

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



released, E 197669

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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

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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

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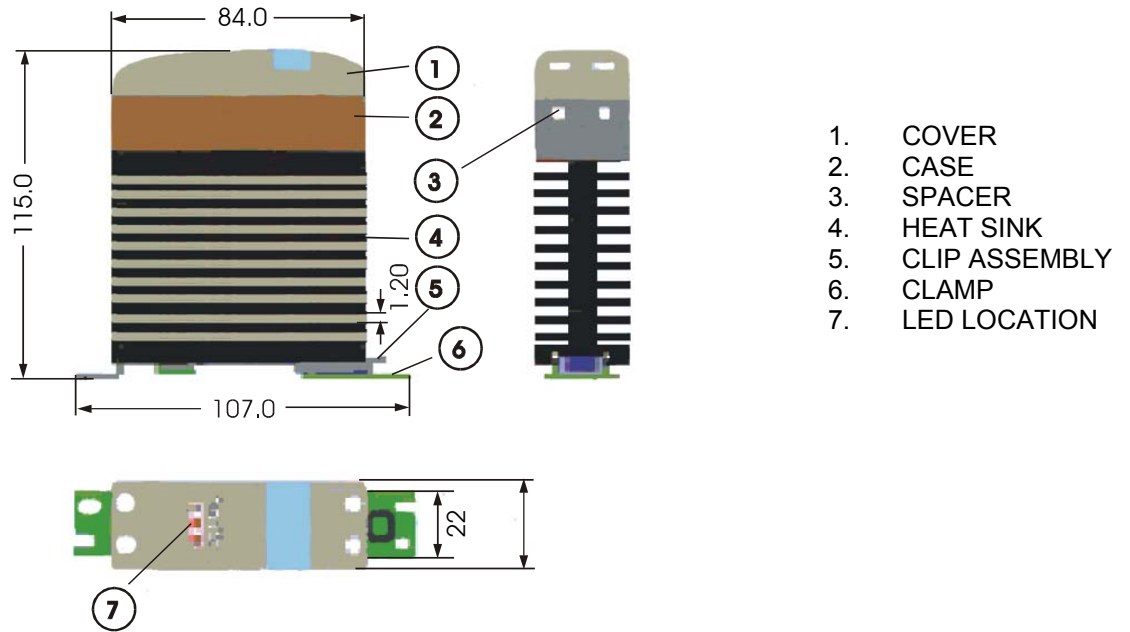
ELECTRICAL SPECIFICATIONS

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

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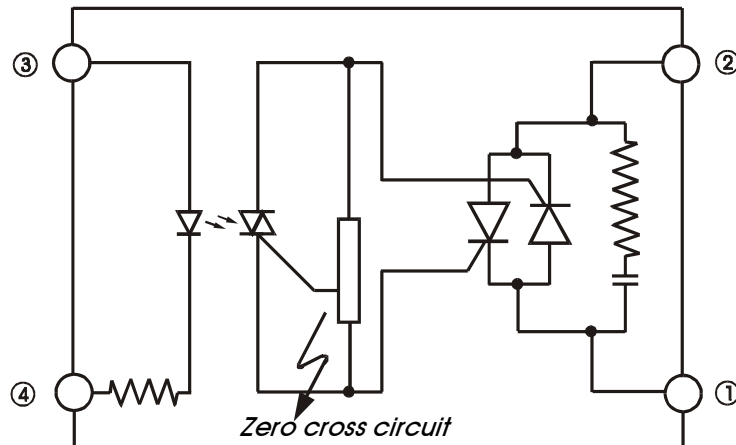


DIN Ready Solid State Relay



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

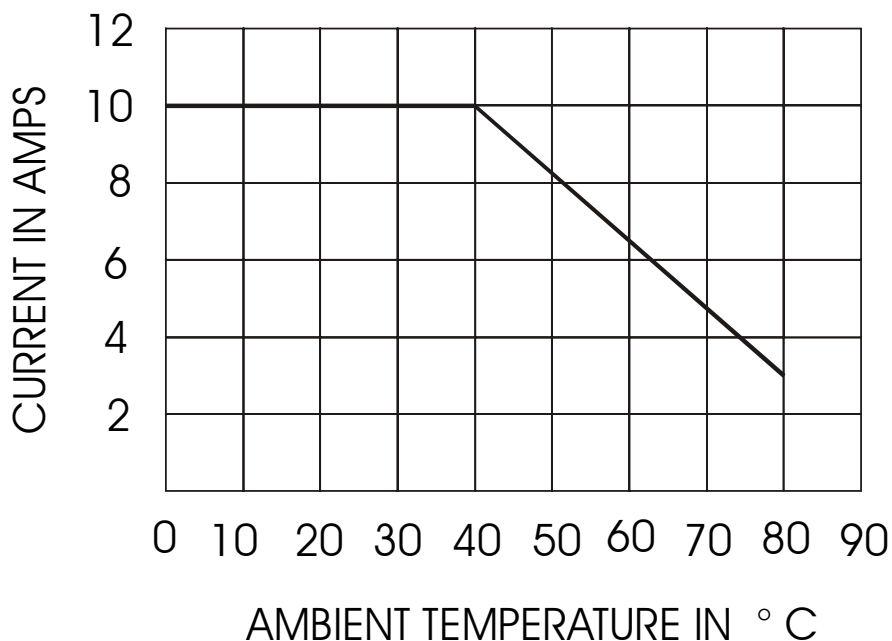


1 Output 3 Input (+)
2 Output 4 Input (-)

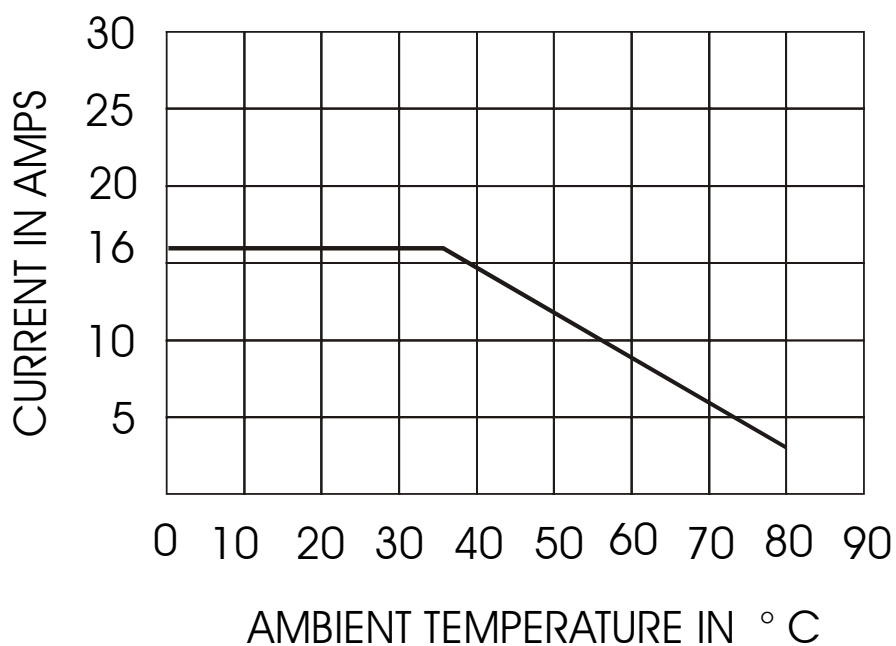
SCHEMATIC OF J & K SERIES
DC / AC RELAYS *DIN SSR's*

DIN Ready Solid State Relay

DERATING CURVE FOR 10 A DIN SSR

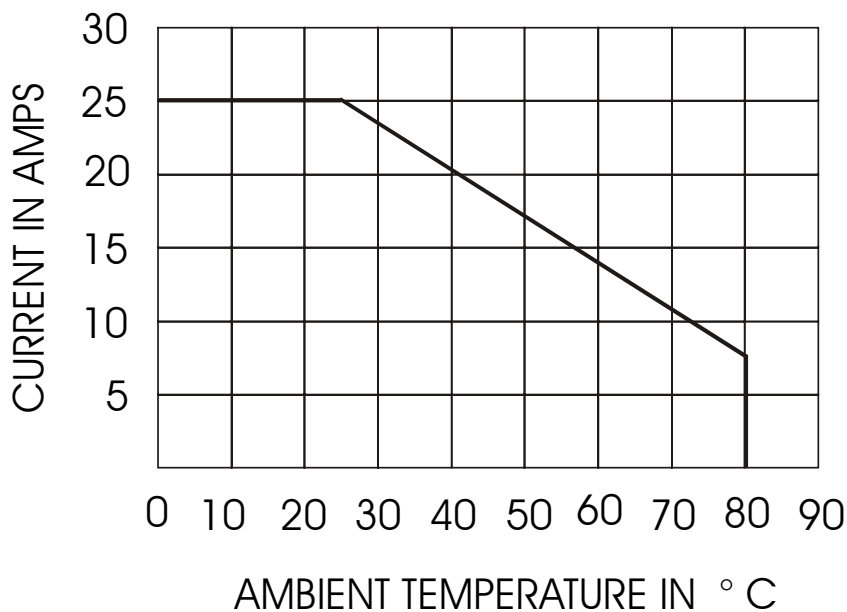


DERATING CURVE FOR 16 A DIN SSR



DIN Ready Solid State Relay

DERATING CURVE FOR 25 A DIN SSR



DERATING CURVE FOR 40 A DIN SSR

