

DIESEL POWER MODULE

AIR CHARGE-WATER COOLING

Voltages:

1935 kWe / 60 Hz / Prime - 480V

1755 kWe / 60 Hz / Continuous - 480V

2056 kVA / 50 Hz / Prime - 400V

1875 kVA / 50 Hz / Continuous - 400V



SYSTEM RATINGS

60 Hz	DP1935D6SRW	DB1755D6SRW	50 Hz	DP2056D5SFW	DB1875D5SFW
Voltage (L-L)	480V	480V	Voltage (L-L)	400V	400V
Phase	3	3	Phase	3	3
PF	0.8	0.8	PF	0.8	0.8
Hz	60	60	Hz	50	50
kW	1935	1755	kW	1645	1500
kVA	2419	2194	kVA	2056	1875
AMPS	2909	2639	AMPS	2968	2706
skVA@30%			skVA@30%		
Voltage Dip	5750	5750	Voltage Dip	4500	4500
Generator Model	744RDL4056	744RDL4056	Generator Model	744RDL4056	744RDL4056
Temp Rise	105 °C/40 °C	105 °C/40 °C	Temp Rise	105 °C/40 °C	105 °C/40 °C
Connection	4 BAR WYE	4 BAR WYE	Connection	4 BAR WYE	4 BAR WYE

CERTIFICATIONS AND STANDARDS

// Emissions

- Fuel Optimized

// Engine-generator set is designed and manufactured in facilities certified to standards ISO 9001:2008 and ISO 14001:2004

// Container

- CSC Certified

// Performance Assurance Certification (PAC)

- Engine-Generator Set Tested to ISO 8528-5 for Transient Response
- Verified product design, quality and performance integrity
- All engine systems are prototype and factory tested

// Power Rating

- Permissible average power output during 24 hours of operation is approved up to 75% for prime rated unit.
- Permissible average power output during 24 hours of operation is approved up to 100% for continuous rated unit.

STANDARD FEATURES*

- // MTU Onsite Energy is a single source supplier
 - // Global Product Support
 - // Consult factory for specific warranty terms
 - // 16V4000 Diesel Engine
 - 76.3 Liter Displacement
 - Common Rail Fuel Injection
 - 4-Cycle
 - // Engine-Generator Resilient Mounted
 - // Complete Range of Accessories
- // Generator
 - Brushless, Rotating Field Generator
 - 2/3 Pitch Windings
 - PMG (Permanent Magnet Generator) Supply to Regulator
 - 300% Short Circuit Capability
 - // Digital Control Panel
 - Complete System Metering
 - LCD Display
 - // Cooling System
 - Remote Mounted
 - Electrically Driven Fans

STANDARD EQUIPMENT*

// Engine

Air Cleaners
 Oil Pump
 Oil Drain Extension & S/O Valve
 Centrifugal Oil Filters
 Closed Crankcase Ventilation
 Jacket Water Pump
 Thermostats
 Radiator - Remote Mounted
 Electric Starting Motor - 24V
 Governor - Electronic Isochronous
 Base - Formed Steel
 SAE Flywheel & Bell Housing
 Charging Alternator - 24V
 Battery Rack & Cables
 Fuel Optimized (Both 60 Hz and 50 Hz)

// Generator

NEMA MG1, IEEE and ANSI standards compliance for temperature rise and motor starting
 Sustained short circuit current of up to 300% of the rated current for up to 10 seconds
 Self-Ventilated and Drip-Proof
 Superior Voltage Waveform
 Digital, Solid State, Volts-per-Hertz Regulator
 No Load to Full Load Regulation
 Brushless Alternator with Brushless Pilot Exciter
 4 Pole, Rotating Field
 105 °C Maximum Temperature Rise
 2 Bearing, Sealed
 Close Coupling

Full Amortisseur Windings
 125% Rotor Balancing
 3-Phase Voltage Sensing
 ±0.25% Voltage Regulation
 100% of Rated Load - One Step
 3% Maximum Harmonic Content

// Digital Control Panel(s)

Digital Metering
 Engine/Generator Protection Functions
 CAN Bus ECU Communications
 Multilingual Capability
 Programmable Contact Outputs

// Container

40' High Cube ISO Container
 Rear Container Double Doors
 Three Lockable Personnel Access Doors
 2,000 Liters (550 gallons) UL 142 Certified Diesel Fuel Tank
 60 Liters (16 gallons) Auxiliary Oil Tank
 Internally Mounted Insulated Exhaust Silencer
 NEMA 1 Floor-Standing Generator Set Breaker Panel
 Main Line Circuit Breaker Rated at 3200 Amps and 65KAIC
 24 VDC LED Interior Lights with 0-60 Minute Timer

* Represents standard product only. Consult Factory/MTU Onsite Energy Distributor for additional configurations.

APPLICATION DATA

// Engine

Manufacturer	MTU
Model 60 Hz Prime	16V4000G83 3B
Model 60 Hz Continuous	16V4000G83 3A
Model 50 Hz Prime	16V4000G23 3B
Model 50 Hz Continuous	16V4000G63 3A
Type	4-Cycle
Arrangement	16-V
Displacement: L (Cu In)	76.3 (4,656)
Bore: cm (in)	17 (6.69)
Stroke: cm (in)	21 (8.27)
Compression Ratio	16.5:1
Rated RPM: 60 Hz	1,800
Rated RPM: 50 Hz	1,500
Engine Governor	Electronic Isochronous (ADEC)
Prime Max Power (110%): 60 Hz: kWm (hp)	2,508 (3,362)
50 Hz: kWm (hp)	1,978 (2,651)
Prime Rated Power (100%): 60 Hz: kWm (hp)	2,280 (3,056)
50 Hz: kWm (hp)	1,798 (2,410)
Continuous Rated Power: 60 Hz: kWm (hp)	1,950 (2,614)
50 Hz: kWm (hp)	1,635 (2,192)
Speed Regulation	±0.25%
Air Cleaner	Dry

// Liquid Capacity (Lubrication)

Total Oil System: L (gal)	300 (79.3)
Total Oil Change: L (gal)	240 (63.4)
Engine Jacket Water Capacity: L (gal)	175 (46.2)
After Cooler Water Capacity: L (gal)	50 (13.2)
System Coolant Capacity: L (gal)	852 (225)

// Electrical

Electric Volts DC	24
Cold Cranking Amps Under -17.8 °C (0 °F)	2,600

// Fuel System

Maximum Fuel Lift: m (ft)	3 (10)
Recommended Fuel	Diesel #2
Total Fuel Flow: L/hr (gal/hr)	1,200 (317)

// Fuel Consumption

60 Hz	PRIME	CONTINUOUS
At 100% of Power Rating: L/hr (gal/hr)	538 (142)	454 (120)
At 75% of Power Rating: L/hr (gal/hr)	397 (105)	352 (93)
At 50% of Power Rating: L/hr (gal/hr)	276 (73)	254 (67)

50 Hz	PRIME	CONTINUOUS
At 100% of Power Rating: L/hr (gal/hr)	397 (105)	367 (97)
At 75% of Power Rating: L/hr (gal/hr)	303 (80)	284 (75)
At 50% of Power Rating: L/hr (gal/hr)	212 (56)	201 (53)

// Cooling - Radiator System

Ambient Capacity of Radiator: °C (°F)	55 (131)
Max. Restriction of Cooling Air, Intake, and Discharge Side of Rad.: kPa (in. H ₂ O)	0.125 (0.5)
Water Pump Capacity: L/min (gpm)	1,350 (357)
Heat Rejection to Coolant: kW (BTUM)	**840 (47,769)
Heat Rejection to After Cooler: kW (BTUM)	**560 (31,846)

// Air Requirements

Aspirating: *(m ³ /min) SCFM	** 192 (6,780)
Air Flow Required for Rad.	
Cooled Unit: *(m ³ /min) SCFM	2,751 (97,161)

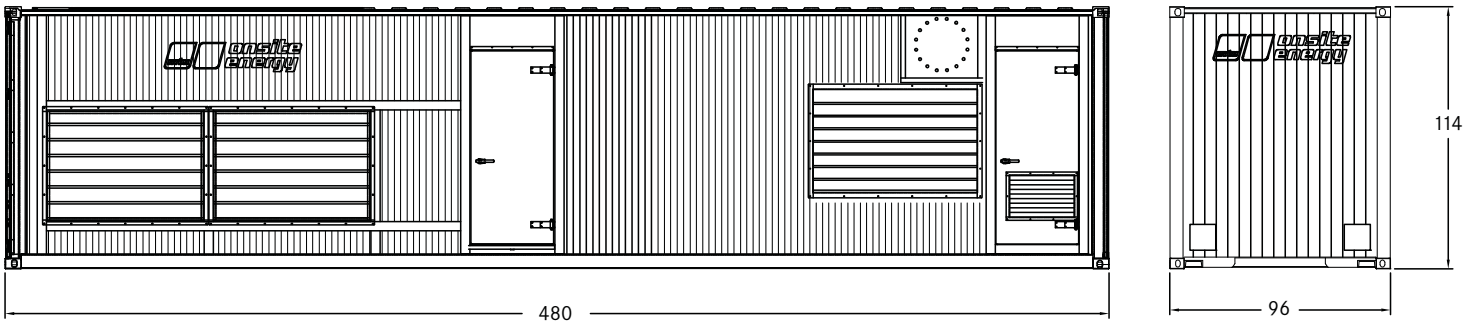
* Air density = 1.184 kg/m³ (0.0739 lbm/ft³)

// Exhaust System

Gas Temp. (Stack): °C (°F)	**505 (941)
Gas Volume at Stack	
Temp: m ³ /min (CFM)	**504 (17,799)
Maximum Allowable	
Back Pressure: kPa (in. H ₂ O)	8.5 (34.1)

** For 60 Hz Prime Rated Power

WEIGHTS AND DIMENSIONS



Drawing above for illustration purposes only. Do not use for installation design.

System	Dimensions (L x W x H)	Weight (wet/no fuel)
Power Module	12,192 x 2,439 x 2,896 mm (480 x 96 x 114 in)	30,546 kg (67,201 lb)

Weights and dimensions are based on open power units and are estimates only. Consult the factory for accurate weights and dimensions for your specific engine-generator set.

SOUND DATA

Unit Type	Full Load - Prime	Full Load - Continuous
Power Module	C/F	C/F

Sound data is provided at 7 m (23 ft). Engine-generator set tested in accordance with ISO 8528-10 and with infinite exhaust.

RATING DEFINITIONS AND CONDITIONS

- // Prime power and continuous ratings apply to installations where utility power is unavailable or unreliable. At varying load for prime power ratings or non-varying load for continuous ratings, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve for both ratings. Ratings are in accordance with ISO 8528-1, ISO 3046-1, BS 5514, AS 2789, and DIN 6271.
- // Deration Factor:
 - Altitude:** Consult your local MTU Onsite Energy Power Generation Distributor for altitude derations.
 - Temperature:** Consult your local MTU Onsite Energy Power Generation Distributor for temperature derations.

Product intended for use outside of the United States.

Materials and specifications subject to change without notice.

C/F = Consult Factory/MTU Onsite Energy Distributor