IV-165 - VOLVO - TAD 731 GE **1.500 R.P.M. | 50 Hz**

TECHNICAL SPECIFICATIONS

Image for guidance purposes.

Model:

IV-165

Stand-by automatic gen set.

ENGINE	MAKE	MODEL
	VOLVO	TAD 731 GE

ALTERNATOR	MODEL
	MECC-ALTE ECP 34-2L/4

(400 / 230 V)

CONTINUOUS POWER: (PRP “Prime Power” norma ISO 8528-1)	150 kVA
STAND-BY POWER: (LTP “Limited Time Power” norma ISO 8528-1)	165 kVA

Amperes in the different voltages:

VOLTAGE	HZ	PHASE	COS Ø	PRP KVA/KW	LTP KVA/KW	AMPERAGE
415/240	50	3	0,8	150,0/120,0	165,0/132,0	229,82
400/230	50	3	0,8	150,0/120,0	165,0/132,0	238,44
380/220	50	3	0,8	150,0/120,0	165,0/132,0	250,99
240/139	50	3	0,8	150,0/120,0	165,0/132,0	397,4
230/133	50	3	0,8	150,0/120,0	165,0/132,0	414,68
220/127	50	3	0,8	150,0/120,0	165,0/132,0	433,53

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ENGINE CHARACTERISTICS

MAKE	MODEL
VOLVO	TAD 731 GE

GENERAL DATA

Power PRP (kWm)	133
Power LTP (kWm)	148
No. cylinders	6
Cylinder capacity (L)	7.15
Diameter per stroke (mm)	108 x 130
Compression ratio	18
Cooling system	LIQUID
Injection	DIRECT
Suction	-
Series regulator	MECHANICAL
Fly wheel coupling	2 - 11,5"

Lubrication system

Oil capacity (L)	20
Oil consumption (%)	0.35
Min. alarm oil pressure (bar)	2

Ventilation system

Air cooling flow (m3/h)	10440
Combustion air flow (m3/h)	592
Max. back pressure for fan (mbar)	0

Exhaust system

Exhaust gas flow (m3/h)	1650
Exhaust back pressure (mbar)	50
Temp. exhaust gases (ºC))	520

Electrical system

VDC (V)	12
Battery (Ah)	120
Engine start-up (kW)	3.10

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ALTERNATOR CHARACTERISTICS

MODEL	
MECC-ALTE ECP 34-2L/4	(400 / 230 V)

GENERAL DATA

Power PRP (kVA)	150
Power LTP (kVA)	165
Efficiency Alt. 3/4 %	93.50
Efficiency Alt. 4/4 %	93.20
No. Poles	4
Voltage regulator	DSR
No. wires	12
Insulation	H
Xd (%)	240
X'd (%)	14.80
X	6.20
Degree of protection	IP21

GENERATOR SET CONSUMPTION

% POWER USED	LITRES/HOUR
50%	18
75%	26
100%	34

DIMENSIONS, CAPACITIES, APPROXIMATE WEIGHT AND NOISE

DIMENSIONS (MM)		
LENGTH	WIDTH	HEIGHT
2950	1100	1759

FUEL TANK (LITRES)	WEIGHT (KG)
220.00	2180.00

NOISE LEVEL (dB (A))
72 @ 7 m

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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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SB STAND-BY RANGE / SCOPE OF SUPPLY

Engine/alternator monobloc directly conected 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 epoxi paint.	✓	✓
Canopy of steel sheet sound proofed with fireproof rockwool, and treated with degreasing liquids and aplicated with a phosphate coat and epoxi paint.	•	✓
Fuel tank integrated in the chassis provided with fuel level jauge and fuel lines to the engine.	✓	✓
Engine with mechanical engine driven pusher fan.	✓	✓
Industrial silencer with -15 db(A) noise reduction and exhaust outlet tube.	✓	•
Residencial silencer with -35 db(a) noise reduction with exhaust tube and protection cap.	•	✓
4 Pole termal and magnetic circuit breaker.	✓	✓
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 blets and moving parts as well as on electrical component.	✓	✓
External emergency stop push button.	✓	✓
Manual engine oil extraction pump.	•	✓
Self excited and auto regulated alternator.	✓	✓
Integrated lifting hook for single point lifting with crane, gensets up to 450 kVA (Except in swing-out cover model)	•	✓
4 Lifting points for gen sets from 450 kVA and bigger.	✓	•
Preparate for extended fuel tank, fully bomded for leakage protection.	✓	✓
Base frame preparated for trailer kit	✓	✓
Standard electronic speed governor on engines from 220 kVA and up.	✓	✓
Electric control cubicle with digital control module, automatic mains failure, manual start or remote start on signal.	✓	✓
Battery charger for gen set with 12VCC battery (2A).	✓	✓
Battery charger for gen set with 24VCC battery (5A).	✓	✓
Electric engine coolant preheating on gen sets with automatic mains failure controller.	✓	✓
Horizontal outlet for hot air	•	✓

POWER SOLUTIONS INMESOL

ISO 9001 ISO 14001 BUREAU VERITAS Certification

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DSE 6020 AUTOMATIC CONTROL PANEL

DSE 6020 AUTOMATIC CONTROL PANEL

PROTECTION, DISTRIBUTION AND AUTOMATIC CONTROL panel which starts the generator set when it detects a mains failure and stops it when the mains is restored with the control unit DSE 6020. It also starts and stops the group manually via a pushbutton or remote start-up by contact

Imágenes orientativas.

It has the following:

1 EMERGENCY STOP PUSHBUTTON

2 PROTECTIONS:

- Magnetothermal switch (preheating resist.) 2P (16 A)
- Protection fuses for control module

3 BATTERY CHARGER

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DSE 6020 AUTOMATIC CONTROL PANEL

4 **DSE 6020 PROTECCION CONTROL MODULE**. It has a digital LCD screen, which provides easy reading of the information regarding the ENGINE, ALTERNATOR, MAINS and CHARGING.

READINGS that can be made::

ENGINE:

- Cooling temperature
- Oil pressure
- Turning speed (rpm)
- Fuel level
- Battery voltage
- Battery alternator voltage.
- Operating hours
- Number of start-ups

ALTERNATOR AND CHARGE:

- Voltages between phases and between phases and neutral.
- Intensities
- Frequency

MAINS:

- Frequency
- Voltages between phases and between phases and neutral (L1-N, L2-N, L3-N).
- Voltages between phases and (L1-L2, L2-L3, L1-L3).

CONTROL of the set::

- STARTS and STOPS the set when mains failure is detected and when it is restored, respectively.
- It can also operate MANUALLY or REMOTELY via contact

Protection of the engine and alternator, with the ALARMS activated:

ENGINE:

- Low oil pressure
- High coolant temperature
- Low and High battery Voltage.
- Failure of the alternator to charge batteries
- Low fuel level.

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DSE 6020 AUTOMATIC CONTROL PANEL

ALTERNATOR:

- Low and High Voltage
- Low and High Frequency
- Overload due to Intensity (A)

MAINS:

- Low and High Voltage
- Low and High Frequency

OTHER CHARACTERISTICS:

- The real-time clock records the last 5 events.
- Configurable inputs and outputs.s.
- Configurable alarms and timers.
- USB connectivity
- Fully configurable via software and PC.
- Communication via USB cable for remote control
- Programmer Clock which starts and stops the set on a weekly basis for maintenance, etc.
- ALTERNATIVE CONFIGURATIONS, which open up the working possibilities

5 DISTRIBUTION:

- Direct output of the magnetothermal switch.

6 OPTIONAL:

- 4-Pole Switchboard in metal cabinet independent from the Automatic Panel

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DSE 6020 AUTOMATIC CONTROL PANEL

The following table shows the different amperages of the magnetothermal switches and the switchboards according to the set's power:

	CONT. POW.	CONTINUOUS POWER MAGNETOTHERMAL PROTECTION IV POLES (A)	SWITCHBOARD IV POLES (A)
SET'S POWER	10 kVA	16	25
	15 kVA	25	25
	20 kVA	32	32
	30 kVA	50	50
	40 kVA	63	60
	60 kVA	100	100
	75 kVA	125	135
	80 kVA	125	135
	100 kVA	160	160
	125 kVA	250	230
	150 kVA	250	250
	200 kVA	400	400

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