SYSTEMS INTEGRATED SIPAC1 DC Power Distribution Board

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# Based on Published Standards

**Innovative and Enduring Systems** 

# **DC POWER DISTRIBUTION BOARD**

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The model 280-018-08 Power Distribution Board is designed to provide multiple voltages to support Power over Ethernet, Battery charging PLC power and Ethernet Switch power. The board accepts 32 VDC and provides 48 volt DC for POE, and Battery charging voltage (Bulk charge and float voltage). The 280-01-018-08 is designed to operate with a 33 volt power supply and can accept currents up to 8 amps. Output current are fuse limited. When operating on batteries, the 280-01-018-08 has a low voltage cutoff to prevent deep discharge of the battery.



SIPAC1-280-01-018-13

## **FEATURES**

- All field connections through removable terminal blocks
- Battery charger provide for three modes of operation: Bulk, overcharge and float
- POE voltage generated on the board
- Ethernet switch voltage generated on the board
- Automatic battery switch control

- Power indicators for each output
- Individually controlled outputs allowing continued operation during replacement of parts
- Status outputs for AC power and battery
- Microprocessor controlled

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# **TECHNICAL INFORMATION**

Input Voltages	
Primary Input Voltage Source	
Maximum Permissible Voltage	36 Volts
Max Permissible Input Current	8 Amps
Fuse Protected. Fuse Rating	8 Amps
Battery Input Voltage Source	
Maximum Permissible Voltage	32 Volts
Maximum Battery Current Draw	6 Amps
Fuse Protected. Fuse Rating	8 Amps
Battery Charging Circuit	
Bulk Battery Charging voltage (maximum)	30.5 Volts
Max Battery Charging Current	1 Amp
Float Battery Charging Voltage	29.1 Volts
Shorted Cell Protection	yes
Minimum Battery Voltage for Charge	16 Volts
Temperature Compensation	yes

Status Output	
AC Power Available	Sink Output
Low Battery	Sink Output
Battery Fully Charged	Sink Output

#### **Power Distribution Switches**

Individual power switches and indicators provided for:

PLC	24 Volts (Nom)
RTU Enclosure Power	24 Volts (Nom)
Analog Loop Power	24 Volts (Nom)
Digital Wetting Voltage Power	24Volts (Nom)
Additional POE Power Injection	24 Volts (Nom)
Ethernet Switch Power	24 Volts (Nom)
Radio Power	24 Volts (Nom)

#### Dimensions

11.0"L X 4.25"W X 3.25"D

Output Voltages	
48 volt POE	
Voltage Regulation	± 10%
Maximum Current	420 ma
Over Current Protection	yes
Ethernet Switch Power	
Voltage Regulation	1%
Maximum Current	1.5 Amps
Over Current Protection	yes
Primary / Secondary Switching	
Switching time primary to secondary	20 ns
Primary Input Operations	
Primary Voltage Regulation	± 1%
Over Current Protection	yes
Over Voltage Protection	yes
Battery Operations	
Low Voltage Cutoff	20 Volts
Maximum Current	8 Amps
Over Current Protection	yes

#### Input Power Switches

Primary Input Power Switch Battery Power Switch

Environmental	
Temperature	0°C to 60°C
RH	5% to 95%

Terminal Block Connectors Wire Size 14 AWG

#### Mounting

Din Rail Mounting

Designed to be Mounted on Back Panel

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