

# VAR 6-250

Diesel - Qmax 96 l/s - Hmax 33 m



VAR 6-250 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 plates

Cast iron (G11 rubber lined) or stainless steel wear plates, that are easily replaceable

## Arrangements

Technical data		Dimensions	1070 x 2220 x 1670 mm
Material	S275JR EN 10025-2 carbon steel	H suction port	0,96 m
Coatings	Epoxy powder, average thickness of 80 µm	Weight (KL10)	925 kg
Color	Yellow and grey Atlas Copco (standard)	Weight (KL19)	960 kg
Features	Modular and demountable framework; hot dip galvanised steel support bases, bullbars and lifting beam. Mudguards with galvanised steel walkable surface. Tow bar, adjustable support feet. Lockable battery box. Fuel level indicator.	Weight (ZD35)	935 kg
Battery	Acid charge Pb-Ca maintenance free 12 V - 100 Ah - 400 A	Weight (ZD51)	935 kg
Tank	300 l (79.3 USG)		
Locking keys	Fuel cap		

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## Performance curves

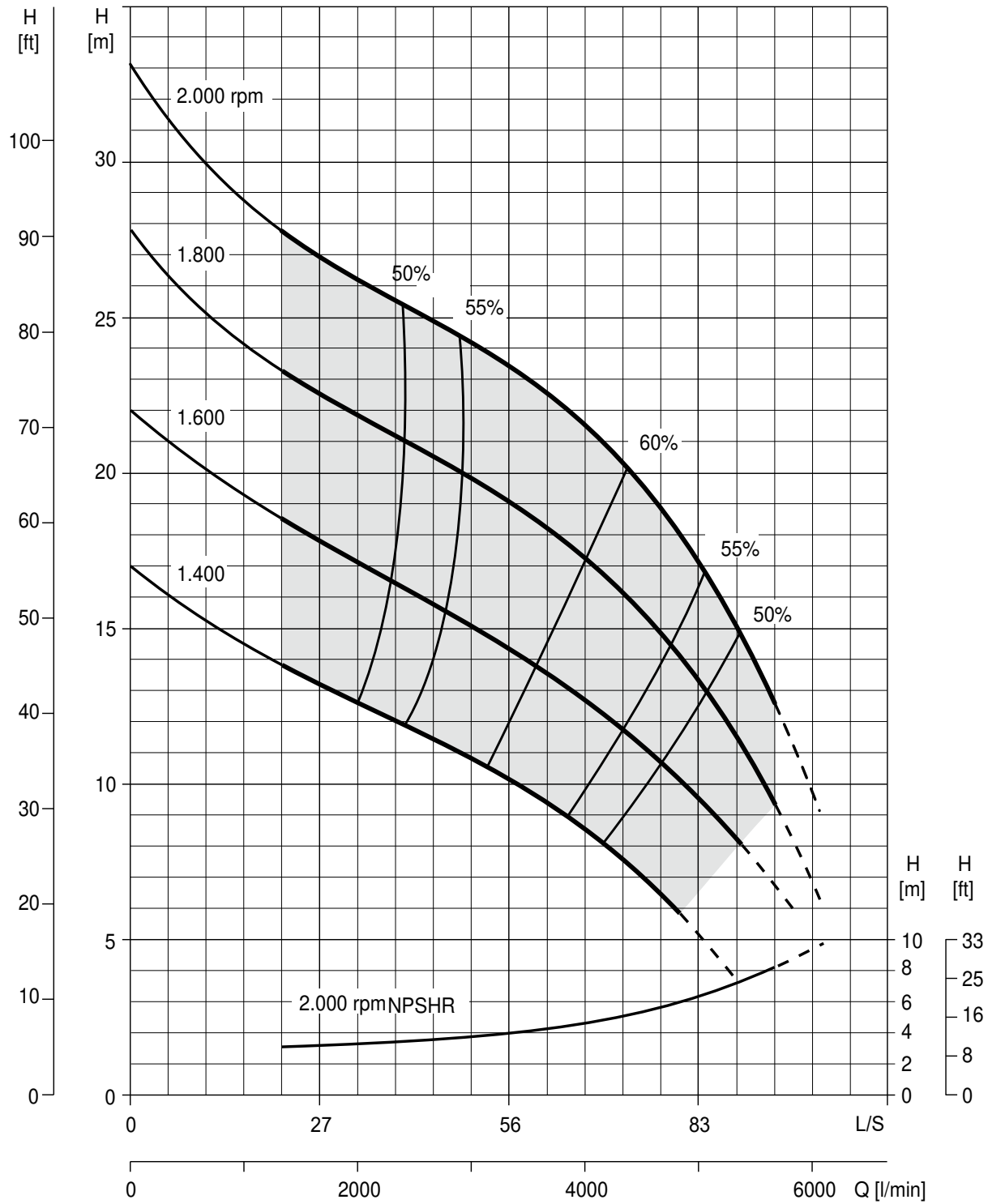
Test according to UNI EN ISO 9906 standard - level 2

Test liquid: clean water, density 1,000 kg/m<sup>3</sup>

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

Priming time: 17 s from 1,5 m (4.9 ft)

Max absorbed power: 25,0 kW - 33.5 HP (2.000 rpm)



Recommended operating range

# VAR 6-250

## Technical data

### Pump

VAR 6-250			
Model	VAR 6-250		
Qmax	340 m <sup>3</sup> /h - 5.670 l/min (1,500 USgpm)		
Hmax	33 m (108 ft)		
Q max eff.	260 m <sup>3</sup> /h - 4.330 l/min (1,100 USgpm)		
Eff. max	60 %		
Suction port	Flanged - DN 150 D.I. 1882 (6")		
Delivery port	Flanged - DN 150 D.I. 1882 (6")		
Impeller type	Semi-Open, 2 vane		
Solids handling	76 mm (3.0 ")		
Material	G11	F11	P11
Casing	EN-GJL-200 cast iron	EN-GJL-200 cast iron	EN-GJL-200 cast iron
Impeller	EN-GJS-400 ductile iron	CF8M stainless steel	EN-GJS-400 ductile iron
Wear plates	EN-GJL-200 rubber lined cast iron	CF8M stainless steel	EN-GJL-200 cast iron
Number of plates	2	2	2
Shaft	39NiCrMo3 steel	SAF 2205 stainless steel	39NiCrMo3 steel
Flushing	Yes	Yes	Yes
Mechanical seal	Silicon carbide / Silicon carbide	Silicon carbide / Silicon carbide	Silicon carbide / Silicon carbide
Elastomers	NBR	VITON	VITON

### Engines

Make	Kohler			Kohler				Deutz				Deutz				
Model	KDI 1903M (KL10)			KDI 2504M (KL19)				D2011L03I (ZD35)				D2011L03I (ZD51)				
Type	Diesel direct injection, aspirated			Diesel direct injection, aspirated				Diesel direct injection, aspirated				Diesel direct injection, aspirated				
Displacement	1.861 cm <sup>3</sup> (114 in <sup>3</sup> )			2.482 cm <sup>3</sup> (151 in <sup>3</sup> )				2.330 cm <sup>3</sup> (142 in <sup>3</sup> )				2.330 cm <sup>3</sup> (142 in <sup>3</sup> )				
No. cylinders	3			4				3				3				
Cooling	Liquid with radiator			Liquid with radiator				Air				Air				
Rpm type	Variable			Variable				Variable				Variable				
Standard speed	1.800 rpm			2.000 rpm				1.800 rpm				2.000 rpm				
EU emissions	2002/88/CE Stage 3A			2002/88/CE Stage 3A				2002/88/CE Stage 3A				2002/88/CE Stage 3A				
US emissions	EPA Tier III			EPA Tier III				EPA Tier III				EPA Tier III				
Starting	Electric			Electric				Electric				Electric				
Starting voltage	12 V			12 V				12 V				12 V				
Oil change interval	500 h			500 h				300 h				300 h				
Market	UE			UE				UE				UE				
Speed [rpm]	1200	1400	1600	1800	1400	1600	1800	2000	1200	1400	1600	1800	1400	1600	1800	2000
Consumption [l/h]	3,5	4,4	5,1	5,4	5,5	6,4	6,7	7,1	3,4	4,2	5	5,6	4,2	5	5,6	6,2
Power [kW]	13,5	17,6	20,3	21,6	22,5	26,1	27	28,4	13,5	16,7	19,8	22,1	16,7	19,8	22,1	24,3
Power [HP]	18.1	23.6	27.2	29	30.2	35	36.2	38.1	18.1	22.4	26.6	29.6	22.4	26.6	29.6	32.6

### Control panel

Model	CP KDI 1903M-2504M	CP KL DEUTZ 01
	Manual operation	Manual operation
	Digital hour meter	Hour meter
	Automatic engine shutdown in case of:	Engine failure alarms with LED lights in case of:
	- low oil pressure	- low oil pressure
	- water overheating	- engine overheating
	- lack of battery charging	- lack of battery charging
	(engine failure alarms with LED lights)	
	Throttle rod	Throttle rod

# VAR 6-250

## Arrangements

### CNP VAR 6-250



<b>Dimensions</b>	1100 x 2560 x 1705 mm (43 x 101 x 67 ")
<b>Material</b>	S275JR EN 10025-2 carbon steel
<b>Coatings</b>	Epoxy powder, average thickness of 80 µm
<b>Color</b>	Yellow and grey Atlas Copco (standard)
<b>Features</b>	Hot dip galvanised steel base; modular frame, stackable
<b>Battery</b>	Acid charge Pb-Ca maintenance free, 12 V - 100 Ah - 400 A
<b>Tank</b>	420 l (111.0 USG)
<b>Drip pan</b>	462 l (122.0 USG) (110% of the total volume of the tank)
<b>Emergency stop</b>	Outside the canopy
<b>Locking keys</b>	Control panel door and canopy doors
<b>H suction port</b>	0,71 m (2.3 ft)
<b>Weight (KL10)</b>	1490 kg (3,280 lb)
<b>Noise level (KL10)</b>	63-68 dB(A) @10 m (32 ft)
<b>Weight (KL19)</b>	1525 kg (3,360 lb)
<b>Noise level (KL19)</b>	66-71 dB(A) @10 m (32 ft)

## Engines

Make	Kohler				Kohler			
<b>Model</b>	KDI 1903M (KL10)				KDI 2504M (KL19)			
<b>Type</b>	Diesel direct injection, aspirated				Diesel direct injection, aspirated			
<b>Displacement</b>	1.861 cm <sup>3</sup> (114 in <sup>3</sup> )				2.482 cm <sup>3</sup> (151 in <sup>3</sup> )			
<b>No. cylinders</b>	3				4			
<b>Cooling</b>	Liquid with radiator				Liquid with radiator			
<b>Rpm type</b>	Variable				Variable			
<b>Standard speed</b>	1.800 rpm				2.000 rpm			
<b>EU emissions</b>	2002/88/CE Stage 3A				2002/88/CE Stage 3A			
<b>US emissions</b>	EPA Tier III				EPA Tier III			
<b>Starting</b>	Electric				Electric			
<b>Starting voltage</b>	12 V				12 V			
<b>Oil change interval</b>	500 h				500 h			
<b>Market</b>	UE				UE			
<b>Speed [rpm]</b>	1200	1400	1600	1800	1400	1600	1800	2000
<b>Consumption [l/h]</b>	3,5	4,4	5,1	5,4	5,5	6,4	6,7	7,1
<b>Power [kW]</b>	13,5	17,6	20,3	21,6	22,5	26,1	27	28,4
<b>Power [HP]</b>	18.1	23.6	27.2	29	30.2	35	36.2	38.1

## 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