

# GENTEC ENERGY

**OP-15**

Standard Specifications



## General Technical Specifications <sup>(1)</sup>

Alternator	3-Phase 230/400V 50Hz
KVA ESP	13 <sup>(3)</sup>
KVA PRP	15 <sup>(3)</sup>
KW ESP	12 <sup>(3)</sup>
KW PRP	13 <sup>(3)</sup>
Aspiration	NA <sup>(5)</sup>
Governor	M <sup>(4)</sup>

<sup>(1)</sup> Ambient refer. Condit. 1000m/bar 27° 30% relative humidity, rating according to ISO 3046 and 8528

<sup>(2)</sup> Available in the following voltages:

440/254 - 415/240 - 400/230 - 220/127 - 200/115

<sup>(3)</sup> **ESP** Standby power idle duty operation under variable load, without overload

**PRP** Prime power continuous duty operation, under variable load, 24/7 - 10% overload per missed

<sup>(4)</sup> **M** Mechanical speed governor

**E** Electronic speed governor

<sup>(5)</sup> **NA** Naturally Aspired

**TC** Turbo Charged

**TCA** Turbo Charged / Air cooled

**TW** Turbo Charged / Water-cooled

Fuel type: Diesel

Output power: 15 KVA

Engine charger alternator 24V

Single bearing alternator

Skid and vibration isolators

Dry type air filter, main line circuit breaker

Key start panel + hour counter

5 pole

40°C radiator as standard

Special integrated steel base tank

Overall sprayed powder coating



## Detailed Specifications

### Voltage Regulation

Voltage regulation maintained within 0.5% as follow:

1. Between 0.8 and 1.0 lagging and unity
2. From no load to full load
3. At speed drop variation up to 4.5%

### Frequently adjustable ratio

1. Change load from 0-100%, within 1.0% (E) <sup>(4)</sup>
2. Change load from 0-100%, within 4.5% (M) <sup>(4)</sup>
3. Load from 0-100%, frequently undulation ratio within 0.25%
4. No load wire Volts max undulation ratio within 1.8%

### Criterion

ISO 3046, ISO 8528, BS 4999, BS 5514, BS5000PT99, AS1359, IEC34, UTE5100, VDE0530, ISO9001:2000, ISO14001 and CE certified.

### Effect factor of telecom

1. TIF better than 50%
2. THF to BS4999 part 40 better than 2%

### Electromagnetism

In compliance to BS800 and VDE levels G & N

## Diesel Engine

All our generator sets will be delivered with complete manuals.



Engine model	Hyundai 485 4-stroke
Cylinder type	Vertical 4-cylinder
Combustion model	Swirling type
Stroke x Bore	85 x 90 mm
Firing order	1-3-4-2
Cooling system	Radiator
Rated power/speed	16 kW / 1500 rpm
Minimum consuming rate	265.2 g/kWh
Maximum torque	104 Nm
Compression rate	22/1
Displacement	2.043 cc
Injection pressure	800 kPa
Overall dimensions (WxHxD)	987 x 494 x 628 mm
Net weight	195 kg
Battery	12 V
Starting system	Electric
Engine speed	1500 rpm

## Alternator

- Brushless self exciting
- Class 'H' insulation
- Standard degree of protection is IP23
- Self regulating
- With fan cooling
- Resist humid grease
- AC excitation, rotating rectification tube
- Stator grease insulation covered
- Rotator and excitation high polymer
- Resist the corruption of oil and acid
- Rotator balance in according with BS5625 standard 12.5
- High-quality lubrication sealed long-time bearing
- Rotator silicon steel close tight



Alternator model	JC-15G3
Exciter	brushless
Cooling Fan	Cast iron
Bearing (single)	double shielded
Windings	100% copper
Connection type	reconnectable
Insulation type	Class H
Pitch	2/3
Amortisseur winding	Full
AVR model	SX460
Voltage regulating NL/FM	Less than 0.5%
Under speed protection	Standard
Overexcitation protection	IP23
Standards	NEMA, IEC, BS, CSA
Phase sequence	A (U), B (V), C (W)
TIF	50
Excitation system	Self-exciting

## Control Systems

### ACS (Automatic Control System)

The PLC generator controller integrating digital, intelligent and network techniques is used for automatic control of the diesel generator. It can carry out functions including automatic start/stop, data measure and alarming. The controller uses an LCD display with an easy-to-use and reliable operation interface. This processor can carry out precision measure, constant value adjustment, timing and threshold setting. It can be widely used in all types of generator automatic control systems for compact structure, advanced circuits, simple connections and high reliability.

Standard Function	Shutdown	Warning
Engine control	Alternator under /over voltage	Alternator uner /over voltage
Generator monitoring	Alternator under /over frequency	Alternator under /over frequency
Generator protection	Mains under /over voltage	Mains under /over voltage
Engine monitoring	Mains under /over frequency	Mains under /over frequency
Clear text display	Under /over speed	Under /over speed
	Low oil pressure	Low oil pressure pre-alarm
	High engine temperature	High engine temperature pre-alarm
	Loss of speed signal	High/low battery voltage
	Phase sequence electrical (option)	Over current
	Earth fault (option)	Periodic maintenance



### Standard Control Panel

- Manual engine control module
- Low oil pressure
- High engine temperature
- Auxiliary shutdown
- Over speed protection
- Protection hold-off timer
- Charge failure warning



## Options List

### Switchgear

- Circuit breaker ABB 30 mA
- Mains auto-charger
- Auto transfer switch (ATS)
- Automatic control system (ACS)

### Fuel System Options

- Low fuel level shutdown
- Engine oil heater
- Manual sump oil drain pump

### Control Panels

- Earth fault relay
- Remote monitor interface
- Protection for alarm nodule & auxiliary relay
- Parallel control panels

### Miscellaneous Options

- Coolant heater 110/240 volt
- Battery charger 110-277 Volt
- PCC2100 with barograph
- Earth fault relay
- Packing export box

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**Price:**  
**€ 3.885,00**

\*All prices are VAT excluded.