

## Model: DGV-500

Powered by VOLVO



### DIESEL GENERATING SET 400/230V-50Hz-3Phase

#### PERFORMANCE DATA:

Model Rated	DGV-500	
Alternator Brand:	<b>STAMFORD</b>	S5L1D-C41
Diesel Engine Brand:	<b>VOLVO</b>	TAD1345GE
Power (ESP)	KVA/KW	501/401
Power (PRP)	KVA/KW	451/361
Phases		3
Starter Voltage	V	24
Rated Current	A	723
Rated rotation speed	r/min	1500
Power Factor		0.8
Fuel Consumption	Liter/hour	89L/h
Fuel Tank Capacity	Liter	Open Type: 720
		Silent Type: -
Noise level	dB(A)@7m	85

#### Prime Power (PRP):

According to ISO 8528-1:2018, Prime power is the maximum power which a generating set is capable of delivering continuously whilst supplying a variable electrical load when operated for an unlimited number of hours per year under the agreed operating conditions with the maintenance intervals and procedures being carried out as prescribed by the manufacturer. The permissible average power output (Ppp) over 24 h of operation shall not exceed 70 % of the PRP

#### Emergency Standby Power (ESP):

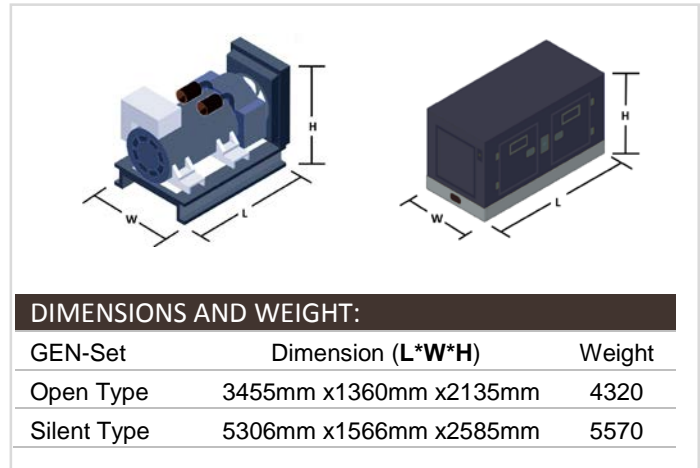
According to ISO 8528-1:2018, Emergency standby power is the maximum power available during a variable electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200 h of operation per year with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. The permissible average power output over 24 h of operation shall not exceed 70 % of the ESP.



Duragen Company with quality certification ISO 9001 and only Stamford's authorized distributor in Thailand

#### STANDARDS:

Generator Set: GB/T2820—2009, ISO8528



#### DIMENSIONS AND WEIGHT:

GEN-Set	Dimension (L*W*H)	Weight
Open Type	3455mm x1360mm x2135mm	4320
Silent Type	5306mm x1566mm x2585mm	5570

#### CONFIGURATION:

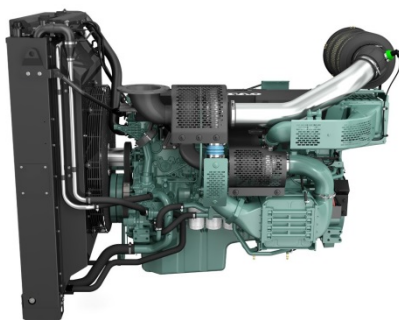
**Standard:** Engine, alternator, cooling system, Base frame (excluding fuel tank), shock absorber, air inlet system, control box (including mains floating charge), plastic fan blades (when the engine and water tank do not bring).

**Optional:** Base frame (including fuel tank), water jacket heater, fuel water separator, fuel heater, fuel level sensor (only supporting under frame tank), switch box (with switch), power switch, the water level sensor, motor anti condensation heater, automatic fueling system (only supporting base frame including fuel tank), battery frame.

**Accessories:** Silencer, bellow, exhaust silencing system accessories (with the matching engine), regular battery, starting cord assembly, data of gen-set, random tool (with the matching engine)

### ENGINE SPECIFICATION: VOLVO

Model	TAD1345GE
Engine speed Rated	1500 RPM
Cylinder /Arrangement	6 / L
Displacement	12.78 (780) L
Bore and Stroke	131mm×158mm
Compression ratio	18.1:1
Max. stand by power at rated RPM	388 KW
Frequency regulation, steady state	1≤%
Governor: type	Electrical ,EMS 2.4
Aspiration and Cooling	Turbocharged
<b>Exhaust System</b>	
Exhaust gas flow	56.8m3/min
Exhaust temperature	475°C
Max back pressure	9kPa (1.5psi)



**VOLVO  
PENTA**

### ALTERNATOR SPECIFICATION: STAMFORD

Type	S5L1D-C41
Number of phase power	3
Factor (Cos Phi)	0.8
Pole	4
Bearing	1
Coupling	Direct
Exciter type	Self Excited
Insulation: Class, Temperature rise	H / H
Degree of protection	IP23
AVR model	AS440
Altitude	≤1000m
Winding Pitch	2/3
Winding Leads	12

### Fuel System

Fuel consumption 100% (of the Prime Power)	89.14 L/h
Fuel consumption 75% (of the Prime Power)	67.2 L/h
Fuel consumption 50% (of the Prime Power)	45.49 L/h
Fuel consumption 25% (of the Prime Power)	25.17 L/h

### Oil System

Total oil capacity w/filters	36 L
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### Air intake

Engine air flow

### Coolant System

Radiator & engine capacity	44.0 L
Max water temperature	104 °C
Thermostat	82-92°C

Volvo engines with durability and low noise, low exhaust emission

- Electronic governing EMS 2.4
- CAN bus communication
- Compact design for the power class
- High power to weight ratio
- Emission compliant acc. EU Stage II
- Noise optimized engine design
- RoHS2 Compliant
- Dual speed, 1500 rpm and 1800 rpm

### STANDARDS

- ISO 3047, BS5514, DIN 6271

**Note:** All data sheets for reference only and subject to change without prior notice

### FEATURES

- Utilizing wire-wound\* (random-wound) technology
- Environment alternators are the industrial benchmark for all generator set configurations.
- Brushless excitation with AVR
- IP21, IP22, IP23, IP44 enclosure protection,
- The ideal solution for marine/offshore, UPS, telecoms, basic and advanced protection, construction and other continuous or standby power applications.

### STANDARDS

- GB755, BSEN60034, BS5000-3, VDE0530, IEC34, CSAC22.2-10, BSENISO9001, IB100, AS1359, IEC 60034-1, NEMA MG-1 22, 32 & 33, ISO 8528-3, EN 61000-6-2 and 6-4
- All alternators are manufactures in IOS 9001 and ISO 14001 environments.



**STAMFORD | AvK™**

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## CONTROL PANEL

<b>MODEL:</b>	DSE 7320 AUTO START & AUTO MAINS FAILURE CONTROL MODULES
<b>DIMENSION</b>	OVERALL 240mm x 181mm x 42mm (9.4" x 7.1" x 1.6")
<b>PANEL CUT-OUT</b>	220mm x 160mm (8.7" x 6.3")
<b>WEIGHT</b>	400g (0.4kg)



### KEY FEATURES

- 4-Line back-lit LCD text display
- Five key menu navigation
- Front panel editing with PIN protection
- Customizable status screens
- Power save mode
- Support for up to three remote display units
- 9 configurable inputs
- 8 configurable outputs
- Flexible sender inputs
- Configurable timers and alarms
- 3 configurable maintenance alarms
- Multiple date and time scheduler
- Configurable event log (250)
- Tier 4 CAN engine support
- Advanced SMS messaging (additional external modem required)
- Start & stop capability via SMS messaging
- Additional display screens to help with modem diagnostics
- Idle control for starting & stopping.
- DSENet® expansion compatible
- Integral PLC editor
- Easy access diagnostic page
- CAN and Magnetic Pick-up/Alt. sensing
- Fuel usage monitor and low fuel alarms
- Charge alternator failure alarm
- Manual speed control (on compatible CAN engines)
- Manual fuel pump control
- Engine exerciser
- "Protections disabled" feature
- kW & kV Ar protection
- Reverse power (kW & kV Ar) protection

- LED and LCD alarm indication
- Power monitoring (kW h, kV Ar, kVAh, kVAr h)
- Load switching (load shedding and dummy load outputs)
- Automatic load transfer (DSE7320)
- Unbalanced load protection
- Independent Earth Fault trip
- True dual mutual standby with load balancing timer (DSE7310 only)
- USB connectivity
- Backed up real time clock
- Fully configurable via DSE Configuration Suite PC software
- Configurable display languages
- Remote SCADA monitoring via DSE Configuration Suite PC software
- User selectable RS232 and RS485 communications
- Configurable Gencom pages

### KEY BENEFITS

- 132 x 64 pixel ratio display for clarity
- Real-time clock provides accurate event logging
- Multiple date and time scheduler
- Set maintenance periods can be configured to maintain optimum engine performance
- Ethernet communications (via DSE860/865 modules), provides advanced remote monitoring at low cost
- Modules can be integrated into building management systems(BMS)
- Increased input and output expansion capability via DSENet®
- License-free PC software
- IP65 rating (with supplied gasket) offers increased resistance to water ingress
- PLC editor allows user configurable functions to meet specific application requirements.

### STANDARD CONTROL FUNCTIONS ENGINE

- Coolant Temperature
- Oil Pressure (RSI or Bar)
- Oil Temperature
- Running Time
- Engine Battery Volts
- Engine Speed
- Fuel Level

### AC GENERATOR

- AC Voltage (ph-ph) and (ph-N)
- DC Voltage\*
- Current (Amps)
- Frequency (Hz)
- Load (KW, KVA, KVAh, KWh, KVA h, KVAh)
- Phase Sequence

### WARNING/SHUTDOWN WITH COMMON LED INDICATION OF

- Over / Under speed shutdown
- Low oil pressure warning and shutdown
- High coolant temperature
- Fail to start (Over crank) shutdown
- Over Current warning
- Over / Under voltage
- Over / Under frequency
- Low / High battery voltage
- Emergency stop
- KW Overload

