

**DNG-K SERIES**

DIESEL GENERATOR SET

50HZ/1500 rpm/400/230V, 380/220V

DNG-K110

POWER RATING (0.8P.F.)

STANDBY OUTPUT: 110KVA/88KW

RATED OUTPUT: 100KVA/80KW

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

Fuel rates:Base 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.).

DIMENSIONS

Standard Generator Set				Open Type	Soundproof type
Overall dimensions	L:	Length	mm	2250	2900
	W:	Width	mm	900	1050
	H:	Height	mm	1450	1600
Total Weight (Dry)			kg	1300	1585
Total Weight (Wet)			kg		/

Gen Set standard collection

- 1.Brand new **DNG POWER 4RT55-88D** 1500rpm diesel engine.
- 2.Brand new **DNG POWER DNG224C** alternator
- 3.Standard model with 8hours under frame fuel tank.
- 4.Standard voltage: 50Hz 400/230V, 380/220V
- 5.**DNG POWER YGM6110** control module.
- 6.24V DC battery charger.
- 7.DELIXI circuit breaker.
- 8.Battery, battery tray and cable.
- 9.50°C ambient radiator
- 10.Rubber absorber for engine, radiator,alternator and control panel.
- 11.Fan protection wire basket will be larger, thick and strong.
- 12.Lubricating oil will be filled in the gensets before delivery.
- 13.English operation/maintenance manuals.

**DIESEL ENGINE: DNG POWER 4RT55-88D**

4 stroke-cycle, 4 cylinders vertical in-line, Turbocharged

ENGINE SPECIFICATIONS & TECHNICAL DATA

Rated/Standby power	kw	88/94
Bore	mm	110
Stroke	mm	140
Displacement	L	5.32
Lubricating oil capacity	L	18
Aspiration Type		Turbocharged
Combustion		Direct injection
Speed Governor		Mechanical
Compression Rate		17:1

FUEL CONSUMPTION

Fuel consumption load 100%	g/Kw.h	≤210
Fuel consumption load 100%	L/H	

ENGINE STANDARD EQUIPMENT

- ◆ Turbocharged
- ◆ Structure steel base
- ◆ Crankcase breather
- ◆ Battery charging alternator
- ◆ Lubricating oil cooler
- ◆ Fuel filters, full flow paper element
- ◆ Fuel transfer pump, gear driven, plunger type
- ◆ Mechanical type governor
- ◆ Lubricating oil filter, full flow paper element
- ◆ Lubricating oil pump, gear driven
- ◆ Exhaust dry manifold
- ◆ 50°C ambient radiator
- ◆ Blower fan, fan drive
- ◆ 24V DC electric starting motor



Photo for reference only

Specification is for reference only and subject to change without prior notice.

**ALTERNATOR****Brand**

DNG POWER

Model

DNG224C

Standby Output:

110KVA/88KW

Rated Output:

100KVA/80KW

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	$\pm 1.0 \%$
Stator Winding	Double Layer Concentric
Winding Pitch	Two Thirds
Winding Leads	12
Connecting Type	3 Phase and 4 Wires, "Y" type connecting
Altitude	$\leq 1000\text{m}$
Exciter Type	Brushless, self-exciting
Telephone Influence Factor (TIF)	< 50
THF	$< 2\%$
Voltage Regulation, Steady State	$\leq \pm 1\%$
Alternator Efficiencies	92.30%

GENERATING SET DATA

Voltage Regulation	$\geq \pm 5\%$
Voltage Regulation, Stead State	$\leq \pm 1\%$
Sudden Voltage Warp (100% Sudden Reduce)	$\leq +25\%$
Sudden Voltage Warp (Sudden Increase)	$\leq -20\%$
Voltage Stable Time (100% Sudden Reduce)	$\leq 6\text{S}$
Voltage Stable Time (Sudden Increase)	$\leq 6\text{S}$
Frequency Regulation, Stead State	$\leq 5\%$
Frequency Waving	$\leq 1\%$
Sudden Frequency Warp (100% Sudden Reduce)	$\leq +12\%$
Sudden Frequency Warp (Sudden Increase)	$\leq -10\%$
Frequency Recovery Time(100% Sudden Reduce)	$\leq 5\text{S}$
Frequency Recovery Time (Sudden Increase)	$\leq 5\text{S}$



DNG POWER GENERATOR CONTROL MODULE FROM CHINA

Type & Design

YGM6100 series automatic controller, integrating digital, intelligent and network techniques, is used for automatic control and monitoring system of genset. It can carry out functions of automatic start/stop, data measurement, alarm protection and three "remote" (remote control, remote measure and remote communication). The controller uses LCD display, optional display interface including Chinese, English, Spanish, Russian, Portuguese, Turkey, Polish and French with easy and reliable operation.

Controls & Monitoring

- ◆ Mode selection & start engine button with interlock key switch system
- ◆ Menu navigation button
- ◆ LCD display for: AC amperage-each phase and earth current, AC voltage-each phase and neutral, Frequency Hz, Operation hours run, Lub, Oil pressure, Cooling water temperature, Generator load kW/Kva, Generator Load kW/Kva
- ◆ Emergency stop pushbutton
- ◆ AMF function

Safety Shutdown Protection and LED indicators

High engine temperature, Low oil pressure, Fail to start, Generator over speed / Frequency, Generator under speed / Frequency
Generator high voltage, Generator low voltage, Oil pressure sender circuit, Loss of Speed signal, Emergency stop

Mounting

Fabricated cubicle mounted on individual bracket with anti-vibration isolator

Electrical Design

In accordance with BS EN 60950 low voltage directive, BS EN 61006-2 and 61006-4 EMC directive. The optional interface can provide real time diagnostic facilities.



Control panel

1. Control module YGM6110
2. Power switch
3. Buzzer
4. Oil pressure meter
5. Timer



YGM6110

Note: 1. Control panel can be custom designed,
2. Control module can be optional, ComAp, Deepsea, Smartgen, Harsen etc.

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