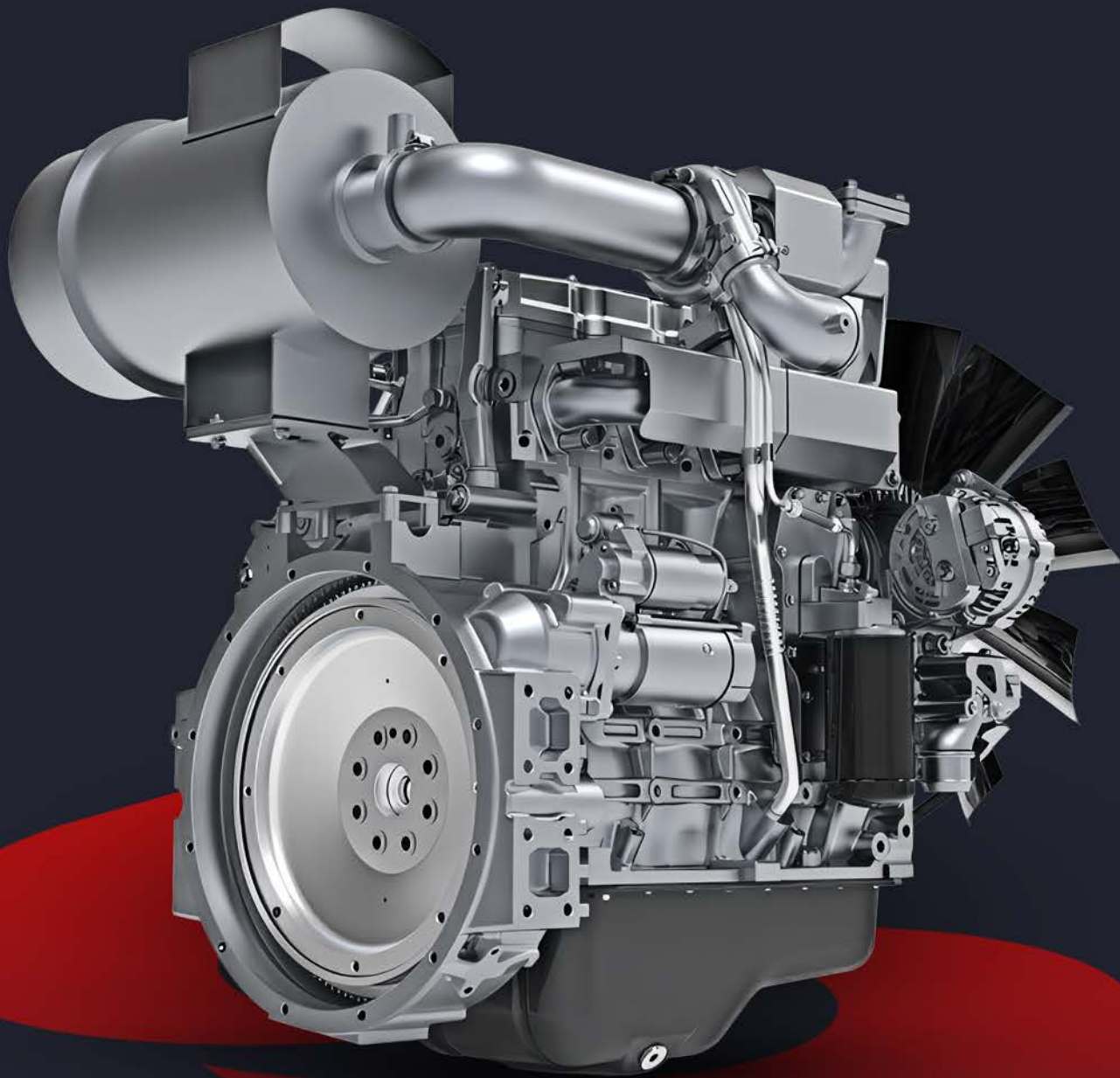




SDEC POWER

105kW

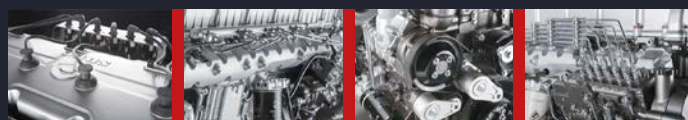
Recommended 100kVA @ 50Hz
Comprehensive Specification Sheet
Electrical and Mechanical Data



H Series Diesel Engine for Genset

4HTAA4.3-G21

100 kVA Prime • 110 kVA Standby • 4 cylinder • 105 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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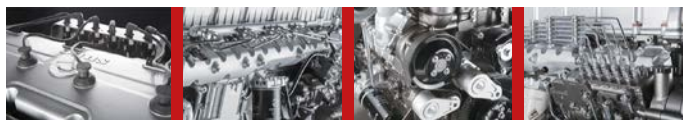


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H Series Diesel Engine for Genset

4HTAA4.3-G21

100 kVA Prime • 110 kVA Standby • 4 cylinder • 105 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	95 kW	105 kW	84 kW	90 kW	100 kVA	110 kVA

Engine Make	SDEC Power	Compression Ratio	16 : 1
Engine Model	4HTAA4.3-G21	Governor	Electronic
Engine Type	In line	Flywheel Housing	SAE3#
Cylinders	4	Flywheel	SAE11.5"
Cylinder Bore x Stroke	105mm x 124mm	Gears	127
Displacement (L)	4.3 L	Dry Weight	430 kg
Cylinder Type	Dry liner	Gross Weight	550 kg
Aspiration	Turbocharged & Intercooled	Engine Dimensions	1037×728×1024 mm (LxWxH)
		Package Dimensions	1280×1080×1175 mm (LxWxH)

Intake and Exhaust System

Intake (air in liner)	6.8 m³/min	Exhaust Pipe Diameter	Φ80 mm
Exhaust (burn volume)	16.1 m³/min	Maximum Allowed Air Inlet Resistance	6 kPa
Heat Dissipation	75.7 kW	Maximum Allowed Exhaust Back Pressure	10 kPa
Heat Radiation	7.7 kW	Smoke FSU	≤2.5
Max Exhaust Temp.	550 °C	Sound Reading	96 dB(A)

Fuel System

Fuel Grade	0# (Ambient temp. above 4°C)	75% Load Consumption	17.7 L/hour
Min. fuel consumption rate g/kW.h	205 g/kW.h	100% Load Consumption	23 L/hour
50% Load Consumption	11.8 L/hour	110% Load Consumption	25.9 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)	19 L	Fan Power Consumption	5 kW
Intercooler Heat Radiation	17 kW	Coolant Flow	155 L/min
Coolant Capacity Loss	62 kW	Thermostat Open Temp.	82 °C - 95 °C
		Max Water Outlet Temp.	99 °C

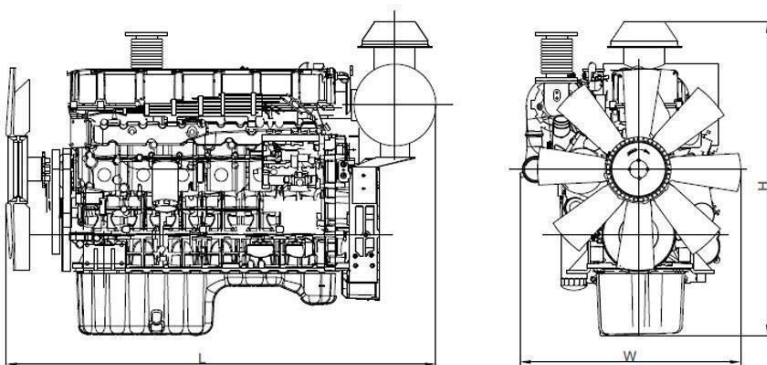
Lubricating System

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	0.05g/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.