PP18CSC-1
(Canopied)

Engine	Alternator	Model
Cummins 4B3.9-G11	Stamford PI144E	PP18CSC-1 (Canopied)

			Power factor	Emissions
50Hz	1500rpm	1-Phase	Factor Φ = 1	N/A

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	17.6	55	5.7

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-G11

		Units	
General performance	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
Fuel system	Fuel consumption at 110% Prime Power	Litres/hour	6.3
	Fuel consumption at 100% Prime Power	Litres/hour	5.7
	Fuel consumption at 75% Prime Power	Litres/hour	4.28
	Fuel consumption at 50% Prime Power	Litres/hour	2.85
	12 hour fuel tank capacity	Litres	50
Air system	Air inlet		Mounted air filter
	Air filter type		Dry
Fuel and fuel system	Electronically governed		YES
	Rotary type pump		YES
	Ecoplus fuel filter		YES
Oil system	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
Cooling system	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
Electric system	Electrical system voltage	V	24
	Battery		Maintenance-free
	Connecting cables		Included
Available options	Battery charger		Included
	Battery isolator switch		Included
	125 AMP 5 Pin (IP67) Socket Outlet		Included

Alternator

Stamford PI144E

		Units	
General data	Manufacturer / brand		Stamford
	Model		PI144E
	Coupling / number of bearings		Flexible Disc / Single Bearing
	Phase / Poles		1-Phase / 4-Pole
	Power factor		Cos Φ = 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: DSE4520	Standard: DSE6120	Optional: DSE7310/20	Optional: DSE8610/20
Controller photos				
Standard supply	○	●	○	○
Viewable parameters				
Phase voltage	×	3	3	3
Current	Instrumentation	●	●	●
Frequency	●	●	●	●
Active power	○	●	●	●
Reactive power	○	●	●	●
Apparent power	×	●	●	●
Power factor	○	●	●	●
Electric energy metering	×	●	●	●
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	×	●	●	●
Low oil pressure protection	●	●	●	●
High temperature warning	○	●	●	●
High temperature protection	●	●	●	●
Overspeed warning	×	●	●	●
Overspeed protection	○	●	●	●
Alternator charger	●	●	●	●
Functions				
Remote start	●	●	●	●
AMF (Auto Main Failure)	●	●	●	●
Programmable input	●	●	●	●
Programmable output	●	●	●	●
Expand module	×	○	○	○
Communication function	×	×	RS232 / 484	RS232 / 485
Communication port	USB	USB	RS232 / 484	RS232 / 485
CAN	●	○	●	●
Service indicate	○	○	●	●
Fault history	●	●	●	●
Gen-gen synchronising	×	×	×	●
Gen-mains synchronising (20)	×	×	×	●

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 craftmanship
- Full weatherproof enclosure, suitable for operations in harsh condictions
- 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 interchangable 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

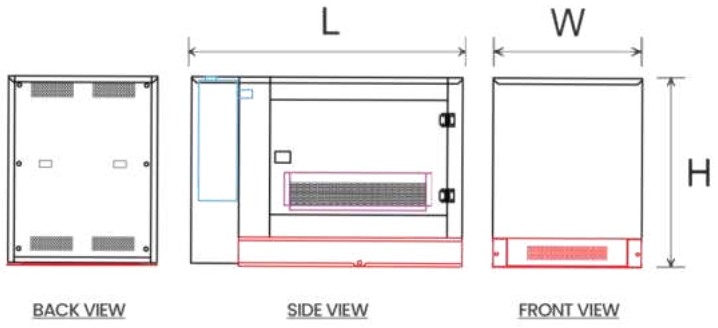
- Earth leakage protection
- Secure and lockable access doors for fuel fill and battery
- Fully guarded cooling fan and battery charging alternator
- Emergency stop push button mounted on the enclosure exterior for urgent and safe shutdown
- Efficient management of cooling air to avoid high water temperature

Transportability

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

Overall dimensions, weight and noise

Frame type	Dimensions	Weight	Base tank @100% load		Noise level
	(L x W x H) mm	kg	Hours	Litres	dB(A) at 7m
Canopied	2100x930x1400	TBC	8	100	70.5
Open					



Automatic Transfer Switch

A.T.S - 4 Poles

GFE 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.

*image for illustration purposes only, actual product may differ

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 with all GFE ATSs
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 GFE generators and switchgear
Drip proof IP42 enclosure
Easy installation: wall-mounted and floor standing

Warranty

GFE distributors, dealers or authorized representatives have warranty providing the operator performs a start-up within 6 months of the date of shipment from the factory, warranty coverage will begin on the start-up date (registering the start-up date to GFE within 6 months is essential and can be enforced). This warranty does not apply to malfunction caused by damages, unreasonable use, misuse, repair or service by unauthorized persons, or normal wear and tear. Warranty is supplied strictly in accordance with GFE's terms and conditions of sale and as per the warranty manual available on request.

Warranty coverage

Generators used with commercial utility source: One (1) year or 1000 hours (whichever occurs first) from date of shipment from the factory or registered start-up date.