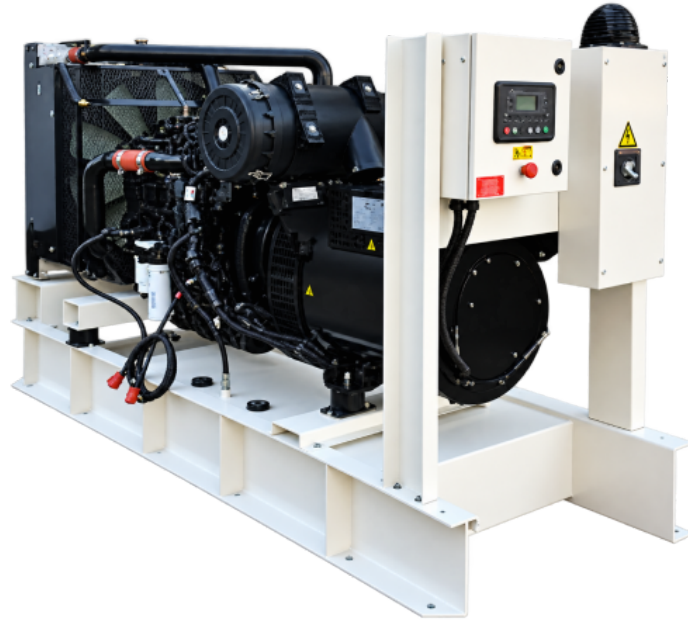


Datasheet

ATRP500 Diesel Generating Set

Brand: Perkins



Short Description

Perkins ATRP500 diesel generator set with prime rating 500 kVA / 400 kW, standby 550 kVA / 440 kW, 400-415 V 3-phase 50 Hz, powered by Perkins engine.

Full Description

Manufactured by Albwardy Group, the ATRP500 is a robust diesel generating set engineered for reliable power delivery in demanding industrial environments. This generator set combines a Perkins heavy-duty diesel engine with a Leroy Somer alternator, ensuring dependable performance and long service life.

The ATRP500 is ideal for a wide range of applications including prime power for construction sites, industrial facilities, and remote operations, as well as standby power for commercial buildings, data centers, and critical infrastructure. Its rugged design and high-quality components make it suitable for continuous operation under challenging conditions.

Key features include a heavy-duty fabricated steel base frame with anti-vibration mounts, a water-cooled engine with turbocharging and air-to-air charge cooling, and a Deep Sea DSE 6110 auto start control module with backlit LCD display. The alternator features Class H insulation and IP23 ingress protection, ensuring durability and reliable electrical output. The integral fuel tank provides extended running time, and the unit is designed to operate in high ambient temperatures and humidity.

Images



Technical Specifications

ATRP500 Diesel Generating Set

Specification	Value
Country of Origin	United Kingdom
Generating Set Model	ATRP500
Prime Rating	500.0 kVA / 400.0 kW
Standby Rating	550.0 kVA / 440.0 kW
Voltage / Phase / Frequency / Speed	400-415 V, 3 ph, 50 Hz, 1500 rpm
Engine Make	Perkins
Engine Model	2506A - 15TAG2
Governing Class	ISO 8528 - 5 3
Number of Cylinders	6
Cylinder Arrangement	Vertical in line
Bore and Stroke	137 x 171 mm
Displacement	15.2 L
Induction System	Turbocharged and air to air charge cooled
Cycle	4 stroke
Combustion System	Direct Injection
Compression Ratio	16:1
Rotation	Anti-clockwise, viewed on flywheel
Cooling System	Water-cooled
Gross Engine Power (Prime)	451 kW
Gross Engine Power (Standby)	495 kW
Fuel Consumption at 50% Load	53 L/hr
Fuel Consumption at 75% Load	76 L/hr
Fuel Consumption at 100% Load (Prime)	100 L/hr
Fuel Consumption at 100% Load (Standby)	111 L/hr
Total Lubrication System Capacity	62 L
Total Coolant Capacity	58 L
Boost Pressure Ratio (Prime)	3.40
Boost Pressure Ratio (Standby)	3.60
Exhaust Temperature (Standby)	550 °C
Radiator Cooling Air Flow	12.03 m³/s
Combustion Air Flow (Prime)	35.8 m³/min
Combustion Air Flow (Standby)	36.6 m³/min
Exhaust Gas Flow (Prime)	94 m³/min
Exhaust Gas Flow (Standby)	98 m³/min
Fuel Tank Capacity	680 L
Alternator Make	Leroy Somer
Alternator Model	TAL 047C
Number of Bearings	1
Insulation Class	H
Total Harmonic Content (No Load)	1.5 أقل من %

Specification	Value
Total Harmonic Content (Linear Load)	5% أقل من
Ingress Protection	IP23
Excitation System	SHUNT
Winding Pitch	2/3
AVR Model	R150
Overspeed	2250 rpm
Voltage Regulation (Steady)	±1%
Control Panel Make	Deep Sea
Control Panel Model	DSE 6110
Fuel Tank Running Time at Full Load	Approx. 8 hours
Motor Starting Overload Capacity	300% of full load impedance at zero power factor for 10 seconds (with PMG option)
Output Ratings (Prime)	500.0 KVA / 400.0 KW
Output Ratings (Standby)	550.0 KVA / 440.0 KW
Bore And Stroke (mm)	137 x 171
Displacement / Cubic Capacity litres	15.2
Frequency/Engine speed	50Hz & 1500rpm
Gross Engine Power kW (Prime)	451
Gross Engine Power kW (Standby)	495
Fuel Consumption@50% Load (L/hr.)	53
Fuel Consumption@75% Load (L/hr.)	76
Fuel Consumption@100% Load (L/hr.) (Prime)	100
Fuel Consumption@100% Load (L/hr.) (Standby)	111
Total Lubrication System Capacity litres	62
Total Coolant Capacity (inc. radiator) litres	58
Exhaust Temperature °C (Standby)	550
Radiator Cooling Air Flow (Min): m3/sec	12.03
Combustion Air Flow: m3/min (Prime)	35.8
Combustion Air Flow: m3/min (Standby)	36.6
Exhaust Gas Flow: m3/min (Prime)	94
Exhaust Gas Flow: m3/min (Standby)	98
Fuel Tank Capacity: litres	680
No. of Bearings	1