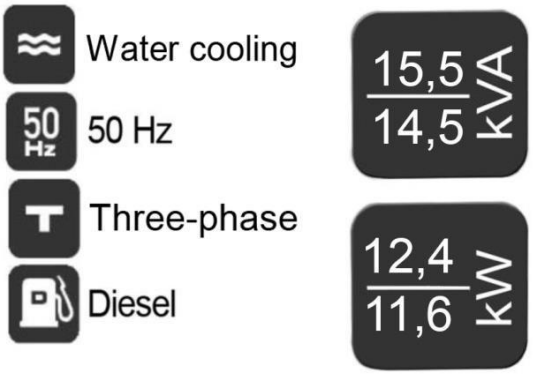
ZENESSIS

POWER SOLUTIONS

Model: ESE 16 DWI



DIESEL GENERATOR ESE 16 DWI	STANDBY POWER (ESP)	PRIME POWER (PRP)
Power (kVA)	15,5	14,5
Power (kW)	12,4	11,6
Speed (rpm)	1500	
Standard voltage (V)	400 / 230	
Power factor (cos phi)	0,8	
Amperage (Amp)	21	

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.

DeWerk

Powerful Equipment

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

SPECIFICATII MOTOR	
Type	DEWERK
Model	DWX18
No. of cylinders & arrangement	4 – in line
Suction & cooling	Natural
Maximum standby power (kW)	16,5
Speed (rpm)	1500
Displacement (l)	1,800
Inner diameter & stroke (mm)	80 x 90
Compression factor	18 : 1
Regulator	Mechanical
Oil capacity (liters)	5
Coolant capacity (l)	9
Intake air flow (m^3 / min.)	2
Air cooling radiator (m^3 / min.)	120
Exhaust gas flow rate (m^3 / min.)	5,8
Exhaust gas temperature (ºC)	425
Start System (V.d.c.)	12
100% load fuel consumption (l / h)	4,1

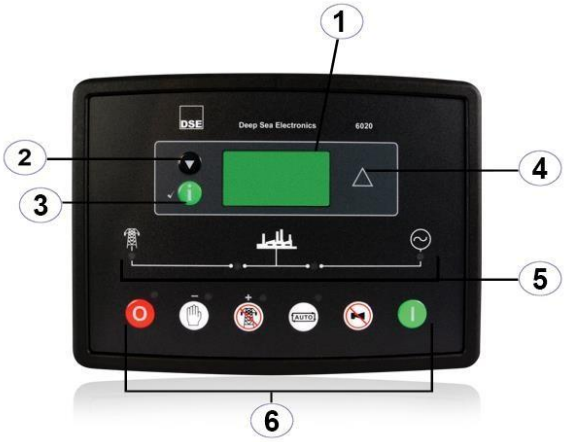
2. ALTERNATOR

ALTERNATOR SPECIFICATIONS	
Model	AFA
Frequency (Hz)	50
Power (kVA)	16
Concept	Brushless, 4 poles
Cos phi	0,8
Phases	3
Voltage (V)	400 / 230
Current (A)	23
Izolation class	H
Excitation system	Electronic (AVR)

3. CONTROL SYSTEM DSE 6020

Run the generators, and the operating parameters control, both in automatic and in manual mode. Equipped with LCD screen, which can be monitored by a PC..

1. Led display screen
2. Menu navigation buttons
3. Information button
4. Common alarm indicator
5. Status LEDs
6. Function selection buttons:
   - Manual
   - Automat
   - Start
   - Stop



"ProfProtect" LLC, Armenia, Yerevan, David Malyan 41
Phones:+(374) 55 52 11 57, +(374) 99 92 11 97
info@profprotect.am
www.profprotect.am

Devices

Command and control panel mounted in a metal box with IP 54, mounted inside the generator, provided with a window for viewing from the outside, fitted with:

- DSE 6020 command module
- Static battery charger
- Emergency stop button & circuit control fuses

Parameters displayed:

Engine: engine speed; oil pressure; coolant temperature; running time; battery voltage; must perform engine maintenance;
Generator: voltage (L – L, L – N); current (L1 – L2 – L3); frequency; grounding current; kW; Pf; kVAr; kWh,kVAh, kVarh; phase sequence.
Main network: voltage (L – L, L – N); frequency.

Circuit protection

Warnings: charging failure; battery under voltage; stop failure; low fuel level indicator – optional; overload kW; negative phase sequence.
Pre-alarms: low oil pressure; engine high temperature; engine low temperature; under / over speed; generator under / over frequency; generator under / overvoltage; ECU warning.
Stops: startup failure; emergency stop; low oil pressure; engine high temperature; low coolant level; under / over speed; generator under / over frequency; generator under / overvoltage; oil pressure sensor open; phase reversal.
Electric shock: grounding; overload kW; generator over current; negative phase sequence.

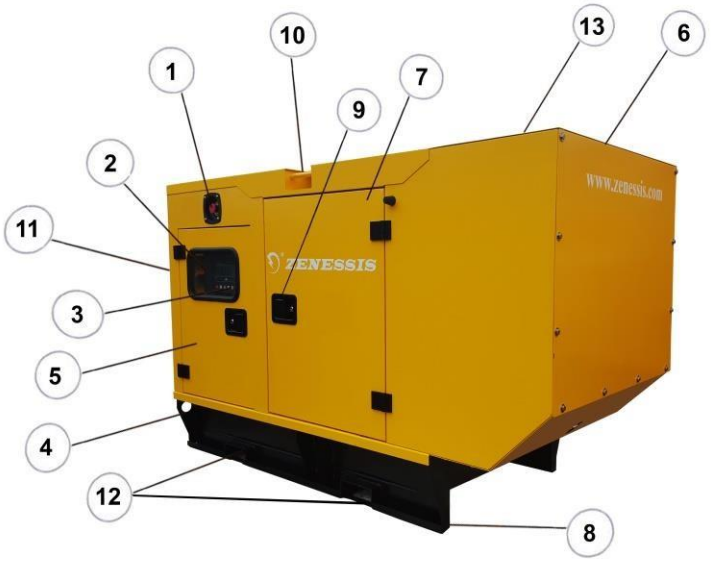
Standards: Electrical safety / EMC

BS EN 60950; BS EN 60950 – 6 – 2 EMC; BS EN 61000 – 6 – 4 EMC.

4. HOUSING

Made of powder-coated galvanized steel, soundproofed, waterproofed. It has modular design with interior access doors. The silencer is residential, mounted in the housing

1. Emergency stop button
2. Viewing window
3. Automation panel
4. Space cable access
5. Circuit breaker (CB)
6. Warm air intake grills
7. Acces doors.
8. Sled type chassis with lifting eyelets
9. Locks
10. Eyelets lifting crane
11. Air intake / exhaust grills
12. Space manipulation with forklift
13. Flue gas exhaust



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 buttonButon oprire urgenta
- Chassis with fuel tank sized for8hrs of autonomy
- Vibration dampers
- Fuel level measuring device
- Electrical lines protected with tubing &gland
- Residential silencer
- Protection for hot components

6. SIZE & WEIGHT

Opened generator sizes & weight	
Dimensions (length x width x height) (mm)	1 400 x 760 x 927
Dry weight (kg)	390
Fuel tank capacity (liters)	32

Closed generator sizes & weight	
Dimensions (length x width x height) (mm)	1 670 x 823 x 1 127
Dry weight (kg)	520
Fuel tank capacity (liters)	32

7. OPTIONAL FEATURES

- Electrical panel anti-condensation heating system
- Fuel / oil heating system
- Coolant heating circulation pump
- Oil drain pump
- Remote monitoring & control system
- AAR load transfer panel, 3/4 poles, electromechanical or motorized
- CB protection switch,3/4 poles, electromechanical or motorized
- ♦ Bypass panel – ENDRESS patented invention– OSIM patent 0010/2012
- Remote radiator
- Air filters tropical use
- Trailer

ENGINEERING - INNOVATIONS - EXCELLENCE

ZENESSIS

Made in Germany – Assembled in Romania

CE

ENDRESS PRODUCTS ARE IN A CONTINUOUS DEVELOPMENT AND IMPROVEMENT PROCESS. FOR THIS REASON, ENDRESS GROUP ROMANIA RESERVES THE RIGHT TO MODIFY THE INFORMATION FOUND IN THESE LEAFLETS WITHOUT PRIOR NOTIFICATION