

# 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@cargoequipmentsolutions.com

## Diesel Generating Set V450

MODEL	V450-60Hz
Standby Power (60Hz)	400KW / 500KVA
Prime Power (60Hz)	364KW / 455KVA

### Standard Features

#### General Features:

- Engine (VOLVO TAD1242GE)
- Radiator 55C 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, pre-filter and coolant filter
- Main line circuit breaker
- Standard control panel
- Oil drain pump
- Two 12V batteries, rack and cable
- Ripple flex exhaust pipe, exhaust siphon, flange, muffler.
- User manual.

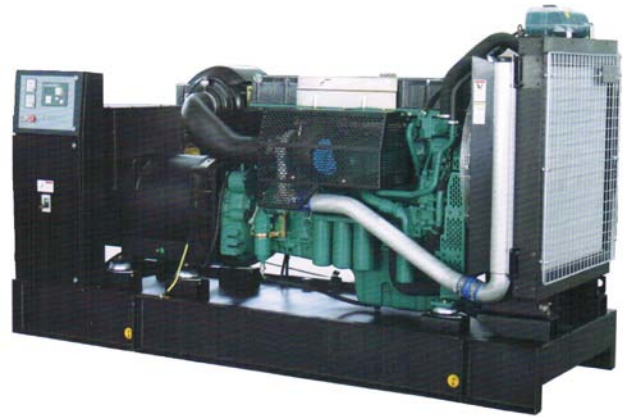


PHOTO FOR REFERENCE ONLY

### 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	601	400/500	364/455
460/266	60	3	0.8	628	400/500	364/455
440/254	60	3	0.8	656	400/500	364/455
416/240	60	3	0.8	694	400/500	364/455

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 V450***

### **ENGINE DATA**

Manufacturer / Model:	VOLVO TAD1242GE, 4-cycle
Air Intake System:	Turbo, Air/Air Cooling
Fuel System:	Elec. Injection, Elec. Fuel System
Cylinder Arrangement:	6 in line
Displacement:	12.13L
Bore and Stroke:	131*150 (mm)
Compression Ratio:	17.4
Rated RPM:	1800rpm
Max. Standby Power at Rated RPM:	430KW / 585Hp (with fan)
Governor Type:	EDC III

### **Exhaust System**

Exhaust Gas Flow:	85.0m3/min
Exhaust Temperature:	565°C
Max Back Pressure:	10kPa

### **Air Intake System**

Max Intake Restriction:	5kPa
Burning Capacity:	31.0m3/min
Air Flow:	618m3/min

### **Fuel System**

100%( Prime Power) Load:	86.50 Lts / Hr
75%(Prime Power) Load:	85.21 Lts / Hr
50%(Prime Power) Load:	88.22 Lts / Hr

### **Oil System**

Total Oil Capacity:	35L
Oil Consumption:	0.14L/h
Engine Oil Tank Capacity:	31L
Oil Pressure at Rated RPM:	370-520kPa

### **Cooling System**

Total Coolant Capacity:	44L
Thermostat:	82-95°C
Max Water Temperature:	103°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, $\Delta Y$ 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:	456 KVA
Alternator Efficiencies:	93.60%
Air Cooling Flow:	0.580m <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):	$\leq +20\%$
Sudden Voltage Warp (Sudden Increase):	$\leq -15\%$
Voltage Stable Time (100% Sudden Reduce):	$\leq 4\text{S}$
Voltage Stable Time (Sudden Increase):	$\leq 4\text{S}$
Frequency Regulation, Stead State:	$\leq 5\%$ Adjustable
Frequency Waving:	$\leq 0.5\%$
Sudden Frequency Warp (100% Sudden Reduce):	$\leq +10\%$
Sudden Frequency Warp (Sudden Increase):	$\leq -7\%$
Frequency Recovery Time (100% Sudden Reduce):	$\leq 3\text{S}$
Frequency Recovery Time (Sudden Increase):	$\leq 3\text{S}$
Noise Level:	114 dB

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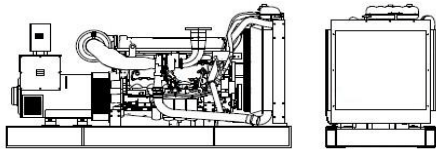
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## Diesel Generating Set V450

### Options

Engine	Fuel System	Control System
<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>● Base Fuel Tank</li> <li>● Water Separator</li> <li>● Fuel Level Sensor</li> </ul>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>● Anti Condensation Heater</li> <li>● Permanent Magnet Generator</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

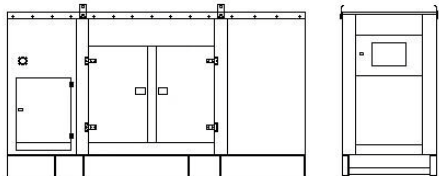


#### Standard Configuration (Open Type)

Overall Size: 3100 (mm) \*1100 (mm) \*1630 (mm)  
 Weight: 2970kg

#### With Base Fuel Tank

Overall Size: 3100 (mm) \*1120 (mm) \*1788 (mm)  
 Weight: 3270kg



#### Soundproof Type

Overall Size: 4230 (mm) \*1440 (mm) \*2200 (mm)  
 Weight: 4500kg

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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 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 malfunction 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.

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