

Diesel Generator Set

mtu 12V4000 DS1750 40 °C



1,600 kWe/60 Hz/Data Center Continuous Power (Fuel Consumption Optimized) 380 - 13,800V

Reference: **mtu** 12V4000 DS1750 (1,750 kWe) 40 °C for Standby (Fuel Consumption Optimized) Rating Technical Data

System ratings

Voltage (L-L)	380V ^{† ‡}	416V ^{† ‡}	440V ^{† ‡}	480V ^{† ‡}	600V [‡]	4,160V	12,470V
Phase	3	3	3	3	3	3	3
PF	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Hz	60	60	60	60	60	60	60
kW	1,600	1,600	1,600	1,600	1,600	1,600	1,598
kVA	2,000	2,000	2,000	2,000	2,000	2,000	1,997
Amps	3,039	2,776	2,624	2,406	1,925	278	92
skVA@30% voltage dip	2,890	3,420	2,970	3,160	3,300	4,190	3,590
Generator model*	641-M60	641-M60	641-M60	641-S55	641-M60	641-VL75	4P6.6-2300
Temp rise	130 °C/40 °C	130 °C/40 °C	130 °C/40 °C	130 °C/40 °C	130 °C/40 °C	130 °C/40 °C	130 °C/40 °C
Connection	6 LEAD WYE	6 LEAD WYE	6 LEAD WYE	6 LEAD WYE	6 LEAD WYE	6 LEAD WYE	6 LEAD WYE

Voltage (L-L)	13,200V	13,800V
Phase	3	3
PF	0.8	0.8
Hz	60	60
kW	1,598	1,598
kVA	1,998	1,997
Amps	87	84
skVA@30% voltage dip	3,017	3,297
Generator model*	4P6.6-2300	4P6.6-2300
Temp rise	130 °C/40 °C	130 °C/40 °C
Connection	6 LEAD WYE	6 LEAD WYE

^{*} Consult the factory for alternate configuration. Generator model may end with -M or -R, depending on selection.



[†] UL 2200 offered

^{*} CSA offered

Certifications and standards

- Emissions
 - Fuel Consumption Optimized (FCO)
- Generator set is designed and manufactured in facilities certified to standards ISO 9001:2008 and ISO 14001:2004
- Seismic certification optional
 - 2021 IBC certification
 - HCAI pre-approval
- UL 2200 optional (refer to System ratings for availability)
- CSA optional (refer to System ratings for availability)
 - CSA C22.2 No. 100
 - CSA C22.2 No. 14

- Performance Assurance Certification (PAC)
 - 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
 - Data Center Continuous Power (DCCP) rating is optimized for data center applications
 - Uptime Institute compliant for Tier III and IV data centers
 - No runtime limitation
 - 100% load factor
 - 10% overload available
 - Accepts rated load in one step per NFPA 110

Standard features*

- Single source supplier
- Global product support
- Two (2) Year/3,000 Hour Basic Limited Warranty
- 12V4000 diesel engine
 - 57.2 liter displacement
 - Common rail fuel injection
 - 4-cycle
- HVO and GtL fuels meeting fuel specification EN15940
- Complete range of accessories
- Cooling system
 - Integral set-mounted
 - Engine-driven fan

- Generator
 - Brushless, rotating field generator
 - 2/3 pitch windings
 - Permanent Magnet Generator (PMG) supply to regulator
 - 300% short circuit capability
- Digital control panel(s)
 - UL recognized, CSA certified, NFPA 110
 - Complete system metering
 - LCD display

Standard equipment*

Engine

- Air cleaners
- Oil pump
- Oil drain extension and shut-off valve
- Centrifugal oil filtration
- Closed crankcase ventilation
- Jacket water pump
- Inter cooler water pump
- Thermostats
- Blower fan and fan drive
- Radiator unit mounted
- Electric starting motor 24V
- Governor electronic isochronous
- Base structural steel
- SAE flywheel and bell housing
- Charging alternator 24V
- Battery box and cables
- Flexible fuel connectors
- Flexible exhaust connection
- $-\,$ Fuel consumption optimized

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

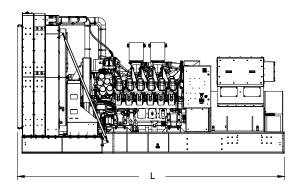
- Digital, solid state, volts-per-hertz regulator
- Brushless alternator with brushless pilot exciter
- 4 pole, rotating field
- 130 °C standby temperature rise
- 1-bearing, sealed
- Flexible coupling
- Full amortisseur windings
- 125% rotor balancing
- 3-phase voltage sensing
- ± 0.25% voltage regulation no load to full load
- 100% of rated load one step
- 5% maximum total harmonic distortion

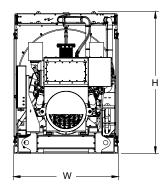
Digital control panel(s)

- Digital metering
- Engine parameters
- Generator protection functions
- Engine protection
- CANBus ECU communications
- Windows®-based software
- Multilingual capability
- Communications to remote annunciator
- Programmable input and output contacts
- UL recognized, CSA certified, CE approved
- Event recording
- IP 54 front panel rating with integrated gasket
- NFPA 110 compatible

Application data

Manufacturer mtw At 100% of power rating: L/hr (gal/hr) 408 (108) Model 12V4000G245 At 75% of power rating: L/hr (gal/hr) 303 (80) Type 4-cycle At 50% of power rating: L/hr (gal/hr) 215 (57) Arrangement 12-V Cooling - radiator system 216 (57) Bore: cm (in) 17 (69) Maximum restriction of cooling air: intake 40 (104) Stroke: cm (in) 21 (8.27) Maximum restriction of cooling air: intake 40 (104) Stroke: cm (in) 16.5:1 and discharge side of radiator: %2 (in. H ₂ 0) 0.12 (0.5) Rated rpm 1.800 Waximum restriction of cooling air: intake 40 (104) Stroke: cm (in) 1.55:1 and discharge side of radiator: %2 (in. H ₂ 0) 0.12 (0.5) Rated rpm 1.800 Waximum restriction of cooling air: intake 40 (104) Stady state frequency like (bhp) 1,756 (2,328) After cooler pump capacity: L/min (gpm) 583 (154) Air cleaner dry Heat rejection to after cooler: kW (BTUM) 40 (104,33) Air cleaner Brougheis (Alex Syles) Air requirements Apprint (SCFM) </th <th>Engine</th> <th></th> <th>Fuel consumption</th> <th></th>	Engine		Fuel consumption	
Type	Manufacturer	mtu	At 100% of power rating: L/hr (gal/hr)	408 (108)
Part	Model	12V4000G24S	At 75% of power rating: L/hr (gal/hr)	303 (80)
Displacement: L (in³) 57.2 (3,491) 57.2 (3,491) 60 cc cm (in) 17 (6,69) Ambient capacity of radiator: °C (°F) 40 (104)	Туре	4-cycle	At 50% of power rating: L/hr (gal/hr)	215 (57)
Bore: cm (in) 17 (6.69) Ambient capacity of radiator: °C (°F) 40 (104) Stroke: cm (in) 21 (8.27) Maximum restriction of cooling air: intake Compression ratio 1.65.1 and discharge side of radiator: kPa (in. H₂0) 0.12 (0.5) Rated rpm 1.800 Water pump capacity: L/min (gpm) 1,117 (295) Engine governor electronic isochronous (ADEC) After cooler pump capacity: L/min (gpm) 583 (154) Maximum power: kWm (bhp) 1.736 (2,328) Heat rejection to coolant: kW (BTUM) 640 (36,396) Steady state frequency band ± 0.25% Heat rejection to after cooler: kW (BTUM) 640 (36,396) Air cleaner dry Heat rejection to colant: kW (BTUM) 660 (9.124) Air cleaner 4 (27) Heat rejection to after cooler: kW (BTUM) 40 (10 (36,396) Liquid capacity 4 (29) Heat rejection to after cooler: kW (BTUM) 40 (10 (36,396) Liquid capacity 4 (291) Air requirements 4 (27,316) Air requirements Engine jacket water capacity: L (gal) 20 (68.7) Air requirements Aspirating: *m³/min (SCFM) 1,574 (55,587) Elec	Arrangement	12-V		
Stroke: cm (in) 21 (8.27) Maximum restriction of cooling air: intake Compression ratio 16.51 and discharge side of radiator: kPa (in. H₂0) 0.12 (0.5) Rated rpm 1,800 Water pump capacity: L/min (gpm) 1,117 (295) Engine governor electronic isochronous (ADEC) After cooler pump capacity: L/min (gpm) 583 (154) Maximum power: kWm (bhp) 1,736 (2,528) Heat rejection to coolant: kW (BTUM) 640 (36,396) Steady state frequency band ± 0.25% Heat rejection to after cooler: kW (BTUM) 410 (23,316) Air cleaner dry Heat rejection to after cooler: kW (BTUM) 410 (23,316) Air cleaner dry Heat rejection to after cooler: kW (BTUM) 450 (9,924) Air cleaner dry Heat rejection to after cooler: kW (BTUM) 410 (0,9124) Air cleaner dry Heat rejection to after cooler: kW (BTUM) 450 (36,396) Air cleaner dry Heat rejection to after cooler: kW (BTUM) 450 (0,932) Liquid capacity dry After requirements 450 (0,932) Engine jacket water capacity: L (gal) 40 (10.6) After requirements <td>Displacement: L (in³)</td> <td>57.2 (3,491)</td> <td>Cooling - radiator system</td> <td></td>	Displacement: L (in³)	57.2 (3,491)	Cooling - radiator system	
Compression ratio 16.5:1 and discharge side of radiator: kPa (in. H₂0) 0.12 (0.5) Rated rpm 1,800 Water pump capacity: L/min (gpm) 1,117 (295) Engine governor electronic isochronous (ADEC) After cooler pump capacity: L/min (gpm) 583 (154) Maximum power: kWm (bhp) 1,736 (2,328) Heat rejection to coolant: kW (BTUM) 640 (36,396) Steady state frequency band ± 0.25% Heat rejection to after cooler: kW (BTUM) 410 (23,316) Air cleaner dry Heat rejection to after cooler: kW (BTUM) 160 (9,124) Fan power: kW (hp) 48.7 (65.3) Liquid capacity 48.7 (68.7) Total oil system: L (gal) 260 (68.7) Air requirements Engine jacket water capacity: L (gal) 160 (42.3) Aspirating: *m³/min (SCFM) 138 (4,873) After cooler water capacity: L (gal) 40 (10.6) Air flow required for radiator 1574 (55,587) System coolant capacity: L (gal) 583 (154) maximum of 25 °F rise: *m³/min (SCFM) 1,574 (55,587) Electrical 24 maximum of 25 °F rise: *m³/min (SCFM) 586 (20,830) Electrics volts DC <t< td=""><td>Bore: cm (in)</td><td>17 (6.69)</td><td>Ambient capacity of radiator: °C (°F)</td><td>40 (104)</td></t<>	Bore: cm (in)	17 (6.69)	Ambient capacity of radiator: °C (°F)	40 (104)
Rated rpm 1,800 Water pump capacity: L/min (gpm) 1,117 (295) Engine governor electronic isochronous (ADEC) After cooler pump capacity: L/min (gpm) 583 (154) Maximum power: kWm (bhp) 1,736 (2,328) Heat rejection to coolant: kW (BTUM) 640 (36,396) Steady state frequency band ± 0.25% Heat rejection to after cooler: kW (BTUM) 410 (23,316) Air cleaner dry Heat radiated to ambient: kW (BTUM) 160 (9,124) Air power: kW (hp) 48.7 (65.3) Liquid capacity Air requirements Engine jacket water capacity: L (gal) 260 (68.7) Air requirements Engine jacket water capacity: L (gal) 40 (10.6) Aspirating: *m³/min (SCFM) 138 (4,873) After cooler water capacity: L (gal) 583 (154) Aspirating: *m³/min (SCFM) 1,574 (55,587) Remote cooled unit: *m³/min (SCFM) 1,574 (55,587) Remote cooled applications; air flow required for dissipation of radiated generator set heat for a maximum of 25 °F rise: *m³/min (SCFM) 586 (20,830) Electrical 8D *Air density = 1,184 kg/m³ (0.0739 lbm/ft³) *Air density = 1,184 kg/m³ (0.0739 lbm/ft³) Batterries: group size 8D	Stroke: cm (in)	21 (8.27)	Maximum restriction of cooling air: intake	
Engine governor electronic isochronous (ADEC) Maximum power: kWm (bhp) 1,736 (2,328) Heat rejection to coolant: kW (BTUM) 640 (36,396) Steady state frequency band 4 ± 0.25% Air cleaner dry Air cleaner Liquid capacity Total oil system: L (gal) Engine jacket water capacity: L (gal) After cooler water capacity: L (gal) After deplications water water capacity: L (gal) After cooler water capacity: L (gal) After cooler water capacity: L (gal) After cooler water capacity: L (gal) Air requirements Aspirating: *m³/min (SCFM) 1,574 (55,587) Remote cooled applications; air flow required for radiator cooled unit: *m³/min (SCFM) System cool and capacity: L (gal) Air flow required for radiator cooled unit: *m³/min (SCFM) System cool and capacity: L (gal) Air flow required for radiator cooled unit: *m³/min (SCFM) System cool and capacity: L (gal) Air flow required for radiator cooled unit: *m³/min (SCFM) System cool and capacity: L (gal) Air flow required for radiator cooled unit: *m³/min (SCFM) System cool and capacity: L (gal) Air flow required for radiator cooled unit: *m³/min (SCFM) System cool and capacity	Compression ratio	16.5:1	and discharge side of radiator: kPa (in. H ₂ 0)	0.12 (0.5)
Maximum power: kWm (bhp) 1,736 (2,328) Heat rejection to coolant: kW (BTUM) 640 (36,396) Steady state frequency band ± 0.25% Heat rejection to after cooler: kW (BTUM) 410 (23,316) Air cleaner dry Heat radiated to ambient: kW (BTUM) 160 (9,124) Fan power: kW (hp) 48.7 (65.3) Liquid capacity Total oil system: L (gal) 260 (68.7) Air requirements Engine jacket water capacity: L (gal) 160 (42.3) Aspirating: *m³/min (SCFM) 138 (4,873) After cooler water capacity: L (gal) 40 (10.6) Air flow required for radiator cooled unit: *m³/min (SCFM) 1,574 (55,587) Remote cooled applications; air flow required for dissipation of radiated generator set heat for a maximum of 25 °F rise: *m³/min (SCFM) 586 (20,830) Batteries: group size 8D *Air density = 1.184 kg/m³ (0.0739 lbm/ft³) Batteries: quantity *Air density = 1.184 kg/m³ (0.0739 lbm/ft³) \$30 (11,654) Fuel system Gas volume at stack temperature: m³/min (CFM) 330 (11,654) Fuel return connection size #16 JIC 37° female 1" NPT adapter provided 1" NPT adapter	Rated rpm	1,800	Water pump capacity: L/min (gpm)	1,117 (295)
Steady state frequency band ± 0.25% Heat rejection to after cooler: kW (BTUM) 410 (23,316) Air cleaner dry Heat radiated to ambient: kW (BTUM) 160 (9,124) Fan power: kW (hp) 48.7 (65.3) Liquid capacity Total oil system: L (gal) Air requirements Engine jacket water capacity: L (gal) 260 (68.7) Aspirating: *m³/min (SCFM) 138 (4,873) After cooler water capacity: L (gal) 40 (10.6) Air flow required for radiator System coolant capacity: L (gal) 583 (154) Remote cooled applications; air flow required for dissipation of radiated generator set heat for a maximum of 25 °F rise: *m³/min (SCFM) 1,574 (55,587) Remote cooled applications; air flow required for dissipation of radiated generator set heat for a maximum of 25 °F rise: *m³/min (SCFM) 586 (20,830) Cold cranking amps under -17.8 °C (0 °F) 2,800 *Air density = 1.184 kg/m³ (0.0739 lbm/ft³) Batteries: group size 8D *Air density = 1.184 kg/m³ (0.0739 lbm/ft³) Batteries: quantity Exhaust system Fuel system Gas temperature (stack): °C (°F) 405 (761) Fuel supply connection size #16 JIC 37° female late of the provided of the provided of the province of the provided of	Engine governor	electronic isochronous (ADEC)	After cooler pump capacity: L/min (gpm)	583 (154)
Air cleaner dry Ean power: kW (hp) Heat radiated to ambient: kW (BTUM) 160 (9,124) Liquid capacity Total oil system: L (gal) 260 (68.7) Air requirements Engine jacket water capacity: L (gal) 260 (68.7) Air requirements	Maximum power: kWm (bhp)	1,736 (2,328)	Heat rejection to coolant: kW (BTUM)	640 (36,396)
Liquid capacity Total oil system: L (gal) Engine jacket water capacity: L (gal) After cooler water capacity: L (gal) After cooler water capacity: L (gal) System coolant capacity: L (gal) Electrical Electrical Electrical Electrica yolts DC Cold cranking amps under -17.8 °C (0 °F) Batteries: group size Batteries: quantity Fuel system Fuel supply connection size #16 JIC 37° female In a power: kW (hp) Air prequirements Air requirements Air requirements Air requirements Aspirating: *m³/min (SCFM)	Steady state frequency band	± 0.25%	Heat rejection to after cooler: kW (BTUM)	410 (23,316)
Liquid capacity Total oil system: L (gal) Engine jacket water capacity: L (gal) After cooler water capacity: L (gal) Aspirating: *m³/min (SCFM) Cooled unit: *m³/min (SCFM) Remote cooled applications; air flow required for dissipation of radiated generator set heat for a maximum of 25 °F rise: *m³/min (SCFM) Batteries: group size Batteries: group size Batteries: quantity Fuel system Fuel system Fuel system Fuel supply connection size #16 JIC 37° female 1" NPT adapter provided Maximum allowable back pressure at outlet of engine, before piping: kPa (in. H₂0) 8.5 (34.1)	Air cleaner	dry	Heat radiated to ambient: kW (BTUM)	160 (9,124)
Total oil system: L (gal) Engine jacket water capacity: L (gal) After cooler water capacity: L (gal) After cooler water capacity: L (gal) After cooler water capacity: L (gal) After coolent water capacity: L (gal) After flow required for radiator Cooled unit: *m³/min (SCFM) Air flow required for radiator Air flow required for radiato			Fan power: kW (hp)	48.7 (65.3)
Engine jacket water capacity: L (gal) 160 (42.3) Aspirating: *m³/min (SCFM) 138 (4,873) After cooler water capacity: L (gal) 40 (10.6) Air flow required for radiator System coolant capacity: L (gal) 583 (154) cooled unit: *m³/min (SCFM) 1,574 (55,587) Remote cooled applications; air flow required for a dissipation of radiated generator set heat for a maximum of 25 °F rise: *m³/min (SCFM) 586 (20,830) Cold cranking amps under -17.8 °C (0 °F) 2,800 Batteries: group size 8D 4 *Air density = 1.184 kg/m³ (0.0739 lbm/ft³) Fuel system Gas temperature (stack): °C (°F) 405 (761) Fuel supply connection size #16 JIC 37° female 1° NPT adapter provided	Liquid capacity			
After cooler water capacity: L (gal) After cooler water capacity: L (gal) System coolant radiator cooled unit: *m³/min (SCFM) Remote cooled applications; air flow required for radiator cooled unit: *m³/min (SCFM) Fuel supply amaximum of 25 °F rise: *m³/min (SCFM) System coolant capacity: L (gal) System coolant radiator cooled unit: *m³/min (SCFM) Remote cooled applications; air flow required for dissipation of radiated generator set heat for a maximum of 25 °F rise: *m³/min (SCFM) System cooled applications; air flow required for dissipation of radiated generator set heat for a maximum of 25 °F rise: *m³/min (SCFM) System cooled applications; air flow required for dissipation of radiated generator set heat for a maximum of 25 °F rise: *m³/min (SCFM) System cooled applications; air flow required for dissipation of radiated generator set heat for a maximum of 25 °F rise: *m³/min (SCFM) System cooled applications; air flow required for dissipation of radiated generator set heat for a maximum of 25 °F rise: *m³/min (SCFM) System cooled applications; air flow required for dissipation of radiated generator set heat for a maximum of 25 °F rise: *m³/min (SCFM) System cooled applications; air flow required for dissipation of radiated generator set heat for a maximum of 25 °F rise: *m³/min (SCFM)	Total oil system: L (gal)	260 (68.7)	Air requirements	
System coolant capacity: L (gal) 583 (154) Cooled unit: *m³/min (SCFM) Remote cooled applications; air flow required for dissipation of radiated generator set heat for a maximum of 25 °F rise: *m³/min (SCFM) Electric volts DC Cold cranking amps under -17.8 °C (0 °F) Batteries: group size Batteries: quantity Fuel system Fuel system Fuel supply connection size #16 JIC 37° female 1" NPT adapter provided Maximum allowable back pressure at Fuel return connection size #16 JIC 37° female 1" NPT adapter provided Fuel return connection size #16 JIC 37° female 1" NPT adapter provided Fuel return connection size #16 JIC 37° female 1" NPT adapter provided Fuel return connection size #16 JIC 37° female 1" NPT adapter provided Fuel return connection size #16 JIC 37° female 1" NPT adapter provided Fuel return connection size #16 JIC 37° female 1" NPT adapter provided Fuel return connection size #16 JIC 37° female 1" NPT adapter provided Fuel return connection size #16 JIC 37° female 1" NPT adapter provided 2" Adapter	Engine jacket water capacity: L (gal)	160 (42.3)	Aspirating: *m³/min (SCFM)	138 (4,873)
Electrical dissipation of radiated generator set heat for a maximum of 25 °F rise: *m³/min (SCFM) 586 (20,830) Cold cranking amps under -17.8 °C (0 °F) 2,800 Batteries: group size 8D *Air density = 1.184 kg/m³ (0.0739 lbm/ft³) Batteries: quantity 4 Fuel system Gas temperature (stack): °C (°F) 405 (761) Fuel supply connection size #16 JIC 37° female 1" NPT adapter provided Fuel return connection size #16 JIC 37° female 1" NPT adapter provided Fuel return connection size #16 JIC 37° female 1" NPT adapter provided Fuel return connection size #16 JIC 37° female 1" NPT adapter provided Fuel return connection size #16 JIC 37° female 1" NPT adapter provided 50 (10 cm) 1	After cooler water capacity: L (gal)	40 (10.6)	Air flow required for radiator	
Electrical dissipation of radiated generator set heat for a maximum of 25 °F rise: *m³/min (SCFM) 586 (20,830) Cold cranking amps under -17.8 °C (0 °F) 2,800 Batteries: group size 8D *Air density = 1.184 kg/m³ (0.0739 lbm/ft³) Batteries: quantity 4 Fuel system	System coolant capacity: L (gal)	583 (154)	cooled unit: *m³/min (SCFM)	1,574 (55,587)
Electric volts DC Cold cranking amps under -17.8 °C (0 °F) Batteries: group size Batteries: quantity Exhaust system Fuel system Fuel supply connection size #16 JIC 37° female 1" NPT adapter provided Fuel return connection size #16 JIC 37° female 1" NPT adapter provided Fuel return connection size #16 JIC 37° female 1" NPT adapter provided Fuel return connection size #16 JIC 37° female 1" NPT adapter provided Fuel return connection size #16 JIC 37° female 1" NPT adapter provided Fuel return connection size #16 JIC 37° female 1" NPT adapter provided Fuel return connection size #16 JIC 37° female 1" NPT adapter provided Fuel return connection size #16 JIC 37° female 1" NPT adapter provided Fuel return connection size #16 JIC 37° female Fuel return connection size			Remote cooled applications; air flow required for	
Cold cranking amps under -17.8 °C (0 °F) Batteries: group size Batteries: quantity Satteries: quantity Exhaust system Fuel system Fuel supply connection size #16 JIC 37° female 1" NPT adapter provided Fuel return connection size #16 JIC 37° female 1" NPT adapter provided #16 JIC 37° female 1" NPT adapter provided 4" density = 1.184 kg/m³ (0.0739 lbm/ft³) Exhaust system Gas temperature (stack): °C (°F) 405 (761) Gas volume at stack temperature: m³/min (CFM) Maximum allowable back pressure at outlet of engine, before piping: kPa (in. H₂0) 8.5 (34.1)	Electrical		dissipation of radiated generator set heat for a	
Batteries: group size Batteries: quantity 4 Exhaust system Fuel system Fuel supply connection size #16 JIC 37° female 1" NPT adapter provided Fuel return connection size #16 JIC 37° female 1" NPT adapter provided #16 JIC 37° female 1" NPT adapter provided 4 * Air density = 1.184 kg/m³ (0.0739 lbm/ft³) Exhaust system Gas temperature (stack): °C (°F) Gas volume at stack temperature: m³/min (CFM) Maximum allowable back pressure at outlet of engine, before piping: kPa (in. H₂0) 8.5 (34.1)	Electric volts DC	24	maximum of 25 °F rise: *m³/min (SCFM)	586 (20,830)
Batteries: quantity Fuel system Fuel supply connection size #16 JIC 37° female 1" NPT adapter provided Fuel return connection size #16 JIC 37° female 1" NPT adapter provided Fuel return connection size #16 JIC 37° female 1" NPT adapter provided Fuel return connection size #16 JIC 37° female 1" NPT adapter provided Maximum allowable back pressure at Fuel return connection size #16 JIC 37° female Outlet of engine, before piping: kPa (in. H ₂ O) 8.5 (34.1)	Cold cranking amps under -17.8 °C (0	°F) 2,800		
Fuel system Fuel supply connection size #16 JIC 37° female Till Preturn connection size #16 JIC 37° female	Batteries: group size	8D	* Air density = 1.184 kg/m³ (0.0739 lbm/ft³)	
Fuel system Fuel supply connection size #16 JIC 37° female 1" NPT adapter provided Fuel return connection size #16 JIC 37° female 1" NPT adapter provided Fuel return connection size #16 JIC 37° female 0 utlet of engine, before piping: kPa (in. H ₂ 0) 8.5 (34.1)	Batteries: quantity	4		
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1" NPT adapter provided Maximum allowable back pressure at Fuel return connection size #16 JIC 37 $^{\circ}$ female outlet of engine, before piping: kPa (in. H $_2$ 0) 8.5 (34.1)	Fuel system		Gas temperature (stack): °C (°F)	405 (761)
Fuel return connection size #16 JIC 37° female outlet of engine, before piping: kPa (in. H ₂ 0) 8.5 (34.1)	Fuel supply connection size	#16 JIC 37° female	· · · · · · · · · · · · · · · · · · ·	330 (11,654)
		1" NPT adapter provided	Maximum allowable back pressure at	
1" NPT adapter provided	Fuel return connection size	#16 JIC 37° female	outlet of engine, before piping: kPa (in. H ₂ 0)	8.5 (34.1)
		1" NPT adapter provided		
Maximum fuel lift: m (ft) 1 (3)				
Recommended fuel diesel #2/HVO				
Total fuel flow: L/hr (gal/hr) 960 (254)	Total fuel flow: L/hr (gal/hr)	960 (254)		





Drawing above for illustration purposes only, based on standard open power 480 volt generator set. Lengths may vary with other voltages. Do not use for installation design. See website for unit specific template drawings.

System	Dimensions (LxWxH)	Weight
Open Power Unit (OPU)	5,876 x 2,314 x 3,125 mm (231.4 x 91.1 x 123 in)	16,987 kg (37,457 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 generator set.

Sound data

Unit type	DCCP full load	
Level O (OPU): dB(A)	92.8	

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

Emissions data

NO _x + NMHC	СО	PM
6.66	0.44	0.05

— All units are in g/hp-hr and shown at 100% load (not comparable to EPA weighted cycle values). Emission levels of the engine may vary with ambient temperature, barometric pressure, humidity, fuel type and quality, installation parameters, measuring instrumentation, etc. The data was obtained in compliance with US EPA regulations. The weighted cycle value (not shown) from each engine is guaranteed to be within the US EPA standards.

Rating definitions and conditions

- Data Center Continuous Power (DCCP) ratings apply to data center installations where a utility power is available and comply with Uptime Institute Tier III and IV requirements. At constant or varying load, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve. Ratings are in accordance with ISO 8528-1, ISO 3046-1, BS 5514, and AS 2789. Average load factor: ≤ 100%.
- Nominal ratings at standard conditions: 25 °C and 300 meters (77 °F and 1,000 feet).
- Deration Factor:
 - Consult your local *mtu* Distributor for altitude derations.
 - Consult your local *mtu* Distributor for temperature derations.