IC693PTM101A

01 / Product identity and electrical data

GE IC693PTM101A is a Series 90-30 power transducer system. The documented IC693PTM101 configuration combines a rack processing module, its matched interface board and a 39-inch interface cable for electrical measurement or generator synchronization monitoring.

Documented base set	IC693PTM101 processing module, matched interface board and 39 in cable
Board mounting	Matched interface board on DIN rail
Power-system modes	Single phase; three-phase wye or delta
Module dissipation	4 W maximum
PT voltage range	10–150 VAC RMS; 120 VAC nominal
Input frequency	35–70 Hz
PLC discrete exchange	16 %I bits and 16 %Q bits
Interface connection	Shielded DB-25 cable

Rack location	Series 90-30 CPU, expansion or remote baseplate
Control modes	Power monitor and synchronism monitor
Backplane demand	5 VDC at 400 mA maximum
Backplane isolation	1500 V
CT current range	0–7.5 A RMS; 5 A nominal
A/D resolution	14 bits
PLC analog exchange	25 %AI words and 2 %AQ words
Input terminal ratings	15 A current and 150 V voltage maximum

Source boundary

GFK-1734A documents the IC693PTM101 base system and its measurement architecture; it does not decode the additional A suffix in the offered IC693PTM101A marking. Confirm the actual unit revision and matched-set contents before applying base-system values.

IC693PTM101A

02 / Application and compatibility

Energy and demand monitoring

Bring calculated power, energy, power factor and sliding demand values into a Series 90-30 program for site reporting or load management.

Generator-grid comparison

Use generator and grid measurements for a programmed synchronization decision with independent switchgear interlocks.

Three-phase circuit observation

Select the documented wye or delta mode and validate PT/CT polarity and ratios against the actual power circuit.

Matched-set replacement

Exchange the processor and matching interface board as a pair and confirm the supplied 39-inch cable reaches the installed cabinet layout.

Field precautions

Isolate hazardous circuits

Disconnect all connected power-distribution circuits before servicing the interface board or sensing transformers.

Ground before wiring

Install the interface-board frame ground first, before any other connection, as required by GE.

Secure CT secondaries

The interface board has no built-in CT shorting bars. Provide the specified external shorting arrangement and follow the site CT isolation procedure.

Respect input limits

Compare transformer secondary values with the voltage, current, frequency and terminal ratings before energizing.

IC693PTM101A

03 / Technical decisions and support

Why must IC693PTM101A be checked as a matched hardware set?

GE describes the IC693PTM101 base configuration as a rack processing module paired with a specific interface board and cable. The boards are treated as one set, so confirm both labels, the DB-25 lead and the installed revision before replacement.

How does IC693PTM101A distinguish power monitoring from synchronization monitoring?

The Series 90-30 program selects the operating mode through the PTM command bits. Power-monitor mode calculates electrical quantities; synchronism mode compares generator and grid voltage, frequency and phase. Confirm the application logic and transformer wiring for the intended mode.

Why are external CT shorting provisions needed with IC693PTM101A?

The GE interface board does not include CT shorting bars. Use a suitable external arrangement and the plant isolation procedure before opening any CT secondary circuit.

What should be verified before IC693PTM101A is connected to a three-phase circuit?

Confirm wye or delta configuration, transformer secondary ratings and ratios, polarity, grounding and terminal assignments. Then compare live phase measurements and PLC data words with an independent meter or site baseline.

Can IC693PTM101A serve as the plant protective relay?

The GE PTM manual describes measurement and monitoring functions and explicitly excludes protective-relay use. Keep independent protection and switchgear interlocks as designed for the installation.

How is the Series 90-30 I/O image allocated for IC693PTM101A?

The documented PTM uses 16 %I and 16 %Q bits plus 25 %AI and 2 %AQ words. Check the actual baseplate address, available memory and project configuration before downloading the PLC program.

Technical basis: GE Fanuc Power Transducer for the Series 90-30 PLC User’s Manual, GFK-1734A, January 2000.

Technical enquiry

sales13@apterpower.com | +86 18030235313