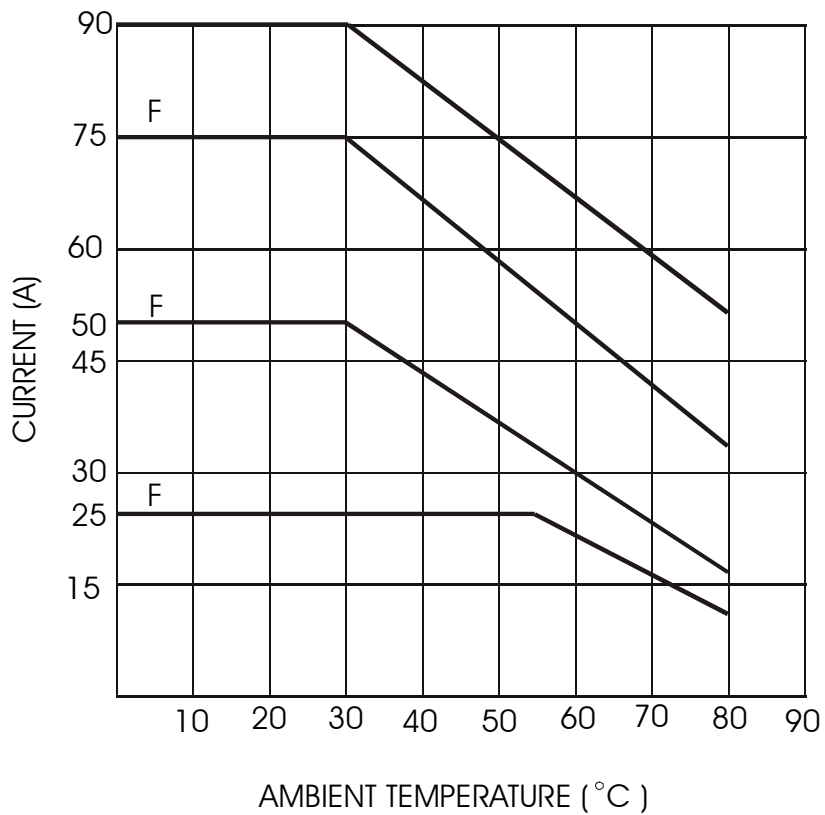
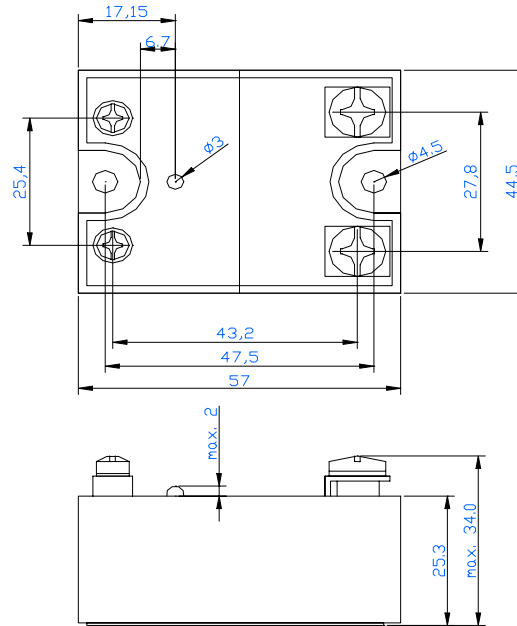
Parameter	Symbol	Type				Unit
		PSB 20 A 122528	PSB 20 A 125028	PSB 20 A 127528	PSB 20 A 129028	
AC CONTROL						
Control voltage range		90-280	90-280	90-280	90-280	Vac
Control current range		4-25	4-25	4-25	4-10	mA
Pick-up voltage		90	90	90	90	Vac
Drop-out voltage		10	10	10	10	Vac
Input resistance		Current 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



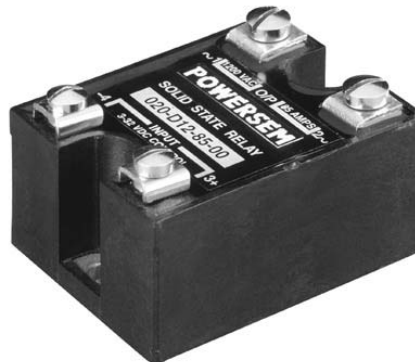
EXTERNAL HEATSINK THERMAL RESISTANCE: 0,14 K/W
 VALID FOR SERIES: PSB 20 SJK (25 - 90 A)

Single Phase Solid State Relays

HIGHLIGHTS

- INPUT: DC CONTROL
- OUTPUT: DIRECT COPPER BONDED BACK-TO-BACK SCR
- OPTO ISOLATION 2500 VAC (4000 V optional)
- 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	°C
Turn-on time	T-on	10	10	10	10	ms
Turn-off time	T-off	10	10	10	10	ms
Fusing current @ 25°C (8.3ms)	I^2t	5000	8000	15000	25000	A ² s

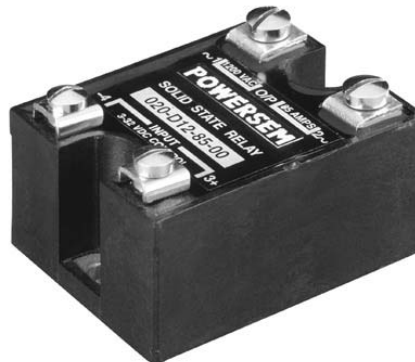


Single Phase Solid State Relays

HIGHLIGHTS

- INPUT: AC CONTROL
- OUTPUT: DIRECT COPPER BONDED BACK-TO-BACK SCR
- OPTO ISOLATION 2500 VAC (4000 V optional)
- 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

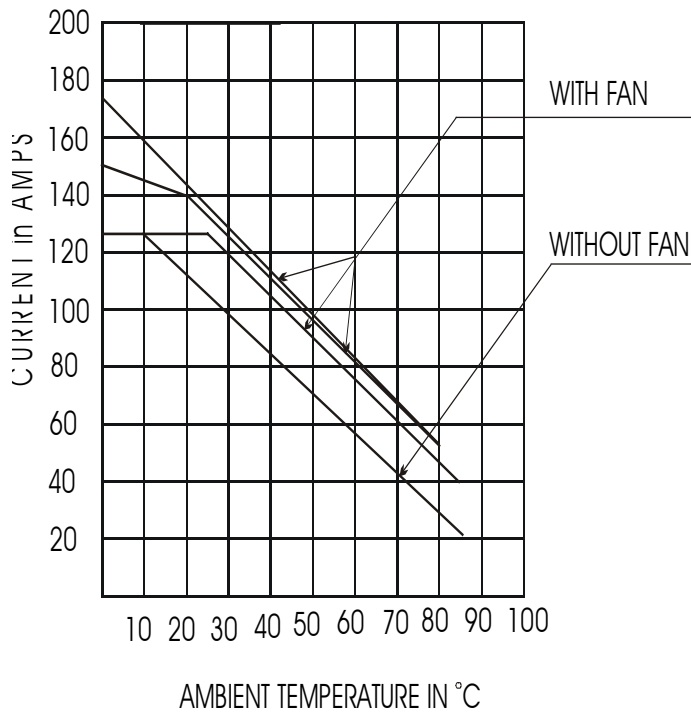
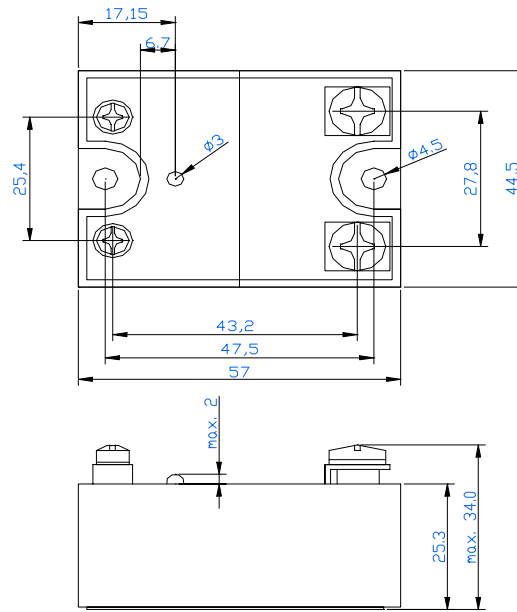
Parameter	Symbol	Type				Unit
		PSB 20 A 1212528	PSB 20 A 1215028	PSB 20 A 1217528	PSB 20 A 1220528	
AC CONTROL						
Control voltage range		90-280	90-280	90-280	90-280	Vac
Control current range		4-10	4-10	4-10	4-10	mA
Pick-up voltage		90	90	90	90	Vac
Drop out voltage		10	10	10	10	Vac
Input impedance		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

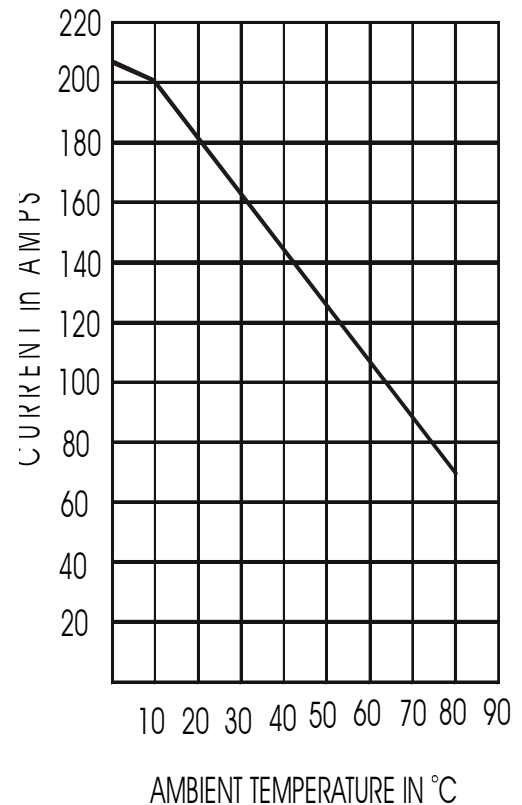


HEAT SINK USED: 0,14 kW

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