



# EZ-169

## GENERATING SET (TECHNICAL DATA SHEET)

### Standard Specifications:

#### 1- Prime Rating:

Unlimited hours usage, with an average load factor of 80% over each 24 hour period. 10% overload is available for 1 hour in every 12 hours operation. 0 overload is permitted on standby power.

#### 2- Standby Rating:

Limited to 500 hours annual usage, with an average load factor of 80% of the published standby power rating over each 24 hour period. Up to 300 hours of annual usage may be run continuously. No overload is permitted on standby power.

#### 3- Engine:

Perkins, including air filters, fuel filters, oil filter, starting motor and charging alternator etc.

#### 4- Alternator Type:

brushless AC alternator

#### 5- Radiator:

50°C, fan protective shroud

### Powered By:



Diesel Generator



### Output Rating:

#### PRIME:

60 Hz—1800 Rpm 480 V, 3ph

152kVA

121.6 kW

169kVA

135.2 kW

#### ENGINE SPECIFICATIONS

Engine Make	PERKINS
Engine Model	1106A-70TG1
No. of Cylinders	6 vertical in-line
Cycle	4 Stroke
Aspiration	Turbocharged
Cooling Method	Water cooled
Governing Type	Electronic
Governing Class	G2 - ISO 8528 Part 1
Compression Ratio	18.2:1
Displacement	7.01 L
Bore/Stroke	105 x 135 mm
Dynamic Charging Alternator	55AMP, 12V

#### ALTERNATOR SPECIFICATIONS

Alternator Make	EZ   Leroy Somer   Stamford
Alternator Model	EZ   TAL-A44-H   UCI274E
Number of Poles	4
Number of Winding Leads	6
Type of Bearing	Single Bearing
Insulation Class - Temp Rise	Cont. H - 125/40 °C
Ingress Protection Rating	IP 23
Excitation System	Self Excited
AVR Model	R120

#### Comply with Standards

ISO 3046, BS 5514, DIN 6271, NEMA-MGI, DIN EN, BS 5000, IEC 60034, IEC 60947-2

#### Alternator Operating data

Over speed	2250 rpm
Voltage Regulation	± 1%
Harmonic Coefficient THF	< 2%
Tel. influence TIF	< 50
Cooling air flow	0.25 m3 / Sec



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## Standard Specifications:

### 6- Fuel Tank:

Capacity of fuel tank is for 8 –10 hours running  
Built in fuel tank up to 800 kVA

### 7- Circuit Breaker:

3 pole LS MCCB

### 8- Control system alarms:

- Over and Under Speed
- Low and High Battery Volt.
- Start and Stop Failure
- Over Current
- Under / Over Generator Voltage
- Low Oil Pressure
- Emergency stop
- High engine temperature

### 9- Warranty policy:

- EZ POWER products has a warranty for 12 Months or 1000 hours whichever occurs first against any manufacturing defects
- Wearing parts (filters), incorrect man made operation, maintenance failures are excluded from the warranty policy

## Acoustic Enclosure Specifications:

Enclosure Type	Acoustic & Weather Proof
Drainage Provision	Fuel and Water Drainage
Transportation	Tested Single Point Lifting Facility & Forklift Pockets
Ingress Protection Rating	IP 23
Lifting	ISO Standard Lifting
Canopy RAL Color	TAL 9010
Base frame RAL Color	RAL 9011
Noise Pressure level @ 7m	76 dB(A) ±3dBA

## Control System:

Large back-lit text display  
Multiple display languages  
DSENET expansion compatible  
Data logging facility  
Fully configurable via PC using USB communication  
Front panel configuration  
Efficient power save mode  
3 phase generator sensing  
Accumulated power monitoring (kWh, kVA h, kVAr h)

Generator/load current monitoring and protection (kW)  
Breaker control via fascia buttons  
Fuel and start outputs, configurable using can  
4 configurable DC outputs  
4 configurable analogue/digital inputs  
Automatically transfers between mains (utility) and generator  
Increased input and output expansion capability via dsenet  
IP65 rating (with optional gasket) offers increased resistance to water ingress  
Digital inputs; Analogue Inputs



**DSE4520 MKII**

AUTO START & AUTO MAINS FAILURE CONTROL

## Dimensions:

Type	Length (mm)	Width (mm)	Height (mm)	Fuel Tank (L)	Weight (KG)
OPEN	2795	900	1520	370	1775
CLOSED	3764	1155	1881	455	2251

Note: The following dimensions are for preliminary guidance. For more detailed and accurate dimensions, please refer to the General Arrangement Drawing (GAD).



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## Engine:



Perkins heavy duty high performance industrial type diesel engine.

### COOLING SYSTEM

Total Coolant Capacity (L)	21 L
Cooling Fan Air Flow	182 m <sup>3</sup> / min
Radiator Fan Load	4.4 kW
Heat Radiation to Room (PRP)	12.5 kW
Heat Radiation to Room (ESP)	15.3 kW

### LUBRICATION SYSTEM

Oil Filter Type	Spin-On Full Flow
Total Oil Capacity	16.5 L
Oil Type	API-CH-4 or ACEA E5

### EXHAUST SYSTEM

Muffler Type	Industrial Grade
Max. Back Pressure	6 kPa
Exhaust Gas Flow (PRP/ESP)	20.75 /22.6 m <sup>3</sup> / min
Exhaust Gas Temperature	< 5760C

### FUEL SYSTEM

Recommended Fuel	Class A2 Diesel
Fuel Consumption Standby	33.8 L/hr
Fuel Consumption 100% PRP	30.2 L/hr
Fuel Consumption 75% PRP	22.7 L/hr
Fuel Consumption 50% PRP	15.9 L/hr

### AIR SYSTEM

Air Filter Type	Dry Element
Combustion Air Flow (PRP)	7.64 m <sup>3</sup> /min
Combustion Air Flow (ESP)	8.09 m <sup>3</sup> /min
Max Air Filter Intake Restriction	5 kPa

## Optional configurations:

### Engine accessories:

- Heavy-duty air filter
- Coolant heater
- Lubricant oil heater
- Fuel and Water Separator
- Lube oil rotary pump

### Alternator And Accessories:

- Leroy somer/stamford
- Anti condensation heater
- PMG + AVR  Double bearing
- alternator High voltage \_\_\_\_\_kV
- RTDs for Bearing and winding

### Cooling System:

- 55 degree Radiator
- Remote Radiator

### Control System:

- AMF
- Parallel
- Practical type in low temperature environment
- Control Screen Heater
- Remote Annunciators
- Other (ComP, DEIF)

### Circuit Breaker:

- 3/4 poles
- Fixed/handcart type
- Electric mechanism

### Automatic Transfer Switch (ATS):

- ATS cabinet
- Contractor type ATS
- Motorized changeover type ATS

### Start Battery:

- Nickel-cadmium battery
- Maintenance-free battery
- Battery charger and selector switch
- Charging current meter

### External Fuel Tank:

- Single /double wall fuel tank (500-5000 L)
- Fuel Transfer pump

### Exhaust Muffler:

- Residential grade
- Critical grade
- Hospital grade

### Available for voltages :

- 400/230V, 480/277V, 380/220V, 440/254V, 416/240V, 220/127V, 208/120V

De-rating may apply.



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