tbs electronics

THE POWER OF QUALITY

Powersine Combi

2000-12-80, 2500-24-50, 3000-12-120 and 3500-24-70

Description

The PSC2000-12-80 up to PSC3500- 24-70 Powersine Combi products are based on the latest generation Powersine inverter engine, which guarantees very reliable operation and huge output power reserves. The Powersine Combi also features a powerful intelligent battery charger and an ultra fast AC transfer switch. All this is combined in a very compact, yet installer friendly unit.

The Powersine Combi offers many innovative features like AC Input Power Boost, which temporarily assists weak AC input sources when more power is needed than available. Another feature is AC Input Current Limit, which limits the maximum current consumed from the AC input source by the Powersine Combi in charger mode.

Furthermore, the Powersine Combi is equipped with a TBSLink port to connect to a remote control or to a Windows device running TBS Dashboard, for easy step by step configuration and readout.

Also available are two fully configurable 16A alarm relay outputs and two unique trigger inputs, that can convert external trigger commands into a number of Powersine Combi status changes.

Each Powersine Combi comes standard with a mounting kit, a temperature sensor, crimp terminals for DC cables and clear manuals.

Features

- True sinewave AC output
- Robust industrial design
- High surge power output
- Powerful 4-stage two output battery charger
- Power factor corrected AC input
- Fast 30A AC transfer switch
- AC Input Power Boost
- AC Input Current Limit
- Protected against high/low battery voltage, high temperature, overload, short circuit, high ripple voltage and low AC input voltage
- Automatic Standby function to reduce no-load
- power consumption
- Variable speed fan for silent operation
- Remote on/off capability
- Two programmable 250V/16A relays
- Two trigger inputs
- Remote control capability via TBSLink
- Easy to access connection bay for installing AC-, DC and control wiring
- CE certified
- 24 month warranty 24 month warranty

Applications

- Recreational vehicles
- Marine applications
- Solar power systems
- Industrial systems
- Mobile entertainment systems
- Service vehicles
- Remote homes

Accessories

- Universal Remote Control with LCD
- Basic Remote Control with LEDs

Basic Combi Remote Control, art # 5095210

- TBSLink communication kit including software
- Alarm output expander

Universal Remote Control (Powersine Combi), art # 5095500

TBSLink to USB Interface Kit, art # 5092120
(Includes TBS Dashboard for monitoring and configuring the Powersine Combi inverter/chargers)

Technical specifications

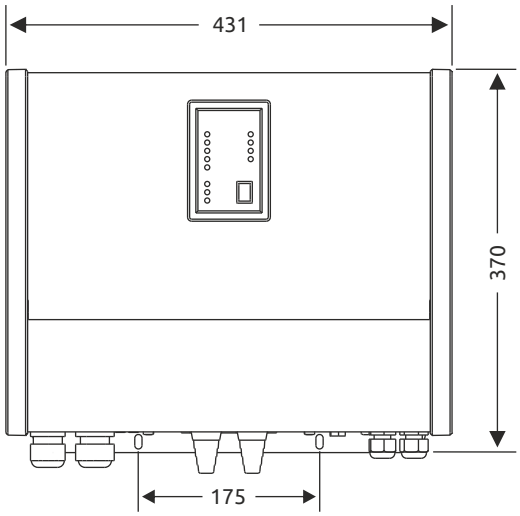
Parameter		PSC2000-12-80 art # 5018100	PSC2500-24-50 art # 5018120	PSC3000-12-120 art # 5018300	PSC3500-24-70 art # 5018320
Inverter stage					
Output power[1]	Pnom	1800W	2000W	2600W	2800W
	P10minutes	2100W	2500W	3200W	3800W
	Psurge	4000W	5500W	5000W	6500W
Output voltage		230Vac ± 2%			
Output frequency		50Hz or 60Hz ± 0.05% (selectable)			
Output waveform		True sinewave (THD < 5%1) @ Pnom)			
Input voltage	Nominal	12Vdc	24Vdc	12Vdc	24Vdc
	Range	10.0[2] – 16.5Vdc	20.0[2] – 33Vdc	10.0[2] – 16.5Vdc	20.0[2] – 33.0Vdc
Maximum efficiency		92%	93%	92%	93%
No load power consumption[3] **[ASB]**		<19W [2.0W]	<20W [2.0W]	<19W [2.0W]	<20W [2.0W]
Charger stage					
AC input voltage		185 - 270Vac / 45 - 65Hz / PF > 0.95			
Maximum continuous charging current[4] **(Secondary output)**		80A (4A)	50A (4A)	120A (4A)	70A (4A)
Standard charge voltage (bulk / float @ 25°C)		14.3Vdc / 13.3Vdc	28.6Vdc / 26.6Vdc	14.3Vdc / 13.3Vdc	28.6Vdc / 26.6Vdc
Charge algorithm		IUoUoP, intelligent 4-stage, temperature compensated (programmable)			
AC Transfer switch					
Maximum continuous current		30Arms			
Transfer time (typical)		0ms (inverter → mains) / < 5ms (mains → inverter)			
General					
Communication port		TBSLink			
Protected against		high/low battery voltage, high temperature, overload, short circuit, high ripple voltage and low AC input voltage			
Indications		Power on, output power bar, error and ASB mode			
DC input connections		M10 bolt terminals			
AC output connections		Screw terminals			
Enclosure body size (height x width x depth)		370 x 431 x 132 mm			
Total weight		18.5 kg	18.5 kg	19.0 kg	19.0 kg
Protection class / operating temp. / storage temp.		IP21 / -20°C to + 50°C / -40°C to + 80°C (humidity max. 95% non condensing)			
Standards		CE certified (EMC Directives UNECE Regulation 10 and 2014/30/EU, Low voltage Directive 2014/35/EU, RoHS Directive 2011/65/EU			

Note: the given specifications are subject to change without notice.

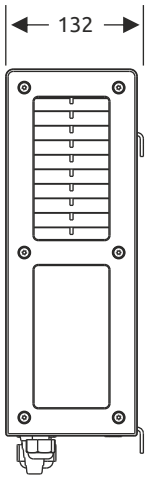
[1] Measured with resistive load at 25°C ambient. Power ratings are subject to a tolerance of 10% and are decreasing as temperature rises with a rate of approx. 1.2%/°C starting from 25°C
[2] Undervoltage limit is dynamic. This limit decreases with increasing load to compensate the voltage drop across cables and connections
[3] Measured at nominal input voltage and 25°C
[4] At high ambient temperatures, maximum output current shall be reduced automatically

Dimensions

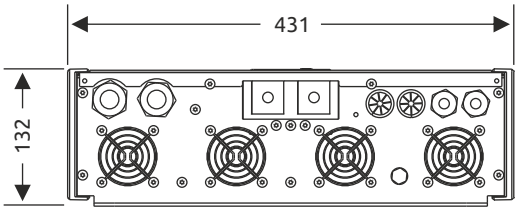
Front view



Side view



Bottom view



Measurement units: millimeters

Basic application diagram