

IVR-110 - VOLVO - TAD 531 GE

1.500 R.P.M. | 50 Hz

TECHNICAL SPECIFICATIONS



Model:

IVR-110

Image for guidance purposes.

(400 / 230 V)

ENGINE	MAKE	MODEL
	VOLVO	TAD 531 GE

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

CONTINUOUS POWER:
(PRP "Prime Power" norma ISO 8528-1) **100 kVA**

STAND-BY POWER:
(LTP "Limited Time Power" norma ISO 8528-1) **110 kVA**

Amperes in the different voltages:

VOLTAGE	HZ	PHASE	COS Ø	PRP KVA/KW	LTP KVA/KW	AMPERAGE
415/240	50	3	0,8	101,4/81,1	113,0/90,4	157,32
400/230	50	3	0,8	101,4/81,1	113,0/90,4	163,22
380/220	50	3	0,8	101,4/81,1	113,0/90,4	171,81
240/139	50	3	0,8	101,4/81,1	113,0/90,4	272,03
230/133	50	3	0,8	101,4/81,1	113,0/90,4	283,85
220/127	50	3	0,8	101,4/81,1	113,0/90,4	296,76

ELECTRO EXIM SRL

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ENGINE CHARACTERISTICS

MAKE	MODEL
VOLVO	TAD 531 GE

GENERAL DATA

Power PRP (kWm)	88
Power LTP (kWm)	98
No. cylinders	4
Cylinder capacity (L)	4.76
Diameter per stroke (mm)	108 x 130
Compression ratio	18
Cooling system	LIQUID
Injection	DIRECT
Suction	TURBO-INTERC.
Series regulator	MECHANICAL
Fly wheel coupling	2-11,5"

Lubrication system

Oil capacity (L)	13
Oil consumption (%)	0.41
Min. alarm oil pressure (bar)	2

Ventilation system

Air cooling flow (m3/h)	7200
Combustion air flow (m3/h)	342
Max. back pressure for fan (mbar)	0

Exhaust system

Exhaust gas flow (m3/h)	1002
Exhaust back pressure (mbar)	50
Temp. exhaust gases (°C)	544

Electrical system

VDC (V)	12
Battery (Ah)	96
Engine start-up (kW)	3.10

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ALTERNATOR CHARACTERISTICS

MODEL

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

GENERAL DATA

Power PRP (kVA)	105
Power LTP (kVA)	115.50
Efficiency Alt. 3/4 %	92.50
Efficiency Alt. 4/4 %	92.20
No. Poles	4
Voltage regulator	DSR
No. wires	12
Insulation	H
Xd (%)	230
X'd (%)	17.60
X	7.40
Degree of protection	IP21

GENERATOR SET CONSUMPTION

% POWER USED	LITRES/HOUR
50%	12
75%	17
100%	23

DIMENSIONS, CAPACITIES, APPROXIMATE WEIGHT AND NOISE

LENGTH	DIMENSIONS (MM)	
	WIDTH	HEIGHT
2990	1140	1900
FUEL TANK (LITRES)		WEIGHT (KG)
480.00		1840.00
NOISE LEVEL (dB (A))		
69dB(A)@7m		

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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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RE RENTAL RANGE / SCOPE OF SUPPLY

Engine/alternator assembly, coupled and installed on a heavy electric welded steel profile base frame through antivibration pad, then treated with rust removing products for zink layer application and Polyester (QUALICOAT) painting, "special treatment for external and corrosive environment."	
Soundproof canopy treated with rust removing products for zink layer application and Polyester (QUALICOAT) painting, "special treatment for external and corrosive environment." Then lined with rock wool material of high density.	
Liquid cooled engine with integrated mechanical radiator and blower fan.	
Integrated exhaust residential silencer of -35 db (A) attenuation, with rain cap protection.	
Lifting hook crane.	
Fork lift pockets for easy lifting from the bottom.	
Hook for towing.	
Radiator water filling cover register.	
Easy acces to radiator cleaning, and replacement.	
Integrated metallic fuel tank of 24 hours autonomy with liquid leakage protection.	
Large fuel tank register for cleaning.	
Fuel draining plug.	
Internal fuel filler cap with security locable key.	
Kit of 3-way valves for external fuel tank connection (optional).	
Fast fuel plug connection between external and internal fuel tanks. (Optional).	
Protection of heat, mobile, and live comoponents.	
Manual oil sump pump.	
Baseframe prepared to be mounted on a trailer.	
External emergency stop push button.	
Engine starting battery "maintenance free" complete with wires connection, terminal protection and on-off switch.	
Alternator battery charger with earth plug.	
Self excited and auto regulated alternator.	
Manual control panel with a microprocessor for control , protection and generating set reading parameters as voltage, amperage, working hours, etc.	
Digital manual/automatic control panel (optional).	
Circuit breaker, and differential for protection.	
Prepared for earth stud installation (earth stud not included).	
Voltage and frequency change selector (optional).	
Electrical power socket kit (optional).	
Soundproof canopy auxiliary internal lighting (optional).	
Standard electronic speed governor on engines from 220 kVA (LTP) and up.	
Vertical outlet for hot air	

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RE RENTAL RANGE / OPTIONS

	
Engine preheating system.	☒
Battery charger.	☒
Automatic/manual fuel transfer pump.	☒
Total plus alternator protection.	☒
Diferent colour.	☒
External linkbox for armound cables.	☒

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DSE 6010 MKII MANUAL CONTROL PANEL

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MANUAL CONTROL, PROTECTION AND DISTRIBUTION panel, assembled on the generator set in metal cabinet with a DSE 6010 MKII engine protection unit.



Image for guidance purposes.

It has the following:

1 EMERGENCY STOP PUSHBUTTON.

2 PROTECTIONS:

- Magnetothermal Protection.
- Differential Protection
- Protection fuses for control module

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DSE 6010 MKII MANUAL CONTROL PANEL

- 3 DSE 6010 MKII PROTECCION CONTROL MODULE.** It has a digital LCD screen, which provides easy reading of the information regarding the ENGINE, ALTERNATOR and CHARGING.

READINGS that can be made:

ENGINE:

- Coolant 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

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:

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

ALTERNATOR:

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

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OTHER CHARACTERISTICS:

- The real-time clock records the last 50 events.s.
- Configurable inputs and outputs.
- Configurable alarms and timers.
- USB connectivity
- Fully configurable via software and PC.
- Communication via USB cable for remote control
- Programmable clock with multiple maintenance events which can be configured for optimal motor functioning. Weekly and/or monthly programming for up to 8 startups and shutdowns per week.
- ALTERNATIVE CONFIGURATIONS, which open up the working possibilities.

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DSE 6010 MKII MANUAL CONTROL PANEL

4 OPTIONAL:

AUTOMATIC PANEL FOR MANUAL GENERATOR: ATS DSE 334

- This panel provides the manual control generator with a reserve operation from the Mains, as the ATS sends the command to start and stop the generator, when it detects a supply failure and when the Mains is restored



Cubicle composed of the electronic control module which is detecting a mains failure and of 2 contactors mechanically and electrically interlocked or a motorized switch controlled by the above electronic controller who are realizing the change of supply from the GEN SET or the MAINS to the load.