



**WP9-WP20, Three Phase, 10-22kVA**

**1WP8-1WP18, Single phase, 9-20kVA**

### Strong, Corrosion Resistant Construction

- British steel base frame, coated with polyester powder coat at over 200 Degrees C.
- High quality, ISO R898 Structural Bolts, zinc coated for excellent corrosion resistance.
- Canopy CNC laser cut and CNC formed at our UK factory.
- This product is ONLY produced in the UK, using UK sourced steel produced to BS, EN and ISO standards.

### High Quality Power on Demand

- Control panel has remote start as standard using a UK made DSE 7000 series control module.
- Our units offer not only excellent ratings aligned with key power nodes, but high quality power, excellent reactive power availability, high overload capability and a wide range of options on Stamford alternators.

### Transportation

- Unit is forklift-ready, allowing easy positioning on site.
- Strong and sturdy feet and base for excellent transportability.

### Quality Materials And Workmanship

- Engineered from design to assembly by our dedicated team, we provide economical solutions to your needs.
- Our welded steel fuel tank features class leading capacity and exceptionally strong and durable
- UK suppliers are subjected to extensive checks within our ISO 9001 framework.
- In house laser cutting and sheet metal facility produces to the highest possible standards.

### Safety, Security and Environment

- Radiator fan and battery charging alternator partially guarded. (See EU3A Range for fully guarded version).
- Alternator moving parts fully guarded to prevent injury.
- Optionally, alternative emission compliant models can be supplied against the requirements of EU Stage IIIA (Directives 97/68/EC, as last amended, for mobile applications).

### Servicing and Support

- Replaceable element fuel and air filters, full flow spin on oil filters.
- High quality support for technical issues.
- International Perkins / Stamford warranty.

**Every Welland Power Generator Is Made In The UK.**

## Standard Features

- Heavy duty Perkins engine.
- Optionally Wired for Cold Start.
- Manuals and circuit wiring diagrams.
- UK assembly in our ISO 9001 facility.
- Test and Pre-Delivery Inspection Check
- Deep Sea Electronics 7120 MK2 controller.

## Additional Options

- A range of sound attenuated enclosures.
- Higher specification control panels.
- Additional alarms and shutdowns
- A selection of exhaust silencer noise levels.
- Remote Communications, Additional Metering
- Optionally wired for Cold Start

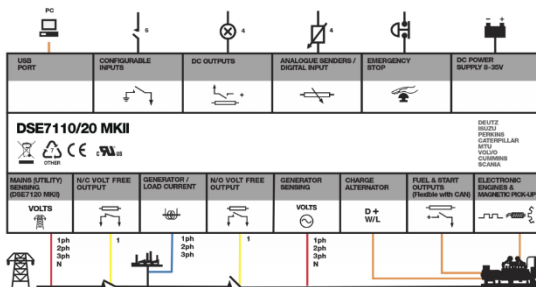
## Power You Control



Global solutions for power requirements come from global companies. With over 60 years' experience producing generators for sale in over 100 countries; we can assist you to meet your power requirement, on time and on budget.

Based on the proven UK made Perkins diesel engine, coupled to a Stamford alternator, The UK made Deep Sea 7000 series controller gives outstanding monitoring and features. Deep Sea Control modules are a "must have" feature for all segments of the generator market as it includes a wide range of configurable options and extension modules to meet every requirement.

### CONNECTION DIAGRAM



With a huge range of options and accessories, alternative and custom builds we offer a unit to suit your requirements. Upgrade controllers for enhanced metering, remote monitoring and synchronising control. We offer synchronising systems for up to 32 generators and mains synchronising for peak lopping, no break return and STOR applications.

See our control panel guides for more details.

## Shutdowns and Protections

- Low Oil Pressure Shutdown
- High Engine Temperature Shutdown
- Under Voltage Warning / Shutdown
- Over Voltage Warning / Shutdown
- Over speed / Over Frequency
- Under speed / Under Frequency
- Over Crank / Fail to Start Alarm
- Over Current Alarms

## Monitoring and Control

- Manual and Automatic Modes
- Three Phase Voltage monitoring (1 on single phase)
- Three Phase Current monitoring (1 on single phase)
- Frequency Monitoring
- Start, Crank, Crank Rest, Warm Up Timers
- Return and Cool Down Timers
- Battery Under / Over Voltage Alarms
- Exercise Scheduler

## Generator Ratings Data (Standby / Prime)

Model	Gross Engine Power	Net Engine Power	Alternator Efficiency at full rated load	Available Active Power	Power Factor	kVA Rating
	kW	kW	%	kW	Cos $\phi$	kVA
<b>Three Phase Models</b>						
WP9	9.5 / 8.6	9.3 / 8.4	81.0	7.5 / 6.8	0.8	9.4 / 8.5
WP13	13.5 / 12.2	13.3 / 12.0	82.1	10.9 / 9.9	0.8	13.6 / 12.3
WP15	15.4 / 14.0	15.2 / 13.8	82.1	12.5 / 11.3	0.8	14.2 / 15.6
WP20	20.6 / 18.7	20.3 / 18.4	85.3	17.3 / 15.7	0.8	21.6 / 19.6
<b>Single Phase Models</b>						
1WP8	9.5 / 8.6	9.2 / 8.4	75.2	6.8 / 6.0	0.8	8.4 / 7.5
1WP12	13.5 / 12.2	13.2 / 12	78.7	10.2 / 9.4	0.8	12.8 / 11.8
1WP18	20.6 / 18.7	20.3 / 18.4	82.0	16.4 / 14.8	0.8	20.5 / 18.5

## Engine Advanced Technical Data

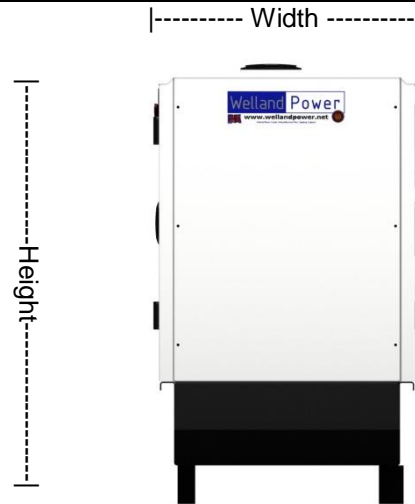
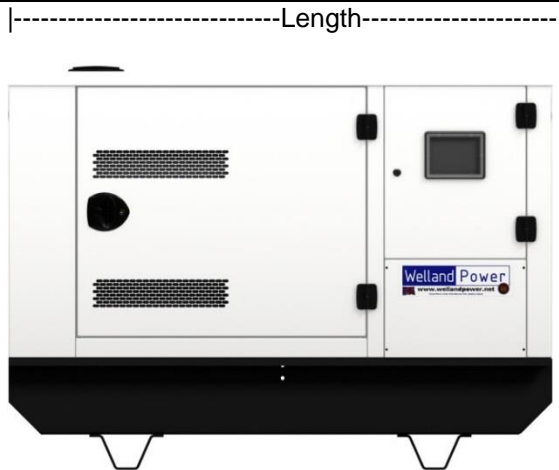
Model	Engine Make	Engine Model	Induction	Cooling	Governor Type/Class	Compression Ratio	Displacement	Charging Alternator Amps	Gross Standby Engine Power	Oil Capacity (L)	Exhaust Gas Temperature (Deg. C)
<b>Three Phase Models</b>											
WP9	Perkins	403A-11G	Naturally Aspirated	Water Cooled	Mechanical ISO 8528 G2	23:1	1.1L	40	9.5	4.9	420
WP13	Perkins	403A-15G				22.5:1	1.5L	65	13.5	6.0	490
WP15	Perkins	403A-15G2				22.5:1	1.5L	65	13.5	6.0	490
WP20	Perkins	404A-22G				23.3:1	2.2L	65	20.6	10.6	505
<b>Single Phase Models</b>											
1WP8	Perkins	403A-11G	Naturally Aspirated	Water Cooled	Mechanical ISO 8528 G2	23:1	1.1L	40	9.5	4.9	420
1WP12	Perkins	403A-15G				22.5:1	1.5L	65	13.5	6.0	490
1WP18	Perkins	404A-22G				23.3:1	2.2L	65	20.6	10.6	505

If CE marking or EU Tier 3A Emissions compliance is required, use "D" Variant. Consult your sales office.

## Alternator Technical Data

Model	Alternator Make	Alternator Model	Bearings	Winding Pitch	Wires	AVR Model	Voltage Regulation	3/4 Load Efficiency (%)	Total Harmonic Content (%)	Short Circuit Capacity	Reactance's %		
											Xd	X'd	X''d
<b>Three Phase Models</b>													
WP9	Stamford	S0L1-H1	1	2/3	12	AS540	± 1 %	81.0	<5%	>300%	206.0	13.5	11.6
WP13		S0L1-P1				AS540	± 1 %	82.1	<5%		209.0	11.7	10.8
WP15		S0L1-P1				AS540	± 1 %	82.1	<5%		209.0	11.7	10.8
WP20		S0L2-G1				AS540	± 1 %	85.3	<5%		262.3	13.9	13.6
<b>Single Phase Models</b>													
1WP8	Stamford	PI044G	1	2/3	12	AS480	± 1 %	75.2	<5%	>300%	146	15	10
1WP12		PI144E				AS480	± 1 %	78.7	<5%		144	14	11
1WP18		PI144H				AS480	± 1 %	82.0	<5%		149	13	10

Radio interference suppression that meets or exceeds EU standard EN61000-6. Voltage regulation at steady state. Total Waveform distortion at full load



## Dimensions, Weights and Fuel Consumption

Model	Canopied Dimensions				All Units				Open Set Dimensions			
	Length (mm)	Width (mm)	Height (mm)	Weight (KG)	Tank Capacity (Litres)	Fuel Consumption (L/hour)			Length (mm)	Width (mm)	Height (mm)	Weight (KG)
						110 %	100 %	75 %				
<b>Three Phase Models</b>												
WP9	1680	758	1235	529	65	3.6	3	2.3	1200	758	1235	409
WP13	1680	758	1235	458	65	4.1	3.7	2.8	1200	758	1235	428
WP15	1680	758	1235	458	65	5	4.3	3.1	1200	758	1235	428
WP20	1680	758	1235	588	65	6.1	5.3	4.0	1490	758	1235	468
<b>Single Phase Models</b>												
1WP8	1680	758	1235	550	65	3.6	3	2.3	1200	758	1235	430
1WP12	1680	758	1235	575	65	4.1	3.7	2.8	1200	758	1235	455
1WP18	1680	758	1235	619	65	6.1	5.3	4.0	1490	758	1235	499

950mm is required to open canopy doors. Fuel consumptions all at 1500RPM.

While every effort is made to maintain these specifications, in line with our policy of continuous improvement we reserve the right to change the specification without notice. If any part of this specification is critical to your application, please ensure you confirm it with your sales engineer prior to placing an order. Some items shown on this specification sheet may be non-standard. Some features shown on this leaflet may be optional at additional cost. Please confirm all options required with a sales agent prior to placing an order.



## Optional 1600 Canopy Specification

### Strong, Corrosion Resistant Construction

- UK Sourced CR4 sheet offers high quality base.
- Polyester powder coated at over 200 Degrees C.
- Black zinc die cast hinges on doors tested and proven to withstand extremely corrosive conditions

### Maintenance And Access

- Unit has extra-large doors for excellent access.
- Removable Doors, modular bolt together design.
- Radiator fills easily with ample space.
- Oil Drain and Radiator Drain available as options.

### Quality materials and workmanship

- Welded roof and doors for excellent finish.
- Reinforced ridged doors for extended life.
- High quality adjustable handles.
- Polycarbonate panel viewing window.

### Safety and Security

- Fully lockable canopy.
- Security bolts to prevent unauthorised access.
- Canopy shields hot engine parts.
- Emergency Stop Button.

The Welland sound attenuated enclosures reduce sound levels to comply with the stage 2 levels of the European Community Directive 2000/14/EC

### Sound Pressure Levels, 1600 Enclosure

Model	Rating	LWA	15m		7m		1m	
			75%	100%	75%	100%	75%	100%
<b>3 Phase Generators</b>								
WP9	Prime	90	59.4	60.7	65.8	66.9	73.9	75.1
	Standby	90	59.6	60.9	65.6	65.7	74.1	75.5
WP13	Prime	91	60.7	62.0	66.6	67.9	76.4	77.7
	Standby	91	61.0	62.3	67.4	68.7	76.8	78.2
WP15	Prime	91	60.7	62.0	66.6	67.9	76.4	77.7
	Standby	91	61.0	62.3	67.4	68.7	76.8	78.2
WP20	Prime	91	60.6	62.1	66.1	68.3	75.4	77.4
	Standby	91	61.2	62.6	67.1	69.2	75.8	78.5
<b>Single Phase Generators</b>								
1WP8	Prime	90	59.6	60.9	65.8	66.9	73.9	75.0
	Standby	90	59.8	61.1	65.6	65.7	74.1	75.4
1WP12	Prime	91	60.6	61.9	66.6	67.9	76.6	77.8
	Standby	91	61.0	62.4	67.4	68.7	76.9	78.3
1WP18	Prime	91	60.2	61.6	66.1	68.3	75.0	76.7
	Standby	91	60.6	62.0	67.1	69.2	75.6	77.8

50Hz at 1500RPM. Figures are provisional only.

### Your Local Welland Power Dealer:

[WWW.WELLANDPOWER.NET](http://WWW.WELLANDPOWER.NET)

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