



JUBILEE GENERATOR MODEL

**JEG20CS**

20 kVA	PRIME	16 kW
27 kVA	STANDBY	21 kW

Cummins 4B3.9G1	CGT (Stamford) PI144E	Phase Three	Type Enclosed	Model Number JEG20CS
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RATINGS	PRIME POWER (PRP)			STANDBY POWER (ESP)		
	kVA	kWe	Amps	kVA	kWe	Amps
Voltage						
380/220	20	16	30.4	24	19.2	36.5
400/230	20	16	28.8	27	21.6	38.8
415/240	20	16	27.8	27	21.6	37.5
440/254	20	16	26.2	27	21.6	35.4

## Power Definition

**Prime Power (PRP)** is the power continuously available at variable load in lieu of mains power. An overload of 10% is permitted for one hour in every 12 hours of operation.

**Standby Power (ESP)** is the maximum output available for up to a maximum of 500 hours per year. No overload is permitted.

**Standard Conditions:** air inlet temperature of 40°C, barometric pressure of 100 kPA (110 m.a.s.l.) relative humidity of 30%.

**Note:** All ratings data based on operation under ISO 8528-1 and ISO 3046-1. The above ratings may be subject to deration at different ambient temperatures or site altitude conditions.



## Scope of Supply

- Water cooled Cummins diesel engine at 1500rpm
- Single bearing CGT Stamford alternator
- Radiator with coolant expansion bottle
- Fully guarded engine-driven fan
- Bunded baseframe fuel tank
- Heavy duty rubber anti-vibration mounts
- 24V starter batteries, tray and connecting cables
- Battery charger and Battery Isolator switch
- Spin on Oil and Fuel filters and dry type Air filter
- Sump Drain Kit
- Automatic Mains Failure controller with protections
- Main line circuit breaker
- Emergency Stop buttons
- Sound attenuated canopy with centre lift / fork slots
- Industrial silencer with rain flap
- Factory Test Certificate and Pre-delivery service
- Operation Manual

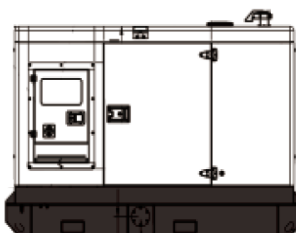
## Typical Enclosed Generator Sound Pressure Level in Free Field Conditions

dB(A) @ 1m	70.7	dB(A) @ 7m	61.5
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## Dimensions and Weight

Length	(L)	2338 mm
Width	(W)	1100 mm
Height	(H)	1560 mm
Dry Weight		1200 kg

All specifications are subject to change without prior notice



**ENGINE & COOLING TECHNICAL DATA CUMMINS 4B3.9G1**

	DESCRIPTION	VALUE	UNITS
GENERAL	Engine Speed	1500	rpm
	Number of Cylinders	4	Inline
	Aspiration	Naturally	-
	Bore / Stroke	102 / 120	mm
	Displacement	3.9	litres
	Governor	Mechanical	-
FUEL	Fuel Consumption at 110% Power	7.5	litres/hr
	Fuel Consumption at 100% Power	6.7	litres/hr
	Fuel Consumption at 75% Power	5.2	litres/hr
	Fuel Consumption at 50% Power	4.0	litres/hr
	Fuel Consumption at 25% Power	2.7	litres/hr
	Standard Fuel Tank Capacity	240	litres
AIR	Maximum Air Intake Restriction (Clean Filter)	2.48	kPa
	Maximum Air Intake Restriction (Contaminated Filter)	4.97	kPa
	Engine Air Intake Flow	32.8	litres/sec
EXHAUST	Exhaust Gas Flow	67.5	litres/sec
	Exhaust Gas Temperature	380	°C
	Maximum Exhaust Back Pressure	10	kPa
	Recommended Exhaust Pipe Diameter	75	mm
COOLING	Maximum Restriction to Cooling Air Flow	28	kPa
	Maximum Coolant Temperature	100	°C
	Coolant Flow	2.2	litres/sec
	Coolant Capacity	7.2	litres
	Thermostat Adjusting Temperature Range	82 - 95	°C
OIL	Total Oil Capacity	9.5	litres
	Typical Oil Pressure at Rated Speed	345	kPa
	Maximum Oil Temperature in Oil Pan	121	°C
ELEC	Electrical System Voltage	24	V
	Battery Type	SLA	-
	Battery Capacity CCA	312	A

**ALTERNATOR TECHNICAL DATA CGT STAMFORD PI144E**

	DESCRIPTION	VALUE
GENERAL	Operating Temperature	40 °C
	Coupling	Direct
	Number of Bearings	Single
	Phase / Poles	3 Phase / 4 Pole / Winding 311
	Power Factor	Cos $\phi$ = 0.8
	Excitation	Self Excited
	Insulation System	Class H
	AVR Type	AS480
	Voltage Regulation	± 1%

**JUBILEE CONTROL SYSTEM**
**DSE7420 AMF**





The DSE7420 is an Auto Mains (Utility) Failure Control Module suitable for a wide variety of single, diesel or gas generator set applications.

Monitoring an extensive number of engine parameters, the module displays warnings, shutdowns and engine status information on the back-lit LCD screen, illuminated LEDs, remote PC, audible alarm and via email alerts (utilising optional DSE890 3G Gateway).

The DSE7420 can monitor the mains (utility) supply and includes USB, RS232, RS485 & Ethernet ports as well as dedicated terminals for system expansion.

The module is compatible with electronic (CAN) and non-electronic (magnetic pick-up/alternator sensing) engines and offers a comprehensive number of flexible inputs, outputs and extensive engine protections so the system can be easily adapted to meet the most demanding industry requirements.


**OPTIONAL CONTROL SYSTEMS**

DSE8610	AMF/ SYNCHRONISING / LOAD SHARE / SET TO SET
	<p>The DSE8610 is an easy to use multi-generator loadshare system, designed to synchronise up to 32 generators including electronic and non-electronic engines. The DSE8610 monitors the generator and indicates operational status and fault conditions, automatically starting or stopping the engine on load demand or fault condition.</p>
DSE8620	AMF/ SYNCHRONISING / LOAD SHARE / SET TO MAINS
	<p>The DSE8620 is an Auto Mains (Utility) Failure Control Module suitable for paralleling single gensets (diesel or gas) with the mains (utility) supply. The module will automatically start the generator on detection of a mains failure, and will control the switchover from and back to the mains (utility) supply, offering an uninterrupted return. The modules synchronising functions include automatic synchronising with built-in synchroscope and closing onto dead bus. Direct and flexible outputs from the module are provided to allow connection to the most commonly used speed governors and automatic voltage regulators (AVRs).</p>
DSE890	3G GATEWAY
	<p>The DSEWebNet Gateway is used in conjunction with supported DSE controllers to provide monitoring and communications data via the DSEWebNet® advanced communications system. The DSEWebNet Gateway communicates to the connected DSE controller(s), monitoring the instrumentation and operating state. When this data changes, the new data is logged in the internal memory. At regular intervals the logged data is transmitted to the DSE host server. The DSE host server is then integrated into the DSEWebNet® which can be accessed via an internet connected device and web browser to allow remote monitoring and control of multiple DSE controllers around the globe. GSM, GPS and GSM/GPS antenna's are available as accessories.</p>
DSE330	BASIC AUTO TRANSFER SWITCH CONTROL MODULE
	<p>The DSE330 is an Automatic Transfer Switch Controller. The module will monitor the voltage and frequency of the incoming S1 AC supply and in the event of failure will issue a start command to S2. Once S2 is available and producing an output within limits, the DSE330 will control the transfer device and switch the load from S1 to S2. Please talk to us about our Advanced ATS range suitable for Modbus, BMS and SCADA.</p>

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