



Stock #: 255478



# mtu 12V1600 DS800

Technical Specification And Scope of Supply

mtu 12V1600 DS800

Customer: INDEL Power Group LLC

Quotation Date: 17. November 2023

[www.mtu-solutions.com](http://www.mtu-solutions.com)



## 1. Technical Specification

Product Type	mtu 12V1600 DS800
Application Group	3D

### ***Power as per MTU Sales Program***


Power per genset (ISO 8528)	800 kWel
Derated Power per genset (ISO 8528)	800 kWel
Engine speed	1800 rpm
Intake air temperature	25 deg C
Altitude	100 m

### ***Requirements***

Frequency	60 Hz
Fuel Type	Diesel
Generator voltage	480 V
Engine Model	12V1600G81S (24volts)
Grid guideline	No requirements

### ***Selection Criteria***

Phase	3 Phase
Unit Specification	UL2200 Certification
IBC Certification	Without
HCAI Certification	Without
Exhaust Emissions (EPA)	63 - EPA Stationary EMERG T2 (40CFR60)
Radiator Design Temperature	
Temp Rise	130 °
Full Load Amps	1203 A
Generator Model	LSA 49.3/M8
Generator Wire Qty	6 Wire
Generator Wire Configuration	WYE
OPU/HSD	Level 3 - Maximum Sound Attenuation Enclosure
Control panel	With Control Panel
Circuit Breaker Options	Single Circuit Breaker
Breaker Wire Color Scheme	Standard Breaker Wire Color Scheme
Country of Operation	US -United States of America
Emission cert. Authority	18 - US EPA US EPA Agency


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solution

MODEL: 1  
SERIAL: 2  
RATING: 3  
ENGINE: 4  
RPM: 5      Hz: 6  
kW: 7      kVA: 8

VOLTS	AMPS	PH	PF
9	10	11	12

WIRE CONFIG: 13  
TEMP. RISE / AMB. (°C): 14 / 40  
MAX. UNBALANCED LOAD:  $I_2 = 10\%$   
DIESEL FUEL:  
PER SPECIFICATIONS A001064/05E  
MAX. INLET FUEL FLOW:  
1620 (428) L/h (gal/h)

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1	mtu 12V1600 DS800	-
2	--	-
4	12V1600G81S (24volts)	-
5	1800	RPM
6	60	Hz
7	800	kWe
8	1000	kVA
9	480	V
10	1203	A
11	3	PH
12	0.8	PF
13	WYE	-
14	130	°C

## 2. Scope of Supply

Specification		QTY
SYSTEM		
System Description		
Unit	UL2200 Certification	1
Specification		
Enclosure Type	Level 3 - Maximum Sound Attenuation Enclosure	1
Controls	With Control Panel	1
Circuit Breaker	Single Circuit Breaker	1
Breaker Wire	Standard Breaker Wire Color Scheme	1
Color		
Scheme		
Dimensional	• XZ57500100069 • XZ57500100070	1
Drawings		
Engine	• XZ574K0000004	1
Electrical		
Drawings		
Electrical	• XZ57500100063	1
Generator		
Drawings		
Electrical	• XZ574K0000009	1
Option		
Sheet		
Drawings		
Circuit Breaker	• XZ57500100073	1
Drawings		
Distribution	• XZ574K0000003	1
Panel		
Drawings		
Control Panel	• XZ57464400002	1
Drawings		
Customer	• XZ574K0000002	1
Connection		
Drawings		

## ENGINE

### Engine Genset

Engine Model	12V1600G81S (24volts)	1
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## PREHEATING

### Electric Operated Preheating

Coolant Preheating	Coolant Preheater • -20 Deg F Coolant Preheater (208V 1PH - 5000W) • Model: CL150810-200 Qty 1 *Water Heater Wired to the Distribution Panel (If Distribution Panel is Selected)	1
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## STARTING

### Starting Electric

Starting Batteries	Starting Battery (Group 4D), Cables & Battery Rack • Battery Rack mounted and installed • Battery Group 4D Starting Battery filled with acid (Qty 2)	1
Battery Charger	Battery Charger MicroGenius 2 10A • 300W • 10 Amp • 24V • NFPA 110 • M3-22-1210-E	1
Battery Charger Mounting	Battery Charger Mounted & AC/DC Wired • This option will be factory-wired to distribution panel (if applicable)	1

## AIR INTAKE

<b>Air Intake Filters</b>		
<b>Air Intake</b>	Air Filter (Standard) mtu Air Filter • P/N: SUA90069 Qty 2	1
<b>Air Restriction Indicator</b>	Air Restriction Indicator	1
<b>FUEL</b>		
<b>Fuel Systems</b>		
<b>Fuel Type</b>	Diesel	1
<b>Fuel Filters</b>		
<b>Fuel Water Separator</b>	Fuel Water Separator Standard (Single)	1
<b>Fuel Tanks</b>		
<b>Fuel Tank Type</b>	Without	0
<b>Overfill Protection</b>	Without	0
<b>Tank Level Alarm Panel</b>	Without	0
<b>EXHAUST</b>		
<b>Exhaust System</b>		
<b>Exhaust Silencer</b>	Unit-Mounted Silencer • Silencer Model: OHBE2ZD08CF12TS-2-20040079 (Qty 1)	1
<b>GENERATOR</b>		
<b>Generator</b>		
<b>Generator Model Number</b>	LSA 49.3/M8	1
<b>Generator Accessories</b>		

Excitation System	With PMG	1
Generator Strip Heater	Generator Strip Heater 493F 250W	1
Generator Outletbox		
Convenience Receptacle	Unit Includes One (1) Convenience Receptacle * This option will be factory-wired to the distribution panel (if selected)	1

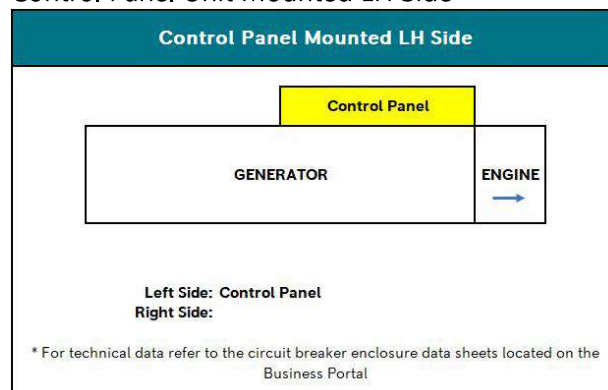
## CONTROLS

### Genset Control Panel

Configured Control Panel Series	<p>MGC-3010</p> <ul style="list-style-type: none"> <li>Rolls Royce Power Systems Generator Set Controllers (MGC Series) are rugged, reliable, all-in-one digital generator set control and load share systems. The MGC-3000 Series is designed to be a high end controller that is well suited for mains fail, paralleled units, and systems with multiple buses. The MGC-3000 Series has all of the necessary items for complete generator set control, protection, and metering with a massive, but easy-to-use, programmable logic system.</li> </ul>	1
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### Control Panel Mounting

Control Panel Unit Mounted LH Side 1



<b>Paralleling</b>	Without	0
<b>CEM Module</b>	Contact Expansion Module (CEM) <ul style="list-style-type: none"> <li>• The CEM is a remote device that provides additional MGC contact inputs and outputs giving the user flexibility to use the same model MGC generator set controller for simple or more complicated applications that require contact functionality or duplication of contacts for remote annunciation.</li> </ul>	1
<b>AEM Module</b>	Analog Expansion Module (AEM) <ul style="list-style-type: none"> <li>• The AEM is a remote auxiliary device that provides additional MGC analog inputs and outputs.</li> </ul>	1
<b>Remote E-Stop</b>	Without	0
<b>ProtoNode Solution</b>	The ProtoNode solution is pre-programmed to provide a virtual plug-and-play, easy, complete protocol BACnet MS/TP, BACnet/IP, and EtherNet/IP. There are no configuration files to download in the field, and all configurations are available to the user/installer simply by selecting the proper DIP switches.	1
<b>Ground Fault Protection</b>	Ground Fault Indication (GFI)	1
<b>Remote Annunciator</b>	RDP-110c Annunciator Panel <ul style="list-style-type: none"> <li>• The RDP-110c is a remote annunciation device used in conjunction with the MGC family of digital generator set controllers to provide remote annunciation of the emergency standby generator system.</li> <li>• This panel allows for two programmable alarms, two programmable pre-alarms, and is compatible with NFPA 110. The MGC detects an alarm or pre-alarm condition and communicates via RS-485 to the RDP-110c.</li> <li>• Unit can be flush or surface mounted.</li> </ul>	1



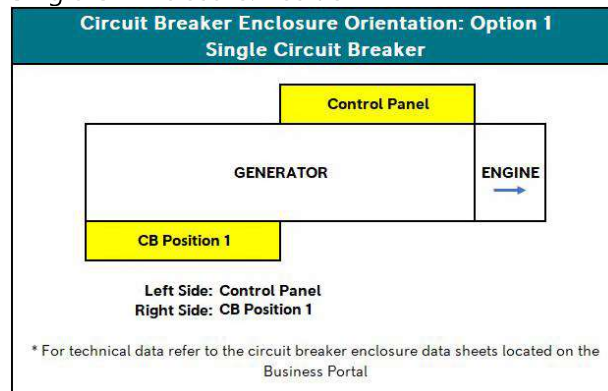
## CIRCUIT BREAKER

### Circuit Breaker 1

#### Circuit Breaker Position

#### Single CB Enclosure: Position 1

1



#### Trip Type

#### LSI Breaker Trip

0

- LSI breakers provide protection from long time overload, short time overload and instantaneous short circuit events. Specific overload current values and time delays vary with breaker type and trip unit.

#### Rating

100%

0

#### Spring Charging Motor (MMM) ERMS

Without

0

Without ERMS

0

#### Amperage List

1200 Amps

1

#### Selected Circuit Breaker

1200 Amp 3 Pole 100% LSI CB SQ-D  
PGL36120CU33A

1

1:

#### Service Entrance Rated

Service Entrance Rated

1

#### Distribution Panel

<b>Distribution Panel</b>	Distribution Panel • 125A 240VAC 1PH, UL Listed, 12 Position	1
<b>ENCLOSURE</b>		
<b>Housing</b>		
<b>Wind Rating</b>	130 MPH	1
<b>Enclosure Material</b>	Level 3 Aluminum • Weatherproof enclosure constructed of aluminum with fixed storm proof panels. • Enclosure consists of a bolted and welded construction. • Hinged, lockable double-door access on both sides of the enclosure. Includes UL 94 HF-1 compliant, 1.5" thick sound attenuated foam insulation installed inside enclosure walls, and attenuating air intake baffles.	1
<b>Enclosure Lighting</b>	Interior Enclosure Lighting • Interior enclosure lighting is designed to automatically use either AC or DC power. The lights will use the DC supply (genset batteries) if no AC supply is available. The lights may be powered via AC supply if connected by the customer. *Note* - This option will be factory-wired to the distribution panel (if selected)	1
<b>Enclosure Heater</b>	Enclosure Heater • 120V 1500W 1PH with Thermostat *Note* - This option will be factory-wired to the distribution panel (if selected)	1
<b>Motorized Intake Louver</b>	Motorized Intake Louver *This option will be factory-wired to the distribution panel (if selected) * Selection of this option may result in a cooling package derate.	1

Gravity Exhaust Louver	Gravity Exhaust Louver * Selection of this option may result in a cooling package derate.	1
<b>PAINTING</b>		
Painting		
Paint Color	Corporate Grey	1
<b>BASEFRAME</b>		
Mounts Baseframe		
Selected Vibration Isolation	Pad Isolators • 1/4" thick elastomeric pad in rectangular shape placed under the base frame at each of the pre-drilled isolator mounting holes • P/N: X54599100330	1
<b>WARRANTY</b>		
Warranty		
Warranty Terms	2 Year 3000 Hour Standby Warranty	1
<b>SHIPPING &amp; STORAGE</b>		
Freight		
Delivery Type	Ship Unit Wet	1
<b>DOCUMENTATION</b>		
Manuals		
Standard Documentation	Manual English USB	1
<b>FUNCTIONAL TESTING</b>		