

Model: GWRT41XD-071



MOBILE/PRIME/STANDBY POWER



VOLTAGE	480/277VAC		208/120VAC		240/120VAC	
	Prime	Standby	Prime	Standby	Prime	Standby
PHASE	3		3		1	
PF	0.8		0.8		1	
HZ	60		60		60	
KW	30	33	30	33	22	23
KVA	38	41	38	41	22	23
AMPS	45	50	104	115	92	96

STANDARD FEATURES AND CHARACTERISTICS

DESCRIPTION

- GRANDWATT Mobile Generators are efficient, reliable and versatile source of mobile electrical power. Designed to operate in the most extreme working conditions. All GRANDWATT Mobile Generators combine an innovative design and the use of high quality materials that provide the user with the most dependable power that you can rely on for non-stop power with easy to operate controls.
- Powered by a radiator-cooled, industrial KOHLER Diesel engine, which meets current Environmental Protection Agency (EPA) TIER4 Final non-road exhaust emission regulations, driving a single bearing, four-pole, three-phase alternator, with IP23 protection. The Prime Power kVA rating for generator set is given with a 125 °C alternator winding temperature rise.

VOLTAGE SWITCHING

- The output voltage can be switched to 480/277V 3-phase and 208/120V 3-phase and 240V/120V single phase by voltage selection switch.

MANUFACTURE & ASSEMBLY

- Engine and alternator are coupled via each SAE standard couplers. The torsional analysis for engine & matched alternator has been carried out for avoiding harmful vibration.
- Anti-vibrators are mounted between engine/alternator and the base frame for efficient attenuation of the vibration, and isolating the noise spread via the ground.
- For durability and rust prevention, all galvanized sheet metal components have been got powder coating before assembly, and all base frames or those with sub-base fuel tank have been got paint spraying with basic & surface paint after gotten sand blasting entirely, the optional containers have been got three layers paint spraying for shipping transportation as well.

CONTROL SYSTEM AND PROTECTION

- Woodward controller has been recommended for all standard GRANDWATT generators, Deep Sea, ComAp or others are available for choosing. Manual start mode, automatic start mode and PCRC (PC remote control) mode can be switched as different applications on operation interface or setting via laptop or computer.

WARRANTY & QUALITY TEST

- GRANDWATT provides one-source responsibility for the generators and its accessories. Everyone will be got at least 1.5 hours Load test, it included 25%, 50%, 75%, 100% and 110% load, and all protections & alarms will be got simulative test before delivery.
- Generator warranty will be through 12 months after shipped from GRANDWATT factory, or refer to manufacturer warranty items of engines or alternators.
- KOHLER and MECC ALTE manufacturers global service network.

*Lighting Where You Need
Power Where You Need*



● Engine Model : **KDI1903TCR**

BASIC TECHNICAL DATA

Manufacturer	KOHLER
Number of cylinders	3
Certifications	EPA/CARB Tier4F
Cylinder arrangement	Vertical, in-line
Injection	Direct
Cycle	Four stroke
Aspiration	Turbocharged
Bore(mm)	88
Stroke(mm)	102
Gross torque (Nm)	225
Estimated total weight(dry)(kg)	233
Size (L*W*H)(mm)	598.3*530*726

TECHNICAL DATA

Engine rated speed(rpm)	1800
Gross engine power-Prime(kW)	33.6
Gross engine power-Standby(kW)	37.0

FUEL SYSTEM

Fuel filter	Include mounted standard cartridge
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LUBRICATION SYSTEM

Oil pan	Standard 20L
Oil dipstick	Intake side
Oil filter	Mounted on the engine with oil cooler

COOLING SYSTEM

Cooling type	Liquid
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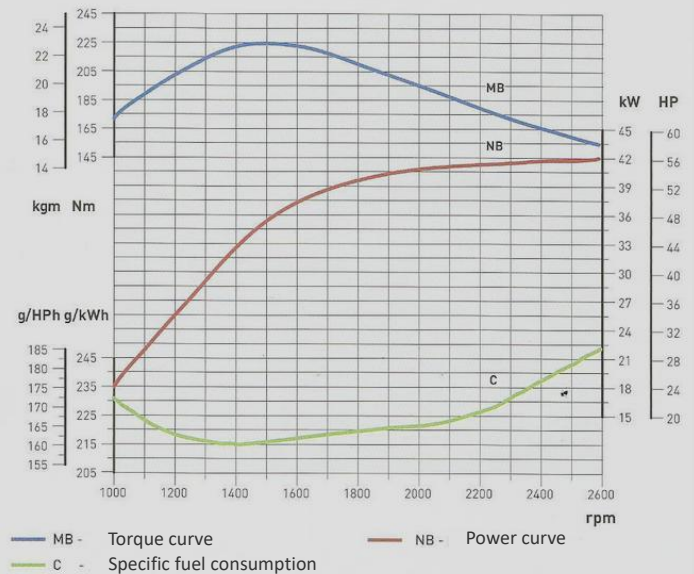
ELECTRIC SYSTEM

Type	12V negative earth
Alternator	14 V, 80 amps
Starter motor	12 V, 2.2 kW
Air intake heater	Without

GENERATOR FUEL CONSUMPTION

110% of load US gallons/h (L/h)	2.53 (9.58)
100% of load US gallons/h (L/h)	2.30 (8.70)
75% of load US gallons/h (L/h)	1.72 (6.51)
50% of load US gallons/h (L/h)	1.14 (4.31)
25% of load US gallons/h (L/h)	0.57 (2.16)

PERFORMANCE CURVE



Note: Ambient Temperature: 25°C
 Ambient Humidity: 30 %
 Ambient Pressure: 1 bar



NOTE:

1. Power (hp) and Torque (ft lbs) specifications for Kohler general purpose engines are rated pursuant to Society of Automotive Engineers (SAE) J1940 based on gross output testing performed according to SAE J1995 without the air cleaner and muffler. Actual engine power and torque are lower and affected by accessories (air cleaner, exhaust, charging, cooling, fuel pump, etc.), application, engine speed, ambient operating conditions (temperature, humidity and altitude) and other factors. This J1940 / J1995 rating provides consistent measurement to customers who may want to control the intake and exhaust features of the engine. For more information, contact Kohler Co. Engine Engineering Department. Kohler Co. reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligation.
2. J1995 power and torque certified by 3rd Party Witness



● Alternator Model : ECP32 2S4C

BASIC TECHNICAL DATA

Alternator manufacturer	Mecc alte
Frequency and Speed	60Hz/1800rpm
Voltage (V)	480/277V - 208/120V - 240V/120V
Standby power(kW)	33 - 33 - 23
Prime power(kW)	30 - 30 - 22
Power efficiency(%)	87.5 - 86.5 - 86.5
Rated power factor	0.8 - 0.8 - 1
Insulation class	H
Stator winding	2/3
Maximum overspeed	2250min ⁻¹
Sustained short circuit	300%(3IN):20S
Protection class	IP23

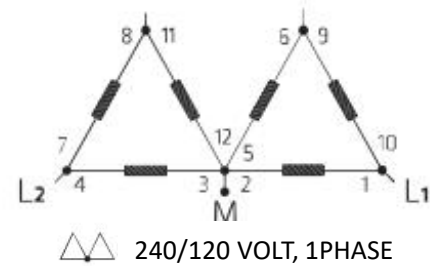
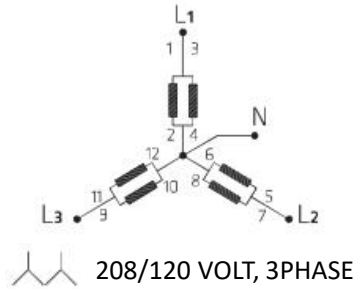
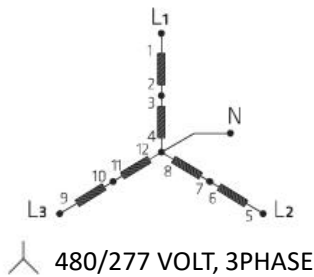
Alternators meet the requirement of BS EN 60034 and the relevant section of other international standards such as , NEMA MG1-32,IEC34, CSAC22.2-100, As1359, and other standards and certifications can be considered on request.

The 2/3 pitch design avoids excessive neutral currents. With the 2/3 pitch and carefully selected pole and tooth designs, ensures very low waveform distortion.

Brushless alternator with brushless pilot exciter for excellent load response.

The insulation system is class H, easy parallelling with mains or other generators, standard 2/3 pitch stator windings avoid excessive neutral currents.

Backed by worldwide service network.



ACCESSORIES

STANDARD ACCESSORIES

- 3 Position Voltage Selector Switch
- Air Filter
- Battery Isolation Switch
- Oil Drain Extention
- Coolant Temperature sensor
- Low Coolant Level Warning Switch
- High Coolant Temperature Shutdown Switch
- Oil Filter
- Fuel Filter
- Fuel Pump
- Coolant Drain Extention
- Oil Pressure Sensor
- Low Oil Pressure Shutdown Switch
- Single Leaf-spring Axle with Electric Brake

OPTIONAL ACCESSORIES

- Air Filter Restriction Indicator
- Battery Charger by Solar
- Oil Pan Heater
- Water Jacket Heater
- Battery Charger by Grid
- Leakage Detection Sensor





Control System

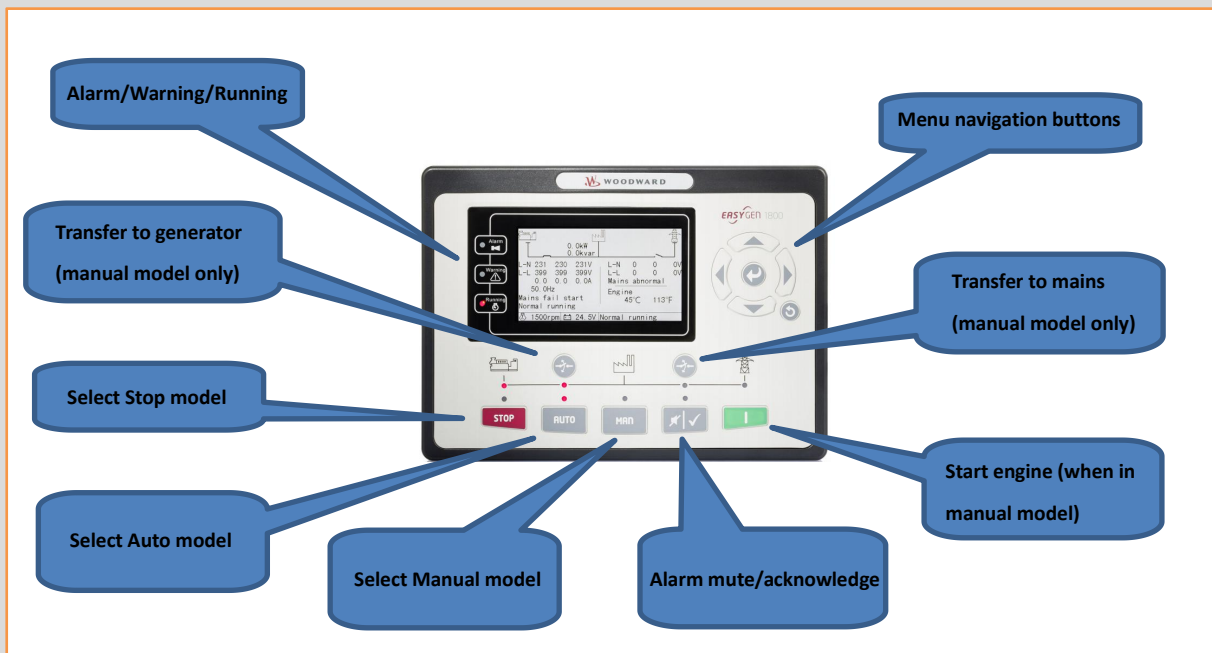
The Gen-set Woodward Controller easYgen-1800 is a microprocessor based control unit containing all necessary functions for protection and control of a diesel engine. Furthermore, it contains a three-phase AC voltage measuring circuit. The unit is equipped with an LCD display presenting all values and alarms. easYgen-1800 is a compact all-in-one unit designed for the following applications:

1. Automatic engine start/stop
2. Engine protection
3. Breaker control
4. Generator protection

Control Panel

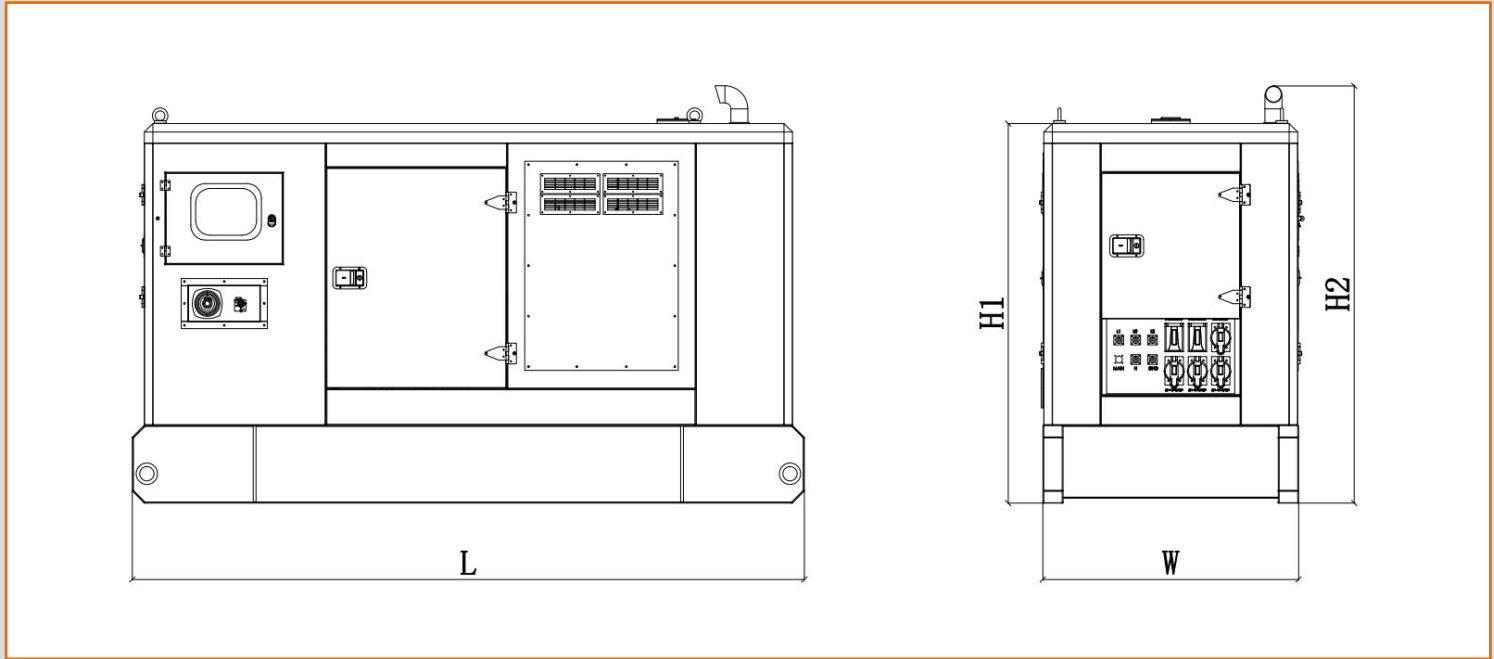


Description for Model easYgen-1800

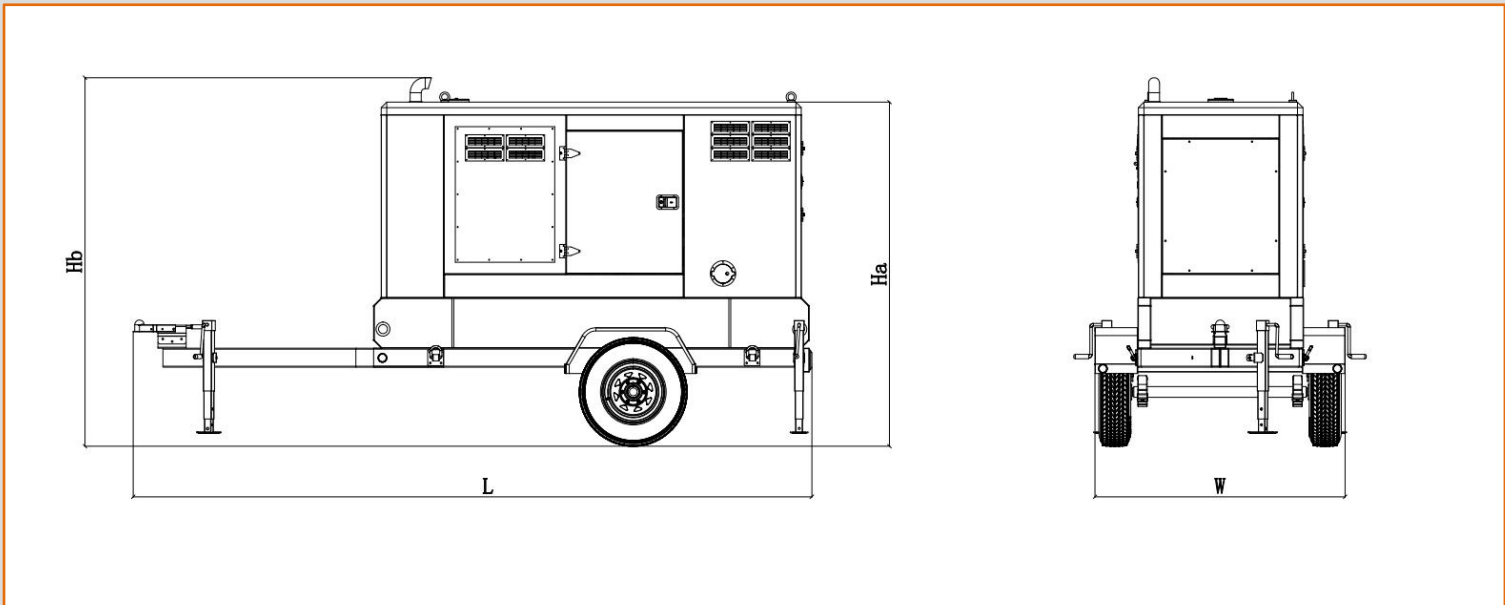


Standard functions	Shutdown	Warning
Engine Control	Loss of Speed Signal	Alternator Under / Over Voltage
Generator Monitoring	Alternator Under / Over Voltage	Alternator Under/ Over Frequency
Generator Protection	Alternator Under/ Over Frequency	Mains Under / Over Voltage
Engine Monitoring	Mains Under / Over Voltage	Mains Under/ Over Frequency
Clear Text Display	Mains Under/ Over Frequency	Under / Over Speed
	Under / Over Speed	Low Oil Pressure Pre-Alarm
	Low Oil Pressure	High Engine Temperature Pre-Alarm
	High Engine Temperature	High/Low Battery Voltage
	Phase Sequence Electrical (Option)	Over-current
		Periodic maintenance



Silent type


Generator Data *	L = Length inch (mm)	W = Width inch (mm)	H1 = Height 1 inch (mm)	H2 = Height 2 inch (mm)	Weight (dry) lbs (kg)	dBA @ 7m away	Fuel Tank	
							Running Hours	Capacity Gals (L)
Silent type	112¼ (2850)	44¾ (1130)	61 (1550)	68¾ (1730)	3550 (1610)	56	48	110 (416)

Silent type with trailer


Generator Data *	L = Length inch (mm)	W = Width inch (mm)	Ha = Height a inch (mm)	Hb = Height b inch (mm)	Weight (dry) lbs (kg)	dBA @ 7m away	Fuel Tank	
							Running Hours	Capacity Gals (L)
Silent type	175¼ (4450)	81¾ (2060)	88¼ (2240)	95¼ (2420)	4565 (2070)	56	48	110 (416)

