# Genverter® Piccolo Povver Generation

Adjustable Speed Marine Diesel Generators 4 | 6 | 8 | 10 | 12 | 15 | 18



Enjoy Green Energy

whisperpower.com

# Genverter<sup>®</sup> Piccolo

# Silent, Compact, Light-weight and Extremely Powerful

We apply advanced technology as used in e-mobility and renewable energy markets, resulting in the highest efficiency, lowest exhaust emissions and superior electrical output quality in terms of voltage, frequency and peak power behaviour. Our Variable Speed Technology allows to vary operating speed of the engine to match the connected electrical load, so no energy is wasted.

## Perfect power for your airconditioning (and more)

All Genverter Piccolo models are supplied with an external inverter "box", so no electronic devices are mounted close to the engine. Our PMG inverter should be mounted in a dry and cool area. Independent of the rotating speed of the Permanent Magnet based alternator, the genverter's PMG delivers the correct power quality for comfort equipment, such as washing machines, air-conditioning, electrical cooking devices and various other AC powered equipment. Sensitive appliances work perfect and are not harmed by a poor power supply.

### The perfect fit

- Extremely compact and light weight
- Virtually vibration free
- Indirect water cooling (sea or fresh), stow away principle
- Lowest noise level (from 50 dBA)
- Pure sine wave output 120 V 60 Hz (or 230 VAC, 50 Hz)
- Eight models 4, 6, 8, 10, 12, 15 and 18 kVA
- All necessary first class installation parts available
- Easy to install all engine connections pre-fabricated.



Functional PMG start/stop panel with LED indicators delivered as standard with piccolo 4.





Art. Nr. 40280105





"With its excellent advice, fast delivery and easy installation, WhisperPower convinced us to buy the Piccolo. This small, quiet Genverter is an excellent fit for our customers' needs."





- Highly efficient thanks to use of permanent magnet alternator technology
- Manual speed settings for optimal rpm level (all models)

• Automatic speed settings on load sense (for 1 cylinder models)

- PMG inverter fitted with high current IGBT's for high surge
- Tier 4/ EPA emission level (2/3 Cylinder models) as standard • Optimal sound reduction by polyester sound shield.

# **Choose from AC or DC variations**

- Standard versions for 120 V 240 VAC, 60 Hz split phase or 230 V 50/60 Hz devices
- Version for charging the 24/48 VDC batteries by connecting to WhisperPower DC PowerCube.





modern diesel engines, entirely for the purpose of generating power the smooth way. The oil is cooled by a heat exchanger designed for indirect watercooling, the circulation water pump is driven by a PTO (no belt). Our Piccolo 6, 8, 10, 12, 15 and 18 kVA models are all-water cooled, back-end and diesel, in one circuit.





# Perfect power

WhisperPower's PMG inverter incorporates two main functions: this robust, electronic device converts the generated power (input) into a pure sine wave with fixed Hz (output). The rotating speed is programmable from 2000 to 2800 rpm, select the rotating speed for the needed power. The PMG power inverter is also the power management device, offering full read-out via WhisperConnect to the Touch panel. Voltage and frequencies can be selected.



## Any space will do

All our Piccolo models are extremely compact and can be installed in the smallest location. Only minor air ventilation is needed. At picture an installation of a Piccolo 4 in a day cruiser.





49012055 - Variable speed

49012056 - Variable speed / Ungrounded













Piccolo 6 - 120 VAC - 60 Hz \*) Piccolo 8 - 120 VAC / 60 Hz Piccolo 10 - 120 VAC / 60 Hz Piccolo 12 - 120 VAC / 60 Hz Piccolo 15 - 120 VAC / 60 Hz Piccolo 18 - 120 VAC / 60 Hz 49004055 - Adjustable rpm 49005055 - Adjustable rpm 49009055 - Adjustable rpm 49006155 - Adjustable rpm 49002055 - Adjustable rpm 49007055 - Adjustable rpm 49008055 - Adjustable rpm 49002056 - Ungrounded

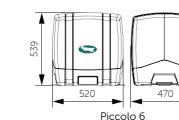
	49012030 - Variable Speed / Origiourided	1					
MAIN SPECIFICATIONS							
Intermittent Power kW at 25°C (77°F)	3.5 kW	6 kW	6 kW	8.5 kW	9.6 kW	12.5 kW	15 kW
Continuous Power kVA at 25°C (77°F)	3.5 kVA	6 kVA	6 kVA	10 kVA	10 kVA	15 kVA	18 kVA
Noise level	54 dB(A) at 7 m, 65 dB(A) at 1 m	51 dB(A) at 7 m, 60 dB(A) at 1 m	51 dB(A) at 7 m, 60 dB(A) at 1 m	51 dB(A) at 7 m, 60 dB(A) at 1 m	54 dB(A) at 7 m, 65 dB(A) at 1 m	54 dB(A) at 7 m, 65 dB(A) at 1 m	54 dB(A) at 7 m, 65 dB(A) at 1 m
Rpm range	2400 - 3600 rpm, adjustable	2400 2800 rpm, adjustable	2400 2800 rpm, adjustable	2400 2800 rpm, adjustable	2200 3000 rpm, adjustable	2200 3000 rpm, adjustable	2200 2400 rpm, adjustable
Alternator technology	Permanent Magnet	Permanent Magnet	Permanent Magnet	Permanent Magnet	Permanent Magnet	Permanent Magnet	Permanent Magnet
Generator cooling	Air cooled	Indirect liquid cooling	Indirect liquid cooling	Indirect liquid cooling	Indirect liquid cooling	Indirect liquid cooling	Indirect liquid cooling
Generator control	PMG	PMG	DDC	DDC	DDC	DDC	DDC
Control Panel	PMG + PMG Remote	PMG + PMG Remote	DDC Local + DDC Remote	DDC Local + DDC Remote	DDC Local + DDC Remote	DDC Local + DDC Remote	DDC Local + DDC Remote
Inverter Module	WP-PMG frame 1 Plus	WP-PMG frame 2	WP-PMG frame 2	WP-PMG frame 3	WP-PMG frame 3	WP-PMG frame 3	WP-PMG frame 3
Nominal voltage / frequency	120 VAC, 50 / 60 Hz	120 VAC, 50 / 60 Hz	120 VAC, 50 / 60 Hz	120 VAC, 50 / 60 Hz	120 VAC, 50 / 60 Hz	120 VAC, 50 / 60 Hz	120 VAC, 50 / 60 Hz
Phase/wire	1 phase, 3 wires	1 phase, 3 wires	1 phase, 3 wires	split phase, 4 wires	split phase, 4 wires	split phase, 4 wires	3 wires or split phase, 4 wires
Peak power 2 s	200%	200%	200%	200%	200%	200%	200%
Harmonic distortion	< 5%	< 5%	< 3%	< 3%	< 3%	< 3%	< 3%
Frequency tolerance	± 0,1%	± 0,1%	± 0.1%	± 0.1%	± 0.1%	± 0.1%	± 0.1%
DIESEL ENGINE SPECIFICATIONS							
Engine	WhisperPower WP1	WhisperPower Kubota Z482-E4B	WhisperPower Kubota Z482	WhisperPower Kubota D722	WhisperPower Kubota D722	WhisperPower Kubota D1105	WhisperPower Kubota V1505
Displacement	309 cc (1 cylinder)	479 cc (2 cylinders)	479 cc (2 cylinders)	719 cc (3 cylinders)	719 cc (3 cylinders)	1.123 cc (3 cylinders)	1.489 cc (4 cylinders)
Bore & stroke	78 × 67 mm	67 x 68 mm	67 x 68 mm	67 x 68 mm	67 × 68 mm	78 x 78.4 mm	78 x 78.4 mm
Cooling system	Heat exchanger	Heat exchanger	Heat exchanger	Heat exchanger	Heat exchanger	Heat exchanger	Heat exchanger
Fuel consumption (no load - full load)	0.8-1.2 l/hr	0.8-1.2 l/hr	1.7-2.5 l/hr	2.6-3.8 l/hr	2.6-4.75 l/hr	4.2-5.6 l/hr	4.2-5.6 l/hr
Starter battery charge method/ current	Handy charger 12 V/7A	Handy charger 12 V/7A	Alternator 12 V/12.5 A	Alternator 12 V/12.5 A	Alternator 12 V/12.5 A	Alternator 12 V/90 A	Alternator 12 V/90 A
DIMENSIONS & WEIGHT							
Length x width x height (cabinet)	450 × 470 × 520 mm	520 × 470 × 541 mm	660 x 550 x 622 mm	740 × 550 × 622 mm	740 × 550 × 622 mm	875 × 570 × 690 mm	990 × 560 × 705 mm
$Length \times width \times depth (PMG)$	436 × 196 × 148 mm	436 × 196 × 148 mm	490 × 198 × 191 mm	568 × 347 × 198 mm	568 × 347 × 198 mm	568 × 347 × 198 mm	568 × 347 × 198 mm
Dry weight (cabinet + PMG)	149lbs + 16lbs	319lbs + 21lbs	341lbs + 21lbs	385lbs + 44lbs	385lbs + 44lbs	462lbs + 44lbs	507lbs + 44lbs
Exhaust type	Ø 40 mm, wet	Ø 40 mm, wet	Ø 40 mm, wet	Ø 40 mm, wet	Ø 40 mm, wet	Ø 40 mm, wet	Ø 40 mm, wet
Max. operating angle	25º in all directions	25º in all directions	25º in all directions	25º in all directions	25º in all directions	25º in all directions	25º in all directions
OPTIONAL							
	Touch panel, PEK (Picollo extension kit)	Touch panel, PEK	2 <sup>nd</sup> start/stop panel, Touch panel 7	<sup>7</sup> 2 <sup>nd</sup> start/stop panel, Touch panel 7 <sup>nd</sup>	2 <sup>nd</sup> start/stop panel, Touch panel 7 <sup>nd</sup>	<sup>'</sup> 2 <sup>nd</sup> start/stop panel, Touch panel 7"	2 <sup>nd</sup> start/stop panel, Touch panel 7"
	Ungrounded/ ignition protection	Ungrounded/ ignition protection	Ungrounded/ ignition protection	Ungrounded/ ignition protection	Ungrounded/ ignition protection	Ungrounded/ ignition protection	Ungrounded/ ignition protection
			Keel Cooling	Keel Cooling	Keel Cooling	Keel Cooling	Keel Cooling

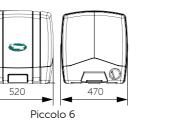


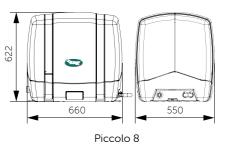
\*) Preliminary specifications

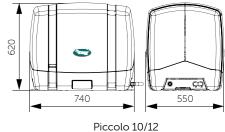


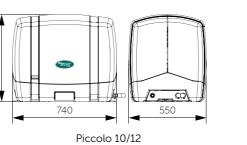
certified to various national standards, for example Chinese and Russian Maritime Type Approvals due to the strict investigative procedures and regulations for compliance such as audits that can be carried out by third party officials.



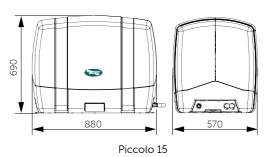


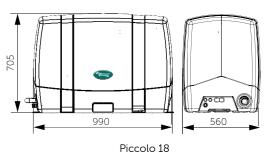






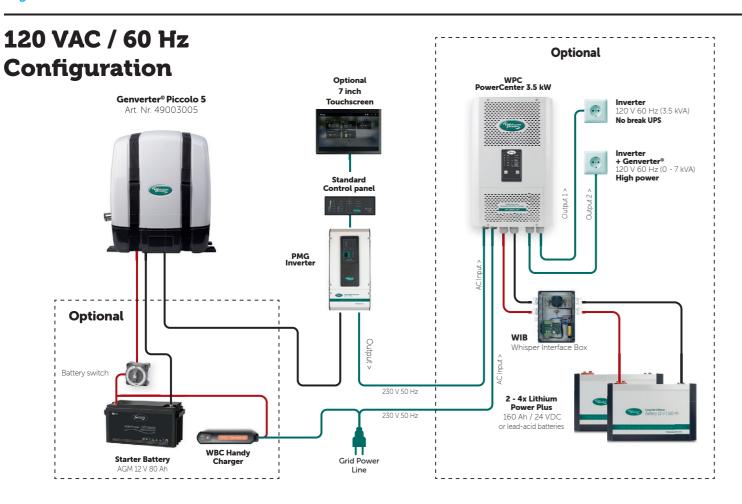
Piccolo 4/5

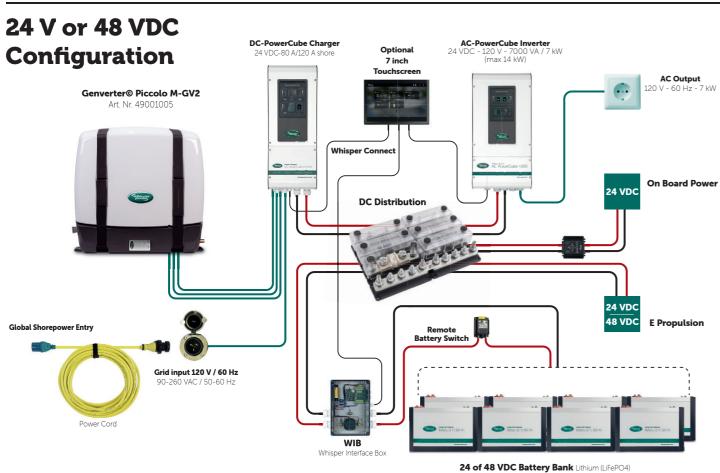




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# System variations





# 120 VAC / 60 Hz (AC Concept)

We offer Genverter AC versions, providing 120 V 60 Hz (or 230 V / 50 Hz) through the PMG inverter module. 'Raw' energy, which has been generated by the Permanent Magnet alternator, is stabilized to pure sine wave voltage via this cabinet. The PMG is connected to the Genverter® by a three wire cable. See drawing at previous, showing the standard supply and the basic options. By installing a WhisperPower Centre inverter/charger, the Genverter's AC output power can be temporarily increased (by 2-3.5 kW). The PMG output is coupled to the WPC input which feeds the power from the Genverter® to the consumer devices. Whenever the Genverter® experiences too much load, the WPC provides additional power by using the battery. With restricted/limited use, the Genverter® automatically switches off if set to automatic mode

# 24 V or 48 VDC (DC Concept)

Another way to compose a system is to take the battery as the main power source together with a DC to AC inverter and let the genverter be the 2e source of power. In this case, the genverter should operate as a battery charger to re-fill the batteries when needed.

### Main components of this system:

- DC PowerCube battery charger / shore power support system. Available for 24 and 48 VDC
- AC Powercube as the robust inverter, in fact acting as the "generator", available in 4, 7 and 14 kVA powering
- Battery storage, preferably lithium
- TOUCH system monitor

# This is our "low emission Hybrid power system':

- A perfect system for on board AC and DC appliances
- A perfect back-up for electrical propulsion systems

# **Essential Installation Parts**



### ▲ Touch panel (5 inch)

Ideal remote panel, clear visibility of all functions, includes running hours counter. Compatible with Garmin, Raymarine and Simrad







▲ Hoses and clamps

supplied in kit form



▲ Water inlet kit, fuel filter kit



Syphon breaker kit



Sales outlets in more than 50 countries

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whisperpower.com