



# SERIES SIX

## PROGRAMMABLE CONTROLLERS

GEK-83541A

OUTPUT  
115 Vac  
230 Vac

## ISOLATED AC OUTPUT MODULES

### GENERAL DESCRIPTION

The Isolated AC Output modules, utilized in either an I/O Rack or Model 60 CPU to provide switching capabilities between user AC power supplies and user loads, are available in two versions: 115V AC and 230V AC. The Isolated AC Output module features and benefits are summarized in Table 1.

The modules include six optically-isolated outputs; each output circuit employs a TRIAC as a switching device to connect the corresponding output terminal to the high-side of the user power supply when the output is in the

ON state. All six outputs are updated by the CPU during an I/O scan.

A pair of indicators, visible through module faceplate, are associated with each output: one displays the status of the circuit fuse; the other lights when the circuit coil is energized.

Refer to Figure 1 (next page) for Isolated AC Output module specifications.

TABLE 1: FEATURES AND BENEFITS

FEATURES	BENEFITS
Available in two versions: 115VAC 230VAC	Useful in a variety of applications
Isolated output circuit	Allows each output circuit to use a separate power source
Individual circuit indicators	Protection and monitoring aids
3 ampere output circuits	Large loads can be controlled without interposing relays
Optically-coupled data path	Provides electrical isolation between user field devices and the Series Six Controller
<p>APPLICATIONS</p> <p>* Interface to motor control centers                      * Interface to solenoids</p>	

<ul style="list-style-type: none"> <li>• Dimensions:                     <ul style="list-style-type: none"> <li>Circuit Board: 8.15 x 11.0 (inches) 200 x 260 (mm)</li> <li>Faceplate: 12.46 x 1.175 (inches) 317 x 30 (mm)</li> </ul> </li> <li>• Power Requirements: +5V DC, 460 mA maximum Supplied by I/O Rack power supply.</li> </ul> <table border="1" style="margin-left: 40px;"> <thead> <tr> <th>MODULE</th> <th>USER-SUPPLIED VOLTAGE</th> <th>LEAKAGE (OFF)</th> </tr> </thead> <tbody> <tr> <td>115V AC</td> <td>90-130V AC</td> <td>4 ma</td> </tr> <tr> <td>230V AC</td> <td>180-260V AC</td> <td>4 ma</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>• ON-State Current:                     <ul style="list-style-type: none"> <li>Maximum: 3A (see below for derating)</li> <li>Minimum: 10 ma (exception: 230V AC supplying inductive load with power factor at less than .95, requires 30 ma)</li> </ul> </li> </ul>	MODULE	USER-SUPPLIED VOLTAGE	LEAKAGE (OFF)	115V AC	90-130V AC	4 ma	230V AC	180-260V AC	4 ma	<ul style="list-style-type: none"> <li>• Inrush Current: 20A for 33 ms (maximum)</li> <li>• ON Delay: less than 1/2 cycle</li> <li>• OFF Delay: no greater than 1/2 cycle</li> <li>• Output Voltage Drop: 1.2 V typical 2.2 V maximum</li> <li>• Number of Outputs: Six (6), each with a separate source and output connection</li> <li>• Operating Temperature: 0° - 60°C (at the outside of the rack)</li> <li>• Storage Temperature: -20° to + 80°C</li> <li>• Humidity: 5% - 95% (non-condensing)</li> </ul>
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115V AC	90-130V AC	4 ma								
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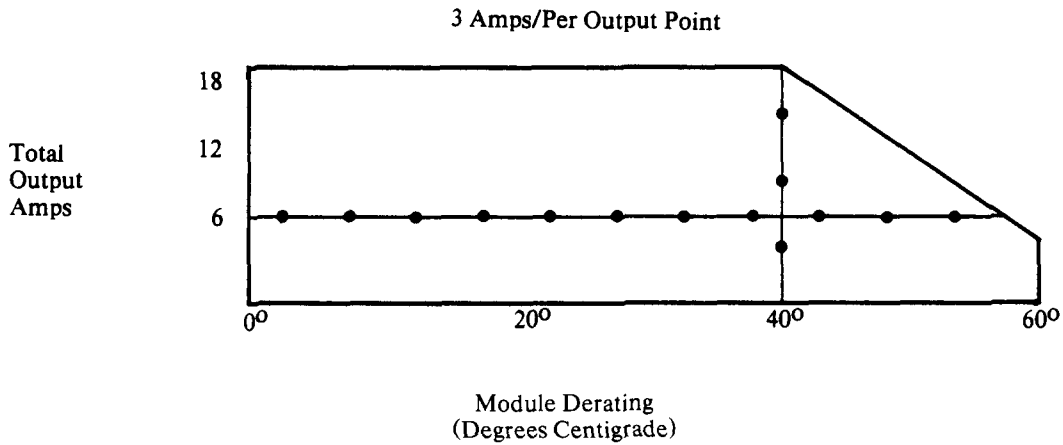
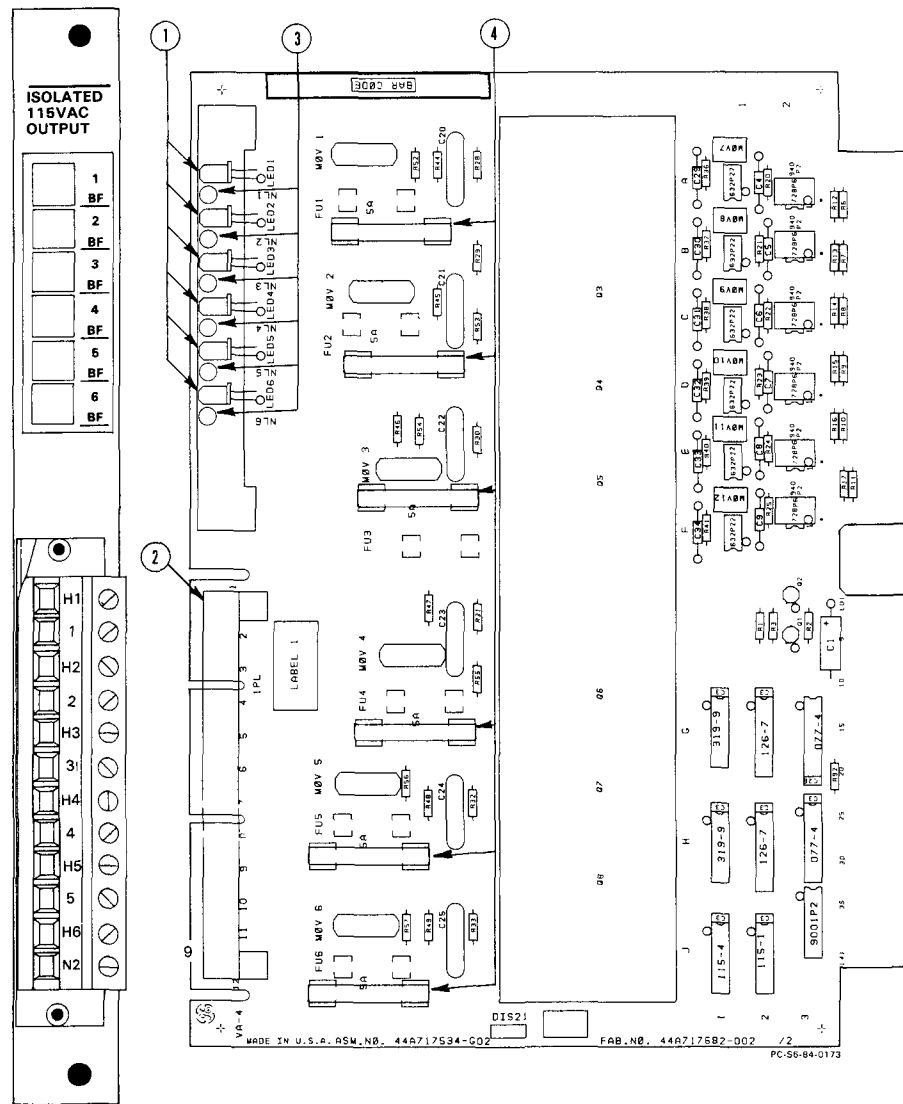


FIGURE 1. SPECIFICATIONS



- ① LED 1-6:  
Lighted LED's indicate active coils in output circuits 1 through 6, respectively.
- ② User Terminal Block
- ③ BF Neon Lamps 1-6:  
ON = Fuses for outputs 1 through 6, respectively, are blown.  
OFF = Fuses for outputs 1 through 6, respectively, are OK.
- ④ Type AGC 5 fuses, 1-6  
5 amp fuses to circuits 1 through 6 respectively.

FIGURE 2. USER ITEMS

### INSTALLATION

Before installing the Isolated Output module in an I/O Rack (or Model 60 CPU rack) establish the proper correspondence between the output terminals on this module and a group of six consecutive output numbers in the user program by setting the dual-in-line-package (DIP) switch on the rack backplane adjacent to the card slot. (Refer to table in Installation section of Installation And Maintenance Manual, GEK-25361.)

Use the extraction/insertion tool furnished with the Series Six CPU to install the module in the rack. With the board in place in the rack, slip the faceplate over the circuit board so that the terminals near the bottom of each are mated; finally, secure the faceplate to the rack using the thumbscrews at the top and bottom.

Refer to Figure 3 for typical user connections. Connect the high side of the voltage source to the appropriate H (High) terminal (1-6) on the Isolated AC Output module; connect the load to appropriate O (output) terminal (1-6) on the module. Each terminal can accommodate one No. 12 AWG, or two No. 14 AWG, wires.

Guide the terminal cover edges onto the top of the terminal block and slide it downward over the terminals. A markable area is provided on the plastic lens beside each indicator for noting the function or destination of each output.

**WARNING**

Voltages from user field devices could be present on the faceplate terminals, even if the power supply in the I/O rack is off. Care should be taken when handling the faceplate of this module or any wires connected to it.

**LEGEND**  
 S: Output Switching Device  
 L: User Load  
 E: User Power Source

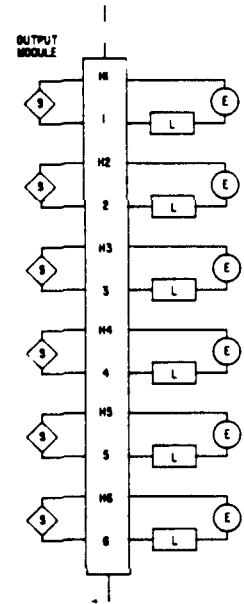


FIGURE 3. TYPICAL USER CONNECTIONS

**ORDERING INFORMATION**

Module	Circuit Board and Faceplate	Circuit Board	Faceplate
115 Vac	IC600BF910B	IC600YB910B	IC600FP910B
230 Vac	IC600BF912B	IC600YB912B	IC600FP912B

**CATALOG NUMBER REVISION SUFFIX**

The equipment listed above having the catalog numbers shown and the same equipment having a higher alpha suffix is designed for listing by UL for use as auxiliary control devices. The equipment is a direct replacement for equipment having the same catalog number but a lower alpha suffix.



This symbol on the nameplate means the product is listed by Underwriters Laboratories Inc. (UL Standard No. 508, Industrial Control Equipment, subsection Electronic Power Conversion Equipment.)

For further information, contact your local GE Fanuc sales office.

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