

DIESEL GENERATOR SET AIR CHARGE-AIR COOLING

850kVA/50 Hz/Standby Power (Fuel Consumption Optimized)
380 - 415V



Optional equipment shown. Standard equipment may vary.

BENEFITS

- // Industry-leading average load factor
- // Outstanding fuel economy
- // Optimized maintenance intervals
- // Low installation costs
- // Best-in-class reliability and availability
- // Lifting vertically or with diagonal pull
- // Compact design

SYSTEM RATINGS^①

Standby Power	MTU 12V2000 DS850	MTU 12V2000 DS850	MTU 12V2000 DS850
Voltage (L-L)	380V	400V	415V
Phase	3	3	3
PF	0.8	0.8	0.8
Hz	50	50	50
kW	680	680	664
kVA	850	850	830
Amps	1291	1227	1155
Generator model	574RSL7066	574RSL7066	574RSL7066
Temp rise	150 °C/40 °C	150 °C/40 °C	150 °C/40 °C
Connection	6 LEAD HI WYE	6 LEAD HI WYE	6 LEAD HI WYE

① Power available up to 40°C/400 m

CERTIFICATIONS AND STANDARDS

- // Engine-generator set is designed and manufactured in facilities certified to standards ISO 9001:2008 and ISO 14001:2004
- // Performance Assurance Certification (PAC)
 - Engine-generator set tested according to ISO 8528-5 for transient response
 - Verified product design, quality and performance integrity
 - All engine systems are type and factory tested
- // Power Rating
 - Permissible average power output during 24 hours of operation up to 85%

STANDARD EQUIPMENT^①

// Engine

Air filters
 Oil pump for draining
 Full flow oil filters
 Closed crankcase ventilation
 Jacket water pump
 Thermostats
 Exhaust manifold – dry
 Belt driven radiator fan
 Radiator – unit mounted
 Electric starting motor – 24V
 Governor – electronic isochronous
 Base – formed steel
 SAE flywheel & bell housing
 Charging alternator
 Flexible fuel connectors
 Flexible exhaust connection

// Generator

NEMA MG1, IEEE and ANSI standards compliance for temperature rise and motor
 VDE 0530, IEC 60034-1, BS 4999, BS 5000, CSA 22.2-100, AS 1359
 Sustained short circuit current of up to 250% of the rated current for up to 10 seconds
 Self-ventilated and drip-proof IP23
 Superior voltage waveform
 Digital, volts-per-hertz regulator
 No load to full load regulation
 Brushless alternator with brushless pilot exciter
 4 Pole, rotating field
 150 °C maximum standby temperature rise
 Heavy duty shielded ball bearings with a minimum B-10 life of 40,000 hrs
 Flexible coupling
 Full amortisseur windings
 3-phase voltage sensing
 ±0.25% voltage regulation
 100% of rated load – one step according to NFPA 110
 3% maximum harmonic content

^① Represents standard product only. Consult Factory/MTU Onsite Energy distributor for additional configurations.

STANDARD FEATURES^①

- // The engine-generator set complies to G3
- // Engine generator set tested according to ISO 8528-5 for transient response
- // Accepts rated load in one step as per NFPA 110
- // All engine-generator sets are type and factory tested
- // MTU Onsite Energy is a single source supplier
- // Global product support
- // Cooling System (integral set-mounted; engine driven fan)
- // 12V2000 diesel engine (23,88 liter (1457 cu inch) displacement; 4-stroke)
- // Engine-generator resiliently mounted
- // Complete range of accessories
- // Brushless, rotating field generator (PMG excitation; 250% short circuit capability; 2/3 pitch stator windings)
- // Complete system metering
- // LCD display

APPLICATION DATA

// Engine

Manufacturer	MTU
Model	12V2000G65TD
Type	4-Stroke
Arrangement	12-V
Displacement/cylinder: l (cu inch)	1.99 (121)
Bore: mm (inch)	130 (5.1)
Stroke: mm (inch)	150 (5.9)
Compression ratio	16:1
Rated speed rpm	1500
Engine governor	Electronic isochronous
Max power: kWm (bhp)	765 (1026)
Speed regulation	±0.25%
Air filter	Dry

// Lube Oil Capacity

Total oil system: l (gal)	77 (20)
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// Electrical

Electric Volts DC	24
Cold cranking amps under -17.8 °C (0 °F)	1000

// Fuel System

Fuel supply connection size	M22x1,5 - 60°/Male
Fuel return connection size	M12x1,5 - 60°/Male
Maximum fuel lift: m (ft)	5 (16)
Recommended fuel	see MTU fluids & lubrication spec.
Total fuel flow: l/hr (gal/hr)	480 (127)

// Fuel Consumption^②

	gal/hr	l/hr	g/kwh
At 100% of power rating:	49	187	203
At 75% of power rating:	37	140	202
At 50% of power rating:	25	96	208

// Cooling/Radiator System

Ambient capacity of radiator: °C	40 (optional 50) ^③
Max. restriction of cooling air, intake, and discharge side of rad.: kPa (in. H ₂ O)	0,2 (0,803)
Water pump capacity: l/min (gpm)	667 (176)
Heat rejection to coolant: kW (BTUM)	330 (18,767)
Heat rejection to after cooler: kW (BTUM)	160 (9,099)
Heat radiated to ambient: kW (BTUM)	40 (2,275)
Engine coolant capacity: l (gal)	90 (24)
Coolant to cooler temperature: °C (°F)	95 (203)

// Air Requirements^④

Aspirating: m ³ /min (SCFM)	54 (1905)
Air flow required for rad. cooled unit: m ³ /min	1698 (59905)

// Exhaust System

Gas temp. (stack): °C (°F)	565 (1049)
Gas volume flow temp: m ³ /min (SCFM)	150 (5292)
Maximum allowable back pressure: kPa	8,5 (34)

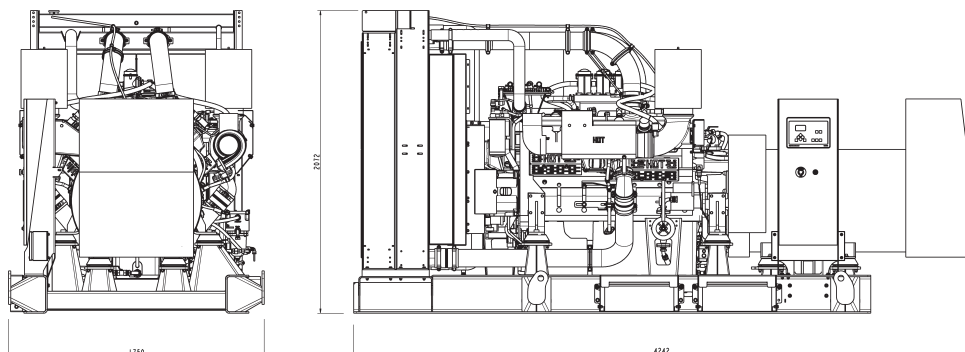
① Represents standard product only. Consult Factory/MTU Onsite Energy distributor for additional configurations.

② Values in accordance with ISO 3046-1. Conversion calculated with fuel density of 0.83 g/ml.

③ System ratings at 50°C may differ.

④ Air density = 1.184 kg/m³ (0.0739 lbm/ft³)

WEIGHTS AND DIMENSIONS



Drawing above for illustration purposes only, based on a standard open power 400 Volt engine-generator set. Lengths may vary with other voltages. Do not use for installation design. See website for unit specific template drawings.

System

Open Power Unit (OPU)

Dimensions (L x W x H)

4242 x 1750 x 2072 mm (167 x 69 x 82 inch)

Weight (dry)

5477 kg (12,075 lbs)

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

// Consult your local MTU Onsite Energy distributor for sound data.

EMISSIONS DATA

// Consult your local MTU Onsite Energy distributor for emissions data.

RATING DEFINITIONS AND CONDITIONS

// 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 8528-1, ISO-3046-1, BS 5514 and AS 2789. Average Load Factor: $\leq 85\%$. Operating hours/year: max. 500.

// Deration factor:

Altitude: Consult your local MTU Onsite Energy distributor for altitude derations.

Temperature: Consult your local MTU Onsite Energy distributor for temperature derations.

Materials and specifications subject to change without notice.

MTU Onsite Energy

A Rolls-Royce Power Systems Brand

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