



Super Silent, Superior Life!

WPS10/S - Technical Data Sheet



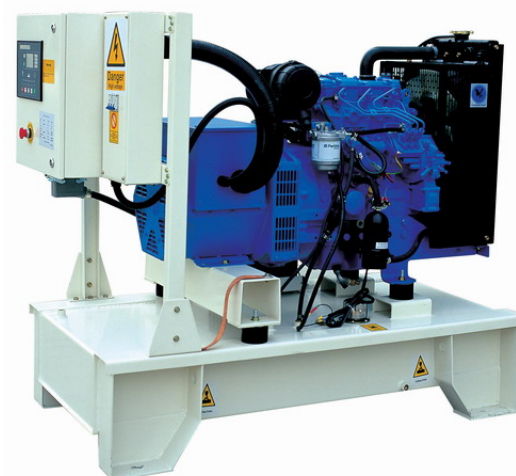
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STANDARD SPECIFICATION

General features:

- Composed of Perkins(UK) diesel engine and Stamford alternator
- Engine Charge alternator 12 V
- Single bearing alternator IP 23 , insulation class H
- 40°C radiator as standard, 45 °C is optional, water-cooled
- Skid and vibration isolators
- Dry type air filter, Main line circuit breaker
- Microprocessor control panel, Key start panel be optional
- 4 pole MCB, 12 V battery, rack and cable
- 8-hour operation base tank
- Special Integrated Steel Base tank and sprayed overall in gloss enamel pain
- Optional soundproof or weatherproof canopy, Industrial or residential silencer be optional



Genset Main Technical Data

Genset,50Hz at 1500 RPM, 3-PHASE, 400/230V							PERIKINS(UK) Engine, 1500RPM				
Model	Tank (L)	Noise Level Db(A)@7m	kVA		kW		Model	Bore/ stroke mm	Cyl.	Asp.	Gov.
			ESP	PRP	ESP	PRP					
WPS10	150	98	11	10	9	8	403C-11G	77/81	3L	NA	M
WPS10S	25	65.2									

(1) Ambient reference conditions: 1,000 m bar, 27°C, 30% relative humidity. Rating according to ISO 3046 and 8528.

(2) Available in the following voltages: 440/254-415/240V-400/230V-380/220V-220/127V-200-115V.

(3) ESP: Standby Power Standby duty, operation under variable load, without over load.

PRP: Prime Power-Continuous duty operation, under variable load 24/24h-10% over load permissible 1 hour/12 hours.

(4) **M**: Mechanical speed governor, **E**: Electronic speed governor.

(5) **NA**: Naturally aspirated, **TC**: Turbocharged, **TCA**: Turbocharged and air-air aftercooled. **TW**: Water-cooled Turbocharged.

Reliable Performance

Voltage Regulation

Voltage regulation maintained within $\pm 0.5\%$ as follow :

- Between 0.8 and 1.0 lagging and unity
- From no load to full load
- At speed droop variation up to 4.5%

Frequency Adjustable Ratio

- Change load from 0-100%, within 1.0% (electric speed regulator), within 4.5% (mechanical speed regulator)

Frequency Undulation

- Load from 0-100%, Frequency undulation within 0.25%
- No load wire volts max undulation ratio within 1.8%
- Three phrase balanced load in the order of 5%

Effect factor of telecom

- TIF better than 50
- THF to BS4999 Part 40 better than 2%

Electromagnetism

- In compliance with BS800 and VDE levels G and N

CRITERION

ISO3046, ISO8528, BS4999, BS5514,
BS5000PT99、 AS1359, IEC34
UTE5100, VDE0530
ISO9001:2000, ISO14001

ENGINE SPECIFICATION

Perkins (UK) Diesel Engine

The Perkins 400 Series provides compact power from a robust family of 2, 3 and 4 cylinder diesel engines, designed to meet today's uncompromising demands within the power generation industry.

Compact, efficient power

A class-leading engine package coupled with an innovative, newly designed cooling pack provides optimum power density, making installation and transportation easier and cheaper. This package has been specially designed to hit the key power nodes required by the power generation industry.

Reliable power

Developed and tested using the latest engineering techniques this engine reliably provides power when you need it. Operating and maintenance costs are reduced through excellent fuel and oil economy whilst whole-life costs are enhanced by a 500 hour service interval and a 2 year

warranty

Excellent service access further improves maintenance and support is provided by a worldwide network of 4000 distributors and dealers.

Technical Data

Engine Model	403C-11G	
Engine Manufacturer /Brand	Perkins (UK)	
Type and Cylinder	3L, 4-cycle	
Induction system	NA	
Compression ratio	23: 1	
Cubic capacity	L	1.131
Bore x Stroke	mm	77 x 81
Test condition air temperature	°C	25
Cross engine power	KW	8.6
Mean piston speed	m/s	4.1
Engine coolant flow	l/min	27.3
Combustion Air Flow	m ³ /min	0.7
Exhaust Gas Flow	m ³ /min	1.66
Exhaust Gas Temperature	°C	368
Starting System	12	
Battery Voltage /Capacity	12V DC/20A/100	
Fuel Consumption 100%	L/hr	3
Fuel Consumption 75%	L/hr	/
Fuel Consumption 50%	L/hr	/
Governing Type	M	

AC ALTERNATOR

STAMFORD NEWAGE GENERATOR

STAMFORD NEWAGE has a long history of producing high-quality reliable products for the power generation market. Their portfolio of high quality generator ends is recognized as an industry standard.

Alternator Technical Data

Stamford AC alternator

- ◆ Brushless, self exciting
- ◆ Class 'H' insulation
- ◆ Standard degree of protection is IP23
- ◆ Self regulating
- ◆ With fan cooling
- ◆ Resist humid grease
- ◆ AC excitation, rotating rectification tube
- ◆ Stator grease insulation covered
- ◆ Rotator and excitation high polymer
- ◆ Resist the corruption of oil and acid.
- ◆ Rotator balance is in accordance with BS5625 standard 12.5
- ◆ High-quality lubrication sealed long-time bearing
- ◆ Rotator silicon steel close tight

Alternator Technical Data

Generator Model	BCI164B
Exciter	Brushless
Cooling Fan	Cast alloy aluminum
Bearing	Single, double shielded
Windings	100% copper
Connection Type	Reconnectable
Insulation Type	Class H
Pitch	2/3
Amortisseur Winding	Full
A.V.R. Model	SX460
Voltage Regulation NL - FL	± 0.5%
Underspeed Protection	Standard
Overexcitation Protection	IP23
Standards	NEMA, IEC, IEEE, CSA, BS
Phase Sequence	A(U), B(V), C(W)
TIF (1960 Weightings)	<50
Excitation System	Self-exciting, PMG optional

★ In line with our policy of continuous product development, we reserve the right to make changes in model, technical specifications color, equipment and accessories without prior notice .

CONTROL SYSTEMS

PLC-1F CONTROL SYSTEM
--Controlled by Module GC-1F +B3

The Generator Controller GC-1F is a microprocessor- based control unit containing all necessary functions for protection and control of a diesel engine. Furthermore, it contains a three-phase AC voltage measuring circuit. The unit is equipped with an LCD display presenting all values and alarms. GC-1F is a compact all-in-one unit designed for the following applications:

1. Automatic engine start/stop
2. Engine protection
3. Breaker control
4. Generator protection
5. Automatic Mains Failure

Optional applications:

6. CANbus J1939 engine communication



PLC-1F system-S & M Model



PLC-1F system-L & XL Model

Description For Module GC-1F +B3:

DEIF
-power in control-

- Display screen**
TFT LCD 7,4 in
Graphic symbol messaging
Clear text alarm messages
128 x 64 pixel backlight STN
- Control keypad with display LEDs**
- Directional keypad with activity LED**
Stop horn/Alarm
Configuration keypad
Page up and down
- Configurable Area**
- Manu mode selection**
Auto mode selection
Activate the selected test in the entered time
Lamp test: Activate all LEDs for 3 seconds
- Power OK indicator**
- Start /Stop mode selection**
- Open GEN circuit breaker**
Close GEN circuit breaker
Open mains circuit breaker
Close mains circuit breaker
Set ready to output
Close Generator pushbutton

Standard functions	Shutdown	Warning
Engine Control Generator Monitoring Generator Protection Engine Monitoring Clear Text Display	Loss of Speed Signal Alternator Under / Over Voltage Alternator Under/ Over Frequency Mains Under / Over Voltage Mains Under/ Over Frequency Under / Over Speed Low Oil Pressure High Engine Temperature Phase Sequence Electrical (Option) Earth Fault (Option)	Alternator Under / Over Voltage Alternator Under/ Over Frequency Mains Under / Over Voltage Mains Under/ Over Frequency Under / Over Speed Low Oil Pressure Pre-Alarm High Engine Temperature Pre-Alarm High/Low Battery Voltage Over-current Periodic maintenance

PLC-702HC CONTROL SYSTEM

Standard Control Function

- ▶ Manual Engine Control Module
- ▶ Low Oil Pressure
- ▶ High Engine Temperature
- ▶ Auxiliary Shutdown
- ▶ Overspeed Protection
- ▶ Protection hold-off timer
- ▶ Charge Failure warning

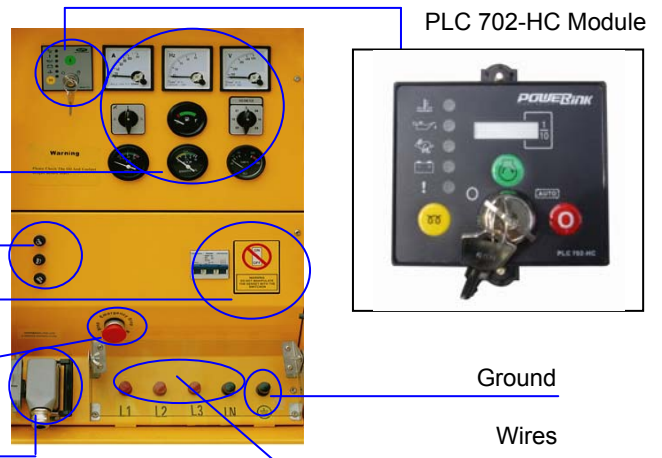
Meters for Hz, Speed,
Temp., Voltage, current

Fuse Protection

Circuit Breaker

Emergency Stop Button

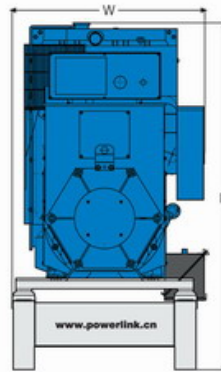
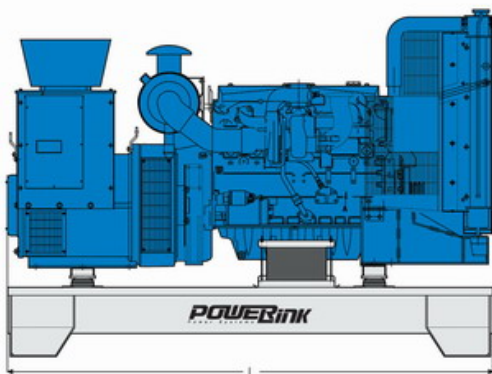
Heavy Load Connector



Ground

Wires

Weight and Dimensions

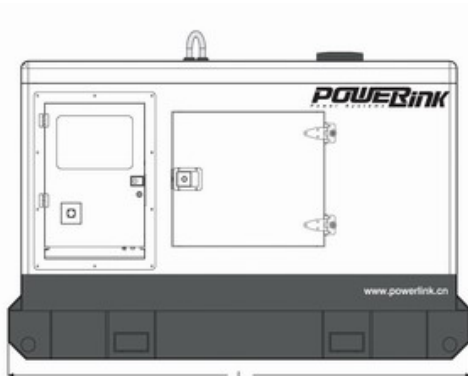


WPS10 (Open set)

Overall size (L*W*H), m:

1.45×0.80×1.22

Weight (kg):396



WPS10S (Soundproof set)

Overall size (L*W*H), m:

1.68×0.98×1.33

Weight (kg):653

*The weights are approximate.

OPTIONAL FEATURES

Fuel System Options

- Low fuel level shutdown
- Engine Oil Heater
- Manual Sump Oil Drain Pump

Exhaust Options

- Exhaust Silencer-industrial(9dB),In-Line
- Exhaust Silencer-Residential (25dB),In-line
- Flexible and fixing kit for industrial silencer
- Flexible and fixing kit for Residential silence

Control Panels

- Earth Fault Relay
- Remote Monitor Interface
- Protection for Alarm Module & Auxiliary Relay
- Parallel control panels

Switchgear

- Circuit Breaker MCCB & ACB
- Mains auto-charger
- Auto Transfer Switch

Canopy

- Mobile Sets /Trailer
- Weatherproof/Acoustic Enclosures

Voltage Connections

- 277/480V,3 Phase
- 254/440V,3 Phase
- 240/416V,3 Phase
- 230/400V,3 Phase
- 220/380V,3 Phase
- 127/220V,3 Phase
- 115/200V,3 Phase
- 110/190V,3 Phase

Miscellaneous Options

- Coolant heater-240/120V
- Battery Charger 110-277V,3A
- PCC2100 with barograph
- Earth Fault Relay
- Packing-Export Box



Air Switch



BGC Paralleling Control system



ATS



Trailer set

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