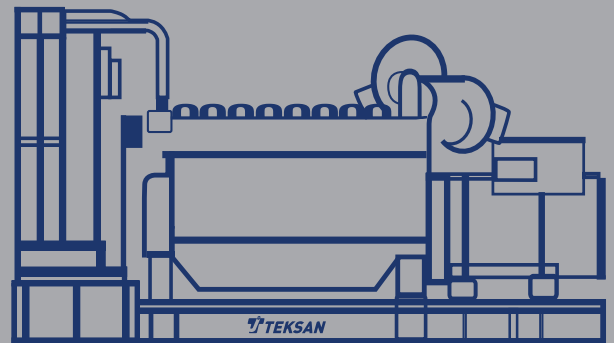


# TJUG115PS

## Industrial Gaseous Generator Sets



### Genset Standby Power Rating

<b>Voltage</b>	208/120V	240/120V	480/277V	600/347V	240/120V	240/120V
<b>Phase</b>	3	3	3	3	1	1
<b>Pf</b>	0,8	0,8	0,8	0,8	1	1
<b>Standby kWe (NG)</b>	100kW	100kW	100kW	100kW	76kW	100kW
<b>Standby Amps (NG)</b>	346A	300A	150A	120A	316A	416A
<b>Standby kWe (LP)</b>	115kW	115kW	115kW	115kW	81kW	115kW
<b>Standby Amps (LP)</b>	399A	345A	172A	138A	337A	479A
<b>Alternator Model</b>	TAL044H	TAL044H	TAL044E	TAL044E	TAL044H	TAL044E
<b>Temp Rise</b>	125 / 40 °C	125 / 40 °C	125 / 40 °C	125 / 40 °C	125 / 40 °C	125 / 40 °C
<b>Connection</b>	12 Leads WYE	12 Leads Delta	12 Leads WYE	6 Leads WYE	12 Leads DD	4 Leads Series

### 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.

### Application Data - Engine

Engine	
Manufacturer	PSI
Model	8.8L NA
Number of Cylinders	V-8
Cycle	4
Cubic Capacity	8.8 liters
Bore x Stroke	110.5 mm
Stroke	114.3 mm
Aspiration	Naturally Aspired
Combustion Ratio	10.1:1
Gross Standby Power Rating at the Flywheel - NG	121.34 kW
Gross Standby Power Rating at the Flywheel - LP	138.25 kW
Rated rpm	1800
Speed Regulation	±0.5%

Electrical System	
Starting Motor Voltage	12V
Battery	1 x 102Ah
Battery CCA Rating	860A

Fuel System	
Fuel Type	NG, LP Vapor or Dual Fuel
Maximum EPR Rated Pressure	1 psi (6.9 kPa)
Fuel Supply Pressure to EPR	7.0 - 11.0 inH2O
Minimum NG Supply Pipe Size	1-1/4" NPT
Minimum LPG Supply Pipe Size	3/4"

Air Induction System	
Combustion Air Required	8.93 m3/min
Max. Allowable Intake Air Restriction - Clean	3.0 inH2O
Max. Allowable Intake Air Restriction - Dirty	13.0 inH2O

Fuel Consumption - NG	
Standby Power (100%)	
At 75% of Standby	
At 50% of Standby	

Fuel Consumption - LP	
Standby Power (100%)	
At 75% of Standby	
At 50% of Standby	

Cooling System	
Ambient Capacity of Radiator	122 °F (50 °C)
Coolant Capacity - Engine Only / Total	13.7 liters / 28.0 liters
Maximum Allowable Static Pressure on Rad. Exhaust	0.5 inH2O
Heat Rejection to Coolant	73.5 kW
Water Pump Flow Rate	125 liters/min
Heat Radiated to Ambient	-
Cracking Temperature	71 °C
Full Open Temperature	85 °C

Exhaust System	
Type	Air Cooled Manifold
Max Gas Temperature	1350 °F (732 °C)
Intermittent Rating Catalyst Configuration	Dual Substrate
Maximum allowable Back pressure	10.2 kPa
Exhaust Volumetric Flow at Rated Power @ 1350 F	803.9 cfm

Lubrication System	
Oil Specification	SAE 5W-30 API Rating of SM or Newer
Maximum Allowable Oil Temperature	121 °C
Engine Oil Capacity	7.57 liters

### Standard Features - Alternator

Brushless Single Bearing

125/40 °C Temperature Rise

Class H Insulation

Low waveform distortion with non-linear loads

EC 60034-1; CEI EN 60034-1; NEMA MG 1.22, NF 51- 100,111

AREP Excitation

300% Short Circuit Capability

Low reactance 2/3 pitch windings

Self-ventilated and drip-proof construction

BS 4999-5000; VDE 0530, OVE M-10

### Application Data - Alternator

Manufacturer	Leroy Somer					
Type	4 Poles, Brushless					
Protection	IP 23					
Voltage Regulation	± 0.25%					
One Step Load Acceptance	100% of rated load					
Bearing	Single					
THD in Linear Load	< 5%					
Waveform: NEMA TIF	< 50					
Altitude	≤ 1000 meters					
Over Speed	2250 rpm					
AVR	D350					
Genset Voltage	208/120V	240/120V	480/277V	600/347V	240/120V	240/120V
Alternator Model	TAL044H	TAL044H	TAL044E	TAL044E	TAL044H	TAL044E
Leads	12 - WYE	12 - Delta	12 - WYE	6 - WYE	12 - DD	4 - Series
P.F.	0,8	0,8	0,8	0,8	1	1
Power @ Continuous 40 °C	146kVA / 117kW		146kVA / 117kW		156kVA / 125kW	81kVA / 81kW
skVA @ 30% Voltage Dip (P.F. = 0.6)	530kVA	530kVA	400kVA	256kVA	-	-
Efficiency @ 100% load	92,70%	92,70%	92,70%	92,76%	92,01%	90,70%
Short Circuit Current @ 1000ms	480A	830A	450A	450A	-	-

### Application Data - Circuit Breaker

Genset Voltage	208/120V	240/120V	480/277V	600/347V	240/120V	240/120V
ABB (80% Rated) Breaker Model	T5N 400	T5N 400	XT3N 225 - 200	XT3N 225 - 150	T5N 400	T5N 600
Current Rating (In)	400A	400A	200A	150A	400A	600A
Trip Unit	LS/I	LS/I	TMF	TMF	LS/I	LS/I

### 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

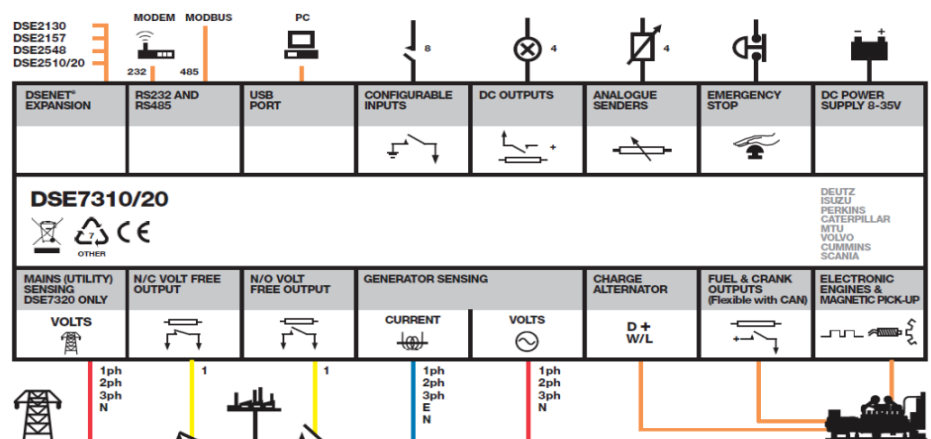
- License free PC software
- 4-Line back-lit LCD text display
- Five key menu navigation
- LCD Alarm Indication
- DSENet expansion compatibility
- Internal PLC editor
- Protection disable feature
- Data logging facility
- Fully configurable via PC
- Front panel configuration
- Power safe mode
- 6 configurable 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



### Standard Features - General

Heavy duty structural steel base frame  
 Battery charger  
 Jacket Water Heater  
 Oil & Coolant Drain Extensions  
 Operations Manual

Critical grade silencer  
 Battery tray and cables  
 Heater Isolation Valves  
 Rubber vibration Isolator  
 Standby Limited Warranty

### Battery Charger

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

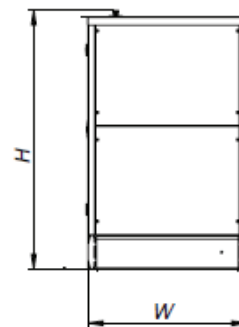
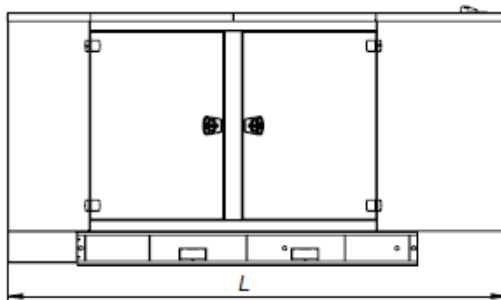
### Jacket Water Heater

Manufacturer Hotstart  
 Model TPS181GT10-000  
 Operation Voltage 120V  
 Power 1800W

### Dimensions, Weights & Sound Levels

	L x W x H (inches)	Weight (lbs)	Sound Level *
Open Skid	TBA	TBA	-
Level 2 Enclosure	TBA	TBA	TBA
Level 3 Enclosure	TBA	TBA	TBA

\*All measurements are approximate and for estimation purposes only. \* Sound data as measured at 23 feet (7 meters) in accordance with ISO 8528-10 at stand-by power rating



### Sound Attenuated Enclosure (Option)

Compatible with 2000/14/EC directives,  
 Factory built, UL Certified  
 Amplified paint against corrosion and rust  
 Exceeds 2000hours salt spray test  
 Level 2 / 3 Sound Level Compliant  
 Heavy Duty Steel / Aluminum Structure  
 High performance sound absorb material  
 Vertical air discharge  
 Exhaust muffler inside the canopy



### Available Options

#### Circuit Brakers

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

#### Alternator

- Upsize Alternator
- Space Heater
- RTD Sensors

#### Electrical

- GFCI Receptacle Outlet
- Load Center
- Power Outlet (14-50R, 120/240V, 50A)
- Power Outlet (TT30R, 120V, 30A)
- Power Outlet Panel (120/240V, 80A) NEMA5-20R, NEMA14-50R, TT-30R
- Surge Protector

#### 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 E-Stop Switch – Break Glass
- Remote Monitoring (DSE892 SNMP)
- Remote Monitoring (DSE890 Webnet)
- Paralleling System Upgrade
- Manual Voltage Adjust
- Manual Speed Adjust

#### 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

#### Enclosures

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

#### Fuel Tank

- Dual Fuel Operation
- Fuel Pressure Low, Alarm
- Fuel Filter
- Gas Regulator

#### Battery System

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

#### Warranty

- 5 Years Extended Limited Warranty

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