

Diesel - electro – set

Type PSE 30 P/ 3P 27kVA

As stationary genset including Sound Attenuation Canopy (LWA 92)

Engine

Watercooled, industrial PERKINS engine, build after the latest technologies regarding all European rules, type 3152.4, with standard prime power of 27,7 kW.

Burning:	Direktinjection
Cylinder:	3 in line
Cooling system:	watercoolant system with radiator for maximum 55 ° Celsius ambient temperature.
Displacement:	2,50 liter
Fuel consumption:	at 100 % load 210 g/kW/h = 7,2 l
Oil consump:	0,14 liter/h

Coolant system

At base frame mounted radiator, for tropical conditions and a ambient temperature of 55 ° celsius inclusive overpressure valve overfill pipe, filling cap an coolant drain. The fan is direkt driven from the engine.

Alternator

The alternator is built in acceptance to the VDE 0530 rule. Electronic three phase alternator brushless. Selfregulated, protected, waterprotected IP 23, fancooled alternator. The Isolation appropriated DIN 50010 and VDE 0530 with high performance bearings for maintenance free operating meeting international standard.

Producer:	Ansaldo
Type	M7B 160 MA
Prime power:	27 KVA/22 KW
Standby power:	24 KVA/ 19,2 KW
Powerfactor:	cos. phi 0,8
Voltage.:	230/400 Volt $\pm$ 1,5% between no – and full load
Frequency:	50 Hertz
R/pm:	1.500
Isolation:	IP 23

Protections

The radiatorfan, the fanbelt and the DC alternator are guarded against intervention of person. The radiator is protected with an steel sheet with holes to safe him against damages

Mounting

Engine and alternator are together mounted on a steel base frame. Anti vibration pads are installed between frame and genset. The fuel tank with an capacity of 200 liter is build into the baseframe. All pipes an lines are installed between fueltank, engine and switching cabinet.

Batterie Set

The high performance maintenance free batteries are mounted at the base frame. They have enough power to start the engine Three time at frosty ambient temperatures.

Fueltank

Build into the base frame with a capacity for 12 working hours under 60 % load.

Switching cabinet

Automatic monitoring of generating set fault and malfunctions:

Shut off and indication in the event of overfrequency or runaway of engine, low oil pressure overheating, fan bet failure or alternator fault.

Facilities for other internal protection features, e. g. fuel reserve and low coolant level, or interlock external signals such as an ambient temperature sensing device. With mains powe restored and a brief delay allowed for stabilization to prescribed parameters, the control unit will open the generator output switch and after a delay of 1,5 seconds, close the mains isolations switch. The engine continues to run for a duration of 6 to 360 seconds (adjustable) before shutting off, both to facilitate cooling and to allow an immediate switch back to reserve power in the event mains voltage failing to stabilize. If the engine fails to start first time, following which the system will lock up and an indicator light (option of acoustic signal).

Remote control:

The panel is wired to allow remote control on Start, Test, and Off functions.

Instrumentation:

1 x voltmeter, 3 x ampmeter, frequency meter

The control unit comprises:

4 position selector switch (automatic – manuel – test- off), electrical mains /generator switch, start button, stop button

Visual indicators:

Mains healthy, service operating of mains, service operating of generator, engine running, generator fault alarm, alternator fault or belt failure, generator overfrequency, fuel reserve, low oil pressure, low coolant level engine overheating.

Internal switchgear

Magnetic thermal overload line safety cutout, quadrupole power switching with electrical interblok, fuses and all auxiliary circuits.

Automatic battery charger

With current controlled fast charge, voltage controlled intermediate and maintaining charge. Protected against short and pole inversion.

Three phase supply voltmetering relay:

With isolating transformers, which monitors power supply and self activates in response to a curt or drop even on one phase only.

Documentation

Documentation as follows:

- 1 Operation manual for the whole genset
- 1 Operation manual for the engine
- 1 Wiring diagram
- 1 Maintenance plan
- 1 Operation manual for the alternator
- 1 Parts book for the engine
- 1 Warranty book