

# 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 C28

MODEL	C28
Standby Power (60Hz)	24KW / 30KVA
Prime Power (60Hz)	22KW / 28KVA

### Standard Features

#### General Features:

- Engine (DCEC Cummins 4B3.9-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.

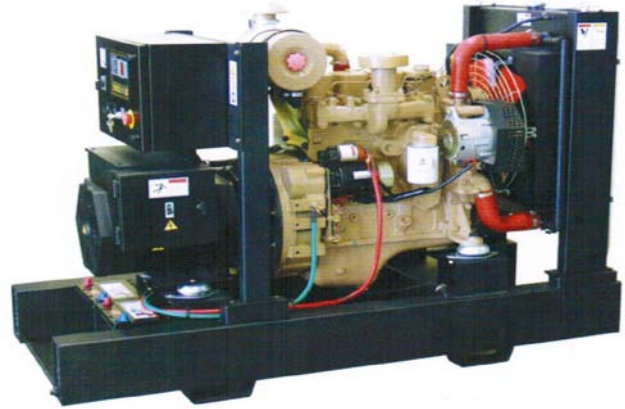


PHOTO FOR REFERENCE ONLY

### 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	36	24/30	22/28
460/266	60	3	0.8	37	24/30	22/28
440/254	60	3	0.8	39	24/30	22/28
416/240	60	3	0.8	41	24/30	22/28

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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## ***Diesel Generating Set C28***

### **ENGINE DATA**

Manufacturer / Model:	DCEC Cummins 4B3.9-G1, 4-cycle
Air Intake System:	Air natural
Fuel System:	A type fuel pump
Cylinder Arrangement:	4 in line
Displacement:	3.9L
Bore and Stroke:	102*120 (mm)
Compression Ratio:	16.5 : 1
Rated RPM:	1800rpm
Max. Standby Power at Rated RPM:	30KW / 40.8Hp
Governor Type:	RSV Mechanical(Std) / Electronic (Optional)

### **Exhaust System**

Exhaust Gas Flow:	4.7m3/min.
Exhaust Temperature:	410°C
Max Back Pressure:	10kPa

### **Air Intake System**

Max Intake Restriction:	5kPa
Burning Capacity:	2.2m3/min
Intake Flow:	150m3/min

### **Fuel System**

100%( Prime Power) Load:	5.9 Lts/Hr
75%(Prime Power) Load:	5.9 Lts/Hr
50%(Prime Power) Load:	6.21 Lts/Hr

### **Oil System**

Total Oil Capacity:	11L
Oil Consumption:	≤4g/Kwh
Engine Oil Tank Capacity:	9.5L
Oil Pressure at Rated RPM:	345kPa

### **Cooling System**

Total Coolant Capacity:	21L
Thermostat:	82-95°C
Max Water Temperature:	104°C

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## *Diesel Generating Set C28*

### 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, $\Delta Y_j$ 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:	28.8KVA
Alternator Efficiencies:	83.60%
Air Cooling Flow:	0.119m <sup>3</sup> /s

### GENERATING SET DATA

Voltage Regulation:	$\geq \pm 5\%$
Voltage Regulation, Stead State:	$\leq \pm 1\%$
Sudden Voltage Warp (100% Sudden Reduce):	$\leq +25\%$
Sudden Voltage Warp (Sudden Increase):	$\leq -20\%$
Voltage Stable Time (100% Sudden Reduce):	$\leq 6\text{S}$
Voltage Stable Time (Sudden Increase):	$\leq 6\text{S}$
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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## Diesel Generating Set C28

### Options

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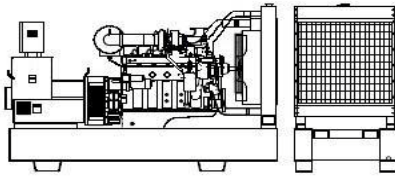
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|---|---|--|
| <ul style="list-style-type: none"> <li>● Heater 2KW &amp; 4KW</li> <li>● Battery Charger 3.5A &amp; 7A</li> </ul> | <ul style="list-style-type: none"> <li>● Daily Fuel Tank</li> <li>● Water Separator</li> <li>● Fuel Level Sensor</li>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

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

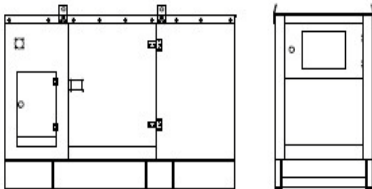
### Dimensions & Weight

#### Open Type with Base Fuel Tank



Overall Size: 1820 (mm) \*760 (mm) \*1280 (mm)  
 Weight: 876kg

#### Soundproof Type



Overall Size: 2200 (mm) \*1040 (mm) \*1580 (mm)  
 Weight: 1280kg

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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.