

SPECIFICATION



MODEL R100C RG SERIES (FOR 50Hz DIESEL GENSET)

Revision: A2 (02/24)

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RG series
R100C, Stage IIIA
50 Hz @ 1500rpm, 3-phase/4-wiring



1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- Conformance Européenne (CE)
- ISO8528-5:2005
- GB/T2820.5-2009

Environmental Operating Conditions

- Installation place: Outdoors or indoors (well ventilated).
- Ambient temperature: -25°C to 45°C. The coolant heater is needed when the temperature is below 5°C
- Humidity: Less than 90%.
- Altitude: Below one thousand (1000) meters above sea level.

Factory Inspection

- Inspection items.
- Protection devices working test.
- Starting ability in normal temperature.
- 50% rated power load moment capability.
- Voltage deviation and speed variation: 0%, 25%, 50%, 75%, 100%, 110% Load.

Painting Process

- Painting process specifications and colors are based on the manufacturer's standard.
- The customer could also choose the color which the manufacturer offers.

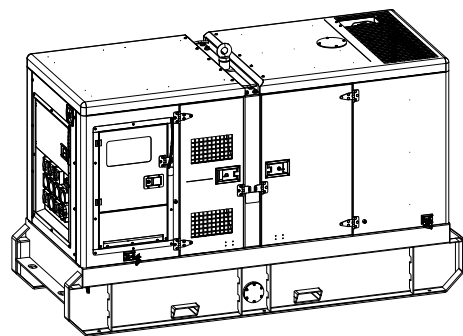
2 General Features

- Cummins engine QSB3.9-G39
- Close coupled to Leroy Somer alternator LSA44.3S5
- Microprocessor controller ComAp IntelliLite4-AMF9
- ABB main circuit breaker: 200A, 4P
- Rotate speed governor: ECU
- Excitation System: Self Excited, SHUNT
- A.V.R. Model: R250
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- Remote run connector

- 2x12V/72AH sealed for life maintenance free battery
- Lockable battery isolator switch
- Powder coated canopy
- 50°C radiator
- Steel base frame with forklifts
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank with 10 hours running
- Drain points for fuel tank
- Operator's Manual / Specifications

3 Equipment Specification

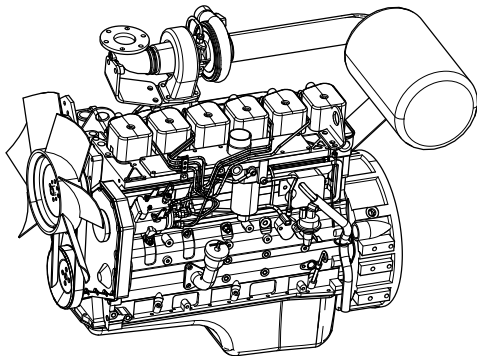
General technical data



Model.....	R100C
Tank capacity.....	360L
Dry weight.....	1821kg
Sound pressure level @ 7m	70.2dBA
Dimensions L×W×H.....	2850x1165x1793mm
Standby Power	110kVA/88kW
Prime Power	100kVA/80kW

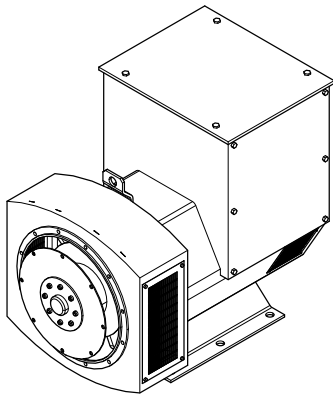
Voltage	380V	400V	415V	440V	
Ampere	151.9A	144.3A	139.1A	131.2A	
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	10	18	25	31	34

Power System



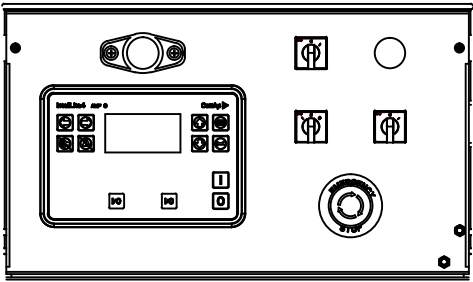
Engine Manufacturer/Brand	Cummins
Engine Model	QSB3.9-G39
Dimensions L×W×H	784x770x911mm
Dry Weigh (approx.)	281kg
Number of Cylinders	4
Bore	102mm
Stroke	120mm
Displacement	3.9L
Compression Ratio	17.3
Type of injection	High pressure common rail
Intake System	Turbocharged,air-to-air charge cooled
Intake Resistance	≤6.28kPa
Cooling System	Water cooled
Fan	Pusher
Battery Voltage	24V
Type of Fuel	No.2 or ASTM D975
Type of Oil	15W40-CH4
Oil Capacity	10.9L
Type of Coolant	Glycol mixture
Coolant Capacity	7.2L
Back Pressure	≤10.1kPa
Standby Power	110kW
Prime Power	100kW

Alternator



Alternator Manufacturer/Brand	Leroy Somer
Alternator Model	LSA44.3S5
Exciter	Brushless
Cooling Fan	Cast alloy aluminum
Windings	100% copper
Insulation Class	H
Winding Pitch	2/3
Terminals	12
Drip Proof	IP23
Altitude	≤1000m
Overspeed	2250rpm
Air Flow	N/A
Voltage Regulation	±1.0%
Total Harmonic TGH / THCat no load	< 1.5 % - on load < 5%
Telephone Interference	THF<2%;TIF<50

IntelliLite4-AMF9 Control System

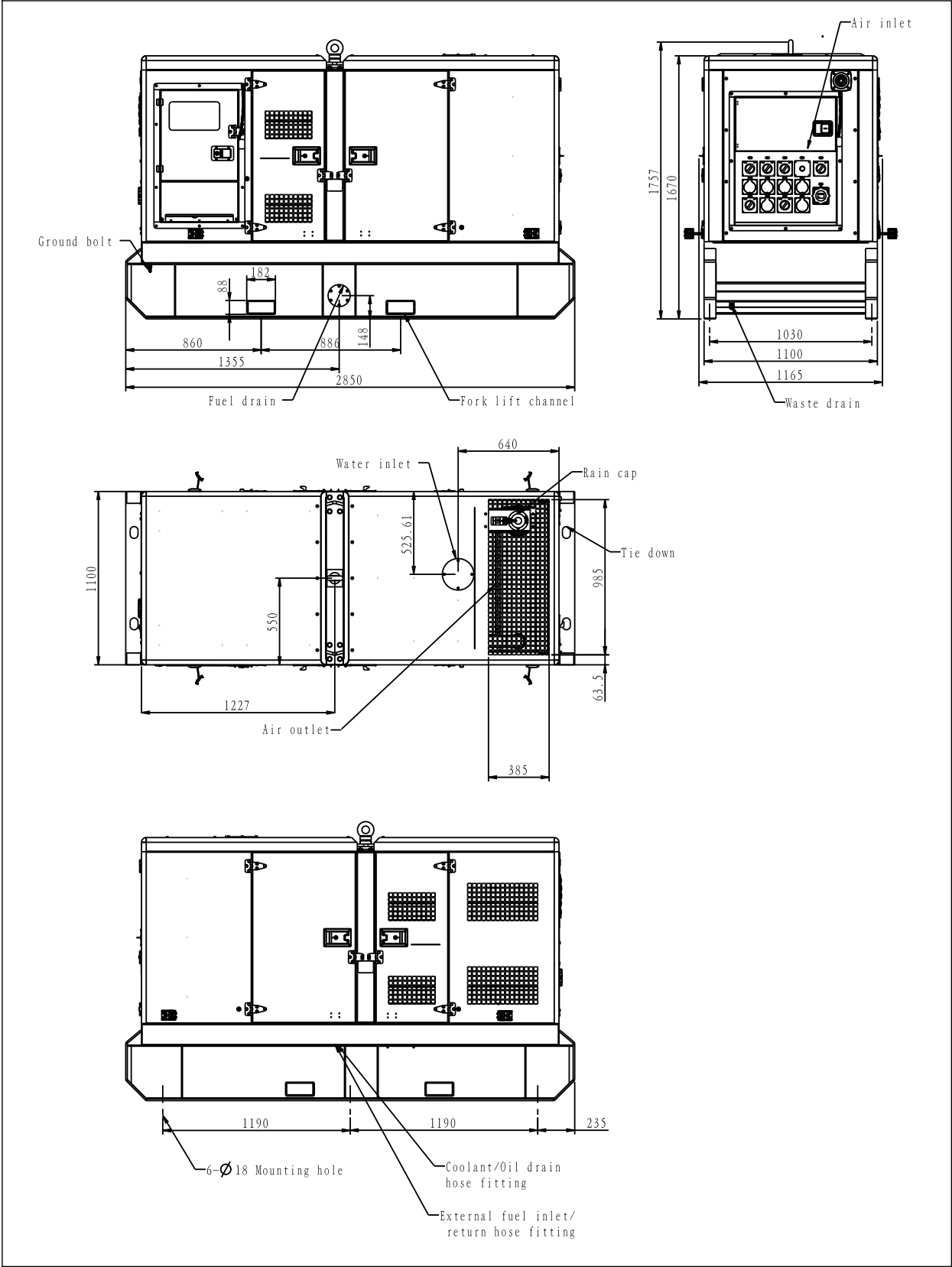


IntelliLite4-AMF9 is Single Gen-set controller for stand-by and prime-power applications and all-in-one intuitive & powerful PC tool for configuration/monitoring/control, locally or remotely and easy to install, configure and use

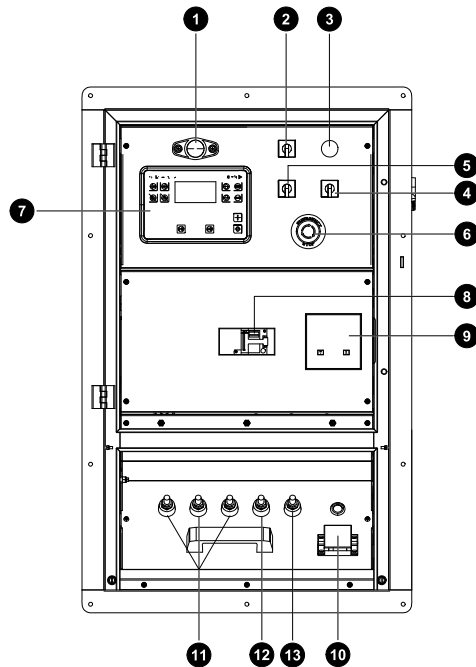
Standard Control Function

- Stand-by and prime-power application in one unit
- Dual Mutual Standby application support
- Remote display
- User setpoints and protections
- User Access Management
- Cyber security improvement
- Alternative configurations
- Multi-purpose schedulers

4 Overall Dimensions



5 Control System



Ref.	Description
1	Control panel lamp
2	Lamp switch
3	Not ready
4	Control power
5	Control mode
6	Emergency stop button
7	Control module
8	Main circuit breaker
9	RCD.
10	Mains input/remote communication connector
11	Live wire terminals
12	Neutral wire terminal
13	Ground wire terminal



Ref.	Description
1	LEFT button.
2	RIGHT button
3	HORN RESET button
4	FAULT RESET button
5	UP button
6	PAGE button
7	DOWN button
8	ENTER button
9	START button
10	STOP button
11	GCB button
12	MCB button
13	GENERATOR status indicator
14	MAINS status indicator
15	Graphic B/W display, 132 × 64 px.
16	GCB Status
17	MCB Status

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