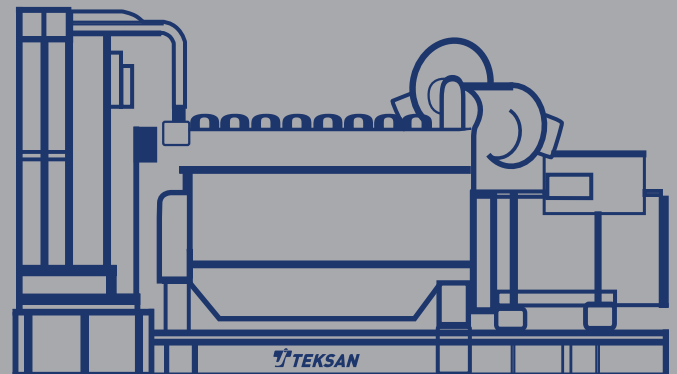


Industrial Diesel Generator Sets

EPA Certified Tier 4 for Stationary Emergency Applications



Genset Standby Power Rating

Voltage	208/120V	240/120V	480/277V	600/347V	240/120V	240/120V
Power	9kW	9kW	9kW	9kW	9kW	9kW
Phase	3	3	3	3	1	1
Pf	0,8	0,8	0,8	0,8	1	1
Current	31A	27A	13A	10A	37.5A	37.5A
Alternator Model	TAL040C	TAL040C	TAL040B	TAL040B	TAL040B	TAL040C
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.

Standard Features - Engine

EPA Certified – Emergency Stationary Only

Heavy-duty, 4-cycle, direct injection

Unit Mounted Radiator

Electronic Isochronous Governor

Fuel – Water Separator Filter

ISO 8528, ISO 3046, BS 5514, DIN 6271 standards

Capable of full rated load acceptance in one step

Low emission and maximum reliability and durability

Heavy Duty Air Cleaner w/Restriction Gauge

Flex Exhaust Connection

Application Data - Engine

Engine

Manufacturer	Perkins
Model	403D-11G
Number of Cylinders	3 Vertical Inline
Cycle	4 strokes
Cubic Capacity	1.131 liters
Bore x Stroke	77 mm x 81 mm
Aspiration	Naturally Aspired
Combustion Ratio	23:01
BMEP	-
Gross Engine Power	11.8 kW
Net Engine Power	11.4 kW
Rated rpm	1800
Speed Variation at Constant Load	-

Fuel Consumption

Standby Power (110% of Prime)	0.95 gal/hr.
Prime Power (100%)	0.8 gal/hr.
At 75% of Prime	0.60 gal/hr.
At 50% of Prime	0.45 gal/hr.

Cooling System

Ambient Capacity of Radiator	122 °F (50 °C)
Total Coolant Capacity	5.2 liters
Engine Coolant Flow	-
Combustion Air Flow	-
Fan Power	0.4 kW
Max Top Tank Temperature	-
Thermostat Operating Range	-

Electrical System

Starting Motor Voltage	12V
Battery Charging Alternator	-
Battery Qty, CCA Rating	1 x 47Ah, 350A

Exhaust System

Exhaust Gas Temp	-
Max Allowable Back Pressure	-
Exhaust Gas Flow	-
Engine exhaust outlet size (internal)	-

Fuel System

Type of Injection System	Indirect
Fuel Pump	Cassette type
Governor Type	Mechanical
Priming Pump Type	Manual
Max Fuel Flow	-

Lubrication System

Total lubricating capacity	4.9 liters
Max Oil Continuous Temperature	-
Oil Flow at Rated Speed	-
Oil Pressure Shutdown Switch	-

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	TAL040C	TAL040C	TAL040B	TAL040B	TAL040B	TAL040C
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	13.5kVA / 11kW	13.5kVA / 11kW	12.5kVA / 10kW	12.5kVA / 10kW	9kVA / 9kW	11.5kVA / 11.5kW
skVA @ 30% Voltage Dip (P.F. = 0.6)	35kVA	35kVA	27kVA	17kVA	-	12kVA @ pf 0.9
Efficiency @ 100% load	83,20%	83,20%	84,20%	83,80%	79,90%	82,60%
Short Circuit Current @ 1000ms	48A	83A	39A	39A	-	-

Application Data - Circuit Breaker

Genset Voltage	208/120V	240/120V	480/277V	600/347V	240/120V	240/120V
ABB (80% Rated) Breaker Model	XT1N 125 - 35	XT1N 125 - 30	XT1N 125 - 15	XT1N 125 - 15	XT1N 125 - 40	XT1N 125 - 40
Current Rating (In)	35A	30A	15A	15A	40A	40A
Trip Unit	TMF	TMF	TMF	TMF	TMF	TMF

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

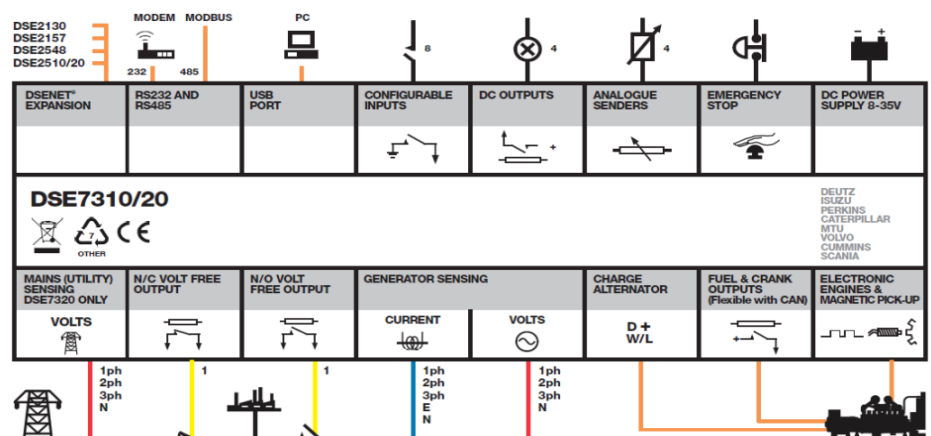
License free PC software
4-Line back-lit LCD text display
Five key menu navigation
LCD Alarm Indication
DSENet expansion compatibility
Internal PLC editor
Protection disable feature
Data logging facility
Fully configurable via PC
Front panel configuration
Power safe mode
6 configurable DC outputs
2 configurable 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 TPS051GT10-000
Operation Voltage 120V
Power 500W

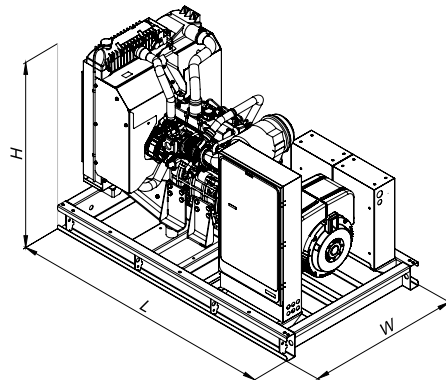
Dimensions, Weights & Sound Levels

	L x W x H (inches)	Weight (lbs)	Sound Level *
Open Skid	65 x 38 x 40	715	-
Level 2 Enclosure	87 x 39 x 50	1230	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

Fuel Tank (UL142 Listed – Option)

Size	L x W x H (inches)	Weight (lbs)
65gal / 48hr	99 x 38 x 10	800
132gal / 120hr	99 x 38 x 17	1050
200gal / 210hr	99 x 38 x 24	1250



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

- ☐ UL142 Listed
- ☐ UL2085 Listed
- ☐ Fuel Level Display on Controller
- ☐ Fuel / Water Separator

Battery System

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

Warranty

- ☐ 5 Years Extended Limited Warranty

DISTRIBUTED BY:

