

VR165XS

DIESEL GENSET SPECIFICATION

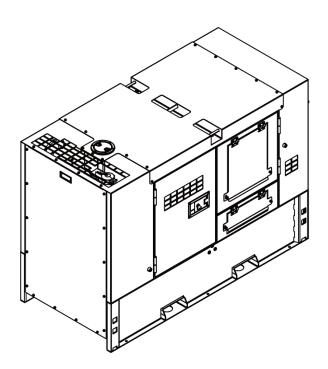
165kVA (PRP) / 182kVA (ESP)

ID: 1000034905











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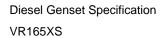
General technical data

| Model | VR165XS | Rated voltage V | Current A |
|-----------------------------|----------------|-----------------|----------------------|
| Structure | PT | 380 | 250.7 |
| Prime power (PRP): kVA / kW | 165 / 132 | 400 | 238.2 |
| Standby power (ESP): kVA/kW | 182 / 145 | 415 | 229.6 |
| Frequency: Hz | 50 | | |
| Rotate speed: RPM | 1500 | | |
| Phase: P | 3 | | |
| Power factor: cosφ | 0.8 | Load | Fuel consumption L/h |
| Protection class | IP54 | 25% | 9 |
| Noise level: dB@7m | 71 | 50% | 17 |
| Tank capacity: L | 300 | 75% | 25 |
| Dimensions: mm | 3500x1250x2100 | 100% | 33 |
| Dry weight: kg | 2693 | 110% | 36 |

Main Features

| Advantage | Design Standards | Environmental Operating Conditions | |
|--------------------------------------|----------------------------|--|--|
| Low fuel consumption | Conformite Europeenne (CE) | Installation place: outdoor / indoor (well ventilated). | |
| Optimized system | • ISO8528-5:2005 | • Ambient temperature: -25°C to 45°C (the | |
| High reliability | | coolant heater is needed when the temperature is below 5°C) | |
| High availability | | Humidity: Less than 80% | |
| | | Altitude: Below one thousand (1000) meters. | |

| Factory Inspection Service Support | | Performance Guarantee | |
|---|--------------------------------|---|--|
| Protection devices working test | Global product service support | Product design, manufacturing and performance have been verified by standards | |
| Starting ability in normal temperature 50% rated power load moment capability Load test :0, 25%, 50%, 75%, 100%, 110% | | Generator set has passed transient | |
| | | response test according to ISO8528-5 | |
| | | Both engine and alternator have passed prototype factory testing. | |





Power System

| aı | |
|----|--|
| | |

| Manufacturer / brand | PowerLink | Intake system | Turbocharged |
|------------------------|-------------|----------------------------|---------------|
| Model | VR6-6.5TAG2 | Intake resistance: kPa | ≦5.0 |
| Cylinders | 6L | Exhaust back pressure: kPa | ≦10.1 |
| Bore: mm | 110 | Oil capacity: L | 16.0 |
| Stroke: mm | 125 | Coolant capacity: L | 21.0 |
| Displacement: L | 6.5 | Battery voltage: V | 24 |
| Compression ratio | 17.0 | Dimensions: mm | 1456×710×1080 |
| Rotate speed: RPM | 1500 | Dry weight: kg | 650 |
| Prime power: kWm | 150 | | |
| Standby power: kWm | 165 | | |
| Rotate speed governor | EFC | | |
| Type of fuel Injection | Direct | | |

Alternator

| Manufacturer / brand | PowerLink | Insulation class | Н |
|----------------------|-------------|-----------------------------------|-------|
| Model | PL3EM | Temperature rising class | Н |
| Exciter | Brushless | Protection class | IP23 |
| Windings | 100% copper | Voltage regulation | ±1.0% |
| Winding pitch | 2/3 | Telephone harmonic factor THF | <2% |
| Number of poles | 4 | Telephone interference factor TIF | <50 |
| Terminals | 12 | | |

Control System

Brand POWERLINK Model PLC-920

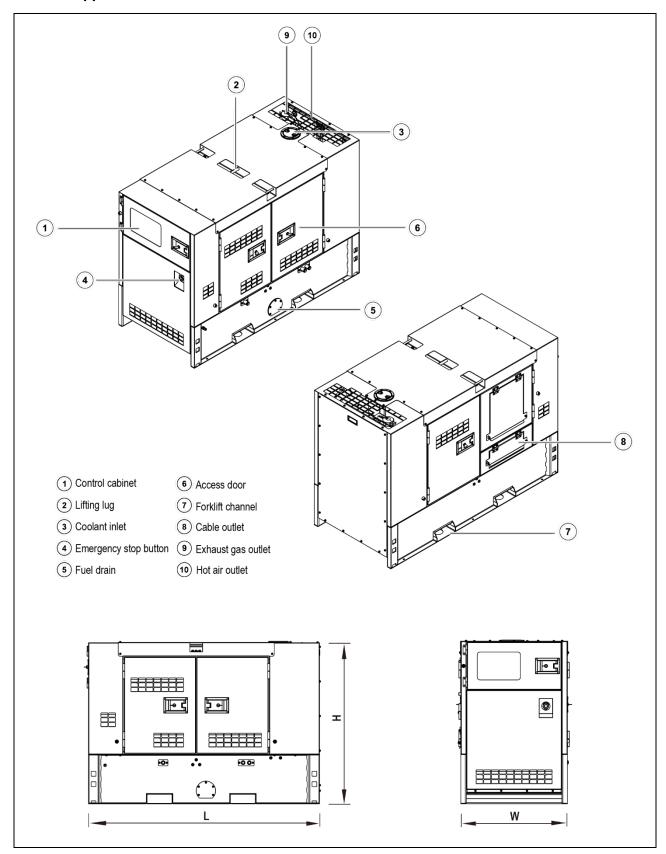
General Functions

| | | 5 1 | |
|---|---|-------------------|-----------------|
| _ | Automatic start / stop control | Oil pressure | Over load |
| _ | Manual/remote start control | Water temperature | Over current |
| _ | Real time monitoring and display of multiple parameters | Rotate speed | Over voltage |
| _ | RS232, RS485 interface and Ethernet can be used | Start | Under voltage |
| | simultaneously | Running time | Over frequency |
| _ | CAN and Modbus communication | Battery voltage | Under frequency |
| _ | Provide complete control solutions | | |

Monitoring and protection



Product Appearance





Product Configuration

Standard configuration

| Engine | Generator | Control switchgear | Canopy (sound-proof) | Base Frame |
|--|---|--|--|--|
| Electrical start motor Battery system Speed control system Turbocharger Lockable isolator switch Battery charger | Alternator H class insulation H class temperature rising IP23 protection AVR voltage regulator | PLC control system Main circuit breaker Breaker cabinet Communication connector ATS connector Mains floating charger | SECC Electrogalvanized sheet Corrosion-resistant coating Access door Stainless steel hinge Sound absorbing cotton | Steel base frame Engine bracket Alternator bracket Radiator bracket Vibration isolators |
| Fuel system Base frame fuel tank Fuel level sensor Flexible connection pipe Fuel filter | Lubrication system Oil pressure sensor Oil temperature sensor Oil filter Manual oil drain pump Oil drain ball valve | Cooling system 50°C radiator Water level sensor Jacket water pipe Intercooling pipe | Intake / exhaust system Air filter Exhaust muffler Exhaust bellow Exhaust pipe and flange High temperature protective sleeve | Service documents Installation and operation manual Test report Circuit diagram Warranty manual Engine operation and maintenance manual Standard package |

Optional configuration

| Engine | Alternator | Control switchgear | Fuel system | Lubrication system |
|------------------------|--|----------------------------|----------------------|-------------------------|
| Jacket water preheater | Anti-condensation | 4P Circuit breaker | Fuel three-way valve | Electric oil drain pump |
| Oil preheater | heater Treatments against humidity and corrosion | ATS cabinet | Daily fuel tank | |
| | | Paralleling control system | | |
| | | Grid-connection system | | |

Power Class Definition

- Prime Power (PRP): the unit runs continuously with variable load, the number of operating hours is not limited, and 1h overload 10% operation is allowed per 12h, and the average load factor is less than 70% per 24h.
- Standby Power (ESP): operating time does not exceed 500h per year, continuous operating time does not exceed 300h, the average load factor is less than 80% per 24h. Overload operation is not allowed.

Product Statement

- The data of specifications is based on the following standard environmental test conditions.
 - Ambient temperature 25°C
 - Altitude 100m
 - Relative humidity 30%
- Dimensions, weight and other parame0ters are for reference only, which shall be subject to the final design drawing.



Data is subject to change without prior notice as new products are always developed.

Please contact PowerLink or local agent with any doubts or for more information.