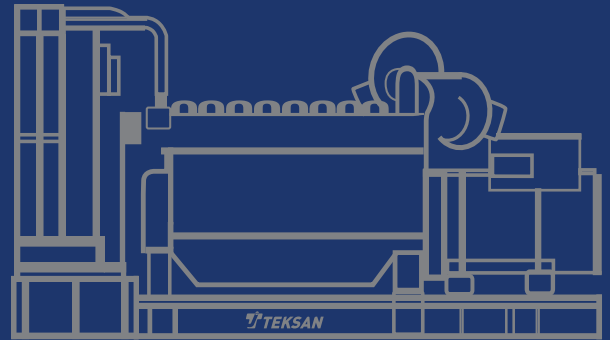


TJUD55P

Industrial Diesel Generator Sets

EPA Certified Tier 3 for Stationary Emergency Applications



Genset Standby Power Rating

125/40 °C Standby Ratings

| Alternator Model | | | TAL044C | TAL044A | TAL042H | LSA44.3 S4 | LSA44.3 S2 | LSA42.3 L9 |
|------------------|-------|-----|----------|------------|----------|------------|------------|------------|
| Voltage | Phase | Pf | kW / A | kW / A | kW / A | kW / A | kW / A | kW / A |
| 480/277V ∟ | 3 | 0,8 | 57 / 86 | 57 / 86 | 57 / 86 | 58 / 87 | 58 / 87 | 57 / 86 |
| 208/120V ∟ | 3 | 0,8 | 58 / 201 | 57 / 198 | 52 / 180 | 58 / 201 | 58 / 201 | 52 / 180 |
| 240/120V ∟ | 3 | 0,8 | 58 / 174 | 57 / 171 | 52 / 156 | 58 / 174 | 58 / 174 | 52 / 156 |
| 240/120V Δ | 1 | 1 | 57 / 237 | 46 / 192 | 39 / 162 | 58 / 241 | 46 / 192 | 39 / 162 |
| Alternator Model | | | TAL042H | LSA42.3 L9 | | | | |
| 600/347V ∟ | 3 | 0,8 | 56 / 67 | 56 / 67 | | | | |

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.

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Industrial Diesel Generator Sets

Standard Features – Engine

EPA Certified Tier 4i – Emergency Stationary Only

Unit Mounted Radiator

Oil and Coolant Drain Extension w/Valve

Fuel – Water Separator Filter

Speed variation at constant load – G2

12V Battery System & Cables

Flex Fuel Connectors

Flex Exhaust Connection

Application Data – Engine

| | |
|----------------------------------|-----------------|
| Manufacturer | Perkins |
| Model | 1104D-44TG1 |
| Cubic Capacity | 4.4 liters |
| Bore x Stroke | 105 mm x 127 mm |
| Compression Ratio | 18.2:1 |
| Aspiration | Turbocharged |
| Gross Engine Power | 64 kW |
| Net Engine Power | 63 kW |
| BMEP | 971 kPa |
| Speed Variation at Constant Load | ±0.25% |
| Governor Type | Mechanical |
| Battery Charging Alternator | 12V, 100A |
| Battery Qty, CCA Rating | 1 × 75Ah, 700A |
| Ambient Capacity of Radiator | 122 °F (50 °C) |
| Total Coolant Capacity | 16.5 liters |
| Thermostat Operating Range | 85 °C to 95 °C |
| Combustion Air Flow | |
| Exhaust Gas Temp | 571 °C |
| Max Allowable Back Pressure | 15 kPa |
| Total lubricating capacity | 8.4 liters |

Fuel Consumption

| | |
|-------------------------------|---------------------|
| Standby Power (110% of Prime) | 4.94 g/h (18.7 l/h) |
| Prime Power (100%) | 4.38 g/h (16.6 l/h) |
| At 75% of Prime | 3.38 g/h (12.8 l/h) |
| At 50% of Prime | 1.37 g/h (9.0 l/h) |

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Industrial Diesel Generator Sets



Standard Features – Alternator

| | |
|---------------------------------------|---------------------------------------|
| Brushless Single Bearing | AREP+ Excitation |
| Class H Insulation | Digital Automatic Voltage Regulator |
| Low reactance 2/3 pitch windings | 100% of Rated Load – One Step |
| IEC 60034, NEMA MG 1.32-33, ISO8528-3 | 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+ 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 | TAL044C | TAL044A | TAL042H | LSA44.3 S4 | LSA44.3 S2 | LSA42.3 L9 |
| %30 Voltage Drop | 270kVA | 240kVA | 170kVA | 420kVA | 260kVA | 200kVA |

(-)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 ↘ | 240/120V △△ | 600/347V ↘ |
| ABB Breaker Model | XT2N125-100A | XT4N250-225A | XT4N250-225A | XT4N250-250A | XT2N125-100A |

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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



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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 |

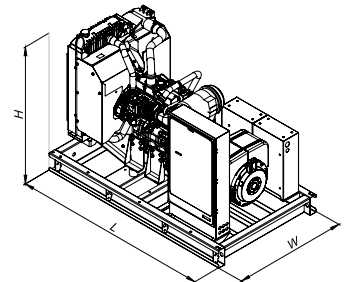
Jacket Water Heater

| | |
|-------------------|----------------|
| Hotstart Model | TPS151GT10-000 |
| Operation Voltage | 120V |
| Power | 1500W |

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 | - | 78.8" (2000) | 41.3" (1050) | 49.2" (1250) | 2,030 (920) |
| 125gal | 24 | 88.6" (2250) | 41.3" (1050) | 63" (1600) | 3,130 (1,420) |
| 250gal | 48 | TBA | TBA | TBA | TBA |
| 380gal | 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 | - | 109.5" (2780) | 43.5" (1105) | 57" (1450) | 2,755 (1,250) | 2,315 (1,050) | TBA |
| 125gal | 24 | 116.1" (2950) | 43.5" (1105) | 72.8" (1850) | 3,970 (1,800) | 3,530 (1,600) | |
| 250gal | 48 | TBA | TBA | TBA | TBA | TBA | |
| 380gal | 72 | TBA | TBA | TBA | TBA | TBA | |

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 | - | TBA | TBA | TBA | TBA | TBA | TBA |
| 125gal | 24 | TBA | TBA | TBA | TBA | TBA | |
| 250gal | 48 | TBA | TBA | TBA | TBA | TBA | |
| 380gal | 72 | TBA | TBA | TBA | TBA | TBA | |

(*)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

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Industrial Diesel Generator Sets



Available Options

Circuit Breakers

- Magnetic Trip
- Thermal Magnetic Trip
- Electronic Trip LS/I
- Electronic Trip LSI
- Electronic Trip LSIG
- 80% Rating
- 100% Rating
-
- 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)
-
- 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

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