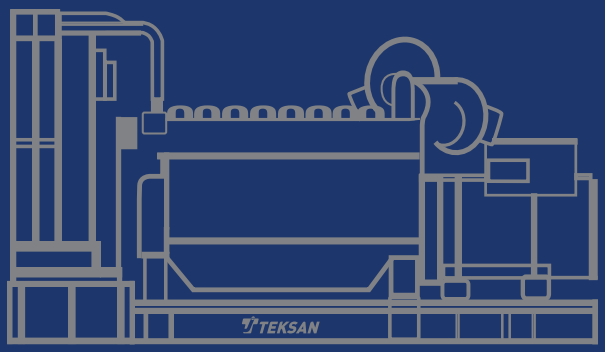
TJUG250PS

Industrial Gaseous Generator Sets



Genset Standby Power Rating

125/40 °C Standby Ratings				NG				LPG	
Alternator Model				**LSA 46.3 L10**	**LSA 46.3 S5**	**TAL046F**	**TAL046D**	**LSA 44.3 VL13**	**TAL044L**
Voltage	Phase	Pf	Leads	kW / A	kW / A	kW / A	kW / A	kW / A	kW / A
480/277V ⅄	3	0,8	6/12	250 / 375	250 / 375	250 / 375	250 / 375	150 / 225	150 / 225
208/120V ⅄⅄	3	0,8	12	250 / 867		250 / 867		150 / 520	150 / 520
240/120V △	3	0,8	12	250 / 752		250 / 752		150 / 451	150 / 451
Alternator Model								**LSA 46.3 S4**	**TAL046C**
240/120V △△	1	1	12					150 / 625	150 / 625
Alternator Model				**LSA 46.3 M7**		**TAL046E**		**LSA 44.3 L12**	**TAL044K**
600/347V ⅄	3	0,8	6/12	250 / 300		250 / 300		150 / 180	150 / 180

Continuous Power

The maximum power which a generating set is capable of delivering continuously whilst supplying a constant electrical load. Average load can be 100%. The generator must not be overloaded.

Prime Power

The maximum power which a generating set is capable of delivering continuously whilst supplying a variable electrical load. Average load should be 70%. The generator can be overloaded 10% for 1 hour per 12 hrs.

Standby Power

The max power available during a variable electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200 hrs of operation per year under average of 70% load. Overloading isn't permissible.

Certifications & Standards

The Generator set is designed and manufactured in a facility certified to **ISO9001:2015, ISO14001:2015, ISO45001-2018** and **ISO10002:2014 standards**.

Generator set is **UL2200**, cUL listed and meets ISO 8528-5

The generator set, with its components, are **prototype tested,** factory-built and production tested per UL standards.

The generator set meets **NFPA110 Level 1** when equipped with the necessary accessories and installed per NFPA standards.

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Industrial Gaseous Generator Sets

Standard Features – Engine

EPA Certified – Emergency Stationary Only	Speed Control to ISO 8528-5 G1
Unit Mounted Radiator	24V Battery System & Cables
Oil and Coolant Drain Extension w/Valve	Flex Exhaust Connection

Application Data – Engine

Manufacturer & Model	PSI – 13L
Cubic Capacity	12.54 L
Bore x Stroke	127 mm x 165.1 mm
Compression Ratio	9.75:1
Aspiration	Charge Cooled Forced Induction
Engine Power (NG Gross)	300 kW
Engine Power (LPG Gross)	181 kW
Electrical System, Charge Alternator	24V, 70A
Battery Qty, CCA Rating	
Cooling Fan Air Flow	756 m3/min
Combustion Air Required	16.3 m3/min
Exhaust Gas Temp	651 °C
Exhaust Flow at Turbine Outlet Conditions	52.5 m3/min
Maximum Allowable Exhaust Back Pressure	15 kPa
Total Coolant Capacity	76 L (20.1 gal)
Engine Oil Capacity (Min/Max)	26.5 L / 30 L
Fuel Inlet Size	1-1/4'' NPT
Maximum Operating pressure to EPR	10.8 in-H2O (2.7kPa)
Minimum Operating pressure to EPR	6.8 in-H2O (1.7kPa)

Fuel Consumption	NG	LPG
Standby Power – ft3/hr (m3/hr)	3,369 (95,4)	925 (26.2)
At 75% of Standby – ft3/hr (m3/hr)	2,574 (72.9)	689 (19.5)
At 50% of Standby – ft3/hr (m3/hr)	1,815 (51.4)	480 (13.6)

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Standard Features – Alternator

Brushless Single Bearing	AREP+ Excitation
Class H Insulation	Digital Automatic Voltage Regulator
Low reactance 2/3 pitch windings	100% of Rated Load – One Step
IEC 60034, NEMA MG 1.32-33, ISO8528-3	CSA C22.2 n°100-14, UL 1446 Compliant

Application Data – Alternator

Manufacturer	Leroy Somer
Type	4 Poles, Brushless
Bearing	Single
Protection	IP 23
AVR	D350
Voltage Regulation (**)	± 0.25%
AREP+/PMG Short Circuit Current	TAL:2.7 IN: 10 s / LSA:300% (3 IN): 10 s (*)
One Step Load Acceptance	100% of rated load
Altitude	≤1000 meters
Over Speed	2250 rpm
THD (***) in no-load	< 2%
THD (***) on linear load	< 5%
Waveform: NEMA = TIF (***)	< 50
Waveform: I.E.C. = FHT (***)	< 2%

Motor starting (AREP+) Locked rotor kVA at P.F. = 0.6, 480V – 60Hz

Alternator Model	LSA 46.3 L10	LSA 46.3 S5	LSA 44.3 VL13	TAL046F	TAL046D	TAL044L
%30 Voltage Drop	1050kVA	760kVA	700kVA	820kVA	630kVA	650kVA

(-)For a starting P.F. other than 0.6, the starting kVA must be multiplied by K = Sine P.F. / 0.8

(-)For voltages other than 480V (Y), 277V (Δ), 240V (YY) at 60 Hz, then kVA must be multiplied by (480/U)2 or (277/U)2 or (240/U)2.

Application Data – Circuit Breaker

Genset Voltage	480/277V ⅄	208/120V ⅄	240/120V △	600/347V ⅄
ABB Breaker Model	XT5N400-400A	XT7S1000-1000A	XT6N800-800A	XT5N400-400A

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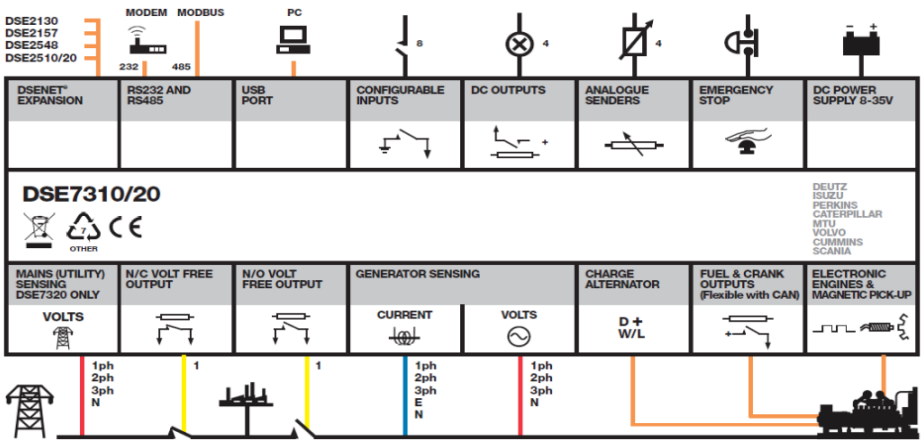
Control Panel

Manufacturer	DSE – Deep Sea Electronics
Model	7310 MKII
DC Supply	8 to 35V Continuous
Generator Voltage Range (Ph-Ph)	26V to 719V AC
Generator Frequency Range	3,5Hz to 75Hz
Standards	BS EN 61000-6-2, BS EN 61000-6-4, BS EN 60950, BS EN 60529 BS EN 60068-2-1, BS EN 60068-2-2 BS EN 60068-2-6, BS EN 60068-2-30 BS EN 60068-2-78, BS EN 60068-2-27

Key Features
License free PC software
4-Line back-lit LCD text display
Five key menu navigation
LCD Alarm Indication
DSENet expansion compatibility
Internal PLC editor
Protection disable feature
Data logging facility
Fully configurable via PC
Front panel configuration
Power safe mode
6 configurable DC outputs
2 configurable volt free relay outputs
6 configurable analogue/digital inputs
8 configurable digital inputs
Configurable 5 stage dummy load and load shedding outputs
Backed up real time clock
Fuel usage monitor and low fuel level alarms
Remote SCADA monitoring via DSE Configuration Suite PC Software
Advanced SMS messaging (additional external model required)
Start & Stop capability via SMS messaging
Configurable event log (250)
Multiple date and time scheduler

Protections
✓ Gen. Voltage – under / over
✓ Gen. Freq. – under / over
✓ Engine Speed – under / over
✓ Engine Oil Pressure – low
✓ Engine Temp – low / high
✓ Battery Voltage – low / high
✓ Weak Battery
✓ Fail to Start / Stop
✓ Charge Alternator Fail
✓ Over Current & Load (kW/kVAr)
✓ Unbalanced Load
✓ Independent Earth Fault
✓ Reverse Power
✓ Loss of Speed Signal

Instruments
✓ Gen. Voltage (L-L/L-N)
✓ Gen. Frequency
✓ Engine speed
✓ Oil Pressure
✓ Water Temperature
✓ Battery Voltage
✓ Run Time
✓ Phase Sequence
✓ Power monitoring (kWh/kVAh/kVArh)
✓ Power (kWh/kVAh/kVArh)
✓ Power Factor
✓ Generator Current
✓ Generator Load (%)
✓ Earth Current



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Industrial Gaseous Generator Sets

Standard Features – General

UL 2200 & cUL Listed	NFPA-110, Level 1 Compliant (*)
Main Line Circuit Breaker Mounted & Wired	Jacket Water Heater w/Isolation Valves
Vibration Isolation Mounts	Battery Charger & Starter Battery
Aluminized Steel Silencer	2 Year / 2000 Hours Standby Warranty

Battery Charger

DSE Model	9470 MKII
Operation Voltage (L-N)	90V to 305V
Output Volts/Current	24V / 10A

Jacket Water Heater

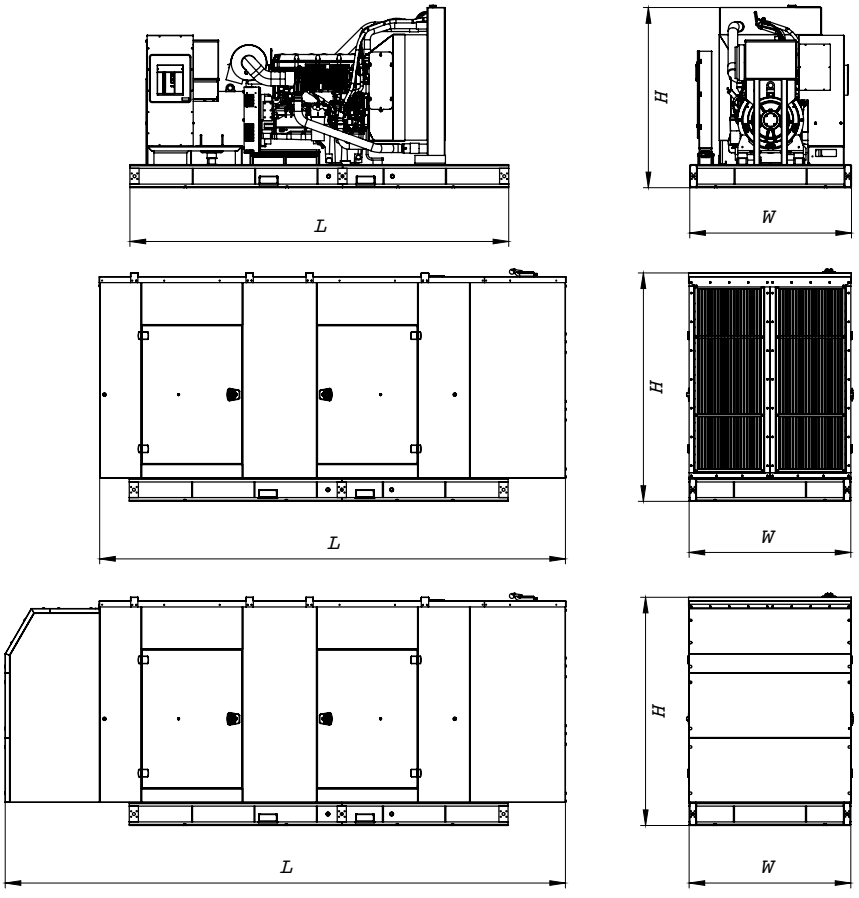
Hotstart Model	CTM25210-N00
Operation Voltage	240V
Power	2500W

Dimensions, Weights & Sound Levels

Open Skid		
L	161.4''	4100mm
W	68.9''	1750mm
H	88.0''	2235mm
Weight	6,327lbs	2,870kg

Level 2 Enclosure		
L	198.7''	5048mm
W	71.1''	1806mm
H	97.4''	2475mm
Weight (Steel)	8,311lbs	3,770kg
Weight (Aluminum)	7,363lbs	3,340kg
Sound Level	77dBA	

Level 3 Enclosure		
L	239''	6070mm
W	71.1''	1806mm
H	97.4''	2475mm
Weight (Steel)	9,149lbs	4,150kg
Weight (Aluminum)	8,201lbs	3,720kg
Sound Level	73dBA	



(*)Generator set meets NFPA-110. Level 1, when equipped with the necessary accessories and installed per NFPA standards.
(**)Sound data as measured at 23 feet (7 meters) in accordance with ISO 8528-10 at stand-by power rating and does not account for ambient site conditions.
- All measurements are approximate and for estimation purposes only. Specification characteristics may change without notice. Please contact Teksan for detailed installation drawings.

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Available Options

Circuit Brakers

- ☐ LS/I Trip
- ☐ LSI Trip
- ☐ LSIG
- ☐ 80% Rating
- ☐ 100% Rating
- ☐ Electrically Operated CB (paralleling)
- ☐ Shunt Trip – wired to controller
- ☐ Auxiliary Contact – volt free contact

Alternator

- ☐ Upsize Alternator
- ☐ Strip Heater
- ☐ RTD Sensors

Electrical

- ☐ GFCI Receptacle Outlet
- ☐ Load Center

Control System

- ☐ Remote Annunciator Panel – 8 lights
- ☐ Remote Annunciator Panel – 16 lights
- ☐ Remote Annunciator Panel – 24 lights
- ☐ Common Alarm Relay – V free contact
- ☐ Generator Run Relay – V free contact
- ☐ Control Panel Heater
- ☐ Dry Contacts Expansion Relay
- ☐ Remote E-Stop Switch
- ☐ Remote Monitoring
- ☐ Paralleling System Upgrade
- ☐ Manual Voltage Adjust

Battery System

- ☐ Starting Batteries
- ☐ Battery Charger (NFPA110 Compliant)
- ☐ Battery Wrap Heater
- ☐ Battery Restraint
- ☐ Battery Disconnect Switch

Enclosures

- ☐ Sound Attenuated Level 2
- ☐ Sound Attenuated Level 3
- ☐ Enclosure DC light
- ☐ Enclosure AC light
- ☐ Enclosure Space Heater
- ☐ Motorized Air Inlet Damper
- ☐ Gravity Radiator Louver

Miscellaneous

- ☐ ATS Panel
- ☐ Rated Power Factor Factory Testing
- ☐ Enclosure Heater
- ☐ Oil Pan Heater
- ☐ Spring Isolators
- ☐ Crankcase Ventilation Filter
- ☐ Critical Silencer Set w/Open Skid Unit

Warranty

- ☐ 5 Years Extended Limited Warranty

DISTRIBUTED BY:

TEKSAN USA

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