

90mm THREE-PHASE DIN-RAIL SSR



- ▶ Epoxy-Free Design Eliminates Internal Component Stress
- ▶ DIN-RAIL or Panel Mount
- ▶ Contactor Output Terminal Configuration
- ▶ Direct Bond Copper (DBC) Substrate
- ▶ 100k-cycle UL508 Endurance Rating
- ▶ Back-to-Back Dual SCR Output
- ▶ Internal Transient Protection
- ▶ Zero-Crossing or Random-Fire Output
- ▶ UL / CSA / TUV Approved, CE Compliant
- ▶ EMC Compliant Level 3
- ▶ RoHS Compliant (January 2006)

Output Specifications

Voltage range (Vrms)	48-600Vac
Output Current	25
Peak Voltage (Vpk, t = 1 min.)	1100
Off-state leakage uArms	250
(@ max. line voltage & Ta = 25°C)	
Minimum Current (mArms)	100
Max. 1 cycle surge current	426
(Apk, Ta = 25°C)	
Max. 1 second surge current	85
(Apk, Ta = 25°C)	
Forward voltage drop	1.35
(Vpk @ Imax, Ta = 25°C)	
I ² T (60Hz, 1/2 cycle)	892
Static off-state dv/dt	500
(Vμs, Ta = 25°C)	
HP Ratings at 480V	3
Output Type	SCR
Min/Max stranded wire	16/8 AWG
Min/Max solid wire	16/10 AWG

Input Specifications

Input voltage	4-32Vdc	90-140VAC	180-280VAC
Drop out voltage	1Vdc	10VAC	10VAC
Min. input current (for on-state)			
Maximum input current	19mA	23mA	23mA
Input Resistance (Ohms)	Current Regulated		
Turn-on time*	8.33msec	20mSec	20mSec
Turn-off time	8.33msec	30mSec	30mSec
Min/Max stranded/solid wire	24/16 AWG		

* Random SSR's turn on in less than 100μs

General Characteristics

Operating Temperature (°C)**	-20° to + 80°
Storage Temperature (°C)	-40° to + 100°
Input to output isolation	4000Vrms
Input/output to ground isolation	2500Vrms
Input to output capacitance	8pF (typical)
Operating Frequency	47 to 63 Hz
Housing Material	UL 94V0 (self extinguishing)
Weight (gr)	600

** -20 to +60 for 180-280VAC input

Standards of Compliance

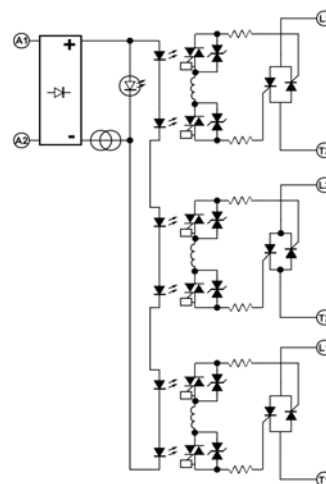
CE Compliant with the LVD 73/23/EEC	
UL Recognized per UL 508 and CSA C22.2 no. 14-95	
TUV Certified per EN 60950	
IEC 62314	
IEC 60068-2-6	35mm/10-55Hz
IEC 60068-2-27	15G / 11ms
IEC 61000-4-2 Level 3	Electrostatic Discharge
IEC 61000-4-3 Level 3	Radiated Electromagnetic Noise
IEC 61000-4-4 Level 3	Immunity to Electrically Fast Transients
IEC 61000-4-5 Level 3	Immunity to Electrical Surges
IEC 61000-4-6 Level 3	Conducted Electromagnetic Noise
CISPR 11 Class A	Conducted and Radiated Noise for Industrial Environments
Pollution Degree 2	



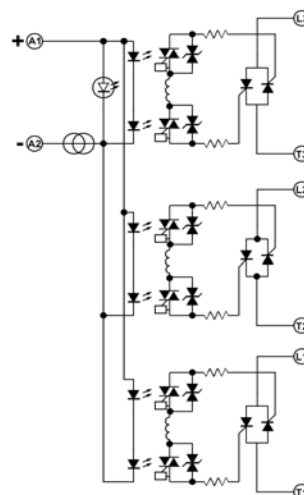
Part Numbers

Zero Crossing Output			
Rating	Output	Input	Part Number
25 Amp	48-600Vac	180-280VAC	GNR25ACZ
25 Amp	48-600Vac	90-140VAC	GNR25BCZ
25 Amp	48-600Vac	4-32Vdc	GNR25DCZ
Random Fire Output			
Rating	Output	Input	Part Number
25 Amp	48-600Vac	4-32Vdc	GNR25DCR

AC Input Equivalent Circuit



DC Input Equivalent Circuit

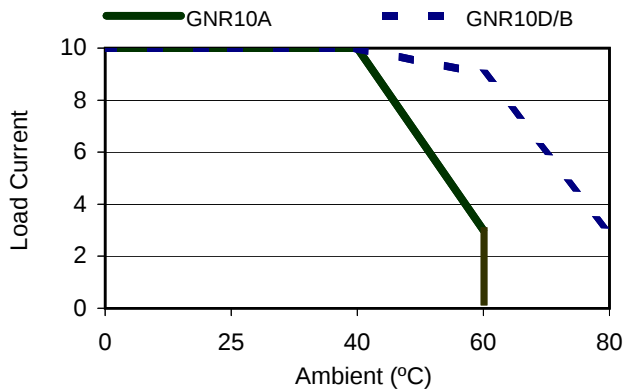


AC Input Equivalent Circuit

DIN-Rail SSR Derate Curves

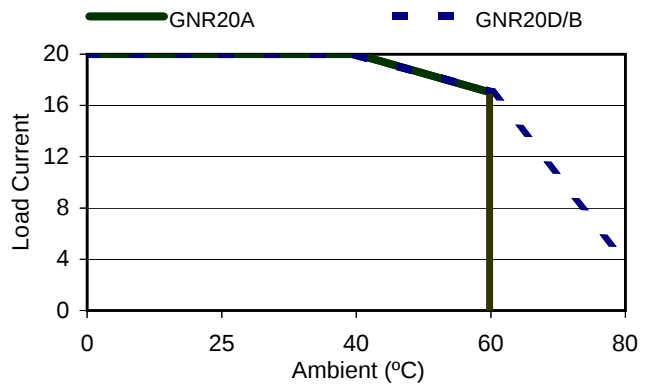


GNR10 Series Derate Curves



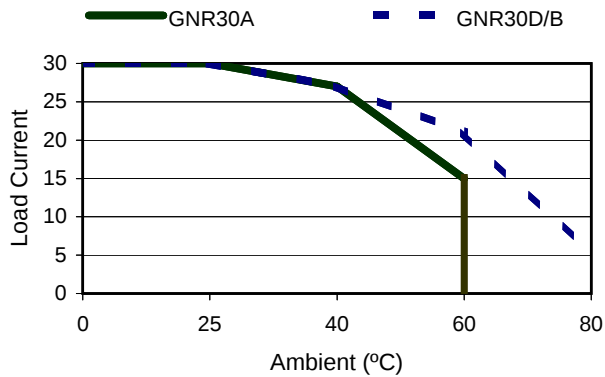
COOLTECH GNR10A series rated to 60°C max ambient

GNR20 Series Derate Curves



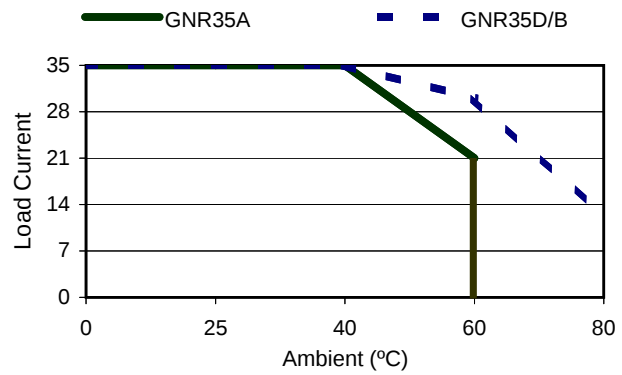
COOLTECH GNR20A series rated to 60°C max ambient

GNR30 Series Derate Curves



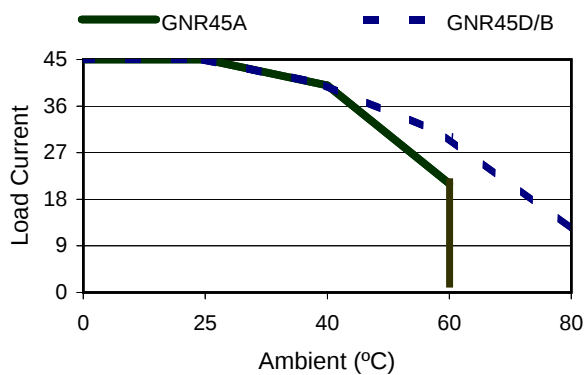
COOLTECH GNR30A series rated to 60°C max ambient

GNR35 Series Derate Curves



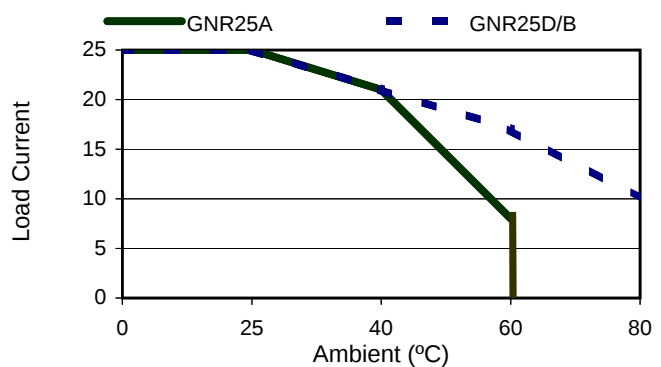
COOLTECH GNR35A series rated to 60°C max ambient

GNR45 Series Derate Curves



COOLTECH GNR45A series rated to 60°C max ambient

**GNR25 Series Three-Phase Derate Curves
(Ratings per Phase)**



COOLTECH GNR25A series rated to 60°C max ambient

Dimensions mm (inches)

