

VAR 10-305

Diesel - Qmax 191 l/s - Hmax 39 m



VAR 10-305 Liquid cooled engine

VAR - Self-priming centrifugal pumps

These self-priming centrifugal pumps are for applications where the main feature is the difficulty in priming. Even with suction heights of several meters the machine quickly evacuates the air from the suction pipe and starts pumping. Additionally, thanks to the semi-open impeller, the VAR range is also suitable for pumping liquids with solids in suspension.

Applications

Both Atlas Copco and Varisco have decades of experience in designing and producing pumps. We have put those years of expertise into providing a solutions portfolio that works across multiple applications. The VAR range is packed with features that not only meet, but exceed the needs of the market. We are focused on an efficient, extremely versatile pump that is suitable for many industries, including construction, general dewatering and emergency applications, such as flood clean up.

Benefits

Rapid self-priming

Without foot valve up to a height of 7.5 m (24.5 ft)

High resistance

To abrasive liquids and turbid sandy waters

Semi-open impeller

Solids handling up to 76 mm (3")

Easy maintenance

Removable front cover for direct access to the impeller

Wear plate

Cast iron (G10 rubber lined) or stainless steel wear plate, that are easily replaceable



Dimensions	1070 x 3310 x 1950 mm
H suction port	1,15 m (3.8 ft)
Weight (KL28)	1700 kg (3,750 lb)
Weight (ZD52)	1740 kg (3,840 lb)

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Performance curves

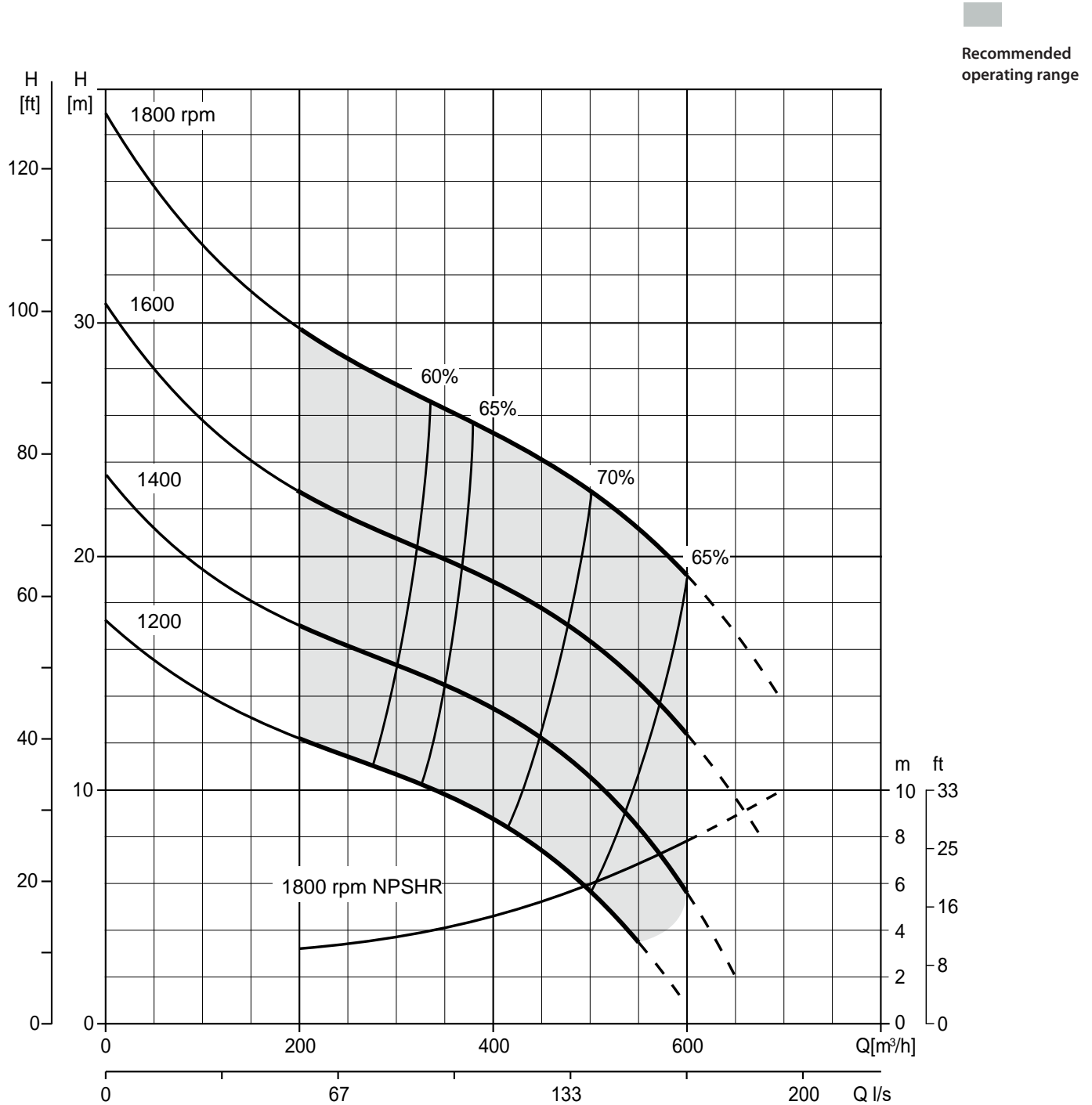
Test according to UNI EN ISO 9906 standard - level 2

Test liquid: clean water, density 1,000 kg/m³

Spherical solids handling: D.76 mm (3")

Priming time: 25 s from 1,5 m (4.9 ft)

Max absorbed power: 45,0 kW - 60.3 HP (1.800 rpm)



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Technical data

Pump

Model		VAR 10-305	
Qmax	690 m ³ /h - 11.500 l/min (3,000 USgpm)		
Hmax	39 m (128 ft)		
Q max eff.	500 m ³ /h - 8.330 l/min (2,200 USgpm)		
Eff. max	70 %		
Suction port	Flanged - DN 250 D.I. 1882 (10")		
Delivery port	Flanged - DN 250 D.I. 1882 (10")		
Impeller type	Semi-Open, 2 vane		
Solids handling	76 mm (3.0 ")		
Material	G10		F10
Casing	EN-GJL-200 cast iron		EN-GJL-200 cast iron
Impeller	EN-GJS-400 ductile iron		CF8M stainless steel
Wear plates	EN-GJL-200 rubber lined cast iron		CF8M stainless steel
Number of plates	1		1
Shaft	39NiCrMo3 steel		AISI 316 stainless steel
Mechanical seal	Silicon carbide / Silicon carbide		Silicon carbide / Silicon carbide
Elastomers	NBR		VITON

Engines

Make	Kohler				Deutz			
	KDI 2504TCR (KL28)				F4L914 (ZD52)			
Model	KDI 2504TCR (KL28)				F4L914 (ZD52)			
Type	Diesel turbo common rail				Diesel direct injection, aspirated			
Displacement	2.482 cm ³ (151 in ³)				2.630 cm ³ (160 in ³)			
No. cylinders	4				4			
Cooling	Liquid with radiator				Air			
Rpm type	Variable				Variable			
Standard speed	1.800 rpm				1.800 rpm			
EU emissions	2002/88/CE Stage 3B				2002/88/CE Stage 2			
US emissions	EPA Tier IV Final				EPA Tier II			
Starting	Electric				Electric			
Starting voltage	12 V				12 V			
Oil change interval	500 h				300 h			
Market	UE				Extra UE			
Speed [rpm]	1200	1400	1600	1800	1200	1400	1600	1800
Consumption [l/h]	7,5	9,3	10,7	11,4	4,2	5	5,6	11,1
Power [kW]	32	39,6	45	47,7	28,8	35,1	40,5	45
Power [HP]	42.9	53.1	60.3	64	38.6	47.1	54.3	60.3

Control panel

Model	CP KDI 1903TCR-2504TCR	CP KL DEUTZ 01
Manual operation	Manual operation	Manual operation
High contrast LCD display (ENG-DEU)	High contrast LCD display (ENG-DEU)	Hour meter
Hour meter	Hour meter	Engine failure alarms with LED lights in case of:
Rev counter	Rev counter	- low oil pressure
		- engine overheating
		- lack of battery charging
Oil pressure	Oil pressure	Throttle rod
Oil temperature	Oil temperature	
Oil level	Oil level	
Automatic engine shutdown in case of:	Automatic engine shutdown in case of:	
- low oil pressure	- low oil pressure	
- water overheating	- water overheating	
- lack of battery charging	- lack of battery charging	
Engine failure alarms with LED light and display message in case of:	Engine failure alarms with LED light and display message in case of:	
Electronic speed regulator	Electronic speed regulator	
Protection rating - IP67	Protection rating - IP67	

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Arrangements

CNP VAR 10-305



Dimensions	1550 x 3395 x 2165 mm (61 x 134 x 85 ")
Material	S275JR EN 10025-2 carbon steel
Coatings	Epoxy powder, average thickness of 80 µm
Color	Yellow and grey Atlas Copco (standard)
Features	Hot dip galvanised steel base; modular frame, stackable
Battery	Acid charge Pb-Ca maintenance free, 12 V - 100 Ah - 400 A
Tank	500 l (132.1 USG)
Drip pan	550 l (145.3 USG) (110% of the total volume of the tank)
Emergency stop	Outside the canopy
Locking keys	Control panel door and canopy doors
H suction port	0,77 m (2.5 ft)
Weight (KL14)	2600 kg (5,730 lb)
Noise level (KL14)	66-71 dB(A) @10 m (32 ft)

Engines

Make	Kohler			
Model	KDI 2504TCR (KL14)			
Type	Diesel turbo common rail			
Displacement	2.482 cm ³ (151 in ³)			
No. cylinders	4			
Cooling	Liquid with radiator			
Rpm type	Variable			
Standard speed	1.800 rpm			
EU emissions	2002/88/CE Stage 3B			
US emissions	EPA Tier IV Final			
Starting	Electric			
Starting voltage	12 V			
Oil change interval	500 h			
Market	UE			
Speed [rpm]	1200	1400	1600	1800
Consumption [l/h]	7,5	9,3	10,7	11,4
Power [kW]	32	39,6	45	47,7
Power [HP]	42.9	53.1	60.3	64

Control panel

Model	CP CNP 01
	Manual operation, automatic operation (startstop with floats), emergency operation
	Hour meter
	Rev counter
	Battery voltmeter
	Fuel level indicator
	Vacuum gauge
	Emergency stop button
	Display with 6 languages
	Automatic engine shutdown in case of:
	- low oil pressure
	- water overheating
	- lack of battery charging
	(engine failure alarms with LED lights and display message)
	GSM communication module (optional)
	Throttle rod