

Chameleon 25W DC Power Module (DCP-1)

High-Performance Programmable Controllers for Extreme Environments



The Chameleon 25W DC Power Module (DCP-1) filters, pre-regulates, and distributes electrical power to other Chameleon modules connected to it. Multiple power modules attached to each other and fed from different power sources (AC and/or DC) can provide seamless redundancy, reducing susceptibility to power outages, or load sharing to increase the power availability. Power modules on the same node are always online—if one should lose input power, another will instantaneously compensate and deliver uninterrupted power to all loads. DCP-1 units are hot swappable: should the need arise to replace one, simply swap the front panel (with attached power board) and the unit is back online—there is no need to shut off the power.

As with all Chameleon modules, the DCP-1 offers unequalled ruggedness. It is specifically designed for sustained operation in severe environments, including those characterized by extreme shock, vibration, electro-magnetic interference, temperature, and/or humidity. Its fully-sealed enclosure (sealing end-caps not pictured) ensures long-lasting operation in the grimmest settings. In fact, Chameleon modules can operate fully submerged!

ENVIRONMENTAL CHARACTERISTICS

Operating Ambient Temperature Range	-40°C to 65°C
Storage/Transport Ambient Temperature Range	-40°C to 85°C
High Impact Shock	MIL-STD-901D
Mechanical Vibration	MIL-STD-167B
Electro-Magnetic Interference	MIL-STD-461E
Facial/Housing Protection	NEMA 1,2,4,4X,5,6,6P,12,12K,13
Operating Humidity	100% RH, Condensing

ELECTRICAL CHARACTERISTICS

Input Voltage Range	10 to 60VDC
Input Spike Protection	49 Joules for 10/1000us
Output Power	25 Watts
Dielectric withstand (Primary to Secondary)	1240VAC for 60 seconds
Max inrush current	100A for 150us
Max steady state input power at 24VDC input	25W output requires 33.4W input 20W output requires 26.2W input
Turn-on time	10ms
Hold-up time (full load)	1ms
Hold-up time (half load)	2.5ms
Input Fuse	5A

PHYSICAL CHARACTERISTICS

Weight	2.1 lb
Dimensions	2.5" W x 6" L x 3" H
Display element	LED Status Indicator

MAINTAINABILITY / RELIABILITY

- Will not be damaged if the + and – input wires are reversed during installation
- Supports hot swapping
- Each power supply module can be paralleled to provide load sharing, uninterrupted power during hot swap, and/or redundant power sources

SAFETY FEATURES

- Storage capacitors automatically discharge after power board is removed from enclosure
- Over-current shutoff
- Input circuit is fused

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