USR

GENERATOR

Marine Vehicle Commercial

20kAV-65kVA

Diesel Vehicle pro GENERATOR

Diesel Vehicle Generator

Electricity is everywhere.™

ETCS™ Tech.
Vehicle generator set
Constant speed and frequency

Kubota motor

Features and benifits

- Constant speed constant voltage and constant frequency, pure sine wave power, the world's first. Variable speed constant voltage and constant frequency make the noise lower, more fuel efficient, and longer generator life.
- Stainless steel sturdy housing, reliable performance become the leader in this industry development, for performance you can rely on.
- The snap-on detachable shell will provide you with more convenient repair and maintenance needs.
- A more humanized debugging method, which makes the complex debugging into pieces, making the debugging more humanized and simpler.
- Our generator has a built-in DSP control chip, which is connected to our original RSV technology to control the speed of the stepper motor more accurately and quickly, which ensures the constant voltage and constant frequency output of the motor, reduces noise and lowers noise, and saves fuel. .
- Built-in original air supercharging technology, which increases the power by 15%, and the engine has sufficient power to easily drive the alternator, allowing the engine to cool down and reduce noise, and the entire generator and engine have a longer life.
- Provides panel control and wireless remote control.

Diesel Vehicle pro GENERATOR

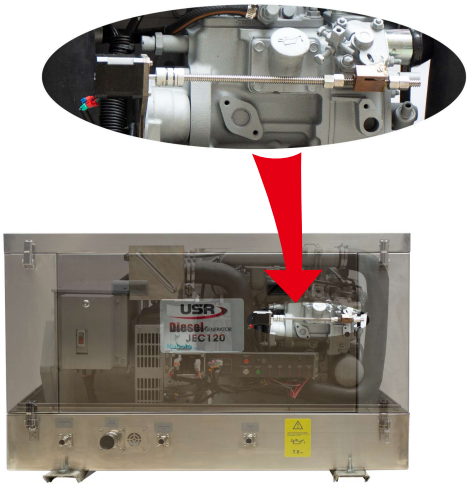
Standard features

- Shutdown with diagnostic indicators: high engine coolant temperature, low oil pressure, overload, short circuit, etc.
- Start-run-stop switch with glow plug preheat and fuel pump priming mode for easy starting.
- Start function with automatic glow plug preheat start, cleaning function
- Advanced digital electronic controls provide extensive diagnostic capabilities
- Electronic governors enable gensets to maintain synchronous frequency control and tight voltage regulation, providing high-quality power for digital equipment and computers
- The coolant level can be observed on the controller.
- Controls the integrated digital voltage regulator
- 12 V DC electrical system with battery charging, negative ground and DC protective circuit breaker
- Electric fuel transfer pump for start and lift capability
- Fresh water cooling system with built-in heat exchanger tank and coolant recovery system
- With AC cooling circulating pump
- Secondary water-cooled muffler gas
- Runtime meter
- Intake muffler
- Air boost
- Mounting system with vibration isolators
- Full flow lube oil filter
- Oil drain and extension hoses
- Equipped with DC 12V electronic oil pump, the longest suction stroke is 10 meters.
- Fuel shut off via electronically regulated actuator
- Fuel Filter
- Flexible mounting arrangement for shock absorber installation
- Easy to install components include fuel input, fuel output, battery, cooling water inlet, exhaust and generator set power output wiring.
- Rugged housing of 304 stainless steel to prevent noise and rust
- Remote control can be installed in a convenient location, or optional Internet remote control.
- Optional wireless remote control.
- The large-capacity coolant tank can be used for a long time, and it can be maintained once every six months or a year.
- Factory load test

Variable speed adjustment

Original RSV technology

Advanced RSV technology for less noise
more fuel efficient
longer life
The stepping motor drives the throttle to be smaller and more precise
The internal temperature of the generator is lower



Accessories list

Item	Description
1	Generator
2	Control panel
3	Freshwater tank
4	Radiator
5	Tubing components
6	Cilencer
7	Exhaust
8	Cilencer

Kubota motor

Kubota Co., Ltd. was founded in 1890 and has a history of 117 years. In Japan, Kubota has always been at the forefront of the industry in the fields of machinery manufacturing, industrial infrastructure, environmental facilities, etc., and has made positive contributions to technological progress, social development and environmental protection. As a century-old enterprise, Kubota has always been respected and concerned by the society and the industry, and has become a leading representative of the industry!

For more than 80 years, Kubota engines have become a world-renowned brand in the industry of industrial diesel engines below 100 horsepower, and have provided a large number of engines that "meet strict exhaust emission standards" and have perfect matching to the growing small engineering machinery and industrial machinery markets, improving the market competitiveness of the host manufacturers' products and becoming a powerful "driving force" to help the host manufacturers succeed in their business. In recent years, Kubota has been more committed to the development and research of engines below 200 horsepower, and has gradually introduced them to the market. Kubota is willing to become a permanent, all-round excellent partner with you!

Alternator details

Design: USR revolving field, 2-pole, drip-proof construction, **with encapsulated rectifiers**

Voltage Regulator: Integral with digital-control

Stator: Skewed stator and 2/3 pitch windings minimize field heating and voltage harmonics; resin-coated for corrosion protection

Rotor: Dynamically balanced assembly; supported by pre-lubricated, maintenance-free ball bearings

Cooling: Rotor mounted centrifugal blower

Insulation system: Class H per NEMA MG1-1 -1.65

Generator set performance

Operating environment: Generator sets are durability tested at maximum ambient air temperature: 50° C (122° F) and raw water temperature: 37.8° C (100° F)

Frequency regulation: Isochronous Random frequency variation: Will not exceed +/-0.5% of its mean value for constant loads from no load to full load

Voltage regulation: No load to rated load +/-1.5%

Control panel

Design: USR Industries Design

Smart Alarm: Low voltage, high temperature, low oil pressure,

Default display: voltage, frequency,

Screen 2 display: oil pressure, water temperature

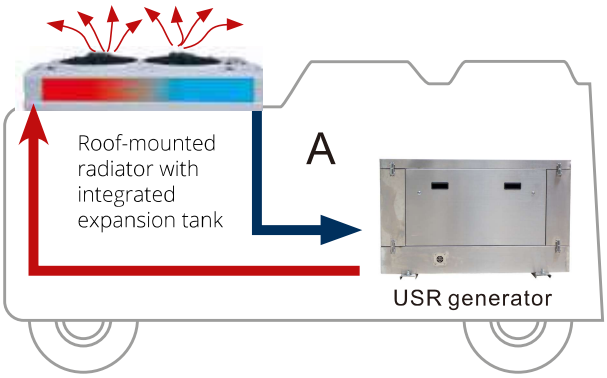
Screen 3 shows: fuel level, cumulative running time

Shutdown protection: no output shutdown protection, low voltage shutdown protection, low oil pressure shutdown protection, short circuit shutdown protection, overload shutdown protection

Installation position of cooling Radiator

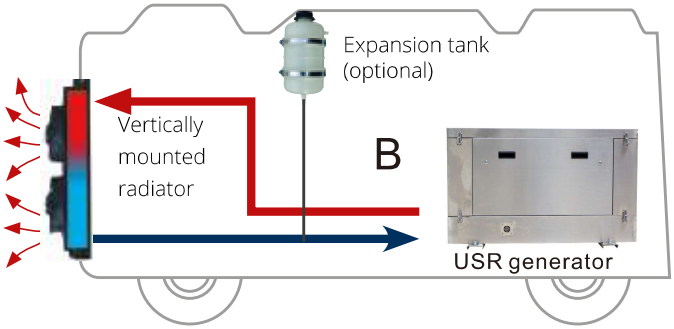
A Vehicle installation: roof-mounted radiator

The radiator must be installed where good access for fresh air circulation is guaranteed. The best location is horizontally on the roof of the vehicle. The radiator has an integrated expansion tank.



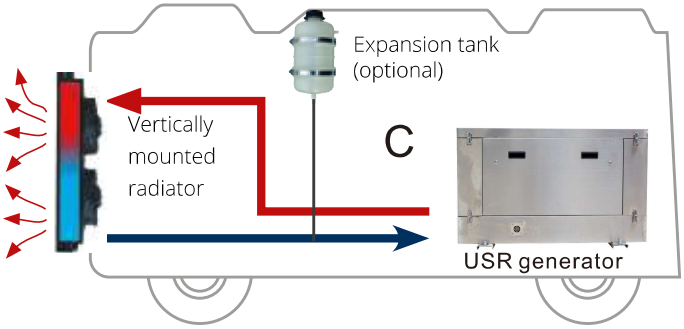
B Vehicle installation: vertically mounted radiator

A radiator can be fitted vertically on the vehicle when there is no space on the roof. Fan on the outside.



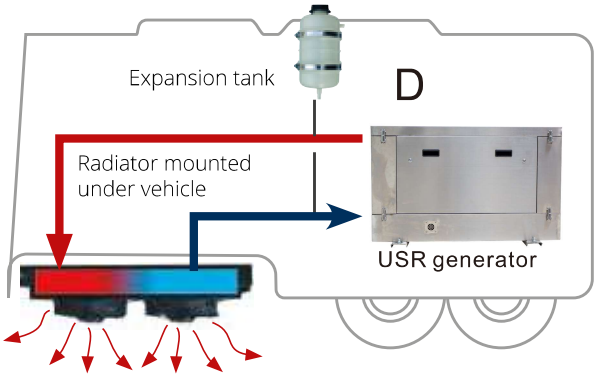
C Vehicle installation: vertically mounted radiator

A radiator can be fitted vertically on the vehicle when there is no space on the roof. Fan on the inside.



D Vehicle installation: chassis-mounted

When sufficient clearance is available, the radiator may be mounted under the chassis. The air must be able to circulate correctly so warm air does not flow back over the radiator.

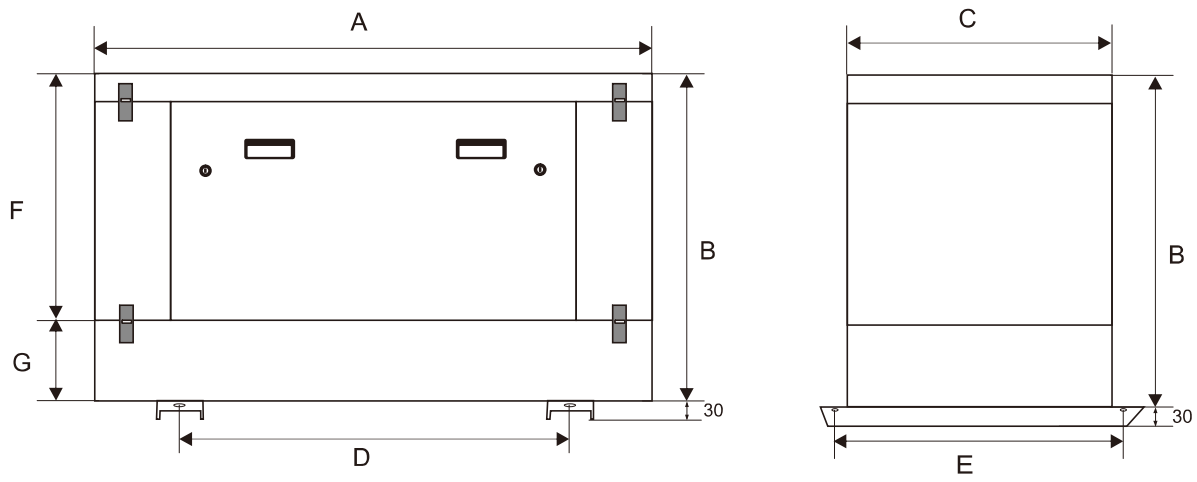


ETCS

Electric throttle constant speed
RPM1500-1800

Model		JEC200V ETCS	JEC250V ETCS	JEC300V ETCS	JEC400V ETCS	JEC500V ETCS	JEC650V ETCS
Approx. capsule dimensions excl. fittings (L x W x H)	[mm]	1260 x 620 x 700	1360 x 650 x 800	1380 x 650 x800	1480 x 650 x 850	1480 x 650 x 850	1760 x 800 x 850
Weight	[kg]	538	560	623	986	1072	1160
Sound level (7m / 3m / 1m)	[dB]	58 / 70 / 75	58 / 70 / 75	60 / 71 / 76	60 / 71 / 76	60 / 71 / 76	60 / 70 / 75
Cooling system		Seawater heat exchanger cooling					
Standard capsule		Soundproof stainless steel capsule					
Performance							
Nominal output	[kW]	0-20 (20 kVA)	0-25 (6 kVA)	0-30 (30kVA)	0-40 (40 kVA)	0-50 (50 kVA)	0-65 (65kVA)
Continuous output	[kW]	0-15.0	0-18.0	0-22.5	0-30.0	0-37.5	48.5
Output voltage	[V]	230 V	230 V	230 V	230 V	230 V	230 V
Voltage stability	[%]	± 3 %	± 3%	± 3 %	± 3 %	± 3 %	± 3 %
Frequency stability	[%]	50 Hz ± 1 Hz	50 Hz ± 1 Hz	50 Hz ± 1Hz	50 Hz ± 1 Hz	50 Hz ± 1 Hz	50 Hz ± 1 Hz
Continuous cunrrents	[Amps]	65.0	78.0	97.5	130.0	163.0	210.5
Frequency regulation		electronic					
Control							
Starter system		12V electric starter					
Autostart		integrated					
Remote control panel		USR Control digital display					
Pure sine wave regulation		AVR					
Engine							
Engine manufacturer		Kubota	Kubota	Kubota	Kubota	Kubota	Cummins
Engine type		V2403-CR-T	V3300DI	V3300DI-T	V3600-T	V3800DI-T	4BTa3.9
Engine displacement	[L]	2.434	3.318	3.318	3.620	3.769	1498
Speed	[rpm]	1500					
Engine water temperature	[°C]	98					
Engine Heating	[s]	0-30					
Alternator							
Model		EST200	EST250	EST350	EST450	EST600	IST800
Alternator type		Brushless permanent magnet alternator					
Rated Power	[kVA]	0-20,0	0-25,0	0-35,0	0-45,0	0-60,0	0-80,0
Alternator cooling		air-cooled					
Voltage range	[V]	220-240					
Temperature rise	[°C]	-30-150					

Basic dimensions

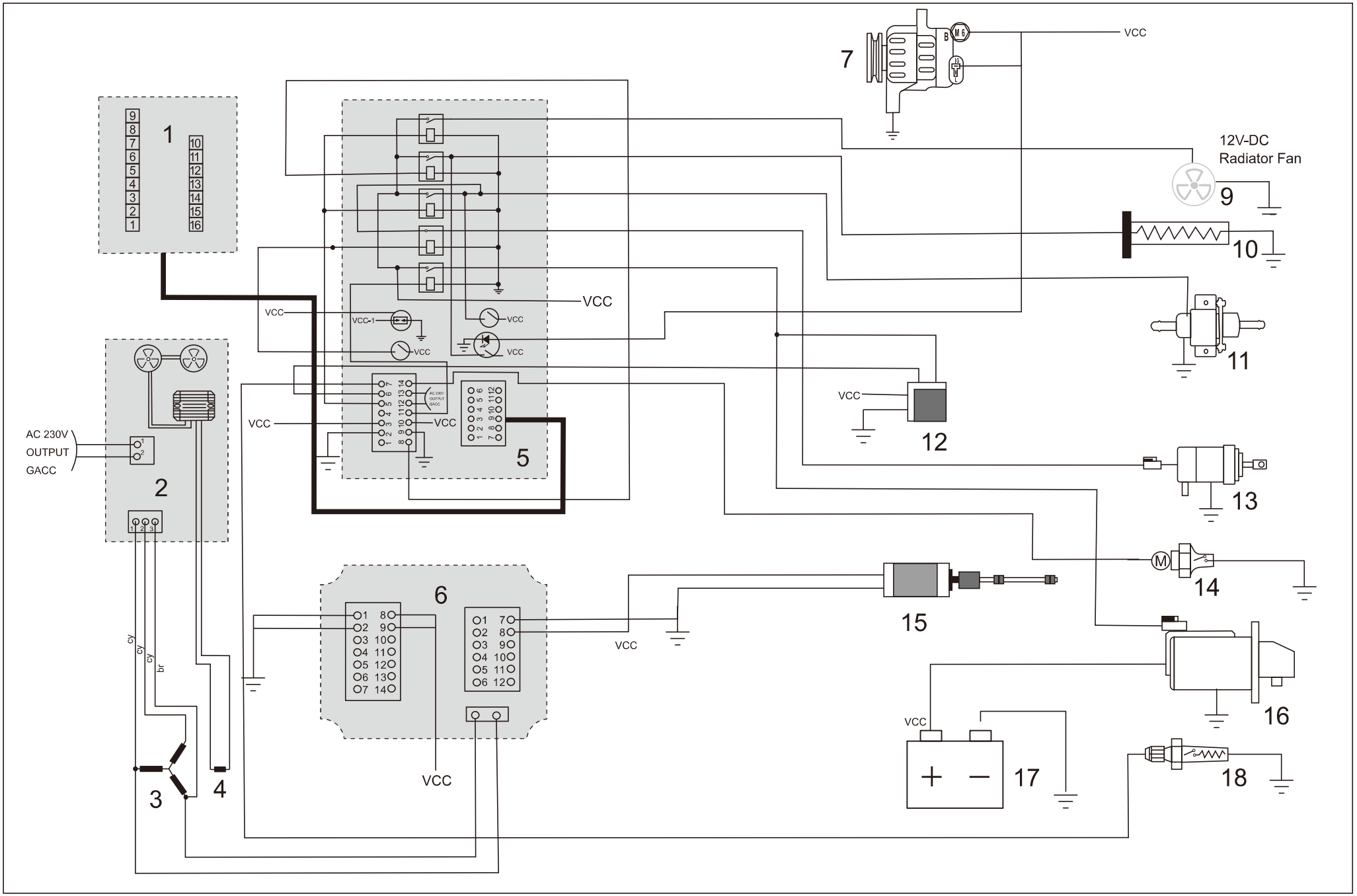


Net dimensions (mm)

Model	A	B	C	D	E	F	G
JEC200	1360	760	620	922	660	590	170
JEC250	1360	760	620	922	660	590	170
JEC300	1380	760	620	942	680	590	170
JEC400	1480	650	850	1042	900	680	170
JEC500	1480	650	850	1042	900	680	170
JEC650	1760	800	850	1192	900	680	170

Note: This outline drawing is provided for general reference only and is not intended for design or installation. For more information see Operation and Installation manuals or obtain drawing and wiring diagram from your distributor/dealer.

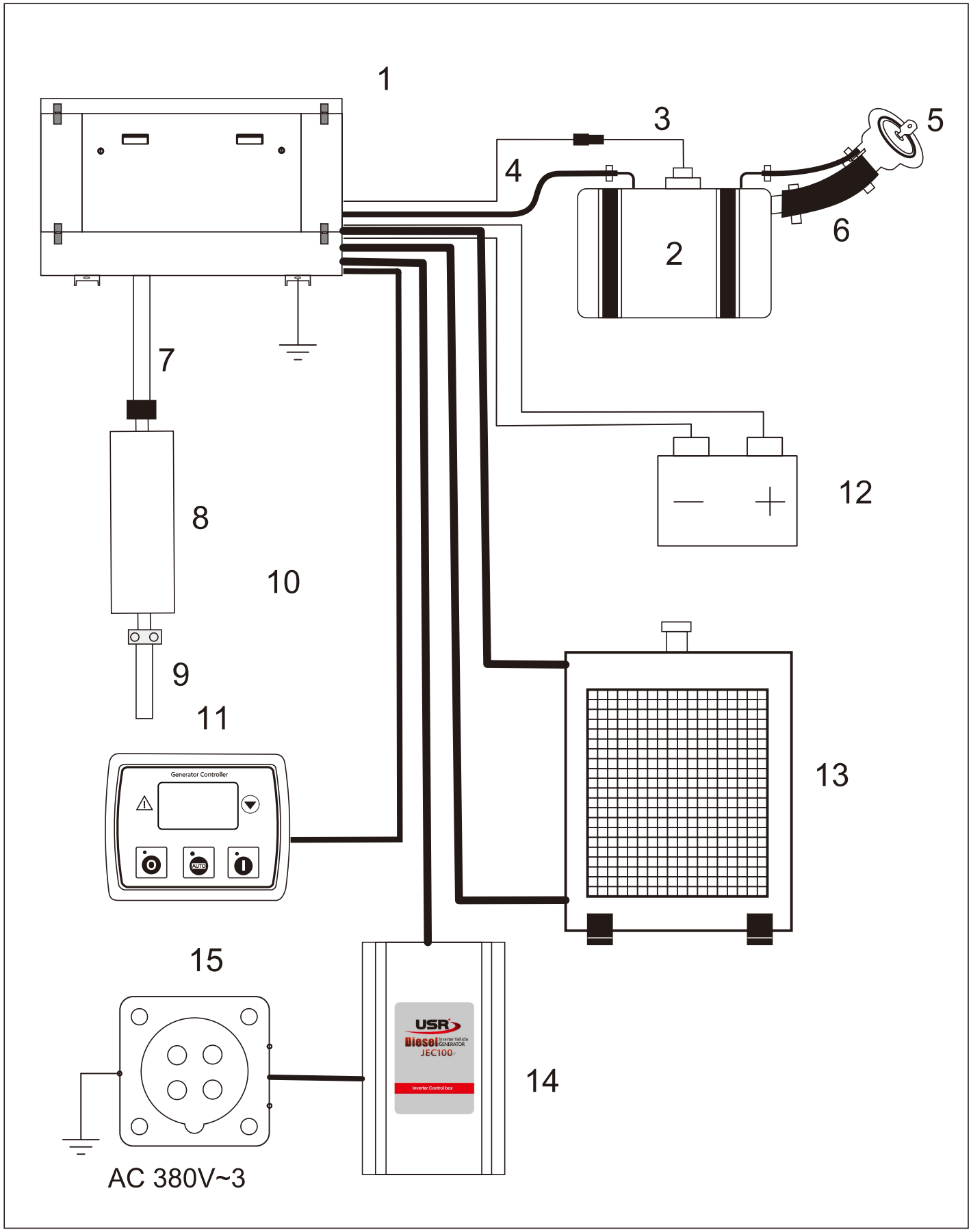
Inside of circuit diagrams



Parts of installation diagram

Item	Description
1	Generator
2	Fuel tank (Default: not provided)
3	Fuel level sensor (Default: not provided)
4	Fuel pipe (Default: not provided)
5	Fuel injection port (Default: not provided)
6	Oil filling hose (Default: not provided)
7	Metal hose with joint
8	Cilencer
9	Exhaust pipe
10	12-pin mini-fit plug
11	Control panel
12	Battery (Default: not provided)
13	Water tank radiater
14	Inverter box
15	AC380V -3 Industrial socket

Installation diagram



The inside circuit diagram parts description

Item	Description
1	Control Panel
2	Inverter box
3	3-phase winding
4	Auxiliary winding
5	Junction box
6	Speed control module
7	12V Alternator
9	DC 12v Radiator Fan
10	Engine Heating
11	Fuel pump
12	Wireless remote control receiver
13	Shutdown solenoid valve
14	Oil pressure switch
15	Speed-regulated DC 12V motor
16	Starter motor
17	Battery
18	Water temperature switch

Options

- The generator can be equipped with an external fuel tank, and the size and shape of the fuel tank can be customized according to the user's space.
- Internet remote control and generator monitoring system.

Accessories

- 12-core data cable 5 meters (default length: 5m)
- Generator output line of 2 meters and 6 square mm (3*6 mm*2m)
- air filter
- fuel filter
- oil filter

Standards and testing

This generator set was designed and manufactured in facilities certified to ISO 9001. fuel

This series of generators has obtained CE certification

WARNING:

Back feed to a utility system can cause electrocution and/or property damage. Do not connect to any building electrical except through an approved device or after building main breaker is open.

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