DIESEL ENGINE-GENERATOR SET
650-XC6DT2

650 ekW / 60 Hz / Standby
615 ekW / 60 Hz / Prime
208 - 4160V

SYSTEM RATINGS

Standby

Voltage (L-L)	208V**	240V**	480V**	600V**	4160V
Phase	3	3	3	3	3
PF	0.8	0.8	0.8	0.8	0.8
Hz	60	60	60	60	60
kW	650	650	650	650	650
kVA	812.5	812.5	812.5	812.5	812.5
AMPS	2255	1955	977	782	113
skVA@30% Voltage Dip	1750	1750	1750	1350	1850
Generator Model*	573RSL4033	573RSL4033	573RSL4033	573RSS4274	574FSM4358
Temp Rise	130°C/27°C	130°C/27°C	130°C/27°C	125°C/40°C	130°C/27°C
Connection	12 LEAD LOW WYE	12 LEAD HI DELTA	12 LEAD HI WYE	4 LEAD WYE	6 LEAD WYE

Prime

Voltage (L-L)	208V	240V	480V	600V	4160V
Phase	3	3	3	3	3
PF	0.8	0.8	0.8	0.8	0.8
Hz	60	60	60	60	60
kW	615	615	615	615	615
kVA	768.75	768.75	768.75	768.75	768.75
AMPS	2255	1955	9977	782	107
skVA@30% Voltage Dip	1750	1750	1750	1350	1850
Generator Model*	573RSL4033	573RSL4033	573RSL4033	573RSS4274	574FSM4358
Temp Rise	105°C/40°C	105°C/40°C	105°C/40°C	105°C/40°C	105°C/40°C
Connection	12 LEAD LOW WYE	12 LEAD HI DELTA	12 LEAD HI WYE	4 LEAD WYE	6 LEAD WYE

* The Generator Model Number identified in the table is for standard C Series Configuration. Consult the factory for alternate configuration.
** UL2200 Offered

FACTS

// EPA Tier 2 Certified
// Engine-Generator Set Tested to ISO 8528-5 for Transient Response
// UL2200, CSA Listing Offered
// Accepts Rated Load in One Step Per NFPA 110, Level 1
// All engine-generator sets are prototype and factory tested
// MTU Onsite Energy is a single source supplier
// Global Product Support
// 2 Year Standard Warranty
// Custom Design for Any Application
// 12V-2000 G44 Diesel Engine
- 23.9 Liter Displacement
- Electronic Unit Pump Injection
- 4-Cycle

// Complete Range of Accessories
// Permanent Magnet Generator (PMG)
- Brushless, Rotating Field
- 300% Short Circuit Capability
- 2/3 Pitch Windings
// Digital Control Panel(s)
- UL Recognized, c UL us, NFPA 110
- Complete System Metering
- LCD Display
// Cooling System
- Integral Set-Mounted
- Engine Driven Fan

STANDARD EQUIPMENT

// Engine

Air Cleaners
Oil Pump
Full Flow Oil Filter
Jacket Water Pump
Inter Cooler Water Pump
Thermostats
Exhaust Manifold – Dry
Blower Fan & Fan Drive
Radiator - Unit Mounted
Electric Starting Motor - 24V
Governor – Electric Isochronous
Base - Structural Steel
SAE Flywheel & Bell Housing
Charging Alternator - 24V
Battery Box & Cables
Flexible Fuel Connectors
Flexible Exhaust Connection
EPA Certified Engine

// 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
130°C Standby Temperature Rise
1 Bearing, Sealed
Flexible Coupling
Full Amortisseur Windings
125% Rotor Balancing
3-Phase Voltage Sensing
±.25% Voltage Regulation
100% of Rated Load - One Step
3% Maximum Harmonic Content

// Digital Control Panel(s)

Digital Metering
Engine Parameters
Generator Protection Functions
Engine Protection
SAE J1939 Engine ECU Communications
Windows-Based Software
Multilingual Capability
Remote Communications to our RDP-110 Remote Annunciator
16 Programmable Contact Inputs
7 Contact Outputs
UL Recognized, c UL us, CE Approved
Event Recording
IP 54 Front Panel Rating with Integrated Gasket
NFPA110 Level Compatible

APPLICATION DATA

// Engine

Manufacturer	MTU Detroit Diesel
Model	12V-2000 G44
Type	4-Cycle
Arrangement	12-V
Displacement: Cu In (lit)	1,458 (23.9)
Bore: in (cm)	5.1 (13)
Stroke: in (cm)	5.9 (15)
Compression Ratio	16:1
Rated RPM	1,800
Engine Governor	ADEC
Max Power: Standby: bhp (kWm)	985 (735)
Max Power: Prime: bhp (kWm)	895 (668)
Regulation	±.25%
Frequency	60 Hz
Air Cleaner	Dry

// Liquid Capacity (Lubrication)

Total Oil System: gal (lit)	20.3 (77)
Engine Jacket Water Capacity: gal (lit)	29.1 (110)
After Cooler Water Capacity: gal (lit)	5.3 (20)
System Coolant Capacity: gal (lit)	91.1 (345)

// Electrical

Electric Volts DC	24
Cold Cranking Amps Under 0°F (-17.8°C)	1,750

// Fuel System

Fuel Supply Connection Size	3/4" NPT
Fuel Return Connection Size	1/4" NPT
Maximum Fuel Lift: ft (m)	10 (3)
Recommended Fuel	Diesel #2
Total Fuel Flow: gal/hr (lit/hr)	127 (480)

// Fuel Consumption

	STANDBY	PRIME
At 100% of Power Rating: gal/hr (lit/hr)	47.5 (180)	44.2 (167)
At 75% of Power Rating: gal/hr(lit/hr)	36.6 (139)	33.6 (127)
At 50% of Power Rating: gal/hr (lit/hr)	24.6 (93)	22.6 (86)

// Cooling - Radiator System

	STANDBY	PRIME
Ambient Capacity of Radiator: °F (°C)	122 (50)	122 (50)
Max. Restriction of Cooling Air, Intake, and Discharge Side of Rad.: in. H_20 (kPa)	0.5 (0.12)	0.5 (0.12)
Water Pump Capacity: gpm (lit/min)	220 (833)	220 (833)
After Cooler Pump Capacity: gpm (lit/min)	68 (258)	68 (258)
Heat Rejection to Coolant: BTUM (kW)	16,492 (290)	15,355 (270)
Heat Rejection to After Cooler: BTUM (kW)	10,805 (190)	9,668 (170)
Heat Radiated to Ambient: BTUM (kW)	4,344 (76)	4,154 (73.1)

// Air Requirements

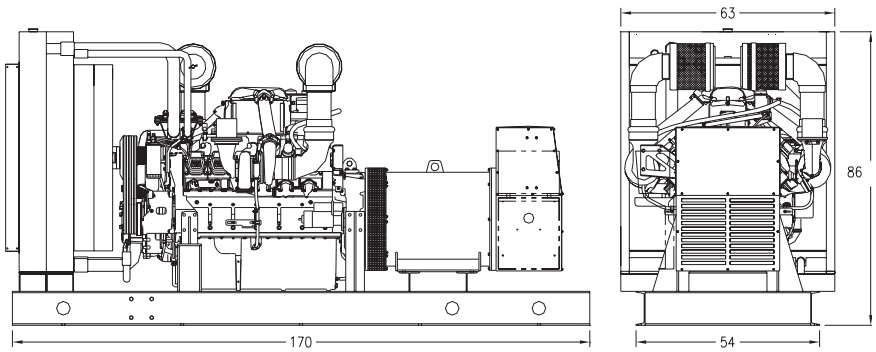
	STANDBY	PRIME
Aspirating: *SCFM (m^3/min)	2,119 (60)	2,013 (57)
Air Flow Required for Rad. Cooled Unit: *SCFM (m^3/min)	39,977 (1,132)	39,977 (1,132)
Air Flow Required for Heat Exchanger/Remote Rad. based on 25°F Rise: *SCFM (m^3/min)	9,796 (279)	9,369 (267)

* Air density = 0.0739 lbm/ft^3 (1.184 kg/m^3)

// Exhaust System

	STANDBY	PRIME
Gas Temp. (Stack): °F (°C)	1,013 (545)	995 (535)
Gas Volume at Stack Temp: CFM (m^3/min)	4,873 (138)	4,662 (132)
Maximum Allowable Back Pressure: in. H_20 (kPa)	34.1 (8.5)	34.1 (8.5)

WEIGHTS AND DIMENSIONS



Drawing above for illustration purposes only, based on standard open power 480 volt generator. Lengths may vary with other voltages. Do not use for installation design.

System	Dimensions (L x W x H)	Weight (less tank)
OPU	170 x 63 x 86.5 in (4,320 x 1,600 x 2,200 mm)	12,108 lb (5,492 kg)

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	Standby Full Load	Standby No Load	Prime Full Load	Prime No Load
OPU w/Critical Grade Muffler (dBA)	99.5	92	98	92
Sound Attenuated Enclosure (dBA)	91.5	84	90	84

Measurements for sound data are taken at 23 ft (7 m).

EMISSIONS DATA

NO_x + NMHC	CO	PM
4.31	0.87	0.084

All units are in g/hp-hr and are EPA D2 cycle values. Emission levels of the engine may vary as a function of ambient temperature, barometric pressure, humidity, fuel type and quality, installation parameters, measuring instrumentation, etc. The data provided are laboratory results from one engine representing this rating. The data was obtained under controlled environmental conditions with calibrated instrumentation traceable to the United States National Bureau of Standards and in compliance with US EPA regulations found within 40 CFR Part 89. The weighted cycle value from each engine is guaranteed to be below the US EPA Standards at the US EPA defined conditions.

Materials and specifications subject to change without notice.

RATING DEFINITIONS AND CONDITIONS

// Ambient capability factor at 984 ft (300 m). Consult your local MTU Onsite Energy Power Generation Distributor for other altitudes.

// Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. No overload capability for this rating. Ratings are in accordance with ISO-3046/1, BS 5514, AS 2789, and DIN 6271.

// Prime power ratings apply to installations where utility power is unavailable or unreliable. At 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, overload power in accordance with ISO-3046/1, BS 5514, AS 2789, and DIN 6271. For limited running time and base load ratings, consult the factory.

// Deration Factor:
Altitude: No power decrease with increased elevation up to 5,906 ft (1,800 m)*, regardless of temperature.
Temperature: 5.0 % per 9°F (5°C) over 149°F (65°C) at 328 ft (100 m).
*Contact factory for deration above 5,906 ft (1,800 m).

// **Tognum Group Companies: Europe / Middle East / Africa / Latin America /** MTU Onsite Energy / 88040 Friedrichshafen / Germany / Phone + 49 7541 90 7060 / Fax +49 7541 90 7084 / powergenregion1@mtu-online.com // **Asia / Australia / Pacific /** MTU Onsite Energy / 1, Benoi Place / Singapore 629923 / Republic of Singapore / Phone + 65 6861 5922 / Fax + 65 6861 3615 / powergenregion2@mtu-online.com // **USA / Canada / Mexico /** MTU Onsite Energy / 100 Power Drive / Mankato, Minnesota 56001 / USA / Phone + 1 507 625 7973 / Fax + 1 507 625 2968 / powergenregion3@mtu-online.com // **Worldwide for HotModule /** MTU Onsite Energy / 81663 Munich / Germany / Phone + 49 89 203042 800 / Fax +49 89 203042 900 / info@cfc-solutions.com //www.mtu-online.com

DIESEL ENGINE-GENERATOR SET
750-XC6DT2

750 ekW / 60 Hz / Standby
680 ekW / 60 Hz / Prime
208 - 4160V

SYSTEM RATINGS

Standby

Voltage (L-L)	208V**	240V**	480V**	600V**	4160V
Phase	3	3	3	3	3
PF	0.8	0.8	0.8	0.8	0.8
Hz	60	60	60	60	60
kW	750	750	750	750	750
kVA	937.5	937.5	937.5	937.5	937.5
AMPS	2602	2255	1128	902	130
skVA@30% Voltage Dip	2600	2600	2150	3100	1850
Generator Model*	574RSL4037	574RSL4037	573RSL4035	574RSS4278	574FSM4358
Temp Rise	130°C/27°C	130°C/27°C	130°C/27°C	125°C/40°C	130°C/27°C
Connection	12 LEAD LOW WYE	12 LEAD HI DELTA	12 LEAD HI WYE	4 LEAD WYE	6 LEAD WYE

Prime

Voltage (L-L)	208V	240V	480V	600V	4160V
Phase	3	3	3	3	3
PF	0.8	0.8	0.8	0.8	0.8
Hz	60	60	60	60	60
kW	680	680	680	680	680
kVA	850	850	850	850	850
AMPS	2359	2045	1022	818	118
skVA@30% Voltage Dip	2600	2600	2150	3100	1850
Generator Model*	574RSL4037	574RSL4037	573RSL4035	574RSS4278	574FSM4358
Temp Rise	105°C/40°C	105°C/40°C	105°C/40°C	105°C/40°C	105°C/40°C
Connection	12 LEAD LOW WYE	12 LEAD HI DELTA	12 LEAD HI WYE	4 LEAD WYE	6 LEAD WYE

* The Generator Model Number identified in the table is for standard C Series Configuration. Consult the factory for alternate configuration.
** UL2200 Offered

FACTS

// EPA Tier 2 Certified
// Engine-Generator Set Tested to ISO 8528-5 for Transient Response
// UL2200, CSA Listing Offered
// Accepts Rated Load in One Step Per NFPA 110, Level 1
// All engine-generator sets are prototype and factory tested
// MTU Onsite Energy is a single source supplier
// Global Product Support
// 2 Year Standard Warranty
// Custom Design for Any Application
// 12V-2000 G84 Diesel Engine
- 23.9 Liter Displacement
- Electronic Unit Pump Injection
- 4-Cycle

// Complete Range of Accessories
// Permanent Magnet Generator (PMG)
- Brushless, Rotating Field
- 300% Short Circuit Capability
- 2/3 Pitch Windings
// Digital Control Panel(s)
- UL Recognized, c UL us, NFPA 110
- Complete System Metering
- LCD Display
// Cooling System
- Integral Set-Mounted
- Engine Driven Fan

STANDARD EQUIPMENT

// Engine

Air Cleaners
Oil Pump
Full Flow Oil Filter
Jacket Water Pump
Inter Cooler Water Pump
Thermostats
Exhaust Manifold – Dry
Blower Fan & Fan Drive
Radiator - Unit Mounted
Electric Starting Motor - 24V
Governor – Electric Isochronous
Base - Structural Steel
SAE Flywheel & Bell Housing
Charging Alternator - 24V
Battery Box & Cables
Flexible Fuel Connectors
Flexible Exhaust Connection
EPA Certified Engine

// 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
130°C Standby Temperature Rise
1 Bearing, Sealed
Flexible Coupling
Full Amortisseur Windings
125% Rotor Balancing
3-Phase Voltage Sensing
±.25% Voltage Regulation
100% of Rated Load - One Step
3% Maximum Harmonic Content

// Digital Control Panel(s)

Digital Metering
Engine Parameters
Generator Protection Functions
Engine Protection
SAE J1939 Engine ECU Communications
Windows-Based Software
Multilingual Capability
Remote Communications to our RDP-110 Remote Annunciator
16 Programmable Contact Inputs
7 Contact Outputs
UL Recognized, c UL us, CE Approved
Event Recording
IP 54 Front Panel Rating with Integrated Gasket
NFPA110 Level Compatible

APPLICATION DATA

// Engine

Manufacturer	MTU Detroit Diesel
Model	12V-2000 G84
Type	4-Cycle
Arrangement	12-V
Displacement: Cu In (lit)	1,458 (23.9)
Bore: in (cm)	5.1 (13)
Stroke: in (cm)	5.9 (15)
Compression Ratio	16:1
Rated RPM	1,800
Engine Governor	ADEC
Max Power: Standby: bhp (kWm)	1,119 (835)
Max Power: Prime: bhp (kWm)	1,020 (761)
Regulation	±.25%
Frequency	60 Hz
Air Cleaner	Dry

// Liquid Capacity (Lubrication)

Total Oil System: gal (lit)	20.3 (77)
Engine Jacket Water Capacity: gal (lit)	29.1 (110)
After Cooler Water Capacity: gal (lit)	5.3 (20)
System Coolant Capacity: gal (lit)	91.1 (345)

// Electrical

Electric Volts DC	24
Cold Cranking Amps Under 0°F (-17.8°C)	1,750

// Fuel System

Fuel Supply Connection Size	3/4" NPT
Fuel Return Connection Size	1/4" NPT
Maximum Fuel Lift: ft (m)	10 (3)
Recommended Fuel	Diesel #2
Total Fuel Flow: gal/hr (lit/hr)	127 (480)

// Fuel Consumption

	STANDBY	PRIME
At 100% of Power Rating: gal/hr (lit/hr)	52.4 (198)	48.9 (182)
At 75% of Power Rating: gal/hr(lit/hr)	41 (155)	37.7 (143)
At 50% of Power Rating: gal/hr (lit/hr)	27.7 (105)	25.4 (98)

// Cooling - Radiator System

	STANDBY	PRIME
Ambient Capacity of Radiator: °F (°C)	104 (40)	104 (40)
Max. Restriction of Cooling Air, Intake, and Discharge Side of Rad.: in. H_20 (kPa)	0.5 (0.12)	0.5 (0.12)
Water Pump Capacity: gpm (lit/min)	220 (833)	220 (833)
After Cooler Pump Capacity: gpm (lit/min)	68 (258)	68 (258)
Heat Rejection to Coolant: BTUM (kW)	18,767 (330)	17,060 (300)
Heat Rejection to After Cooler: BTUM (kW)	12,227 (215)	11,098 (195)
Heat Radiated to Ambient: BTUM (kW)	4,805 (84)	4,353 (76.5)

// Air Requirements

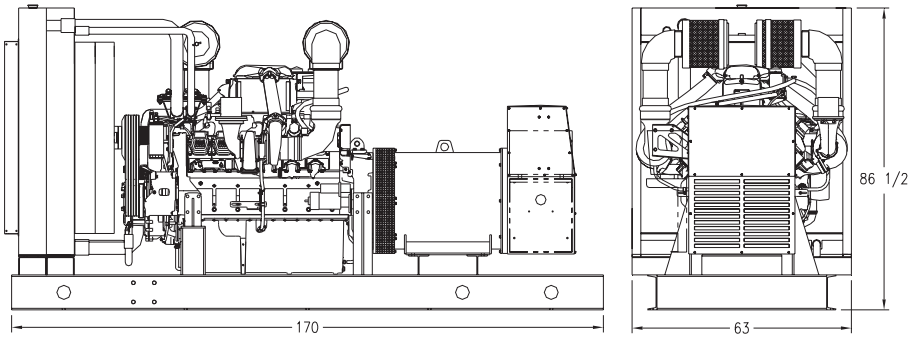
	STANDBY	PRIME
Aspirating: *SCFM (m^3/min)	2,225 (63)	2,119 (60)
Air Flow Required for Rad. Cooled Unit: *SCFM (m^3/min)	39,990 (1,132)	39,990 (1,132)
Air Flow Required for Heat Exchanger/Remote Rad. based on 25°F Rise: *SCFM (m^3/min)	10,837 (309)	9,817 (280)

* Air density = 0.0739 lbm/ft^3 (1.184 kg/m^3)

// Exhaust System

	STANDBY	PRIME
Gas Temp. (Stack): °F (°C)	1,040 (560)	1,022 (550)
Gas Volume at Stack Temp: CFM (m^3/min)	5,297 (150)	5,085 (144)
Maximum Allowable Back Pressure: in. H_20 (kPa)	34.1 (8.5)	34.1 (8.5)

WEIGHTS AND DIMENSIONS



Drawing above for illustration purposes only, based on standard open power 480 volt generator. Lengths may vary with other voltages. Do not use for installation design.

System	Dimensions (L x W x H)	Weight (less tank)
OPU	170 x 63 x 86.5 in (4,320 x 1,600 x 2,200 mm)	12,108 lb (5,492 kg)

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	Standby Full Load	Standby No Load	Prime Full Load	Prime No Load
OPU w/Critical Grade Muffler (dBA)	100	93	98.5	93
Sound Attenuated Enclosure (dBA)	92	85	90.5	85

Measurements for sound data are taken at 23 ft (7 m).

EMISSIONS DATA

NO_x + NMHC	CO	PM
4.03	0.81	0.09

All units are in g/hp-hr and are EPA D2 cycle values. Emission levels of the engine may vary as a function of ambient temperature, barometric pressure, humidity, fuel type and quality, installation parameters, measuring instrumentation, etc. The data provided are laboratory results from one engine representing this rating. The data was obtained under controlled environmental conditions with calibrated instrumentation traceable to the United States National Bureau of Standards and in compliance with US EPA regulations found within 40 CFR Part 89. The weighted cycle value from each engine is guaranteed to be below the US EPA Standards at the US EPA defined conditions.

Materials and specifications subject to change without notice.

RATING DEFINITIONS AND CONDITIONS

// Ambient capability factor at 984 ft (300 m). Consult your local MTU Onsite Energy Power Generation Distributor for other altitudes.

// Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. No overload capability for this rating. Ratings are in accordance with ISO-3046/1, BS 5514, AS 2789, and DIN 6271.

// Prime power ratings apply to installations where utility power is unavailable or unreliable. At 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, overload power in accordance with ISO-3046/1, BS 5514, AS 2789, and DIN 6271. For limited running time and base load ratings, consult the factory.

// Deration Factor:
Altitude: No power decrease with increased elevation up to 5,906 ft (1,800 m)* at 77°F (25°C).
Temperature: 2.5% per 9°F (5°C) over 122°F (50°C) at 328 ft (100 m).
*Contact factory for deration above 5,906 ft (1,800 m).

// **Tognum Group Companies: Europe / Middle East / Africa / Latin America /** MTU Onsite Energy / 88040 Friedrichshafen / Germany / Phone + 49 7541 90 7060 / Fax +49 7541 90 7084 / powergenregion1@mtu-online.com // **Asia / Australia / Pacific /** MTU Onsite Energy / 1, Benoi Place / Singapore 629923 / Republic of Singapore / Phone + 65 6861 5922 / Fax + 65 6861 3615 / powergenregion2@mtu-online.com // **USA / Canada / Mexico /** MTU Onsite Energy / 100 Power Drive / Mankato, Minnesota 56001 / USA / Phone + 1 507 625 7973 / Fax + 1 507 625 2968 / powergenregion3@mtu-online.com // **Worldwide for HotModule /** MTU Onsite Energy / 81663 Munich / Germany / Phone + 49 89 203042 800 / Fax +49 89 203042 900 / info@cfc-solutions.com //www.mtu-online.com