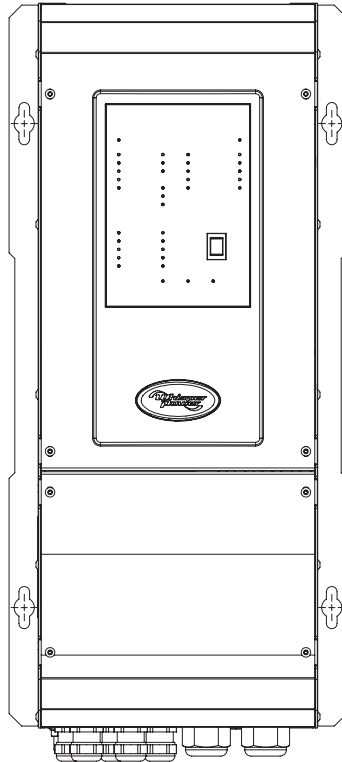




# Battery Charger/Power Supply DC PowerCube

Diesel powered battery charger | Utility/ Shore powered battery charger



## Features and Benefits

- High power: 4.5kW/ 150A (24V) diesel battery charging (24VDC)
- High Power 3.5kW/ 120A (24V) battery charging when connected to shore/land
- 2nd DC output to charge auxiliary battery (20A, multi-step)
- Wide input voltage range (when connected to land power 90-264VAC, 45-65Hz)
- 3-step charge characteristic with temperature sensor
- Fully automatic, in diesel mode: variable speed regulation with automatic switch-off
- Suitable to charge open lead acid, GEL, AGM and Lithium batteries
- For commercial and recreational applications.
- Connectable to our 1/2/3 Cylinder GENVERTER diesel generator.

### WP-DC POWERCUBE 24/150

Article Nr. 60202002 / Battery charger

#### GENERAL SPECIFICATIONS

Nominal battery voltage	24 VDC
Charge current	0-150 A (protected against short circuit)
Output voltage	26.5 .. 28.5 VDC
Recommended battery capacity	300 to 1500 Ah
Charge characteristic	Three step charging characteristic, configurable
Secondary charge output	12 V/20 A (three steps) protected against short circuit (24 V/5 A optional)

### WP-DC POWERCUBE 48/80

Article Nr. 60202003 / Battery charger

#### GENERAL SPECIFICATIONS

Nominal battery voltage	48 VDC
Charge current	0-80 A (protected against short circuit)
Output voltage	43.0 .. 57.0 VDC
Recommended battery capacity	200 to 1000 Ah
Charge characteristic	Three step charging characteristic, configurable
Secondary charge output	12 V/20 A (three steps) protected against short circuit (24 V/5 A optional)



# Battery Charger/Power Supply

## DC PowerCube

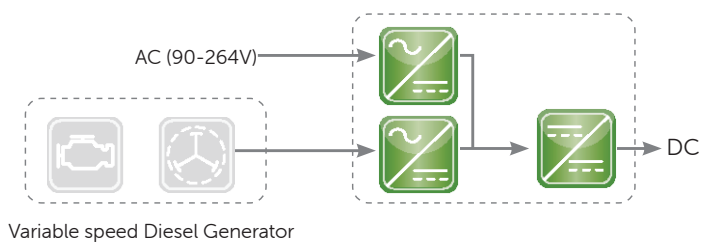
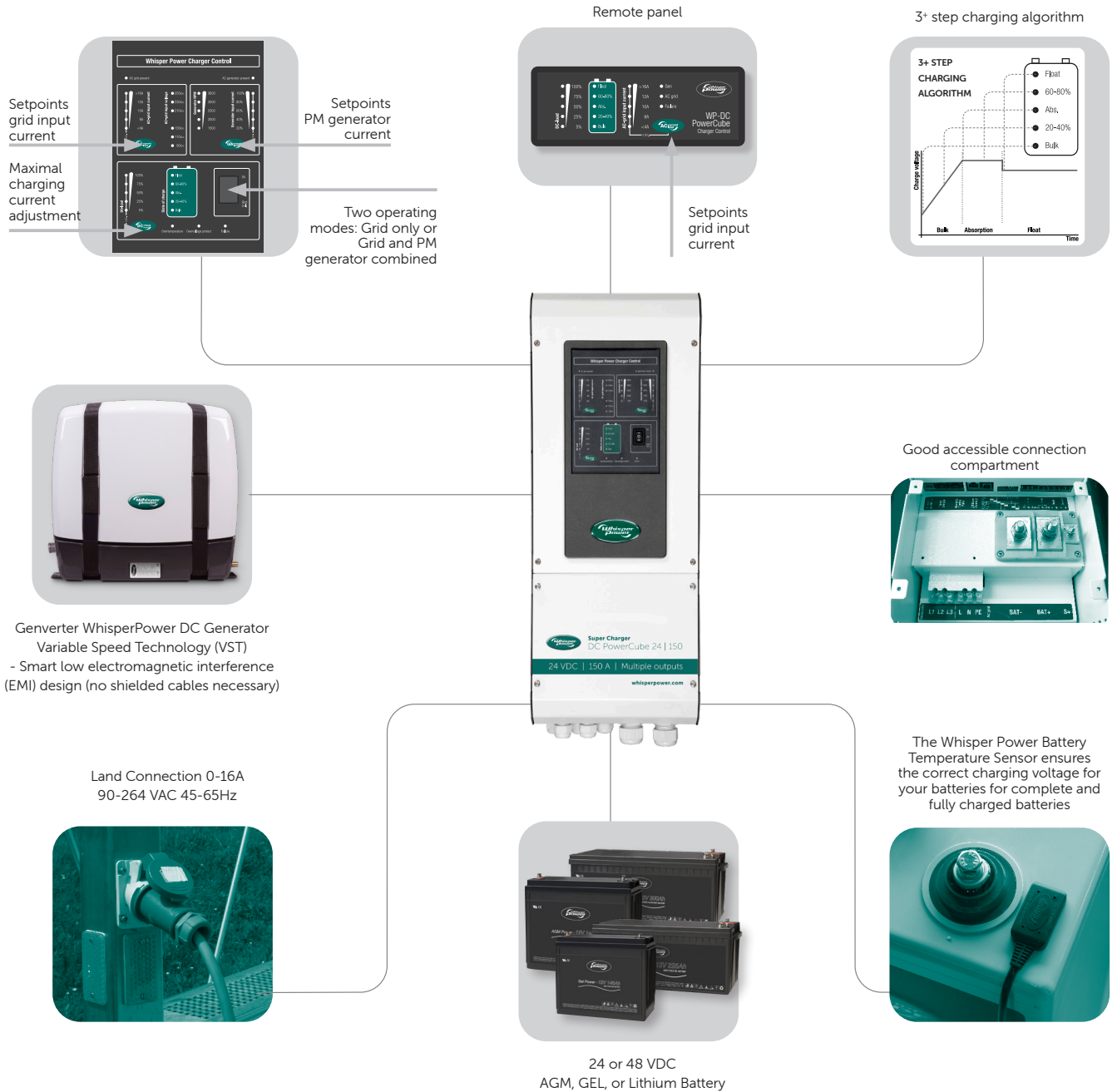
### Application Data 1

	WP-DC POWERCUBE 24/150	WP-DC POWERCUBE 48/80
Article Nr.	60202002 / Battery charger	60202003 / Battery charger
<b>INPUT SPECIFICATIONS</b>		
AC voltage	90 .. 264 Vac (45 .. 65Hz), 3 wire	90 .. 264 Vac (45 .. 65Hz), 3 wire
Input current	Adjustable from 2 A to 16 A	Adjustable from 2 A to 16 A
Power factor (cos ph)	> 0.9	> 0.9
Genverter® current	80 .. 300 Vac (45 .. 65Hz), three phase	80 .. 300 Vac (45 .. 65Hz), three phase
Input current from Genverter®	Adjustable from 2 A to 14.5 A	Adjustable from 2 A to 14.5 A
Power factor (cos ph)	> 0.85	> 0.85
Power factor correction	In accordance with EN 61000-3-2	In accordance with EN 61000-3-2
<b>TECHNICAL SPECIFICATIONS</b>		
Temperature Compensation	-30 mV/°C	
Battery type	Open and closed lead acid (GEL/traction/AGM/spiral) and Lithium	
Leakage current	<5 mA per battery bank	
Charge voltage	Bulk, absorption, float	
Charge voltage AGM / GEL at 25°C	28.50 VDC, 28.50 VDC, 27.60 VDC	57.00 VDC, 57.00 VDC, 55.20 VDC
Charge voltage traction battery at 25°C	29.20 VDC, 28.90 VDC, 27.60 VDC	58.20 VDC, 57.80 VDC, 55.20 VDC
Charge voltage open lead acid at 25°C	28.50 VDC, 28.50 VDC, 26.50 VDC	57.00 VDC, 57.00 VDC, 53.00 VDC
Charge voltage Lithium at 25°C	28.80 VDC, 28.80 VDC, 27.60 VDC	57.60 VDC, 57.60 VDC, 55.20 VDC
Switch point absorption-float	at 6% of I <sub>max</sub>	at 6% of I <sub>max</sub>
Charge status PowerCube on/off	Digital output (relay, two-way contact)	
Failure condition present	Digital output (relay, two-way contact)	
DC PowerCube disabled	Digital input (potential free, disabled if closed)	
Genverter® input disabled	Digital input (potential free, disabled if closed)	
Conforms to	EMC Directive 2004/108 / EC: EN 61000-6-1, EN 61000-6-3, EN 55014, EN 55022, EN 61000-3-2, EN 62040-2 Low Voltage Directive	
<b>PROTECTIONS</b>		
Protection against overheating	Yes, derating above 40°C, shuts down at high temperatures (automatic restart once cooled down)	
Over voltage protection (manual restart needed)	36 ± 0.5 VDC	68 ± 0.5 VDC
Ingress Protection rating	IP21	IP21
<b>MECHANICAL SPECIFICATIONS</b>		
Main battery connection	2x threaded M10 screws	2x threaded M10 screws
Secondary battery connection	1x threaded M5 screws	1x threaded M5 screws
Earth clamp	1x threaded M6 screws	1x threaded M6 screws
AC input	M3 triple terminal block	M3 triple terminal block
Genverter® input	M3 triple terminal block	M3 triple terminal block
Remote control panel	RJ12	RJ12
Battery temperature sensor	RJ12	RJ12
WhisperConnect CANbus	RJ45	RJ45
Voltage measurement	Phoenix MSTB 2.5/2-ST-5.08	Phoenix MSTB 2.5/2-ST-5.08
Digital outputs	6x faston (6.3x0.8)	6x faston (6.3x0.8)
Digital inputs	4x faston (6.3x0.8)	4x faston (6.3x0.8)
Dimensions (W x D x H) (mm)	268 x 316 x 575	268 x 316 x 575
Operating temperature range	-20 .. 55°C (power reduction above 40°C)	-20 .. 55°C (power reduction above 40°C)
Relative humidity during operation	to 95%, non-condensing	to 95%, non-condensing
Cooling	Combined (convection and variable mechanical)	
Weight	26 kg	26 kg
Noise level	<52 dB	<52 dB
Warranty	2 years	2 years
Accessories (standard supply)	Battery temperature sensor and remote control panel	



# Battery Charger/Power Supply DC PowerCube

## Functional Diagram

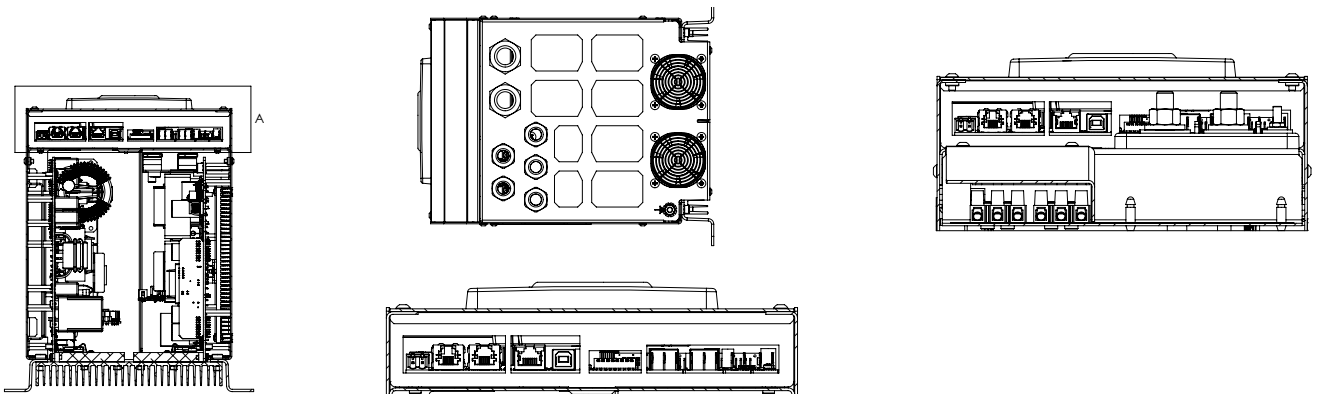
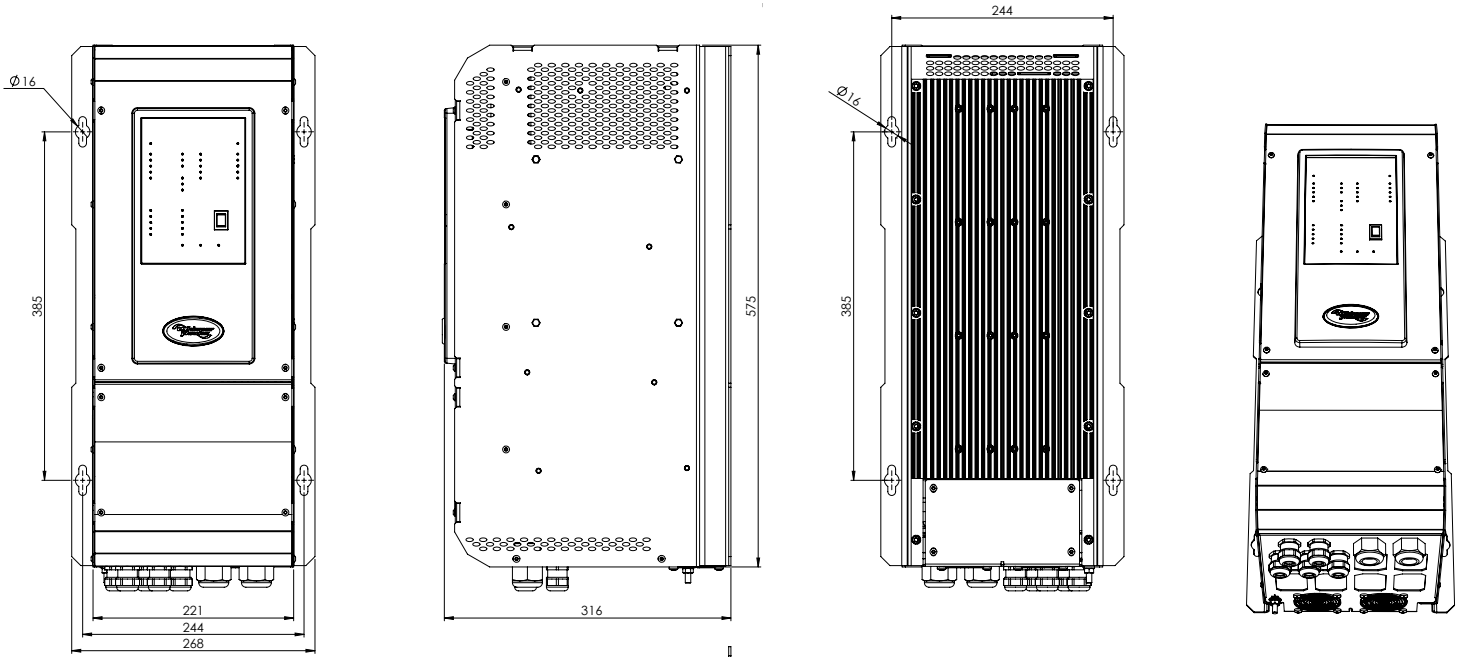


- 3.6 kW uni-directional single phase wide input PFC, AC to DC-link.
- 4.0 kW uni-directional 3-phase multi phase step-up booster, AC to DC-link.
- 4.5 kW uni-directional DC-DC converter (galvanic isolated)



# Battery Charger/Power Supply DC PowerCube

Installation drawing for wall & table top installation | Dimensions in mm



DETAIL A  
SCALE 2:3



# Battery Charger/Power Supply DC PowerCube

## Drawing 3

### ART. NR. ITEM

60201201	WP-BTS-1.5m Whisper battery temperature sensor 1.5 mtr
60201202	WP-BTS-6.0m Whisper battery temperature sensor 6 mtr
40290313	WP-WBM Battery Monitor Modular Smart Shunt
40290323	WP-BMSS pro - Battery Monitor Smart Shunt Pro

### COMPACT BATTERY SWITCHES, 300 AMPS 600 AMPS 12, 24 VDC

50214701	WP-Compact Manual Battery Switch 300 Amp, single circuit ON-OFF
50214702	WP-Compact Manual Battery Switch 300 Amp, dual circuit
50214703	WP-Compact Manual Battery Switch 300 Amp, dual circuit & selector switch battery switch
50214705	WP-Compact spare knob
50214706	WP Compact identification label
50214707	WP-Compact paralleling DC busbar, 300 Amp

### HEAVY DUTY BATTERY SWITCHES, 300 AMPS 600 AMPS 12, 24 VDC

50214711	WP-HD Manual Battery switch 600 Amp, single circuit ON-OFF
50214712	WP-HD Manual Battery switch 600 Amp, dual circuit
50214715	WP-HD spare Knob
50214716	WP-HD identification label
50214717	WP-HD paralleling DC busbar, 300 Amp

### REMOTE BATTERY SWITCH, BISTABEL (NO DC CURRENT DRAIN)

50214731	WP-Magnetic Latch Battery Switch, 500 Amp, 12 VDC, incl. remote switch
50214732	WP-Magnetic Latch Battery Switch, 500 Amp, 24 VDC, incl. remote switch

### WBI-SERIES WHISPER POWER BATTERY ISOLATOR - WITHOUT VOLTAGE DROP

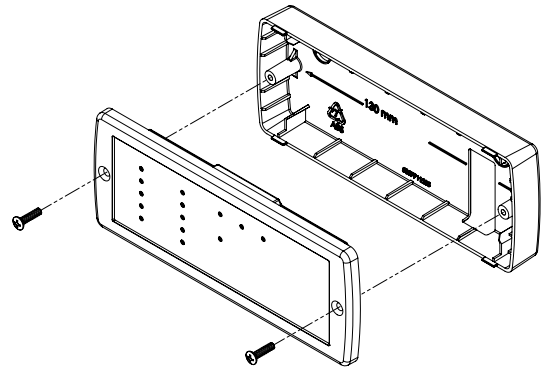
60115002	WBI 150-2IG 1 DC input, 2 DC outputs, 150 Amp
60115003	WBI 150-3IG 1 DC input, 3 DC outputs, 150 Amp

### WBI-VG BATTERY ISOLATOR VOLTAGE GUARD - SWITCH OFF AT LOW BATTERY VOLTAGE

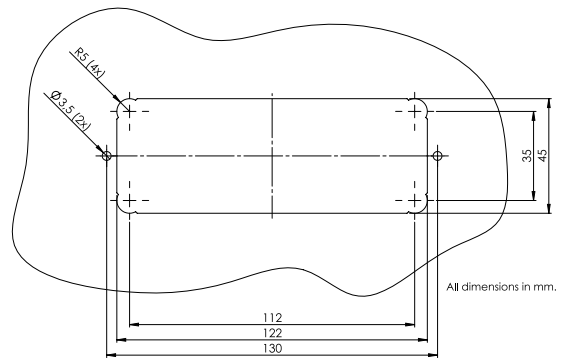
60110200	WVG-200 12 or 24 VDC, 200 Amp
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### WBL - SMART MICROCONTROLLER BATTERY LINK - LOW VOLTAGE LOSS

60110120	WBL-120 Battery Link, 9 -35 VDC, 120 Amp cont., 180 Amp maximal
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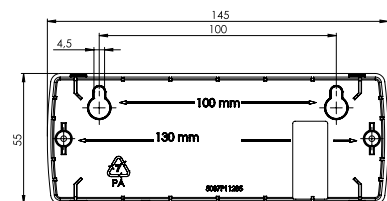


Remote Control Panel Mounting



All dimensions in mm.

Cutout pattern for mounting in the dashboard



Dashboard mounted drilling pattern