



REDSTAR™

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RAPD 110PE

DIESEL GENERATING SET 400/230 V - 50 Hz



SPECIFICATIONS

110 kVA / 88 kW

POWERED by PERKINS

MODEL

Power	Pf. 0.8
Standby	110 kVA/88kW
Prime	100 kVA/80Kw

ENGINE - PERKINS

Model	1104C-44TAG2
Engine Power Output at rated rpm	99.5 kWm/133.4295 HP
Aspiration and Cooling	Turbocharged & Intercooled
Total Displacement Litre	4.4
No. of Cylinders and Build	4 - Inline
Engine Speed rpm	1500
Bore and Stroke mmxmm	105x127
Compression Ratio	18.23:1
Governor	Electronic
Fuel Consumption at full load L/hr	22.6
Fuel Tank Capacity Litre	Open: 154/Canopy: 154
Oil Capacity Litre	8
Coolant Capacity Litre	12.6
Radiator Cooling Air m ³ /min	165.6
Air Intake – Engine m ³ /min	6.01
Exhaust Gas Flow m ³ /min	15.2

ALTERNATOR

Design	Brushless single bearing, revolving field
Stator	2/3 pitch
Rotor	Single bearing, flexible disc
Insulation System	Class H
Standard Temperature Rise	125 - 163°C Continuous
Exciter Type	Self Excited
Phase Rotation	A (U), B (V), C (W)
Alternator Cooling	Direct drive centrifugal blower fan
AC Waveform Total Harmonic Distortion	No load < 1.5%. Non distorting balanced linear load < 5%
Telephone Influence Factor (TIF)	<50 per NEMA MG1-22.43
Telephone Harmonic Factor (THF)	<2%

DIMENSIONS

SOUND ATTENUATED CANOPY TYPE	
DIMENSIONS (LxWxH) mm	3121x1068x1716
DRY WEIGHT kg	1282

UPSPEC OPTIONS

Diesel Engine

- Engine oil heater

Alternator

- 4 pole output circuit breaker
- Anti condensation heater

Accessories

- Bulk Fuel Tank
- Automatic Fuel filling system
- Fuel warter separator filter
- Residential silencer
- Sound Proof Canopy
- Low fuel alarm
- 4 Pole contactor
- Electrical oil drain pump

GO CUSTOMISED

- Skid Mount Options
- External Switches
- Lifting Frames & Fabrication
- Custom Paint

RAPD 110PE

DIESEL GENERATING SET 400/230 V - 50 Hz

SPECIFICATIONS

ENGINE

- Heavy duty diesel engine
- Four stroke, water cooled,
- Direct injection fuel system
- 12 V D.C. starter and charge alternator
- Replaceable fuel filter, oil filter and dry element air filter
- Cooling radiator and fan
- Starter battery (with lead acid) including Rack and Cables
- Flexible fuel connection hoses and manual oil sump drain valve
- Industrial capacity exhaust silencer and steel bellows
- Jacket water heater (at automatic models)
- Manual for use and installation
- Electronic Governor System

ALTERNATOR

- Brushless, single bearing system, flexible disc, 4 poles
- Insulation class H
- Standard degree of protection IP21
- Self-exciting and self-regulating
- Impregnation with tropicalised epoxy varnish
- Solid state Automatic Voltage Regulator
- Stator winding with 2/3 pitch for improved harmonic

CHASIS

- The complete generator set is mounted as whole on a heavy-duty fabricated, steel base frame. Antivibration pads are fixed between the engine / alternator feet and the base frame.
- Base frame design incorporates an integral fuel tank. (up to 750 kVA)
- The generating set can be lifted or carefully pushed/pulled by the base frame
- Dial type fuel gauge and drain plug on the fuel tank
- Forklift pockets within base frame (up to 750 kVA)

CANOPY

- All canopy parts are designed with modular principles
- Without welding assembly
- Doors on each side
- All metal canopy parts are painted by electrostatic polyester powder paint
- Thermally insulated engine exhaust system

- Emergency stop push button is installed outside of canopy
- Easy lifting and moving
- Easy maintenance and operation
- Exhaust silencer is protected against environment influence.

CONTROL SYSTEM

Control supervision and protection panel is mounted on the genset base frame. The control panel is equipped as follows:

1) Auto. Mains Failure Control Panel - P 200

Panel equipments:

- Control with model AMF 4 module
- Static battery charger
- Emergency stop push button.

a) Generating set control module AMF 4 features:

- The module is used to monitor a mains supply and automatically start a standby generating set.
- Micro-processor based design
- Automatic control of mains and generator contactors.
- Monitors engine performance and AC power output
- LED alarm indication
- Front panel configuration of timers and alarm trip points
- Easy push button control.

STOP/RESET - MANUAL - AUTO - TEST - START

b) Metering via five-3 digit, 7 segment

LED Display:

- Generator Volts (L-L / L-N)
- Generator Ampere (L1,L2,L3)
- Generator Frequency (Hz)
- Engine hours run
- Engine oil pressure (PSI)
- Engine temperature (°C)
- Plant battery volts
- Mains Volts (F-F / F-N) • Mains Frequency

c) Automatic shutdown on fault conditions

- Over and Under Speed
- Start and Stop failure
- Over Current / Overload
- Low Oil Pressure
- High engine temperature
- Low and high battery volt
- Charge fail

- Under / over generator voltage
- Under / over mains voltage
- Emergency stop

d) LED Indications:

- Mains available • Generator available
- Mains on load
- Generator on load

2) Power Outlet Terminal Board Mounted on the Genset Baseframe

DIESEL GENERATING SET

High quality, reliable and complete power unit

- Compact design
- Easy start and maintenance possibility
- Every generating set is subject to a comprehensive test program which includes full load testing, checking and provision of all control and safety shut down functions testing
- Fully engineered with a wide range of options and accessories: Canopy, sound proof canopy and on-road trailer