

# ENERGY<sup>®</sup>

gruppi elettrogeni  
generating sets

Generating sets for Telecom applications - BTS (Base transceiver station)



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## ► Applications



### IN CASE OF LACK OF MAIN POWER

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The generating set start in case of lack of main power, transfer the power directly to the system and when the main power come back the generating set stop automatically.

### IN CASE OF NO MAINS AVAILABLE

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The generating set will work 24 hours a day, thanks to its characteristics and high quality components it can supply continuous power with the best reliability.



### TRANSPORT ADVANTAGES:

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Our generators are very compact, we can fit:

- 11 units in a 20ft container
- 23 units in a 40ft container

in case the generators are fitted with 50 lt fuel tank:

- 22 units in a 20ft container
- 46 units in a 40ft container



## STANDARD FEATURES



>> HIGH QUALITY DIESEL ENGINES



>> HIGH QUALITY ALTERNATORS



>> WEATHER AND SOUND PROOF CANOPY



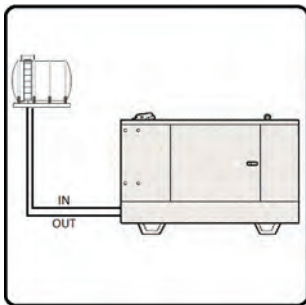
>> IN BUILT ATS PANEL



>> 500 or 600 LT FUEL TANK



>> DEEP SEA CONTROL BOARD



>> THREE-WAY VALVE



>> FUEL/WATER SEPARATOR FILTER



>> ELECTRONIC VOLTAGE REGULATOR (AVR)



>> LIFTING POCKETS



>> LIFTING HOOKS



>> METAL LABEL

## OPTIONALS AVAILABLE

|                               |   |
|-------------------------------|---|
| NOISE LEVEL 55 dB at 7 meters | AUTOMATIC OIL REFILLING                   |
| GSM REMOTE CONTROL MODULE     | AUTOMATIC DUMMY LOAD                      |
| FUEL TANK OF 1000 LT CAPACITY | SPARE PARTS KIT FOR LONG LIFE MAINTENANCE |
| WATER ENGINE PREHEATER        | AUTOMATIC FUEL TRANSFER PUMP SYSTEM       |



## WEATHER AND SOUND PROOF CANOPY

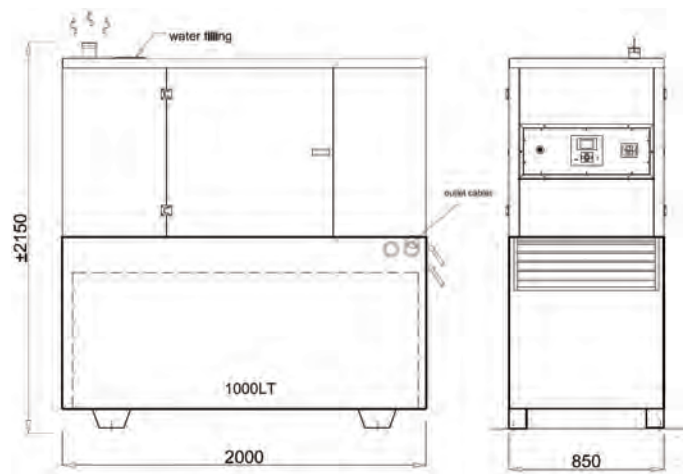
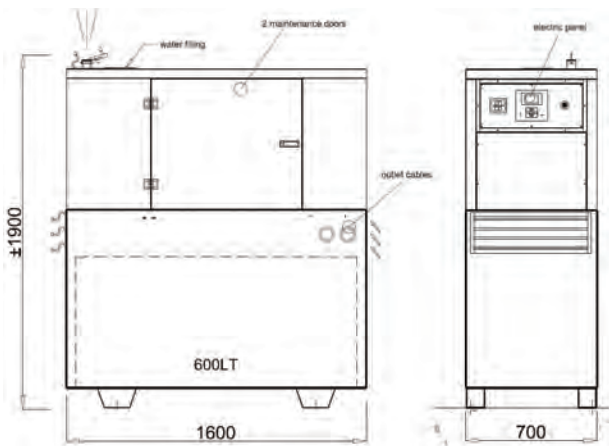


The sound proof canopy installed is made in steel structure, painted with epoxy dust with high resistance anti-corrosion. Painted in green colour RAL6018 (different colors available upon request).

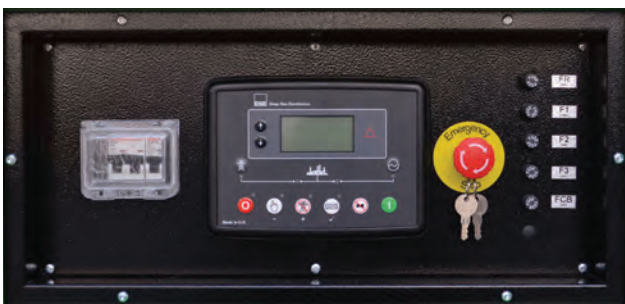
Acoustic material fire-resistant with high noise reduction. Optimal accessibility for ordinary/extraordinary maintenance through 2 strong and lockable doors.

The muffler is residential type and is fixed inside the canopy with 35db reduction. 4 lifting hooks.

Fresh air intake from the opposite side of the muffler, Exhaust air from the muffler side above and below.



## AUTOMATIC MAINS FAILURE PANEL WITH ATS BUILT IN



Automatic Mains Failure panel (AMF) fixed into the generating set canopy with built in Automatic Transfer Switch (ATS) with:

- contactors mechanical and electrical interlocked, complete with DeepSea electronic board with instruments,
- alarms and engine protections
- automatic battery charger
- magnetothermic switch 4 poles
- terminal box, protection fuses
- emergency stop button
- protection door with transparent window.

>> CONTACTORS



PROTECTION: IP44



**GENERATING SETS RANGE WITH PERKINS ENGINE**

|                            | Model                            |              | EY 10 P-SA            | EY 14 P-SA            | EY 16 P-SA            | EY 20 P-SA            | EY 30 P-SA            | EY 45 P-SA     |
|----------------------------|----------------------------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| General specification      | Prime power (PRP)                | kVa          | 10                    | 14                    | 16                    | 20                    | 30                    | 45             |
|                            | Prime power (PRP)                | Kw           | 8                     | 11,2                  | 12,8                  | 16                    | 24                    | 36             |
|                            | Emergency power (LTP)            | kVa          | 11                    | 15,4                  | 17,6                  | 22                    | 33                    | 49,5           |
|                            | Emergency power (LTP)            | Kw           | 8,8                   | 12,3                  | 14                    | 17,6                  | 26,4                  | 39,6           |
|                            | Noise level at 7 mt              | dB(A)        | 67 +/-3               | 67 +/-3               | 67 +/-3               | 68 +/-3               | 68 +/-3               | 68 +/-3        |
|                            | Rpm/min                          |              | 1500                  | 1500                  | 1500                  | 1500                  | 1500                  | 1500           |
|                            | Frequency                        | Hz           | 50                    | 50                    | 50                    | 50                    | 50                    | 50             |
|                            | Voltage                          | V            | 400 V + N             | 400 V + N             | 400 V + N             | 400 V + N             | 400 V + N             | 400 V + N      |
|                            | Nominal Ampere rating            | A            | 15                    | 21                    | 24                    | 29                    | 44                    | 65             |
|                            | Engine characteristics           | Engine model |                       | 403A-11G              | 403A-15G1             | 403A-15G2             | 404A-22G1             | 1103A-33G      |
| Engine emissions standards |                                  |              | Not Emissioned        | Not Emissioned        | Not Emissioned        | Not Emissioned        | Not Emissioned        | Not Emissioned |
| Engine power               |                                  | Hp (kw)      | 11,2 (8,4)            | 16,1 (12)             | 18 (13)               | 24,6 (18,4)           | 37,1 (27,7)           | 55,3 (41,3)    |
| Nr. Of cylinders           |                                  |              | 3                     | 3                     | 3                     | 4                     | 3                     | 3              |
| Aspiration                 |                                  |              | "Naturally Aspirated" | "Naturally Aspirated" | "Naturally Aspirated" | "Naturally Aspirated" | "Naturally Aspirated" | Turbocharged   |
| Cooling system             |                                  |              | Water                 | Water                 | Water                 | Water                 | Water                 | Water          |
| Displacement               |                                  | cc           | 1131                  | 1496                  | 1496                  | 2216                  | 3300                  | 3300           |
| Bore x stroke              |                                  | mm           | 77 x 81               | 84 x 90               | 84 x 90               | 84 x 100              | 105 x 127             | 105 x 127      |
| RPM governor               |                                  |              | Mechanical            | Mechanical            | Mechanical            | Mechanical            | Mechanical            | Mechanical     |
| Governor accuracy          |                                  | %            | 5%                    | 5%                    | 5%                    | 5%                    | 5%                    | 5%             |
| Fuel                       | Fuel type                        |              | Diesel                | Diesel                | Diesel                | Diesel                | Diesel                | Diesel         |
|                            | Fuel consumption at 50% of load  | Lt/h         | 1,7                   | 2                     | 2,5                   | 2,9                   | 3,9                   | 5,7            |
|                            | Fuel consumption at 75% of load  | Lt/h         | 2,3                   | 2,8                   | 3,6                   | 4                     | 5,4                   | 8              |
|                            | Fuel consumption at 100% of load | Lt/h         | 3                     | 3,6                   | 5                     | 5,3                   | 7,1                   | 10,7           |
|                            | Fuel tank capacity               | Lt           | 500 / 600             | 500 / 600             | 500 / 600             | 500 / 600             | 500 / 600             | 500 / 600      |
|                            | Autonomy at 75% of load          | hr           | 217 / 260             | 178 / 214             | 139 / 166             | 125 / 150             | 92 / 111              | 62,5 / 75      |
|                            | Optional: Bigger Tank capacity   | Lt           | 1000 / 2000           | 1000 / 2000           | 1000 / 2000           | 1000 / 2000           | 1000 / 2000           | 1000 / 2000    |
| Autonomy @75%              | hr                               | 434 / 870    | 357 / 714             | 278 / 555             | 250 / 500             | 185 / 370             | 125 / 250             |                |
| Alternator characteristics | Alternator brand                 |              | MeccAlte              | MeccAlte              | MeccAlte              | MeccAlte              | MeccAlte              | MeccAlte       |
|                            | Alternator model                 |              | ECP3-1L/4             | ECP3-2L/4             | ECP28-S/4             | ECP28-M/4             | ECP28-VL/4            | ECP32-3S/4     |
|                            | N. di poli - Number of poles     |              | 4                     | 4                     | 4                     | 4                     | 4                     | 4              |
|                            | Tipo - Type                      |              | Brushless             | Brushless             | Brushless             | Brushless             | Brushless             | Brushless      |
|                            | Voltage regulator                |              | AVR                   | AVR                   | AVR                   | AVR                   | AVR                   | AVR            |
|                            | Voltage accuracy                 | %            | 1%                    | 1%                    | 1%                    | 1%                    | 1%                    | 1%             |

**DETAILS**

The Alternator brand depends on Energy's discretion  
The range can be available also with frequency 60 Hz - 1800 rpm  
The range can be available also with voltage 230 V single phase  
Available models with bigger electrical power

All data can be found out in the original datasheet of the engine and the alternator. Values shown are nominal values, they can change in every moment and without prior notice.

Our range of generating sets for Telecom application is available also with other brands of engines like:

**KOHLER** Engines



**ENERGY**®

**ENERGY S.R.L.**

Via Del Progresso, 35  
36054 Montebello Vicentino, VI - Italia

Tel +39.0444.450422 - Fax +39.0444.457904

[info@energy-gruppi.it](mailto:info@energy-gruppi.it)  
[www.energy-gruppi.it](http://www.energy-gruppi.it)

