ZENESSIS

MOTEURS Baudouin

**Model:
ESE 33 TBI**

≈ Water Cooling

50 Hz

T Three - Phase

Diesel

33 / 30 kVA

26 / 23 kW

DIESEL GENERATOR ESE 33 TBI	STANDBY POWER (ESP)	PRIME POWER (PRP)
Power (kVA)	33	30
Power (kW)	26	23
Speed (rpm)	1500	
Voltage (V)	400 / 230	
Power factor (cos phi)	0,8	
Amperage(Amp)	44	

**Endress Group Romania S.R.L. certifications:
ISO 9001: 2008, ISO 14001: 2005, ISO 18001 : 2008.**

**ZENESSIS generators are CE compliant, and are tested
according to the EU legislation on noise levels 2000/14 / EC.**

Reference ambient conditions: 1000 mbar; 25° C; 30% relative humidity; power according to ISO 3046 / ISO 8528 standards.

Prime power (PRP) – ISO 8528

Prime power (PRP) – represents the continuous power a generator is able to provide continuously while supplying a variable electrical load when operating for an unlimited number of hours per year, under the agreed operating conditions, maintenance intervals and procedures being performed as prescribed by the manufacturer.

Standby Power (ESP) – ISO 8528

Standby Power (ESP) is the maximum power available at a variable load, under the operating conditions provided, that a generator is able to provide in case of power failure or under test conditions, maintenance intervals and procedures being performed as prescribed by the manufacturer.

Endress Group Romania S.R.L.

Offices:

Bucharest: km 16 A1 – Ciorogarla, Sos. Bucuresti, Nr. 108

Production:

Germany, Grafenberg, Werner von Siemens Str. 3

Romania, Bocsa, Str. Medresului, Nr. 17, Caras-Severin County.

1. DIESEL ENGINE

ENGINE SPECIFICATIONS	
Type	BAUDOUIN
Model	4M06G33/5
No. of cilinders & arrangement	4-in line
Induction system	Turbocharged
Cooling system	Water cooled
Max. standby power (kW)	33
Speed (rpm)	1500
Displacement (l)	2,3
Bore & Stroke (mm)	89 x 92
Compression factor	17,5 : 1
Regulator	Electronic
Total oil capacity (l)	9,5
Coolant capacity of engine (l)	5
Fuel consumption at 100% load in prime mode (l / h)	12

2. ALTERNATOR

ALTERNATOR SPECIFICATIONS	Marelli / Strathon
Model	MXB 180SB4 / ECO-33KW
Frequency (Hz)	50
Concept	Brushless, 4 poles
Phases	3
Voltage(V)	400 / 230
Protection class	H
Excitation system	Electronic

3. CONTROL PANEL

Made in metal box, IP54 degree, with lock. The control panel is equipped with the ComAp Inteli Lite ^{NT}AMF 9 control module, with the possibility of starting and stopping the generator, both in automatic and in electric mode. The control panel monitors the power grid and can command and control the ATS panel (automatic transfer switch).
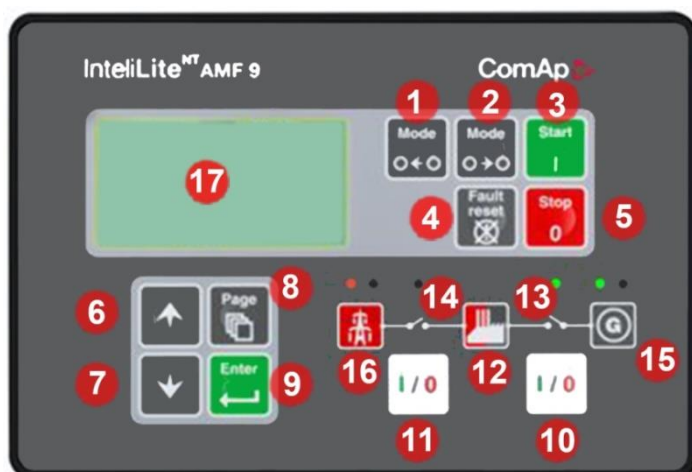
1. Left button
2. Right button
3. START button
4. FAULT RESET button
5. STOP button
6. UP button
7. DOWN button
8. PAGE button
9. ENTER button
10. GCB button. Works in MAN and TEST modes only
11. MCB button. Works in MAN and TEST modes only
12. Consumers
13. GCB ON. Green LEDs are on if GCB is closed and Gen-set is healthy.
14. MCB ON. Green LEDs are on if MCB is closed and Mains is healthy
15. GENERATOR status indicator
16. MAINS status indicator
17. Display, 132x64 pixels

♦ Control panel standard specifications:

The command and control panel is mounted inside the casing, in a metal box with IP 54, equipped with a viewing glass, equipped with:
- Inteli Lite [NT] AMF 9 command module
- Static battery charger
- Emergency stop button & circuit breaker fuses
- Overcurrent differential protection
- Protection relays

Configuration:
1. Inteli Lite [NT] AMF 9 command module
2. Circuit Breaker protection
3. Locks
4. Alarm
5. START button ON/OFF
6. Hinges
7. Maintenance schedule
8. Metal box

♦ Command module standard specifications:
- Microprocessor control
- 132 x 64 pixel LCD display
- Programming on front panel as well as through PC software
- Control buttons and soft touch navigation
- Remote communication via USB or with optional modules via RS232, RS485, Ethernet or SMS
- Store 350 events with date and time
- Maintenance programming 3 levels
- Engine heater control – Optional

- **Displays:**

Engine: engine speed; oil pressure; coolant temperature; running time; battery voltage; maintenance data.
Alternator: voltage (L – L, L – N); current (L1 – L2 – L3); frequency; kW; Pf; kVAr; kWh,kVAh, kVarh; phase sequence.
Main network: voltage (L – L, L – N); frequency, mains ready; mains off; generator set ready, generator set disconnected, active power kW, apparent power kVA, reactive power kVA r, power factor, phase sequence.

• **Warning:** battery faulty charging, low battery voltage, fail to stop, low fuel level, overload, phase reversing, speed sensor failure.

• **Alarms:** low oil pressure, high engine temperature, under / over voltage, under / overfrequency, under / overvoltage, ECU fault -optional.

• **Status displays:** missed start, emergency stop, low oil pressure, high engine temperature, under / overspeed, under / overfrequency, under / overvoltage, oil sensor, phase rotation, overload, overcurrent group, phase reversal.

♦ **Static battery charger**: Made with TSD technology, with high efficiency. Protected for short-circuit currents, it can be used as a current source, input voltage 196-264 V, output voltage 27.6 V / 5A or
13.8 V / 5A.

♦ Standards:
Electrical safety / EMC, BS EN 60950; BS EN 60950 – 6 – 2 EMC; BS EN 61000 – 6 – 4 EMC.

4. HOUSING

Made of galvanized steel, painted in electrostatic field, soundproofed. It is modularly designed with in-door access doors on all sides of the generator. The exhaust pan is residential type, mounted inside the casing. The carcasses are designed to optimize the cooling of the engine and alternator assembly, and can be mounted outdoors, providing protection against weathering and low noise levels.

1. Command module
2. View window
3. Access door for control module
4. Points for crane lifting (optional)
5. Spaces for handling with the forklift
6. Engine and alternator access door
7. Hot air outlet grills
8. Handles provided with locks
9. Fuel supply bus (optional)
10. „Sleigh chassis" fitted with lifting/pulling holes
11. Emergency button
12. Exhaust Gas Valve
13. Cable access space
14. Air intake grills
15. Protective pads
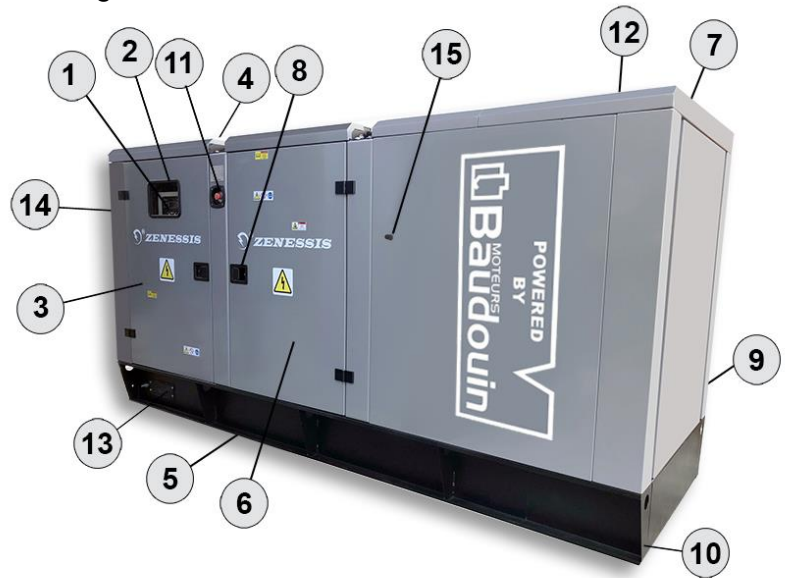
5. STANDARD FEATURES

♦ Command & control panel with measurement &metal control devices, protection class IP54
♦ Static battery charger
♦ Dynamic battery charging alternator
♦ Controlled thermostat heater for coolant
♦ Oversized start battery
♦ Emergency stop button
♦ Chassis with fuel tank sized for 8 hrs of autonomy
♦ Vibration dampers

♦ Fuel level measuring device
♦ Electrical lines protected with tubing & seals
♦ Residential silencer
♦ Magnetothermal and short-circuit protection
♦ ATS load transfer panel
♦ Access doors on all 4 sides provided with locks
♦ Crane or forklift handling system
♦ Flameproof and soundproof insulation

6. DIMENSIONS & WEIGHT

Opened generator sizes & weight	
Sizes (length x width x height) (mm)	2000 x 850 x 1400
Weight (kg)	560
Fuel tank capacity (liters)	100

Closed generator sizes & weight	
Sizes (length x width x height) (mm)	2000 x 850 x 1400
Weight (kg)	710
Fuel tank capacity (liters)	100

7. OPTIONAL FEATURES

- Electrical panel anti-condensation heating system
- Fuel / oil heating system
- Coolant heating circulation pump
- Oil drain pump
- Remote monitoring & control system
- ATS load transfer panel, 4 poles,
- Differential protection with 4 poles
- Socks 400 V/ 230 V
- Fuel filter with water detection

- Bypass panel – ENDRESS patented invention– OSIM patent 00010/2012
- Trailer
- Start by remote control
- Groundless protection
- Interior lightings with switches operated at doors opening
- Liquid retention tray
- Liquid leakage detection sensor
- Motorized ATS, ENDRESS patented invention– OSIM patent 00048 / 2015

Optional: RAR homologated auto trailer
Model: EGR 1350
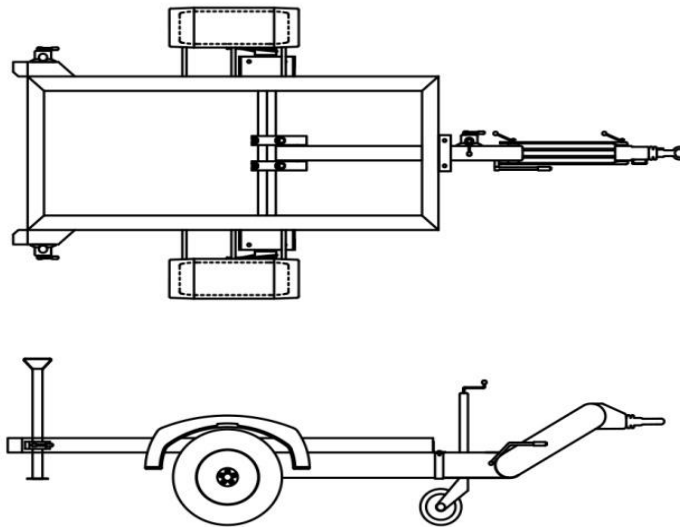
Created in Germany – Assembled in Romania
Warranty: 24 months or 2000 operating hours.