

Cargo Equipment Solutions, Inc.

12301 SW 128 Court, Unit 104, Miami, Florida 33186
 Phone: 305-259.4537 / 305-259.4538 / Fax: 305-259.4539 / U.S. Toll Free: 877-813.0251
 Email: sales@cargoequipsolutions.com

Diesel Generating Set C103

MODEL	C103
Standby Power (60Hz)	94KW / 118KVA
Prime Power (60Hz)	85KW / 106KVA

Standard Features

General Features:

- Engine (DCEC Cummins 6BT5.9-G1)
- Radiator 50C max, fans are driven by belt, with safety guard
- 24V charge alternator
- Alternator: single bearing alternator IP23, insulation class H/H
- Absorber
- Dry type air filter, fuel filter, oil filter
- Main line circuit breaker
- Standard control panel
- Two 12V batteries, rack and cable
- Ripple flex exhaust pipe, exhaust siphon, flange, muffler.
- User manual.

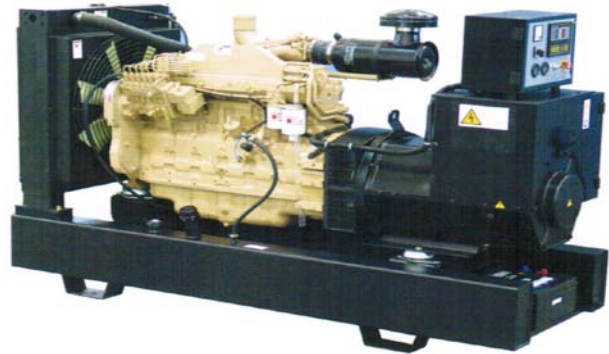


PHOTO FOR REFERENCE ONLY

Generator Ratings

Voltage	HZ	Phase	P.F (COS φ)	Standby Amps	Standby Ratings (KW/KVA)	Prime Ratings (KW/KVA)
480/277	60	3	0.8	141	94/118	85/106
460/266	60	3	0.8	147	94/118	85/106
440/254	60	3	0.8	154	94/118	85/106
416/240	60	3	0.8	163	94/118	85/106

Prime Power (PRP): Prime power is available for an unlimited number of annual hours in variable load application, in accordance with GB/T2820-97 (eqv ISO8528) ; A 10% overload capability is available for a period of 1 hour within a 12-hour period of operation.

Standby Power Rating (ESP): The standby power rating is applicable for supplying emergency power for the duration of a utility power interruption. No overload, utility parallel or negotiated outage operation capability is available at this rating.

Sales Promises

Cargo Equipment Solutions, Inc provides a full line of brand new and high quality products. Each and every unit is strictly factory tested.

Warranty on equipments are: One (01) year or 1000 Hours of standard working condition, what ever comes first. Service and parts are available from Cargo Equipment Solutions, Inc.

Specifications may change without notice.

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ENGINE DATA

Manufacturer / Model:	DCEC Cummins 6BT5.9-G1, 4-cycle
Air Intake System:	Turbo
Fuel System:	A/AD type fuel pump
Cylinder Arrangement:	6 in line
Displacement:	5.9L
Bore and Stroke:	102*120 (mm)
Compression Ratio:	17.5 : 1
Rated RPM:	1800rpm
Max. Standby Power at Rated RPM:	110KW/149.6HP
Governor Type:	RSV Mechanical(Std) / Electronic (Optional)

Exhaust System

Exhaust Gas Flow:	18.5 m3/min.
Exhaust Temperature:	565°C
Max Back Pressure:	10kPa

Air Intake System

Max Intake Restriction:	6.35 kPa
Burning Capacity:	7.1m3/min
Intake Flow:	174m3/min

Fuel System

100%(Prime Power) Load:	21.4 Lts / Hr
75%(Prime Power) Load:	21.6 Lts / Hr
50%(Prime Power) Load:	21.7 Lts / Hr

Oil System

Total Oil Capacity:	16.4L
Oil Consumption:	≤4g/Kwh
Engine Oil Tank Capacity:	14.2L
Oil Pressure at Rated RPM:	345kPa

Cooling System

Total Coolant Capacity:	27 L
Thermostat:	82-95°C
Max Water Temperature:	104°C

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ALTERNATOR SPECIFICATION

General Data

Compliance with GB755, BS5000, VDE0530, NEMAMG1-22, IED34-1, CSA22.2 and AS1359 standards.

Alternator Data

Number of Phase:	3
Connecting Type:	3 Phase and 4 Wires, ΔY_j type connecting
Number of Bearing:	1
Power Factor:	0.8
Protection Grade:	IP23
Altitude:	$\leq 1000\text{m}$
Exciter Type:	Brushless, self-exciting
Insulation Class, Temperature Rise:	H/H
Telephone Influence Factor (TIF):	< 50
THF:	$< 2\%$
Voltage Regulation, Steady State:	$\leq \pm 1\%$
Alternator Capacity:	117.50 KVA
Alternator Efficiencies:	90.60%
Air Cooling Flow:	0.617m ³ /s

GENERATING SET DATA

Voltage Regulation:	$\geq \pm 5\%$
Voltage Regulation, Stead State:	$\leq \pm 1\%$
Sudden Voltage Warp (100% Sudden Reduce):	$\leq +35\%$
Sudden Voltage Warp (Sudden Increase):	$\leq -25\%$
Voltage Stable Time (100% Sudden Reduce):	$\leq 10\text{S}$
Voltage Stable Time (Sudden Increase):	$\leq 10\text{S}$
Frequency Regulation, Stead State:	$\leq 5\%$
Frequency Waving:	$\leq 1.5\%$
Sudden Frequency Warp (100% Sudden Reduce):	$\leq +12\%$
Sudden Frequency Warp (Sudden Increase):	$\leq -10\%$
Frequency Recovery Time (100% Sudden Reduce):	$\leq 5\text{S}$
Frequency Recovery Time (Sudden Increase):	$\leq 5\text{S}$

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Options

Engine	Fuel System	Control System
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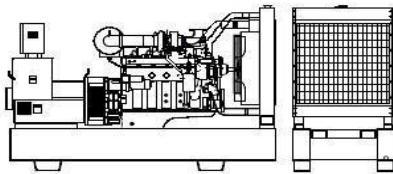
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| <ul style="list-style-type: none"> ● Heater 2KW & 4KW ● Battery Charger 3.5A & 7A | <ul style="list-style-type: none"> ● Daily Fuel Tank ● Water Separator ● Fuel Level Sensor | <ul style="list-style-type: none"> ● Remote Control Panel ● Auto Transfer Switch (ATS) ● Paralleling System |
|---|---|--|

Alternator	Others	Data
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|--|---|--|
| <ul style="list-style-type: none"> ● Anti Condensation Heater ● Permanent Magnet Gen. ● Drop CT (For Paralleling) | <ul style="list-style-type: none"> ● Rainproof Type ● Soundproof Type ● Trailer Type | <ul style="list-style-type: none"> ● Engine Parts Drawing List ● Spare Parts |
|--|---|--|

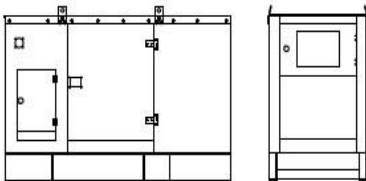
Dimensions & Weight

Open Type with Base Fuel Tank



Overall Size: 2230 (mm) *830 (mm) *1490 (mm)
 Weight: 1450kg

Soundproof Type



Overall Size: 2760 (mm) *1120 (mm) *1730 (mm)
 Weight: 1900kg

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Standard Control Panel



Cargo Equipment Solutions, Inc. Standard Control Panel is the basic configuration for normal operation and usage, it is a kind of intelligent controller with LED displaying the operating mode of the controller and the running state of the generator sets. It can configure the control procedure and protection parameter of the generator, and completely satisfied the automatic controlling requirement of different generator sets for the user or factory.

Auto Module Control Panel



Auto Module Control Panel is the configuration for nobody on duty controlling generators. This kind of panel adopts auto module control system, with large LCD display to show the menu.

Features: MRS10-can receive remote output signal from ATS and realize auto start and stop of generators.

MRS16-can realize all functions of MRS10, add RS232 interface which can communicate with PC to realize remote operation.

AMF25-Auto Mains Failure controller, can realize all functions of MRS16, furthermore can detect ATS and control directly.

Auto Parallel Control Panel



Automatic Parallel Control Panel, This new automatic parallel system adopts intelligent modules, inserted and folded installed, no need the peripheral relay and logic circuit. The main switch adopts electronic breaker or frame breaker, combined together with the generator, which is very reliable. One generator, one panel. The panel can be used both for singly and parallel. It is only need to parallel generator with such panel when the capability needs to be enlarged in the future.

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