

**VOLVO
PENTA**

R POWER



MODEL
RKULSTD 400VL

Standby 400 kW	60 Hz	1800 RPM	EPA Tier3
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 Stationary **Generator**


Referential Image

RATINGS

Voltage (L-N/L-L)		120/208V	120/240V	277/480V
Phase		3PH	3PH	3PH
Power factor	Cos Phi	0.8	0.8	0.8
Frequency	Hz	60	60	60
Controlator	Deep Sea	7320 MKII	7320 MKII	7320 MKII
Engine	VOLVO	TAD 1351GE	TAD 1351GE	TAD 1351GE
Alternator	Stamford	S4LID-G	S4LID-G	S4LID-G
Leads Connection		12 Lead Parallel Wye	12 Lead Series Delta	12 Lead Series Wye

STANDBY

Power	kW	400	400	400
Power	kVA	500	500	500
Amperage	A	1388	1203	601

PRIME

Power	kW	350	350	350
Power	kVA	438	438	438
Amperage	A	1263	1095	547

Certifications and Standards

- Not all codes and standards apply to all configurations. Contact factory for details.
- EPA Tier 3 (Refers to engine emissions control)
 - IBC 2021 / ASCE/SEI 7-16 - optional (Refers to seismic and wind safety of generator)
 - UL 2200 - optional (Refers to the generator assembly)
 - UL 142 - optional (Refers to the design, construction, and testing of the tank)
 - NFPA 37, 70, 99, 110 - optional (Standards governing the installation, operation, safety and reliability of generators)
 - ISO 3046, 8528, SAE J1349 (Refers to the performance, power and measurement of the internal combustion engine and generators)
 - NEMA MG 1, UL489 - (Refers to alternators and Circuit Breakers)
 - ISO 8528-5 - optional (Refers to testing for transient response)
 - Verified product design, quality, and performance integrity
 - All generator systems are prototype and factory tested

Warranty

- 2 years or 2000 hours operational warranty

Emergency Standby Power (ESP): According to ISO 8528-1:2018, ESP is the maximum power available for use under variable loads in the event of a grid power outage or during testing conditions for a limited number of hours per year, specifically 200 hours, within the manufacturer's prescribed maintenance intervals and under the environmental conditions specified by the manufacturer. The average power consumed over a 24-hour period must not exceed 70% of the ESP.

Prime Power (PRP): According to ISO 8528-1:2018, PRP is the maximum power available for use under variable loads for an unlimited number of hours per year within the manufacturer's prescribed maintenance intervals and under the environmental conditions specified by the manufacturer. The average power consumed over a 24-hour period must not exceed 70% of the PRP.

Continuous Power (COP): According to ISO 8528-1:2018, COP is the maximum power available for continuous loads for unlimited running hours a year between the maintenance times recommended by the manufacturer under the environmental conditions established by the same.

Application Data

ENGINE

Manufacturer	VOLVO	Displacement	L(in3)	12.8(780)
Model	TAD 1351GE	Bore x stroke	mm(in)	131x158(4.33x5.31)
Configuration	6 cylinders in line	Frequency	Hz	60
Governor	Electronic, Common Rail	Velocity	RPM	1800
Certification EPA	Tier 3	Compression ratio		18.1:1

FUEL SYSTEM

Fuel suction fitting	3/8" NPT Female
Fuel return fitting	3/8" NPT Female
Injection type	Indirect
Recommended fuel	Diesel # 2 - ULSD

AIR REQUIREMENTS

Intake airflow	m3/min(CFM)	203(7173)
Airflow for radiator	m3/min(CFM)	14.4(509)
Type aspiration		Turbocharged

LUBRICATION SYSTEM

Total oil capacity	L (gal)	36(9.5)
Recommended oil		SAE 15W-40

EXHAUST SYSTEM

Back pressure	kPa (in. H2 O)	10(40.1)
Exhaust Gas Flow	m3/min (CFM)	25.8(910)
Gas temp. (stack)	°C (°F)	480(896)

COOLING SYSTEM

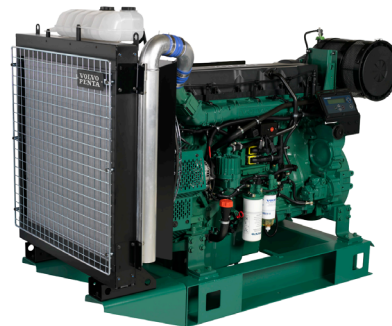
Coolant capacity	L (gal)	44(11.6)
Ambient Temp. Rad.	°C (°F)	50(122)
Recommended coolant		50/50

ELECTRIC SYSTEM

Starting	Volt	24
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FUEL CONSUMPTION

		STANDBY	PRIME
At 100% load	L/hr (gal/hr)	102.38(27)	TBD
At 75% load	L/hr (gal/hr)	79.5(21)	TBD
At 50% load	L/hr (gal/hr)	53(14)	TBD



Alternator Specifications

GENERAL INFORMATION

Manufacturer	Stamford
Models	S4LID-E
Design	4 Poles IP23
Temp. Rise Insulation Type	Standby 150/40°C Class H
Exciter system AVR	PMG MX341 (+/-1%)

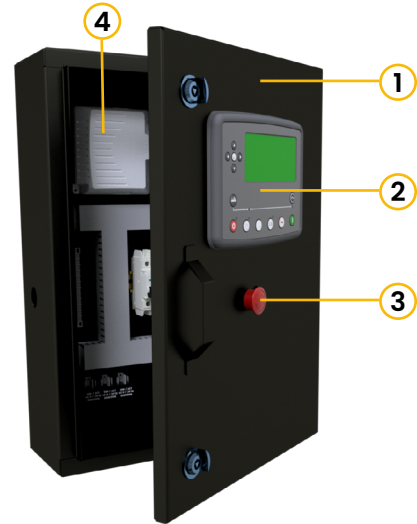


Control Panel Specifications

DSE7320 MKII Auto Start Control Module and Auto Mains Failure Control Module for diesel or gas generator set applications. It features a Dual Core processor, extended memory, and data logging, providing higher speed and functionality. Monitors multiple engine and alternator parameters, displaying alarms and status on a backlit LCD screen, LEDs, remote PC, or via SMS (with external communication device). Allows programming of 4 additional LED alarms.



1. Enclosure Galvanneal
2. Control Module
3. Emergency Button
4. Battery Charger

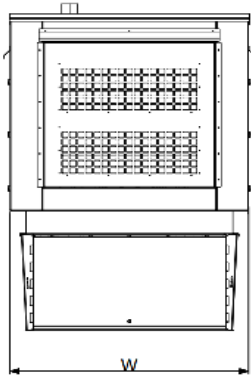


Referential Image

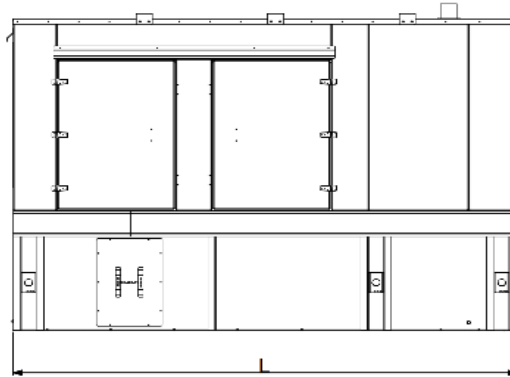
COMPARISOR	DSE4520	DSE6320	DSE7320	DSE7420	DSE8620
GENERAL					
PIN protection / Multiple Languages	Yes	Yes	Yes	Yes	Yes
Generator run-time scheduler	Yes	Yes	Yes	Yes	Yes
GENSET AND MAIN READING					
Voltage between PH-PH / N-PH	Yes	Yes	Yes	Yes	Yes
PF, Hz, Kva, Kw, KVAR, A	Yes	Yes	Yes	Yes	Yes
ENGINE READING AND ALARM					
High coolant temperature	Yes	Yes	Yes	Yes	Yes
Low oil pressure, coolant level, fuel level	Yes	Yes	Yes	Yes	Yes
Unexpected shutdown and Stop failure	Yes	Yes	Yes	Yes	Yes
Low battery Voltage	Yes	Yes	Yes	Yes	Yes
Battery charging alternator failure	Yes	Yes	Yes	Yes	Yes
Over and under speed	Yes	Yes	Yes	Yes	Yes
Start failure and emergency stop	Yes	Yes	Yes	Yes	Yes
ALTERNATOR READING AND ALARM					
Overload, Over and Under Frequency	Yes	Yes	Yes	Yes	Yes
Over, Under and Unbalanced voltage	Yes	Yes	Yes	Yes	Yes
Short circuit and reverse power	Yes	Yes	Yes	Yes	Yes
CONNECTIVITY AND PARALLEL					
USB, ECU	Yes	Yes	Yes	Yes	Yes
RS232	No	No	Yes	Yes	Yes
RS485, DSENET	No	Yes	Yes	Yes	Yes
DSENET Expansion	Yes	Yes	Yes	Yes	Yes
USB Host, Ethernet RJ45	No	No	No	Yes	Yes
Parallel function	No	No	No	No	Yes

Dimensions, Weight and Sound Level

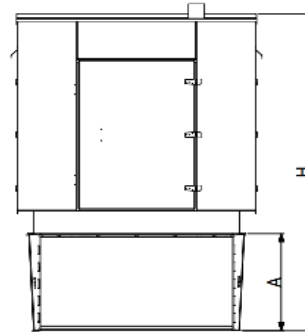
Level 3 | Back View



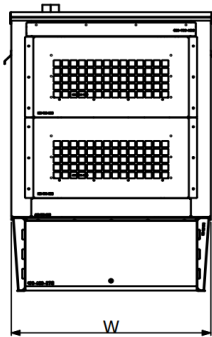
Level 3 | Lateral View



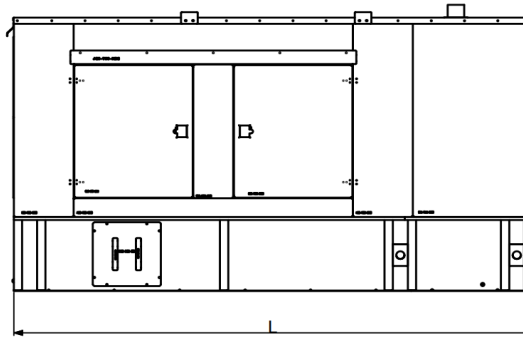
Level 3 | Front View



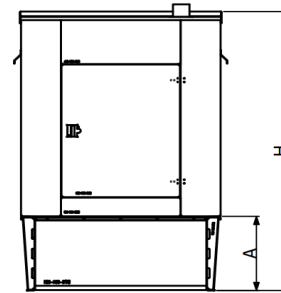
Level 2 | Back View



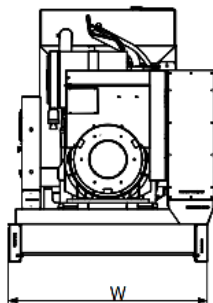
Level 2 | Lateral View



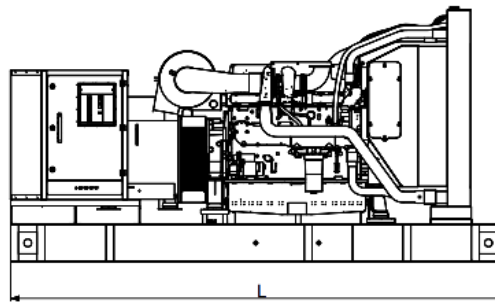
Level 2 | Front View



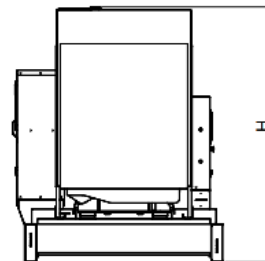
Opentype | Back View



Opentype | Lateral View



Opentype | Front View



- Level 2 enclosures include sound attenuation foam (one layer).
- Level 3 enclosures include sound attenuation foam (Two layers).
- Enclosure manufactured in **Aluminium** with a wind rating of **170 MPH**, according to **IBC 2018** and **ASCE/SEI7-16** standards

Enclosure	Fuel Tank	Autonomy (hr)	Dimensions, in					Exhaust (ø)	Weight lb	Sound Level dB(A)@7m
			Length (L)	Width (W)	Height (H)	Tank (A)				
Level 3	850USG	45	192	68	96	24	6	12400	76 +/-2	
Level 3	1300USG	69	192	68	106	34	6	12700	76 +/-2	
Level 2	850USG	45	192	74	109	24	6	11600	78 +/-2	
Level 2	1300USG	69	192	74	120	34	6	11900	78 +/-2	
Opentype	200USG Daytank	10	144	64	78	-	6	8500	84 +/-2	
Opentype	-	-	144	64	72	-	6	8300	84 +/-2	

- All measurements are approximate and are provided for estimation purposes only. Weights do not include fuel weight.
- Sound levels are measured at **23 feet (7 meters)** in accordance with **ISO 8528-10**.
- **Double Wall** Fuel Tank manufactured in **Steel** according to **UL142 Listed**.

Wire Connections

Voltage (Vac)	Phase	Terminal	Lug Qty per Terminal	Qty Wire x Max. Wire Size
120/208	3P	R-S-T-N	2	4x500KCMIL
120/208	3P	Ground	1	2x500KCMIL
120/240	3P	R-S-T	1	4x500KCMIL
120/240	3P	Neutral	1	4x500KCMIL
120/240	3P	Ground	1	2x500KCMIL
277/480	3P	R-S-T	1	2x500KCMIL
277/480	3P	Neutral	1	2x500KCMIL
277/480	3P	Ground	1	1x600KCMIL

- Do not exceed this value - may cause damage to the equipment, voiding warranty.

Standard Features

ENCLOSURE

- Aluminium Material
- Stainless steel door hinges
- Stainless steel lockable handles
- Soundproofing foam
- Gasketed doors
- Rain protection visor

EXHAUST SYSTEM

- Galvanneal Material
- Rain Cap (Exhaust outlet)
- Stainless Steel flexible exhaust connect.

FUEL TANK

- Mild Steel Material
- Mechanical Fuel Gauge
- Fitting drenage internal wall
- Fitting drenage external wall
- Spare: 2" NPT male nipple
- Spare: 2" NPT Female Coupling

ALTERNATOR

- Class H insulation material
- Brushless Excitation
- 2/3 Pitch

ELECTRICAL SYSTEM

- Battery Charger 24V 5A

GENERATOR SET

- Internal Genset Vibration Isolation
- Emergency Stop Button
- Standard Factory Test
- 2 years/2000 hours operational warranty

ENGINE

- Oil Drain Valve
- Coolant Drain Valve
- Air Cleaner
- Flexible Fuel Line - NPT Connection
- Air cleaner
- SAE 1-14

Configurable Options

GENERATOR SET

- Mobile Type
- Seismic isolator
- Special Testing
- Special Dimensions
- External emergency button
- Diesel Pump Transfer

ENCLOSURE

- Stainless Steel Material
- Removable Doors
- Up to 200 MPH Wind Load Rating*
(Consult Factory for Availability)

FUEL TANK

- Special Dimensions / Capacity
- Stainless Steel Material
- Digital Fuel Gauge
- Low / High Fuel Alarms
- Rupture Switch
- External Main Fuel Tank
- External Daytank

EXHAUST SYSTEM

- Stainless Steel Material Muffler
- Critical Exhaust Muffler
- Muffler on enclosure

ELECTRICAL SYSTEM

- Battery Charger 2 units parallel for 10A
- Battery charger NFPA110 compliance

ENGINE

- Kit Spare Parts
- Fluid Containment Pan

ALTERNATOR

- Upsize Alternator
- AVR Digital
- Anti-Condensation Heater
- Droop CT for Parallelism
- Topical Alternator Coating

CIRCUIT BREAKER

- Electronic: trip unit 40-100% rated
- Motorized Circuit Breaker for Parallelism
- 2 Circuit Berakers

CONTROL SYSTEM

- DSE8620/DSE8610 - Parallel controller
- DSE7420 - Control Module
- DSE890 - Remote Communication
- DSE855 - USB to Ethernet Adapter
- DSE2548/DSE7320 Remote Annunciator

AUTOMATIC TRANSFER SWITCH (ATS)

- Switch 100-3000A
- Enclosure NEMA 3R / Galvanneal
- Enclosure NEMA 4X / Stainless Steel
- Enclosure NEMA 1 / Galvanneal
- Enclosure NEMA 12 / Galvanneal
- ATS + Breaker