



Stock #: 243512

Technical Specification

and

Scope of Supply

**mtu 4R0120 DS80
DG04RM120A1N**

Customer: INDEL Power Group LLC

28.02.2024



I. System Description

Product type	DG04RM120A1N
Application Group	mtu 4R0120 DS80 3D - Emergency Standby power, IFN

Power as per MTU Sales Program

Power per genset (ISO 8528)	80	kWeI
Engine speed	1.800	rpm
Intake air temperature	25	°C
Coolant temperature	0	°C
Altitude	100	m

On-site Power

Power per genset (ISO 8528)	80	kWeI
Engine speed	1.800	rpm
Intake air temperature	25	°C
Coolant temperature	0	°C
Altitude	100	m

Requirements

Frequency	60 Hz
Generator voltage	240 V
EngineType	4R924G60S
Generator model	Marathon



II. Selection Criteria for the Scope of Supply

<i>Criteria</i>	<i>Selection</i>	<i>for Product No.</i>
Application	Emergency Standby (3D)	1,
Frequency	60 Hz	1,
Generator Voltage	240 V	1,
Phase	3 Phase	1,
Unit Specification	UL2200	1,
IBC Seismic Certification	Without IBC	1,
HCAI Certification	Without HCAI	1,
Engine Model	4R 4.8L OM924LA (12volts)	1,
Exhaust Emissions (EPA)	EPA "Nonroad" T. 3 Stationary (40 CFR 60)	1,
Radiator Design Temperature	50°C	1,
Temp Rise	130°	1,
Power Output	80 kW	1,
Full Load Amps	240	1,
Generator Frame and Wire Qty	362/1604 (12 Wire)	1,
Generator Wire Configuration	Delta	1,
OPU/HSD	Level 3 - Maximum Sound Attenuation	1,
Fuel Tank	With Tank	1,
Control panel	With Control Panel	1,
Circuit Breaker Options	Single Circuit Breaker	1,
Breaker Wire Color Scheme	Standard Breaker Wire Color Scheme	1,
Paralleling	No Paralleling Operation	1,
Acceptance testing	Factory acceptance	1,
Country of Operation	USA/Canada	1,
Emission cert. authority	18 US EPA Agency	1,

III. Scope of Supply

1 SYSTEM CONFIGURATION

1.1 System Description

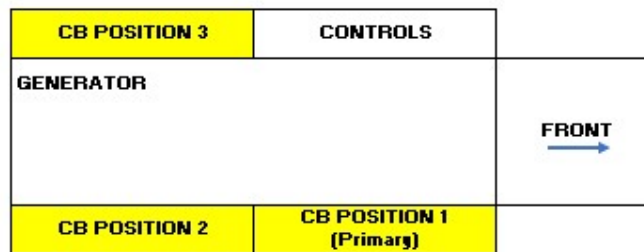
Model: DG04RM120A1N

1.2 Cooling Package

50 Deg C Cooling System

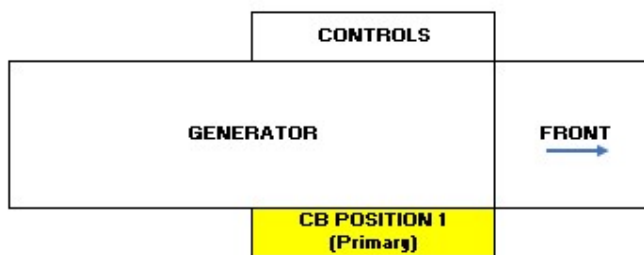
- Closed loop, liquid cooled, with radiator factory mounted on engine-generator set mounting frame and integral engine-driven coolant pump

1.3 Circuit Breaker



Top View **Right Side** CB Position 1/CB Position 2
Left Side Controls/CB Position 3

* For technical data refer to the circuit breaker enclosure data sheets located on the Business Portal



Top View **Right Side** CB Position 1
Left Side Controls

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Single Circuit Breaker

Circuit Breaker Position 1:

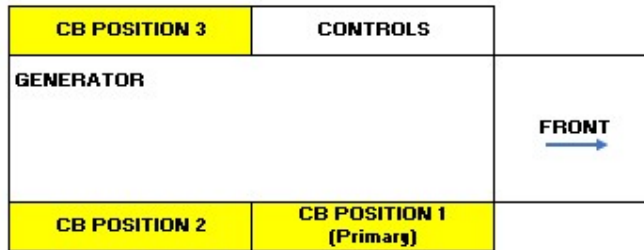


300 Amp 600 Volt 3 Pole 100% LSI Square-D LGL36400CU33X	valid for product no. 1,
Circuit Breaker #1 Accessories:	1,
Circuit Breaker Shunt Trip (MX) (Customer Use)	1,
Standard Breaker Wire Scheme:	1,
<ul style="list-style-type: none">Phase 1 (A) is Black label "L1"Phase 2 (B) is Orange label "L2"Phase 3 (C) is Blue label "L3"Neutral is White label "NEU"	
Circuit Breaker Position 1:	1,
LSI Breaker Trip:	1,
<ul style="list-style-type: none">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.	
1.4 Starting Aids	1,
Starting Battery (Group 31), Cables & Battery Rack	1,
<ul style="list-style-type: none">Battery Rack mounted and installedBattery Group 31 Starting Battery filled with acidQty 1	
Battery Charger: Rolls Royce Power Systems 12-6A	1,
<ul style="list-style-type: none">Output: 12 Volt DC - 6 AmpInput: 100-240 Volt AC	
Battery Charger Mounted & AC/DC Wired	1,
Note - This option will be factory-wired to the distribution panel (if selected)	1,
With Coolant Preheating	1,
Coolant Preheater	1,
<ul style="list-style-type: none">-20 Deg F Coolant Preheater (120V 1PH - 1500W)Model: TPS151GT10-005	



		valid for product no.
	<ul style="list-style-type: none">Qty 1	
	Coolant Preheater Mounted & AC Wired	1,
1.5	Genset Enclosure	1,
	OM900 Level 3 Enclosure	1,
	<ul style="list-style-type: none">Level 2 enclosure with air exhaust scoop.UL 94 HF-1 compliant, 1.5" thick sound attenuated foam insulation installed in scoop.	
	Weather Proof Enclosure - Steel	1,
	130mph Wind Rated	1,
	Sound Attenuation Kit	1,
	Exhaust Scoop - Steel	1,
1.6	Vibration Isolation	1,
	SUA63015 Pad Isolators	1,
	<ul style="list-style-type: none">¼ inch thick elastomeric pad in rectangular shape placed under the base frame at each of the pre-drilled isolator mounting holes	
2	ENGINE CONFIGURATION	1,
2.1	Engine System	1,
	4R 4.8L OM924LA Charged Air Cooling	1,
	Note Emission Compliance: The engines and/or systems, may only be certified to comply with the required country or region specific emission regulations. Where applicable, the engines and/or systems are only certified to those specific emission regulations/standards which are clearly stated in the respective RRPS/MTU defined technical specifications. It is the customer's sole responsibility to ensure that the export/import, installation and use of the engine and/or system complies with the applicable emissions regulations in the country or region where the engine and/or system will be used.	1,
2.2	Exhaust System	1,
	Unit-Mounted Silencer 4"	1,
	<ul style="list-style-type: none">Silencer Model Number: CPJS-04X-90040065Qty 1	
2.3	FUEL SYSTEM	1,
	24 HR 230 GALLON Sub Base Fuel Tank	1,

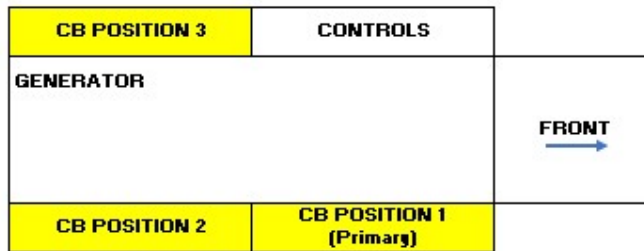
	valid for product no.
2.4 Air Intake System	1,
Air Restriction Indicator	1,
Air Filter (Standard)	1,
MTU Air Filter	1,
<ul style="list-style-type: none"> • XG2112100001 • Qty 1 	
3 GENERATOR CONFIGURATION	1,
3.1 Generator Specification	1,
Generator Model Number: 362/1604	1,
3.2 Generator accessories	1,
PM300 Regulator	1,
4 CONTROL PANEL CONFIGURATION	1,
4.1 Control panel	1,
Circuit Breaker Position 1:	1,
Without Ground Fault	1,
Modbus RTU	1,
<ul style="list-style-type: none"> • ModBus RTU connects the MGC to Programmable Logic Controllers by means of communication transmission over serial lines (RS485). 	
Modem RS-232	1,
<ul style="list-style-type: none"> • The MGC controller includes an external modem interface permitting an external modem to be connected to the controller via RS-232. A dial-out modem enables remote control, monitoring, and setting of the controller. When an alarm or pre-alarm condition occurs, the controller can dial up to four telephone numbers in sequence until an answer is received and the condition is annunciated. 	
<ul style="list-style-type: none"> ○ Note: Only an external modem interface is provided. The external modem must be supplied by a third party 	

valid for
product no.
1,


Top View **Right Side** CB Position 1/CB Position 2
Left Side Controls/CB Position 3

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1,



Top View **Right Side** CB Position 1/CB Position 2
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(4) Relay Option

The 4-relay board includes (4) 10 amp form C relays customizable for user defined functionality requirements. Standard outputs are as follows:

1. Engine Run
2. Engine Run
3. Engine Fail
4. Minor Alarm

1,

High Fuel Level Pre-Alarm

1,

Critical Low Fuel Level Alarm

1,

Modbus RTU

1,

- ModBus RTU connects the MGC to Programmable Logic Controllers by means of communication transmission over serial lines (RS485).

MGC- 2000 Series

1,

- Rolls Royce Power Systems Digital Genset Controller MGC-2000 series is a highly advanced integrated generator set control system. The MGC-2000 series is perfectly focused, combining rugged construction and microprocessor technology to offer a product that will hold up to almost any environment and flexible enough to meet your application's needs. This



valid for
product no.

device provides generator set control, transfer switch control, metering, protection, and programmable logic in a simple, easy-to-use, reliable, rugged, and cost effective package.

	No Parallel Operation	1,
5	SERVICES AND AFTER SALES SUPPLY	1,
5.1	Warranty	1,
	General Terms and Conditions of Sale, Warranty and After Sales Supply	1,
	Our offer is based on the attached General Terms and Conditions of Sale for Rolls Royce Power Systems Products (Rev. V-601-1803 MUS & MOE) and the Warranty will be the attached Standard Two (2) Year / 3,000 Hour Basic Standby (3D), Prime (3B), and Data Center Continuous Power (DCCP) (3F) Limited Warranty (SYS-M-GEN-S-026).	
6	MISCELLANEOUS	1,
6.1	Painting	1,
	Paint Color: RAL 7001 Grey	1,
6.2	Documentation	1,
	<u>English</u>	1,
	1 Flash Drive	1,
	<u>English</u>	1,
	<u>French</u>	1,
	<u>Spanish</u>	1,
	1 Hard Copy	1,
6.3	Additional Options	1,
	Mechanical Drawing: Genset Dimensional HSD	1,
	• XZG2100100033	
	Mechanical Drawing: Genset Dimensional HSG	1,
	• XZG2100100035	
	Mechanical Drawing: Fuel Tanks	1,
	• XZG2100100046	
	Electrical Drawing: Engine	1,
	• XZG21K0000003	
	Electrical Drawing: Generator	1,
	• XZG21K00000010	



	valid for product no.
Electrical Drawing: Breaker Options • XZG21K0000002	1,
Electrical Drawing: Control Panel • XZG2100100055	1,
Electrical Drawing: Options Sheet • XZG21K0000009	1,
7 FUNCTIONAL TESTING	1,
7.1 Acceptance Testing	1,
Standard Commercial Test	1,
8 SHIPPING CONDITIONS	1,
8.1 Shipment	1,
Ship unit with fluids installed	1,
Genset Unit is enclosed in a Shipping Bag	1,