

# POWERBANK

PowerBank is a fully programmable, installer-configurable control system that combines virtually all parts of a battery management system into a single device. PowerBank combines Split Charging for up to 4 battery banks, manual & remote battery isolation, Flat Battery Protection for up to 4 battery banks, high and/or low battery voltage alarms, remote indication of any and/or all of those functions and remote control.

## - Split Charging

PowerBank combines the power of three SmartBank Pro units (to provide split charging of up to 4 separate battery banks).

All parameters such as connect and disconnect voltages, connect and hold delays etc are individually adjustable for each battery bank. Charging order can be managed to ensure that certain batteries are charged in priority.

Full Pulse Width Modulation (PWM) is used to drive the contactors giving power savings and extended contactor life. Split Charging can also be configured to reset Flat Battery Protection.

## - Flat Battery Protection

4x independent Flat Battery Protection systems operating in a similar manner to PowerGuard Pro.

These utilise high power latching contactors so that there is zero current drain when either connected or disconnected power is only used for the brief instant when the relay changes state. Each can operate on one of two different principles.

The first is a simple, single, low voltage threshold and timer. The second uses a low voltage threshold and a more complex timer that counts up and down to completely eliminate PowerBank being fooled by intermittent high-power loads such as tail lifts, windlasses etc.. All voltage thresholds and timers are user configurable.

## - Analogue/Digital Inputs & Alarms

PowerBank features numerous virtual (or software driven) alarms that may be used to activate internal PowerBank controls or one of the analogue outputs. There are 8x inputs & outputs on PowerBank. These can be used for generator start/stop, external alarms, load shedding etc.

## - MerlinNet

PowerBank is fully MerlinNet enabled (and acts as the MerlinNet system hub) allowing you to build customised systems to suit specific applications.

## - PowerBank Remote Panel

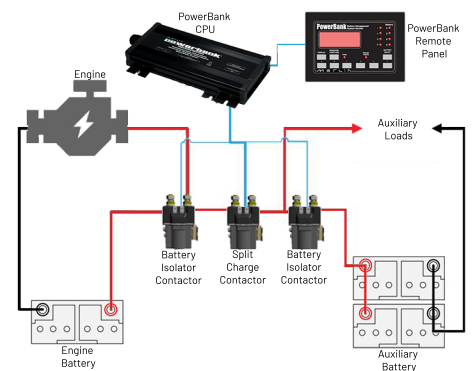
PowerBank is available with an LED or LCD remote panel. The panel automatically determines how many batteries and which MerlinNet components are connected and automatically configures itself accordingly (for example if only two batteries are connected, it will scroll between batteries 1 and 2 only (3 & 4 are automatically removed from view).

## - How to buy PowerBank?

Due to its customisable nature, PowerBank is supplied in modular form. This allows you to build up a kit of suitable parts.

First, select the PowerBank model you require (PowerBank or PowerBank COMBI), the battery isolator/flat battery contactors, split charging contactors, expansion module(s), remote panels and programming kit.

Merlin Engineers will be pleased to work alongside you to select the most appropriate system for your installation.



<b>PART # (STANDARD PRODUCT)</b>	<b>19-5005</b>
PRODUCT NAME	POWERBANK ECU
NUMBER OF BATTERY BANKS	UP TO 4
VOLTAGE RATING	12 / 24V DC*
OPERATIONAL INPUT VOLTAGE RANGE	6.5 TO 36V DC
OPERATION TEMP RANGE	-25 TO +105°C
MAXIMUM CONTACTOR CURRENT	200A CONTINUOUS 350A PEAK
POWER CONSUMPTION	12mA**
OVERALL DIMENSIONS (MM)	170.4 X 140.0 X 32.5
WEIGHT (EX CABLES)(KG)	0.45
COMMUNICATIONS	RS232, MERLINNET
COMPLIANCE	CE MARKED. EMC DIRECTIVE 2014/30/EU. ROHS DIRECTIVE 2011/65/EC. ISO-7637

\* UNIT CAN BE MIXED BATTERY VOLTAGES

\*\*UNIT IN IDLE STATE WITH NO CONTACTORS OR LEDS POWERED & NO ITEMS CONNECTED TO MERLINNET

#### PRODUCT ACCESSORIES

##### PART # (STANDARD PRODUCT)

19-5004	DataCell/PowerBank/PowerBank Combi Programming Kit
19-5010	Flat Battery / Isolator Contactor 12V (200A)
19-5011	Flat Battery / Isolator Contactor 24V (200A)
19-5014	Split Charge Contactor 12V (200A)
19-5015	Split Charge Contactor 24V (200A)
19-5012	Flat Battery / Isolator Contactor 12V (350A)
19-5013	Flat Battery / Isolator Contactor 24V (350A)
19-5016	Split Charge Contactor 12V (350A)
19-5017	Split Charge Contactor 24V (350A)
19-5018	Input Switch (On)-Off Momentary with Red LED
19-5019	Input Switch (On)-Off Momentary with Green LED
19-5030	PowerBank LED Remote Panel
19-5031	PowerBank LCD Remote Panel
19-5032	Expansion Module (EM06)
19-5052	MerlinNet Cable 3.2m
19-5053	MerlinNet Cable 7.5m
19-5054	MerlinNet Cable 10m
19-5057	Merlin Net Loop Back Plug
U3/WIP/PBANK/RELAY-FIX12	PowerBank Relay Driver 12 Volt (350A Latching Contactors)
U3/WIP/PBANK/RELAY-FIX24	PowerBank Relay Driver 24 Volt (350A Latching Contactors)
10-4012	Cable Cap Insulation Boot 2 – 2/0 AWG Red
10-4013	Cable Cap Insulation Boot 2 – 2/0 AWG Black
08-1003	3 Amp Blade Fuse
08-1005	5 Amp Blade Fuse
08-1013	ATO Single Blade Fuse Holder
08-1054	200A Mega Fuse
08-1060	Mega Fuse Holder