



### Spécifications du générateur

| Service                        | PRP(1)  | ESP(2) |
|--------------------------------|---------|--------|
| Puissance (KVA)                | 100     | 110    |
| Puissance (KW)                 | 80      | 88     |
| Vitesse nominale (r.p.m)       | 1500    |        |
| Tension standard (V)           | 400/230 |        |
| Facture de puissance (cos Phi) | 0.8     |        |

#### RP (Puissance principale):

Selon la norme ISO 8528-1, la puissance principale est la puissance maximale disponible pendant une période de charge variable. Cette puissance est disponible pendant un nombre illimité d'heures par an, entre les intervalles de maintenance indiqués. La puissance de sortie moyenne autorisée sur une durée de 24 heures ne doit pas dépasser 80% de la puissance principale. Surcharge de 10% disponible ponctuellement.

#### ESP (Puissance de secours):

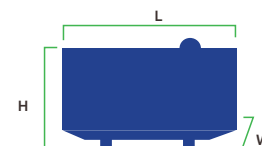
Selon la norme ISO 8528-1, la puissance secours est la puissance maximale disponible dans les conditions de fonctionnement standard, pour laquelle le groupe électrogène peut fonctionner jusqu'à 500 heures par an (dont un maximum de 300 heures en continu), entre les intervalles de maintenance et procédures effectuées conformément aux recommandations du fabricant. Aucune capacité de surcharge n'est disponible.

| Power Voltage | ESP |    | PRP |    | Standby Amps |
|---------------|-----|----|-----|----|--------------|
|               | KVA | KW | KVA | KW |              |
| 415/240       | 110 | 88 | 100 | 80 | 153          |
| 400/230       | 110 | 88 | 100 | 80 | 159          |
| 380/220       | 110 | 88 | 100 | 80 | 167          |

| Données de Performance          |                           |      |
|---------------------------------|---------------------------|------|
| Modèle                          | DY110DE-S12               |      |
| Marque du moteur                | Deutz                     |      |
| Modèle du moteur                | BF4M1013EC G1             |      |
| Type de régulation              | Mecanique                 |      |
| Nombre de phases                | 3                         |      |
| Système de contrôle             | Digital                   |      |
| Tension de démarrage            | 12V/24V                   |      |
| Fréquence                       | 50HZ                      |      |
| Vitesse moteur (RPM)            | 1500                      |      |
| Consommation de carburant (L/H) | 100% puissance de secours | -    |
|                                 | 100% puissance principale | 24.2 |
|                                 | 75% puissance principale  | 18.0 |
|                                 | 50% puissance principale  | 12.2 |

#### Conditions de référence standard

Remarque: Condition de référence standard 25 ° C [77 ° F] température d'entrée d'air, 1000 m (328 ft) A.S.L 30% d'humidité relative. Données de consommation de carburant avec du diesel avec une densité de 0,85 et conforme à BS 2869: 1998, Classe A2



Noise level 50Hz: 74dB (A) @ 1 m

| Données de Performance     |        |
|----------------------------|--------|
| Type                       | Silent |
| Longeur (L)                | 2970mm |
| Largeur (W)                | 1080mm |
| Hauteur (H)                | 1400mm |
| Poids net                  | 1521KG |
| Réservoir de carburant (L) | 180L   |

Note: This Parameters Allow for some acceptable Deviations

## Engine Specification : BFM3 G2 (33kVA)

| Engine                                        | Type                       | BFM3 G2                |
|-----------------------------------------------|----------------------------|------------------------|
| Speed                                         | [min-1]                    | 1500                   |
| Net frequency                                 | [Hz]                       | 50                     |
| Power standard                                |                            | LTP                    |
| Power level                                   |                            |                        |
| Exhaust emission standard                     |                            | COM II                 |
| Aspiration                                    |                            | Turbo CAC              |
| No of cylinders                               |                            | 4                      |
| Configuration                                 |                            | in-line                |
| Injection system                              |                            | single injection pumps |
| Displacement                                  | [ L ]                      | 4,76                   |
| Bore                                          | [mm]                       | 108                    |
| Stroke                                        | [mm]                       | 130                    |
| Compression ratio                             |                            | 17.1                   |
| Mean effective pressure                       | [bar]                      | 19,5                   |
| Piston speed                                  | [m/s]                      | 6,30                   |
| Rotation (looking at flywheel)                |                            | Ccw                    |
| No of teeth on flywheel ring gear             |                            | 129                    |
| Governor performance                          | Type                       |                        |
| Speed droop (static) mech. gov.               | [%]                        | 4-5                    |
| Speed droop (static) electr. gov. (EMR/DDE)   | [%]                        | 0-3                    |
| Governing standards to ISO 8528 Parts 1 and 5 |                            | G2                     |
| Moment of inertia                             | Type                       |                        |
| Engine without flywheel                       | [kg m <sup>2</sup> ]       | 0,23                   |
| Flywheel (standard genset spec.)              | [kg m <sup>2</sup> ]       | 2,6                    |
| Max. step load acceptance, 1st step           | [%]                        |                        |
| Weight                                        | Type                       |                        |
| Engine dry, w/o cooling system                | [kg]                       | 526                    |
| Engine with cooling system                    | [kg]                       | 560                    |
| Oil specification                             |                            | TR0199-99-3002/6       |
| Oil consumption                               | (as % of fuel consumption) | 0,3                    |
| Oil capacity                                  | (sump)                     | 11                     |
| Min. oil pressure (shut down)                 | [bar]                      | 2,7                    |
| Max. permissible oil temperature(oil pan)     | [°C]                       | 130                    |
| StandBy Power                                 | [kVA]                      | 110                    |
| Fan Reduction                                 | [kW]                       | 5,9                    |
| Net flywheel                                  | [kW]                       | 96,1                   |
| Prime Power                                   | [kVA]                      | 100                    |

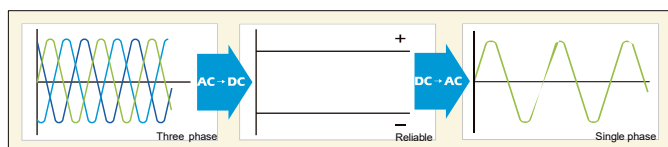
| Engine                                                       | Type                | BFM3 G2 |
|--------------------------------------------------------------|---------------------|---------|
| Gros output (continous Power)1b                              | [kW]                | 92      |
| Fuel Consumption                                             |                     |         |
| 25% load                                                     | [l/h]               | 6,7     |
| 50% load                                                     | [l/h]               | 12,2    |
| 75% load                                                     | [l/h]               | 18      |
| 100% load                                                    | [l/h]               | 24,2    |
| General engine cooling data                                  |                     |         |
| Max. perm. coolant outlet temperature                        | [°C]                | 105     |
| Max. perm. flow resistance (cool. syst. and piping)          | [bar]               | 0.25    |
| Max. temperature of coolant (warning)                        | [°C]                | 108     |
| Max. temperature of coolant (shut-down)                      | [°C]                | 110     |
| Temperature at which thermostat starts to open               | [°C]                | 83      |
| Temperature at which thermostat is fully open                | [°C]                | 98      |
| Delivery of coolant pump                                     | [m <sup>3</sup> /h] | 10.2    |
| Min. pressure before coolant pump                            | [bar]               | 0,3     |
| Coolant capacity (engine)                                    | [l]                 | 7.4     |
| Temperature at CAC outlet at standard conditions             | [°C]                | 40      |
| Coolant capacity (incl. cooling unit)                        | [l]                 | 19,7    |
| Fan power consumption                                        | kW                  | 5.9     |
| Air to boil (max. permissible cool. air temp. at fan)        | °C                  | 54      |
| Air pressure loss, external                                  | [mbar]              | 1.5     |
| Cooling air flow                                             | [m3/h]              | 6100    |
| Heat Balance                                                 |                     |         |
| Heat dissipation (engine radiator)6                          | [kW]                | 52 .5   |
| Heat dissipation (convection)                                | [kW]                | 10.0    |
| Heat dissipation (CAC)6                                      | [kW]                | 13.1    |
| Inlet / Exhaust Data Max. intake depression (Switch Setting) | [bar]               | 25      |
| Combustion air volume                                        | [m3/h]              | 365     |
| Max. exhaust back pressure                                   | [mbar]              | 30      |
| Max. exhaust gas temperature                                 | [°C]                | 560     |
| Exhaust gas flow (at above temp)                             | [m3/h]              | 1102    |

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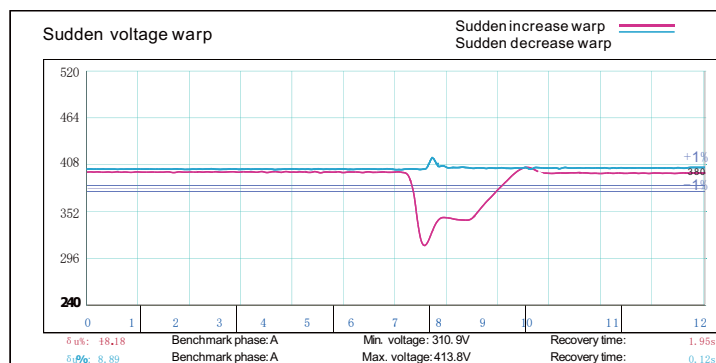


## ALTERNATOR SPECIFICATION

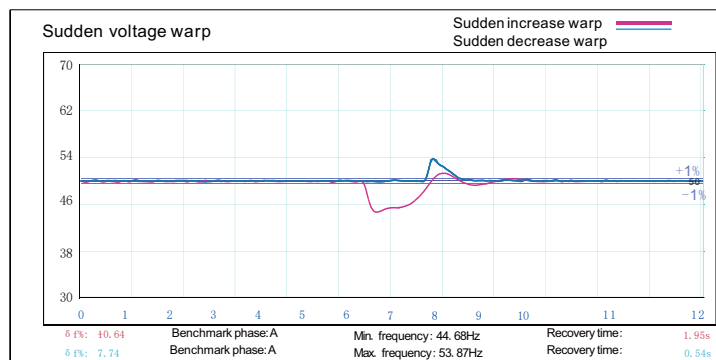
| Alternator                     |                     |
|--------------------------------|---------------------|
| Number of phase                | 3                   |
| Power factor (Cos Phi)         | 0.8                 |
| Poles                          | 4                   |
| Winding Connections (standard) | Star-Serie          |
| Terminals                      | 12                  |
| Insulation type                | H class             |
| Winding Pitch                  | 2/3                 |
| IP rating                      | IP23                |
| Excitation system              | self-excited        |
| Bearing                        | single Bearing      |
| Coating                        | Vacuum impregnation |
| Voltage regulator              | A.V.R               |
| Couping                        | Flexible disc       |



Emergency Voltage curve



Emergency Frequency curve



## OPTIONS

| Engine                                                                                         | Alternator                                                                                                                                                                                                                                         | Generator Sets                                                                                                                       | Fuel System                                                                                                                                                   |
|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Water Jacket Pre heater</li> <li>Fuel heater</li> </ul> | <ul style="list-style-type: none"> <li>Winding Temp measuring Instrument</li> <li>Alternator Pre heater</li> <li>PMG</li> <li>Anti-damp and anti corrosion treatment</li> <li>Anti-condensation heater</li> <li>Winding and bearing RTD</li> </ul> | <ul style="list-style-type: none"> <li>Tools with the machine</li> <li>Extended range fuel tank</li> <li>Bunded fuel tank</li> </ul> | <ul style="list-style-type: none"> <li>Low fuel level alarm</li> <li>Automatic fuel feeding system</li> <li>Fuel T-valves</li> </ul>                          |
| Canopy                                                                                         | Lub Oil System                                                                                                                                                                                                                                     | Cooling System                                                                                                                       | Control Panel                                                                                                                                                 |
| <ul style="list-style-type: none"> <li>Rental type Canopy</li> <li>Trailer</li> </ul>          | <ul style="list-style-type: none"> <li>Oil Pre-heater</li> <li>Oil temp sensor</li> </ul>                                                                                                                                                          | <ul style="list-style-type: none"> <li>Front heat protection</li> </ul>                                                              | <ul style="list-style-type: none"> <li>Remote control panel</li> <li>ATS</li> <li>Synchronizing controller</li> <li>Adjustable earth leakage relay</li> </ul> |

## Control Panel: DEEPSEA 6120MKII

### DSE6110/20 MKIII

AUTO START & AUTO MAINS (UTILITY)  
FAILURE CONTROL MODULES



DSE6110 MKIII



DSE6120 MKIII

#### KEY FEATURES

- 4-line back-lit LCD text display
- Multiple display languages
- Five-key menu navigation
- LCD alarm indication
- Customisable power-up text and screen images.
- DSENet® expansion compatibility
- Data logging facility
- Internal PLC editor
- Protections disable feature
- Fully configurable via PC using USB communications
- Front panel configuration with PIN protection
- Power save mode
- 3-phase generator sensing and protection
- 3-phase mains (utility) sensing and protection (DSE6120 MKIII only)
- Automatic load transfer control (DSE6120 MKIII only)
- Generator current and power monitoring (kW, kvar, kVA, pf)
- Mains (utility) current and power monitoring (kW, kvar, kVA, pf) (DSE6120 MKIII only)
- kW overload alarm
- Over current protection
- Breaker control via fascia buttons
- Fuel and start outputs configurable when using CAN
- 6 configurable DC outputs
- 4 configurable analogue/digital inputs
- Support for 0 V to 10 V & 4 mA to 20 mA sensors

- 8 configurable digital inputs
- CAN, MPU and alternator frequency speed sensing in one variant
- Real time clock
- Manual and automatic fuel pump control
- Engine pre-heat and post-heat functions
- Engine run-time scheduler
- Engine idle control for starting & stopping
- Fuel level alarms
- 3 configurable maintenance alarms
- Compatible with a wide range of CAN engines, including Tier 4 engine support
- Uses DSE Configuration Suite PC Software for simplified configuration
- Licence-free PC software
- IP65 rating (with optional gasket) offers increased resistance to water ingress
- Configurable CAN read & transmitted information.
- 1 alternative configuration.

#### KEY BENEFITS

- Automatically transfers between mains (utility) and generator (DSE6120 MKIII only) for convenience.
- Hours counter provides accurate information for monitoring and maintenance periods
- User-friendly set-up and button layout for ease of use
- Multiple parameters are monitored & displayed simultaneously for full visibility
- The module can be configured to suit a wide range of applications for user flexibility
- PLC editor allows user configurable functions to meet user specific application requirements.

#### SPECIFICATIONS

##### DC SUPPLY

##### CONTINUOUS VOLTAGE RATING

8 V to 35 V Continuous  
5 V for up to 1 minute

##### CRANKING DROPOUTS

Able to survive 0 V for 100 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

260 mA at 12 V, 150 mA at 24 V

##### MAXIMUM STANDBY CURRENT

145 mA at 12 V, 85 mA at 24 V

##### CHARGE FAIL/EXCITATION RANGE

0 V to 35 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

##### MAGNETIC PICKUP

##### VOLTAGE RANGE

+/- 0.5 V to 70 V

##### FREQUENCY RANGE

10,000 Hz (max)

##### INPUTS

##### DIGITAL INPUTS A TO H

Negative switching

##### ANALOGUE INPUTS A & D

Configurable as:  
Negative switching digital input  
0 V to 10 V sensor  
4 mA to 20 mA sensor  
Resistive sensor

##### ANALOGUE INPUTS B & C

Configurable as:  
Negative switching digital input  
Resistive sensor

##### OUTPUTS

##### OUTPUT A & B (FUEL & START)

10 A DC at supply voltage

##### AUXILIARY OUTPUTS C, D, E, F, G & H

2 A DC at supply voltage

##### DIMENSIONS

##### OVERALL

216 mm x 158 mm x 43 mm  
8.5" x 6.2" x 1.5"