



FEATURES

- Integral Three Position Manual On/Manual Off and Automatic Control Toggle Switch
- Transient Protection: Meets the requirements of IEEE 472, "Surge Withstanding Capability Test"
- UL Recognized, CSA Certified
- 4000 Vac Optical Isolation
- G5 Modules Provide Replaceable 5 x 20 mm Glass Fuse and Built-in Status LED

Maximum Current Versus Ambient Temperature

The chart indicates continuous current to limit the junction temperatures to 100°C. Information is based on steady state heat transfer in a 2 cubic foot sealed enclosure.

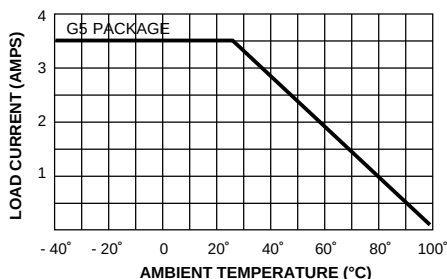
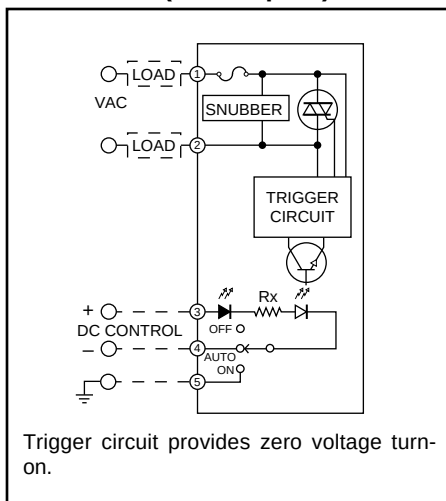
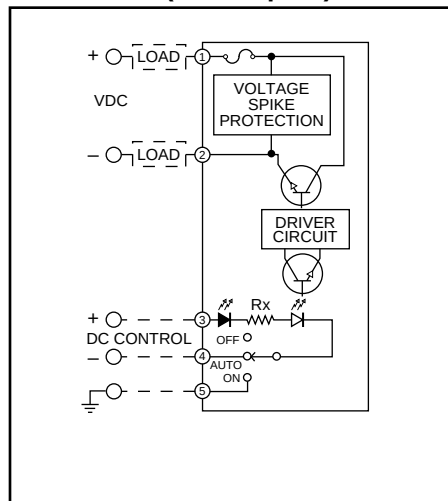


Figure 1

CIRCUITRY (AC Outputs)



CIRCUITRY (DC Outputs)



Maximum Peak Surge Current Versus Surge Duration (AC Outputs)

Information is based on a supply frequency of 60 Hz sinusoidal and a resistive or inductive load. Application of maximum surge current may not be repeated until the module temperature has returned to its steady state value.

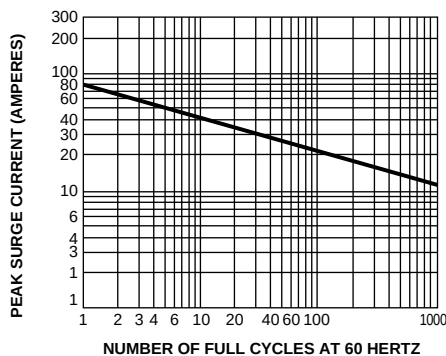


Figure 2

DIMENSIONS

For complete dimensional drawings, see page 29.

G5 FUSES

Fuses are 5 Amp Littlefuse part number 217005 or equivalent.

SPECIFICATIONS—All Modules Specifications apply over operating temperature range unless noted otherwise.

Output Specifications

Load Current Range (rms): 0.03 to 3.5 Amps
Maximum current is limited by data noted in Figure 1.

Maximum Surge Current (peak): 80 Amps at 60 Hz, 1 cycle; 25 Amps at 60Hz, 60 cycles as qualified by Figure 2 for AC outputs. 5 Amp maximum for 1 second for DC outputs.

Turn-on Time (60 Hz): 8.3 mSec maximum for AC outputs. 20 μ Sec maximum for DC outputs.

Turn-off Time (60 Hz): 8.3 mSec maximum for AC outputs. 50 μ Sec maximum for DC outputs.

On State Voltage Drop (peak): 1.5 volts max.

Power Dissipation: 1.0 Watt/Amp typical

Thermal Resistance ($R_{\theta JA}$): 25° C/Watt typical

General Characteristics

Insulation Resistance (Input to Output;

Input or Output to Case): $\geq 10^{10}$ Ohms

Dielectric Strength Input to Output:

4000 Vac (rms) minimum

Input to Output Capacitance: 6 pF typical

Vibration: 20 G's peak or .06" double amplitude

10–2000 Hz per MIL–STD–202, Method 204, Condition D

Mechanical Shock: 1500 G's 0.5 mS half-sine per MIL–STD–202, Method 213, Condition F

Storage Temperature Range:

-40°C to +125°C

Operating Temperature Range:

-40°C to +100°C

Materials and Finishes

Terminals: Copper wire, tin plated

Case: Solvent resistant thermoplastic;

meets UL94V–0

Potting: High thermal conductive epoxy

UL Recognition and CSA

Certification

UL file number E58632 and CSA file number LR38763 apply to all modules shown here.

SPECIFICATIONS BY PART NUMBER

AC Outputs

Type/Function		Grayhill Part Number			
G5, Zero Voltage Turn On, Manual Override		70G-OAC5MA	70G-OAC5AMA	70G-OAC24MA	70G-OAC24AMA
Specifications	Units				
Nominal Line Voltage	Vac	120	240	120	240
Load Voltage Range	Vac	24-140	24-280	24-140	24-280
Minimum Peak Blocking Voltage	Volts	400	600	400	600
Maximum Off-state Leakage @ 60Hz.	mA, rms	2	4	2	4
Nominal Logic Voltage (Vcc)	Vdc	5	5	24	24
Logic Voltage Range	Vdc	4-6	4-6	18-32	18-32
Max. Logic Supply Current @ Nominal Vcc	mA	20	20	8	8
Nominal Input Resistance (Rx)	Ω	100	100	2700	2700
Minimum Drop Out Voltage	Vdc	1	1	1	1
Maximum Reverse Logic Voltage	Vdc	-5	-5	-5	-5
Maximum Zero Voltage Offset	(Vpeak)	8	8	8	8
Frequency Range	(Hz)	25-70	25-70	25-70	25-70

DC Outputs

Type/Function		Grayhill Part Number	
G5 Manual Override		70G-ODC5MA	70G-ODC24MA
Specifications	Units		
Maximum Line Voltage	Vdc	60	60
Load Voltage Range	Vdc	3-60	3-60
Max. Off-state Leakage @ 60 Vdc	mA	1.5	1.5
Maximum Turn-on Time	μ Sec	20	20
Maximum Turn-off Time	μ Sec	50	50
Nominal Logic Voltage (Vcc)	Vdc	5	24
Logic Voltage Range	Vdc	4-6	18-32
Max. Logic Supply Current @ Nominal Vcc	mA	13	9
Nominal Input Resistance (Rx)	Ω	150	2700
Minimum Drop Out Voltage	Vdc	1	1
Maximum Reverse Logic Voltage	Vdc	-5	-5
Maximum Clamping Voltage	Vdc	80	80

Available from your local Grayhill Distributors

For prices and discounts, contact a local Sales Office, an authorized local Distributor, or Grayhill.