

Generating Rates		Prime	Standby
Power	kVA	20	22
Power	kW	16	17,6
Current	(cos Phi=0,8) A	28,9	31,79
Standard Voltage	V	400/230	400/230
Revolution Per Minute	r.p.m	1500	1500
Rated At Power Factor	Cos Phi	0,8	0,8

### Standard Features

- ✓ 4 stroke 1500RPM, water cooled heavy duty diesel engine
- ✓ Dry type replacable air filter
- ✓ Heat-resistant radiator for 50 °C
- ✓ Flexible oil pipes and oil draining valve
- ✓ Pre-heater 4 poles synchrontype, single bearing, brushless alternator
- ✓ Batteries and cables
- ✓ Electrostatic paint coated, steel, welded chassis
- ✓ Fuel tank housed in the chassis Industrial type silencer
- ✓ Electronic battery charger
- ✓ Electrical wiring diagram
- ✓ User manual and operating manual
- ✓ Protection system on manual run
- ✓ Lubrication oil and anti – freeze

### Optional Equipments

- ✓ Soundproof canopy
- ✓ Automatic transfer switch
- ✓ Circuit Breaker
- ✓ Trailer
- ✓ External fuel tank
- ✓ Electronic governor
- ✓ Heating system for fuel tank
- ✓ Oil heater
- ✓ Fuel filling system (Automatic / Manual)
- ✓ Analog indicators
- ✓ 1 Phase - 3 phase switch plugs
- ✓ Alarm system for fuel level
- ✓ Remote control and monitoring

**Prime Power :** Supplying of electrical power at variable load for an unlimited number of hours in the event of normal utility powerfailure according to ISO8528-1. 10% over load capability is available.

**Stand By Power :** Supplying of electrical power at variable load, in the event of normal utility power failure according to ISO8528-1. This rating is maximum power, no overload capability is available.

### Engine Specifications

Brand		KOHLER
Model		KDI 1903M
Engine Power	(kWm / hp)	20,5/27,9
Revolution Per Min	(r.p.m)	1500
Total Displacement	(L)	1,86
Cylinders Orientation		3 Vertical In-line
Broke x Stroke	(mm x mm)	88 x 102
Compression Orientation		18.5:1
Governor Type		Mechanic
Aspiration System		Natural
Injection		Indirect
Cooling		Water Cooled
Electrical System	(VDC)	12
Lub-oil Capacity	(L)	8,7
Engine Coolant Capacity	(L)	14
Fuel Tank Capacity	(L)	87
Maximum Exhaust Temperature	(°C)	520
Maximum Exhaust Gas Flow	(m3/h)	5,9
Maximum Allowed Back Pressure	(kPa)	6
Cooling Air Flow	(m3/min)	39
Fuel Consumption 50 %	(L/h)	2,3
Fuel Consumption 75 %	(L/h)	3,3
Fuel Consumption 100 %	(L/h)	4,5

- ✔ Replacable cylinder jacket
- ✔ Dry type replacable air filter
- ✔ Heat-resistant radiator for 50 °C

### Alternator Specifications

Standard Voltage	(V)	400/230
Frequency	(Hz)	50
Stationary Voltage Regulation	(±)	1
Short Circuit Current		300
Insulation		H
Protection		IP 17
Efficiency	(%)	85,8
Overloading		1 Hour - %110
Rated At Power Factor	(cos Phi)	0,8
Total Harmonic Distortion Rate		3
Connection Style		Star
Number of Pole		4
Number of Bearing		Single

- ✔ Self-cooled
- ✔ Electronic type automatic voltage regulator (AVR)
- ✔ 4 poles, self-excitation, brushless, synchrontype alternator

### Dimensions Without Canopy and Weight

WIDTH x LENGTH x HEIGHT	mm	950x1650x1100
Wet Weight	kg	507

### Dimensions With Canopy and Weight

WIDTH x LENGTH x HEIGHT	mm	950x2000x1450
Wet Weight	kg	717



### Control Panel Features

- ✔ Diesel and gas genset support
- ✔ 400Hz operation support
- ✔ 400 event logs full snapshot
- ✔ Multiple Automatic test program
- ✔ 3 level configuration password
- ✔ 128x64 graphical LCD display
- ✔ Downloadable language
- ✔ Waveform display of V&I
- ✔ Harmonic analysis of V&I
- ✔ Synchroscope & check synch
- ✔ 16 Amp MCB & GCB outputs
- ✔ 8 configurable digital outputs
- ✔ Outputs expandable to 40
- ✔ 4 configurable analog outputs
- ✔ Battery charge run enabled
- ✔ Weekly Operation Schedule
- ✔ Dual mutual standby with equal aging of gensets
- ✔ Manual speed fine adjust some ECU's
- ✔ Automatic fuel pumpcontrol
- ✔ Disable protection feature
- ✔ Excess protection power
- ✔ Reverse power protection
- ✔ Overload IDMT protection
- ✔ Load shedding, dummy load
- ✔ Multiple load management
- ✔ Waveform display of V&I
- ✔ Battery back-up real time clock
- ✔ Idle speed control
- ✔ All parameters front panel editable
- ✔ Multiple nominal conditions
- ✔ Contactor & MCB drive
- ✔ 4 quadrant genset power counters
- ✔ Mains power counters
- ✔ Fuel filling counter
- ✔ Fuel consumption counter
- ✔ Free configuration software
- ✔ Allow SMS controls
- ✔ Mobile genset support
- ✔ Automatic GSM geo-location
- ✔ GPS connectivity (USB & RS232)
- ✔ Modem & ethernet diagnostic
- ✔ Configurable through USB, RS-485, Ethernet and GPRS
- ✔ Ready for central monitoring Ethernet and GPRS