

**VOLVO
PENTA**

**DIESEL POWERED
GENERATING
SETS**

**275
450 kVA**

**220
360 kW**



aksa POWER GENERATION

Generating Set Model	Power Pf.0,8	
	400 / 230 V - 50 Hz	
	Standby kVA	Prime kVA
AVP 275	275	250
AVP 350	350	320
AVP 385	385	350
AVP 415	415	380
AVP 450	450	410

Standby: Continuous running at variable load for duration of an emergency.No overload is permitted on these ratings.

Prime: Continuous running at variable load for unlimited periods with 10% overload available for 1 hour in any 12 hour period. Contact us for the other running periods.

STANDARD GENSET SPECIFICATIONS

ENGINE

- VOLVO heavy duty diesel engine
- Four cycle water cooled, turbo charged
- Direct injection fuel system
- Electronic governor control system
- Replaceable wet type cylinder liners
- 24 V.D.C.starter and charge alternator
- Replaceable fuel filter, oil filter and dry element air filter
- Cooling radiator and fan
- Flexible fuel connection hoses and manual sump oil drain valve
- Industrial capacity exhaust silencer and steel bellows
- Starter battery (with lead acid) including Rack and Cables
- Jacket water heater
- Manual for application and installation

ALTERNATOR

- Brushless, single bearing system, 4 poles, flexibel disc
- Insulation class H
- Standard degree of protection IP21
- Self-exciting and self-regulating
- Solid state automatic voltage regulator
- Screen protected and drip proof
- Impregnation with tropicalized epoxy varnished
- Stator winding with 2/3 pitch for improved harmonics
- Close voltage regulation

CHASSIS

- Steel chassis and antivibration pads
- Base frame design incorporates an integral fuel tank
- The generating set can be lifted or carefully pushed / pulled by the base frame
- Dial type fuel gauge and drain plug on the fuel tank

CANOPY

- All canopy parts are designed with modular principles
- Without welding assembly
- All metal canopy parts are painted by electrostatic polyester powder paint
- Panel window
- Lockable doors on each side.
- Easy maintenance and operation
- Easy lifting and moving, central lifting
- Thermally insulated engine exhaust system
- Exterior emergency stop push button.

QUALITY STANDARDS

ISO 9001:2008, TS ISO 8528-4, TS ISO 8528-5, TS ISO 8528-8, BS EN ISO 14001:2004, BS OHSAS 18001:2007, TS 12650

CONTROL SYSTEM

1) Auto. Mains Failure control panel - P732

Control, supervision and protection panel is mounted on the gen-set base frame. The control panel is equipped as follows:

Equipments:

- Control with DSE, model 7320 module
- Static battery charger
- Emergency stop push button.

a) Control Module DSE 7320 Features

- The module monitors a mains supply and controls a standby generating set with automatic transfer switch
- Module indicates operational status and fault conditions by means of its LCD display
- Microprocessor controlled
- 132 x 64 pixel LCD display makes information easy to read
- Front panel programming and also via PC software
- Soft touch membrane keypad and five key menu navigation
- Remote communication via RS 232, RS 485 and Ethernet
- SMS messaging
- Event logging (50) showing date and time
- Multiple date and time engine exercise mode and maintenance scheduler

Controls

Stop - Manual - Auto - Test - Start - Mute/Lamp test - Transfer to generator - Transfer to mains - Menu navigations buttons

b) Instruments via LCD display

Engine

- Oil pressure (PSI & Bar)
- Temperature (°C & °F)
- Speed RPM
- Run time
- Battery volts
- Maintenance due

Mains

- Volts (L-L / L-N)
- Frequency (Hz)

c) Protections

Warning

- Charge failure
- Battery under voltage
- Fail to stop
- Low fuel level (opt.)
- kW over load
- Negative phase sequence
- Loss of speed signal

Pre-alarms

- Low oil pressure
- High engine temperature
- Low engine temperature
- Over/Under speed
- Under/over generator frequency
- Under/over generator voltage
- ECU warning

d) Led Indication

- Mains available
- Mains on load
- Generator available
- Generator on load

2) Power Outlet Terminal Board Mounted on the Genset Base frame

Generator

- Volts (L-L / L-N)
- Currents (L1, L2, L3)
- Frequency (Hz)
- kW
- Cosφ
- kVA, kVAR,
- kWh, kVAh, kVArh
- Phase sequence

Shut Downs

- Fail to start
- Emergency stop
- Low oil pressure
- High engine temperature
- Low coolant level
- Over/under speed
- Under/over generator frequency
- Under/over generator voltage
- Oil pressure sensor open
- Phase rotation
- **Electrical trip**
- Earth fault
- kW over load
- Generator over current
- Negative phase sequence



DSE 7320

DIESEL GENERATING SETS
400 / 230 V - 50Hz
GROUP
DIESEL ENGINE

Model		AVP 275	AVP 350	AVP 385	AVP 415	AVP 450	
Power Pf. 0,8	Standby	kVA	275	350	385	415	450
		kW	220	280	308	332	360
	Prime	kVA	250	320	350	380	410
		kW	200	256	280	304	328
Engine Make		Volvo					
Model		TAD734GE	TAD1341GE	TAD1342GE	TAD 1343GE	TAD 1344GE	
Gross Engine Power Output (at rated rpm)		kW	250	308	343	366	399
		Hp	340	419	466	498	543
Aspiration and Cooling		Turbocharged & IC					
Total Displacement		Liter	7,15	12,78			
No. of Cylinders and Build		6-Inline					
Engine Speed		rpm	1500				
Bore ve Stroke		mmxmm	108 x 130	131 x 158			
Compression Ratio			17:1	18,1:1			
Governor Type		Electronic					
Fuel Consumption		L/h	31,1	33,4	37	39,4	42,8
		Load 3 / 4	43,5	48,3	53,3	57	63,3
		Full	54,5	63,1	70,3	75,7	83,1
Fuel Tank Capacity		Liter	470	700			
Total Oil Capacity		Liter	29	36			
Coolant Capacity (Engine and radiator)		Liter	32	44			
Radiator Cooling Air		m ³ /min	260	330	402	408	390
Air intake - Engine		m ³ /min	16,3	24,1	25,9	27	28
Exhaust Gas Flow		m ³ /min	33,4	52	57	60	67,5
Exhaust Gas Temperature		°C	550	414	408	420	465

IC: Inter Cooler
Open Types

Dimensions (Lenght x Width x Height)	m	2,75 x 1,30 x 1,71	3,05 x 1,55 x 1,86	3,14 x 1,55 x 1,86	3,14 x 1,55 x 1,86	3,21 x 1,55 x 1,86
Dry Weight	kg.	-	2090	-	3030	3150

Sound Attenuated Types

Canopy Model		MS 60	MS 70			
Dimensions (Lenght x Width x Height)	m	3,96 x 1,36 x 2,097	4,46 x 1,61 x 2,48			
Dry Weight	kg.	2850	3930	3940	4040	4200

Manufacturer reserves the right to make changes in model, technical specifications, color, equipment and accessories without prior notice.

Optional Equipments
Diesel Engine

- Oil heater

Alternator

- 3 pole output circuit breaker
 - Anti-condensation heater
 - Oversized alternator

Panel

- Charge ammeter
- Transfer switch 3 pole
- Transfer switch 4 pole
- Earth fault, single set
- Automatic synchronising and power control

Accessories

- Bulk fuel tank
- Automatic or manual fuel filling system
- Fuel - water separator filter
- Low fuel level alarm
- Residential silencer
- Enclosure or soundproof canopy
- Trailer
- Tool kit for maintenance



Aksa makes its sound attenuated generator sets sound pressure level tests in accordance with Directive 2000/14/EC validation of the sound level test has been approved by the notified body szutest

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