

# Belt Power – Belt Driven 230 VAC Generator

marine • mobile



3.5 kW - 5 kW - 230 V/50 Hz

- Heavy-duty system to generate 230 V/50 Hz
- Stable, sine wave power at variable speed
- Compact & easy to install
- High efficient & compact generator solution
- Suitable to operate with Kombi's



smart energy solutions



smart energy solutions



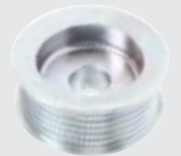
Beltpower	Art. Nr.	41301000	41302000
<b>Specifications</b>		<b>W-BD 3.5</b>	<b>W-BD 5</b>
Power (continuous)		3500 W	5000 W
Max current (continuously)		16 A	27 A
Max. inrush current (320 ms)		32 A	40 A
Voltage		230 V	230 V
Frequency		50 Hz	50 Hz
<b>Inverter box</b>			
Dimensions (h*w*d)		376*323*127 mm (app.)	
Net weight		9.6 Kg	9.6 Kg
Efficiency		95%	95%
<b>Generator</b>			
Net weight		6.9 Kg	6.9 Kg
Dimensions (h*w*d)		159*178*190 mm	
Voltage		200-340 V 3 phase	
Field voltage		14.4 V	14.4 V
<b>Remote Control Panel</b>			
Dimensions (h*w*d)		116*79*19 mm	

**How it works**

The WhisperPower W-BD alternator is designed for installation in the vehicle's or boat's engine compartment and has to be driven by a belt of one of the engine's pulley. In most cases an additional pulley has to be installed. The alternator's output is connected to an inverter/power supply, which converts the variable incoming current into a stable sine wave 230 V 50 Hz.

**Standard Pulleys and Pulleys to client specification**

Depending on the vehicle model, mounting brackets to mount the generator on the engine could be available or can be specially designed



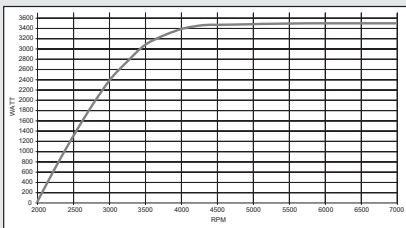
Pulley

**Safety alarms**

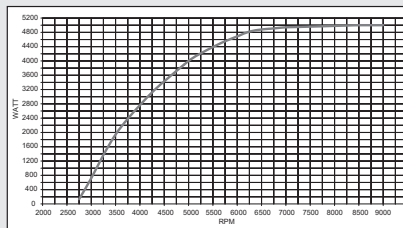
Short circuit, overload, over temperature, low/high rpm, low/high voltage

**Determine the pulley diameter design**

The graphs show the available AC power corresponding to the generator speed. The speed of 2 pulleys relate to each other proportional to the diameter of the pulleys. First one need to know the engine speed = crankshaft speed when idling and at full speed. When the drive pulley is not on the crankshaft the rpm of the pulley drive shaft must be determined. The pulleys should be selected in such a way that at low speed the generator can bring the power required. However the max. speed must not exceed 15000 RPM.



Speed/power diagram W-BD 3.5 (3.5 kW)



Speed/power diagram W-BD 5 (5 kW)

**Attention!**

The W-BD5 model needs 6500 RPM to generate 5 kW. Compared with the W-BD 3.5 the 5 kW model will also need more RPM (3200) to generate 1 kW. Refer to the graph.



Remote panel for Belt Power, with various settings

**Installation drawing w-bd generator**

