

MODEL	BF-V109
Standby Power (50Hz)	87KW / 109KVA
Prime Power (50Hz)	80KW / 100KVA

### Standard Features

#### General Features:

Engine (VOLVO TAD531GE)  
 Radiator 55°C max, fans are driven by belt, with safety guard  
 24V charge alternator  
 Alternator: single bearing alternator IP23, insulation class H/H  
 Absorber  
 Dry type air filter, fuel filter, oil filter, pre-filter  
 Main line circuit breaker  
 Standard control panel  
 Oil drain pump  
 Two 12V batteries, rack and cable  
 Ripple flex exhaust pipe, exhaust siphon, flange, muffler  
 User manual



PHOTO FOR REFERENCE ONLY

### Generator Ratings

Voltage	HZ	Phase	P.F (COS $\phi$ )	Standby Amps	Standby Ratings (KW/KVA)	Prime Ratings (KW/KVA)
440/254	50	3	0.8	143	87/109	80/100
415/240	50	3	0.8	151	87/109	80/100
400/230	50	3	0.8	157	87/109	80/100
380/220	50	3	0.8	165	87/109	80/100

**Prime Power (PRP):** Prime power is available for an unlimited number of annual hours in variable load application, in accordance with GB/T2820-97 (eqv ISO8528); A 10% overload capability is available for a period of 1 hour within a 12-hour period of operation.

**Standby Power Rating (ESP):** The standby power rating is applicable for supplying emergency power for the duration of a utility power interruption. No overload, utility parallel or negotiated outage operation capability is available at this rating.

### Sales Promises

Baifa Power provides a full line of brand new and high quality products. Each and every unit is strictly factory tested.

Warranty is according to our standard conditions: a, 15 months, counted on the day BAIFA sold to the first buyer; b, One year after installation; c, 1000 running hours (accumulated); subject to the earlier one. Service and parts are available from Baifa Power or distributors in your location.

**ENGINE DATA**

Manufacturer / Model:	VOLVO TAD531GE, 4-cycle
Air Intake System:	Turbo, Air/Air Cooling
Fuel System:	Directly Injection Fuel System, Bosch Pump
Cylinder Arrangement:	4 in line
Displacement:	4.76L
Bore and Stroke:	108*130 (mm)
Compression Ratio:	18.0
Rated RPM:	1500rpm
Max. Standby Power at Rated RPM:	98KW/133HP(with fan)
Governor Type:	Heinzman Mechanical Governor

**Exhaust System**

Exhaust Gas Flow:	18.4m <sup>3</sup> /min
Exhaust Temperature:	557°C
Max Back Pressure:	5kPa

**Air Intake System**

Max Intake Restriction:	3.5kPa
Burning Capacity:	6.09m <sup>3</sup> /min
Air Flow:	96m <sup>3</sup> /min

**Fuel System**

100%(Prime Power) Load:	218 g/KWh
75%(Prime Power) Load:	218 g/KWh
50%(Prime Power) Load:	225 g/KWh
100%(Prime Power) Load:	22.8L/h

**Oil System**

Total Oil Capacity:	13L
Oil Consumption:	0.08L/h
Engine Oil Tank Capacity:	9~11L
Oil Pressure at Rated RPM:	450-480kPa

**Cooling System**

Total Coolant Capacity:	19.7L
Thermostat:	83-95°C
Max Water Temperature:	105°C

**ALTERNATOR SPECIFICATION****GENERAL DATA**

Compliance with GB755, BS5000, VDE0530, NEMAMG1-22, IED34-1, CSA22.2 and AS1359 standards.

**Alternator Data**

Number of Phase:	3
Connecting Type:	3 Phase and 4 Wires, "Y" type connecting
Number of Bearing:	1
Power Factor:	0.8
Protection Grade:	IP23
Altitude:	≤1000m
Exciter Type:	Brushless, self-exciting
Insulation Class, Temperature Rise:	H/H
Telephone Influence Factor (TIF):	<50
THF:	<2%
Alternator Capacity:	100KVA
Alternator Efficiencies:	90.3%

**GENERATING SET DATA**

Voltage Regulation:	≥±5%
Voltage Regulation, Stead State:	≤±1%
Sudden Voltage Warp (100% Sudden Reduce):	≤+25%
Sudden Voltage Warp (Sudden Increase):	≤-20%
Voltage Stable Time (100% Sudden Reduce):	≤6S
Voltage Stable Time (Sudden Increase)	≤6S
Frequency Regulation, Stead State:	≤4%
Frequency Waving:	≤1.5%
Sudden Frequency Warp (100% Sudden Reduce):	≤+12%
Sudden Frequency Warp (Sudden Increase):	≤-10%
Frequency Recovery Time (100% Sudden Reduce):	≤5S
Frequency Recovery Time (Sudden Increase):	≤5S
Noise Level:	108dB

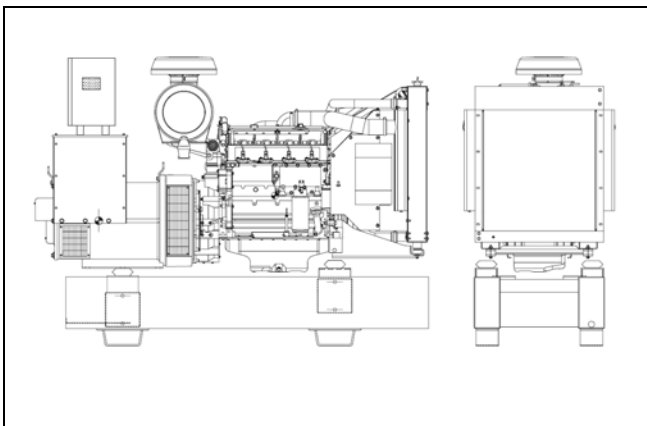
### Standard Features

- ◇ Baifa Standard Auto Control System
- ◇ Base Fuel Tank
- ◇ Oil Drain Pump
- ◇ MCCB
- ◇ Starting batteries (Maintenance-Free & Watering-Free) with connective wires
- ◇ Exhaust System( including until muffler)
- ◇ Special Coolant for Volvo
- ◇ Water Separator (Volvo)
- ◇ Documents

### Options

- ◇ Daily Fuel Tank
- ◇ Battery Charger
- ◇ Engine Heater
- ◇ Alternator Heater
- ◇ Engine Air Intake Heater
- ◇ Permanent Magnet Generator(PMG)
- ◇ Rainproof Type
- ◇ Soundproof Type
- ◇ Trailer Type
- ◇ Remote Control Panel
- ◇ Automatic Transfer Switch
- ◇ Switch box
- ◇ Spare Parts

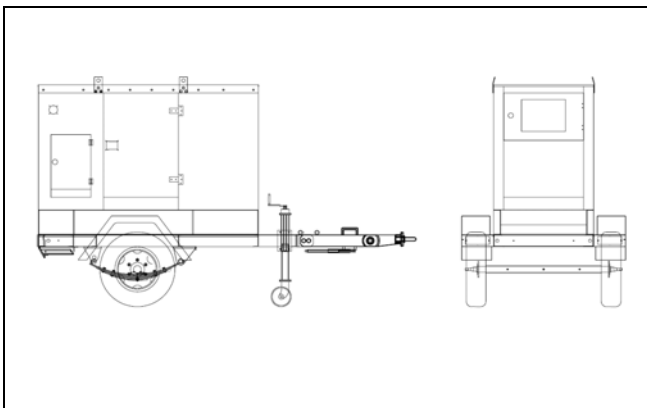
### Dimension & Weight



#### With Base Fuel Tank

Overall Size: 2080\*920\*1550 (mm)

Weight: 1350kg



#### Soundproof Type

Overall Size: 2810\*1140\*1830 (mm)

Weight: 1900kg

#### Trailer Type

Overall Size: 3390\*1720\*2470 (mm)

Weight: 2550kg

### Standard Control Panel



**Baifa Standard Control Panel** uses micro processing technique integrating digital, intelligent and network techniques which can carry out functions including auto start/stop, data measure, alarming. The controller uses LCD display, optional Chinese and English display interface with operation easy and reliable. It can be widely used in all types of generator automatic control system for compact structure, advanced circuits, simple connections and high reliability

### Auto Module Control Panel



**Auto Module Control Panel** is the configuration for nobody on duty controlling generators. This kind of panel adopts auto module control system, with large LCD display to show the menu.

Features: MRS10-can receive remote output signal from ATS and realize auto start and stop of generators.

MRS16-can realize all functions of MRS10, add RS232 interface which can communicate with PC to realize remote operation.

AMF25-Auto Mains Failure controller, can realize all functions of MRS16, furthermore can detect ATS and control directly.