

1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- Conformance European (CE)
- China Compulsory Certification (CCC)
- ISO8528-5:2005
- GB/T2820.5-2009

Environmental Operating Conditions

- Installation place: Outdoors or indoors (well ventilated).
- Ambient temperature: -25°C to 50°C. The coolant heater is needed when the temperature is below 5°C
- Humidity: Less than 80%.
- Altitude: Below one thousand (1000) meters.

Factory Inspection

- Inspection items.
- Protection devices working test.
- Starting ability in normal temperature.
- 50% rated power load moment capability.
- Voltage deviation and speed variation: 0%, 25%, 50%, 75%, 100%, 110% Load.

Painting Process

- Painting process specifications and colors are based on the manufacturer's standard.
- The customer could also choose the color which the manufacturer offers.

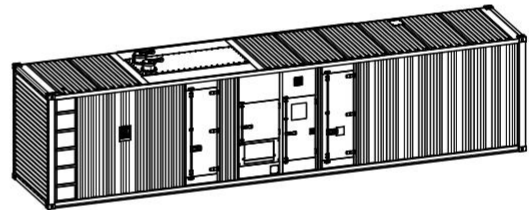
2 General Features

- Perkins engine 4012-46TAG3A
- Close coupled to a Leroy Somer alternator LSA52.3S5
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 3000A
- Rotate speed governor: Electronic governor
- Excitation system: AREP
- A.V.R model: R449
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- 4x12V/150AH sealed for life maintenance free battery
- Lockable battery isolator switch
- Powder coated canopy

- 50°C radiator
- Fire extinguisher
- Oil pump on the engine
- Steel base frame with forklots
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Fuel tank for 8 hours running
- Drain points for fuel tank
- Fuel inlet pump and it's control box for the fuel tank
- Added fuel-water separator for fuel tank
- Operation Manual/ Specifications

3 Equipment Specification

General technical data



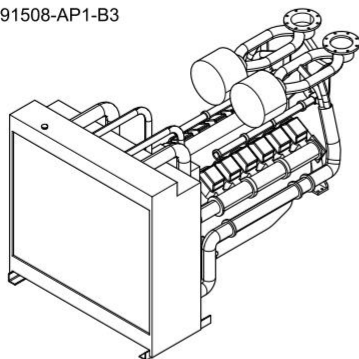
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Model.....P1710D5
 Structure type C
 Tank capacity.....2800L
 Dry weight..... 21149kg
 Noise level @7m N/A
 Sound power level acc. 2000/14/EC N/A
 Dimensions L×W×H.....12192×2438×2896mm
 Standby Power 1881kVA/1505kW
 Prime Power 1710kVA/1368kW

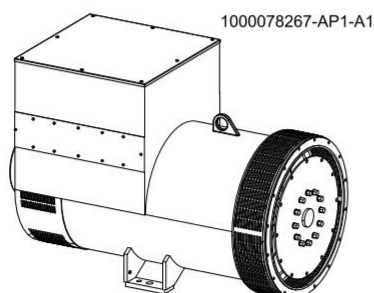
Voltage	380V	400V	415V	440V	
Ampere	2598.1A	2468.2A	2379A	2243.8A	
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	N/A	187	275	370	405

Power System

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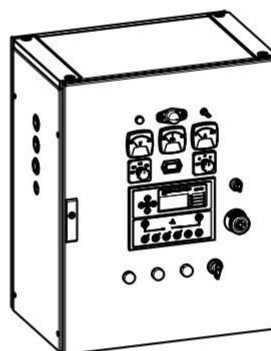
Engine Manufacturer/Brand.....	Perkins
Engine Model.....	4012-46TAG3A
Dimensions L×W×H.....	3971×2192×2260mm
Dry Weigh (approx.)	6026kg
Number of Cylinders.....	12
Bore.....	160mm
Stroke	190mm
Displacement.....	45.84L
Compression Ratio	13.6
Type of Injection	Direct injection
Intake System.....	Turbocharged
Intake Resistance.....	≤0.4kPa
Cooling System	Water cooled
Fan	Pusher
Battery Voltage	24V
Type of Fuel.....	BS2869 1998 Class A2 or BS EN590
Type of Oil	API CH4 15W/40
Oil Capacity	177L
Type of Coolant	Glycol mixture
Coolant capacity.....	210L
Back Pressure	≤0.5kPa
Standby Power	1500kW
Prime Power	1364kW
Fuel Consumption(100%load).....	370L/h



Alternator Manufacturer/Brand	Leroy Somer
Alternator Model	LSA52.3S5
Exciter.....	Brushless

Cooling Fan	Cast alloy aluminum
Windings.....	100% copper
Insulation Class	H
Winding Pitch.....	2/3
Terminals	6
Drip Proof	IP23
Altitude.....	≤1000m
Overspeed	2250rpm
Air Flow.....	2.5m³/s(50Hz), 2.8m³/s(60Hz)
Excitation System.....	AREP or PMI
A.V.R. Model.....	R449
Voltage Regulation	±0.5%
Sustained Short-circuit Current	300% (3 IN) : 10s
Total harmonic TGH / THD	< 4%
Telephone Interference.....	THF<2%; TIF<50

PLC-7420 Control System



1000196904-AP1-B3

PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and display all values and alarms information on the LCD. In addition, the control module can automatically shut down the engine and indicate the engine failure.

- Microprocessor control, with high stability and credibility
- Monitoring and measuring operational parameters of the mains supply and genset
- Indicating operation status, fault conditions, all parameters and alarms
- Multiple protections; multiple parameters display, like pressure, temp. etc.
- Manual, automatic and remote work mode selectable
- Real time clock for time and date display, overall runtime display, 250 log entries
- Overall power output display
- Integral speed/frequency detecting, telling status of start, rated operation, overspeed etc.
- Communication with PC via RS485 OR RS232 interface, using MODBUS protocol

4 Overall Dimensions

