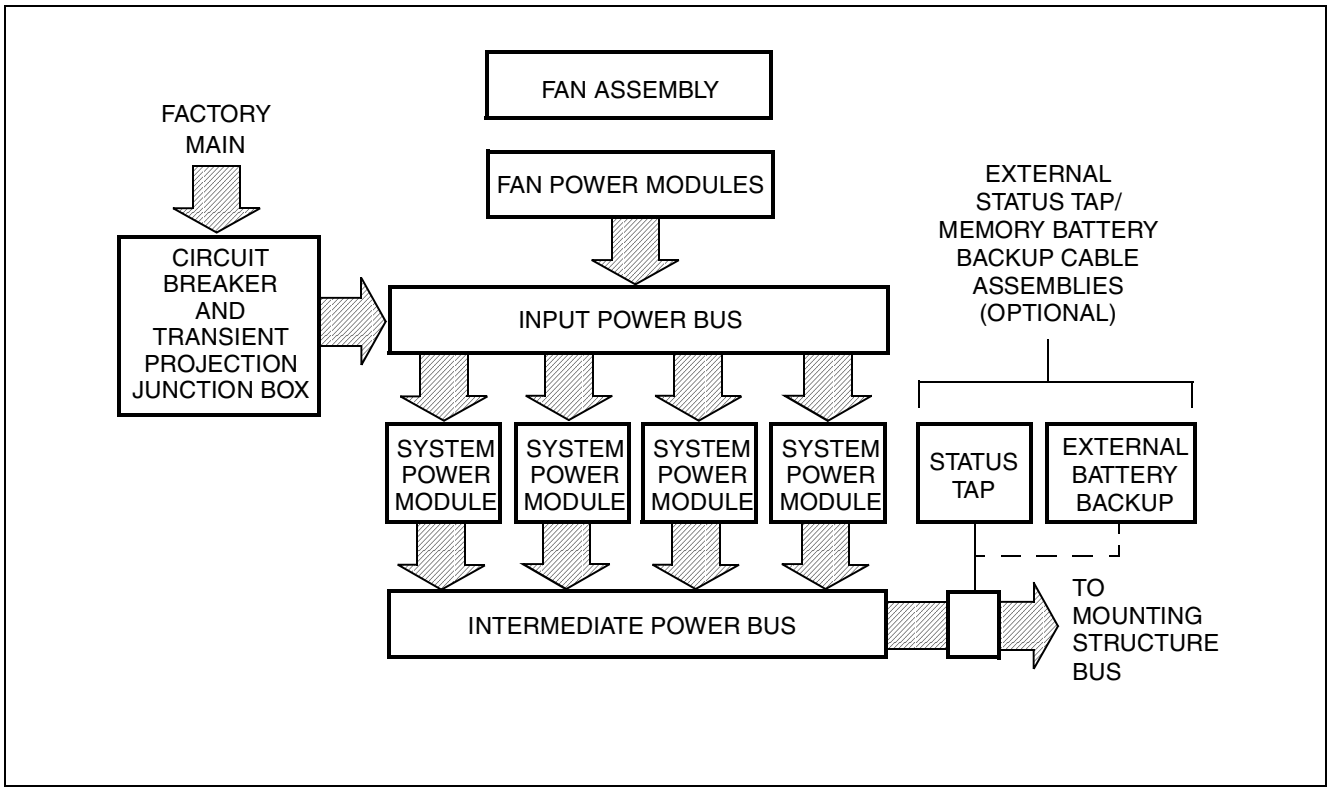
I/A Series® Hardware
Industrial Power Modules



There are two classes of industrial power modules: system power modules and fan power modules.

System power modules provide intermediate power to all mounting structure modules (system modules). They are used in all standard I/A Series enclosures. System power modules are rated at 66 W output and can provide power to four mounting structure slots.

Fan power modules provide power to a fan and monitor the fan's status. They are rated at 8.8 W output.

Both system power modules and fan power modules provide status lines that can be monitored by processor and Fieldbus modules with status tap provisions. Both also have green and red status indicator lights on their front surface to indicate the operational status of the modules.

There are seven types of system power modules and three types of fan power modules. Table 1 describes the basic functions of these modules and lists their input and output voltage ranges. Figures 1 and 2 depict a system power module and fan power module respectively.

The external memory battery backup and status tap is optionally available with the following enclosures:

- Industrial Enclosures 16 and 32
- Field Enclosures 4 and 8
- 1x8 Mounting Structure
- Metal Industrial Enclosures (with 1x8 Mounting Structures)
- Metal Field Enclosure 8

The optional external memory backup and status tap assembly is used with enclosures employing non-redundant main power. For non-stop (redundant) power configurations, an optional status-tap-only assembly is available.

Invensys®
FOXBORO®

Module Type	Function/Use	Input			Output	
		Nominal Voltage Rating*	Voltage Range*	Frequency Range	Nominal Voltage	Nominal Full Load Current
IPM02 Extended Ride-through ac/dc Power Module	Used for primary system power and also when wavecrest or power factor is critical.	100 120 220 240	85 to 110 102 to 132 187 to 242 204 to 264	47 to 63 Hz 47 to 63 Hz 47 to 63 Hz 47 to 63 Hz	39 V dc	1.7 A
IPM03A Backup ac/dc Power Module	Used as backup module in backup power configuration (output provides second power input for all modules within mounting structure, allowing it to back up any other single power module feeding the same mounting structure).	100 120 220 240	85 to 110 102 to 132 187 to 242 204 to 264	47 to 63 Hz 47 to 63 Hz 47 to 63 Hz 47 to 63 Hz	27.5 V dc	2.4 A
IPM03D Backup 24 V dc Power Module	Used as backup module in backup power configuration (output provides second power input for all modules within mounting structure, allowing it to backup any other single power module feeding the same mounting structure).	24 V dc	19 to 29 V dc**		27.2 V dc	2.4 A
IPM04 24 V dc Power Module	Allows 24 V plant battery to be used for system power.	24 V dc	19 to 29 V dc**		27.5 V dc	2.4 A
IPM05 125 V dc Power Module	Allows 125 V plant battery to be used for system power.	125 V dc	108 to 145 V dc**		27.5 V dc	2.4 A
IPM06A ac/dc Memory Backup Power Module	Memory battery backup/ charger. Accepts ac input voltage ranges (shown at right) for charging internal batteries.	100 120 220 240	85 to 110 102 to 132 187 to 242 204 to 264	47 to 63 Hz 47 to 63 Hz 47 to 63 Hz 47 to 63 Hz	18 V dc	0.5 A/hr
IPM06D dc/dc Memory Backup Power Module	Memory battery backup/ charger. Accepts dc input voltage ranges (shown at right) for charging internal batteries.	24 V dc	19 to 29 V dc**		18 V dc	0.5 A/hr
IPM07 ac Fan Power Module	Supplies power to one fan assembly. Accepts standard ac voltage ranges.	100 120 220 240	85 to 110 102 to 132 187 to 242 204 to 264	47 to 63 Hz 47 to 63 Hz 47 to 63 Hz 47 to 63 Hz	28.5 V dc	0.31 A
IPM08 125 V dc Fan Power Module	Supplies power to one fan assembly. Allows 125 V dc plant battery to supply fan power.	125 V dc	108 to 145 V dc**		28.5 V dc	0.31 A
IPM09 24 V dc Fan Power Module	Supplies power to one fan assembly. Allows 24 V dc plant battery to supply fan power.	24 V dc	19 to 29 V dc**		28.5 V dc	0.31 A

* ac unless otherwise stated.

** Allowable input ripple tolerance is 5% max from 0 to 120 Hz.

ENVIRONMENTAL SPECIFICATIONS(a)

Operating
TEMPERATURE
0 to 60°C (32 to 140°F)
RELATIVE HUMIDITY
5 to 95% (Noncondensing)
ALTITUDE
–300 to +3,000 m (–1,000 to +10,000 ft)

Storage (b)
TEMPERATURE
–40 to +85°C (–40 to +185°F)
RELATIVE HUMIDITY
5 to 95% (Noncondensing)
ALTITUDE
–300 to +12,000 m (–1,000 to +40,000 ft)

Environmental Contaminant Level
Class G3 (Harsh) as defined in ISA Standard, S71.04

(a) The climatic environmental ranges can be extended by the type of enclosure containing the module. {Refer to the applicable Product Specification Sheet (PSS) which describes the specific enclosure that is to be used.}
(b) For the IPM06A and IPM06D, the battery must be removed. The storage temperature of the battery is -40 to +70°C (-40 to +158°F).

Figure 1. System Power Module

Figure 2. Fan Power Module

33 Commercial Street
Foxboro, MA 02035-2099
United States of America
www.foxboro.com
Inside U.S.: 1-866-746-6477
Outside U.S.: 1-508-549-2424
or contact your local Foxboro
representative.
Facsimile: 1-508-549-4999

MB 21 Printed in U.S.A. 0104