

# PP22CSC-I (Canopied)



Engine	Alternator	Model
Cummins 4B3.9-G1	Stamford PI144G	PP22CSC-I (Canopied)

50Hz	1500rpm	1-Phase	Power factor Factor $\Phi = 1$	Emissions N/A
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Ratings	Prime Power		Standby Power		Rated current	Fuel consumption
Voltage	(PRP)		(ESP)		Amps	@100% load
(V)	kWe	kVA	kWe	kVA	(A)	L/h
230	16	20	18	22	44	7.1

**Ratings** All three phase generator sets are rated at 0.8 power factor.  
All single-phase generator sets are rated at unity or 1.0 power factor.

**Prime output** This rating is applicable for supplying continuous electrical power at variable load.  
There is no limitation to the annual hours of operation and this model can supply 10% overload power for 1 hour in 12 hours.

**Standby output** This rating is applicable for supplying electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings.

The above ratings are in accordance with ISO8528-1 and ISO3046-1. Standard reference conditions: 25°C, 100m A.S.L., 30% relative humidity.

# Engine

Cummins 4B3.9-G1

		Units	
<b>General performance</b>	Frequency	Hz	50
	Engine speed	r/min	1500
	Number of cylinders / arrangement		4 cyl / vertical in-line
	Displacement	Litres	3.9 L
	Aspiration		Naturally Aspirated
	Combustion system		Direct injection
	Governor type		Mechanical
	Bore / stroke	mm	102 x 120
	Starter Motor / Charge Alternator (V dc)		24 V DC
	Engine power (gross)	kWm	Prime: 20 Standby: 22
	Cooling system		Water cooled
	Rotation		Anti-clockwise viewed on flywheel
<b>Fuel system</b>	Fuel consumption at 110% Prime Power	Litres/hour	7.81
	Fuel consumption at 100% Prime Power	Litres/hour	7.1
	Fuel consumption at 75% Prime Power	Litres/hour	5.33
	Fuel consumption at 50% Prime Power	Litres/hour	3.55
	Standard fuel tank capacity	Litres	80
<b>Air system</b>	Air inlet		Mounted air filter
	Air filter type		Dry
<b>Fuel and fuel system</b>	Electronically governed		YES
	Rotary type pump		YES
	Ecoplus fuel filter		YES
<b>Oil system</b>	Total oil system capacity	Litres	10.9
	Maximum sump capacity	Litres	N/A
	Wet sump with filler and dipstick		YES
	Spin-on oil filter		YES
<b>Cooling system</b>	Total system capacity		
	- With radiator	Litres	N/A
	- Without radiator	Litres	N/A
	Thermostat operation range	°C	up to 40°C
	Maximum top tank temperature	°C	N/A
<b>Electric system</b>	Electrical system voltage	V	24
	Battery		Maintenance-free
	Connecting cables		Included
<b>Available options</b>	Battery charger		Included
	Battery isolator switch		Included
	2x 16 Amp, 2x 32 Amp and 1x 63 Amp socket outlets		Included

# Alternator

Stamford PI144G

		Units	
<b>General data</b>	Manufacturer / brand		Stamford
	Model		PI144G
	Coupling / number of bearings		Flexible Disc / Single Bearing
	Phase / Poles		1-Phase / 4-Pole
	Power factor		Cos $\Phi$ = 1
	AVR Regulation		Yes
	Voltage Regulation		±1 %
	Insulation class		H
	Drip proof		IP23
	Excitation		Shunt
	Altitude	m	≤1000
	Overspeed	min -1	2250

# DSE Controller Summary

Controller model / Deepsea DSE	Optional: DSE4620	Standard: DSE6120	Optional: DSE7310/20	Optional: DSE8610/20
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## Controller photos



Standard supply	○	●	○	○
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## Viewable parameters

Phase voltage	x	3	3	3
Current	Instrumentation	●	●	●
Frequency	●	●	●	●
Active power	○	●	●	●
Reactive power	○	●	●	●
Apparent power	x	●	●	●
Power factor	○	●	●	●
Electric energy metering	x	●	●	●

## Generator protection

Abnormal voltage	●	●	●	●
Overcurrent warning	○	●	●	●
Overcurrent protection	●	●	●	●
Over frequency protection	●	●	●	●
Short circuit protection	MCCB / ●	MCCB / ●	MCCB / ●	MCCB / ●

## Engine figure

Oil pressure	●	●	●	●
Water temperature	●	●	●	●
Fuel meter / fuel sensor	●/○	●/○	●/○	●/○
Speed	●	●	●	●
Battery voltage	●	●	●	●
Elapsed time	●	●	●	●

## Engine protection

Low oil pressure warning	x	●	●	●
Low oil pressure protection	●	●	●	●
High temperature warning	○	●	●	●
High temperature protection	●	●	●	●
Overspeed warning	x	●	●	●
Overspeed protection	○	●	●	●
Alternator charger	●	●	●	●

## Functions

Remote start	●	●	●	●
AMF (Auto Main Failure)	●	●	●	●
Programmable input	●	●	●	●
Programmable output	●	●	●	●
Expand module	x	○	○	○
Communication function	x	x	RS232 / 484	RS232 / 485
Communication port	USB	USB	RS232 / 484	RS232 / 485
CAN	●	○	●	●
Service indicate	○	○	●	●
Fault history	●	●	●	●
Gen-gen synchronising	x	x	x	●
Gen-mains synchronising (20)	x	x	x	●

**Remark:** ● Standard supply ○ Available as optional × Not available

# Enclosure / Canopy

“Ensure a quieter life with our sound attenuation system.”

Sound-attenuated or open option

## Features

### Extremely rugged and highly corrosion resistant construction

- Unique appearance with high sound absorbing and thermal properties
- 8-12 hours built-in fuel tank integrated into the skid-mount base
- Excellent design and craftsmanship
- Full weatherproof enclosure, suitable for operations in harsh conditions
- Thermo-acoustic installation which can withstand fire, high temperature and severe conditions
- Residential exhaust muffler manufactured from galvanised steel
- High quality polyester powder paint
- Designed on modular principles with interchangeable components permitting on-site repairs

### Easy commissioning and maintenance

- Control panel viewing window with lockable access door for quick, safe and easy monitoring
- Side doors allowing 180° opening for easy accessibility
- Lifting point for easy mobility
- Lube oil drain and radiator drain
- Internally mounted exhaust silencers constructed to withstand rough conditions

### Security and safety

- Earth leakage protection
- Secure and lockable access doors for fuel fill and battery
- Fully guarded cooling fan and battery charging alternator
- Emergency stop push button mounted on the enclosure exterior for urgent and safe shutdown
- Efficient management of cooling air to avoid high water temperature

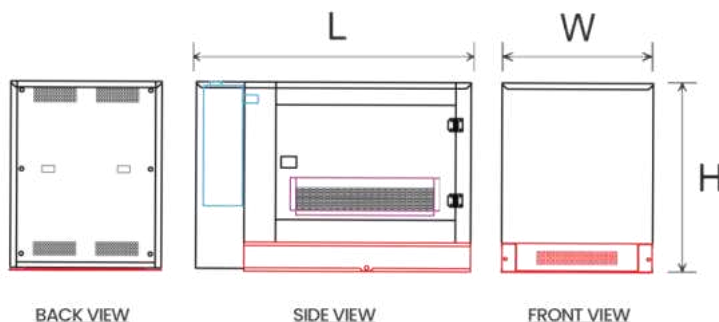
### Transportability

- Top access lifting points for crane lifting
- Fork lift pockets for easy movability



## Overall dimensions, weight and noise

Frame type	Dimensions ( L x W x H ) mm	Weight kg	Base tank @100% load		Noise level dB(A) at 7m
Canopied	2150x985x1420	1240	Hours	Litres	72
Open					



# Automatic Transfer Switch

A.T.S - 4 Poles

Pleavin Power offers as an optional accessory, not only a changeover switch but also an integrated mains detection and switch system for your 24 hour power protection. The system enables automatic start-up and operation of the generating set in the event of a mains power failure, overvoltage or loss of a mains automatic retransfer once it comes back.

## System advantages

Automatically transfer and re-transfer load from main power to gen-power without operator intervention (both automatic and manual)

ATS Controller (AMF function), seamless integration

Available from 32 - 4000A

Available in standard, bypass isolation and service-entrance configurations

Configurable in open, closed and programmed transition operating modes

Designed to interface seamlessly with generators and switchgear

Drip proof IP42 enclosure

Easy installation: wall-mounted and floor standing



\*image for illustration purposes only, actual product may differ