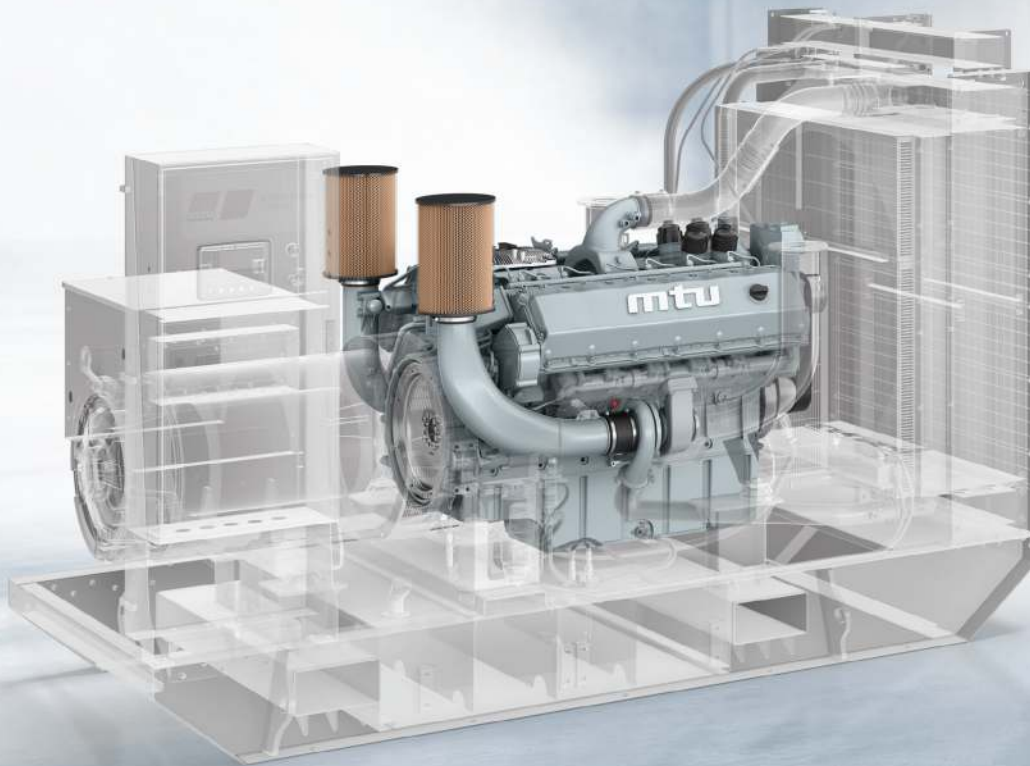




Power Generation Solutions

THE ALL-NEW **mtu** SERIES 1600 GX1 GENDRIVE



A Rolls-Royce
solution

UNPRECEDENTED POWER DENSITY – UP TO 50% MORE POWER

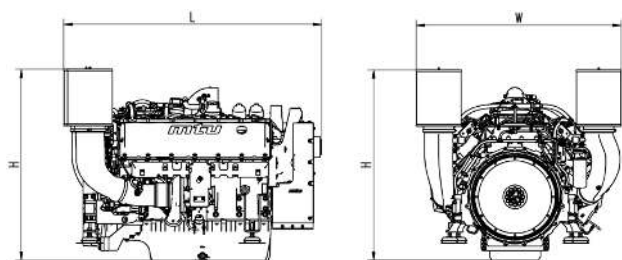
The new generation of **mtu** Series 1600 GenDrive diesel engine, the **mtu** 12V1600 Gx1, is available as of now. Our new engine extends the power range of the already existing 12V1600 Gx0 up to 996 kWm.

With its outstanding power-to-size ratio, the 12V1600 Gx1 is the most powerful engine with the highest power density in its power range.

With its 4 power rating definitions and in total 8 new power ratings the 12V1600 Gx1 provides reliable power for a wide range of

applications, from airports to data centers, hospitals public or commercial buildings as well as prime power applications such as construction sites or remote prime power plants.

Dimensions & weight



Dimensions (L x W x H): 1.817mm x 1.445mm x 1.349mm Weight (dry): 2.170kg
All dimensions and weights are approximate.

Your advantages



Highest power density and full flexibility for various genset applications



Approved for synthetic fuels acc. to EN15940 (e.g. HVO) for up to 90% CO₂ reduction



Industry-leading load factors up to 85% for ESP and up to 100% for DCP ratings



Best-in-class low load operation for hybrid applications in combination with solar-PV

	Continuous / Prime / Grid Stability	Standby & Mission Critical		
Application				
ISO	ISO 8528-1 PRP Prime Power	ISO 8528-1 ESP Emergency Standby Power		ISO 8528-1 DCP Data Center Power
mtu ratings	Prime Power	Standby Power	Prime Power for Stationary Emergency	Data Center Continuous Power
			new	new

mtu 12V1600 GX1

TECHNICAL DESIGN FEATURES

The **mtu** Series 12V1600 Gx1 is the result of a holistic development program bundling all of Rolls-Royce's core competencies in R&D, thermodynamics, analytics, simulation and testing from more than 100 years of engine development expertise.

Increasing the power output of an existing engine platform by up to 50% while maintaining our highest quality and performance standards is an ambitious goal.

Therefore, the **mtu** Series 1600 engine platform was fundamentally redesigned, optimized and reinforced to achieve something unique in its class.

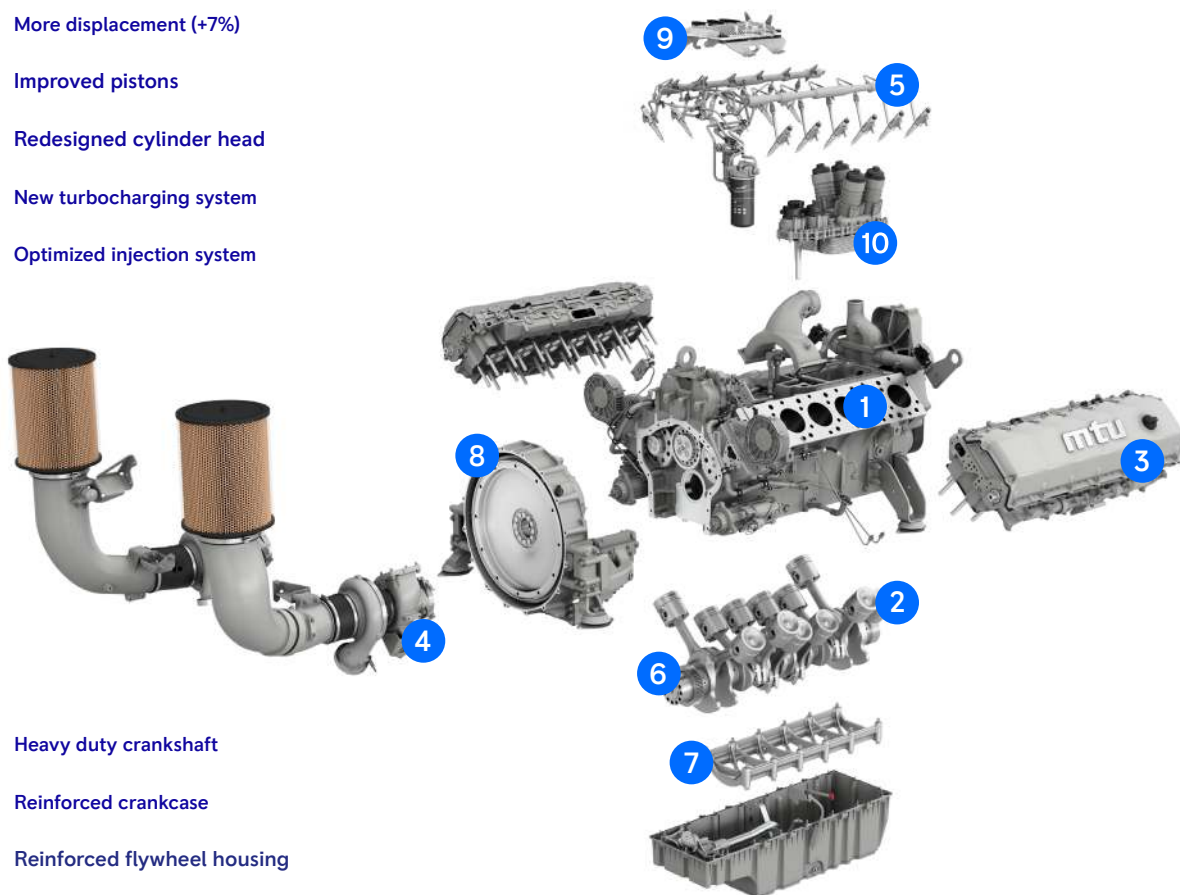
1 More displacement (+7%)

2 Improved pistons

3 Redesigned cylinder head

4 New turbocharging system

5 Optimized injection system



6 Heavy duty crankshaft

7 Reinforced crankcase

8 Reinforced flywheel housing

9 Upgraded Engine Control Unit

10 New crankcase ventilation

12V1600 GX1 TECHNICAL DATA OVERVIEW

GenDrive 12V1600 Gx1

Key engine data	
Arrangement	12V (90°V)
Bore / stroke	126 / 150 mm
Total displacement	22.4l
Displacement / Cyl.	1.87l
Max. power	996 kWm (60Hz), 888 kWm (50Hz)
Injection system	Common rail
Fuel specification	EN 590, Grade No.1-D/2-D (ASTM D975-00), EN15940 (e.g. HVO)
Turbocharging	Single Stage
Electronics	ECU9
Cooling System	air-to-air charge air cooling (A2A/TD)
Available calibrations 50Hz	Fuel consumption optimized, NEA Singapore (ORDE), EPA Tier 2 compliant
Available calibrations 60Hz	EPA Tier 2 certified, EPA Tier 2 compliant

50Hz power ratings (at 1.500rpm)

Engine Model	3D	Engine Model	3B / 3E / 3F
	Gross Engine Power [kWm]		Gross Engine Power [kWm]
12V1600 G71F	740	12V1600 G11F	673
12V1600 G81F	787	12V1600 G21F	715
12V1600 G91F	888	12V1600 G31F	806

60Hz power ratings (at 1.800rpm)

Engine Model	3D	Engine Model	3B / 3E / 3F
	Gross Engine Power [kWm]		Gross Engine Power [kWm]
12V1600 G51S	730	12V1600 G01S	664
12V1600 G61F	783	12V1600 G11S	712
12V1600 G71S	836	12V1600 G21S	760
12V1600 G81S	890	12V1600 G31S	809
12V1600 G91S	996	12V1600 G41S	905

For more information please visit the [mtu Series 1600](#) webpage.

For detailed technical information please download the Series 1600 data sheet or visit the [mtu Business Portal](#).

For quotations please consult your local [mtu sales partner](#) or contact our online Customer Assistance Center.