

IVRN-550 - VOLVO - TAD 1651 GE (IIIA)

1.500 R.P.M. | 50 Hz

TECHNICAL SPECIFICATIONS



Model:

IVRN-550

Image for guidance purposes.

(400 / 230 V)

ENGINE	MAKE	MODEL
	VOLVO	TAD 1651 GE (IIIA)
ALTERNATOR	MODEL	
	MECC-ALTE ECO 40-3SN / 4	

CONTINUOUS POWER:
(PRP "Prime Power" norma ISO 8528-1) **500 kVA**

STAND-BY POWER:
(LTP "Limited Time Power" norma ISO 8528-1) **550 kVA**

Amperes in the different voltages:

VOLTAGE	HZ	PHASE	COS Ø	PRP KVA/KW	LTP KVA/KW	AMPERAGE
415/240	50	3	0,8	500,0/400,0	550,0/440,0	766,07
400/230	50	3	0,8	500,0/400,0	550,0/440,0	794,8
380/220	50	3	0,8	500,0/400,0	550,0/440,0	836,63
240/139	50	3	0,8	500,0/400,0	550,0/440,0	1324,66
230/133	50	3	0,8	500,0/400,0	550,0/440,0	1382,26
220/127	50	3	0,8	500,0/400,0	550,0/440,0	1445,09

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ENGINE CHARACTERISTICS

MAKE	MODEL
VOLVO	TAD 1651 GE (IIIA)

GENERAL DATA

Power PRP (kWm)	430.00
Power LTP (kWm)	473.00
No. cylinders	6
Cylinder capacity (L)	16.12
Diameter per stroke (mm)	144 x 165
Compression ratio	16.50
Cooling system	LIQUID
Injection	COMMON RAIL
Suction	TURBO-INTERC.
Series regulator	ELECTRONIC
Fly wheel coupling	1-14"

Lubrication system

Oil capacity (L)	48.00
Oil consumption (%)	0.08
Min. alarm oil pressure (bar)	2.20

Ventilation system

Air cooling flow (m3/h)	30960
Combustion air flow (m3/h)	1920.00
Max. back pressure for fan (mbar)	-

Exhaust system

Exhaust gas flow (m3/h)	4920
Exhaust back pressure (mbar)	100
Temp. exhaust gases (°C)	523

Electrical system

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



INMESOL, S.L.

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ALTERNATOR CHARACTERISTICS

MODEL

MECC-ALTE ECO 40-3SN / 4 (400 / 230 V)

GENERAL DATA

Power PRP (kVA)	500
Power LTP (kVA)	550.00
Efficiency Alt. 3/4 %	94.80
Efficiency Alt. 4/4 %	94.60
No. Poles	4
Voltage regulator	DER-1
No. wires	12
Insulation	H
Xd (%)	250.00
X'd (%)	21.00
X	11.40
Degree of protection	IP21

GENERATOR SET CONSUMPTION

% POWER USED	LITRES/HOUR
50%	55.00
75%	80.00
100%	104.00

DIMENSIONS, CAPACITIES, APPROXIMATE WEIGHT AND NOISE

LENGTH	DIMENSIONS (MM)	
	WIDTH	HEIGHT
4860	2060	2585
FUEL TANK (LITRES)		WEIGHT (KG)
1000.00		6460.00
NOISE LEVEL (dB (A))		
75		



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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 wilded 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."	<input checked="" type="checkbox"/>
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.	<input checked="" type="checkbox"/>
Liquid cooled engine with integrated mechanical radiator and blower fan.	<input checked="" type="checkbox"/>
Integrated exhaust residential silencer of -35 db (A) antenuation, with rain cap protection.	<input checked="" type="checkbox"/>
Lifting hook crane.	<input checked="" type="checkbox"/>
Fork lift pockets for easy lifting from the bottom.	<input checked="" type="checkbox"/>
Hook for towing.	<input checked="" type="checkbox"/>
Radiator water filling cover register.	<input checked="" type="checkbox"/>
Easy acces to radiator cleaning, and replacement.	<input checked="" type="checkbox"/>
Integrated metalic fuel tank of 24 hours autonomy with liquid leakage protection.	<input checked="" type="checkbox"/>
Large fuel tank register for cleaning.	<input checked="" type="checkbox"/>
Fuel draining plug.	<input checked="" type="checkbox"/>
Internal fuel filler cap with security locable key.	<input checked="" type="checkbox"/>
Kit of 3-way valves for external fuel tank connection (optional).	<input checked="" type="checkbox"/>
Fast fuel plug connection between external and internal fuel tanks. (Optional).	<input checked="" type="checkbox"/>
Protection of heat, mobile, and live comoponents.	<input checked="" type="checkbox"/>
Manual oil sump pump.	<input checked="" type="checkbox"/>
Baseframe prepared to be mounted on a trailer.	<input checked="" type="checkbox"/>
External emergency stop push button.	<input checked="" type="checkbox"/>
Engine starting battery "maintenance free" complete with wires connection, terminal protection and on-off switch.	<input checked="" type="checkbox"/>
Alternator battery charger with earth plug.	<input checked="" type="checkbox"/>
Self excited and auto regulated alternator.	<input checked="" type="checkbox"/>
Manual control panel with a microprocessor for control , protection and generating set reading parameters as voltage, amperage, working hours, etc.	<input checked="" type="checkbox"/>
Digital manual/automatic control panel (optional).	<input checked="" type="checkbox"/>
Circuit breaker, and differential for protection.	<input checked="" type="checkbox"/>
Prepared for earth stud installation (earth stud not included).	<input checked="" type="checkbox"/>
Voltage and frequency change selector (optional).	<input checked="" type="checkbox"/>
Electrical power socket kit (optional).	<input checked="" type="checkbox"/>
Soundproof canopy auxiliary internal lighting (optional).	<input checked="" type="checkbox"/>
Standard electronic speed governor on engines from 220 kVA (LTP) and up.	<input checked="" type="checkbox"/>
Vertical outlet for hot air	<input checked="" type="checkbox"/>



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RE RENTAL RANGE / OPTIONS

Engine preheating system.	<input checked="" type="checkbox"/>
Battery charger.	<input checked="" type="checkbox"/>
Automatic/manual fuel transfer pump.	<input checked="" type="checkbox"/>
Total plus alternator protection.	<input checked="" type="checkbox"/>
Diferent colour.	<input checked="" type="checkbox"/>
External linkbox for armound cables.	<input checked="" type="checkbox"/>



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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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DSE 6010 MKII MANUAL CONTROL PANEL

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.