BPD24S

24 KVA DIESEL GENERATOR

FEATURES & BENEFITS

- Maximum 26.4 kVA, 230V, 1500 RPM
- Constant voltage AVR (Automatic Voltage Regulator)
- 12 Volt Electric Starter
- 90 Litre Fuel Tank, 17 Hours @ 75% load
- Silent Version (±72dBA)
- Four cylinder, vertical, water cooled Diesel Engine
- Single Phase Output
- DeepSea DSE6120 Digital Control Panel
- Low oil pressure system
- Low water cut out engine protection

FAW DSE DEEP SEA ELECTRONICS

PRODUCT COLOUR MAY VARY.

GENERAL DATA	
Model:	BPD24S
Prime Power (P.R.P):	24 kVA
Stand-by Power (L.T.P):	26.4 kVA
Amps:	114 A
Power Factor / COS:	1
Frequency:	50 Hz
Voltage:	230 V
Phases:	Single Phase
Engine Speed:	1500 RPM
Length:	1900 mm
Width:	780 mm
Height:	1000 mm
Weight:	768 kg's
Tank Capacity:	90 l

ADDITIONAL	
Running Time:	17 Hours @ 75% load
Structure Type:	Silent
Noise Level (7m):	72 dBA
Auto Voltage Regulator:	Constant voltage AVR
ISO9001 Certified:	Yes
CE Certified:	Yes
Fuel Cons. @ 100% Load:	6.8
Fuel Cons. @ 75% Load:	5.1
Fuel Cons. @ 50% Load:	3.4

ENGINE DATA	
Brand:	FAW
Model:	4DW92-39D-HMS20W
Type:	Four cylinder, vertical, water cooled Diesel Engine
Starting System:	12 Volt Electric Starter
Auto-Decompression:	Yes
Cubic Capacity (l):	2.54
Compression Ratio:	17:1
Rated Power (kW/RPM):	29 / 1500
Fuel Type:	Diesel
Lube Oil:	15W40
Low Pressure Alert:	Yes
Low Fuel Cut Out:	Yes

CONTROL PANEL	
Model:	DeepSea DSE6120
Type:	Digital Control Panel
Analogue Inputs:	2
Mains Phase Voltage:	Yes
Mains Line Voltage:	Yes

ALTERNATOR	
Model:	DPC184H1
Pole Number:	4
Excitation Mode:	Self Excitation

Johannesburg 011 397 7373

Pietermaritzburg 033 007 0812

Nelspruit 013 007 1753

Bloemfontein 051 001 1429

www.BunduPower.co.za

4DW92-39D-HMS20W DIESEL ENGINE

ITEM	MEASURE	VALUE
Engine model		4DW92-39D-HMS20W
Type		4-cylinder 4-stroke
Air intake type		Turbocharged
Cooling mode		Water cooling
Governor mode		Electronic
Bore × Stroke	mm	90 ×100
Compression ratio		17:1
Rated speed	RPM	1500
Displacement	L	2.54
Rated power (without fan)	kW	29
Standby power (without fan)	kW	32
Emission compliant		Stage II
The flywheel shell interface		SAE4
		Flywheel for 7.5″ & 10″ flexible coupling
Dry weight of base	kg	240
Dry weight of GenPac	kg	260
Overall Dimension (base)	mm	750 × 600 × 735
Overall Dimension	mm	1120 × 810 × 760
Fan consumption	kW	1.8
27°C air consumption	m3/min	2.1
Heat rejection of exhaust	kW	20.6
Exhaust gas temp. after turbine	°C	450
Exhaust gas flow	m3/min	5.9
Heat rejection from engine	kW	1.6
Heat rejection of coolant	kW	16.9
Charging Alternator		500W, 14V
Starter Motor		3.5kW, 12V

DSEGenset®

DSE6110/20 MKII

AUTO START & AUTO MAINS FAILURE CONTROL MODULES

DSE**6120 MKII**

DSE**6110 MKII**

KEY FEATURES

- Large back-lit text display
- Multiple display languages
- Heated display option available
- DSENet® expansion compatible
- Data logging facility
- Fully configurable via PC using USB communication
- Front panel configuration
- Efficient power save mode
- 3 phase generator sensing
- 3 phase mains (utility) sensing (DSE6120 MKII only)
- Generator/load power monitoring (kW, kV A, kV Ar, pf)
- Accumulated power monitoring (kW h, kVA h, kVAr h)
- Generator/load current monitoring and protection
- Generator overload protection (kW)
- Breaker control via fascia buttons
- Fuel and start outputs, configurable when using CAN
- 4 configurable DC outputs
- 4 configurable analogue/digital inputs
- Support for 0 to10 V & 4 to 20 mA oil pressure sensors
- 6 configurable digital inputs
- Configurable staged loading outputs
- CAN, MPU and alternator speed sensing in one variant
- 3 engine maintenance alarms
- Engine speed protection
- Engine hours counter
- Engine pre-heat
- Engine run-time scheduler
- Engine idle control for starting & stopping
- Fuel pump control
- Real time clock
- Battery voltage monitoring
- Start on low battery voltage
- Configurable remote start input
- 1 alternative configuration
- Comprehensive warning, electrical trip or shutdown protection upon fault condition
- LCD and LED alarm indication
- Customisable information screens
- Configurable event log (100)
- Tier 4 ECO engine support including exhaust fluids & filters
- J1939-75 instrumentation output, configurable CAN instrumentation and alarms
- Start on low battery
- Enhanced alarm functionality
- Low load alarm

KEY BENEFITS

- Automatically transfers between mains (utility) and generator (DSE6120 MKII only)
- Increased input and output expansion capability via DSENet®
- User-friendly set-up and button layout for ease of use
- Multiple parameters are monitored simultaneously which are clearly displayed on a large back-lit text display via multiple languages
- The module can be configured to suit a wide range of applications
- Uses DSE Configuration Suite PC Software for simplified configuration
- Licence-free PC software
- IP65 rating (with optional gasket) offers increased resistance to water ingress

RELATED MATERIALS

TITLE	PART NO.
DSE6110/20 MKII Installation Instructions	053-173
DSE6110/20 MKII Operator Manual	057-226
DSE6110/20 MKII Configuration Suite PC Manual	057-224

SPECIFICATIONS

DC SUPPLY

CONTINUOUS VOLTAGE RATING
8 V to 35 V Continuous

CRANKING DROPOUTS
Able to survive 0 V for 50 mS, providing supply was at least 10 V before dropout and supply recovers to 5 V. This is achieved without the need for internal batteries. LEDs and backlight will not be maintained during cranking.

MAXIMUM OPERATING CURRENT
100 mA at 12 V, 105 mA at 24 V

MAXIMUM STANDBY CURRENT
60 mA at 12 V, 55 mA at 24 V

MAXIMUM SLEEP CURRENT
40 mA at 12 V, 35 mA at 24 V

GENERATOR & MAINS (UTILITY)

VOLTAGE RANGE
15 V to 415 V AC (Ph to N)
26 V to 719 V AC (Ph to Ph)

FREQUENCY RANGE
3.5 Hz to 75 Hz

INPUTS

DIGITAL INPUTS A to F
Negative switching

ANALOGUE INPUT A
Configurable as:
Negative switching digital input
0 V to 10 V
4 mA to 20 mA
0 Ω to 240 Ω

ANALOGUE INPUTS B TO D
Configurable as:
Negative switching digital input
0 Ω to 480 Ω

OUTPUTS

OUTPUT A (FUEL)
10 A short term, 5 A continuous, at supply voltage

OUTPUT B (START)
10 A short term, 5 A continuous, at supply voltage

AUXILIARY OUTPUTS C, D, E & F
2 A DC at supply voltage

DIMENSIONS

OVERALL
216 mm x 158 mm x 43 mm
8.5” x 6.2” x 1.5”

PANEL CUT-OUT
184 mm x 137 mm
7.2” x 5.3”

MAXIMUM PANEL THICKNESS
8 mm
0.3”

STORAGE TEMPERATURE RANGE
-40 °C to +85 °C
-40 °F to +185 °F

OPERATING TEMPERATURE RANGE

NON HEATED DISPLAY VARIANT
-30°C to +70°C
-22 °F to +158 °F

HEATED DISPLAY VARIANT
-40 °C to +70 °C
-40 °F to +158 °F

OPTIONAL PARTS

PART	PART NUMBER
IP65 Gasket	020-521

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DSEGenset®

DSE6110/20 MKII

AUTO START & AUTO MAINS FAILURE CONTROL MODULES

The DSE6110 MKII Auto Start Control Module and the DSE6120 MKII Auto Mains (Utility) Failure Control Module are suitable for a wide variety of single gen-set applications.

Monitoring engine speed, oil pressure, coolant temperature, frequency, voltage, current, power and fuel level, the modules give comprehensive engine and alternator protection. This is indicated on a large back-lit LCD text display via an array of warning, electrical trip and shutdown alarms in multiple languages.

Electronic J1939 (CAN) and non-electronic MPU and alternator sensing engine support for diesel, gas and petrol engines all in one variant. With a number of flexible inputs, outputs and protections, the modules can be easily adapted to suit a wide range of applications.

Through USB Communication both modules can be configured using the DSE Configuration Suite PC Software or through the module's front panel editor.

Using the DSE Configuration Suite PC Software the controller is easy to use and configure which allows alteration of operating parameters, sequences, timers and alarms.

AVAILABLE VARIANTS

6110-03	Auto Start with real time clock
6120-03	Auto Mains Failure with real time clock

ENVIRONMENTAL TESTING STANDARDS

ELECTRO-MAGNETIC COMPATIBILITY
BS EN 61000-6-2
EMC Generic Immunity Standard for the Industrial Environment
BS EN 61000-6-4
EMC Generic Emission Standard for the Industrial Environment

ELECTRICAL SAFETY
BS EN 60950
Safety of Information Technology Equipment, including Electrical Business Equipment

TEMPERATURE
BS EN 60068-2-1
Ab/Ae Cold Test -30 °C
BS EN 60068-2-2
Bb/Be Dry Heat +70 °C

VIBRATION
BS EN 60068-2-6
Ten sweeps in each of three major axes
5 Hz to 8 Hz at +/-7.5 mm,
8 Hz to 500 Hz at 2 GN

HUMIDITY
BS EN 60068-2-30
Db Damp Heat Cyclic 20/55 °C at 95% RH 48 Hours
BS EN 60068-2-78
Cab Damp Heat Static 40 °C at 93% RH 48 Hours

SHOCK
BS EN 60068-2-27
Three shocks in each of three major axes
15 GN in 11 mS

DEGREES OF PROTECTION PROVIDED BY ENCLOSURES
BS EN 60529
IP65 - Front of module when installed into the control panel with the optional sealing gasket.

COMPREHENSIVE FEATURE LIST TO SUIT A WIDE VARIETY OF GEN-SET APPLICATIONS