

High and Low-Current Power Supplies

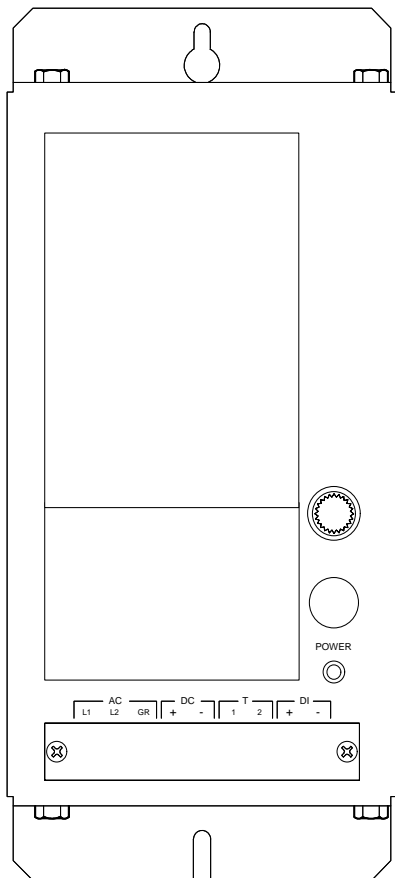
The High and Low-Current Power Supplies convert Alternating Current (AC) line power to Direct Current (DC) for operating a ROC or FloBoss device, including their accessories and I/O devices. When using a battery backup, the power supplies function as a battery charger.

Note: The FloBoss 503 and FloBoss 504 only support the Low-Current Power Supply.

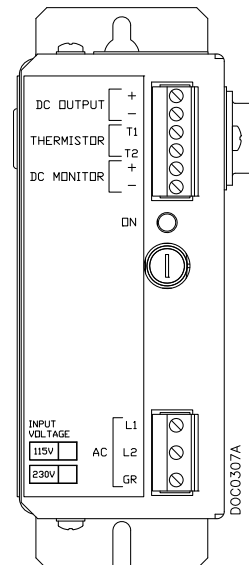
The High-Current Power Supply can be ordered with either a 12 or 24 volt dc output. The Low-Current Power Supply is available only with a 12 volt dc output. Both power supply models operate from either 115 or 230 volt line power, and both have Class I, Division 2 hazardous approval ratings.

The power supplies are fully regulated and provide output current limiting and foldback protection. A special feature is temperature compensation of the output voltage when charging batteries. A remote-mountable thermistor (supplied) senses the battery temperature.

The power supplies also provide a separate set of output terminals that can be connected to a discrete input of a ROC or FloBoss. This feature allows the power supply output voltage to be monitored and an alarm to be produced when line power is lost or if the power supply has failed.



High-Current Power Supply

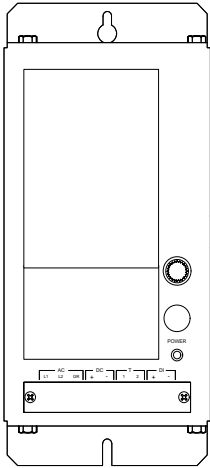


Low-Current Power Supply

D301036X012

High-Current Power Supply

Field Wiring Terminals



Terminal	Label	Definition
1	AC L1	AC Input L1
2	AC L2	AC Input L2
3	AC GR	Ground
4	DC+	DC Output Positive
5	DC-	DC Output Negative
6	T1	Thermistor
7	T2	Thermistor
8	DI+	Discrete Input Positive
9	DI-	Discrete Input Negative

Inputs

AC Input	Switch selectable as 105 to 132 Vac or 207 to 264 Vac, 47 to 63 Hz
AC Input Fusing	3 A for 115 Vac range 1.5 A for 230 Vac range

Outputs

DC Output	12 Vdc Model	14 Vdc no-load. Supplies 5.1 A.
	24 Vdc Model	26 Vdc no-load. Supplies 3.6 A. Derate DC output power 10% for 50 Hz operation.
Output Ripple	12 Vdc Model	5.0 mV peak-to-peak, maximum
	24 Vdc Model	3.0 mV peak-to-peak plus 0.02% of output voltage, maximum
Regulation	Output voltage varies no more than $\pm 0.05\%$ for a 10% change in line voltage	
Efficiency	12 Vdc Model	55% typical
	24 Vdc Model	60% typical

Physical

Dimensions	94 mm H by 127 mm W by 280 mm L (3.7 in. H by 5 in. W by 11 in. L) including mounting flanges. Mounting holes are 260 mm (10.25 in) center-to-center.
Weight	4.8 kg (10.4 lb)

Environmental

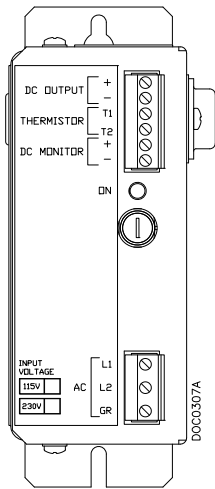
Operating Temperature	-40 to 65°C (-40 to 149°F), fully rated
Storage Temperature	-40 to 85°C (-40 to 185°F)
Temperature Compensation	Temperature sensed by thermistor to regulate charging voltage
EMI/RFI Susceptibility	Meets the requirements of FCC Docket 20780 for Class B equipment and VDE 0871 for Class B
Stability	$\pm 0.3\%$ for 24 hours after warm-up

Approvals

Product Markings for Hazardous Locations	CSA	Approved by CSA for hazardous locations Class I, Division 2, Groups A, B, C, and D
	12 Vdc Model	T4A (Tamb = +65°C or 149°F)
	24 Vdc Model	T4 (Tamb = +65°C or 149°F)

Low-Current Power Supply

Field Wiring Terminals



Terminal Block 1

Terminal	Label	Definition
1	+	DC Output Positive
2	-	DC Output Negative
3	T1	Thermistor
4	T2	Thermistor
5	+	DC Monitor Positive
6	-	DC Monitor Negative

Terminal Block 2

Terminal	Label	Definition
1	L1	AC Input L1
2	L2	AC Input L2
3	GR	Ground

Inputs

AC Input	Switch selectable as 105 to 132 Vac or 207 to 264 Vac, 47 to 63 Hz
AC Input Fusing	1 A for either 115 or 230 Vac range

Outputs

DC Output	14 Vdc no-load. Supplies 1.0 A. Derate DC output power 10% for 50 Hz operation.
Output Ripple	5.0 mV peak-to-peak, maximum
Regulation	Output voltage varies no more than $\pm 0.05\%$ for a 10% change in line voltage
Efficiency	55% typical

Physical

Dimensions	119 mm H by 67 mm W by 157 mm L (4.7 in H by 2.6 in W by 6.2 in L) overall, including mounting flanges. Mounting holes are 148 mm (5.81 in) center-to-center.
Weight	0.9 kg (2.0 lb), including case

Environmental

Operating Temperature	-40 to 65°C (-40 to 149°F), fully rated
Storage Temperature	-40 to 85°C (-40 to 185°F)
Temperature Compensation	Temperature sensed by thermistor to regulate charging voltage

EMI/RFI Susceptibility	Meets the requirements of FCC Docket 20780 for Class B equipment and VDE 0871 for Class B	
Stability	±0.3% for 24 hours after warm-up	
Approvals		
Product Markings for Hazardous Locations	CSA	Approved by CSA for hazardous locations Class I, Division 2, Groups A, B, C, and D T4A (T _{amb} = +65°C or 149°F)

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