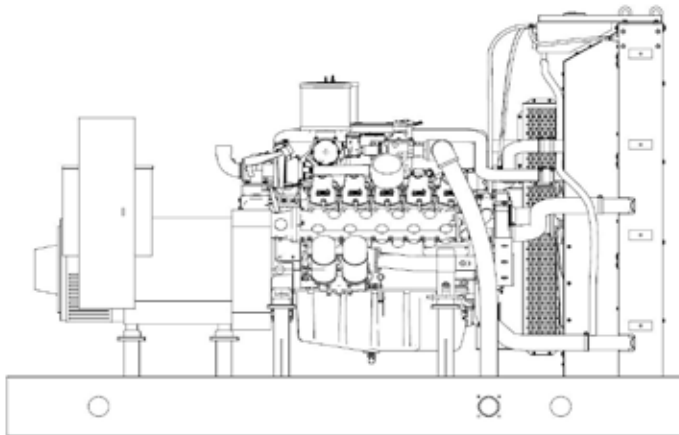


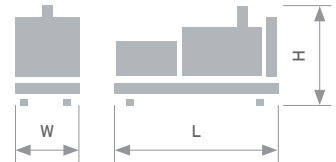


Measures:

L: 3810 mm H: 2235 mm
W: 2134 mm

Weight (dry):

12145 lbs / 5509 kg



60Hz



N/G



Water cooled



Open



1800 r.p.m.



CSA Approved
or Equivalent

1 Genset General Description

➤ Open skid generator sets equipped with with controllers to protect equipment and allow for manual or auto start up signals.

General Technical Data			
Engine	PSI 21.9L HO-NG		
Alternators	240/120V	Wdg.	-
		-	
	208/120V	Wdg.	STAMFORD HCI544D
		311	
	600/347V	Wdg.	STAMFORD HCI534C
		17	
Frequency	60Hz		
Control Panel	240/120V		DSE 7310 MKII
	208/120V		DSE 7310 MKII
	600/347V		DSE 7310 MKII
Noise level (dBA@7m)	96 dB(A)		

Voltage (v)	PRP (kW)	ESP (kW)	PRP/ESP (A)
240/120V	-	-	-/-
208/120V	N/A	450	N/A/N/A
600/347V	N/A	450	N/A/N/A

PRP: Continuous power ("Prime Power") ISO 8528-1 standard.
ESP: Emergency power ("Emergency Standby Power") ISO8528-1 standard.

2 Engine Specifications

- PSI 21.9L HO-NG N/G engine, inline 12-cylinders, 4-stroke. Turbocharged aspiration, air intake system. Electronic regulation. Complying N/A emissions.

Engine General Data

Manufacturer/Model	PSI 21.9L HO-NG	Number of Cylinders	12
R.P.M.	1800	Engine Capacity	21,9
Max. Power (kWm) (net)	484	Cooling System	Water cooled
Power PRP (Kwm) (net)	N/A	Regulation Type	Electronic
Fuel	N/G	Engine Type/Injection/Suction	N/G /Mixer/ Turbocharged

2.1 Fuel Feed System

- Mixer injection system, fuel filter included that prevents the passage of particles, original parts from the engine manufacturer.

50% PRP 2456 ft³/h

100% PRP 4499 ft³/h

Fuel inlet size 3" NPT

75% PRP 3500 ft³/h

Inlet pressure 7-11" H2O

2.2 Cooling System

- Cooling by fully distributed coolant in a closed circuit driven by a pump activated by the engine. Tropicalized radiator. Original parts from the engine manufacturer.

1133

Fan Airflow (m3/min)

31,3
(31,3)

Fan Power Consumption, hp (kW)

228

Engine + Radiator Capacity (l)

6000W
208V

Blockheater (W/V)

2.3 Lubricating System

- Lubrication system is driven by the crankshaft driven pump. Filter on top with full flow cartridge inserted, front crankcase. Original parts from the engine manufacture.

Total Oil Capacity 40L

2.4 Air Intake System

› Mixer air intake system including two-stage filter. Original parts from the engine manufacturer.

Combustion Air Volume 29 m³/min

2.5 Start System

› Start system by electric motor. battery (without maintenance) with disconnecter and charging alternator driven by the starter motor 24V, original parts from the engine manufacturer.

Number of Batteries

2

Battery Features

1050CCA

Starting Voltage

24V

2.6 Exhaust System

Exhaust System	
Exhaust Gas Volume	90 m ³ /min
Exhaust Gas Temperature	750 °C
Exhaust External Diameter	5" (127mm)
Max. Exhaust Backpressure	10,2kPa

3 Alternator Specifications

› Alternator STAMFORD 4-poles, brushless, alternator with class - insulation wound at 2/3 pitch and self-excited automatic voltage regulator (AVR).

Alternator General Data	240/120V	208/120V	600/347V
Brand/Model	-	STAMFORD HCI544D	STAMFORD HCI534C
Winding No.	-	311	17
Voltage Regulator AVR	-	PMG + MX341	PMG + MX341
Voltage Regulator	-	±1%	±1%
ESP Power Rating 40°C (kW)	-	450	450
PRP Power Rating 40°C (kW)	-	N/A	N/A
Number of Phases	1	3	3
Power Factor (cos φ)	1	0,8	0,8
Efficiency at 100% Load	-	94,5%	94,2%
Efficiency at 110% Load	-	94,4%	94,1%

The alternator complies with the following standards:

- Class H temperature rise 125°C (257°F), Standby (ESP).
- Class H temperature rise 105°C (302°F), Prime (PRP).
- AS 1359
- IEC 34-1
- BS EN 60034-1
- VDE 0530
- BS 5000
- CAN/CSA-C22.2-100
- NEMA MG1-32

Low wave distortion: THD (100% load) = 2%, THF < 2%, Complying with EN61000-6-3, EN61000-6-2 standards on radio interference.

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4 Bench Specifications

- Engine and alternator mounted on a high strength steel frame and painted with electrostatic epoxy polyester powder paint. Frame is tested in saline mist chamber to conform to ASTM B-117-09 for 500 hours. Engine and Alternator are mounted on rubber isolators to help dampen vibration while running.



5 Control Panel

- The control panel protects the engine and generator and allows for manual and automatic control of the genset.



5.1 Main Line Breaker

- Main line circuit breaker: A thermo-magnetic breaker provides protection against short circuits and overloads.

240/120

-

208/120

1600 Amps

600/347

600 Amps

5.2 Control Panel Features

- Emergency Stop Push Button

- DeepSea Battery Charger

Permanently connected to the battery to keep the battery fully charged. Charger is equipped with a float feature to keep battery ready in a prime starting state.

- Panel Fusing

Fusing to protect the control panel wiring and accessories.

5.3 Control Card

Control card for 600/347V: DSE 7310 MKII

Features of the DSE 7310 MKII Card:

- 132X64 pixel illuminate LCD display
- Full engine/alternator parameter and alarm read out
- 5-button menu navigation
- One touch Auto-Manual-Test and Stop buttons
- 9 factory configurable outputs
- 8 factory configurable inputs
- Programmable PLC for custom application
- Remote communication through an RS232 or RS485 connection
- Utility sensing Option

The control card complies with the following environmental tests:

- BS EN 61000-6-2 (electromagnetic compatibility)
- BS EN 61000-6-4 (electromagnetic compatibility)
- BS EN 60950 (electrical safety)
- BS EN 61000-6-2 (Temperature)
- BS EN 60068-2-6 (Vibration)
- BS EN 60068-2-30 (Humidity)
- BS EN 60068-2-27 (Shock)

6.4 Display

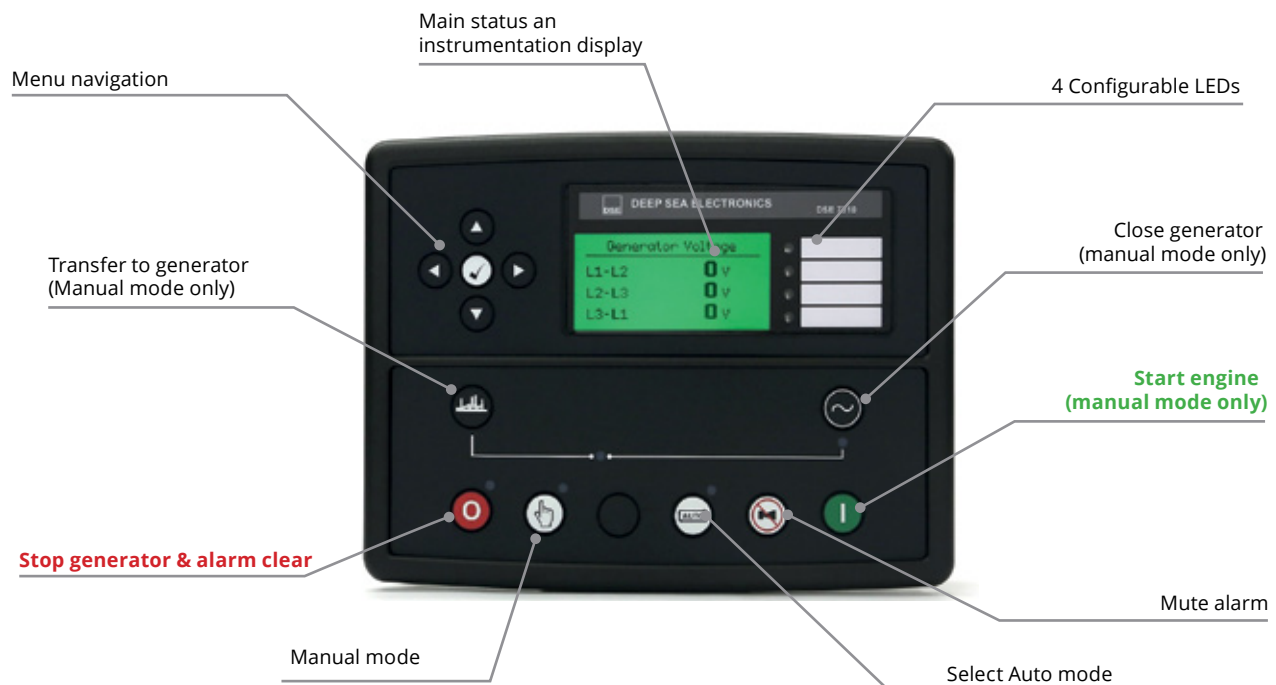
Control card for all Voltages: DSE 7310 MKII

Engine	
Engine Speed	Engine Hours
Oil Pressure	Number Engine Starts
Battery Voltage	Fuel Consumption
Fuel level	Engine Temperature

Generator	
Voltage (L-N)	Voltage (L-L)
Frequency	Amperage
Power Factor	Load (kW, kVA, kVah)

Alarm Detected

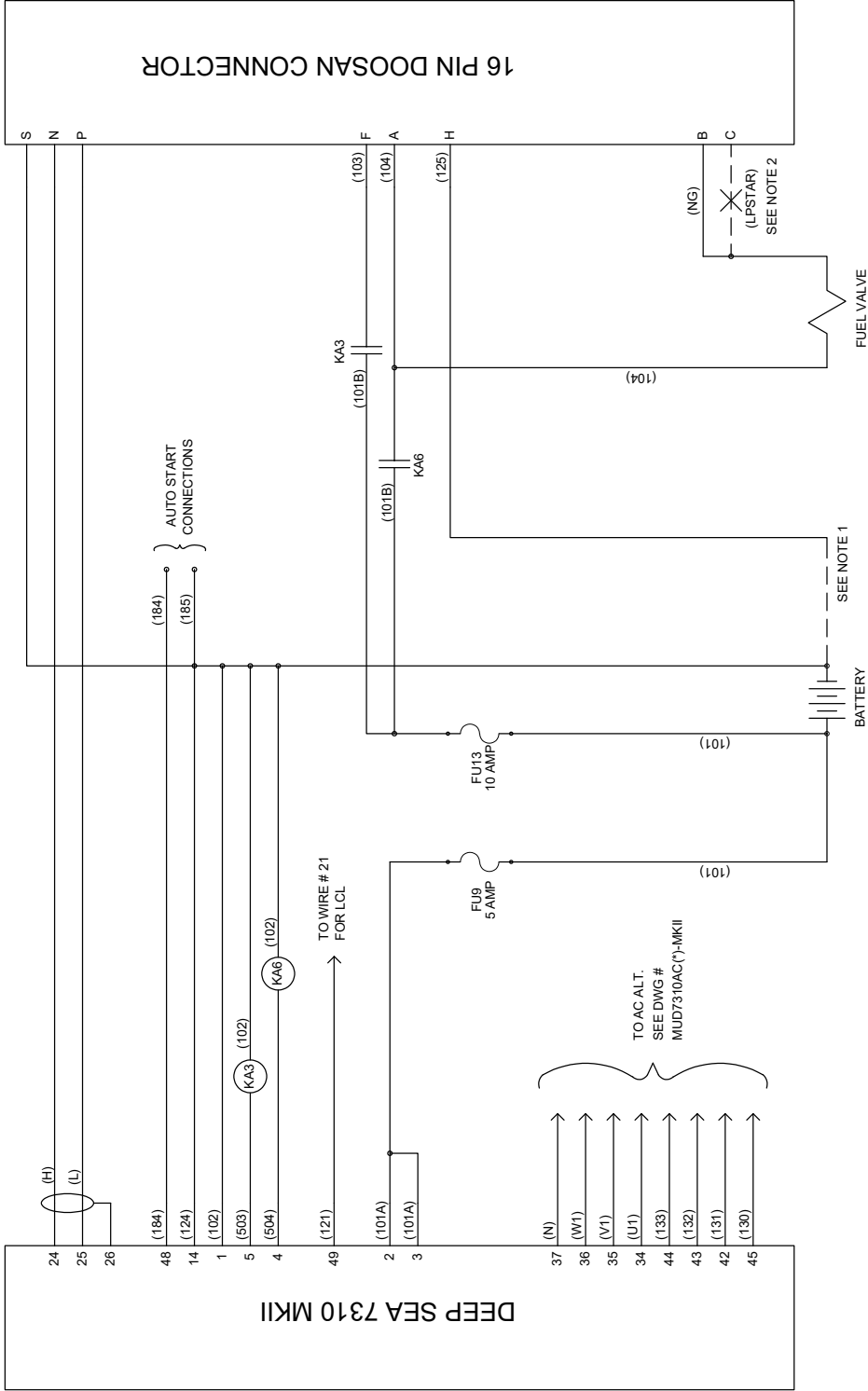
Overcrank	High Engine Temp.
Low Oil Pressure	Low Engine Temp.
Low Coolant Level	Low Fuel Level
Low Plant Battery Voltage	Main Line Breaker
Over Voltage	Over Frequency
Under Voltage	Over Speed
Control Not In Auto	Lamp Test Features



Gensets rated for operational ambient temperature of 40 C, in compliance of CSA C282-15. If ambient temperature exceeds 40 C, please contact sales representative for derating information. Emergency standby power(ESP): the maximum power available for which a genset is delivering in the event of a utility power outage or under test conditions for up to 200hours per year. Prime Power(PRP): the maximum power which a genset is capable of delivering continuously for an unlimited number of hours per year.

LEGEND:

KA3 START SLAVE RELAY
KA6 ECM SLAVE RELAY
FU9 5A DC PANEL FUSE
FU13 10A DC PANEL FUSE



AMMENDMENTS				DOOSAN NG/LP SERIES			
DATE	TECHNICIAN	CHANGE	DWG#	SIZE	DATE	DRWING	SHEET
05/09/2018	MKG	INITIAL RELEASE	MUD7310DC-MKII	A3	05/09/2018	MKG	1 OF 1
				COMMENTS			