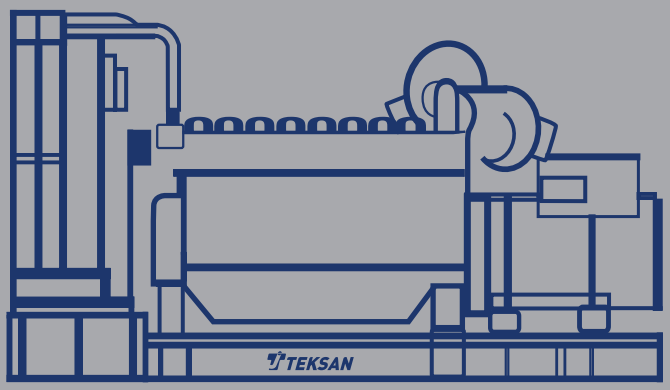
TJAG80P

Industrial Diesel Generator Sets

Tier 3 EPA Certified for Stationary Emergency Applications



Genset Standby Power Rating

Voltage	240/120V	
Power	81kW	80kW
Phase	1	1
Pf	1	1
Current	337A	333A
Alternator Model	TAL044H	TAL044C
Temp Rise	125 / 40 °C	125 / 40 °C
Connection	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 meets **ISO 8528-5**

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

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Standard Features - Engine

EPA Certified – Emergency Stationary Only	ISO 8528, ISO 3046, BS 5514, DIN 6271 standards
Heavy-duty, 4-cycle, direct injection	Capable of full rated load acceptance in one step
Unit Mounted Radiator	Low emission and maximum reliability and durability
Electronic Isochronous Governor	Heavy Duty Air Cleaner w/Restriction Gauge
Fuel – Water Separator Filter	Flex Exhaust Connection

Application Data - Engine

Engine	
Manufacturer	Perkins
Model	1104D-E44TAG1
Number of Cylinders	4 Vertical Inline
Cycle	4 strokes
Cubic Capacity	4.41 liters
Bore x Stroke	105 mm x 127 mm
Aspiration	Turbocharged, air to air charge cooled
Combustion Ratio	16.2:1
BMEP	1467 kPa
Gross Engine Power	96.8 kW
Net Engine Power	90.8 kW
Rated rpm	1800
Speed Variation at Constant Load	±0.25%

Fuel Consumption	
Standby Power (110% of Prime)	6.7 gal/hr.
Prime Power (100%)	6.3 gal/hr.
At 75% of Prime	4.9 gal/hr.
At 50% of Prime	3.6 gal/hr.

Cooling System	
Ambient Capacity of Radiator	122 °F (50 °C)
Total Coolant Capacity	17 liters
Engine Coolant Flow	169 liters / min
Combustion Air Flow	7.70 m3/min
Fan Power & Restriction Losses	6 kW
Max Top Tank Temperature	
Thermostat Operating Range	

Electrical System	
Starting Motor Voltage	12V
Battery Charging Alternator	65A
Battery Qty, CCA Rating	1 x 75Ah, 700A

Exhaust System	
Exhaust Gas Temp	492 °C
Max Allowable Back Pressure	15 kPa
Exhaust Gas Flow	17.9 m3/min
Engine exhaust outlet size (internal)	64 mm

Fuel System	
Type of Injection System	Direct
Fuel Pump	Common Rail
Governor Type	ECM
Priming Pump Type	Manual
Max Fuel Flow	130 liters/hr

Lubrication System	
Total lubricating capacity	8 liters
Max Oil Continuous Temperature	125 °C
Oil Consumption @ Full Load (% of fuel)	<0.1%
Pressure at Max No-load Speed	470 kPa

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Standard Features - Alternator

Brushless Single Bearing	SHUNT / AREP Excitation
125/40 °C Temperature Rise	300% Short Circuit Capability w / AREP
Class H Insulation	Low reactance 2/3 pitch windings
Low waveform distortion with non-linear loads	Self-ventilated and drip-proof construction
EC 60034-1; CEI EN 60034-1; NEMA MG 1.22, NF 51- 100,111	BS 4999-5000; VDE 0530, OVE M-10

Application Data - Alternator

Manufacturer	Leroy Somer	Leroy Somer
Type	4 Poles, Brushless	4 Poles, Brushless
Protection	IP 23	IP 23
Voltage Regulation	± 0.25%	± 1.0%
One Step Load Acceptance	100% of rated load	100% of rated load
Bearing	Single	Single
THD in Linear Load	< 5%	< 5%
Waveform: NEMA TIF	< 50	< 50
Altitude	≤1000 meters	≤1000 meters
Over Speed	2250 rpm	2250 rpm
Excitation / AVR	AREP+ / D350	Shunt / R120
Genset Voltage	240/120V	240/120V
Alternator Model	TAL044H	TAL044C
Leads	12 – DD	4 – SEIRES
P.F.	1	1
Power @ Continuous 40 °C	81kVA / 81kW	80kVA / 80kW
skVA @ 30% Voltage Dip (P.F. = 0.6)	-	-
Efficiency @ 100% load	92,40%	90,00%
Short Circuit Current @ 1oooms	-	-

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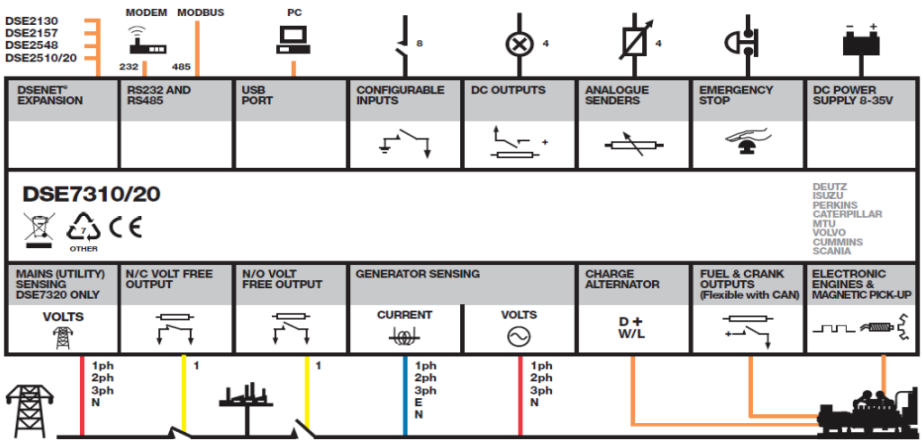
Control Panel

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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Standard Features - General

Heavy duty structural steel base frame	Silencer set with stainless steel flex
Battery charger	Battery tray and cables
Jacket Water Heater	Heater Isolation Valves
Oil & Coolant Drain Extensions	Rubber vibration Isolator
Operations Manual	Standby Limited Warranty

Battery Charger

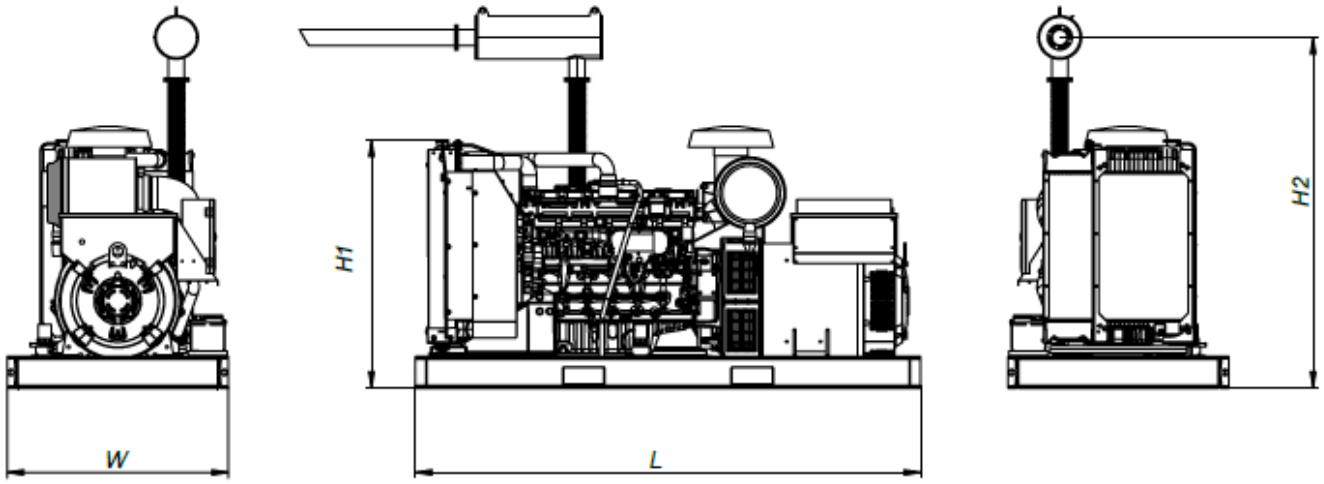
Manufacturer	DSE
Model	9470 MKII
Operation Voltage (L-N)	90V to 305V
Output Current	10A

Jacket Water Heater

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

Dimensions, Weights & Sound Levels

	L x W x H1 x H2 (inches)	Weight (lbs)	Sound Level *
Open Skid	TBA	TBA	-



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