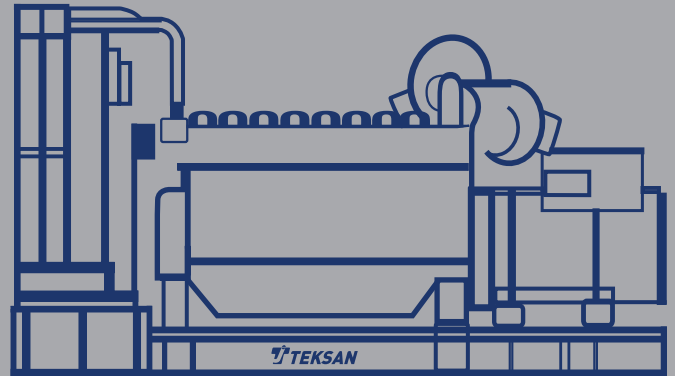


TJAG60P

Industrial Diesel Generator Sets

Tier 3 EPA Certified for Stationary Emergency Applications



Genset Standby Power Rating

| | | |
|------------------|-------------|----------------|
| Voltage | 240/120V | |
| Power | 60kW | 63kW |
| Phase | 1 | 1 |
| Pf | 1 | 1 |
| Current | 250A | 262A |
| Alternator Model | TAL044C | 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.

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 | 1104D-E44TG1 |
| Number of Cylinders | 4 Vertical Inline |
| Cycle | 4 strokes |
| Cubic Capacity | 4.399 liters |
| Bore x Stroke | 105 mm x 127 mm |
| Aspiration | Turbocharged, air to air charge cooled |
| Combustion Ratio | 16.7:1 |
| BMEP | 1082 kPa |
| Gross Engine Power | 71.4 kW |
| Net Engine Power | 69.9 kW |
| Rated rpm | 1800 |
| Speed Variation at Constant Load | ±0.25% |

Fuel Consumption

| | |
|-------------------------------|--------------|
| Standby Power (110% of Prime) | 5.2 gal/hr. |
| Prime Power (100%) | 4.8 gal/hr. |
| At 75% of Prime | 4.15 gal/hr. |
| At 50% of Prime | 3 gal/hr. |

Cooling System

| | |
|------------------------------|----------------|
| Ambient Capacity of Radiator | 122 °F (50 °C) |
| Total Coolant Capacity | 16.5 liters |
| Engine Coolant Flow | 120 m3/min |
| Combustion Air Flow | 6.17 m3/min |
| Fan Power | 1.5 kW |
| Max Top Tank Temperature | 110 °C |
| Thermostat Operating Range | 82 °C to 97 °C |

Electrical System

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

Exhaust System

| | |
|---------------------------------------|--------------|
| Exhaust Gas Temp | 644 °C |
| Max Allowable Back Pressure | 15 kPa |
| Exhaust Gas Flow | 14.48 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 | 8.4 liters |
| Max Oil Continuous Temperature | 125 °C |
| Oil Consumption @ Full Load (% of fuel) | <0.1% |
| Pressure at Max No-load Speed | 470 kPa |

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 | TAL044C | TAL044C |
| Leads | 12 – DD | 4 – SEIRES |
| P.F. | 1 | 1 |
| Power @ Continuous 40 °C | 59kVA / 59kW | 80kVA / 80kW |
| skVA @ 30% Voltage Dip (P.F. = 0.6) | - | - |
| Efficiency @ 100% load | 91,70% | 90,00% |
| Short Circuit Current @ 100ms | - | - |

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

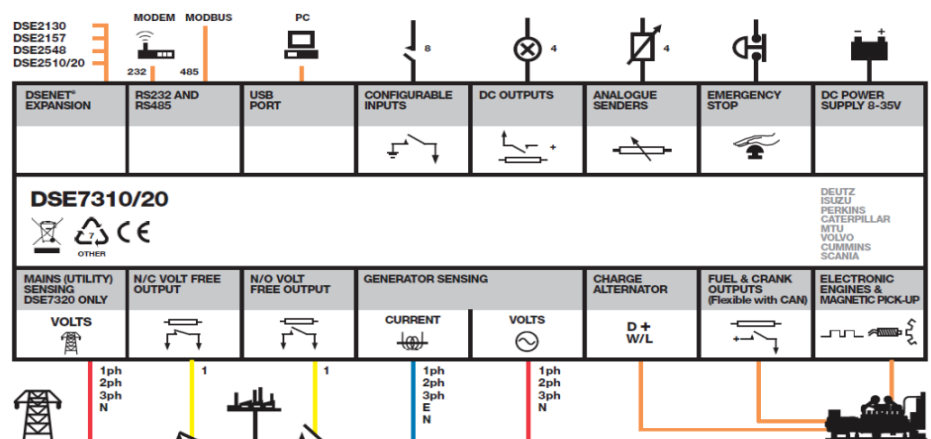
- License free PC software
- 4-Line back-lit LCD text display
- Five key menu navigation
- LCD Alarm Indication
- DSENet expansion compatibility
- Internal PLC editor
- Protection disable feature
- Data logging facility
- Fully configurable via PC
- Front panel configuration
- Power safe mode
- 6 configurable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



TJAG60P

Industrial Diesel Generator Sets



Standard Features - General

Heavy duty structural steel base frame
Battery charger
Jacket Water Heater
Oil & Coolant Drain Extensions
Operations Manual

Silencer set with stainless steel flex
Battery tray and cables
Heater Isolation Valves
Rubber vibration Isolator
Standby Limited Warranty

Battery Charger

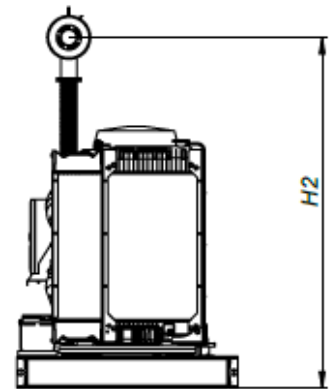
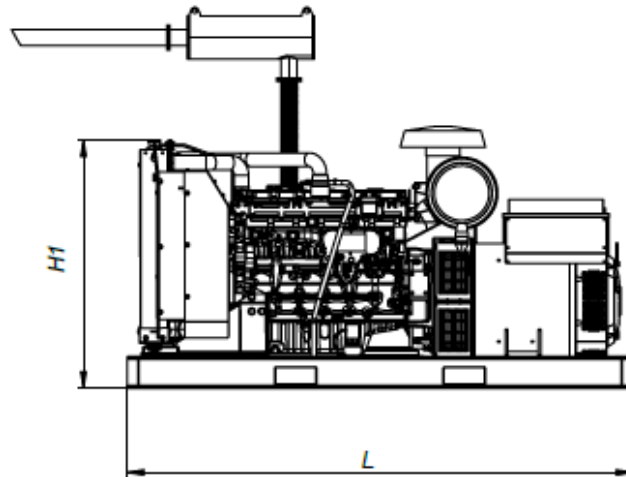
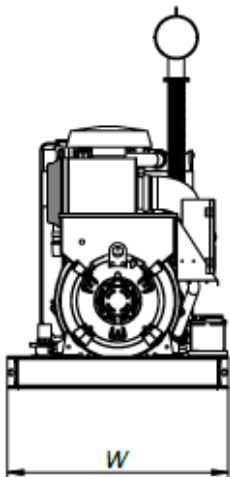
| | |
|-------------------------|-------------|
| Manufacturer | DSE |
| Model | 9470 MKII |
| Operation Voltage (L-N) | 90V to 305V |
| Output Current | 10A |

Jacket Water Heater

| | |
|-------------------|----------------|
| Manufacturer | Hotstart |
| Model | 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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