Pressure boosting

Single pumps

Series description Wilo-Helix V 2/4/6/10/16

INMETRO

Design

Non-self-priming, high-efficiency multistage high-pressure centrifugal pump in vertical design, made of stainless steel throughout, with in-line connections

Application

- Water supply and pressure boosting
- Industrial circulation systems
- Process water
- Cooling water circulation systems
- Fire extinguishing systems
- Washing systems
- Irrigation

Versions with 1.44xx stainless steel for aggressive fluids

Type key

Example:	**Helix V1602-1/16/E/K/../380-60**
Helix V	Vertical, multistage high-pressure centrifugal pump in in-line design
16	Volume flow in m^3/h
02	Number of impellers
1	Pump material 1 = Pump housing 1.4301 (AISI 304) hydraulics 1.4307 (AISI 304L) 2 = Pump housing 1.4404 (AISI 316L) hydraulics 1.4404 (AISI 316L)
E	Seal type E = EPDM V = FKM
K	Mechanical seal in cartridge design
..	Optional
380	Connection voltage in V
60	Frequency in Hz

Special features/product advantages

- Efficiency-optimised, laser-welded 2D/3D high-efficiency hydraulics
- IEC standard motor conform with INMETRO PORTARIA 488, 3-phase, 2 pole (IE3 motor on request)
- The entire HELIX series is available with a user-friendly **X-Seal** cartridge mechanical seal (with standard gasket) which allows fast and easy maintenance
- The spacer coupling enables the mechanical seal to be replaced without dismantling the motor (from 7.5 kW and higher)
- The new flexible lantern design, which is available in two alignments, enables direct access to the mechanical seal.
- Additional roller bearing in the lantern for maximum compensation of the hydraulic axial thrust and for use of standard motors
- Specially designed, permanently attached lifting eyes for easy pump installation
- The terminal box is normally positioned aligned with the suction flange, but this can be changed if needed
- Intermediate bearings (AI203/CW) ensure a long service life
- Corrosion-resistant shaft thanks to stainless steel sleeve
- WRAS/KTW/ACS approval for all parts that come in contact with the fluid (EPDM version)

Equipment/function

- Corrosion-resistant impellers, diffusors and stage housing

Technical data

- Electrical connections: 3~220/380 V ±10 %, 60 Hz
- Fluid temperature range: -30 to 120 °C with EPDM (-10 °C to +90 °C with FKM gasket)
- Maximum operating pressure: 16/25 bar
- Protection class IP 55
- Ambient temperature: max. +40°C (extended temperature ranges on request)
- Available designs: PN16 with oval flanges and PN25 with round flanges in accordance with ISO 2531 and ISO 7005

Materials

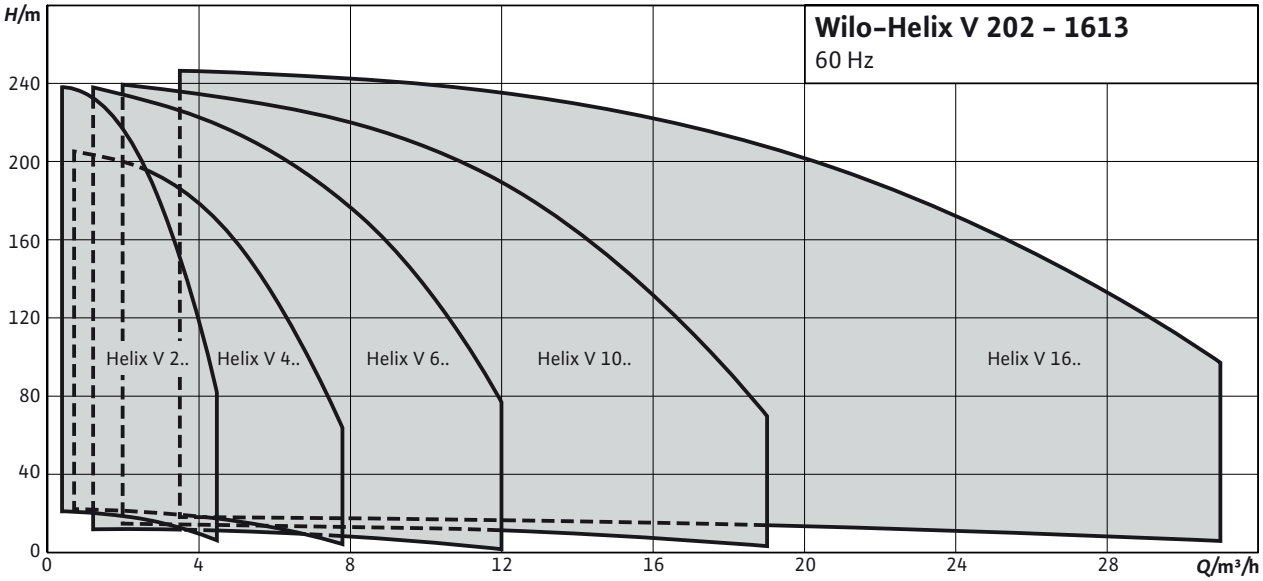
- Standard version
  - Impellers and stage housing made of stainless steel 1.4307
  - Pump housing made of stainless steel 1.4301.
  - Baseplate and lantern in EN-GJL-250 (cataphoretic coated)
  - Shaft in stainless steel 1.4301 or 1.4462 (depending on model)
  - Sleeve underneath the mechanical seal 1.4404
  - O-ring made of EPDM (FKM gasket on request)
  - Jacket pipe made of stainless steel 1.4301
- For aggressive fluids
  - Impellers, stage housing and diffusors made of stainless steel 1.4404
  - Pump housing made of stainless steel 1.4404.
  - Shaft of stainless steel 1.4404 or 1.4462 (depending on model)
  - Sleeve under the mechanical seal 1.4404

Series description Wilo-Helix V 2/4/6/10/16

- O-ring made of EPDM (FKM gasket on request)
- Jacket pipe made of stainless steel 1.4404

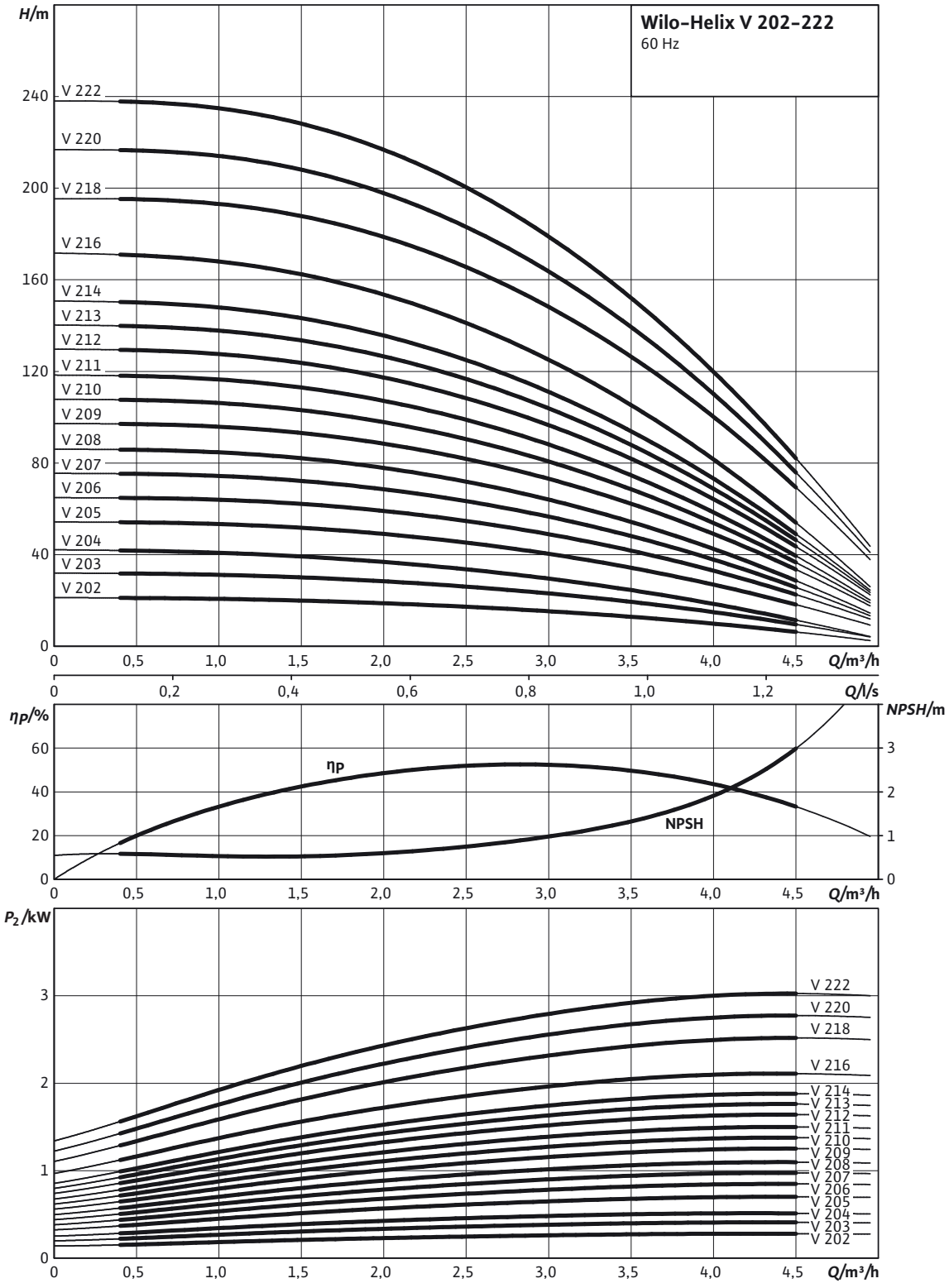
Scope of delivery

- Multistage high-pressure centrifugal pump Helix V
- Counter flanges with corresponding screws and O-rings (PN16 variant) or bolts and gaskets if a counter flange is used (PN25 variant)
- Installation and operating instructions
- Integrated funnel for easier pump filling



Pump curves Wilo-Helix V 2..

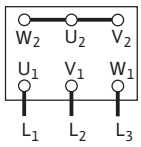
Pump curves Helix V 202–222



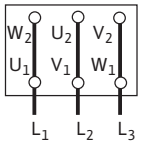
Terminal diagram, motor data Wilo-Helix V 2..

Electrical connection

≤ 4 kW



3~380 V Y



3~220 V Δ

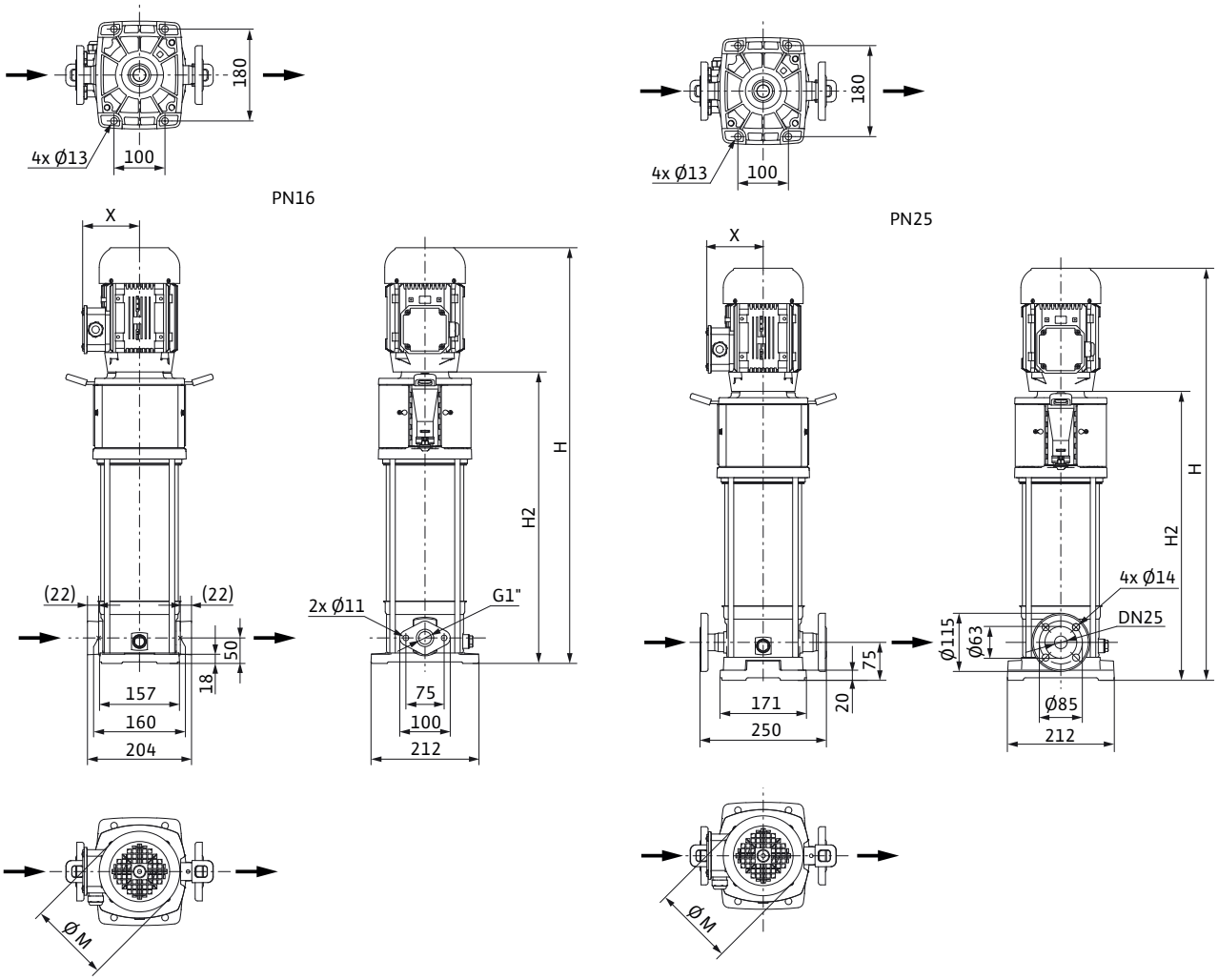
Motor data

Helix V...	pump efficiency	pump motor efficiency	Motor housing	Mains connection 3~, standard version	Nominal motor power	Nominal current 3~220 V, 60 Hz	Nominal current 3~380 V, 60 Hz	Nominal current 3~440 V, 60 Hz	Motor Efficiency		
					P_2	I			$\eta_{m\,50\%}$	$\eta_{m\,75\%}$	$\eta_{m\,100\%}$
			–	V	kW	A			%		
202	B	B	71	220/380	0.37	1.6	0.9	0.8	65.0	71.0	74.0
203	B	B	71	220/380	0.55	2.4	1.4	1.2	65.0	71.0	74.0
204	B	B	71	220/380	0.55	2.4	1.4	1.2	65.0	71.0	74.0
205	B	A	71	220/380	0.75	2.9	1.7	1.5	77.0	80.0	80.5
206	A	A	80	220/380	1.1	4.0	2.3	2.0	82.0	82.7	83.0
207	A	A	80	220/380	1.1	4.0	2.3	2.0	82.0	82.7	83.0
208	A	A	80	220/380	1.1	4.0	2.3	2.0	82.0	82.7	83.0
209	A	A	90S/L	220/380	1.5	5.5	3.2	2.8	80.0	83.0	83.8
210	A	A	90S/L	220/380	1.5	5.5	3.2	2.8	80.0	83.0	83.8
211	A	A	90S/L	220/380	1.5	5.5	3.2	2.8	80.0	83.0	83.8
212	A	A	90S/L	220/380	2.2	8.1	4.7	4.0	83.0	85.0	85.1
213	A	A	90S/L	220/380	2.2	8.1	4.7	4.0	83.0	85.0	85.1
214	A	A	90S/L	220/380	2.2	8.1	4.7	4.0	83.0	85.0	85.1
216	A	A	90S/L	220/380	2.2	8.1	4.7	4.0	83.0	85.0	85.1
218	A	A	100L	220/380	3	10.4	6.0	5.2	84.3	86.0	86.0
220	A	A	100L	220/380	3	10.4	6.0	5.2	84.3	86.0	86.0
222	A	A	100L	220/380	3	10.4	6.0	5.2	84.3	86.0	86.0

Motor efficiency based on 220 V, 60 Hz, given for reference since it depends on the make of the motor

Dimension drawing Wilo-Helix V 2..

Dimension drawing	Dimension drawing
Helix V 2/V4, PN 16	**Helix V 2/V 4, PN 25**



Dimensions, weights Wilo-Helix V 2..

Dimensions, weights PN 16

Helix V...	Dimensions				Weight of unit
	H	*H2*	*Ø M*	*X*	
	mm				kg
202	619	371	141	130	26
203	644	396	141	130	27
204	669	421	141	130	27
205	694	446	141	130	26.5
206	747	471	159	139	33
207	772	496	159	139	33
208	797	521	159	139	34
209	885	556	179	157	40
210	910	581	179	157	41
211	935	606	179	157	41
212	960	631	179	157	42.5
213	1010	681	179	157	43.5
214	1010	681	179	157	43.5

Dimensions H, X, M and weight; approximale values since it depends on the make of the motor

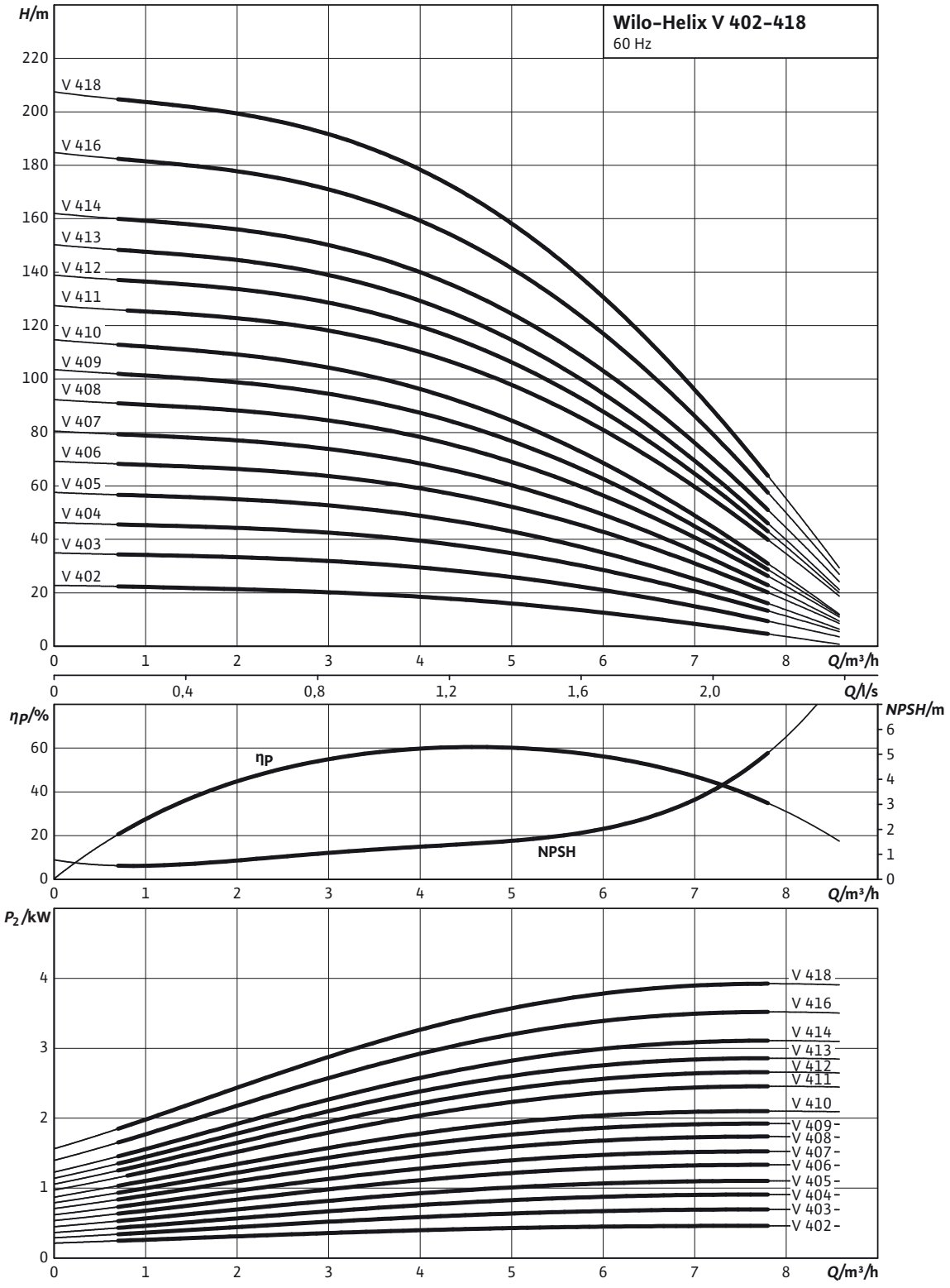
Dimensions, weights PN 25

Helix V...	Dimensions				Weight of unit
	H	*H2*	*Ø M*	*X*	
	mm				kg
206	768	492	159	139	35
207	793	517	159	139	36
208	818	542	159	139	37
209	906	577	179	157	43
210	931	602	179	157	43
211	956	627	179	157	44
212	981	652	179	157	44.5
213	1031	702	179	157	45.5
214	1031	702	179	157	45.5
216	1081	752	179	157	46.5
218	1188	812	199	167	59
220	1238	862	199	167	60
222	1338	962	199	167	61

Dimensions H, X, M and weight; approximale values since it depends on the make of the motor

Pump curves Wilo-Helix V 4..

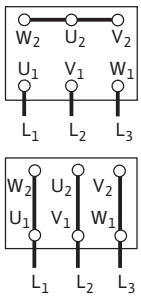
Pump curves Helix V 402–418



Terminal diagram, motor data Wilo-Helix V 4..

Electrical connection

≤ 4 kW

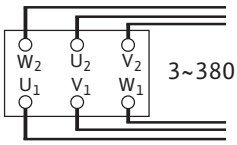


3~380 V Y

3~220 V Δ

Electrical connection

> 4 kW



3~380 V Y-Δ

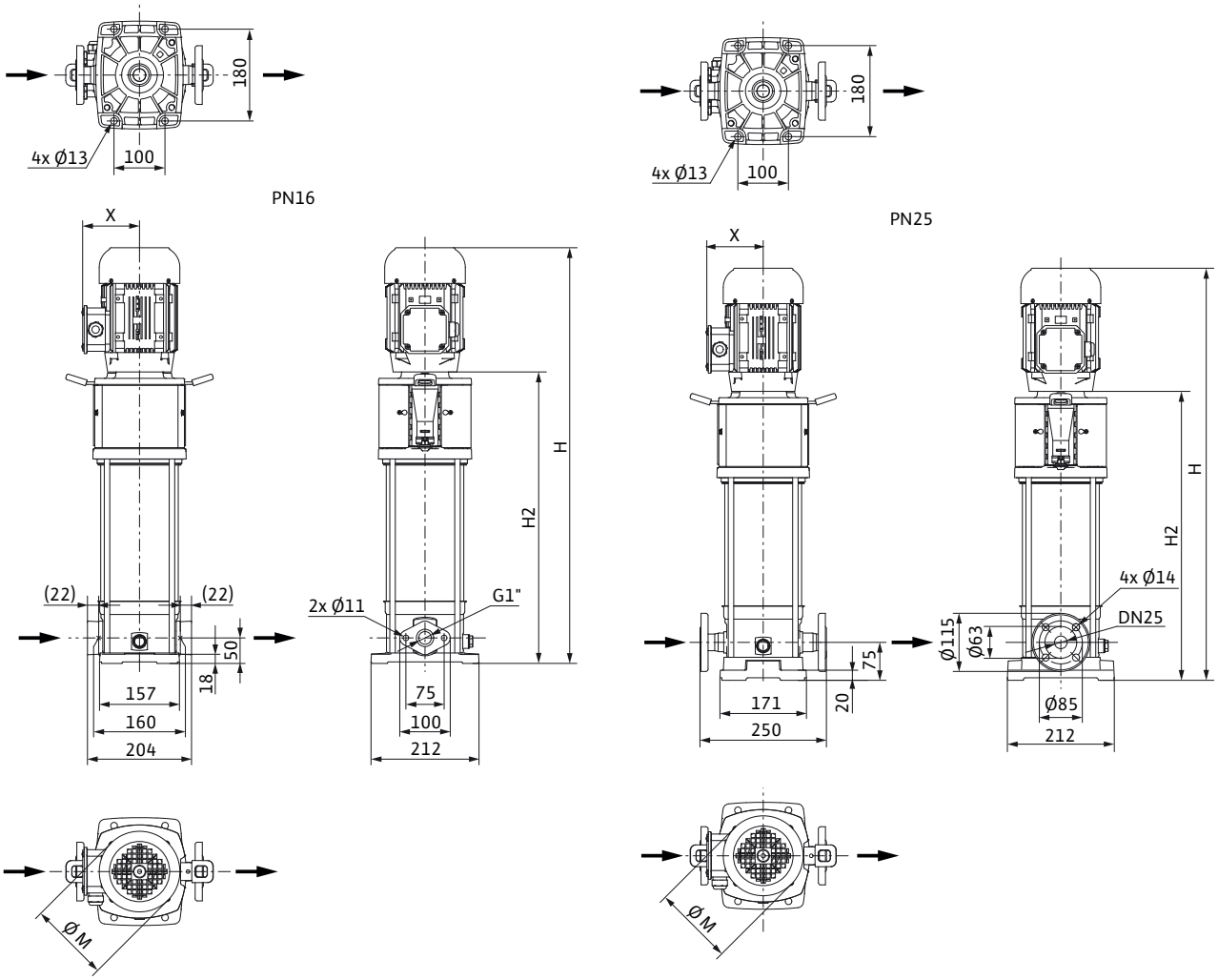
Motor data

Helix V...	pump efficiency	pump motor efficiency	Motor housing	Mains connection 3~, standard version	Nominal motor power	Nominal current 3~220 V, 60 Hz	Nominal current 3~380 V, 60 Hz	Nominal current 3~440 V, 60 Hz	Motor Efficiency		
					P_2	I			$\eta_{m\,50\%}$	$\eta_{m\,75\%}$	$\eta_{m\,100\%}$
			–	V	kW	A			%		
402	D	D	71	220/380	0.55	2.4	1.4	1.2	65.0	71.0	74.0
403	C	B	80	220/380	0.75	2.8	1.6	1.4	75.0	80.0	81.0
404	B	B	80	220/380	1.1	4.0	2.3	2.0	82.0	82.7	83.0
405	B	B	80	220/380	1.1	4.0	2.3	2.0	82.0	82.7	83.0
406	B	B	90S/L	220/380	1.5	5.5	3.2	2.8	80.0	83.0	83.8
407	B	B	90S/L	220/380	1.5	5.5	3.2	2.8	80.0	83.0	83.8
408	B	B	90S/L	220/380	2.2	8.1	4.7	4.0	83.0	85.0	85.1
409	B	B	90S/L	220/380	2.2	8.1	4.7	4.0	83.0	85.0	85.1
410	B	B	90S/L	220/380	2.2	8.1	4.7	4.0	83.0	85.0	85.1
411	B	A	100L	220/380	3	10.4	6.0	5.2	84.3	86.0	86.0
412	B	A	100L	220/380	3	10.4	6.0	5.2	84.3	86.0	86.0
413	B	A	100L	220/380	3	10.4	6.0	5.2	84.3	86.0	86.0
414	B	B	112M	220/380	4.5	15.1	8.7	7.6	86.5	88.0	88.1
416	B	B	112M	220/380	4.5	15.1	8.7	7.6	86.5	88.0	88.1
418	A	A	112M	220/380	4.5	15.1	8.7	7.6	86.5	88.0	88.1

Motor efficiency based on 220 V, 60 Hz, given for reference since it depends on the make of the motor

Dimension drawing Wilo-Helix V 4..

Dimension drawing	Dimension drawing
Helix V 2/V4, PN 16	**Helix V 2/V 4, PN 25**



Dimensions, weights Wilo-Helix V 4..

Dimensions, weights PN 16

Helix V...	Dimensions				Weight of unit
	H	*H2*	*Ø M*	*X*	
	mm				kg
402	619	371	141	130	26
403	672	396	159	139	31
404	697	421	159	139	31
405	722	446	159	139	32
406	800	471	179	157	38
407	835	506	179	157	39
408	850	521	179	157	40.5
409	885	556	179	157	40.5
410	910	581	179	157	41.5
411	992	616	199	167	53
412	1017	641	199	167	54
413	1067	691	199	167	55

Dimensions H, X, M and weight; approximale values since it depends on the make of the motor

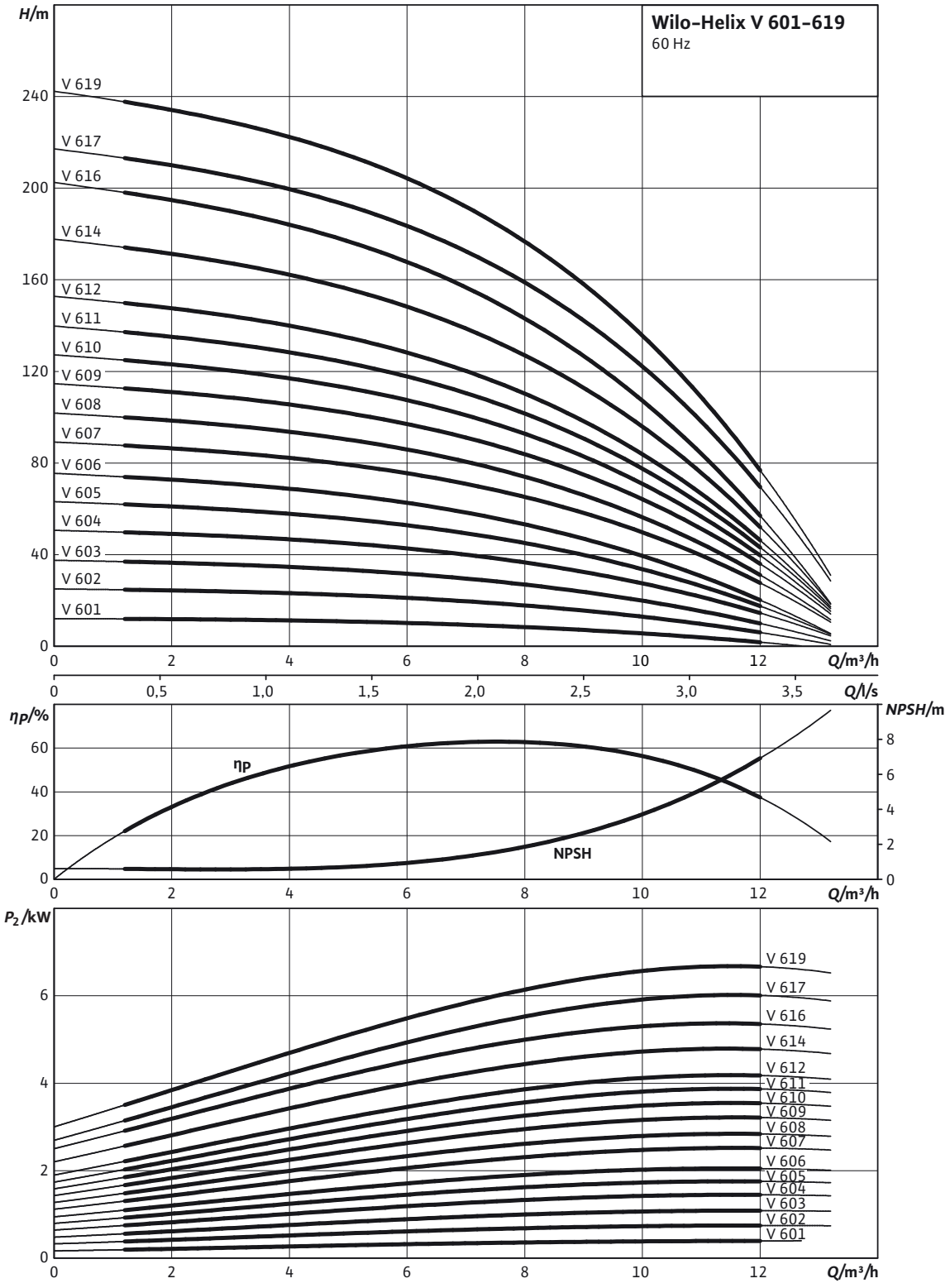
Dimensions, weights PN 25

Helix V...	Dimensions				Weight of unit
	H	*H2*	*Ø M*	*X*	
	mm				kg
408	885	556	179	157	42.5
406	835	506	179	157	40
407	860	531	179	157	40
409	910	581	179	157	43.5
410	935	606	179	157	43.5
411	1017	641	199	167	56
412	1042	666	199	167	56
413	1092	716	199	167	57
414	1109	716	222	192	63.8
416	1159	766	222	192	64.8
418	1209	816	222	192	65.8

Dimensions H, X, M and weight; approximale values since it depends on the make of the motor

Pump curves Wilo-Helix V 6..

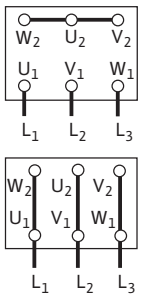
Pump curves Helix V 601–619



Terminal diagram, motor data Wilo-Helix V 6..

Electrical connection

≤ 4 kW

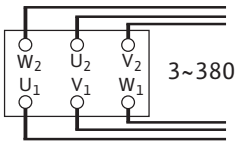


3~380 V Y

3~220 V Δ

Electrical connection

> 4 kW



3~380 V Y-Δ

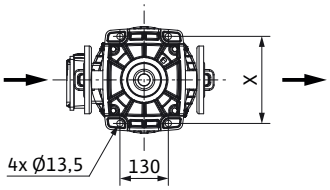
Motor data

Helix V...	pump efficiency	pump motor efficiency	Motor housing	Mains connection 3~, standard version	Nominal motor power	Nominal current 3~220 V, 60 Hz	Nominal current 3~380 V, 60 Hz	Nominal current 3~440 V, 60 Hz	Motor Efficiency		
					P_2	I			$\eta_{m\,50\%}$	$\eta_{m\,75\%}$	$\eta_{m\,100\%}$
			–	V	kW	A			%		
601	E	E	71	220/380	0.55	2.4	1.4	1.2	65.0	71.0	74.0
602	D	C	80	220/380	0.75	2.8	1.6	1.4	75.0	80.0	81.0
603	C	C	80	220/380	1.1	4.0	2.3	2.0	82.0	82.7	83.0
604	C	C	90S/L	220/380	1.5	5.5	3.2	2.8	80.0	83.0	83.8
605	C	C	90S/L	220/380	2.2	8.1	4.7	4.0	83.0	85.0	85.1
606	C	C	90S/L	220/380	2.2	8.1	4.7	4.0	83.0	85.0	85.1
607	C	C	100L	220/380	3	10.4	6.0	5.2	84.3	86.0	86.0
608	C	B	100L	220/380	3	10.4	6.0	5.2	84.3	86.0	86.0
609	C	C	112M	220/380	4.5	15.1	8.7	7.6	86.5	88.0	88.1
610	C	C	112M	220/380	4.5	15.1	8.7	7.6	86.5	88.0	88.1
611	C	C	112M	220/380	4.5	15.1	8.7	7.6	86.5	88.0	88.1
612	B	C	112M	220/380	5.5	18.9	10.9	9.5	86.5	88.5	88.7
614	C	C	112M	220/380	5.5	18.9	10.9	9.5	86.5	88.5	88.7
616	C	C	112M	220/380	5.5	18.9	10.9	9.5	86.5	88.5	88.7
617	C	C	132S	220/380	7.5	25.0	14.4	12.5	88.2	89.5	89.6
619	C	B	132S	220/380	7.5	25.0	14.4	12.5	88.2	89.5	89.6

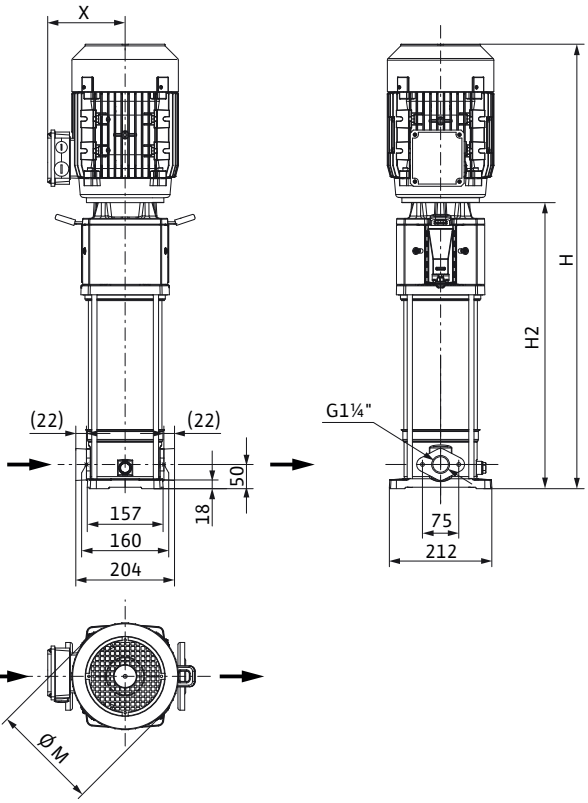
Motor efficiency based on 220 V, 60 Hz, given for reference since it depends on the make of the motor

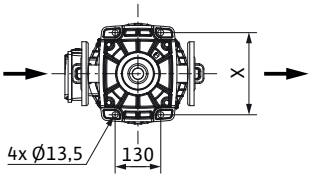
Dimension drawing Wilo-Helix V 6..

Dimension drawing	Dimension drawing
Helix V 6, PN 16	**Helix V 6, PN 25**

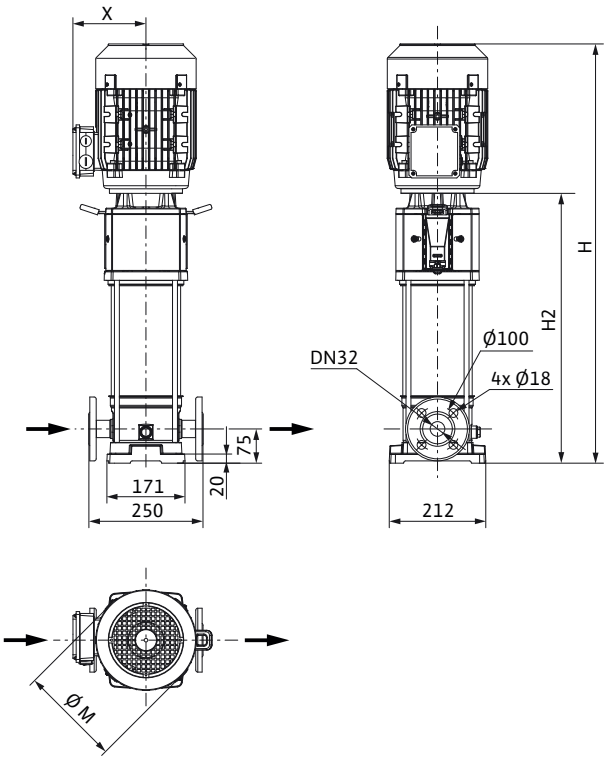


PN16





PN25



Dimensions, weights Wilo-Helix V 6..

Dimensions, weights PN 16

Helix V...	Dimensions				Weight of unit
	H	*H2*	*Ø M*	*X*	
	mm				kg
601	644	396	141	130	27
602	672	396	159	139	31
603	710	434	159	139	32
604	800	471	179	157	39
605	838	509	179	157	40.5
606	875	546	179	157	41.5
607	970	594	199	167	54
608	1007	631	199	167	55
609	1062	669	222	192	62.8
610	1099	706	222	192	63.8
611	1174	781	222	192	64.8

Dimensions H, X, M and weight; approximale values since it depends on the make of the motor

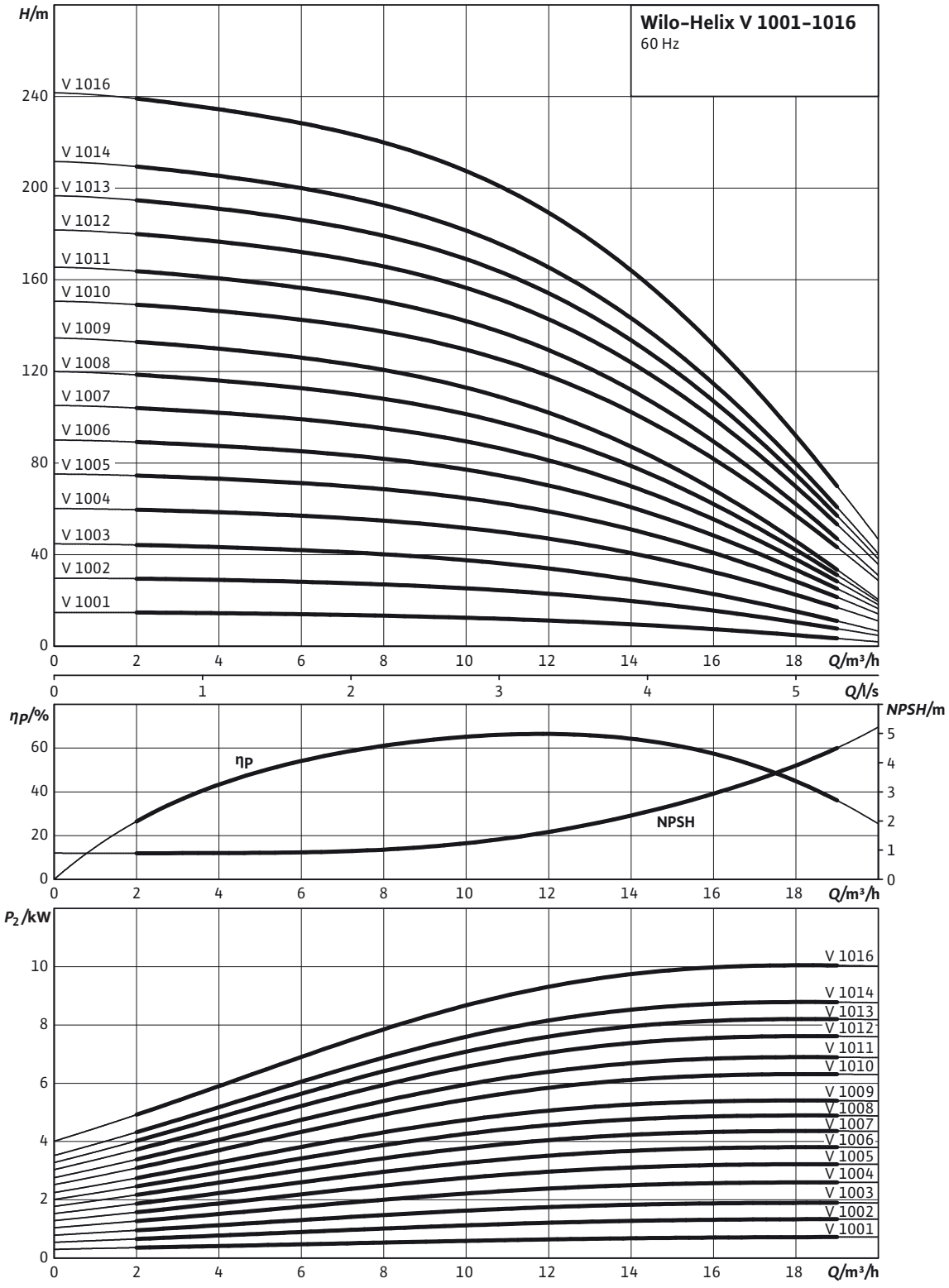
Dimensions, weights PN 25

Helix V...	Dimensions				Weight of unit
	H	*H2*	*Ø M*	*X*	
	mm				kg
605	873	544	179	157	42.5
606	910	581	179	157	43.5
607	1005	629	199	167	56
608	1042	666	199	167	57
609	1097	704	222	192	64.8
610	1134	741	222	192	65.8
611	1209	816	222	192	66.8
612	1209	816	222	192	72
614	1329	936	222	192	74
616	1284	891	222	192	76
617	1613	1161	271	218	112
619	1688	1236	271	218	113

Dimensions H, X, M and weight; approximale values since it depends on the make of the motor

Pump curves Wilo-Helix V 10..

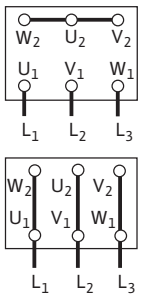
Pump curves Helix V 1001–1016



Terminal diagram, motor data Wilo-Helix V 10..

Electrical connection

≤ 4 kW

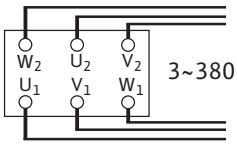


3~380 V Y

3~220 V Δ

Electrical connection

> 4 kW



3~380 V Y-Δ

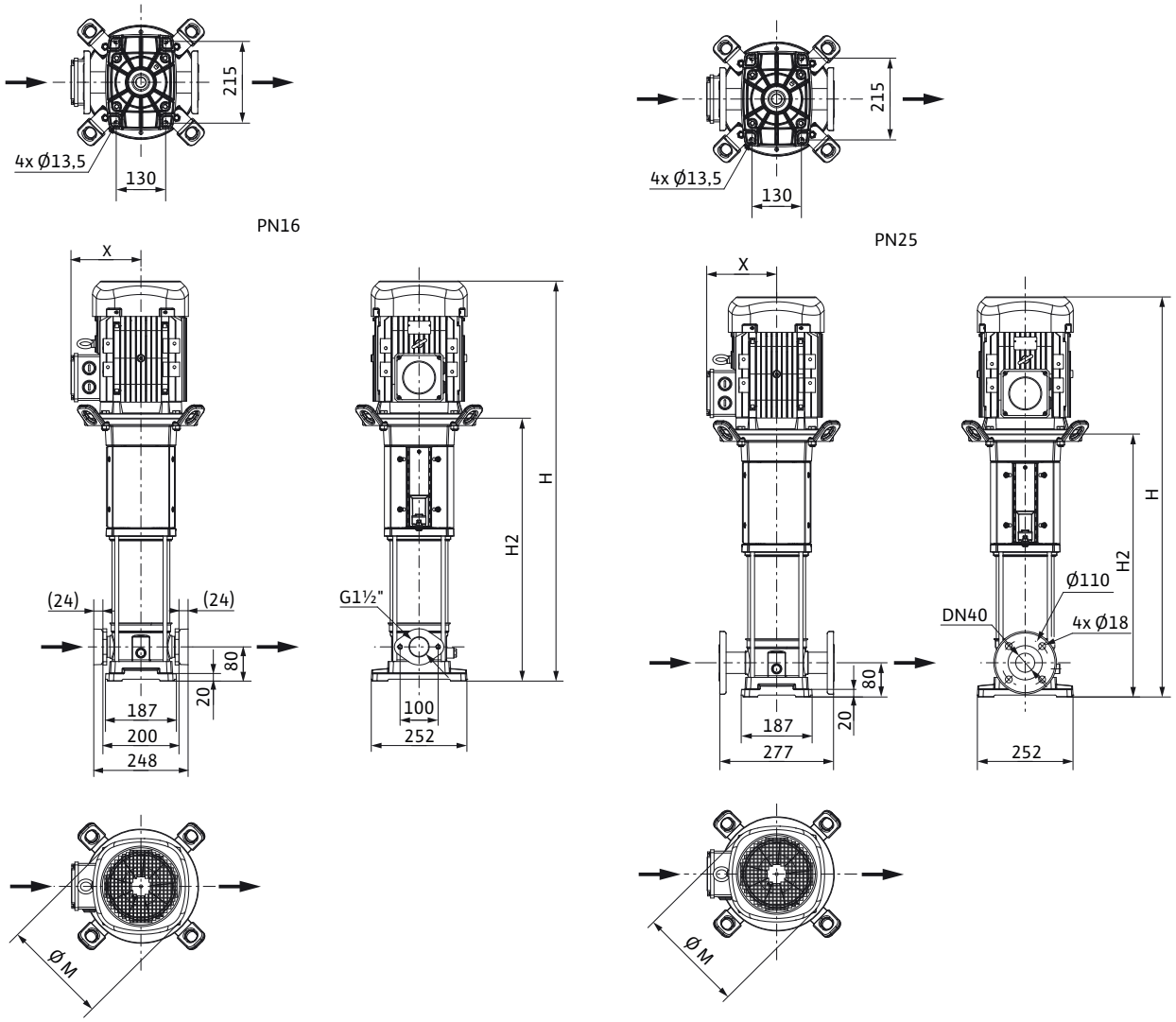
Motor data

Helix V...	pump efficiency	pump motor efficiency	Motor housing	Mains connection 3~, standard version	Nominal motor power	Nominal current 3~220 V, 60 Hz	Nominal current 3~380 V, 60 Hz	Nominal current 3~440 V, 60 Hz	Motor Efficiency		
					P_2	I			$\eta_{m\ 50\%}$	$\eta_{m\ 75\%}$	$\eta_{m\ 100\%}$
			–	V	kW	A			%		
1001	D	D	80	220/380	0.75	2.8	1.6	1.4	75.0	80.0	81.0
1002	D	D	90S/L	220/380	1.5	5.5	3.2	2.8	80.0	83.0	83.8
1003	C	C	90S/L	220/380	2.2	8.1	4.7	4.0	83.0	85.0	85.1
1004	C	C	100L	220/380	3	10.4	6.0	5.2	84.3	86.0	86.0
1005	C	C	112M	220/380	4.5	15.1	8.7	7.6	86.5	88.0	88.1
1006	C	C	112M	220/380	4.5	15.1	8.7	7.6	86.5	88.0	88.1
1007	C	C	112M	220/380	5.5	18.9	10.9	9.5	86.5	88.5	88.7
1008	C	C	112M	220/380	5.5	18.9	10.9	9.5	86.5	88.5	88.7
1009	C	C	112M	220/380	5.5	18.9	10.9	9.5	86.5	88.5	88.7
1010	C	C	132S	220/380	7.5	25.0	14.4	12.5	88.2	89.5	89.6
1011	C	C	132S	220/380	7.5	25.0	14.4	12.5	88.2	89.5	89.6
1012	C	C	132M	220/380	9.2	30.6	17.7	15.3	86.8	89.5	89.6
1013	C	C	132M	220/380	9.2	30.6	17.7	15.3	86.8	89.5	89.6
1014	C	C	132M	220/380	9.2	30.6	17.7	15.3	86.8	89.5	89.6
1016	C	C	132M	220/380	11	35.4	20.4	17.7	89.5	90.5	90.5

Motor efficiency based on 220 V, 60 Hz, given for reference since it depends on the make of the motor

Dimension drawing Wilo-Helix V 10..

Dimension drawing	Dimension drawing
Helix V 10, PN 16	**Helix V 10, PN 25**



Dimensions, weights Wilo-Helix V 10..

Dimensions, weights PN 16

Helix V...	Dimensions				Weight of unit
	H	*H2*	*Ø M*	*X*	
	mm				kg
1001	693	417	159	139	36
1002	756	427	179	157	42.7
1003	794	464.5	179	157	44.1
1004	888	512	199	167	55.6
1005	943	549.5	222	192	63.3
1006	980	587	222	192	64.2
1007	1018	624.5	222	192	70.3
1008	1055	662	222	192	71.2
1009	1093	699.5	222	192	72.4

Dimensions H, X, M and weight; approximale values since it depends on the make of the motor

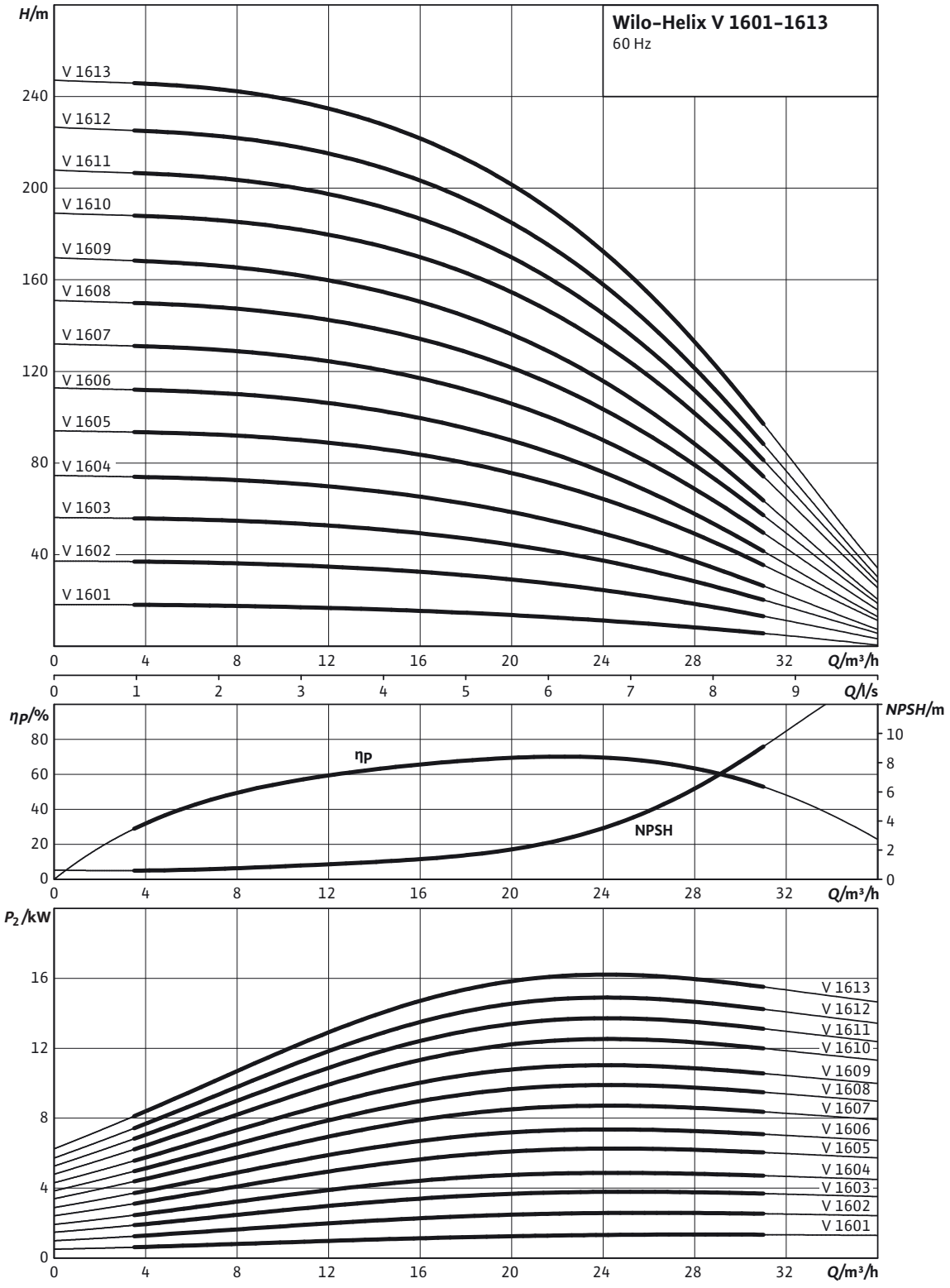
Dimensions, weights PN 25

Helix V...	Dimensions				Weight of unit
	H	*H2*	*Ø M*	*X*	
	mm				kg
1004	888	512	199	167	55.6
1005	943	549.5	222	192	63.3
1006	980	587	222	192	64.2
1007	1018	624.5	222	192	70.3
1008	1055	662	222	192	71.2
1009	1093	699.5	222	192	72.4
1010	1309	856.5	271	218	107.41
1011	1384	931.5	271	218	108.7
1012	1422	931.5	271	218	111.2
1013	1497	1006.5	271	218	112.5
1014	1497	1006.5	271	218	113.6
1016	1572	1081.5	271	218	122.4

Dimensions H, X, M and weight; approximale values since it depends on the make of the motor

Pump curves Wilo-Helix V 16..

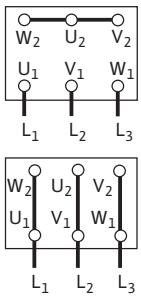
Pump curves Helix V 1601–1613



Terminal diagram, motor data Wilo-Helix V 16..

Electrical connection

≤ 4 kW

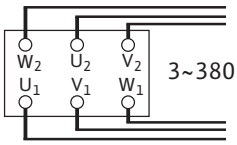


3~380 V Y

3~220 V Δ

Electrical connection

> 4 kW



3~380 V Y-Δ

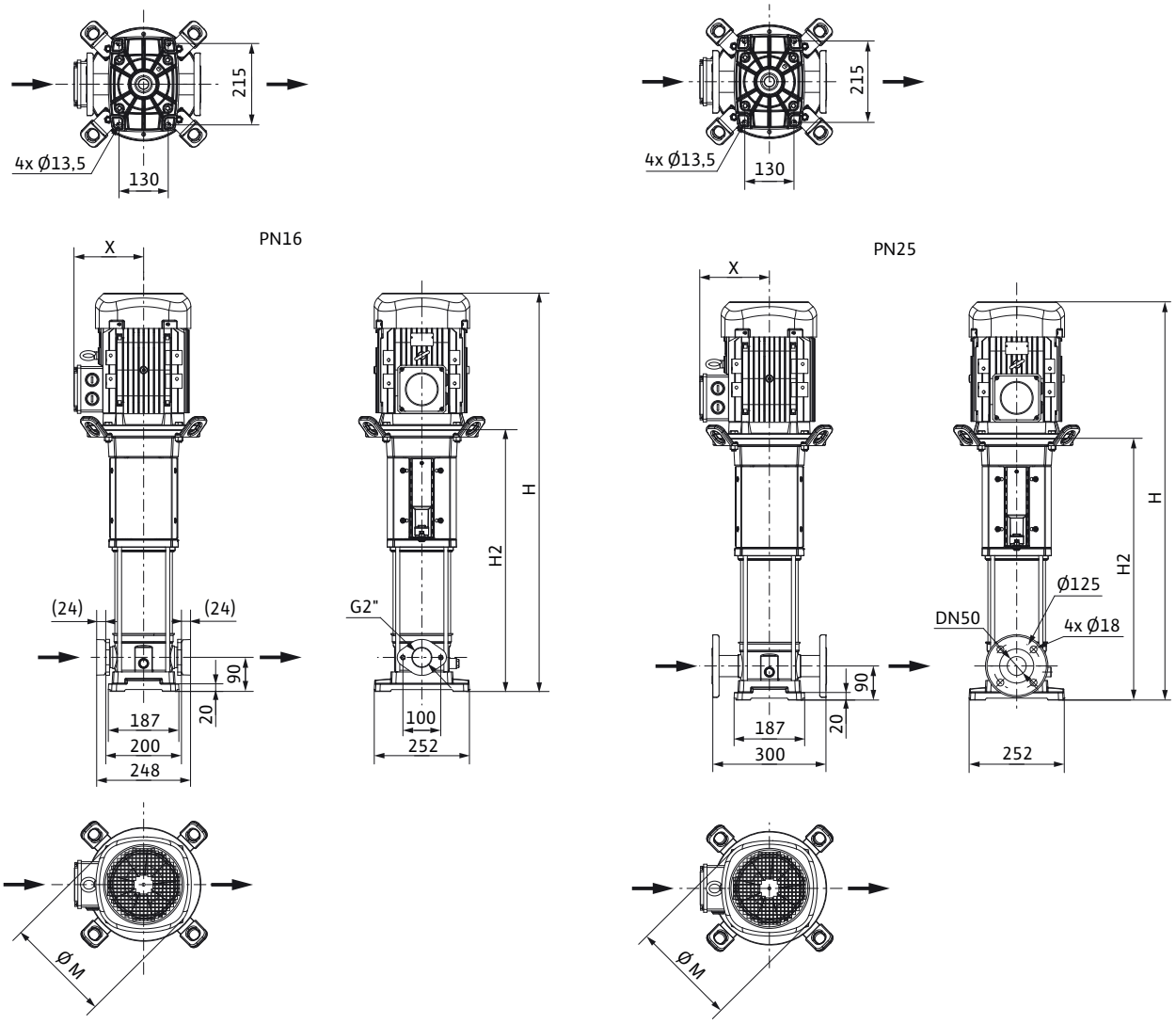
Motor data

Helix V...	pump efficiency	pump motor efficiency	Motor housing	Mains connection 3~, standard version	Nominal motor power	Nominal current 3~220 V, 60 Hz	Nominal current 3~380 V, 60 Hz	Nominal current 3~440 V, 60 Hz	Motor Efficiency		
					P_2	I			$\eta_{m\,50\%}$	$\eta_{m\,75\%}$	$\eta_{m\,100\%}$
			–	V	kW	A			%		
1601	E	E	90S/L	220/380	1.5	5.5	3.2	2.8	80.0	83.0	83.8
1602	D	D	100L	220/380	3	10.4	6.0	5.2	84.3	86.0	86.0
1603	D	D	112M	220/380	4.5	15.1	8.7	7.6	86.5	88.0	88.1
1604	D	D	132S	220/380	5.5	19.4	11.2	9.7	85.5	87.5	88.6
1605	C	D	132S	220/380	7.5	25.0	14.4	12.5	88.2	89.5	89.6
1606	D	D	132S	220/380	7.5	25.0	14.4	12.5	88.2	89.5	89.6
1607	D	D	132M	220/380	9.2	30.6	17.7	15.3	86.8	89.5	89.6
1608	D	D	132M	220/380	11	35.4	20.4	17.7	89.5	90.5	90.5
1609	C	D	132M	220/380	11	35.4	20.4	17.7	89.5	90.5	90.5
1610	C	D	160M	220/380	15	49.8	28.7	24.9	90.0	90.8	90.8
1611	C	C	160M	220/380	15	49.8	28.7	24.9	90.0	90.8	90.8
1612	C	C	160M	220/380	15	49.8	28.7	24.9	90.0	90.8	90.8
1613	C	C	160M	220/380	18.5	61.0	35.2	30.5	91.0	91.5	91.5

Motor efficiency based on 220 V, 60 Hz, given for reference since it depends on the make of the motor

Dimension drawing Wilo-Helix V 16..

Dimension drawing	Dimension drawing
Helix V 16, PN 16	**Helix V 16, PN 25**



Dimensions, weights Wilo-Helix V 16..

Dimensions, weights PN 16

Helix V...	Dimensions				Weight of unit
	H	*H2*	*Ø M*	*X*	
	mm				kg
1601	791	462	179	157	43
1602	848	472	199	167	56
1603	915	522	222	192	63.8
1604	1144	692	271	218	84
1605	1194	742	271	218	106
1606	1244	792	271	218	107
1607	1332	842	271	218	110
1608	1411	921	271	218	128

Dimensions H, X, M and weight; approximale values since it depends on the make of the motor

Dimensions, weights PN 25

Helix V...	Dimensions				Weight of unit
	H	*H2*	*Ø M*	*X*	
	mm				kg
1602	848	472	199	167	56
1603	915	522	222	192	63.8
1604	1144	692	271	218	84
1605	1194	742	271	218	106
1606	1244	792	271	218	107
1607	1332	842	271	218	110
1608	1411	921	271	218	116
1609	1461	971	271	218	118
1610	1619	1021	329	264	161
1611	1669	1071	329	264	161
1612	1719	1121	329	264	161
1613	1869	1271	329	264	171

Dimensions H, X, M and weight; approximale values since it depends on the make of the motor

Series description Wilo-Helix V 22/36/52

INMETRO

Design
Non-self-priming, high-efficiency multistage high-pressure centrifugal pump in vertical design with in-line connections

Application
- Water supply and pressure boosting
- Industrial circulation systems
- Process water
- Cooling water circulation systems
- Fire extinguishing systems
- Washing systems
- Irrigation

Versions with 1.44xx stainless steel designed for aggressive fluids

Type key

Example:	**Helix V2202/2-3/16/E/../380-60**
Helix V	Vertical, multistage high-pressure centrifugal pump in in-line design
22	Volume flow in m^3/h
02	Number of impellers
2	Number of trimmed impellers (optional)
3	Pump material 2 = pump base 1.4408 (AISI 316) hydraulics 1.4404 (AISI 316L) 3 = pump base EN-GJL-250 (cataphoretic-coated) hydraulics 1.4307 (AISI 304L)
16	Maximum operating pressure in bar
E	Seal type E = EPDM V = FKM
K	Mechanical seal in cartridge design
x	Special version "X-Care"
..	Optional
380	Connection voltage in V
60	Frequency in Hz

Special features/product advantages
- High-efficiency, laser-welded, optimised 2D/3D hydraulics
- IEC standard motor conform with INMETRO PORTARIA 488, 3-phase, 2 pole (IE3 motor on request)
- Thanks to their modular pump housing (height and flanges can be adjusted), Helix pumps can be built into existing piping
- Connections for pressure sensor on the pump housing permit simple monitoring and control of the pump operation (optional for the standard version and including versions for aggressive fluids)
- The entire HELIX series is obtainable with a user-friendly "X-Seal" cartridge mechanical seal (with standard gasket) which allows quick and easy maintenance
- The spacer coupling (from ≥ 7.5 kW) enables the mechanical seal to be replaced without dismantling the motor
- The new flexible lantern design, which is available in two alignments, enables direct access to the mechanical seal.
- Specially designed, permanently attached lifting eyes for easy pump installation
- The terminal box is normally positioned aligned with the suction flange, but this can be changed if needed
- Intermediate bearings (AI203/CW) ensure a long service life
- Corrosion-resistant shaft thanks to stainless steel sleeve
- WRAS/ACS approval for all parts that come in contact with the fluid

Equipment/function
- Corrosion-resistant impellers, diffusors and stage housing

Technical data
- Electrical connections: 3~220/380 V ±10 %, 60 Hz
- Fluid temperature range:
  - Helix V22, 36, 52 (EPDM version): -20 to 120 °C
  - Helix V22, 36, 52 for aggressive media (FKM version): -10 to 90 °C (-30 °C with EPDM gasket on request)
- Maximum operating pressure: 16/25/30 bar
- Protection class: IP 55
- Maximum ambient temperature: +40°C (extended temperature ranges on request)
- Available versions: PN16 and PN25 with round loose flanges in accordance with ISO 2531 and ISO 7005

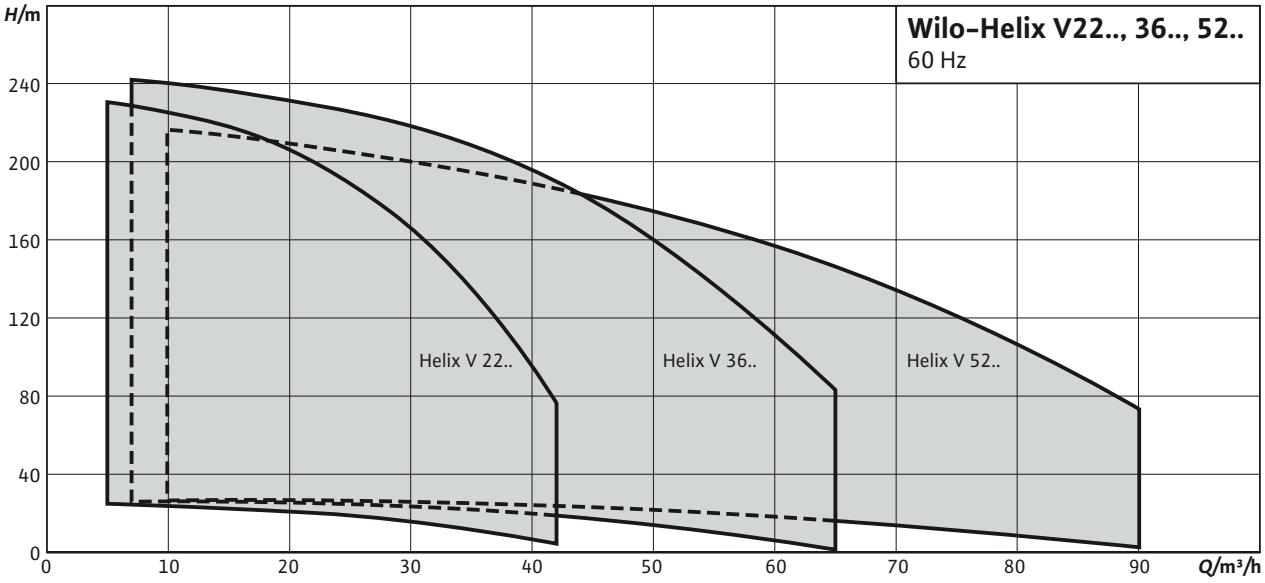
Materials
- Standard version
  - Stage housing, impellers, diffusors made of stainless steel.1.4307
  - Pump housing made of cataphoretic-coated grey cast iron EN-GJL 250, loose flange made of EN-GJS 400 for 36/52.
  - Shaft made of stainless steel 1.4057
  - Sleeve underneath the mechanical seal 1.4404
  - O-ring made of EPDM (FKM gasket on request)

Series description Wilo-Helix V 22/36/52

- Jacket pipe made of stainless steel 1.4301
• For aggressive fluids
  - Stage housing, impellers, diffusers made of stainless steel 1.4404 with passivation for highest possible resistance to corrosion
  - Pump housing: all parts that come in contact with the fluid made of cast stainless steel 1.4409; loose flange made of cataphoretic-coated cast iron EN-GJL 250 for 22 m^3 / EN-GJS 400 for 36-52.
  - Baseplate made of stainless steel 1.4301
  - Shaft made of stainless steel, 1.4404 or 1.4462 (depends on version)
  - Sleeve under the mechanical seal 1.4404
  - O-ring made of FKM (EPDM gasket on request)
  - Pressure shroud made of stainless steel 1.4404

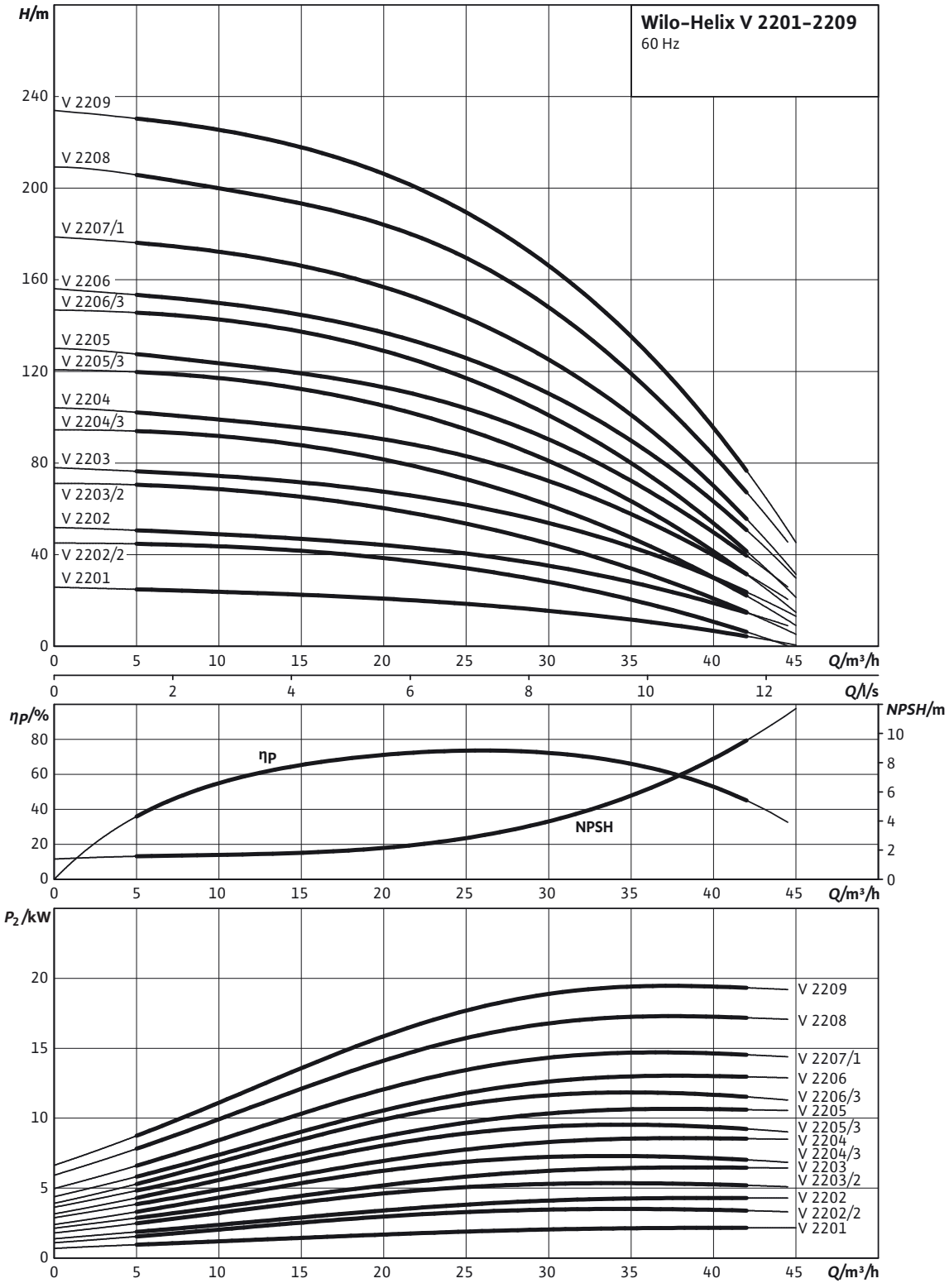
Scope of delivery

• Multistage high-pressure centrifugal pump Helix V
• Bolts and gaskets required for counter flange use
• Installation and operating instructions



Pump curves Wilo-Helix V 22..

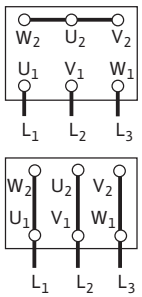
Pump curves Helix V 2201–2209



Terminal diagram, motor data Wilo-Helix V 22..

Electrical connection

≤ 4 kW

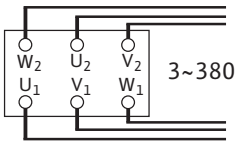


3~380 V Y

3~220 V Δ

Electrical connection

> 4 kW



3~380 V Y-Δ

Motor data

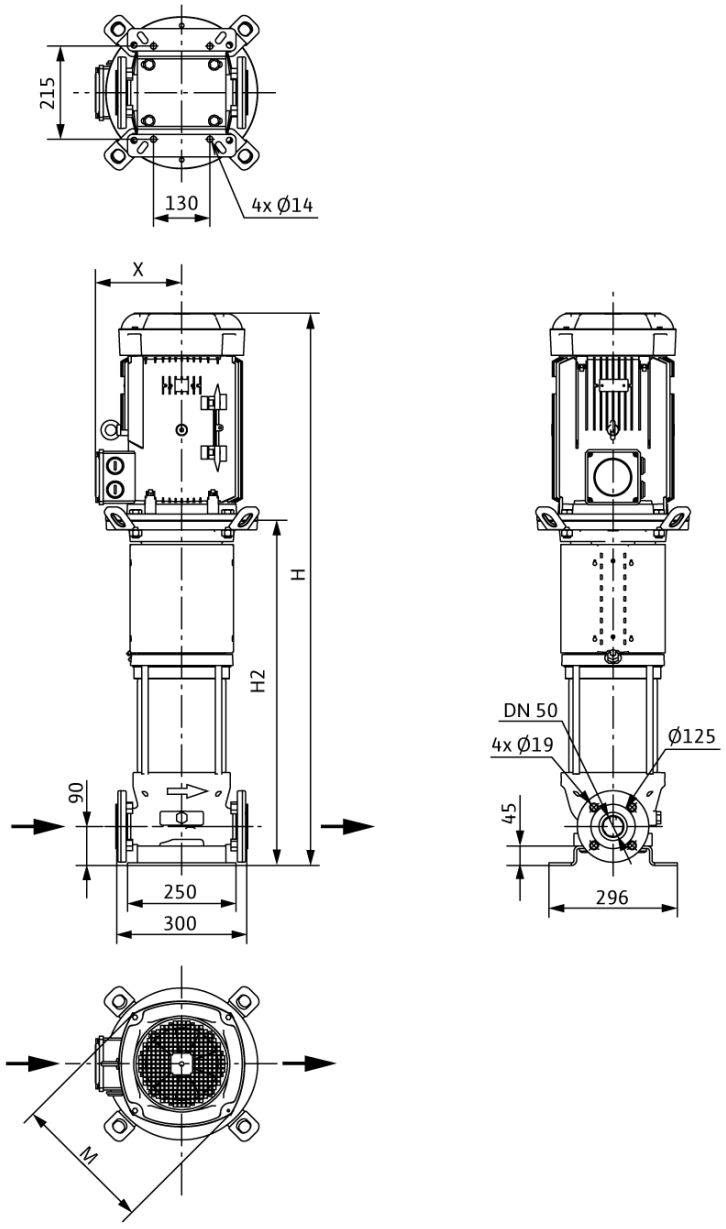
Helix V...	pump efficiency	pump motor efficiency	Motor housing	Mains connection 3~, standard version	Nominal motor power	Nominal current 3~220 V, 60 Hz	Nominal current 3~380 V, 60 Hz	Nominal current 3~440 V, 60 Hz	Motor Efficiency		
					P_2	I			$\eta_{m\ 50\%}$	$\eta_{m\ 75\%}$	$\eta_{m\ 100\%}$
			–	V	kW	A			%		
2201	C	C	90S/L	220/380	2.2	8.1	4.7	4.0	83.0	85.0	85.1
2202/2	B	C	112M	220/380	4.5	15.1	8.7	7.6	86.5	88.0	88.1
2202	C	C	132S	220/380	5.5	19.4	11.2	9.7	85.5	87.5	88.6
2203/2	B	B	132S	220/380	5.5	19.4	11.2	9.7	85.5	87.5	88.6
2203	C	C	132S	220/380	7.5	25.0	14.4	12.5	88.2	89.5	89.6
2204/3	B	B	132S	220/380	7.5	25.0	14.4	12.5	88.2	89.5	89.6
2204	C	B	160M	220/380	11	37.0	21.3	18.5	88.5	90.5	90.8
2205/3	B	B	160M	220/380	11	37.0	21.3	18.5	88.5	90.5	90.8
2205	C	B	160M	220/380	11	37.0	21.3	18.5	88.5	90.5	90.8
2206/3	B	B	160M	220/380	15	49.8	28.7	24.9	90.0	90.8	90.8
2206	B	B	160M	220/380	15	49.8	28.7	24.9	90.0	90.8	90.8
2207/1	C	B	160M	220/380	15	49.8	28.7	24.9	90.0	90.8	90.8
2208	B	B	160M	220/380	18.5	61.0	35.2	30.5	91.0	91.5	91.5
2209	–	–	180L	220/380	22	72.2	41.7	36.1	91.8	92.0	92.0

Motor efficiency based on 220 V, 60 Hz, given for reference since it depends on the make of themotor

Terminal diagram, motor data Wilo-Helix V 22..

Dimension drawing

Helix V 22



Dimensions, weights Wilo-Helix V 22..

Dimensions, weights PN 16

Helix V...	Dimensions				Weight of unit
	H	*H2*	*Ø M*	*X*	
	mm				kg
2201	870	541	179	157	64.5
2202/2	944	551	222	192	82.8
2202	1118	666	271	218	114.0
2203/2	1169	717	271	218	118.0
2203	1169	717	271	218	126.0
2204/3	1219	767	271	218	127.0
2204	1394	796	329	264	191.0
2205/3	1445	847	329	264	183.0
2205	1444	846	329	264	180.0

Dimensions H, X, M and weight; approximale values since it depends on the make of the motor

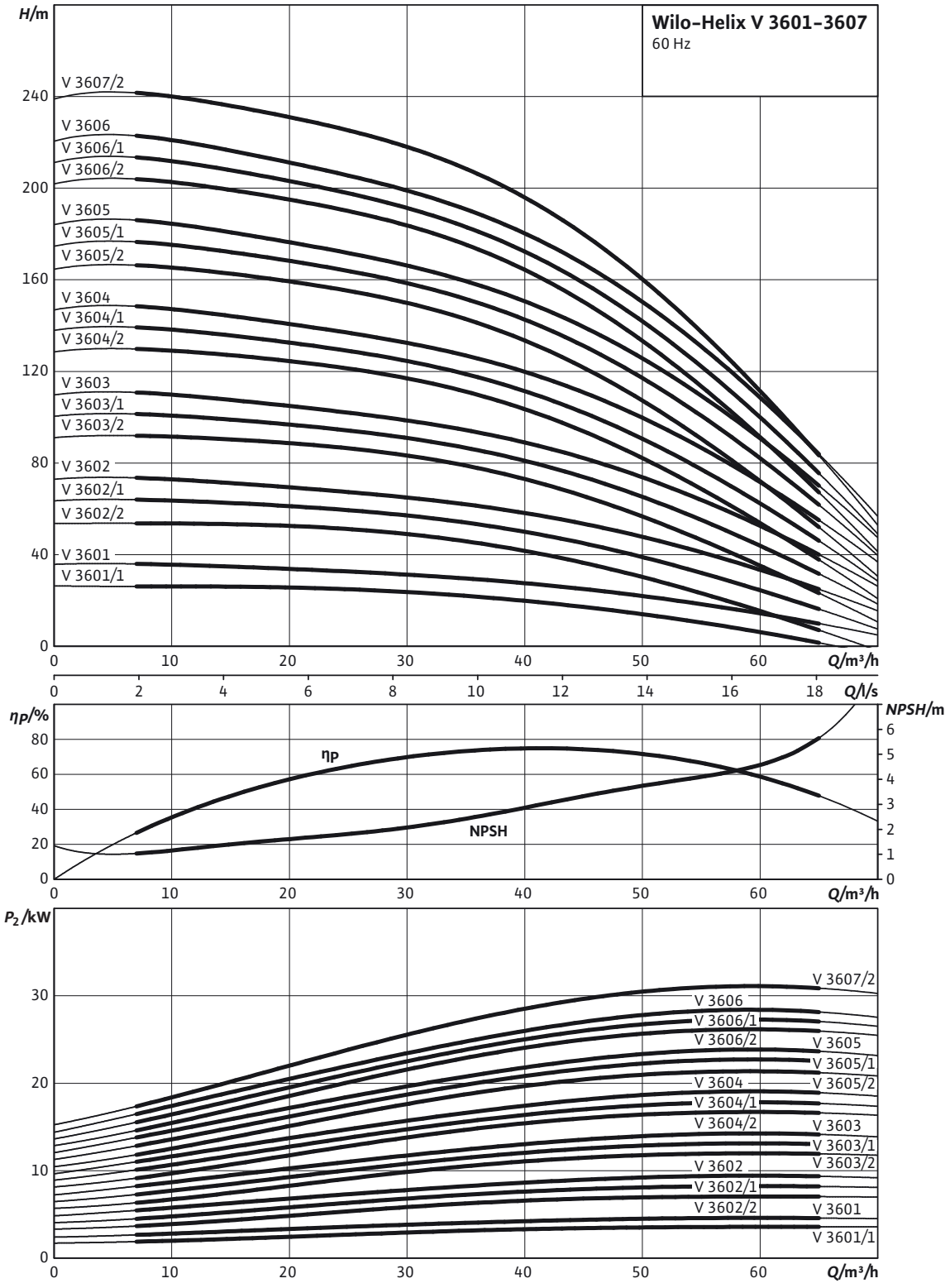
Dimensions, weights PN 25

Helix V...	Dimensions				Weight of unit
	H	*H2*	*Ø M*	*X*	
	mm				kg
2203/2	1169	717	271	218	118.0
2203	1169	717	271	218	126.0
2204/3	1219	767	271	218	127.0
2204	1394	796	329	264	191.0
2205/3	1445	847	329	264	183.0
2205	1444	846	329	264	180.0
2206/3	1495	897	329	264	185.0
2206	1495	897	329	264	186.0
2207/1	1545	947	329	264	187.0
2208	1595	997	329	264	197.0
2209	1749	1047	360	279	236.0

Dimensions H, X, M and weight; approximale values since it depends on the make of the motor

Pump curves Wilo-Helix V 36..

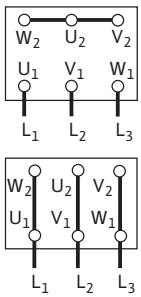
Pump curves Helix V 3601-3607



Terminal diagram, motor data Wilo-Helix V 36..

Electrical connection

≤ 4 kW

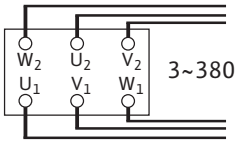


3~380 V Y

3~220 V Δ

Electrical connection

> 4 kW



3~380 V Y-Δ

Motor data

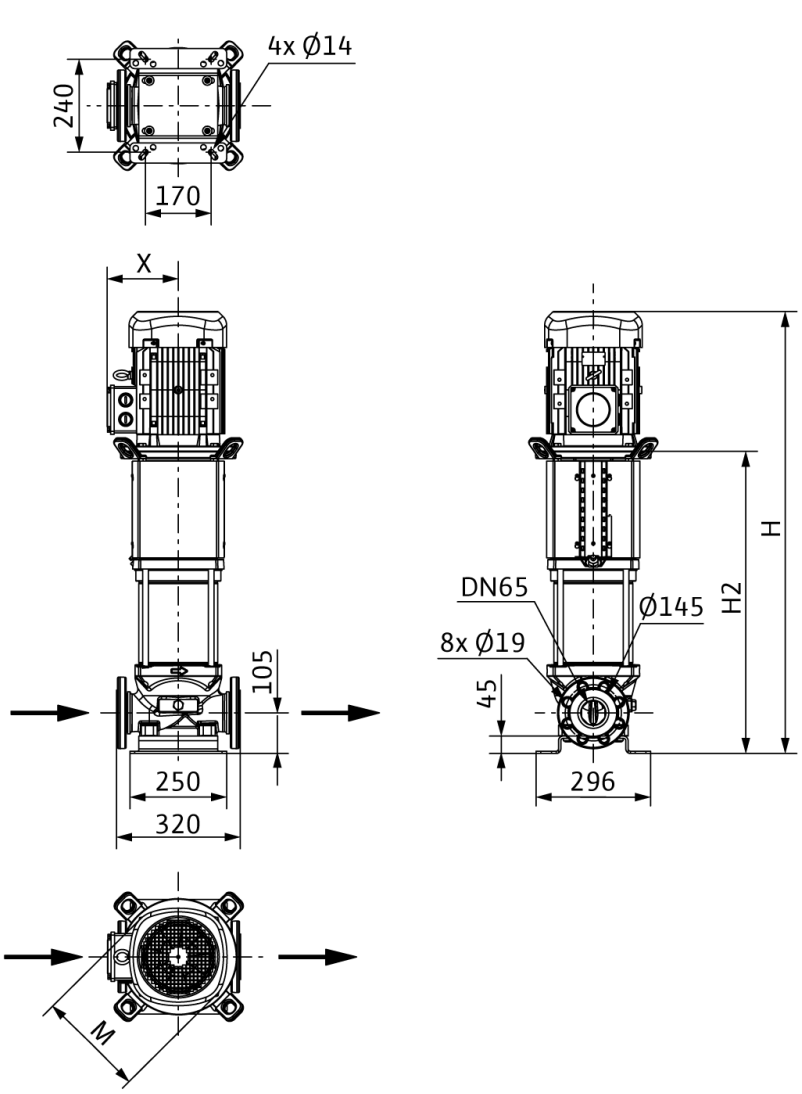
Helix V...	pump efficiency	pump motor efficiency	Motor housing	Mains connection 3~, standard version	Nominal motor power	Nominal current 3~220 V, 60 Hz	Nominal current 3~380 V, 60 Hz	Nominal current 3~440 V, 60 Hz	Motor Efficiency		
					P_2	I			$\eta_{m\ 50\%}$	$\eta_{m\ 75\%}$	$\eta_{m\ 100\%}$
			–	V	kW	A			%		
3601/1	D	E	112M	220/380	4.5	15.1	8.7	7.6	86.5	88.0	88.1
3601	D	D	112M	220/380	5.5	18.9	10.9	9.5	86.5	88.5	88.7
3602/2	D	D	132S	220/380	7.5	25.0	14.4	12.5	88.2	89.5	89.6
3602/1	D	D	132M	220/380	9.2	30.6	17.7	15.3	86.8	89.5	89.6
3602	C	C	132M	220/380	11	35.4	20.4	17.7	89.5	90.5	90.5
3603/2	C	C	160M	220/380	15	49.8	28.7	24.9	90.0	90.8	90.8
3603/1	C	C	160M	220/380	15	49.8	28.7	24.9	90.0	90.8	90.8
3603	C	C	160M	220/380	15	49.8	28.7	24.9	90.0	90.8	90.8
3604/2	C	C	160M	220/380	18.5	61.0	35.2	30.5	91.0	91.5	91.5
3604/1	C	C	160M	220/380	18.5	61.0	35.2	30.5	91.0	91.5	91.5
3604	C	C	180L	220/380	22	72.2	41.7	36.1	91.8	92.0	92.0
3605/2	–	–	180L	220/380	22	72.2	41.7	36.1	91.8	92.0	92.0
3605/1	–	–	200M	220/380	30	99.0	57.1	49.5	91.5	91.7	92.4
3605	–	–	200M	220/380	30	99.0	57.1	49.5	91.5	91.7	92.4
3606/2	–	–	200M	220/380	30	99.0	57.1	49.5	91.5	91.7	92.4
3606/1	–	–	200M	220/380	30	99.0	57.1	49.5	91.5	91.7	92.4
3606	–	–	200M	220/380	30	99.0	57.1	49.5	91.5	91.7	92.4
3607/2	–	–	200L	220/380	37	121.0	69.8	60.5	92.0	92.4	93.0

Motor efficiency based on 220 V, 60 Hz, given for reference since it depends on the make of themotor

Dimension drawing Wilo-Helix V 36..

Dimension drawing

Helix V 36



Dimensions, weights Wilo-Helix V 36..

Dimensions, weights PN 16

Helix V...	Dimensions				Weight of unit
	H	*H2*	*Ø M*	*X*	
	mm				kg
3601/1	925	532	222	192	94.8
3601	925	532	222	192	100.0
3602/2	1167	715	271	218	140.0
3602/1	1205	715	271	218	142.0
3602	1205	715	271	218	152.0
3603/2	1410	812	329	264	196.0
3603/1	1410	812	329	264	196.0
3603	1410	812	329	264	196.0
3604/2	1476	878	329	264	206.0
3604/1	1476	878	329	264	206.0
3604	1580	878	360	279	244.0

Dimensions H, X, M and weight; approximale values since it depends on the make of the motor

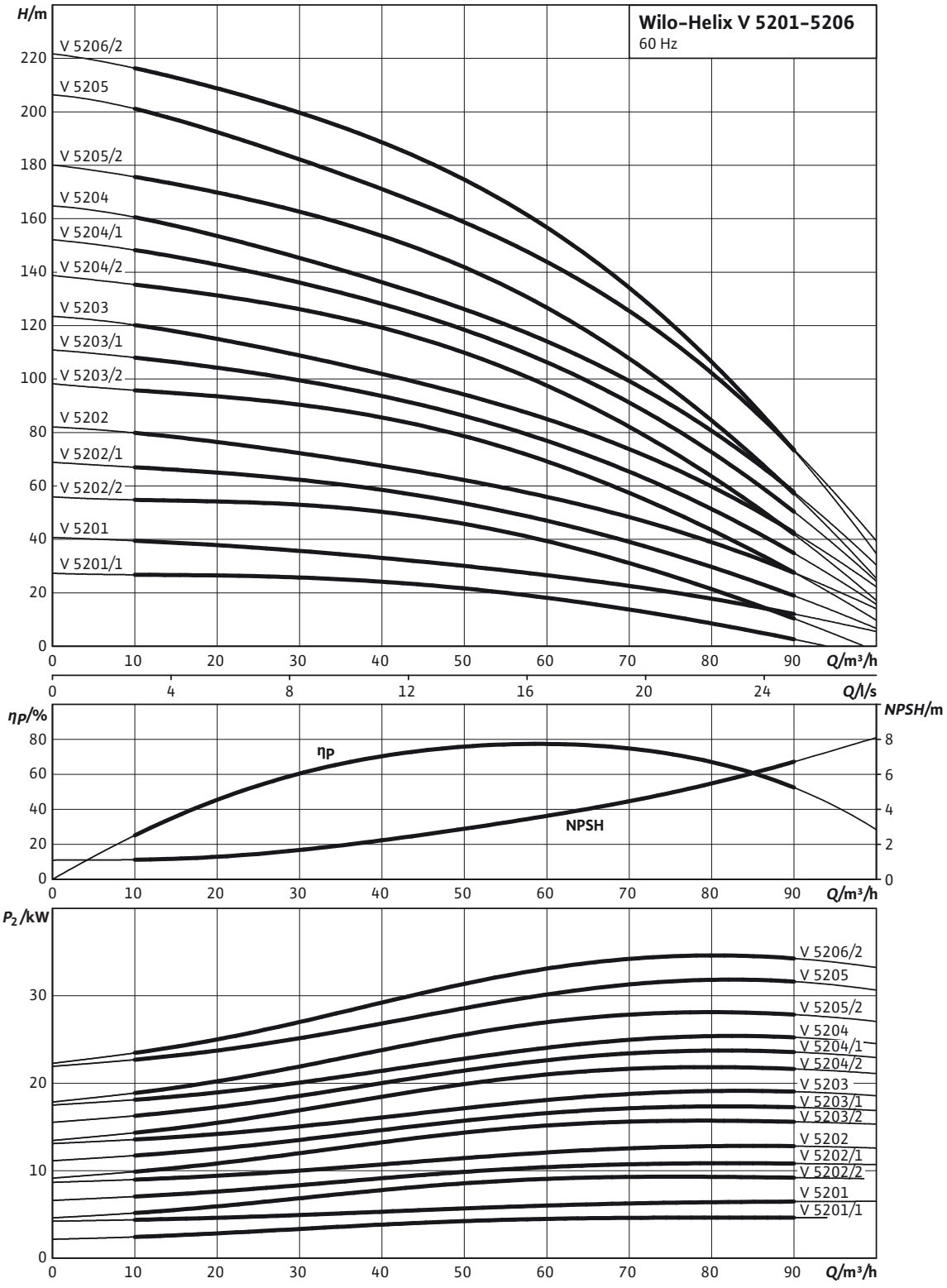
Dimensions, weights PN 25

Helix V...	Dimensions				Weight of unit
	H	*H2*	*Ø M*	*X*	
	mm				kg
3604/1	1476	878	329	264	206.0
3605/2	1647	945	360	279	247.0
3605/1	1674	945	402	317	310.0
3605	1674	945	402	317	310.0
3606/2	1741	1012	402	317	313.0
3606/1	1741	1012	402	317	313.0
3606	1741	1012	402	317	313.0
3607/2	1845	1078	402	317	332.0

Dimensions H, X, M and weight; approximale values since it depends on the make of the motor

Pump curves Wilo-Helix V 52..

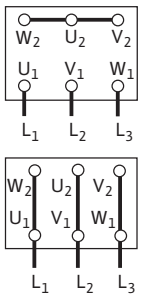
Pump curves Helix V 5201–5206



Terminal diagram, motor data Wilo-Helix V 52..

Electrical connection

≤ 4 kW

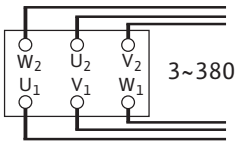


3~380 V Y

3~220 V Δ

Electrical connection

> 4 kW



3~380 V Y-Δ

Motor data

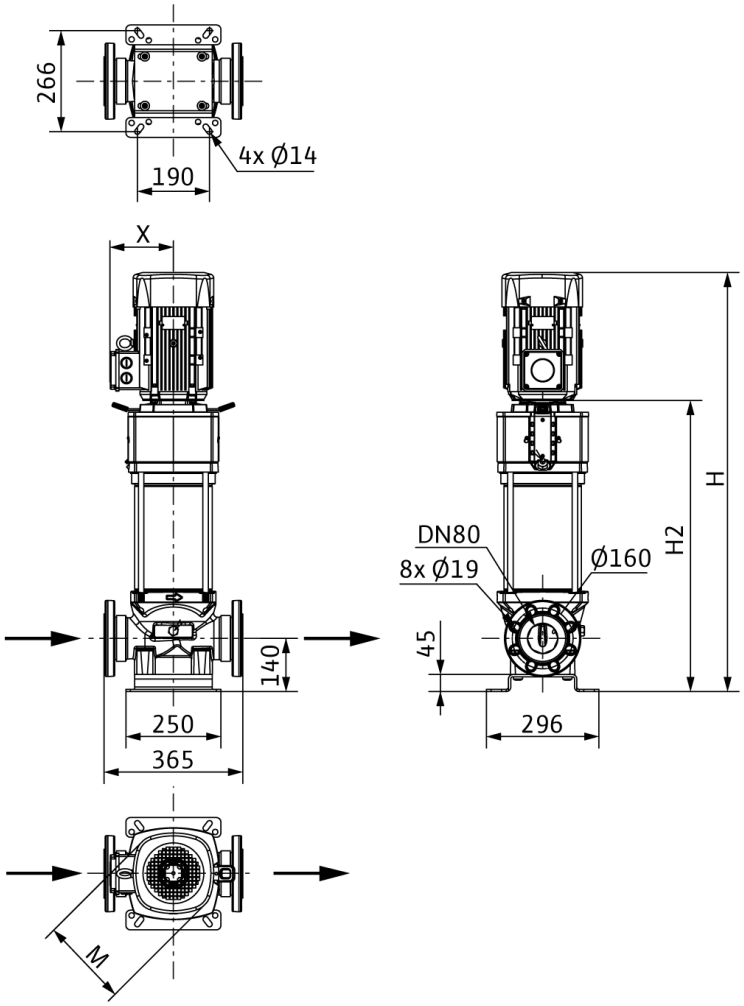
Helix V...	pump efficiency	pump motor efficiency	Motor housing	Mains connection 3~, standard version	Nominal motor power	Nominal current 3~220 V, 60 Hz	Nominal current 3~380 V, 60 Hz	Nominal current 3~440 V, 60 Hz	Motor Efficiency		
					P_2	I			$\eta_{m\,50\%}$	$\eta_{m\,75\%}$	$\eta_{m\,100\%}$
			–	V	kW	A			%		
5201	D	D	132S	220/380	7.5	25.0	14.4	12.5	88.2	89.5	89.6
5202/1	C	C	160M	220/380	11	37.0	21.3	18.5	88.5	90.5	90.8
5202	C	C	160M	220/380	15	49.8	28.7	24.9	90.0	90.8	90.8
5203/2	C	C	160M	220/380	18.5	61.0	35.2	30.5	91.0	91.5	91.5
5203/1	C	C	160M	220/380	18.5	61.0	35.2	30.5	91.0	91.5	91.5
5203	–	–	180L	220/380	22	72.2	41.7	36.1	91.8	92.0	92.0
5204/2	–	–	180L	220/380	22	72.2	41.7	36.1	91.8	92.0	92.0
5204/1	–	–	200M	220/380	30	99.0	57.1	49.5	91.5	91.7	92.4
5204	–	–	200M	220/380	30	99.0	57.1	49.5	91.5	91.7	92.4
5205/2	–	–	200M	220/380	30	99.0	57.1	49.5	91.5	91.7	92.4
5205	–	–	200L	220/380	37	121.0	69.8	60.5	92.0	92.4	93.0
5206/2	–	–	200L	220/380	37	121.0	69.8	60.5	92.0	92.4	93.0

Motor efficiency based on 220 V, 60 Hz, given for reference since it depends on the make of themotor

Dimension drawing Wilo-Helix V 52..

Dimension drawing

Helix V 52



Dimensions, weights Wilo-Helix V 52..

Dimensions, weights PN 16

Helix V...	Dimensions				Weight of unit
	H	*H2*	*Ø M*	*X*	
	mm				kg
5201/1	1135	683	271	218	141.0
5201	1135	683	271	218	149.0
5202/2	1411	813	329	264	206.0
5202/1	1411	813	329	264	206.0
5202	1411	813	329	264	206.0
5203/2	1511	913	329	264	217.0
5203/1	1511	913	329	264	217.0
5203	1615	913	360	279	255.0
5204/2	1715	1013	360	279	259.0

Dimensions H, X, M and weight; approximale values since it depends on the make of the motor

Dimensions, weights PN 25

Helix V...	Dimensions				Weight of unit
	H	*H2*	*Ø M*	*X*	
	mm				kg
5202/2	1411	813	329	264	206.0
5202/1	1411	813	329	264	206.0
5202	1411	813	329	264	206.0
5203/2	1511	913	329	264	217.0
5203/1	1511	913	329	264	217.0
5203	1615	913	360	279	255.0
5204/2	1715	1013	360	279	259.0
5204/1	1742	1013	402	317	322.0
5204	1742	1013	402	317	322.0
5205/2	1842	1113	402	317	326.0
5205	1880	1113	402	317	347.0
5206/2	1980	1213	402	317	351.0

Dimensions H, X, M and weight; approximale values since it depends on the make of the motor