

**VOLVO
PENTA**

RK Power



MODEL

RKULSTD 180VL

 Standby
 180kW/225kVA

 60
 Hz

 1800
 RPM

 EPA
 Tier3

Soundproof Generator



Referential Image

RATINGS

Voltage (Ph-Ph/Ph-L)		208/120V	240/120V	480/277V
Phase		3PH	3PH	3PH
Power factor	Cos Phi	0.8	0.8	0.8
Frequency	Hz	60	60	60
Controlator	Deep Sea Electronics	7320 MKII	7320 MKII	7320 MKII
Engine	VOLVO PENTA	TAD 85IGE	TAD 85IGE	TAD 85IGE
Alternator	Stamford	UCD274-K	UCD274-K	UCD274-K
Leads Connection		12 Lead Parallel Wye	12 Lead Series Delta	12 Lead Series Wye

STANDBY

Power	kW	180	180	180
Power	kVA	225	225	225
Amperage	A	625	541	270

PRIME

Power	kW	160	160	160
Power	kVA	200	200	200
Amperage	A	556	482	241

Certifications and Standards

- 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)
- 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

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.

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.

Continuous Power (COP): According to Standard ISO 8528-1:2018, this 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 Penta	Displacement	L(in3)	7.7(470)
Model	TAD 851GE	Bore x stroke	mm(in)	110x135(4.33x5.31)
Configuration	6 cylinders in line	Frequency	Hz	60
Governor isochronous	Electronic	Speed	RPM	1800
Certification EPA	Tier 3	Compression ratio		17.5:1

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)	27(7.1)
Recommended oil		SAE 15W-40

EXHAUST SYSTEM

Back pressure	kPa (in. H ₂ O)	10(40)
Exhaust Gas Flow	m3/min (CFM)	25.8(910)
Gas temp. (stack)	°C (°F)	480(896)

COOLING SYSTEM

Coolant capacity	L (gal)	41(10.8)
Ambient Temp. Rad.	°C (°F)	50(122)
Recommended coolant		50/50

ELECTRIC SYSTEM

Starting system	Volt	24
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FUEL CONSUMPTION

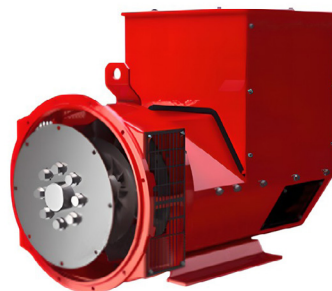
		STANDBY
At 100% load	L/hr (gal/hr)	53.1(14.0)
At 75% load	L/hr (gal/hr)	40.2(10.6)
At 50% load	L/hr (gal/hr)	28.5(7.5)



Alternator Specifications

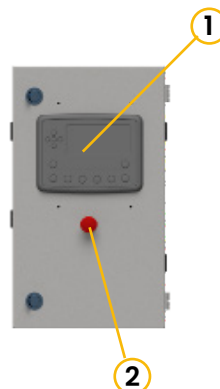
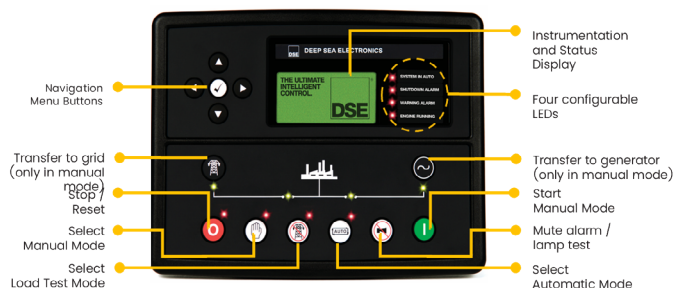
GENERAL INFORMATION

Manufacturer	Stamford
Model	UCD274-K
Design	4 Poles IP23
Temp. Rise Insulation Type	Standby 150/40°C Class H
Exciter system AVR	Self Excited AS440 (+/-1%)



Control Panel Specifications

DSE7320 MKII is an Auto Start Control Module and is an Auto Mains (Utility) Failure Control Module suitable for a wide variety of single, diesel or gas, gen-set applications. Featuring a new Dual Core main processor and extended memory, the module provides faster and more powerful processing power, returning faster operational responses on intensive applications and increased functionality, with data logging facility. Monitoring an extensive number of engine parameters, the module will display warnings, shutdown and engine, alternator status information on the back-lit LCD screen, illuminated LED's, remote PC's and via SMS text alerts (with external communication device).



3. Enclosure **Galvanneal**
 4. Battery Charger **DEEPSEA**



COMPARISOR

DSE4520 MKII DSE6320 MKII DSE7320 MKII DSE8620 MKII

GENSET AND MAIN READING

Voltage between PH-PH / N-PH	Yes	Yes	Yes	Yes
PF, Hz, kVA, kW, kVAR, A	Yes	Yes	Yes	Yes

ENGINE READING AND ALARM

High coolant temperature	Yes	Yes	Yes	Yes
Low oil pressure, coolant level, fuel level	Yes	Yes	Yes	Yes
Unexpected shutdown and Stop failure	Yes	Yes	Yes	Yes
Low battery Voltage	Yes	Yes	Yes	Yes
Battery charging alternator failure	Yes	Yes	Yes	Yes
Over and under speed	Yes	Yes	Yes	Yes
Start failure and emergency stop	Yes	Yes	Yes	Yes

ALTERNATOR READING AND ALARM

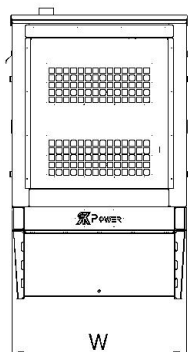
Overload, Over and Under Frequency	Yes	Yes	Yes	Yes
Over, Under and Unbalanced voltage	Yes	Yes	Yes	Yes
Short circuit and reverse power	Yes	Yes	Yes	Yes

CONNECTIVITY AND PARALLEL

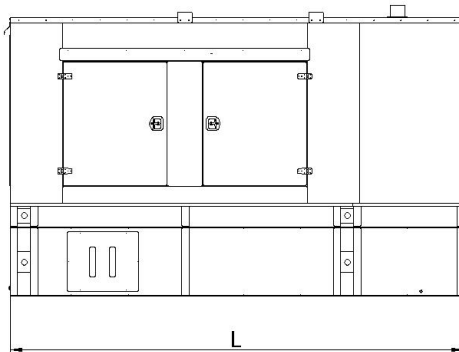
USB, ECU	Yes	Yes	Yes	Yes
RS232	No	No	Yes	Yes
RS485, DSENET	No	Yes	Yes	Yes
USB HOST, Ethernet RJ45	No	No	No	Yes
Parallel function	No	No	No	Yes

Dimensions, Weight and Sound Level

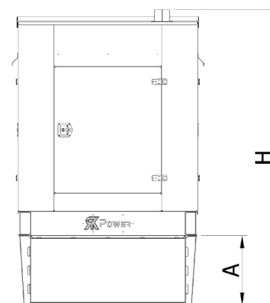
Level 2 | Intake Air View



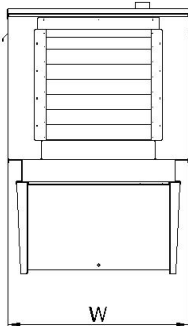
Level 2 | Lateral View



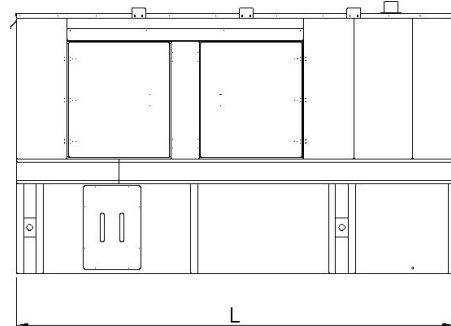
Level 2 | Exhaust View



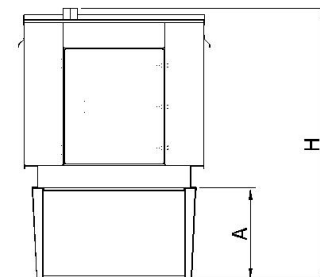
Level 3 | Intake Air View



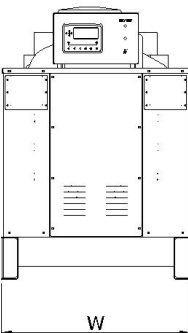
Level 3 | Lateral View



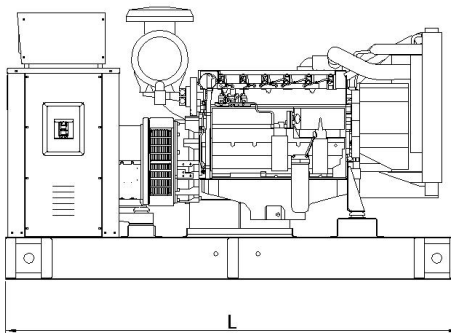
Level 3 | Exhaust View



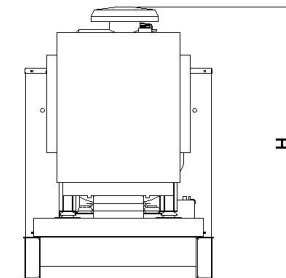
Opentype | Control Panel View



Opentype | Lateral View



Opentype | Radiator View



- Level 2 enclosures include sound attenuation foam (one layer).
- Level 3 enclosures include sound attenuation foam (two layers).
- Enclosure manufactured in **Aluminum** with a wind rating of **170 MPH**, according to **IBC 2018** and **ASCE/SEI7-16** standards.
- Generator assembly in accordance with **UL2200** listed.

Enclosure	Fuel Tank	Autonomy (hr)	Length (L)	Width (W)	Dimensions, in		Tank (A)	Exhaust (Ø)	Weight	Sound Level
					Height (H)				lb	dB(A)@23ft
Level 3	700USG	46	156	73	101		24	6	16200	72
Level 3	1000USG	68	156	73	111		34	6	16000	72
Level 2	700USG	46	156	68	96		24	6	13200	77
Level 2	1000USG	68	156	68	106		34	6	13000	77
Opentype	100USG Daytank	-	108	45	69		-	6	10500	86
Opentype	-	-	108	45	65		-	6	10000	86

- 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**.

Standard Features

ENCLOSURE

- Aluminium Material
- Stainless steel door hinges
- Stainless steel lockable handles
- Polyurethane sound-attenuating foam
- Gasketed doors
- Rain protection visor

EXHAUST SYSTEM

- Galvanneal Material
- Rain Cap (Exhaust outlet)
- Critical Grade Muffler (enclosed only)
- Stainless Steel flexible exhaust connection

FUEL TANK

- Mild Steel Material
- Mechanical Fuel Gauge
- Internal wall drainage fitting
- External wall drainage fitting
- Spare: Coupling 3/8" NPT Suction / Return
- Spare: 2" NPT male nipple
- Spare: 2" NPT Female Coupling

ALTERNATOR

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

GENERATOR SET

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

ENGINE

- Oil Drain Valve
- Coolant Drain Valve
- Flexible Fuel Line - NPT Connection
- Air cleaner
- SAE 3-11 1/2

Configurable Options

GENERATOR SET

- Open Type
- Mobile Type
- Antiseismic Isolators

ENCLOSURE

- Stainless Steel Material
- Removable Doors

FUEL TANK

- 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 (Open Set Only)

ELECTRICAL SYSTEM

- Battery Charger 2 units parallel for 10A

ENGINE

- Kit Spare Parts
- Fluid Containment Pan

ALTERNATOR

- Upsize Alternator
- AVR PMG
- Heater anticondensation 120V
- AVR Digital
- Droop CT for Parallelism

CIRCUIT BREAKER

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

CONTROL SYSTEM

- DSE8620 - Parallel controller
- DSE890 - Remote Communication
- Remote Annunciator

AUTOMATIC TRANSFER SWITCH (ATS)

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