

INDUSTRIAL DIESEL GENERATOR SET POWERED BY YANGDONG ENGINE & SZN ALTERNATOR

M-YD14

POWER RATING (0.8P.F.)	STANDBY OUTPUT: 11KW/14KVA	50HZ/1500RPM/400/230V
	RATED OUTPUT: 10KW/13KVA	

CONDITIONS & DEFINITIONS

Stand-by:Code: S

Applicable for supplying emergency power at varying load in the event of normal utility power interruption. Fuel stop power in accordance with ISO15550, ISO3046/1, JISB8002, DIN6271 and BS5514.

Prime:Code:CP

Applicable for supplying power with varying load instead of the utility for an unlimited time. Prime power in accordance with ISO 8528.

Conditions:

Engine ratings are based on SAE J1349 standard conditions and also apply at ISO3046/1, DIN6271 & BS5514 Standard conditions.

Fuel rates: Based on ASTM D975, BS2869 and on fuel oil of 35°API (16°C or 60°F) gravity having a LHV of 42,780 KJ/Kg (18,390 Btu/lb.) when used at 29°C(85°F) and weighing 838.9 g/liter (7.001lbs./U.S. gal.).

Factory Test

Each generating set must go through a 1-hour load test for running 0%, 50%, 75%, 100% and 110% load before dispatch. All protective devices, control functions are simulated and the system checked, proved and then passed for dispatch. A test certificate can be provided upon request.

DIMENSIONS

Standard Generator Set				Silent type
	L:	Length	mm	1900
Overall dimensions	W:	Width	mm	850
	H:	Height	mm	1100

Gen Set standard collection

- 1.Brand new **YANGDONG** engine, 4stroke, 1500rpm diesel engine
- 2.Brand new **SZN** Alternator, 4 pole, synchronic type with self excited system, Brushless, IP23, ClassH
3. DEEP SEA DSE6120, digital module
4. LED light installed inside of the genset
5. Vibration isolators between the engine/ alternator and base frame
6. High quality DC electronic battery charger.
- 7.DELIXI circuit breaker
8. One of the top brands good quality Battery, battery tray and cable.
- 9.Rubber absorber for engine, radiator,alternator and control panel.
10. Adopting the high pressure fuel inlet pipe, flexible oil pipes and oil draining valve
11. Strong and big radiator with 50 degrees ,good in anti-vibration and cooling the genset.
12. Two mufflers in it, covered by heat-resist material
13. The generator set with 8hours 100% load running, chassis fuel tank
14. Silent type generator, outdoor powder-polyester powder covers the enclosure that keeps the generator neither fading nor change for years, anti-corrosion, the power is 200microns thickness.
- 15.English operation/maintenance manuals, test report and wiring diagram

DIESEL ENGINE: YANGDONG YD480D 1500rpm

4 stroke, 3cylinders, direct injection, water cooled,Natural aspiration

Engine Rated Speed	rpm	1500
Generator set Frequency	Hz	50
Engine Standby Power (LTP)	kW	15,4
Engine Prime Power (PRP)	kW	14
Engine Continuous Power (COP)	kW	14
Cooling Fan Power Consumption (kW)	kW	1,2
Engine Net Standby Output (LTP)	kW	13,7
Engine Net Prime Output (PRP)	kW	12,5
Engine Net Continuous Output (COP)	kW	12,5
Length	mm	687
Width	mm	494
Height	mm	610
Engine Dry Weight w/o Cooling System	kg	195
Aspiration Type		Natural
Injection Type		Direct
Configuration		Vertical
No. of Cylinders		3
Displacement	liters	1,809
Bore	mm	80
Stroke	mm	90
Compression Ratio		18
Piston Speed	m/s	4.5/5.4
Rotation Direction (from flywheel)		Anti-clockwise
Number of Flywheel Teeth		115
Flywheel House Size		SAE4
3. Lubrication System		
Lube Oil Specification		CD 15W-40
Oil Capacity	liters	5
Max. Permissible Oil Temperature	°C	120
Low Oil Pressure Warning	kPa	100
Low Oil Pressure Shutdown	kPa	80
Oil consumption (as % of fuel consumption)		0,72%
4. Cooling System		
Coolant Capacity for Engine	Liters	4
Max. Permissible Temperature	°C	90
Max. Coolant Warning Temperature	°C	95
Max. Coolant Shutdown Temperature	°C	98
Thermostat Open Temperature	°C	72
Radiator Cooling Flow	m ³ /min	≥45
Flow of Coolant pump	m ³ /h	≥4.8
Heat dissipation (engine radiator)	kW	10,5
Heat dissipation (convection)	kW	8,75
5. Fuel System		
Governor Type		Mechanical
Fuel Consumption at 25% of generator :	l/h	1,67
Fuel Consumption at 50% of generator s	l/h	2,74
Fuel Consumption at 75% of generator s	l/h	3,43

Fuel Consumption at 100% of generator	l/h	4,22
Lowest Fuel Consumption Ratio	g/kW.hr	253

6. Intake & Exhaust System (On Standby Output)

Combustion Air Consumption	m ³ /min	1,01
Max. Intake Restriction	kPa	3,5
Max. Exhaust Temperature (Before Turb	°C	/
Max. Exhaust Temperature (After Turbo	°C	500
Max. Exhaust Back Pressure	kPa	6
Exhaust Gas Flow	m ³ /min	2,62
Exhaust Flange Diameter	mm	74

7. Electrical System

Charging Alternator Voltage	V	14
Charging Alternator Capacity	A	25
Starting Voltage	V	12
Starting Motor Capacity	KW	3
Minimum Battery Capacity	Ah	80
Minimum Ambient Temperature for Unai	°C	-10

FUEL CONSUMPTION

Fuel consumption load 100%	g/Kw.h	235
Fuel consumption load 100%	L/H	4

ENGINE STANDARD EQUIPMENT

◆ Natural aspiration	◆ MECH type governor
◆ Structure steel base	◆ Lubricating oil filter, full flow paper element
◆ Crankcase breather	◆ Lubricating oil pump, gear driven
◆ Battery charging alternator	◆ Exhaust dry manifold
◆ Lubricating oil cooler	◆ 50°C ambient radiator
◆ Fuel filters, full flow paper element	◆ Blower fan, fan drive
◆ Fuel transfer pump, gear driven, plunger type	◆ 12V DC electric starting motor

ALTERNATOR: SZN164C 50HZ/400V/3PHASE

Standby Output:	11KW/14KVA
Rated Output:	10KW/13KVA

Standards

Meet the requirements of BS EN 60034 and the relevant section of other international standards such as BS5000, VDE0530, NEMA MG1-32, IEC34, CSA C22.2-100, AS1359. Other standards and certifications can be considered on request.

Technical data

Insulation System	H
Protection Grade	IP23
Rated Power Factor	0,8
Voltage Regulation	± 1.0 %
Stator Winding	Double Layer Concentric
Winding Pitch	Two Thirds
Winding Leads	12
Connecting Type	3 Phase and 4 Wires, "Y" type connecting
Altitude	≤1000m
Exciter Type	Brushless, self-exciting

Telephone Influence Factor (TIF)	<50
THF	<2%
Voltage Regulation, Steady State	≤±1%
Alternator Efficiencies	92,30%

GENERATING SET DATA

Voltage Regulation	≥±5%
Voltage Regulation, Stead State	≤±1%
Sudden Voltage Warp (100% Sudden Reduce)	≤+25%
Sudden Voltage Warp (Sudden Increase)	≤-20%
Voltage Stable Time (100% Sudden Reduce)	≤6S
Voltage Stable Time (Sudden Increase)	≤6S
Frequency Regulation, Stead State	≤5%
Frequency Waving	≤1%
Sudden Frequency Warp (100% Sudden Reduce)	≤+12%
Sudden Frequency Warp (Sudden Increase)	≤-10%
Frequency Recovery Time(100% Sudden Reduce)	≤5S
Frequency Recovery Time (Sudden Increase)	≤5S

DEEP SEA DSE DSE6120MKII GENERATOR CONTROL MODULE FROM UK

FETURES

The DSE6120 MKIII is an Auto Mains (Utility) Failure Control Module suitable for a wide variety of single, diesel or gas, gen-set applications.

Monitoring an extensive number of engine parameters, the modules will display warnings, shutdown and engine status information on the back-lit LCD screen, illuminated LEDs and remote PC.

The DSE6120 MKIII will also monitor the mains (utility) supply. The modules include USB connection and dedicated DSENet® terminals for system expansion.

Both modules are compatible with electronic (CAN) and non-electronic (magnetic pick-up/alternator sensing) engines and offer an extensive number of flexible inputs, outputs and extensive engine protections so the system can be easily adapted to meet the most demanding industry requirements.

The extensive list of features includes enhanced event and performance monitoring, remote communications & PLC functionality.

The modules can be easily configured using the DSE Configuration Suite PC software. Selected front panel editing is also available.

KEY FEATURES

- 4-line back-lit LCD text display
- Multiple display languages
- Five-key menu navigation
- LCD alarm indication
- Customisable power-up text and screen images.
- DSENet® expansion compatibility
- Data logging facility
- Internal PLC editor
- Protections disable feature
- Fully configurable via PC using USB communications
- Front panel configuration with PIN protection
- Power save mode
- 3-phase generator sensing and protection
- 3-phase mains (utility) sensing and protection
- Automatic load transfer control
- Generator current and power monitoring (kW, kvar, kVA, pf)
- Mains (utility) current and power monitoring (kW, kvar, kVA,
- Fuel level alarms
- 3 configurable maintenance alarm
- Compatible with a wide range of CAN engines, including Tier 4 engine support
- Uses DSE Configuration Suite PC Software for simplified configuration
- Licence-free PC software
- IP65 rating (with optional gasket) offers increased resistance to water ingress
- Configurable CAN ead & transmitted information
- 1 alternative configuration.

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- kW overload alarm
- Over current protection
- Breaker control via fascia buttons
- Fuel and start outputs configurable when using CAN
- 6 configurable DC output
- 4 configurable analogue/digital inputs
- Support for 0 V to 10 V & 4 mA to 20 mA sensors
- 8 configurable digital input
- CAN, MPU and alternator frequency speed sensing in one variant
- Real time clock
- Manual and automatic fuel pump control
- Engine pre-heat and post-heat functions
- Engine run-time scheduler
- Engine idle control for starting & stopping



DSE6120 MKIII

GENSET'S WARRANTY

For prime using models are warranted in accordance with our warranty terms for a period of 1000 hours from date of commissioning or 12 months from date of despatch whichever date occurs the sooner.