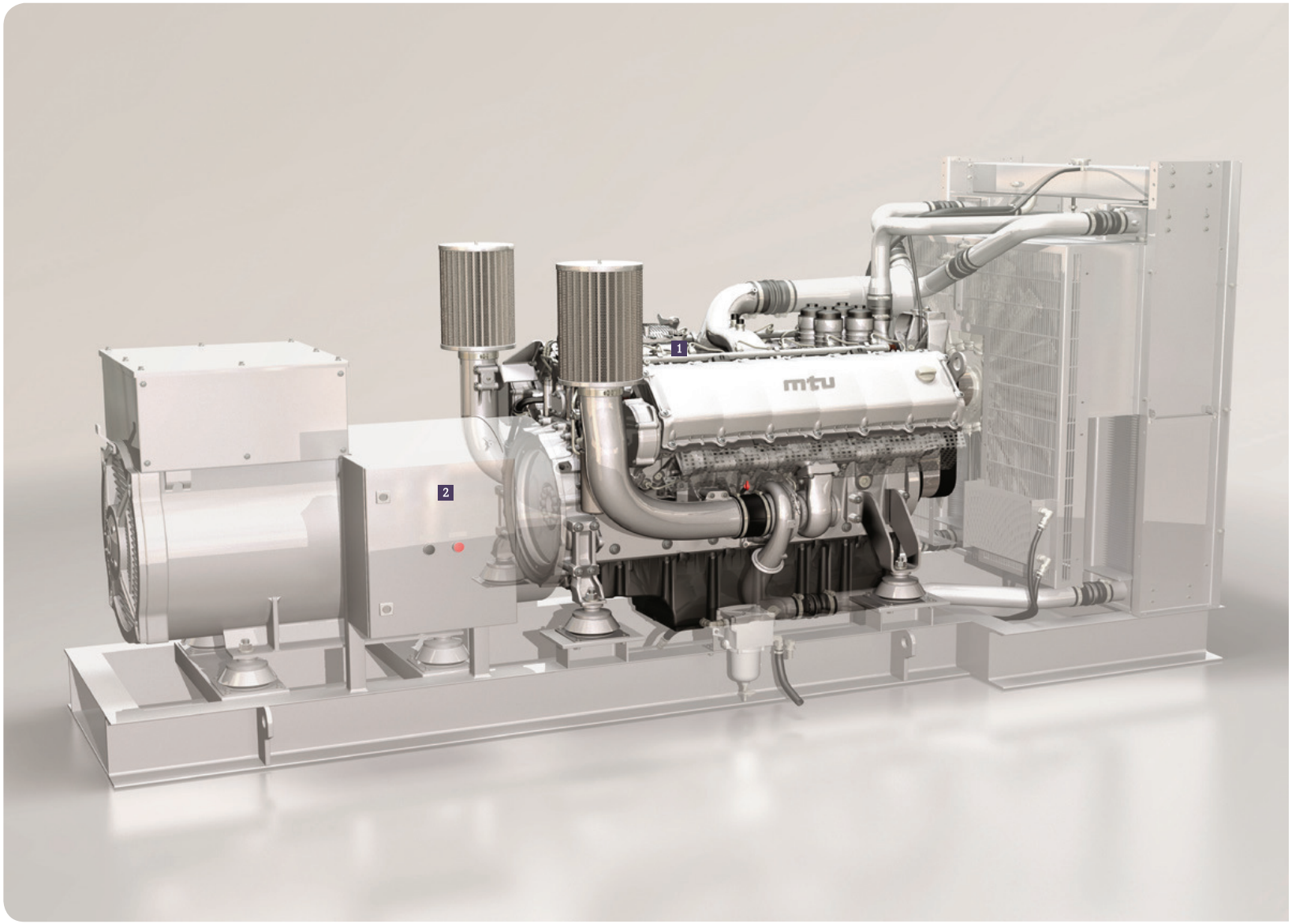
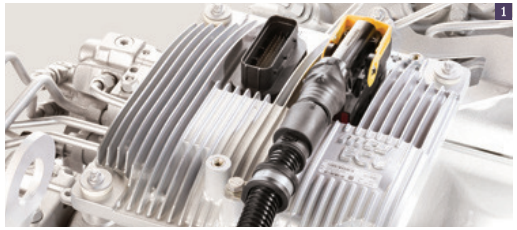
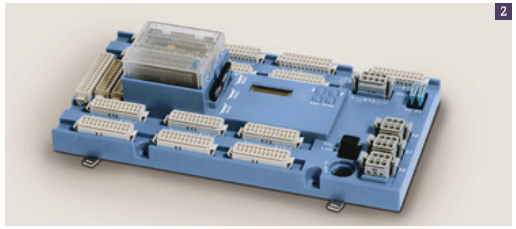
State-of-the-art systems technology. Intelligent electronics.







1 Electronic Engine Control Unit (ADEC)
- Engine monitoring and management
- Communication with auxiliary systems via the CAN bus (and appropriate interface module)
- Self-monitoring and diagnosis
- Extensive input/output channels
- Programming and configuration using an interactive device via MCS5-CAN bus interface
- Separate triggering of multiple injectors: Multi-point injection for optimized fuel consumption and low emissions

2 Service Application Module (SAM)

Standard Equipment:
- Display of warnings, alerts, operating information and error codes
- Redundant data backup
- Web server access and remote diagnosis
- Life data recording
- External controller connection via CAN bus/SAE J 1939 using a bus card

Optional:
- Fuel level display and monitoring of immediate-supply tank and main reservoir tank
- Fan/vent control
- Generator exciter boost control
- Monitoring of generator winding temperature
- Preheat control and circulation pump control
- Speed boost control
- Load uptake ready signal
- Fuel prefilter monitoring
- Selection of second controller data record
- Interactive interface
- External 24V power supply

Technical Data

Series 1600 G_0 for Generator Drive Applications with Air Charge-Air Cooling		
Cylinder configuration		6 cylinder, in line
		8 cylinder, 90° V
		10 cylinder, 90° V
		12 cylinder, 90° V
Bore/Stroke	mm (inch)	122/150 (4.8/5.9)
Displacement/cylinder	l (cu in)	1.75 (107)
Displacement, total	l (cu in)	6R: 10.5 (641)
		8V: 14.0 (854)
		10V: 17.5 (1065)
		12V: 21.0 (1285)
Fuel specification		EN 590; Grade No.1-D/2-D (ASTM D975-00)

Reference conditions:

Intake-air temperature:	25°C (77°F)
Ambient air pressure:	1000 mbar
Altitude above sea level:	100 m

Subject to change without notice. Customization possible.

Engines illustrated in this document may feature options not fitted as standard to standard engines.

Application Group	Prime Power	Prime Power Limited	Standby Power
	3B	3C	3D
Engine type	Rated power kW (bhp) at 1500 rpm (50 Hz)		
Optimization	☒ ① ⑧	☒ ① ⑧	☒ ① ⑧
10V 1600 G10F	407 (546)	-	-
10V 1600 G20F	448 (601)	-	-
10V 1600 G40F	-	407 (546)	-
10V 1600 G50F	-	448 (601)	-
10V 1600 G70F	-	-	448 (601)
10V 1600 G80F	-	-	493 (661)
Optimization	☒ ①	☒ ①	☒ ①
12V 1600 G10F	524 (703)	-	-
12V 1600 G20F	576 (772)	-	-
12V 1600 G40F	-	524 (703)	-
12V 1600 G50F	-	576 (772)	-
12V 1600 G70F	-	-	576 (772)
12V 1600 G80F	-	-	634 (850)
Engine type	Rated power kW (bhp) at 1500 rpm - 50Hz, for rental markets		
Optimization	⑧		
10V 1600 B50F	448 (601)	-	-
Optimization	☒ ①		
12V 1600 B50F	576 (772)	-	-
Engine type	Rated power kW (bhp) at 1800 rpm (60 Hz)		
Optimization	③		③ or (19)
10V 1600 G20S	511 (685)	-	-
10V 1600 G80S	-	-	561 (752)
12V 1600 G10S	561 (752)	-	-
12V 1600 G20S	608 (815)	-	-
12V 1600 G70S	-	-	613 (822)
12V 1600 G80S	-	-	668 (896)
Engine type	Rated power kW (bhp) at 1800/1500 rpm - 60/50Hz switchable, for rental markets		
Optimization	③ ⑧ / ⑦ ⑧		
10V 1600 B40S	511/448 (685/601)	-	-
Optimization	③ / ③		
12V 1600 B40S	608/576 (815/772)	-	-

Optimization:
☒ Fuel consumption
① Exhaust emission (TA-Luft)
③ Exhaust emission (EPA 40 CFR 89/Tier 2)
⑦ Exhaust emission (EPA 40 CFR 89/Tier 3)
⑧ Exhaust emission (EU 97/68 EC Stage III A)
(19) Exhaust emission (EPA 40 CFR 89/Tier 2) compliant**

**Not allowed to be delivered and/or operated in the USA.
10V 1600 engines are available starting April 2010.

Application Group	Prime Power	Prime Power Limited	Standby Power
	3B	3C	3D
Engine type	Rated power kW (bhp) at 1500 rpm (50 Hz)		
Optimization	☒ ① ⑧	☒ ① ⑧	☒ ① ⑧
6R 1600 G10F	249 (334)	-	-
6R 1600 G20F	274 (367)	-	-
6R 1600 G40F	-	249 (334)	-
6R 1600 G50F	-	274 (367)	-
6R 1600 G70F	-	-	274 (367)
6R 1600 G80F	-	-	301 (404)
8V 1600 G10F	325 (436)	-	-
8V 1600 G20F	358 (480)	-	-
8V 1600 G40F	-	325 (436)	-
8V 1600 G50F	-	358 (480)	-
8V 1600 G70F	-	-	358 (480)
8V 1600 G80F	-	-	394 (528)
Engine type	Rated power kW (bhp) at 1500 rpm - 50Hz, for rental markets		
Optimization	☒ ① ⑧		
6R 1600 B50F	274 (367)	-	-
8V 1600 B50F	358 (480)	-	-
Engine type	Rated power kW (bhp) at 1800 rpm (60 Hz)		
Optimization	⑦		⑦ or (20)
6R 1600 G10S	284 (381)	-	-
6R 1600 G20S	312 (418)	-	-
6R 1600 G70S	-	-	312 (418)
6R 1600 G80S	-	-	343 (460)
8V 1600 G10S	371 (498)	-	-
8V 1600 G20S	408 (547)	-	-
8V 1600 G70S	-	-	408 (547)
8V 1600 G80S	-	-	448 (601)
Engine type	Rated power kW (bhp) at 1800/1500 rpm - 60/50Hz; switchable, for rental markets		
Optimization	⑦ ⑧ / ⑦ ⑧		
6R 1600 B40S	312/274 (418/367)	-	-
Optimization	⑦ ⑧ / ⑦ ⑧		
8V 1600 B40S	408/358 (547/480)	-	-

Optimization:
☒ Fuel consumption
① Exhaust emissions (TA-Luft)
③ Exhaust emissions (EPA 40 CFR 89/Tier 2)
⑦ Exhaust emissions (EPA 40 CFR 89/Tier 3)
⑧ Exhaust emissions (EU 97/68 EC Stage III A)
(20) Exhaust emissions (EPA 40 CFR 89/Tier 3) compliant**

**Not allowed to be delivered and/or operated in the USA.
6R 1600 engines are available starting July 2010.
8V 1600 engines are available starting October 2010.

Application	Definition	
3B	Continuous operation with variable load	Load factor: < 75%
		Operating hours/year: unrestricted
		Overload: 10 % capability (ICXN)
3C	Standby operation with variable load	Load factor: < 75%
		Operating hours/year: max. 1000
		Overload: 10 % capability (ICXN)
3D	Standby operation with variable load	Load factor: < 85%
		Operating hours/year: max. 500
		Overload: Fuel stop power (IFN)

Power output within 5% tolerance at standard conditions. Power definition according to ISO 3046 (ratings also correspond to SAE J 1995 and SAE J 1349 standard conditions).

Consult your MTU distributor/dealer for the rating that will apply to your specific application.

Rated power does not include fan power requirements. The power consumption of any fan drive has to be deducted during designing of a generator set.