

Technical Data

BA.A-C110	Diesel Generating Set
BA.A-C110	MODEL
87KW / 109KVA	Standby Power (50Hz)
80KW / 100KVA	Prime Power (50Hz)

General Features:

- Engine (Cummins 6BT5.9-G2)
- Radiator 50C 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, double fuel filter, oil filter, coolant filter
- Main line circuit breaker
- Permanent Magnet Generator (PMG)
- Standard control panel
- Two 12V batteries, rack and cable
- Ripple flex exhaust pipe, exhaust siphon, flange, muffler
- User manual



Generator Ratings						
Prime Ratings (KW/KVA)	Standby Ratings (KW/KVA)	Standby Amps	P.F (COS ϕ)	Phase	HZ	Voltage
80/100	87/109	142	0.8	3	50	440/254
80/100	87/109	151	0.8	3	50	415/240
80/100	87/109	157	0.8	3	50	400/230
80/100	87/109	165	0.8	3	50	380/220

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

Bargh afshan alborz 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 Bargh afshan alborz 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 Bargh afshan alborz or distributors in your location.

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ENGINE DATA	
Manufacturer / Model:	Cummins 4BT5.9-G2, 4-cycle
Air Intake System:	Turbo
Fuel System:	A type fuel pump
Cylinder Arrangement:	6 in line
Displacement:	5.9L
Bore and Stroke:	102*120 (mm)
Compression Ratio:	17.5:1
Rated RPM:	1500rpm
Max. Standby Power at Rated RPM:	87KW/118HP
Governor Type:	RSV Mechanical(Std) / Electronic (Optional)
Exhaust System	
Exhaust Gas Flow:	16.8m ³ /min
Exhaust Temperature:	565°C
Max Back Pressure:	10kPa
Air Intake System	
Max Intake Restriction:	6.35kPa
Consumption:	6.48m ³ /min
Air Flow:	158m ³ /min
Fuel System	
100% (Prime Power) Load:	21 L/h
Oil System	
Total Oil Capacity:	16.4L
Oil Consumption:	≤4g/kwh
Engine Oil Tank Capacity:	14.2L
Oil Pressure at Rated RPM:	345kPa
Cooling System	
Total Coolant Capacity:	27L
Thermostat:	82-95°C
Max Water Temperature:	104°C

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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%
Voltage Regulation, Steady State:	≤±1%
Alternator Capacity:	110KVA
Alternator Efficiencies:	90.4%
Air Cooling Flow:	0.514m ³ /s
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:	≤5%
Frequency Waving:	≤0.5%
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

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Options			
Engine	Fuel System	Control System	
Heater 2KW & 4KW	Daily Fuel Tank	Auto Control Panel	
Battery Charger 3.5A & 7A	Base Fuel Tank	Remote Control Panel	
	Water Separator	Auto Transfer Switch (ATS)	
	Fuel Level Sensor	Paralleling System	
Anti Condensation Heater	Rainproof Type	Engine Parts Drawing List	
Drop CT (For Paralleling)	Soundproof Type	Spare Parts	
	Container Type		
Dimension & Weight			
Standard Configuration (Open Type)	With Base Fuel Tank	Soundproof Type	
	Overall Size: 2200 (mm) *850 (mm) *1500 (mm)	Overall Size: 2760 (mm) *1140 (mm) *1830 (mm)	
	Weight: 1450kg	Weight: 1900kg	

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Diesel Generating Set

Standard Control Panel

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.

Auto Parallel Control Panel

Automatic Parallel Control Panel This new automatic parallel system adopts intelligent modules, inserted and folded installed, no need the peripheral relay and logic circuit .



The main switch adopts electronic breaker or frame breaker, combined together with the generator, which is very reliable. One generator, one panel. The panel can be used both for singly and parallel. It is only need to parallel generator with such panel when the capability needs to be enlarged in the future.