

SPECIFICATION



MODEL VR165PX VR SERIES (FOR 50Hz DIESEL GENSET)

Revision: D2 (11/21)

VS series VR165PX

50 Hz @ 1500rpm,3-phase/4-wiring

1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- Conformance European (CE)
- ISO8528-5:2005
- GB/T2820.5-2009

Environmental Operating Conditions

- Installation place: 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 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.

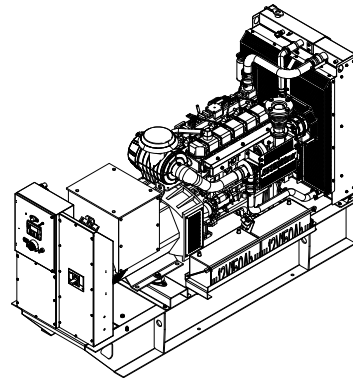
2 General Features

- PowerLink engine VR6-6.5TAG2
- Close coupled to PowerLink alternator PL3EM
- Microprocessor control module PLC-920
- Main circuit breaker: 320A
- Rotate speed governor: Electric fuel control
- 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
- 50°C radiator
- Oil pump on the engine
- Steel base frame with forklifts
- 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

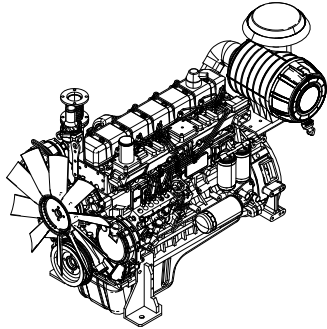
General technical data



Model.....VR165PX
 Structure type A
 Tank capacity..... 469L
 Dry weigh..... 1899kg
 Noise level @7m N/A
 Dimensions L×W×H..... 2742x832x2145mm
 Standby Power 182kVA/145kW
 Prime Power 165kVA/132kW

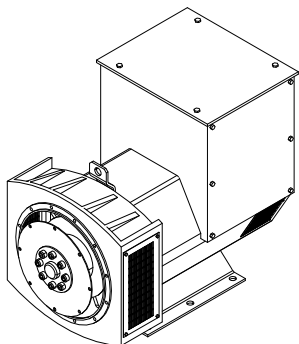
Voltage	380V	400V	415V		
Ampere	250.7A	238.2A	229.6A		
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	9	17	25	33	36

Diesel engine



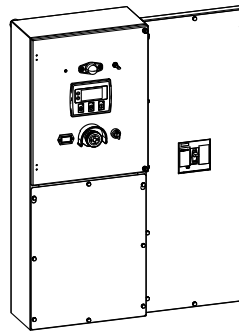
Engine Manufacturer/Brand.....	PowerLink
Engine Model.....	VR6-6.5TAG2
Dimensions L×W×H.....	1456×710×1080mm
Dry Weigh (approx.).....	650kg
Number of Cylinders.....	6
Bore.....	110mm
Stroke.....	125mm
Displacement.....	6.5L
Compression Ratio.....	17.0
Type of injection.....	Direct injection
Intake System.....	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.....	21.0L
Back Pressure.....	≤10.1kPa
Standby Power.....	165kW
Prime Power.....	150kW

Alternator



Alternator Manufacturer/Brand.....	PowerLink
Alternator Model.....	PL3EM
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

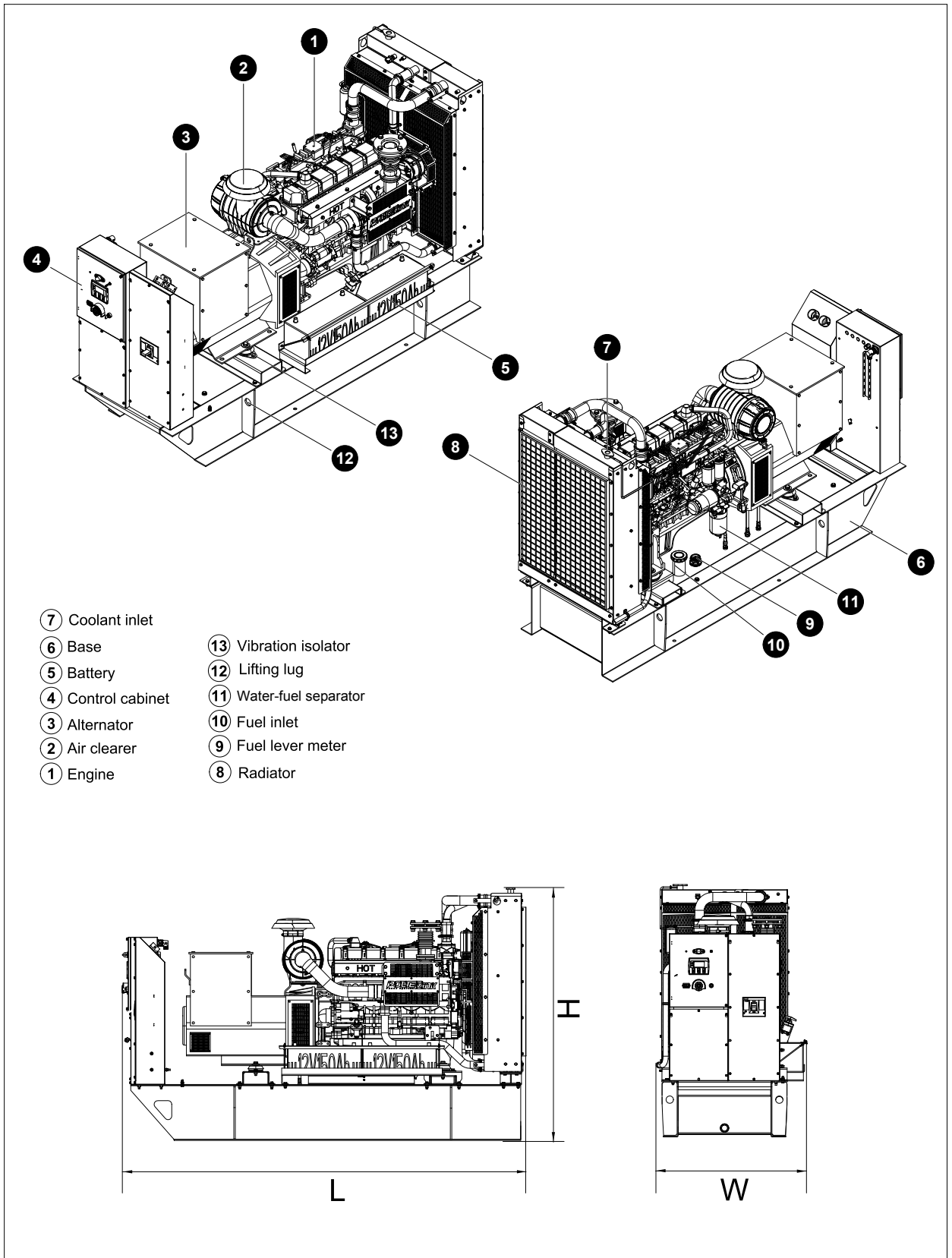


PLC-920 is an advanced control module based on microprocessor designed to control the engine via push buttons on the front panel. The module is used to start and stop the engine and indicate fault conditions, automatically shutting down the engine and giving a true up fault condition of an engine failure.

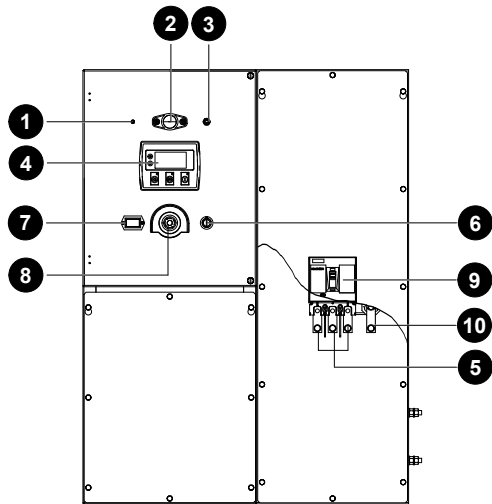
Standard Control Function

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

4 Overall Dimensions

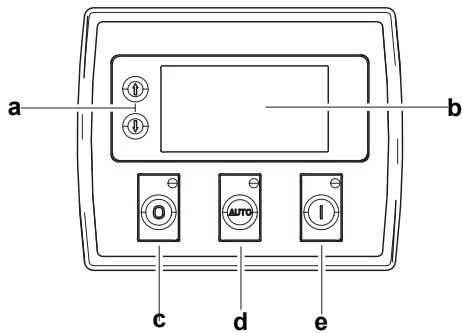


5 Control System



Control&Field wiring cabinet

Ref.	Description
1	Charge indicator
2	Control cabinet lamp
3	Control cabinet lamp switch
4	Control module
5	Live wire terminals
6	Key switch
7	Time counter
8	Emergency stop switch
9	Main circuit breaker
10	Neutral wire terminal



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)