



Hub

# PowerShield8 Hub

## Bringing your battery data together

### Hub

A component of PowerShield 8, Hubs on each battery string relays the various data points required to provide an accurate picture of your battery bank's current and future state.

The Hub reduces the need for excessive cabling. It allows for more batteries to be added to every cable as well as being able to hold two roles (eg. ambient temperature and current transducer). This reduces the clutter of a system and streamlines the configuration.

Applied per battery string, the Hub takes inputs from sensors at the battery rack and connects them through to the Controller. It also connects with external sensors to measure current and ambient temperature, and has an on-board sensor to gauge humidity, communicating this data to the Controller for aggregation.

Dry contact inputs on the Hub allow for third party sensors to be integrated into PowerShield 8.

### PowerShield 8: the modular battery management system

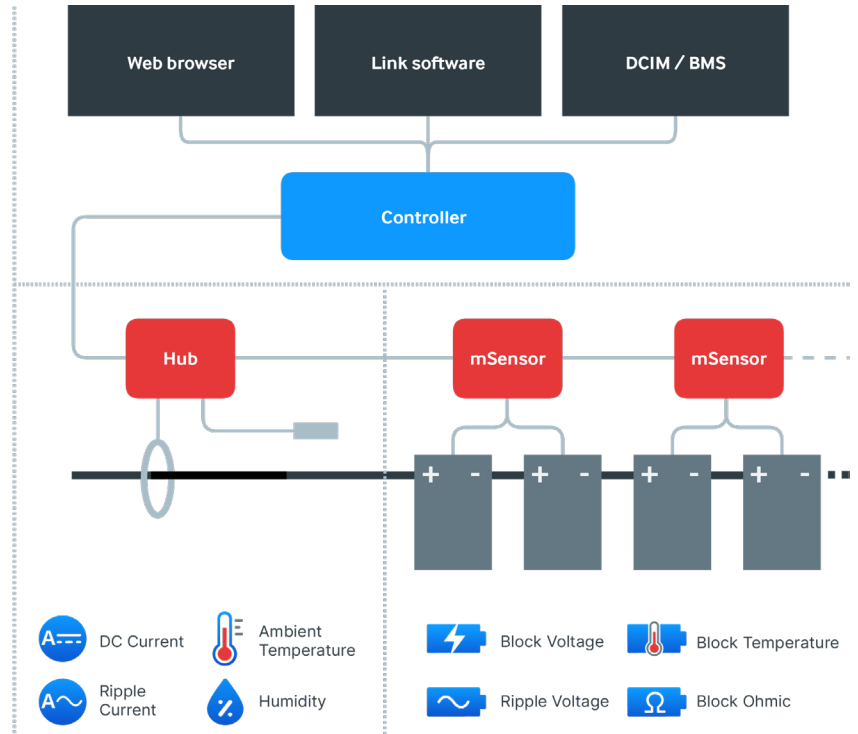
The Controller is at the heart of the PowerShield 8 system, a complete solution of hardware and software for monitoring an unlimited number of batteries. PowerShield 8 ensures maximum availability of your battery backup, while ensuring you get the most out of your battery investment.

<b>MEASURE with mSensors</b>	Gather individual voltage, impedance (Ohmic value) and temperature data, for VRLA, VLA and Ni-Cd batteries.	<b>PROCESS with the Controller</b>	At the heart of PowerShield 8, the Controller captures, processes and stores data from the battery sensors.
<b>RELAY with the Hub</b>	Applied per battery string, the Hub takes inputs from in-built sensors and sensors at the battery rack and consolidates for transfer to the Controller.	<b>MONITOR AND ANALYSE with Link software</b>	Comprehensive monitoring from a single control point, from batteries held in a single room through to large numbers of batteries held across multiple facilities or countries.

### About PowerShield

PowerShield specialises in the design, manufacture, installation and operation of advanced battery monitoring systems for organisations with critical services that rely on continuous power. PowerShield provide the most advanced and most cost-effective tools for monitoring and managing stand-by battery banks. PowerShield's continuous data sampling, reporting and battery management capability delivers reduced costs, peace of mind that you have batteries that perform when needed, and you are maximising the life of your batteries.

### Component-Diagram



### Hub

<b>Powered</b>	24Vdc supplied by Controller	<b>Digital inputs</b>	1, voltage free
<b>Power consumption<sup>2</sup></b>	1.2W	<b>Relay outputs</b>	1 SPDT
<b>Current transducer input</b>	2	<b>Rating</b>	1A @ 30VDC, resistive*
<b>DC current</b>	0 -2000A	<b>Selectable</b>	Configurable to any alarm
<b>Typical resolution<sup>1</sup></b>	0.05A	<b>Temperature</b>	-10 to 80°C / 14 to 176°F
<b>Accuracy</b>	±1% + CT accuracy	<b>Resolution</b>	0.1°C / 0.18°F
<b>Accuracy</b>	±1% + CT accuracy	<b>Accuracy</b>	±1°C / 1.8°F
<b>Ripple current (AC)</b>	True RMS	<b>Relative humidity</b>	0 - 100%
<b>Typical resolution<sup>1</sup></b>	0.5A	<b>Resolution</b>	1.0%
<b>Accuracy</b>	±1% + CT accuracy	<b>Accuracy</b>	±3% @ 25°C / 77 °F, 20% to 80% RH
<b>Frequency range</b>	45 – 1000Hz	<b>Weight</b>	180 g / 0.40 lb
<b>Dimensions</b>	120mm x 25mm x 107mm (W x D x H)		

<sup>1</sup> Resolution dependent on CT model used, typical values are based on 400A CT.  
<sup>2</sup> With 1 CT connected

\*Contact PowerShield for further details.

### Installation Dimensions

Dimension	Maximum		Factory Sizes	
	Metres	Feet	Metres	Feet
A	75	246	-	-
B	50	164	3, 5, 10, 15	10, 16, 33, 49
C	25	82	-	-
D	15	49	3	10
E	-	-	0.2, 0.4, 0.7, 1.0	8, 16, 28, 39 inches

