



This Datasheet for the

IC693PWR328

Power Supply, 48 VDC, Standard, Battery not included

<http://www.qualitrol.com/shop/p-14695-ic693pwr328.aspx>

Provides the wiring diagrams and installation guidelines for this GE Series 90-30 module.

For further information, please contact Qualitrol Technical Support at

1-800-784-9385

support@qualitrol.com

IC693PWR328 Standard Power Supply, 48 VDC Input

The IC693PWR328 is a 30 watt output power supply designed for 48 VDC nominal input. It will accept an input voltage range from 38 VDC to 56 VDC. This power supply provides the following outputs:

- +5 VDC output.
- +24 VDC Relay power output which provides power to circuits on Series 90-30 Output Relay modules.
- Isolated +24 VDC, which is used internally by some modules, can also be used to provide external power for 24 VDC Input modules.

The load capacity for each output of this power supply is shown in the following table.

Table 4-8. IC693PWR328 Power Supply Capacities

Catalog Number	Load Capacity	Input	Output Capacities (Voltage/Power *)		
IC693PWR328	30 Watts	48 VDC	+5 VDC 15 watts	+24 VDC Isolated 20 watts	+24 VDC Relay 15 watts

* Total of all outputs combined cannot exceed 30 watts.

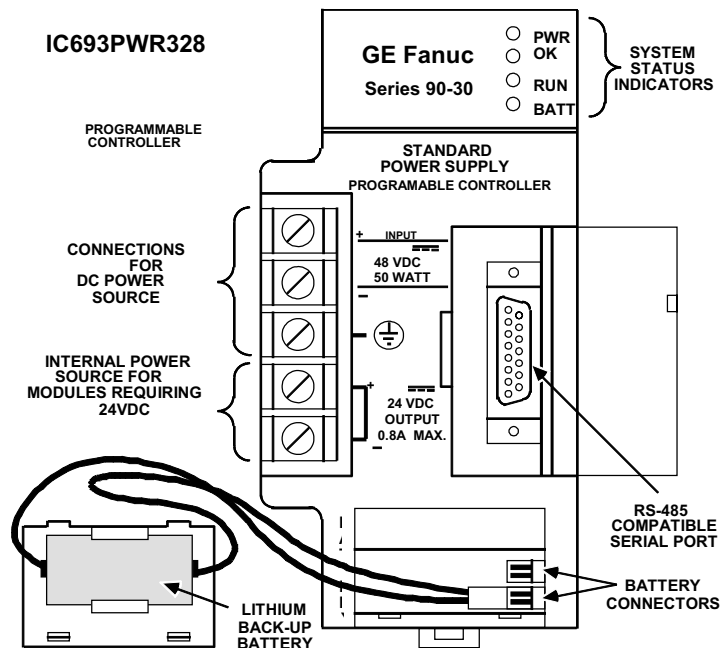


Figure 4-6. Series 90-30 48 VDC Input Power Supply - IC693PWR328

Table 4-9. Specifications for IC693PWR328 Power Supply

Nominal Rated Voltage	48 VDC
Input Voltage Range	38 to 56 VDC
Input Power	50 watts maximum at full load
Inrush Current	4A peak, 100 ms maximum
Output Power	5 VDC: 15 watts maximum 24 VDC Relay: 15 watts maximum 24 VDC Isolated: 20 watts maximum <i>NOTE: 30 watts maximum total (all three outputs)</i>
Output Voltage	5 VDC: 5.0 VDC to 5.2 VDC (5.1 VDC nominal) 24 VDC Relay: 24 to 28 VDC 24 VDC Isolated: 21.5 VDC to 28 VDC
Protective Limits Overvoltage: Overcurrent;	5 VDC output: 6.4 to 7 V 5 VDC output: 4 A maximum
Holdup Time:	14 ms minimum
Standards	Refer to data sheet, GFK-0867B, or later version for product standards, and general specifications.

Calculating Input Power Requirements for IC693PWR328

The following graph is a typical 48 VDC power supply efficiency curve. A basic procedure for determining efficiency of the 48 VDC power supply follows the figure.

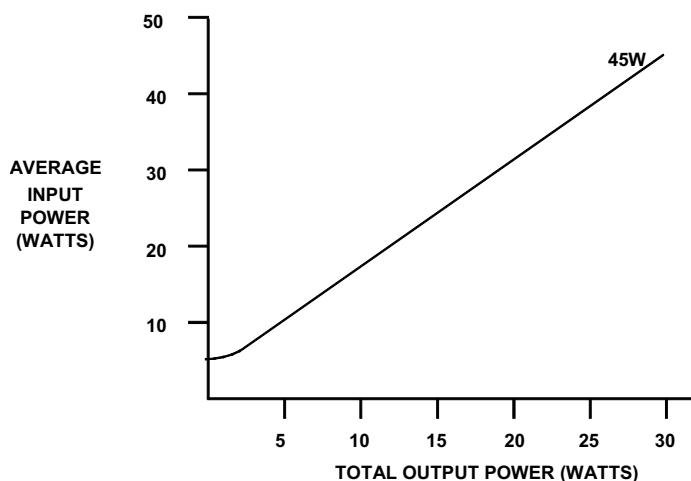


Figure 4-7. Typical Efficiency Curve for IC693PWR328 Power Supply

Note

Start-up surge at full load is 4 amps for 250 milliseconds (maximum).

Input Power/Current Calculation for IC693PWR328 Power Supply

- Determine total output load from typical specifications listed for individual modules in Chapter 12.
- Use the graph to determine average input power.
- Divide the input power by the operating source voltage to determine the input current requirements.
- Use the lowest input voltage to determine the maximum input current.
- Allow for start-up surge current requirements.
- Allow margins (10% to 20%) for variations.