

GN0 Series 3 Phase Solid State Relay - DC Input



- ▶ Three-phase motor-reversing solid-state relay
- ▶ Ratings up to 50 amps @ 530Vac
- ▶ DBC substrate for superior thermal performance
- ▶ Epoxy-free design reduces internal component stress
- ▶ Back-to-Back dual SCR output for heavy industrial loads
- ▶ 100k-cycle UL508 endurance rating for enhanced reliability
- ▶ No external transient protection required (internal TVS)
- ▶ EMC Compliant for reliable operation in harsh environments
- ▶ UL/CSA/TUV Approved, CE & RoHS Compliant

Output Specifications

Output Current (40°C)	25	50
Voltage range (Vrms)	48-530Vac	48-530Vac
Peak Voltage (Vpk, t = 1 min.)	1100	1100
Max off-state leakage (mArms)	3	3
Minimum Current (mArms)	100	100
Max. 1 cycle surge current (Apk, Ta = 25°C)	500	800
Max. 1 second surge current (Apk, Ta = 25°C)	100	160
Forward voltage drop (Vpk @ Imax, Ta = 40°C)	1.35	1.35
I ² T (60Hz, ½ cycle)	1040	2600
Rjb (thermal res. Junction to baseplate, °C/W)	0.26	0.25
Static off-state dv/dt (Vµs, Ta = 25°C)	500	500
HP Ratings at 120V	0.75	1.5
HP Ratings at 240V	1	3
HP Ratings at 480V	3	7.5
Min/Max wire size	16/8 AWG	16/8 AWG
Torque (N-m)	2.4	

Input Specifications

Input voltage	4-32Vdc
Drop out voltage	1Vdc
Min. input current (for on-state)	17mA
Maximum input current	25mA
Input Resistance (Ohms)	Current Regulated
Maximum Turn-on time	150 msec
Maximum Turn-off time	8.33msec
Min/Max stranded/solid wire	24/14 AWG
Torque (N-m)	1.9
Interlocking Time	100msec

General Characteristics

Operating Temperature (°C)	-40 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 (grams)	370

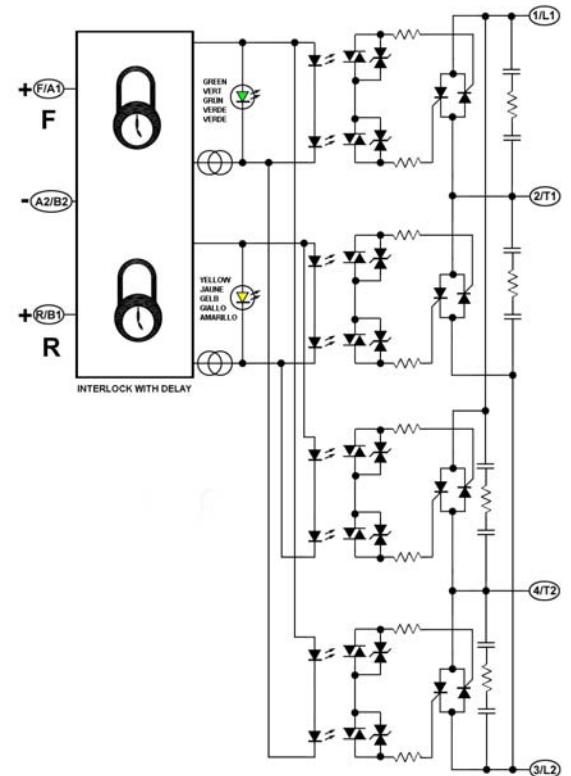
Standards of Compliance

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

Part Numbers

Rating	Output	Input	Part Number
25 Amp	48-530Vac	4-32Vdc	GN025DSR
50 Amp	48-530Vac	4-32Vdc	GN050DSR

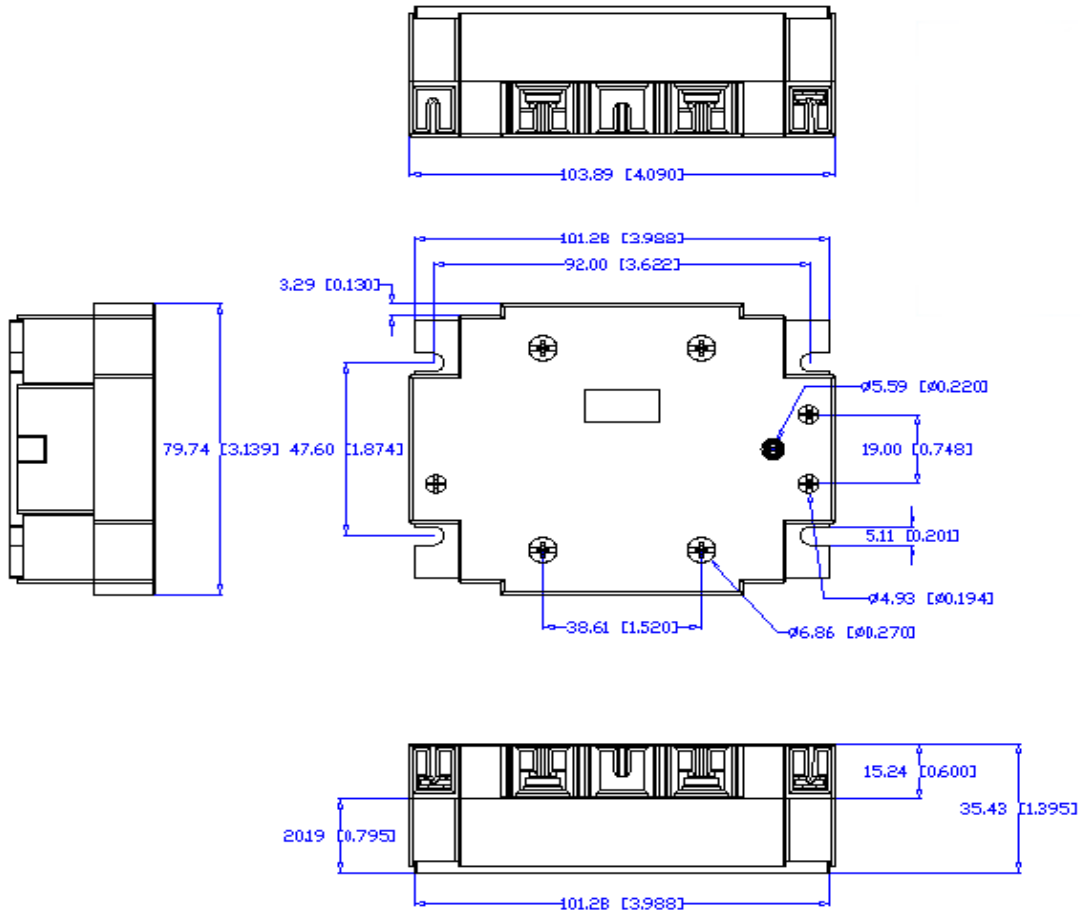
Equivalent Circuit



Dimensional Drawings For GN0

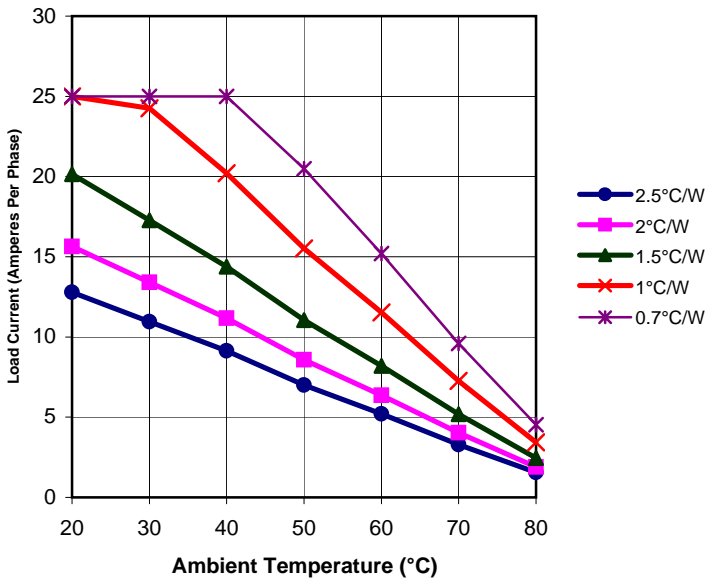


Dimensions mm (inches)



GN0 Derating Curves

DERATING CURVES:
GN0 - 25AMP



DERATING CURVES:
GN0 - 50AMPS

