

# Technical Specification

## Model: **DS-20K-CSS**

Powered by CUMMINS



### Applicable Standards

- ISO 8528-5:2018
- GB/T2820.5-2009
- CE

General Information		Prime power	Standby power
Rated Power (kVA)		22	25
Power Rating (kW)		18	20
Frequency (Hz)		60	
Engine Model		4B3.9-G2	
Engine Speed (RPM)		1800	
Phase		1	
PF		0.8	
Control System		Digital	
Rated voltage (V)		120/240 (According to customer requirements)	
Fuel tank capacity operating time		≥ 8h @ 75% load	
Fuel Consumption (L/h)	110% load	9.4	
	100% load	8.6	
	75% load	6.8	
	50% load	5	

### Environmental Conditions

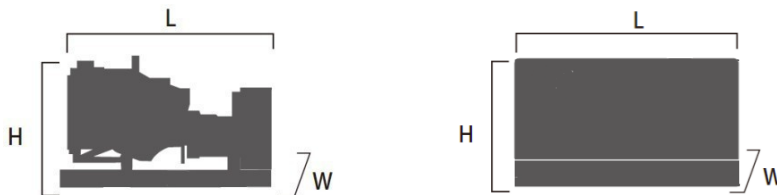
- Ambient temperature: +5°C~+40°C
- Altitude: ≤1000m
- Remark: If your conditions are different from the above, please contact our sales.

### Factory Inspection

- Complete design and quality inspection
- 0%, 25%, 50%, 75%, 100%, 110% load test.
- Function test.
- Protection test

### Painting Process

- DS Power has the most advanced automatic spraying / powder coating production line, and is equipped with various sandblasting equipment to ensure higher quality.
- Canopy painting: Henkel pretreatment process and world famous brand AkzoNobel powder.
- Base Frame painting: Sandblasting process and AkzoNobel powder



### Dimension and Weight

Model	DS-20K-CSO Open type	DS-20K-CSS Silent type
Length (L) mm	1950	2250
Width (W) mm	750	960
Height (H) mm	1420	1300
Dry weight (kg)	765	1150
Tank capacity (L)	90	90
The loading capacity (40'HC)	18 units	22 units

Note: Specifications and illustrations are subject to revision without notice.



# Technical Specification



## Engine Specifications

Engine model & manufacturer		4B3.9-G2 (CUMMINS)
Emission Certification		-----
Number of cylinders		4
Cylinder arrangement		In line
Cycle		Four stroke
Aspiration		Naturally aspirated
Bore x Stroke		102x 120 mm
Displacement		3.9 L
Compression ration		18: 1
Prime power /speed		30kW /1800 rpm
Standby power /speed		33 kW /1800 rpm
Speed governor		Electronic
Cooling system		Forced Water Cooling Cycle
Frequency droop		≤3%
Total lubrication system capacity		10.9 L
Coolant capacity		7.2 L
Fuel consumption	100% load	238 g/kWh @1800 rpm
Starter motor		DC 24V
Charge alternator		DC 24V
<ul style="list-style-type: none"> <li>◆ Heavy duty diesel engine</li> <li>◆ Anti-vibration mount</li> <li>◆ Replaceable fuel filter, oil filter &amp; air filter</li> <li>◆ Cooling radiator and fan</li> </ul>		<ul style="list-style-type: none"> <li>◆ Starter battery (with lead acid) including rack and cables</li> <li>◆ Flexible fuel connection hoses</li> <li>◆ Exhaust silencer and bellows</li> <li>◆ Operation manuals and circuit diagram documents</li> </ul>

## Alternator Specifications

Alternator	PI.144G (STAMFORD)
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Insulation type	H class
Winding Pitch	2/3
IP rating	IP23
Bearing	Single bearing
Voltage regulator	A.V.R
Coupling	Flexible disc

# Technical Specification

## Control Panel

### DSE7320MKII

#### AUTO START & AUTO MAINS FAILURE CONTROL MODULES



#### Key benefits

- -Data logging facility
- Internal PLC editor
- Protections disable feature
- Fully configurable via PC using USB, RS232 & RS485 communication
- Front panel configuration with PIN protection
- Power save mode
- 3 phase generator sensing and protection
- 3 phase mains (utility) sensing and protection (DSE7320 MKII only)
- Automatic load transfer control (DSE7320 MKII only)
- Generator current and powermonitoring (kW, kvar, kVA, pf)

#### Key features

- Configurable power-up mode
- MPU fail delay
- Enhanced graphical user interface
- Drag & drop advanced PLC editor
- MSC ID within PLC GenComm override
- 4-Line back-lit LCD text display
- Multiple Display Languages
- Five key menu navigation
- LCD alarm indication
- Heated display option available
- Customisable power-up text and images
- DSENet expansion compatibility
- Unbalanced load protection
- Independent earth fault protection
- Breaker control via fascia buttons
- Fuel and start outputs configurable when using CAN
- 6 configurable DC outputs
- 2 configurable volt-free relay outputs
- 6 configurable analogue/digital inputs
- Support for 0 V to 10 V & 4 mA to 20 mA sensors
- 8 configurable digital inputs
- Configurable 5 stage dummy load and load shedding outputs
- CAN, MPU and alternator

## Options

Engine	Alternator	Fuel System	Generating Set
<ul style="list-style-type: none"> <li>□ Water Jacket Preheater</li> <li>□ Oil Preheater</li> <li>□ Oil manual pump</li> </ul>	<ul style="list-style-type: none"> <li>□ PMG excitation</li> <li>□ Space heater</li> <li>□ Winding temperature measuring</li> </ul>	<ul style="list-style-type: none"> <li>□ 12 / 24 hour base tank</li> <li>□ Bunded fuel tank</li> <li>□ External fuel tank</li> <li>□ Automatic fuel feeding</li> <li>□ Switch between external tank and base tank (three-way valve)</li> </ul>	<ul style="list-style-type: none"> <li>□ Deepsea, ComAp, Smartgen etc. controller</li> <li>□ Trailer</li> <li>□ Tools with the machine</li> </ul>

DS SERVICIOS MULTIPLES, SRL.  
 Calle Sofia Montaño #5, Santa martha, La Venta, SDO.  
 TEL: (809) 937- 1701,  
 Email: gerencia@plantasgrandes.com  
 www.plantasgrandes.com