

Solid state relays with integrated heatsink, DIN rail mounting - GRD range 45 mm

- Single phase
- Complete, compact units
- Tailor-made solution to current sinks
- DIN rail and panel mounting
- Rating: 35 and 45 A
- Back-to-back SCRs
- Protection by RC filter
- Optional protection by removable varistor
- LED display of input status
- UL - cUL approval and CE marking



Output specifications	SCR	
Voltage range (Vrms max)	48-660	
Peak voltage (t=1 min.) (Vpeak)	1000 ⁽¹⁾	
Maximum current (A)	35	45
Maximum off-state leakage at Vmax and T = 25 °C (mArms)	4	
Minimum current (mArms)	100	
Max. 1-cycle surge T=25°C (A peak)	750	
Max. 1-second surge T=25°C (A peak)	145	
On-state voltage drop at Imax and T=25°C (Vpeak)	1.6	
I2t (t=10ms) A2s	1260	5000
Static (off-state) dv/dt (V/us)	500	
Supply frequency range (Hz)	47 to 80	
cos φ (Zero voltage)	> 0.5	
Rth junction /ambient air	3.78° C/W	1.65° C/W

Input specifications	SCR	
Input voltage (V)	90-280 ~ ∞	4-32 ∞
Drop-out voltage	10 Vrms	1V ∞
Maximum current (at Vmax)	10 mArms	12 mA
Nominal input resistance	45	3
Response time (close)	20 ms	0.5 cycle max.
Response time (open)	30 ms	0.5 cycle max.

For instantaneous switching models, turn-on time is less than 100 μs

Characteristics

Operating temperature (° C)	-20 to +80	
Storage temperature (° C)	-40 to +100	
Input to output insulation voltage (Vrms)	4000	
Breakdown voltage (Vrms)	2500	
Input/output capacitance (pF)	8	
Material	Casing	Self-extinguishing (UL 94 V0)
	Baseplate	Aluminium
Weight (g)	490	
Input terminal capacity	Ø 2 mm max.	
Output terminal capacity	Ø 5.6 mm max.	

(1) Peak voltage 1200V, relay protected to 1100V ± 10%

Part numbers

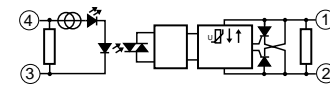
Zero voltage switching			
Rating	Output voltage	Input voltage	SCR
35 A	48-660 V ~	90-280 V ~ ∞	84 130 110
		4-32 V ∞	84 130 111
45 A	48-660 V ~	90-280 V ~ ∞	84 130 115
		4-32 V ∞	84 130 113

Instantaneous switching			
Rating	Output voltage	Input voltage	SCR
35 A	48-660 V ~	4-32 V ∞	84 130 112
45 A	48-660 V ~	4-32 V ∞	84 130 114

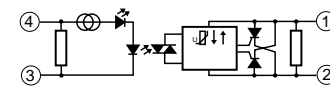
Thermal dissipation curves

GRD range - single-phase with SCR

Zero voltage switching

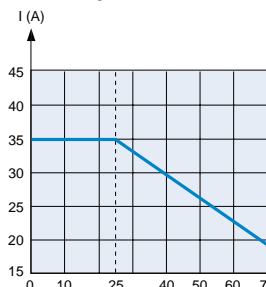


Instantaneous switching

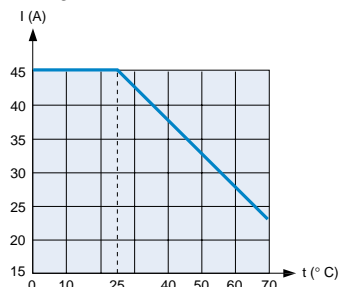


Curves for temperature-dependent derating

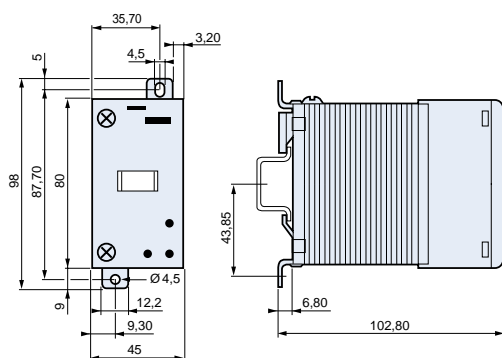
GRD range 45 mm - 35 A



GRD range 45 mm - 45 A



Dimensions



To order, specify :

Standard products

Standard products, non stocked

1 Part number
Example: Solid state relay - GRD range 45 mm - 84 130 110