



# SYNERGY

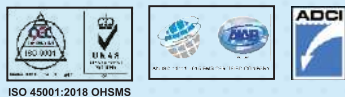
INNOVATIVE DIVING EQUIPMENT TRADING LLC

INSPIRING • ENGINEERING • INNOVATION



## Generators



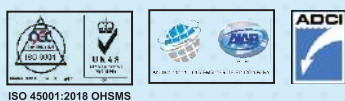


## Generators

Specifications	
Engine	Cummins 6BTA5.9G6
Alternator	Stamford UCI274C
Controller	Deep Sea 4520
Genset Starting	12 V DC , Lead Acid Batteries & Charge Alternator
Air Intake System	Replaceable Air filters
Fuel System	Fuel filter , Fuel pump & Base mounted fuel tank
Cooling System	Water cooled with mounted Radiator
Governor	Mechanical
Alternator poles	4
Alternator IP Rating	IP -23

- Genset Control panel
- Engine protections
  - Generator Protections

- Canopy features
- Acoustic Cum weather proof canopy
  - Canopy provided with Tested with Double point lifting & Fork lift Pockets for easy transportation
  - Polyester Powder Coated Galvanized Sheet
  - Emergency stop push button
  - Easy cable entry access
  - Canopy Color - Orange (RAL 2000)



## Generators

PI Model	Hz/rpm	Voltage	Prime	Standby
PI 66C	50/1500	400/230	60.0 kVA 48.0 kWe	66.0 kVA 52.0 kWe
N/A	60/1800	380/220	N/A	N/A

Applicable Standard and References: ISO 8528-1; ISO 3046-1; BS 5514-1

The above given ratings are at 0.8 power factor (PF)

Engine Technical Data				Alternator Technical Data			
Engine Make & Model		Cummins S3.8-G7		Alternator Make & Model		STAMFORD UCI244F	
No. of Cylinders		4 In-line		No. of Poles		4	
Cycle		4		WINDING LEADS		12	
Aspiration		Turbocharged and Charged Air Cooled		No. of Bearings		Single	
Cooling Method		Water		Insulation Class		Class H	
Governing Type		Mechanical		Winding Pitch		TWO THIRDS	
Governing Class		ISO 8528 Part 1 G2		Ingress Protection Rating		IP-23	
Compression Ratio		17.5:1		Excitation System		SELF EXCITED	
Displacement (L)		3.8		AVR Model		AS440	
Bore/Stroke (mm)		97/128		<b>Alternator operating Data</b>		<b>50Hz</b>	<b>60Hz</b>
Battery Charger, Ampere		12 Volts DC,40 Amp		Overspeed (RPM)		2250	
<b>Air System</b>		<b>50Hz</b>	<b>60Hz</b>	Voltage Regulation		± 1.0 %	
Air Filter Type		Dry Element (replaceable)		Wave Form NEMA = TIF		<50	
Combustion Air Flow m <sup>3</sup> /min (cfm)	Standby	4.6 (163.1)	N/A	Wave Form IEC = THF		<2%	
	Prime	4.3 (151.2)	N/A	Total Harmonic Content LL/LN		2%	
Radiator Air Flow m <sup>3</sup> /min (cfm)		54.0 (1979)		Radio Interference		Standard EN61000-6-2:2001	
<b>Cooling System</b>		<b>50Hz</b>	<b>60Hz</b>	Cooling Air Flow m <sup>3</sup> /sec(cfm)		0.216 (458)	N/A
Total Coolant capacity (L)		15		<b>Controller Technical Data</b>			
Water Pump Type		Centrifugal Engine Driven		Controller Make & Model		ComAp - AMF9	
Radiator Fan Load kW (hp)		2.0 (2.7)		Operation mode		MRS / AMF(Optional)	
Heat Radiation to Room kW (BTU/min)	Standby	6.5 (367.9)		Display		Graphic back-lit LCD (128x64)pixels	
	Prime	5.9 (336.7)		Ingress Protection Rating		Sealed front face(IP65)	
<b>Lubrication system</b>				Binary Inputs/Outputs		4 / 6	
Oil Filter Type		Spin on full flow filter, 25 micron		Analog inputs		3	
Total Oil Capacity I (US gal)		11 (3.0)		Measurement		Vac, A, Hz, kVA, kW, Vdc	
Oil Pan I (US gal)		9.0 (2.4)		Event Log		Alarms log, Hours log	
Oil Type		API CH4/CI4; SAE 15W-40		Communication (Optional)		USB, RS232, RS485, GSM, ETHERNET	
Cooling Method		Water		<b>Gen-set Enclosure Specification (optional)</b>			
<b>Fuel System</b>		<b>50Hz</b>	<b>60Hz</b>	Enclosure Type		Acoustic and Weather Proof	
Fuel Filter Type		Dual Spin on fuel filters		Anticorrosive Protection		Polyester Powder Coated Galvanized Sheet	
Recommended Fuel		Class A2 Diesel		Ingress Protection rating		Weather Proof IP23	
Fuel Consumption: l/hr (US gal/hr)		Prime	Standby	Prime	Standby	Transportation	
	110%	16.1 (4.3)	N.A.	N/A		ISO standard lifting	
	100%	14.7 (3.9)	16.1 (4.3)	N/A		Noise level	
	75%	11.0 (2.9)	N.A.	N/A		69 dbA @ 7 meters	
	50%	6.1 (1.6)	N.A.	N/A		Emergency	
<b>Exhaust System</b>		<b>50Hz</b>	<b>60Hz</b>	Canopy RAL color		RAL 2000	
Silencer Size & Model		(2") Industrial		Chassis RAL color		RAL 9011	
Silencer Noise Reduction Level		11-15 dBA		<b>Dimensions</b>		<b>Open Type</b>	<b>Enclosure</b>
Max. Back Pressure kPa (in. Hg)		6.7 (2)		Length (mm)		1990	
Exhaust Gas Flow L/s (cfm)	Standby	81.4 (172.5)		Width (mm)		1092	
	Prime	75.5 (160.0)		Height (mm)		1530	
Exhaust Gas Temperature °C (°F)	Standby	509 (948)		Weight (kg)		1188	
	Prime	493 (919)		Fuel Tank Capacity (L)		261	

- Notes:
- 1-Prime power rating of generating set is a variable load and unlimited hours usage are applied on the generating set with an average load factor of 80% of the prime rating over each 24 hour period. Noting that a 10% overload is available for 1 hour in every 12 hours operation.
  - 2-Standby power rating of the generating set is a variable load limited to an annual usage upto 500 hours is applied, with 300 hours of which may be continuous running. Noting that no overload is permitted.
  - 3- Warranty: one year or (1000) hours which comes first.
  - 4- Referring to our company policy of continuous development, PI reserves the right to change specification without notice.

N.A. - Not Available

N/A - Not Applicable to this Engine

TBD - To Be Determined

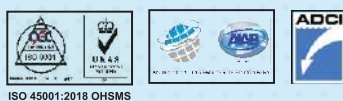


## Generators

Specifications	
Engine	Cummins 6BTA5.9G6
Alternator	Stamford UCI274C
Controller	Deep Sea 4520
Genset Starting	12 V DC , Lead Acid Batteries & Charge Alternator
Air Intake System	Replaceable Air filters
Fuel System	Fuel filter , Fuel pump & Base mounted fuel tank
Cooling System	Water cooled with mounted Radiator
Governor	Mechanical
Alternator poles	4
Alternator IP Rating	IP -xx

- Genset Control panel
- Engine protections
  - Generator Protections

- Canopy features
- Acoustic Cum weather proof canopy
  - Canopy provided with Tested with Double point lifting & Fork lift Pockets for easy transportation
  - Polyester Powder Coated Galvanized Sheet
  - Emergency stop push button
  - Easy cable entry access
  - Canopy Color - Orange (RAL 2000)



## Generators

PI Model	Hz/rpm	Voltage	Prime	Standby
N/A	50/1500	400/230	N/A	N/A
PI 125C	60/1800	380/220	114.0 kVA 91.0 kWe	125.0 kVA 100.0 kWe

Applicable Standard and References: ISO 8528-1; ISO 3046-1; BS 5514-1

The above given ratings are at 0.8 power factor (PF)

Engine Technical Data				Alternator Technical Data			
Engine Make & Model		Cummins 6BTA5.9-G6		Alternator Make & Model		STAMFORD UCI274C	
No. of Cylinders		6 In-line		No. of Poles		4	
Cycle		4		WINDING LEADS		12	
Aspiration		Turbocharged & Aftercooled		No. of Bearings		Single	
Cooling Method		Water		Insulation Class		Class H	
Governing Type		Electronic		Winding Pitch		TWO THIRDS	
Governing Class		ISO 8528 Part 1 G2		Ingress Protection Rating		IP-23	
Compression Ratio		17.3 : 1		Excitation System		SELF EXCITED	
Displacement (L)		5.9		AVR Model		SX460	
Bore/Stroke (mm)		102/120		<b>Alternator operating Data</b>		<b>50Hz</b> <b>60Hz</b>	
Battery Charger, Ampere		12Volts DC,55 Amp		Overspeed (RPM)		2250	
<b>Air System</b>		<b>50Hz</b> <b>60Hz</b>		Voltage Regulation		± 1.5 %	
Air Filter Type		Dry Element (replaceable)		Wave Form NEMA = TIF		<50	
Combustion Air Flow m <sup>3</sup> /min (cfm)	Standby	N/A	10.4 (370)	Wave Form IEC = THF		<2%	
	Prime	N/A	9.7 (343)	Total Harmonic Content LL/LN		2%	
Radiator Air Flow m <sup>3</sup> /min (cfm)		N/A		Radio Interference		Standard EN61000-6-2:2001	
<b>Cooling System</b>		<b>50Hz</b> <b>60Hz</b>		Cooling Air Flow m <sup>3</sup> /sec(cfm)		N/A      0.617 (1308)	
Total Coolant capacity (L)		19.75		<b>Controller Technical Data</b>			
Water Pump Type		Centrifugal Engine Driven		Controller Make & Model		ComAp - AMF9	
Radiator Fan Load kW (hp)		N/A      9.6 (12.86)		Operation mode		MRS / AMF(Optional)	
Heat Radiation to Room kW (BTU/min)	Standby	N/A      14 (791)		Display		Graphic back-lit LCD (128x64)pixels	
	Prime	N/A      13 (703)		Ingress Protection Rating		Sealed front face(IP65)	
<b>Lubrication system</b>				Binary Inputs/Outputs			
Oil Filter Type		Spin on full flow filter, 25 micron		Analog inputs			
Total Oil Capacity I (US gal)		16.4 (4.3)		Measurement			
Oil Pan I (US gal)		14.3 (3.8)		Event Log			
Oil Type		API CH4/CI4; SAE 15W-40		Communication (Optional)			
Cooling Method		Water		USB, RS232, RS485, GSM, ETHERNET			
<b>Fuel System</b>				<b>Gen-set Enclosure Specification (optional)</b>			
Fuel Filter Type		Spin on fuel filters with water separator		Enclosure Type		Acoustic and Weather Proof	
Recommended Fuel		Class A2 Diesel		Anticorrosive Protection		Polyester Powder Coated Galvanized Sheet	
Fuel Consumption: l/hr (US gal/hr)		Prime	Standby	Prime	Standby	Ingress Protection rating	
	110%	N/A		35 (9.1)	N.A.	Weather Proof IP23	
	100%	N/A		31 (8.1)	35 (9.1)	Transportation	
	75%	N/A		23 (5.9)	N.A.	ISO standard lifting	
50%	N/A		16 (4.1)	N.A.	Noise level		
Exhaust System		<b>50Hz</b> <b>60Hz</b>		Emergency		External Emergency Push Botton	
Silencer Size & Model		(2") Industrial		Canopy RAL color		RAL 2000	
Silencer Noise Reduction Level		11-15 dBA		Chassis RAL color		RAL 9011	
Max. Back Pressure kPa (in. Hg)		10.4 (3.0)		<b>Dimensions</b>			
Exhaust Gas Flow L/s (cfm)	Standby	N/A      470 (995)		<b>Open Type</b>		<b>Enclosure</b>	
	Prime	N/A      325 (687)		Length (mm)		2200      3437	
Exhaust Gas Temperature °C (°F)	Standby	N/A      551 (1023)		Width (mm)		1100      1164	
	Prime	N/A      528 (982)		Height (mm)		1587      1999	
				Weight (kg)		1320      2005	
				Fuel Tank Capacity (L)		431      431	

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## SYNERGY INFRASTRUCTURE





# SYNERGY

INNOVATIVE DIVING EQUIPMENT TRADING LLC

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ISO 45001:2018 OHSMS






## Generators

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