

## System 350™ Y350R Power Module

*The Y350R is a rectified Class 2, 24 VAC power supply module designed specifically for use with System 350™ Modular Control Systems.*

*As with all System 350 products, the Y350R is housed in a compact NEMA 1, high-impact plastic enclosure. The modular design provides easy, plug-in connections for quick installation and future expandability.*



**Figure 1: Y350R Power Module**

Features and Benefits	
<input type="checkbox"/> <b>Modular Design</b>	Enables stage, display, and power modules to be purchased and installed as necessary
<input type="checkbox"/> <b>Plug-in Connectors and 35 mm DIN Rail Mounting</b>	Eliminates wiring between modules and reduces installation costs
<input type="checkbox"/> <b>Accepts Input Voltages of 120 or 240 VAC, 50/60 Hz</b>	Reduces inventory by encompassing the primary voltage requirements

## A pplication

The Y350R Power Module provides the power necessary to operate all System 350 controls and add-on modules. For system capabilities, see Table 1.

**Table 1: Maximum Number of Add-on Modules when Powered by a Y350R**

Control Module		Stage Module	Display Module
<b>A350A A350B A350E</b>	9	S350A's or S350C's	1 D350
	6	S350A's or S350C's with 1 S350P	
	4	S350A's or S350C's with 2 S350P's	
<b>A350P</b>	4	S350A's or S350C's	1 D350
	2	S350A's or S350C's with 1 S350P	
<b>A350R A350S</b>	9	S350A's or S350C's	2 D350
	6	S350A's or S350C's with 1 S350P	
	4	S350A's or S350C's with 2 S350P's	
<b>W351A</b>	5	S351's	1 D351
<b>W351P</b>	4	S351's	1 D351
<b>P352A</b>	5	S352's	1 D352
<b>P352P</b>	No additional stages available		1 D352
<b>R353</b>	5	S353's	No display available

All System 350 add-on modules snap on to a DIN rail and plug into the control and to each other via 5-pin connectors. Add-on modules can be arranged in any order and there is no wiring required to interconnect the System 350 components.

## O peration

The Y350R operates from 240 VAC or 120 VAC power. A 24 VAC, Class 2, step-down transformer brings the voltage to a level which the System 350 modules will accept. There are no adjustments for the power module.

### IMPORTANT:

The Y350R Power Module is intended to provide an input to equipment under normal operating conditions. Where failure or malfunction of the power module could lead to personal injury or property damage to the controlled equipment or other property, additional precautions must be designed into the control system. Incorporate and maintain other devices, such as supervisory or alarm systems or safety or limit controls, intended to warn of or protect against failure or malfunction of the power module.

### IMPORTANT :

Le Y350R Power Module est destiné à transmettre des données entrantes à un équipement dans des conditions normales de fonctionnement. Lorsqu'une défaillance ou un dysfonctionnement du power module risque de provoquer des blessures ou d'endommager l'équipement contrôlé ou un autre équipement, la conception du système de contrôle doit intégrer des dispositifs de protection supplémentaires. Veiller dans ce cas à intégrer de façon permanente d'autres dispositifs, tels que des systèmes de supervision ou d'alarme, ou des dispositifs de sécurité ou de limitation, ayant une fonction d'avertissement ou de protection en cas de défaillance ou de dysfonctionnement du power module.



## Checkout Procedure

Before applying power, make sure installation and wiring connections are according to job specifications. After necessary adjustments and electrical connections have been made, put the system in operation and observe at least three complete operating cycles before leaving the installation.

## Troubleshooting

If the control system does not function properly and the Y350R is suspect, proceed as follows:

1. Connect a Digital Voltmeter (DVM) between the 24V (+) and COM (-) terminals located on the control module's left-side connector. (Terminal designations are marked on the control module.)

2. Select DC volts on the DVM and verify that the voltage is between 16 and 38 VDC. If the DVM reading is within range, the Y350R is functioning properly.

Note: Consult the *Troubleshooting* section of the appropriate control bulletin for a complete system troubleshooting procedure.

3. If the DVM reading is not within the indicated voltage range, check wiring and correct if necessary. If the wiring is correct and the reading remains out of range, replace the Y350R.

## Repairs and Replacement

Field repairs or calibration must not be made. Replacement modules are available through the nearest Johnson Controls representative. (See Table 2.)

## Ordering Information

Table 2: Product Available

Item	Product Code	Description
Power Module	Y350R-1C	Rectified, Class 2, 24 VAC Power Supply

## Specifications

<b>Product</b>	Y350R Power Module
<b>Input Voltage</b>	120/240 VAC, 50/60 Hz
<b>Output Voltage</b>	Rectified 24 VAC, 10 VA, Class 2
<b>Material</b>	Case and cover: NEMA 1 high-impact plastic
<b>Ambient Temperature</b>	Operating: -34 to 66°C (-30 to 150°F) Shipping: -40 to 85°C (-40 to 185°F)
<b>Ambient Humidity</b>	0 to 95% RH non-condensing
<b>Mounting</b>	Wall or DIN rail
<b>Agency Listing</b>	UL Guide No. XAPX, File E27734 CUL Guide No. XAPX7, File E27734 CSA Class No. 4813 02, File LR948