



The PCS Power Module Unit (PCSPMU01) is a NEMA rack mount power system designed to replace both Bailey bulk and modular power supply systems. It provides a cost effective way to upgrade your power system and ensure process security.

FEATURES

The PCSPMU01 offers reduced maintenance cost and increased reliability by offering key features:

- *Supports all original Bailey installations and also installations migrated to I/A Series systems*
- *N+1 Redundant Operation With Current Sharing*
- *Hot Swap Power Modules*
- *Directly replaces all Bailey power configurations including IEPAS series (AC/DC Modular Power System), MPS021 and MPS03.*
- *Normally Open And Normally Closed External Status Contacts*
- *Dual AC Power Inputs for Non-stop Supply*
- *Automatic Input Voltage Selection*
- *Power Interlock To Prevent Module Removal When Under Load*
- *Front Panel Access For Servicing*
- *Front Panel Voltage And Current Meters*

SECURE

The PCSPMU01 configuration provides redundant operation with N+1 module current sharing for each output voltage range to within 10%. This current sharing provides hot swap capability without the need for relays or switching units. Hot swap prevents impact on the process system if a power module requires maintenance. Current sharing increases system reliability by assuring operation of all power modules at all times.

FLEXIBLE

The PCSPMU01 power unit supports typical cabinet configurations of currently installed Bailey Network90 and Infi90 systems. The power unit exceeds the power

requirements of most applications. A spare power unit slot allows expansion with one additional power module which can double the power output of either 5 VDC or 15 VDC.

The PCSPMU01 configuration offers external power module status contacts for alarming purposes so you always know the state of your power system.

The power unit input can be connected to two separate AC sources to ensure the integrity of AC supply voltage.

Input circuit configuration is automatically selected by internal circuitry for all input voltage ranges. The input power is auto-selectable for the range 90 VAC through 264 VAC at 47 to 63 Hz.

The PCSPMU01 replaces the Module Power Panel (MPP) and leaves free cabinet space for other uses. It also fits into the space of a normal Module Mounting Unit. This means that IEPAS, MPS02 and MPS03 power systems are directly replaced by the PCSPMU01 without reconfiguring the system cabinet.

MAINTAINABLE

The PCSPMU01 uses plug in power modules that are accessible from the front of the unit. A power interlock secures each module in place while ensuring that a module is un-powered before being removed from the unit.

A voltage and current meter is provided on the front panel. Maintenance personnel use a selector switch to choose the power module to be displayed. Each power module conveniently provides an output voltage adjustment on the module faceplate for periodic maintenance.

FUNCTIONAL SPECIFICATIONS

		PCSPMU01
Output Voltage	5	5 Vdc, ± 0.1 Vdc
	15	± 15 Vdc, ± 0.3 Vdc
	24	24 Vdc, ± 0.5 Vdc
Output Current	5 Vdc	70 A @ 40 °C
	± 15 Vdc	13 A @ 40 °C
	24 Vdc	8 A @ 40 °C
Output Power	5 Vdc	400 W
	± 15 Vdc	200 W
	24 Vdc	195 W
Input Voltage Range		Auto-select: 90-264 V ac
Input Frequency Range		47 to 63 Hz
Input Current	120 Vac	40 A
	230 Vac	22 A
Inrush Current	120 Vac	<60 A PEAK
	230 Vac	<30 A PEAK
Input Power		4800 W
Load Regulation		0.1% of Vo
Power Factor		0.60
Ripple And Noise	5 Vdc	50 mv (peak-to-peak)
	± 15 Vdc	150 mv (peak-to-peak)
	24 Vdc	240 mv (peak-to-peak)
Temperature Coefficient		0.025% per °C
Isolation		1000 V ac input to chassis ground

PRODUCT SAFETY

European Low Voltage Directive 73/23/EEC

SAFETY CERTIFICATION (UL, CSA, TUV)

INPUT SURGE PROTECTION

IEEE 587-1980 Class A for branch circuits and outlets
Regulatory compliance is only applicable for line voltages between 90 and 127 V ac, and 180 to 250 V ac, and frequencies between 47 and 63 Hz.

ENVIRONMENTAL SPECIFICATIONS

	Operating	Storage
Temperature	-10 to 50°C (14 to +122°F)	-55 to +85°C (-65 to +185°F)
Relative Humidity	5 to 95% (non-condensing)	5 to 95% (non-condensing)
Altitude	-300 to +3,000 m (-1,000 to +10,000 ft)	-300 to +12,000 m (-1,000 to +40,000 ft)

Contamination: Class G1 (Mild) as defined in ISA Standard S71.04. Pollution degree 2 as defined in IEC 664-1.

PHYSICAL SPECIFICATIONS

Mounting	NEMA 482.6 mm (19 in)
Mass	25 kg (55 lbs)
Shipping	27.2 kg (60 lbs)
Dimensions	171.45 mm (6.75 in) H X 482.6 mm (19 in) W X 392.11 mm (15.44 in) D

® Bailey, Network 90 and Infi90 are marks of ABB Process Automation

® I/A Series is a registered trademark of Invensys Process Systems

Process Control Services, Inc.
401 Industrial Drive
Plymouth, Michigan 48170
United States of America
<http://www.processcontrolservices.com>

Telephone: (734) 453-0620

© Copyright 2002-2006 Process Control Services
All rights Reserved