

GNR 22.5MM Series

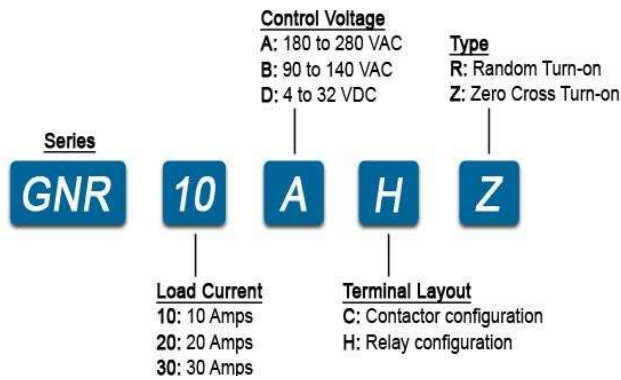


- Current ratings 10, 20 and 30 amps
- Output voltage 24-280 and 48-600 VAC
- Direct Bond Copper (DBC) Substrate
- LED input status indicator
- 100K cycle UL508 Endurance Rating
- UL / CSA / TUV Approved, CE Compliant
- EMC Compliant Level 3
- DIN-RAIL or Panel Mount
- Zero-Crossing or Random Turn-on

PRODUCT SELECTION

Control Voltage	10A	20A	30A
4-32 VDC	GNR10DHZ	GNR20DHZ	GNR30DHZ
90-140 VAC	GNR10BHZ	GNR20BHZ	GNR30BHZ
180-280 VAC	GNR10AHZ	GNR20AHZ	GNR30AHZ

AVAILABLE OPTIONS



OUTPUT SPECIFICATIONS (Voltage) (1)

Description	GNR10	GNR20/30
Operating Voltage (47-440Hz) [Vrms]	24-280	48-600
Transient Overvoltage [Vpk, t = 1 min.]	600	1100
Maximum Off-State Leakage Current @ Rated Voltage [mArms]	0.1	0.1
Static off-state dv/dt (V μ s, Ta = 25°C) (2)	500	500

OUTPUT SPECIFICATIONS (Current) (1)

Description	GNR10x	GNR20x	GNR30x
Maximum Load Current [Arms]	10A	20A	30A
Minimum Load Current [mArms]	100	100	100
1 cycle surge current (50Hz)	190	286	716
1 cycle surge current (60Hz)	200	300	750
1 second surge current (Apk, Ta = 25°C) 50/60 Hz	65	85	150
Forward Voltage Drop (Vpk @ I _{max} , Ta = 25°C)	1.5	1.35	1.35
I ² T (50Hz, 1/2 cycle)	182	410	2562
I ² T (60Hz, 1/2 cycle)	166	374	2334
HP Ratings at 120V / FLC	NA	1/2 / 9.8A	3/4 / 13.8A
HP Ratings at 240V / FLC	NA	1 / 8A	2 / 12A
Min/Max stranded wire	16/8 AWG	16/8 AWG	16/8 AWG
Min/Max solid wire	16/10 AWG	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	23mArms	23mArms
Minimum input current (for on-state)	16mA	6mArms	8mArms
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)	0.5lbs (225 g)

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).