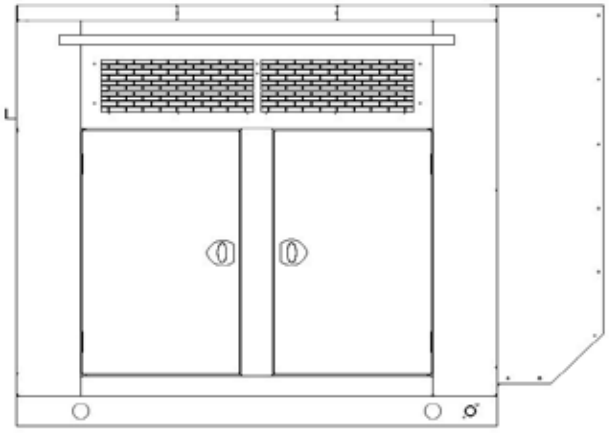
SOMMERS

Generator Systems

3YR or 3000Hr Limited Parts, Travel & Labour warranty

60Hz **PSI 11.1L-NG**

NDWAS200ST

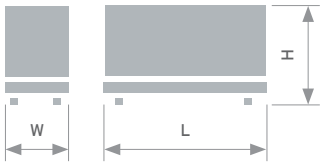


Measures:

L: 4115 mm H: 2235 mm
W: 1524 mm

Weight (dry):

9345 lbs / 4239 kg



60Hz | N/G | Water cooled | Soundproofed | 1800 | CSA Approved or Equivalent

1 Genset General Description

› Soundproof generator sets equipped with controllers to protect equipment and allow for manual of auto start up signals.

General Technical Data			
Engine	PSI 11.1L-NG		
Alternators	240/120V	Wdg. .06	STAMFORD HCI444E-w06
	208/120V	Wdg. 311	STAMFORD UCDI274J
	600/347V	Wdg. 17	STAMFORD UCI274H
Performance Class	N/A		
Frequency	60Hz		
Control Panel	240/120V	DSE 7310 MKII	
	208/120V	DSE 7310 MKII	
	600/347V	DSE 7310 MKII	
Noise level (dBA@7m)	73 dB(A)		

Voltage (V)	PRP (KW)	ESP (KW)	PRP/ESP (A)
240/120V	198	218	826/908
208/120V	198	218	687/756
600/347V	193	212	232/255

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

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www.sommersgen.com
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70 Packham Avenue
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2 Engine Specifications

› PSI 11.1L-NG N/G engine, 6-cylinders, 4-stroke. Turbocharged aspiration, air intake system. Electronic regulation. **Complying N/A emissions.**

Engine General Data			
Manufacturer/Model	PSI 11.1L-NG	Number of Cylinders	6 cylinders
R.P.M.	1800	Engine Capacity	11,1
Max. Power (kWm) (net)	235	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

› A fuel inlet valve mounted in frame. An approved flexible fuel line is then connected to the Mixer injection system for vibration isolation.

50% PRP	1157 ft^3/hr
100% PRP	2115 ft^3/hr
Fuel inlet size	2" NPT
75% PRP	1648 ft^3/hr
inlet Pressure	7-11" H_2O

2.2 Cooling System

› Cooling provided by a pusher fan across an industrial radiator. A belt driven water pump circulates coolant throughout the engine.

- **510** — Fan Airflow (m3/min)
- **9 (6,7)** — Fan Power Consumption, hp (kW)
- **105** — Engine + Radiator Capacity (l)
- **2000W 208/240V** — Blockheater (W/V)

2.3 Lubricating System

› Lubrication system is driven by the crankshaft driven oil pump. Full flow cartridge style filter is engine mounted. Original parts from the engine manufacture.

Total Oil Capacity 25L

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2.4 Air Intake System

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

Combustion Air Volume 13 m3/min

2.5 Start System

› Start system by electric starter. A maintenance free battery is included. The belt driven battery charging alternator provides a charging circuit for the battery while the engine runs.

Number of Batteries	2	Battery Features	4D	Starting Voltage	24V

2.6 Exhaust System

Exhaust System	
Exhaust Gas Volume	40,3 m3/min
Exhaust Gas Temperature	750 ºC
Exhaust External Diameter	3,5" (89mm)
Max. Exhaust Backpressure	10,2kPa

3 Alternator Specifications

› Alternator STAMFORD 4-poles, brushless, alternator with class H 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 HCI444E-w06	STAMFORD UCDI274J	STAMFORD UCI274H
Winding No.	.06	311	17
Voltage Regulator AVR	PMG + MX341	PMG + MX341	PMG + MX341
Voltage Regulator	±1%	±1%	±1%
ESP Power Rating 40ºC (kW)	220	230,4	220
PRP Power Rating 40ºC (kW)	200	215,2	204
Number of Phases	1	3	3
Power Factor (cos φ)	1	0,8	0,8
Efficiency at 100% Load	93,8%	92,8%	93,6%
Efficiency at 110% Load	92,6%	92,5%	93,4%

The alternator complies with the following standards:

- Class H temperature rise 105ºC (257ºF), continuous rating.
- Class H temperature rise 125ºC (302ºF), standby rating.
- 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 Frame 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 Canopy Specifications

- Canopy made of high strength galvanized steel and is painted with electrostatic epoxy polyester paint. Canopy is lined with acoustical/fireproof rock wool. A critical exhaust muffler 0dB(A) is installed to dampen exhaust noise. All is tested in a saline mist chamber to conform with ASTM B-117-09 for 720 hour.

6 Control Panel

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

6.1 Main Line Breaker

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

240/120	1000 Amps
208/120	800 Amps
600/347	250 Amps

6.2 Control Panel Features

- **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.

6.3 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)

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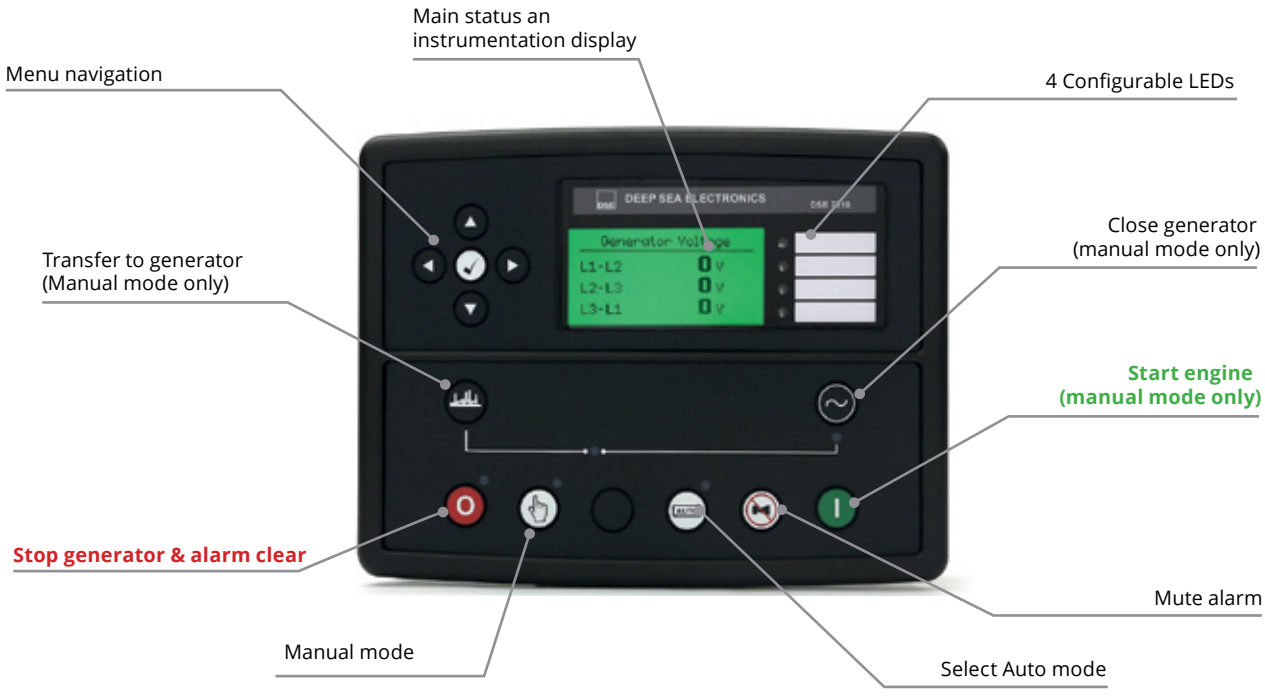
6.4 Display

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.

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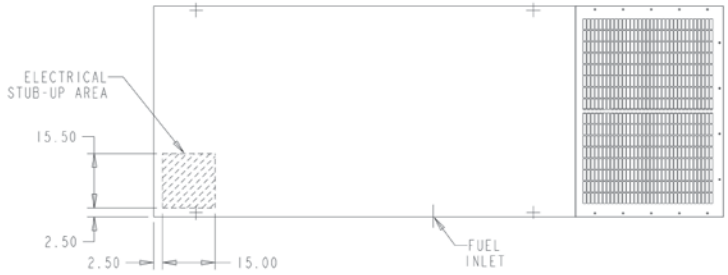
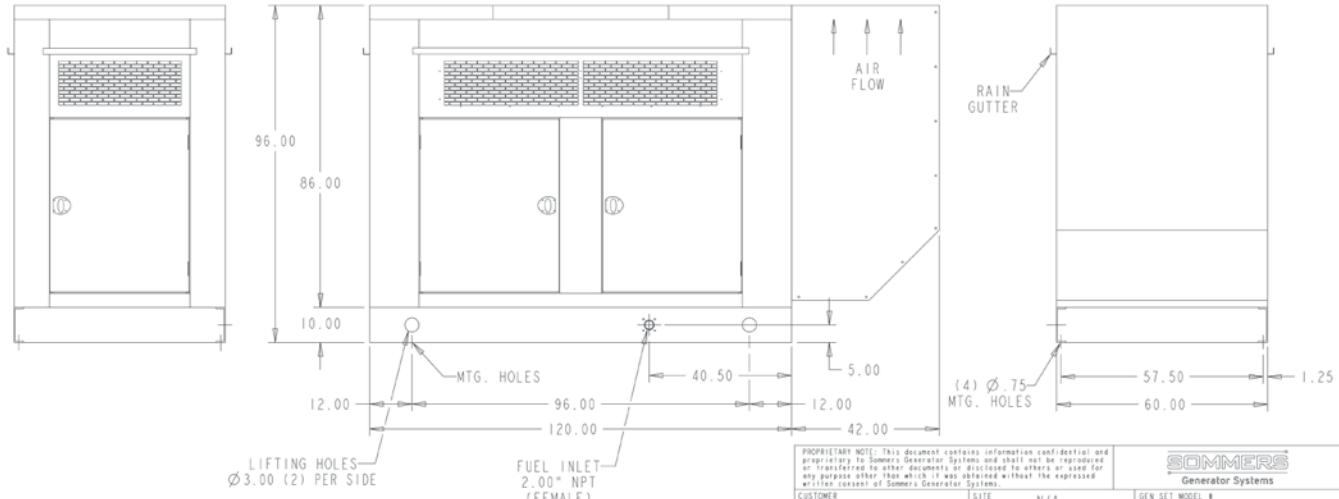
TITLE | 200kWe GENSET ENCLOSED ASSEMBLY

NAME	MODEL
ENGINE	DOOSAN 11.1L TURBO W/CAC
GENERATOR	NEWAGE HCI434C



GENERAL NOTES:

1) DRAWING TOLERANCES: ±.25"
2) BASE MTG. HOLE TOLERANCES: ±.12"
3) ALL DIMENSIONS ARE IN INCHES.
4) 41" CLEARANCE REQUIRED ON BOTH SIDES AND REAR FOR DOOR SWING.



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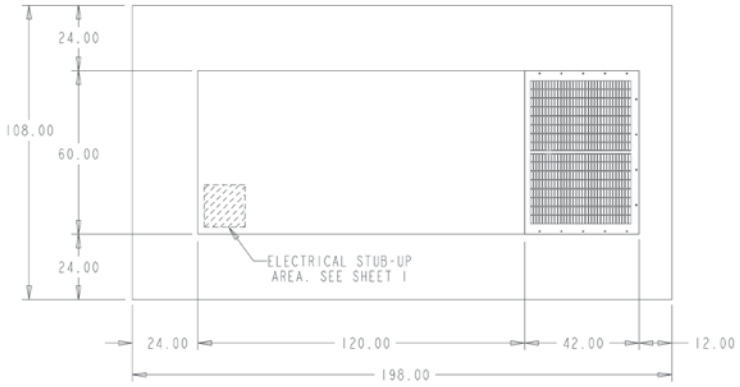
CUSTOMER	SITE	GEN SET MODEL #
	N/A	

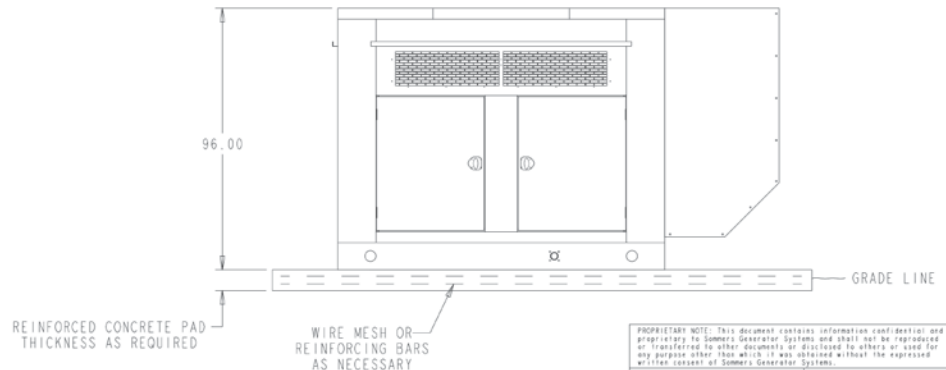
QUOTE #	PO #	PO DATE	FIRST USED	ESTIMATED WEIGHT	SIZE	DRAWING NUMBER
					B	SAI2060B

REV	DESCRIPTION	DATE	REV BY	AS BUILT
1	NEW DRAWING	2/25/18	SAK	

DRAWN BY: SAK | CHK BY: SAK | TOLERANCES: SEE NOTES | SCALE: NONE | FILE: SAI2060B | SHEET 1 OF 2

TITLE | 200kWe GENSET ENCLOSED PAD





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	N/A	

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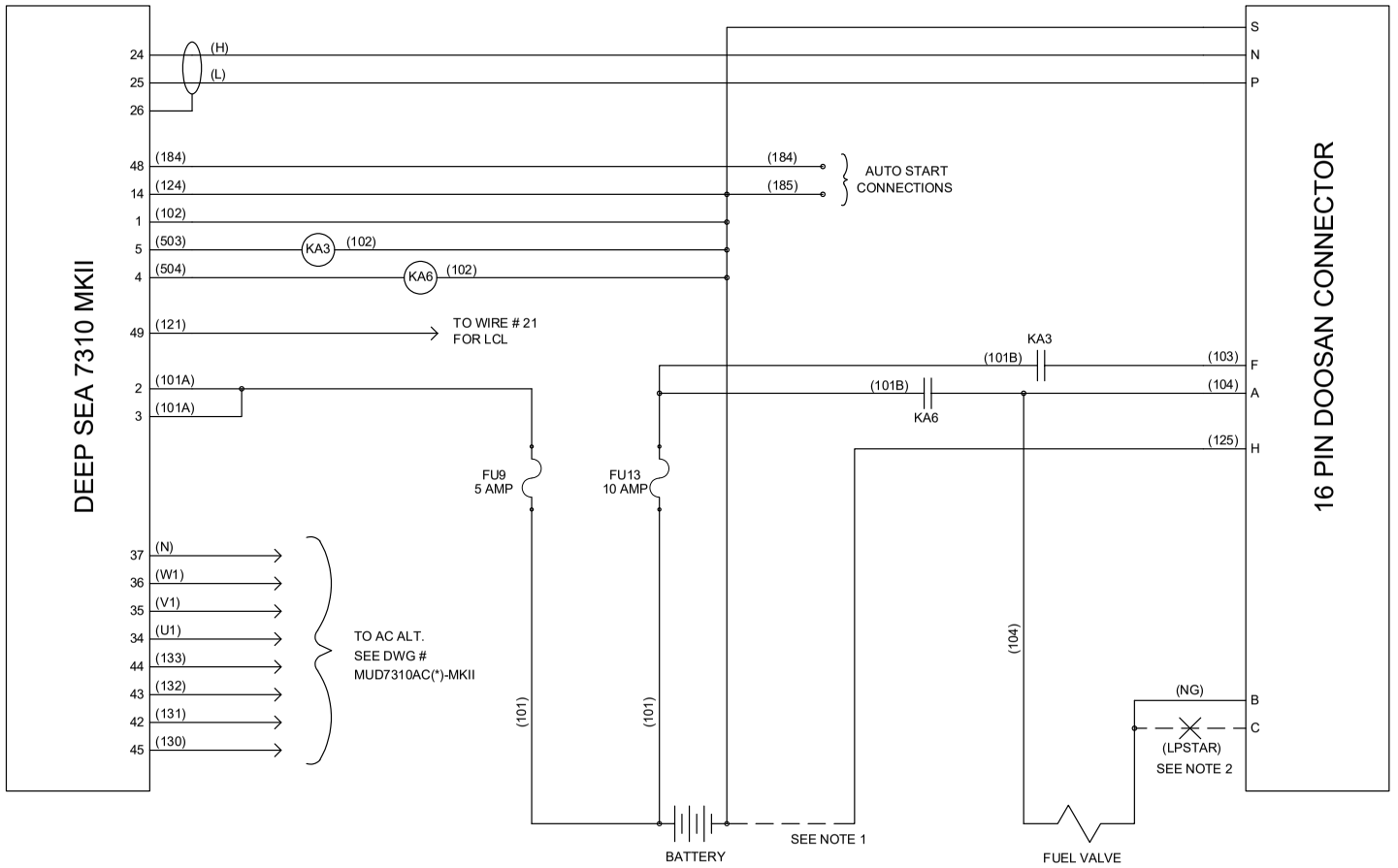
					B	SAI2060B

REV	DESCRIPTION	DATE	REV BY	AS BUILT
1	NEW DRAWING	2/25/18	SAK	

DRAWN BY: SAK | CHK BY: SAK | TOLERANCES: SEE NOTES | SCALE: NONE | FILE: SAI2060B | SHEET 2 OF 2



LEGEND:

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

NOTE:

1. CONNECT WIRE TO GROUND FOR PROPANE UNITS ONLY.
2. CONNECT FUEL VALVE NEGATIVE TO PIN 'C' ON 16 PIN CONNECTOR IF SYSTEM IS RUNNING ON PROPANE.
3. ALL WIRE #'S ARE IN PARENTHESIS. USE #16 GAUGE FOR HARNESS.

BLUE	DC
BLACK	AC VOLTAGE SENSING
WHITE	NEUTRAL
ORANGE	CT'S & CT COMMON

SOMMERS
Generator Systems

AMMENDMENTS

DATE	TECHNICIAN	CHANGE
05/08/2018	MKG	INITIAL RELEASE

TITLE: DOOSAN NG/LP SERIES
DC CONNECTION DIAGRAM

DWG#: MUD7310DC-MKII		SIZE: A3	SHEET: 1 OF 1
SCALE: NTS	DRAWN BY: MKG	DATE: 05/08/2018	

COMMENTS: