

1. Technical Specification

Product Type mtu 20V4000 DS3250
Application Group 3D - Standby Power

Power as per MTU Sales Program

Power per genset (ISO 8528) 3250 kWel
Derated Power per genset (ISO 8528) 3250 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 20V4000G94S-TB (24volts)
Grid guideline No requirements

Selection Criteria

Phase 3 Phase
Unit Specification UL2200 Certification
IBC Certification With IBC Seismic Certification 50974-01C 2015 2018 2021
- Generator set - importance factor of 1.5 (Ip = 1.5)
- Emission Reduction Technology (ERT) - C/F

If Applicable
HCAI Certification Without
Exhaust Emissions (EPA) EPA Stationary EMERG T2 (40CFR60)
Radiator Design Temperature 43°C Cooling Package
Temp Rise 105 °
Full Load Amps 4886 A
Generator Model 941-VL70-M
Generator Wire Qty 6 Wire
Generator Wire Configuration WYE
OPU/HSD Level 0 - Standard OPU Skid
Control panel With Control Panel
Circuit Breaker Options Connection Box (Without 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


A Rolls-Royce solution

MODEL:
 SERIAL:
 RATING:
 ENGINE:
 RPM: Hz:
 kW: kVA:

VOLTS	AMPS	PH	PF
<input type="text" value="9"/>	<input type="text" value="10"/>	<input type="text" value="11"/>	<input type="text" value="12"/>

WIRE CONFIG:
 TEMP. RISE / AMB. (°C): / 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 20V4000 DS3250	-
2	--	-
4	20V4000G94S-TB (24volts)	-
5	1800	RPM
6	60	Hz
7	3250	kWe
8	4062	kVA
9	480	V
10	4886	A
11	3	PH
12	0.8	PF
13	WYE	-
14	105	°C

2. Scope of Supply

Specification

QTY

SYSTEM

System Description

Unit Specification	UL2200 Certification	1
IBC Seismic Certification	With IBC Seismic Certification 50974-01C 2015 2018 2021 - Generator set - importance factor of 1.5 (Ip = 1.5) - Emission Reduction Technology (ERT) - C/F **If Applicable**	1
Enclosure Type	Level 0 - Standard OPU Skid	1
Controls	With Control Panel	1
Circuit Breaker	Connection Box (Without Circuit Breaker)	0
Breaker Wire Color Scheme	Standard Breaker Wire Color Scheme	1
Dimensional Drawings	· XZ54900100025	1
Engine Electrical Drawings	· XZ54930900143 · XZ54930900146	1
Electrical Generator Drawings	· XZ54930900147 · XZ54930900149	1
Control Panel Drawings	· XZ54930900139 · XZ54930900680	1
Customer Connection Drawings	· XZ54930900156	1

ENGINE

Engine Genset

Engine Model	20V4000G94S-TB (24volts)	1
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COOLING

Cooling Package

Cooling Package Type	Standard Cooling Package	1
Radiator Design Temp	43 Deg C Cooling System • Closed loop, liquid cooled, with radiator factory mounted on engine-generator set mounting frame and integral engine-driven coolant pump with low water level probe and dual sight glasses	1
Cooling Package	Cooling Package DR3628U	1
Coolant Type	Ethylene Glycol Coolant	1

**Cooling Package*
SR00008752**

Radiator adder for 3250kw from 43C DR3628 (XS549200.00160; LGM low gauge material) with LS941-VL70 (base XS549230.00088 LGM) to 50C DR3138 (XS549200.00083) with LS941-VL70 (base XS549230.00084) as it is removed from config. With fuel cooler. Does not make full power and derate needs to be evaluated (ambient temp/altitude) per site for kwe output.

1

PREHEATING

Electric Operated Preheating

Coolant Preheating

Coolant Preheater
• -20 Deg F Coolant Preheater (480V 1PH - 12000W)
• Model: CSM11204-000
• Qty 2

1

STARTING

Starting Electric

Redundant Starters

Redundant Starter:
• Second starter installed on engine. Control panel logic and relays are used to alternate the start signal between the left and right starters on the engine. Charging alternator installed on engine.

1

Starting Batteries

Without

1

Starting Battery Mounting

Battery Rack

1

Configured Starting Batteries

No Starting Batteries

1

Battery Charger

Battery Charger MicroGenius S2 20A
• 20A
• 24V
• S2-A30-B0000000

1

Battery Charger Mounting

Battery Charger Mounted & DC Wired
*Battery Charger Mounted Opposite of the Control Panel

1

AIR INTAKE

Air Intake Filters

Air Intake

mtu Air Filter
• SUA90069
• Qty 6

1

Air Restriction Indicator

Air Restriction Indicator

1

FUEL

Fuel Systems

Fuel Type

Diesel

1

Auxiliary Fuel Lift Pump	with Fuel Auxiliary Lift Pump	1
Fuel Filters		
Fuel Water Separator Type	Fuel Water Separator - Manual Switchable	1
Fuel Cooler		
Fuel Cooler	With Fuel Cooler	1
Fuel Tanks		
Fuel Tank Type	Without	0
EXHAUST		
Exhaust System		
Exhaust WYE Header	Without	0
Exhaust Silencer	Without	1
Exhaust Thermocouple	Exhaust Thermocouple (AEM Required) If not using MTU supplied Wye header a single ¼" NPT port will need to be supplied by customer in exhaust system.	1
Exhaust Pyrometer	with Exhaust Pyrometer (1 per cylinder)	1
OIL		
Lubrication		
Oil Type	Engine Lubricant 10W-40	1
Oil Replenishment System	Without	1
Oil Sampling Port	With Oil Sampling Port	1
GENERATOR		
Generator		
Generator Scope	Additional Pricing over Standard	1
Generator Specifications	LS941 - Enhanced Features: <ul style="list-style-type: none"> • Metering CT (3 mounted and wired) • PTs • Paralleling CT (1 mounted and wired) • Winding RTDs (2 per phase) and Bearing RTDs (1 per bearing) • Heater with thermostat • Qty 18 two-hole NEMA Lugs Per Phase 	1
Customer Connections	Right or Left Hand Customer Connections	1
Generator Accessories		
Excitation System	DECS 150 Digital Excitation Control System	1

Bearing & Winding RTDs	With Bearing & Winding RTDs	1
RTDs Wired to Control Panel	Bearing/Winding RTDs wired to Control Panel (AEM Required)	1
Generator Strip Heater	With Generator Strip Heater	1

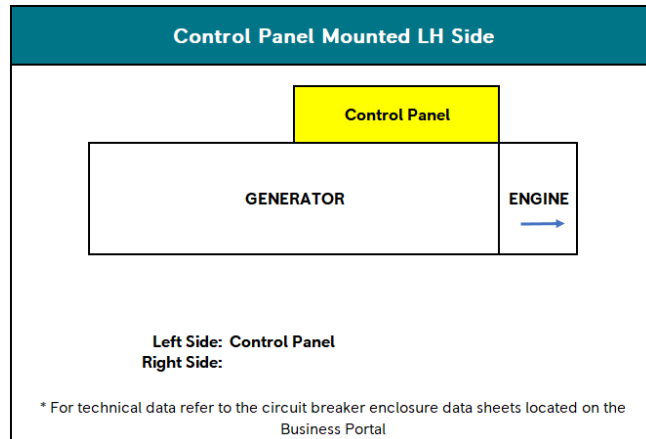
CONTROLS

Genset Control Panel

Configured Control Panel Series	MGC-3010 <ul style="list-style-type: none"> 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. 	1
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Control Panel Mounting

Control Panel Unit Mounted LH Side 1



Paralleling	Paralleling Without mtu Components	1
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4-Relay Package	4-Relay Option <ul style="list-style-type: none"> The 4-relay board includes (4) 10 Amp form C relays customizable for user defined functionality requirements. Standard outputs are as follows: <ul style="list-style-type: none"> Engine Run Engine Fail Minor Alarm 	1
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CEM Module	Contact Expansion Module (CEM) <ul style="list-style-type: none"> 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. 	1
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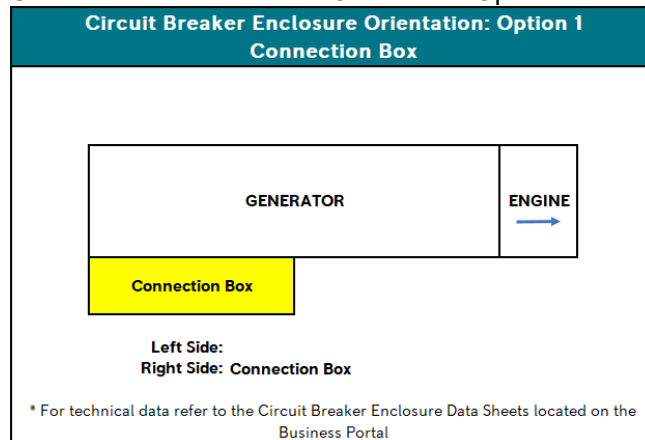
AEM Module	Analog Expansion Module (AEM) • The AEM is a remote auxiliary device that provides additional MGC analog inputs and outputs.	1
MINI-USB Port	Mini USB Port	1
Digital Device Module	Without	0
Remote E-Stop	Remote E-Stop	1
ProtoNode Solution	Without	0
Ground Fault Protection	Without	0
Remote Annunciator	RDP-110c Annunciator Panel • 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. • 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. • Unit can be flush or surface mounted.	1

CIRCUIT BREAKER

Connection Box

Connection Box Enclosure Orientation

Connection Box Enclosure Orientation: Option 1 1



Connection Box Connection Box Only 1

Distribution Panel

Distribution Panel Without 0

PAINTING

Painting

Paint Color Corporate Grey 1

BASEFRAME

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: SUA46908	1
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WARRANTY

Warranty

Warranty Terms	2 Year 3000 Hour Standby Warranty	1
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SHIPPING & STORAGE

Freight

Shipping Bag	With Shipping Bag	1
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Delivery Type	Ship Unit Wet	1
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DOCUMENTATION

Manuals

Standard Documentation	Manual English USB	1
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Additional Documentation	Manual English Printed	1
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3D Model *Requires SR/UPO	With 3D Model	1
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Manuals*	Create 3D model stp file.	1
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SR0008753

FUNCTIONAL TESTING

Acceptance Testing

Standard Commercial Test	With Standard Commercial Test	1
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Certified Test Report	Tests to be reviewed and signed off by test engineer	1
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