

RPM1500 50Hz

Rating Range

| | | |
|-----------------|-----|-----|
| Standby: | kW | 335 |
| | kVA | 419 |
| Prime: | kW | 305 |
| | kVA | 381 |



STANDARD FEATURES AND CHARACTERISTICS

QUALITY STANDARDS

- 👁️ All generators comply with international design and quality standards, such as ISO8528 (GB/T2820-97), ISO3046, BS.EN60034, BS5000, IEC34-1, GB755, VDE0530, CSA22-2, AS1359, as well as the requirements of ISO 9001 and ISO14001.
- 👁️ CE certificate for the alternator.
- 👁️ Diesel engine and alternator OEM authorization certificate and their quality assurance.
- 👁️ Other standards and certifications can be considered on request.

ASSEMBLY

- 👁️ The engine and alternator are close coupled by means of an SAE flange . A full torsional analysis has been carried Out to guarantee no harmful vibration will occur.
- 👁️ Anti-vibration pads are affixed between engine alternator feet and the base frame. Thus ensuring complete Vibration isolation of the rotating assemblies and enabling the machine to be placed on an uneven surface without any detrimental effects.
- 👁️ For durability and corrosion resistance, all iron and steel surfaces of canopy fabrications have been treated for coating by grit blast cleaning. Then covered by special three layers painting which provides an excellent corrosion resistant surface.

CONTROL SYSTEM AND PROTECTION

- 👁️ Controllers are available for all applications. It contains Deep Sea, Delf, Comap or other famous brands. According to their different functions, the control systems can be specified into key start controller model, automatic start control model and PCRC three remote control systems. See controller features inside.

WARRANTY

- 👁️ SUPERWATT Company provides one-source responsibility for the generator set and accessories. Each SUPERWATT generating set has been got through 1.5 hours Load test for running 0%,25%,50%,75%,100% and 110% load, all protective devices and control function are simulated and checked before despatch.
- 👁️ Engine and Alternator are guaranteed for a period of 12months from the date of commissioning or 18 months from shipping, whichever occurs first.
- 👁️ Convenience for operation and maintenance, backed by DCEC CUMMINS global service network.

Prime power(P)

These ratings are applicable for supplying continuous electrical power(at variable load) in lieu of commercially purchased power. There is no limitation to the annual hours of operation and this model can supply 10% over-load power for 1 hour in 12 hours.

Standby power(S)

Standby power is defined as the maximum power available, under the agreed operating conditions, for which the generating set is capable of delivering for up to 500h of operation per year.

● Engine Model 6ZTAA13-G3

BASIC TECHNICAL DATA

| | |
|------------------------|--------------------------------------|
| Manufacturer | CUMMINS(DCEC) |
| Type | 4-Cycle; Vertical; 6-Cylinder Diesel |
| Air intake way | After-cooled, Turbo-charged |
| Bore(mm) | 130 |
| Stroke(mm) | 163 |
| Displacement, total(L) | 13 |
| Compression ratio | 17 |
| Engine weight, dry(kg) | 1200 |

CONSUMPTION

| | |
|-----------------------|------|
| Standby power(L/h) | 86.9 |
| 100% prime power(L/h) | 76.5 |
| 75% prime power(L/h) | 56.5 |
| 50% prime power(L/h) | 38 |
| 25% prime power(L/h) | 20.9 |

COOLING SYSTEM

| | |
|--|------|
| Coolant capacity-engine (L) | 23.1 |
| Minimum Pressure Cap Rating at Sea Level (kPa) | 69 |
| Maximum Static Head of Coolant Above Crankshaft Centerline (m) | 14 |

ELECTRIC SYSTEM

| | |
|--------------------------------------|-------|
| System Voltage (V) | 24 |
| Minimum Recommended Battery Capacity | |
| -Cold Soak @ 0 °F (-18 °C)(CCA) | 312 |
| Max Starting Circuit Resistance(OHM) | 0.002 |

NOTE:

All data is based on:

1. Engine operating with fuel system, water pump, lubricating oil pump, air cleaner and exhaust silencer; not included are battery charging alternator, fan, and optional driven components.
2. Engine operating with fuel corresponding to grade No. 2-D per ASTM D975.
3. ISO 3046, Part 1, Standard Reference Conditions of:
 - Barometric Pressure : 100 kPa (29.53 in Hg)
 - Air Temperature : 25°C (77°F)
 - Altitude : 110 m (361 ft)
 - Relative Humidity : 30%
 - Air Intake Restriction : 254 mm H₂O (10 in H₂O)
 - Exhaust Restriction : 51 mm Hg (2 in Hg)

N/A: Not Available

TBD: To Be Determined

CP: Continuous power

FSP: Fuel stop power

TECHNICAL DATA

| | |
|--------------------------|-----------|
| Engine speed(rpm) | 1500 |
| Standby Power(kW) | 380 |
| Base Output Power(kW) | 340 |
| Engine Idle Speed (rpm) | 700 - 900 |
| Piston speed (m/s) | 8.15 |
| Intake Air Flow (L/sec) | |
| Exhaust Gas Flow (L/sec) | |
| Exhaust Gas Temp(°C) | 594 |

EXHAUST SYSTEM

| | |
|-------------------------|----|
| Max. back pressure(kPa) | 10 |
|-------------------------|----|

AIR INTAKE SYSTEM

| | |
|--|-----|
| Max Intake Air Restriction | |
| With Normal Duty Air Cleaner and | |
| -Clean Filter Element (mmH ₂ O) | 381 |
| With Dirty Filter Element (mmH ₂ O) | 635 |

LUBRICATION SYSTEM

| | |
|--|-------|
| Oil Pressure at Minimum Idle Speed (kPa) | 207 |
| Oil Pressure at Governed Speed (kPa) | 345 |
| Max. oil temperature (°C) | 121 |
| Total System Capacity (Including Filter) (L) | 45.42 |

FUEL SYSTEM

| | |
|---|-----|
| Max Fuel Supply Restriction at Fuel Pump Inlet | |
| - (mmHg) | 102 |
| Max Allowable Head on Injector Return Line | |
| -(Consisting of Friction Head and Static Head) (mmHg) | 254 |
| Max Return Fuel Flow (L/hr) | 30 |

| | |
|--------------------------------|--------------------------------------|
| Alternator manufacturer | Stamford/Meccalte/Leroy-somer |
| Frequency and Speed | 50Hz/1500rpm |
| Voltage (V) | 400 |
| Prime capacity(kVA) | 400 |
| Prime power(kW) | 320 |
| Power efficiency(%) | 94.2 |
| Voltage regulation | ± 0.5% |
| Rated power factor | 0.8 |
| winding type | P2/3 |
| Overspeed(rpm) | 1800 |
| Sustained short circuit | 300%(3IN):20S |
| Protection class | IP23 |

Alternators meet the requirement of BS EN 60034 and the relevant section of other international standards such as BS5000, VDE 0530, NEMA MG1-32, IEC34, CSAC22.2-100, As1359, and other standards and certifications can be considered on request.

The 2/3 pitch design avoids excessive neutral currents. With the 2/3 pitch and carefully selected pole and tooth designs, ensures very low waveform distortion.

Brushless alternator with brushless pilot exciter for excellent load response.

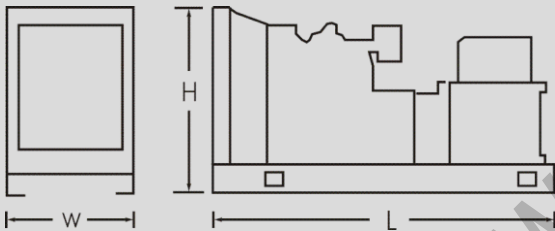
The insulation system is class H, easy parallelling with mains or other generators, standard 2/3 pitch stator windings avoid excessive neutral currents.

Backed by worldwide service network.

Dimensions and Weights

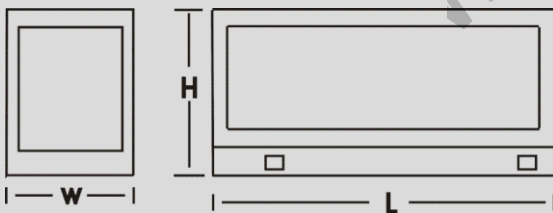
OPEN STYLE

Overall Size, L×W×H,mm 2890×1100×1650
Weight(radiator model),net,kg 3380



EDEN STYLE

Overall Size, L×W×H,mm 4350×1130×2120
Weight(radiator model),net,kg 4060



SUPER SILENT STYLE

Overall Size, L×W×H,mm 5150×1700×2456
Weight(radiator model),net,kg 4300



NOTE: This drawing is provided for reference only and should not be used for planning installation. Contact your local distributor for more detailed information.

Control System:

The DSE6120 Auto Mains (Utility) Failure Control Module are suitable for a wide variety of single gen-set applications.

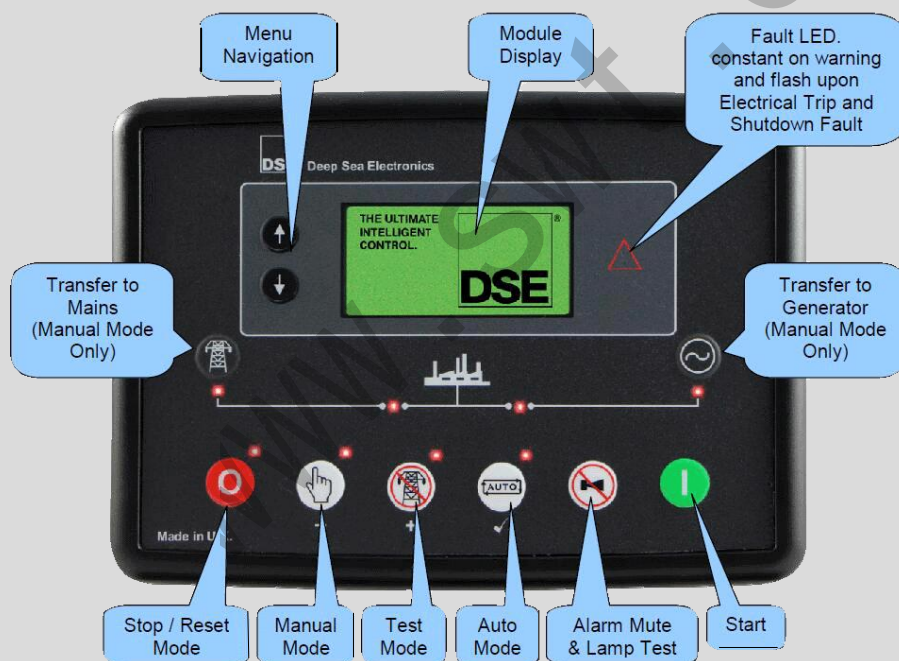
Monitoring engine speed, oil pressure, coolant temperature, frequency, voltage, current, power and fuel level, the modules give comprehensive engine and alternator protection. This is indicated on a large back-lit LCD text display via an array of warning, electrical trip and shutdown alarms in multiple languages.

Electronic J1939 (CAN) and non-electronic MPU and alternator sensing engine support for diesel, gas and petrol engines all in one variant. With a number of flexible inputs, outputs and protections, the modules can be easily adapted to suit a wide range of applications.

Through USB Communication both modules can be configured using the DSE Configuration Suite PC Software or through the module's front panel editor.

Using the DSE Configuration Suite PC Software the controller is easy to use and configure which allows alteration of operating parameters, sequences, timers and alarms.

Description For Module DSE6120:



Key Benefits:

Automatically transfers between mains (utility) and generator

Increased input and output expansion capability via DSENet®

Hours counter provides accurate information for monitoring and maintenance periods

User-friendly set-up and button layout for ease of use Multiple parameters are monitored simultaneously which are clearly displayed on a large back-lit text display via multiple languages

The module can be configured to suit a wide range of Applications

Compatible with a wide range of CAN engines including Tier 4

Uses DSE Configuration Suite PC Software for simplified configuration

Licence-free PC software

IP65 rating (with optional gasket) offers increased resistance to water ingress

| Standard functions | Shutdown | Warning |
|----------------------|------------------------------------|-----------------------------------|
| Engine Control | Loss of Speed Signal | Alternator Under / Over Voltage |
| Generator Monitoring | Alternator Under / Over Voltage | Alternator Under/ Over Frequency |
| Generator Protection | Alternator Under/ Over Frequency | Mains Under / Over Voltage |
| Engine Monitoring | Mains Under / Over Voltage | Mains Under/ Over Frequency |
| Clear Text Display | Mains Under/ Over Frequency | Under / Over Speed |
| | Under / Over Speed | Low Oil Pressure Pre-Alarm |
| | Low Oil Pressure | High Engine Temperature Pre-Alarm |
| | High Engine Temperature | High/Low Battery Voltage |
| | Phase Sequence Electrical (Option) | Over-current |
| | Earth Fault (Option) | Periodic maintenance |