

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.

Power Output Ratings 50 Hz. / 400 V

| | | |
|---------------------|-----|------|
| Standby Power (ESP) | kVA | 1975 |
| | kW | 1580 |
| Prime Power (PRP) | kVA | 1840 |
| | kW | 1472 |

Engine

| | | |
|--------------------------------|--------|-----------------------------|
| Manufacturer | | PERKINS |
| Model | | 4016TAG1A |
| No of Cylinder / Configuration | | 16-V |
| Displacement lt | lt | 61,123 |
| Bore / Stroke | mm | 160X190 |
| Compression Ratio | | 13.6:1 |
| Aspiration | | Turbocharged & Inter Cooled |
| Governor Type | | ECM |
| Cooling System | | WATER |
| Coolant Capacity | lt | 255 |
| Lubrication Oil Capacity | lt | 214 |
| Electrical System | VDC | 24 |
| Speed / Frequency | rpm | 1500 rpm / 50 Hz |
| Engine Prime Power (with fan) | kWm | 1607 |
| Fuel Consumption at full load | lt/h | 362 |
| Radiator Cooling Air | °C | 1914 |
| Air Intake - Engine | m³/min | 128 |
| Exhaust Gas Flow | m³/min | 353 |

Alternator

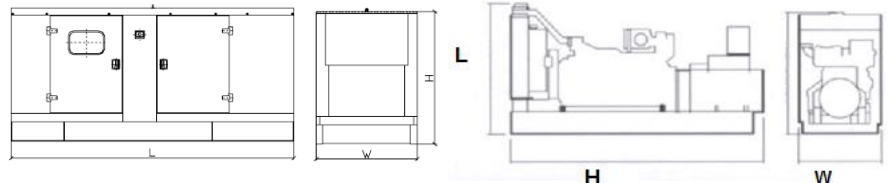
| | | |
|------------------------------------|-----|----------------|
| Manufacturer | | STAMFORD |
| Model | | PI734E |
| Power Factor | | 0,8 |
| No of Bearing | | SINGLE |
| No of Poles | | 4 |
| No of Leads | | 12 |
| Voltage Regulation (Steady State) | | ± %0,5 |
| Insulation | | H |
| Degree of Protection | | IP23 |
| Excitation System | | AVR, BRUSHLESS |
| Connection Type | | STAR |
| Total Harmonic Content (No Load) | | < %2 |
| Frequency | Hz | 50 |
| Voltage Output | VAC | 231/400 |

DIMENSION

| | L x W x H (mm) | Weight (kg) | Fuel Tank (lt) |
|-----------|-------------------|-------------|----------------|
| Canopied | 30 feet CONTAINER | 17500 | N/A |
| Open Skid | 5650X2250X2900 | 11500 | N/A |

Technical information and values are according to ISO8528, ISO3046, NEMA MG1.22, IEC 600341, BS 49995000, VDE 0530 standards. Producing with ISO9001, CE standards.

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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, turbo charged, Electronic Governor Control System, Direct injection fuel, 24 V D.C. 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 manual oil sump drain pump, Industrial capacity exhaust silencer and steel bellows, Jacket water heater (at automatic models), Operation manuals and circuit diagram documents

ALTERNATOR

Brushless, single bearing system, 4 poles, Insulation class H, Standard degree of protection IP21, Self-exciting and self-regulating, Stator winding with 2/3 pitch, Impregnation with tropicalised epoxy varnish, close Voltage Regulation

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, forklift pockets within base frame. Daily type fuel gauge and drain plug on the fuel tank.

CONTAINER

Welded with square and trapeze sheet steel construction - Lockable doors on each side - Removable roof - Aluminium internal floor - Residential silencer - Sandwich mineral wool attenuation on the roof surface - White paint finishing (RAL 9010)

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 DSE 7320 module
Static battery charger
Emergency stop push button

1.1 Generating Set control module DSE 7320 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.

Metering via LCD Display:

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



Automatic shutdown on fault conditions

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

LED indications

Mains available
Generator available
Mains on load
Generator on Load

2. Power Outlet Terminal Board Mounted on the Genset Baseframe