



Generating set model 15BA/1400TNE

Standard features:

Engine:

24 V electric starting with battery
 Radiator designed to work up to 50°C ambient temperature without power deration
 Low oil pressure and high coolant temperature sensors
 Fuel filter
 Lube oil filter
 Dry air filter
 Protection grids for rotating parts
 Electronic speed governor
 Industrial muffler

Alternator:

4P, three phase, single bearing, brushless, self excited
 Automatic voltage regulator, digital type

Structural steel base:

Vibration dampers between engine/alternator monoblock and the base
 Fuel tank

Set mounted control panel

Documentation:

- Generating set use and maintenance manual
- Engine use and maintenance manual
- Alternator use and maintenance manual
- Generating set controller instruction manual
- Wiring diagram
- EC Declaration

Regulations and Standards:

Generating set is designed in compliance with the following regulations and standards:

- ISO 8528
- 2006/42/EC (Machinery) and subsequent amendments
- 2014/30/EU (Electromagnetic Compatibility) and subsequent amendments
- 2014/35/EU (Low Voltage) and subsequent amendments
- 2000/14/EC (Noise Emission in the Environment) and subsequent amendment 2005/88/EC
- EN 61439-1

Available on request:

Engine:

- 24V electric starting
- Electronic speed governor
- Oil suction pump [soundproof sets only]
- Fuel transfer pump
- Water pre-heating [sets in standby to the mains only]

Silencer:

- Residential silencer for open sets designed to reduce noise level by $\leq 28 / 30$ dB(A)
- Residential silencer for open sets designed to reduce noise level by $\leq 18 / 20$ dB(A)

Control panel:

- Remote ATS system for set mounted automatic control panel
- AMF+ATS control panel
- Differential protection
- Coolant temperature reading
- Oil pressure reading

Enclosure:

- Soundproof canopy designed to achieve 70 ± 3 dB(A) @ 7m
- Soundproof canopy designed to achieve 75 ± 3 dB(A) @ 7m

Low speed trailer

Generating set designed and manufactured in facilities certified to ISO 9001

Generating set

Prime power output (PRP)	1250/ 1000 (KVA / kW)
Standby output (STP)	1400/1120 (KVA / kW)
Power factor	0.8
Voltage	11kVA
Frequency	50 (Hz)

Fuel consumption

Fuel	Diesel EN590
Fuel tank capacity	2000 L
Autonomy @ 75% of PRP	10,5 H
Consumption @ full load	256 l/h
Consumption @ 75% of PRP	190 l/h
Consumption @ 50% of PRP	129 l/h

General features

Battery capacity	2 x 180 Ah
Voltage	24 Vdc
Cooling fan air flow	2100 m ³ /min
Exhaust gas flow (max)	252 m ³ /min
Exhaust gas temperature (max)	750 °C

Approx overall dims and weight

L (cm)	W (cm)	H (cm)	Weight (Kg)
480	225	240	6300

Standard operating environmental conditions

Temperature	25°C
Barometric pressure	100 kPa
Relative humidity	30%

Rating definitions

Prime Power (PRP)	Prime power is the maximum power available with varying loads for an unlimited of hours. The average power output during a 24h period of operation, must not exceed 80% of the declared primo power between the prescribed maintenance intervals at standard environmental conditions. A 10% overload is available for 1h every 12h of operation.
Standby Power (STP)	Stand-by power is the maximum power available for a period of 500h/y with a mean load of 90% of the declared stand-by power. No overload is permissible for this use.

Engine

Manufacturer	BAUDOQUIN
Model	12M33G1400/5
Emissions	Stage 0
Cooling	Water
Aspiration	Turbocharged
Combustion system	Direct injection
Compression ratio	15 : 1
Governor	Electronic
Cycle	Diesel, 4 Strokes
Cylinders (number/configuration)	12 L
Bore x Stroke	150x185 (mm)
Displacement	39,2 l
Standby mechanical power	1153 kWm
Starter motor	10 kW
Recommended lube oil	API CF4-CG4 15W40
MAX oil capacity Min/Max	117/155 L

Alternator

Manufacturer	Mecc-Alte
Model	ECO43HV 4 A
Rated power	1250 kVA (1000kW)
Insulation class	H
Mechanical protection	IP23
Regulator	DER-2/A
Accuracy	±0,5 %
Execution	Brushless
Efficiency at full load	94 %
Short circuit current	>300 %
Overload per 20 sec	300 %
Waveform Distortion (THD) at f. load (LL/LN)	1,8 / 2,3 %
MAX Overspeed	2250 RPM
Cooling air requirement	54 m ³ /min

Manual control panel

Set mounted
DEIF AGC 150 controller
Emergency stop push button

Automatic control panel

Set mounted
DEIF AGC 150 controller
Automatic battery charger
Emergency stop push button
Arranged for remote transfer switch

DEIF AGC 150

The AGC 150 is an easy-to-use control unit containing all necessary functions for protection and control of a genset. It can be used as a single unit for one genset, or it can be connected in a complete power management system with up to 32 controllers for synchronising projects, island or parallel to the mains. The power management system handles the load sharing between gensets and the load-dependent start and stop. AGC 150 contains all necessary 3-phase measuring circuits, and all values and alarms are presented on the sun proof LCD display.

Features:

- Engine start sequences
- Engine and generator protections
- Engine communication via CANbus
- Run coil and crank configurable when using electric engine
- Tier 4 Final support with clear alarm indications
- Diesel and gas genset support
- 3-phase generator and busbar sensing
- Phase compensation for D/Y transformer
- Four current sensing inputs
- Integrated governor and AVR outputs for control
- State-of-the-art synchronisation and load sharing
- Synchroscope and sync check
- Digital voltage regulation support for different DVR
- Voltage and frequency matching
- Three synchronisation methods: Dynamic, Static and Close
- before excitation
- 12 digital outputs (configurable)
- 12 digital inputs (configurable)
- Two analogue outputs (-10 to 10 V)
- Four multi-inputs:
- Resistor, 0 to 4000 Ω
- Voltage, 0 to 10 V
- Current, 4 to 20 mA
- Digital input
- Deadbus sensing
- Ground relay
- Mains support for stand-alone system (AMF)
- Analogue load sharing with external box
- 128 genset support via digital load sharing (CANshare)
- ROCOF and Vector jump protection



Picture may not show the actual product due to presence or absence of optional items

Four software packages

The AGC 150 can be equipped with four different software packages:

- **Stand-alone:** Non-sync application
 - **Core:** Simple paralleling, like rental and constructions
 - **Extended:** Standby power, like simple backup power stations
 - **Premium:** Small CHP or similar medium complex sites
- See the data sheet for a more detailed description of each package.

Highly configurable

Controller configuration from the front panel (PIN code protected) or with free PC tool via USB, Ethernet & RS485

- PC tool with trending and wizards helping the user with configuration
- 20 configurable views
- Four fully configurable PID controllers
- CAN flags between controllers
- CANbus based extension module for Inputs/Outputs
- Real time clock
- User configurable logic (lite PLC)
- Ethernet communication for PLC, SCADA or BMS
- Multi-language support (incl. Chinese, Russian and other languages)

Digital AVR support

Together with DEIF's DVC 310 digital voltage controller, the AGC 150 supports features such as Engine AID (for the rental market) and fast and secure CBE critical power start-up (run-up syncing).

CONTAINER 20' BOX

- Sturdy unit construction in electrowelded steel sheet
- Recessed knobs with lock
- Sealing strip on the door shutters ensure an excellent acoustic and water proofing;
- Galvanized steel hinges fastened with screws
- Hinged window for electric board, made up of safety glass, internal glass holding frame, outer boarder seal
- Appropriate paintings for indoor and outdoor installation and finishing with RAL epoxy painting
- Rainproof gratings on the ventilation openings
- Exhaust silencers



Approx overall dimensions

Dimensions (L x W x H cm) 589x 243x 259

Fuel storage and feeding tanks



Documents & Certificates provided with tanks:

Pressure Testing certificate
Calibration Table
Overfill protection valve - certificate.

Technical data are not binding.
They may be changed for technical improvements without prior notice

• Fuel storage and feeding tanks capacity 2000 liters for generating sets

- They are horizontal cylindrical tank manufactured by using shell plates and dished ends made of carbon steel quality S 235 JR according to UNI EN 10025, watertight electro-welded (submerged arc welding process), provided with anti-roll supports, primed with a rust preventing layer and finished with a layer of green paint.
- Ø 400 mm manhole complete with oil gasket and tight bolted cover, 3" lockable filling quick plug, mechanical overflow prevention valve calibrated to interrupt the fuel flow at 90% of the tank's geometric capacity, vent device with flame arrestor mesh, mechanical float operated tank contents gauge with planetary gear, adjustable scale in cm.
- N. 2 suction and return plugs, size 1", ready for connection with gen sets, or other equipment.
- Suction line is completed with foot valve and strainer.
- Drainage point provided with a safety cap for routine maintenance and cleaning.
- 1" suction pipe located at 10 cm from the drainage point.
- One point ready for earthing and equipotential connection.

• Containment Basin

Having a capacity equal to 110% of the volume. The tank made of carbon steel sheets, self-supporting base frame designed to be bolted to the tank's bottom supports; it can be placed on any type of surface (even for permanent installation) and is designed according to the capacity of the tank. It is provided complete with lifting plates, earth connection point, drain plug for routine maintenance and cleaning and n° 4 housings suitable for fixing the uprights of the roof system. It is completely primed with a rust preventing layer and finished with a layer of green paint.

• Roofing

Roof system for protection against weather conditions, composed of a strong zinc-coated steel frame on which is fixed a self-bearing zinc-coated trapezoidal metal sheeting; it is designed to be easily and rapidly mounted and bolted to the GE Tank.

Available on request:

Remote ATS panel

Floor standing cabinet for remote installation with IP42 protection degree (IP55 on request) equipped with:

- Controller with following features:
 - three phase mains sensor
 - graphic display showing measures, alarms and functioning status
 - phase sequence control
 - Key-lock function
 - Mains/generating set automatic switching
 - Mains/generating set manual switching through push buttons
- Power section: 4P motorized changeover switch



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