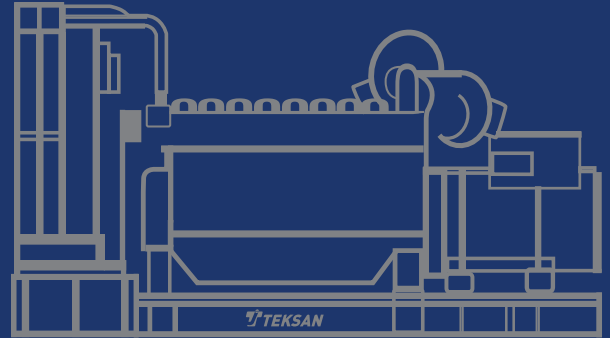


TJUD400P

Industrial Diesel Generator Sets

EPA Certified Tier 3 for Stationary Emergency Applications



Genset Standby Power Rating

125/40 °C Standby Ratings

| Alternator Model | | | TAL0473B | TAL0473A | LSA47.3 S5 | LSA47.3 S4 |
|------------------|-------|-----|------------|------------|------------|------------|
| Voltage | Phase | Pf | kW / A | kW / A | kW / A | kW / A |
| 480/277V ∟ | 3 | 0,8 | 410 / 616 | 400 / 601 | 410 / 616 | 400 / 601 |
| 208/120V ∟ | 3 | 0,8 | 405 / 1405 | 384 / 1332 | 405 / 1405 | 384 / 1332 |
| 240/120V ∟ | 3 | 0,8 | 405 / 1217 | 384 / 1155 | 405 / 1217 | 384 / 1155 |

| Alternator Model | | | TAL0473A | LSA47.3 S4 |
|------------------|-------|-----|-----------|------------|
| Voltage | Phase | Pf | kW / A | kW / A |
| 600/347V ∟ | 3 | 0,8 | 400 / 481 | 400 / 481 |

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.

TJUD400P

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

24V Battery System & Cables

Flex Fuel Connectors

Flex Exhaust Connection

Application Data – Engine

| | |
|----------------------------------|---|
| Manufacturer | Perkins |
| Model | 2206D-E13TAG3 |
| Cubic Capacity | 12.5 liters |
| Bore x Stroke | 130 mm x 157 mm |
| Compression Ratio | 16.3:1 |
| Aspiration | Turbocharged, air to air charge cooling |
| Gross Engine Power | 462 kW |
| Net Engine Power | 435 kW |
| BMEP | 2430 kPa |
| Speed Variation at Constant Load | ±0.25% |
| Governor Type | Electronic |
| Battery Charging Alternator | 24V, 70A |
| Battery Qty, CCA Rating | 2 × 102Ah, 860A |
| Ambient Capacity of Radiator | 122 °F (50 °C) |
| Total Coolant Capacity | 51.4 liters |
| Thermostat Operating Range | 87 °C to 98 °C |
| Combustion Air Flow | 29.8 m ³ /min |
| Exhaust Gas Temp | 680 °C |
| Max Allowable Back Pressure | 10 kPa |
| Total lubricating capacity | 40 liters |

Fuel Consumption

| | |
|-------------------------------|--------------------|
| Standby Power (110% of Prime) | 27.7 g/h (105 l/h) |
| Prime Power (100%) | 24.8 g/h (94 l/h) |
| At 75% of Prime | 19.3 g/h (73 l/h) |
| At 50% of Prime | 13.7 g/h (52 l/h) |

TJUD400P

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 | TAL0473B | TAL0473A | LSA47.3 S5 | LSA47.3 S4 |
| %30 Voltage Drop | 1600kVA | 1000kVA | 1750kVA | 1520kVA |

(-)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 ↘ | 600/347V ↘ |
| ABB Breaker Model | XT5N600-600A | E2.2B-A 1600A | E2.2B-A 1600A | XT5N600-600A |

TJUD400P

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



TJUD400P

Industrial Diesel Generator Sets



Standard Features – General

| | |
|---|--|
| UL 2200 & cUL Listed | NFPA-110, Level 1 Compliant (*) |
| Main Line Circuit Breaker Mounted & Wired | Jacket Water Heater w/Isolation Valves |
| Vibration Isolation Mounts | Battery Charger & Starter Battery |
| Aluminized Steel Silencer | 2 Year / 2000 Hours Standby Warranty |

Battery Charger

| | |
|-------------------------|-------------|
| DSE Model | 9470 MKII |
| Operation Voltage (L-N) | 90V to 305V |
| Output Volts/Current | 24V / 10A |

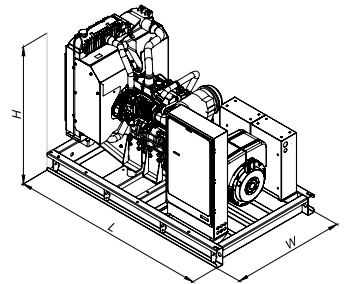
Jacket Water Heater

| | |
|-------------------|--------------|
| Hotstart Model | CTM25210-N00 |
| Operation Voltage | 240V |
| Power | 2500W |

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 | - | 137" (3480) | 69" (1750) | 78" (1980) | 7,275 (3,300) |
| 700gal | 24 | 161.5" (4100) | 69" (1750) | 99" (2515) | 11,025 (5,000) |
| 1350gal | 48 | TBA | TBA | TBA | TBA |
| 2000gal | 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 | - | 198.8" (5050) | 71.1" (1806) | 99.2" (2520) | 9,985 (4,530) | 8,000 (3,630) | TBA |
| 700gal | 24 | 213.5" (5425) | 71.1" (1806) | 115.7" (2940) | 13,685 (6,290) | 11,880 (5,390) | |
| 1350gal | 48 | TBA | TBA | TBA | TBA | TBA | |
| 2000gal | 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 |
| 700gal | 24 | TBA | TBA | TBA | TBA | TBA | |
| 1350gal | 48 | TBA | TBA | TBA | TBA | TBA | |
| 2000gal | 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

TJUD400P

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
- 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

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