

Float Current Monitoring System PBT-CCS-1



- Very highly accurate charge current sensor at extremely low currents.
- Monitors DC charge currents and AC ripple currents
- One PBT-CCS-1 per string and up to six daisy chained together, with CAT5, per site controller
- Detects reversal of current direction and send discharge event alarms.
- Predicts battery end of life and thermal runaway
- Early indicator of charger issues

The PBT-CCS-1 float current monitoring system is an accessory to the PowerAgent battery monitoring system. It consists of a current monitoring interface (CMI) unit and a float current monitoring sensor. The system accurately monitors changes in the DC charging current which are precursors of impending cell failure, as well as AC ripple currents which are indicators of charging system problems. The system also detects reversal of current direction indicative of a discharge condition and provides a alarm indication if a discharge event occurs.

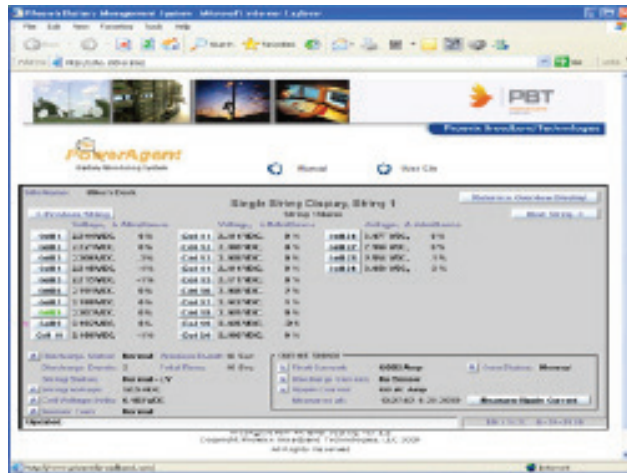
The float current sensor toroid is installed on a monitored current-carrying conductor. The conductor, which is typically either an interconnection cable or a bus bar, is passed through the aperture of the current measurement sensor. The float current sensor is plugged into a CMI. Multiple PBT-CCS-1 current monitoring systems can be connected to the site control unit's P-Bus daisy-chain using common CAT5 jumpers. Power is supplied to the CMI module over the P-Bus.

The CMI has a user-settable address switch. This switch allows the user to assign one of six P-Bus addresses to the CMI. The CMI has LED's that indicate the status of the current sensor as well as communications with the site control unit.

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Actual readings of the monitored currents, as well as user-definable alarm thresholds for minimum and maximum allowable current levels, can be viewed and modified via the Site Control Unit web interface.



Specifications

DC Float Current Measurement Range	10 mA to 8 A
DC Float Current Measurement Resolution	1 mA
DC Float Current Measurement Accuracy	5% of measurement, up to 6A
AC Ripple Current Measurement Range	0-30 A; average current reading
AC Ripple Current Bandwidth	2 KHz nominal
AC Ripple Current Accuracy	5% typical
Current Sensor Aperture	2.2", round
Current Monitoring Interface Dimensions	2.7" x 3.2"
Interface to Host	P-Bus RS485 on RJ45 connector; power supplied by daisy chain



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Preliminary data subject to change. Rev 2.0

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