

Prime Model: ETIG28
115V/230V 1P2W

RPM1800 60Hz

Rating Range

Standby:	kW	22
	kVA	28
Continuous:	kW	20
	kVA	25



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 ISO9001 and ISO14001.

CE certificate for diesel engine and 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

ETONE POWER Company provides one-source responsibility for the generator set and accessories. Each ETONE POWER generating set has been got through 2 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 12 months from the date of commissioning or 18 months from shipping, whichever occurs first.

Convenience for operation and maintenance, backed by ISUZU 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 4JB1

ENGINE SPECIFICATIONS

Manufacturer	ISUZU
Type	Water-cooled, In-line, Vertical 4-cycle, Direction injection
Continuous power(kW)	28
Standby power(kW)	31
Aspiration	Natural
Bore×Stroke(mm)	93×102
Displacement(L)	2.771
Piston speed(m/s)	6.12
Compression ratio	18.2
Speed stability bandwidth	≤ ± 0.8%
Steady governing rate	≤ 5%
Exhaust temperature(°C)	550
Exhaust back pressure(KPa)	15
Lub. Temperature/capacity(°C/L)	120/5.5
BMEP(KPa)	746
Heat injection to cooling(kW/min)	27.1
Cooling system volume(L)	4.5
Cooling air flow(m³/min)	118
Combustion air flow(m³/min)	2.56
Exhaust gas flow(m³/min)	7.97
Rating fuel consumption(L/h)	6.5

● Alternator

LUBRICATION SYSTEM

	LSA43.2 S1	PI144H
Manufacturer	LEROY SOMER	STAMFORD
Frequency and Speed	60Hz/1800rpm	60Hz/1800rpm
Voltage (V)	115/230	115/230
Prime capacity(kVA)	28	28.6
Prime power(kW)	22	22.9
Power efficiency(%)	89.5	85
Input power(kW)	24.5	26.9
Voltage regulation	±0.5%	±1.0%
Rated power factor	0.8	0.8
Stator winding	2/3(N ^o 6)	2/3
Maximum overspeed	2250min ⁻¹	2250min ⁻¹
Sustained short circuit	300%(3IN):10S	N/A
Cooling Air(m³/S)	0.32	0.108

Alternators meet the requirement of BSEN 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.

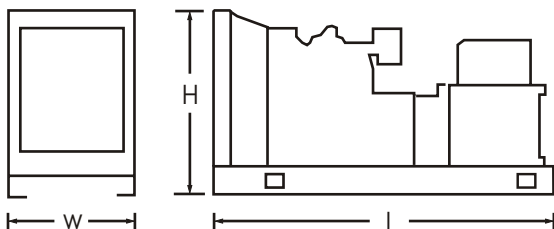
The 2/3 pitch design avoids excessive neutral currents. With the 2/3 pitch and carefully selected pole and tooth designs, ensures very low waveform distortion. Brushless alternator with brushless pilot exciter for excellent load response.

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

Dimensions and Weights

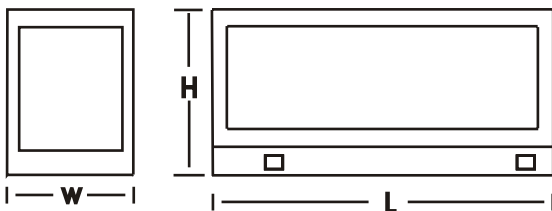
OPEN STYLE

Overall Size, L×W×H, mm	1830×730×1170
Weight(radiator model),net,kg	585



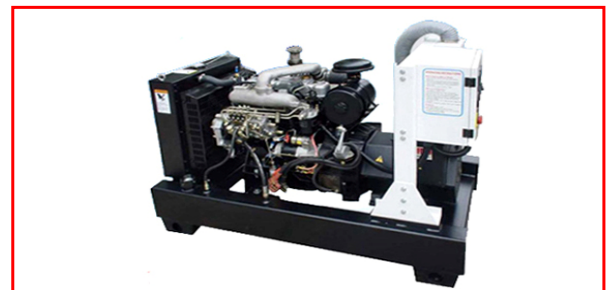
SOUNDPROOF STYLE

Overall Size, L×W×H, mm	2050×860×1160
Weight(radiator model),net,kg	720



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

TBD: To Be Determined



Altitude: Derate 2.0% per 300m(984 ft.) elevation above 1000m(3279 ft.) up to a maximum elevation of 2450m(8000 ft.).
More than 2450m(8000ft), please contacts with us or our dealer seek the help.
Temperature: Derate 6.0% per 11 °C(20°F) temperature above 40°C(104°F).

Control Panel Technical Specifications

Control Panel- SMARTGEN 6110/6120

The base mounted control panel in a vibration isolated sheet steel enclosure. The control panel is equipped as follows:

- a) Instruments: Analogue Voltmeter, Hours Run Meter, Water pressure Meter.
- b) Controls: Emergency Stop Pushbutton, Voltmeter Phase Selector Switch.
- c) Control module: Standard collocation is smartgen Auto start with AMF.

Main Features:

- Δ Automatic mains failure
- Δ Engine control, Generator protection
- Δ Built in alarms and warnings
- Δ Remote Start operation available
- Δ Fuel pump control
- Δ Mains simulation
- Δ Block heater control
- Δ Field adjustable parameters
- Δ Free MS-Windows Remote monitoring
- Δ LED displays
- Δ Configurable analogue inputs
- Δ I/O expansion capability



Protection Circuits

- WARNING
- Battery charge failure
- Low battery voltage
- SHUT DOWNS
- Fail to start
- Emergency stop
- Low oil pressure
- High engine temperature
- Over /Under speed
- Under/over generator frequency
- Failed to reach loading voltage
- Electrical trip
- Generator over current

Instruments

- ENGINE
- Engine speed
- Oil pressure
- Coolant temperature
- Run time
- Battery volts
- TOR
- Voltage (L-N)
- Current (L1-L2-L3)
- Frequency
- Mains
- Voltage (L-L, L-N)