



Authorized OEM Partner of
Baudouin in Pakistan

Generator	Generator Model	Engine Make	Engine Model	Alternator	Controller
Baudouin	EB 135	Baudouin	6M11G150/5e2	Suitable for Baudouin Genset	Deep Sea 6020
Prime Power KVA/KW	Standby Power KVA/KW	Fuel Consumption @ 70% L/H	Fuel Tank/Min	Oil Capacity/ Min	Dimensions
135/108	150/120	22	120 L	16 L	102" x 29" x 58"

Standby: Standby power standby duty, operation under variable load, without overload.

Prime Power: Prime Power Continuous duty operation, under variable load, 10% overloads permissible 1/12hr.

FEATURES

- o Rugged Engine
- o Control System
- o Advanve digital control system
- o Anti vibrating isolators
- o 18 Months warranty
- o low fuel consumption
- o Heavy duty fabricated steel base frame

BENIFITS

- o Safe; Eco Friendly
- o Long Service, Life Economical
- o Smart; occupies little space
- o Practical design; Easy to operate
- o People oriented, Safety foremost
- o High standard quality guaranteed

ENGINE TECHNICAL DATA

ENGINE MODEL: 6M11G150/5e2

Speed	Gross Engine Output		
	COP	PRP	ESP
RPM	Kwm	Kwm	Kwm
1500	108.8	128	140

Rating definitions

	Continues Power (COP)	Prime Power (PRP)	Standby Power (ESP)
Annual Working time	Unlimited	Unlimited	≤200h
Mean Engine load factor	100%	≤70% per 250 h	≤80% per 24 h
Time at full load	Unlimited	≤500 h per year	≤25 h per year
Overload Capacity	No	1 h per 12 h (10% overload) ≤25 h per year	No

- 1) The power ratings are in accordance with ISO 3046.
- 2) Test conditions: 100 kPa, 25 °C air inlet temperature, relative humidity of 30%, with fuel density 0.84 kg/L.
- 3) The engine maybe operated at : up to 1000m and 30°C without power deration. For sustained operation above these conditions, de-rate by 3% per 300m, and 2% per 11°C.
- 4) Power output curves are based on the engine operating with fuel system, water pump and lubricating oil pump; not included are battery charging alternator, fan and optional equipment.

BASIC DATA

Engine Model	6M11G150/5e2
No. of Cylinders/Valued	6/12
Bore x Stroke (mm)	105 x 130
Displacement (L)	6.75
Fuel System	Mechanical Pump
Aspiration	Turbocharged and Intercooled
Compression Ratio	18:1
Emission Standard	EU stage II
Dimension (L x W x H) (mm)	1727 x 853 x 1145
Weight (Kg)	800
Fly Wheel	14"/11.5"
Front/Rear	10/10
Left/Right	10/10
Permitted altitude limit (m)	2,000

PERFORMANCE DATA

IDLE Speed (rpm)	650±25
MAX Speed Limit	1575
Mean Piston Speed (m/s)	6.5
BMEP (Mpa)	1.517
Friction Power (Kw)	/
Fan Power (Kw)	3.7

Load Factor @	Power (Kw)	Fuel Consumption g/(KW.h)	Fuel Consumption (L/H)
10 %	12.9	339.4	5.2
25%	25.8	253.1	7.8
30%	32.4	236.6	9.1
40%	38.7	226.3	10.4
50%	51.4	213.8	13.1
60%	64.3	207.2	15.9
70%	77.2	203.2	18.7
75%	96.5	201.4	23.1
80%	103.0	199.7	24.5
90 %	115.7	198.6	27.4
100 %	128.6	198.5	30.4

AIR INTAKE SYSTEM

Air intake resistance (KPA)	Clean Filter	≤3.5
	Dirty Filter	≤6
Needed air flow (kg/h)	Rated Power	598
	Standby Power	633
Air filter efficiency	≥99.7%	

EXHAUST SYSTEM

Permitted Max. exhaust back pressure (kPa)	6±0.5
Exhaust flow (kg/h) Rated Power	624
Exhaust flow (kg/h) Standby Power	661

ELECTRIC SYSTEM

Electric system voltage(V)	24
Starter power/voltage (kW/V)	6/24
Alternator power/voltage (kW/V)	0.98/28V
Permitted Max. electric resistance of the starting circuit (Ω)	0.004
Recommended Min. sectional area of wire (mm ²)	50
The lowest cold starting temperature (°C) Without auxiliary starting device	-10
The lowest cold starting temperature (°C) With auxiliary starting device	-30

LUBRICATION SYSTEM

Volume of oil pan (L)	16
Oil pressure in normal condition(kPa) Idle speed	≥120
Oil pressure in normal condition(kPa) Rated Power	300-600
Lowest oil pressure alarm valve/highest alarm valve (kPa)	80/1000
Temperature range in main oil passage under rated working condition (°C)	85~105
Max. oil pressure while engine starts (kPa)	800
Opening pressure of main oil passage pressure limiting valve (kPa)	540-600
Oil flow (L/min)	47
Oil fuel consumption ratio	≤0.2%

FUEL SYSTEM

Governor	Electronic Governor
Steady speed droop	≤3%(electric);5-6%(mechanical)
Max. fuel supply resistance of the fuel pump inlet at rated working condition (kPa)	≤9
Max. fuel return resistance (kPa)	≤12
Permitted Max. fuel inlet temperature (°C)	≤70
Min. pressure of fuel pump (kPa)	35
Recommended min. diameter of return pipe (mm)	10

COOLING SYSTEM

Water pump Transmission speed ratio	1.4
Permitted Min. coolant temperature when engine working (°C)	50
Coolant fill rate (L/min)	3-7
Max. time to fill (min)	5
Recommended Min. inside diameter of outlet water pipe(mm)	42
Min. pressure at water pump inlet without degassing device or with some degassing device (kPa)	-2
Min. pressure at water pump inlet with full degassing device (kPa)	0
Max. degassing time(min)	15
Coolant capacity of engine (L)	8
Coolant capacity of radiator (L)	20
Water alarm temperature (°C)	100
Thermostat opening temp./ full open temp. (°C)	(76±2)/90
Permitted Min. pressure in cooling system	15
Permitted Max. external resistance (at rated speed)	50

ALTERNATOR TECHNICAL DATA



Insulation System	Class H
Winding Pitch	2/3 to Minimize Harmonics effects
Number of Poles	4
Number of Bearings	Single Bearing
RPM	1500 RPM
Power Factor	0.8/1
Regulation	± 1%
Frequency	50 Hz
Voltage Range	380-415 / 220-240
IP Rating (Protection)	Ip23

DSE6010/20

AUTO START & AUTO MAINS FAILURE CONTROL MODULES

FEATURES



The DSE6010 is an Auto Start Control Module and the DSE6020 is an Auto Mains (Utility) Failure Control Module suitable for a wide variety of single, diesel or gas, gen-set applications.

Monitoring speed, frequency, voltage, current, oil pressure, coolant temperature and fuel level, the modules will display warnings, shutdown and engine status information on the back-lit LCD screen and illuminated LED.

Both modules offer electronic (CAN) and non-electronic (magnetic pick-up/alternator sensing) engine versions and offer a number of flexible inputs, outputs and engine protections so the system can be easily adapted to suit a wide range of application demands.

The modules can be easily configured using the DSE Configuration Suite PC software. Selected front panel editing is also available.

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 @ +/-7.5 mm,
8 Hz to 500 Hz @ 2 gn

HUMIDITY

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

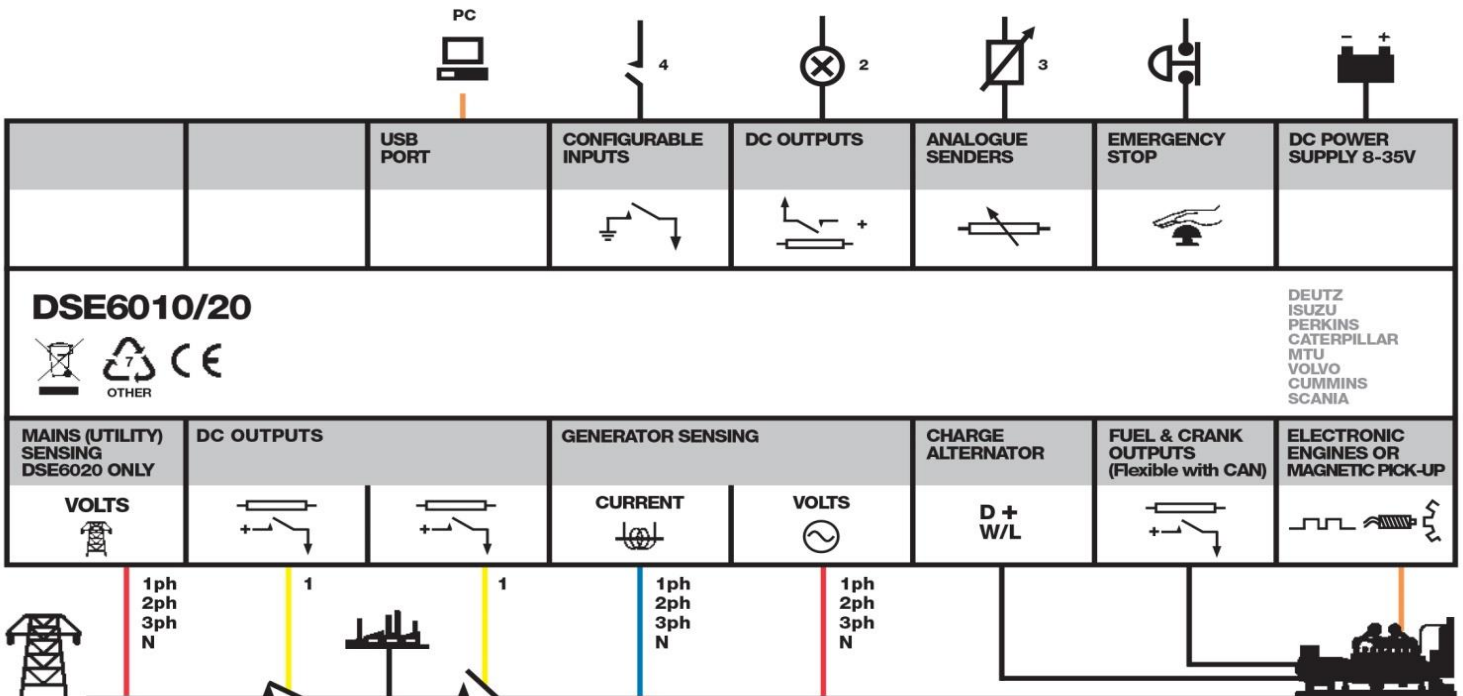
SHOCK

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



DSE6010/20

AUTO START & AUTO MAINS FAILURE CONTROL MODULES

FEATURES



DSE6010



DSE6020



KEY FEATURES

- Back-lit icon LCD display
- Front panel editing
- LED and LCD alarm indication
- Power Save mode
- CAN and Magnetic Pick-up/Alt. versions available (specify on ordering)
- PC and front panel configuration
- 4 Digital inputs
- 3 Analogue inputs
- 6 Outputs (4 configurable on Magnetic Pick-up/Alt., 6 configurable on CAN version)
- Configurable timers and alarms
- Alternative configuration
- Event Log (5)
- Remote Start input
- 3 Phase generator monitoring

- Current monitoring and protection
- Power monitoring (kW, kV A, kV Ar)
- 3 Phase Mains (Utility) monitoring (DSE6020 only)
- Test button (DSE6020 only)
- Battery Voltage monitoring
- Engine pre-heat
- Hours counter
- Comprehensive shutdown or warning on fault condition

KEY BENEFITS

- Automatically transfers between mains (utility) and generator power (DSE6020 only)
- Hours counter provides accurate information for monitoring and maintenance periods
- User-friendly set-up and button layout

- Multiple engine parameters are monitored simultaneously
- Module can be configured to suit individual applications
- Compatible with a wide range of CAN engines
- Uses DSE Configuration Suite PC software for simplified configuration
- IP65 rating (with optional gasket) offers increased resistance to water ingress
- Licence-free PC software

SPECIFICATION

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
 150 mA at 12 V, 80 mA at 24 V

MAXIMUM STANDBY CURRENT
 50 mA at 12 V, 30 mA at 24 V

CHARGE FAIL/EXCITATION RANGE
 0 V to 35 V

MAINS (UTILITY) DSE6020 ONLY
VOLTAGE RANGE
 15 V - 333 V AC (L-N)

FREQUENCY RANGE
 3.5 Hz to 75 Hz

OUTPUTS
OUTPUT A (FUEL)
 2 A DC at supply voltage

OUTPUT B (START)
 2 A DC at supply voltage

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

GENERATOR
VOLTAGE RANGE
 15 V - 333 V AC (L-N)

FREQUENCY RANGE
 3.5 Hz to 75 Hz

MAGNETIC PICK UP
VOLTAGE RANGE
 +/- 0.5 V to 70 V

DIMENSIONS
OVERALL
 215 mm x 158 mm x 42 mm
 8.5" x 6.2" x 1.6"

PANEL CUT-OUT
 182 mm x 137 mm
 7.2" x 5.4"

MAXIMUM PANEL THICKNESS
 8 mm
 0.3"

RELATED MATERIALS

TITLE
 DSE6010 Installation Instructions
 DSE6020 Installation Instructions
 DSE6000 Operator Manual
 DSE6000 Configuration Suite PC Manual

PART NO'S

053-076
 053-077
 057-112
 057-114

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