Monitoring & Control

The Family

We live in a world where literally anything we want to know can be conjured up with a click of a mouse or a tick on a touch panel. With WhisperCare, we offer all relevant system information the professional or recreational user would like to have.



This is either trough our 5,7 and 10 inch WhisperTouch panels, a local control already in place or via the cloud, connecting to computer, tablet or cell phone. Our new OctoControl communication centre connects the WhisperPower products with the WhisperTouch panel and/ or (both is possible) to a third party screen. Read more about these devices on the next pages.





122





Go to Page 132



Smart Battery Monitor

WBM Series

Go to Page 134







Battery Status Interface

WPC-BSI-500

Go to Page 136





Go to Page 138



WhisperCare 1.5

Remote monitoring, control and power management

In 2016, WhisperCare 1.5 was added as an important additional feature to WhisperPower systems as a key source to obtain remote system data.

Remote read-out and control is essential to efficiently operate and support one or more systems. A good example are the mobile units of the NHS (National Health Service, United Kingdom), used for mammographic scanning, powered by WhisperPower OctoPower systems equipped with WhisperCare 1.5. WhisperPower's fleet manager, vehicle supplier and service department are directly connected to the systems by WhisperCare. Over 50 trailers are now operational using WhisperPower systems with WhisperCare 1.5.

From the panel, the WhisperPower Generator, the Sine Wave Inverter / Charger combination and the batteries can all be monitored and operated. If there is already a central panel installed, for example for the navigation, we also offer the possibility of using the existing panel to monitor the WhisperPower system via an interface.



Main Menu

- Choose from ENERGY, GENERATOR and SETTINGS
- The WPC's and AC / DC PowerCubes most important settings can be programmed using the WhisperTouch panel

Battery Monitoring

- Battery voltage (V) and current consumption in Amps
- Activated charge current (charger, alternator, solar panels)
- "Time remaining" indication showing the time the battery can be utilized
- Ampere consumption (Ah)
- WhisperPower Generator start battery voltage indication

WhisperTouch: Three sizes available

The WhisperTouch panel is available in 5, 7 and 10 inches. This high resolution, full colour panel comes complete with cables and connectors for connection to the inverters / battery chargers and if also installed, the WhisperPower generator.







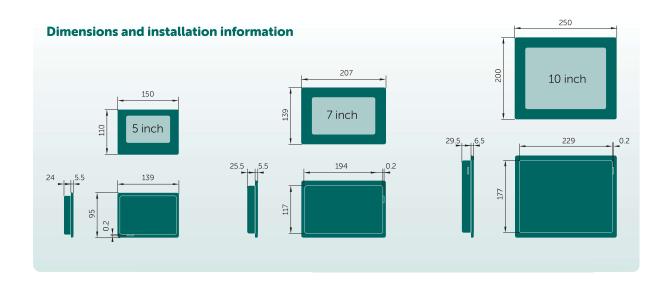
Series	5 INCH	7 INCH	10 INCH	
Article Number	40280105 (generator-only use)	40280101	40280102	
TECHNICAL SPECIFICATIONS				
Input voltage	6 - 42 VDC	6 - 42 VDC	15 - 36 VDC	
Power consumption	100 - 240 mA	150 - 750 mA	100 - 650 mA	
Dimensions *) (W x D x H) in mm	150 x 110 x 42	207 x 139 x 42	250 x 200 x 42	
Weight	250 g	300 g	500 g	
Operating temperature	- 25 up to 55°C	- 25 up to 55°C	- 25 up to 55°C	
Installation advice	for interior use	for interior use for interior u		
Scope of supply	WhisperTouch panel, RS232 connection for WPC-RS232 -i, RJ cable for WhisperPower generator, installation mar			

Compatible:

Yachtcontrol, Empirbus, NMEA 2000, Kabola, Webasto

*) Outside dimensions, Installation depth

WHISPERCONNECT TOOL



WhisperConnect Tool

The WhisperConnect Tool is one tool for monitoring, controlling and configuring your WhisperPower energy system. The WhisperConnect Tool uses the WhisperConnect CAN-bus to communicate to all WhisperPower equipment with WhisperConnect capabilities in a system. Simply connect the WhisperConnect CAN-bus to the computer using the supplied CAN to USB converter and you are ready to go. Due to the easy to use user interface you can have your system completely configured to your needs in no time at all.

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Article Number	40290370
DIMENSIONS & WEIGHT	
Weight	500 g
Dimensions (W x D x H)	230 x 320 x 70 mm
Storage temperature	-40 up to 80°C Relative humidity in operation/ storage up to 95% non condensing
SPECIFICATIONS	
Communication	WhisperConnect
Connection to computer	USB 2.0 type A
Connection to system	RJ45 or Micro C
RECOMMENDED SYSTEM	N REQUIREMENTS
Operating system	Windows 7 or higher
CPU	Core 2 Duo or Athlon X2 at 2.4 GHz
Memory	2 GB of RAM
Hard drive	128 MB of free space
	Sec.





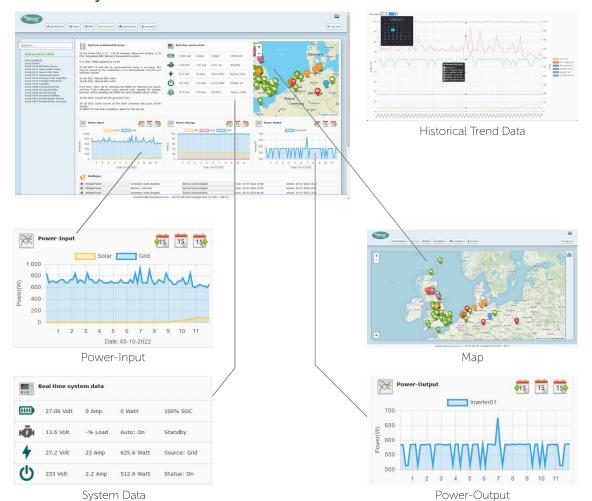
Functional telematics

A key feature of WhisperCare 1.5 is the detection of the location of a vehicle or a vessel with the signalling of any malfunctions, visible on the computer screens or cell phone screen of a fleet manager, service technician or even the owner.

Including the ability obtain detailed information, from the WhisperPower generator, Lithium battery, Sine Wave Inverter and Battery Charger. This includes internal temperature measuring of the equipment, time - to - go service intervals, state of charge of the battery - with sms alarms.



System maintenance and memo





WHISPERCARE 1.5 ROUTER Description

Article Number

WP-DC WhisperCare LTE Cat 4 ROUTER 4G with GNSS – Dual SIM *) 60116059

> $^{\star)}$ Router will be delivered without SIM card. SIM card to be bought and paid by the end user from local telecom provider. Additional charge for hosting the local WP server will be charged separately for remote monitoring and data logging. Price on request.















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Ani.	ININ.	702	,0,5,50

ART. NR. 40290360

ART. NR. 40290257

ART. NR. 40290258

ART. NR. 40290259

WhisperConnect terminator

WhisperConnect Splitter

Power Plus CAN-bus splitter

WP Power Plus CAN-bus terminator female

WP Power Plus CAN-bus terminator male

ART. NR.	WHISPERCONNECT PATCH CABLE
40290351	WhisperConnect Patch Cable 0.5 metre
40290352	WhisperConnect Patch Cable 1.5 metre
40290353	WhisperConnect Patch Cable 3 metre
40290354	WhisperConnect Patch Cable 6 metre
40290355	WhisperConnect Patch Cable 10 metre
40290356	WhisperConnect Patch Cable 15 metre
40290357	WhisperConnect Patch Cable 25 metre
40290358	WhisperConnect Patch Cable 100 metre
40290365	WhisperConnect DIY Patch Cable (do it yourself)





Control and monitoring of the WhisperPower generator

- Start/stop including ignition period
- Set automatic start based on DC voltage
- Indication of starter battery condition
- Current (A), voltage (VAC), frequency (Hz) read outs
- Time to service indication
- Logged running hours

Remote control and monitoring: inverter / battery charger WPC & Battery

- Switch the entire inverter system ON-OFF
- Charger-only the inverter is not activated if land power is switched off or cuts out
- · Advanced battery monitoring
- Set land power amperage
- · Inverter status indicator
- · Battery charger status indicator
- AC power input voltage
- AC power output voltage

Brand connections:













Next generation cloud-based

With its in-house developed WhisperCare 2.0, WhisperPower has taken the next step towards secure, robust, easily accessible and cost-effective remote monitoring. Security and compliance are important to WhisperPower, the highest standards have been incorporated in the design.

Implementation of the new software in WhisperPower's systems is ongoing, linking to other systems such as navigation systems are easily achieved. The range of OctoControl interfacing devices makes connectivity at various system levels (local, cloud-based) easy.



Portal

Developed and maintained for end-users, fleet managers, dealers and service engineers alike.

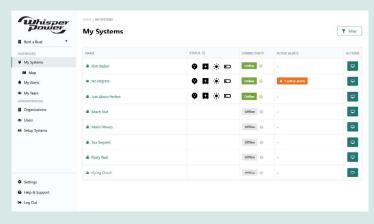
Using WhisperCare leads to:

- Increased system efficiency
- Saves costs on cost of operation
- Pro-active support

Benefits of using the WhisperCare cloud portal

- Full control of your system from everywhere
- Uptime improvement using connectivity
- Performance improvement owed to data analysis
- Cost reduction through pro-active maintenance and support

Watch the status of all your systems in a single overview, on a map or in a summarized list. View a summary of advanced alerts, alarms and notifications from all your WhisperPower systems.



Real time monitoring

Detailed real time information, both on system level and on single device level.

WP-ECU Strongs Why-Ecu Why-firm Mass Mass

Historical trend data

Historical analytic gives insight in the usage and status of your WhisperPower system over a longer time. Full data can be viewed in graphs up to 3 years ago. Useful for diagnostics and pro-active maintenance.

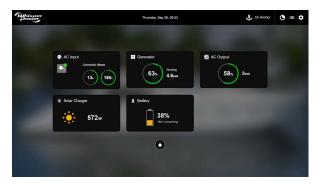
OctoControl User Interface

All information from your WhisperPower energy system (or OctoPower system) centralized and presented in an easy to read format. The OctoControl modules collects real-time information from your WhisperPower system, processes it and displays it on your WhisperPower Touch monitor, a third party MFD or in the WhisperCare cloud interface.

Smart features:

- Generator automatic run request
- Day and night profile
- Advanced alerts, alarms and notifications

Thanks to the smart WhisperCare software, seamless integration to third parties like Garmin, Raymarine and Simrad is possible to control the complete Whisper-Power system from your navigation screen, and other Multi functional displays.





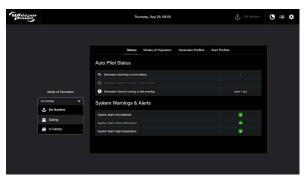
All system information presented in an easy to read format Full details and control of all WhisperPower equipment







Summarized input and output power data combined from all chargers in a system



Smart features allows the use of automatic generator requests, different user profiles



OctoControl Interfaces

OctoControl Gateway

Brings your WhisperPower system online in the cloud. Easy to install and use. It comes with built-in 4G connection and integrated E-sim, including three year data subscription as a standard.



OctoControl Basic

Ideal for integrating your WhisperPower system into a third party MFD, like Garmin, Raymarine, Simrad, B&G.



Readout on third party
MFD touch panels

Smart system control modules, like auto start

No WhisperCare cloud integration

WhisperConnect connection to your WhisperPower system

Connections

Power supply -

Ethernet connection for MFD integration ———



OctoControl

Series GATEWAY		BASIC	PRO	
Article Number 60208010		60208015	60208025	
SPECIFICATIONS				
Input voltage	8-32 VDC	8-32 VDC	8-32 VDC	
Power consumption	< 100 mA at 12 VDC *	< 500 mA at 12 VDC *	< 500 mA at 12 VDC	
Operation temperature	-20°C to +40°C	-20°C to +40°C	-20°C to +40°C	
Storage temperature	-40 up to 80 °C, F	Relative humidity in operation/ storage up to 9	95% non-condensing	
TECHNICAL SPECIFICATIONS				
System communication	WhisperConnect only	WhisperConnect only	WhisperConnect***	
System support Up to 3 WhisperConnect devices Cloud integration Yes		Complete WhisperConnect systems	Complete WhisperPower systems Yes Builtin 4G **, Ethernet	
		No		
Cloud connection				
OctoView support			Yes	
OctoView connection N.A.		N.A.	HDMI, USB	
MFD brands supported	N.A.	Raymarine, Garmin, Simrad, B&G, Furuno**	Raymarine, Garmin, Simrad, B&G, Furuno*	
MFD connection N.A.		Ethernet	Ethernet	
TECHNICAL SPECIFICATIONS				
Dimensions (W x D x H) in mm	Dimensions (W x D x H) in mm 107 x 40 x 140 *		267 x 40 x 145	
Weight (kg)	< 0.5 *	< 0.5 *	< 0.5	
Installation advice For interior use		For interior use	For interior use	



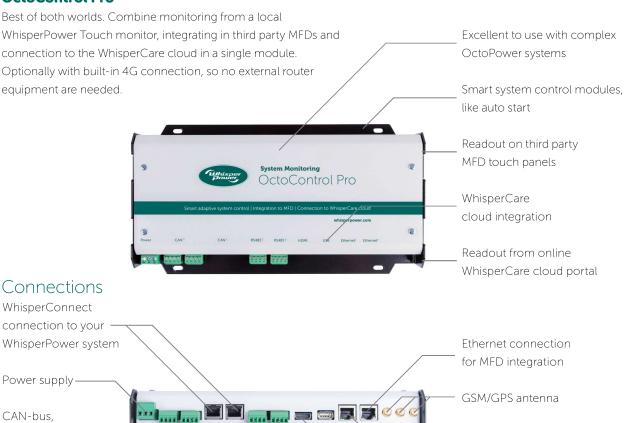
OctoControl Pro

configurable

for third party devices

Dual RS485 communication,

configurable to use for DDC bus

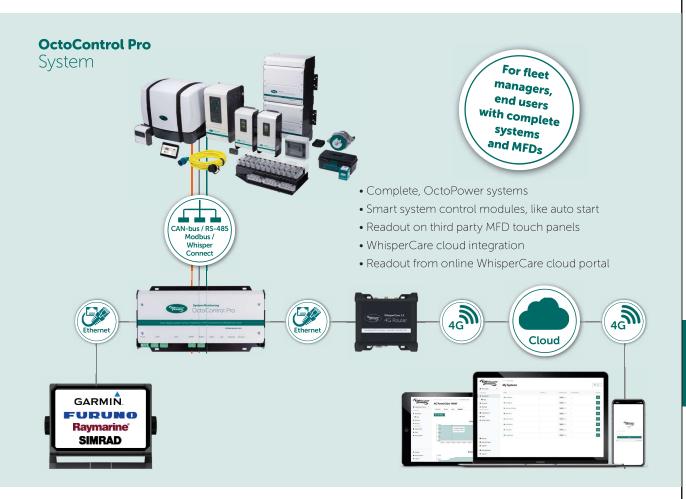


Ethernet for

cloud integration

HDMI output for use with

WhisperPower Touch monitor



Battery Monitor

BMSS PRO

The BMSS Battery Monitor Smart Shunt completes your WhisperPower energy supply system by providing full details about the state of your battery or battery bank. All information is communicated via WhisperConnect, thereby integrating this product into a range of battery chargers, generator sets and inverters from WhisperPower, to be read out by the WhisperTouch control panels.

The BMSS Pro is a professional measurement device which has to be installed close to the battery. In combination with one of the WhisperTouch panels, this is the most advanced battery monitor you can find. The BMSS controls the key parameters of the batteries: automatic charge devices can be programmed such as a battery charger, Combi and a diesel generator. The BMSS Pro matches perfectly with all other interface devices and makes the system rock solid.

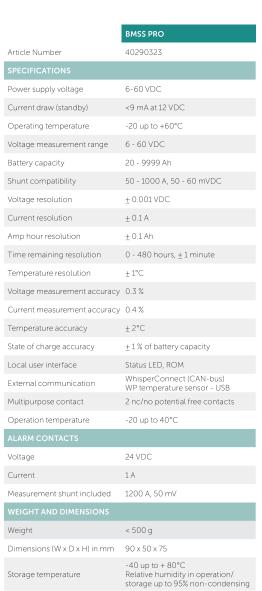


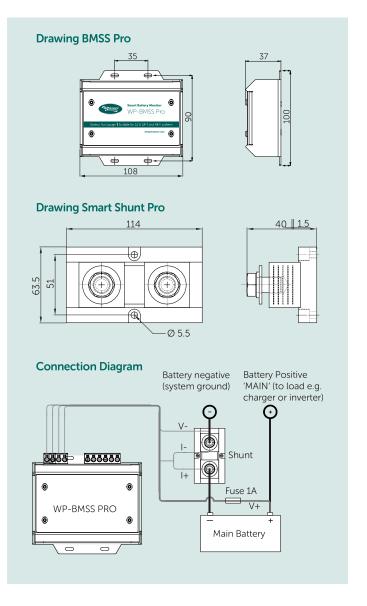












Smart Battery monitoring - the traditional way

A look inside the battery

When putting together a DC installation, there is more to take in to consideration than just the correct choice of battery and associated charging systems. All sorts of other items can have something to do with the battery or are connected to it and can significantly impact the end result.



		WBM-MODULAR SMART SHUNT *)		
Article Number		40290313		
TECHNICAL SPECI	FICATIONS			
Supply voltage rang	е	7 - 70 VDC		
Supply current **)	at 24 VDC	6 mA		
	at 12 VDC	10 mA		
Input Voltage range	(auxiliary battery)	7 - 70 VDC		
Input Voltage range	(main battery)	1 - 70 VDC		
Input current range	ampere ***)	-600 up to 600 A		
Battery capacity (mi	n max.)	10 - 10.000 Ah		
Operating temperat	ture	-20 up to 50°C		
Readout accuracy:	voltage	± 0.01 VDC		
	current	± 0.1 A		
	battery capacity	± 0.1 Ah (0 - 10.000 Ah)		
	battery capacity	±1 Ah (200 - 10.000 Ah)		
	start of charge (0 - 10 %)	± 1 %		
	time remaining (0 - 24 h)	±1 minute		
	time remaining (24 - 240 h)	±1hour		
	temperature (-20 up to 50°C) ****	± 0.5°C		
Voltage measureme	ent accuracy	± 0.3 %		
Current measureme	ent accuracy	±1A(0.600A)		
Housing material		ABS		
Colour		RAL 7021 black grey		
Dimensions: diameter front panel / cylinder		ø 64 mm / ø 51.5 mm		
Weight		Display: 70 g Shunt: 260 g		
Shunt Dimensions (W x D x H) in mm	100 × 100 × 64		
International Protec	tion rating	IP20 (front panel IP65)		

Dimensions WBM Modular Smart Shunt Smart Shunt Display Ø 64 00 100 *) Shunt to meter cable included $\ensuremath{^{\star\star}}\xspace$) Measured with backlighting and alarm relay switched off ***) Subject to selected shunt. With 500 A / 50 mV shunt (350 A continuous delivered as standard the range is -600 up to 600 A ****) Only available if optional temperature sensor (Art. Nr. 40290304) is connected







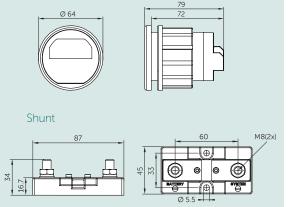


WBM Series

Series	WBM-BASIC	WBM-PRO	
Article Number	40290310	40290311	
TECHNICAL SPECIFICATIONS			
Supply voltage range	9 - 35 VDC	9 - 35 VDC	
Supply current *) at 24 VDC	7 mA	7 mA	
at 12 VDC	9 mA	9 mA	
Input Voltage range (auxiliary battery)	2 - 35 VDC	2 - 35 VDC	
Input Voltage range (main battery)	0 - 35 VDC	0 - 35 VDC	
Input current range ampere **)	-999 up to 999 A	-999 up to 999 A	
Battery capacity (min max.)	20 - 999 Ah	20 - 999 Ah	
Operating temperature	-20 up to 50°C	-20 up to 50°C	
Readout accuracy: voltage	± 0.1 VDC (0 - 35 VDC)	± 0.1 VDC (0 - 35 VDC)	
current	± 0.1 A (0 - 100 A)	± 0.1 A (0 - 200 A)	
current	± 1 A (100 - 999 A)	±1 A (200 - 999 A)	
battery capacity	± 0.1 Ah (0 - 100 Ah)	± 0.1 Ah (0 - 200 Ah)	
battery capacity	±1 Ah (100 - 999 Ah)	±1 Ah (200 - 999 Ah)	
start of charge (0 - 10 %)	± 0.1 %	± 0.1 %	
time remaining (0 - 24 h)	N/A	±1 minute	
time remaining (24 - 240 h)	N/A	±1hour	
temperature (-20 up to 50°C) ***	N/A	± 0.5°C	
Voltage measurement accuracy	± 0.3 %	± 0.3 %	
Current measurement accuracy	± 0.4 %	± 0.4 %	
Housing material	ABS	ABS	
Colour	RAL 7021 black grey	RAL 7021 black grey	
Dimensions: diameter front panel / cylinder	ø 64 mm / ø 52 mm	ø 64 mm / ø 52 mm	
Total depth / weight	79 mm / 95 g	79 mm / 95 g	
Shunt Dimensions (W x D x H) in mm	87 x 45 × 34	87 x 45 x 34	
Weight (Shunt + Meter)	145 g	145 g	
International Protection rating	IP20 (front panel IP65)	IP20 (front panel IP65)	

Dimensions WBM Basic/Pro

Display



*1 Measured with backlighting and alarm relay switched off

**) Subject to selected shunt. With 500 A / 50 mV shunt (350 A

continuous) delivered as standard the range is -600 up to 600 A

***) Only available if optional temperature sensor

(Art. Nr. 40290304) is connected

Battery usage indicator - knowledge is power

The WBM is a universal battery monitor that displays the status of the battery with very high precision. Via the display, the following information is brought up:

- The main battery voltage (VDC)
- The power consumption indicated in ampere-hours (Ah)
- Power consumption in Amps (A)
- Charge current of battery charger,
 Combi, solar panels, windmills, etc. (A)
- Battery capacity in %
- Remaining battery capacity and "time remaining" in minutes and hours (Pro Series) The WBM provides a look 'inside' the battery and is essential for preserving long battery life

Remote communication

The WBM, fitted with the WPC-RS232-i option, can be used to remotely monitor power systems using a GSM or an internet connection.

Three versions

The WBM Basic version is identical to the PRO version, only without the "time remaining" indicator in hours and minutes. The PRO-HV is suitable for DC systems up to 70 VDC.

Automatic start function

The WBM can also be used as a means of automatically starting a DC or AC generator, based on the battery voltage or battery condition. This is achieved via WPC-RS232-i communication (order WPC-RS232-i option) Please note that your generator must be suitable for this function. WhisperPower generators are equipped with an automatic start / stop adjustment kit as standard.





Art. Nr. 40290304 WBM Temperature Sensor Kit - 10 metre

Battery Status Interface

One of the most important indicators for a safe and effective operating of an energy system with batteries is their state of charge. The BSI offers, for WhisperPower Center, a highly precise measuring and an extremely efficient algorithm that calculates the state of charge in the most accurate way.





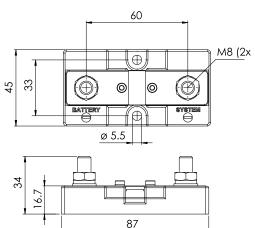
By adding the WPC data logger (see page 138), provides the data logging, the graphical • Voltage display of the state of charge history and the settings. Values of the BSI can be used in the programming of the WPC Series. Values can be displayed like for instance:

- State of charge
- Current
- Time to go
- Throughput energy
- Battery temperature



SHUNT Article Number 60201087 Standard included Shunt 500 A / 50 mVDC 60201088 Optional Shunt 1200 A / 50 mVDC





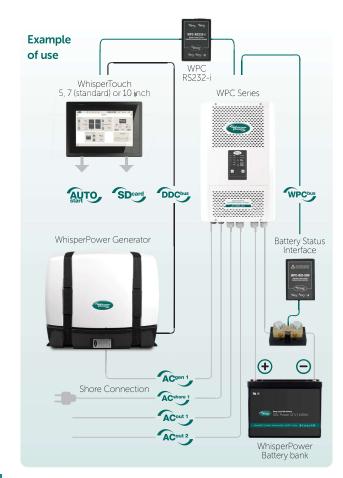
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	WP-BSI-500			
Article Number	60201082			
SPECIFICATIONS				
Supply voltage range	7.85 VDC			
Supply current	9 mA at 12 VDC 5 mA at 24 VDC 3 mA at 48 VDC			
Input voltage range	7.85 VDC			
Shunt measurement input range	± 195 mV			
RMS continuous current at 25 °C	± 500 A			
Maximum measurable peak current	± 1950 A			
Voltage measurement accuracy	0.3 %			
Current measurement accuracy	0.5 %			
Battery capacity	20 - 20000 Ah			
DEADOLIT RESOLUTION				

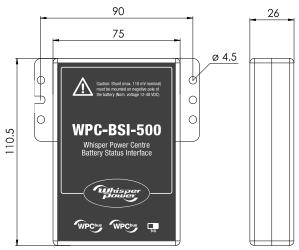
	Voltage	± 0.01 VDC	
	Current (A) and capacity (Ah)	± 0.01 VDC ± 0.1 VDC ± 1 VDC	(1 to 10) (10 to 100) (100 to 9999)
	State of charge	± 0.1 %	
	Temperature	± 0.1°C	
	Time to go	+1 second	

Battery voltage
Current, state of charge
Power used
Time to go
Battery temperature
Relative capacity
Historical Ah data
Total Kah charged
Total Kah discharged
Total time: Charge counting in Ah and hr.

Operation temperature	-20 up to 40°C
Dimensions (W x D x H) in mm	75 x 26 x 110.5
Weight	900 g
Protection degree	IP20
Conformity	LVD 2006/95/EC, EMC 2004/108/EC, RoHS 2002/95/ECEN 60950:2005, EN 61000-6-2:2005, EN 61000-6-3:2007







WhisperPower Center Communication Interface

The WPC is an allround sine wave inverter/charger, designed to operate as the heart of a complete energy system, equipped with or without generator.



The WPC can operate as an offgrid inverter-only, or inverter/ battery charger combined, features a build - in "traffic" system between various AC sources and produces additional output power when connected in parallel to AC mains/ land power and / or generator power. The WPC product is premium system component, based on low-frequency, toroidal transformer technology with heavy duty, high efficient mosfets taking care of an accurate alternating current (AC) current. WhisperPower can configure the WPC's by stacking the units in parallel up to 72 kVA output power, in single or three phase.

System link

The WPC is fitted with an RS232 analogue communication port which can be used to link the WPC to a complete WhisperPower system and the WhisperTouch panel (and WhisperCare) in particular. In this chapter all relevant components are described which are required to set - up the WPC for a proper system integration. The main accessory is the WPC - RS232 interface, which enables to read out all essential information from the WPC and change, if needed, change parameters to adapt the configuration. This device is enabling data transmission to GSM modems, computers and RS232 bridges to TCP/IP. The integrated SD card stores all important data related to the entire power systems including the process of battery charging, battery usage, load connected and the behavior, charge cycles etc.

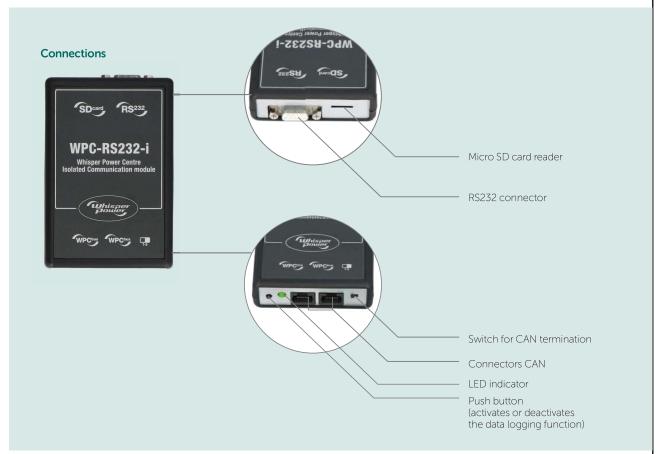


138

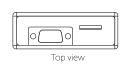


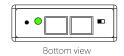
WPC-RS232 communication

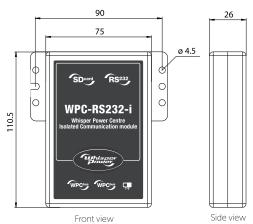




Dimensions







139