

GNR 45MM Series

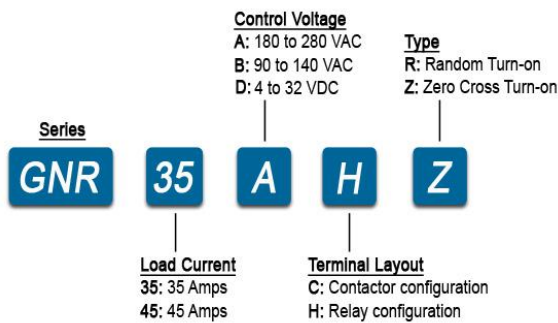


- Current ratings 35 and 45 amps
- Output voltage 48-600 VAC
- Direct Bond Copper (DBC) Substrate
- LED input status indicator
- 100K cycle UL508 Endurance Rating
- UL / CSA / TUV Approved, CE Compliant
- EMC Compliant Level 3
- DIN-RAIL or Panel Mount
- Zero-Crossing or Random Turn-on

PRODUCT SELECTION

Control Voltage	35A	45A
4-32 VDC	GNR35DHZ	GNR45DHZ
90-140 VAC	GNR35BHZ	GNR45BHZ
180-280 VAC	GNR35AHZ	GNR45AHZ

AVAILABLE OPTIONS



OUTPUT SPECIFICATIONS (Voltage) (1)

Description	GNR35	GNR45
Operating Voltage (47-440Hz) [Vrms]	48-600	48-600
Transient Overvoltage [Vpk, t = 1 min.]	1100	1100
Maximum Off-State Leakage Current @ Rated Voltage [mArms]	0.25	0.25
Static off-state dv/dt (V μ s, Ta = 25°C) (2)	500	500

OUTPUT SPECIFICATIONS (Current) (1)

Description	GNR35	GNR45
Maximum Load Current [Arms]	35A	45A
Minimum Load Current [mArms]	100	100
1 cycle surge current (50Hz)	668	716
1 cycle surge current (60Hz)	700	750
1 second surge current (Apk. Ta = 25°C) 50/60 Hz	130	150
Forward Voltage Drop (Vpk @ I _{max} , Ta = 25°C)	1.35	1.35
I ² T (50Hz, 1/2 cycle)	2230	2562
I ² T (60Hz, 1/2 cycle)	2020	2334
HP Ratings at 120V / FLC	1.5 / 20A	1.5 / 20A
HP Ratings at 240V / FLC	3 / 17A	3 / 17A
HP Ratings at 480V / FLC	5 / 14A	5 / 14A
Min/Max stranded wire	16/8 AWG	16/8 AWG
Min/Max solid wire	16/10 AWG	16/10 AWG

INPUT SPECIFICATIONS (1)

Description	GNRxxDx	GNRxxBx	GNRxxAx
Input Voltage Range (3)	4-32 VDC	90-140VAC	180-280VAC
Minimum Turn-On Voltage	4.0 VDC	90 Vrms	180Vrms
Drop out Voltage	1.0 VDC	10 Vrms	10 Vrms
Maximum Input Current	19mA	5mA _{rms}	6mA _{rms}
Minimum input current (for on-state)	16mA	6mA _{rms}	8mA _{rms}
Input Resistance	Current Regulated	Current Regulated	Current Regulated
Turn-on time (4)	8.33ms	20ms	20ms
Turn-off time	8.33ms	30ms	30ms
Min/Max stranded/solid wire	24/16AWG	24/16AWG	24/16AWG

GENERAL SPECIFICATIONS

Description	Parameters
Ambient Operating Temperature Range (3)	-20 to 80 °C
Ambient Storage Temperature Range	-40 to 100 °C
Input to output isolation	4000 Vrms
Input/output to ground isolation	2500 Vrms
Input to output capacitance	8 pF
Housing Material	UL 94V0 (self extinguishing)
Status Indicating Display	Green LED
Weight (typical)	0.88lbs (400g)

GENERAL NOTES

- 1) All parameters at 25°C unless otherwise specified.
- 2) Off-State dv/dt test method per EIA/NARM standard RS-433, paragraph 13.11.1
- 3) For 180-280VAC control, maximum Ambient operating temperature is 60°C
- 4) Random turn-on time R suffix is 100µs (for DC control only).