

# SPECIFICATION

**POWERLINK**  
Power Systems

*Power Link the World*

## **MODEL VR10XS-AU** **VR SERIES** **(FOR 50Hz DIESEL GENSET)**

Revision: A2 (10/21)

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**VR series**  
**VR10XS-AU**



**50 Hz @ 1500rpm,3-phase/5-wiring**

**1 Standards & Conditions**

**Design Standards**

The designs and the productions are in conformity with:

- Conformance Européenne (CE)
- ISO8528-5:2005
- AS 3000-2018
- AS 3010-2017

**Environmental Operating Conditions**

- Installation place: Outdoors or indoors (well ventilated).
- Ambient temperature: -25°C to 45°C. The coolant heater is needed when the temperature is below 5°C
- Humidity: Less than 90%.
- Altitude: Below one thousand (1000) meters above sea level.

**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.

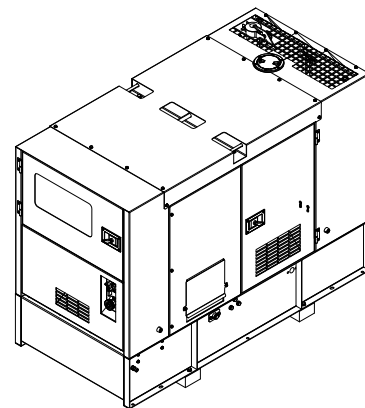
**2 General Features**

- PowerLink engine VR3-1.4G1
- Close coupled to PowerLink alternator PL1B
- Microprocessor control module PLC-920
- Main circuit breaker: 16A
- Rotate speed governor: Mechanical governor
- Excitation System: Self Excited,SHUNT
- A.V.R.Model: SX440
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- Remote run connector

- 1x12V/60AH sealed for life maintenance free battery
- Lockable battery isolator switch
- Powder coated canopy
- 50°C radiator
- Oil pump on the engine
- Steel base frame with forkslots
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank with 32 hours running
- Drain points for fuel tank
- Operator's Manual / Specifications

**3 Equipment Specification**

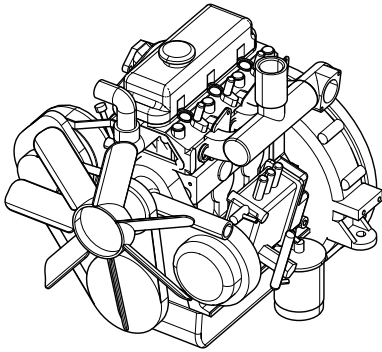
**General technical data**



Model..... VR10XS-AU  
 Tank capacity.....90L  
 Dry weight.....685kg  
 Noise level @7m ..... 66.8dBA  
 Dimensions L×W×H..... 1600x790x1145.5mm  
 Standby Power ..... 11kVA/9kW  
 Prime Power ..... 10kVA/8kW

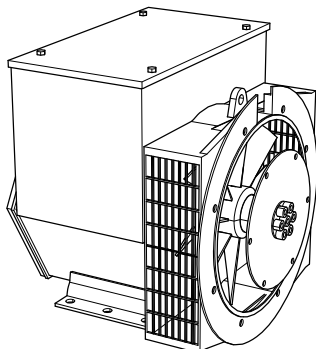
Voltage	380V	400V	415V	440V	
Ampere	15.2A	14.4A	13.9A	13.1A	
<b>Genset Fuel Consumption</b>					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	N/A	1.4	2.0	2.8	3.1

## Power System



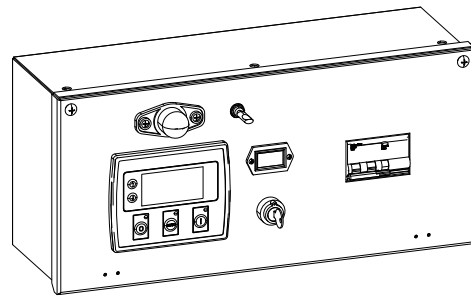
Engine Manufacturer/Brand.....	PowerLink
Engine Model.....	VR3-1.4G1
Dimensions L×W×H.....	569x525x565mm
Dry Weigh (approx.) .....	165Kg
Number of Cylinders.....	3
Bore.....	80mm
Stroke.....	90mm
Displacement.....	1.4L
Compression Ratio.....	18
Type of injection.....	Direct injection
Intake System.....	Natural aspirated
Intake Resistance.....	≤5kPa
Cooling System.....	Water cooled
Fan.....	Pusher
Battery Voltage.....	12V
Type of Fuel.....	0#ASTM2
Type of Oil.....	CF4/SG15W-40
Oil Capacity.....	4.0L
Type of Coolant.....	Glycol mixture
Coolant Capacity.....	3.0L
Back Pressure.....	≤10.1kPa
Standby Power.....	11kW
Prime Power.....	10kW

## Alternator



Alternator Manufacturer/Brand.....	PowerLink
Alternator Model.....	PL1B
Exciter.....	Brushless
Cooling Fan.....	Cast alloy aluminum
Windings.....	100% copper
Insulation Class.....	H
Winding Pitch.....	2/3
Terminals.....	12
Drip Proof.....	IP23
Altitude.....	≤1000m
Overspeed.....	2250rpm
Air Flow.....	N/A
Voltage Regulation.....	±1.0%
Total Harmonic TGH / THCat no load < 1.5 % - on load < 5%	
Telephone Interference.....	THF<2%;TIF<50

## PLC-920 Control System

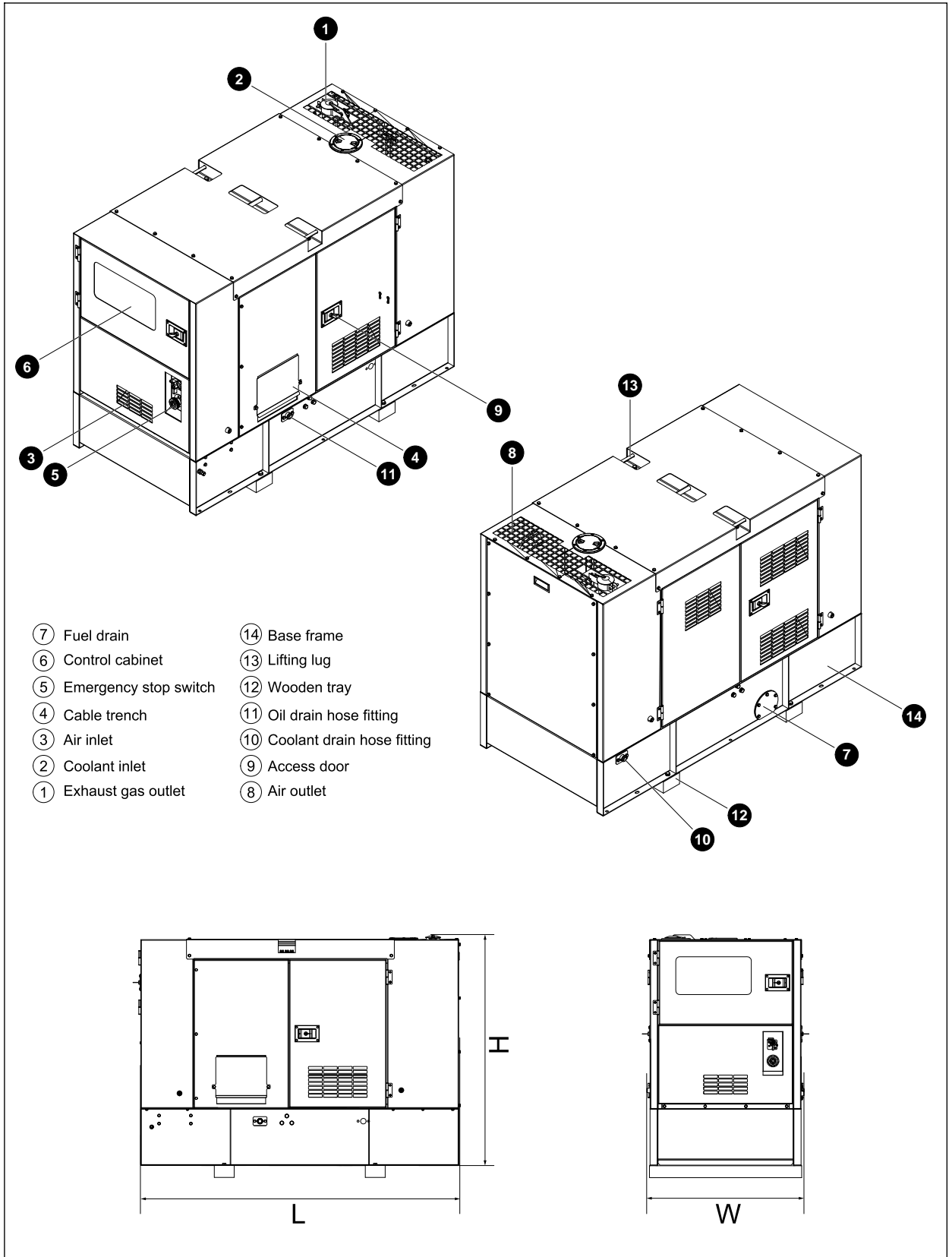


PLC-920 is an advanced control module based on microprocessor designed to control the engine via push buttons on the front panel. The module is used to start and stop the engine and indicate fault conditions, automatically shutting down the engine and giving a true first up fault condition of an engine failure.

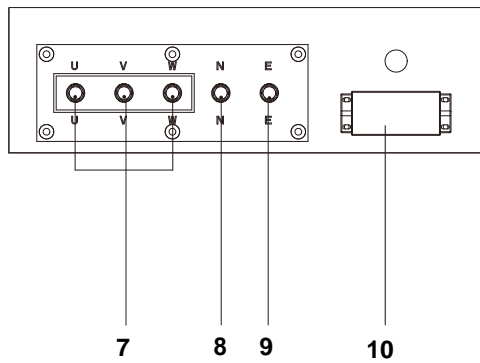
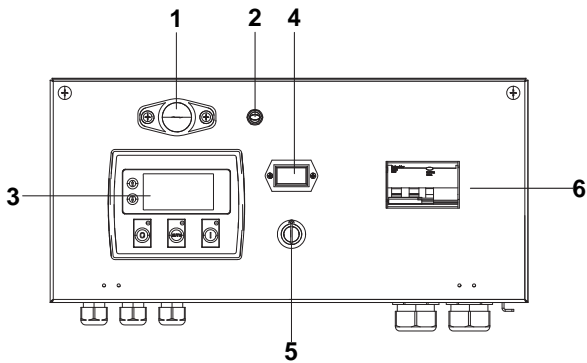
### Standard Control Function

- Manual Engine Control Module
- Low Oil Pressure
- High Engine Temperature
- Auxiliary Shutdown
- Overspeed Protection
- Protection hold-off timer
- Charge Failure warning

## 4 Overall Dimensions

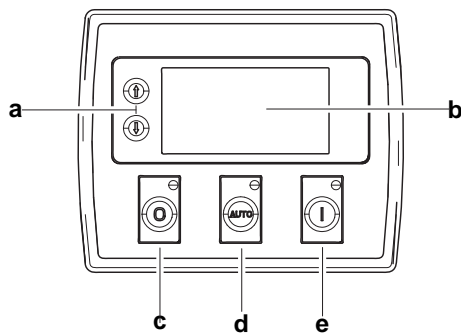


## 5 Control System



**Control & field wiring cabinet**

Ref.	Description
1	Control cabinet lamp
2	Control cabinet lamp switch
3	Control module
4	Time counter
5	Key switch
6	Main circuit breaker
7	Live wire terminals
8	Neutral wire terminal
9	Ground wire terminal
10	Mains input/remote communication connector



**Control module**

Ref.	Description
a	Navigation button Accept (Configuration mode only)
b	Main status display
c	Stop/reset button Next page (Configuration mode only)
d	Auto start button Decrease value/next item (Configuration mode only)
e	Start button Increase value/next item (Configuration mode only)

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