

**FPT**

**RK POWER**



**MODEL**  
**RKULSTD 100FPT**
**Standby**  
**100 kW**
60 Hz
1800 RPM
EPA Tier3

 Stationary **Generator**


Referential Image

**RATINGS**

Voltage (L-N/L-L)		120/240V	120/208V	120/240V	277/480V
Phase		1PH	3PH	3PH	3PH
Power factor	Cos Phi	1	0.8	0.8	0.8
Frequency	Hz	60	60	60	60
Controlor	Deep Sea	7320 MKII	7320 MKII	7320 MKII	7320 MKII
Engine	FPT-IVECO	NEF45TE2P.S550	NEF45TE2P.S550	NEF45TE2P.S550	NEF45TE2P.S550
Alternator	Stamford	UCI274-G	UCI274-D	UCI274-D	UCI274-D
Leads Connection		4 Lead series	12 Lead Parallel Wye	12 Lead Series Delta	12 Lead Series Wye

**STANDBY**

Power	kW	100	100	100	100
Power	kVA	100	125	125	125
Amperage	A	417	346	300	150

**PRIME**

Power	kW	80	90	90	90
Power	kVA	80	113	113	113
Amperage	A	333	312.3	271	135.3

**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

<b>Manufacturer</b>	FPT-IVECO	<b>Displacement</b>	L(in3)	4.5(275)
<b>Model</b>	NEF45TE2P.S550	<b>Bore x stroke</b>	mm(in)	104x132(4.1x5.19)
<b>Configuration</b>	4 cylinders in line	<b>Frequency</b>	Hz	60
<b>Governor</b>	Electronic, Common Rail	<b>Velocity</b>	RPM	1800
<b>Certification EPA</b>	Tier 3	<b>Compression ratio</b>		16.6:1

### FUEL SYSTEM

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

### AIR REQUIREMENTS

<b>Intake airflow</b>	m3/min(CFM)	218(7703)
<b>Airflow for radiator</b>	m3/min(CFM)	TBD
<b>Type aspiration</b>	Turbocharged & Intercooled	

### LUBRICATION SYSTEM

<b>Total oil capacity</b>	L (gal)	14.4(3.8)
<b>Recommended oil</b>	SAE 15W-40	

### EXHAUST SYSTEM

<b>Back pressure</b>	kPa (in. H2 O)	5(20)
<b>Exhaust Gas Flow</b>	m3/min (CFM)	25.8(910)
<b>Gas temp. (stack)</b>	°C (°F)	480(896)

### COOLING SYSTEM

<b>Coolant capacity</b>	L (gal)	17(4.5)
<b>Ambient Temp. Rad.</b>	°C (°F)	50(122)
<b>Recommended coolant</b>	50/50	

### ELECTRIC SYSTEM

<b>Starting</b>	<b>Volt</b>	12
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### FUEL CONSUMPTION

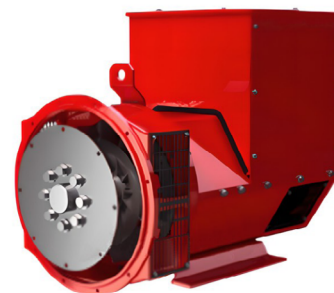
		STANDBY	PRIME
<b>At 100% load</b>	L/hr (gal/hr)	29.9(7.9)	TBD
<b>At 75% load</b>	L/hr (gal/hr)	22.5(5.9)	TBD
<b>At 50% load</b>	L/hr (gal/hr)	17(4.5)	TBD



## Alternator Specifications

### GENERAL INFORMATION

<b>Manufacturer</b>	Stamford
<b>Models</b>	UCI274-G/UCI274-D
<b>Design</b>	4 Poles   IP23
<b>Temp. Rise   Insulation Type</b>	Standby 150/40°C   Class H
<b>Exciter system   AVR</b>	Self Excited   AS440 (+/-1%)

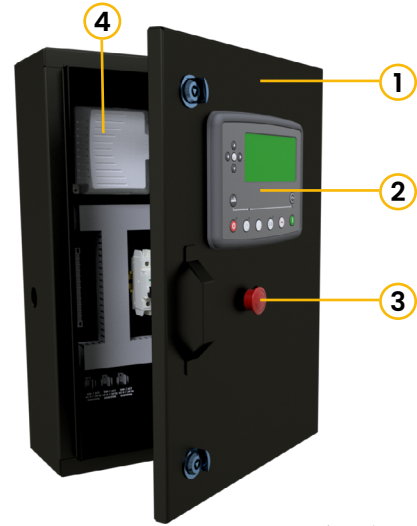


## Control Panel Specifications

**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

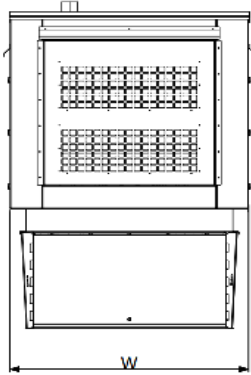


Referential Image

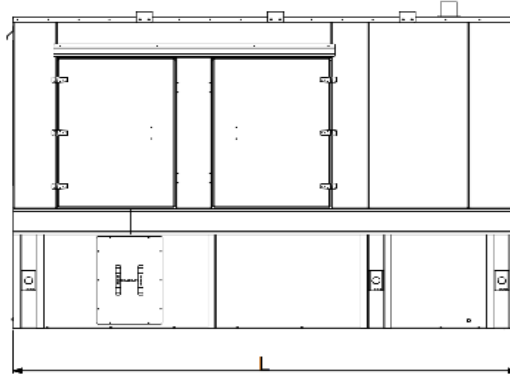
COMPARISOR	DSE4520	DSE6320	DSE7320	DSE7420	DSE8620
<b>GENERAL</b>					
<b>PIN protection / Multiple Languages</b>	Yes	Yes	Yes	Yes	Yes
<b>Generator run-time scheduler</b>	Yes	Yes	Yes	Yes	Yes
<b>GENSET AND MAIN READING</b>					
<b>Voltage between PH-PH / N-PH</b>	Yes	Yes	Yes	Yes	Yes
<b>PF, Hz, Kva, Kw,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

## Dimensions, Weight and Sound Level

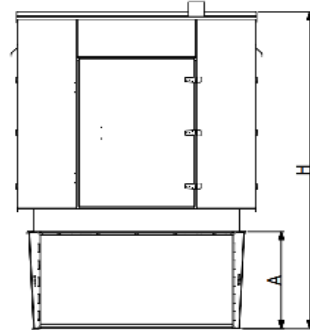
Level 3 | Back View



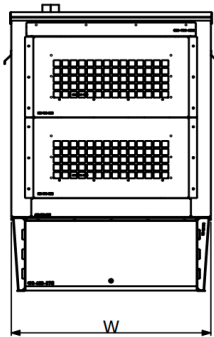
Level 3 | Lateral View



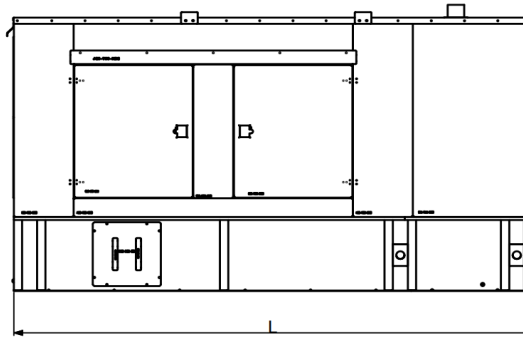
Level 3 | Front View



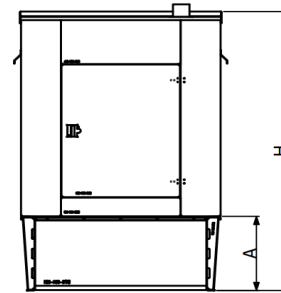
Level 2 | Back View



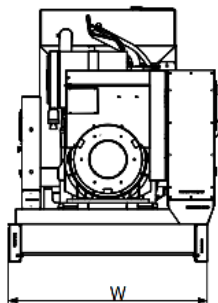
Level 2 | Lateral View



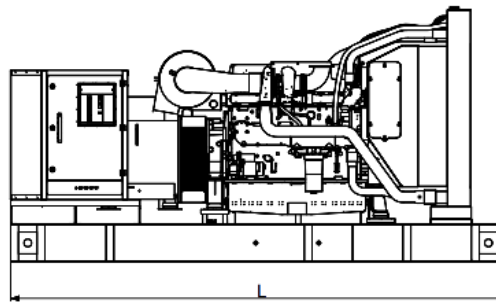
Level 2 | Front View



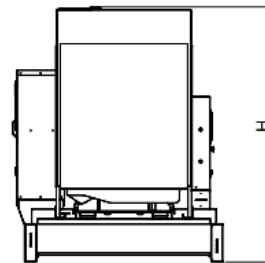
Opentype | Back View



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 (∅)	Weight lb	Sound Level dB(A)@7m
			Length (L)	Width (W)	Height (H)	Tank (A)				
Level 3	400USG	48	120	60	82	24	5	5400	71 +/-2	
Level 3	600USG	72	120	60	92	34	5	5700	71 +/-2	
Level 2	400USG	48	120	55	80	24	5	5100	74 +/-2	
Level 2	600USG	72	120	55	90	34	5	5500	74 +/-2	
Opentype	100USG Daytank	12	95	45	69	-	5	3800	84 +/-2	
Opentype	-	-	95	45	65	-	5	3700	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
120/240	1P	R-S-T	1	2x500KCMIL
120/240	1P	Neutral	1	2x500KCMIL
120/240	1P	Ground	1	1x600KCMIL
120/208	3P	R-S-T	1	1x500KCMIL
120/208	3P	Neutral	1	2x500KCMIL
120/240	3P	Ground	1	1x600KCMIL
277/480	3P	R-S-T	1	1x300KCMIL
277/480	3P	N-G	1	1x250KCMIL

- 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

- Galvaneal 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

## 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
- AVR PMG (Permanent Magnet Excitation)
- Anti-Condensation Heater
- Droop CT for Parallelism
- Tropical Alternator Coating

### CIRCUIT BREAKER

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

### 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