# **Diesel Engines Series 16V 2000**

# for GenSet Applications



## Ratings

16V Series 2000 - 50 Hz				
	Output	Application	Power Output	
			BHP (kW)	kVA
		Standby	1079 (805)	900
G20	Low	Prime	965 (720)	800
		Continuous	NA	NA
		Standby	1200 (895)	1000
G60	High	Prime	1079 (805)	900
		Continuous	878 (655)	730

16V Series 2000 - 60 Hz				
	Output	Application	Power Output	
			BHP (kW)	kW <sub>e</sub>
		Standby	1350 (1007)	900
G40	Low	Prime	1227 (915)	820
		Continuous	996 (743)	660
		Standby	1495 (1115)	1000
G80	High	Prime	1358 (1013)	910
		Continuous	1119 (835)	750

16V Series 2000 - Switchable					
	Output	Application	Frequency	Power Output	
			Hz	BHP (kW)	kVA/kW <sub>e</sub>
		Standby	50	1079 (805)	900
G20	Low	Standby	60	1225 (914)	820
		Prime	50	965 (720)	800
		Prime	60	1113 (830)	740
		Standby	50	1200 (895)	1000
		Standby	60	1350 (1007)	900
G60	High	Prime	50	1079 (805)	900
		Prime	60	1225 (914)	820
		Continuous	50	878 (655)	730
		Continuous	60	992 (740)	660

## **Optional Ratings**

EPA certified, TA Luft certified, fuel optimized versions available



DaimlerChrysler Off-Highway

# Technical **Data**

# **General Specification**

Configuration	V-90°	
Displacement	1944 CID (31.88L)	
Bore and Stroke	5.11 in x 5.91 in (130 mm x 150 mm)	
Description	Turbocharged – Aftercooled	
Governor	MDEC	
HP Range	878 - 1495 BHP	
	655 - 1115 kW	

# Standard Equipment

Main Engine – Single cast iron block, individual cylinder head, with SAE #0 flywheel and housing

Fuel System – Electronic unit pump injection system; secondary fuel filters mounted on the front of the engine

Engine Lube System – Engine mounted oil filters; integral oil cooler

Cooling System – Gear driven, engine mounted water pump and auxiliary water pump (for SCCC systems)

Air Inlet System – Direct mounted turbochargers; separate circuit charge cooling or jacket water cooling for aftercooler

Electrical System- MDEC electronic controls, 24Vdc starter; 24Vdc, 70A alternator

Mounting System- 4 point hard mount

Exhaust System – Constant pressure "log" manifold Crankcase Vent System – Closed crankcase breather system

# **Optional Equipment**

Fuel System - Remote mounted fuel filters

Exhaust Connection System-90° dry exhaust elbows

Cooling System – 220 and 440V (230 and 400V 50 Hz) coolant heater with circulatng pump, optional fan drive ratios

Starting System – Air starter

Mounting System – Four point isolated mount

Engine Monitoring System – Gage package: Round (52mm) oil psi, coolant temperature, tachometer

Air System - Air filters

# Fully supported by the Detroit Diesel professional network

For more information contact your MTU distributor. All Detroit Diesel distributors in NAFTA are authorized MTU distributors. www.mtu-online.com / www.detroitdiesel.com powergen@detroitdiesel.com

# **Rating Definition**

#### Gen Set Continuous Power

This type of rating applies to heavy-duty diesel generator sets when used as a utility power source. The engine is expected to be operated with constant and/or dedicated loads with load factors up to 100% of the continuous power rating. Under these conditions, the engine may be operated for an unlimited number of hours per year.

### Gen Set Limited Running Time Power

This type of rating applies to heavy-duty diesel generator sets when used as a utility power source which will deliver rated power for up to 700 hours per year. Normal varying load factors and/or constant dedicated loads must not exceed 75% of the limited running time power rating.

#### Gen Set Prime Power

This type of rating applies to heavy-duty diesel generator sets when used as a utility power source. It is subject to normal varying load conditions, with an intermittent overload capability of 10% (up to the standby power rating), for no more than 1 hour in every 12 hours operation. When averaged over a 24 hour period, the average load factor must not exceed 70% of the prime power rating. Under these conditions the generator set may be operated for an unlimited number of hours per year.

#### Gen Set Standby Power

This type of rating applies to heavy-duty diesel generator sets when used in the event of a utility power failure. The generator set may be operated at rated power for the duration of the utility outage. The generator set will operate with an average load factor of less than 70% of the rated power and will operate for less than 5% of the time over the course of a year.

### Performance

Constant pressure "log" exhaust manifold for enhanced turbocharger performance

Twin optimized turbochargers for quick load acceptance

Electronic control system manages the fuel system for maximum output, low smoke and precise speed control

Separate Circuit Charge Cooling provides maximum charge air cooling for best performance while minimizing white smoke at low ambient temperatures

Individually calibrated electronic unit injector pumps for optimum combustion characteristics at all rpm's

Four valve cylinder heads for optimum air flow and engine performance

All Series 2000 engines produce their rated power. The power you buy is the power you get.

#### Reliability and Durability

Individual cylinder heads reduce thermal stress and ensure long compression seal life Sputtered main and rod bearings for high load capacity and long life

High capacity oil pump and three oil galleries for maximum piston cooling and bearing life Endurance tested in heavy duty industrial applications

One year limited warranty

Built and tested in Detroit, MI USA

1.5 hour dynamometer testing and oil analysis on every engine

Ceramic chrome piston rings with offset barrel design for long life to overhaul Plateau honed cylinder liners for low oil consumption and long ring life

#### **Features and Benefits**

Operates at fuel temperatures up to 140°F without power deration Operates on DF-2 with no changes to the fuel system Designed for 500 hours oil change intervals True worldwide parts and service support optional extended warranty