

Standby Power (ESP)

Standby power is defined as the maximum power available during a variable electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 500 hours of operation per year under average of 70% load. Overloading is not permissible

Prime Power (PRP)

Prime power is defined as being the maximum power which a generating set is capable of delivering continuously whilst supplying a variable electrical load. Average load should be 70%. The generator can be overloaded 10% for 1 hour per 12 hours.

DESIGN SPECIFICATIONS

High quality, reliable and complete power unit, Compact design, Easy start and maintenance possibility, Every generating set is subjected to a comprehensive test programme which includes full load testing and checking and providing of all control and safety shut down functions testing, Full engineered with a wide range of options and accessories: Canopy, soundproof and on road trailer

STANDARD GENSET SPECIFICATIONS
ENGINE

PERKINS heavy duty diesel engine,
Four stroke, water cooled, turbocharged, charge air cooled
Direct injection fuel system,
24 VDC starter and charge alternator,
Replaceable fuel filter, oil filter and dry element air filter,
Cooling radiator and fan,
Starter battery (with lead acid) including Rack and Cables,
Flexible fuel connection hoses and oil sump drain valve,
Industrial capacity exhaust silencer and steel bellows,
Jacket water heater (at all models)
Operation manuals documents

ALTERNATOR

Brushless, single bearing system, 4 poles,
Insulation class H,
Standard degree of protection IP21-IP23,
Self-exciting and self-regulating,
Impregnation with tropicalised epoxy varnish,
Solid state Automatic Voltage Regulator

BASE FRAME

The complete genset is mounted as whole on a heavy-duty fabricated, steel base frame. Antivibration pads are fixed between the engine/ alternator feet and the base frame.
Base frame design incorporates an integral fuel tank.
The generating set can be lifted or carefully pushed / pulled by the base frame,
Lifting eyes allow easy transportation by a crane.
Dial type fuel gauge and drain plug on the fuel tank.

CANOPY

All canopy parts are designed with modular principles without welding assembly.
Doors on each side.
All metal canopy parts are painted by electrostatic.
Exhaust silencer is protected against environment influences polyester powder paint.
Thermally insulated engine exhaust system.
Emergency stop push button is installed outside of canopy
Easy lifting and moving
Easy maintenance and operation


CONTROL SYSTEM

Panel Equipments;
Control, supervision and protection panel is mounted on the genset base frame.
The control panel is equipped as follows:

1-Auto. Mains Failure Control Panel

Control Panel Equipments:
Control panel with DKG 309 module
Static battery charger
Emergency stop push button
Circuit Breaker


DATAKOM
1.1 Generating Set control module DKG 309 features:

The module is used to monitor a mains supply and automatic start a stand-by generating set.
Micro-processor based design
Monitors engine performance and AC power output
LED and LCD alarm indication
Front panel configuration of timers and alarm trip points
provides signal to change over switch panel
event logging of shutdown alarms
Remote communication via RS232 port or RS485 modbus output
easy push button control
STOP/RESET-MANUAL-AUTO-TEST-START
Operation indicators accessed by the LCD display scroll push button.

a) Metering via LCD Display:

| | |
|---------------------------|------------------------------------|
| Generator Volts (F-F/F-N) | Engine hours run |
| Generator Amps (L1-L2-L3) | Engine speed RPM |
| Generator Frequency (Hz) | Engine oil pressure (PSI&Bar) |
| Generator power factor | Engine coolant temperature (C & F) |
| Generator kW | Engine Oil temperature |
| Mains Frequency (Hz) | Fuel Level |
| Mains Volts (F-F/F-N) | Plant battery volts |

b) Automatic shutdown on fault conditions

| | |
|--------------------------------|----------------|
| Under/Over Speed | Fail to start |
| High Engine Temperature | Fail to stop |
| Low Oil Pressure | Charge fail |
| Under/over generator volts | Over current |
| Under/over generator frequency | Emergency stop |
| Under/over mains voltage | |
| Low/High battery volts | |

ISO 9001:2008
OHSAS 18001:2007
LED indications

Mains available
Mains on load

Generator available
Generator on Load

ISO 14001:2004
ISO 1002:2004


| MODEL | | NPP 330 | |
|----------------------|-----|-------------------|--|
| Power Output Ratings | | 50 Hz - 400/231 V | |
| Standby Power (ESP) | kVA | 330 | |
| | kW | 264 | |
| Prime Power (PRP) | kVA | 297 | |
| | kW | 237 | |

| ENGINE | | | |
|--------------------------------|------|--|--|
| Manufacturer | | PERKINS | |
| Model | | 1606A-E93TAG5 | |
| Engine Stand-by Power | kWm | 297 | |
| Speed | rpm | 1500 rpm | |
| No of Cylinder / Configuration | | 6-In line | |
| Displacement | lt | 9,30 | |
| Bore x Stroke | mm | 116x146 | |
| Compression Rate | | 17.2:1 | |
| Aspiration | | Turbo Charged Air to Air Charge Cooled | |
| Governor Type | | Electronics | |
| Cooling System | | Water cooled | |
| Coolant Capacity | lt | 32 | |
| Lubrication Oil Capacity | lt | 36 | |
| Electrical System | | 24V. DC | |
| Fuel Consumption lt/h | 100% | 59,5 | |
| | 75% | 46,2 | |
| | 50% | 33,3 | |

| ALTERNATOR | | | |
|----------------------|------|----------------------------------|--|
| Brand | | WATTPOWER | |
| Model | | WPA 330 | |
| Voltage Output | VAC | 231/400 | |
| Frequency | Hz | 50 | |
| Power Factor | CosØ | 0,8 | |
| No of Bearing | | 1 | |
| No of Poles | | 4 | |
| No of Leads | | 12 | |
| Voltage Regulation | | Automatic voltage regulation ±%2 | |
| Insulation | | H | |
| Degree of Protection | | IP 21 | |
| Excitation System | | Self excitation | |

| OPEN TYPE | | | |
|---------------------------|----|----------------|--|
| Diemensions (LxWxH) | mm | 3650x1300x1800 | |
| Dry Weight | kg | 2700 | |
| SILENT CANOPY TYPE | | | |
| Diemensions (LxWxH) | mm | 3650x1300X2050 | |
| Dry Weight | kg | 3200 | |