



VM, VMC, VMN

Vertical Multistage
Centrifugal Pumps, 50Hz

Approvals

IEC

IECEE
CB
SCHEME

CB TEST
CERTIFICATE

Ref. Certificate No.
CH-6876

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR
ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

Issued by:

Electrosuisse

Product:

Horizontal and vertical multistage pumps

Applicant:

Swiss Pump Company AG
Moosweg 36
CH-3645 Gwatt (Thun)
Switzerland

Manufacturer:

Swiss Pump Company AG
Moosweg 36
CH-3645 Gwatt (Thun)
Switzerland

Factory:

Swiss Pump Company AG
Moosweg 36
CH-3645 Gwatt (Thun)
Switzerland

Rating and principal characteristics:

3 x 200 - 277/346 - 480V~, 50/60Hz;
220-230V~, 50/60Hz;
127-220-240V~, 60Hz;
class I, IP55

Trade mark (if any):

Swiss Pump Company AG (SPCO)

Model/Type reference:

HM..., CHL..., VM..., CDL..., ND..., CC..., PD..., MB..., QB..., SMP..., CCP..., SCP...,
see appendix type list in test report

Additional information:

Sample of product tested to be in conformity with IEC:

60335-1(ed.4);am1;am2
60335-2-41(ed.3);am1;am2

National differences:

EU Group Differences; EU Special National Conditions; EU A-Deviations

Test Report Ref. No.:

06-HG-0218.01 + .02 + .03 + .05

This CB Test Certificate is issued by the National Certification Body:
Electrosuisse
Luppenstrasse 1,
CH-8320 Fehraltorf
Signed by: Erich Obrist
2010-07-27

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page 1 of 1



General Data

Performance scope	page	5
Product range		5
Pump		6
Application		6
Definition of model		6
Motor		7
Mechanical seals		7
Material VM, VMC, VMN 1,3,5,10,15,20		8
Material VM, VMC, VMN 32, 45, 64, 90		9
Material VM, VMC, VMN 120, 150		10
Max. inlet pressure		11
Max. working pressure		11
Performance curve		12
Min. inlet pressure NPSH		13
Operation in parallel		13
Pumped liquids		14

Technical Data

VM, VMC, VMN 1	page	16
VM, VMC, VMN 3		18
VM, VMC, VMN 5		20
VM, VMC, VMN 10		22
VM, VMC, VMN 15		24
VM, VMC, VMN 20		26
VM, VMC, VMN 32		28
VM, VMC, VMN 45		30
VM, VMC, VMN 64		32
VM, VMC, VMN 90		34
VM, VMC, VMN 120		36
VM, VMC, VMN 150		38
Pipe work connection		41

Vertical Multistage Pumps

English - SPCO High Pressure Pumps VM, VMN, VMC with pumping pressure up to 280 meter and flow up to 180 m³/h. All essential parts like shaft, impellers and intermediate chambers are fully stainless steel AISI 304 (W-Nr. 1.43.01). On request the complete pump can be supplied in stainless steel or with higher grade stainless steel AISI 316 (W-Nr. 1.44.01). Usually the pumps are equipped with mechanical seals tungsten carbide/carbon. Special seals are applied according to the pumping liquid. The pumps have got high efficiency.

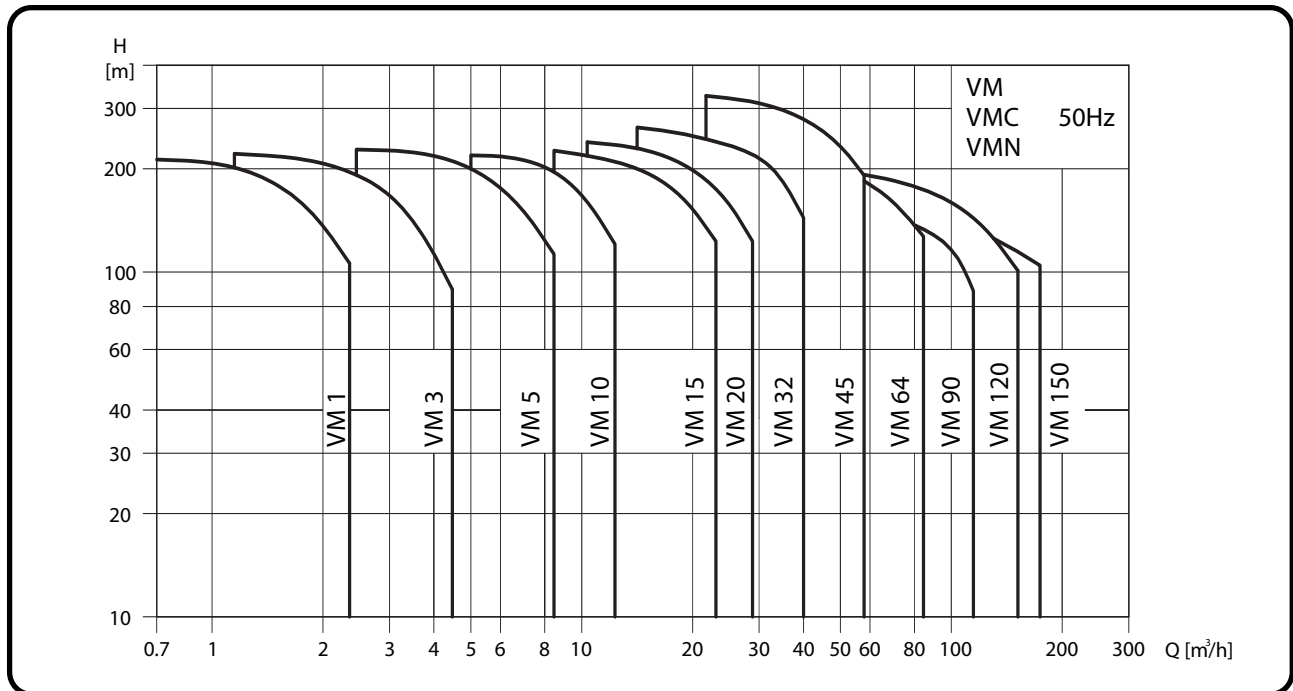
Deutsch - SPCO Hochdruckpumpen der Baureihe VM, VMN, VMC mit Förderhöhen bis zu 280 Metern und Fördermengen bis zu 180 m³/h. Sämtliche wesentlichen Teile, wie zum Beispiel die Welle, Laufräder und Zwischenkammern sind komplett aus Edelstahl AISI 304 (W-Nr. 1.43.01) gefertigt. Die Pumpen sind auch komplett in Edelstahl oder sogar in höheren Legierungen AISI 316 (W-Nr. 1.44.01) lieferbar. Standardgemäss kommen die Gleitringdichtungen Kohle – Hartmetall zum Einsatz oder andere Materialpaarungen entsprechend dem Fördermedium. Die Pumpen zeichnen sich durch einen hohen Wirkungsgrad, geringen Platzbedarf und Wartungsfreiheit aus.

Français - Les pompes de haute pression de l'assortiment VM, VMN, VMC avec hauteurs de propulsion jusqu'à 280 mètres et puissance de propulsion jusqu'à 180 m³/h. Toutes les pièces principales comme par exemple l'axe, les roues libres et les espaces intermédiaires sont entièrement fabriquées en acier inoxydable AISI 304 (W-No. 1.43.01). Les pompes sont également livrables en acier inoxydable uniquement ou même en alliages AISI 316 plus hauts (W-No. 1.44.01). De façon standard, les joints mécanique en charbon et métal dur sont activés ou d'autres, de matériaux correspondant à la propulsion moyenne. Les pompes se distinguent par un haut degré d'efficacité, une demande d'espace moindre et sont libres de maintenance.

Italiano - SPCO – Pompe ad alta pressione VM – VMN – VMC, capaci di prevalenze fino a 280m e portate fino a 180 m³/h. La costruzione prevede ACCIAIO INOX AISI 304 (W-Nr. 1.43.01) per le parti essenziali come giranti, albero e camere intermedie. A richiesta possono essere fornite completamente in ACCIAIO INOX AISI 316 (W-Nr. 1.44.01). La tenuta meccanica standard prevede controfaccie in carburo di tungsteno e grafite. Tenute meccaniche speciali sono previste per liquidi diversi dall'acqua. Le pompe garantiscono un alto rendimento, esenti da manutenzione e risparmio di spazio nell'installazione.

Performance Scope

The performance curve applies to the VM, VMC and VMN version of the pump.



Product range

Range	VM1	VM3	VM5	VM10	VM15	VM20	VM32	VM45	VM64	VM90	VM120	VM150
Nominal flow [m³/h]	1	3	5	10	15	20	32	45	64	90	120	150
Flow range[m³/h]	0.7~2.4	1.2~4.5	2.5~8.5	5~13	8.5~23.5	10.5~29	15~40	22~58	30~85	45~120	60~160	75~180
Max. pressure [bar]	21.5	23	24	21.5	23	24.3	27.5	33	21.8	20	20.4	18.7
Motor power [kW]	0.37~2.2	0.37~3.0	0.37~5.5	0.37~7.5	1.1~15	1.1~18.5	1.5~30	3.0~45	4.0~45	5.5~45	11~75	11~75
Fluid temperature [°C]	-15 to +120											
Type												
VM	•	•	•	•	•	•	•	•	•	•	•	•
VMC / VMN	•	•	•	•	•	•	•	•	•	•	•	•
VM Pipe Connection												
Flange	DN25 DN32	DN25 DN32	DN25 DN32	DN40	DN50	DN50	DN65	DN80	DN100	DN100	DN125	DN125
VMC / VMN Pipe Connection												
Flange	DN25 DN32	DN25 DN32	DN25 DN32	DN40	DN50	DN50	DN65	DN80	DN100	DN100	DN125	DN125
Victaulic Connection	R1¼ DN32	R1¼ DN32	R1¼ DN32	R2 DN50	R2 DN50	R2 DN50						

Pump

VM, VMC, VMN is a kind of vertical non-self priming vertical multistage pump of in line design, flange or with Victaulic coupling with equally sized suction and discharge ports. Stage construction with stainless steel impellers, chambers and pressure casing. Pump stub shaft and motor shaft of the IEC- standards motor are directly close coupled. All pumps are equipped with a cartridge type mechanical seal for easy maintenance.

This kind of pump have different pump sizes and various numbers of stages to provide the flow and the pressure required.

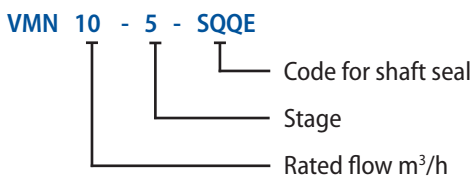
Application

VM, VMC and VMN pumps is a kind of multifunctional products. It can be used to convey various medium from tap water to industrial liquid at different temperature and with different flow rate and pressure.

VM type is applicable to conveying non-corrosive liquid, while VMN and VMC is suitable for slightly corrosive liquid.

- Water supply and pressure boosting: Pressure boosting in buildings, hotels, residential complexes Pressure booster stations, supply of water networks Pressure boosting for industrial water supply.
- Light industry: Washing and cleaning systems, Car washing facilities, Fire fighting systems, Process water systems, Machine tools (cooling lubricants).
- Heating, Ventilation and Air-Conditioning: Boilers, Induction heating, Heat exchangers, Refrigerators, Cooling towers and systems, Temperature control systems.
- Irrigation and Agriculture: Greenhouses, Sprinkler irrigation, Field irrigation (flooding).
- Water Treatment: Water softeners and de-mineralization, Reverse Osmosis systems, Distillation systems, Filtration, Ultra-filtration systems.

Definition of Model



VM Vertical multistage centrifugal pump

VMC Flow passage components stainless steel 304

VMN Flow passage components stainless steel 316

Motor

The pump is fitted with a totally enclosed , fan cooled squirrel-cage 2 pole high efficiency motor.

- Protection class: IP55
- Insulation class: F
- Ambient temperature: Max. + 50 °C

Motor

Motor Type				Nominal current in [A]					
Pole	HP	kW	Flange	Frame	1ø	3ø		3ø	
					220-240V	Δ220-240V	Y 380-415V	Δ380-415V	Y 660-720V
2	0.50	0.37	B14	71A	2.5 - 2.5	1.7 - 1.9	1.0 - 1.1	-----	-----
	0.75	0.55		71B	4.0 - 3.5	2.6 - 2.9	1.5 - 1.7	-----	-----
	1.00	0.75		80A	5.1 - 4.1	3.4 - 3.4	2.0 - 2.0	-----	-----
	1.50	1.10		80B	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	-----	-----
	2.00	1.50		90S	9.5 - 8.9	6.2 - 6.6	3.6 - 3.8	-----	-----
	3.00	2.20		90L	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	-----	-----
	4.00	3.00		100L	-----	11.8 - 12.3	6.8 - 7.1	6.8 - 6.9	3.9 - 4.0
	5.50	4.00		112M	-----	15.1 - 15.2	8.7 - 8.8	8.7 - 8.3	5.0 - 4.8
	7.50	5.50	B5	132S	-----	18.7 - 18.0	10.8 - 10.4	10.9 - 10.8	6.3 - 6.2
	10.00	7.50		132S	-----	25.5 - 24.9	14.7 - 14.4	14.9 - 14.8	8.6 - 8.5
	15.00	11.00		160M	-----	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7
	20.00	15.00		160M	-----	49.3 - 46.5	28.5 - 26.9	24.9 - 29.0	16.9 - 16.7
	25.00	18.50		160L	-----	60.2 - 55.4	34.8 - 32.0	35.2 - 33.5	20.3 - 19.3
	30.00	22.00		180M	-----	71.3 - 67.5	41.2 - 39.0	41.3 - 39.6	23.8 - 22.8
	40.00	30.00		200L	-----	-----	-----	55.4 - 50.7	31.9 - 29.2
	50.00	37.00		200L	-----	-----	-----	67.7 - 62.0	39.0 - 35.7
	60.00	45.00		225M	-----	-----	-----	82.3 - 75.4	47.4 - 43.4
	75.00	55.00		250M	-----	-----	-----	101 - 92.5	58.2 - 53.3
	100.00	75.00		280S	-----	-----	-----	134 - 123	77.2 - 70.7

Mechanical Seals

Standard Cartridge type Mechanical seal made of Silicon Carbide/Silicon Carbide/EPDM or Viton.

Based on the type of application, alternative materials are available for the seal and the elastomers.

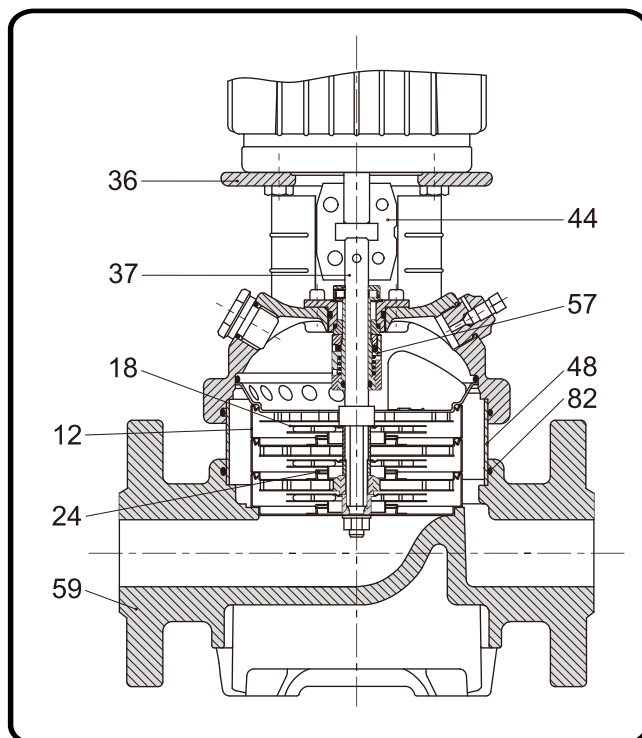
The cartridge type mechanical seal can be replaced in minutes without special tools and without dismantling the pump.



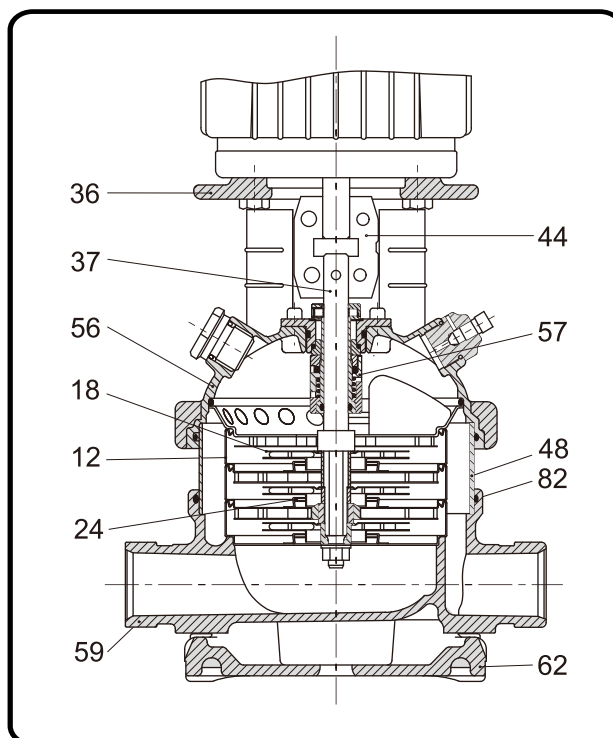
Seal Type	VM/VMC/VMN		
	1/3/5/10/15/20 /32/45/64/90	Model 120/150	
		0.5-60HP	75-100HP
Mechanical Seals			
S: O-ring seal Cartridge type	•	•	
B-Rubber below seal Cartridge type			•
QQ	•	•	•
UU	Optional	Optional	
QB	Optional	Optional	
UB	Optional	Optional	
Seals			
EPDM	•	•	•
Viton	Optional	Optional	Optional

- Q: Silicon carbide
- U: Tungsten carbide
- B: Carbon

VM 1,3,5,10,15,20



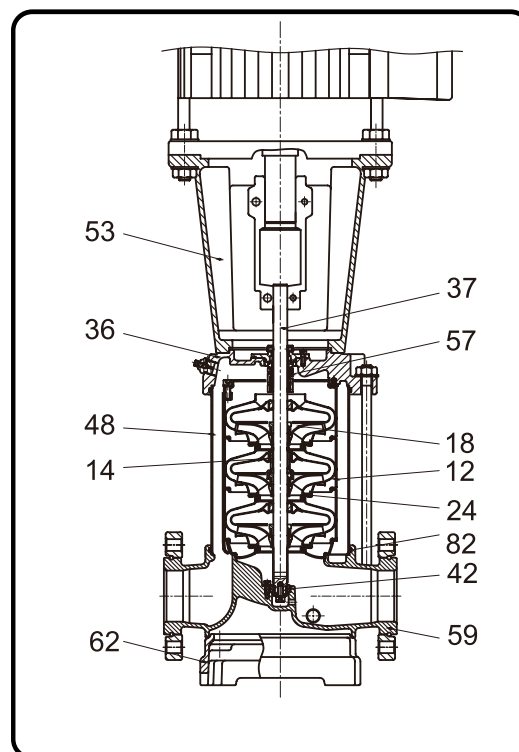
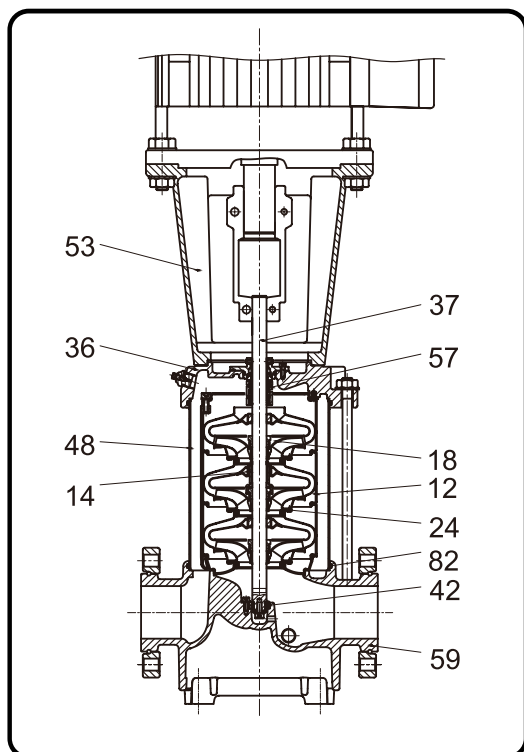
VMC, VMN 1,3,5,10,15,20



Type			VM 1,3,5,10,15,20		VMC 1,3,5,10,15,20		VMN 1,3,5,10,15,20	
No.	Name	Material	Europ	USA	Europ	USA	Europ	USA
36	Pump head	cast iron	EN-GJL-200	ASTM25B	EN-GJS-450-10	ASTM 65-45-12	EN-GJS-450-10	ASTM 65-45-12
56	Pump head cover	stainless steel	NA		1.4301	AISI 304	1.4401	AISI316
18	Impeller	stainless steel	1.4301	AISI 304	1.4301	AISI 304	1.4401	AISI316
37	Shaft	stainless steel	1.4057	AISI 431	1.4057	AISI 431	1.4401	AISI316
48	Outer sleeve	stainless steel	1.4301	AISI 304	1.4301	AISI 304	1.4401	AISI316
82	O-ring for outer sleeve	EPDM						
12	Chamber	stainless steel	1.4301	AISI 304	1.4301	AISI 304	1.4401	AISI316
24	Neck ring	PTFE	PTFE					
59	Base	cast iron	EN-GJL-200	ASTM25B	NA			
		stainless steel	NA		1.4301	AISI 304	1.4401	AISI316
62	Base plate	cast iron	NA		EN-GJL-200	ASTM25B	EN-GJL-200	ASTM25B
44	Coupling	Sintered Material						
57	Mechanical seal	cartridge type	cartridge type					

VM 32,45,64,90

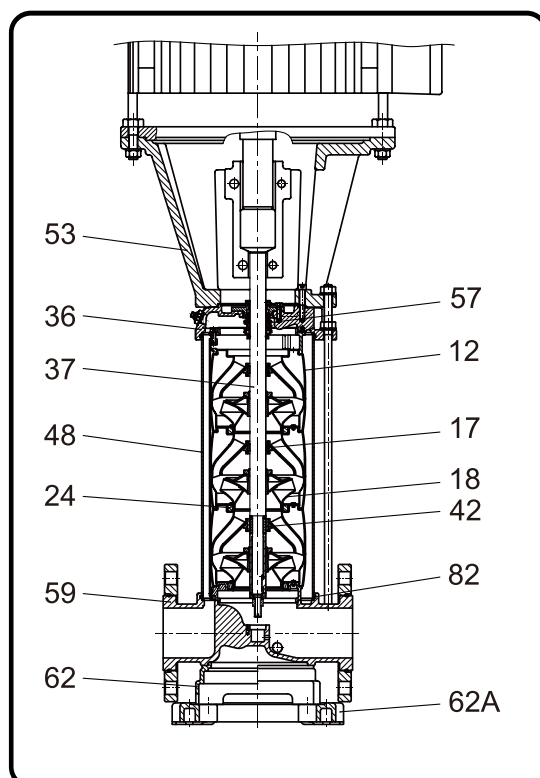
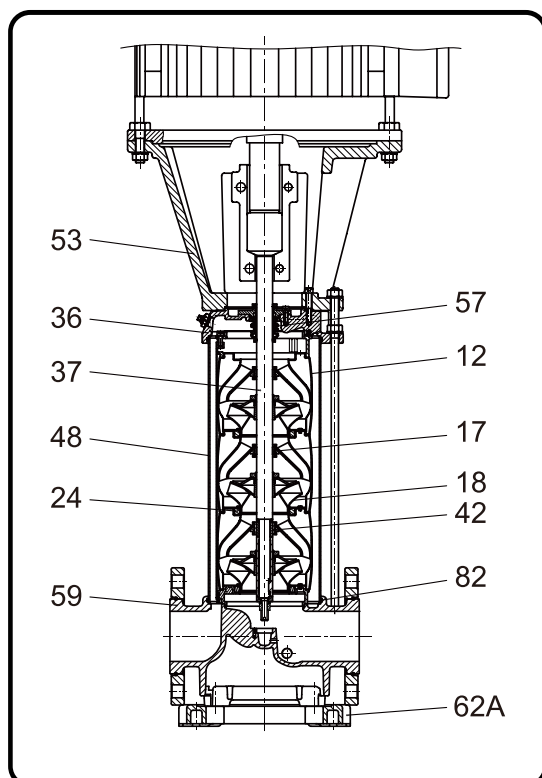
VMC, VMN 32,45,64,90



Type			VM 32,45,64,90		VMC 32,45,64,90		VMN 32,45,64,90	
No.	Name	Material	Europ	USA	Europ	USA	Europ	USA
36	Pump head	cast iron	EN-GJL-250	ASTM35B				
		stainless steel			1.4301	AISI 304	1.4401	AISI316
53	Motor Bracket	cast iron	EN-GJL-250	ASTM35B	EN-GJL-250	ASTM35B	EN-GJL-250	ASTM35B
18	Impeller	stainless steel	1.4301	AISI 304	1.4301	AISI 304	1.4401	AISI316
37	Shaft	stainless steel	1.4057	AISI 431	1.4057	AISI 431	1.4401	AISI316
48	Outer sleeve	stainless steel	1.4301	AISI 304	1.4301	AISI 304	1.4401	AISI316
82	O-ring for outer sleeve	EPDM						
12	Chamber	stainless steel	1.4301	AISI 304	1.4301	AISI 304	1.4401	AISI316
24	Nick ring	Carbon Fiber+POB+ PTFE						
59	Base	cast iron	EN-GJL-250	ASTM35B	NA			
		stainless steel	NA		1.4301	AISI 304	1.4401	AISI316
62	Base plate	Cast Iron	NA		EN-GJL-250	ASTM35B	EN-GJL-250	ASTM35B
57	Mechanical seal	Catridge type						
14	Bearing ring		Bronze				POB+Graphit+PTFE	
42	Bottom bearing ring	Tungsten Carbide						

VM 120, 150

VMC, VMN 120, 150



Type			VM 120,150		VMC 120,150		VMN 120,150	
No.	Name	Material	Europ	USA	Europ	USA	Europ	USA
36	Pump head	cast iron	EN-GJL-250	ASTM35B				
		stainless steel			1.4301	AISI 304	1.4401	AISI316
53	Motor Bracket 15-60HP	cast iron	EN-GJL-250	ASTM35B	EN-GJL-250	ASTM35B	EN-GJL-250	ASTM35B
	Motor Bracket 75-100HP	cast iron	EN-GJS-450-10	ASTM 65-45-12	EN-GJS-450-10	ASTM 65-45-12	EN-GJS-450-10	ASTM 65-45-12
17	Bearing ring	PTFE	PTFE					
18	Impeller	stainless steel	1.4301	AISI 304	1.4301	AISI 304	1.4401	AISI316
37	Shaft	stainless steel	1.4057	AISI 431	1.4057	AISI 431	1.4401	AISI316
48	Outer sleeve	stainless steel	1.4301	AISI 304	1.4301	AISI 304	1.4401	AISI316
82	O-ring for outer sleeve	EPDM						
12	Chamber	stainless steel	1.4301	AISI 304	1.4301	AISI 304	1.4401	AISI316
24	Nick ring	PTFE						
59	Base	cast iron	EN-GJL-250	ASTM35B	NA			
		stainless steel	NA		1.4301	AISI 304	1.4401	AISI316
62	Base plate	Cast Iron	NA		EN-GJS-450-10	ASTM 65-45-12	EN-GJS-450-10	ASTM 65-45-12
62A		Cast Iron	EN-GJS-450-10	ASTM 65-45-12	EN-GJS-450-10	ASTM 65-45-12	EN-GJS-450-10	ASTM 65-45-12
57	Mechanical seal	Catridge type						
42	Bottom bearing ring	Sic/Sic						

Max. inlet and operating pressure

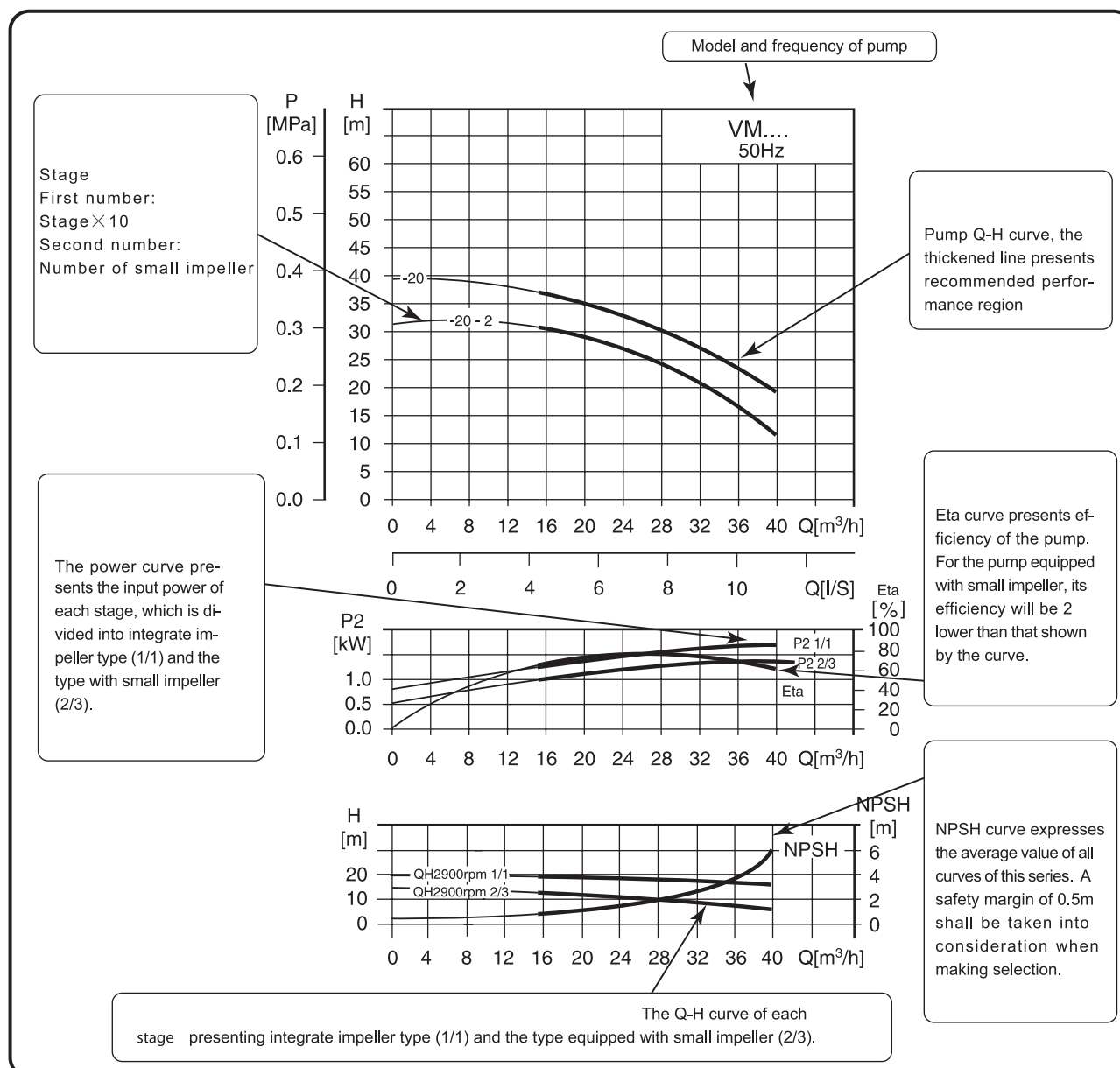
The following table shows the maximum permissible inlet pressure. However; the current inlet pressure + the pressure against a closed valve must always be lower than the maximum permissible operating pressure.

If the maximum permissible operating pressure is exceeded, the bearing in the motor may be damaged and the life of the shaft seal reduced

Pump type	Flange & PJE				Oval Flange		
	Stages	Max. Operating Pressure	Stages	Max. Inlet Pressures	Stages	Max. Operating Pressure	Max. Inlet Pressures
VM(C/N) 1	2 - 36	25 bar	2 - 36	10 bar	2-23	16 bar	10 bar
VM(C/N) 3	2 - 36	25 bar	2 - 29	10 bar	2-23	16 bar	10 bar
			31 - 36	15 bar	-	-	-
VM(C/N) 5	2 - 36	25 bar	2 - 16	10 bar	2-22	16 bar	10 bar
			18 - 36	15 bar	-	-	-
VM(C/N) 10	1 - 16	16 bar	1 - 6	8 bar	1-16	16 bar	8 bar
	17 - 22	25 bar	7 - 22	10 bar	-	-	-
VM(C/N) 15	1 - 10	16 bar	1 - 3	8 bar	1-7	10 bar	8 bar
	12 - 17	25 bar	4 - 17	10 bar	-	-	-
VM(C/N) 20	1 - 10	16 bar	1 - 3	8 bar	1-7	10 bar	8 bar
	12 - 17	25 bar	4 - 17	10 bar	-	-	-
VM(C/N) 32	(1-1) - 17	16 bar	(1-1) - 4	4 bar			
	(8-2) - 14	30 bar	(5-2) - 10	10 bar			
			(11-2) - 14	15 bar			
VM(C/N) 45	(1-1) - 5	16 bar	(1-1) - 2	4 bar			
	(6-2) - 11	30 bar	(3-2) - 5	10 bar			
	(12-2) - (13-2)	33 bar	(6-2) - (13-2)	15 bar			
VM(C/N) 64	(1-1) - 5	16 bar	(1-1) - (2-2)	4 bar			
	(6-2) - (8-1)	30 bar	(2-1) - (4-2)	10 bar			
			(4-1) - (8-1)	15 bar			
VM(C/N) 90	(1-1) - 4	16 bar	(1-1) - 1	4 bar			
	(5-2) - 6	30 bar	(2-1) - (3-2)	10 bar			
			3 - 6	15 bar			
VM(C/N) 120	1 - 7	30 bar	1 - (2-1)	10 bar			
			2 - (5-1)	15 bar			
			(6-1) - 7	20 bar			
VM(C/N) 150	(1-1) - 6	30 bar	(1-1) - 1	10 bar			
			(2-1) - (4-2)	15 bar			
			(5-2) - 6	20 bar			

- Rule to follow: the inlet pressure + the pressure against a closed valve < Max. operating pressure.

Performance Curves



Conditions for the performance curves:

1. All the performance curves are based on the measured values of a motor 3x380V ~ 415V at a constant speed of 2900 rpm.
2. Curve tolerance in conformity with ISO9906, appendix A.
3. Measurement is done with 20 °C air-free water, kinematic viscosity of 1mm² /sec.
4. The operation of pump shall refer to the performance region indicated by the thickened curve to prevent overheating due to too small flow rate or overload of motor due to too large flow rate.

Minimum inlet pressure NPSH

Calculation of the inlet pressure "H" is recommended in these situations:

- The liquid temperature is high.
- The flow is significantly higher than the rated flow.
- Water is drawn from depths.
- Water is drawn through long pipes.
- Inlet conditions are poor.

To avoid cavitation, make sure that there is a minimum pressure on the suction side of the pump. The maximum suction lift "H" in feet can be calculated as follows:

$$H = P_b - \text{NPSHR} - H_f - H_v - H_s$$

P_b = Barometric pressure in feet absolute.

(Barometric pressure can be set to 33.9 feet. At sea level. In closed systems, P_b indicates system pressure in feet.)

NPSHR = Net Positive Suction Head Required in feet.

(To be read from the NPSHR curve at the highest flow the pump will be delivering.)

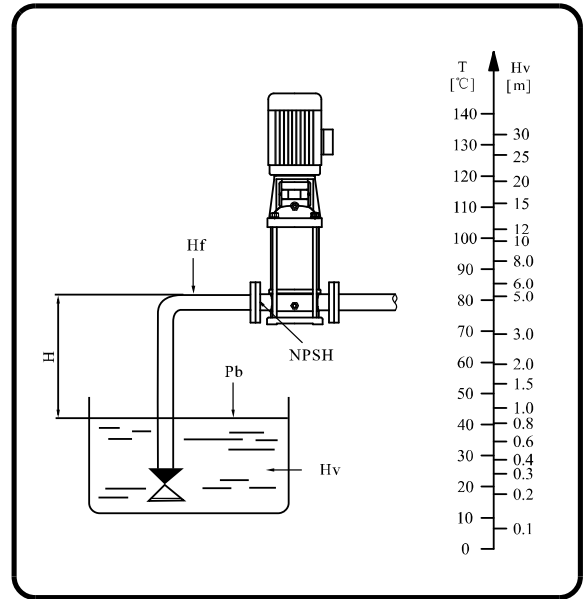
H_f = Friction loss in suction pipe in feet. (At the highest flow the pump will be delivering.)

H_v = Vapor pressure in feet. (To be read from the vapor pressure scale. "Hv" depends on the liquid temperature "Tm").

H_s = Safety margin = minimum 2.0 feet.

If the "H" calculated is positive, the pump can operate at a suction lift of maximum "H" feet.

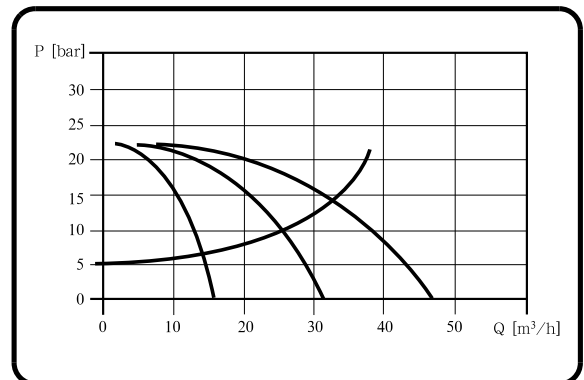
If the "H" calculated is negative, an inlet pressure of minimum "H" feet is required.



Check and ensure that the pump is not at cavitation state.

Note: In order to avoid cavitation never, select a pump whose duty point lies too far to the right on the NPSHR curve.

Always check the NPSHR value of the pump at the highest possible flow.



Two pumps or more can be connected in parallel running if necessary.

Pumped Liquids

VM, VMC, VMN pumps can handle a wide variety of liquids, each with its own characteristic.

VM, VMC

Non-corrosive liquids

For fluid transfer, circulation and pressure boosting of cold or hot clean water.

VMN

Industrial liquids

Light acids

The fluids covered in the list are not complete. Data on the application limits of different pump materials when handling any of the listed fluids are considered to be the best choices. However, the table is intended as a general guide only, and cannot replace actual testing of the pumped fluids and pump materials under specific working conditions. When choosing the pump version, sufficient attention should be given to the flow medium, such as density, solidification point, viscosity as well as ex-protection requirement. The limits of applicability of the pumps, based on pressure and temperature must also be considered.

Recommended

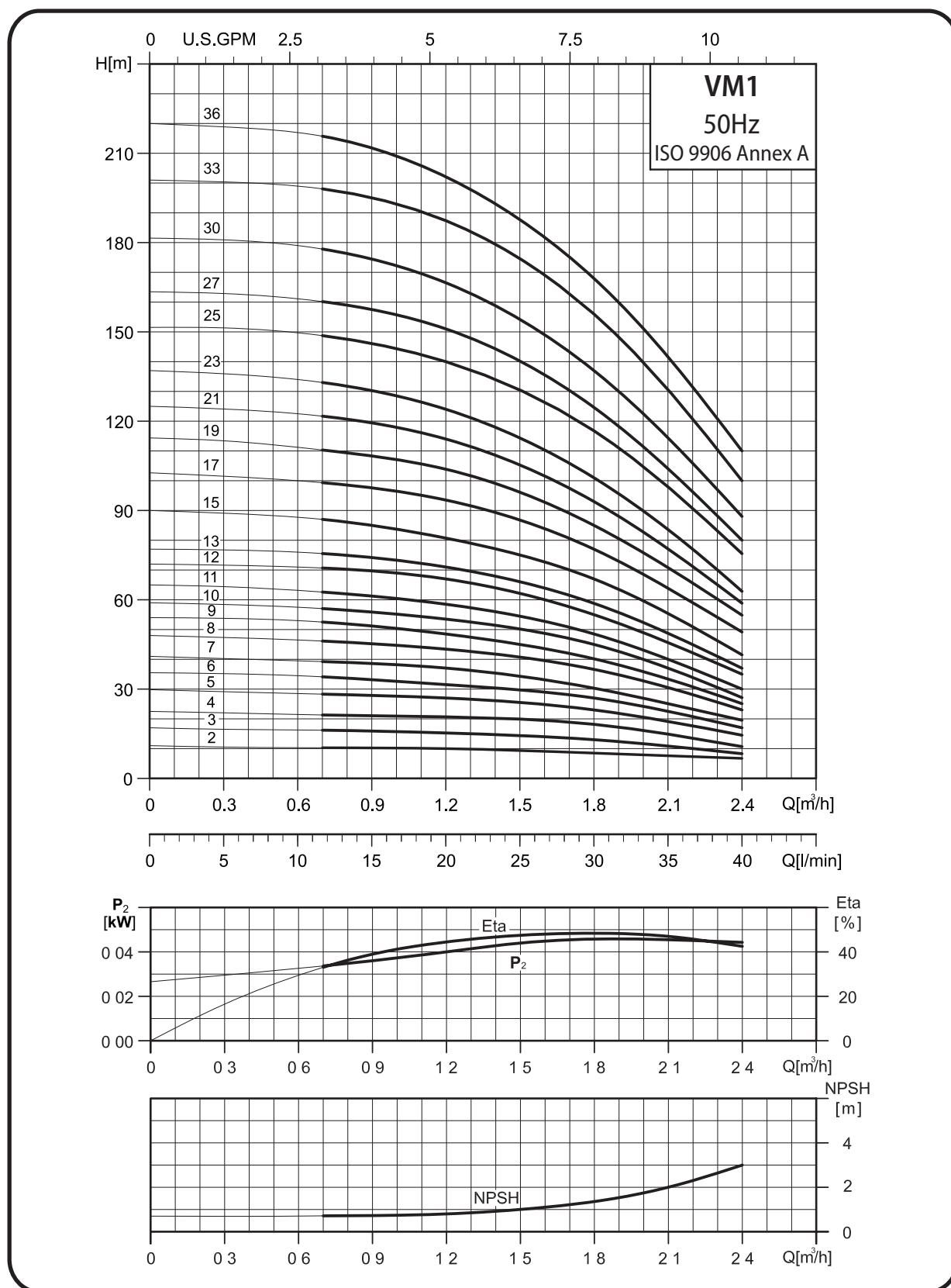
Pumped fluid	Fluid Concentration, temperature	VM / VMC		VMN	
		EPDM	Viton	EPDM	Viton
Acetic acid anhydride	25°C			•	
Alkaline cleaner		•			
Aluminium sulphate	10%, 25°C				•
Ammonia water (A. hydroxide)	20%, 40°C	•			
Ammonia hydrogen carbonate	10%, 40°C	•		•	
Benzoic acid	10%, 90°C				•
Boric acid	Unsaturated solution, 60°C				•
Butanol	60°C	•			
Calcium acetate	30%, 50°C	•			
Calcium hydroxide	Saturated solution, 50°C	•			
Chromic acid	1%, 20°C				•
Condensate	90°C	•			
Copper sulphate	Unsaturated solution, 60°C				•
Deionic (fully desalinated water)	50°C			•	
Ethanol	100%, 20°C	•			
Ethylene glycol/Diethylene glycol	40%, 70°C	•	•	•	•
Fixer	25°C				•
Formic acid	5%, 20°C			•	

Pumped fluid	Fluid Concentration, temperature	VM / VMC		VMN	
		EPDM	Viton	EPDM	Viton
Fruit juice	50°C				•
Glycerine	50%, 50°C	•			
Heating oil (Light)		•			•
Hydraulic oil	100%, 100°C		•		
Isopropanol		•			
Lactic acid	10%, 20°C				•
Linoleic acid	100%, 20°C	•			
Linseed oil	60°C		•		
Liqueur	60°C				•
Maize oil	80°C		•		
Maleic acid	50%, 50°C				•
Methanol	100%, 20°C	•			
Motor oil	100%, 80°C	•			
Oil-water-mixture	100°C		•		
Oxalic acid	1%, 20°C			•	
Peanut oil	100%, 80°C		•		
Phosphoric acid	20%, 20°C			•	
Polyglycols	90°C		•		•
Polyethylene glycols	40%, 70°C	•			
Potassium carbonate	10%, 60°C	•			
Potassium hydrogen carbonate	10%, 60°C	•			
Potassium permanganate	5%, 20°C			•	
Potassium sulphate	Unsaturated solution, 80°C			•	
Rapeseed oil	100%, 80°C		•		
Silicone oil	100%		•		
Sodium carbonate	10%, 60°C			•	
Sodium hydroxide	25%, 50°C			•	
Sodium nitrate	Unsaturated solution, 80°C			•	
Sodium phosphate	5%, 100°C			•	
Sodium sulphate	10%, 60°C			•	
Sulphuric acid	5%, 25°C				•
Water					
Swimming pool water	35°C	• VMC		•	
Deionic	50°C			•	
Distilled water	50°C			•	
Decarbonated water				•	
Soft water				•	
Heating water				•	
Boiler water				•	
Pure water				•	
Rinsing water		• VMC		•	

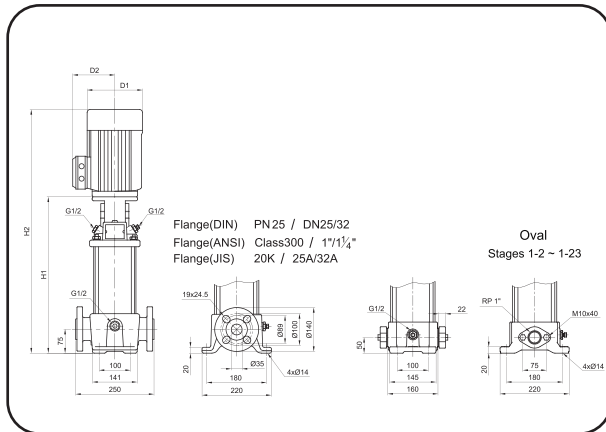
VM1 / VMC1 / VMN1

Performance Curves

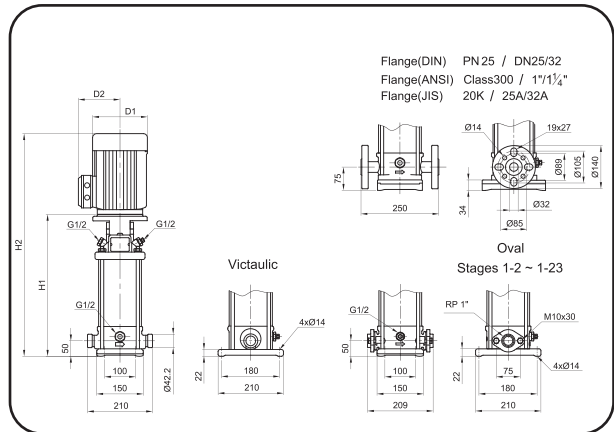
The performance curve applies to the VM, VMC and VMN version of the pump.



Dimensions and Weight - VM1



Dimensions and Weight - VMC/N1



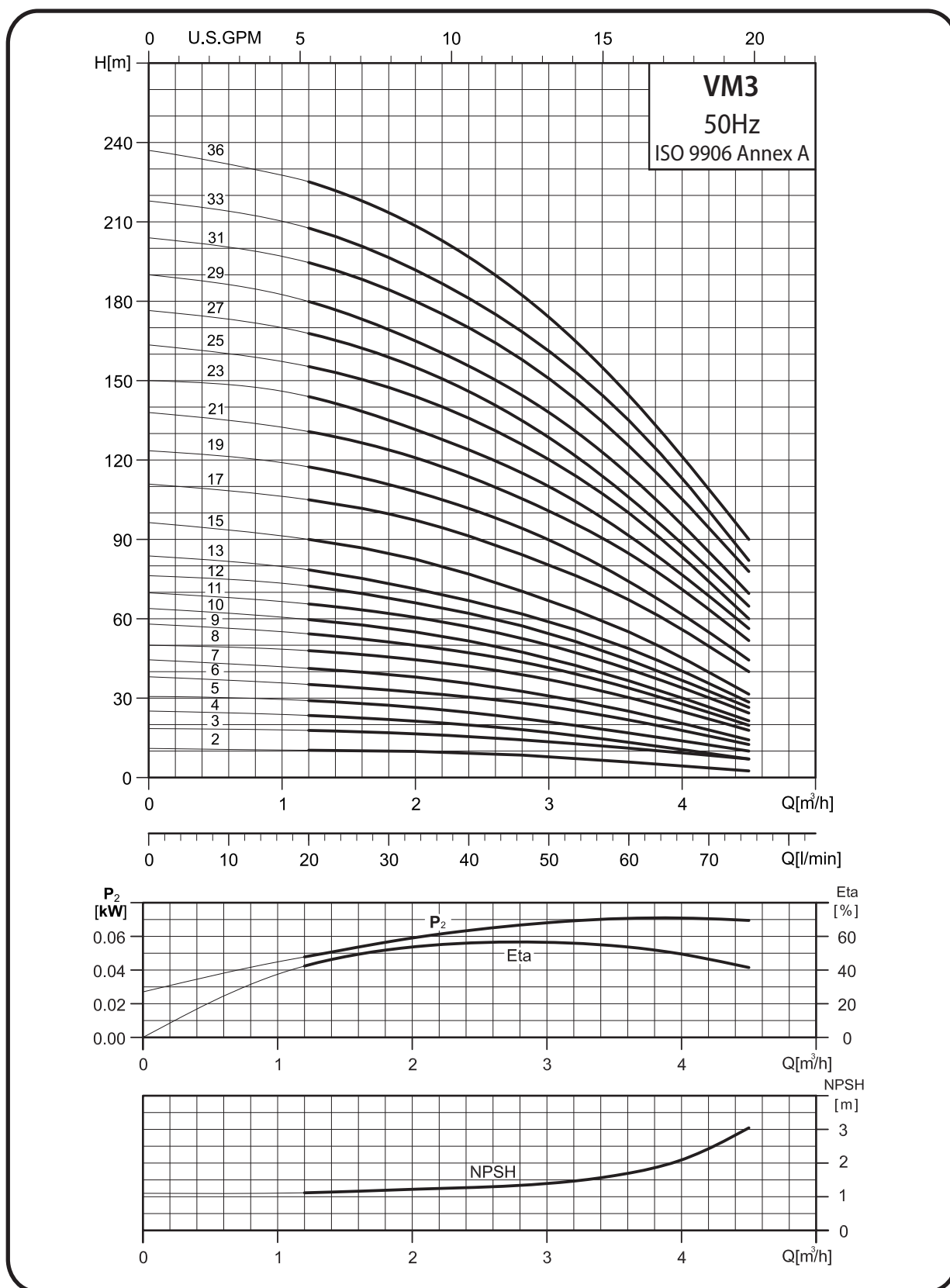
50Hz	Motor		Nominal current [A]			Dimension[mm]						Net weight [kg]	
	P2		1ø	3ø		DIN flange		OVAL		D1	D2	DIN flange	OVAL
Pump type	[kW]	[HP]	220-240V	Δ220-240V	Y380-415V	H1	H2	H1	H2				
VM1-2	0.37	0.5	2.5 - 2.5	1.7 - 1.9	1.0 - 1.1	279	474	254	449	141	115	23.4	19.3
VM1-3	0.37	0.5	2.5 - 2.5	1.7 - 1.9	1.0 - 1.1	279	474	254	449	141	115	23.4	19.3
VM1-4	0.37	0.5	2.5 - 2.5	1.7 - 1.9	1.0 - 1.1	297	492	272	467	141	115	23.8	19.7
VM1-5	0.37	0.5	2.5 - 2.5	1.7 - 1.9	1.0 - 1.1	315	510	290	485	141	115	24.2	20.1
VM1-6	0.37	0.5	2.5 - 2.5	1.7 - 1.9	1.0 - 1.1	333	528	308	503	141	115	24.5	20.4
VM1-7	0.37	0.5	2.5 - 2.5	1.7 - 1.9	1.0 - 1.1	351	546	326	521	141	115	24.9	20.8
VM1-8	0.55	0.75	4.0 - 3.5	2.6 - 2.9	1.5 - 1.7	369	564	344	539	141	115	25.8	21.7
VM1-9	0.55	0.75	4.0 - 3.5	2.6 - 2.9	1.5 - 1.7	387	582	362	557	141	115	26.1	22.0
VM1-10	0.55	0.75	4.0 - 3.5	2.6 - 2.9	1.5 - 1.7	405	600	380	575	141	115	26.5	22.4
VM1-11	0.55	0.75	4.0 - 3.5	2.6 - 2.9	1.5 - 1.7	423	618	398	593	141	115	26.9	22.8
VM1-12	0.75	1.0	5.1 - 4.1	3.4 - 3.4	2.0 - 2.0	447	682	422	657	141	115	29.4	25.3
VM1-13	0.75	1.0	5.1 - 4.1	3.4 - 3.4	2.0 - 2.0	465	700	440	675	141	115	29.8	25.7
VM1-15	0.75	1.0	5.1 - 4.1	3.4 - 3.4	2.0 - 2.0	501	736	476	711	141	115	30.5	26.4
VM1-17	1.1	1.5	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	537	826	512	801	177	141	37.9	33.8
VM1-19	1.1	1.5	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	573	862	548	837	177	141	38.7	34.6
VM1-21	1.1	1.5	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	609	898	584	873	177	141	39.4	35.3
VM1-23	1.1	1.5	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	645	934	620	909	177	141	40.2	36.1
VM1-25	1.5	2.0	9.5 - 8.9	6.2 - 6.6	3.6 - 3.8	697	992	—	—	177	141	45.0	—
VM1-27	1.5	2.0	9.5 - 8.9	6.2 - 6.6	3.6 - 3.8	733	1028	—	—	177	141	45.8	—
VM1-30	1.5	2.0	9.5 - 8.9	6.2 - 6.6	3.6 - 3.8	787	1082	—	—	177	141	46.9	—
VM1-33	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	841	1136	—	—	177	141	49.9	—
VM1-36	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	895	1190	—	—	177	141	51.0	—

50Hz	Motor		Nominal current [A]			Dimension[mm]								Net weight [kg]		
	P2		1ø	3ø		Vactaulic		DIN flange		OVAL		D1	D2	Vactaulic	DINflange	OVAL
Pump type	[kW]	[HP]	220-240V	Δ220-240V	Y380-415V	H1	H2	H1	H2	H1	H2					
VM(C/N)1-2	0.37	0.5	2.5 - 2.5	1.7 - 1.9	1.0 - 1.1	257	452	282	477	257	452	141	115	19.30	20.20	17.10
VM(C/N)1-3	0.37	0.5	2.5 - 2.5	1.7 - 1.9	1.0 - 1.1	257	452	282	477	257	452	141	115	19.30	20.30	17.10
VM(C/N)1-4	0.37	0.5	2.5 - 2.5	1.7 - 1.9	1.0 - 1.1	275	470	300	495	275	470	141	115	19.70	20.60	17.50
VM(C/N)1-5	0.37	0.5	2.5 - 2.5	1.7 - 1.9	1.0 - 1.1	293	488	318	513	293	488	141	115	20.10	21.00	17.90
VM(C/N)1-6	0.37	0.5	2.5 - 2.5	1.7 - 1.9	1.0 - 1.1	311	506	336	531	311	506	141	115	20.40	21.40	18.20
VM(C/N)1-7	0.37	0.5	2.5 - 2.5	1.7 - 1.9	1.0 - 1.1	329	524	354	549	329	524	141	115	20.80	21.70	18.60
VM(C/N)1-8	0.55	0.75	4.0 - 3.5	2.6 - 2.9	1.5 - 1.7	347	542	372	567	347	542	141	115	21.70	22.60	19.50
VM(C/N)1-9	0.55	0.75	4.0 - 3.5	2.6 - 2.9	1.5 - 1.7	365	560	390	585	365	560	141	115	22.00	23.00	19.80
VM(C/N)1-10	0.55	0.75	4.0 - 3.5	2.6 - 2.9	1.5 - 1.7	383	578	408	603	383	578	141	115	22.40	23.30	20.20
VM(C/N)1-11	0.55	0.75	4.0 - 3.5	2.6 - 2.9	1.5 - 1.7	401	596	426	621	401	596	141	115	22.80	23.70	20.60
VM(C/N)1-12	0.75	1.0	5.1 - 4.1	3.4 - 3.4	2.0 - 2.0	425	660	450	685	425	660	141	115	25.20	26.10	23.00
VM(C/N)1-13	0.75	1.0	5.1 - 4.1	3.4 - 3.4	2.0 - 2.0	443	678	468	703	443	678	141	115	25.60	26.50	23.40
VM(C/N)1-15	0.75	1.0	5.1 - 4.1	3.4 - 3.4	2.0 - 2.0	479	714	504	739	479	714	141	115	26.30	27.20	24.10
VM(C/N)1-17	1.1	1.5	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	515	804	540	829	515	804	177	141	33.70	34.70	31.60
VM(C/N)1-19	1.1	1.5	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	551	840	576	865	551	840	177	141	34.40	35.40	32.30
VM(C/N)1-21	1.1	1.5	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	587	876	612	901	587	876	177	141	35.20	36.20	33.10
VM(C/N)1-23	1.1	1.5	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	623	912	648	937	623	912	177	141	35.90	36.90	33.80
VM(C/N)1-25	1.5	2.0	9.5 - 8.9	6.2 - 6.6	3.6 - 3.8	675	970	700	995	—	—	177	141	40.80	41.80	—
VM(C/N)1-27	1.5	2.0	9.5 - 8.9	6.2 - 6.6	3.6 - 3.8	711	1006	736	1031	—	—	177	141	41.60	42.50	—
VM(C/N)1-30	1.5	2.0	9.5 - 8.9	6.2 - 6.6	3.6 - 3.8	765	1060	790	1085	—	—	177	141	42.70	43.60	—
VM(C/N)1-33	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	819	1114	844	1139	—	—	177	141	45.60	46.60	—
VM(C/N)1-36	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	873	1168	898	1193	—	—	177	141	46.70	47.70	—

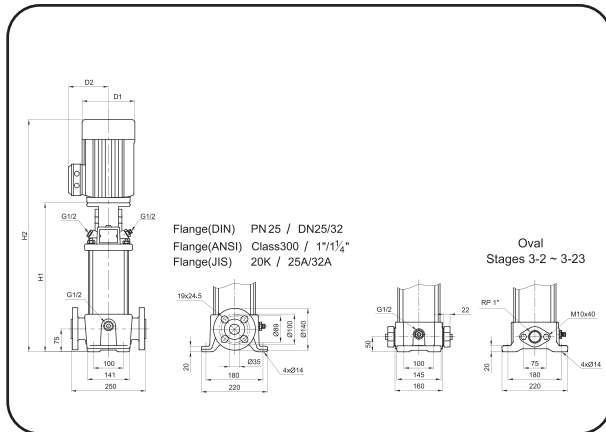
VM3 / VMC3 / VMN3

Performance Curves

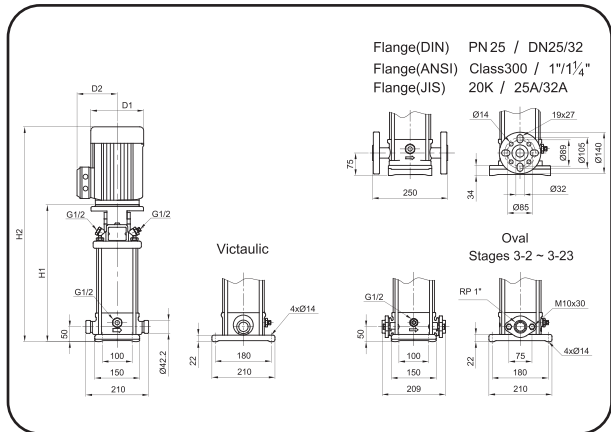
The performance curve applies to the VM, VMC and VMN version of the pump.



Dimensions and Weight - VM3



Dimensions and Weight - VMC/N3



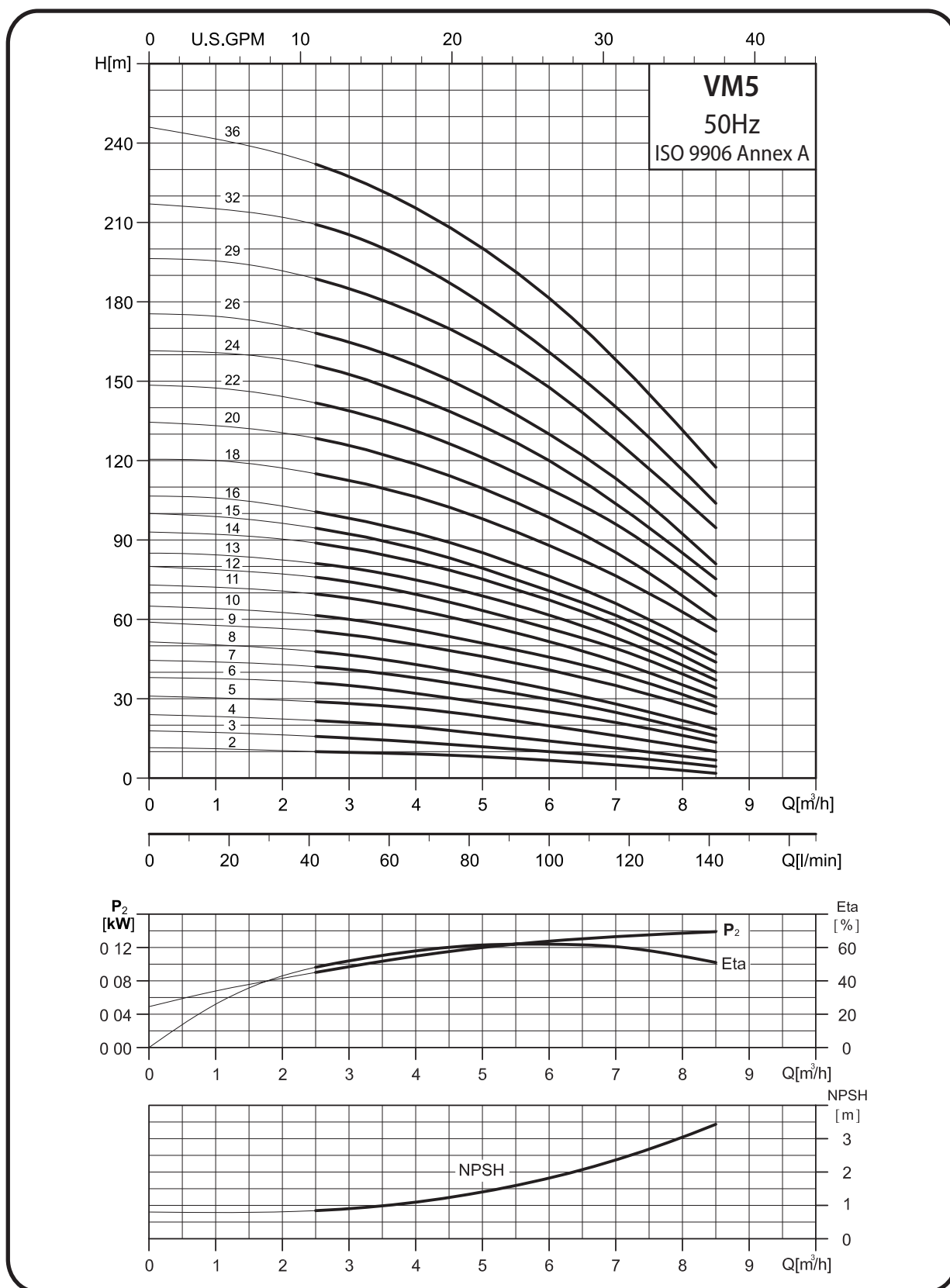
50Hz	Motor		Nominal current [A]					Dimension[mm]						Net weight [kg]	
	P2		1ø	3ø	3ø	3ø		DIN flange				D1	D2	DIN flange	OVAL
Pump type	[kW]	[HP]	220-240V	Δ220-240V	Y380-415V	Δ380-415V	Y660-720V	H1	H2	H1	H2	D1	D2	DIN flange	OVAL
VM 3-2	0.37	0.5	2.5 - 2.5	1.7 - 1.9	1.0 - 1.1	—	—	279	474	254	449	141	115	23.4	19.3
VM 3-3	0.37	0.5	2.5 - 2.5	1.7 - 1.9	1.0 - 1.1	—	—	279	474	254	449	141	115	23.4	19.3
VM 3-4	0.37	0.5	2.5 - 2.5	1.7 - 1.9	1.0 - 1.1	—	—	297	492	272	467	141	115	23.8	19.7
VM 3-5	0.37	0.5	2.5 - 2.5	1.7 - 1.9	1.0 - 1.1	—	—	315	510	290	485	141	115	24.2	20.1
VM 3-6	0.55	0.75	4.0 - 3.5	2.6 - 2.9	1.5 - 1.7	—	—	333	528	308	503	141	115	25.0	20.9
VM 3-7	0.55	0.75	4.0 - 3.5	2.6 - 2.9	1.5 - 1.7	—	—	351	546	326	521	141	115	25.4	21.3
VM 3-8	0.75	1.0	5.1 - 4.1	3.4 - 3.4	2.0 - 2.0	—	—	375	610	350	585	141	115	27.9	23.8
VM 3-9	0.75	1.0	5.1 - 4.1	3.4 - 3.4	2.0 - 2.0	—	—	393	628	368	603	141	115	28.3	24.2
VM 3-10	0.75	1.0	5.1 - 4.1	3.4 - 3.4	2.0 - 2.0	—	—	411	646	386	621	141	115	28.7	24.6
VM 3-11	1.1	1.5	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	—	—	429	718	404	693	177	141	35.8	31.7
VM 3-12	1.1	1.5	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	—	—	447	736	422	711	177	141	36.1	32.0
VM 3-13	1.1	1.5	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	—	—	465	754	440	729	177	141	36.5	32.4
VM 3-15	1.1	1.5	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	—	—	501	790	476	765	177	141	37.2	33.1
VM 3-17	1.5	2.0	9.5 - 8.9	6.2 - 6.6	3.6 - 3.8	—	—	553	848	528	823	177	141	42.0	37.9
VM 3-19	1.5	2.0	9.5 - 8.9	6.2 - 6.6	3.6 - 3.8	—	—	589	884	564	859	177	141	42.8	38.7
VM 3-21	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	625	920	600	895	177	141	45.3	41.2
VM 3-23	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	661	956	636	931	177	141	46.1	42.0
VM 3-25	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	697	992	—	—	177	141	46.8	—
VM 3-27	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	733	1028	—	—	177	141	47.6	—
VM 3-29	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	769	1064	—	—	177	141	48.3	—
VM 3-31	3.0	4.0	—	11.8 - 12.3	6.8 - 7.1	6.8 - 6.9	3.9 - 4.0	809	1125	—	—	197	147	58.0	—
VM 3-33	3.0	4.0	—	11.8 - 12.3	6.8 - 7.1	6.8 - 6.9	3.9 - 4.0	845	1161	—	—	197	147	58.8	—
VM 3-36	3.0	4.0	—	11.8 - 12.3	6.8 - 7.1	6.8 - 6.9	3.9 - 4.0	899	1215	—	—	197	147	59.9	—

50Hz	Motor		Nominal current [A]					Dimension[mm]						Net weight[kg]		
	P2		1ø	3ø	3ø	3ø		Vactaulic				D1	D2	Vactaulic	DIN flange	OVAL
Pump type	[kW]	[HP]	220-240V	Δ220-240V	Y380-415V	Δ380-415V	Y660-720V	H1	H2	H1	H2	D1	D2	Vactaulic	DIN flange	OVAL
VMC(N)3-2	0.37	0.5	2.5 - 2.5	1.7 - 1.9	1.0 - 1.1	—	—	257	452	282	477	257	452	141	115	19.3
VMC(N)3-3	0.37	0.5	2.5 - 2.5	1.7 - 1.9	1.0 - 1.1	—	—	257	452	282	477	257	452	141	115	19.3
VMC(N)3-4	0.37	0.5	2.5 - 2.5	1.7 - 1.9	1.0 - 1.1	—	—	275	470	300	495	275	470	141	115	19.7
VMC(N)3-5	0.37	0.5	2.5 - 2.5	1.7 - 1.9	1.0 - 1.1	—	—	293	488	318	513	293	488	141	115	20.1
VMC(N)3-6	0.55	0.75	4.0 - 3.5	2.6 - 2.9	1.5 - 1.7	—	—	311	506	336	531	311	506	141	115	20.9
VMC(N)3-7	0.55	0.75	4.0 - 3.5	2.6 - 2.9	1.5 - 1.7	—	—	329	524	354	549	329	524	141	115	21.3
VMC(N)3-8	0.75	1.0	5.1 - 4.1	3.4 - 3.4	2.0 - 2.0	—	—	353	588	378	613	353	588	141	115	23.7
VMC(N)3-9	0.75	1.0	5.1 - 4.1	3.4 - 3.4	2.0 - 2.0	—	—	371	606	396	631	371	606	141	115	24.0
VMC(N)3-10	0.75	1.0	5.1 - 4.1	3.4 - 3.4	2.0 - 2.0	—	—	389	624	414	649	389	624	141	115	24.4
VMC(N)3-11	1.1	1.5	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	—	—	407	696	432	721	407	696	177	141	31.5
VMC(N)3-12	1.1	1.5	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	—	—	425	714	450	739	425	714	177	141	31.9
VMC(N)3-13	1.1	1.5	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	—	—	443	732	468	757	443	732	177	141	32.3
VMC(N)3-15	1.1	1.5	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	—	—	479	768	504	793	479	768	177	141	33.0
VMC(N)3-17	1.5	2.0	9.5 - 8.9	6.2 - 6.6	3.6 - 3.8	—	—	531	826	556	851	531	826	177	141	37.9
VMC(N)3-19	1.5	2.0	9.5 - 8.9	6.2 - 6.6	3.6 - 3.8	—	—	567	862	592	887	567	862	177	141	38.6
VMC(N)3-21	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	603	898	628	923	603	898	177	141	41.2
VMC(N)3-23	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	639	934	664	959	639	934	177	141	41.9
VMC(N)3-25	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	675	970	700	995	—	—	177	141	42.6
VMC(N)3-27	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	711	1006	736	1031	—	—	177	141	43.4
VMC(N)3-29	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	747	1042	772	1067	—	—	177	141	44.1
VMC(N)3-31	3.0	4.0	—	11.8 - 12.3	6.8 - 7.1	6.8 - 6.9	3.9 - 4.0	787	1103	812	1128	—	—	197	147	53.4
VMC(N)3-33	3.0	4.0	—	11.8 - 12.3	6.8 - 7.1	6.8 - 6.9	3.9 - 4.0	823	1139	848	1164	—	—	197	147	54.2
VMC(N)3-36	3.0	4.0	—	11.8 - 12.3	6.8 - 7.1	6.8 - 6.9	3.9 - 4.0	877	1193	902	1218	—	—	197	147	55.3

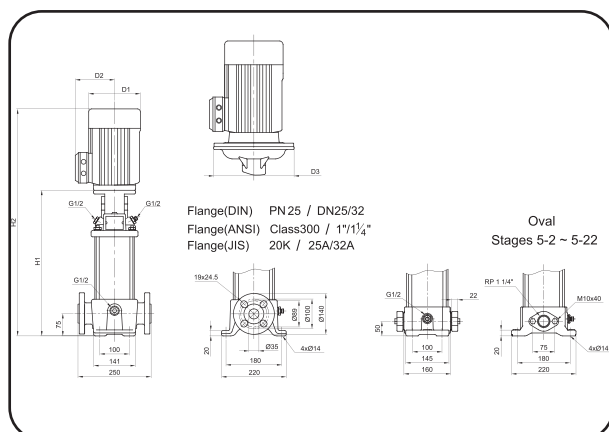
VM5 / VMC5 / VMN5

Performance Curves

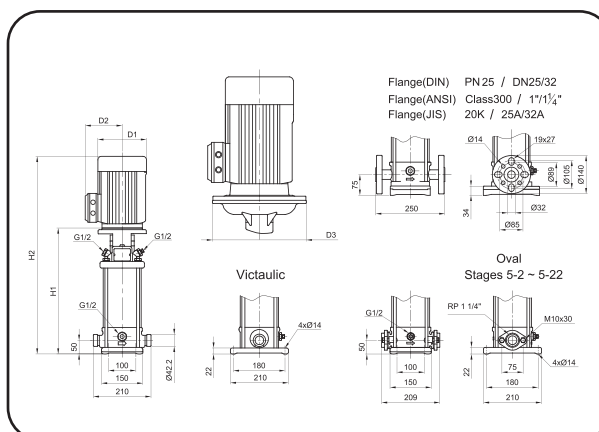
The performance curve applies to the VM, VMC and VMN version of the pump.



Dimensions and Weight - VM5



Dimensions and Weight - VMC/N5



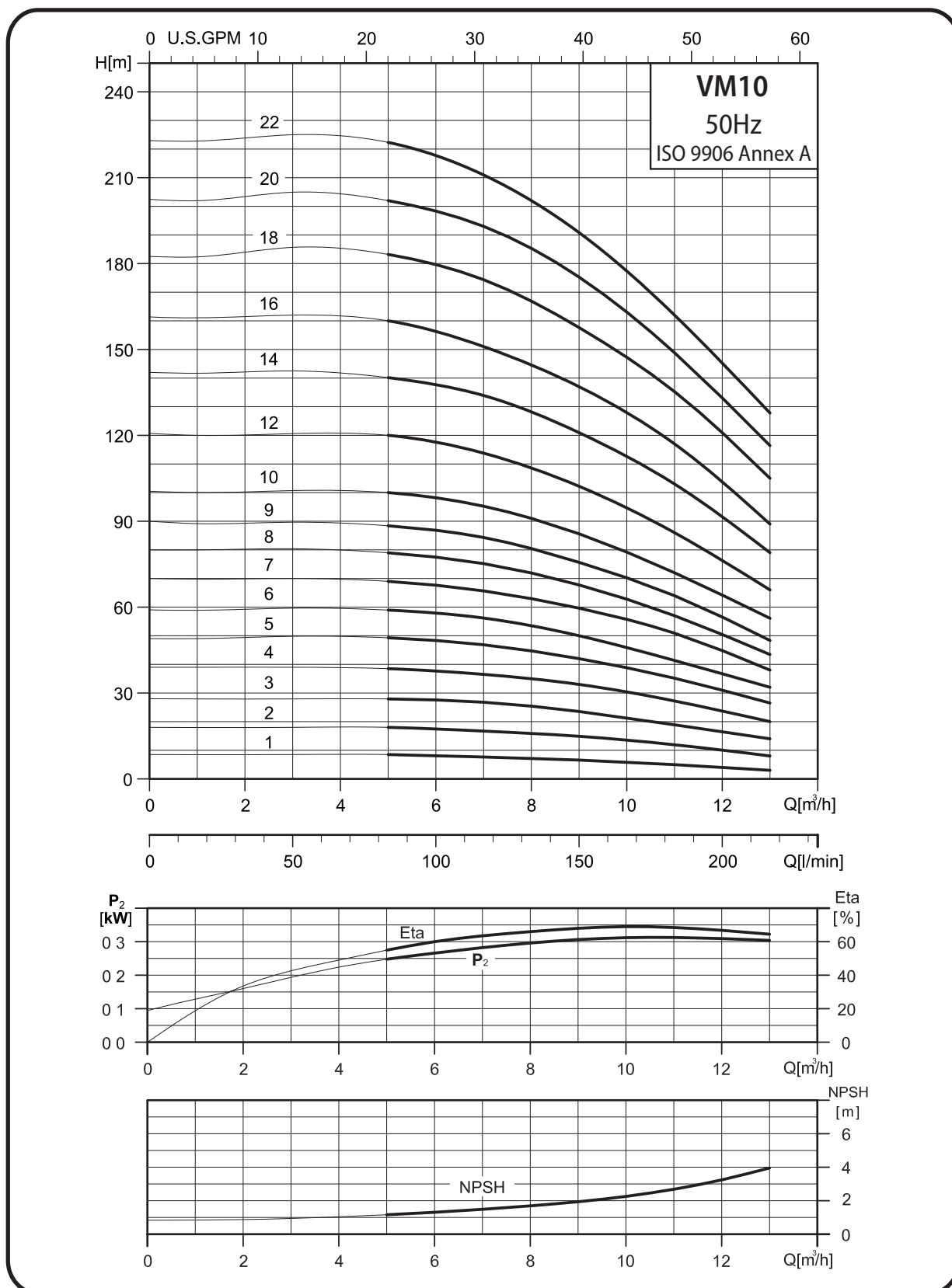
50Hz	Motor		Nominal current [A]					Dimension[mm]					Net weight [kg]			
	P2		1ø	3ø		3ø		DIN flange		OVAL		D1	D2	D3	DIN flange	OVAL
Pump type	[kW]	[HP]	220-240V	Δ220-240V	Y380-415V	Δ380-415V	Y660-720V	H1	H2	H1	H2	141	115	—	23.3	19.0
VM5-2	0.37	0.5	2.5 - 2.5	1.7 - 1.9	1.0 - 1.1	—	—	279	474	254	449	141	115	—	23.3	19.0
VM5-3	0.55	0.75	4.0 - 3.5	2.6 - 2.9	1.5 - 1.7	—	—	306	501	281	476	141	115	—	24.2	19.9
VM5-4	0.55	0.75	4.0 - 3.5	2.6 - 2.9	1.5 - 1.7	—	—	333	528	308	503	141	115	—	24.8	20.5
VM5-5	0.75	1.0	5.1 - 4.1	3.4 - 3.4	2.0 - 2.0	—	—	366	601	341	576	141	115	—	27.4	23.1
VM5-6	1.1	1.5	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	—	—	393	682	368	657	177	141	—	34.7	30.4
VM5-7	1.1	1.5	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	—	—	420	709	395	684	177	141	—	35.2	30.9
VM5-8	1.1	1.5	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	—	—	447	736	422	711	177	141	—	35.7	31.4
VM5-9	1.5	2.0	9.5 - 8.9	6.2 - 6.6	3.6 - 3.8	—	—	490	785	465	760	177	141	—	40.3	36.0
VM5-10	1.5	2.0	9.5 - 8.9	6.2 - 6.6	3.6 - 3.8	—	—	517	812	492	787	177	141	—	40.9	36.6
VM5-11	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	544	839	519	814	177	141	—	43.2	38.9
VM5-12	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	571	866	546	841	177	141	—	43.7	39.4
VM5-13	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	598	893	573	868	177	141	—	44.2	39.9
VM5-14	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	625	920	600	895	177	141	—	44.8	40.5
VM5-15	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	652	947	627	922	177	141	—	45.2	40.9
VM5-16	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	679	974	654	949	177	141	—	45.8	41.5
VM5-18	3	4.0	—	11.8 - 12.3	6.8 - 7.1	6.8 - 6.9	3.9 - 4.0	737	1053	712	1028	197	147	—	55.7	51.4
VM5-20	3	4.0	—	11.8 - 12.3	6.8 - 7.1	6.8 - 6.9	3.9 - 4.0	791	1107	766	1082	197	147	—	56.9	52.6
VM5-22	4	5.5	—	15.1 - 15.2	8.7 - 8.8	8.7 - 8.3	5.0 - 4.8	845	1171	820	1146	220	161	—	61.8	57.5
VM5-24	4	5.5	—	15.1 - 15.2	8.7 - 8.8	8.7 - 8.3	5.0 - 4.8	899	1225	—	—	220	161	—	62.8	—
VM5-26	4	5.5	—	15.1 - 15.2	8.7 - 8.8	8.7 - 8.3	5.0 - 4.8	953	1279	—	—	220	161	—	64.7	—
VM5-29	4	5.5	—	15.1 - 15.2	8.7 - 8.8	8.7 - 8.3	5.0 - 4.8	1034	1360	—	—	220	161	—	66.6	—
VM5-32	5.5	7.5	—	18.7 - 18.0	10.8 - 10.4	10.9 - 10.8	6.3 - 6.2	1145	1507	—	—	235	197	300	89.4	—
VM5-36	5.5	7.5	—	18.7 - 18.0	10.8 - 10.4	10.9 - 10.8	6.3 - 6.2	1253	1615	—	—	235	197	300	91.9	—

50Hz	Motor		Nominal current [A]						Dimension[mm]									Net weight [kg]		
	P2		1ø	3ø		3ø		Victaulic		DIN flange		OVAL		D1	D2	D3	Victaulic	DIN flange	OVAL	
Pump type	[kW]	[HP]	220-240V	Δ220-240V	Y380-415V	Δ380-415V	Y660-720V	H1	H2	H1	H2	H1	H2							
VM(C/N)5-2	0.37	0.5	2.5 - 2.5	1.7 - 1.9	1.0 - 1.1	—	—	257	452	282	477	257	452	141	115	—	19.2	20.1	16.9	
VM(C/N)5-3	0.55	0.75	4.0 - 3.5	2.6 - 2.9	1.5 - 1.7	—	—	284	479	309	504	284	479	141	115	—	20.3	21.2	18.0	
VM(C/N)5-4	0.55	0.75	4.0 - 3.5	2.6 - 2.9	1.5 - 1.7	—	—	311	506	336	531	311	506	141	115	—	20.8	21.8	18.6	
VM(C/N)5-5	0.75	1.0	5.1 - 4.1	3.4 - 3.4	2.0 - 2.0	—	—	344	579	369	604	344	579	141	115	—	23.4	24.3	21.1	
VM(C/N)5-6	1.1	1.5	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	—	—	371	660	396	685	371	660	177	141	—	30.7	31.6	28.4	
VM(C/N)5-7	1.1	1.5	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	—	—	398	687	423	712	398	687	177	141	—	31.2	32.1	28.9	
VM(C/N)5-8	1.1	1.5	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	—	—	425	714	450	739	425	714	177	141	—	31.7	32.7	29.5	
VM(C/N)5-9	1.5	2.0	9.5 - 8.9	6.2 - 6.6	3.6 - 3.8	—	—	468	763	493	788	468	763	177	141	—	36.4	37.4	34.2	
VM(C/N)5-10	1.5	2.0	9.5 - 8.9	6.2 - 6.6	3.6 - 3.8	—	—	495	790	520	815	495	790	177	141	—	37.0	37.9	34.7	
VM(C/N)5-11	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	522	817	547	842	522	817	177	141	—	39.3	40.3	37.0	
VM(C/N)5-12	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	549	844	574	869	549	844	177	141	—	39.9	40.8	37.6	
VM(C/N)5-13	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	576	871	601	896	576	871	177	141	—	40.4	41.4	38.1	
VM(C/N)5-14	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	603	898	628	923	603	898	177	141	—	41.0	41.9	38.7	
VM(C/N)5-15	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	630	925	655	950	630	925	177	141	—	41.5	42.5	39.2	
VM(C/N)5-16	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	657	952	682	977	657	952	177	141	—	42.1	43.0	39.8	
VM(C/N)5-18	3	4.0	—	11.8 - 12.3	6.8 - 7.1	6.8 - 6.9	3.9 - 4.0	715	1031	740	1056	715	1031	197	147	—	51.7	52.7	49.5	
VM(C/N)5-20	3	4.0	—	11.8 - 12.3	6.8 - 7.1	6.8 - 6.9	3.9 - 4.0	769	1085	794	1110	769	1085	197	147	—	53.0	53.9	50.7	
VM(C/N)5-22	4	5.5	—	15.1 - 15.2	8.7 - 8.8	8.7 - 8.3	5.0 - 4.8	823	1149	848	1174	823	1149	220	161	—	57.8	58.8	55.6	
VM(C/N)5-24	4	5.5	—	15.1 - 15.2	8.7 - 8.8	8.7 - 8.3	5.0 - 4.8	877	1203	902	1228	—	—	220	161	—	58.9	59.8	—	
VM(C/N)5-26	4	5.5	—	15.1 - 15.2	8.7 - 8.8	8.7 - 8.3	5.0 - 4.8	931	1257	956	1282	—	—	220	161	—	60.0	61.9	—	
VM(C/N)5-29	4	5.5	—	15.1 - 15.2	8.7 - 8.8	8.7 - 8.3	5.0 - 4.8	1012	1338	1037	1363	—	—	220	161	—	61.7	62.6	—	
VM(C/N)5-32	5.5	7.5	—	18.7 - 18.0	10.8 - 10.4	10.9 - 10.8	6.3 - 6.2	1123	1485	1148	1510	—	—	235	197	300	84.2	85.1	—	
VM(C/N)5-36	5.5	7.5	—	18.7 - 18.0	10.8 - 10.4	10.9 - 10.8	6.3 - 6.2	1231	1593	1256	1618	—	—	235	197	300	86.4	87.4	—	

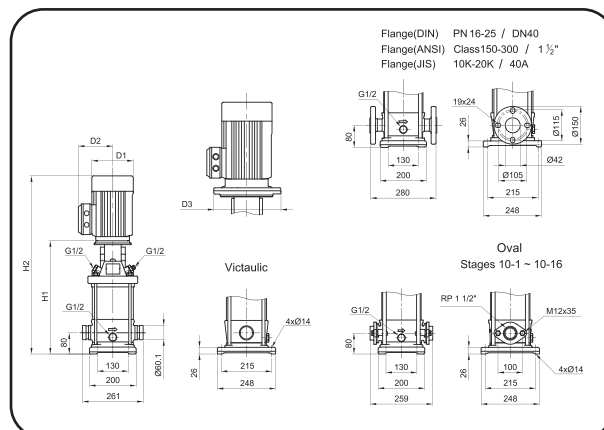
VM10 / VMC10 / VMN10

Performance Curves

The performance curve applies to the VM, VMC and VMN version of the pump.



Dimensions and Weight - VMC/N10

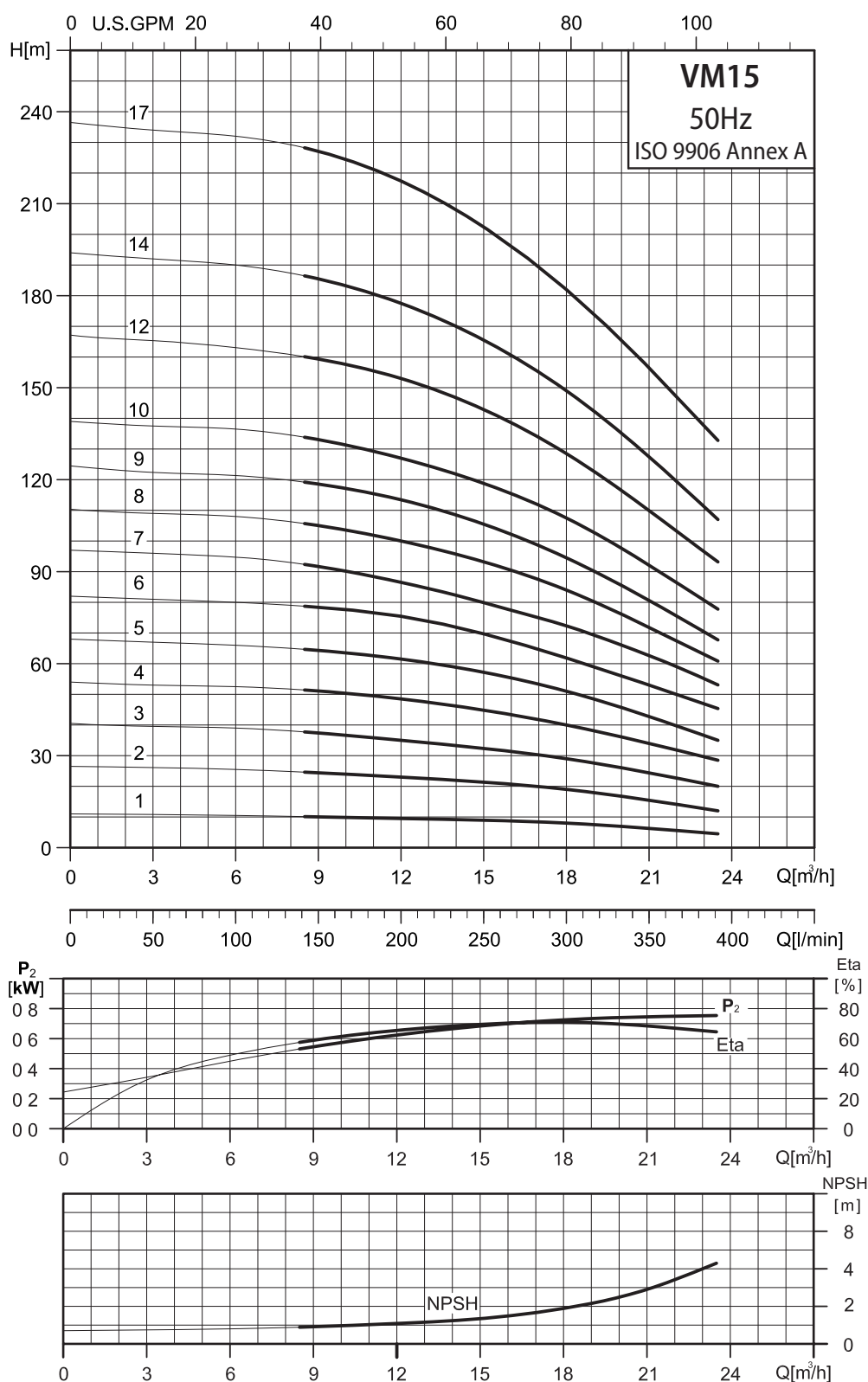


50Hz	Motor		Nominal current [A]						Dimension[mm]										Net weight [kg]		
	P2		1ø	3ø		3ø		Vactaulic		DIN flange		OVAL		D1	D2	D3	Vactaulic	DIN flange	OVAL		
Pump type	[kW]	[HP]	220-240V	Δ220-240V	Y380-415V	Δ380-415V	Y660-720V	H1	H2	H1	H2	H1	H2								
VM(C/N)10-1	0.37	0.5	2.5 - 2.5	1.7 - 1.9	1.0 - 1.1	—	—	353	548	353	548	353	548	141	115	—	31.6	31.4	29.9		
VM(C/N)10-2	0.75	1.0	5.1 - 4.1	3.4 - 3.4	2.0 - 2.0	—	—	357	592	357	592	357	592	141	115	—	34.3	34.2	32.7		
VM(C/N)10-3	1.1	1.5	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	—	—	387	676	387	676	387	676	177	141	—	42.0	36.3	34.8		
VM(C/N)10-4	1.5	2.0	9.5 - 8.9	6.2 - 6.6	3.6 - 3.8	—	—	433	728	433	728	433	728	177	141	—	47.1	46.0	44.5		
VM(C/N)10-5	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	463	758	463	758	463	758	177	141	—	50.0	49.8	48.3		
VM(C/N)10-6	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	493	788	493	788	493	788	177	141	—	51.0	50.8	49.3		
VM(C/N)10-7	3.0	4.0	—	11.8 - 12.3	6.8 - 7.1	6.8 - 6.9	3.9 - 4.0	528	844	528	844	528	844	197	147	—	60.5	60.3	58.8		
VM(C/N)10-8	3.0	4.0	—	11.8 - 12.3	6.8 - 7.1	6.8 - 6.9	3.9 - 4.0	558	874	558	874	558	874	197	147	—	61.5	61.4	59.9		
VM(C/N)10-9	3.0	4.0	—	11.8 - 12.3	6.8 - 7.1	6.8 - 6.9	3.9 - 4.0	588	904	588	904	588	904	197	147	—	62.5	62.4	60.9		
VM(C/N)10-10	4.0	5.5	—	15.1 - 15.2	8.7 - 8.8	8.7 - 8.3	5.0 - 4.8	618	944	618	944	618	944	220	161	—	67.6	67.4	65.9		
VM(C/N)10-12	4.0	5.5	—	15.1 - 15.2	8.7 - 8.8	8.7 - 8.3	5.0 - 4.8	678	1004	678	1004	678	1004	220	161	—	69.6	69.5	68.0		
VM(C/N)10-14	5.5	7.5	—	18.7 - 18.0	10.8 - 10.4	10.9 - 10.8	6.3 - 6.2	770	1132	770	1132	770	1132	235	197	300	99.7	99.6	98.1		
VM(C/N)10-16	5.5	7.5	—	18.7 - 18.0	10.8 - 10.4	10.9 - 10.8	6.3 - 6.2	830	1192	830	1192	830	1192	235	197	300	101.8	101.7	100.2		
VM(C/N)10-18	7.5	10	—	25.5 - 24.9	14.7 - 14.4	14.9 - 14.8	8.6 - 8.5	890	1295	890	1295	—	—	235	197	300	109.8	111.7	—		
VM(C/N)10-20	7.5	10	—	25.5 - 24.9	14.7 - 14.4	14.9 - 14.8	8.6 - 8.5	950	1355	950	1355	—	—	235	197	300	111.9	113.8	—		
VM(C/N)10-22	7.5	10	—	25.5 - 24.9	14.7 - 14.4	14.9 - 14.8	8.6 - 8.5	1010	1415	1010	1415	—	—	235	197	300	114.0	114.9	—		

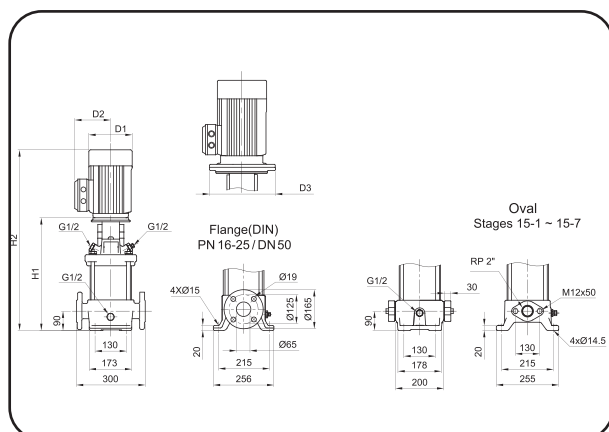
VM15 / VMC15 / VMN15

Performance Curves

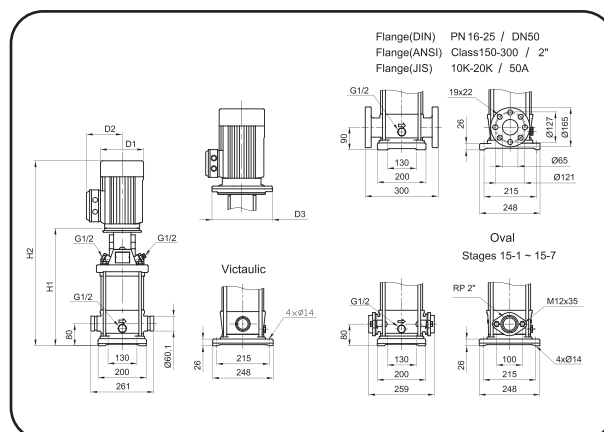
The performance curve applies to the VM, VMC and VMN version of the pump.



Dimensions and Weight - VM15



Dimensions and Weight - VMC/N15



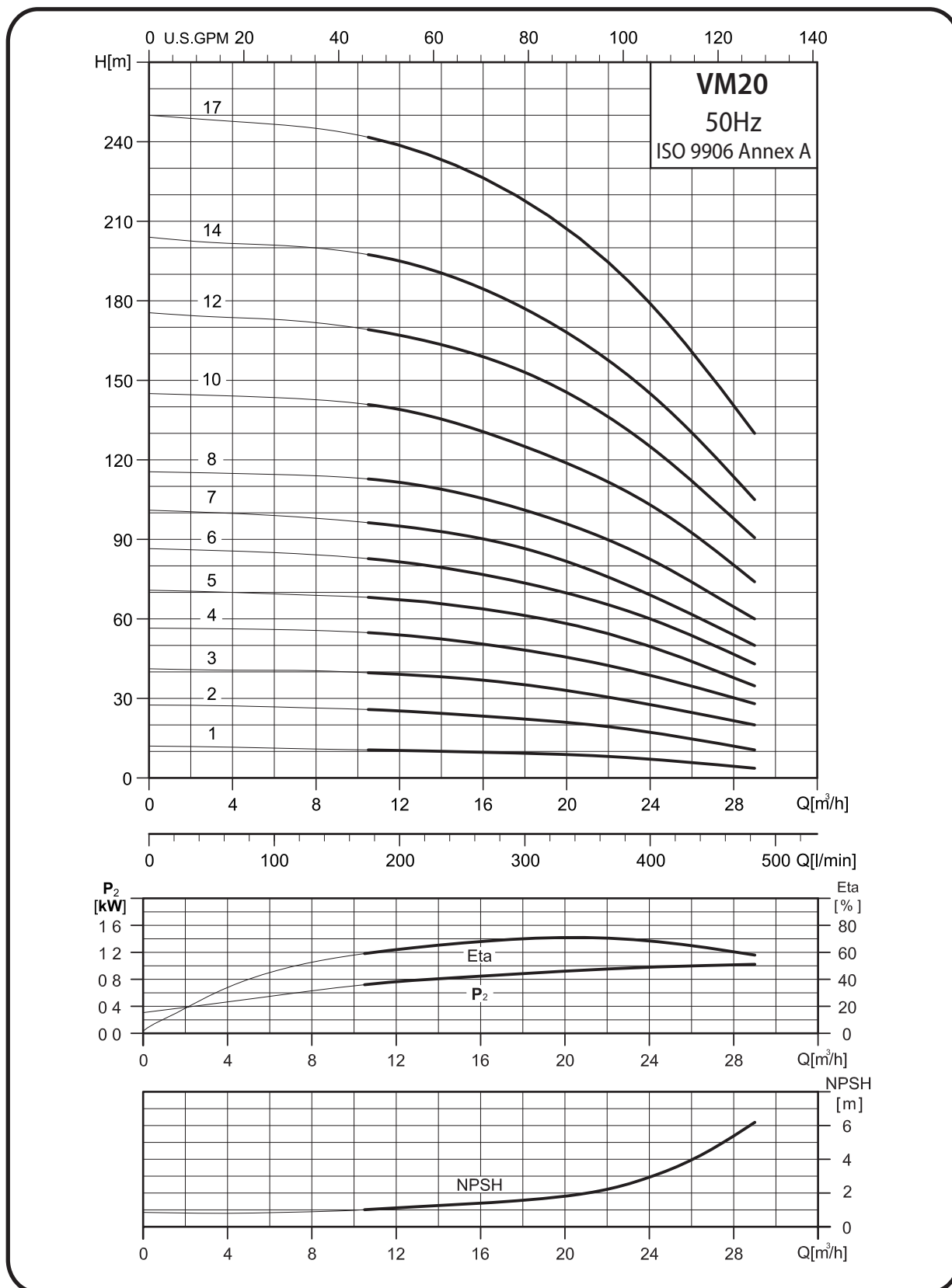
50Hz	Motor		Nominal current [A]					Dimension[mm]						Net weight [kg]		
	P2		1ø	3ø		3ø		DIN flange		OVAL		D1	D2	D3	DIN flange	OVAL
Pump type	[kW]	[HP]	220-240V	Δ220-240V	Y380-415V	Δ380-415V	Y660-720V	H1	H2	H1	H2					
VM15-1	1.1	1.5	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	—	—	400	689	400	689	177	141	—	49.4	47.8
VM15-2	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	415	710	415	710	177	141	—	55.7	54.0
VM15-3	3.0	4.0	—	11.8 - 12.3	6.8 - 7.1	6.8 - 6.9	3.9 - 4.0	465	781	465	781	197	147	—	66.3	64.7
VM15-4	4.0	5.5	—	15.1 - 15.2	8.7 - 8.8	8.7 - 8.3	5.0 - 4.8	510	836	510	836	220	161	—	71.7	70.1
VM15-5	4.0	5.5	—	15.1 - 15.2	8.7 - 8.8	8.7 - 8.3	5.0 - 4.8	555	881	555	881	220	161	—	73.2	71.6
VM15-6	5.5	7.5	—	18.7 - 18.0	10.8 - 10.4	10.9 - 10.8	6.3 - 6.2	632	994	632	994	235	197	300	101.6	100.0
VM15-7	5.5	7.5	—	18.7 - 18.0	10.8 - 10.4	10.9 - 10.8	6.3 - 6.2	677	1039	677	1039	235	197	300	103.1	101.5
VM15-8	7.5	10	—	25.5 - 24.9	14.7 - 14.4	14.9 - 14.8	8.6 - 8.5	722	1127	—	—	235	197	300	110.7	—
VM15-9	7.5	10	—	25.5 - 24.9	14.7 - 14.4	14.9 - 14.8	8.6 - 8.5	767	1172	—	—	235	197	300	112.2	—
VM15-10	11.0	15	—	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	889	1334	—	—	269	215	350	145.5	—
VM15-12	11.0	15	—	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	979	1424	—	—	269	215	350	148.5	—
VM15-14	11.0	15	—	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	1069	1514	—	—	269	215	350	151.8	—
VM15-17	15.0	20	—	49.3 - 46.5	28.5 - 26.9	24.9 - 29.0	16.9 - 16.7	1204	1694	—	—	269	215	350	167.5	—

50Hz	Motor		Nominal current [A]					Dimension[mm]						Net weight(kg)		
	P2		1ø	3ø	3ø	3ø		Vactaulic		DIN flange		OVAL		D1	D2	D3
Pump type	[kW]	[HP]	220-240V	Δ220-240V	Y380-415V	Δ380-415V	Y660-720V	H1	H2	H1	H2	H1	H2			
VM(C/N)15-1	1.1	1.5	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	—	—	387	676	397	686	387	676	177	141	—
VM(C/N)15-2	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	403	698	413	708	403	698	177	141	—
VM(C/N)15-3	3.0	4.0	—	11.8 - 12.3	6.8 - 7.1	6.8 - 6.9	3.9 - 4.0	453	769	463	779	453	769	197	147	—
VM(C/N)15-4	4.0	5.5	—	15.1 - 15.2	8.7 - 8.8	8.7 - 8.3	5.0 - 4.8	498	824	508	834	498	824	220	161	—
VM(C/N)15-5	4.0	5.5	—	15.1 - 15.2	8.7 - 8.8	8.7 - 8.3	5.0 - 4.8	543	869	553	879	543	869	220	161	—
VM(C/N)15-6	5.5	7.5	—	18.7 - 18.0	10.8 - 10.4	10.9 - 10.8	6.3 - 6.2	620	982	630	992	620	982	235	197	300
VM(C/N)15-7	5.5	7.5	—	18.7 - 18.0	10.8 - 10.4	10.9 - 10.8	6.3 - 6.2	665	1027	675	1037	665	1027	235	197	300
VM(C/N)15-8	7.5	10	—	25.5 - 24.9	14.7 - 14.4	14.9 - 14.8	8.6 - 8.5	710	1115	720	1125	—	—	235	197	300
VM(C/N)15-9	7.5	10	—	25.5 - 24.9	14.7 - 14.4	14.9 - 14.8	8.6 - 8.5	755	1160	765	1170	—	—	235	197	300
VM(C/N)15-10	11.0	15	—	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	877	1322	887	1332	—	—	269	215	350
VM(C/N)15-12	11.0	15	—	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	967	1412	977	1422	—	—	269	215	350
VM(C/N)15-14	11.0	15	—	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	1057	1502	1067	1512	—	—	269	215	350
VM(C/N)15-17	15.0	20	—	49.3 - 46.5	28.5 - 26.9	24.9 - 29.0	16.9 - 16.7	1192	1682	1202	1692	—	—	269	215	350

VM20 / VMC20 / VMN20

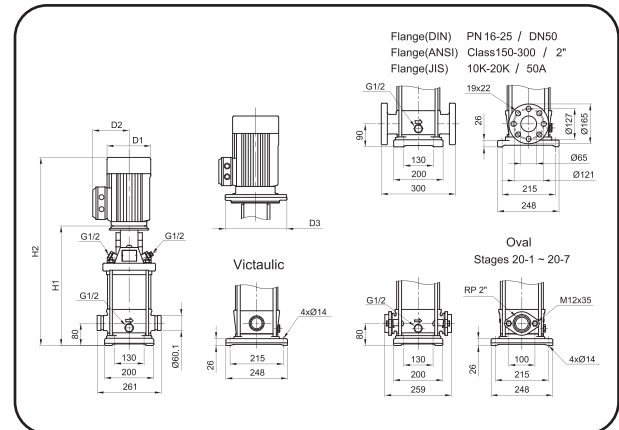
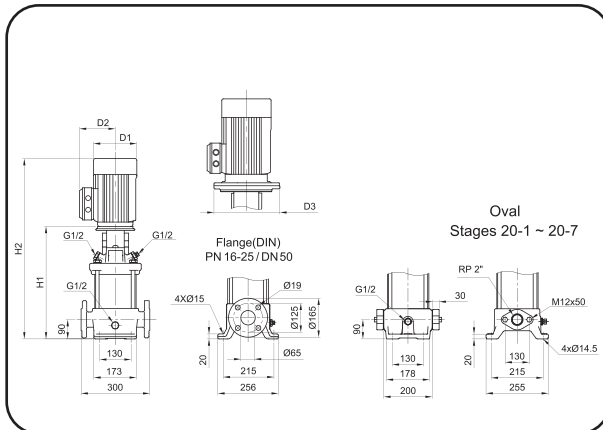
Performance Curves

The performance curve applies to the VM, VMC and VMN version of the pump.



Dimensions and Weight - VM20

Dimensions and Weight - VMC/N20



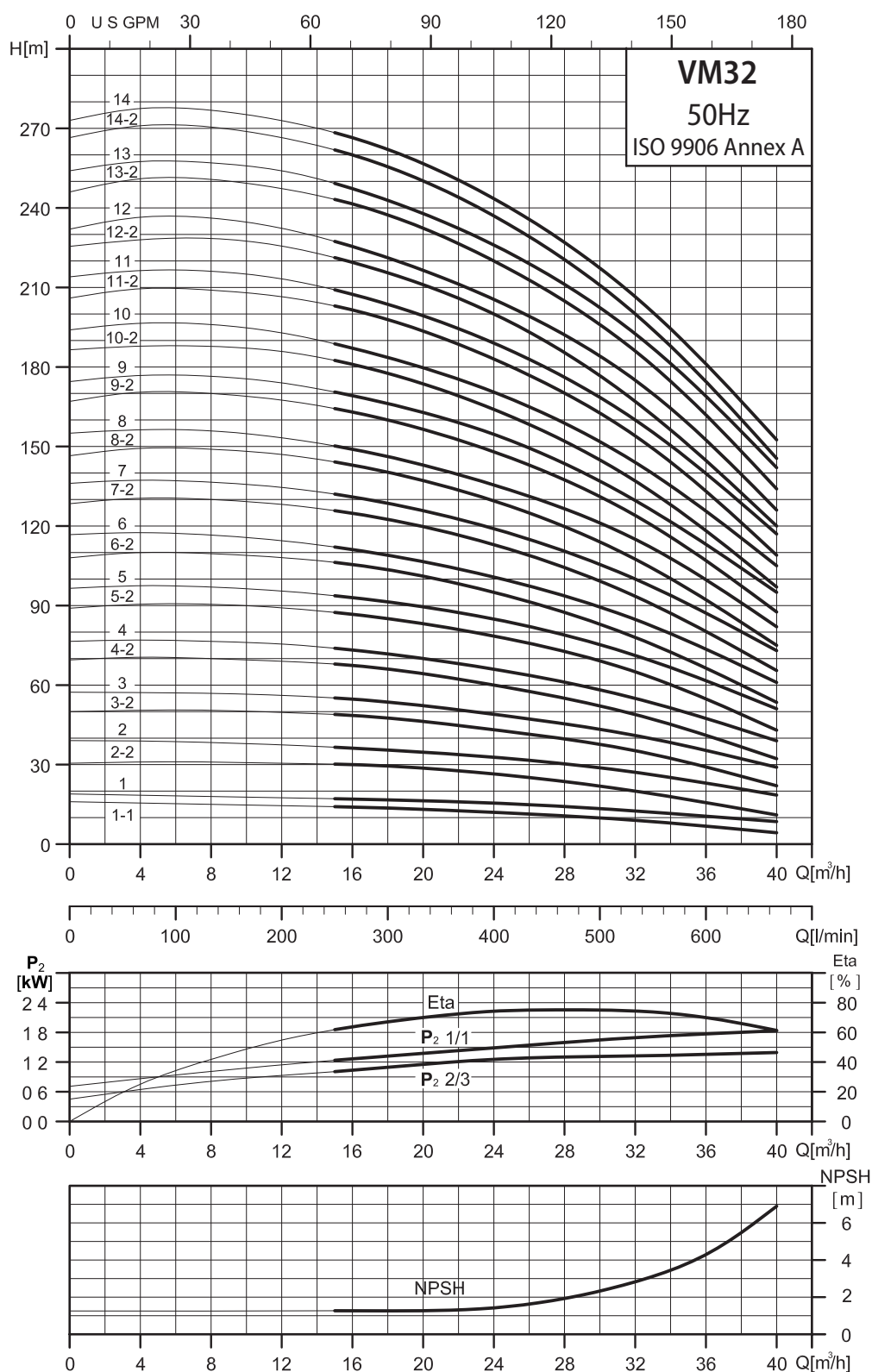
50Hz	Motor		Nominal current [A]					Dimension[mm]							Net weight [kg]	
	P2		1ø	3ø		3ø		DIN flange		OVAL		D1	D2	D3	DIN flange	OVAL
Pump type	[kW]	[HP]	220-240V	Δ220-240V	Y380-415V	Δ380-415V	Y660-720V	H1	H2	H1	H2	D1	D2	D3	DIN flange	OVAL
VM20-1	1.1	1.5	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	—	—	400	689	400	689	177	141	—	49.5	47.9
VM20-2	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	415	710	415	710	177	141	—	55.7	54.0
VM20-3	4	5.5	—	15.1 - 15.2	8.7 - 8.8	8.7 - 8.3	5.0 - 4.8	465	791	465	791	220	161	—	70.3	68.7
VM20-4	5.5	7.5	—	18.7 - 18.0	10.8 - 10.4	10.9 - 10.8	6.3 - 6.2	542	904	542	904	235	197	300	98.7	97.1
VM20-5	5.5	7.5	—	18.7 - 18.0	10.8 - 10.4	10.9 - 10.8	6.3 - 6.2	587	949	587	949	235	197	300	100.1	98.5
VM20-6	7.5	10	—	25.5 - 24.9	14.7 - 14.4	14.9 - 14.8	8.6 - 8.5	632	1037	632	1037	235	197	300	107.5	105.9
VM20-7	7.5	10	—	25.5 - 24.9	14.7 - 14.4	14.9 - 14.8	8.6 - 8.5	677	1082	677	1082	235	197	300	109.0	107.4
VM20-8	11	15	—	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	799	1244	—	—	269	215	350	142.6	—
VM20-10	11	15	—	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	889	1334	—	—	269	215	350	145.5	—
VM20-12	15	20	—	49.3 - 46.5	28.5 - 26.9	24.9 - 29.0	16.9 - 16.7	979	1469	—	—	269	215	350	159.1	—
VM20-14	15	20	—	49.3 - 46.5	28.5 - 26.9	24.9 - 29.0	16.9 - 16.7	1069	1559	—	—	269	215	350	162.0	—
VM20-17	18.5	25	—	60.2 - 55.4	34.8 - 32.0	35.2 - 33.5	20.3 - 19.3	1204	1744	—	—	318	241	350	199.4	—

50Hz	Motor		Nominal current [A]					Dimension[mm]								Net weight[kg]			
	P2		1ø	3ø		3ø		Vactaulic		DIN flange		OVAL		D1	D2	D3	Vactaulic	DIN flange	OVAL
Pump type	[kW]	[HP]	220-240V	Δ220-240V	Y380-415V	Δ380-415V	Y380-415V	H1	H2	H1	H2	H1	H2						
VMC(N)20-1	1.1	1.5	8.0 - 6.9	4.8 - 5.0	2.8 - 2.9	—	—	387	676	397	686	387	676	177	141	—	42.6	42.2	38.6
VMC(N)20-2	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	403	698	413	708	403	698	177	141	—	47.7	48.3	44.7
VMC(N)20-3	4.0	5.5	—	15.1 - 15.2	8.7 - 8.8	8.7 - 8.3	5.0 - 4.8	453	779	463	789	453	779	220	161	—	61.5	62.2	58.6
VMC(N)20-4	5.5	7.5	—	18.7 - 18.0	10.8 - 10.4	10.9 - 10.8	6.3 - 6.2	530	892	540	902	530	892	235	197	300	91.0	91.6	88.0
VMC(N)20-5	5.5	7.5	—	18.7 - 18.0	10.8 - 10.4	10.9 - 10.8	6.3 - 6.2	575	937	585	947	575	937	235	197	300	92.5	93.1	89.5
VMC(N)20-6	7.5	10	—	25.5 - 24.9	14.7 - 14.4	14.9 - 14.8	8.6 - 8.5	620	1025	630	1035	620	1025	235	197	300	99.8	100.5	96.9
VMC(N)20-7	7.5	10	—	25.5 - 24.9	14.7 - 14.4	14.9 - 14.8	8.6 - 8.5	665	1070	675	1080	665	1070	235	197	300	101.3	101.9	98.3
VMC(N)20-8	11.0	15	—	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	787	1232	797	1242	—	—	269	215	350	135.2	135.8	—
VMC(N)20-10	11.0	15	—	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	877	1322	887	1332	—	—	269	215	350	138.2	138.8	—
VMC(N)20-12	15.0	20	—	49.3 - 46.5	28.5 - 26.9	24.9 - 29.0	16.9 - 16.7	967	1457	977	1467	—	—	269	215	350	151.7	152.3	—
VMC(N)20-14	15.0	20	—	49.3 - 46.5	28.5 - 26.9	24.9 - 29.0	16.9 - 16.7	1057	1547	1067	1557	—	—	269	215	350	154.6	155.2	—
VMC(N)20-17	18.5	25	—	60.2 - 55.4	34.8 - 32.0	35.2 - 33.5	20.3 - 19.3	1192	1732	1202	1742	—	—	318	241	350	191.8	192.4	—

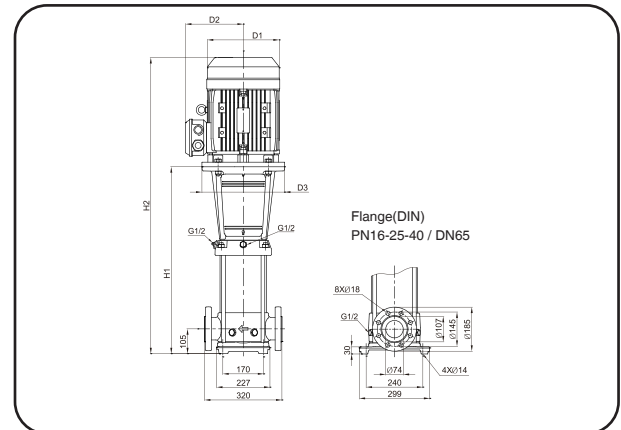
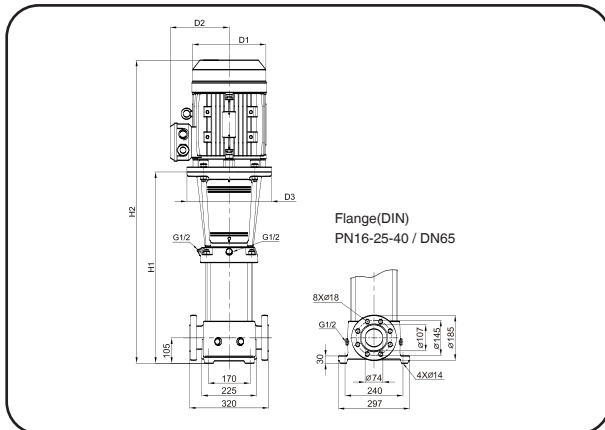
VM32 / VMC32 / VMN32

Performance Curves

The performance curve applies to the VM, VMC and VMN version of the pump.



Dimensions and Weight - VM32



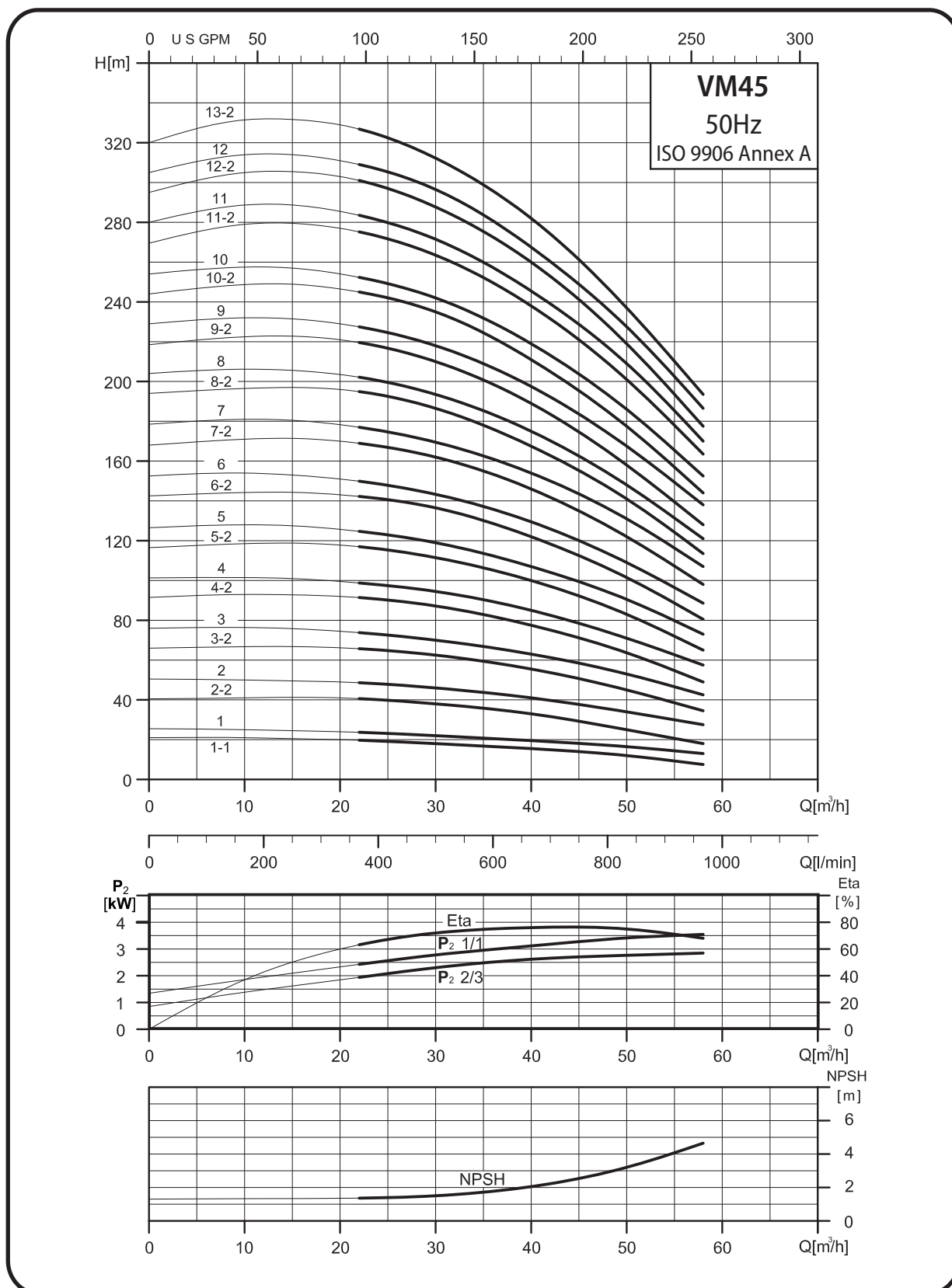
50Hz	Motor		Nominal current [A]					Dimension[mm]					Net weight [kg]
	P2		1ø	3ø	3ø	3ø	3ø	DIN flange		D1	D2	D3	
Pump type	[kW]	[HP]	220-240V	Δ220-240V	Y380-415V	Δ380-415V	Y660-720V	H1	H2	D1	D2	D3	DIN flange
VM 32-1-1	1.5	2	6.2 - 6.6	9.5 - 8.9	3.6 - 3.8	—	—	504	799	177	141	280	72.5
VM 32-1	2.2	3	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	504	799	177	141	280	74.3
VM 32-2-2	3	4	—	11.8 - 12.3	6.8 - 7.1	6.8 - 6.9	3.9 - 4.0	574	890	197	147	280	85.6
VM 32-2	4	5.5	—	15.1 - 15.2	8.7 - 8.8	8.7 - 8.3	5.0 - 4.8	574	900	220	161	280	89.6
VM 32-3-2	5.5	5.5	—	18.7 - 18.0	10.8 - 10.4	10.9 - 10.8	6.3 - 6.2	644	1006	235	197	300	109.5
VM 32-3	5.5	7.5	—	18.7 - 18.0	10.8 - 10.4	10.9 - 10.8	6.3 - 6.2	644	1006	235	197	300	109.5
VM 32-4-2	7.5	10	—	25.5 - 24.9	14.7 - 14.4	14.9 - 14.8	8.6 - 8.5	714	1119	235	197	300	118.4
VM 32-4	7.5	10	—	25.5 - 24.9	14.7 - 14.4	14.9 - 14.8	8.6 - 8.5	714	1119	235	197	300	118.4
VM 32-5-2	11	15	—	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	894	1339	269	215	350	158.8
VM 32-5	11	15	—	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	894	1339	269	215	350	158.8
VM 32-6-2	11	15	—	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	964	1409	269	215	350	161.8
VM 32-6	11	15	—	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	964	1409	269	215	350	161.8
VM 32-7-2	15	20	—	49.3 - 46.5	28.5 - 26.9	24.9 - 29.0	16.9 - 16.7	1034	1524	269	215	350	175.5
VM 32-7	15	20	—	49.3 - 46.5	28.5 - 26.9	24.9 - 29.0	16.9 - 16.7	1034	1524	269	215	350	175.5
VM 32-8-2	15	20	—	49.3 - 46.5	28.5 - 26.9	24.9 - 29.0	16.9 - 16.7	1104	1594	269	215	350	178.6
VM 32-8	15	20	—	49.3 - 46.5	28.5 - 26.9	24.9 - 29.0	16.9 - 16.7	1104	1594	269	215	350	178.6
VM 32-9-2	18.5	25	—	60.2 - 55.4	34.8 - 32.0	35.2 - 33.5	20.3 - 19.3	1174	1714	318	241	350	214.6
VM 32-9	18.5	25	—	60.2 - 55.4	34.8 - 32.0	35.2 - 33.5	20.3 - 19.3	1174	1714	318	241	350	214.6
VM 32-10-2	18.5	25	—	60.2 - 55.4	34.8 - 32.0	35.2 - 33.5	20.3 - 19.3	1244	1784	318	241	350	217.7
VM 32-10	18.5	25	—	60.2 - 55.4	34.8 - 32.0	35.2 - 33.5	20.3 - 19.3	1244	1784	318	241	350	217.7
VM 32-11-2	22	30	—	71.3 - 67.5	41.2 - 39.0	41.3 - 39.6	23.8 - 22.8	1314	1854	318	241	350	232.8
VM 32-11	22	30	—	71.3 - 67.5	41.2 - 39.0	41.3 - 39.6	23.8 - 22.8	1314	1854	318	241	350	232.8
VM 32-12-2	22	30	—	71.3 - 67.5	41.2 - 39.0	41.3 - 39.6	23.8 - 22.8	1384	1924	318	241	350	234.8
VM 32-12	22	30	—	71.3 - 67.5	41.2 - 39.0	41.3 - 39.6	23.8 - 22.8	1384	1924	318	241	350	234.8
VM 32-13-2	30	40	—	—	—	55.4 - 50.7	31.9 - 29.2	1454	2114	390	295	400	341.2
VM 32-13	30	40	—	—	—	55.4 - 50.7	31.9 - 29.2	1454	2114	390	295	400	341.2
VM 32-14-2	30	40	—	—	—	55.4 - 50.7	31.9 - 29.2	1524	2184	390	295	400	344.3
VM 32-14	30	40	—	—	—	55.4 - 50.7	31.9 - 29.2	1524	2184	390	295	400	344.3

50Hz	Motor		Nominal current [A]					Dimension[mm]					Net weight [kg]
	P2		1ø	3ø	3ø	3ø	3ø	DIN flange		D1	D2	D3	
Pump type	[kW]	[HP]	220-240V	Δ220-240V	Y380-415V	Δ380-415V	Y660-720V	H1	H2	D1	D2	D3	DIN flange
VMC(N) 32-1-1	1.5	2.0	6.2 - 6.6	9.5 - 8.9	3.6 - 3.8	—	—	504	799	177	141	280	67.5
VMC(N) 32-1	2.2	3.0	13.4 - 12.7	8.8 - 9.4	5.1 - 5.4	—	—	504	799	177	141	280	69.3
VMC(N) 32-2-2	3	4.0	—	11.8 - 12.3	6.8 - 7.1	6.8 - 6.9	3.9 - 4.0	574	890	197	147	280	80.5
VMC(N) 32-2	4	5.5	—	15.1 - 15.2	8.7 - 8.8	8.7 - 8.3	5.0 - 4.8	574	900	220	161	280	84.5
VMC(N) 32-3-2	5.5	5.5	—	18.7 - 18.0	10.8 - 10.4	10.9 - 10.8	6.3 - 6.2	644	1006	235	197	300	104.4
VMC(N) 32-3	5.5	7.5	—	18.7 - 18.0	10.8 - 10.4	10.9 - 10.8	6.3 - 6.2	644	1006	235	197	300	104.4
VMC(N) 32-4-2	7.5	10	—	25.5 - 24.9	14.7 - 14.4	14.9 - 14.8	8.6 - 8.5	714	1119	235	197	300	113.5
VMC(N) 32-4	7.5	10	—	25.5 - 24.9	14.7 - 14.4	14.9 - 14.8	8.6 - 8.5	714	1119	235	197	300	113.5
VMC(N) 32-5-2	11	15	—	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	894	1339	269	215	350	153.8
VMC(N) 32-5	11	15	—	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	894	1339	269	215	350	153.8
VMC(N) 32-6-2	11	15	—	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	964	1409	269	215	350	156.9
VMC(N) 32-6	11	15	—	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	964	1409	269	215	350	156.9
VMC(N) 32-7-2	15	20	—	49.3 - 46.5	28.5 - 26.9	24.9 - 29.0	16.9 - 16.7	1034	1524	269	215	350	170.6
VMC(N) 32-7	15	20	—	49.3 - 46.5	28.5 - 26.9	24.9 - 29.0	16.9 - 16.7	1034	1524	269	215	350	170.6
VMC(N) 32-8-2	15	20	—	49.3 - 46.5	28.5 - 26.9	24.9 - 29.0	16.9 - 16.7	1104	1594	269	215	350	173.9
VMC(N) 32-8	15	20	—	49.3 - 46.5	28.5 - 26.9	24.9 - 29.0	16.9 - 16.7	1104	1594	269	215	350	173.9
VMC(N) 32-9-2	18.5	25	—	60.2 - 55.4	34.8 - 32.0	35.2 - 33.5	20.3 - 19.3	1174	1714	318	241	350	201.6
VMC(N) 32-9	18.5	25	—	60.2 - 55.4	34.8 - 32.0	35.2 - 33.5	20.3 - 19.3	1174	1714	318	241	350	201.6
VMC(N) 32-10-2	18.5	25	—	60.2 - 55.4	34.8 - 32.0	35.2 - 33.5	20.3 - 19.3	1244	1784	318	241	350	204.2
VMC(N) 32-10	18.5	25	—	60.2 - 55.4	34.8 - 32.0	35.2 - 33.5	20.3 - 19.3	1244	1784	318	241	350	204.2
VMC(N) 32-11-2	22	30	—	71.3 - 67.5	41.2 - 39.0	41.3 - 39.6	23.8 - 22.8	1314	1854	318	241	350	227.6
VMC(N) 32-11	22	30	—	71.3 - 67.5	41.2 - 39.0	41.3 - 39.6	23.8 - 22.8	1314	1854	318	241	350	227.6
VMC(N) 32-12-2	22	30	—	71.3 - 67.5	41.2 - 39.0	41.3 - 39.6	23.8 - 22.8	1384	1924	318	241	350	230.3
VMC(N) 32-12	22	30	—	71.3 - 67.5	41.2 - 39.0	41.3 - 39.6	23.8 - 22.8	1384	1924	318	241	350	230.3
VMC(N) 32-13-2	30	40	—	—	—	55.4 - 50.7	31.9 - 29.2	1454	2114	390	295	400	336.6
VMC(N) 32-13	30	40	—	—	—	55.4 - 50.7	31.9 - 29.2	1454	2114	390	295	400	336.6
VMC(N) 32-14-2	30	40	—	—	—	55.4 - 50.7	31.9 - 29.2	1524	2184	390	295	400	339.3
VMC(N) 32-14	30	40	—	—	—	55.4 - 50.7	31.9 - 29.2	1524	2184	390	295	400	339.3

VM45 / VMC45 / VMN45

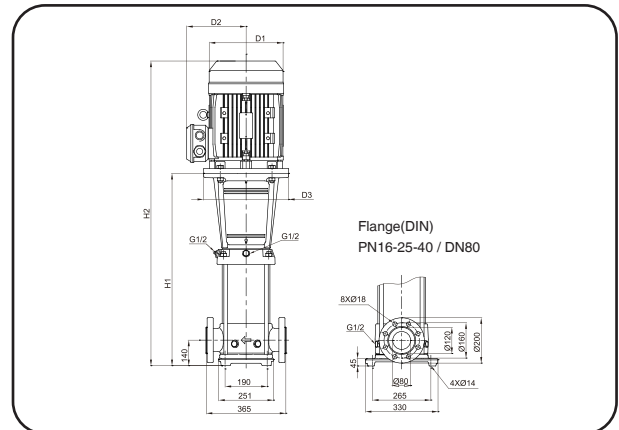
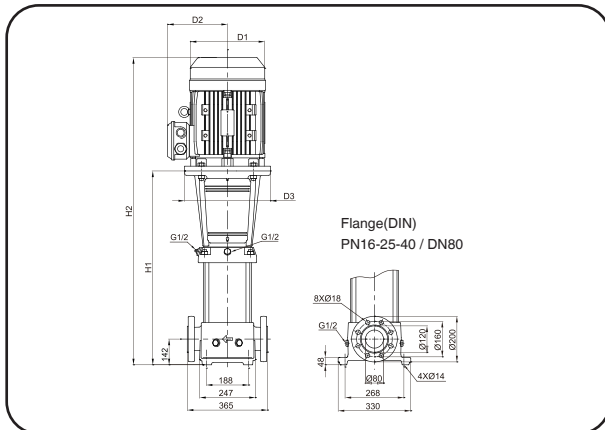
Performance Curves

The performance curve applies to the VM, VMC and VMN version of the pump.



Dimensions and Weight - VM45

Dimensions and Weight - VMC/N45



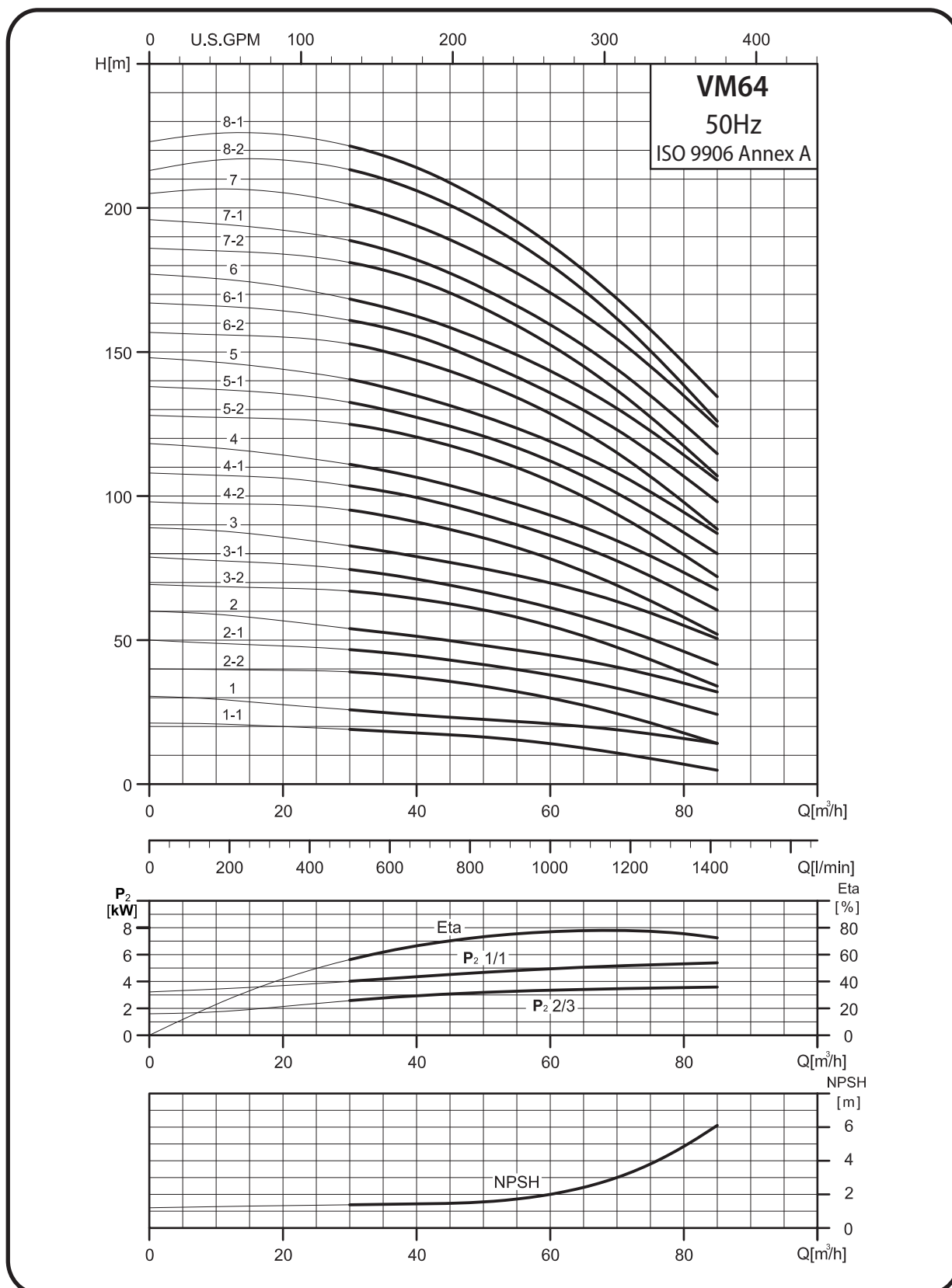
50Hz	Motor		Nominal current [A]				Dimension[mm]				Net weight [kg]	
	P2		3ø		3ø		DIN flange		D1	D2		D3
Pump type	[kW]	[HP]	Δ220-240V	Y380-415V	Δ380-415V	Y660-720V	H1	H2				
VM 45-1-1	3	4	11.8 - 12.3	6.8 - 7.1	6.8 - 6.9	3.9 - 4.0	561	877	197	147	280	93.1
VM 45-1	4	5.5	15.1 - 15.2	8.7 - 8.8	8.7 - 8.3	5.0 - 4.8	561	887	220	161	280	97.1
VM 45-2-2	5.5	7.5	18.7 - 18.0	10.8 - 10.4	10.9 - 10.8	6.3 - 6.2	641	1003	235	197	300	117.6
VM 45-2	7.5	10	25.5 - 24.9	14.7 - 14.4	14.9 - 14.8	8.6 - 8.5	641	1046	235	197	300	123.5
VM 45-3-2	11	15	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	831	1276	269	215	350	164.5
VM 45-3	11	15	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	831	1276	269	215	350	164.5
VM 45-4-2	15	20	49.3 - 46.5	28.5 - 26.9	24.9 - 29.0	16.9 - 16.7	911	1401	269	215	350	178.9
VM 45-4	15	20	49.3 - 46.5	28.5 - 26.9	24.9 - 29.0	16.9 - 16.7	911	1401	269	215	350	178.9
VM 45-5-2	18.5	25	60.2 - 55.4	34.8 - 32.0	35.2 - 33.5	20.3 - 19.3	991	1531	318	241	350	215.6
VM 45-5	18.5	25	60.2 - 55.4	34.8 - 32.0	35.2 - 33.5	20.3 - 19.3	991	1531	318	241	350	215.6
VM 45-6-2	22	30	71.3 - 67.5	41.2 - 39.0	41.3 - 39.6	23.8 - 22.8	1071	1611	318	241	350	231.1
VM 45-6	22	30	71.3 - 67.5	41.2 - 39.0	41.3 - 39.6	23.8 - 22.8	1071	1611	318	241	350	231.1
VM 45-7-2	30	40	—	—	55.4 - 50.7	31.9 - 29.2	1151	1811	390	295	400	359.5
VM 45-7	30	40	—	—	55.4 - 50.7	31.9 - 29.2	1151	1811	390	295	400	359.5
VM 45-8-2	30	40	—	—	55.4 - 50.7	31.9 - 29.2	1231	1891	390	295	400	343.2
VM 45-8	30	40	—	—	55.4 - 50.7	31.9 - 29.2	1231	1891	390	295	400	343.2
VM 45-9-2	30	40	—	—	55.4 - 50.7	31.9 - 29.2	1311	1971	390	295	400	347.0
VM 45-9	37	50	—	—	67.7 - 62.0	39.0 - 35.7	1311	1971	390	295	400	365.0
VM 45-10-2	37	50	—	—	67.7 - 62.0	39.0 - 35.7	1391	2051	390	295	400	368.7
VM 45-10	37	50	—	—	67.7 - 62.0	39.0 - 35.7	1391	2051	390	295	400	368.7
VM 45-11-2	45	60	—	—	82.3 - 75.4	47.4 - 43.4	1471	2161	446	325	450	448.5
VM 45-11	45	60	—	—	82.3 - 75.4	47.4 - 43.4	1471	2161	446	325	450	448.5
VM 45-12-2	45	60	—	—	82.3 - 75.4	47.4 - 43.4	1551	2241	446	325	450	452.5
VM 45-12	45	60	—	—	82.3 - 75.4	47.4 - 43.4	1551	2241	446	325	450	452.5
VM 45-13-2	45	60	—	—	82.3 - 75.4	47.4 - 43.4	1631	2321	446	325	450	455.9

50Hz	Motor		Nominal current [A]				Dimension[mm]				Net weight [kg]	
	P2		3ø		3ø		DIN flange		D1	D2		D3
Pump type	[kW]	[HP]	Δ220-240V	Y380-415V	Δ380-415V	Y660-720V	H1	H2				
VMC(N) 45-1-1	3	4	11.8 - 12.3	6.8 - 7.1	6.8 - 6.9	3.9 - 4.0	559	875	197	147	280	84.2
VMC(N) 45-1	4	5.5	15.1 - 15.2	8.7 - 8.8	8.7 - 8.3	5.0 - 4.8	559	885	220	161	280	88.3
VMC(N) 45-2-2	5.5	7.5	18.7 - 18.0	10.8 - 10.4	10.9 - 10.8	6.3 - 6.2	639	1001	235	197	300	108.8
VMC(N) 45-2	7.5	10	25.5 - 24.9	14.7 - 14.4	14.9 - 14.8	8.6 - 8.5	639	1044	235	197	300	114.7
VMC(N) 45-3-2	11	15	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	829	1274	269	215	350	155.7
VMC(N) 45-3	11	15	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	829	1274	269	215	350	155.7
VMC(N) 45-4-2	15	20	49.3 - 46.5	28.5 - 26.9	24.9 - 29.0	16.9 - 16.7	909	1399	269	215	350	170.1
VMC(N) 45-4	15	20	49.3 - 46.5	28.5 - 26.9	24.9 - 29.0	16.9 - 16.7	909	1399	269	215	350	170.1
VMC(N) 45-5-2	18.5	25	60.2 - 55.4	34.8 - 32.0	35.2 - 33.5	20.3 - 19.3	989	1529	318	241	350	198.8
VMC(N) 45-5	18.5	25	60.2 - 55.4	34.8 - 32.0	35.2 - 33.5	20.3 - 19.3	989	1529	318	241	350	198.8
VMC(N) 45-6-2	22	30	71.3 - 67.5	41.2 - 39.0	41.3 - 39.6	23.8 - 22.8	1069	1609	318	241	350	223.3
VMC(N) 45-6	22	30	71.3 - 67.5	41.2 - 39.0	41.3 - 39.6	23.8 - 22.8	1069	1609	318	241	350	223.3
VMC(N) 45-7-2	30	40	—	—	55.4 - 50.7	31.9 - 29.2	1149	1809	390	295	400	330.7
VMC(N) 45-7	30	40	—	—	55.4 - 50.7	31.9 - 29.2	1149	1809	390	295	400	330.7
VMC(N) 45-8-2	30	40	—	—	55.4 - 50.7	31.9 - 29.2	1229	1889	390	295	400	334.5
VMC(N) 45-8	30	40	—	—	55.4 - 50.7	31.9 - 29.2	1229	1889	390	295	400	334.5
VMC(N) 45-9-2	30	40	—	—	55.4 - 50.7	31.9 - 29.2	1309	1969	390	295	400	338.2
VMC(N) 45-9	37	50	—	—	67.7 - 62.0	39.0 - 35.7	1309	1969	390	295	400	356.2
VMC(N) 45-10-2	37	50	—	—	67.7 - 62.0	39.0 - 35.7	1389	2049	390	295	400	359.9
VMC(N) 45-10	37	50	—	—	67.7 - 62.0	39.0 - 35.7	1389	2049	390	295	400	359.9
VMC(N) 45-11-2	45	60	—	—	82.3 - 75.4	47.4 - 43.4	1469	2159	446	325	450	439.7
VMC(N) 45-11	45	60	—	—	82.3 - 75.4	47.4 - 43.4	1469	2159	446	325	450	439.7
VMC(N) 45-12-2	45	60	—	—	82.3 - 75.4	47.4 - 43.4	1549	2239	446	325	450	443.4
VMC(N) 45-12	45	60	—	—	82.3 - 75.4	47.4 - 43.4	1549	2239	446	325	450	443.4
VMC(N) 45-13-2	45	60	—	—	82.3 - 75.4	47.4 - 43.4	1629	2319	446	325	450	447.1

VM64 / VMC64 / VMN64

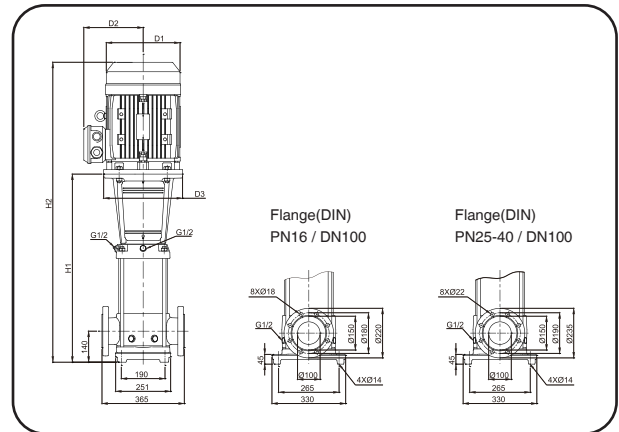
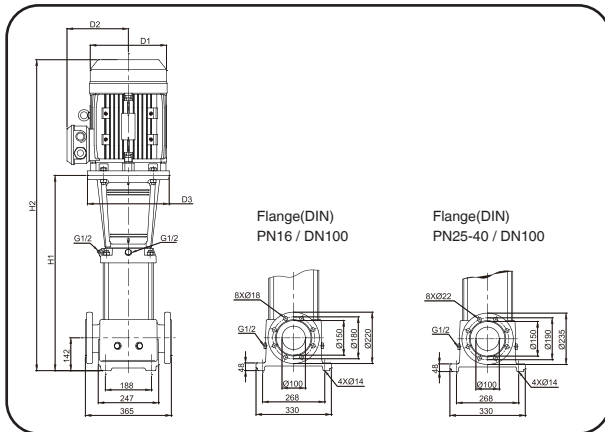
Performance Curves

The performance curve applies to the VM, VMC and VMN version of the pump.



Dimensions and Weight - VM64

Dimensions and Weight - VMC/N64



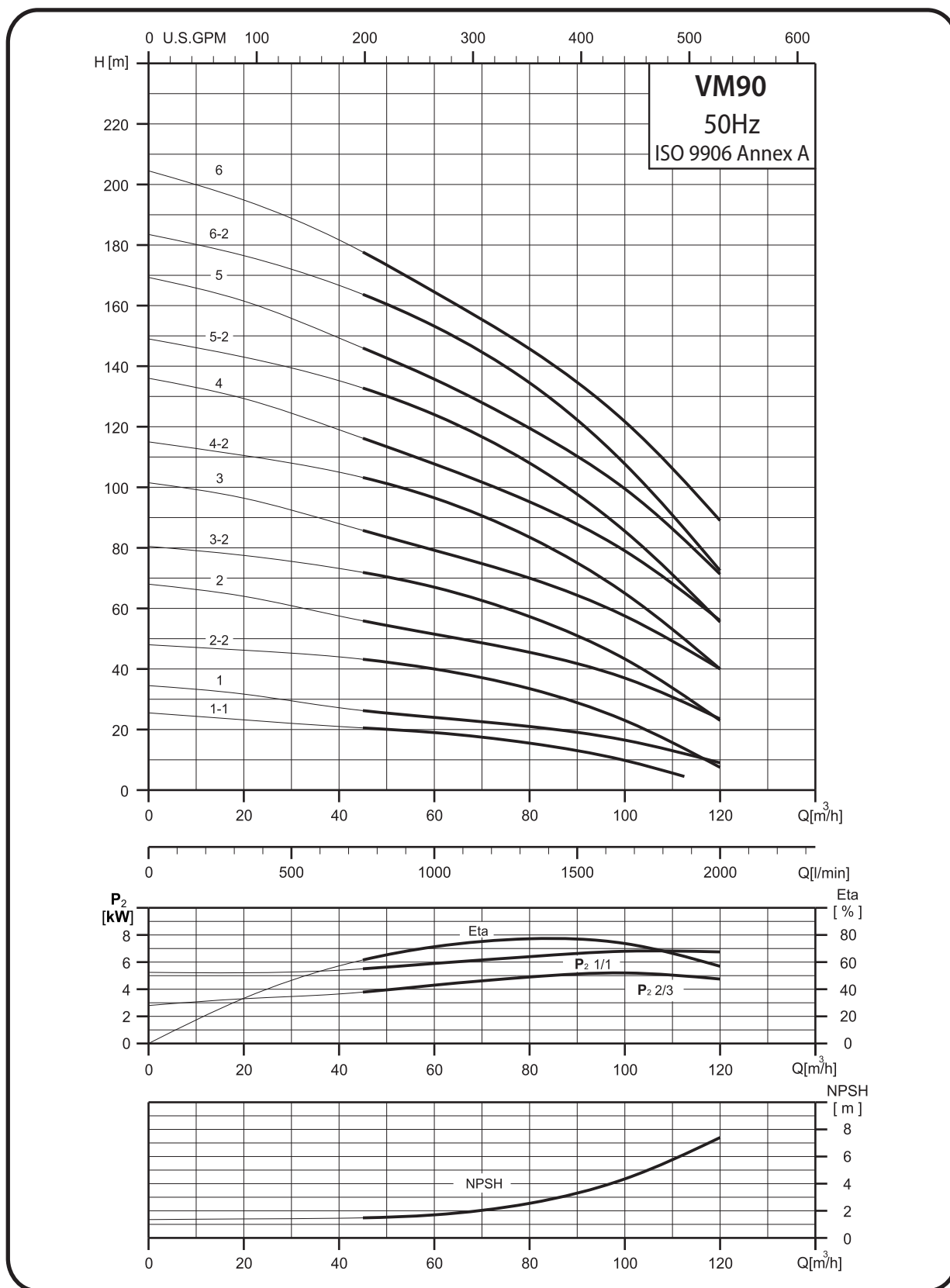
50Hz	Motor		Nominal current [A]				Dimension[mm]				Net weight [kg]	
	P2		3ø		3ø		DIN flange		D1	D2		D3
Pump type	[kW]	[HP]	Δ220-240V	Y380-415V	Δ380-415V	Y660-720V	H1	H2				
VM 64-1-1	4	5.5	15.1 - 15.2	8.7 - 8.8	8.7 - 8.3	5.0 - 4.8	563	889	220	161	280	90.9
VM 64-1	5.5	7.5	18.7 - 18.0	10.8 - 10.4	10.9 - 10.8	6.3 - 6.2	563	925	235	197	300	107.6
VM 64-2-2	7.5	10	25.5 - 24.9	14.7 - 14.4	14.9 - 14.8	8.6 - 8.5	646	1051	235	197	300	117.6
VM 64-2-1	11	15	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	756	1201	269	215	350	154.8
VM 64-2	11	15	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	756	1201	269	215	350	154.8
VM 64-3-2	15	20	49.3 - 46.5	28.5 - 26.9	24.9 - 29.0	16.9 - 16.7	838	1328	269	215	350	170.0
VM 64-3-1	15	20	49.3 - 46.5	28.5 - 26.9	24.9 - 29.0	16.9 - 16.7	838	1328	269	215	350	170.0
VM 64-3	18.5	25	60.2 - 55.4	34.8 - 32.0	35.2 - 33.5	20.3 - 19.3	838	1378	318	241	350	202.9
VM 64-4-2	18.5	25	60.2 - 55.4	34.8 - 32.0	35.2 - 33.5	20.3 - 19.3	921	1461	318	241	350	206.9
VM 64-4-1	22	30	71.3 - 67.5	41.2 - 39.0	41.3 - 39.6	23.8 - 22.8	921	1461	318	241	350	219.7
VM 64-4	22	30	71.3 - 67.5	41.2 - 39.0	41.3 - 39.6	23.8 - 22.8	921	1461	318	241	350	219.7
VM 64-5-2	30	40	—	—	55.4 - 50.7	31.9 - 29.2	1003	1663	390	295	400	327.3
VM 64-5-1	30	40	—	—	55.4 - 50.7	31.9 - 29.2	1003	1663	390	295	400	327.3
VM 64-5	30	40	—	—	55.4 - 50.7	31.9 - 29.2	1003	1663	390	295	400	327.3
VM 64-6-2	30	40	—	—	55.4 - 50.7	31.9 - 29.2	1086	1746	390	295	400	331.2
VM 64-6-1	37	50	—	—	67.7 - 62.0	39.0 - 35.7	1086	1746	390	295	400	349.2
VM 64-6	37	50	—	—	67.7 - 62.0	39.0 - 35.7	1086	1746	390	295	400	349.2
VM 64-7-2	37	50	—	—	67.7 - 62.0	39.0 - 35.7	1168	1828	390	295	400	353.3
VM 64-7-1	37	50	—	—	67.7 - 62.0	39.0 - 35.7	1168	1828	390	295	400	353.3
VM 64-7	45	60	—	—	82.3 - 75.4	47.4 - 43.4	1172	1862	446	325	450	429.4
VM 64-8-2	45	60	—	—	82.3 - 75.4	47.4 - 43.4	1255	1945	446	325	450	433.5
VM 64-8-1	45	60	—	—	82.3 - 75.4	47.4 - 43.4	1255	1945	446	325	450	433.5

50Hz	Motor		Nominal current [A]				Dimension[mm]				Net weight [kg]	
	P2		3ø		3ø		DIN flange		D1	D2	D3	DIN flange
Pump type	[kW]	[HP]	Δ220-240V	Y380-415V	Δ380-415V	Y660-720V	H1	H2				
VMC(N) 64-1-1	4	5.5	15.1 - 15.2	8.7 - 8.8	8.7 - 8.3	5.0 - 4.8	563	889	220	161	280	83.8
VMC(N) 64-1	5.5	7.5	18.7 - 18.0	10.8 - 10.4	10.9 - 10.8	6.3 - 6.2	563	925	235	197	300	100.6
VMC(N) 64-2-2	7.5	10	25.5 - 24.9	14.7 - 14.4	14.9 - 14.8	8.6 - 8.5	646	1051	235	197	300	110.6
VMC(N) 64-2-1	11	15	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	756	1201	269	215	350	147.8
VMC(N) 64-2	11	15	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	756	1201	269	215	350	147.8
VMC(N) 64-3-2	15	20	49.3 - 46.5	28.5 - 26.9	24.9 - 29.0	16.9 - 16.7	838	1328	269	215	350	162.5
VMC(N) 64-3-1	15	20	49.3 - 46.5	28.5 - 26.9	24.9 - 29.0	16.9 - 16.7	838	1328	269	215	350	162.5
VMC(N) 64-3	18.5	25	60.2 - 55.4	34.8 - 32.0	35.2 - 33.5	20.3 - 19.3	838	1378	318	241	350	195.4
VMC(N) 64-4-2	18.5	25	60.2 - 55.4	34.8 - 32.0	35.2 - 33.5	20.3 - 19.3	921	1461	318	241	350	199.4
VMC(N) 64-4-1	22	30	71.3 - 67.5	41.2 - 39.0	41.3 - 39.6	23.8 - 22.8	921	1461	318	241	350	212.4
VMC(N) 64-4	22	30	71.3 - 67.5	41.2 - 39.0	41.3 - 39.6	23.8 - 22.8	921	1461	318	241	350	212.4
VMC(N) 64-5-2	30	40	—	—	55.4 - 50.7	31.9 - 29.2	1003	1663	390	295	400	319.7
VMC(N) 64-5-1	30	40	—	—	55.4 - 50.7	31.9 - 29.2	1003	1663	390	295	400	319.7
VMC(N) 64-5	30	40	—	—	55.4 - 50.7	31.9 - 29.2	1003	1663	390	295	400	319.7
VMC(N) 64-6-2	30	40	—	—	55.4 - 50.7	31.9 - 29.2	1086	1746	390	295	400	323.7
VMC(N) 64-6-1	37	50	—	—	67.7 - 62.0	39.0 - 35.7	1086	1746	390	295	400	341.7
VMC(N) 64-6	37	50	—	—	67.7 - 62.0	39.0 - 35.7	1086	1746	390	295	400	341.7
VMC(N) 64-7-2	37	50	—	—	67.7 - 62.0	39.0 - 35.7	1168	1828	390	295	400	345.7
VMC(N) 64-7-1	37	50	—	—	67.7 - 62.0	39.0 - 35.7	1168	1828	390	295	400	345.7
VMC(N) 64-7	45	60	—	—	82.3 - 75.4	47.4 - 43.4	1172	1862	446	325	450	421.8
VMC(N) 64-8-2	45	60	—	—	82.3 - 75.4	47.4 - 43.4	1255	1945	446	325	450	426.0
VMC(N) 64-8-1	45	60	—	—	82.3 - 75.4	47.4 - 43.4	1255	1945	446	325	450	426.0

VM90 / VMC90 / VMN90

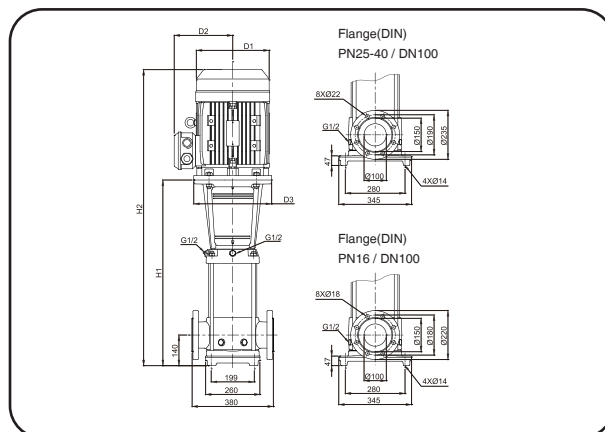
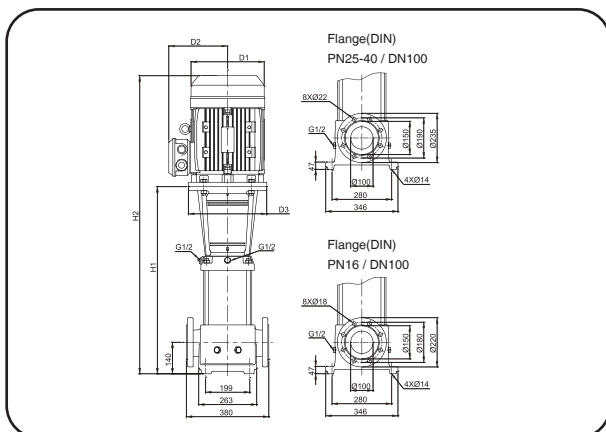
Performance Curves

The performance curve applies to the VM, VMC and VMN version of the pump.



Dimensions and Weight - VM 90

Dimensions and Weight - VMC/N 90



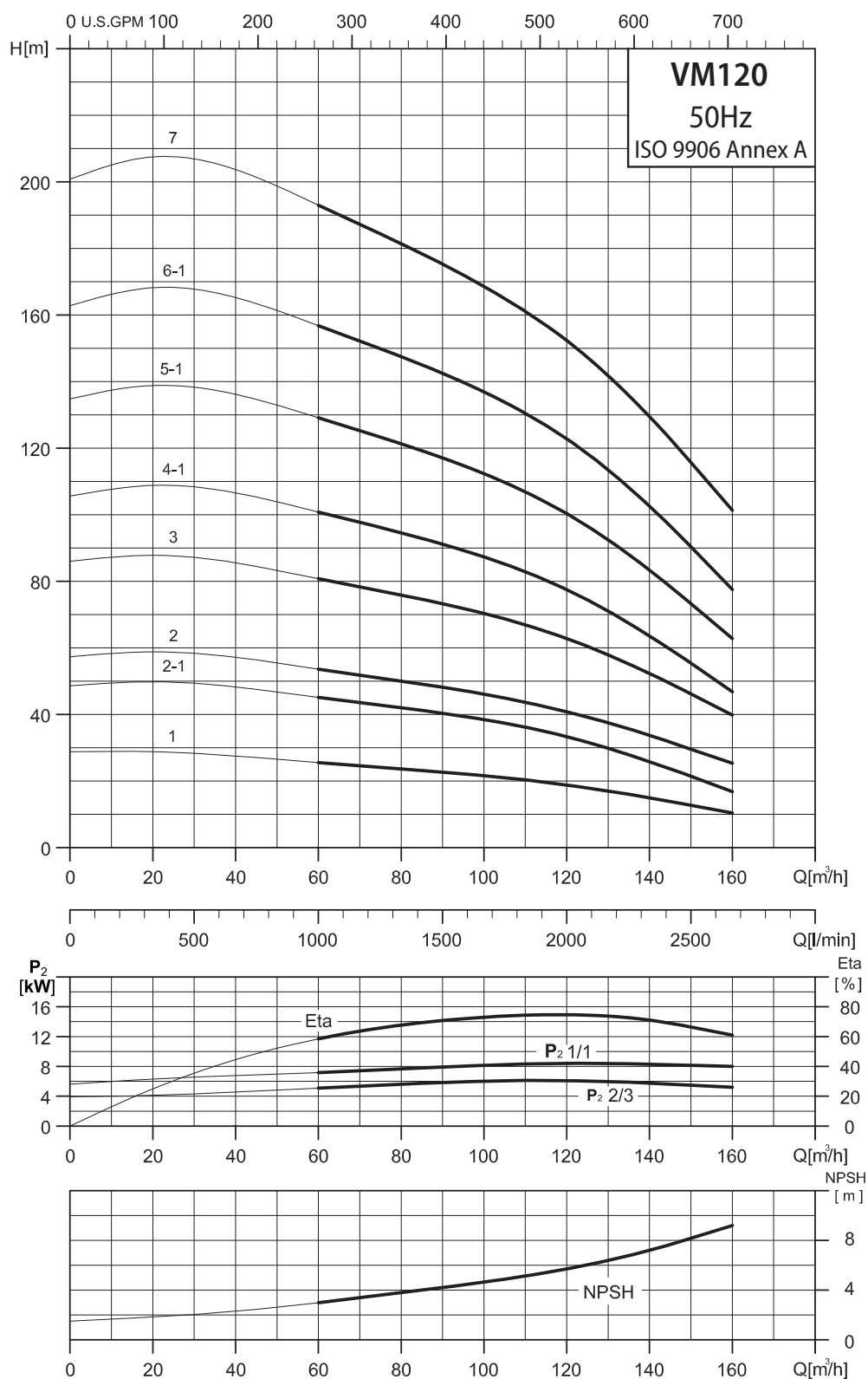
50Hz	Motor		Nominal current [A]				Dimension[mm]				Net weight [kg]	
	P2		3ø		3ø		DIN flange		D1	D2	D3	DIN flange
	[kW]	[HP]	Δ220-240V	Y380-415V	Δ380-415V	Y660-720V	H1	H2				
Pump type												
VM 90-1-1	5.5	7.5	18.7 - 18.0	10.8 - 10.4	10.9 - 10.8	6.3 - 6.2	572	934	235	197	300	115.0
VM 90-1	7.5	10	25.5 - 24.9	14.7 - 14.4	14.9 - 14.8	8.6 - 8.5	572	977	235	197	300	120.9
VM 90-2-2	11	15	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	774	1219	269	215	350	163.5
VM 90-2	15	20	49.3 - 46.5	28.5 - 26.9	24.9 - 29.0	16.9 - 16.7	774	1264	269	215	350	147.1
VM 90-3-2	18.5	25	60.2 - 55.4	34.8 - 32.0	35.2 - 33.5	20.3 - 19.3	866	1406	318	241	350	212.2
VM 90-3	22	30	71.3 - 67.5	41.2 - 39.0	41.3 - 39.6	23.8 - 22.8	866	1406	318	241	350	225.0
VM 90-4-2	30	40	—	—	55.4 - 50.7	31.9 - 29.2	958	1618	390	295	400	333.9
VM 90-4	30	40	—	—	55.4 - 50.7	31.9 - 29.2	958	1618	390	295	400	333.9
VM 90-5-2	37	50	—	—	67.7 - 62.0	39.0 - 35.7	1050	1710	390	295	400	356.6
VM 90-5	37	50	—	—	67.7 - 62.0	39.0 - 35.7	1050	1710	390	295	400	356.6
VM 90-6-2	45	60	—	—	82.3 - 75.4	47.4 - 43.4	1142	1832	446	325	450	437.9
VM 90-6	45	60	—	—	82.3 - 75.4	47.4 - 43.4	1142	1832	446	325	450	437.9

50Hz	Motor		Nominal current [A]				Dimension[mm]				Net weight [kg]	
	P2		3ø		3ø		DIN flange		D1	D2	D3	DIN flange
	[kW]	[HP]	Δ220-240V	Y380-415V	Δ380-415V	Y660-720V	H1	H2				
Pump type												
VMC(N) 90-1-1	5.5	7.5	18.7 - 18.0	10.8 - 10.4	10.9 - 10.8	6.3 - 6.2	576	938	235	197	300	111.4
VMC(N) 90-1	7.5	10	25.5 - 24.9	14.7 - 14.4	14.9 - 14.8	8.6 - 8.5	576	981	235	197	300	117.3
VMC(N) 90-2-2	11	15	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	778	1223	269	215	350	159.7
VMC(N) 90-2	15	20	49.3 - 46.5	28.5 - 26.9	24.9 - 29.0	16.9 - 16.7	778	1268	269	215	350	170.3
VMC(N) 90-3-2	18.5	25	60.2 - 55.4	34.8 - 32.0	35.2 - 33.5	20.3 - 19.3	870	1410	318	241	350	208.4
VMC(N) 90-3	22	30	71.3 - 67.5	41.2 - 39.0	41.3 - 39.6	23.8 - 22.8	870	1410	318	241	350	221.2
VMC(N) 90-4-2	30	40	—	—	55.4 - 50.7	31.9 - 29.2	962	1622	390	295	400	329.9
VMC(N) 90-4	30	40	—	—	55.4 - 50.7	31.9 - 29.2	962	1622	390	295	400	329.9
VMC(N) 90-5-2	37	50	—	—	67.7 - 62.0	39.0 - 35.7	1054	1714	390	295	400	355.0
VMC(N) 90-5	37	50	—	—	67.7 - 62.0	39.0 - 35.7	1054	1714	390	295	400	355.0
VMC(N) 90-6-2	45	60	—	—	82.3 - 75.4	47.4 - 43.4	1146	1836	446	325	450	436.1
VMC(N) 90-6	45	60	—	—	82.3 - 75.4	47.4 - 43.4	1146	1836	446	325	450	436.1

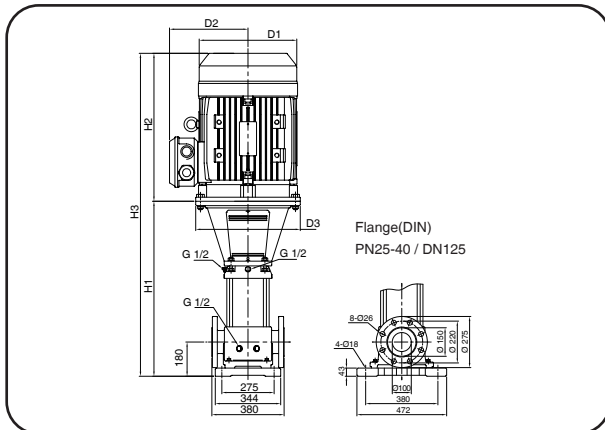
VM120 / VMC120 / VMN120

Performance Curves

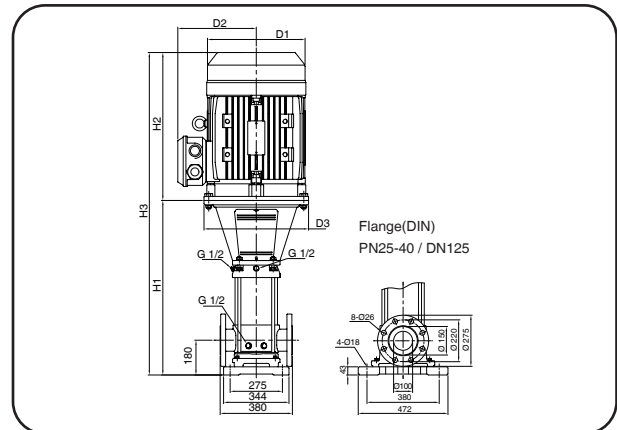
The performance curve applies to the VM, VMC and VMN version of the pump.



Dimensions and Weight - VM120



Dimensions and Weight - VMC/N120



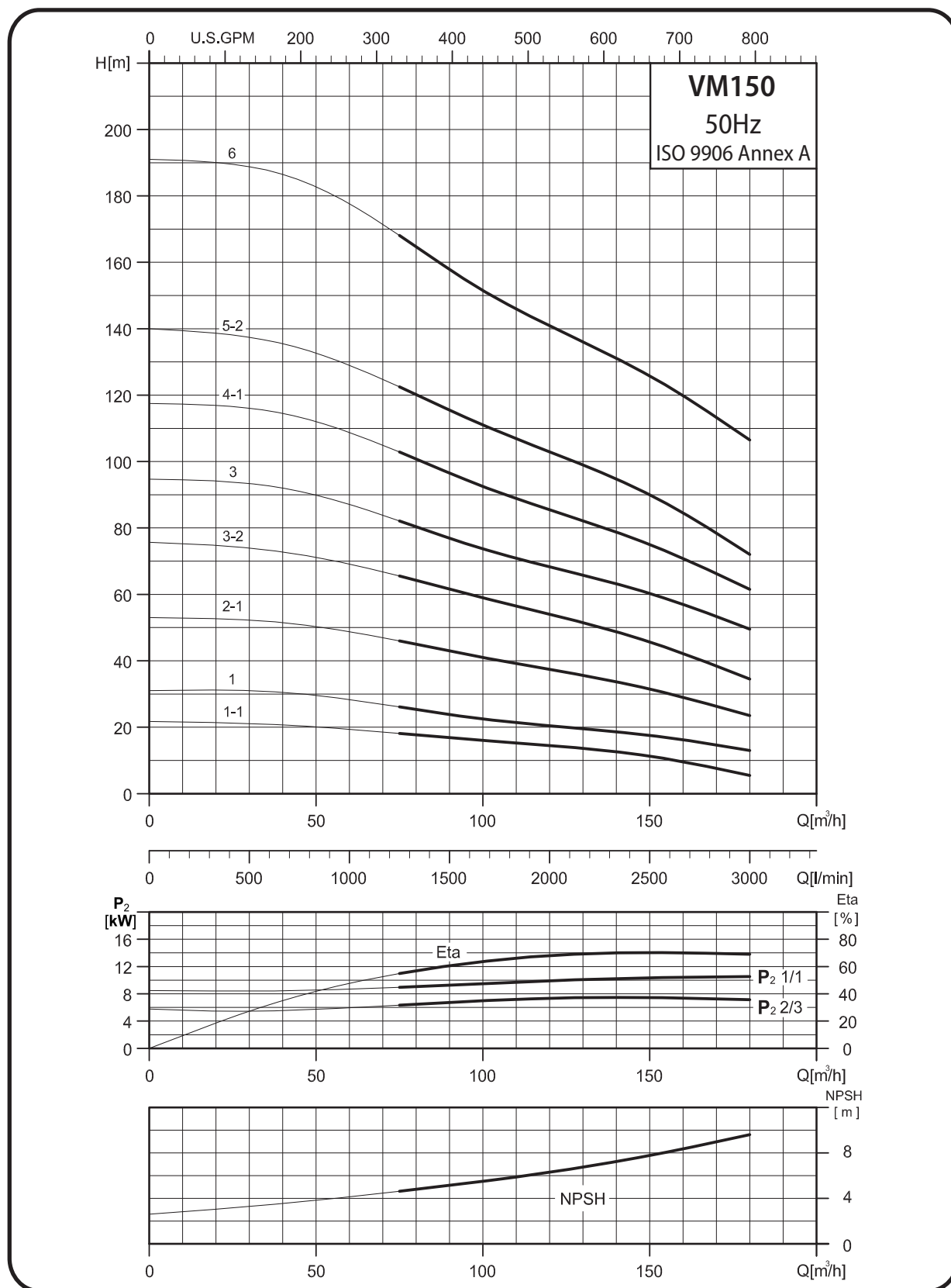
50Hz	Motor		Nominal current [A]				Dimension[mm]						Net weight [kg]
	P2		3ø		3ø		DIN flange			D1	D2	D3	DIN flange
	[kW]	[HP]	Δ220-240V	Y380-415V	Δ380-415V	Y660-720V	H1	H2	H3				
Pump type	[kW]	[HP]	Δ220-240V	Y380-415V	Δ380-415V	Y660-720V	H1	H2	H3	D1	D2	D3	DIN flange
VM 120-1	11	15	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	834	445	1279	269	215	350	195.6
VM 120-2-1	18.5	25	60.2 - 55.4	34.8 - 32.0	35.2 - 33.5	20.3 - 19.3	990	540	1530	318	241	350	249.1
VM 120-2	22	30	71.3 - 67.5	41.2 - 39.0	41.3 - 39.6	23.8 - 22.8	990	540	1530	318	241	350	265.8
VM 120-3	30	40	—	—	55.4 - 50.7	31.9 - 29.2	1145	660	1805	390	295	400	375.5
VM 120-4-1	37	50	—	—	67.7 - 62.0	39.0 - 35.7	1301	660	1961	390	295	400	403.5
VM 120-5-1	45	60	—	—	82.3 - 75.4	47.4 - 43.4	1460	690	2150	446	325	450	489.6
VM 120-6-1	55	75	—	—	101 - 92.5	58.2 - 53.3	1642	770	2412	485	355	550	619.8
VM 120-7	75	100	—	—	134 - 123	77.2 - 70.7	1797	845	2642	550	410	550	746.4

50Hz	Motor		Nominal current [A]				Dimension[mm]						Net weight [kg]
	P2		3ø		3ø		DIN flange			D1	D2	D3	DIN flange
	[kW]	[HP]	Δ220-240V	Y380-415V	Δ380-415V	Y660-720V	H1	H2	H3				
Pump type													
VMC(N) 120-1	11	15	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	837	445	1282	329	215	350	179.8
VMC(N) 120-2-1	18.5	25	60.2 - 55.4	34.8 - 32.0	35.2 - 33.5	20.3 - 19.3	993	540	1533	318	241	350	233.5
VMC(N) 120-2	22	30	71.3 - 67.5	41.2 - 39.0	41.3 - 39.6	23.8 - 22.8	993	540	1533	318	241	350	250.1
VMC(N) 120-3	30	40	—	—	55.4 - 50.7	31.9 - 29.2	1149	660	1809	390	295	400	359.9
VMC(N) 120-4-1	37	50	—	—	67.7 - 62.0	39.0 - 35.7	1304	660	1964	390	295	400	388.1
VMC(N) 120-5-1	45	60	—	—	82.3 - 75.4	47.4 - 43.4	1463	690	2153	446	325	450	474.3
VMC(N) 120-6-1	55	75	—	—	101 - 92.5	58.2 - 53.3	1645	770	2415	485	355	550	604.8
VMC(N) 120-7	75	100	—	—	134 - 123	77.2 - 70.7	1800	845	2645	550	410	550	731.5

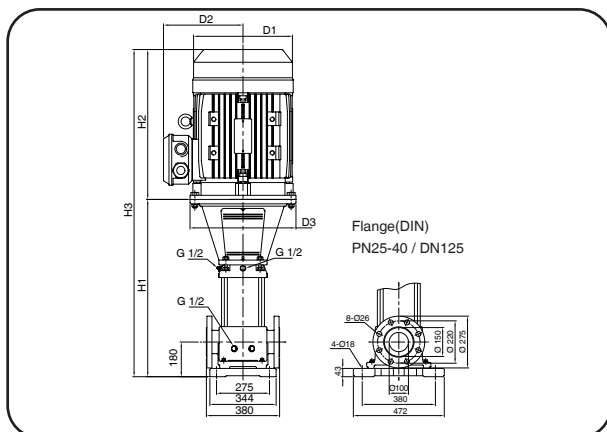
VM150 / VMC150 / VMN150

Performance Curves

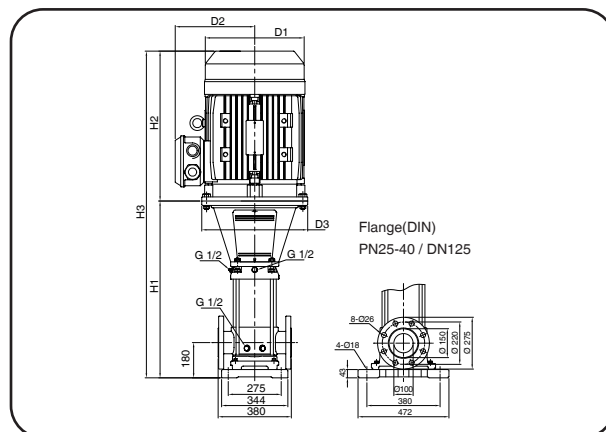
The performance curve applies to the VM, VMC and VMN version of the pump.



Dimensions and Weight - VM150



Dimensions and Weight - VMC/N150



50Hz	Motor		Nominal current [A]				Dimension[mm]						Net weight [kg]
	P2		3ø		3ø		DIN flange			D1	D2	D3	
	Pump type	[kW]	[HP]	Δ220-240V	Y380-415V	Δ380-415V	Y660-720V	H1	H2				H3
VM 150-1-1	11	15	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	834	445	1279	269	215	350	195.5
VM 150-1	15	20	60.2 - 55.4	34.8 - 32.0	35.2 - 33.5	20.3 - 19.3	834	490	1324	269	215	350	206.1
VM 150-2-1	22	30	71.3 - 67.5	41.2 - 39.0	41.3 - 39.6	23.8 - 22.8	990	540	1530	318	241	350	261.8
VM 150-3-2	30	40	—	—	55.4 - 50.7	31.9 - 29.2	1145	660	1805	390	295	400	375.3
VM 150-3	37	50	—	—	67.7 - 62.0	39.0 - 35.7	1145	660	1805	390	295	400	393.4
VM 150-4-1	45	60	—	—	82.3 - 75.4	47.4 - 43.4	1305	690	1995	446	325	450	479.4
VM 150-5-2	55	75	—	—	101 - 92.5	58.2 - 53.3	1486	770	2256	485	355	550	609.7
VM 150-6	75	100	—	—	134 - 123	77.2 - 70.7	1642	845	2487	550	410	550	736.0

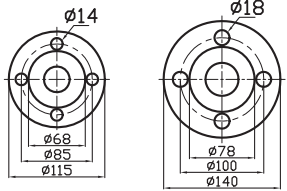
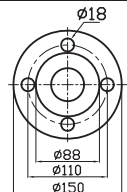
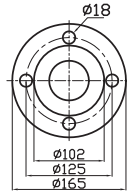
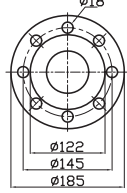
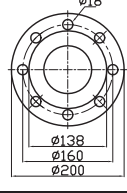
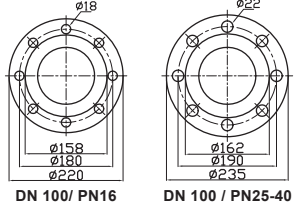
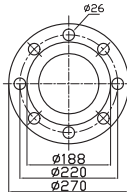
50Hz	Motor		Nominal current [A]				Dimension[mm]					Net weight [kg]	
	P2		3ø		3ø		DIN flange			D1	D2		D3
	[kW]	[HP]	Δ220-240V	Y380-415V	Δ380-415V	Y660-720V	H1	H2	H3				
Pump type													
VMC(N) 150-1-1	11	15	38.8 - 39.1	22.4 - 22.6	22.9 - 23.8	13.2 - 13.7	837	445	1282	269	215	350	179.2
VMC(N) 150-1	15	20	60.2 - 55.4	34.8 - 32.0	35.2 - 33.5	20.3 - 19.3	837	490	1327	269	215	350	189.8
VMC(N) 150-2-1	22	30	71.3 - 67.5	41.2 - 39.0	41.3 - 39.6	23.8 - 22.8	993	540	1533	318	241	350	245.6
VMC(N) 150-3-2	30	40	—	—	55.4 - 50.7	31.9 - 29.2	1148	660	1808	390	295	400	359.2
VMC(N) 150-3	37	50	—	—	67.7 - 62.0	39.0 - 35.7	1148	660	1808	390	295	400	377.2
VMC(N) 150-4-1	45	60	—	—	82.3 - 75.4	47.4 - 43.4	1308	690	1998	446	325	450	463.4
VMC(N) 150-5-2	55	75	—	—	101 - 92.5	58.2 - 53.3	1489	770	2259	485	355	550	595.8
VMC(N) 150-6	75	100	—	—	134 - 123	77.2 - 70.7	1645	845	2490	550	410	550	720.5

Pipework connections

For pipework connection, various sets of counter flanges and couplings are available.

Counter flanges for VM(C/N)

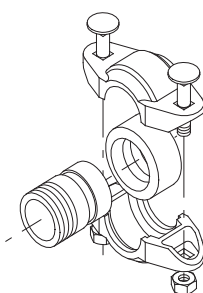
A set consists of one counter flange, one gasket, bolts, nuts, washers

Counter flange	Pump type	Nominal Rated Diameter	Description	Rated Pressure	Pipework connection
 DN 25 / PN25-40 DN 32 / PN25-40	VM(C/N)1 VM(C/N)3 VM(C/N)5	DN 25 DN 32	Threaded Threaded	25-40 bar 25-40 bar	RP 1" RP 1 1/4"
	VM(C/N)10	DN 40	Threaded	25-40 bar	Rp 1 1/2"
	VM(C/N)15 VM(C/N)20	DN 50	Threaded	25-40 bar	Rp 2"
	VM(C/N) 32	DN 65	Threaded	25-40 bar	Rp 2 1/2"
	VM(C/N) 45	DN 80	Threaded	25-40 bar	Rp 3"
 DN 100/ PN16 DN 100 / PN25-40	VM(C/N)64 VM(C/N)90	DN 100 DN 100	Threaded Threaded	16 bar 25-40 bar	Rp 4" Rp 4"
	VM(C/N) 120 VM(C/N) 150	DN 125	Threaded	25-40 bar	Rp 5"

The material of counter is in Steel(S45C), SS 304 and SS 316 available.

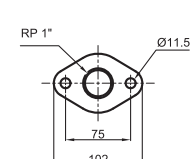
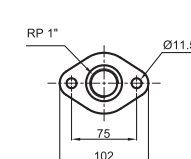
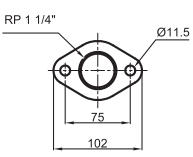
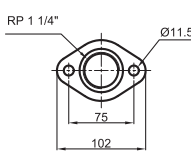
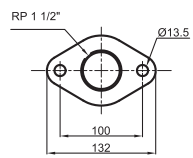
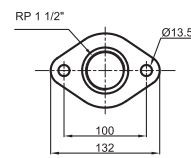
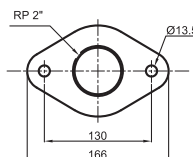
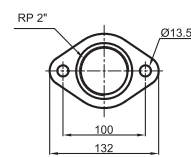
PJE couplings for VMC/N

A set consists of two coupling halves, one gasket, one pipe stud(threaded), bolts and nuts

Victaulic-connections	Pump type	Coupling & pipe stud	Max Pressure	Description	Rubber	Pipework connection
	VMC 1 / 3 / 5	304 SS	80 bar	Threaded	EPDM	R 1 1/4"
	VMN 1 / 3 / 5	316 SS				
	VMC 10 / 15 / 20	304 SS	70 bar	Threaded	EPDM	R 2"
	VMN 10 / 15 / 20	316 SS				

Oval flanges for VM(C/N)

A set consists of one OVAL flange, one gasket, two bolts

Counter flange	Description	Max Pressure	Gasket	Pipework connection	
 VM 1 . 3	 VM (C / N) 1 . 3	Threaded	16 bar	Non Asbestos	RP 1"
 VM 5	 VM (C / N) 5	Threaded	16 bar	Non Asbestos	RP 1 1/4"
 VM 10	 VM (C / N) 10	Threaded	16 bar	Non Asbestos	RP 1 1/2"
 VM 15 . 20	 VM (C / N) 15 . 20	Threaded	10 bar	Non Asbestos	RP 2"

The material of counter is in Steel(S45C), SS 304 and SS 316 available.





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