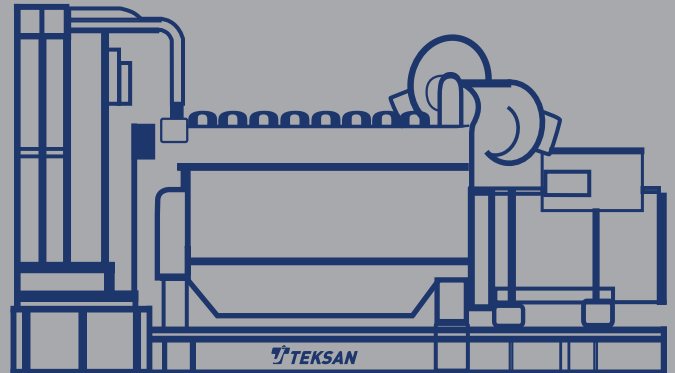


TJAG100P

Industrial Diesel Generator Sets

Tier 3 EPA Certified for Stationary Emergency Applications



Genset Standby Power Rating

Voltage	240/120V	
Power	105kW	100kW
Phase	1	1
Pf	1	1
Current	437A	416A
Alternator Model	TAL044K	TAL044D1
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-E44TAG2
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	1820 kPa
Gross Engine Power	120.1 kW
Net Engine Power	114.6 kW
Rated rpm	1800
Speed Variation at Constant Load	±0.25%

Fuel Consumption

Standby Power (110% of Prime)	7.9 gal/hr.
Prime Power (100%)	7.3 gal/hr.
At 75% of Prime	5.9 gal/hr.
At 50% of Prime	4.2 gal/hr.

Cooling System

Ambient Capacity of Radiator	122 °F (50 °C)
Total Coolant Capacity	17 liters
Engine Coolant Flow	
Combustion Air Flow	8.82 m ³ /min
Fan Power	5.5 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	659 °C
Max Allowable Back Pressure	15 kPa
Exhaust Gas Flow	20.15 m ³ /min
Engine exhaust outlet size (internal)	64 mm

Fuel System

Type of Injection System	Indirect
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

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

SHUNT / AREP Excitation

300% Short Circuit Capability w / AREP

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	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	TAL044K	TAL044D1
Leads	12 – DD	4 – SEIRES
P.F.	1	1
Power @ Continuous 40 °C	105kVA / 105kW	100kVA / 100kW
skVA @ 30% Voltage Dip (P.F. = 0.6)	-	-
Efficiency @ 100% load	93,10%	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 (kW/kVAh/kVArh)
- ✓ Power Factor
- ✓ Generator Current
- ✓ Generator Load (%)
- ✓ Earth Current



TJAG100P

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

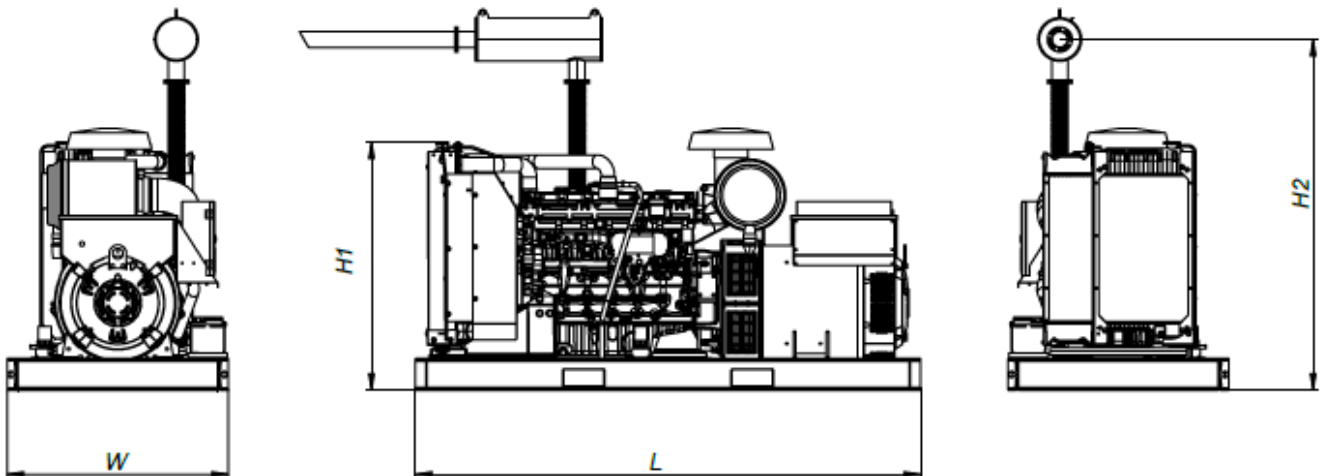
Manufacturer	DSE
Model	9470 MKII
Operation Voltage (L-N)	90V to 305V
Output Current	10A

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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