

HCM625 TECHNICAL DATA SHEET

Genset Model	HCM625
Standby power (60HZ)	500kW/625kVA
Prime power (60HZ)	450kW/562kVA

Standard configuration

General description:

- Engine (Cummins KTA19-G3A)
- Ambient temperature 50°C radiator, belt-driven cooling fan, with fan safety guard
- 24VDC charger
- Alternator: single bearing, IP23, H
- Vibration damper
- Dry type Air filter, fuel filter & oil filter
- Standard control panel
- Lead-acid batteries, rack and cables
- Exhaust elbow pipe, flexible pipe, conical pipe, muffler
- Documents



Genset Power						
Voltage (V)	Frequency (Hz)	Phase	Power factor	Standby Ampere (A)	Standby (kW/kVA)	Prime (kW/kVA)
480/277	60	3	0.8	752	500kW/625kVA	450kW/562kVA
460/266	60	3	0.8	784	500kW/625kVA	450kW/562kVA
440/254	60	3	0.8	820	500kW/625kVA	450kW/562kVA
416/240	60	3	0.8	867	500kW/625kVA	450kW/562kVA

RATING DEFINITION AS PER ISO8528

Prime Power (PRP): Output available with varying load for an unlimited time. Average power output is 70% of the prime power rating. Typical peak demand is 100% of prime rated kW with 10% overload capability for emergency use for a maximum of 1 hour in 12.

Standby Power Rating (ESP): Output available with varying load during a normal power supply failure. Average power output is 80% of the standby power rating. Typical annual operating time less than 500 hours. No overload is available.

The relationship between engine power and altitude: above 1500 meters above sea level, the power decreases by 4% for every 300 meters above sea level

Warranty

The products provided by HONNY Company are all brand-new products, and each unit has undergone strict factory inspection.

All products of HONNY Company provide warranty service. The warranty period is 12 months after delivery or 1000 hours of operation in total, whichever expires first.

All services and accessories of HONNYPOWER products can be obtained from HONNYPOWER wholly-owned branches or distributors within the validity period of HONNY authorization.

Engine data

Engine data	
Manufacturer/Model	Cummins /KTA19-G3A
Induction system	Turbocharged Aftercooled
Cylinder/Alignment	6 in-line
Displacement Litre	19 L
Bore x stroke mm	159×159 (mm)
Compression ratio	13.9
Rated Engine speed RPM	1800
Governor	Electrical
Exhaust system	
Max Allowable Back Pressure kPa	10
Standard exhaust pipe diameter mm	127
Air intake system	
Maximum allowable intake air restriction	
With clean filter element kPa	3.7
With dirty filter element kPa	6.2
Intake Air alarm temperature °C	82
Fuel consumption	
100% common power (L/h)	121
75% common power (L/h)	92.8
50% common power (L/h)	65.4
25% common power (L/h)	36.9
Fuel consumption rate	
100% common power g/kW.h	201
75% common power g/kW.h	206
50% common power g/kW.h	194
25% common power g/kW.h	143
Lubrication system	
Total oil capacity L	50
Max.allowable oil temperature °C	121
Oil pressure kPa	138
Cooling system	
Coolant Capacity Engine only L	30.3
Standard thermostat(modulating) range °C	82-93

Alternator data	
Alternator data	
Manufacturer/Model	EG/EG355-500N3
Phase	3
Voltage	400 V
Connecting Type	Three-phase four-wire,Y-wound

Number of bearings	1
Power factor	0.8
Protection	IP23
Altitude requirements	≤1000m
Excitation method	Brushless exciting
Insulation class/temperature rise class	H/H
Telephone Influence Factor TIF	<50
Telephone Harmonic Factor THF	<2%
Alternator capacity	625kVA
Alternator efficiency	98.5%
Genset data	
Related range of voltage setting	≥±5%
Steady-state voltage deviation	≤±1%
Transient voltage deviation (100 % sudden power decrease)	≤+25%
Transient voltage deviation (sudden power increase)	≤-20%
Voltage recovery time (100 % sudden power decrease)	≤6S
Voltage recovery time (sudden power increase)	≤6S
Related range of frequency setting	0-5%adjustable
Steady-state frequency band	≤1.5%
Transient frequency deviation (100 % sudden power decrease)	≤+12%
Transient frequency deviation (sudden power increase)	≤-10%
Frequency recovery time (100 % sudden power decrease)	≤5S
Frequency recovery time (sudden power increase)	≤5S

HONNY GENSET QUALITY STANDARD

HONNY diesel generator sets are designed, produced and tested in strict accordance with the standards. They can be used in various environments and meet the following relevant standards:

GB755、BS5000、VDE0530、NEMANG1-22、IED34-1、CSA22.2、AS1359

Document

Original document from Engine	Generator Set Maintenance Record Manual
Original document from Alternator	Generator Set Installation and Operation Manual
Original document from Control panel	Generator set installation and commissioning acceptance list
Generator set original test report	Certificate of origin of the generator set

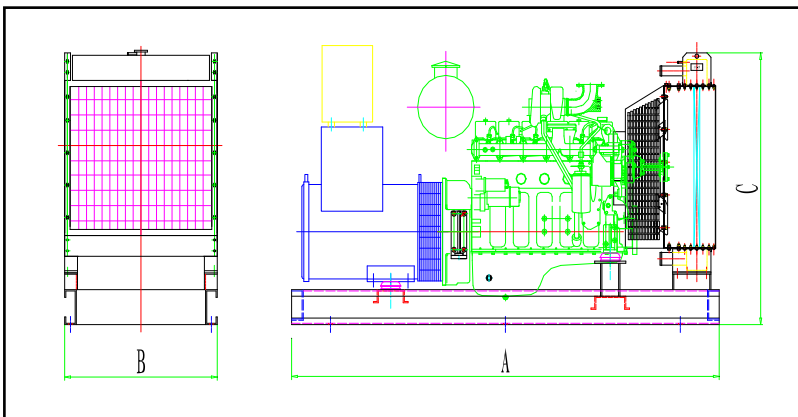
Optional accessories

Engine	Alternator	Electric elements
Water jacket heater	Anti-condensation heater	Remote control system
Oil preheater	Permanent magnet excitation system (PMG)	Control Panel with triple remote functions
Battery charger	Voltage droop (parallel use)	ATS

Air starter motor	Other temperature rise classes	Synchronized or parallel panel
Heavy Duty Air Filter for Desert	RTD temperature sensor, 2 per phase	Anti-condensation heater
Heavy Duty Secondary Muffler		Voltage 3.3kV/6.3kV/10.5kV/11kV
Fuel system	Others	Cooling system
base fuel tank&Daily fuel tank	Waterproof type	External Cooling Towers
Water separator	Silent/Soundproof /container type	Remote Radiator
Automatic oil supply system	Trailer type	Heat exchanger
Buried fuel tank	Emergency Power Supply Vehicle	Marine cooling system

Some options may not be suitable for the whole series of generator sets, please consult HONNY application engineering department or the person in charge of this project of HONNY.

Measurement and Weight

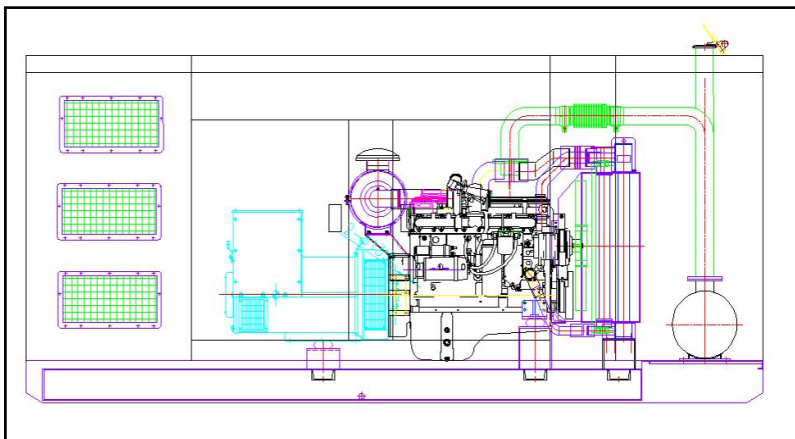


Open type

Overall: L×W×H

Overall: 3800×1500×2150mm

Weight: 4550kg



Silent type

Overall size: L×W×H

Overall size: 5000×1900×2500mm

Weight: 6000kg



DSE6110/20 MKII

AUTO START & AUTO MAINS FAILURE CONTROL MODULES

DSE6110 MKII

DSE6120 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 to 10 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

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

RELATED MATERIALS
TITLE

 DSE6110/20 MKII Installation Instructions
 DSE6110/20 MKII Operator Manual
 DSE6110/20 MKII Configuration Suite PC Manual

PART NO.

 053-173
 057-226
 057-224

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Deep Sea Electronics Plc maintains a policy of continuous development and reserves the right to change the details shown on this data sheet without prior notice. The contents are intended for guidance only.

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055-191/04/17 (3)



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

