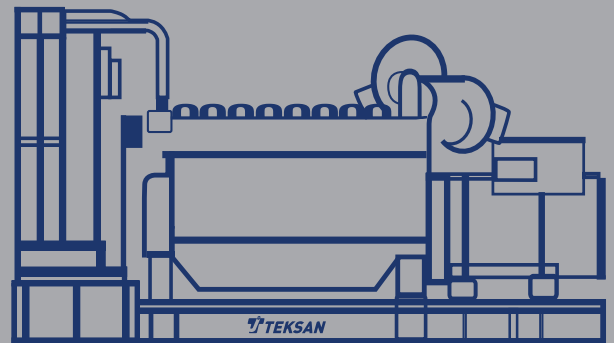


TJUG80PS

Industrial Gaseous Generator Sets



Genset Standby Power Rating

Voltage	208/120V	240/120V	480/277V	600/347V	240/120V	240/120V
Phase	3	3	3	3	1	1
Pf	0,8	0,8	0,8	0,8	1	1
Standby kWe (NG)	80kW	80kW	80kW	80kW	65kW	80kW
Standby Amps (NG)	277A	240A	120A	96A	270A	333A
Standby kWe (LP)	NA	NA	NA	NA	NA	NA
Standby Amps (LP)	NA	NA	NA	NA	NA	NA
Alternator Model	TAL044D	TAL044D	TAL044B	TAL044C	TAL044D	TAL044C
Temp Rise	125 / 40 °C	125 / 40 °C	125 / 40 °C	125 / 40 °C	125 / 40 °C	125 / 40 °C
Connection	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	5.7L T
Number of Cylinders	V-8
Cycle	4
Cubic Capacity	5.7 liters
Bore x Stroke	101.6 mm
Stroke	88.4 mm
Aspiration	Forced Induction
Combustion Ratio	9.4:1
Gross Intermittent Power Rating at the Flywheel - NG	96.60 kW
Gross Intermittent Power Rating at the Flywheel - LP	NA
Rated rpm	1800
Speed Regulation	±0.5%

Electrical System	
Starting Motor Voltage	12V
Battery	1 x 75Ah
Battery CCA Rating	700A

Fuel System	
Fuel Type	NG
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	6.9 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%)	33.6 m3/hr (1185 CFH)
At 75% of Standby	27.8 m3/hr (981 CFH)
At 50% of Standby	22.0 m3/hr (777 CFH)

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

Cooling System	
Ambient Capacity of Radiator	122 °F (50 °C)
Coolant Capacity - Engine Only / Total	7.8 liters / 23.0 liters
Maximum Allowable Static Pressure on Rad. Exhaust	0.5 inH2O
Heat Rejection to Coolant	62 kW
Water Pump Flow Rate	144 liters/min
Heat Radiated to Ambient	47 kW
Cracking Temperature	71 °C
Full Open Temperature	85 °C

Exhaust System	
Type	Air Cooled Manifold
Max Gas Temperature	1350 °F (732 °C)
Emergency Standby Rating Catalyst Configuration	Dual Substrate
Maximum allowable Back pressure	10.2 kPa
Exhaust Volumetric Flow at Rated Power @ 1350 F	786.9 cfm

Lubrication System	
Oil Specification	SAE 5W-30 API Rating of SM or Newer
Maximum Allowable Oil Temperature	121 °C
Engine Oil Capacity	4.7 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	TAL044D	TAL044D	TAL044B	TAL044C	TAL044D	TAL044C
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	108kVA / 86.4kW	108kVA / 86.4kW	100kVA / 80kW	113kVA / 90kW	65kVA / 65kW	80kVA / 80kW
skVA @ 30% Voltage Dip (P.F. = 0.6)	365kVA	365kVA	240kVA	176kVA	-	160kVA @ pf 0.9
Efficiency @ 100% load	91,80%	91,80%	90,60%	91,68%	91,60%	90,00%
Short Circuit Current @ 1000ms	360A	625A	295A	320A	-	-

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	XT4N 250	XT1N 125	XT1N 100	T5N 400	T5N 400
Current Rating (In)	400A	250A	125A	100A	400A	400A
Trip Unit	LS/I	TMF	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

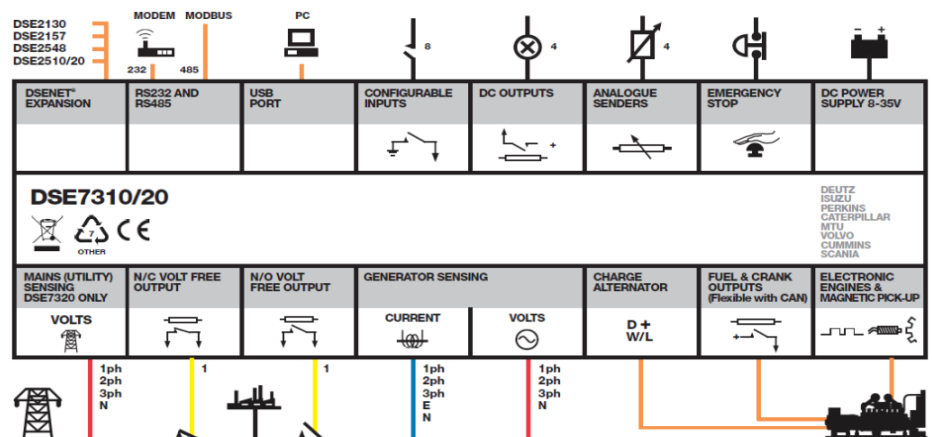
- License free PC software
- 4-Line back-lit LCD text display
- Five key menu navigation
- LCD Alarm Indication
- DSENet expansion compatibility
- Internal PLC editor
- Protection disable feature
- Data logging facility
- Fully configurable via PC
- Front panel configuration
- Power safe mode
- 6 configurable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

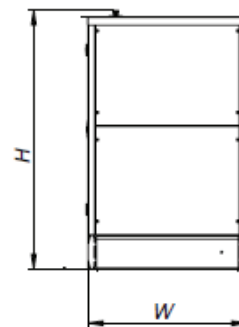
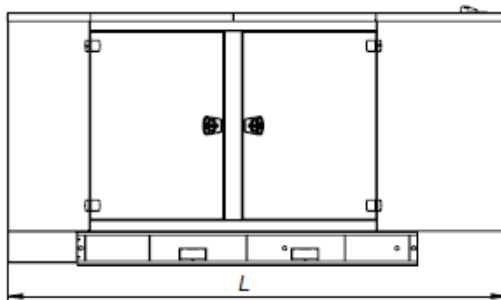
Jacket Water Heater

Manufacturer Hotstart
 Model TPS101GT10-000
 Operation Voltage 120V
 Power 1000W

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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