

VOLVO PENTA MARINE GENSET

D34A MS

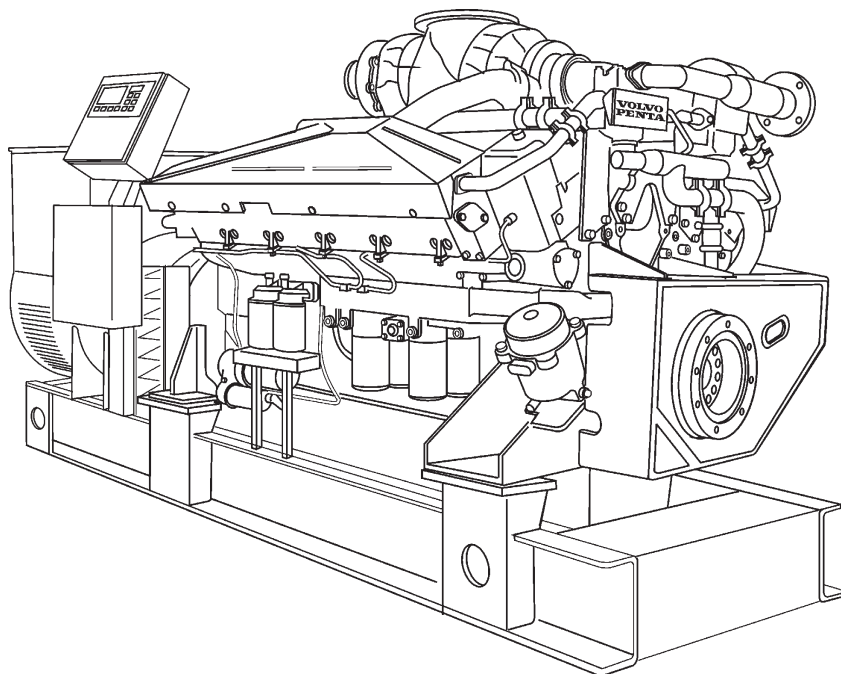
784–811 kVA (627–649 kW) at 1500 rpm 50Hz/400V, 863–908 kVA (690–727 kW) at 1800 rpm 60Hz/440V

Technical Data

Engine designation	D34A MS
No. of cylinders and configuration	V 12
Method of operation	4-stroke, direct-injected, turbocharged diesel engine with aftercooler
Bore, mm	150
Stroke, mm	160
Displacement, l	33.93
Compression ratio	14.5:1
Crankshaft Power HE Cooling	
at 1500 rpm, kW (hp)	679 (923)
at 1800 rpm, kW (hp)	761 (1035)
Crankshaft Power RC Cooling	
at 1500 rpm, kW (hp)	656 (892)
at 1800 rpm, kW (hp)	731 (994)
Crankshaft Power KC Cooling	
at 1500 rpm, kW (hp)	679 (923)
at 1800 rpm, kW (hp)	761 (1035)
Recommended fuel to conform to	ASTM No. 2-D
Specific fuel consumption best point, g/kWh at 1500 rpm	n.a.
g/kWh at 1800 rpm	206 (100%)

All data represent net performance with standard accessories such as fuel injection pump, water pump, L.O. pump and charging alternator under the conditions of 100kPa (750mm Hg), barometric pressure 300K (27°C) ambient temperature and 60% relative humidity.

The engine is certified acc. to IMO NOx.



Volvo Penta Genset system

The Volvo Penta Genset systems are the complete solution for a ship's onboard power requirements. You will not only get reliable marine diesels, well-matched generators and a monitoring system, but also a wide range of products and services to optimize your investment.

Each Volvo Penta Genset is built in the Volvo factory fully adapted to the customer's requirements and comes complete and tested, ready for installation onboard. The basis for the Volvo Penta Gensets is the smooth running and reliable marine diesel engines. Compact in design, they occupy less space in the engine room, and their good accessibility makes service and maintenance easy. Auto-start and synchronizing is rapid and reliable, meeting all standards with a comfortable margin.

All the Volvo Penta Gensets are type approved by the major classification societies, and can be delivered under complete certification.

Engine

The Volvo Penta engines are well balanced and have excellent emission performance. With rapidly growing care for the environment all over the world, emission regulations are becoming increasingly stricter. The D34A MS is certified according to IMO NOx.

Volvo's basic engine design in combination with a highly efficient speed control system gives superior load taking capability.

Generator

All the standard Gensets are equipped with a generator built by Newage Stamford. Stamford is the market leader in this power range and provides for worldwide service coverage. These generators are of a long proven design, based on years of experience of power generation for land-based and marine applications.

Warranty and service

For all Volvo Penta marine Gensets we can offer the additional benefit and security of the Cost Control Program, a unique system of operator support and financial control – from installation to after-sales service. This optional three-year warranty provides the owner peace of mind.

Qualified Volvo Penta dealers stand by for service and support in more than 100 countries all over the world. A complete set of documentation will be delivered with the set according to Volvo's high quality publication standard.

VOLVO PENTA

D34A MS

Technical description

Complete Genset

- High system efficiency as a result of system optimization of the complete Genset
- All used components of highest quality from well reputed suppliers
- Reinforced set dimensioned for high output and low sound level
- Mono-block engine/generator rigidly mounted on a common bed frame
- Engine directly coupled to generator via a flexplate
- Flexible mountings including welding plates mounted under the frame
- Total torsion compatibility via calculation eliminates dangerous vibrations
- Full protection of rotating parts will be provided
- Set painted in Volvo Penta green

Engine

- Flywheel housing with connection acc. to SAE O
- Flywheel (18")
- Engine brackets

Lubrication system

- Freshwater-cooled oil cooler
- Spin-on type oil filters with change over valve
- Spin-on type oil by-pass filter

Fuel system

- GAC electronic governor
- Jacketed fuel pipes
- Spin-on type fuel filters change over type
- 24V fuel shut-off valve, electrically operated

Inlet air and exhaust system

- Dry exhaust manifold with insulator cover
- Non-cooled turbocharger
- Air inlet filter/silencer

Heat Exchanger cooled system (HE)

- For seawater- and central-cooled Gensets
- Engine-mounted tubular heat exchanger with integrated expansion tank

Radiator cooled system (RC)

- For air-cooled Gensets
- V-belt-driven radiator fan

Keel cooled system (KC)

- 1-circuit keel cooling system

Other equipment

- Front P.T.O. pulley (2x B groove)
- Front safety cover

Generator

- Temperature rise class F
- Tropical insulation class H
- Generator equipped with spacious terminal box
- Stator winding as standard with short 2/3 pitch winding, ideal for non-linear load (thyristor load)
- 4-pole, brushless, AC marine generator
- Dynamically balanced rotor
- Automatic Voltage Regulator (AVR) for accurate Voltage regulation
- Permanent magnet mounted on generator for independent power supply to AVR
- Permanent magnet system to obtain hard performance on motor start and to deliver stationary short circuit current
- Heavy damper cage for parallel operation and very low subtransient reactance values
- Single bearing generator as standard
- Windings are 12 wire reconnectable
- Voltage available range up to 690V
- IP23 enclosure as standard
- Anti condensation heating

Optional equipment

Engine

- Twin fuel filters/water separator with change over valve
- Flexible exhaust compensator, dry
- Raw/sea water circulation pump
- Cooling water connection bellows
- Electrical, air or hydraulic starting systems possible
- Engine heater 2000W

Control and Monitoring system

- Classifiable control and monitoring system DCU 305 R2

Generator

- Air inlet filters according to IP23
- Air inlet louvres/filters according to IP44
- Droop kit
- Thermistors (1 or 2 per phase) mounted in generator for temperature measurement of windings in generator
- PT100 elements (1 or 2 per phase) mounted in generator for temperature measurement of windings in generator
- Double bearing generator
- PT100 elements mounted in generator bearings for temperature measurement

Miscellaneous

- Flexible exhaust compensator
- Dry exhaust silencer with or without spark arrestor
- Synchronizer unit
- Load sharing unit
- Toolkit
- Spare parts according to classification recommendations

Contact your local Volvo Penta dealer for further information.

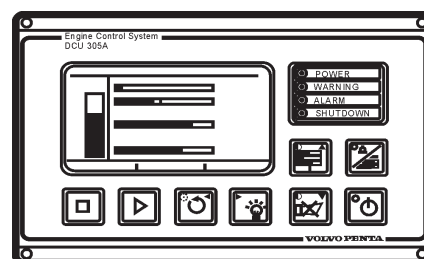
Not all models, standard equipment and accessories are available in all countries. All specifications are subject to change without notice.

The Genset illustrated may not be entirely identical to production standard Genset.

Control and monitoring system DCU 305 R2

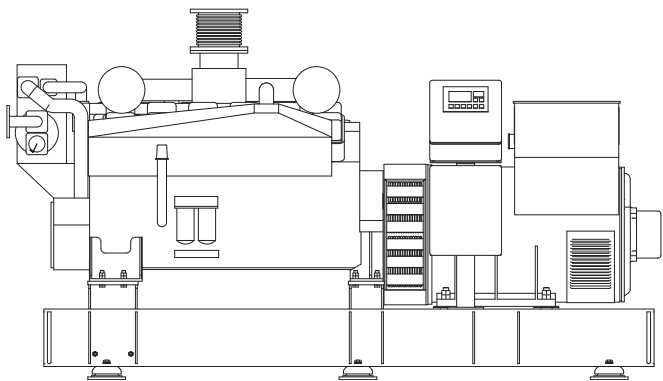
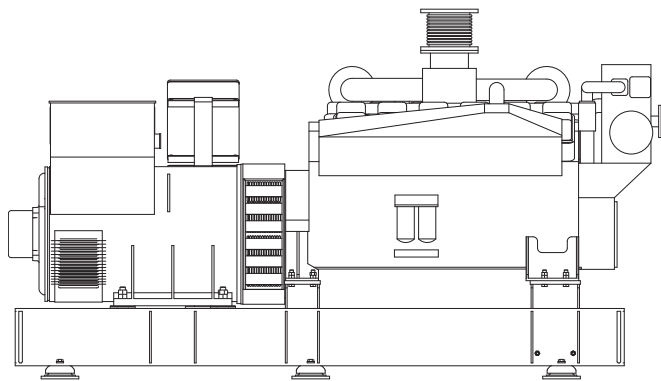
The DCU 305 R2 control and monitoring system sets a new standard for the control and monitoring of marine Gensets. The DCU 305 R2 offers easy adaptation of alarm, monitoring and shutdown functions depending on application demands. The system includes senders and switches for lubrication oil temp and pressure, cooling water temp, flow and level, fuel leakage and overspeed. All readings are displayed both as horizontal bars and as digital values on the DCU 305 R2's adjustable graphical LCD screen.

The DCU 305 R2 interfaces with the ship's computer system either via an RS232 port and a standard Modbus or COMLI-protocol or via any of the large number of potential free contacts. In stand-by mode the engine is controlled by external signals. In manual mode all functions are accessible from push buttons on the front panel. All actions are displayed with text messages, in any specified language, and logged according to running hours of occurrence in a non-erasable memory.



The product is approved by ABS, DNV, GL, LRS, BV, RINA and RMRS. The DCU 305 R2 is manufactured and supported by Automaskin A/S

D34A MS

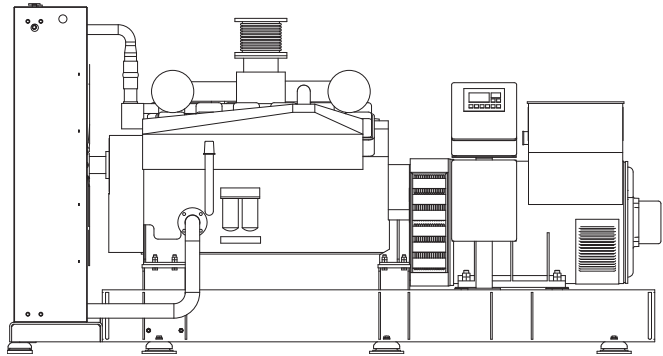
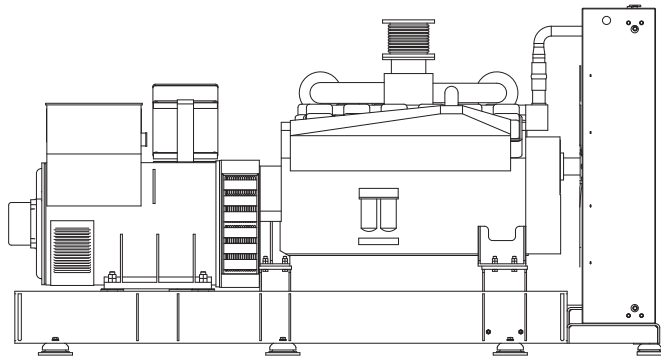


Technical Data HE Genset

Power output at 1500 rpm 50Hz/400V, kVA (kWe)	
D34A MS / HCM634J-1	811 (649)
Power output at 1800 rpm 60Hz/440V, kVA (kWe)	
D34A MS / HCM634H-1	863 (690)
D34A MS / HCM634J-1	908 (727)

All data represent net performance with standard accessories such as fuel injection pump, water pump, L.O. pump and charging alternator under the conditions of 100kPa (750 mm Hg), barometric pressure 300K (27°C) ambient temperature and 60% relative humidity.

Dimensions L x W x H, mm, not for installation	
D34A MS / HCM634H-1	3644 x 1509 x 2063
D34A MS / HCM634J-1	3644 x 1509 x 2063
Dry weight, kg	
D34A MS / HCM634H-1	5991
D34A MS / HCM634J-1	6153



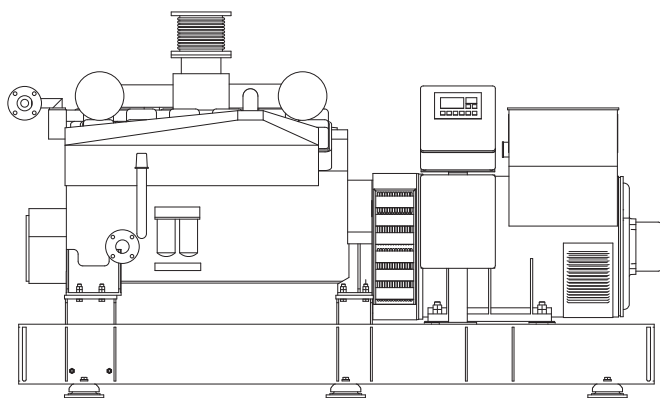
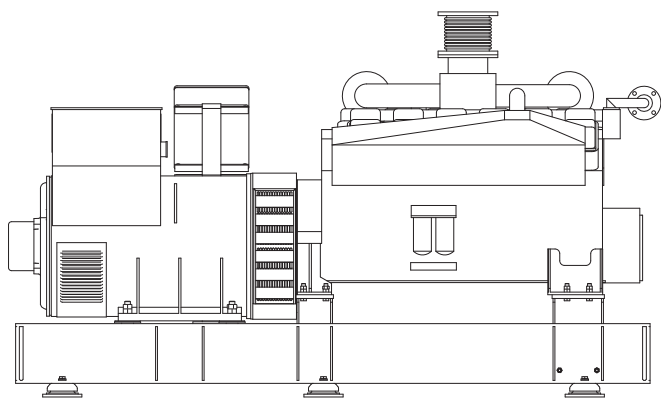
Technical Data RC Genset

Power output at 1500 rpm 50Hz/400V, kVA (kWe)	
D34A MS / HCM634J-1	784 (627)
Power output at 1800 rpm 60Hz/440V, kVA (kWe)	
D34A MS / HCM634H-1	863 (690)
D34A MS / HCM634J-1	873 (698)

All data represent net performance with standard accessories such as fuel injection pump, water pump, L.O. pump and charging alternator under the conditions of 100kPa (750 mm Hg), barometric pressure 300K (27°C) ambient temperature and 60% relative humidity.

Dimensions L x W x H, mm, not for installation	
D34A MS / HCM634H-1	4061 x 1890 x 2154
D34A MS / HCM634J-1	4061 x 1890 x 2154
Dry weight, kg	
D34A MS / HCM634H-1	6750
D34A MS / HCM634J-1	6912

D34A MS



Technical Data KC Genset

Power output at 1500 rpm 50Hz/400V, kVA (kWe)	
D34A MS / HCM634J-1	811 (649)
Power output at 1800 rpm 60Hz/440V, kVA (kWe)	
D34A MS / HCM634H-1	863 (690)
D34A MS / HCM634J-1	908 (727)

All data represent net performance with standard accessories such as fuel injection pump, water pump, L.O. pump and charging alternator under the conditions of 100kPa (750 mm Hg), barometric pressure 300K (27°C) ambient temperature and 60% relative humidity.

Dimensions L x W x H, mm, not for installation	
D34A MS / HCM634H-1	3496 x 1513 x 2063
D34A MS / HCM634J-1	3496 x 1513 x 2063
Dry weight, kg	
D34A MS / HCM634H-1	5991
D34A MS / HCM634J-1	6153

**VOLVO
PENTA**

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