



KR4Z2.7-G21

DIESEL ENGINE DATASHEET | 1500 / 1800 RPM
4-CYLINDER IN-LINE | ENGINE DATA

PERFORMANCE & CORE SPECIFICATIONS

Power ratings, fuel consumption and principal engine specifications.

22 / 26 kW

PRIME ENGINE POWER

24 / 29 kW

STANDBY ENGINE POWER

20 / 25 kVA

PRIME GENSET RATING

22.5 / 27.5 kVA

STANDBY GENSET RATING

Values shown as 1500 / 1800 rpm.

POWER RATING

Speed	Operation	Engine (kW)	Genset (kW)	Genset (kVA)
1500 rpm	Prime Power	22	16	20
1500 rpm	Standby Power	24	18	22.5
1800 rpm	Prime Power	26	20	25
1800 rpm	Standby Power	29	22	27.5

RATING BASIS Performance per GB/T2820; ratings based on GB/T1147.1.

Prime power: variable-load operation for unlimited time; average output over 24 hours $\leq$ 80% of prime rating.

Standby power: emergency outage or testing, up to 200 hours/year; average output over 24 hours $\leq$ 80% of standby rating.

Overload operation is not allowed.

SPECIFICATIONS

Engine model	KR4Z2.7-G21
Engine type	In-line, 4-stroke, water-cooled
Combustion	Direct injection
Cylinder type	Wet liner
Cylinders	4
Bore $\times$ stroke	90 $\times$ 105 mm
Displacement	2.7 L
Compression ratio	18 : 1
Firing order	1-3-4-2
Injection timing	14–17°
Dry weight	260 kg
Dimensions (L $\times$ W $\times$ H)	953 $\times$ 522 $\times$ 728 mm
Rotation	Counterclockwise, viewed from flywheel
Flywheel housing	SAE 4#
Flywheel	SAE 7.5#; 115 teeth

FUEL CONSUMPTION

Load	1500 rpm L/h	1800 rpm L/h
25%	2.1	2.5
50%	3.2	3.9
75%	4.5	5.5
100%	5.9	7.1
110%	6.5	7.9

FUEL SYSTEM

Injection pump	KangDa
Governor	Electric type
Feed pump	Mechanical type
Injection nozzle	Multi-hole type
Opening pressure	24 MPa
Fuel filter	Full-flow, cartridge type
Fuel	Diesel fuel oil



KR4Z2.7-G21

DIESEL ENGINE DATASHEET | 1500 / 1800 RPM
4-CYLINDER IN-LINE | ENGINE DATA

SYSTEM & ENGINEERING DATA

Mechanical, lubrication, cooling and electrical parameters.

MECHANISM

Type	Overhead valve
Valves per cylinder	Intake 1; exhaust 1
Cold valve clearance	Intake 0.35 mm; exhaust 0.45 mm

VALVE TIMING

Valve	Opening	Closing
Intake	11° BTDC	41° ABDC
Exhaust	49° BBDC	11° ATDC

COOLING SYSTEM

Water capacity	5.75 L (engine only)
Cap min. pressure	70 kPa
Water pump	Centrifugal, belt-driven
Water pump capacity	—
Thermostat	Wax-pellet type
Opening temperature	72°C
Fully open temperature	82°C
Cooling fan	Blower type, plastic
Fan size	420 mm diameter; 7 blades
Fan power	1.8 kW at 1500 rpm 2.2 kW at 1800 rpm
Max. coolant temp.	Prime: 104°C Standby: 100°C

LUBRICATION SYSTEM

Lubrication method	Fully forced pressure feed
Oil pump	Gear type, camshaft-driven
Oil filter	Full-flow, cartridge type
Oil pan capacity	High level: 7 L Low level: 6 L
Angularity limit	Front down: 25° Front up: 35° Side to side: 35°
Lubricating oil	Refer to Operation Manual

ENGINEERING DATA

Heat to coolant	2.4 kcal/s at 1500 rpm 2.8 kcal/s at 1800 rpm
Heat to intercooler	—
Air flow	2.3 kcal/s at 1500 rpm 2.8 kcal/s at 1800 rpm
Exhaust gas flow	5.7 m³/min at 1500 rpm 6.9 m³/min at 1800 rpm
Exhaust gas temp.	480°C
Intake restriction	Initial: 3 kPa Final: 4 kPa
Exhaust restriction	10 kPa max.
Intercooler restriction	—

ELECTRICAL SYSTEM

Charging generator	14 V × 35 A
Voltage regulator	Built-in IC regulator
Starting motor	12 V × 3.8 kW
Battery voltage	12 V
Battery capacity	110–120 Ah