

# SPECIFICATION



*Power Link the World*

## MODEL VR110XS-EU VR SERIES (FOR 50Hz DIESEL GENSET)

Revision: A2 (10/21)

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# VR series VR110XS-EU



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
- GB/T2820.5-2009

### 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.

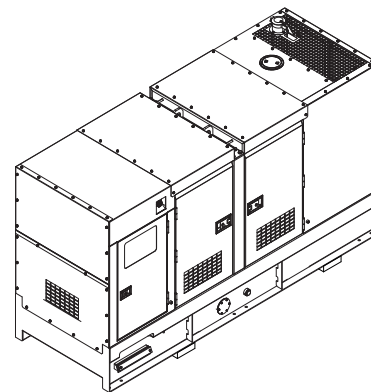
## 2 General Features

- PowerLink engine VR4-4.8TAG2
- Close coupled to PowerLink alternator PL3C
- Microprocessor control module PLC-920
- Main circuit breaker: 200A
- 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

- 2x12V/72AH 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 24 hours running
- Drain points for fuel tank
- Operator's Manual / Specifications

## 3 Equipment Specification

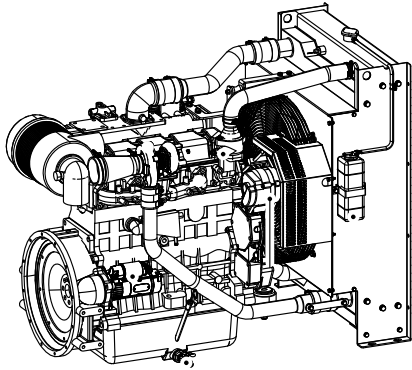
### General technical data



Model..... VR110XS-EU  
 Tank capacity.....600L  
 Dry weight.....1972kg  
 Noise level @7m ..... 69.2dBA  
 Dimensions L×W×H..... 2700x1150x1850mm  
 Standby Power ..... 121kVA/97kW  
 Prime Power ..... 110kVA/88kW

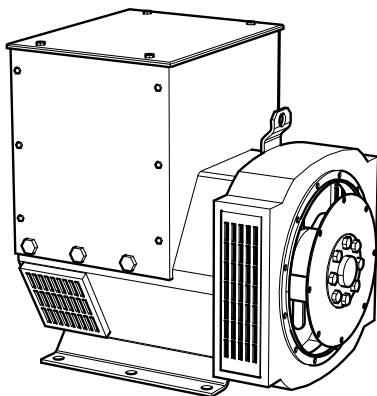
Voltage	380V	400V	415V			
Ampere	167.1A	158.8A	153.0A			
<b>Genset Fuel Consumption</b>						
Frequency/Load	25%	50%	75%	100%	110%	
50Hz (L/h)	7	13	18.5	25	28	

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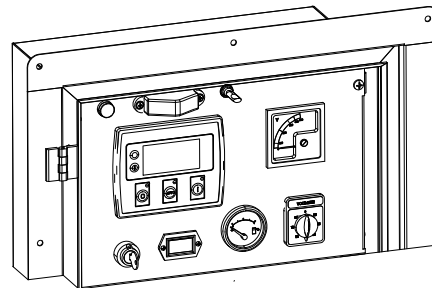
Engine Manufacturer/Brand.....	PowerLink
Engine Model.....	VR4-4.8TAG2
Dimensions L×W×H.....	1160×710×965mm
Dry Weigh (approx.) .....	500kg
Number of Cylinders.....	4
Bore.....	110mm
Stroke .....	125mm
Displacement.....	4.75L
Compression Ratio.....	17.0
Type of injection.....	Direct injection
Intake System.....	Turbocharged and charge air cooled
Intake Resistance.....	≤5kPa
Cooling System .....	Water cooled
Fan .....	Pusher
Battery Voltage .....	24V
Type of Fuel.....	No.2 or ASTM D975
Type of Oil .....	API CF/SE or CCMCF4
Oil Capacity .....	16.0L
Type of Coolant .....	Glycol mixture
Coolant Capacity .....	18.0L
Back Pressure .....	≤10.1kPa
Standby Power .....	105kW
Prime Power .....	95kW

## Alternator



Alternator Manufacturer/Brand.....	PowerLink
Alternator Model .....	PL3C
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

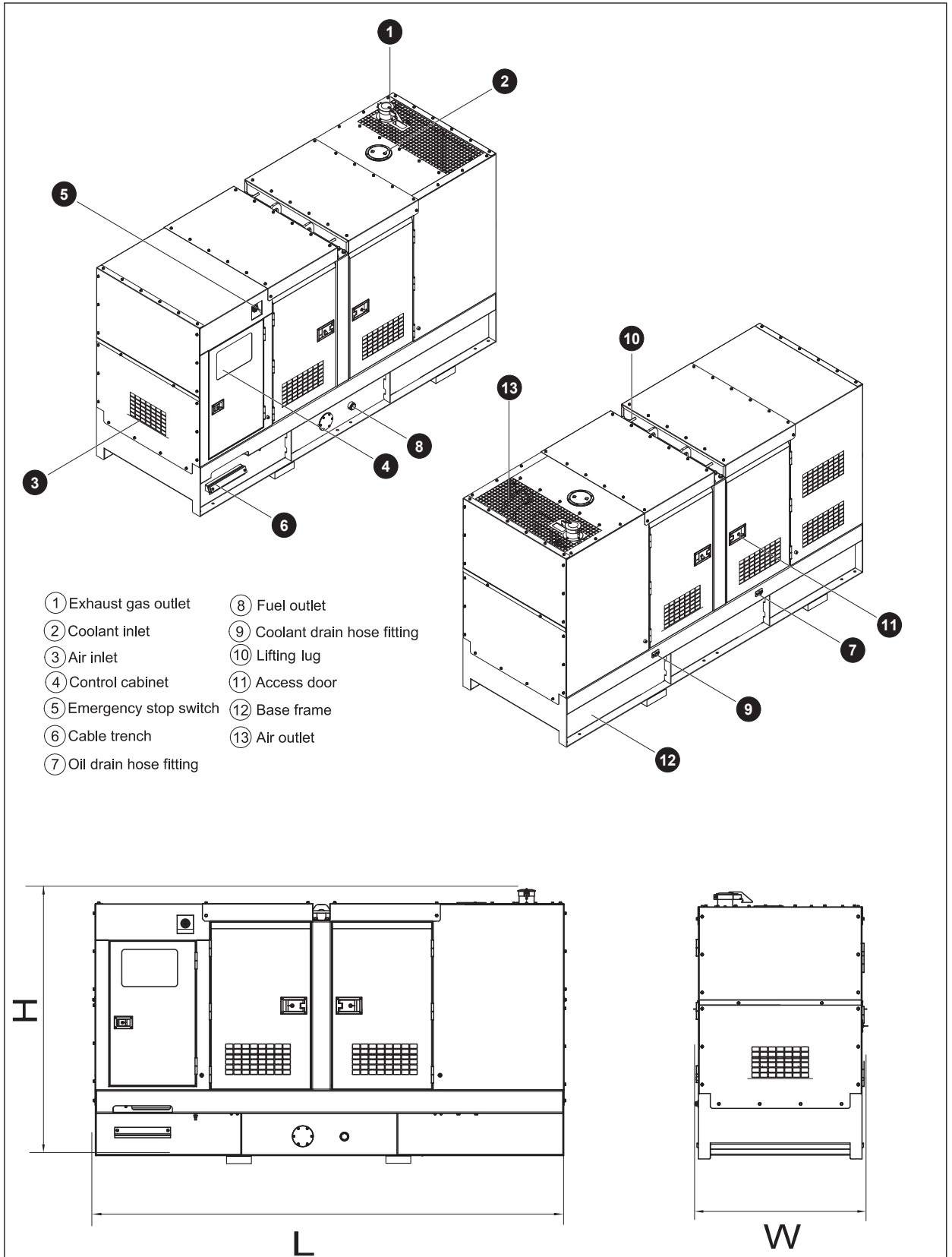


PLC-920 is an advanced control module based on microprocessor designed to control the engine via push buttons on the front panel. The module is used to start and stop the engine and indicate fault conditions, automatically shutting down the engine and giving a true first up fault condition of an engine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

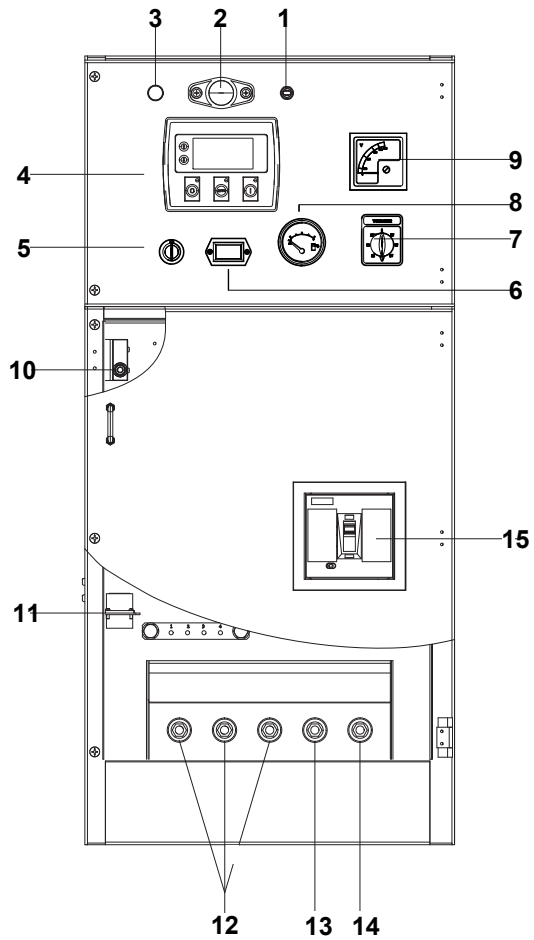
### Standard Control Function

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

## 4 Overall Dimensions

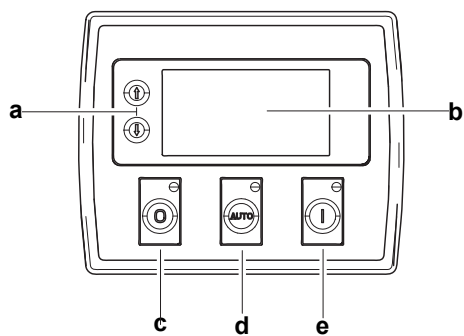


## 5 Control System



**Control & field wiring cabinet**

Ref.	Description
1	Control cabinet lamp switch
2	Control cabinet lamp
3	Charge indicator
4	Control module
5	Key switch
6	Time counter
7	Voltage changer-over switch
8	Fuel level meter
9	Voltage meter
10	Limit switch
11	Mains input/Remote control/ATS connector
12	Live wire terminal
13	Neutral wire terminal
14	Ground wire terminal
15	Main circuit breaker



**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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**VR SERIES DIESEL GENSET**

**VR110XS-EU**

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