



GENERATOR
Marine Vehicle Commercial



Diesel Vehicle pro
GENERATOR



Diesel Vehicle Generator

Electricity is everywhere.™

JECV PMG

Vehicle generator set
Variable Speed **Series**
PMG generator



Kubota motor

Features and benefits

- Inverter technology, variable 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.

* Full load at 1m

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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

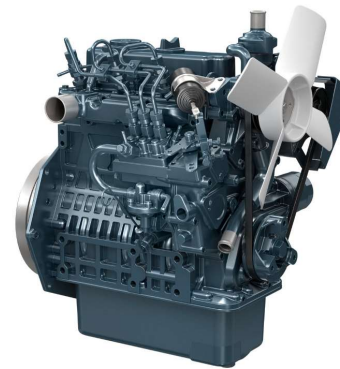
Split type generator components



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%

Machine dimensions: 1460*650*850mm

Packing dimensions: 1660*850*1050mm

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

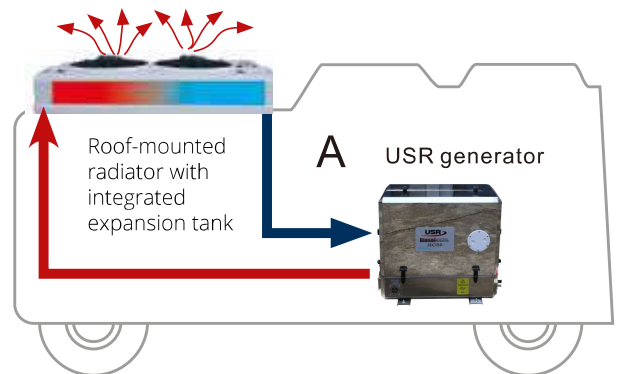
Shutdown protection: no output shutdown protection, low voltage shutdown protection, low oil pressure shutdown protection, short circuit shutdown protection, overload shutdown protection



Installation position of cooling Radiator

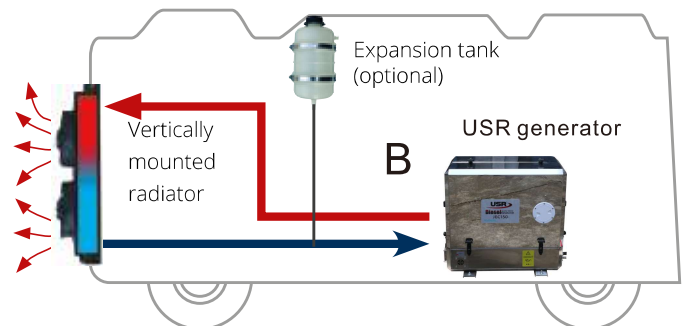
A Vehicle installation: roof-mounted radiator

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.



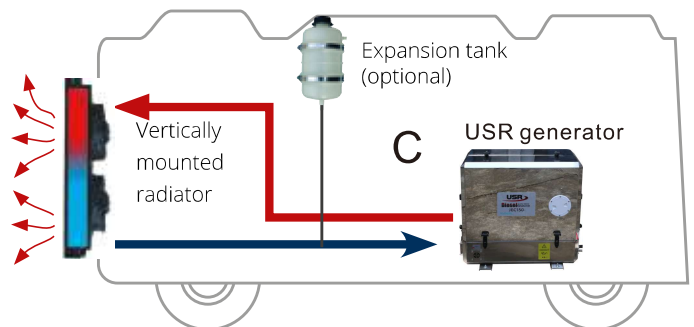
B Vehicle installation: vertically mounted radiator

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



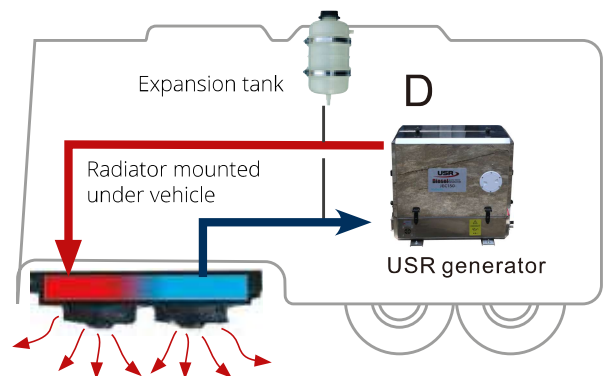
C Vehicle installation: vertically mounted radiator

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.



PMG

Water cooled Variable speed
compact size Series

Model	JEC40 PMG	JEC60 PMG	JEC80 PMG	JEC100 PMG	JEC120 PMG	JEC150 PMG
Approx. capsule dimensions excl. fittings (L x W x H) [mm]	550 x 480 x 580	550x 480 x 580	640 x 510 x 600	640 x 510 x 600	660 x 510 x 600	670 x 560 x 600
Weight [kg]	86	126	138	156	178	216
Sound level (7m / 3m / 1m) [dB]	52 / 60 / 65	52 / 62 / 67	52 / 62 / 67	54 / 64 / 69	56 / 65 / 71	56 / 65 / 71
Cooling system	Seawater heat exchanger cooling					
Standard capsule	Soundproof stainless steel capsule					
Performance						
Nominal output [kVA]	0-4,0 (4 kVA)	0-6,0 (6 kVA)	0-8,0 (8 kVA)	0-10,0 (10 kVA)	0-12,0 (12 kVA)	0-15,0 (15 kVA)
Continuous output [kVA]	0-3,6	0-5,0	0-6,0	0-7,2	0-8,5	0-10,8
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 ± 0.1 Hz	50 Hz ± 0.1 Hz	50 Hz ± 0.1 Hz	50 Hz ± 0.1 Hz	50 Hz ± 0.1 Hz	50 Hz ± 0.1 Hz
Continuous cunrrents [Amps]	15.6	21.7	26.1	31.3	36.9	47.0
Frequency regulation	electronic					
Control						
Starter system	12V electric starter					
Autostart	integrated					
Remote control panel	USR Control digital display					
Inverter	PMG 4600	PMG 6000	PMG 8000	PMG 1000	PMG 12000	PMG 15000
Inverter cooling	air-cooled	air-cooled	air-cooled	air-cooled	air-cooled	air-cooled
Inverter weight [kg]	8.5	9.2	10,5	13,5	18	23
Inverter dimensions [mm]	400 x 230 x105	400 x 230 x105	400 x 230 x105	400 x 230 x105	400 x 280 x 105	460 x 320 x 160
Engine						
Engine manufacturer	Kubota	Kubota	Kubota	Kubota	Kubota	Kubota
Engine type	Z482	Z482	D722	D782	D902	D1105
Engine displacement [L]	0.479	0.479	0.479	0.719	0.898	1.123
Speed [rpm]	2200 - 2800	2200 - 2800	2300 - 3000	2280 - 3000	2200 - 3000	2200 - 2800
Engine water temperature [°C]	98					
Engine Heating [s]	0-30					
Alternator						
Model	PMG50	PMG60	PMG80	PMG120	PMG150	PMG180
Alternator type	Brushless permanent magnet alternator					
Rated Power [kVA]	0-5,0	0-7,0	0-8,5	0-12,0	0-15,0	0-18,0
Alternator cooling	air-cooled					
Voltage range [V]	290-415					
Temperature rise [°C]	-30-150					

Disclaimer: The information contained here is to the best of our knowledge accurate at the date of publication. All products are subject to continuous development and USR Industries reserves the right to alter technical specifications without prior notice.

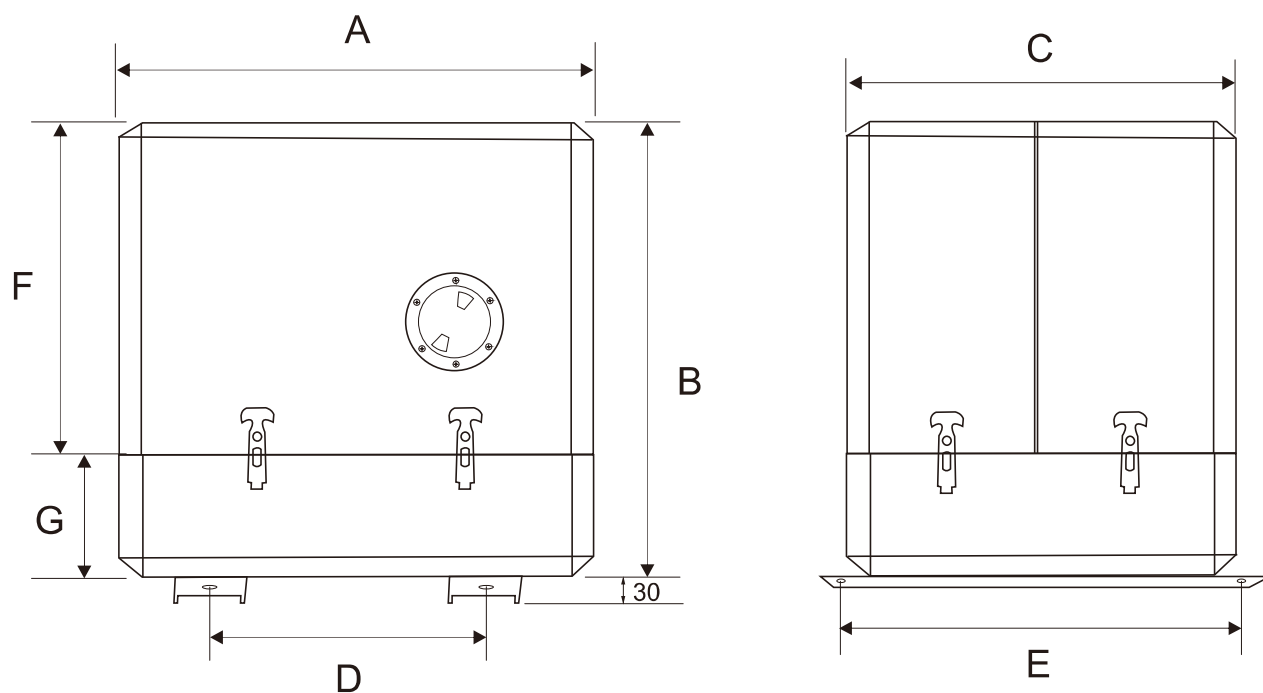
PMG

Water cooled Variable speed
compact size Series

Model		JEC180V PMG	JEC200V PMG
Approx. capsule dimensions excl. fittings (L x W x H)	[mm]	760 x 510 x 700	760 x 510 x 700
Weight	[kg]	257	268
Sound level (7m / 3m / 1m)	[dB]	56 / 65 / 71	56 / 66 / 73
Cooling system		Seawater heat exchanger cooling	
Standard capsule		Soundproof stainless steel capsule	
Nominal output	[kVA]	0-18,0 (18 kVA)	0-20,0 (20 kVA)
Continuous output	[kVA]	0-13,8	0-15.0
Output voltage	[V]	230 V	230 V
Voltage stability	[%]	± 3 %	± 3 %
Frequency stability	[%]	50 Hz ± 0.1 Hz	50 Hz ± 0.1 Hz
Continuous cunrrents	[Amps]	60.0	65.0
Frequency regulation		electronic	
Control			
Starter system		12V electric starter	
Autostart		integrated	
Remote control panel		USR Control digital display	
Inverter		PMG 18000	PMG 2500
Inverter cooling		air-cooled	air-cooled
Inverter weight	[kg]	26	32
Inverter dimensions	[mm]	460 x 320 x 260	460 x 320 x 260
Engine			
Engine manufacturer		Kubota	Kubota
Engine type		V1505	V1505
Engine displacement	[L]	1.498	1.498
Speed	[rpm]	2200 - 3000	2200 - 3000
Engine water temperature	[°C]	98	
Engine Heating	[s]	0-30	
Alternator			
Model		PMG200	PMG250
Alternator type			
Rated Power	[kVA]	0-20,0	0-25,0
Alternator cooling		air-cooled	
Voltage range	[V]	290-415	
Temperature rise	[°C]	-30-150	

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Basic dimensions

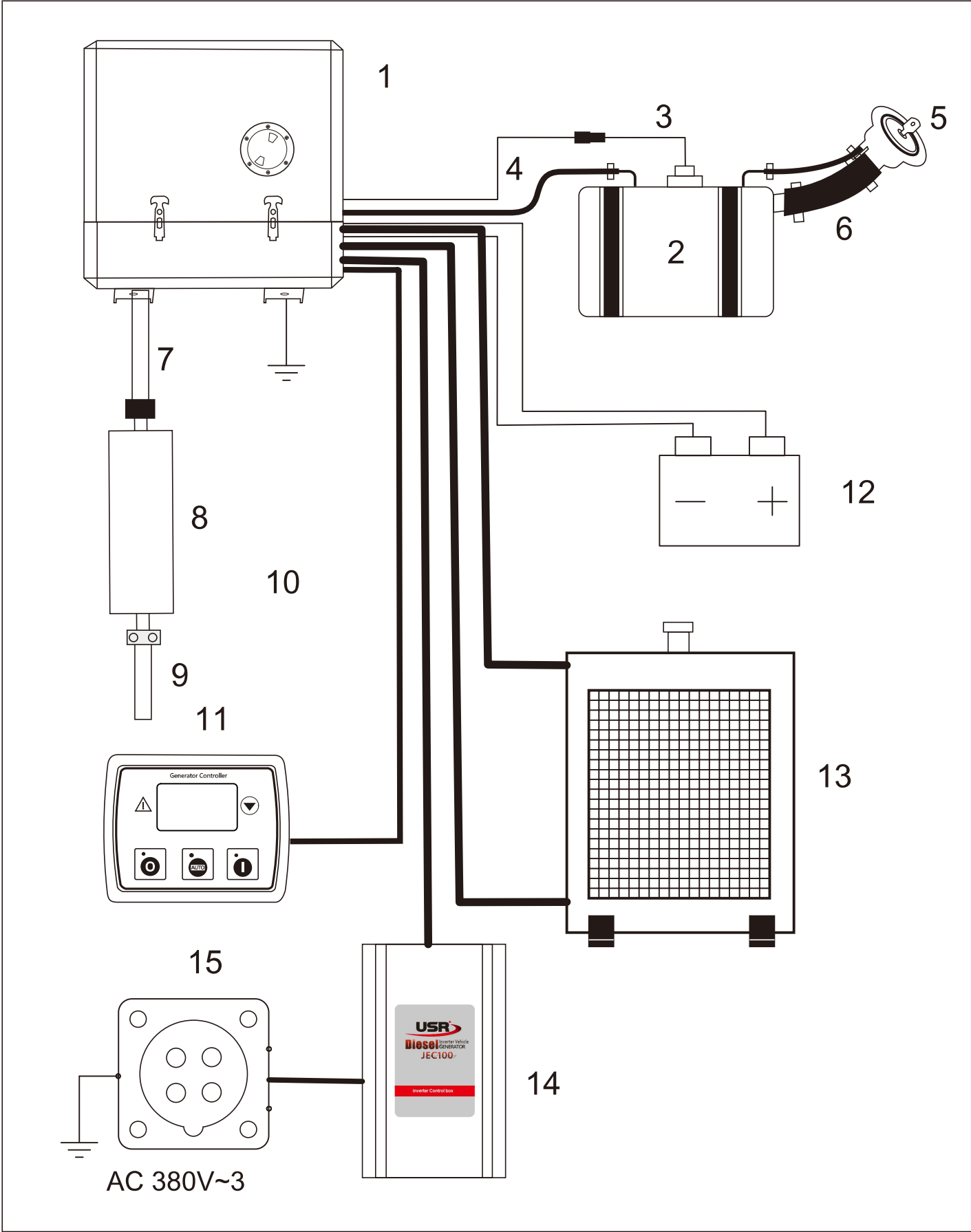


Net dimensions (mm)

Model	A	B	C	D	E	F	G
JEC40	550	580	480	465	550	365	175
JEC60	550	600	510	465	550	425	175
JEC80	640	600	510	465	600	425	175
JEC100	640	600	510	465	600	425	175
JEC120	660	600	510	465	650	425	175
JEC150	670	640	560	465	700	465	175
JEC180	760	700	560	465	700	465	175
JEC200	760	700	560	465	700	465	175

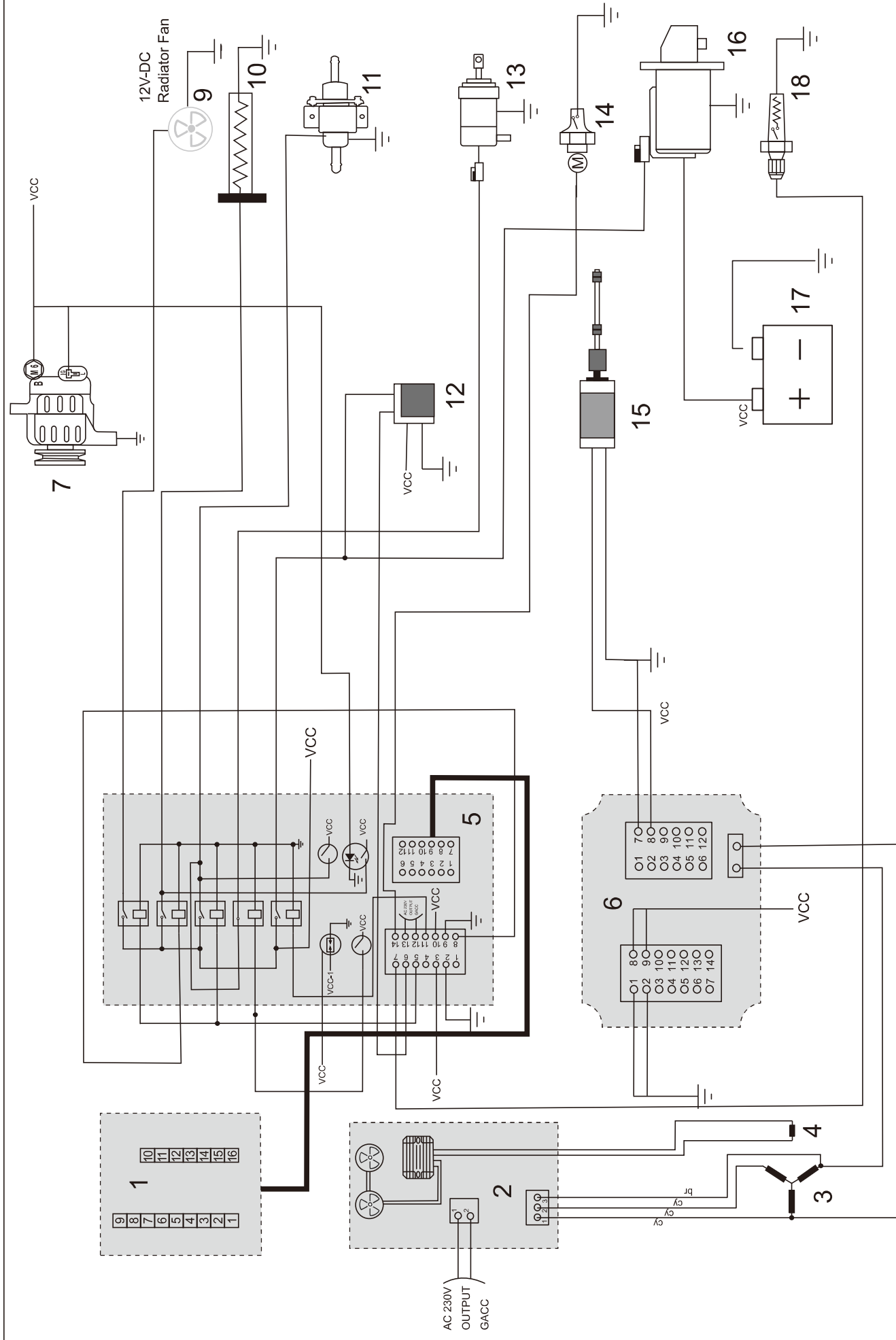
Note: This outline drawing is provided for general reference only and is not intended for design or installation. For more information see Operation and Installation manuals or obtain drawing and wiring diagram from your distributor/dealer.

Installation diagram



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 radiator
14	Inverter box
15	AC380V -3 Industrial socket



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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