VP POWER SOLUTION

POWER WITHOUT LIMITS

Model: CS250D6

Powered by CUMMINS

Generator Specification

Service	PRP(1)	ESP(2)
Power (kVA)	225	250
Power (kW)	180	200
Rated speed (r.p.m)	1800	
Standard voltage (V)	220/127	
Rated at power factor (cos phi)	0.8	

ISO 9001 BUREAU VERITAS Certification

CE

Hong Fu Co are compliant with ISO 9001 and CE standard, which include the following directives:

·2006/42/EC Machinery safety.
·2006/95/EC Low voltage
·EN 60204-1: 2006+A1: 2009, EN ISO 12100: 2010, EN ISO 13849-1: 2008, EN 12601 : 2010

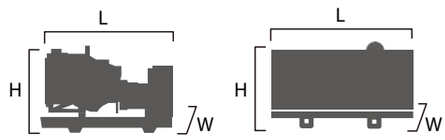
(1) PRP (Prime Power):
According to ISO8528-1, prime power is the maximum power available during a variable power sequence, which may be run for an unlimited number of hours per year, between stated maintenance intervals. The permissible average power output during at 24 hours period shall not exceed 80% of the prime power. 10% overload available for governing purposes only.

(2) ESP (Standby Power):
According to ISO 8528-1, It is defined as the maximum power available, under the agreed operating conditions, for which the generating set is capable of delivering for up to 500 hours of operation per year (of which no more than 300 hours for continuative use) with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. No overload capability is available.

Powers Voltage (V)	ESP KVA	ESP KW	PRP KVA	PRP KW	Standby Amps
480/277	250	200	225	180	300.7
440/254	250	200	225	180	328.0
380/220	250	200	225	180	379.8
220/127	250	200	225	180	656.1
208/120	250	200	255	180	694.0

Performance Data		
Model		CS250D6
Engine brand		Cummins
Engine model		6CTAA8.3G2
Speed control type		Electronic
Phase		3
Control system		Digital
Starter motor voltage		24V
Frequency		60HZ
Engine speed (RPM)		1800
Fuel Consumption (L/H)	110% stand power	56
	100% primer power	49
	75% primer power	37
	50% primer power	25

Standard reference Conditions
Note: Standard reference condition 25°C (77°F) air inlet temp, 100m(328ft) A.S.L 30% relative humidity. Fuel consumption dat with diesel fuel with specific gravity of 0.85 and conforming to BS 2869: 1998, Class A2



Dimension and Weight		
Dimension	Open	Silent
Length (L)	2500 mm	3400 mm
Width (W)	1000 mm	1200 mm
Height (H)	1550 mm	1940 mm
Net Weight	2000 Kg	2400 Kg
Fuel Tank (L)	300	350

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Engine Specification: 6CTAA8.3G2

Basic technical data	
No. of cylinders Cylinder	6
Cylinder arrangement	In-line
Clycle	4 stroke
Induction system	Turbocharger
Compression ratio	18.0:1
Bore	114 mm
Stroke	135 mm
Displacement	8.3 L
Engine idle speed	750 - 850 RPM
Approximate engine weight	684 Kg

Fuel system	
Injection system	BYC P7100 electric governor
Governor type	Electronic
Maximum restriction at lift pump	20.3 kPa
Maximum fuel inlet temperature	70°C
Total drain flow (constant for all loads)	30 litre/ hour

Alternator Specification

Alternator	
Alternator Brand	Stamford
Model	UCI274G
Number of phase	3
Power factor (cos Phi)	0.8
Poles	4
Winding Connections (standard)	Start-serie
Terminals	12
Insulation type	H class
Voltage	220
Ip rating	IP23
Excitation system	Self-excited
Bearing	Single bearing
Frequency	60Hz
Voltage regulator	A.V.R
Primer power	218.5 KVA

Cooling system	
Coolant capacity-engine	12.3 L
Max coolant friction head to engine	35 kPa
Max water temp standby/prime power	110/104 °C

Air intake system	
Maximum intake air restriction with heavy duty air cleaner:	
-Dirt element	6.2 kPa
-Clean element	3.7 kPa

Lubrication system	
Engine oil pressure for engine protection devices:	
-Idle speed (Minimum)	103 kPa
-Governed speed (Maximum)	276-414 kPa
Maximum oil temperature	121 °C
Minimum required lube system capacity-sump plus filters	23.8 L

Electrical system	
Cranking motor (Heavy duty, positive engagement	24V
Battery charging system, negative ground	40 ampere
Maximum allowable resistance of cranking circuit	0.002 ohm
Minimum recommended battery capacity-cold soak	TBD

General installation	
Gross engine power output	190kw
Piston speed	8.1 m/s
Friction horsepower	17kW
Engine water flow to engine	4 l/sec
Intake air flow	254 l/sec
Exhaust gas flow	675 l/sec
Exhaust gas temperature	520 °C
Radiated heat to ambient	29 kW
Heat rejection to coolant	107 kW
Heat rejection to fuel	157 kW

VP POWER SOLUTION
POWER WITHOUT LIMITS

Control Panel
DEEP SEA 6120 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 usingUSB 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 monitoringand protection
- Generator overload protection (kW)
- Breaker control via fascia buttons
- Fuel and start outputs, configurablewhen 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 speedsensing 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 betweenmains (utility) and generator(DSE6120 MKII only)
- Increased input and outputexpansion capability via DSENet®
- User-friendly set-up and buttonlayout for ease of use
- Multiple parameters are monitoredsimultaneously which are clearlydisplayed on a large back-lit textdisplay via multiple languages
- The module can be configured tosuit a wide range of applications
- Uses DSE Configuration Suite PC Softwar for simplified configuration
- Licence-free PC software
- IP65 rating (with optional gasket)offers increased resistance to wateringress

The **DSE6120 MKII** Auto Start Control Module (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.

SPECIFICATIONS

DC SUPPLY
CONTINUOUS VOLTAGE RATING
8 V to 35 V Continuous

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

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