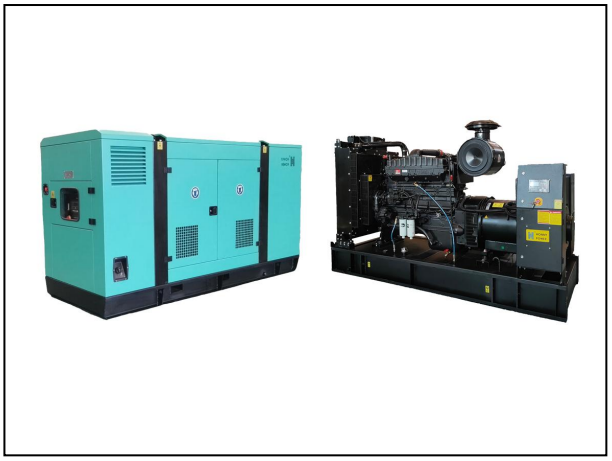
HCM149 TECHNICAL DATA SHEET

Genset Model	HCM149
Standby power（50HZ）	119kW/149kVA
Prime power（50HZ）	108kW/135kVA

Standard configuration

General description：

- Engine（Cummins 6BTAA5.9-G2）
- Ambient temperature 50°C radiator, belt-driven cooling fan, with fan safety guard
- 24VDC charger
- Alternator：single bearing,IP23，H
- Damper
- Dry type Air filter,fuel filter&oil filter
- Standard control panel
- 2×12VDC start batteries and connecting wires
- Exhaust elbow pipe, flexible pipe,conical pipe,muffler
- Documents



Genset Power

Voltage（V）	Frequency（Hz）	Phase	Power factor	Prime Ampere（A）	Standby（kW/kVA）	Prime（kW/kVA）
400/230	50	3	0.8	195	119kW/149kVA	108kW/135kVA
380/220	50	3	0.8	205	119kW/149kVA	108kW/135kVA

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 kWe 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 500hours. 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 /6BTAA5.9-G2

Air intake system	Turbo, Air/Air Cooling
Fuel system	PB type fuel pump
Cylinder/Alignment	6 in line
Displacement Litre	5.9 L
Bore x stroke mm	102×120（mm）
Compression ratio	17.3:1
Rated Engine speed RPM	1500
Max. Standby power at rated speed	130kW/174HP
Governor type	Electronic
Exhaust system	
Exhaust gas flow	19.7m³/min
Exhaust temperature	540℃
Maximum allowable exhaust back pressure kPa	10kPa
Air intake system	
Max intake restriction	6.1kPa
Combustion air flow	7.2 m³/min
Air flow required for radiator	190 m³ /min
Fuel consumption	
100% common power (L/h)	28.9
75% common power (L/h)	21.7
50% common power (L/h)	15.3
25% common power (L/h)	N/A
Fuel consumption rate	
100% common power g/kW.h	208
75% common power g/kW.h	207
50% common power g/kW.h	214
25% common power g/kW.h	N/A
Oil system	
Total oil capacity	16.4L
Oil consumption	≤4g/kwh
Oil sump capacity	12.3~14.2L
Cooling system	
Engine Coolant Capacity L	29
Maximum water temperature℃	104

Alternator data	
Alternator data	
Manufacturer/Model	Leroysomer/TAL-A44-H/110kW
Phase	3
Voltage	400 V
Number of Wires	Three-phase four-wire, Y-wound
Number of bearings	1
Power factor	0.8
Protection	IP23

Altitude requirements	≤1000m
Excitation method	brushless self-excitation
Insulation class/temperature rise class	H/H
Telephone Influence Factor TIF	＜50
Telephone Harmonic Factor THF	＜2%
Steady State Voltage Regulation	≤±1％
Alternator capacity	130kVA
Alternator efficiency	91.6％
Genset data	
Voltage setting range	≥±5％
Steady State Voltage Regulation	≤±1％
Transient voltage deviation (100% sudden drop power)	≤＋25％
Transient voltage deviation (50% sudden power)	≤－20％
Voltage stabilization time (100% sudden drop of power)	≤6S
Voltage stabilization time (50% sudden power)	≤6S
Frequency adjustment range	≥±5％adjustable
frequency volatility	≤±0.25％
Transient frequency deviation (100% sudden drop in power)	≤＋12％
Transient frequency deviation (50% sudden power)	≤－10％
Frequency recovery time (100% sudden drop in power)	≤5S
Frequency recovery time (50% surge power)	≤5S

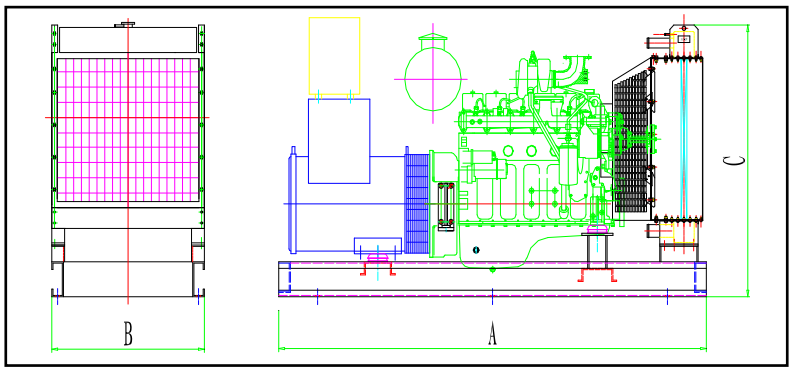
HONNY GENSET QUALITY STANDARD	
HONNY diesel generator sets are designed, produced and tested in strict accordance with the standards. They can be used in various environments and meet the following relevant standards:	
GB755、BS5000、VDEO530，NEMANG1-22、IED34-1、CSA22.2、AS1359	
Document	
Original document 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：2400×900×1700mm

Weight：1360kg

Silent type

Overall size：L×W×H

Overall size：3230×1170×1800mm

Weight：2140kg

DSEGenset

DSE

DSE7310/20

AUTO START & AUTO MAINS FAILURE CONTROL MODULES

FEATURES

The DSE7310 is an Auto Start Control Module and the DSE7320 is an Auto Mains (Utility) Failure Control Module suitable for a wide variety of single, diesel or gas, gen-set applications.

Monitoring an extensive number of engine parameters, the modules will display warnings, shutdown and engine status information on the back-lit LCD screen, illuminated LEDs, remote PC and via SMS text alerts (with external modem).

The DSE7320 will also monitor the mains (utility) supply. The modules include USB, RS232 and RS485 ports as well as dedicated DSENet® terminals for system expansion.

Both modules are compatible with electronic (CAN) and non-electronic (magnetic pick-up/alternator sensing) engines and offer an extensive number of flexible inputs, outputs and extensive engine protections so the system can be easily adapted to meet the most demanding industry requirements.

The extensive list of features includes enhanced event and performance monitoring, remote communications and dual mutual standby (DSE7310 only) to reduce engine wear.

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

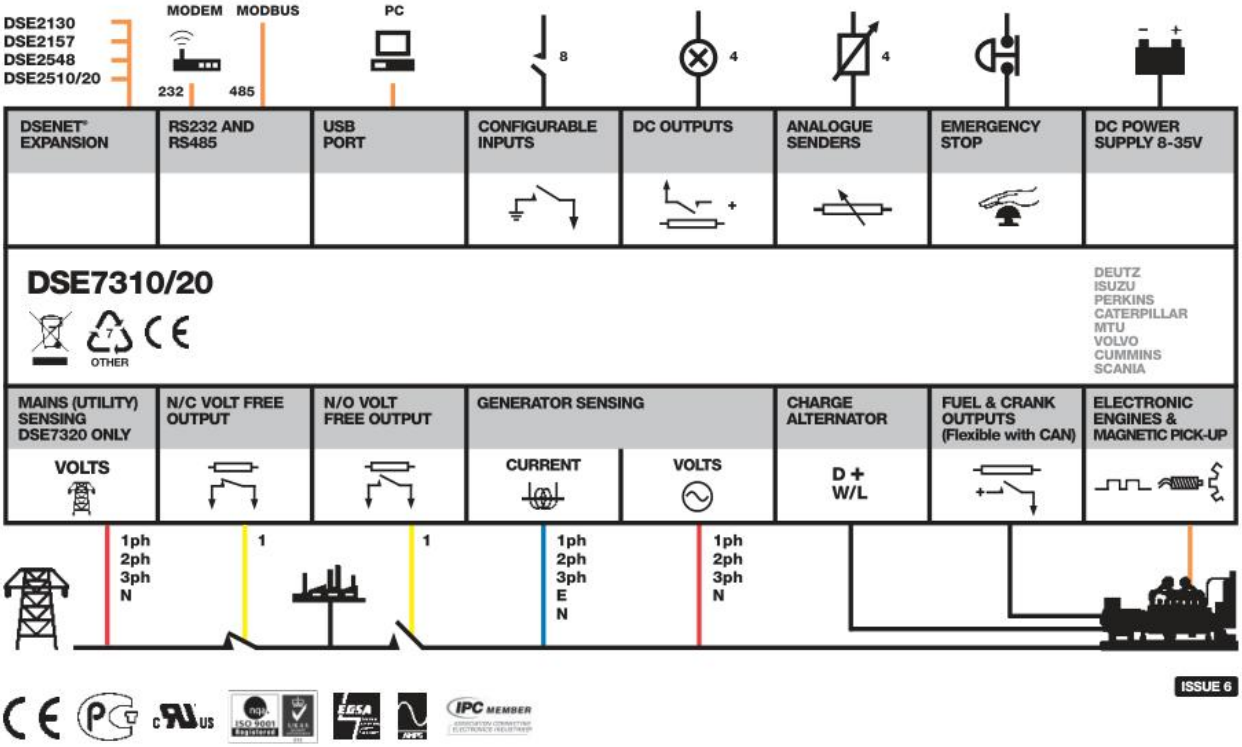
VIBRATION
BS EN 60068-2-6
Ten sweeps in each of three major axes
5 Hz to 8 Hz @ +/-7.5 mm,
8 Hz to 500 Hz @ 2 gn

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

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



ISSUE 6

DSEGenset

DSE

DSE7310/20

AUTO START & AUTO MAINS FAILURE CONTROL MODULES

FEATURES

DSE7310

DSE7320

KEY FEATURES

- 4-Line back-lit LCD text display
- Five key menu navigation
- Front panel editing with PIN protection
- kW overload protection
- Reverse power protection
- Power monitoring (kW h, kV Ar, kV A h, kV Ar h)
- Load switching (load shedding
- DSENet® expansion compatible
- Integral PLC editor

KEY BENEFITS

- 132 x 64 pixel ratio display for

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
340 mA at 12 V, 160 mA at 24 V

MAXIMUM STANDBY CURRENT
160 mA at 12 V, 80 mA at 24 V

CHARGE FAIL/EXCITATION RANGE
0 V to 35 V

MAINS (UTILITY) DSE7320 ONLY
VOLTAGE RANGE
15 V - 333 V AC (L-N)

FREQUENCY RANGE
3.5 Hz to 75 Hz

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

OUTPUT B (START)
15 A DC at supply voltage

OUTPUTS C & D
8 A 250 V (Volt free)

AUXILIARY OUTPUTS E,F,G,H

- LED and LCD alarm indication
- Customisable status screens
- Power save mode
- Support for up to three remote display units
- 9 configurable inputs
- 8 configurable outputs
- Flexible sender inputs
- Configurable timers and alarms
- 3 configurable maintenance alarms
- Multiple date and time scheduler
- Configurable event log (250)
- Control logic facilities
- Easy access diagnostic page
- CAN and Magnetic Pick-up/Alt. sensing
- Fuel usage monitor and low fuel alarms
- Charge alternator failure alarm
- Manual speed control (on compatible CAN engines)
- Manual fuel pump control
- Engine exerciser
- "Protections disabled" feature

and dummy load outputs)

- Automatic load transfer (DSE7320)
- Unbalanced load protection
- Independent Earth Fault trip
- True dual mutual standby with load balancing timer (DSE7310 only)
- USB connectivity
- Backed up real time clock
- Fully configurable via DSE Configuration Suite PC software
- Configurable display languages
- Remote SCADA monitoring via DSE Configuration Suite PC software
- User selectable RS232 and RS485 communications
- Configurable Gencomm pages
- Advanced SMS messaging (additional external modem required)
- Start & stop capability via SMS messaging
- Additional display screens to help with modem diagnostics

clarity

- Real-time clock provides accurate event logging
- Multiple date and time scheduler
- Set maintenance periods can be configured to maintain optimum engine performance
- Ethernet communications (via DSE860/865 modules), provides advanced remote monitoring at low cost
- Modules can be integrated into building management systems (BMS)
- Increased input and output expansion capability via DSENet®
- Licence-free PC software
- IP65 rating (with supplied gasket) offers increased resistance to water ingress
- PLC editor allows user configurable functions to meet specific application requirements

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

FREQUENCY RANGE
10,000 Hz (max)

DIMENSIONS
OVERALL
240 mm x 181 mm x 42 mm
9.4" x 7.1" x 1.6"

PANEL CUT-OUT
220 mm x 160 mm
8.7" x 6.3"

MAXIMUM PANEL THICKNESS
8 mm
0.3"