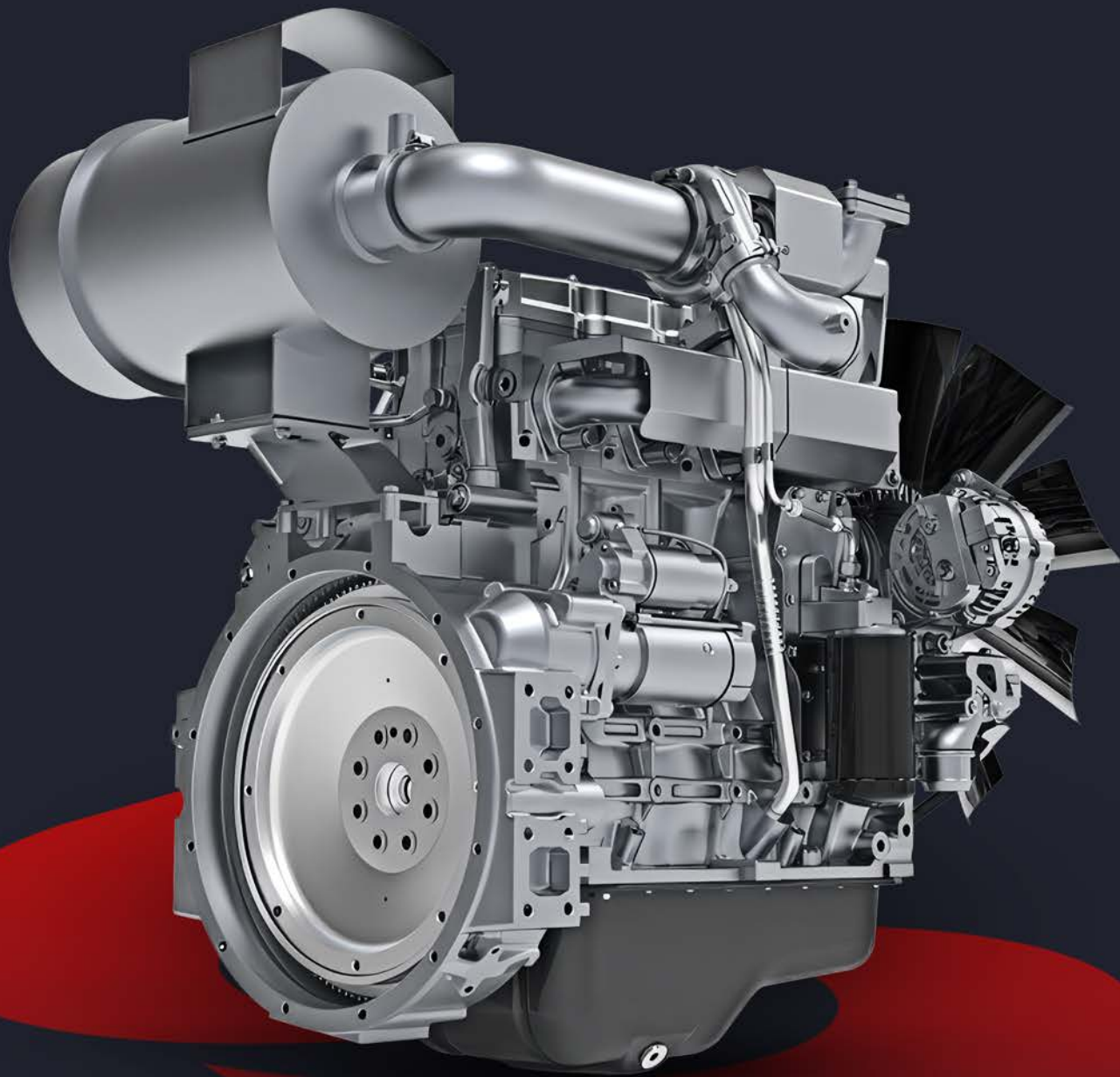




SDEC POWER

86kW

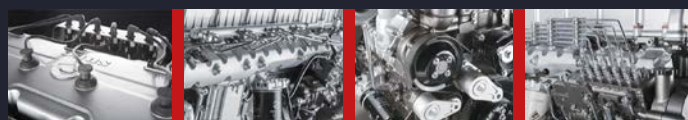
Recommended 80kVA @ 50Hz
Comprehensive Specification Sheet
Electrical and Mechanical Data



H Series Diesel Engine for Genset

4HT4.3-G23

80 kVA Prime • 88 kVA Standby • 4 cylinder • 86 kW





SDEC has built a reputation for superior quality diesel engines globally.

RELIABLE INNOVATION

For over 75 years, SDEC has manufactured the highest quality engines for power generation and automotive applications. These engines have been tested in some of the world's toughest and harshest environments including aerospace stations, marine applications, mining, oil and gas and manufacturing.



WORLD-CLASS MANUFACTURING

SDEC makes use of the latest, world-class thermostatically controlled automated and robotic machining lines, assembly stations, and test production lines. This in-house production management system assists in controlling all production processes, thereby improving both product quality and production efficiency. SDEC's advanced planning system (APS) is used to make full use of all resources, optimize logistics operations, and increase production capacity.

PRODUCTION CAPACITY & POWER RANGE

With an annual production capacity of 330,000 engines, the full range of SDEC engines spans from 50 to 2200 kW. SDEC prides itself in building engines with excellent fuel consumption, load acceptance and power density, to stand up to any test. Alongside our market-leading engines, comes the highest levels of customer service, a global support network and product innovation through our Research and Development Centre.

A HERITAGE OF EXCELLENCE

75+ years experience in design, manufacturing, support and quality goes into every generator set. You can expect reliability, durability and excellent total cost of ownership from the range of products. SDEC has been recognized by numerous leading government bodies within the industry, proven by our numerous certifications and awards. SDEC received the internationally coveted ISO9001 certification in 1994. SDEC has also been awarded QS9000 and TS16949 certification conducted by TUV Rheinland. SDEC has been recognised with the distinguished Golden Award of Quality for "Best Engine" and "Best Engine Manufacturer" by the World Passenger Car Association.



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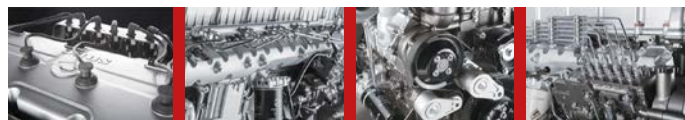


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H Series Diesel Engine for Genset

4HT4.3-G23

80 kVA Prime • 88 kVA Standby • 4 cylinder • 86 kW



General Specifications

Engine Speed (rev/min)	Prime Power	Standby Power	Genset (Prime) kW	Genset (Standby) kW	Genset (Prime) kVA	Genset (Standby) kVA
1500 rpm	78 kW	86 kW	64 kW	70 kW	80 kVA	88 kVA

Engine Make	SDEC Power
Engine Model	4HT4.3-G23
Engine Type	In line
Cylinders	4
Cylinder Bore x Stroke	105mm x 124mm
Displacement (L)	4.3 L
Cylinder Type	Dry liner
Aspiration	Turbocharged

Compression Ratio	16 : 1
Governor	Electronic
Flywheel Housing	SAE3#
Flywheel	SAE11.5"
Gears	127
Dry Weight	430 kg
Gross Weight	550 kg
Engine Dimensions	1018×716×989 mm (LxWxH)
Package Dimensions	1280×1080×1175 mm (LxWxH)

Intake and Exhaust System

Intake (air in liner)	5.6 m³/min
Exhaust (burn volume)	13.2 m³/min
Heat Dissipation	62 kW
Heat Radiation	6.4 kW
Max Exhaust Temp.	500 °C

Exhaust Pipe Diameter	Φ80 mm
Maximum Allowed Air Inlet Resistance	6 kPa
Maximum Allowed Exhaust Back Pressure	10 kPa
Smoke FSU	≤3.0
Sound Reading	95 dB(A)

Fuel System

Fuel Grade	0# (Ambient temp. above 4°C)
Min. fuel consumption rate g/kW.h	215 g/kW.h
50% Load Consumption	9.9 L/hour

75% Load Consumption	14.3 L/hour
100% Load Consumption	19.5 L/hour
110% Load Consumption	21.8 L/hour

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**All ratings are quoted at maximum ratings at sea level and derating will be applicable for altitude and power factor.*

Cooling System

Coolant Capacity (Litres)	12 L	Fan Air Flow	3.5 m³/s
Radiator Coolant (Litres)	17 L	Fan Power Consumption	5 kW
Intercooler Heat Radiation	N/A	Coolant Flow	155 L/min
Coolant Capacity Loss	51 kW	Thermostat Open Temp.	82 °C - 95 °C
		Max Water Outlet Temp.	97 °C

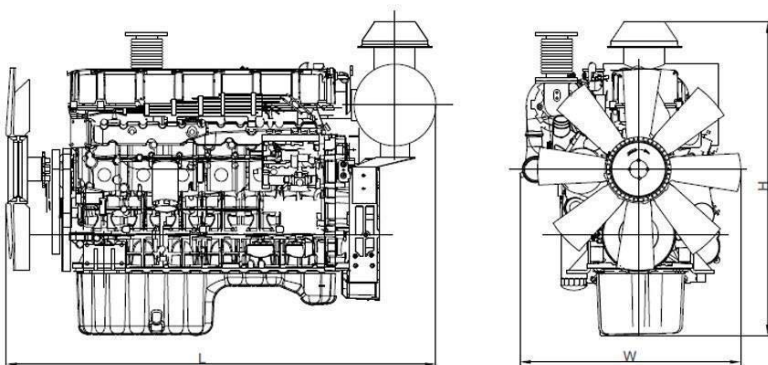
Lubricating System

Engine Oil Grade	CF	Max. Oil Temp. (°C)	120 °C
Oil Viscosity	15W-40	Min. Oil Pressure	0.07 Mpa
Oil Capacity (Litres)	13 L	Oil Consumption	0.03g/kw.h

Electrical System

Voltage	24 V	Alternator (Amps)	27 Amps
Start Motor Power Loss	5 kW	Battery Capacity (Ah)	2 x 12V x 120 Ah
Cold Start Current	240 CCA	One-step Load %	50%

Technical Schematic



Industry Standards & Notes

- Engine performance is as per GB/T2820
- Ratings are based on the GB/T1147.1 standard.
- Prime power running should not exceed 1 hour in any 12 hours of continuous operation. (The hour should be spread over the 12 hour period)
- For optimal running and life cycle, the variable load average should not exceed 70% of the prime power rating
- All ratings are quoted at maximum ratings at sea level and derating will be applicable for altitude and power factor.