



Stock #: 216990

Technical Specification

and

Scope of Supply

**mtu 4R0120 DS80
DG04RM120A1N**

Customer: INDEL Power Group LLC

10.06.2022



I. System Description

Product type	DG04RM120A1N mtu 4R0120 DS80
Application Group	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	480 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	480 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	120	1,
Generator Frame and Wire Qty	362/1604 (12 Wire)	1,
Generator Wire Configuration	Wye	1,
OPU/HSD	OPU Housed/Tank Ready Skid	1,
Fuel Tank	With Tank	1,
Control panel	With Control Panel	1,
Circuit Breaker Options	Triple 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

valid for
product no.

1 SYSTEM CONFIGURATION

1,

1.1 System Description

1,

Model: DG04RM120A1N

1,

1.2 Cooling Package

1,

50 Deg C Cooling System

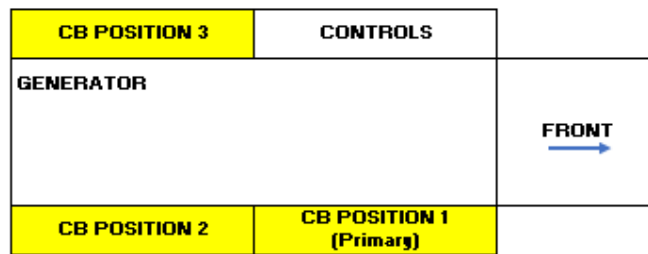
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- Closed loop, liquid cooled, with radiator factory mounted on engine-generator set mounting frame and integral engine-driven coolant pump

1.3 Circuit Breaker

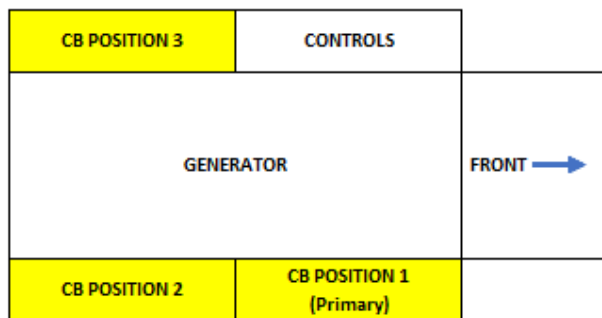
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1,



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/CB Position 2
left Side Controls/CB Position 3

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1,



	valid for product no.
Triple Circuit Breakers	1,
Circuit Breaker Position 1:	1,
100 AMP 3P 100% LSI CB SQ-D H-FRAME HDL36100CU33X	1,
Circuit Breaker Position 2:	1,
100 AMP 3P 100% LSI CB SQ-D H-FRAME HDL36100CU33X	1,
Circuit Breaker Position 3:	1,
50 AMP 3P 100% LSI CB SQ-D H-FRAME HDL36060CU33X	1,
Circuit Breaker #1 Accessories:	1,
Circuit Breaker Shunt Trip (MX) (Customer Use)	1,
Circuit Breaker #2 Accessories:	1,
Circuit Breaker Shunt Trip (MX) (Customer Use)	1,
Circuit Breaker #3 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 Red 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.	
Circuit Breaker Position 2:	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.	
Circuit Breaker Position 3:	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	



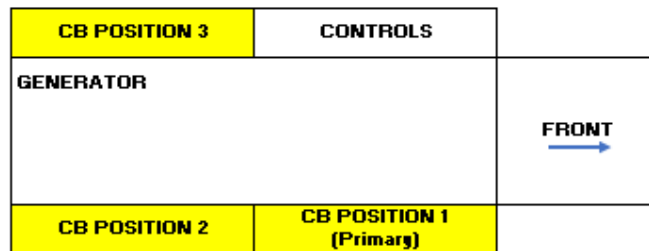
	breaker type and trip unit.	valid for product no.
1.4	Starting Aids	1,
	Starting Battery (Group 31), Cables & Battery Rack	1,
	<ul style="list-style-type: none">Battery Rack mounted and installedBattery Group 31 Starting Battery filled with acidQty 1	
	Battery Charger: MicroGenius 10A	1,
	<ul style="list-style-type: none">180W10 Amp12VNFPA 110	
	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: TPS151GT10-005Qty 1	
	Coolant Preheater Mounted & AC Wired	1,
1.5	Genset Enclosure	1,
	Open Power Unit (OPU)	1,
	<ul style="list-style-type: none">Engine Generator Set mounted on base with no enclosure	
1.6	Vibration Isolation	1,
	Non-Seismic Spring Isolators	1,
	<ul style="list-style-type: none">Freestanding, open-spring isolators designed to be used in docile environments (limited seismic activity, low wind loading) where customer wants enhanced level of vibration isolation.	
	Notice: Selected springs are rated from the factory for this unit's specific configuration. If modifications are made to this unit outside of the MTU factory the rating of the springs will need to be re-evaluated and may result in additional costs.	1,
	Non-Seismic Spring Isolators Assembly TJB-1060	1,
	<ul style="list-style-type: none">Freestanding, open-spring isolators designed to be used in docile environments (limited seismic activity, low wind loading) where customer wants enhanced level of vibration isolation.Model: TJB-1060	
2	ENGINE CONFIGURATION	1,



	valid for product no.
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,
Shipped Loose Industrial Grade Silencer 4"	1,
<ul style="list-style-type: none">Provides 10-15dB of sound attenuationSilencer Model Number: JIS-04-400094Qty 1	
2.3 FUEL SYSTEM	1,
12 HR 115 Gallon Sub Base Fuel Tank	1,
2.4 Air Intake System	1,
Air Restriction Indicator	1,
Air Filter (Standard)	1,
MTU Air Filter	1,
<ul style="list-style-type: none">XG2112100001Qty 1	
3 GENERATOR CONFIGURATION	1,
3.1 Generator Specification	1,
Generator Model Number: 362/1604	1,
3.2 Generator accessories	1,
PMG with DVR 2400	1,
<ul style="list-style-type: none">True RMS Sensing - One or Three Phase Connect. Senses 100 to 600 volts $\pm 10\%$ at 50/60 Hertz. Patented circuitry senses true RMS voltage rather than average for superior load regulation.	
4 CONTROL PANEL CONFIGURATION	1,
4.1 Control panel	1,
Circuit Breaker Position 1:	1,

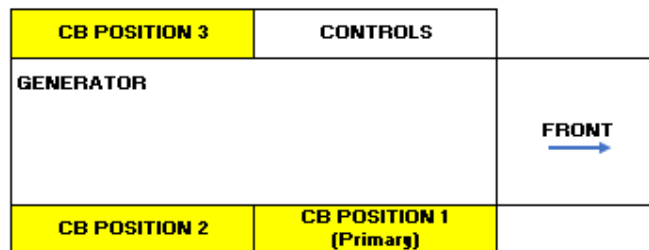


Without Ground Fault	valid for product no. 1,
Circuit Breaker Position 2:	1,
Without Ground Fault	1,
Circuit Breaker Position 3:	1,
Without Ground Fault	1,
	1,



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

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

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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

High Fuel Level Pre-Alarm 1,

Critical Low Fuel Level Alarm 1,



		valid for product no.
Contact Expansion Module (CEM)		1,
<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.		
RDP-110 Annunciator Panel		1,
<ul style="list-style-type: none">The RDP-110 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-110.Unit can be flush or surface mounted.		
2 Remote Annunciators		1,
MGC-1500 Series		1,
<ul style="list-style-type: none">MTU Onsite Energy's Generator Set Controllers are rugged, reliable, and easy-to-use digital generator set control systems. The MGC-1500 Series is perfectly focused, combining rugged construction and microprocessor technology to offer a product that will hold up to almost any environment and is flexible enough to meet your application's needs.		
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 MTU 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,
6.2	Documentation	1,
<u>English</u>		1,
1 Flash Drive		1,
<u>English</u>		1,
<u>French</u>		1,
<u>Spanish</u>		1,
6.3	Additional Options	1,



		valid for product no.
	Mechanical Drawing: Genset Dimensional HSD • XZG2100100033	1,
	Mechanical Drawing: Fuel Tanks • XZG2100100046	1,
	Mechanical Drawing: Daimler OM924 Spring Isolator Installation Drawing • XZG2100100052 Daimler OM924 Spring Isolator Installation Drawing	1,
	Electrical Drawing: Engine • XZG21K0000003	1,
	Electrical Drawing: Generator • XZG21K0000010	1,
	Electrical Drawing: Breaker Options • XZG21K0000002	1,
	Electrical Drawing: Control Panel • XZG2100100054	1,
	Electrical Drawing: Options Sheet • XZG21K0000009	1,
	OM924 Service Filter Kit - Standard Air/Oil/Fuel/Fuel Water Separator	1,
	<ul style="list-style-type: none">• XG2112100001 MTU Air Filter (Qty 1)• 9061800109 MTU Oil Filter (Qty 1)• 0000901351 MTU Fuel Filter (Qty 1)• X57536400006 MTU Fuel Filter (Qty 1)	
	Quantity (1) Service Filter Kit:	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,

