

2.5A to 90A Surface Mounting - 1 Series



L=57.2, W=44.4, H=22.2 Fixing Centres=47.6, dia 4.4

- AC or DC control available
 - **UL** recognised **CSA** and **VDE** approved
 - Transparent safety cover available
 - Zero voltage switching
 - Conforms to **EN60950:1993**
 - Thyristor output devices are suitable for inductive loads and high dv/dt applications
- **TVS and LED Version**
 - Overvoltage protection
 - Non degrading protection
 - ZERO voltage or random switching(AC models only)
 - Solid state reliability
 - **UL** Recognised, **CSA** and **VDE** approved including protection
 - Status indicating LED
 - Microprocessor compatible input

A range of AC switching SSRs with internal overvoltage protection fitted as standard. Over 50% of SSR failures are attributed to overvoltage. Traditionally, SSRs have been protected by MOVs (Metal Oxide Varistors) which degrade over a period of time. The TVS diodes fitted 'self trigger' the devices so that the overvoltage is passed harmlessly to the load. The benefits to the user are a fully protected SSR without the need for additional components or assembly whilst maintaining the Solid State Reliability and international approvals.

Applications include switching of pumps, motors, lamps, solenoids and heating elements. Zero cross types can reduce EMI.

Input status is indicated with a green LED.

| | | | |
|--------------------------|---|----------------------|---|
| Input voltage | 90 - 280V ac (ac series) 3 to 32Vdc (dc series) 4.5 to 32V dc (P version) | Input resistance | 60KΩ (ac series) 1500KΩ (dc series) |
| Isolation (input/output) | 4000V rms | Off-state dv/dt | 500V/μs |
| | | Must release voltage | 10V ac (ac series) 1V dc (dc series) |

| Load Current (A) | Load Voltage (V ac) | Output Device | Blocking Voltage (V _{DRM}) | Single Cycle Surge (A) | Mftrs. List No. | Order Code |
|---|---------------------|---------------|--------------------------------------|------------------------|-----------------|------------|
| AC Input - 240V ac Output | | | | | | |
| 10 | 24 - 280 | Thyristor | 600 | 120 | A2410 | 120-0226 |
| 25 | 24 - 280 | Thyristor | 600 | 250 | A2425 | 120-0228 |
| 40 | 24 - 280 | Thyristor | 600 | 625 | A2440 | 120-0230 |
| 50 | 24 - 280 | Thyristor | 600 | 625 | A2450 | 120-0231 |
| AC Input - 240V ac Output with TVS and LED | | | | | | |
| 25 | 24 - 280 | Thyristor | 600 | 250 | A2425PG | 120-0229 |
| 50 | 24 - 280 | Thyristor | 600 | 625 | A2450PG | 120-0232 |
| AC Input - 480V ac Output | | | | | | |
| 25 | 80 - 530 | Thyristor | 800 | 250 | A4825 | 120-0233 |
| 50 | 80 - 530 | Thyristor | 800 | 625 | A4850 | 120-0234 |
| 75 | 80 - 530 | Thyristor | 800 | 1000 | A4875 | 120-0235 |
| AC Input - 480V ac Output - High Blocking Voltage | | | | | | |
| 50 | 48 - 530 | Thyristor | 1200 | 625 | HA4850 | 120-0259 |
| DC Input - 240V ac Output | | | | | | |
| 2.5 | 48 - 280 | Thyristor | 600 | 22.5 | D2402 | 120-0236 |
| 10 | 40 - 280 | Triac | 500 | 70 | TD2410 | 120-0267 |
| 10 | 48 - 280 | Thyristor | 600 | 120 | D2410 | 120-0237 |
| 25 | 40 - 280 | Triac | 500 | 175 | TD2425 | 120-0268 |
| 25 | 48 - 280 | Thyristor | 600 | 250 | D2425 | 120-0241 |
| 40 | 48 - 280 | Thyristor | 600 | 625 | D2440 | 120-0243 |
| 50 | 48 - 280 | Thyristor | 600 | 625 | D2450 | 120-0244 |
| 75 | 48 - 280 | Thyristor | 600 | 1000 | D2475 | 120-0246 |
| 90 | 48 - 280 | Thyristor | 600 | 1200 | D2490 | 120-0247 |
| DC Input - 240V ac Output with TVS and LED | | | | | | |
| 10 | 48 - 280 | Thyristor | 600 | 120 | D2410PG | 120-0238 |
| 25 | 48 - 280 | Thyristor | 600 | 250 | D2425PG | 120-0242 |
| 50 | 48 - 280 | Thyristor | 600 | 625 | D2450PG | 120-0245 |
| DC Input - 480V ac Output | | | | | | |
| 25 | 80 - 530 | Thyristor | 800 | 250 | D4825 | 120-0248 |
| 40 | 80 - 530 | Thyristor | 800 | 625 | D4840 | 120-0249 |
| 50 | 80 - 530 | Thyristor | 800 | 625 | D4850 | 120-0250 |
| 75 | 80 - 530 | Thyristor | 800 | 1000 | D4875 | 120-0251 |
| 90 | 80 - 530 | Thyristor | 800 | 1200 | D4890 | 120-0253 |
| DC Input - 480V ac Output - High Blocking Voltage | | | | | | |
| 25 | 48 - 530 | Thyristor | 1200 | 250 | HD4825 | 120-0262 |
| 50 | 48 - 530 | Thyristor | 1200 | 625 | HD4850 | 120-0263 |
| 90 | 48 - 530 | Thyristor | 1200 | 1200 | HD4890 | 120-0265 |
| 110 | 48 - 530 | Thyristor | 1200 | 1500 | HD48110 | 120-0260 |
| 125 | 48 - 530 | Thyristor | 1200 | 1750 | HD48125 | 120-0261 |
| DC Input - 660V ac Output - High Blocking Voltage | | | | | | |
| 25 | 48 - 660 | Thyristor | 1200 | 250 | H12WD4825 | 120-0254 |
| 50 | 48 - 660 | Thyristor | 1200 | 625 | H12WD4850 | 120-0255 |
| 90 | 48 - 660 | Thyristor | 1200 | 1200 | H12WD4890 | 120-0257 |
| DC Input - 660V ac Output - High Blocking Voltage with TVS and LED | | | | | | |
| 50 | 48 - 660 | Thyristor | 1200 | 625 | H12WD4850PG | 120-0256 |
| 90 | 48 - 660 | Thyristor | 1200 | 1200 | H12WD4890PG | 120-0258 |

FOR SUITABLE HEATSINKS SEE ORDER CODES 175-647 & 175-648

Note: SSRs use semiconductor output devices therefore protective fuses should be semiconductor (ultra fast) type.

207020

| Load Current | Peak Blocking Voltage | Order Code | 1+ | 10+ | 25+ | 50+ |
|---|-----------------------|------------|----------|----------|----------|----------|
| AC Input - 240V ac Output | | | | | | |
| 10A | 600V | 120-0226 | 1,574.00 | 1,450.00 | 1,419.00 | 1,389.00 |
| 25A | 600V | 120-0228 | 1,677.00 | 1,545.00 | 1,514.00 | 1,483.00 |
| 40A | 600V | 120-0230 | 2,174.00 | 2,001.00 | 1,961.00 | 1,921.00 |
| 50A | 600V | 120-0231 | 2,272.00 | 2,126.00 | 1,969.00 | 1,816.00 |
| AC Input - 240V ac Output with TVS and LED | | | | | | |
| 25A | 600V | 120-0229 | 2,099.00 | 1,954.00 | 1,912.00 | 1,873.00 |
| 50A | 600V | 120-0232 | 2,247.00 | 2,091.00 | 2,046.00 | 2,005.00 |
| AC Input - 240V ac Output | | | | | | |
| 25A | 800V | 120-0233 | 2,222.00 | 2,015.00 | 1,972.00 | 1,692.00 |
| 50A | 800V | 120-0234 | 2,727.00 | 2,473.00 | 2,420.00 | 2,076.00 |
| 75A | 800V | 120-0235 | 3,648.00 | 3,308.00 | 3,238.00 | 2,779.00 |
| AC Input - 480V ac Output - High Blocking Voltage | | | | | | |
| 50A | 1200V | 120-0259 | 2,807.00 | 2,584.00 | 2,532.00 | 2,481.00 |
| DC Input - 240V ac Output | | | | | | |
| 2.5A | 600V | 120-0236 | 1,108.00 | 1,002.00 | 983.00 | 886.00 |
| 10A | 500V | 120-0267 | 1,138.00 | 1,090.00 | 1,083.00 | 1,075.00 |
| 10A | 600V | 120-0237 | 1,464.00 | 1,346.00 | 1,320.00 | 1,292.00 |
| 25A | 500V | 120-0268 | 1,190.00 | 1,140.00 | 1,132.00 | 1,124.00 |
| 25A | 600V | 120-0241 | 1,464.00 | 1,346.00 | 1,320.00 | 1,292.00 |
| 40A | 600V | 120-0243 | 1,379.00 | 1,321.00 | 1,312.00 | 1,302.00 |
| 50A | 600V | 120-0244 | 1,568.00 | 1,503.00 | 1,492.00 | 1,481.00 |
| 75A | 600V | 120-0246 | 3,642.00 | 3,263.00 | 2,983.00 | 2,663.00 |
| 90A | 600V | 120-0247 | 3,979.00 | 3,662.00 | 3,589.00 | 3,517.00 |
| DC Input - 240V ac Output with TVS and LED | | | | | | |
| 10A | 600V | 120-0238 | 1,617.00 | 1,505.00 | 1,473.00 | 1,443.00 |
| 25A | 600V | 120-0242 | 1,943.00 | 1,808.00 | 1,768.00 | 1,733.00 |
| 50A | 600V | 120-0245 | 1,822.00 | 1,746.00 | 1,733.00 | 1,720.00 |
| DC Input - 480V ac Output | | | | | | |
| 25A | 800V | 120-0248 | 1,604.00 | 1,537.00 | 1,526.00 | |
| 40A | 800V | 120-0249 | 1,798.00 | 1,722.00 | 1,710.00 | |
| 50A | 800V | 120-0250 | 1,874.00 | 1,796.00 | 1,782.00 | |
| 75A | 800V | 120-0251 | 2,742.00 | 2,628.00 | 2,609.00 | |
| 90A | 800V | 120-0253 | 3,029.00 | 2,902.00 | 2,881.00 | |
| DC Input - 480V ac Output - High Blocking Voltage | | | | | | |
| 25A | 1200V | 120-0262 | 1,733.00 | 1,661.00 | 1,649.00 | |
| 50A | 1200V | 120-0263 | 2,874.00 | 2,646.00 | 2,592.00 | |
| 90A | 1200V | 120-0265 | 4,447.00 | 4,092.00 | 4,010.00 | |
| 110A | 1200V | 120-0260 | 4,699.00 | 4,503.00 | 4,470.00 | |
| 125A | 1200V | 120-0261 | 5,243.00 | 5,025.00 | 4,989.00 | |
| DC Input - 660V ac Output - High Blocking Voltage | | | | | | |
| 25A | 1200V | 120-0254 | 1,809.00 | 1,733.00 | 1,721.00 | 1,708.00 |
| 50A | 1200V | 120-0255 | 2,316.00 | 2,220.00 | 2,204.00 | 2,188.00 |
| 90A | 1200V | 120-0257 | 4,534.00 | 4,344.00 | 4,313.00 | 4,281.00 |
| DC Input - 660V ac Output - High Blocking Voltage with TVS and LED | | | | | | |
| 50A | 1200V | 120-0256 | 2,806.00 | 2,612.00 | 2,555.00 | 2,496.00 |
| 90A | 1200V | 120-0258 | 6,657.00 | 6,193.00 | 6,060.00 | 5,939.00 |
| Accessories | | | | | | |
| Thermal transfer pad | | 120-0269 | 45.00 | 40.00 | 37.00 | 35.00 |
| Safety cover (KS100) | | 120-0266 | 107.00 | 86.00 | 71.00 | |

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Relays & Solenoids

5A to 40A Surface Mounting



G3NA Series



- AC or DC output switching
- AC or DC control available
- Built in varistor protection
- Operation indicator (red LED) enables monitoring
- Protective cover for greater safety
- **UL** Recognised, **CSA** approved

L=58, W=43, H=27
Fixing centres 47.5, dia 4.5

| | | | | |
|----------------------------------|---|---------------|----------------------|------------|
| Input Voltage | 200 - 240V ac (ac series) 5 - 24V dc (dc series) | Isolation | 2500V ac | |
| Load Current (A) | Load Voltage | Output Device | Mftrs. List No. | Order Code |
| AC Input - 240V ac Output | | | | |
| 10 | 19 - 264V ac | Triac | G3NA-210B 200-240VAC | 118-1254 |
| 20 | 19 - 264V ac | Triac | G3NA-220B 200-240VAC | 118-1255 |
| 40 | 19 - 264V ac | Triac | G3NA-240B 200-240VAC | 118-1256 |
| DC Input - 240V ac Output | | | | |
| 5 | 19 - 264V ac | Triac | G3NA-205B 5-24DC | 118-1258 |
| 10 | 19 - 264V ac | Triac | G3NA-210B 5-24DC | 118-1259 |
| 20 | 19 - 264V ac | Triac | G3NA-220B 5-24DC | 118-1260 |
| 40 | 19 - 264V ac | Triac | G3NA-240B 5-24DC | 118-1261 |
| DC Input - 200V dc Output | | | | |
| 10 | - 220V dc | Transistor | G3NA-D210B 5-24DC | 118-1262 |

Compliant Non-compliant + Limited stock - RoHS replacement available
RoHS