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@cargoequipmentsolutions.com

## Diesel Generating Set V500

MODEL	V500-60Hz
Standby Power (60Hz)	451KW / 564KVA
Prime Power (60Hz)	405KW / 506KVA

#### **Standard Features**

#### **General Features:**

- Engine (VOLVO TAD1640GE)
- Radiator 55C max, fans are driven by belt, with safety quard
- 24V charge alternator
- Alternator: single bearing alternator IP23, insulation class H/H
- Absorber
- Dry type air filter, fuel filter, oil filter, pre-filter and coolant filter
- Main line circuit breaker
- Standard control panel
- Oil drain pump
- Two12V 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¢)	Standby Amps	Standby Ratings (KW/KVA)	Prime Ratings (KW/KVA)
480/277	60	3	0.8	677	451/564	405/506
460/266	60	3	0.8	706	451/564	405/506
440/254	60	3	0.8	738	451/564	405/506
416/240	60	3	0.8	781	451/564	405/506

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 V500

## **ENGINE DATA**

Manufacturer / Model: VOLVO TAD1640GE, 4-cycle
Air Intake System: Turbo, Air/Air Cooling
Fuel System: Elec. Injection, Elec. Fuel System

Cylinder Arrangement: 6 in line
Displacement: 16.12L
Bore and Stroke: 144\*165 (mm)
Compression Ratio: 17.5
Rated RPM: 1800rpm

Max. Standby Power at Rated RPM: 479KW / 651Hp (with fan)

Governor Type: EMS2

## **Exhaust System**

Exhaust Gas Flow: 98.0m3/min
Exhaust Temperature: 444°C
Max Back Pressure: 10kPa

#### **Air Intake System**

Max Intake Restriction: 5kPa
Burning Capacity: 42.6m3/min
Air Flow: 516m3/min

#### **Fuel System**

 100%( Prime Power) Load:
 96.25 Lts / Hr

 75%(Prime Power) Load:
 96.25 Lts / Hr

 50%(Prime Power) Load:
 100.06 Lts / Hr

## Oil System

Total Oil Capacity: 48L
Oil Consumption: 0.10L/h
Engine Oil Tank Capacity: 42L
Oil Pressure at Rated RPM: 300-650kPa

#### **Cooling System**

Total Coolant Capacity: 60L
Thermostat: 86-96°C
Max Water Temperature: 103°C

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## **Diesel Generating Set V500**

#### **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, ¡Y¡ type connecting

Number of Bearing: 1

Power Factor: 0.8
Protection Grade: IP23

Altitude: ≤1000m

Exciter Type: Brushless, self-exciting

Insulation Class, Temperature Rise: H/H
Telephone Influence Factor (TIF): <50

THF: <2%

119 dB

Voltage Regulation, Steady State:≤±1%Alternator Capacity:550 KVAAlternator Efficiencies:93.90%

Air Cooling Flow: 1.312m3/s

## **GENERATING SET DATA**

Voltage Regulation: ≥±5%
Voltage Regulation, Stead State: ≤±1%

 Sudden Voltage Warp (100% Sudden Reduce):
 ≤+20%

 Sudden Voltage Warp (Sudden Increase):
 ≤-15%

 Voltage Stable Time (100% Sudden Reduce):
 ≤4S

Voltage Stable Time (Sudden Increase): ≤4S
Frequency Regulation, Stead State: ≤5% Adjustable

uency Regulation, Stead State: ≤5% Adjustate
Frequency Waving: ≤0.5%

Sudden Frequency Warp (100% Sudden Reduce): ≤+10%
Sudden Frequency Warp (Sudden Increase): ≤-7%

Frequency Recovery Time (100% Sudden Reduce): \$\leq 3\S\$
Frequency Recovery Time (Sudden Increase): \$\leq 3\S\$

Noise Level:

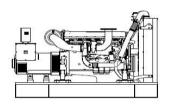
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## **Diesel Generating Set V500**

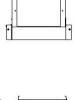
#### **Options**

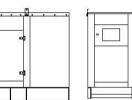
Engine	Fuel System	Control System		
<ul><li>Heater 2KW &amp; 4KW</li><li>Battery Charger 3.5A &amp; 7A</li></ul>	<ul><li>Daily Fuel Tank</li><li>Base Fuel Tank</li><li>Water Separator</li><li>Fuel Level Sensor</li></ul>	<ul> <li>Auto Control Panel</li> <li>Remote Control Panel</li> <li>Auto Transfer Switch (ATS)</li> <li>Paralleling System</li> </ul>		
Alternator	Others	Data		
<ul><li>Anti Condensation Heater</li><li>Permanent Magnet Generator</li><li>Drop CT (For Paralleling)</li></ul>	<ul><li>Rainproof Type</li><li>Soundproof Type</li><li>Trailer Type</li></ul>	<ul><li>Engine Parts Drawing List</li><li>Spare Parts</li></ul>		

## **Dimensions & Weight**









## **Standard Configuration (Open Type)**

Overall Size: 3300 (mm) \*1160 (mm) \*1974 (mm) Weight: 3800kg

## With Base Fuel Tank

Overall Size: 3400 (mm) \*1270 (mm) \*2030 (mm) Weight: 4150kg

#### **Soundproof Type**

Overall Size: 4630 (mm) \*1640 (mm) \*2300 (mm) Weight: 5250kg

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## **Diesel Generating Set V500**

#### **Standard Control Panel**



Cargo Equipment Solutions, Inc. Standard Control Panel is the basic configuration for normal operation and usage, it is of some advantages such as easy to operate, various function and well protection. Operate buttons such as Turn On, Pre-Heat, Starting, Stop and Emergency Stop on the panel. While malfuntion occurs, control panel will stop the generator and also alarm with light and buzz.

## **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.