

## Technical Data

### BA.A-M1800

BA.A-M1800  
1440KW / 1660KVA  
1312KW / 1640KVA

### Diesel Generating Set

MODEL  
Standby Power (50Hz)  
Prime Power (50Hz)

#### General Features:

- Engine (MTU/12V4000G23)
- Radiator 40C max, fans are driven 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 $\phi$ )	Phase	HZ	Voltage
1312/1640	1440/1800	2361	0.8	3	50	440/254
1312/1640	1440/1800	2504	0.8	3	50	415/240
1312/1640	1440/1800	2598	0.8	3	50	400/230
1312/1640	1440/1800	2734	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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BA.A-M1800	Diesel Generating Set
<b>ENGINE DATA</b>	
Manufacturer / Model:	MTU/12V4000G23
Air Intake System:	Turbo, Water/Air Cooling
Fuel System:	Electronic Fuel Injection System
Cylinder Arrangement:	12 in "V"
Displacement:	57.2 L
Bore and Stroke:	170*210 (mm)
Compression Ratio:	16.5
Rated RPM:	1500rpm
Max. Standby Power at Rated RPM:	1562KW/1714HP
Governor Type:	ADEC
<b>Exhaust System</b>	
Exhaust Gas Flow:	264 m <sup>3</sup> /min
Exhaust Temperature:	460°C
Max Back Pressure:	8.5 kPa
<b>Air Intake System</b>	
Max Intake Restriction:	5 kPa
Consumption:	108 m <sup>3</sup> /min
Air Flow:	m <sup>3</sup> /min
<b>Fuel System</b>	
100%( Prime Power) Load:	300 L/h
75%(Prime Power) Load:	230 L/h
50%(Prime Power) Load:::	
<b>Oil System</b>	
Total Oil Capacity:	260 L
Oil Consumption:	0.5% fuel consumption
Engine Oil Tank Capacity:	200 L
Oil Pressure at Rated RPM:	500-600kPa
<b>Cooling System</b>	
Total Coolant Capacity:	200 L
Thermostat:	79°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:	1850KVA
Alternator Efficiencies:	94.7 %
Air Cooling Flow:	2.69 m <sup>3</sup> /s

##### GENERATING SET DATA

Voltage Regulation:	±5%
Voltage Regulation, Stead State:	±1%
Sudden Voltage Warp (100% Sudden Reduce):	+20%
Sudden Voltage Warp (Sudden Increase):	-15%
Voltage Stable Time (100% Sudden Reduce):	≤4S
Voltage Stable Time (Sudden Increase)	≤4S
Frequency Regulation, Stead State:	0-5% adjustable
Frequency Waving:	≤0.5%
Sudden Frequency Warp (100% Sudden Reduce):	+10%
Sudden Frequency Warp (Sudden Increase):	-7%
Frequency Recovery Time (100% Sudden Reduce):	≤3S
Frequency Recovery Time (Sudden Increase):	≤3S

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BA.A-M1800		Diesel Generating Set	
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: 4200 (mm) *1900 (mm) *2300 (mm)	Overall Size: 6150 (mm) *2150 (mm) *2400(mm)	Overall Size: 40'ft High container	
Weight: 11500kg	Weight: 13500kg	Weight: 19500kg	

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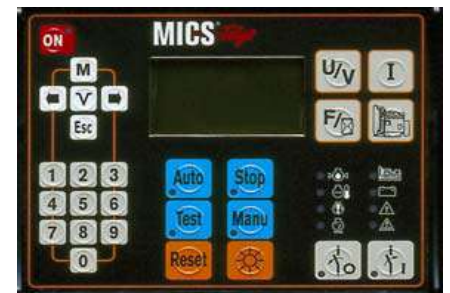
**BA.A-M781 Diesel Generating Set**

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.

TELYS Microprocessor control panel Type S2500



Features: **S2500**-can receive remote output signal from ATS and realize auto start and stop of generators.

**S5000**-Auto Mains Failure controller, can realize all functions of –S2500, furthermore can detect ATS and control directly.

**Automatic Parallel Control Panel** This new automatic parallel system adopts intelligent modules,

**Auto Parallel Control Panel**

inserted and folded installed, no need the peripheral relay and logic circuit.

TELYS Microprocessor control panel Type S7000



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.