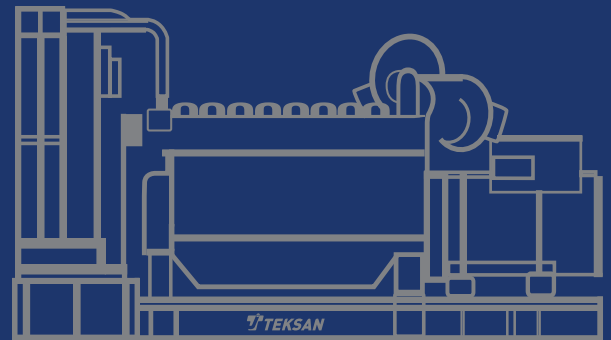


TJUD160P

Industrial Diesel Generator Sets

EPA Certified Tier 3 for Stationary Emergency Applications



Genset Standby Power Rating

125/40 °C Standby Ratings

Alternator Model			TAL046C	TAL044M	TAL044L	LSA46.3 S4	LSA44.3 VL14	LSA44.3 L12
Voltage	Phase	Pf	kW / A	kW / A	kW / A	kW / A	kW / A	kW / A
480/277V ∟	3	0,8	160 / 241	160 / 241	160 / 241	160 / 241	160 / 241	160 / 241
208/120V ∟	3	0,8	160 / 555	160 / 555	156 / 541	160 / 555	160 / 555	143 / 496
240/120V ∆	3	0,8	160 / 481	160 / 481	156 / 541	160 / 481	160 / 481	143 / 430
240/120V ∆∆	1	1	150 / 625			150 / 625		
Alternator Model			TAL044K			LSA44.3 L10		
600/347V ∟	3	0,8	160 / 192			160 / 192		

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.

TJUD160P

Industrial Diesel Generator Sets



Standard Features – Engine

EPA Certified Tier 3 – Emergency Stationary Only

Unit Mounted Radiator

Oil and Coolant Drain Extension w/Valve

Fuel – Water Separator Filter

Speed Control to ISO 8528, G2

12V Battery System & Cables

Flex Fuel Connectors

Flex Exhaust Connection

Application Data – Engine

Manufacturer	Perkins
Model	1106D-E70TAG3
Cubic Capacity	7.01 liters
Bore x Stroke	105 mm x 135 mm
Compression Ratio	16.8:1
Aspiration	Turbocharged and air charge cooled
Gross Engine Power	184 kW
Net Engine Power	173 kW
BMEP	1626.2 kPa
Speed Variation at Constant Load	±0.18%
Governor Type	Control by ECM
Battery Charging Alternator	12V, 65A
Battery Qty, CCA Rating	1 × 102Ah, 860A
Ambient Capacity of Radiator	122 °F (50 °C)
Total Coolant Capacity	20.5 liters
Thermostat Operating Range	82 °C to 95 °C
Combustion Air Flow	14.4 m ³ /min
Exhaust Gas Temp	450 °C
Max Allowable Back Pressure	15 kPa
Total lubricating capacity	17.5 liters

Fuel Consumption

Standby Power (110% of Prime)	12.1 g/h (45.9 l/h)
Prime Power (100%)	11.2 g/h (42.3 l/h)
At 75% of Prime	9.2 g/h (34.7 l/h)
At 50% of Prime	6.3 g/h (23.8 l/h)

TJUD160P

Industrial Diesel Generator Sets



Standard Features – Alternator

Brushless Single Bearing

Class H Insulation

Low reactance 2/3 pitch windings

IEC 60034, NEMA MG 1.32-33, ISO8528-3

AREP+ Excitation

Digital Automatic Voltage Regulator

100% of Rated Load – One Step

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%

(*) D350: 10 seconds (**) Steady state (***) Total harmonic distortion between phases, no-load or on-load (non-distorting)

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

Alternator Model	TAL046C	TAL044M	TAL044L	LSA46.3 S4	LSA 44.3 VL14	LSA 44.3 L12
%30 Voltage Drop	630kVA	650kVA	650kVA	760kVA	700kVA	550kVA

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

(-)For voltages other than 400V (Y), 230V (Δ) at 50 Hz, then kVA must be multiplied by $(400/U)^2$ or $(230/U)^2$.

Application Data – Circuit Breaker

Genset Voltage	480/277V ∟	208/120V ∟	240/120V Δ	240/120V ΔΔ	600/347V ∟
ABB Breaker Model	XT4N250-250A	XT5N600-600A	XT5N600-600A	XT6N800-800A	XT4N250-225A

TJUD160P

Industrial Diesel Generator Sets



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

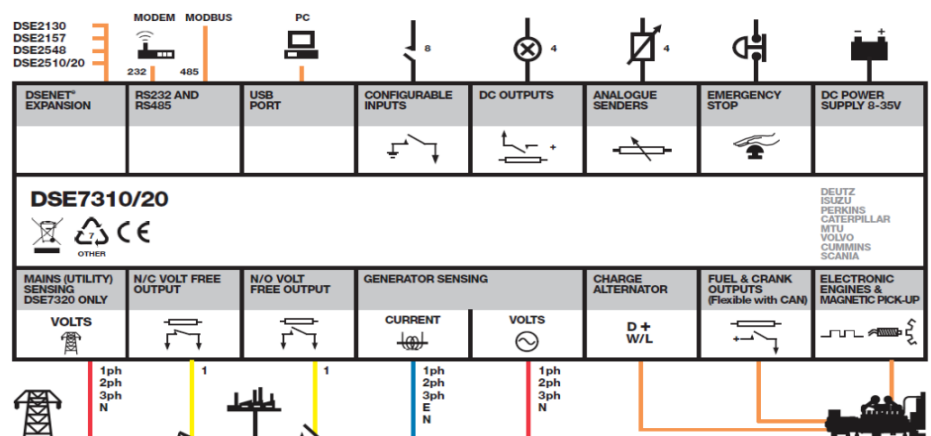
License free PC software
4-Line back-lit LCD text display
Five key menu navigation
LCD Alarm Indication
DSENet expansion compatibility
Internal PLC editor
Protection disable feature
Data logging facility
Fully configurable via PC
Front panel configuration
Power safe mode
6 configurable DC outputs
2 configurable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



TJUD160P

Industrial Diesel Generator Sets



Standard Features – General

UL 2200 & cUL Listed

Main Line Circuit Breaker Mounted & Wired

Vibration Isolation Mounts

Aluminized Steel Silencer

NFPA-110, Level 1 Compliant (*)

Jacket Water Heater w/Isolation Valves

Battery Charger & Starter Battery

2 Year / 2000 Hours Standby Warranty

Battery Charger

DSE Model	9470 MKII
Operation Voltage (L-N)	90V to 305V
Output Volts/Current	12V / 5A

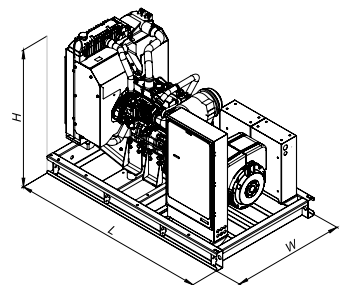
Jacket Water Heater

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

Dimensions, Weights & Sound Levels

Open Set

Fuel Tank Capacity	Run Time (hr)	L in(mm)	W in(mm)	H in(mm)	Weight lbs(kg)
No Tank	-	98.4" (2500)	44.1" (1120)	55.9" (1420)	3,640 (1,750)
300gal	24	TBA	TBA	TBA	TBA
585gal	48	TBA	TBA	TBA	TBA
880gal	72	TBA	TBA	TBA	TBA



Sound Attenuated Enclosure Level 2

Fuel Tank Capacity	Run Time (hr)	L in(mm)	W in(mm)	H in(mm)	Weight lbs(kg)		Sound Level dBA(**)
					Steel	Aluminum	
No Tank	-	144.3" (3666)	46.4" (1178)	75.1" (1910)	5,070 (2,300)	4,475 (2,030)	74
300gal	24	173.6" (4410)	46.4" (1178)	93.3" (2370)	7,075 (3,210)	6,480 (2,940)	
585gal	48	191.4" (4860)	46.4" (1178)	104.7" (2660)	8,740 (3,965)	8,145 (3,695)	
880gal	72	266.9" (6780)	46.4" (1178)	104.7" (2660)	10,540 (4,780)	9,940 (4,510)	

Sound Attenuated Enclosure Level 3

Fuel Tank Capacity	Run Time (hr)	L in(mm)	W in(mm)	H in(mm)	Weight lbs(kg)		Sound Level dBA(**)
					Steel	Aluminum	
No Tank	-	173.9" (4416)	46.4" (1178)	75.1" (1910)	5,510 (2,500)	4,740 (2,150)	70
300gal	24	203.3" (5160)	46.4" (1178)	93.3" (2370)	7,520 (3,410)	6,745 (3,060)	
585gal	48	220.9" (5610)	46.4" (1178)	104.7" (2660)	9,180 (4,165)	8,410 (3,815)	
880gal	72	296.5" (7530)	46.4" (1178)	104.7" (2660)	10,980 (4,980)	10,205 (4,630)	

(*)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

- All measurements are approximate and for estimation purposes only. Specification characteristics may change without notice. Please contact Teksan for detailed installation drawings

TJUD160P

Industrial Diesel Generator Sets



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
- ☐ Strip 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
- ☐ 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:

