emepowersolutions.com
+44 1829 863497

PRODUCT DATASHEET

MODEL P45-BWP

50 kVA ESP	40 kW ESP	45 kVA PRP	36 kW PRP

50 HZ | PRIME & STANDBY POWER



Illustration; final configuration may vary.

DIESEL ENGINE

ENGINE BRAND	Perkins
ENGINE MODEL	1103A-33TG1
ASPIRATION	Turbocharged
GOVERNOR	Mechanical

ALTERNATOR

BRAND	Stamford
MODEL	S1L2-N1
EXCITATION	Self Excited
INSULATION CLASS	H
VOLTAGE REGULATION	1%
SPACE HEATER	Optional

GENERATOR SET - KEY PARAMETERS

GENSET MODEL	P45-BWP
POWER PRP	45 kVA / 36 kW
POWER ESP	50 kVA / 40 kW
FREQUENCY / SPEED	50 Hz / 1500 RPM
OUTPUT VOLTAGE	400 / 230 V
WIRING METHOD	3-phase, 4-wire
POWER FACTOR	0.8 pf lagging
ENCLOSURE / NOISE	Canopied; 76 dB(A) @ 7 m

AUXILIARY SYSTEMS

CONTROL MODULE	Deep Sea DSE 7320 MKII
COOLING RADIATOR	Tropical, 50 C ambient
FULL-LOAD CURRENT	72.2 A at ESP
CIRCUIT BREAKER	Optional; sized to generator rating
COOLANT HEATER	Optional
STARTING BATTERY	Wet battery, maintenance-free
FUEL TANK	80 litres
BASE FRAME	Base tank + AVM + battery holder



Acoustic Vents



Premium DSE Controller



Easy Maintenance

STANDARD SUPPLY

INSTALLATION ACCESSORIES	AVMs, exhaust connection, silencer, standard connection parts and tool kit.

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ENGINE TECHNICAL PARAMETERS - PERKINS 1103A-33TG1 - DIESEL

STRUCTURAL FORM	4 Stroke	**COMBUSTION SYSTEM**	Direct Injection
NUMBER OF CYLINDERS	3 (In Line)	**OIL CAPACITY**	8.3L
DISPLACEMENT	3.3L	**COOLANT CAPACITY**	11.8L
BORE / STROKE	105mm / 127mm	**MAX EXHAUST TEMP.**	537 ºC
COMPRESSION RATIO	17.25:1	**EU EMISSIONS**	None
ASPIRATION	Turbocharged		
GOVERNOR	Mechanical		
COOLING METHOD	Liquid Cooled		
SPEED	1500 RPM		

FUEL CONSUMPTION

50% Load	75% Load	100% Load	110% Load
5.58 litres/hour	7.98 litres/hour	10.52 litres/hour	11.77 litres/hour

ALTERNATOR TECHNICAL PARAMETERS - STAMFORD S1L2-N1

RATED POWER AT 400 V	ESP 49.5 kVA / PRP 45.0 kVA
NUMBER OF POLES / LEADS	4 / 12
WINDING NUMBER	311
BEARING TYPE	1 bearing
PROTECTION CLASS	IP23
INSULATION CLASS	H
EXCITATION METHOD	Self Excited
VOLTAGE REGULATION	AS540 AVR / 1%
HARMONIC CONTENT	<5.00%
SHORT-CIRCUIT CAPACITY	>100%
SPACE HEATER	Optional

CONTROL SYSTEM - DSE 7320 MKII

BRAND	Deep Sea Electronics
MODEL	DSE 7320 MKII
CONFIGURABLE INPUTS / OUTPUTS	6 digital + 3 analogue senders / 6 outputs
KEY FEATURES	Auto-start, AMF control, LED indicators and event logging

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Illustration; final configuration may vary.

DIMENSIONS & WEIGHT

LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (kg)
2240	1038	1378	1159.9

Configuration: UK/EU Canopied / frame 1900E / tank 80 L

RATING CONDITIONS

RATING BASIS	NTP conditions; confirm project derating requirements
FREQUENCY / SPEED	50 Hz / 1500 RPM
VOLTAGE / CONNECTION	400/230 V / series star
POWER FACTOR	0.8 lagging
COOLING PACKAGE	Tropical radiator rated for 50 C ambient
STANDARDS	ISO 8528; IEC 60034

DISCLAIMER

Ratings and component data are transcribed from the corresponding Welland Power configuration for 400 V, three-phase, 50 Hz operation and checked against the listed Perkins engine and Stamford alternator models. Dimensions, weight, tank and noise data apply only to the configuration stated above. Images are illustrative and are intentionally common across this range. Final build specification, GA drawing, breaker selection and site derating must be confirmed at order. Manufacturer specifications may change without notice.

Dealer contact details:

EME POWER

sales@emeps.net

+44 1829 863497 | emepowersolutions.com