

Model: AV-715 - INDUSTRIAL RANGE

400/230 V - THREE-PHASE | 1.500 R.P.M. | 50 Hz

Genset with manual control panel.



Image for guidance purposes.

PRP

CONTINUOUS POWER: 650 kVA

PRP "Prime Power" norma ISO 8528-1

LTP

STAND-BY POWER: 715 kVA

LTP "Limited Time Power" norma ISO 8528-1

ENGINE

MAKE	MODEL
VOLVO	TWD1653GE

ALTERNATOR

MAKE	MODEL
MECC-ALTE	ECO40-2L/4

VOLTAGE	HZ	PHASE	COS Ø	PRP kVA/kW	LTP kVA/kW	AMP. (LTP)
400/230	50	3	0,8	649,6/519,6	717,3/573,8	1036,49

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ENGINE CHARACTERISTICS

MAKE	MODEL
VOLVO	TWD1653GE

General Data

Power PRP (kWm)	547.00
Power LTP (kWm)	604.00
No. cylinders	6
Cylinder capacity (L)	16.12
Diameter per stroke (mm)	144 x 165
Compression ratio	16.50
Cooling system	LIQUID
Injection	DIRECT
Suction	TURBO-INTERC.
Series regulator	ELECTRONIC
Fly wheel coupling	1-14"

Lubrication system

Oil capacity (L)	48
Oil consumption (%)	0.05
Min. alarm oil pressure (bar)	3.00

Ventilation system

Air cooling flow (m ³ /h)	43200
Combustion air flow (m ³ /h)	2520.00
Max. back pressure for fan (mbar)	3

Exhaust system

Exhaust gas flow (m ³ /h)	6300
Exhaust back pressure (mbar)	100
Temp. exhaust gases (°C)	453

Electrical system

VDC (V)	24
Battery (Ah)	2 x 180
Engine start-up (kW)	7

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ALTERNATOR CHARACTERISTICS

MAKE	MODEL
MECC-ALTE	ECO40-2L/4

General Data

Power PRP (kVA)	680.00
Power LTP (kVA)	748.00
Efficiency Alt. 3/4 %	95.20
Efficiency Alt. 4/4 %	95.00
No. Poles	4
Voltage regulator	DER-1
No. wires	12
Insulation	H
Xd (%)	227.00
X'd (%)	18.10
X	9.20
Degree of protection	IP21

GENERATOR SET CONSUMPTION

% POWER USED	LITRES/HOUR
50%	70.00
75%	106.00
100%	138.00

DIMENSIONS, CAPACITIES, APPROXIMATE WEIGHT

Dimensions (mm)		
LENGTH	WIDTH	HEIGHT
3500	1330	2400
FUEL TANK (LITRES)		WEIGHT (KG)
1023		4650

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INMESOL GENERATOR SET

GENERAL DESCRIPTION

The “INMESOL” generator set is an electrical energy generating machine which is used in places where there is **no mains supply** or when there is a MAINS failure.

The mobile elements, distribution belt, fan, etc., and those parts which reach high temperatures during operation, exhaust manifold, etc, include their corresponding protections, in compliance with the requirements of the Machinery Directive **2006/42**.

REGULATIONS

The machine holds the “CE” marking, and the corresponding Declaration of Conformity is issued with each of them, in which it specifies that the machine complies with **R.D 842/2002 Low Voltage Regulations and with the European Directives:**

- 2006/42 on Safety in Machinery.
- 2006/95/CE on Electrical Safety.
- 2004/108/CE on Electromagnetic Compatibility.
- 2005/88/CE on NOISE EMISSIONS by equipment for outdoor use (for SOUNDPROOF GENERATOR SETS).

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IN **INDUSTRIAL**
RANGE

Scope of supply



Engine/alternator monobloc directly connected and installed via silent blocks on a frame made from high tensile electro welded steel profiles that are treated with degreasing liquids and aplicated with a phosphate coat and polyester (QUALICOAT) paint.

Fuel tank integrated in the base frame provided with fuel level jauge and fuel connections to the engine.

Engine with mechanical engine driven pusher fan.

Industrial silencer with -15 db(A) noise reduction and exhaust outlet tube.

Electric control cubicle with control module including protection and reading of electrical meassures engine instrumentation fuel level and engine running hours, etc. remote start possibility

Termal and magnetic circuit breaker and termal and magnetic circuit breaker and earth fault relay.

Battery charge alternator.

Starter battery complete with cables to the engine and pole protection.

Installation prepared for earthing spike (spike not included).

Security protection for heat and moving parts as well as live electrical components.

External emergency stop push button.

Self excited and auto regulated alternator.

4 Lifting points for gen sets from 450 kVA and bigger.

Base frame is prepared for trailer kit installation.

Standard electronic speed governor on engines from 220 kVA (LTP) and up.

OPTIONS

Battery charger

Coolant preheating

AMF/ATS panel to turn a manual gen set to automatic version (consult the last page)

Residential silencer

V1 PREWIRED VERSION
FOR AMF

V2 GENSETS **WITH AMF/ATS PANEL**
AND 4 POLE CIRCUIT BREAKER

V3 GENSET WITH AMF CONTROL PANEL BUT **WITHOUT ATS PANEL**
AND SEPARATED ATS PANEL

ELECTRO EXIM SRL

ELECTRO EXIM SRL
21 Ialomicioarei St., sector 1, code 011277, BUCHAREST - ROMANIA
Phone: 0040 21 2231347 - 0040 744 755 390 - FAX: 0040 21 2231201
E-mail: office@electroexim.com - Web: www.electroexim.ro

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DSE 7310 MANUAL CONTROL PANEL

MANUAL CONTROL, PROTECTION AND DISTRIBUTION panel, assembled on the generator set in metal cabinet with a DSE 7310 engine protection unit.



Image for guidance purposes.

It has the following:

1. EMERGENCY STOP PUSHBUTTON.

2. PROTECTIONS:

Magnetothermal Protection.

Earth Leak Protection

Protection fuses for control module

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DSE 7310 MANUAL CONTROL PANEL

3. DSE 7310 PROTECTION CONTROL MODULE.

LCD SCREEN:

It has a digital LCD screen, which provides easy reading of the information regarding the ENGINE, ALTERNATOR and CHARGING.

ENGINE:	ALTERNATOR AND CHARGE:
Coolant temperature	Voltages between phases and between phases and neutral.
Oil pressure	Intensities
Turning speed (rpm)	Frequency
Fuel level	Active Power (kW)
Battery voltage	Reactive Power (kVAr)
Battery alternator voltage.	Apparent Power (kVA)
Operating hours	Cos phi
Number of start-ups	Active energy meter (kW-h)

CONTROL OF THE SET:

START AND STOP the set MANUALLY.

Possibility of doing it AUTOMATICALLY via START ON SIGNAL.

PROTECTION OF THE ENGINE AND ALTERNATOR, WITH THE ALARMS ACTIVATED:

ENGINE:	ALTERNATOR:
Low oil pressure	Low and High Voltage
High coolant temperature	Low and High Frequency
Low and High battery Voltage	Overload due to Intensity (A)
Failure of the alternator to charge batteries	Short-circuit
Low fuel level.	Negative Phase Sequence.
	Power Overload (KW-kVA)
	Load control:
	<ul style="list-style-type: none"> ▪ Connection and disconnection of artificial loads. ▪ Disconnection of non-essential loads

OTHER CHARACTERISTICS:

The real-time clock provides an exact record of events	Modbus RTU
Extensive number of configurable inputs and outputs.	Possibility of SMS text messages
Configurable alarms and timers.	Communications Ethernet, RS 232 and RS 485
USB connectivity	Programmer Clock with multiple maintenance events which can be configured for the optimal operation of the engine. Weekly and/or monthly programming of up to 16 starts and stops per week.
Fully configurable via software and PC	

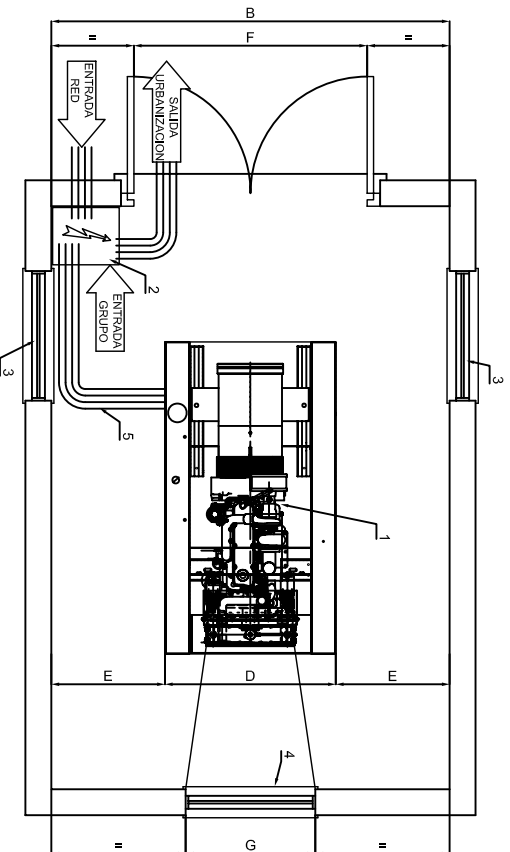
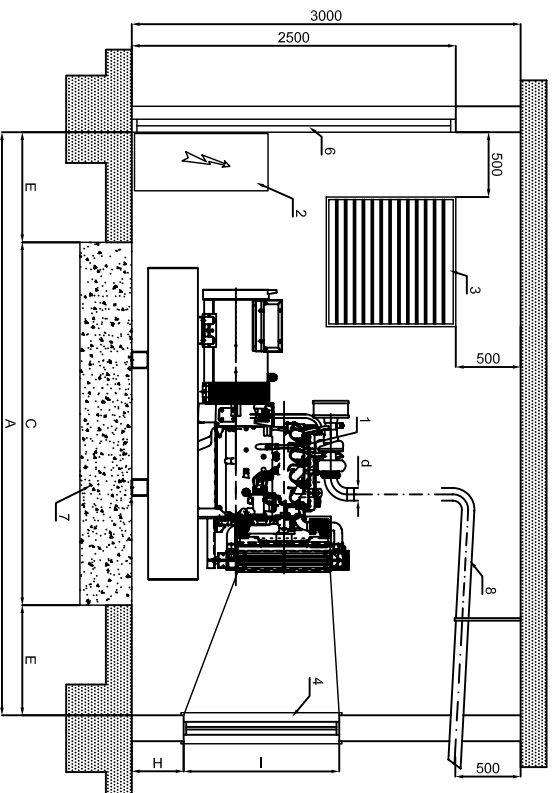
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DSE 7310 MANUAL CONTROL PANEL

4. PROTECTIONS

MAGNETO. PROTECTION (A)	EARTH LEAK PROTECTION	DISTRIBUTION
1000A, 3P	Electronic, adjustable	Power terminals



DIMENSIONES DE SALA SEGUN POTENCIA												
POTENCIA	A	B	C	D	E	F	G	H	I	d	PESO	SECCION HUECO ENTRADA AIRE
85 Kva	4050	2050	930	1000	1430					80	1100	2x1,00 m2
105 Kva	4250	2250	930	1000	1430						1320	2x1,00 m2
130 Kva	4250	2250	1035	1000	1535						1460	2x1,00 m2
150 Kva	4500	2500	1035	1000	1535						1620	2x2,00 m2
180 Kva	4500	2500	1035	1000	1535							
200 Kva	4500	2500	1035	1000	1535						1780	2x2,00 m2
250 Kva	5000	3000	1200	1000	1700				80		1950	2x2,50 m2
300 Kva	5000	3000	1200	1000	1700				110			2x2,50 m2
350 Kva	5000	3000	1200	1000	1700							2x3,00 m2
375 Kva	5000	3000	1200	1000	1700							2x3,00 m2
400 Kva	5000	3000	1200	1000	1700						3295	2x3,00 m2
450 Kva	5490	3490	1300	1000	1800						4030	2x3,50 m2
500 Kva		3490	1300	1000	1800						4240	2x3,50 m2
550 Kva		3490	1300	1000	1800							
620 Kva		3500	1330	1000	1880							

- NOMENCLATURA**
- 1.- GRUPO ELECTROGENO
 - 2.- CUADRO DE CONTROL
 - 3.- HUECO ENTRADA DEL AIRE
 - 4.- TUNEL DE EXPULSION DEL AIRE
 - 5.- BANDEJA PASACABLES
 - 6.- PUERTA DE ACCESO
 - 7.- BASE HORMIGON ARMADO H-175
 - 8.- TUBO DE ESCAPE
 - 9.- SILENCIADOR DE ESCAPE

EL Ø DE LA TUBERIA DE EXTENSION DEL ESCAPE PUEDE SER EL MISMO QUE EL DEL SILENCIADOR HASTA 5 m. PARA DISTANCIAS MAYORES DE 5 m. DEBE AUMENTARSE EL Ø DE LA TUBERIA. 10 mm POR CADA 10 m MAS DE DISTANCIA ENTRE EL GRUPO ELECTROGENO Y LA SALIDA EXTERIOR

CALCULO ESPESOR LOSA DE HORMIGON

$$D = \frac{W}{d \times B \times L}$$

D = altura bloque de hormigon
W = peso total grupo electrogeno
d = densidad del hormigon (2400 kg/m³)
B = anchura bloque de hormigon (m)
L = longitud bloque de hormigon (m)

h = 20/100 mm