

**MODEL: ERV-150S (VOLVO TAD 731GE)**

**1.500 R.P.M. 50 Hz**

**TECHNICAL SPECIFICATIONS**



<b>ENGINE</b>	<b>MAKE</b>	<b>MODEL</b>	<b>CONTINUOUS POWER</b>	<b>150 kVA</b>
	VOLVO	TAD 731 GE	<b>PRP prime power ISO 8528-1</b>	
			<b>STAND-BY POWER</b>	<b>165 kVA</b>
			<b>LTP norma ISO 8528-1</b>	
<b>ALTERNATOR</b>	MECC-ALTE	ECP-34-2L/4	<b>400/230 V</b>	

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



**ERGA GENSET**

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## ENGINE CHARACTERISTICS/ TAD 731 GE

### GENERAL DATA

POWER PRP (kWm)	133
POWER LTP (kWm)	148
No CYLINDERS	6
CYLINDERS 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(m <sup>3</sup> /h)	10440
COMBUSTION AIR FLOW (m <sup>3</sup> /h)	592

### ELECTRICAL SYSTEM

VDC (V)	12
BATTERY (Ah)	120
ENGINE START UP (KW)	3,10



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## ALTERNATOR CHARACTERISTICS/ ECP-34-2L/4

### 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 (%)	4,80
X	6,20
DEGREE OF PROTECTION	IP21

### GENERATOR SET CONSUMPTION

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

### DIMENSIONS (MM)

LENGTH	WIDTH	HEIGHT
2950	1100	1759

### CAPACITIES

FUEL TANK (litres)	220
WEIGHT (kg)	2180
NOISE LEVEL (dB (A)) 7 m	64



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## SCOPE OF SUPPLY

<b>INDUSTRIAL RANGE</b>	<b>Open Genset</b>	<b>Canopy Genset</b>
<b>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 applied with a phosphate coat and epoxy paint</b>	<b>incl.</b>	<b>incl.</b>
<b>Canopy of steel sheet sound proofed with fireproof rockwool, and treated with degreasing liquids and applied with a phosphate coat and epoxy paint</b>	<b>-</b>	<b>incl.</b>
<b>Fuel tank integrated in the chassis provided with fuel level gauge and fuel lines to the engine.</b>	<b>incl.</b>	<b>incl.</b>
<b>Engine with mechanical engine driven pusher fan</b>	<b>incl.</b>	<b>incl.</b>
<b>Industrial silencer with -15 db(A) noise reduction and exhaust outlet tube.</b>	<b>incl.</b>	<b>-</b>
<b>Residential silencer with -35 db(a) noise reduction with exhaust tube and protection cap</b>	<b>-</b>	<b>incl.</b>
<b>4 Pole thermal and magnetic circuit breaker with LTS (ABB)</b>	<b>incl.</b>	<b>incl.</b>
<b>Battery charge alternator</b>	<b>incl.</b>	<b>incl.</b>
<b>Starter battery complete with cables to the engine and pole protection</b>	<b>incl.</b>	<b>incl.</b>
<b>Installation prepared for earthing spike (spike not included).</b>	<b>incl.</b>	<b>incl.</b>
<b>Security protection for belts and moving parts as well as on electrical component.</b>	<b>incl.</b>	<b>incl.</b>
<b>External emergency stop push button</b>	<b>incl.</b>	<b>incl.</b>
<b>Manual engine oil extraction pump</b>	<b>incl.</b>	<b>incl.</b>
<b>Engine heater, fuel tank heater, fuel heater Control panel heater</b>	<b>incl.</b>	<b>incl.</b>
<b>Self excited and auto regulated alternator.</b>	<b>incl.</b>	<b>incl.</b>
<b>Integrated lifting hook for single point lifting with crane, gensets up to 450 kVA (Except in swing-out cover model)</b>	<b>-</b>	<b>incl.</b>
<b>4 Lifting points for gen sets from 450 kVA and bigger.</b>	<b>incl.</b>	<b>-</b>
<b>Prepare for extended fuel tank, fully bonded for leakage protection</b>	<b>incl.</b>	<b>incl.</b>
<b>Base frame prepared for trailer kit</b>	<b>incl.</b>	<b>incl.</b>
<b>Standard electronic speed governor on engines from 220 kVA and up</b>	<b>incl.</b>	<b>incl.</b>
<b>Electric control cubicle with digital control module, automatic mains failure, manual start or remote start on signal.</b>	<b>incl.</b>	<b>incl.</b>
<b>Electric engine coolant preheating on gen sets with automatic mains failure controller.</b>	<b>incl.</b>	<b>incl.</b>
<b>Horizontal outlet for hot air</b>	<b>-</b>	<b>incl.</b>



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## DSE 7320 AUTOMATIC CONTROL PANEL (any of the possible modules DSE)

**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 7320. It has a digital LCD screen, which provides easy reading of the information regarding the ENGINE, ALTERNATOR, MAINS and CHARGING.**

### ENGINE:

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

### ALTERNATOR:

- Voltages between phases and between phases and neutral.
- Intensities
- Reactive Power (kVAr)
- Apparent Power (kVA)
- Cos phi
- Frequency
- Active energy meter (kW-h)
- Active Power (kW)

### MAINS

- Frequency
- Voltages between phases and (L1-L2, L2-L3, L1-L3).
- Phase rotation order
- Voltages between phases and neutral (L1-N, L2-N, L3-N).
- Earth current Voltages between phases and between phases and neutral.
- Intensities
- Reactive Power (kVAr)
- Apparent Power (kVA)
- Cos phi
- Frequency
- Active energy meter (kW-h)
- Active Power (kW)



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

### ENGINE

- Low oil pressure
- Failure of the alternator to charge batteries



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**High coolant temperature**  
**Low fuel level**  
**Low and High battery Voltage**  
**ALTERNATOR**

**Low and High Voltage**  
**Power Overload (KW-kVA)**  
**Low and High Frequency**  
**Load control:**  
**Overload due to Intensity (A)**  
**Connection and disconnection of artificial loads.**  
**Disconnection of non-essential loads**  
**Negative Phase Sequence.**  
**Short-circuit**

#### **OTHER CHARACTERISTICS**

**The real-time clock provides an exact record of events.**

**Communications Ethernet, RS 232 and RS 485**

**Extensive number of configurable inputs and outputs.**

**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.**

**Configurable alarms and timers.**

**USB connectivity**

**Fully configurable via software and PC.**

**ALTERNATIVE CONFIGURATIONS, which open up the working possibilities**

**Modbus RTU**

**Possibility of SMS text messages**



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