

# ALPHA G45YO

50Hz@1500RPM 400/230V 3PH

**GENMAC**  
POWER PRODUCTS



Picture for illustration purposes only

## General features

Open generator with following specifications:

### Frame:

- Heavy duty fabricated welded base plate with high quality steel UNI S235 JR
- Heavy duty rubber anti-vibration mountings
- Fuel tank with drain plug
- Easy access to fuel refilling
- Feet and four lifting holes on the base

### Muffler:

- Industrial type
- With aluminum coating

### Control Panel:

- Metal Control panel with protective back cover and protected by lexan window
- Dedicated area to make easier the electrical connection to the load
- Manual version: equipped with socket kit

All units and components are prototype tested, factory build and production tested. A specific control procedure during the several stages of production ensures long life and reliability.

## Overall performance

### G45YO

|                          |         |
|--------------------------|---------|
| PRP Continuous power kVA | 42      |
| PRP Continuous power kW  | 33      |
| LTP Stand-by power kVA   | 46      |
| LTP stand-by power kW    | 37      |
| Power factor cos $\phi$  | 0.8     |
| Voltage VAC              | 400/230 |
| Frequency Hz             | 50      |
| Ampere PRP/LTP           | 60 / 66 |
| Speed RPM                | 1500    |

## Dimensions and noise level

|                            |      |
|----------------------------|------|
| Length mm                  | 1650 |
| Width mm                   | 700  |
| Height mm                  | 1360 |
| Net Weight kg              | 660  |
| Gross Weight kg            | -    |
| Sound pressure at 7 mt dBA | -    |

## Data reference

Standard reference conditions temperature 25°C, altitude 1-1000m asl, relative humidity 30%, atmospheric pressure 100 kPa (1 bar), power factor 0.8 lag, balanced load - non distortional. Fuel consumption is nominal and refers to specific weight 0.850 gr/lt. Power performance data as quoted can be obtained after the initial running-in period of the engine, during which one has to follow the instructions of the engine manufacturer as stated in the use and maintenance manual of the specific engine. The tolerance shown by the engine manufacturer is +/- 5%. Sound power values refer to free field conditions: the installation site may influence the values. Dimensions, weights and other specifications contained in the technical data sheet and related attachments are nominal, subject to tolerances and refer to the model with standard equipment; any optional and additional equipment/accessories can modify weight, dimensions, performance.P.R.P. Prime Power-Continuous power at variable load: The power that a genset can supply in continuous service at a variable load for an unlimited number of hours per year while respecting the maintenance intervals established in the environmental conditions stated by the Manufacturer. according to ISO8528-1. The average power supplied over time and any applicable overload must be less than the percentages stated by the Manufacturer.L.T.P. Limited-time running power-Limited power: The maximum power that a genset can supply for a limited time respecting the maintenance intervals established in the environmental conditions stated by the Manufacturer according to ISO 8528-1.The number of hours per year is stated by the Manufacturer. Overload is not permitted.\*For reasons of transport and/or storage, liquids (oil and antifreeze) and batteries might not be included in the delivery.



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## Engine general data

|   |              |
|---|--------------|
| Engine brand  | Yanmar       |
| Model   | 4TNV98T-GECS |
| PRP Power kW  | 37.70        |
| LTP Power kW  | 41.40        |
| Fuel  | Diesel       |
| Nr. cylinders   | 4            |
| Air intake  | Turbocharged |
| Cooling   | Water        |
| Cubic capacity l.   | 3.32         |
| Speed regulation  | Mechanical   |
| Performance Class - steady state regulator accuracy +/- % | - - -        |
| Load Step G1 - KWe  | -            |
| Load Step G2 - KWe  | -            |
| Load Step G3 - KWe  | -            |
| Voltage VDC   | 12           |
| Emissions   | -            |

## Alternator general data

|                           |              |
|---------------------------|--------------|
| Alternator brand          | Mecc-Alte    |
| Model                     | ECP32-2S/4C  |
| Type of excitation        | Self-excited |
| Type of regulation        | AVR          |
| Regulator precision +/- % | 1.00         |

## Structure data

|                     |       |
|---------------------|-------|
| Type of structure   | ALPHA |
| Tank capacity l.    | 115   |
| Retention basin     | not   |
| Exhaust diameter mm | 65    |

## Control panel features

### QFIA-4520

Protection cover  
Circuit breaker  
AMF controller DSE4520  
- Voltmeter, Frequncymeter, Ammeter  
- Generator power (kW, kV Ar, kV A & pf) monitoring  
- Hour meter  
- Fuel level meter  
- Overload (kW & kV Ar) protection  
- Low oil pressure protection  
- High coolant temperature protection  
- Low fuel level protection  
- Battery charger alternator fault  
- Rpm protection  
Emergency stop button  
Terminal board for ATS connection  
Battery charger  
On/off switch

## Fuel consumption

|                            |        |
|----------------------------|--------|
| Consumption 25% l./h       | 2.60   |
| Consumption 50% l./h       | 5.20   |
| Consumption 75% l./h       | 7.90   |
| Consumption 100% l./h      | 10.50  |
| Autonomy at 75% of load h. | ≈ 15 h |

## Engine liquids and equipment

|                          |                   |
|--------------------------|-------------------|
| Type of lubricant        | Oil SAE 5W40 CH-4 |
| Lubrication capacity l.* | 10.50             |
| Type of coolant          | Antifreeze liquid |
| Coolant capacity l.*     | 8.00              |
| Air intake filter        | Paper cartridge   |
| Battery capacity Ah      | 70                |
| Number of batteries*     | 1                 |

## Fuel system and energy balance

|                                       |   |
|---------------------------------------|---|
| AC pump suction head kPa              | - |
| Combustion air flow volume LTP m3/min | - |
| Cooling air capacity LTP m3/min       | - |
| Exhaust gas flow-density LTP m3/min   | - |
| Exhaust gas temperature LTP °C        | - |
| Brake mean effective pressure kPa     | - |
| Energy to exhaust LTP kWt             | - |
| Energy to coolant LTP kWt             | - |
| Energy to radiation LTP kWt           | - |



Dealer