

# hydroo®



## VDR00 SERIES

# VF/VX/VN/VD

**Vertical multistage  
stainless steel  
centrifugal pump  
60Hz**





## PRESENTATION

**HYDROO has set up a worldwide distribution network together with key partners, providing value to our pump engineers and end users. Ours is a wide range product portfolio with high-end solutions for the pumping business in many applications including water supply, booster sets, fire-fighting sets, borehole wells, HVAC, drainage and sewage, utilities, irrigation, desalination and RO sets, OEM Integration among many others. We provide solutions for all the markets of 50 Hz and 60 Hz, including customized versions.**

**HYDROO has a factory in Palol de Revardit (Catalonia-Spain) sized to guarantee our reliable, long-term based, personalized treatment and best service to all our customers. We can provide a wide range of products in an extremely short delivery time from our factory, thanks to our Lean manufacturing processes and our qualified enthusiastic team.**

**We have compiled our commitment with ethics and legislation in relation to third parties in a public document of principles. The document has been worked with the entire Hydroo team and its deployment has been started with a committee that will ensure compliance and strengthening in the business culture of the company.**

**The expansion of HYDROO by means of excellence in operations and successful business relationship with our partners is symbolized in the growth pace in the target markets and the valuable timely and effective service.**

**At HYDROO we bet on a high level service to our valued pump partners.**

# INTRODUCTION

## PUMP Range presentation and main features

VDROO is a new series of vertical multistage centrifugal pumps made by Hydroo. It includes different versions: VF, VX, VN and VD and their corresponding pumps sets with motor and with variable frequency drivers.

VDROO range has been designed to meet the highest demanding in pumping installations. It has been designed, engineered, industrialized and finally, is being produced in the main factory of Hydroo in Palol de Revardit, Catalonia-Spain.



## Main technical benefits

VDROO range is ready to meet the most demanding applications and it is able to suit to any pumping installation with the best technical results.

- Cartridge mechanical seal for an easy seal maintenance without need to remove the motor

- Wide range of connections to match the installation requirements: oval, rounded, threaded, Victaulic

- Wide variety of materials. All parts in contact with the pumped liquid can be made of AISI304 SS (VX), AISI316 SS (VN), Mixed with cast iron and AISI304 SS (VF) or even in Duplex SS (VD) for specific sizes

- Readiness to a wide variety of liquids by means of using the right pump materials, as well as o-rings or mechanical seals

- All pumps are individually tested and results are always available for customers

- Provides the biggest pumping range in the market starting at 1 m<sup>3</sup>/h up to 210 m<sup>3</sup>/h in the BEP. All in just 13 sizes to optimise pump's selection

- All the range is energy-optimised and in compliance with the ErP Regulation of the EU Commission nr. 547/2012, providing higher MEI grade than the minimum of the mentioned regulation



Highest pump performance is related to the motor and the hydraulics detailed design. We use the high-end technical resources to reach the best in the market results. Maximised hydraulic efficiency and IE3 standard motors turn out to a unique leading pump concept: robust, reliable, flexible, user-adjustable, smart and multi-purpose.



Our commitment with the environment is in the base of our company thinking. All processes consider the minimum impact in our own home. Within the designing process we had in mind any individual requirement to get the best result for our customers.



Added value relies on material selection, the industrial process of the components production and the usable design of all the single details. Pump flexibility, high line-up of options and personalized service is our added value.



We take care of our customer's pumps. We are our customer's factory and they deserve our full commitment in excellence and exemplary corporate culture. We consider no boundaries within the value chain, starting from industrial installation engineering to pump managing. This vision results in a close cooperation with all players to get the best pumping solution.



Quality assurance is a key factor for added value products. We at Hydroo watch the pump quality, the crafted manufacturing process and expedition quality are integrated in our core service offer. Moreover, variable frequency drivers are available to get the best pump service in any kind of installation. World is in motion and we contribute to it with warmth and commitment.

# VF/VX/ VN/VD

Vertical multistage  
stainless steel  
centrifugal pump

## Applications

Cooling water system  
Municipal water supply  
and boosting  
Domestic water supply  
Irrigation  
General industrial services  
Washing plants  
Boiler feed and condensate  
system  
Water treatment

## Description

Vertical multistage in-line centrifugal pumps made in Stainless Steel. Standard totally enclosed, fan cooled, insulation class F, IP 55 motors. Single phase motors up to 2,2 kW.

WRAS / ACS certified.

VF version: hydraulic part in AISI304 SS, pump inlet/outlet made in cast iron.

VX/VN version: whole pumps available in AISI304 or AISI316L.

VD version: hydraulic part in AISI904 / SS2205.

## Performance range

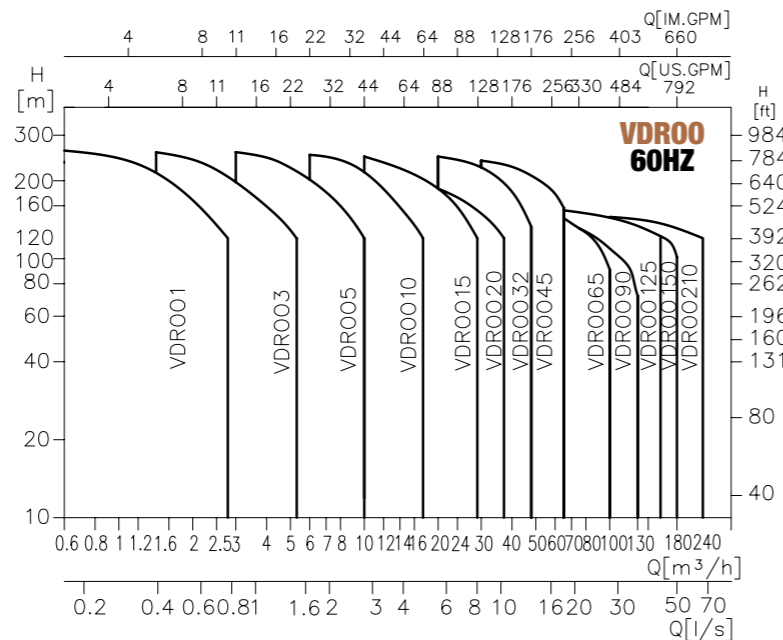
Capacity: Q up to 240 m<sup>3</sup>/h  
Head: H up to 305 m  
Temperature: T up to 120 °C  
Speed: n 2900 rpm  
Power: P up to 110 kW

## Standard material

All the parts in contact with liquid made of 304 stainless steel, 316 stainless steel on request. The pump head and suction & discharge can be made of cast iron on request too.



## Performance scope



## Pump

VDR00 is a kind of vertical non-self priming multistage centrifugal pump, which is driven by a standard electric motor. The motor output shaft directly connects with the pump shaft through a coupling. The pressure-resistant cylinder and flow passage components are fixed between pump head and inlet&outlet section with stay bolts. The inlet and outlet are located at the pump bottom at the same plane. This kind of pump can be equipped with an intelligent protector to effectively prevent it from dry-running, out-of-phase and overload.

## Motor

Full-enclosed air-blast two-pole IE3 efficiency standard motor  
Protection class: IP55  
Insulation class: F  
Standard voltage: 60Hz:  
1x220V  
3x220/440V  
3x265/460V

## Application

VDR00 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. VDR00 type is applicable to conveying non-corrosive liquid, while VDR00 is suitable for slightly corrosive liquid.

**-Water supply:** Water filter and transport in waterworks boosting of main pipeline, boosting in high-rise buildings.

**-Industrial boosting:** process flow water system, cleaning system, high-pressure washing system, fire fighting system.

**- Industrial liquid conveying:** Cooling and air-conditioning system, boiler water supply and condensing system, machine-associated purpose, acids and alkali.

**-Water treatment:** Ultra filtration system, reverse osmosis system, distillation system, separator, swimming pool.

**-Irrigation :** Farmland irrigation, spray irrigation, dripping irrigation.

## Operation conditions

-Thin, clean, non-flammable and non-explosive liquid containing no solid granules and fibers.

-Liquid temperature: -15°C +120°C

-Ambient temperature: up to +40°C

-Altitude: up to 1000m

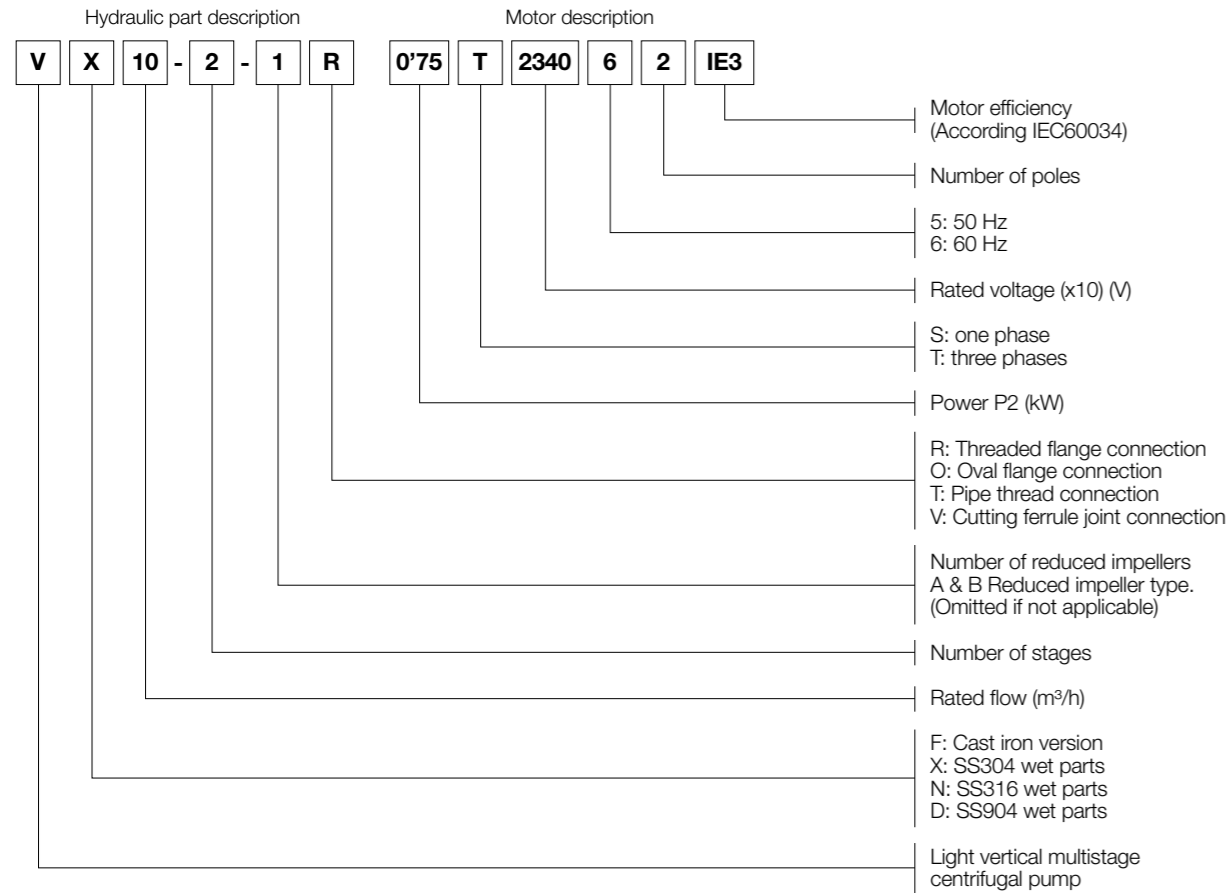
## Product range

Description	VDR00-1	-3	-5	-10	-15	-20	-32	-45	-65	-90	-125	-150	-210
Rated flow [m <sup>3</sup> /h]	1	3	5	10	15	20	32	45	65	90	125	150	210
Rated flow [l/s]	0.28	0.83	1.39	2.78	4.17	5.56	8.9	12.5	18	25	34.7	41.6	58.3
Flow range [m <sup>3</sup> /h]	0.6~2.8	1.4~5.2	3~10	6~17	10~29	13~35	20~48	30~65	40~100	60~130	60~160	80~180	100~240
Max. pressure. [bar]	25	25	24	24	23	20	25	26	18	15	15	14	15
Motor power [kW]	0.37~3	0.37~4	0.55~5.5	0.75~11	1.5~18.5	2.3~18.5	3~30	5.5~45	7.5~45	11~45	18.5~75	15~75	130~110
Temp. [°C]	-15 ~ +120												
Max. efficiency [%]	49	59	70	72	73	73	73	75	76	77	74	73	78
VF	•	•	•	•	•	•	•	•	•	•	•	•	•
VX, VN	•	•	•	•	•	•	•	•	•	•	•	•	•
VD							•	•	•	•	•	•	•
VF, VX, VN, VD DIN Flange	DN25	DN25	DN32	DN40	DN50	DN50	DN65	DN80	DN100	DN100	DN125	DN125	DN150
VX, VN Cutting ferrule joint	DN32	DN32	DN32	DN50	DN50	DN50							
VX, VN Pipe thread	R1¼	R1¼	R1¼	R2	R2	R2							
VF, VX, VN Oval Flange	G1	G1	G1¼	G1½									



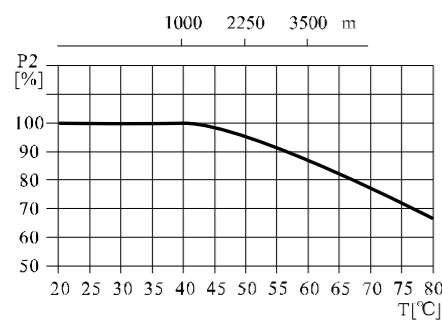
## Definition of model

**VF, VX, VN 1, 3, 5, 10, 15, 20**  
**VF, VX, VN, VD 32, 45, 65, 90, 125, 150, 210**



## Max. Ambient temperature

When the pump operates under ambient temperature higher than 40°C or at altitudes higher than 1000m, because of low air density and poor cooling effects, the motor output power P2 will be decreased to certain extent. If the pump is operated under the above-said conditions, it should be equipped with motor of higher power.



## Max. working pressure

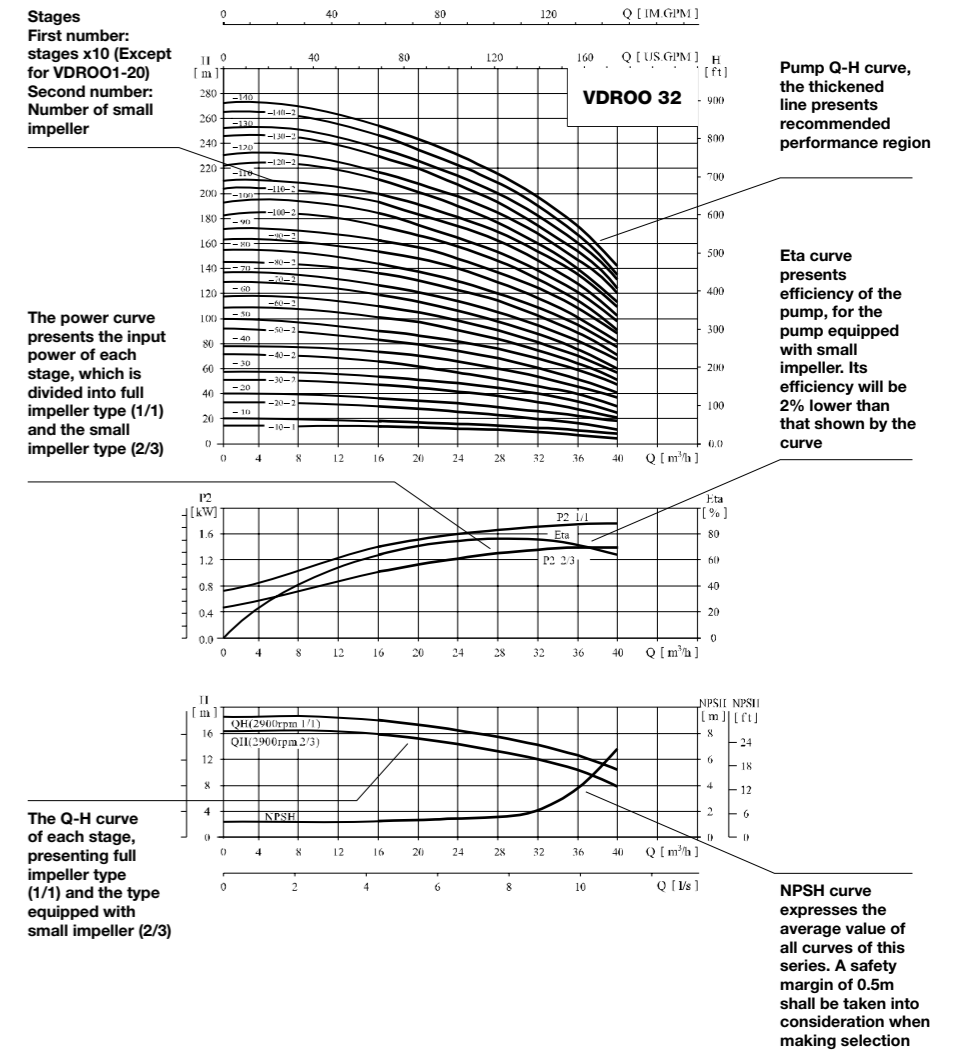
Model	Max. pressure (bar)
VF, VX, VN 1,3,5,10,15,20 Flange, cutting ferrule joint, pipe thread	25
VF, VX, VN 1,3,5,10 Oval Flange	16
VF 32-10-1 ~ 32-80	16
VF 32-90-2 ~32-160	30
VX, VN, VD 32	30
VF 45-10-1 ~45-60-2	16
VF 45-60 ~45-90	25
VF 45-100-2 ~45-130-2	30
VX, VN, VD 45-10-1 ~ 45-90	25
VX, VN, VD 45-100-2 ~ 45-130-2	30
VF 65-10-1 ~65-50-2	16
VF 65-50-1 ~65-80-1	25
VF 90-10-1 ~90-40-2	16
VF 90-40 ~90-60	25
VF, VN, VD 65,90	25
VF, VX, VN, VD 125, 150, 210	20

## Performance curve

Following conditions are suitable for the performance curves shown below:

- All curves are based on the measured values of 60Hz: constant motor speed 3500rpm.
- Curve tolerance in conformity with ISO9906 Annex A.
- Measurement is done with 20°C air-free water, kinematic viscosity of 1mm²/sec.
- The operation of pump shall refer to the performance region indicated by the thickened curve to prevent over-heating due to too small flow rate or overload of motor due to too large flow rate.

## Curve illustration



## Minimum inlet pressure NPSH

In case that the pressure in pump is lower than the steam pressure used to convey liquid, the cavitations will occur. To avoid cavitations, a minimum pressure at the inlet side of the pump shall be guaranteed.

The maximum suction stroke can be calculated with following formula: $H=P_b \times 10.2 - NPSH - H_f - H_v - H_s$   
 $P_b$ =atmosphere pressure [bar] (can be set as 1 bar)

In a closed system,  $P_b$  means system pressure [bar]

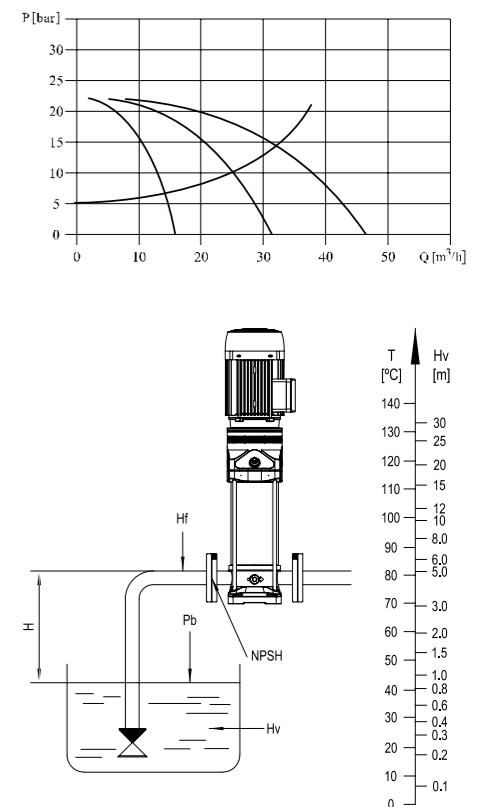
$NPSH$ =Net positive suction head [m] (It can be read out from the point of possible max. Flow rate shown on NPSH curve)  
 $H_f$ =Pipeline loss at the inlet[m]  
 $H_v$ =Steam pressure[m]  
 $H_s$ =Safety margin=Minimum 0.5m delivery head

If the calculated result H is positive, the pump may Run under the max. Suction stroke H.

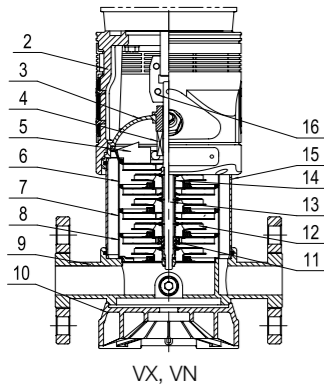
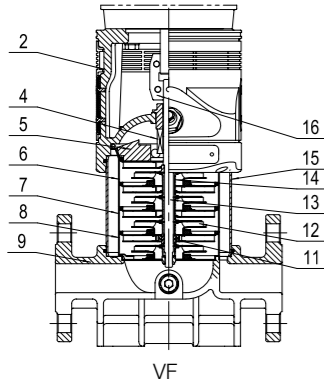
In case the calculated result H is negative, a delivery head of min. Inlet pressure is necessary.

Operation in parallel connecting several pumps in parallel running will benefit much more than running a single large pump.

Applicable to different working states necessary in a variable flow system. Increasing the possibility of water supply when the pump is in failure, because in case of pump failure, only part of the system flow is effected.



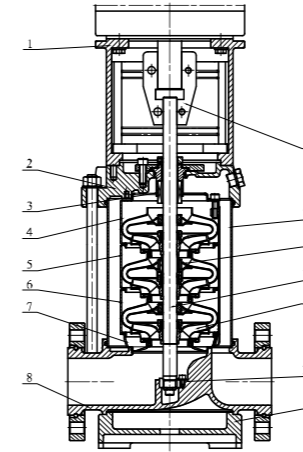
**Sectional drawing**  
VF, VX, VN 1,3,5



**Material**  
VF, VX, VN 1,3,5

N°	Name	Material	AISI /ASTM
2	Pump head	Cast iron	ASTM25B
4	Mechanical seal	SiC/SiC/EPDM	
5	Top diffuser	Stainless steel	AISI304 / AISI316L
6	Diffuser	Stainless steel	AISI304 / AISI316L
7	Support diffuser	Stainless steel	AISI304 / AISI316L
8	Inducer	Stainless steel	AISI304 / AISI316L
11	Bearing	WC	
12	Impeller	Stainless steel	AISI304 / AISI316L
13	Shaft	Stainless steel	AISI304 / AISI316L
14	Impeller sleeve	Stainless steel	AISI304 / AISI316L
15	Cylinder	Stainless steel	AISI304 / AISI316L
16	Coupling	Carbon steel	
<b>VX, VN</b>			
3	Seal base	Stainless steel	AISI304 / AISI316L
9	Inlet and outlet chamber	Stainless steel	AISI304 / AISI316L
10	Base plate	Aluminium	ASTM25B
<b>VF</b>			
9	Inlet and outlet chamber	Cast iron	ASTM25B

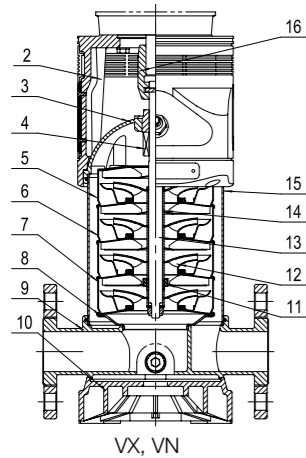
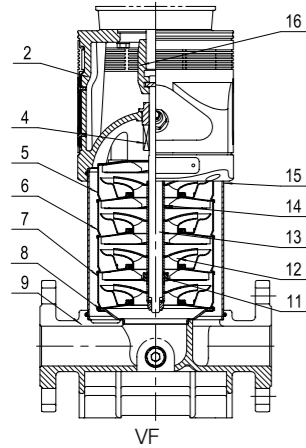
**Sectional drawing**  
VF, VX, VN, VD 32,45,65,90



**Material**  
VF, VX, VN, VD 32,45,65,90

N°	Name	Material	AISI /ASTM
1	Bracket	Cast iron	ASTM25B
3	Mechanical seal	SiC/SiC/EPDM	
4	Top diffuser	Stainless steel	AISI304 / AISI316 / SS904L
5	Support diffuser	Stainless steel	AISI304 / AISI316 / SS904L
6	Diffuser	Stainless steel	AISI304 / AISI316 / SS904L
7	Inducer	Stainless steel	AISI304 / AISI316 / SS904L
9	Base plate	Cast iron	ASTM25B
10	Bottom bearing	WC	
11	Impeller	Stainless steel	AISI304 / AISI316 / SS904L
12	Shaft	Stainless steel	AISI304 / AISI316L / AISI431
13	Intermediate bearing	WC	
14	Cylinder	Stainless steel	AISI304 / AISI316 / SS904L
15	Coupling	Carbon steel	
	Rubber parts	NBR	
<b>VF</b>			
2	Pump head	Cast iron	ASTM25B
8	Chambre d'entrée et de sortie	Cast iron	ASTM25B
<b>VX, VN, VD</b>			
2	Pump head	Stainless steel	AISI304 / AISI316 / SS2205
8	Inlet and outlet chamber	Stainless steel	AISI304 / AISI316 / SS2205

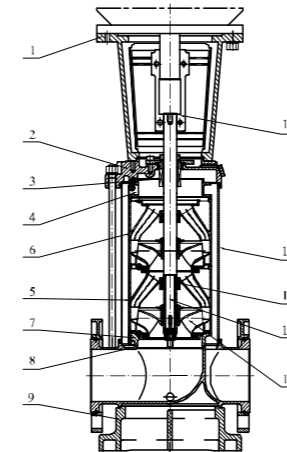
**Sectional drawing**  
VF, VX, VN 10,15,20



**Material**  
VF, VX, VN 10,15,20

N°	Name	Material	AISI /ASTM
2	Pump head	Cast iron	ASTM25B
4	Mechanical seal	SiC/SiC/EPDM	
5	Top diffuser	Stainless steel	AISI304 / AISI316L
6	Diffuser	Stainless steel	AISI304 / AISI316L
7	Support diffuser	Stainless steel	AISI304 / AISI316L
8	Inducer	Stainless steel	AISI304 / AISI316L
11	Bearing	WC	
12	Impeller	Stainless steel	AISI304 / AISI316L
13	Shaft	Stainless steel	AISI304 / AISI316L
14	Impeller sleeve	Stainless steel	AISI304 / AISI316L
15	Cylinder	Stainless steel	AISI304 / AISI316L
16	Coupling	Carbon steel	
<b>VX, VN</b>			
3	Seal base	Stainless steel	AISI304 / AISI316L
9	Inlet and outlet chamber	Stainless steel	AISI304 / AISI316L
10	Base plate	Aluminium	ASTM25B
<b>VF</b>			
9	Inlet and outlet chamber	Cast iron	ASTM25B

**Sectional drawing**  
VF, VX, VN, VD 125,150,210

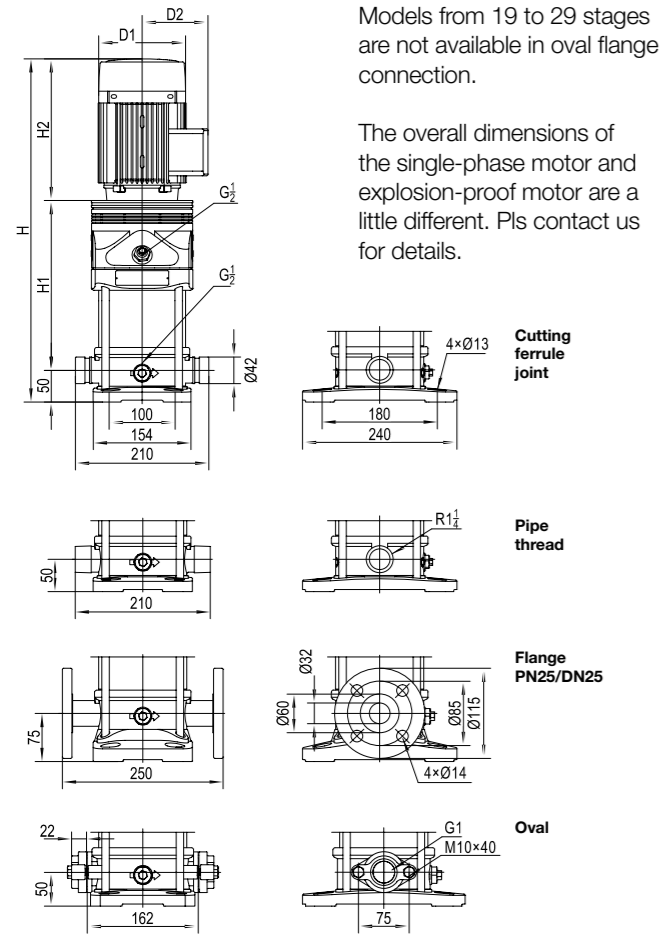


**Material**  
VF, VX, VN, VD 125,150,210

N°	Name	Material	AISI /ASTM
1	Bracket	Cast iron	ASTM25B
3	Mechanical seal	SiC/SiC/EPDM	
4	Discharge	Stainless steel	AISI304 / AISI316 / SS904L
5	Support diffuser	Stainless steel	AISI304 / AISI316 / SS904L
6	Diffuser	Stainless steel	AISI304 / AISI316 / SS904L
7	Inducer	Stainless steel	AISI304 / AISI316 / SS904L
9	Base plate	Cast iron	ASTM 80-55-06
11	Impeller	Stainless steel	AISI304 / AISI316 / SS904L
12	Shaft	Stainless steel	AISI304 / AISI316 / SS904L
13	Bearing	WCe	
14	Cylinder	Stainless steel	AISI304 / AISI316 / SS904L
15	Coupling	Carbon steel	
	Rubber parts	NBR	
<b>VF</b>			
2	Pump head	Cast iron	ASTM 80-55-06
8	Inlet and outlet chamber	Stainless steel	ASTM 80-55-06
<b>VX, VN, VD</b>			
2	Pump head	Stainless steel	AISI304 / AISI316 / SS2205
8	Inlet and outlet chamber	Stainless steel	AISI304 / AISI316 / SS2205

# VDR001

## Installation sketch



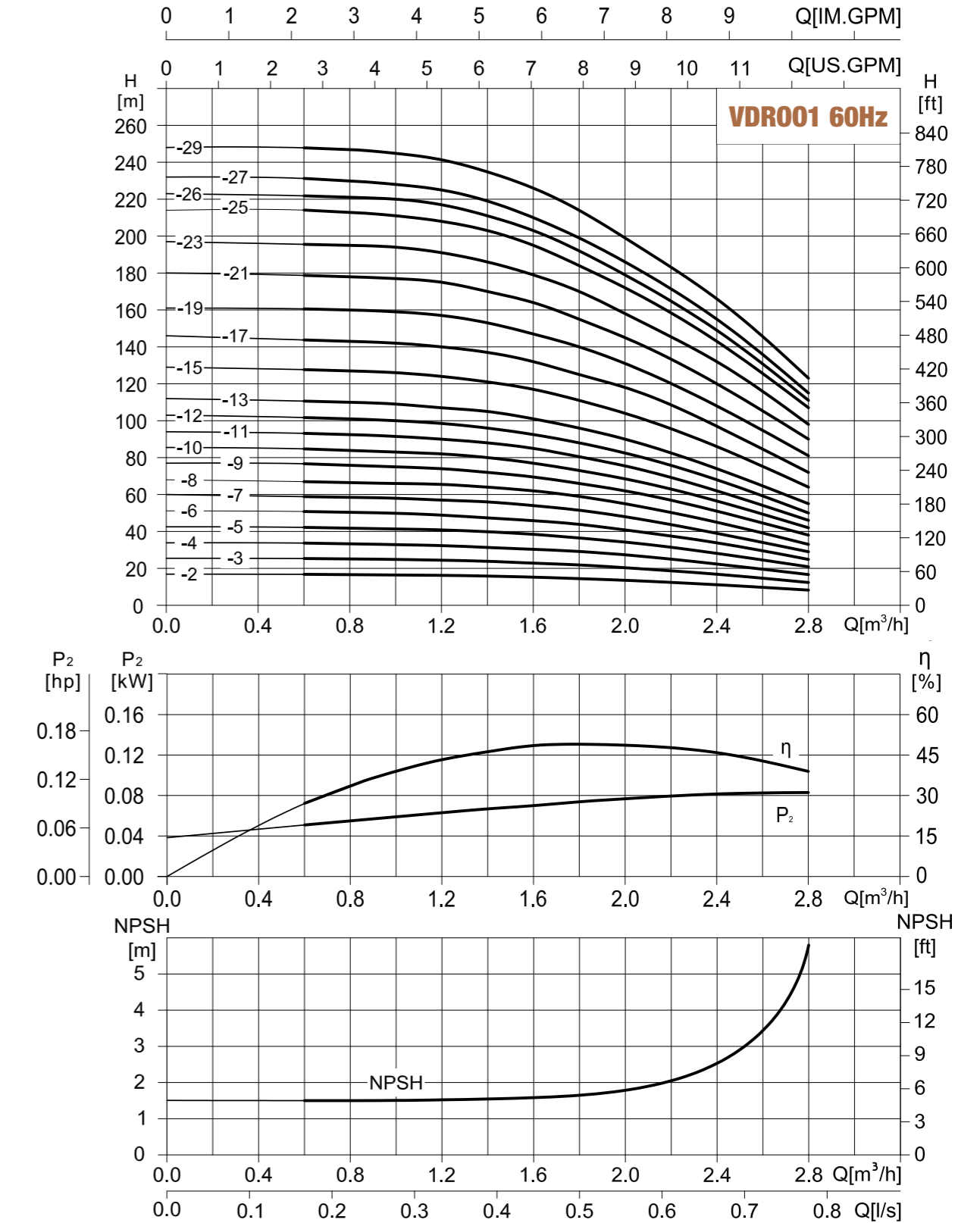
## Size and weight

Model	Pump and motor dimensions						Weight (kg)	
	H1	H2	H	D1	D2	VF	VX, VN	
VF, VX, VN-1-2	187	215	477/452	148	117	19	23	
VF, VX, VN-1-3	207	215	497/472	148	117	19	23	
VF, VX, VN-1-4	227	215	517/492	148	117	20	24	
VF, VX, VN-1-5	247	215	537/512	148	117	21	25	
VF, VX, VN-1-6	267	215	557/532	148	117	21	25	
VF, VX, VN-1-7	297	245	617/592	170	142	25	29	
VF, VX, VN-1-8	317	245	637/612	170	142	25	29	
VF, VX, VN-1-9	337	245	657/632	170	142	26	30	
VF, VX, VN-1-10	357	245	677/652	170	142	28	32	
VF, VX, VN-1-11	377	245	697/672	170	142	29	33	
VF, VX, VN-1-12	397	245	717/692	170	142	29	33	
VF, VX, VN-1-13	427	245	747/722	170	142	29	33	
VF, VX, VN-1-15	467	290	832/807	190	155	35	39	
VF, VX, VN-1-17	507	290	872/847	190	155	36	40	
VF, VX, VN-1-19	547	290	912/887	190	155	39	43	
VF, VX, VN-1-21	587	290	952/927	190	155	39	43	
VF, VX, VN-1-23	627	290	992/967	190	155	40	44	
VF, VX, VN-1-25	667	290	1032/1007	190	155	41	45	
VF, VX, VN-1-26	687	290	1052/1027	190	155	42	46	
VF, VX, VN-1-27	717	345	1137/1112	197	165	53	57	
VF, VX, VN-1-29	757	345	1177/1152	197	165	54	58	

## Performance table

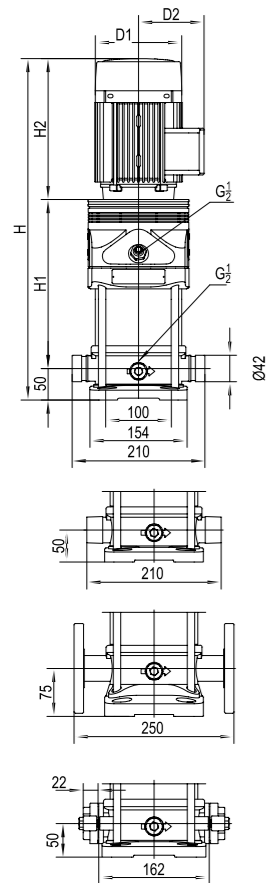
Model	Motor		Q (m³/h)	H (m)												
	(kW)	(hp)		0	0.6	0.8	1	1.2	1.4	1.6	1.8	2	2.4	2.8		
VF, VX, VN-1-2	0.37	0.5	17.5	17	16.8	16.6	16.4	16	15.4	14.6	13.7	11.3	8.4			
VF, VX, VN-1-3	0.37	0.5	26	25.5	25.3	25	24.6	24	23	22	20.5	17	12.5			
VF, VX, VN-1-4	0.37	0.5	34	33.8	33.5	33	32.5	31.5	30.5	29.3	27.5	22.5	16.8			
VF, VX, VN-1-5	0.55	0.75	43	42.5	42	41.5	41	40	38.6	36.6	34.4	28.3	21			
VF, VX, VN-1-6	0.55	0.75	51.5	51	50.6	50	49	47.5	46	44	41	34	25			
VF, VX, VN-1-7	0.75	1	60	59	58.5	58	57	56	54	51.5	48	39	29			
VF, VX, VN-1-8	0.75	1	68	67	66.5	66	65.5	64	62	59	55	45	33			
VF, VX, VN-1-9	0.75	1	77	76.5	76	75	74	72	69.5	66	62	51	38			
VF, VX, VN-1-10	1.1	1.5	85.5	84.5	84	83	82	80	77	73	68.5	56.5	42			
VF, VX, VN-1-11	1.1	1.5	94	93	92.5	91.5	90	88	85	80.5	75.5	62	46			
VF, VX, VN-1-12	1.1	1.5	103	102	101	100	98.5	96	92.5	88	82.5	68	50			
VF, VX, VN-1-13	1.1	1.5	112	111	110	109	107	105	101	96	90	74	55			
VF, VX, VN-1-15	1.5	2	129	128	127	126	124	121	117	111	104	86	64			
VF, VX, VN-1-17	1.5	2	146	144	143	142	140	137	132	125	118	97	72			
VF, VX, VN-1-19	2.2	3	162	161	160	159	157	153	147	140	131	108	81			
VF, VX, VN-1-21	2.2	3	180	179	178	177	175	170	164	155	145	120	90			
VF, VX, VN-1-23	2.2	3	197	196	195	194	191	186	179	170	158	132	98			
VF, VX, VN-1-25	2.2	3	215	214	213	211	208	203	195	184	172	143	107			
VF, VX, VN-1-26	2.2	3	223	222	221	220	217	211	203	192	179	149	111			
VF, VX, VN-1-27	3	4	232	231	230	228	225	219	210	199	186	155	115			
VF, VX, VN-1-29	3	4	249	248	247	245	242	235	226	214	199	166	123			

## Performance curve ISO9906:2012 Grade 3B



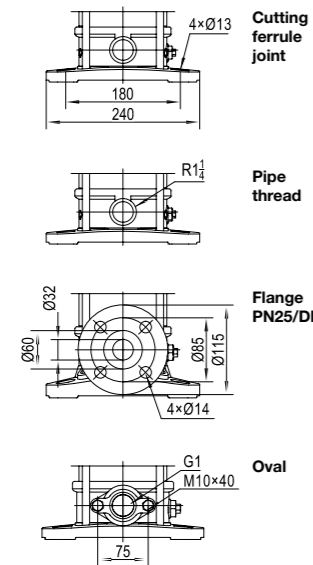
# VDR003

## Installation sketch



Models from 21 to 31 stages are not available in oval flange connection.

The overall dimensions of the single-phase motor and explosion-proof motor are a little different. Pls contact us for details.



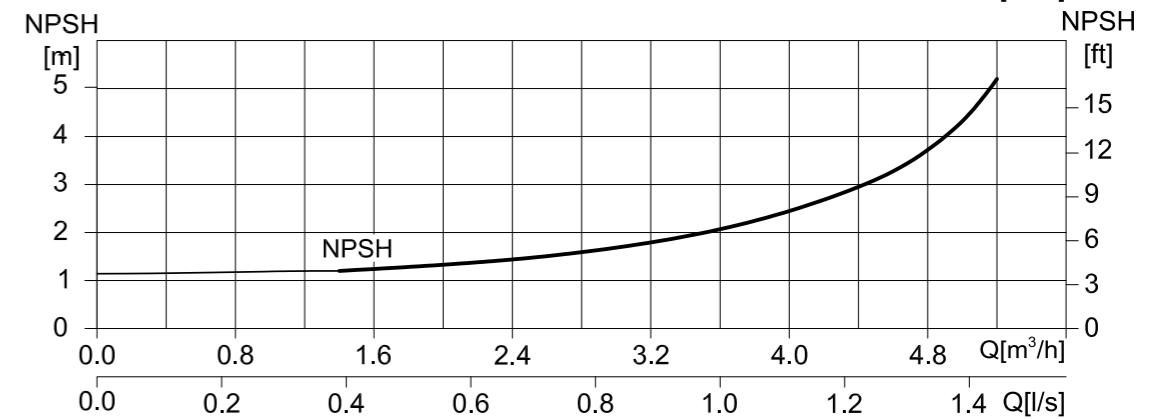
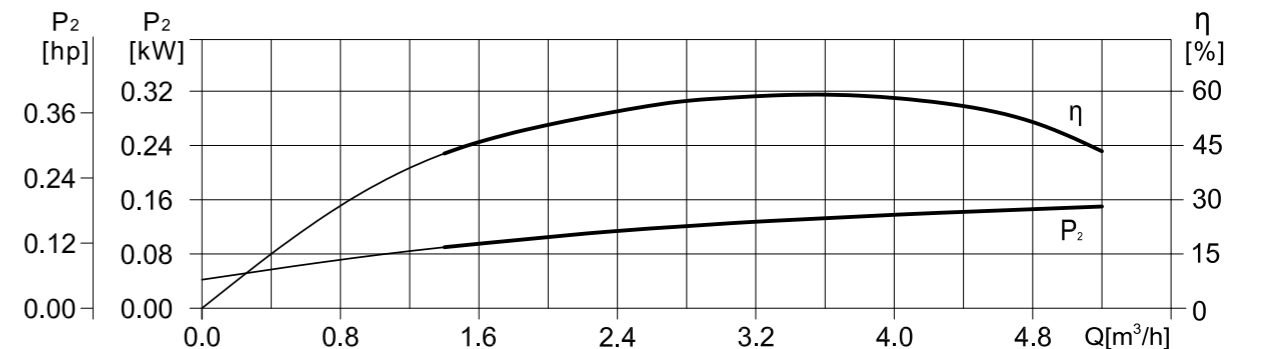
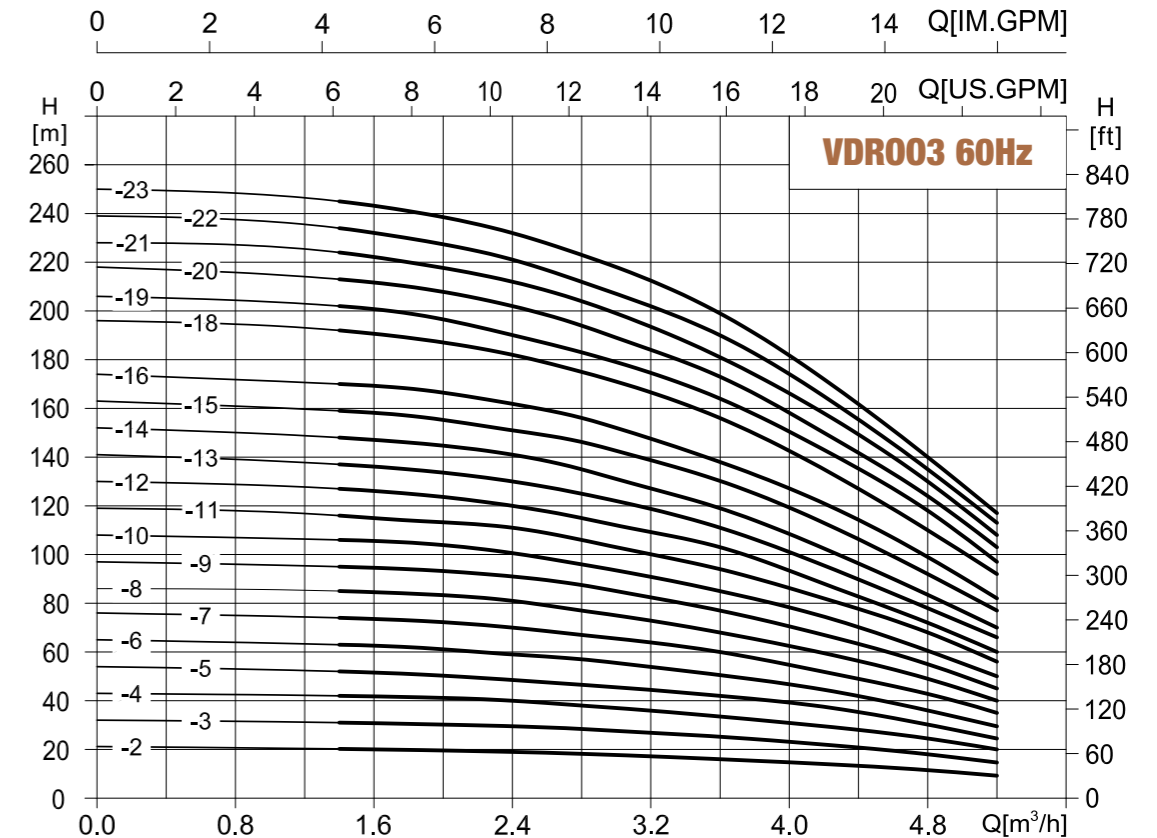
## Size and weight

Model	Pump and motor dimensions					Weight (kg)	
	H1	H2	H	D1	D2	VF	VX, VN
VF, VX, VN-3-2	187	215	477/452	148	117	20	24
VF, VX, VN-3-3	207	215	497/472	148	117	21	25
VF, VX, VN-3-4	237	245	557/532	170	142	24	28
VF, VX, VN-3-5	257	245	577/552	170	142	27	31
VF, VX, VN-3-6	277	245	597/572	170	142	27	31
VF, VX, VN-3-7	297	245	617/592	170	142	28	32
VF, VX, VN-3-8	327	290	692/667	190	155	33	37
VF, VX, VN-3-9	347	290	712/687	190	155	33	37
VF, VX, VN-3-10	367	290	732/707	190	155	36	40
VF, VX, VN-3-11	387	290	752/727	190	155	36	40
VF, VX, VN-3-12	407	290	772/747	190	155	37	41
VF, VX, VN-3-13	427	290	792/767	190	155	37	41
VF, VX, VN-3-14	447	290	812/787	190	155	38	42
VF, VX, VN-3-15	477	345	897/872	197	165	48	52
VF, VX, VN-3-16	497	345	917/892	197	165	49	53
VF, VX, VN-3-18	537	345	957/932	197	165	50	54
VF, VX, VN-3-19	557	345	977/952	197	165	50	54
VF, VX, VN-3-20	577	355	1007/982	230	188	57	61
VF, VX, VN-3-21	597	355	1027/1002	230	188	57	61
VF, VX, VN-3-22	617	355	1047/1022	230	188	58	62
VF, VX, VN-3-23	637	355	1047/1042	230	188	58	62

## Performance table

Model	Motor		Q (m³/h)	H (m)											
	(kW)	(hp)		0	1.4	1.8	2.4	2.8	3	3.6	4.2	4.8	5.2		
VF, VX, VN-3-2	0.37	0.5		21.2	20.2	19.8	19	18.2	17.7	16	14	11.5	9.2		
VF, VX, VN-3-3	0.55	0.75		32	31	30.5	29.5	28.4	27.6	25.2	22	18	14.6		
VF, VX, VN-3-4	0.75	1		43	42	41.5	40	38	37	33.5	29.5	24.5	20		
VF, VX, VN-3-5	1.1	1.5		54	52	51	48.5	46.5	45.5	42	37.5	30.2	24.5		
VF, VX, VN-3-6	1.1	1.5		65	63	62	59	57	55.5	50.5	44.5	36	29.5		
VF, VX, VN-3-7	1.1	1.5		76	74	73	70	67	65.5	60	52	43.2	35		
VF, VX, VN-3-8	1.5	2		86	85	84	81	77	75	68	59.5	49	40		
VF, VX, VN-3-9	1.5	2		97	95	94	91	87.5	85	77	67	55	45		
VF, VX, VN-3-10	2.2	3		108	106	105	101	96	93.5	85	74.5	60.5	50		
VF, VX, VN-3-11	2.2	3		119	116	114	111	106	103	94	82	68	56		
VF, VX, VN-3-12	2.2	3		130	127	125	120	115	112	103	88	72	60		
VF, VX, VN-3-13	2.2	3		141	137	135	130	125	122	111	95.5	78	66		
VF, VX, VN-3-14	2.2	3		152	148	146	141	135	131	119	102.5	83.5	70		
VF, VX, VN-3-15	3	4		163	159	157	151	146	142	130	113	92	77		
VF, VX, VN-3-16	3	4		174	170	168	161	156	152	138	121	99	82		
VF, VX, VN-3-18	3	4		196	192	189	182	175	171	156	135	110	92		
VF, VX, VN-3-19	3	4		206	202	199	190	183	179	164	143	118	97		
VF, VX, VN-3-20	4	5.5		218	213	210	202	194	189	173	150	124	103		
VF, VX, VN-3-21	4	5.5		228	224	220	212	204	199	181	158	130	108		
VF, VX, VN-3-22	4	5.5		239	234	230	222	212	207	190	165	135	113		
VF, VX, VN-3-23	4	5.5		250	245	241	232	223	218	199	172	140	117		

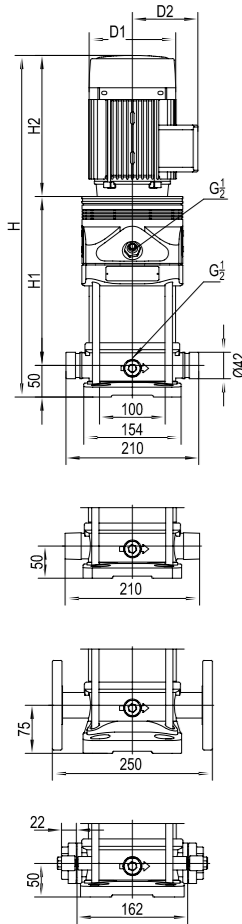
## Performance curve ISO9906:2012 Grade 3B





# VDR005

## Installation sketch



Models from 21 to 33 stages are not available in oval flange connection.

The overall dimensions of the single-phase motor and explosion-proof motor are a little different. Pls contact us for details.

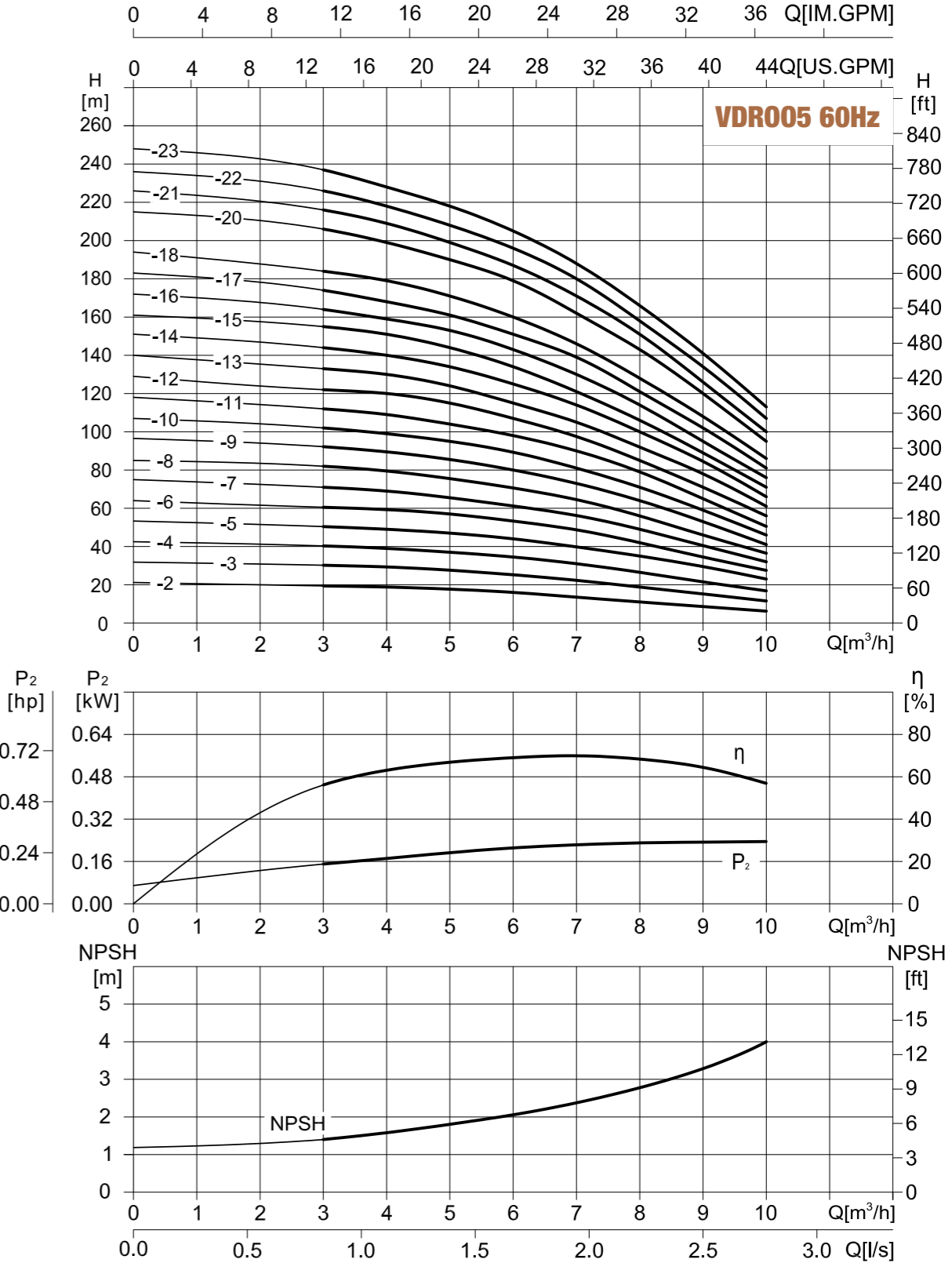
## Size and weight

Model	Pump and motor dimensions					Weight (kg)	
	H1	H2	H	D1	D2	VF	VX, VN
VF, VX, VN-5-2	201	215	491/466	148	117	20	25
VF, VX, VN-5-3	238	245	558/533	170	142	23	28
VF, VX, VN-5-4	265	245	585/560	170	142	26	31
VF, VX, VN-5-5	302	290	667/642	190	155	32	37
VF, VX, VN-5-6	329	290	694/669	190	155	32	37
VF, VX, VN-5-7	356	290	721/696	190	155	35	40
VF, VX, VN-5-8	383	290	748/723	190	155	35	40
VF, VX, VN-5-9	410	290	775/750	190	155	36	41
VF, VX, VN-5-10	447	345	867/842	197	165	46	51
VF, VX, VN-5-11	474	345	894/869	197	165	47	52
VF, VX, VN-5-12	501	345	921/896	197	165	47	52
VF, VX, VN-5-13	528	355	958/933	230	188	54	59
VF, VX, VN-5-14	555	355	985/960	230	188	55	60
VF, VX, VN-5-15	582	355	1012/987	230	188	55	60
VF, VX, VN-5-16	609	355	1039/1014	230	188	56	61
VF, VX, VN-5-17	711	390	1176/1151	260	208	76	81
VF, VX, VN-5-18	738	390	1203/1178	260	208	76	81
VF, VX, VN-5-20	792	390	1257/1232	260	208	77	82
VF, VX, VN-5-21	819	390	1284/1259	260	208	78	83
VF, VX, VN-5-22	846	390	1311/1286	260	208	78	83
VF, VX, VN-5-23	873	390	1338/1313	260	208	79	84

## Performance table

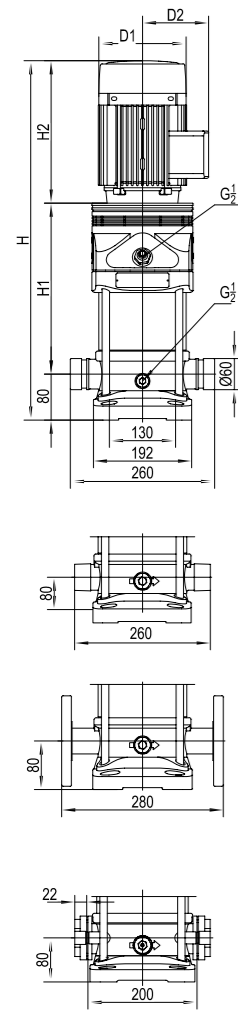
Model	Motor		Q (m³/h)	H (m)									
	(kW)	(hp)		0	3	4	5	6	7	8	9	10	
VF, VX, VN-5-2	0.55	0.75		21.2	19.4	18.8	17.7	16	13.5	11	8.6	6.2	
VF, VX, VN-5-3	0.75	1		31.8	30.2	29.3	27.6	25.2	22.3	18.8	15.2	11.5	
VF, VX, VN-5-4	1.1	1.5		42.5	40.3	39	37	34.5	31	26.5	21.5	16.8	
VF, VX, VN-5-5	1.5	2		53.3	50.4	49	57	44	39.8	35	29.5	23	
VF, VX, VN-5-6	1.5	2		64	60.5	59.3	65.5	53.3	48.7	42	34.5	27.5	
VF, VX, VN-5-7	2.2	3		75	71	69	75.5	61.2	56.2	49	40.5	32	
VF, VX, VN-5-8	2.2	3		85	82	79.5	85.5	70.6	64.5	56	46	36.5	
VF, VX, VN-5-9	2.2	3		96.5	92.2	89.5	95	80	73	64	53	41	
VF, VX, VN-5-10	3	4		107	102	99	104	89.3	81	71	59	46	
VF, VX, VN-5-11	3	4		118	112	109	115	98	90	79	65	50.5	
VF, VX, VN-5-12	3	4		129	122	120	124	107	97.5	85	71	56	
VF, VX, VN-5-13	4	5.5		140	133	130	134	115	105	92	78	61	
VF, VX, VN-5-14	4	5.5		151	144	140	144	125	114	100	84.5	66	
VF, VX, VN-5-15	4	5.5		161	155	151	153	134	121	106	89	71	
VF, VX, VN-5-16	4	5.5		172	164	159	161	143	130	114	95	76	
VF, VX, VN-5-17	5.5	7.5		183	174	168	171	151	139	121	102	81	
VF, VX, VN-5-18	5.5	7.5		194	184	179	190	160	146	128	108	86	
VF, VX, VN-5-20	5.5	7.5		215	206	199	199	179	162	143	120	95	
VF, VX, VN-5-21	5.5	7.5		226	216	209	208	187	171	151	126	100	
VF, VX, VN-5-22	5.5	7.5		236	226	218	218	196	180	158	134	107	
VF, VX, VN-5-23	5.5	7.5		248	237	228	232	205	188	166	141	113	

## Performance curve ISO9906:2012 Grade 3B



# VDR0010

## Installation sketch



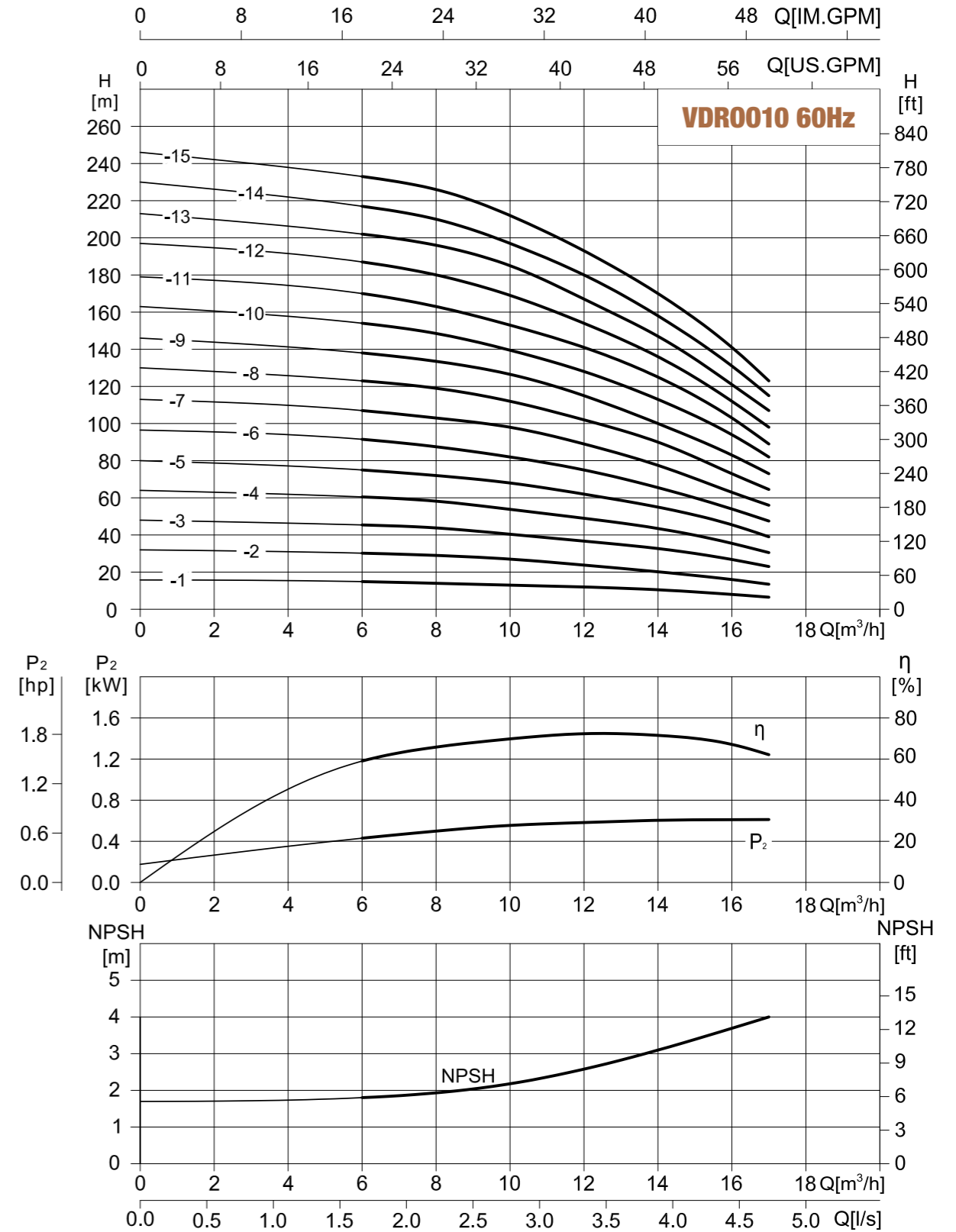
Models from 15 to 22 stages are not available in oval flange connection.

The overall dimensions of the single-phase motor and explosion-proof motor are a little different. Pls contact us for details.

## Size and weight

Model	Pump and motor dimensions					Weight (kg)	
	H1	H2	H	D1	D2	VF	VX, VN
VF, VX, VN-10-1	267	245	592	170	142	29	31
VF, VX, VN-10-2	277	290	647	190	155	37	39
VF, VX, VN-10-3	307	290	677	190	155	40	42
VF, VX, VN-10-4	347	345	772	197	165	51	53
VF, VX, VN-10-5	377	355	812	230	188	60	62
VF, VX, VN-10-6	407	355	842	230	188	61	63
VF, VX, VN-10-7	515	390	985	260	208	82	84
VF, VX, VN-10-8	545	390	1015	260	208	83	85
VF, VX, VN-10-9	575	390	1045	260	208	87	89
VF, VX, VN-10-10	605	390	1075	260	208	88	90
VF, VX, VN-10-11	635	390	1105	260	208	89	91
VF, VX, VN-10-12	665	390	1135	260	208	90	92
VF, VX, VN-10-13	725	500	1305	330	255	160	162
VF, VX, VN-10-14	755	500	1335	330	255	161	163
VF, VX, VN-10-15	785	500	1365	330	255	162	164

## Performance curve ISO9906:2012 Grade 3B

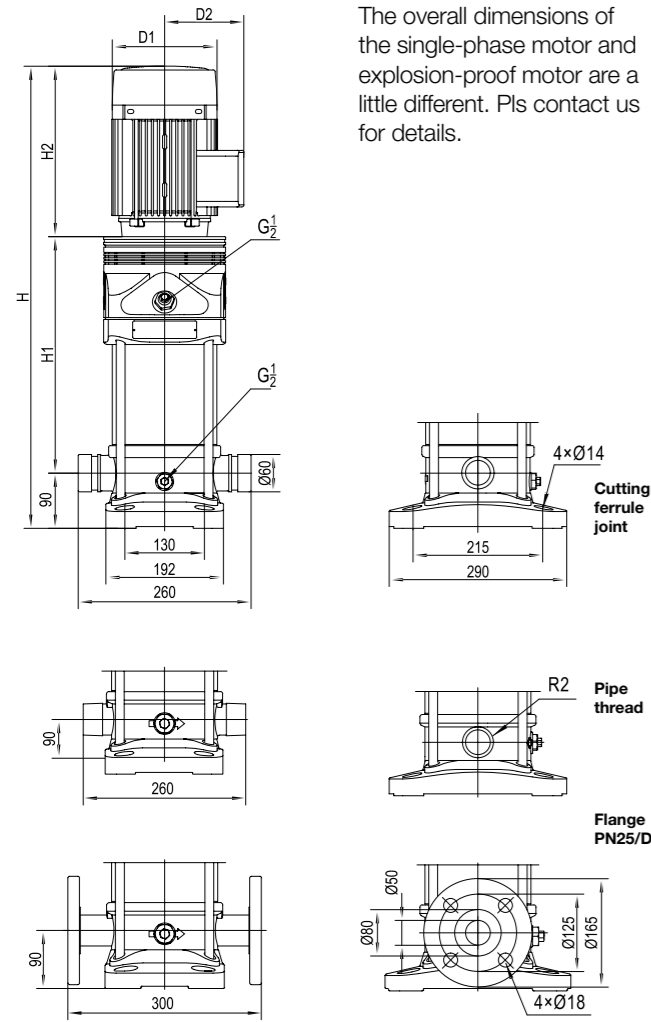


## Performance table

Model	Motor		Q (m³/h)	H (m)							
	(kW)	(hp)		0	6	8	10	12	14	16	17
VF, VX, VN-10-1	0.75	1	15.8	14.9	14	13	12	10.5	8	6.5	
VF, VX, VN-10-2	1.5	2	32	30.2	29	27	23.8	20.2	16	13.5	
VF, VX, VN-10-3	2.2	3	48	45.5	44	40.5	36.5	32.5	27	23	
VF, VX, VN-10-4	3	4	64	60.5	58	54	49	43.5	35.5	30.5	
VF, VX, VN-10-5	4	5.5	80	75	72	68	62	55	45.5	39	
VF, VX, VN-10-6	4	5.5	96.5	91.5	87.5	82	75	65.5	54	47.5	
VF, VX, VN-10-7	5.5	7.5	113	107	103	98	89	77.5	63	56	
VF, VX, VN-10-8	5.5	7.5	130	123	119	112	102	90	73	64.5	
VF, VX, VN-10-9	7.5	10	146	138	133.5	126.5	115	100	83	73	
VF, VX, VN-10-10	7.5	10	163	154	148.5	139.5	128	113	94	82	
VF, VX, VN-10-11	7.5	4	179	170	163	153	141	125	103	89	
VF, VX, VN-10-12	7.5	10	197	187	180	169	154	136	112	98	
VF, VX, VN-10-13	11	10	213	202	196	185	167	147	121	107	
VF, VX, VN-10-14	11	10	230	217	210	197	180	158	131	115	
VF, VX, VN-10-15	11	10	246	233	226	212	193	170	141	123	

# VDR0015

## Installation sketch



The overall dimensions of the single-phase motor and explosion-proof motor are a little different. Pls contact us for details.

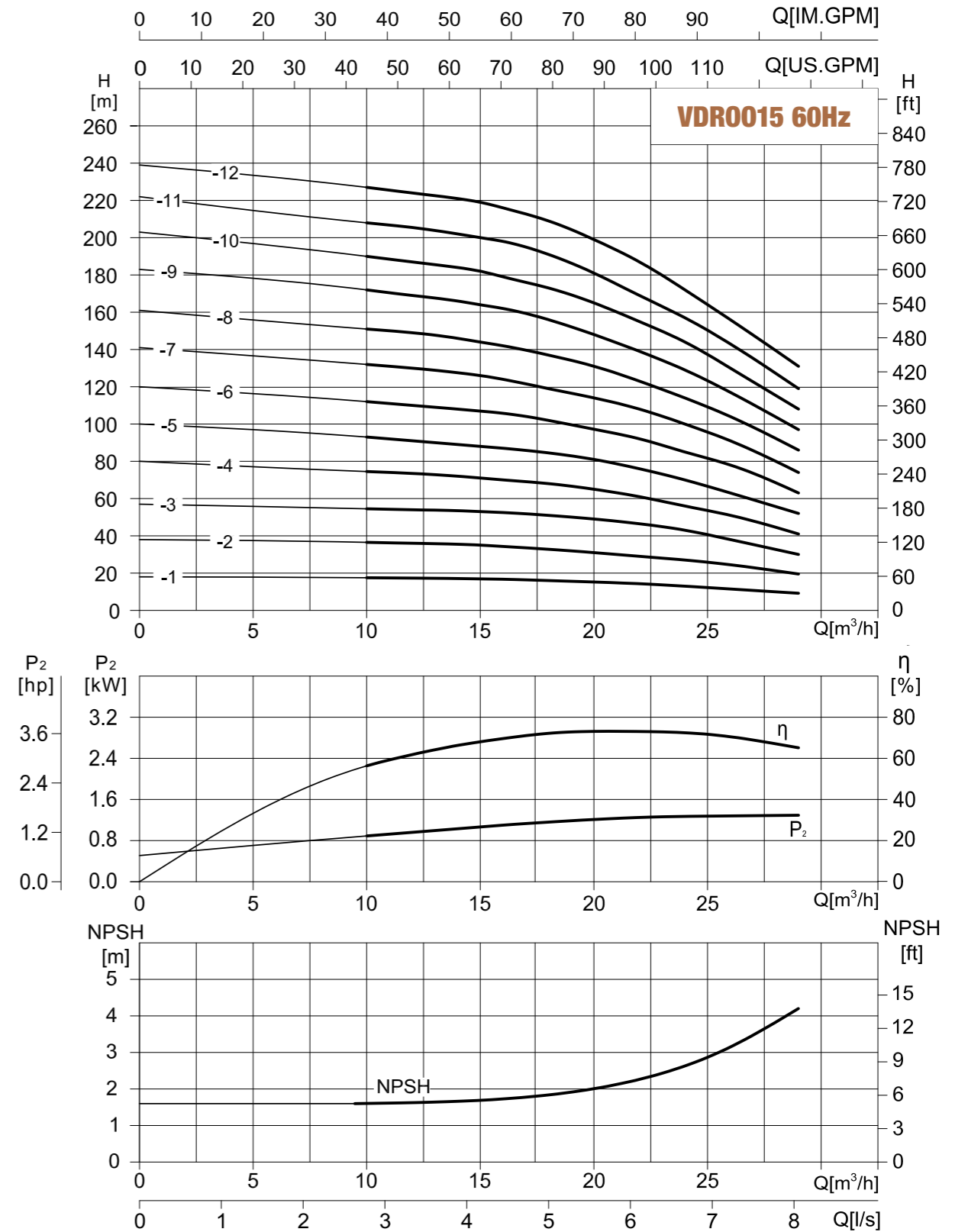
## Size and weight

Model	Pump and motor dimensions					Weight (kg)	
	H1	H2	H	D1	D2	VF	VX, VN
VF, VX, VN-15-1	307	290	687	190	155	40	47
VF, VX, VN-15-2	317	345	752	197	165	53	60
VF, VX, VN-15-3	362	355	807	230	188	61	68
VF, VX, VN-15-4	485	390	965	260	208	83	90
VF, VX, VN-15-5	530	390	1010	260	208	168	94
VF, VX, VN-15-6	605	500	1195	330	255	170	175
VF, VX, VN-15-7	650	500	1240	330	255	171	177
VF, VX, VN-15-8	695	500	1285	330	255	173	178
VF, VX, VN-15-9	740	500	1330	330	255	174	180
VF, VX, VN-15-10	785	500	1375	330	255	175	181
VF, VX, VN-15-11	830	500	1420	330	255	185	182
VF, VX, VN-15-12	875	550	1515	330	255	163	192

## Performance table

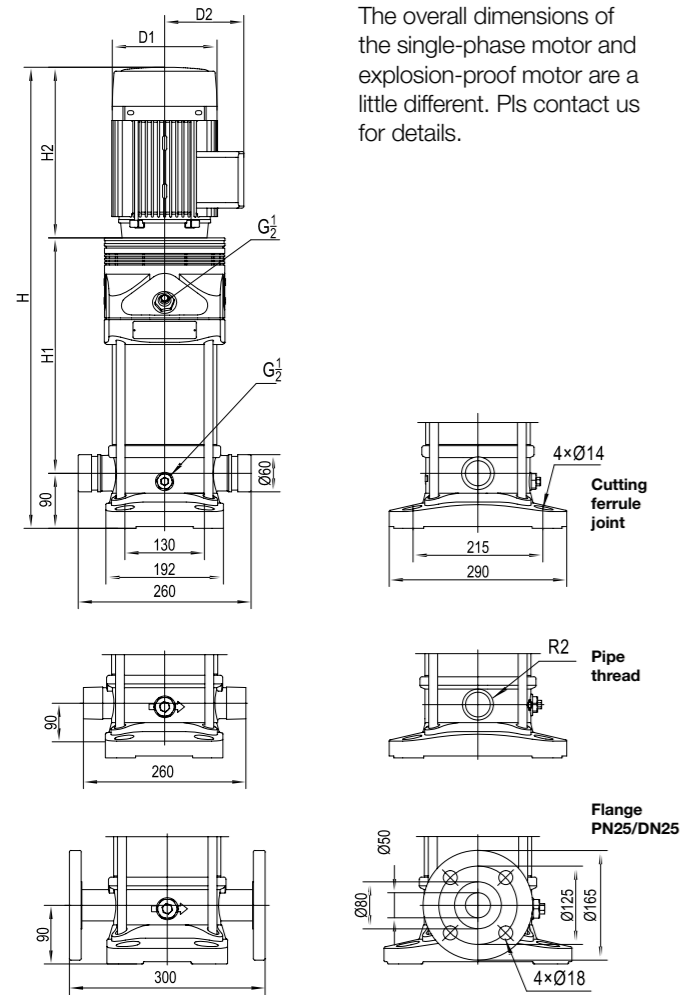
Model	Motor		Q (m³/h)	H (m)												
	(kW)	(hp)		0	10	12	14	15	16	18	20	22	24	26	28	29
VF, VX, VN-15-1	1.5	2	18	17.5	17.3	17.1	16.9	16.7	16	15.2	14.3	13	11.5	10	9.2	
VF, VX, VN-15-2	3	4	38	36.5	36	35.5	35	34.3	32.8	31	29	27	24.5	21.5	19.5	
VF, VX, VN-15-3	4	5.5	57	54.5	54	53.5	53	52.5	51	49	46.5	43	38	33	30	
VF, VX, VN-15-4	5.5	7.5	80	74.5	73.5	72	71	70	68	65	61	56	51	45	41	
VF, VX, VN-15-5	7.5	10	100	93	91	89	88	87	84.5	81	76	70	63	56	52	
VF, VX, VN-15-6	11	15	120	112	110	108	107	106	102	97	92	85	78	68	63	
VF, VX, VN-15-7	11	15	141	132	130	128	126	124	119	114	108	100	91	80	74	
VF, VX, VN-15-8	11	15	161	151	149	146	144	142	137	131	123	114	104	92	86	
VF, VX, VN-15-9	15	20	183	172	169	166	164	162	156	148	139	129	117	104	97	
VF, VX, VN-15-10	15	20	203	190	187	184	182	179	173	165	155	144	130	116	108	
VF, VX, VN-15-11	15	20	222	208	205	202	200	198	191	181	169	157	143	127	119	
VF, VX, VN-15-12	18.5	25	239	227	224	221	219	216	209	199	187	172	156	139	131	

## Performance curve ISO9906:2012 Grade 3B



# VDR0020

## Installation sketch



The overall dimensions of the single-phase motor and explosion-proof motor are a little different. Pls contact us for details.

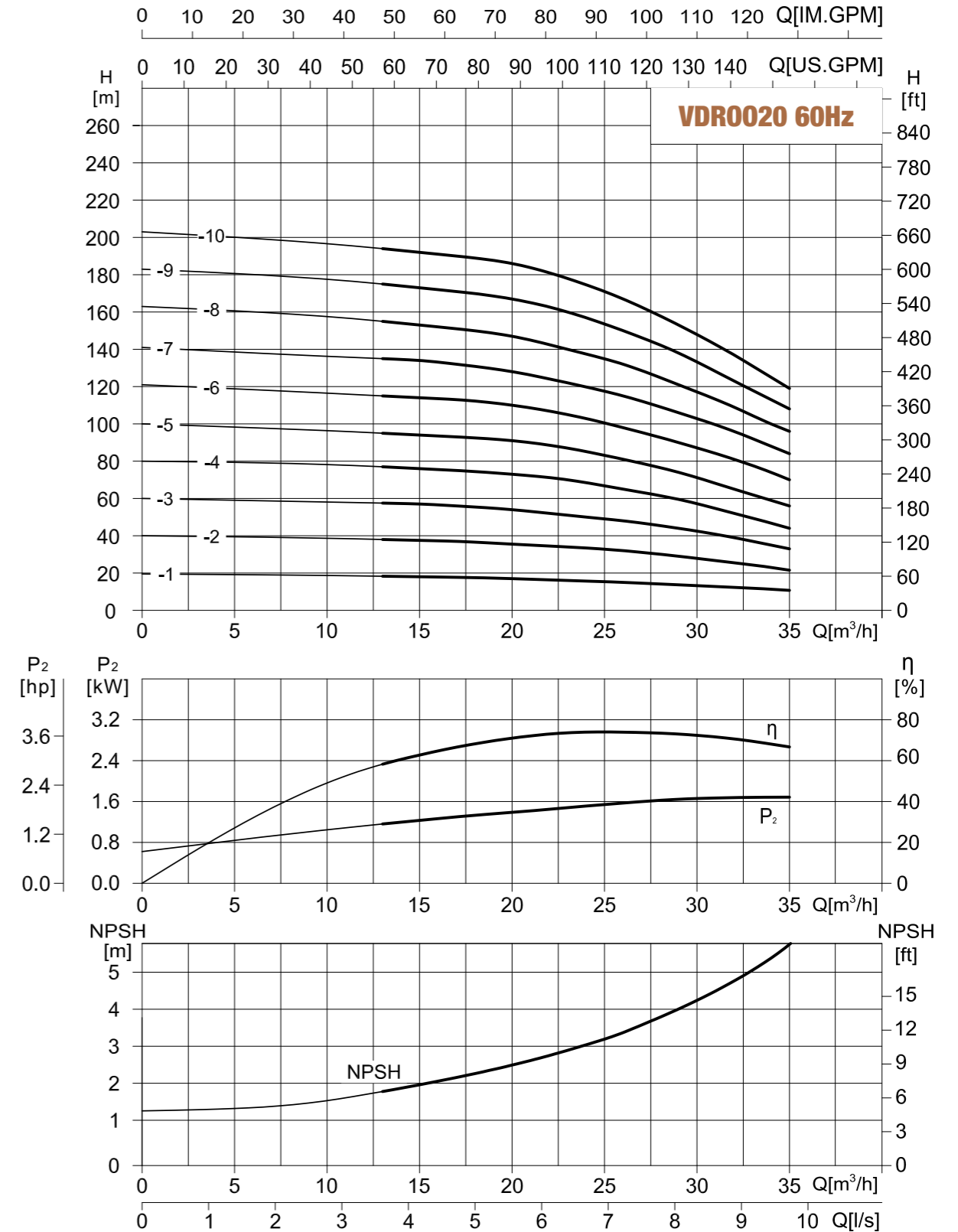
## Size and weight

Model	Pump and motor dimensions					Weight (kg)	
	H1	H2	H	D1	D2	VF	VX, VN
VF, VX, VN-20-1	307	290	687	190	155	40	47
VF, VX, VN-20-2	317	355	762	230	188	58	65
VF, VX, VN-20-3	440	390	920	260	208	80	87
VF, VX, VN-20-4	485	390	965	260	208	84	158
VF, VX, VN-20-5	560	500	1150	330	255	151	160
VF, VX, VN-20-6	605	500	1195	330	255	153	176
VF, VX, VN-20-7	650	500	1240	330	255	169	177
VF, VX, VN-20-8	695	500	1285	330	255	170	187
VF, VX, VN-20-9	740	550	1380	330	255	180	188
VF, VX, VN-20-10	785	550	1425	330	255	181	181

## Performance table

Model	Motor		Q (m³/h)	H (m)												
	(kW)	(hp)		0	13	15	17	20	23	26	29	32	34	35		
VF, VX, VN-20-1	2.2	3	19.5	18.3	18	17.7	17	16	15	13.7	12.3	11.3	10.7			
VF, VX, VN-20-2	4	5.5	40	38	37.5	37	35.5	34	32	29	25.5	23	21.5			
VF, VX, VN-20-3	5.5	7.5	60	57.5	57	56	54	51	48	44	39	35	33			
VF, VX, VN-20-4	7.5	10	80	77	76	75	73	70	65	59.5	52	47	44			
VF, VX, VN-20-5	11	15	100	95	94	93	91	87	81	74	65	59	56			
VF, VX, VN-20-6	11	15	121	115	114	113	110	105	98	90	81	74	70			
VF, VX, VN-20-7	15	20	141	135	134	132	128	122	115	106	96	88	84			
VF, VX, VN-20-8	15	20	163	155	153	151	147	140	132	121	109	100	96			
VF, VX, VN-20-9	18.5	25	183	175	173	171	167	160	150	138	123	113	108			
VF, VX, VN-20-10	18.5	25	203	194	192	190	186	178	167	153	137	125	119			

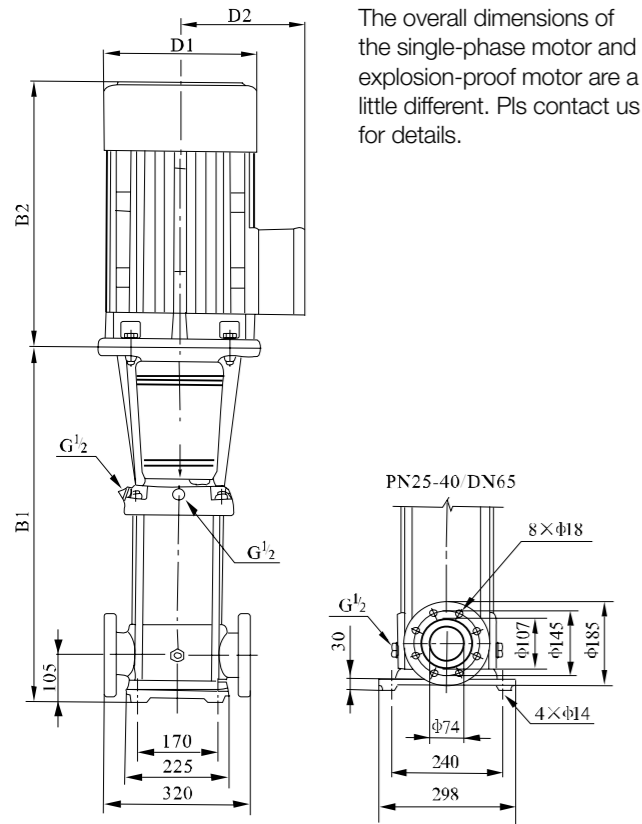
## Performance curve ISO9906:2012 Grade 3B





# VDR0032

## Installation sketch



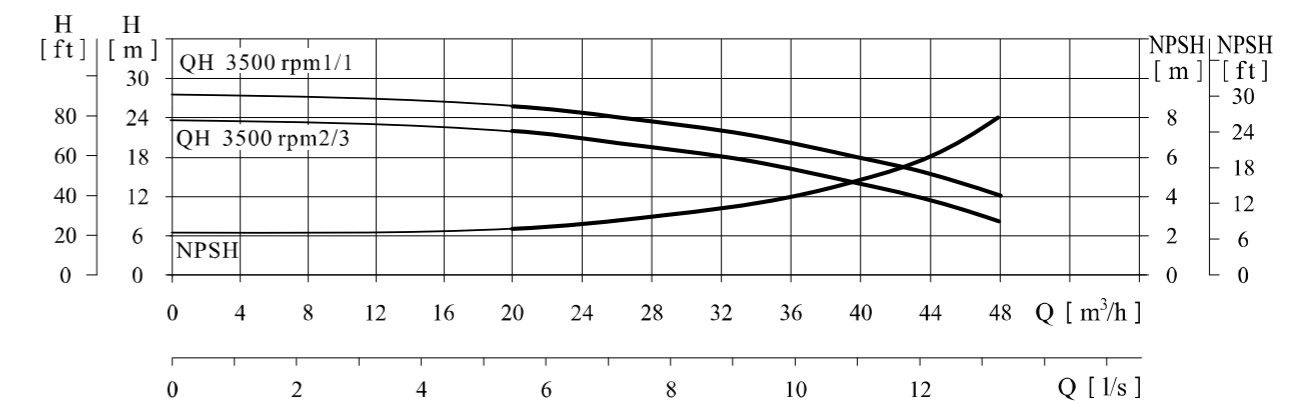
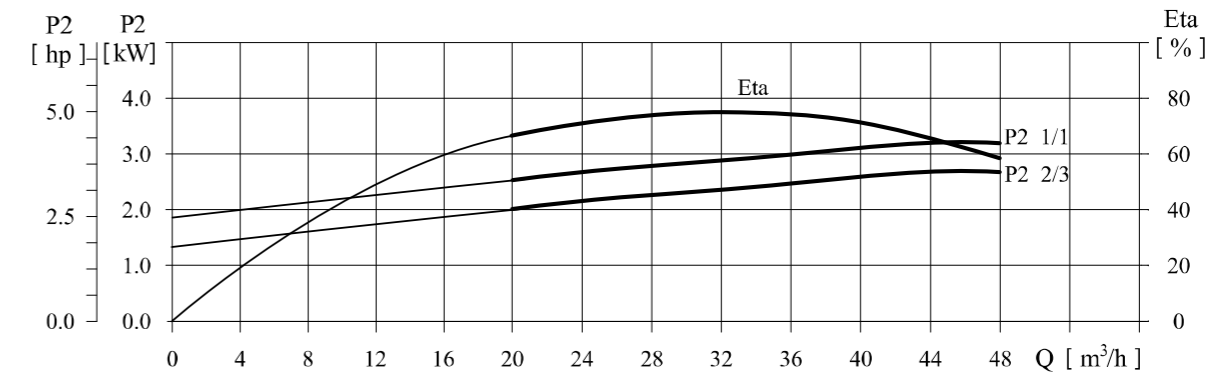
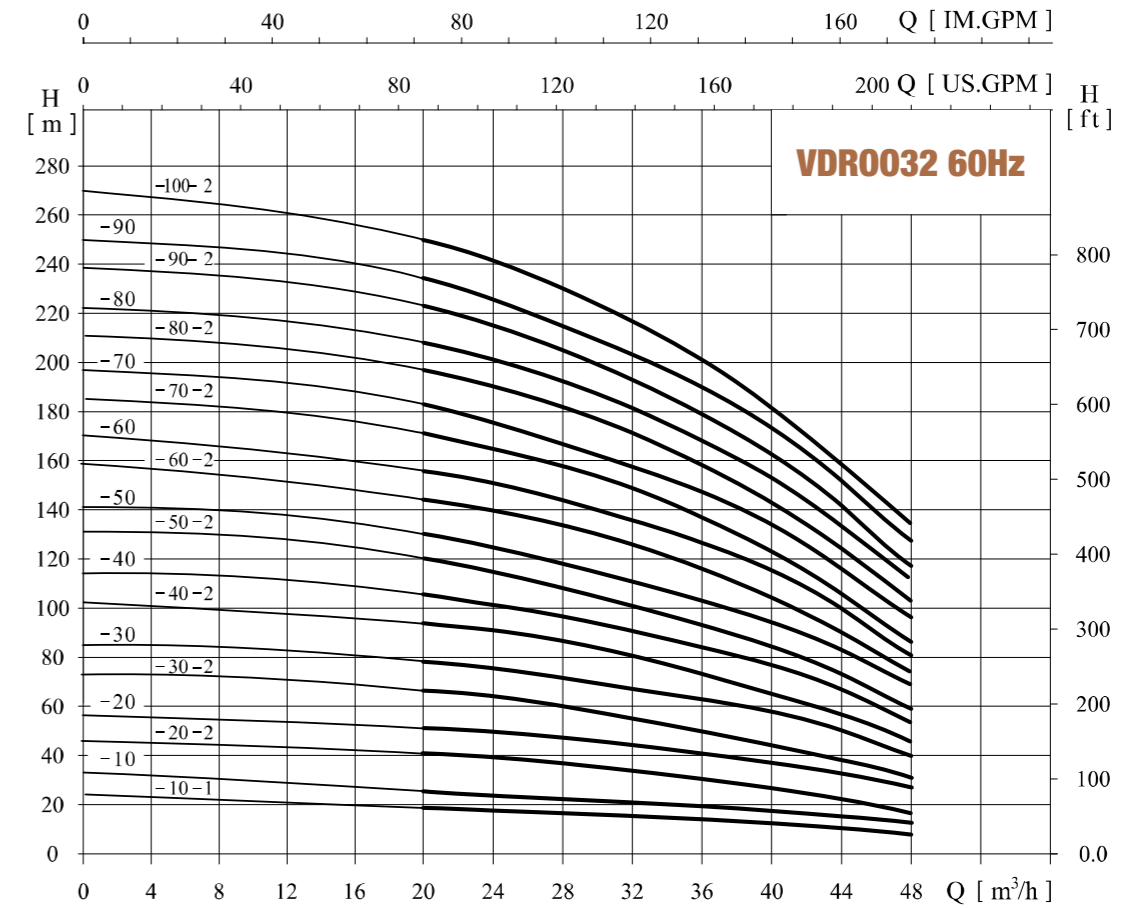
## Size and weight

Model	Pump and motor dimensions					Weight (kg)
	B1	B2	B1+B2	D1	D2	
VF, VX, VN-32-10-1	505	345	850	197	165	73
VF, VX, VN-32-10	505	355	860	230	188	81
VF, VX, VN-32-20-2	575	390	965	260	208	95
VF, VX, VN-32-20	575	390	965	260	208	101
VF, VX, VN-32-30-2	645	500	1145	330	255	104
VF, VX, VN-32-30	750	500	1250	330	255	172
VF, VX, VN-32-40-2	820	500	1320	330	255	176
VF, VX, VN-32-40	820	500	1320	330	255	186
VF, VX, VN-32-50-2	890	500	1390	330	255	191
VF, VX, VN-32-50	890	550	1440	330	255	211
VF, VX, VN-32-60-2	960	550	1510	330	255	216
VF, VX, VN-32-60	960	550	1510	330	255	216
VF, VX, VN-32-70-2	1030	575	1605	360	285	255
VF, VX, VN-32-70	1030	575	1605	360	285	255
VF, VX, VN-32-80-2	1100	575	1675	400	310	259
VF, VX, VN-32-80	1100	650	1750	400	310	315
VF, VX, VN-32-90-2	1170	650	1820	400	310	319
VF, VX, VN-32-90	1170	650	1820	400	310	319
VF, VX, VN-32-100-2	1240	650	1890	400	310	324

## Performance table

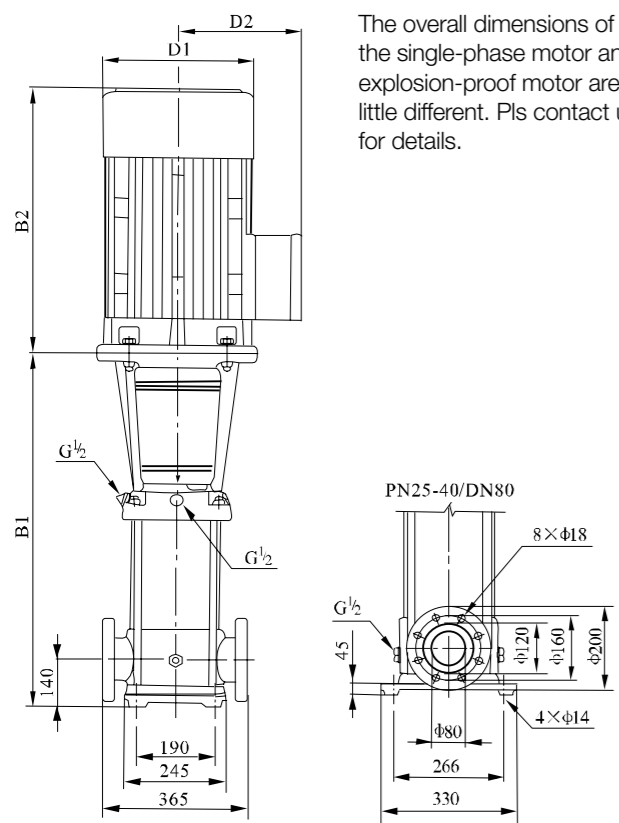
Model	Driving motor		Q (m³/h)	H (m)																	
	(kW)	(hp)		20	24	28	32	36	40	44	48										
VF, VX, VN-32-10-1	3	4	20	19	18	17	15	13	10	7											
VF, VX, VN-32-10	4	5.5	26	25	24	23	21	19	17	14											
VF, VX, VN-32-20-2	5.5	7.5	41	40	38	35	31	27	22	17											
VF, VX, VN-32-20	7.5	10	52	50	48	45	41	37	33	27											
VF, VX, VN-32-30-2	7.5	10	67	64	61	57	52	46	39	31											
VF, VX, VN-32-30	11	15	78	75	71	67	62	56	50	40											
VF, VX, VN-32-40-2	11	15	94	91	87	81	73	65	56	45											
VF, VX, VN-32-40	15	20	104	101	96	91	83	75	66	55											
VF, VX, VN-32-50-2	15	20	119	115	109	102	94	84	73	59											
VF, VX, VN-32-50	18.5	25	130	125	119	112	104	94	83	69											
VF, VX, VN-32-60-2	18.5	25	145	140	134	126	116	104	90	74											
VF, VX, VN-32-60	18.5	25	155	150	144	136	126	114	100	81											
VF, VX, VN-32-70-2	22	30	172	166	158	149	137	123	106	86											
VF, VX, VN-32-70	22	30	182	176	168	159	148	133	118	97											
VF, VX, VN-32-80-2	22	30	196	190	182	172	159	143	124	102											
VF, VX, VN-32-80	30	40	208	201	192	181	167	152	132	111											
VF, VX, VN-32-90-2	30	40	223	216	206	194	179	162	142	117											
VF, VX, VN-32-90	30	40	234	226	216	204	189	172	152	127											
VF, VX, VN-32-100-2	30	40	248	241	231	217	201	181	159	133											

## Performance curve ISO9906:2012 Grade 3B



# VDR0045

## Installation sketch



The overall dimensions of the single-phase motor and explosion-proof motor are a little different. Pls contact us for details.

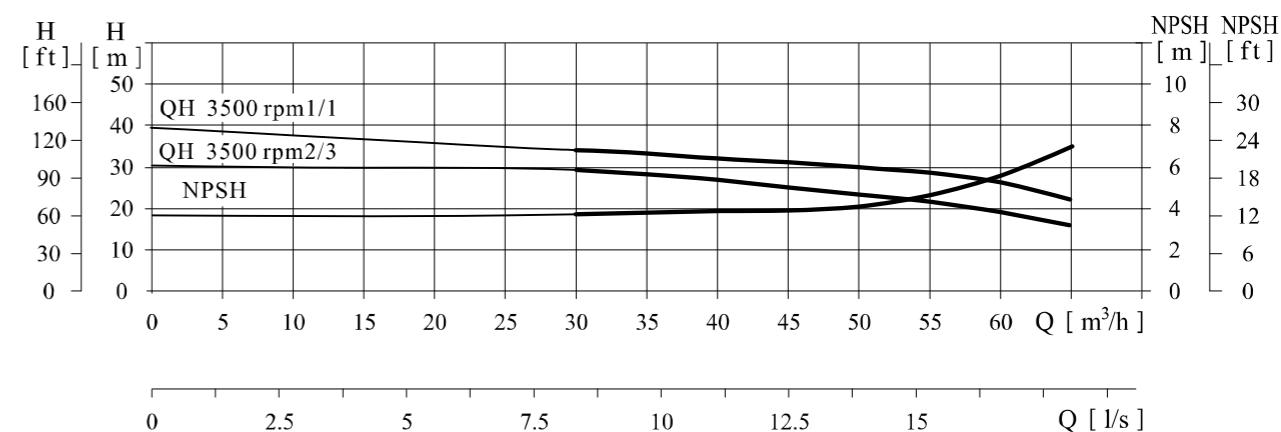
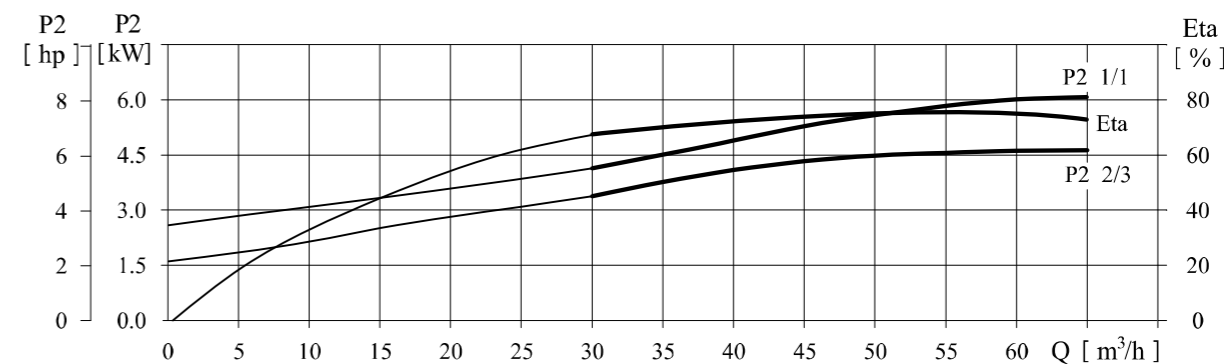
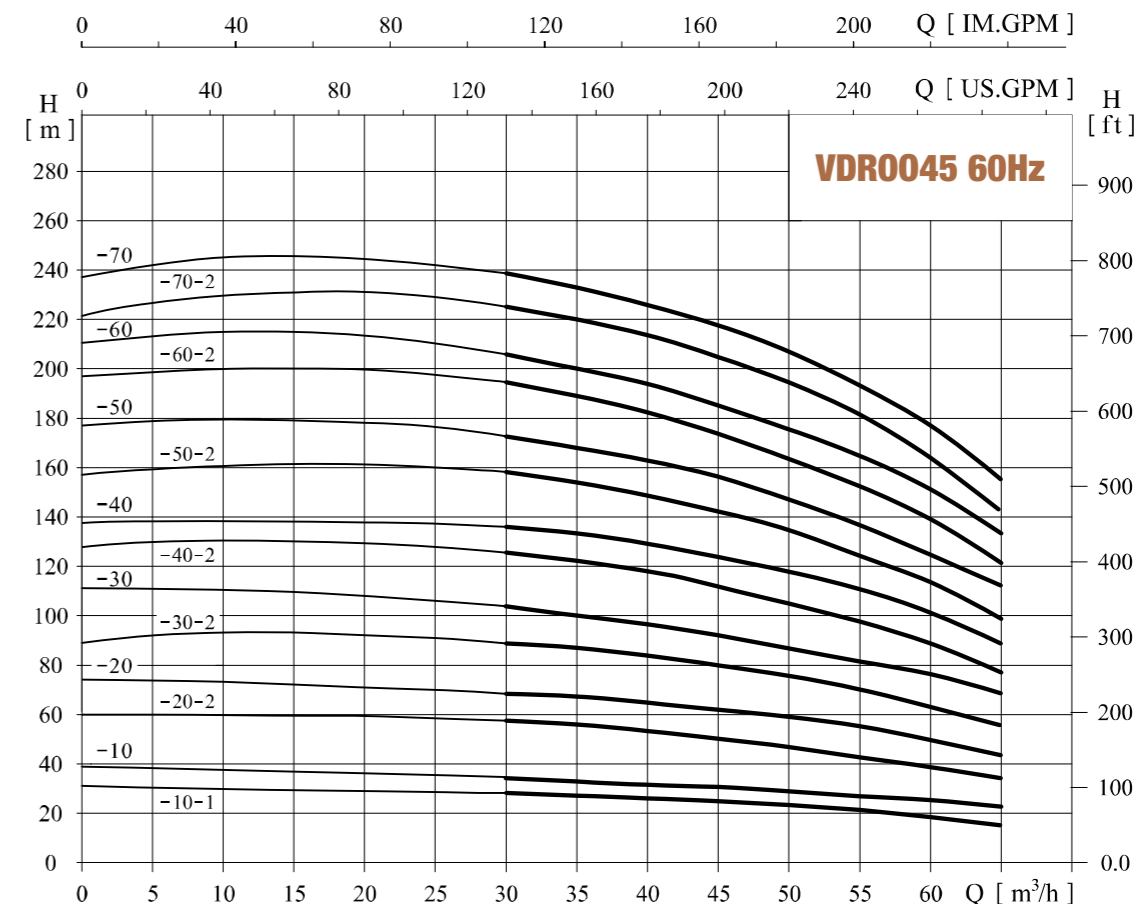
## Size and weight

Model	Pump and motor dimensions					Weight (kg)
	B1	B2	B1+B2	D1	D2	
VF, VX, VN-45-10-1	561	390	952	260	208	101
VF, VX, VN-45-10	561	390	952	260	208	106
VF, VX, VN-45-20-2	748	500	1248	330	255	178
VF, VX, VN-45-20	748	500	1248	330	255	188
VF, VX, VN-45-30-2	828	550	1378	330	255	213
VF, VX, VN-45-30	828	550	1378	330	255	213
VF, VX, VN-45-40-2	908	575	1483	360	285	253
VF, VX, VN-45-40	908	650	1558	400	310	309
VF, VX, VN-45-50-2	988	650	1638	400	310	313
VF, VX, VN-45-50	988	650	1638	400	310	313
VF, VX, VN-45-60-2	1068	650	1718	400	310	340
VF, VX, VN-45-60	1068	650	1718	400	310	340
VF, VX, VN-45-70-2	1148	685	1833	460	340	404
VF, VX, VN-45-70	1148	685	1833	460	340	404

## Performance table

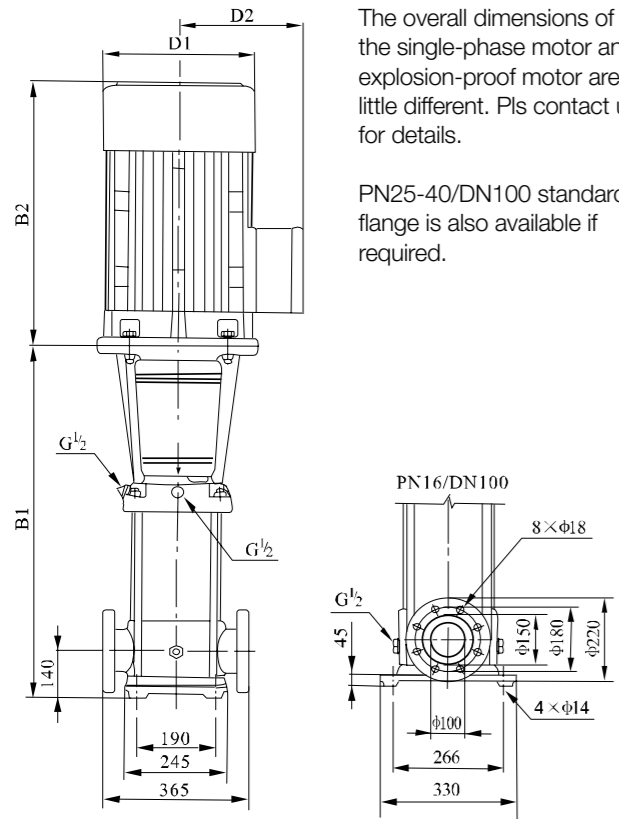
Model	Driving motor		Q (m³/h)	H (m)										
	(kW)	(hp)		30	35	40	42	45	50	55	60	65		
VF, VX, VN-45-10-1	5.5	7.5		29	28	27	26	25	23	21	19	16		
VF, VX, VN-45-10	7.5	10		34	33	32	31.5	30	29	27	25	22		
VF, VX, VN-45-20-2	11	15		57	55	53	52	49	46	43	38	33		
VF, VX, VN-45-20	15	20		69	67	65	63	61	59	55	50	44		
VF, VX, VN-45-30-2	18.5	25		90	88	85	83	80	75	72	63	55		
VF, VX, VN-45-30	18.5	25		102	100	97	95	92	88	82	76	68		
VF, VX, VN-45-40-2	22	30		125	121	118	115	112	105	98	89	78		
VF, VX, VN-45-40	30	40		136	133	129	126	123	117	112	102	89		
VF, VX, VN-45-50-2	30	40		159	154	149	146	142	134	121	115	99		
VF, VX, VN-45-50	30	40		171	166	161	158	154	145	138	126	112		
VF, VX, VN-45-60-2	37	50		194	188	182	178	173	163	155	139	122		
VF, VX, VN-45-60	37	50		205	200	193	190	186	176	166	152	134		
VF, VX, VN-45-70-2	45	60		227	220	213	210	205	193	182	165	144		
VF, VX, VN-45-70	45	60		239	232	226	221	216	204	194	178	157		

## Performance curve ISO9906:2012 Grade 3B



# VDR0065

## Installation sketch



The overall dimensions of the single-phase motor and explosion-proof motor are a little different. Pls contact us for details.

PN25-40/DN100 standard flange is also available if required.

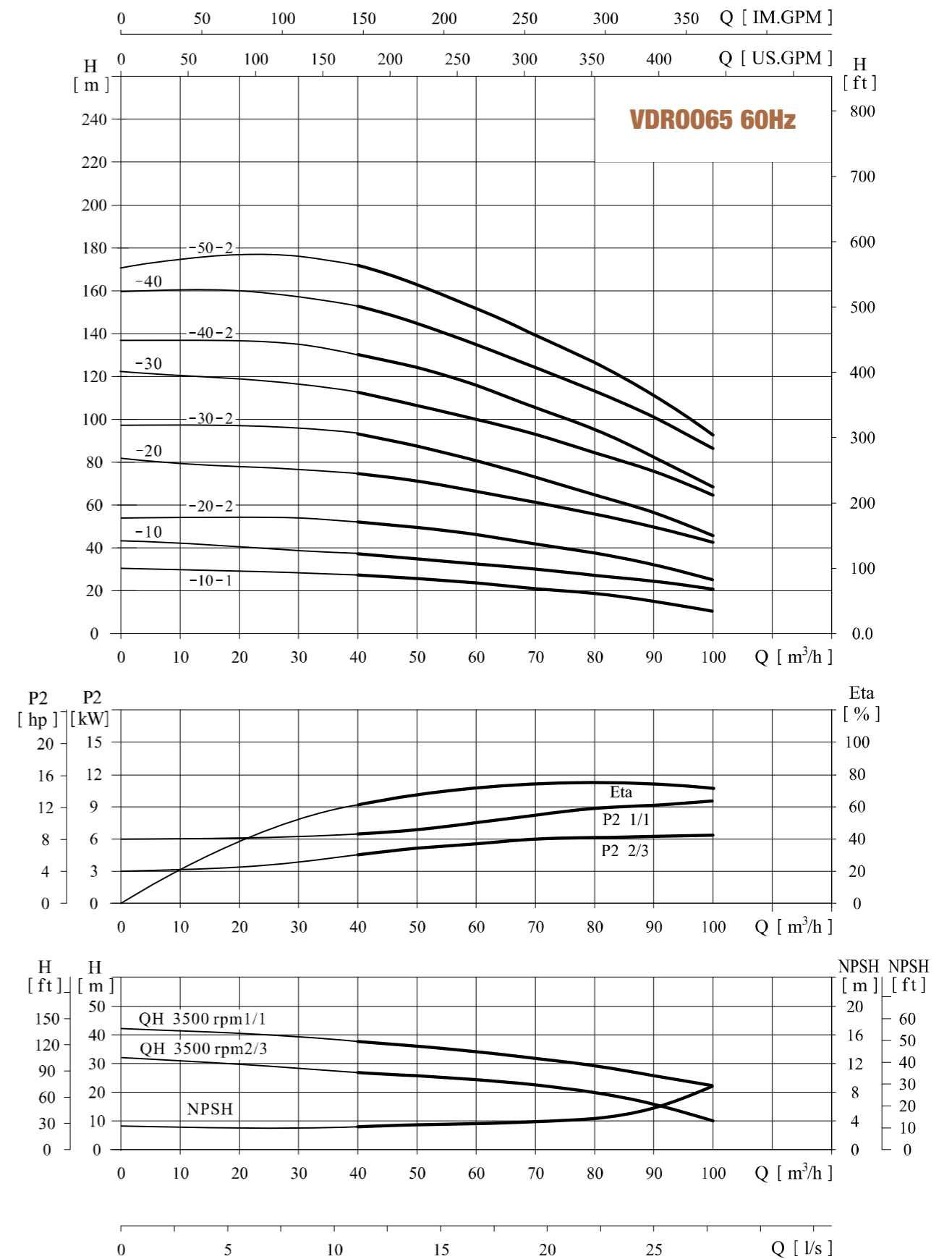
## Size and weight

Model	Pump and motor dimensions					Weight (kg)
	B1	B2	B1+B2	D1	D2	
VF, VX, VN-65-10-1	561	390	951	260	208	109
VF, VX, VN-65-10	671	500	1171	330	255	177
VF, VX, VN-65-20-2	754	500	1254	330	255	187
VF, VX, VN-65-20	754	575	1329	360	285	248
VF, VX, VN-65-30-2	836	575	1411	360	285	252
VF, VX, VN-65-30	836	650	1486	400	310	313
VF, VX, VN-65-40-2	919	650	1569	400	310	336
VF, VX, VN-65-40	919	685	1604	460	340	398
VF, VX, VN-65-50-2	1001	685	1686	460	340	402

## Performance table

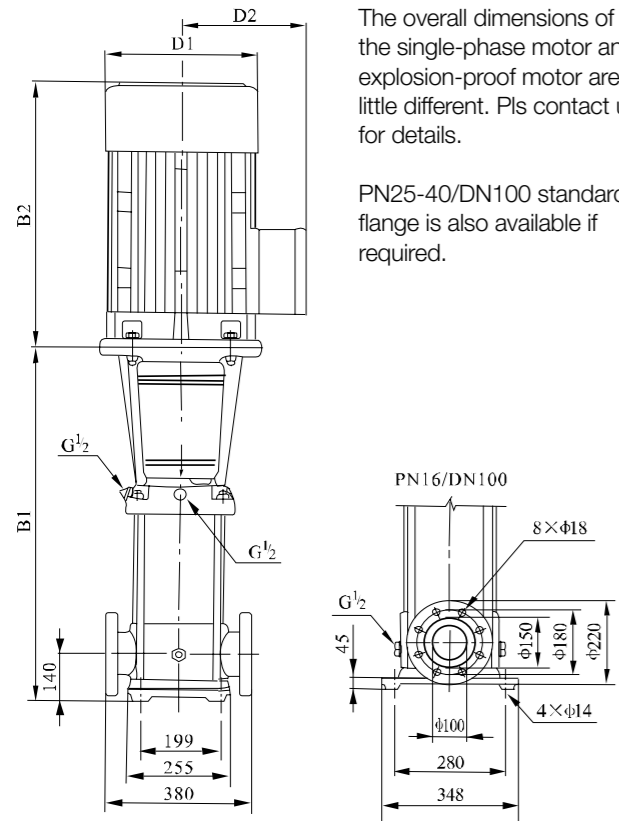
Model	Driving motor		Q (m³/h)	40	50	60	65	70	80	90	100
	(kW)	(hp)									
VF, VX, VN-65-10-1	7.5	10	H (m)	26	25	23	22	21	18	14	10
VF, VX, VN-65-10	11	15		37	35	33	32	31	28	24	21
VF, VX, VN-65-20-2	15	20		53	50	47	44	42	37	31	23
VF, VX, VN-65-20	22	30		74	72	67	64	62	57	51	42
VF, VX, VN-65-30-2	22	30		93	88	80	76	72	65	56	45
VF, VX, VN-65-30	30	40		112	108	100	96	93	86	77	65
VF, VX, VN-65-40-2	37	50		130	124	115	110	103	94	83	66
VF, VX, VN-65-40	45	60		152	144	135	130	123	114	102	86
VF, VX, VN-65-50-2	45	60		172	162	151	144	137	126	112	91

## Performance curve ISO9906:2012 Grade 3B



# VDR0090

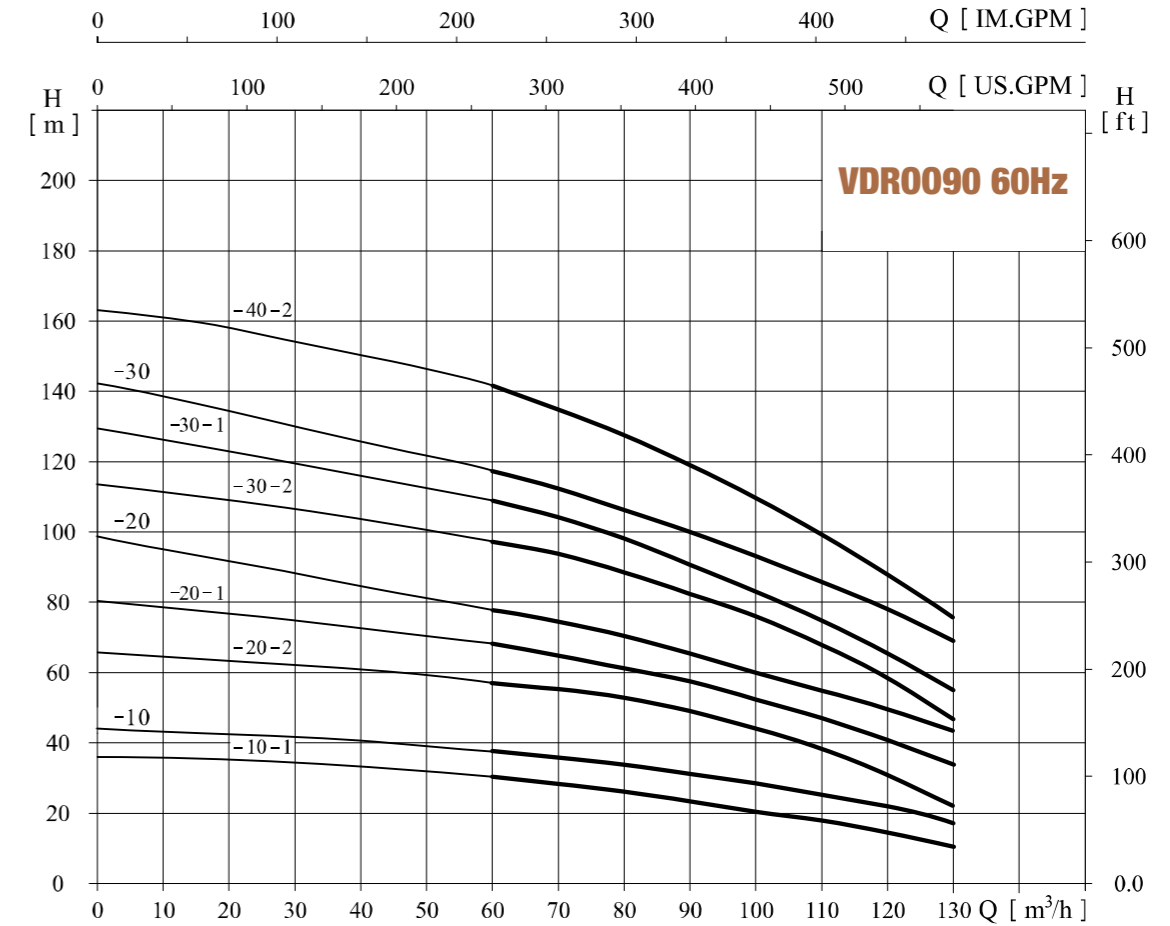
## Installation sketch



## Size and weight

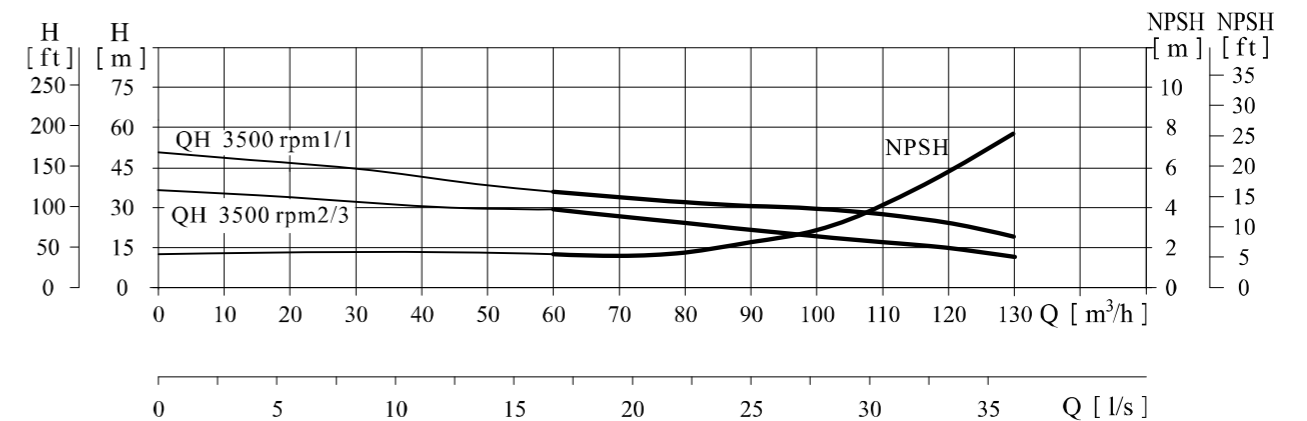
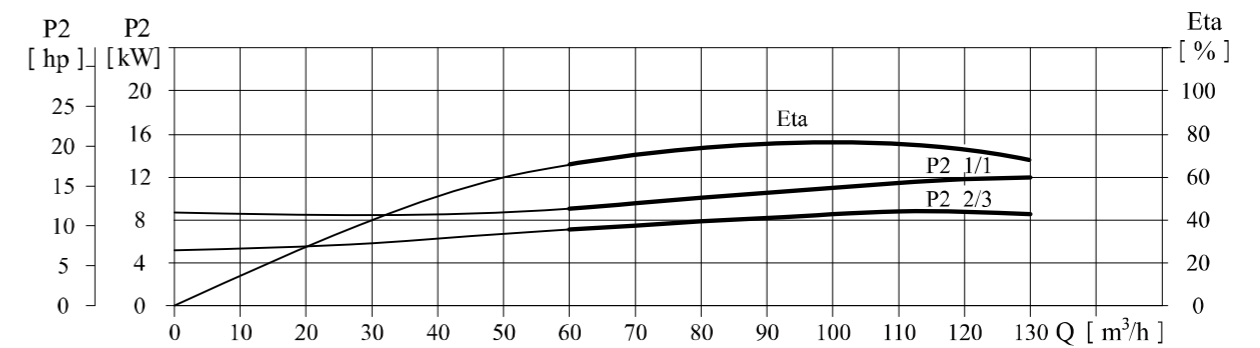
Model	Pump and motor dimensions					Weight (kg)
	B1	B2	B1+B2	D1	D2	
VF, VX, VN-90-10-1	571	500	1071	330	255	177
VF, VX, VN-90-10	571	500	1071	330	255	188
VF, VX, VN-90-20-2	773	550	1323	330	255	211
VF, VX, VN-90-20-1	773	575	1348	360	285	248
VF, VX, VN-90-20	773	650	1423	400	310	304
VF, VX, VN-90-30-2	865	650	1515	400	310	330
VF, VX, VN-90-30-1	865	650	1515	400	310	330
VF, VX, VN-90-30	865	685	1550	460	340	392
VF, VX, VN-90-40-2	957	685	1642	460	340	396

## Performance curve ISO9906:2012 Grade 3B



## Performance table

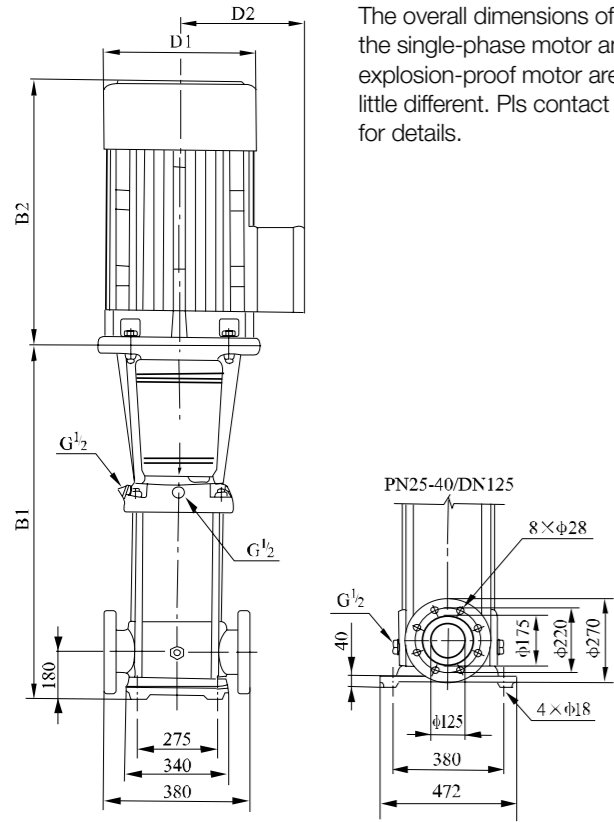
Model	Driving motor		Q (m³/h)	30	35	40	42	45	50	55	60	65
	(kW)	(hp)										
VF, VX, VN-90-10-1	11	15	H (m)	31	27	25	24	23	21	18	14	9
VF, VX, VN-90-10	15	20		36	35	33	31	30	29	26	23	18
VF, VX, VN-90-20-2	18.5	25		59	57	54	51	48	44	39	32	22
VF, VX, VN-90-20-1	22	30		67	65	62	59	57	51	47	41	33
VF, VX, VN-90-20	30	30		76	73	69	66	64	60	56	52	44
VF, VX, VN-90-30-2	37	50		98	94	88	85	82	75	69	59	46
VF, VX, VN-90-30-1	37	50		108	104	98	94	90	83	78	69	56
VF, VX, VN-90-30	45	60		116	111	105	102	97	93	88	79	69
VF, VX, VN-90-40-2	45	60		141	135	128	124	118	109	102	89	72





# VDR00125

## Installation sketch

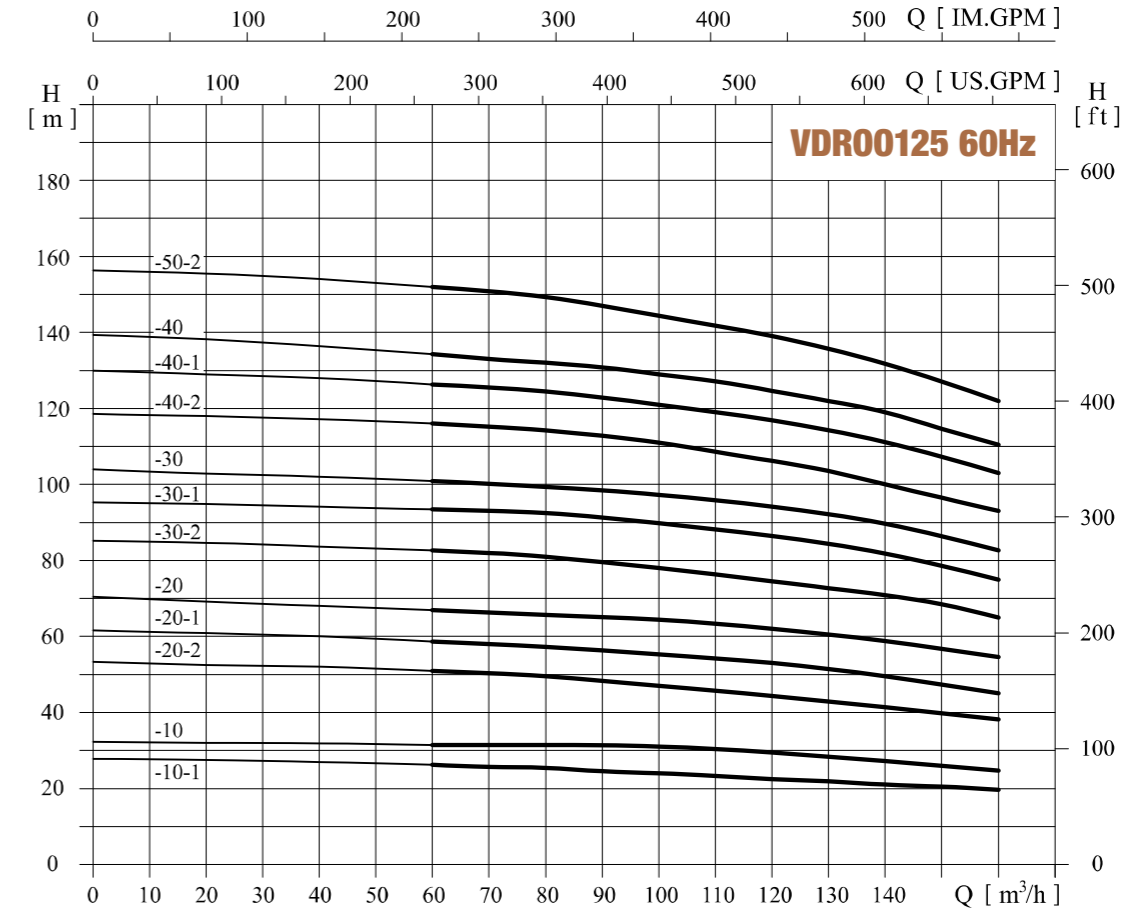


The overall dimensions of the single-phase motor and explosion-proof motor are a little different. Pls contact us for details.

## Size and weight

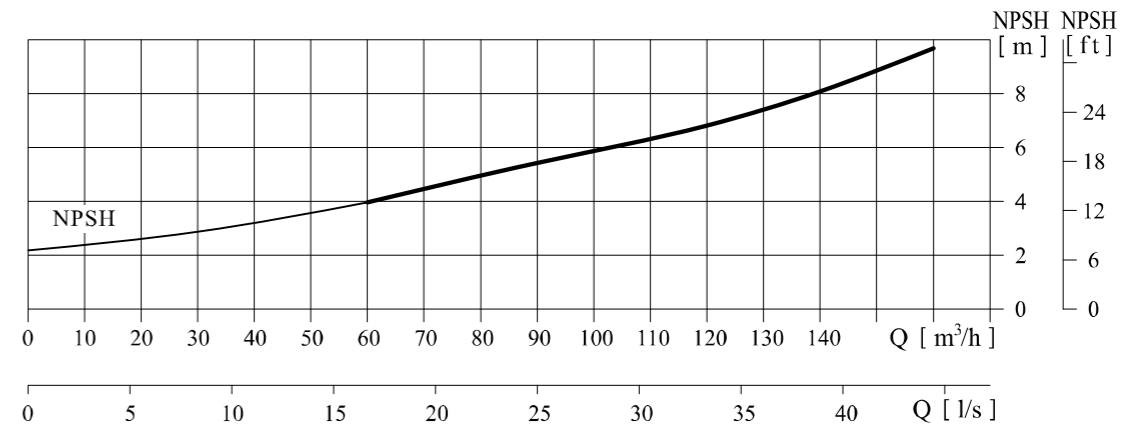
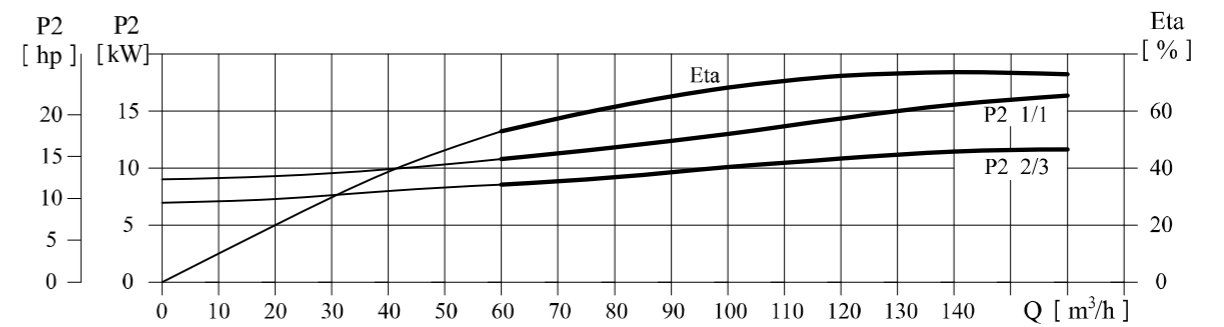
Model	Pump and motor dimensions					Weight (kg)
	B1	B2	B1+B2	D1	D2	
VF, VX, VN-125-10-1	840	500	1340	330	255	235
VF, VX, VN-125-10	840	550	1390	330	255	250
VF, VX, VN-125-20-2	1000	650	1650	400	310	350
VF, VX, VN-125-20-1	1000	650	1650	400	310	350
VF, VX, VN-125-20	1000	650	1650	400	310	380
VF, VX, VN-125-30-2	1160	685	1845	460	340	445
VF, VX, VN-125-30-1	1160	685	1845	460	340	445
VF, VX, VN-125-30	1190	760	1950	510	370	545
VF, VX, VN-125-40-2	1350	845	2195	580	410	675
VF, VX, VN-125-40-1	1350	845	2195	580	410	675
VF, VX, VN-125-40	1350	845	2195	580	410	675
VF, VX, VN-125-50-2	1510	845	2355	580	410	690

## Performance curve ISO9906:2012 Grade 3B



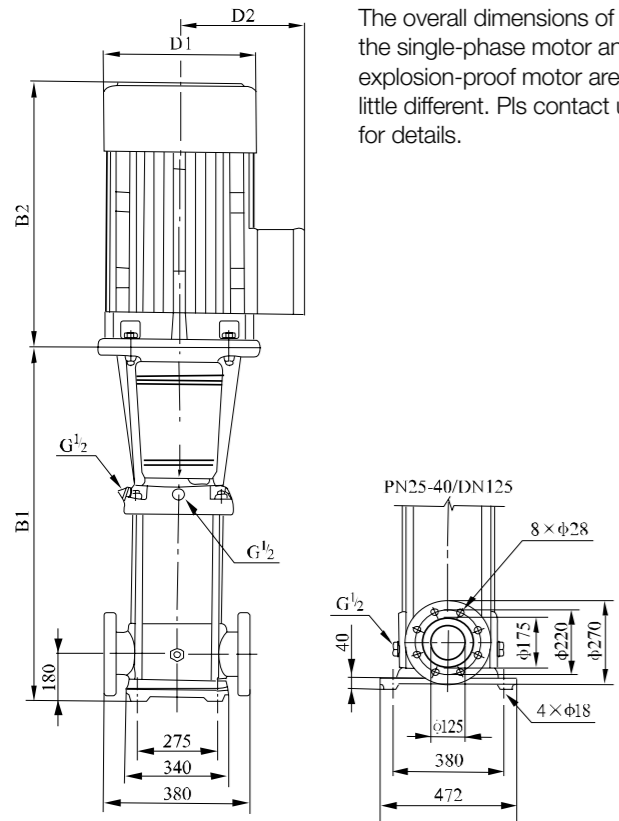
## Performance table

Model	Driving motor		Q (m³/h)	H (m)												
	(kW)	(hp)		60	70	80	90	100	110	120	130	140	150	160		
VF, VX, VN-125-10-1	15	20		27.5	26	25	24.5	23.8	23	22.5	21.5	21.3	21	20		
VF, VX, VN-125-10	18.5	25		30.8	30.7	30.7	30.5	30.3	30.3	28.8	27.6	26.4	25.4	24.4		
VF, VX, VN-125-20-2	30	40		51.5	50.5	50.5	47.5	46	45.5	44.8	43	41	39.7	38.5		
VF, VX, VN-125-20-1	30	40		58.3	58	57.3	56	54.7	54	53	51.5	50	47.4	45		
VF, VX, VN-125-20	37	50		66.3	66	65.7	65	64.4	63	62	60.7	59.6	57	54.6		
VF, VX, VN-125-30-2	45	60		83	82	81	79.5	78	76	74.5	73.5	71	68.5	65		
VF, VX, VN-125-30-1	45	60		91.3	91	90.4	89	87.7	86	84.4	82	80	76.7	73.3		
VF, VX, VN-125-30	55	75		100.3	100	99.4	98.3	97.3	95.5	94	92	90	86.3	82.7		
VF, VX, VN-125-40-2	75	100		116	115.5	114	113	111	109	105.5	104	100	97	93		
VF, VX, VN-125-40-1	75	100		126	125.4	125.4	124.6	120.6	118.5	116.5	114	111.3	107	103		
VF, VX, VN-125-40	75	100		134	133	132	131	129.5	127.5	125	122	119	114.5	109.5		
VF, VX, VN-125-50-2	75	100		152	151	149.7	147	144	141.5	139	135.5	132	127	122		



# VDR00150

## Installation sketch

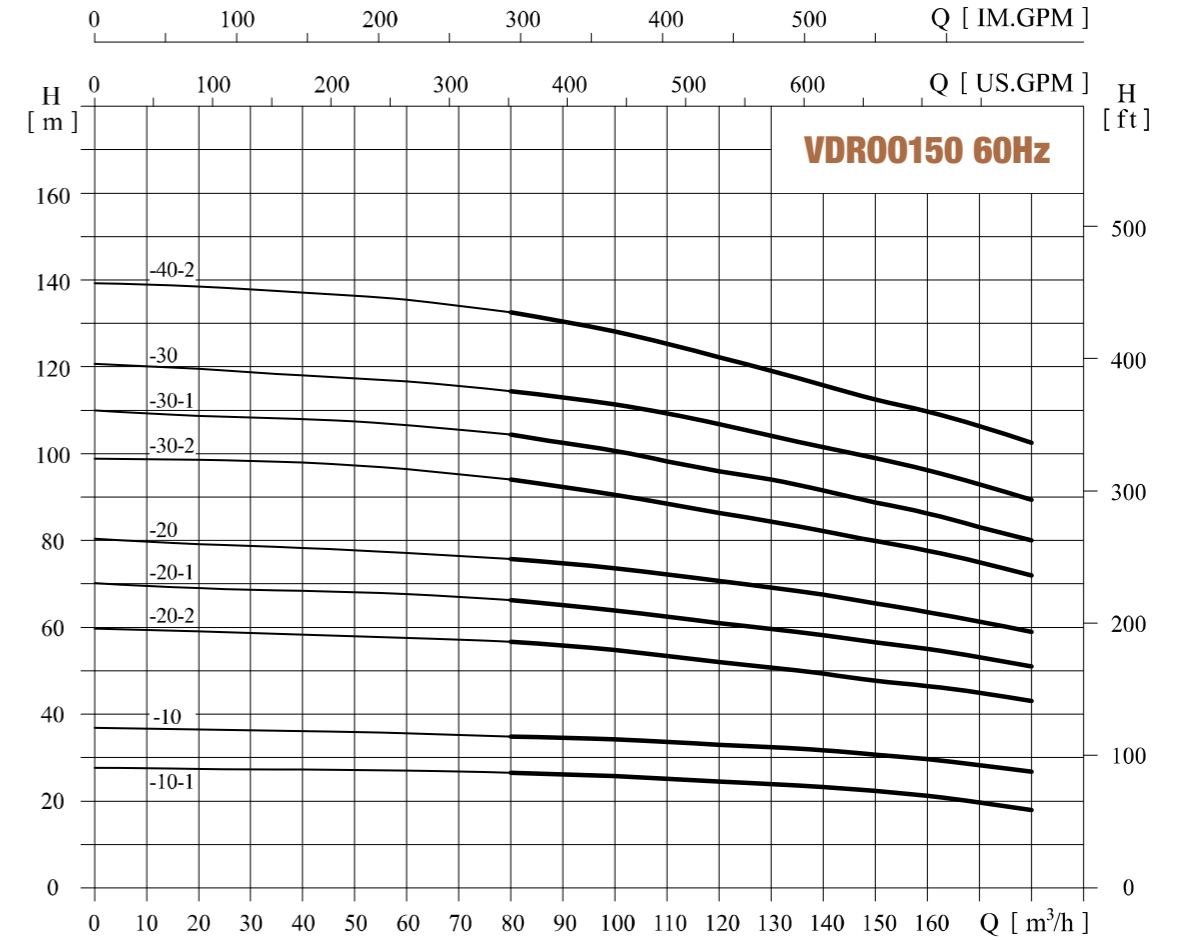


The overall dimensions of the single-phase motor and explosion-proof motor are a little different. Pls contact us for details.

## Size and weight

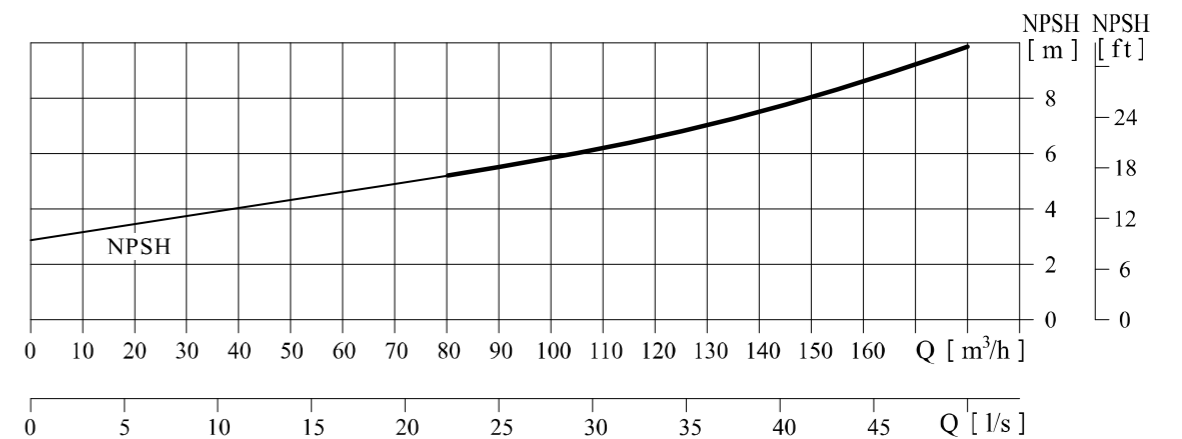
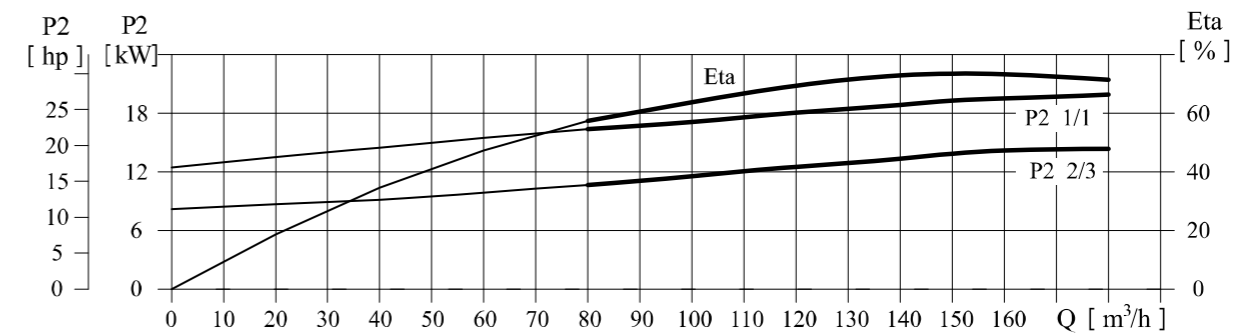
Model	Pump and motor dimensions					Weight (kg)
	B1	B2	B1+B2	D1	D2	
VF, VX, VN-150-10-1	840	500	1340	330	255	235
VF, VX, VN-150-10	840	575	1415	360	285	280
VF, VX, VN-150-20-2	1000	650	1650	400	310	360
VF, VX, VN-150-20-1	1000	650	1650	400	310	380
VF, VX, VN-150-20	1000	685	1685	460	340	435
VF, VX, VN-150-30-2	1190	760	1950	510	370	545
VF, VX, VN-150-30-1	1190	845	2035	580	410	665
VF, VX, VN-150-30	1190	845	2035	580	410	665
VF, VX, VN-150-40-2	1350	845	2195	580	410	680

## Performance curve ISO9906:2012 Grade 3B



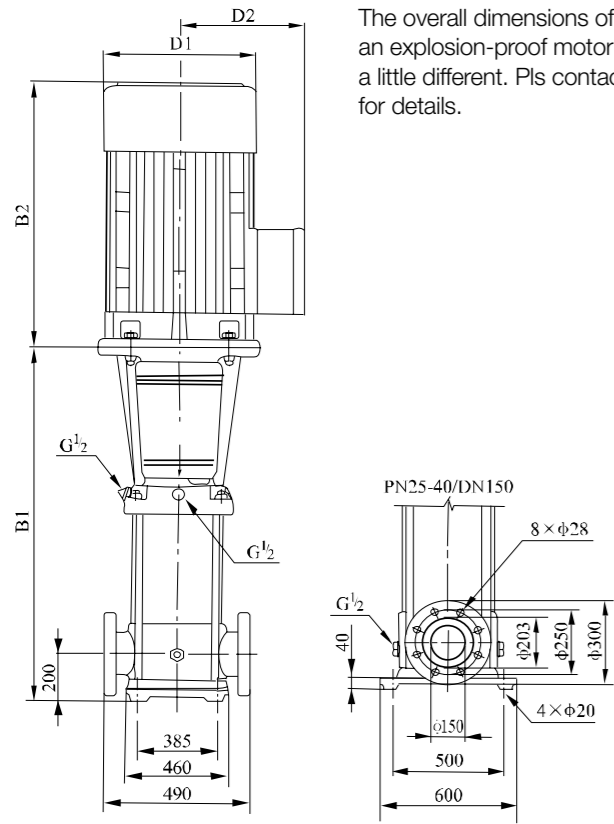
## Performance table

Model	Driving motor		Q (m³/h)	Head (m)													
	(kW)	(hp)		80	90	100	110	120	130	140	150	160	170	180			
VF, VX, VN-150-10-1	15	20	H (m)	26.5	26	25.7	25	24.3	23.8	23.2	22.3	21.2	19.5	18			
VF, VX, VN-150-10	22	30		35	34.5	34	33.6	33	32.3	31.7	30.7	29.6	28	27			
VF, VX, VN-150-20-2	30	40		57	55.5	53	52	51.3	50	49	48	47	45	43			
VF, VX, VN-150-20-1	37	50		67	65	63.5	62	61	60	58.5	56	55	53	51			
VF, VX, VN-150-20	45	60		45	74.5	73.6	72	70.4	69	67.5	65.5	63.5	61	59			
VF, VX, VN-150-30-2	55	75		75.5	92	90.5	88.4	86.4	83.8	81	80	78	75.3	72.5			
VF, VX, VN-150-30-1	75	100		94	102.5	100	98	96	94	92	89	87	84	80			
VF, VX, VN-150-30	75	100		104	113	111.3	109	106.5	104	101.5	99	96	93	89.4			
VF, VX, VN-150-40-2	75	100		133	130.3	127.6	124.6	121.7	118.3	115	112.5	110	106.3	102.5			



# VDR00210

## Installation sketch



The overall dimensions of the an explosion-proof motor are a little different. Pls contact us for details.

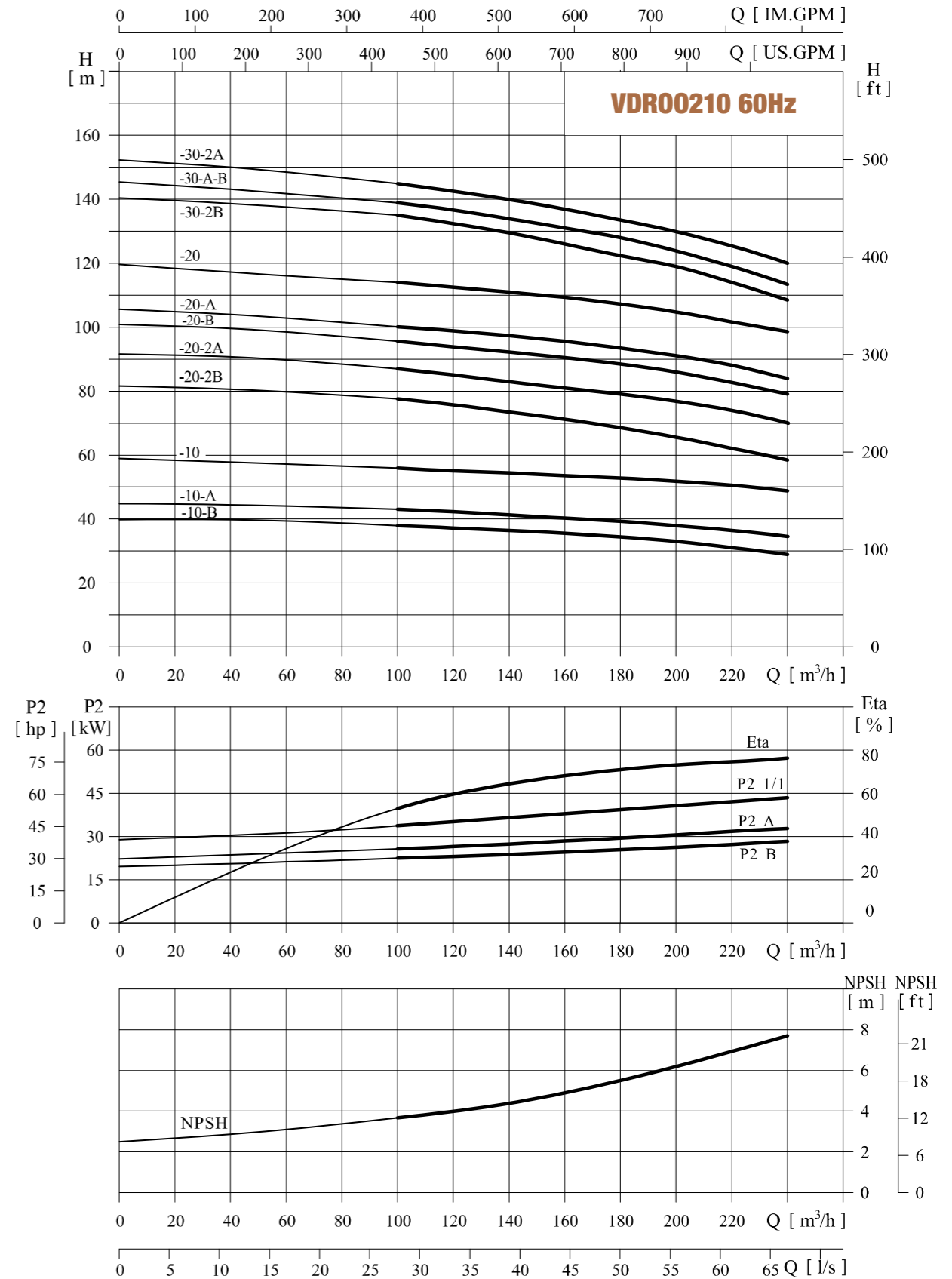
## Size and weight

Model	Pump and motor dimensions					Weight (kg)
	B1	B2	B1+B2	D1	D2	
VF, VX, VN-210-10-B	907	650	1557	400	310	403
VF, VX, VN-210-10-A	907	650	1557	400	310	426
VF, VX, VN-210-10	907	685	1592	450	345	484
VF, VX, VN-210-20-2B	1131	760	1891	540	370	595
VF, VX, VN-210-20-2A	1131	845	1976	580	410	718
VF, VX, VN-210-20-B	1131	845	1976	580	410	718
VF, VX, VN-210-20-A	1131	895	2026	580	410	787
VF, VX, VN-210-20	1131	895	2026	580	410	787
VF, VX, VN-210-30-2B	1325	1140	2465	645	550	1158
VF, VX, VN-210-30-A-B	1325	1140	2465	645	550	1158
VF, VX, VN-210-30-2A	1325	1140	2465	645	550	1158

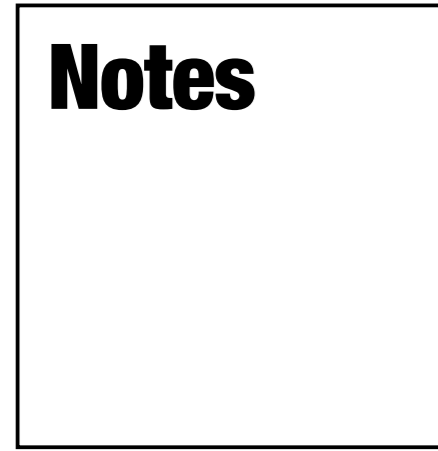
## Performance table

Model	Driving motor		Q (m³/h)	100	120	140	160	180	200	220	240
	(kW)	(hp)									
VF, VX, VN-210-10-B	30	40	H (m)	38	37	36.5	35.5	34	33	31	29
VF, VX, VN-210-10-A	37	50		43	42	41.5	40	39	38	36.5	34.5
VF, VX, VN-210-10	45	60		56	55	54.5	53.5	53	52	50.5	48.5
VF, VX, VN-210-20-2B	55	75		77.5	75.5	73.5	71	68.5	66	62	58.5
VF, VX, VN-210-20-2A	75	100		87	85	83	81	79	77	74	70
VF, VX, VN-210-20-B	75	100		95.5	93.5	92.5	90.5	88.5	86	82.5	79
VF, VX, VN-210-20-A	90	120		100	98.5	97.5	95.5	93.5	91	88	84
VF, VX, VN-210-20	90	120		114	112.5	111	109.5	107.5	105	101.5	98.5
VF, VX, VN-210-30-2B	110	150		135	132.5	129.5	126	122.5	119	114	108.5
VF, VX, VN-210-30-A-B	110	150		139	136.5	134	131	128	124	119	113.5
VF, VX, VN-210-30-2A	110	150		145	142.5	140	137	133.5	130	125.5	120

## Performance curve ISO9906:2012 Grade 3B



# Notes



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