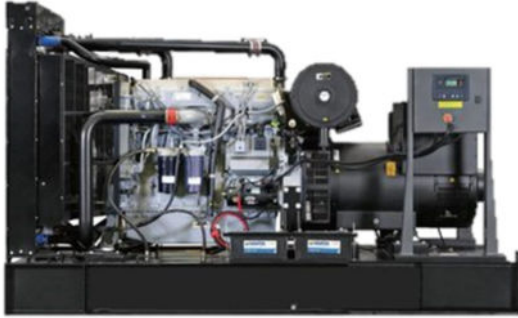


## DIESEL GENERATING SET



| Model                | SP-650P  |                   |
|----------------------|----------|-------------------|
| Standby              | kVA      | 700               |
|                      | kW       | 560               |
| Prime                | kVA      | 650               |
|                      | kW       | 520               |
| Rated Voltage        | V        | 220 / 380         |
| Phase                |          | 3                 |
| Rated Current        | A        | 988               |
| Rated Rotation Speed | r/min    | 1500              |
| Frequency            | Hz       | 50                |
| Power Factor         |          | 0.8               |
| Noise Level          | dB(A)@7m | Silent Type : ±70 |

Standby: Continuous running at variable load for duration of an emergency. No overload is permitted on these ratings. In accordance with ISO 3046.  
 Prime : Continuous running at variable load for unlimited periods with 10% overload available for 1 hour in any 12 hour period. In accordance with ISO 8528,ISO 3046.



## ENGINE

|  |   |
|--|---|
| Manufacturer                               | PERKINS                                   |
| Model                                      | 2806A-E18TAG2                             |
| Engine speed rated                         | 1500 RPM                                  |
| Cycle                                      | Four Stroke                               |
| No. Cylinders and Build                    | 6 vertical in-line                        |
| Displacement                               | 18.1 L                                    |
| Bore and Stroke                            | 145 mm x 183 mm                           |
| Compression ratio                          | 14.5:1                                    |
| Governor                                   | Electronic                                |
| Aspiration                                 | Turbocharged and air-to-air charge cooled |
| Fuel consumption 110%                      | 143 L/hr                                  |
| Fuel consumption 100% (of the Prime Power) | 132 L/hr                                  |
| Fuel consumption 75% (of the Prime Power)  | 97 L/hr                                   |
| Fuel consumption 50% (of the Prime Power)  | 66 L/hr                                   |
| Fuel Tank Capacity                         | 800 L                                     |
| Lubrication Capacity                       | 62 L                                      |
| Coolant Capacity                           | 61 L                                      |
| Starting Voltage                           | 24 Volt DC                                |

## ALTERNATOR

|                                      |                            |
|--------------------------------------|----------------------------|
| Manufacturer                         | GENSO                      |
| Number of phase power                | 3                          |
| Factor (Cos Phi)                     | 0.8                        |
| Bearing                              | 1                          |
| Exciter type                         | Brushless, Self-excitation |
| Insulation : class, temperature rise | H                          |
| Degree of protection                 | IP23                       |
| Winding Pitch                        | 2/3                        |
| Winding Leads                        | 12                         |

## CONTROL SYSTEM

The control panel is equipped as follows:

### 1. Auto Mains Failure Control Panel

Panel equipments:

- Control with AMF module
- Static battery charger
- Emergency stop push button



DSE 7320

Generating set control module DSE 6120 features:

- The module is used to monitor main supply and starts and stops of a standby generating set
- Micro-processor based design,
- Automatic control of main and generator contactors
- Monitors engine performance and AC power output
- LED alarm indication
- Front panel configuration of timers and alarm trip points
- Easy push button control  
STOP/RESET - MANUAL - TEST - AUTO - MUTE ALARM -START
- Generator Volts (L-L / L-N)
- Engine oil pressure (PSI-Bar)
- Generator Ampere (L1,L2,L3)
- Engine temperature (°C&°F)
- Generator Frequency (Hz)
- Plant battery volts
- Engine hours run
- Mains Volts (Ph-Ph/Ph-N)
- Generator kVA, kWh
- Generator kW as % of rated kW setting
- Generator Cos ( $\sigma$ )

Protecting Functions:

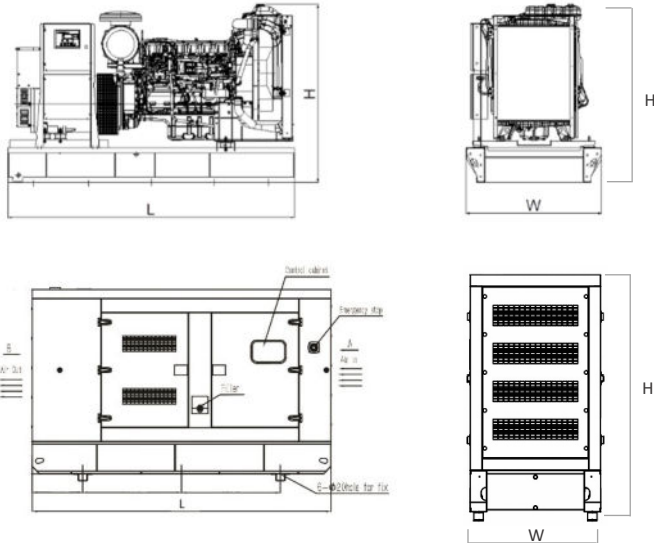
- Over and Under Speed
- Low and High Battery Volt
- Start and Stop Failure
- Charge fail
- Over Current
- Under / Over Generator Voltage
- Low Oil Pressure
- Emergency stop
- High engine temperature
- Kw overload

LED indications

- Mains available
- Generator available
- Mains on load
- Generator on load

### 2. Power Outlet Terminal Board Mounted on the Gen-set Base Frame

## GENSET OUTLINE



### Dimension & Weight :

| OPEN TYPE  |         |
|------------|---------|
| Length (L) | 3500 mm |
| Width (W)  | 1300 mm |
| Height (H) | 2100 mm |
| Weight     | 4600 kg |

| SILENT TYPE |         |
|-------------|---------|
| Length (L)  | 5010 mm |
| Width (W)   | 1800 mm |
| Height (H)  | 2400 mm |
| Weight      | 5500 kg |

## ADVANTAGES

- Compact design
- Easy operation and maintenance, low cost
- Every generating set is subject to a comprehensive test program which includes full load testing, checking and provision of all control and safety shut down functions testing

### CHASSIS

- The complete gen-set is mounted as whole on a heavy-duty fabricated, steel base frame
- High quality base frame complete with heavy duty engine mounting for reduce vibration
- Base frame design integrated with fuel tank (up to 650 KVA)
- The generating set can be lifted or carefully pushed / pulled by the base frame
- Dial type fuel gauge and drain plug on the fuel tank

### CANOPY

- Doors on each side
- High quality paints materials
- High quality sound proof and insulations materials could efficiently reduce noise
- Easy lifting and moving
- Emergency stop push button is installed outside of the canopy
- Exhaust silencer is protected against environment influences