

**VOLVO  
PENTA**

# PRODUCT RANGE

Power for marine professionals



# AT THE LEADING EDGE IN MARINE DIESELS

Volvo Penta is a solid partner in providing marine power systems. The combined financial and technological resources provided by the Volvo Group, coupled with our tradition of innovative marine engineering, enable us to design and deliver diesel performance for a broad range of marine applications – and to provide service and support all over the world.

## Prepared for future emission standards

Our focus in product development and renewal is on achieving even greater reliability, performance and fuel efficiency. Continuous progress in environmental performance ensures that our power range will meet the emission standards introduced in the future.

## Engines and complete drive systems for marine professionals

- Extensive product range developed for a broad range of marine applications
- 3–16 litre diesel engines with drive, control and monitoring systems to match
- Type-approved engines delivered, tested and ready for installation
- Customised parts kits and efficient parts supply through the extensive network of qualified and well-equipped service dealers

## Rating definitions

The definition of ratings is to be used as a guideline to select a product with correct rating. It is not about emissions, type approvals or warranty conditions. For complete warranty information and extended coverage, refer to Volvo Penta Warranty Information.

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This document is not contractual. In a constant effort to improve the quality of its products, Volvo Penta reserves the right to modify any of the characteristics stated in this form without notice. For specific information on a certain engine model, please ask your dealer or visit our website [www.volvopenta.com](http://www.volvopenta.com). All models are not available on all markets. The engines in the pictures may be fitted with extra optional equipment.

# DIESEL INBOARD & AUXILIARY ENGINES

## RATING 1 (Continuous Duty)

This power rating is intended for vessels with displacement hulls in heavy operation, unlimited number of running hours per year.

- Engine running hours per year are UNLIMITED.
- Load and speed could be constant, and full power can be used without interruption.

Typical boats, could include but are not limited to: Coastal fishing boats, tugboats, trawlers, barges, ferries etc.

(Check also page 2 for more info on ratings.)

RANGE MARINE ENGINES RATING 1					
Engine	kW*	hp*	rpm	Regulations	Page
D5A TA	89	121	1900	4,5,6	20
D5A TA	102	139	2300	4,5,6	20
D7A TA	130	177	1900	1,4,5,6	21
D7A TA	148	201	2300	1,4,5,6	21
D7C TA	146	199	1900	1,4,5,6	22
D7C TA	166	226	2300	1,4,5,6	22
D8 MH***	154	210	1800-2300**	1,2,5,6	23
D8 MH***	169	230	1800-2300**	1,2,5,6	23
D8 MH***	195	265	1800-2300**	1,2,5,6	23
D8 MH***	221	300	1800-2300**	1,2,5,6	23
D8 MH***	261	355	1800-2300**	1,2,5,6	23
D13 MH	214	291	1800	1,4,6	27
D13 MH	294	400	1800	1,2,4,5,6,8	27
D13 MH	331	450	1800	1,2,4,5,6,8	27
D13 MH	368	500	1800	1,2,4,5,6,8	27
D16 MH	368	500	1800	1,4,5,6	28
D16 MH	405	550	1800	1,2,4,5,6	28
D16 MH	441	600	1800	1,2,4,5,6	28
D16 MH	478	650	1800	1,2,4,5,6	28

\* Crankshaft power

\*\* Propeller selection speed 1800-2300

\*\*\* Will be available in 2020

Technical data according to ISO 3046, fuel temp. 40°C. All data present net performance with standard accessories under the conditions of 100kPa barometric pressure, 25°C ambient temperature and 30% relative humidity. All specifications are subject to change without notice.

### Regulations:

- 1 IMO NOx Tier II family certificate, contact Volvo Penta for specific flag state requirements and individual certificates
- 2 EPA Tier 3 Marine Commercial compliance, contact Volvo Penta for detailed information
- 3 EPA Tier 3 Marine Leisure compliance, contact Volvo Penta for detailed information
- 4 EU IWW certificate available for propulsion (shaft or diesel electric), contact Volvo Penta for detailed information
- 5 CCNR Stage 2 certificate available, contact Volvo Penta for detailed information
- 6 Type approved. Important! Always contact Volvo Penta for detailed information
- 7 The engine is approved for life and rescue boats according to MED (SOLAS), contact Volvo Penta for detailed information
- 8 IMO NOx Tier III family certificate, contact Volvo Penta for specific flag state requirements and individual certificates

# DIESEL INBOARD & AUXILIARY ENGINES

## RATING 2 (Heavy Duty)

This power rating is intended for vessels with semiplaning or displacement hulls in cyclical operation.

- Engine running hours per year, typically but not limited to, 3000-5000h.
- Full power could be utilized maximum 8 h per 12 h operation period. Between full load operation periods, engine speed should be reduced at least 10% from the obtained full load engine speed, and the load should be cycled between 20%-85%.

Typical boats could include but are not limited to: Patrol and pilot boats, Fishing boats, Passenger, crew and work boats etc.

(Check also page 2 for more info on ratings.)

RANGE MARINE ENGINES RATING 2					
Engine	kW*	hp*	rpm	Regulations	Page
D5A TA	118	160	2300	4,5,6	20
D7A TA	174	237	2300	1,4,5,6	21
D7C TA	195	265	2300	1,4,5,6	22
D8 MH***	296	405	2100-2400**	1,2,5,6	23
D8 MH***	313	425	2100-2400**	1,2,5,6	23
D13 MH	404	550	1900	1,2,4,5,6	27
D13 MH	441	600	1900	1,2,4,5,6,8	27
D16 MH	551	750	1900	1,2,4,5,6	28

\* Crankshaft power

\*\* Propeller selection speed 2100-2400

\*\*\* Will be available in 2020

Technical data according to ISO 3046, fuel temp. 40°C. All data present net performance with standard accessories under the conditions of 100kPa barometric pressure, 25°C ambient temperature and 30% relative humidity. All specifications are subject to change without notice.

### Regulations:

- 1 IMO NOx Tier II family certificate, contact Volvo Penta for specific flag state requirements and individual certificates
- 2 EPA Tier 3 Marine Commercial compliance, contact Volvo Penta for detailed information
- 3 EPA Tier 3 Marine Leisure compliance, contact Volvo Penta for detailed information
- 4 EU IWW certificate available for propulsion (shaft or diesel electric), contact Volvo Penta for detailed information
- 5 CCNR Stage 2 certificate available, contact Volvo Penta for detailed information
- 6 Type approved. Important! Always contact Volvo Penta for detailed information
- 7 The engine is approved for life and rescue boats according to MED (SOLAS), contact Volvo Penta for detailed information
- 8 IMO NOx Tier III family certificate, contact Volvo Penta for specific flag state requirements and individual certificates

# DIESEL INBOARD ENGINES

## RATING 3 (Light Duty)

This power rating is intended for vessels with high demands on speed and acceleration, planing or semiplaning hulls in cyclical operation.

- Engine running hours per year typically, but not limited to, 2000-3000h.
- Full power could be utilized maximum 2 h per 12 h operation period. Between full load operation periods, engine speed should be reduced at least 10% from the obtained full load engine speed, and the load should be cycled between 20%-85%.

Typical boats could include but are not limited to: Fast patrol, rescue, police, light fishing, taxi boats, offshore supply, coastguard boats and high-speed passenger ferries etc.

(Check also page 2 for more info on ratings.)

RANGE MARINE ENGINES RATING 3					
Engine	kW*	hp*	rpm	Regulations	Page
D8-450	331	450	2700	1,2**,4,6	23
D11-510	375	510	2250	1,2,4,6	25
D13-700	515	700	2300	1,2,4,6,8	27

\* Crankshaft power

\*\* Will be EPA Tier 3 Marine Commercial compliant in 2019

Technical data according to ISO 3046, fuel temp. 40°C. All data present net performance with standard accessories under the conditions of 100kPa barometric pressure, 25°C ambient temperature and 30% relative humidity. All specifications are subject to change without notice.

#### Regulations:

- 1 IMO NOx Tier II family certificate, contact Volvo Penta for specific flag state requirements and individual certificates
- 2 EPA Tier 3 Marine Commercial compliance, contact Volvo Penta for detailed information
- 3 EPA Tier 3 Marine Leisure compliance, contact Volvo Penta for detailed information
- 4 EU IWW certificate available for propulsion (shaft or diesel electric), contact Volvo Penta for detailed information
- 5 CCNR Stage 2 certificate available, contact Volvo Penta for detailed information
- 6 Type approved. Important! Always contact Volvo Penta for detailed information
- 7 The engine is approved for life and rescue boats according to MED (SOLAS), contact Volvo Penta for detailed information
- 8 IMO NOx Tier III family certificate, contact Volvo Penta for specific flag state requirements and individual certificates

# DIESEL INBOARD ENGINES

## RATING 4 (Special Light Duty)

This power rating is intended for light planing vessels in commercial operation.

- Running hours per year typically, but not limited to, 800-1500h.
- Full power could be utilized maximum 1 h per 12 h operation period. Between full load operation periods, engine speed should be reduced at least 10% from the obtained full load engine speed, and the load should be cycled between 20%-85%.

Typical boats could include but are not limited to: High-speed patrol, navy, rescue, police, ambulance, offshore supply, coastguard boats, high-speed passenger ferries and special high speed fishing boats etc.

(Check also page 2 for more info on ratings.)

RANGE MARINE ENGINES RATING 4					
Engine	kW*	hp*	rpm	Regulations	Page
D4-175	129	175	2800	1,2,6,7	17
D4-230	169	230	3400	1,2,6,7	17
D4-270	199	270	3500	1,2,6,7	17
D6-300	221	300	3300	1,2,6,7	18
D6-340	250	340	3400	1,2,6,7	18
D6-380	280	380	3500	1,2,6,7	18
D8-510	374	509	2850	1,2**,4,6	23
D8-550	405	550	2900	1,2**,4,6	23
D11-625	460	626	2400	1,2,4,6	25
D13-800	588	800	2300	1,2,4,6,8	27

\* Crankshaft power

\*\* Will be EPA Tier 3 Marine Commercial compliant in 2019

Technical data according to ISO 3046, fuel temp. 40°C. All data present net performance with standard accessories under the conditions of 100kPa barometric pressure, 25°C ambient temperature and 30% relative humidity. All specifications are subject to change without notice.

### Regulations:

- 1 IMO NOx Tier II family certificate, contact Volvo Penta for specific flag state requirements and individual certificates
- 2 EPA Tier 3 Marine Commercial compliance, contact Volvo Penta for detailed information
- 3 EPA Tier 3 Marine Leisure compliance, contact Volvo Penta for detailed information
- 4 EU IWW certificate available for propulsion (shaft or diesel electric), contact Volvo Penta for detailed information
- 5 CCNR Stage 2 certificate available, contact Volvo Penta for detailed information
- 6 Type approved. Important! Always contact Volvo Penta for detailed information
- 7 The engine is approved for life and rescue boats according to MED (SOLAS), contact Volvo Penta for detailed information
- 8 IMO NOx Tier III family certificate, contact Volvo Penta for specific flag state requirements and individual certificates

# DIESEL INBOARD ENGINES

## RATING 5 (High Performance Duty)

This power rating is intended for vessels in pleasure craft applications, and can be used for high speed planing crafts and governmental or commercial applications with special limited warranty, see warranty handbook.

- Running hours per year typically, but not limited to, 50-500h.
- Full power could be utilized maximum 1 h per 12 h operation period. Between full load operation periods, engine speed should be reduced at least 10% from the obtained full load engine speed, and the load should be cycled between 20%-85%.

Typical boats could include but are not limited to: High-speed patrol, navy, rescue, police, ambulance boats, high speed fishing boats etc. Pleasure crafts incl. sailboats.

(Check also page 2 for more info on ratings.)

RANGE MARINE ENGINES RATING 5					
Engine	kW*	hp*	rpm	Regulations	Page
D3-110	81	110	3000	1,3,7	16
D3-150	110	150	3000	1,3,7	16
D3-170	125	170	4000	1,3,7	16
D3-200	147	200	4000	1,3,7	16
D3-220	162	220	4000	1,3,7	16
D4-300	221	300	3500	1,3,6,7	17
D4-320	235	320	3600	1,3,6,7	17
D6-440	324	440	3700	1,3,6,7	18
D6-480	353	480	3700	1,3,6,7	18
D6-440 WJ	324	440	3700	1,3,6,7	18
D6-480 WJ	353	480	3700	1,3,6,7	18
D8-600	441	600	3000	1,3	23
D11-670	493	670	2450	1,3	25
D11-725	553	725	2500	1,3	25
D13-800	588	800	2300	1,3	27
D13-900	662	900	2300	1,3	27
D13-1000	735	1000	2400	1,3	27

\* Crankshaft power

Technical data according to ISO 3046, fuel temp. 40°C. All data present net performance with standard accessories under the conditions of 100kPa barometric pressure, 25°C ambient temperature and 30% relative humidity. All specifications are subject to change without notice.

#### Regulations:

- 1 IMO NOx Tier II family certificate, contact Volvo Penta for specific flag state requirements and individual certificates
- 2 EPA Tier 3 Marine Commercial compliance, contact Volvo Penta for detailed information
- 3 EPA Tier 3 Marine Leisure compliance, contact Volvo Penta for detailed information
- 4 EU IWW certificate available for propulsion (shaft or diesel electric), contact Volvo Penta for detailed information
- 5 CCNR Stage 2 certificate available, contact Volvo Penta for detailed information
- 6 Type approved. Important! Always contact Volvo Penta for detailed information
- 7 The engine is approved for life and rescue boats according to MED (SOLAS), contact Volvo Penta for detailed information
- 8 IMO NOx Tier III family certificate, contact Volvo Penta for specific flag state requirements and individual certificates



## RATING 4 (Special Light Duty)

For rating definitions, please see page 7. (Check also page 2 for more info on ratings.)

RANGE DIESEL AQUAMATIC RATING 4					
Engine	Prop. shaft power kW/hp	Crankshaft power kW/hp	rpm	Regulations	Page
D4-150/DPI/DPH*	106/144	110/150	3400	1,2,6,7	32
D4-230/DPI/DPH*	162/221	169/230	3400	1,2,6,7	32
D4-270/DPI/DPH*	191/260	199/270	3500	1,2,6,7	32
D6-300/DPI/DPH*	212/289	221/300	3300	1,2,6,7	33
D6-340/DPI/DPH*	241/327	250/340	3400	1,2,6,7	33
D6-380/DPI/DPH*	269/366	280/380	3500	1,2,6,7	33

\* DPH for single installations only

## RATING 5 (High Performance Duty)

For rating definitions, please see page 8. (Check also page 2 for more info on ratings.)

RANGE DIESEL AQUAMATIC RATING 5					
Engine	Prop. shaft power kW/hp	Crankshaft power kW/hp	rpm	Regulations	Page
D3-140	98/133	103/140	4000	1,3,7	31
D3-170	119/162	125/170	4000	1,3,7	31
D3-200	140/190	147/200	4000	1,3,7	31
D3-220	154/209	162/220	4000	1,3,7	31
D4-300/DPI/DPH*	212/289	221/300	3500	1,3,6,7	32
D4-320/DPI	226/307	235/320	3600	1,3,6,7	32
D6-400/DPI/DPH*	282/384	294/400	3500	1,3,6,7	33
D6-440/DPI	311/422	324/440	3700	1,3,6,7	33

\* DPH for single installations only

Technical data according to ISO 3046, fuel temp. 40°C. All data present net performance with standard accessories under the conditions of 100kPa barometric pressure, 25°C ambient temperature and 30% relative humidity. All specifications are subject to change without notice.

### Regulations:

- 1 IMO NOx Tier II family certificate, contact Volvo Penta for specific flag state requirements and individual certificates
- 2 EPA Tier 3 Marine Commercial compliance, contact Volvo Penta for detailed information
- 3 EPA Tier 3 Marine Leisure compliance, contact Volvo Penta for detailed information
- 4 EU IWW certificate available for propulsion (shaft or diesel electric), contact Volvo Penta for detailed information
- 5 CCNR Stage 2 certificate available, contact Volvo Penta for detailed information
- 6 Type approved. Important! Always contact Volvo Penta for detailed information
- 7 The engine is approved for life and rescue boats according to MED (SOLAS), contact Volvo Penta for detailed information
- 8 IMO NOx Tier III family certificate, contact Volvo Penta for specific flag state requirements and individual certificates

# AUXILIARY ENGINES

## PRIME POWER 1500 RPM 50 HZ (Constant speed ratings)

Prime Power: ratings corresponding to ISO Standard Power for continuous operation. This relates to the supplying of electrical power at variable load with 70% load factor for an unlimited number of hours. A 10% overload capability is available with this rating.

(Check also page 2 for more info on ratings.)

Engine	HE		RC		KC		Regulations	Page
	kW*	hp*	kW*	hp*	kW*	hp*		
D5A T	77	105	73	99	77	105	6	20
D5A TA	92	125	-	-	92	125	5,6	20
D7A T	116	158	112	152	116	158	6	21
D7A TA	139	189	-	-	139	189	1,5,6	21
D8 MG**	239	325	-	-	239	325	1,2,5,6	24
D13 MG	300	408	289	393	300	408	1,2,5,6,8	26
D13 MG	360	490	341	464	360	490	1,2,5,6,8	26
D16 MG	479	651	461	627	479	651	1,6	28

\* Crankshaft power

\*\* Will be available in 2020

## Marine GenSet for Diesel Electric Propulsion

Application type: Vessels operating with marine gensets for power to electric propulsion systems. Engine can be run for an unlimited number of running hours at a load factor of < 80%. 10% overload capability is available for maximum of 1 hour per 12 hours operation for this rating. Ratings corresponding to ISO Standard Power for continuous operation.

Technical data according to ISO 3046, fuel temp. 40°C. All data present net performance with standard accessories under the conditions of 100kPa barometric pressure, 25°C ambient temperature and 30% relative humidity. All specifications are subject to change without notice.

### Regulations:

- 1 IMO NOx Tier II family certificate, contact Volvo Penta for specific flag state requirements and individual certificates
- 2 EPA Tier 3 Marine Commercial compliance, contact Volvo Penta for detailed information
- 3 EPA Tier 3 Marine Leisure compliance, contact Volvo Penta for detailed information
- 4 EU IWW certificate available for propulsion (shaft or diesel electric), contact Volvo Penta for detailed information
- 5 CENR Stage 2 certificate available, contact Volvo Penta for detailed information
- 6 Type approved. Important! Always contact Volvo Penta for detailed information
- 7 The engine is approved for life and rescue boats according to MED (SOLAS), contact Volvo Penta for detailed information
- 8 IMO NOx Tier III family certificate, contact Volvo Penta for specific flag state requirements and individual certificates

# AUXILIARY ENGINES

## PRIME POWER 1800 RPM 60 HZ (Constant speed ratings)

Prime Power: ratings corresponding to ISO Standard Power for continuous operation. This relates to the supplying of electrical power at variable load with 70% load factor for an unlimited number of hours. A 10% overload capability is available with this rating.

(Check also page 2 for more info on ratings.)

Engine	HE		RC		KC		Regulations	Page
	kW*	hp*	kW*	hp*	kW*	hp*		
D5A T	81	110	74	101	81	110	6	20
D5A TA	100	136	-	-	100	136	5,6	20
D7A T	122	166	115	156	122	166	6	21
D7A TA	148	201	-	-	148	201	1,5,6	21
D8 MG**	265	360	-	-	265	360	1,2,5,6	24
D13 MG	360	490	349	475	360	490	1,2,5,6,8	26
D13 MG	400	544	381	518	400	544	1,2,5,6,8	26
D16 MG	532	723	500	680	532	723	1,6	28

\* Crankshaft power

\*\* Will be available in 2020

## Marine Genset for Diesel Electric Propulsion

Application type: Vessels operating with Marine Gensets for power to electric propulsion systems. Engine can be run for an unlimited number of running hours at a load factor of < 80%. 10% overload capability is available for maximum of 1 hour per 12 hours operation for this rating. Ratings corresponding to ISO Standard Power for continuous operation.

Technical data according to ISO 3046, fuel temp. 40°C. All data present net performance with standard accessories under the conditions of 100kPa barometric pressure, 25°C ambient temperature and 30% relative humidity. All specifications are subject to change without notice.

### Regulations:

- 1 IMO NOx Tier II family certificate, contact Volvo Penta for specific flag state requirements and individual certificates
- 2 EPA Tier 3 Marine Commercial compliance, contact Volvo Penta for detailed information
- 3 EPA Tier 3 Marine Leisure compliance, contact Volvo Penta for detailed information
- 4 EU IWW certificate available for propulsion (shaft or diesel electric), contact Volvo Penta for detailed information
- 5 CENR Stage 2 certificate available, contact Volvo Penta for detailed information
- 6 Type approved. Important! Always contact Volvo Penta for detailed information
- 7 The engine is approved for life and rescue boats according to MED (SOLAS), contact Volvo Penta for detailed information
- 8 IMO NOx Tier III family certificate, contact Volvo Penta for specific flag state requirements and individual certificates

# MARINE GENSETS

## PRIME POWER 1500 RPM 50 HZ (Constant speed ratings)

Prime Power: ratings corresponding to ISO Standard Power for continuous operation. This relates to the supplying of electrical power at variable load with 70% load factor for an unlimited number of hours. A 10% overload capability is available with this rating.

(Check also page 2 for more info on ratings.)

	HE	RC	KC		
Genset	kWe*	kWe*	kWe*	Regulations	Page
D5A T	62–70	62	62–70	6	41
D5A TA	86	–	86	5,6	42
D7A T	90–108	70-104	90–108	6	43
D7A TA	119–130	–	119–130	1,5,6	44
D8 MG**	136-225	–	136-225	1,2,5,6	45
D13 MG	248–332	248–332	248–332	1,2,4,5,6,8	46
D16 MG	332–450	332–432	332–450	1,6	47

\* Power output based on temperature rise class F and 400V for 50Hz series star connection

\*\* Will be available in 2020

## Marine GenSet for Diesel Electric Propulsion

Application type: Vessels operating with marine gensets for power to electric propulsion systems. Engine can be run for an unlimited number of running hours at a load factor of < 80%. 10% overload capability is available for maximum of 1 hour per 12 hours operation for this rating. Ratings corresponding to ISO Standard Power for continuous operation.

Technical data according to ISO 3046, fuel temp. 40°C. All data present net performance with standard accessories under the conditions of 100kPa barometric pressure, 25°C ambient temperature and 30% relative humidity. All specifications are subject to change without notice.

### Regulations:

- 1 IMO NOx Tier II family certificate, contact Volvo Penta for specific flag state requirements and individual certificates
- 2 EPA Tier 3 Marine Commercial compliance, contact Volvo Penta for detailed information
- 3 EPA Tier 3 Marine Leisure compliance, contact Volvo Penta for detailed information
- 4 EU IWW certificate available for propulsion (shaft or diesel electric), contact Volvo Penta for detailed information
- 5 CCNR Stage 2 certificate available, contact Volvo Penta for detailed information
- 6 Type approved. Important! Always contact Volvo Penta for detailed information
- 7 The engine is approved for life and rescue boats according to MED (SOLAS), contact Volvo Penta for detailed information
- 8 IMO NOx Tier III family certificate, contact Volvo Penta for specific flag state requirements and individual certificates

## PRIME POWER 1800 RPM 60 HZ (Constant speed ratings)

Prime Power: ratings corresponding to ISO Standard Power for continuous operation. This relates to the supplying of electrical power at variable load with 70% load factor for an unlimited number of hours. A 10% overload capability is available with this rating.

(Check also page 2 for more info on ratings.)

	HE	RC	KC		
Genset	kWe*	kWe*	kWe*	Regulations	Page
D5A T	74	68	74	6	41
D5A TA	88-93	-	88-93	5,6	42
D7A T	105-114	88-107	105-114	6	43
D7A TA	125-139	-	125-139	1,5,6	44
D8 MG**	149-250	-	149-250	1,2,5,6	45
D13 MG	300-380	300-360	300-380	1,2,4,5,6,8	46
D16 MG	390-500	390-471	390-500	1,6	47

\* Power output based on temperature rise class F and 400V for 60Hz series star connection

\*\* Will be available in 2020

## Marine Genset for Diesel Electric Propulsion

Application type: Vessels operating with Marine Gensets for power to electric propulsion systems. Engine can be run for an unlimited number of running hours at a load factor of < 80%. 10% overload capability is available for maximum of 1 hour per 12 hours operation for this rating. Ratings corresponding to ISO Standard Power for continuous operation.

Technical data according to ISO 3046, fuel temp. 40°C. All data present net performance with standard accessories under the conditions of 100kPa barometric pressure, 25°C ambient temperature and 30% relative humidity. All specifications are subject to change without notice.

### Regulations:

- 1 IMO NOx Tier II family certificate, contact Volvo Penta for specific flag state requirements and individual certificates
- 2 EPA Tier 3 Marine Commercial compliance, contact Volvo Penta for detailed information
- 3 EPA Tier 3 Marine Leisure compliance, contact Volvo Penta for detailed information
- 4 EU IWW certificate available for propulsion (shaft or diesel electric), contact Volvo Penta for detailed information
- 5 CCNR Stage 2 certificate available, contact Volvo Penta for detailed information
- 6 Type approved. Important! Always contact Volvo Penta for detailed information
- 7 The engine is approved for life and rescue boats according to MED (SOLAS), contact Volvo Penta for detailed information
- 8 IMO NOx Tier III family certificate, contact Volvo Penta for specific flag state requirements and individual certificates

# VOLVO PENTA IPS

## RATING 3 (Light Duty)

For rating definitions, please see page 6. (Check also page 2 for more info on ratings.)

RANGE INBOARD PERFORMANCE SYSTEM					
Complete Propulsion System	Prop. shaft power kW/hp	Crankshaft power kW/hp	rpm	Regulations	Page
D8-IPS 600	315/437	331/450	2700	1,2,4,6	37
D11-IPS 650	354/482	375/510	2250	1,2,4,6	37
D13-IPS 900	485/660	515/701	2250	1,2,4,6,8	37

## RATING 4 (Special Light Duty)

For rating definitions, please see page 7. (Check also page 2 for more info on ratings.)

RANGE INBOARD PERFORMANCE SYSTEM					
Complete Propulsion System	Prop. shaft power kW/hp	Crankshaft power kW/hp	rpm	Regulations	Page
D6-IPS400	212/288	221/300	3300	1,2,6,7	37
D6-IPS450	240/326	250/340	3400	1,2,6,7	37
D6-IPS500	265/365	280/380	3500	1,2,6,7	37
D8-IPS 650	355/483	374/509	2850	1,2,4,6	37
D8-IPS 700	384/523	405/550	2900	1,2*,4,6	37
D11-IPS 800	435/591	459/625	2300	1,2,4,6	37
D13-IPS 1050	554/753	588/800	2300	1,2,4,6,8	37

\* Will be EPA Tier 3 Marine Commercial compliant in 2019

## RATING 5 (High Performance Duty)

For rating definitions, please see page 8. (Check also page 2 for more info on ratings.)

RANGE INBOARD PERFORMANCE SYSTEM					
Complete Propulsion System	Prop. shaft power kW/hp	Crankshaft power kW/hp	rpm	Regulations	Page
D6-IPS600	311/422	324/440	3700	1,3,6,7	37
D6-IPS650	339/461	353/480	3700	1,3,6,7	37
D8-IPS 650	356/484	375/510	2850	1,2,4,6	37
D8-IPS 700	384/523	404/550	2900	1,2*,4,6	37
D11-IPS 800	435/591	459/625	2300	1,2,4,6	37
D13-IPS 1050	554/753	588/800	2300	1,2,4,6,8	37

Technical data according to ISO 3046, fuel temp. 40°C. All data present net performance with standard accessories under the conditions of 100kPa barometric pressure, 25°C ambient temperature and 30% relative humidity. All specifications are subject to change without notice.

### Regulations:

- 1 IMO NOx Tier II family certificate, contact Volvo Penta for specific flag state requirements and individual certificates
- 2 EPA Tier 3 Marine Commercial compliance, contact Volvo Penta for detailed information
- 3 EPA Tier 3 Marine Leisure compliance, contact Volvo Penta for detailed information
- 4 EU IWW certificate available for propulsion (shaft or diesel electric), contact Volvo Penta for detailed information
- 5 OCNR Stage 2 certificate available, contact Volvo Penta for detailed information
- 6 Type approved. Important! Always contact Volvo Penta for detailed information
- 7 The engine is approved for life and rescue boats according to MED (SOLAS), contact Volvo Penta for detailed information
- 8 IMO NOx Tier III family certificate, contact Volvo Penta for specific flag state requirements and individual certificates



# DIESEL INBOARD & AUXILIARY ENGINES

## Power for displacement craft

The heavy-duty range has been developed for extreme reliability. These marine diesels are designed to keep running, year in and year out.

The basic design features robust engine blocks manufactured from high-strength castings, large bearing surfaces and powerful crankshafts with all components engineered to withstand the toughest conditions.

Low fuel consumption is high priority, as are low maintenance costs, exhaust and noise emissions and simple service – properties that are vitally important for the crew as well as the environment.

## Power for planing craft

Volvo Penta diesel technology delivers performance without sacrificing reliability. Whether electronically controlled or mechanically governed, all marine diesels in the range provide the necessary performance for applications requiring fast acceleration and high top speed.

The Volvo Penta range today offers combinations of high power, low weight, low fuel consumption and emissions that were inconceivable only a few years ago.

## Auxiliary engines

Diesel inboard rating 1, rating 2 and marine genset engines can be used also for various auxiliary applications.



# D3 MARINE ENGINE

5-cylinder, 4-stroke, direct-injected turbo-charged, and aftercooled marine diesel engine.

Bore x Stroke (mm): 81 x 93

Displacement (l): 2.4



## PROPULSION ENGINE

Engine	Rating	kW	hp	rpm	g/kWh*	lb/hph*
D3-110	5	81	110	3000	219	0.355
D3-150	5	110	150	3000	221	0.358
D3-170	5	125	170	4000	241	0.39
D3-200	5	147	200	4000	235	0.381
D3-220	5	162	220	4000	239	0.387

## DIMENSIONS AND WEIGHTS\*\*

Engine	L (mm)	W (mm)	H (mm)	kg	lb
D3-110	702	718	750	260	573
D3-150	702	718	750	260	573
D3-170	702	718	750	260	573
D3-200	702	718	750	260	573
D3-220	702	718	750	260	573

\* Fuel consumption at rated power and speed.

\*\* Dimensions and weights based on bobtail engines.



# D4 MARINE ENGINE



4-cylinder, 4-stroke, direct-injected turbo-charged, and aftercooled marine diesel engine.

Bore x Stroke (mm): 103 x 110

Displacement (l): 3.67

## PROPULSION ENGINE

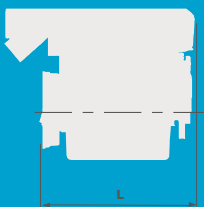
Engine	Rating	kW	hp	rpm	g/kWh*	lb/hph*
D4-175	4	129	175	2800	217	0.352
D4-230	4	169	230	3400	227	0.368
D4-270	4	199	270	3500	220	0.356
D4-300	5	221	300	3500	219	0.355
D4-320	5	235	320	3600	223	0.361

## DIMENSIONS AND WEIGHTS\*\*

Engine	L (mm)	W (mm)	H (mm)	kg	lb
D4-175	801	851	780	510	1124
D4-230	801	851	780	510	1124
D4-270	801	851	780	525	1157
D4-300	801	851	780	525	1157
D4-320	801	851	780	525	1157

\* Fuel consumption at rated power and speed.

\*\* Dimensions and weights based on bobtail engines.



# D6 MARINE ENGINE

6-cylinder, 4-stroke, direct-injected turbo-charged, and aftercooled marine diesel engine.

Bore x Stroke (mm): 103 x 110

Displacement (l): 5.5



## PROPULSION ENGINE

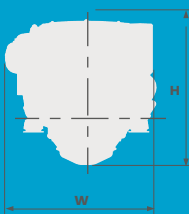
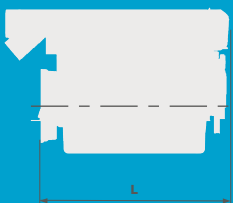
Engine	Rating	kW	hp	rpm	g/kWh*	lb/hph*
D6-300	4	221	300	3300	226	0.366
D6-340	4	250	340	3400	228	0.369
D6-380	4	280	380	3500	230	0.373
D6-440	5	324	440	3700	222	0.36
D6-480	5	353	480	3700	223	0.361
D6-440 WJ	5	324	440	3700	222	0.36
D6-480 WJ	5	353	480	3700	223	0.361

## DIMENSIONS AND WEIGHTS\*\*

Engine	L (mm)	W (mm)	H (mm)	kg	lb
D6-300	1035	851	780	610	1345
D6-340	1035	851	780	610	1345
D6-380	1035	851	780	610	1345
D6-440	1035	851	795	645	1422
D6-480	1035	851	795	645	1422
D6-440 WJ	1035	851	795	625	1378
D6-480 WJ	1035	851	795	625	1378

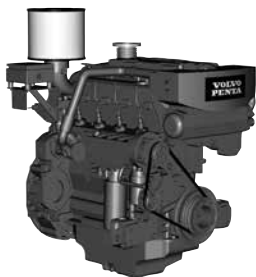
\* Fuel consumption at rated power and speed.

\*\* Dimensions and weights based on bobtail engines.



Not for installation.

# D5A T/TA MARINE ENGINE



4-cylinder, 4-stroke, direct-injected, turbo-charged, and aftercooled (TA version) marine diesel engine.

Bore x Stroke (mm): 108 x 130

Displacement (l): 4.76

## PROPULSION ENGINE

Engine	Rating	kW	hp	rpm	g/kWh*	lb/hph*
D5A TA	1	89	121	1900	207	0.335
D5A TA	1	102	139	2300	227	0.368
D5A TA	2	118	160	2300	227	0.368

## AUXILIARY ENGINE

Engine	Rating	kW	hp	rpm	g/kWh*	lb/hph*
D5A T (HE)	1	77	105	1500	222	0.360
D5A T (RC)	1	73	99	1500	222	0.360
D5A T (KC)	1	77	105	1500	222	0.360
D5A T (HE)	1	81	110	1800	222	0.360
D5A T (RC)	1	74	100	1800	222	0.360
D5A T (KC)	1	81	110	1800	222	0.360
D5A TA (HE)	1	92	125	1500	208	0,336
D5A TA (KC)	1	92	125	1500	208	0,336
D5A TA (HE)	1	100	136	1800	206	0.334
D5A TA (KC)	1	100	136	1800	206	0.334

## DIMENSIONS AND WEIGHTS\*\*

Engine	L (mm)	W (mm)	H (mm)	kg	lb
D5A T	1018	813	959	580	1279
D5A TA	1018	813	959	580	1279

\* Fuel consumption at rated power and speed.

\*\* Dimensions and weights based on bobtail heat-exchanger cooled engines.

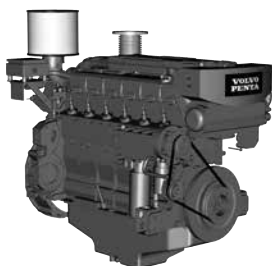


# D7A T/TA MARINE ENGINE

6-cylinder, 4-stroke, direct-injected, turbo-charged, and aftercooled (TA version) marine diesel engine.

Bore x Stroke (mm): 108 x 130

Displacement (l): 7.15



## PROPULSION ENGINE

Engine	Rating	kW	hp	rpm	g/kWh*	lb/hph*
D7A TA	1	130	177	1900	205	0.332
D7A TA	1	148	201	2300	216	0.350
D7A TA	2	174	237	2300	216	0.350

## AUXILIARY ENGINE

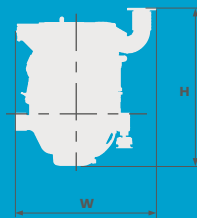
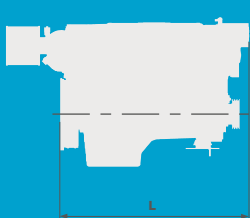
Engine	Rating	kW	hp	rpm	g/kWh*	lb/hph*
D7A T (HE)	1	116	158	1500	219	0.355
D7A T (RC)	1	112	152	1500	215	0.348
D7A T (KC)	1	116	158	1500	219	0.355
D7A T (HE)	1	122	166	1800	215	0.348
D7A T (RC)	1	115	156	1800	215	0.348
D7A T (KC)	1	122	166	1800	215	0.348
D7A TA (HE)	1	139	189	1500	207	0.335
D7A TA (KC)	1	139	189	1500	207	0.335
D7A TA (HE)	1	148	201	1800	206	0.334
D7A TA (KC)	1	148	201	1800	206	0.334

## DIMENSIONS AND WEIGHTS\*\*

Engine	L (mm)	W (mm)	H (mm)	kg	lb
D7A T	1280	948	1060	760	1676
D7A TA	1280	948	1060	760	1676

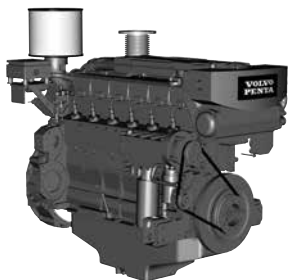
\* Fuel consumption at rated power and speed.

\*\* Dimensions and weights based on bobtail heat-exchanger cooled engines.



Not for installation.

# D7C TA MARINE ENGINE



6-cylinder, 4-stroke, direct-injected, turbo-charged, and aftercooled marine diesel engine.

Bore x Stroke (mm): 108 x 130

Displacement (l): 7.15

## PROPULSION ENGINE

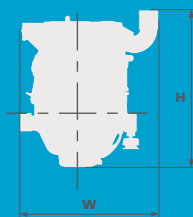
Engine	Rating	kW	hp	rpm	g/kWh*	lb/hph*
D7C TA	1	146	199	1900	204	0.330
D7C TA	1	166	226	2300	213	0.345
D7C TA	2	195	265	2300	216	0.350

## DIMENSIONS AND WEIGHTS\*\*

Engine	L (mm)	W (mm)	H (mm)	kg	lb
D7C TA	1282	929	1070	760	1676

\* Fuel consumption at rated power and speed.

\*\* Dimensions and weights based on bobtail heat-exchanger cooled engines.



# D8 MARINE ENGINE

6-cylinder, 4 stroke, direct-injected, common rail, turbo-charged, and aftercooled marine diesel engine.

Bore x Stroke (mm): 110 x 135

Displacement (l): 7.7



## PROPULSION ENGINE

Engine	Rating	kW	hp	rpm	g/kWh*	lb/hph*
D8-450	3	331	450	2700	216	0.355
D8-510	4	374	509	2850	225	0.370
D8-550	4	405	550	2900	224	0.363
D8-600	5	441	600	3000	226	0.366
D8 MH*****	1	154	210	1800-2300***		
D8 MH*****	1	169	230	1800-2300***		
D8 MH*****	1	195	265	1800-2300***		
D8 MH*****	1	221	300	1800-2300***		
D8 MH*****	1	261	355	1800-2300***		
D8 MH*****	2	296	405	2100-2400****		
D8 MH*****	2	313	425	2100-2400****	214	0.351

## DIMENSIONS AND WEIGHTS\*\*

Engine	L (mm)	W (mm)	H (mm)	kg	lb
D8	1263	987	1006	840	1840
D8 MH*****	1263	1052	1014	850	1874

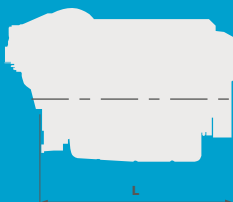
\* Fuel consumption at rated power and speed (100% load).

\*\* Dimensions and weights based on bobtail heat-exchanger cooled engines.

\*\*\* Propeller selection speed 1800-2300

\*\*\*\* Propeller selection speed 2100-2400

\*\*\*\*\* Will be available in 2020



Not for installation.



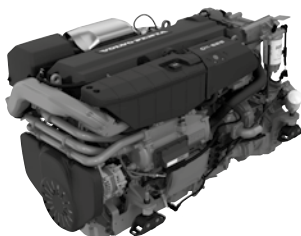


# D11 MARINE ENGINE

6-cylinder, 4 stroke, direct-injected, turbo-charged, and aftercooled marine diesel engine.

Bore x Stroke (mm): 123 x 152

Displacement (l): 10.84



## PROPULSION ENGINE

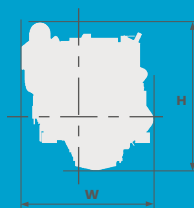
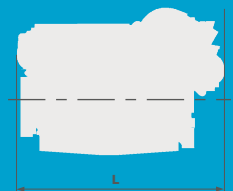
Engine	Rating	kW	hp	rpm	g/kWh*	lb/hph*
D11-510	3	375	510	2250	213	0.345
D11-625	4	460	626	2400	219	0.355
D11-670	5	493	675	2450	219	0.35
D11-725	5	533	725	2500	222	0.36

## DIMENSIONS AND WEIGHTS\*\*

Engine	L (mm)	W (mm)	H (mm)	kg	lb
D11	1309	977	1096	1145	2524

\* Fuel consumption at rated power and speed (100% load).

\*\* Dimensions and weights based on bobtail heat-exchanger cooled engines.



# D13 AUXILIARY



6-cylinder, 4-stroke, direct-injected, turbo-charged, and aftercooled marine diesel engine.

Bore x Stroke (mm): 131 x 158

Displacement (l): 12.78

## AUXILIARY ENGINE

Engine	Rating	kW	hp	rpm	g/kWh*	lb/hph*
D13 MG (HE)	1	300	408	1500	194/203	0.314/0.329
D13 MG (HE)	1	360	490	1500	191/202	0.309/0.327
D13 MG (RC)	1	289	393	1500	194/203	0.314/0.327
D13 MG (RC)	1	349	464	1500	191/196	0.309/0.317
D13 MG (KC)	1	300	408	1500	194/203	0.314/0.329
D13 MG (KC)	1	360	490	1500	191/202	0.309/0.327
D13 MG (HE)	1	360	490	1800	200/216	0.345/0.349
D13 MG (HE)	1	400	544	1800	199/209	0.322/0.339
D13 MG (RC)	1	341	345	1800	200/216	0.325/0.349
D13 MG (RC)	1	381	518	1800	199/206	0.322/0.334
D13 MG (KC)	1	360	490	1800	200/216	0.325/0.349
D13 MG (KC)	1	400	544	1800	199/209	0.322/0.339

## DIMENSIONS AND WEIGHTS\*\*

Engine	L (mm)	W (mm)	H (mm)	kg	lb
D13 MG	1728	1072	1501	1520	3351

\* Fuel consumption at rated power and speed (IMO II / EPA Tier 3).

\*\* Based on bobtail heat exchanger cooled engines.



# D13 PROPULSION

6-cylinder, 4-stroke, direct-injected, twin-entry, and turbo-charged marine diesel engine.

Bore x Stroke (mm): 131 x 158

Displacement (l): 12.78



## PROPULSION ENGINE

Engine	Rating	kW	hp	rpm	g/kWh*	lb/hph*
D13 MH	1	214	291	1800	207	0.336
D13 MH	1	294	400	1800	200/208	0.323/0.336
D13 MH	1	331	450	1800	200/211	0.323/0.342
D13 MH	1	368	500	1800	199/212	0.322/0.343
D13 MH	2	404	550	1900	204/213	0.331/0.345
D13 MH	2	441	600	1900	205/213	0.322/0.344
D13-700	3	515	700	2300	216	0.351
D13-800 ***	4	588	800	2300	209	0.338
D13-800 ***	5	588	800	2300	216	0.349
D13-900 ***	5	662	900	2300	208	0.338
D13-1000	5	735	1000	2400	209	0.339

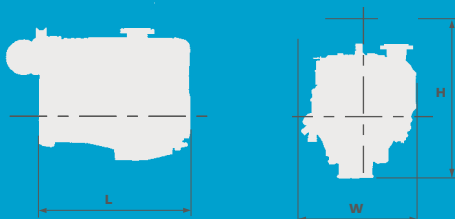
## DIMENSIONS AND WEIGHTS\*\*

Engine	L (mm)	W (mm)	H (mm)	kg	lb
D13 MH	1728	1072	1501	1520	3351
D13-700	1420	1062	1053	1450	3197
D13-800 ***	1420	1062	1053	1450	3197
D13-800 ***	1420	1089	1220	1560	3439
D13-900 ***	1420	1089	1220	1560	3439
D13-1000	1420	1089	1220	1635	3604

\* Fuel consumption at rated power and speed (IMO II/ EPA Tier 3).

\*\* Based on bobtail heat-exchanger cooled engines.

\*\*\* D13-800 rating 4 and D13-900 rating 5 has DST (Dual Stage Turbo).



# D16 MARINE ENGINE



6-cylinder, 4-stroke, direct-injected, turbo-charged, and aftercooled marine diesel engine.

Bore x Stroke (mm): 144 x 165

Displacement (l): 16.12

## PROPULSION ENGINE

Engine	Rating	kW	hp	rpm	g/kWh*	lb/hph*
D16 MH	1	368	500	1800	209	0.338
D16 MH	1	405	550	1800	209	0.338
D16 MH	1	441	600	1800	209	0.338
D16 MH	1	478	650	1800	210	0.341
D16 MH	2	551	750	1900	215	0.348

## AUXILIARY ENGINE

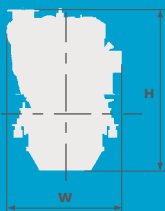
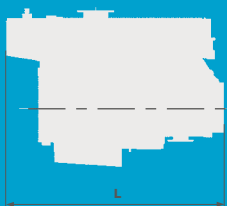
Engine	Rating	kW	hp	rpm	g/kWh*	lb/hph*
D16 MG (HE)	1	450	612	1500	206	0.334
D16 MG (HE)	1	479	651	1500	200	0.324
D16 MG (RC)	1	433	589	1500	206	0.334
D16 MG (RC)	1	461	627	1500	200	0.324
D16 MG (KC)	1	450	612	1500	206	0.334
D16 MG (KC)	1	479	651	1500	200	0.324
D16 MG (HE)	1	500	680	1800	213	0.345
D16 MG (HE)	1	532	723	1800	206	0.334
D16 MG (RC)	1	470	639	1800	213	0.345
D16 MG (RC)	1	500	677	1800	206	0.334
D16 MG (KC)	1	500	680	1800	213	0.345
D16 MG (KC)	1	532	723	1800	206	0.334

## DIMENSIONS AND WEIGHTS\*\*

Engine	L (mm)	W (mm)	H (mm)	kg	lb
D16 MH	1548	1117	1303	1750	3858

\* Fuel consumption at rated power and speed.

\*\* Dimensions and weights based on bobtail heat-exchanger cooled engines.





# DIESEL AQUAMATIC DRIVES

## The Duoprop drive

Duoprop is Volvo Penta's revolutionary sterndrive that introduced a new era in marine propulsion. By placing two counter-rotating propellers on a single axis system, the Duoprop technology, in combination with the D3, D4 or D6 engines, provides superior handling by eliminating the torque steer common to all single-prop systems. The counter-rotating aft prop reverses the swirl loss generated by the front propeller and converts it to additional thrust. All of which helps deliver up to 15% more power, 20% better acceleration, and 15% better fuel efficiency over single-propeller sterndrives. Duoprop also minimises cavitation, improves handling at slow speeds, and reduces steering force, hull roll and vibration.

## DPI Duoprop

Exclusively developed to handle the tremendous torque and power of the D4 and D6 diesel engines. Features silent shift and slipping functionality at low speeds for precise and smooth manoeuvring. Stainless steel propellers designed for optimal interaction between front and rear propellers, for outstanding efficiency and smooth and comfortable operation.

## DPH Duoprop

Available for single installations with hydraulic steering. Equipped with nickel-bronze-aluminium propellers.

## DPS Duoprop

Provides amazing driving feel and safety for the D3 engines. With hydrodynamically improved design for higher speed and better performance, lower weight and reduced maintenance need.

## SX single prop

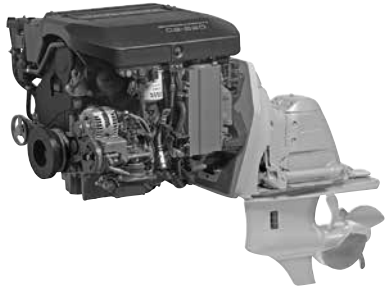
Perfect reliability and performance with all the Volvo Penta Aquamatic benefits. Hydrodynamically improved design for better speed and performance, lower weight and reduced maintenance. For the D3 engines.

# D3 AQUAMATIC

5-cylinder, 4-stroke, common rail, fuel injected, turbo-charged, and aftercooled marine diesel engine.

Bore x Stroke (mm): 81 x 93

Displacement: (l): 2.4



## PROPULSION

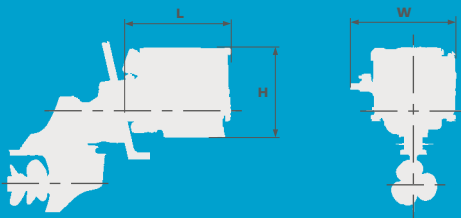
Engine	Rating	Prop. shaft power kW/hp	Crankshaft power kW/hp	rpm	g/kWh*	lb/hph*
D3-140 SX	5	98/133	103/140	4000	238	0.386
D3-140 DPS	5	98/133	103/140	4000	238	0.386
D3-170 SX	5	119/162	125/170	4000	241	0.39
D3-170 DPS	5	119/162	125/170	4000	241	0.39
D3-200 DPS	5	140/190	147/200	4000	235	0.381
D3-220 DPS	5	154/209	162/220	4000	239	0.387

## DIMENSIONS AND WEIGHTS

Engine	L (mm)	W (mm)	H (mm)	kg	lb
D3-140 SX	853	710	750	358	789
D3-140 DPS	853	710	750	363	800
D3-170 SX	853	710	750	358	789
D3-170 DPS	853	710	750	363	800
D3-200 DPS	853	710	750	363	800
D3-220 DPS	853	710	750	363	800

\* Fuel consumption measured at rated power and speed.

\*\* Dry weight including drive excluding propeller.



# D4 AQUAMATIC



4-cylinder, 4-stroke, direct-injected, and aftercooled marine diesel engine.

Bore x Stroke (mm): 103 x 110

Displacement (l): 3.7

## PROPULSION

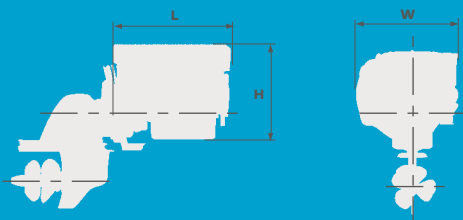
Engine	Rating	Prop. shaft power kW/hp	Crankshaft power kW/hp	rpm	g/kWh*	lb/hph*
D4-150/DPI/DPH	4	106/144	110/150	3400	235	0.381
D4-230/DPI/DPH	4	162/221	169/230	3400	227	0.368
D4-270/DPI/DPH	4	191/259	199/270	3500	220	0.356
D4-300/DPI/DPH	5	212/288	221/300	3500	219	0.355
D4-320/DPI	5	226/307	235/320	3600	223	0.361

## DIMENSIONS AND WEIGHTS

Engine	L (mm)	W (mm)	H (mm)	kg	lb
D4-150/DPI	1129	851	780	655	1444
D4-150/DPH	1129	851	780	645	1422
D4-230/DPI	1129	851	780	655	1444
D4-230/DPH	1129	851	780	645	1422
D4-270/DPI	1129	851	780	670	1477
D4-270/DPH	1129	851	780	660	1455
D4-300/DPI	1129	851	780	670	1477
D4-300/DPH	1129	851	780	660	1455
D4-320/DPI	1129	851	780	670	1477

\* Fuel consumption measured at rated power and speed.

\*\* Dry weight including drive and propeller.





# D6 AQUAMATIC

6-cylinder, 4-stroke, direct-injected, and aftercooled marine diesel engine.

Bore x Stroke (mm): 103 x 110

Displacement (l): 5.5



## PROPULSION

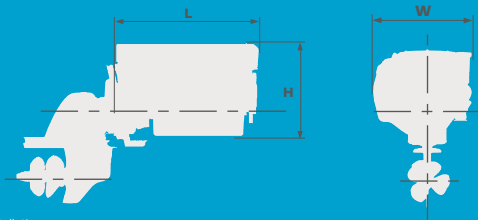
Engine	Rating	Prop. shaft power kW/hp	Crankshaft power kW/hp	rpm	g/kWh*	lb/hph*
D6-300/DPI/DPH	4	212/288	221/300	3300	226	0.366
D6-340/DPI/DPH	4	240/326	250/340	3400	228	0.369
D6-380/DPI/DPH	4	269/366	280/380	3500	230	0.373
D6-400/DPI/DPH	5	282/384	294/400	3500	218	0.353
D6-440/DPI	5	311/422	324/440	3700	222	0.36

## DIMENSIONS AND WEIGHTS

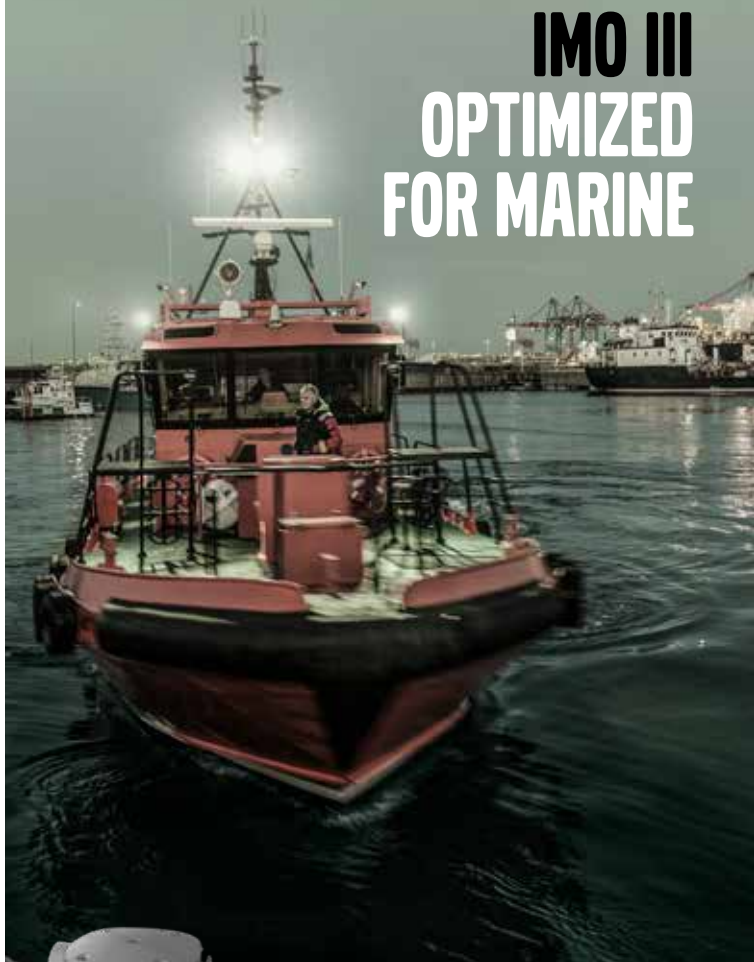
Engine	L (mm)	W (mm)	H (mm)	kg	lb
D6-300/DPI	1365	851	780	755	1664
D6-300/DPH	1365	851	780	745	1642
D6-340/DPI	1365	851	780	755	1664
D6-340/DPH	1365	851	780	745	1642
D6-380/DPI	1365	851	780	770	1698
D6-380/DPH	1365	851	780	760	1676
D6-400/DPI	1365	851	795	790	1742
D6-400/DPH	1365	851	795	780	1720
D6-440/DPI	1365	851	795	790	1742

\* Fuel consumption measured at rated power and speed.

\*\* Dry weight including drive and propeller.



# VOLVO PENTA IMO III OPTIMIZED FOR MARINE



**Proven SCR technology**  
ensures high engine power  
output while offering  
efficient NOx reduction.

The Volvo Penta IMO Tier III solution is robust and designed for tough marine conditions. Based on SCR exhaust aftertreatment technology, our solution is available for IPS, inboard, genset and auxiliary applications. It is designed for flexibility, ease of installation and space-efficient configuration.

See more at [www.volvopenta.com](http://www.volvopenta.com)

# VOLVO PENTA IPS

A revolutionary marine propulsion system. Volvo Penta IPS – Inboard Performance System – offers dramatically increased efficiency compared with inboard shafts. The patented, counter-rotating propellers work in undisturbed water and produce a completely horizontal thrust which results in 15% faster acceleration and 20% higher top speed. And thanks to the significantly reduced fuel consumption, cruising range is also greatly improved (30%).

## Joystick manoeuvring

The new optional joystick makes docking and slow-speed manoeuvring easier than ever before. Simply move the joystick in the direction you want the boat to move, and the boat reacts to your intentions. All without the help of bow and stern thrusters!

The secret behind the amazing moves is the Volvo Penta IPS system with its individually steerable drive units. All controlled by sophisticated and specially developed software in the EVC system. The joystick is available for all Volvo Penta IPS-powered boats, also as retrofit.

## Easy manoeuvring, powerful handling

Steerable propulsion units, instead of fixed propellers and rudders, means that Volvo Penta IPS turns and points the entire thrust in the desired direction. The result is 50% better turning radius and car-like manoeuvring for easy docking, as well as predictable handling at higher speeds.

## Enhanced comfort

Volvo Penta IPS retains the traditional inboard benefits – such as propellers under the hull plus extensive use of bronze and stainless steel – while reducing vibrations, sound and exhaust fumes to a minimum.

## Complete and integrated system

The Volvo Penta IPS has been developed and is manufactured as a complete system with everything included – engine, propulsion unit including gear box, propellers, exhaust and seawater system, steering, and controls. The system is always used in at least twin-engine installation configurations.



The buttons on the joystick put a unique combination of functions within your easy reach. Dynamic Positioning, Joystick Driving, Joystick Docking and High Mode offer easier handling, increased safety, and reliable operation.



#### JOYSTICK DRIVING

A whole new way to manoeuvre with precision at all speeds. You steer

comfortably with the joystick. The integrated autopilot supports by automatically engaging after every course change.



#### JOYSTICK DOCKING

Makes docking easy, even in tough conditions. Forget complicated manoeuvres in

close quarters. Just move the joystick in any direction and your boat will follow. You can install up to six Joystick Docking stations on your boat.



**HIGH MODE** When you need extra power from the system, just press the High Mode button.



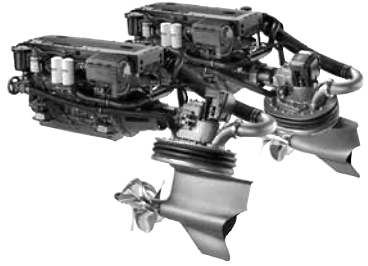
#### DYNAMIC POSITIONING SYSTEM

Press the button and your boat's position and heading are held within a very

limited area – the EVC system transforms GPS data into steering angles, gear shifts and throttle positions.



# VOLVO PENTA IPS



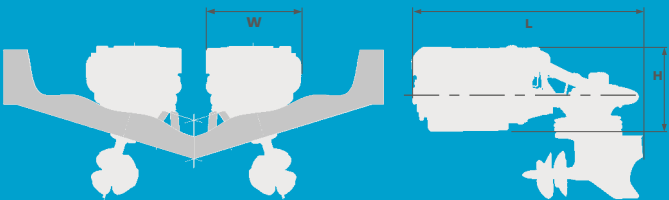
## PROPULSION SYSTEM

Engine	Rating	Prop. shaft power kW/hp	Crankshaft power kW/hp	rpm
D6-IPS400	4	221/300	212/288	3300
D6-IPS450	4	250/340	240/326	3400
D6-IPS500	4	280/380	265/365	3500
D6-IPS600	5	311/422	324/440	3700
D6-IPS650	5	339/461	353/480	3700
D8-IPS 600	3	315/428	331/450	2650
D8-IPS 650	4	356/484	375/510	2850
D8-IPS 700	4	384/523	404/550	2900
D8-IPS 800	5	419/570	441/600	3000
D11-IPS 650	3	354/482	375/510	2250
D11-IPS 800	4	435/591	459/625	2400
D11-IPS 950	5	504/685	533/725	2500
D13-IPS 900	3	485/660	515/701	2250
D13-IPS 1050	4	554/753	588/800	2300
D13-IPS 1200	5	624/848	662/900	2300
D13-IPS 1350	5	693/942	735/1000	2400

## DIMENSIONS AND WEIGHTS

Engine	L (mm)	W (mm)	H (mm)	kg*	lb*
D6-IPS400	2202	851	780	885	1951
D6-IPS450	2202	851	780	885	1951
D6-IPS500	2202	851	780	900	1984
D6-IPS600	2202	851	780	920	2028
D6-IPS650	2202	851	780	920	2028
D8-IPS 600	2710	987	929	1418	3126
D8-IPS 650	2710	987	929	1418	3126
D8-IPS 700	2710	987	929	1418	3126
D8-IPS 800	2710	987	929	1418	3126
D11-IPS 650	3102	1006	989	1800	3968
D11-IPS 800	3102	1006	989	1800	3968
D11-IPS 950	3102	1006	989	1800	3968
D13-IPS 900	3103	1124	1220	2300	5060
D13-IPS 1050	3103	1124	1220	2300	5060
D13-IPS 1200	3103	1124	1220	2300	5060
D13-IPS 1350	3103	1124	1220	2300	5060

\* Dry weight including drive and propeller.



Not for installation.



# MARINE GENSETS

All Volvo Penta gensets are delivered complete and tested, ready for installation on board. All equipment and sets are type approved by the major classification societies and can be delivered with certification.

## Compact yet easy to service

Engines and gensets that occupy less space in the engine room but still provide good service accessibility have always been a hallmark of Volvo Penta. Our range is designed for fast and trouble-free service operations and most engines support the use of computerised diagnostics tools which facilitate fault-tracing.

## Fully compatible monitoring systems

Based on the Modbus protocol and equipped with a large number of hardwire contacts, the Volvo Penta control and monitoring system enables fast and safe integration with most switchboards and power management systems available on the market. The monitoring system and its range of functions – e.g. auto-start, shut-down and alarms – comply with all international standards.

## Meeting future emission standards

Our engine range meets the current exhaust emission requirements and many of our engines already comply with the emission standards which come into effect over the next couple of years.



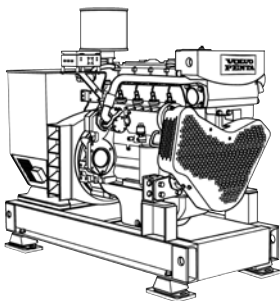


# D5A T MARINE GENSET

4-cylinder, 4-stroke, direct-injected, and turbo-charged marine diesel engine.

Bore x Stroke (mm): 108 x 130

Displacement (l): 4.76



## HEAT EXCHANGER COOLED GENSETS

Engine/Generator	50 Hz 1500 rpm		60 Hz 1800 rpm	
	kVA*	kWe*	kVA*	kWe*
D5A T / UCM274C	78	62	93	74
D5A T / UCM274D	88	70	-	-

## RADIATOR COOLED GENSETS

Engine	50 Hz 1500 rpm		60 Hz 1800 rpm	
	kVA*	kWe*	kVA*	kWe*
D5A T / UCM274C	78	62	85	68

## KEEL COOLED GENSETS

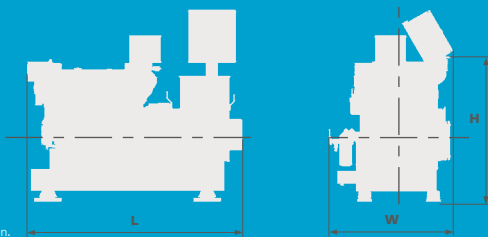
Engine	50 Hz 1500 rpm		60 Hz 1800 rpm	
	kVA*	kWe*	kVA*	kWe*
D5A T / UCM274C	78	62	93	74
D5A T / UCM274D	88	70	-	-

## DIMENSIONS AND WEIGHTS\*\*

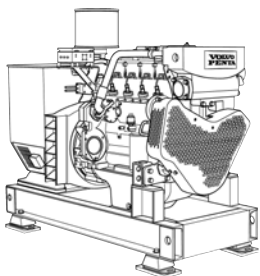
Engine	L (mm)	W (mm)	H (mm)	kg	lb
D5A T / UCM274C-1	1812	1046	1224	1195	2635
D5A T / UCM274D-1	1812	1046	1224	1215	2679

\* Power output based on temperature rise class F, 400V for 50Hz and 440V for 60 Hz series star connection.

\*\* Dimensions and weights based on heat-exchanger cooled, single-bearing gensets.



# D5A TA MARINE GENSET



4-cylinder, 4-stroke, direct-injected, and turbo-charged aftercooled marine diesel engine.

Bore x Stroke (mm): 108 x 130

Displacement (l): 4.76

## HEAT EXCHANGER COOLED GENSETS

Engine	50 Hz 1500 rpm		60 Hz 1800 rpm	
	kVA*	kWe*	kVA*	kWe*
D5A TA/UCM274D	-	-	110	88
D5A TA/UCM274E	107	85	116	93

## KEEL COOLED GENSETS

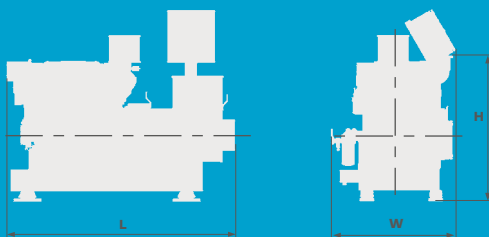
Engine	50 Hz 1500 rpm		60 Hz 1800 rpm	
	kVA*	kWe*	kVA*	kWe*
D5A TA/UCM274D	-	-	110	88
D5A TA/UCM274E	107	85	116	93

## DIMENSIONS AND WEIGHTS\*\*

Engine	L (mm)	W (mm)	H (mm)	kg	lb
D5A TA/UCM274D	1812	1046	1224	1245	2745
D5A TA/UCM274E	1925	1046	1224	1310	2888

\* Power output based on temperature rise class F, 400V for 50Hz and 440V for 60 Hz series star connection.

\*\* Dimensions and weights based on heat-exchanger cooled, single-bearing gensets.

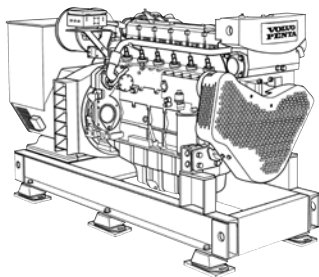


# D7A T MARINE GENSET

6-cylinder, 4-stroke, direct-injected, and turbo-charged marine diesel engine.

Bore x Stroke (mm): 108 x 130

Displacement (l): 7.15



## HEAT EXCHANGER COOLED GENSETS

Engine	50 Hz 1500 rpm		60 Hz 1800 rpm	
	kVA*	kWe*	kVA*	kWe*
D7A T/UCM274E	113	90	131	105
D7A T/UCM274F	135	108	142	114

## RADIATOR COOLED GENSETS

Engine	50 Hz 1500 rpm		60 Hz 1800 rpm	
	kVA*	kWe*	kVA*	kWe*
D7A T/UCM274D	88	70	110	88
D7A T/UCM274F	130	104	134	107

## KEEL COOLED GENSETS

Engine	50 Hz 1500 rpm		60 Hz 1800 rpm	
	kVA*	kWe*	kVA*	kWe*
D7A T/UCM274E	113	90	131	105
D7A T/UCM274F	135	108	142	114

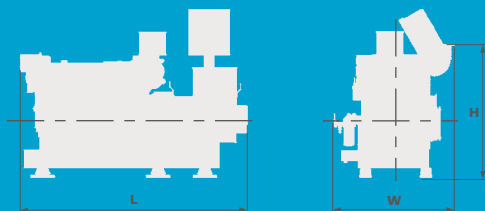
## DIMENSIONS AND WEIGHTS\*\*

Engine	L (mm)	W (mm)	H (mm)	kg	lb
D7A T/UCM274D***	2410	1157	1275	1515	3340
D7A T/UCM274E	2191	1157	1275	1485	3274
D7A T/UCM274F	2191	1157	1275	1520	3357

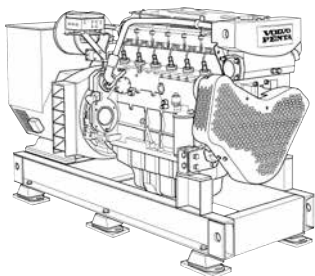
\* Power output based on temperature rise class F, 400V for 50Hz and 440V for 60 Hz series star connection.

\*\* Dimensions and weights based on heat-exchanger cooled, single-bearing gensets.

\*\*\* Dimensions and weights based on radiator cooled genset.



# D7A TA MARINE GENSET



6-cylinder, 4-stroke, direct-injected, turbo-charged, and aftercooled marine diesel engine.

Bore x Stroke (mm): 108 x 130

Displacement (l): 7.15

## HEAT EXCHANGER COOLED GENSETS

Engine	50 Hz 1500 rpm		60 Hz 1800 rpm	
	kvA*	kWe*	kvA*	kWe*
D7A TA/UCM274F	-	-	156	125
D7A TA/UCM274G	149	119	-	-
D7A TA/UCM274H	163	130	173	139

## KEEL COOLED GENSETS

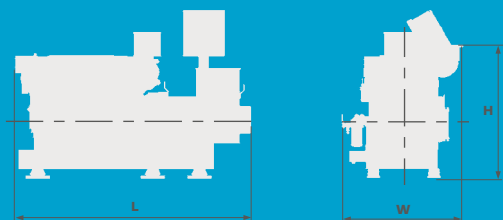
Engine	50 Hz 1500 rpm		60 Hz 1800 rpm	
	kvA*	kWe*	kvA*	kWe*
D7A TA/UCM274F	-	-	156	125
D7A TA/UCM274G	149	119	-	-
D7A TA/UCM274H	163	130	173	139

## DIMENSIONS AND WEIGHTS\*\*

Engine	L (mm)	W (mm)	H (mm)	kg**	lb**
D7A TA/UCM274F	2191	1157	1275	1560	3439
D7A TA/UCM274G	2239	1157	1275	1610	3549
D7A TA/UCM274H	2275	1157	1275	1660	3660

\* Power output based on temperature rise class F, 400V for 50Hz and 440V for 60 Hz series star connection.

\*\* Dimensions and weights based on heat-exchanger cooled, single-bearing gensets.



# D8 MARINE GENSET

6-cylinder, 4 stroke, direct-injected, common rail, turbo-charged, and aftercooled marine diesel engine.

Bore x Stroke (mm): 110 x 135

Displacement (l): 7,7



## HEAT EXCHANGER COOLED GENSETS

Engine	50 Hz 1500 rpm		60 Hz 1800 rpm	
	kVA*	kWe*	kVA*	kWe*
D8 MG/UCM274H***	-	-	213	170
D8 MG/HCM434C***	210	168	245	198
D8 MG/HCM434D***	230	184	270	218
D8 MG/HCM434E***	275	220	312	250
D8 MG/HCM434F***	281	225	-	-

## KEEL COOLED GENSETS

Engine	50 Hz 1500 rpm		60 Hz 1800 rpm	
	kVA*	kWe*	kVA*	kWe*
D8 MG/UCM274H***	-	-	213	170
D8 MG/HCM434C***	210	168	245	198
D8 MG/HCM434D***	230	184	270	218
D8 MG/HCM434E***	275	220	312	250
D8 MG/HCM434F***	282	225	-	-

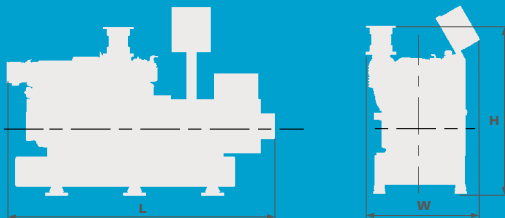
## DIMENSIONS AND WEIGHTS\*\*

Engine	L (mm)	W (mm)	H (mm)	kg	lb
D8 MG/UCM274H***	2259	1051.50	1650		
D8 MG/HCM434C***	2513	1051.50	1650		
D8 MG/HCM434D***	2513	1051.50	1650		
D8 MG/HCM434E***	2513	1051.50	1650		
D8 MG/HCM434F***	2603	1051.50	1650		

\* Power output based on temperature rise class F, 400V for 50Hz and 440V for 60 Hz series star connection.

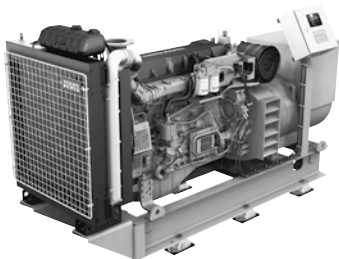
\*\* Dimensions and weights based on heat-exchanger cooled, single-bearing gensets.

\*\*\* Will be available in 2020



Not for installation.

# D13 MARINE GENSET



6-cylinder, 4-stroke, direct-injected, turbo-charged, and aftercooled marine diesel engine.

Bore x Stroke (mm): 131 x 158

Displacement (l): 12.78

## HEAT EXCHANGER COOLED GENSETS

Engine	50 Hz 1500 rpm		60 Hz 1800 rpm	
	kVA*	kWe*	kVA*	kWe*
D13 MG/ HCM434F	310	248	375	300
D13 MG/ HCM534C	355	284	426	341
D13 MG/ HCM534D	415	332	475	380

## RADIATOR COOLED GENSETS

Engine	50 Hz 1500 rpm		60 Hz 1800 rpm	
	kVA*	kWe*	kVA*	kWe*
D13 MG/ HCM434F	310	248	375	300
D13 MG/ HCM534C	344	275	402	322
D13 MG/ HCM534D	415	332	450	360

## KEEL COOLED GENSETS

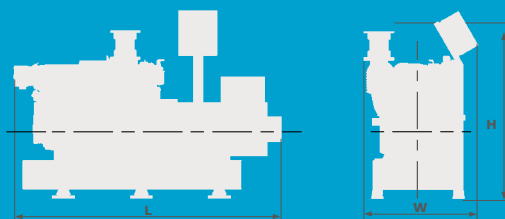
Engine	50 Hz 1500 rpm		60 Hz 1800 rpm	
	kVA*	kWe*	kVA*	kWe*
D13 MG/ HCM434F	310	248	375	300
D13 MG/ HCM534C	355	284	426	341
D13 MG/ HCM534D	415	332	475	380

## DIMENSIONS AND WEIGHTS\*\*

Engine	L (mm)	W (mm)	H (mm)	kg	lb
D13 MG/ HCM434F	2739	1174	1814	3070	6768
D13 MG/ HCM534C	2817	1174	1814	3175	6999
D13 MG/ HCM534D	2817	1174	1814	3305	7286

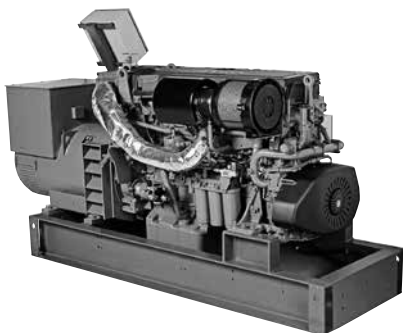
\* Power output based on temperature rise class F, 400V for 50Hz and 440V for 60 Hz series star connection.

\*\* Dimensions and weights based on heat-exchanger cooled, single-bearing gensets.





# D16 MARINE GENSET



6-cylinder, 4-stroke, direct-injected, turbo-charged, and aftercooled marine diesel engine.

Bore x Stroke (mm): 144 x 165

Displacement (l): 16.1

## HEAT EXCHANGER COOLED GENSETS

Engine	50 Hz 1500 rpm		60 Hz 1800 rpm	
	kVA*	kWe*	kVA*	kWe*
D16 MG/HCM534D	415	332	488	390
D16 MG/HCM534E	490	392	588	470
D16 MG/HCM534F	525	420	625	500

## RADIATOR COOLED GENSETS

Engine	50 Hz 1500 rpm		60 Hz 1800 rpm	
	kVA*	kWe*	kVA*	kWe*
D16 MG/HCM534D	415	332	488	390
D16 MG/HCM534E	490	392	560	448
D16 MG/HCM534F	518	414	-	-

## KEEL COOLED GENSETS

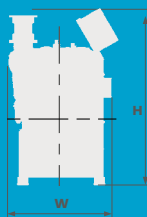
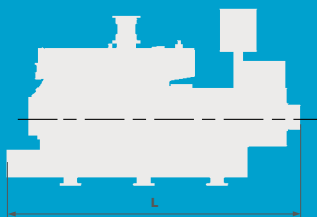
Engine	50 Hz 1500 rpm		60 Hz 1800 rpm	
	kVA*	kWe*	kVA*	kWe*
D16 MG/HCM534D	415	332	488	390
D16 MG/HCM534E	490	392	588	470
D16 MG/HCM534F	525	420	596	477

## DIMENSIONS AND WEIGHTS\*\*

Engine	L (mm)	W (mm)	H (mm)	kg	lb
D16 MG/HCM534D	3131	1192	1842	3626	7994
D16 MG/HCM534E	3131	1192	1842	3776	8325
D16 MG/HCM534F	3131	1192	1842	4034	9633

\* Power output based on temperature rise class F, 400V for 50Hz and 440V for 60 Hz series star connection.

\*\* Dimensions and weights based on heat-exchanger cooled, single-bearing gensets.









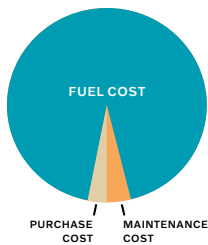
# KEEPING UPTIME HIGH – AND TOTAL COST OF OWNERSHIP LOW

**MAXIMUM UPTIME** always starts with premium product quality. Well-designed, robust, high-performing engines and drive systems. The materials, the excellence in engineering and the innovativeness. Proven technologies means reliability. Volvo Penta marine commercial equipment is tried and tested in demanding conditions all over the world – for more than a hundred years.

**PREDICTABILITY** increases uptime. Volvo Penta service agreements can be tailored to your operating needs and budget to include anything from regular inspections to a comprehensive service and maintenance program that includes preventive repairs. The service agreement is between you and your Volvo Penta dealer, and helps you maximize uptime, lower total cost of ownership and improve cost control.

## Unique fuel efficiency

Fuel efficiency is the most decisive factor for cost of operation and cost of ownership. Fuel consumption accounts for the largest portion of your total operational cost. Any fuel saving you can achieve goes straight to the bottom line.



“Wherever, whenever – we are there to support.”



### On call 24/7/365 in 28 languages

Our global dealer network – your first line of contact – is backed up by Volvo Penta Action Service, a phone-based breakdown and support service providing assistance 24 hours a day, every day of the year.

## Global dealer network, with local expertise

The Volvo Penta marine commercial dealer network covers 130 countries, with 700 authorized dealers worldwide. They comply with our marine commercial dealer operating standard, which is designed to ensure consistently high-quality service and support. This includes 24/7 accessibility, parts availability, advanced diagnostics, and technical competence to secure the local expertise necessary to keep your business going.

Find your nearest Volvo Penta dealer on [volvopenta.com](http://volvopenta.com) or download our dealer locator app.

## World class parts distribution network

As part of the Volvo Group, we benefit from one of the world's most efficient parts distribution networks in the industry – the Volvo Group Logistics Services. Working from 17 key locations around the world, 24/7, to ensure you get the right parts at the right place at the right time.



Volvo Penta global service and support - ensuring business is running at full capacity.

### **VOLVO PENTA GLOBAL SERVICE AND SUPPORT**

- Global marine commercial dealer network
- World class parts distribution network
- Volvo Penta Action Service
- Exchange Components
- Repair & Overhaul kits
- Service Agreements
- Volvo Penta Oil Analysis
- Extended Coverage
- Quickline repowering service

Check out the Volvo Penta global service and support film:



“Ensuring your business is running at full capacity.”

With Volvo Penta engines on board, uncompromising standards are built into your ship. Our comprehensive product program with engine outputs ranging from 100 to 1000 hp includes propulsion and auxiliary engines as well as complete marine generator sets. Advanced installation engineering ensures optimised durability and performance, while our extensive dealer network provides the service and parts which maximise engine lifetime. Ensuring high productivity and protecting the value of your investment.

Altogether, this makes Volvo Penta a leading worldwide supplier of power for marine professionals.

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