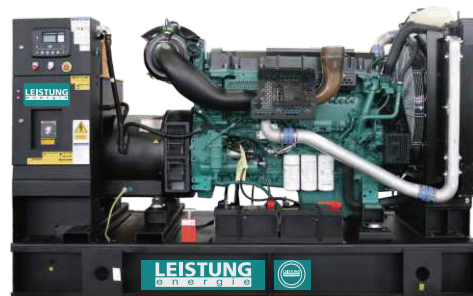


## Model: V275E5

Powered by VOLVO



### Generator Specification

Service	PRP <sub>(1)</sub>	ESR <sub>(2)</sub>
Power (kVA)	250	275
Power (kW)	200	220
Rated speed (r.p.m)	1500	
Standard voltage (V)	400/230V	
Rated at power factor(cos phi)	0.8	



AGG Power gensets are compliant with ISO 9001 and CE standard, which include the following directives:

- 2006/42/EC Machinery safety.
- 2006/95/EC Low voltage
- EN 60204-1: 2006+A1: 2009, EN ISO 12100: 2010, EN ISO 13849-1: 2008, EN 12601 : 2010

#### (1) PRP (Prime Power):

According to ISO8528-1, prime power is the maximum power available during a variable power sequence, which may be run for an unlimited number of hours per year, between stated maintenance intervals. The permissible average power output during at 24 hours period shall not exceed 80% of the prime power. 10% overload available for governing purposes only.

#### (2) ESP (Standby Power):

According to ISO 8528-1, It is defined as the maximum power available, under the agreed operating conditions, for which the generating set is capable of delivering for up to 500 hours of operation per year (of which no more than 300 hours for continuative use) with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. No overload capability is available.

Powers	ESP		PRP		Standby
Voltage (V)	KVA	KW	KVA	KW	Amps
415/240	200	160	180	144	278.2
400/230	200	160	180	144	288.7
380/220	200	160	180	144	303.9

### Performance Data

Model	V275E5	
Engine brand	Volvo	
Engine model	TAD734GE	
Speed control type	ECM	
Phase	3	
Control system	Digital	
Starter motor voltage	24V	
Frequency	50HZ	
Engine speed (RPM)	1500	
Fuel Consumption (L/H)	100% standby power	205
	100% prime power	204
	75% prime power	217
	50% prime power	233

#### Standard reference Conditions

Note: Standard reference condition 25°C[77°F] air inlet temp, 100m(328ft) A.S.L 30% relative humidity. Fuel consumption dat with diesel fuel with specific gravity of 0.85 and conforming to BS 2869: 1998, Class A2



### Dimension and Weight

Dimension	Open	Silent
Length (L)	2650mm	4000mm
Width (W)	1125mm	1570mm
Height (H)	1755mm	2560mm
Net Weight	1854 KG	3126 KG
Fuel Tank (L)	350 L	540 L

## ■ Engine Specification: TAD731GE

### General data

No. of cylinders	6
Cylinder arrangement	In-line
Cycle	4 stroke
Displacement	7 L
Bore	108 mm
Stroke	130 mm
Compression ratio	17:1
Dry weight-engine only	764 kg
Dry weight-include cooling system	954 kg
Wet weight-engine only	788 kg
Wet weight-Genpac	1021 kg

### Cooling system

Heat rejection radiation from engine at	
- standby power	26 kW
- prime power	24 kW
Heat engine rejection to coolant at	
- standby power	128 kW
- prime power	117 kW
Fan power consumption	11.6 kW
Fan drive ratio	1:1
Coolant capacity-engine	8 L
Coolant capacity-std radiator	24 L
Coolant pump(drive/ratio)	1.85:1
Coolant flow with standard system	4.08 L/S
Minimum coolant flow	3.6 L/S
Max. external coolant system restriction	33 kPa
Thermostat-start to open	83 °C
Thermostat-fully open	103 °C
Max. static pressure head	85 kPa
Min. static pressure head	75 kPa
Standard pressure cap setting	75 kPa
Max. top tank temp	103 °C

### Inlet / Exhaust Data

Max. intake restriction	3 kPa
Heat rejection to exhaust	
- standby power	177 kW
- prime power	160 kW
Exhaust gas temp after turbine at	
- standby power	550 °C
- prime power	495 °C
Max. back pressure in exhaust line	10 kPa
Exhaust gas flow at:	
- standby power	33.4 m <sup>3</sup> /min
- prime power	33 m <sup>3</sup> /min

### Fuel system

System supply flow	164 L/H
Fuel supply line max. restriction	35 kPa
Fuel supply line max pressure	35 kPa
Fuel filter micron size	102.6mm
Fuel return line max restriction	50 kPa
Max. allowable inlet fuel temp	70 °C

### Lubrication system

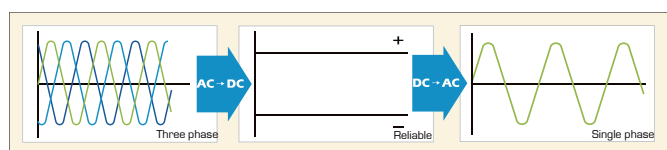
Oil consumption	
- standby power	0.1 L/H
- prime power	/
Oil system capacity-include filters	29 L
Oil sump capacity-max.	24 L
Oil sump capacity- min.	20 L
Oil change intervals	500 H
Oil pressure at rated speed	420-450 kPa
Lubrication oil temp in oil sump	130 °C
Oil pressure shut down switch setting	0.04mm

### Electrical system

Voltage	24 V
Alternator make/output	100 Amp
Starter motor	5 kW

## ■ Alternator Specification

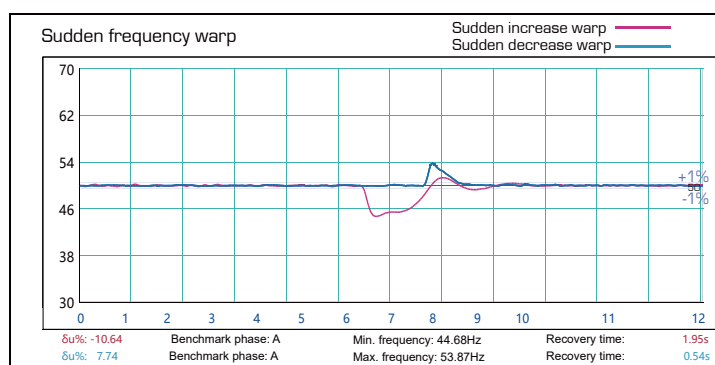
Alternator	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Terminals	12
Insulation type	H class
Winding Pitch	2/3
IP rating	IP23
Excitation system	Self-excited
Bearing	Single bearing
Coating	Vacuum impregnation
Voltage regulator	A.V.R
Couping	Flexible disc



Emergency voltage curve



Emergency frequency curve



## ■ Options

Engine	Alternator	Generator Sets	Fuel System
<ul style="list-style-type: none"> <li>Water Jacket Pre-heater</li> <li>Fuel heater</li> </ul>	<ul style="list-style-type: none"> <li>Winding Temp measuring Instrument</li> <li>Alternator Pre-heater</li> <li>PMG</li> <li>Anti-damp and anti-corrosion treatment</li> <li>Anti-condensation heater</li> <li>Winding and bearing RTD</li> </ul>	<ul style="list-style-type: none"> <li>Tools with the machine</li> <li>Extended range fuel tank</li> <li>Bunded fuel tank</li> </ul>	<ul style="list-style-type: none"> <li>Low fuel level alarm</li> <li>Automatic fuel feeding system</li> <li>Fuel T-valves</li> </ul>
Canopy	Lub oil system	Cooling System	Control Panel
<ul style="list-style-type: none"> <li>Rental type Canopy</li> <li>Trailer</li> </ul>	<ul style="list-style-type: none"> <li>Oil Pre-heater</li> <li>Oil temp sensor</li> </ul>	<ul style="list-style-type: none"> <li>Front heat protection</li> </ul>	<ul style="list-style-type: none"> <li>Remote control panel</li> <li>ATS</li> <li>Synchronizing controller</li> <li>Adjustable earth leakage relay</li> </ul>

## ■ Control Panel

### Configuration

- Emergency stop button
- Protection MCB
- Battery charger
- Integrated aviation plug
- ATS connection
- Digital control module

### Features

- 3 phase generator set monitoring
- Support of engines equipped with electronic control unit
- Comprehensive diagnostic message
- Automatic or manual start/stop of the gensets
- Push buttons for simple control, lamp test
- Graphic back-lit LCD display
- Parameters adjustable via keyboard or PC
- Mains measurements ( 50HZ/60HZ)
- Generator measurements ( 50HZ/60HZ)
- Comprehensive shutdown or warning on fault condition
- 3 phase Generator protections
  - Over-/under voltage
  - Over-/under frequency
  - Current/voltage asymmetry
  - Over current/overload
- 3 phase AMF function
  - Over-/under frequency
  - Over-/under voltage
  - Voltage asymmetry
- Configurable analog inputs
- Battery voltage, engine speed (pick-up) measurement
- Configurable programmable binary inputs and outputs
- Warm-up and cooling functions
- Generator C.B. and Mains C.B. control with feedback and return timer
- RS232 interface
- Modem communication support
- Hours counter
- Sealed to Ip65
- Event log

### Benefits

- Less wiring and components
- Integrated solution
- Less engineering and programming
- User friendly set-up and button layout
- Module can be configured to suit individual applications
- PC software for simplified configuration
- Wide range of communication capabilities

### Operation conditions

- Operation temp: -20 °C to + 70 °C
- Storage temp: -30 °C to + 80 °C
- Operating humidity: 95% w/o condensation
- Vibration : 5-25Hz,  $\pm 1.6\text{mm}$   
5-100Hz,  $a=4g$
- Shocks:  $a= 500\text{m/s}^2$

### Options

- Ethernet interface (Remote monitoring and control)
- GSM modem/wireless internet (Remote monitoring and control)
- RS232-RS485 Dual port interface
- Synchronizing control panel
- Distribution board with sockets kit and power busbar
- Battery trickle charge ammeter
- Earth leakage protection
- Earth fault protection
- Low fuel level alarm
- Low fuel level shutdown
- High fuel level alarm
- Fuel transfer system control
- Low coolant level shutdown
- High lube oil temp shutdown
- Overload via alarm switch on breaker
- Engine coolant heater controls
- Control panel heater
- Speed adjust switch
- Oil temp displayed on LCD screen
- Additional 8 inputs and outputs