

# GENERATING SET

## GE 12000 HZDT

The images are for reference



### FEATURES

- Low oil pressure automatic engine shut down and high temperature
- A recessed panel protects the sockets
- Protective frame
- Automatic voltage regulation "AVR"
- Circuit breaker
- ELCB-GFI (Ground Fault Interruptor)
- Meets EC directives



air cooled



diesel



three-phase



electric start

### POWER RATINGS

|                                    |                                  |
|------------------------------------|----------------------------------|
| * Stand-By three-phase power (LTP) | 12 kVA (9.6 kW) / 400 V / 17.3 A |
| * PRP three-phase power            | 11 kVA (8.8 kW) / 400 V / 15.8 A |
| * PRP single-phase power           | 6 kVA/kW / 230 V / 26 A          |
| Frequency                          | 50 Hz                            |
| Cos φ                              | 0.8                              |

\* Output powers according to ISO 8528-1

### DEFINITION

Valid declared powers up to the followings environmental conditions: temperature 25°C, altitude 100 meters above sea level)

**LTP power: stand-by power:** Maximum available power for use with variable loads for a yearly number of hours limited at 500 h. No overload is admitted.

**PRP power:** continue power with variable loads. Maximum power for use with variable loads for a yearly illimited nubers of hours.

**COP power:** continuous power with constant load. Maximum power for use with constant loads for a yearly unlimited numbers of hours.

## ENGINE 3000 RPM

### 4-STROKE, DIRECT INJECTION

|                                                  |                           |
|--------------------------------------------------|---------------------------|
| Model                                            | HATZ 1D90                 |
| * Stand-By net power                             | 11.2 kWm (15.2 hp)        |
| * PRP net power                                  | 10.2 kWm (13.9 hp )       |
| * COP net power                                  | /                         |
| Cylinders / Displacement                         | 1 / 722 cm <sup>3</sup>   |
| Bore / Stroke                                    | 104 / 85 (mm)             |
| Compression ratio                                | 10.5 : 1                  |
| BMEP (Brake Mean Effective Pressure : LTP - PRP) | /                         |
| Speed governor type                              | Meccanico                 |
| <b>FUEL CONSUMPTION</b>                          |                           |
| 110 % (Stand-by power)                           | 3.6 lt./h                 |
| 100 % to PRP                                     | 3.3 lt./h                 |
| 75 % to PRP                                      | 2.5 lt./h                 |
| 50 % to PRP                                      | 1.6 lt./h                 |
| <b>COOLING SYSTEM</b>                            |                           |
| Total system cap. - only engine                  | /                         |
| Fan air flow                                     | 10.6 m <sup>3</sup> /min. |
| <b>LUBRICATION SYSTEM</b>                        |                           |
| Total oil system capacity                        | /                         |
| Oil capacity in sump                             | 1.9 lt.                   |
| Oil consumption at full load                     | < 0.028 kg./h             |

### EXHAUST SYSTEM

|                                   |                           |
|-----------------------------------|---------------------------|
| Maximum exhaust gas flow          | /                         |
| Max. exhaust gas temp.            | /                         |
| Maximum back pressure             | /                         |
| External diameter exhaust pipe    | /                         |
| <b>ELECTRICAL SYSTEM</b>          |                           |
| Starter motor power               | 2 kW                      |
| Battery charging alternator cap.  | 16 A                      |
| Cold start                        | /                         |
| With cold start aid               | - 10°C                    |
| <b>AIR FILTER</b>                 |                           |
| Combustion air flow               | 1.08 m <sup>3</sup> /min. |
| <b>HEAT REJECTED AT FULL LOAD</b> |                           |
| To exhaust system                 | /                         |
| To water and oil                  | /                         |
| Radiated to room                  | /                         |
| To charge cooler                  | /                         |



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## ALTERNATOR

| SYNCHRONOUS, THREE-PHASE, SELF-EXCITED, SELF-REGULATED, BRUSHLESS |                                   |                                 |
|-------------------------------------------------------------------|-----------------------------------|---------------------------------|
|                                                                   | WITH AVR                          | WITHOUT AVR                     |
| Continuous power                                                  | 11.5 kVA                          |                                 |
| Stand-by power                                                    | 12.5 kVA                          |                                 |
| Three phase voltage                                               | 380-415 Vac                       | 400 Vac                         |
| Frequency                                                         | 50 Hz                             |                                 |
| $X_{0\sigma}$                                                     | 0.8                               |                                 |
| Model A.V.R.                                                      | HVR 10                            | /                               |
| Voltage regulation acc.                                           | $\pm 1 \%$                        | $\pm 4 \%$                      |
| Sustained short circuit current                                   | $\leq 3 I_n$                      |                                 |
| Transient dip (100% load)                                         | $< 15 \%$                         |                                 |
| Recovery time                                                     | /                                 |                                 |
| Efficiency at 100% load                                           | 83.5 % (400V - Cos $\varphi$ 0,8) | 83 % (400V - Cos $\varphi$ 0,8) |
| Insulation                                                        | Classe H                          |                                 |
| Connection - Terminals                                            | Stella - N°6                      |                                 |
| Electromagnetic compatibility (R.F.I. suppr.)                     | /                                 |                                 |
| Waveform distortion - THD                                         | $< 4 \%$                          | $< 5 \%$                        |
| Telephone interference - THF                                      | /                                 |                                 |

| REACTANCES (11.5 KVA - 400 V)    |                     |        |
|----------------------------------|---------------------|--------|
| Direct axis synchronuos - Xd     | 239 %               | 280 %  |
| Direct axis transient - X'd      | 19 %                | 21 %   |
| Subdirect axis transient - X''d  | 4.6 %               | 5,8 %  |
| Quadrature axis synchronuos - Xq | 130 %               | 155 %  |
| Quadr. axis subtransient - X''q  | /                   |        |
| Negative sequence - X2           | /                   |        |
| Zero sequence - X0               | /                   |        |
| TIME CONSTANTS                   |                     |        |
| Transient - T'd                  | 46 ms               | 40 ms  |
| Subtransient - T''d              | 6 ms                | 6 ms   |
| Open circuit - T'do              | 580 ms              | 530 ms |
| Armature - Ta                    | /                   |        |
| Short-circuit ratio Kcc          | 0.72                | 0.62   |
| IP protection degree             | IP 23               |        |
| Cooling air flow                 | 0.082 m³/sec.       |        |
| Coupling   Bearing               | Diretto J609b - N°1 |        |

## GENERAL SPECIFICATIONS

|                           |                             |
|---------------------------|-----------------------------|
| Fuel tank capacity        | 10 lt.                      |
| Running time (75% to PRP) | 4 h                         |
| Starter battery           | 12 Vdc -37Ah / 330A CCA(EN) |
| IP protection degree      | IP 23                       |

|                                              |                           |
|----------------------------------------------|---------------------------|
| Acoustic power $L_{WA}$ (pressure $L_{pA}$ ) | 105 dB(A) (80 dB(A) @ 7m) |
| Performance class (ISO 8528)                 | G2                        |

## CONTROL PANEL

- Start and stop engine key
- Low oil pressure warning light with shutdown
- High engine temperature warning light with shutdown
- Battery charge warning light fault
- Digital multifunction meter: Voltmeter - Frequencymeter - Total Hoursmeter - Partial Hoursmeter (resettable)
- Circuit breaker
- ELCB-GFI (Ground Fault Interruptor)
- Output sockets : 1x 400V 32A 3P+N+T CEE  
2x 230V 16A 2P+T CEE
- Output sockets (schuko version): 1x 400V 32A 3P+N+T CEE  
2x 230V 16A 2P+T Schuko
- Earth terminal (PE)

# WEIGHT - DIMENSIONS AND ACCESSORIES

GE 12000 HZDT



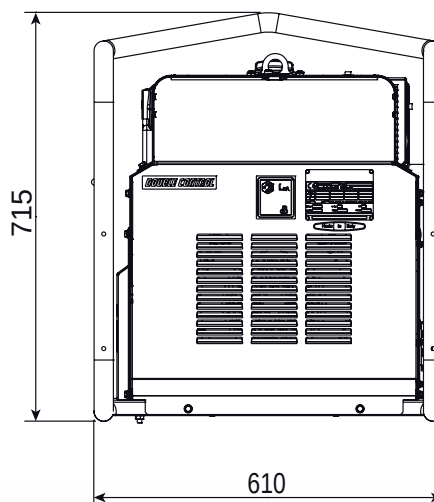
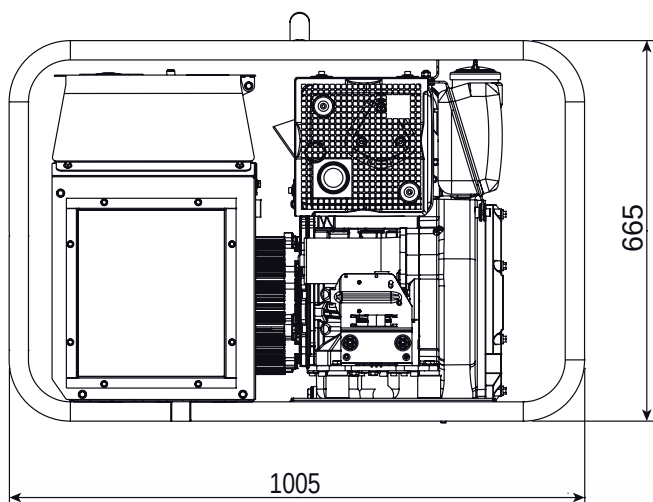
## DRY WEIGHT MACHINE:

- 220 Kg

Generating set pictured may include optional accessories.



## DIMENSIONS DRAW (mm)



## OPTIONS ON REQUEST

- Earthing
- Trolley CTM 14



## VERSIONS ON REQUEST

- SCHUKO Version



## FACTORY INSTALLATION OPTIONS

- /

## GENERAL INFORMATION

### COMPLIANCE GENERATING SETS WITH EC DIRECTIVES AND STANDARDS

2006/42 / EC (Machines Directive)  
2014/35 / EU (Low Voltage Directive)  
2014/30 / EU (EMC Directive)  
2000/14 / EC (Directive Acoustic Emission for machines for use outdoors)  
ISO 8528 (Reciprocating internal combustion engine driven alternating current generating sets )



ISO 9001:2015 - Cert. 0192

### WARRANTY

All devices are covered by the manufacturer's warranty.

The company reserves the right to change this specification without notice. For further information please contact the sales department.

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