4HR

4” submersible pumps

Clean water
(Maximum sand content 50 g/m³)

Domestic use

Civil use

Industrial use

PERFORMANCE RANGE

- Flow rate up to **420 l/min** (25.2 m³/h)
- Head up to **176 m**

APPLICATION LIMITS

- Maximum liquid temperature **+35 °C**
- Maximum sand content **50 g/m³**
- **200 m** immersion limit
- Installation:
  – vertical
  – horizontal up to **12 stages**
- Starts/hour: **20** at regular intervals
- Minimum flow rate for motor cooling **8 cm/s**
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

ELECTRIC MOTOR
– Single-phase 220-230 V - 50 Hz
– Three-phase 400 V - 50 Hz

Length of power cable:
– **2 m** powers from 0.37 to 2.2 kW
– **3.6 m** powers from 3 to 7.5 kW.

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3

EU REGULATION N. 547/2012

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY

INSTALLATION AND USE

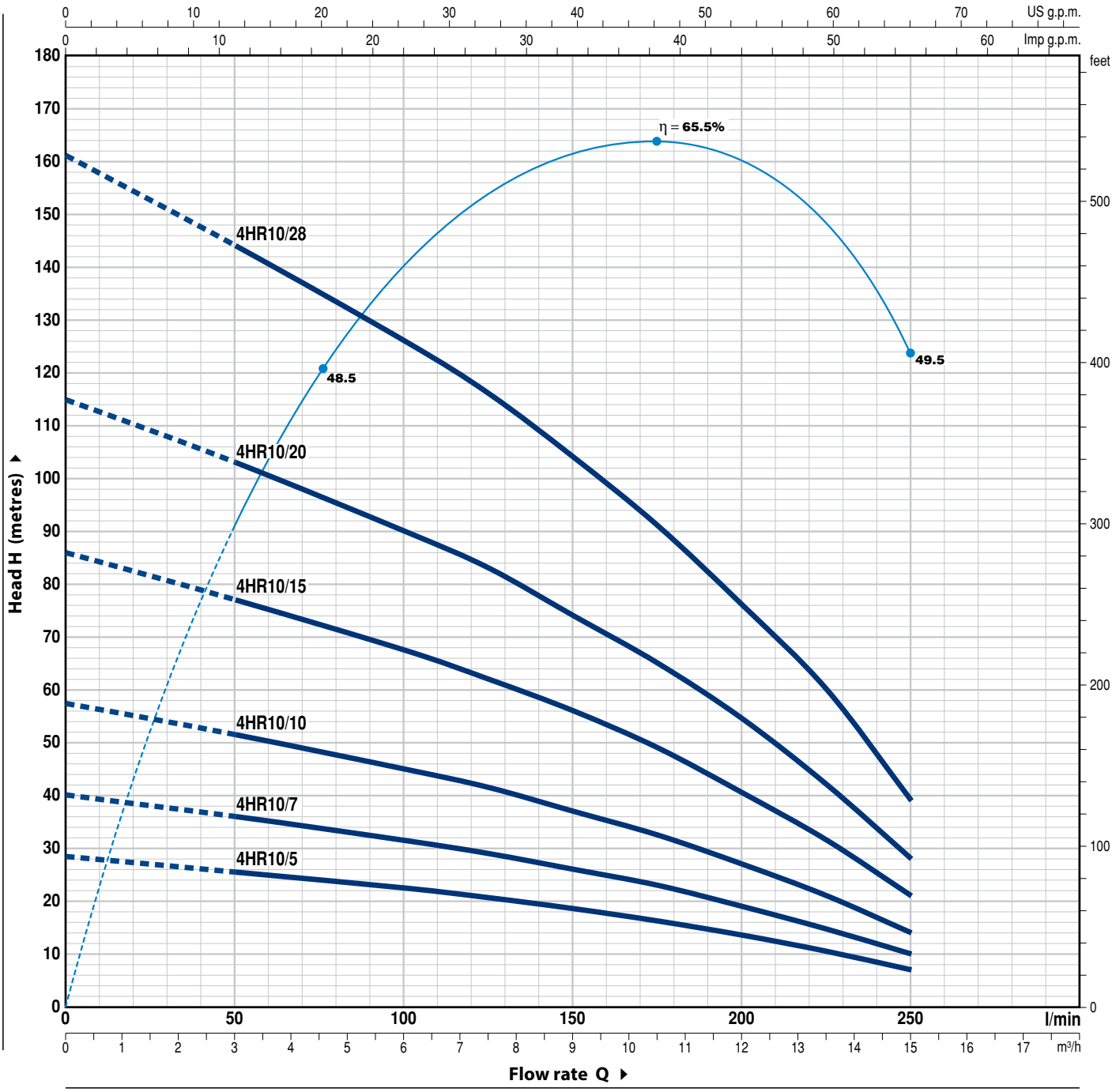
Suitable for use with clean water with a sand content of no more than 50 g/m³. Because of their high efficiency and reliability, they are suitable for use in domestic, civil and industrial applications such as for the distribution of water in combination with pressure tanks, for irrigation, for washing plants and for pressure boosting in fire-fighting sets, etc.

OPTIONS AVAILABLE ON REQUEST

- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min⁻¹



MODEL		POWER (P2)		Q	m³/h	0	3.0	6.0	7.5	9.0	10.5	12.0	13.5	15.0
Single-phase	Three-phase	kW	HP		l/min	**0**	**50**	**100**	**125**	**150**	**175**	**200**	**225**	**250**
4HRm 10/5	**4HR 10/5**	0.75	1	H	metres	28.5	25.5	22.5	20.7	18.6	16.3	13.6	10.5	7
4HRm 10/7	**4HR 10/7**	1.1	1.5			40	36	31.5	29	26	23	19	14.7	10
4HRm 10/10	**4HR 10/10**	1.5	2			57.5	51.5	45	41.5	37	32.5	27	21	14
4HRm 10/15	**4HR 10/15**	2.2	3			86	77	67.5	62	56	49	40.5	31.5	21
–	**4HR 10/20**	3	4			115	103	90	83	74	65	54.5	42	28
–	**4HR 10/28**	4	5.5			161	144	126	116	104	91	76	60	39

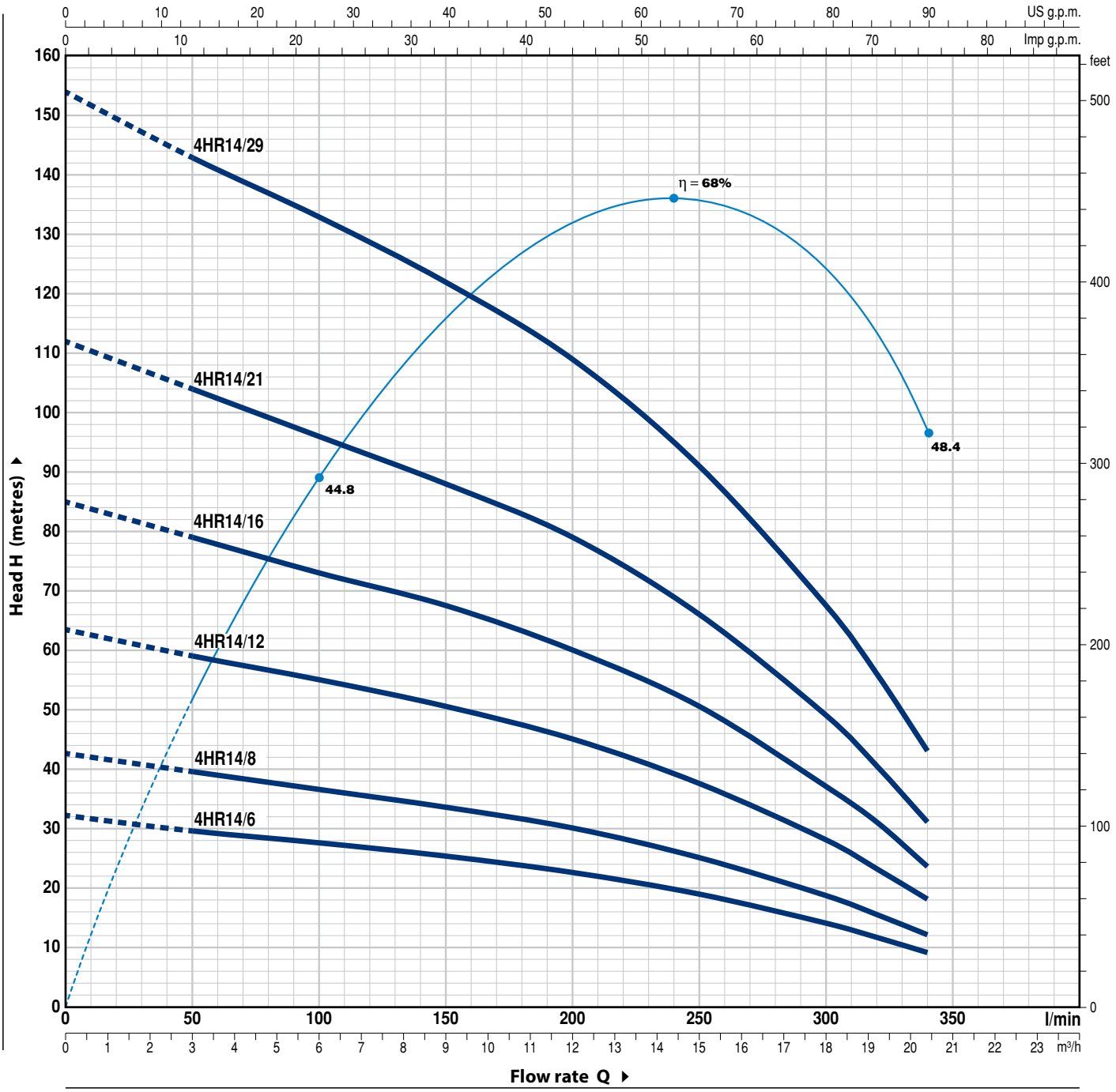
Q = Flow rate **H** = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

4HR14

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min^{-1}



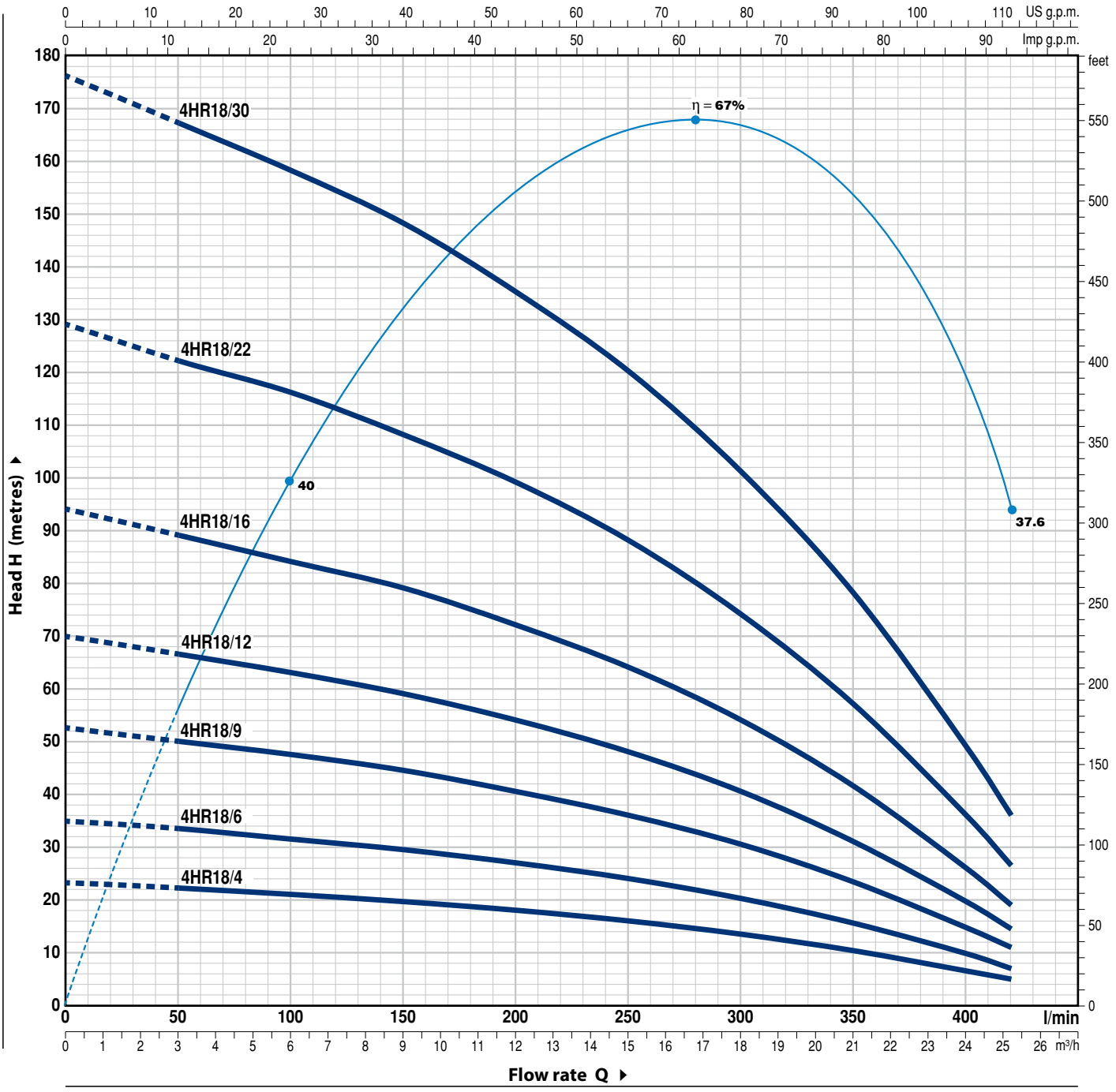
MODEL		POWER (P2)		Q	m³/h	0	3.0	6.0	9.0	12.0	15.0	18.0	19.2	20.4
Single-phase	**Three-phase**	**kW**	**HP**		l/min	**0**	**50**	**100**	**150**	**200**	**250**	**300**	**320**	**340**
4HRm 14/6	**4HR 14/6**	1.1	1.5			32	29.5	27.5	25.3	22.5	18.9	14	11.6	9
4HRm 14/8	**4HR 14/8**	1.5	2			42.5	39.5	36.5	33.5	30	25	18.6	15.4	12
4HRm 14/12	**4HR 14/12**	2.2	3	**H**	metres	63.4	59	55	50.5	45	37.5	28	23.1	18
–	**4HR 14/16**	3	4			85	79	73	67.5	60	50.5	37	31	23.5
–	**4HR 14/21**	4	5.5			112	104	96	88	79	66	49	40.5	31
–	**4HR 14/29**	5.5	7.5			154	143	133	122	109	91	67.5	56	43

Q = Flow rate **H** = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min⁻¹



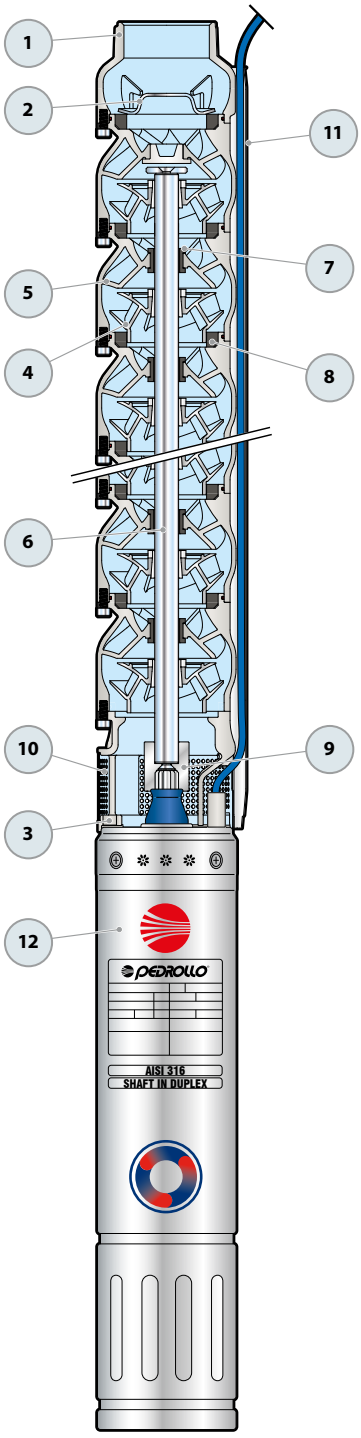
MODEL		POWER (P2)		Q	m³/h	0	3.0	6.0	9.0	12.0	15.0	18.0	21.0	24.0	25.2
Single-phase	**Three-phase**	**kW**	**HP**		l/min	**0**	**50**	**100**	**150**	**200**	**250**	**300**	**350**	**400**	**420**
4HRm 18/4	**4HR 18/4**	1.1	1.5			23.4	22	21	19.7	18	16	13.5	10.4	6.6	5
4HRm 18/6	**4HR 18/6**	1.5	2			35	33.5	31.5	29.5	27	24	20.3	15.6	9.8	7
4HRm 18/9	**4HR 18/9**	2.2	3			52.5	50	47.5	44.5	40.5	36	30.5	23.4	14.8	11
–	**4HR 18/12**	3	4	**H**	metres	70	66.5	63	59	54	48	40.5	31	19.7	14.5
–	**4HR 18/16**	4	5.5			94	89	84	79	72	64	54	41.5	26	19
–	**4HR 18/22**	5.5	7.5			129	122	116	108	99	88	74	57	36	26.5
–	**4HR 18/30**	7.5	10			176	167	158	148	135	120	101	78	49	36

Q = Flow rate **H** = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

4HR

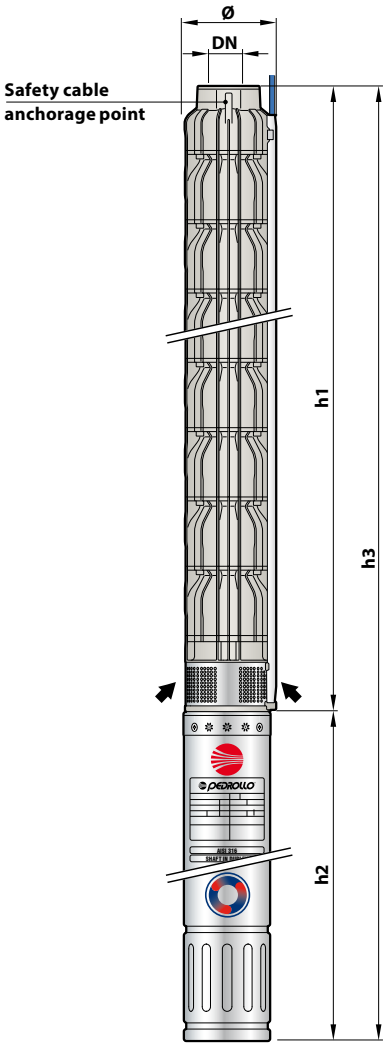
POS.	COMPONENT	CONSTRUCTION CHARACTERISTICS
1	**DELIVERY BODY**	Precision cast stainless steel AISI 304 complete with threaded delivery port in compliance with ISO 228/1
2	**NON-RETURN VALVE**	Stainless steel AISI 304
3	**MOTOR BRACKET**	Precision cast stainless steel AISI 304 in compliance with NEMA standards
4	**IMPELLERS**	Precision cast stainless steel AISI 304
5	**DIFFUSERS**	Precision cast stainless steel AISI 304
6	**PUMP SHAFT**	Stainless steel AISI 304
7	**PUMP BEARINGS**	Special elastomer
8	**WEAR RINGS**	Special elastomer
9	**DRIVE COUPLING**	Stainless steel AISI 304
10	**FILTER**	Stainless steel AISI 304
11	**CABLE COVER**	Stainless steel AISI 304
12	**MOTOR 4”**	4PD = “PEDROLLO” oil filled motor



DIMENSIONS AND WEIGHT

MODEL	PORT	DIMENSIONS mm				kg
Single-phase	DN	Ø	h1	h2	h3	1~
4HRm 10/5 - PD	2"	100	511	356	867	19.7
4HRm 10/7 - PD			657	396	1053	23.8
4HRm 10/10 - PD			876	437	1313	31.0
4HRm 10/15 - PD			1241	492	1733	38.7
4HRm 14/6 - PD			584	396	980	21.0
4HRm 14/8 - PD			730	437	1167	25.2
4HRm 14/12 - PD			1022	492	1514	33.7
4HRm 18/4 - PD			438	396	834	18.4
4HRm 18/6 - PD			584	437	1021	22.6
4HRm 18/9 - PD			803	492	1295	29.8

MODEL	PORT	DIMENSIONS mm				kg
Three-phase	DN	Ø	h1	h2	h3	3~
4HR 10/5 - PD	2"	100	511	356	867	18.9
4HR 10/7 - PD			657	371	1028	22.3
4HR 10/10 - PD			876	396	1272	27.8
4HR 10/15 - PD			1241	437	1678	35.9
4HR 10/20 - PD			1606	450	2056	45.4
4HR 10/28 - PD			2190	505	2695	59.6
4HR 14/6 - PD			584	371	955	20.2
4HR 14/8 - PD			730	396	1126	23.6
4HR 14/12 - PD			1022	437	1459	30.4
4HR 14/16 - PD			1314	450	1764	37.2
4HR 14/21 - PD			1679	505	2184	46.7
4HR 14/29 - PD			2263	590	2853	61.1
4HR 18/4 - PD			438	371	809	17.6
4HR 18/6 - PD			584	396	980	21.0
4HR 18/9 - PD			803	437	1240	26.5
4HR 18/12 - PD			1022	450	1472	32.0
4HR 18/16 - PD			1314	505	1819	40.2
4HR 18/22 - PD			1752	590	2342	51.9
4HR 18/30 - PD			2336	800	3136	70.8



DIMENSIONS AND WEIGHT (PUMP ONLY)

MODEL	PORT	DIMENSIONS mm			kg
Pump	DN	Ø	h1	h	
4HR 10/5 - HYD	2"	100	511	514	8.8
4HR 10/7 - HYD			657	660	11.5
4HR 10/10 - HYD			876	879	15.4
4HR 10/15 - HYD			1241	1244	22.0
4HR 10/20 - HYD			1606	1609	28.5
4HR 10/28 - HYD			2190	2193	39.0
4HR 14/6 - HYD			584	587	10.2
4HR 14/8 - HYD			730	733	12.8
4HR 14/12 - HYD			1022	1025	18.0
4HR 14/16 - HYD			1314	1317	23.3
4HR 14/21 - HYD			1679	1682	29.9
4HR 14/29 - HYD			2263	2266	40.4
4HR 18/4 - HYD			438	441	7.5
4HR 18/6 - HYD			584	587	10.2
4HR 18/9 - HYD			803	806	14.1
4HR 18/12 - HYD			1022	1025	18.0
4HR 18/16 - HYD			1314	1317	23.3
4HR 18/22 - HYD			1752	1755	31.2
4HR 18/30 - HYD			2336	2339	41.7