

MERLIN-2™

TACTICAL POWER MANAGER

- Rugged and compact
- Uninterruptible DC Power Supply for wide range of equipment



GIVING YOU POWER MANAGEMENT WHERE YOU NEED IT, WHEN YOU NEED IT. NO EXCUSES.

The Merlin-2™ receives input from a variety of AC and DC power sources. Its primary function is to manage power inputs and installed energy storage to run application-specific equipment, laptops and other accessories.

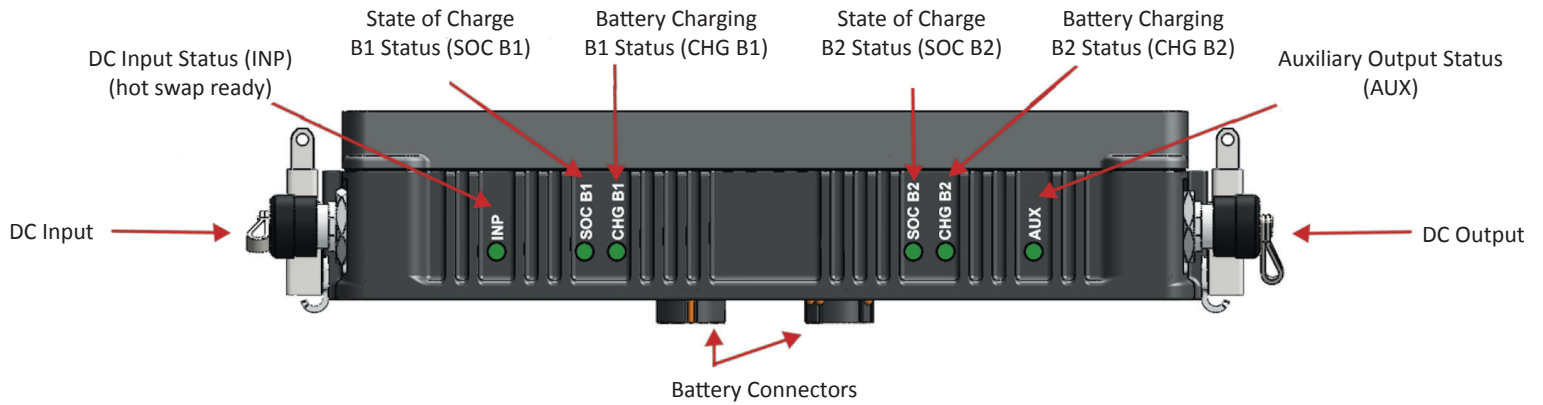
The Merlin-2™ DBC also integrates with BX-XX90 batteries contained within the battery box. If BB-2590 or BB-390 batteries are used, it provides efficient battery charging, and also serves as an Uninterrupted Power Source (UPS) for connected equipment. It also manages power to the DC output port when batteries are not available.

The hot-swap feature allows battery change-out and maintenance without load interruption. It configures automatically and requires no controls. LED indicators display the status of input power, state of charge, battery charging, battery health and output power availability. Peak Power Tracking algorithms efficiently convert power from solar panels to support the load and/or charge batteries for power storage.

The Merlin-2™ DBC is compact and rugged, allowing the system to be used in all conditions and environments. It does not compromise the environmental integrity of the batteries or attached loads.

FEATURES	BENEFITS
Uses two standard, full size rechargeable batteries	<ul style="list-style-type: none"> • Keeps connected equipment powered regardless of input power interruptions • Uses BB-2590/U (preferred) or BB-390B/U (alternate) batteries • Programmable charging algorithms ensure future battery chemistry adoption
Interfaces with battery box	<ul style="list-style-type: none"> • No tools required for installation or use • Keeps battery enclosed and environmentally protected
Battery Hot Swap	<ul style="list-style-type: none"> • Able to change out batteries for recharge without load interruption (when powered externally)
Compact size and weight	<ul style="list-style-type: none"> • Lightweight and easy to transport
Functions with a variety of input and output accessories	<ul style="list-style-type: none"> • Operates using a wide range of input sources; Solar, NATO, AC and DC, Zinc-Air batteries, BB-XX90, fuel cell and vehicle power • Outputs power to variety of accessories including special application equipment, laptop computers and small personal electronics
Fully customizable to your application	<ul style="list-style-type: none"> • Customizable firmware and software to support application specific requirements • Custom cable and connectivity options

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The Merlin-2™ DBC monitors and displays the status of the battery, input and output power availability via dedicated LED lights.

PHYSICAL AND ELECTRICAL PROPERTIES

PARAMETER	CHARACTERISTIC
Weight	1.94 lbs (0.88 kg)
Size	11.17" L x 1.89" W x 3.26" H 283.7 mm x 48.0 mm x 82.8 mm
Input Connector	MS3114-E8-4P (standard) or custom
Output Connector	MS3114-E8-2S (standard) or custom
Environmental	MIL-STD-810, MIL-STD-461
Operating Temperature Range	-40° to +131°F (-40° to +55°C)
Storage Temperature Range	-59° to +160°F (-50° to +71°C)
Input Voltage	10–42 VDC @ 14.5 ADC (max)
Input Power	250 W
Output Voltage	12–32 VDC @ 10 ADC (max)
Output Power	242 W (max)
Efficiency	97% typical
Li Ion Battery Charge Time	3 hours typical

COMPONENTS

IRIS PART NUMBER	PART DESCRIPTION
78535-105699	Merlin-2™ DBC Kit (Power Module, Manual, QuickCard, Battery Box)
78535-105601	Merlin-2™ DBC Power Module*
78535-102040	Input, Converter, AC/DC 220W*
78535-102203	IEC-320 Power Cord*
78535-102018	Cable, Input, NATO*
78535-101626	Case, Hard*
78535-102017	Cable, Input, AUTO
78535-102019	Cable, Input, SAEP
78535-102020	Cable, Input, EXTN
78535-102021	Cable, Input, ZINC
78535-102022	Cable, Input, CLMP
78535-102024	Cable, Output, EXTN
78535-102025	Cable, Output, AUTO
78535-102026	Cable, Output, PANA
78535-102049	Solar Panel, 62W
78535-102030	Cable, Input, Splitter

* included in Merlin-2™ Kit

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IRIS TECHNOLOGY

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