PEDROLLO®

Submersible Motor and Pump

Stainless Steel Bore Holes Submersible Pumps

WPR-SP Series

4PD - 4” Submersible Oil Filled Motors

TECHNICAL CHARACTERISTICS

- 4” submersible oil filled motors
- Motor sleeve made of stainless steel AISI 316
- Shaft made of “DUPLEX” stainless steel
- High quality mechanical seal

PERFORMANCE RANGE

- Powers from 0.37 to 7.5 kW

APPLICATION LIMITS

- Maximum liquid temperature +35 °C
- 100 m immersion limit
- Starts/hour: 20 at regular intervals
- Minimum flow rate for motor cooling 8 cm/s
- Continuous service S1

ELECTRIC MOTOR

- 2 pole electric motor, 50 Hz (n ~ 2900 1/min)
- Voltage:
  – single-phase 230 V up to 2.2 kW
  – three-phase 400 V
- Insulation: F class
- Protection: IP 68

CONSTRUCTION AND SAFETY STANDARDS

Rewindable submersible oil filled motor (oil type vegetable).
Flange coupling dimensions in compliance with NEMA standards.

Complete with power cable of the following length:
– 1.7 m for powers from 0.37 to 3 kW
– 2.7 m for powers from 4 to 7.5 kW.

- Single-phase versions come with a capacitor included in the packaging.

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

CE

CERTIFICATIONS

COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY

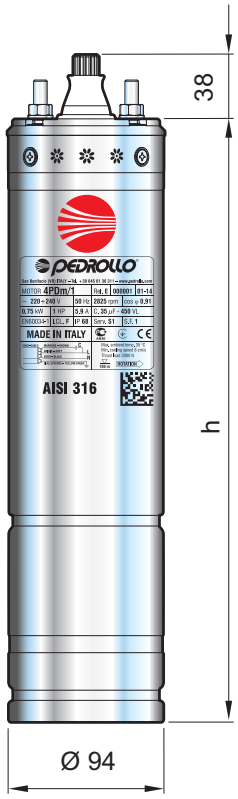
АИ30

ПРОМТЕСТ-168

PERFORMANCE DATA

Single-phase versions

MODEL	Rated power P2		Axial load	Revs	Starting current / Rated current	Power factor	Capacitor (VL=450V)	h	Weight
230 V / 50 Hz	kW	HP	N	1/min		cos ϕ	F	mm	kg
4PDm / 0.50	0.37	0.50	2000	2800	3.3	0.86	20	311	6.5
4PDm / 0.75	0.55	0.75		2810	3.5	0.89	25	331	7.2
4PDm / 1	0.75	1		2825	3.2	0.91	35	356	8.5
4PDm / 1.5	1.1	1.5		2840	3.2	0.93	40	386	10.2
4PDm / 2	1.5	2		2845	3.3	0.93	60	436	11.7
4PDm / 3	2.2	3		2820	3.1	0.94	75	481	15.0



Three-phase versions

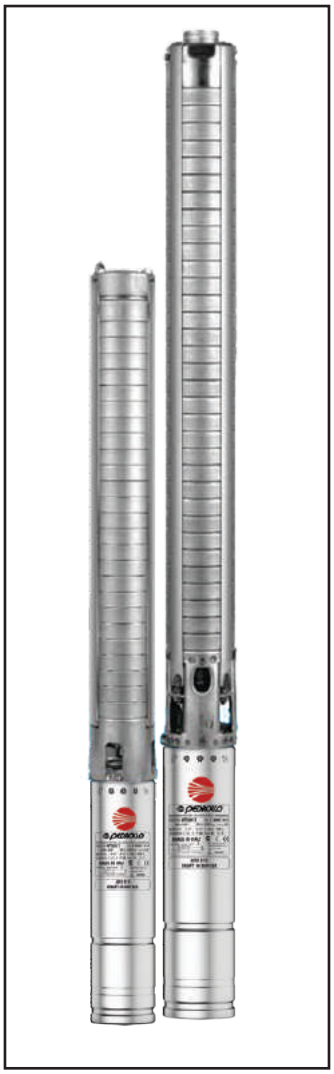
MODEL	Rated power P2		Axial load	Revs	Starting current / Rated current	Power factor	h	Weight
400 V / 50 Hz	kW	HP	N	1/min		cos ϕ	mm	kg
4PD / 0.50	0.37	0.50	2000	2855	3.2	0.52	311	6.5
4PD / 0.75	0.55	0.75		2835	4	0.63	331	7.2
4PD / 1	0.75	1		2825	3.8	0.71	356	8.5
4PD / 1.5	1.1	1.5		2825	4.6	0.79	371	9.4
4PD / 2	1.5	2		2835	3.8	0.66	386	10.2
4PD / 3	2.2	3		2810	6.5	0.73	436	11.7
4PD / 4	3	4	3000	2840	5.6	0.79	505	15.0
4PD / 5.5	4	5.5	5000	2835	5.4	0.77	610	20.1
4PD / 7.5	5.5	7.5		2830	5.5	0.87	700	24.7
4PD / 10	7.5	10		2840	5.4	0.76	800	29.0

ABSORPTION

MODEL	**VOLTAGE(single-phase)**
Single-phase	**230 V**
4PDm / 0.50	**3.6 A**
4PDm / 0.75	**4.7 A**
4PDm / 1	**5.9 A**
4PDm / 1.5	**8.3 A**
4PDm / 2	**10.7A**
4PDm / 3	**15.2A**

MODEL	VOLTAGE (three-phase)			
Three-phase	230 V	400 V	240 V	415 V
4PD / 0.50	3.1A	1.8A	3.0 A	1.7A
4PD / 0.75	3.5 A	2.0 A	3.3 A	1.9A
4PD / 1	4.3 A	2.5 A	4.2 A	2.4 A
4PD / 1.5	5.8 A	3.4 A	5.6 A	3.2 A
4PD / 2	8.3 A	4.8 A	8.0 A	4.6 A
4PD / 3	10.6A	6.1A	10.2A	5.9 A
4PD / 4	12.3A	7.1A	11.8A	6.8 A
4PD / 5.5	15.9A	9.2A	15.2A	8.8 A
4PD / 7.5	20.2 A	11.7A	19.4A	11.2A
4PD / 10	28.4 A	16.4A	27.2A	15.8A

4” Stainless Steel Submersible Pumps



WPR-SP 4” range of submersible pumps are made of corrosion and abrasion resistant stainless steel and have been developed in accordance with state-of-the-art technology. The WPR-SP 4” pumps are manufactured to the highest standards for energy efficiency, dependable performance, rugged construction, and long service life.

Capacity (m^3/h) min 0.3 max 18
Total Head : Max. 285 m.

Applications

- Portable water supply from deep wells
- Agricultural-Irrigation, livestock watering, etc.
- Municipal and industrial
- Pressure boosting
- Fountains, etc.

Pumped Liquids

- Clean, non-corrosive and non-abrasive liquids.

Operating Condition

- Max. ambient temperature (Liquid) : 30°C
- Sand content : Max. 50 g/m^3

Features

- Stainless steel construction designed and built for years of trouble free operation
- All metal parts are made of 304 stainless steel, except for the shaft, which is made of 431 stainless steel
- Heavy duty stainless steel discharge head with built-in check valve for long life and ease of installation
- Smooth safety hook
- Mounting specifications are according to NEMA standards
- High quality shaft bearings providing low friction and high wear resistance
- Heavy duty stainless steel impellers & diffusers ensuring optimal performance
- Stainless steel strainer to restrict the entry of sand and other extraneous material

Coding System

e.g. WPR-SP 95-5 m

XXXX XX-XX X

Type range

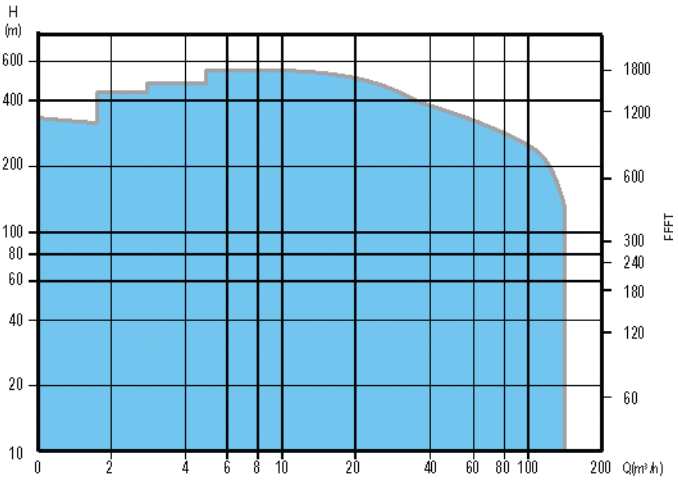
WPR-SP : Stainless Steel Bore Holes
Submersible pumps

Rated flow rate (m^3/h)

Number of stages

Single-phase motor

- Single-phase motor (220 V) (with coding “m”)
- Three-phase motor (380 V) (without coding “m”)



WPR-SP range are submersible bore holes or deep well pumps and submersible up t a depth of 250m. Fully constructed in stainless steel material to withstand corrosions and erosions. Light weight, strong and robust, the pumps is able to deliver the performance required in a difficult condition and site situation.

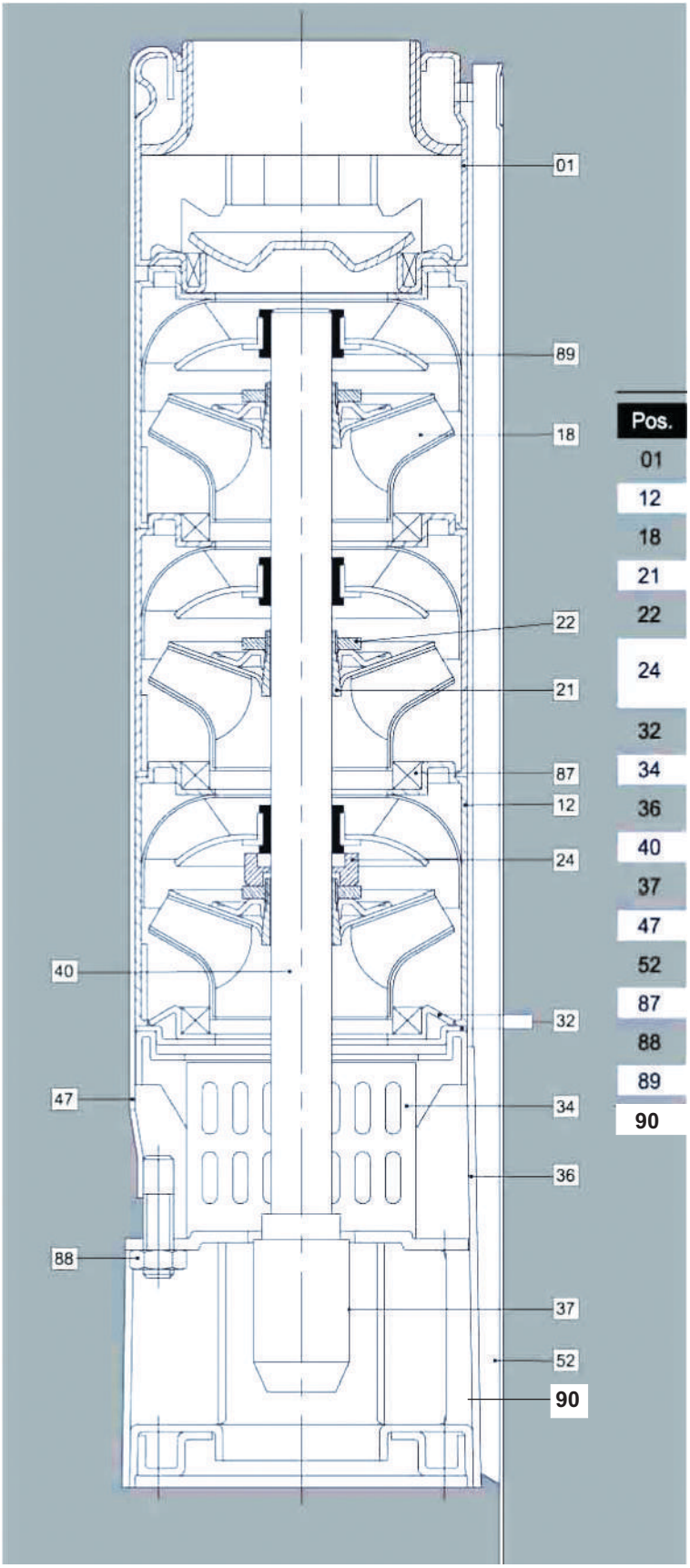
Flange: RP / NPT treaded - Female
Materials: SS304 or SS 316
Mounting: - Horizontal or Vertical position

DN 100-300mm (4" - 12")
Q 0.3 - 120 m^3/hr - 50 Hz
1 - 165 m^3/hr - 60 Hz
O.P. 50bar
H up to 550m
Ns up to 3,600rpm
t up to 30°C

Applications:

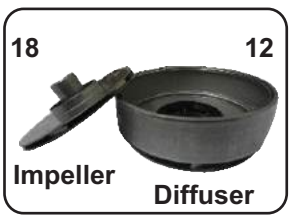
- Portable water supply from deep well / Bore Holes
- Agricultural-Irrigations in domestic and live stock
- Reverse osmosis - RO
- Dewatering for Mines
- Municipal supply and distribution pressure booster
- Land scaping - Fountains and Golf course irrigations.

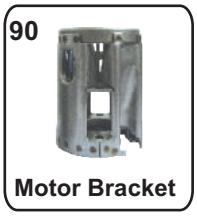
General Data



Material Specification-4” Pumps

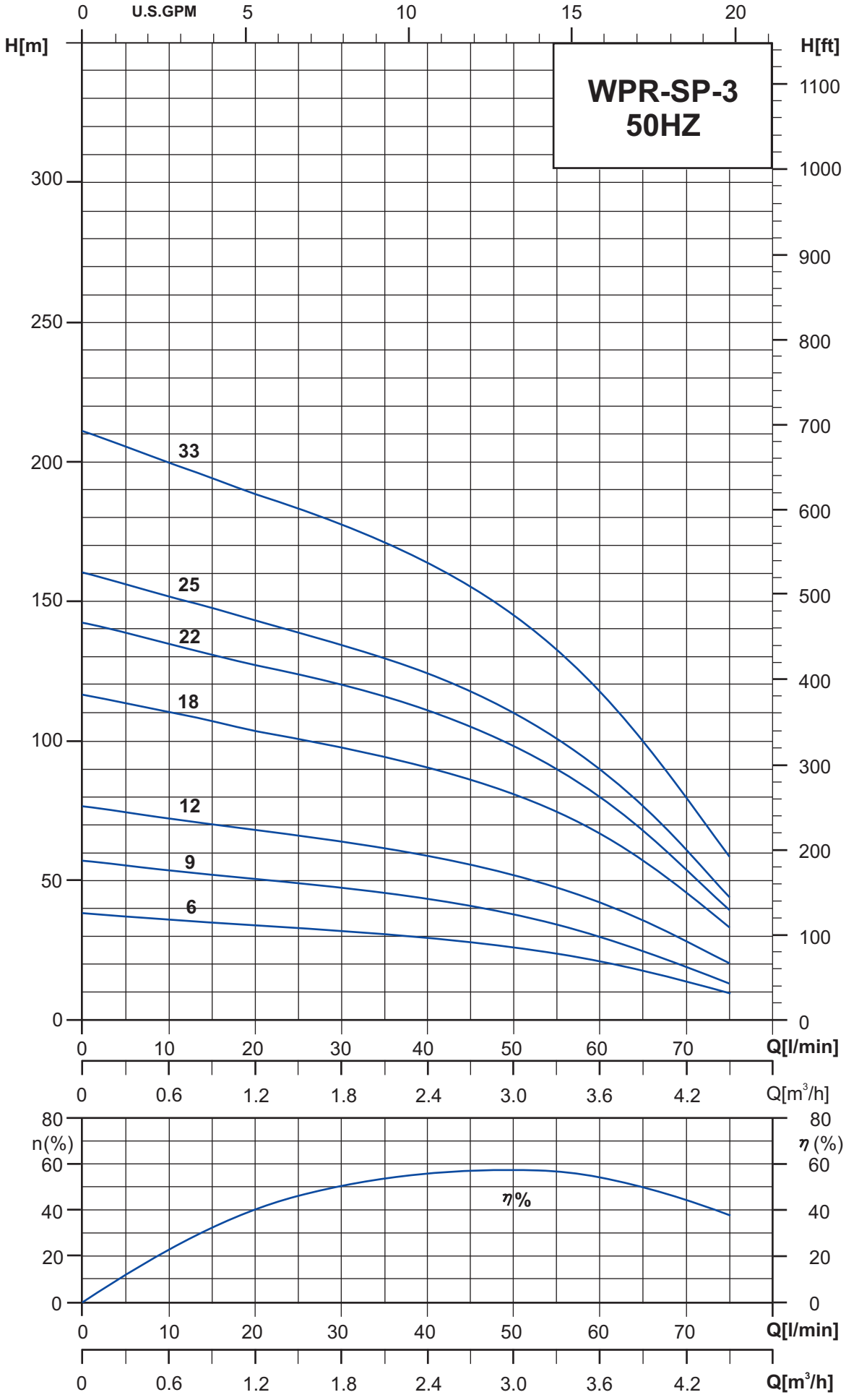
Pos.	Component	Materials	Standard
01	Discharge	Stainless Steel	304
12	Diffuser	Stainless Steel	304
18	Impeller	Stainless Steel	304
21	Split Cone	Stainless Steel	304
22	Split Cone Nut	Stainless Steel	304
24	Stop Ring	Carbon/ Graphite/PTFE	
32	Neck Ring Retainer	Stainless Steel	304
34	Strainer	Stainless Steel	304
36	Suction Interconnector	Stainless Steel	304
40	Pump Shaft	Stainless Steel	431
37	Coupling	Stainless Steel	304
47	Strap	Stainless Steel	304
52	Cable Guard	Stainless Steel	304
87	Neck Ring	SUS304+NBR	
88	Nut	Stainless Steel	304
89	Bearing	NBR	
90	Motor Bracket	Stainless Steel	304





Performance Curva

WPR-SP-3



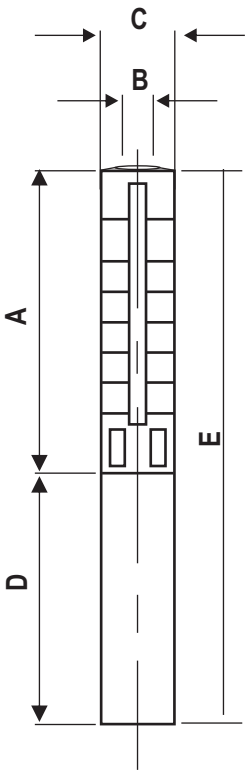
WPR-SP-3

Selection Chart

Pump Type		STAGES	kW	HP	Q=DELIVERY																
					l/min 0	5	10	15	20	25	30	35	40	45	50	60	70	80	90	100	120
					m^3/h 0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0	3.6	4.2	4.8	5.4	6.0	7.2
Single-phase	Three-phase				H=TOTAL HEAD IN METER																
WPR-SP-306m	—	6	0.37	0.5	38					33	32	31	30	28	26	22	14				
WPR-SP-309m	—	9	0.55	0.75	57					49	47	46	44	41	38	30	19				
WPR-SP-312m	—	12	0.75	1.0	77					66	64	62	58	56	52	43	28				
WPR-SP-318m	—	18	1.1	1.5	116					101	97	94	90	85	80	67	45				
WPR-SP-322m	WPR-SP-322	22	1.5	2.0	143					127	120	115	110	105	97	80	54				
WPR-SP-325m	WPR-SP-325	25	1.5	2.0	160					139	134	128	124	117	110	90	60				
—	WPR-SP-333	33	2.2	3.0	211					183	177	172	164	155	145	118	80				

Selection Chart 1Phase

Pump Type	Dimensions(mm)					Weight(Kg)
Single-phase	A	B	C	D	E	
WPR-SP-306m	293	RP/NPT 1 1/4"	98	349	642	8.9
WPR-SP-309m	356		98	369	725	10.2
WPR-SP-312m	419		98	394	813	12.1
WPR-SP-318m	545		98	424	969	14.9
WPR-SP-322m	629		98	474	1103	17.2
WPR-SP-325m	692		98	474	1166	17.8

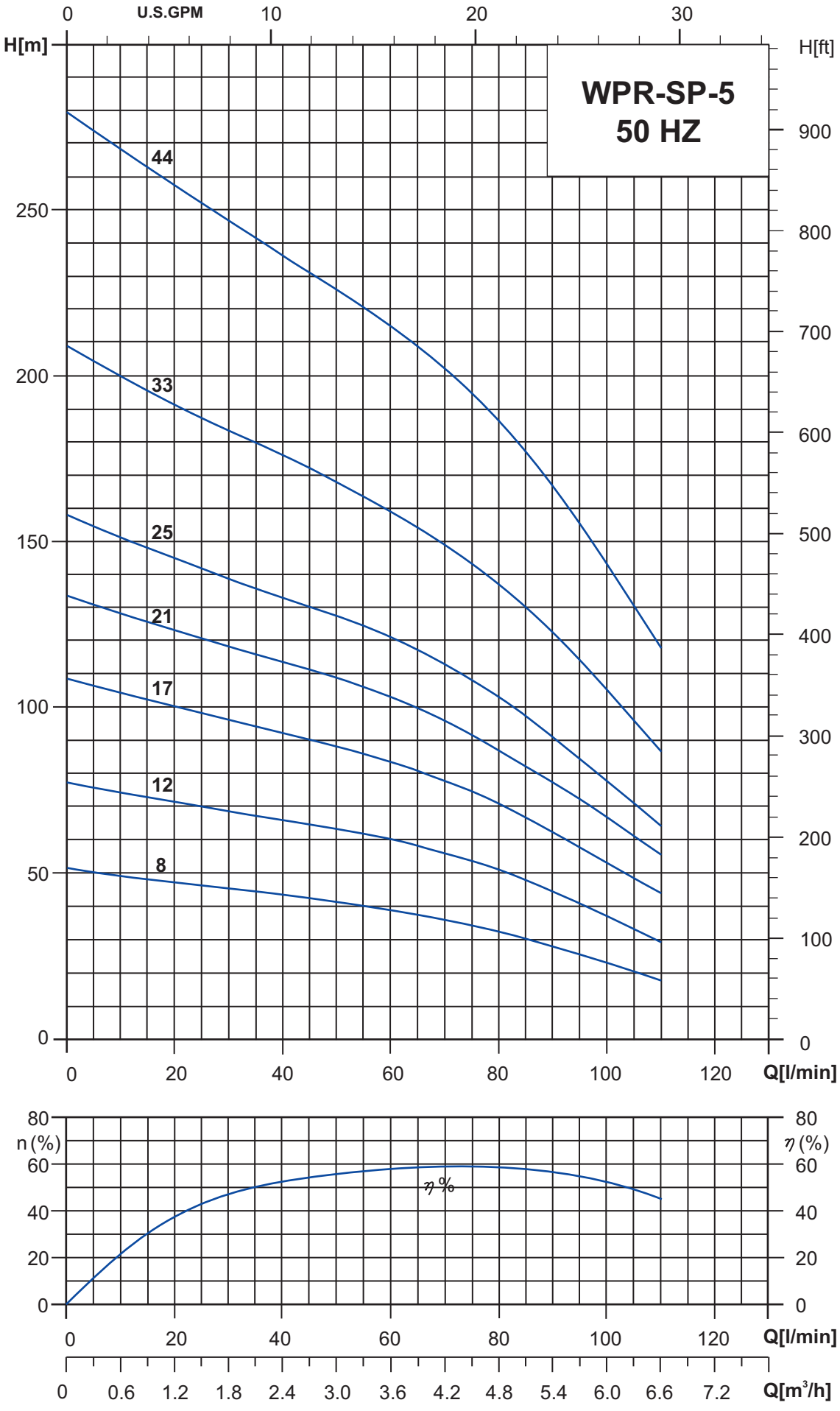


Selection Chart 3Phase

Pump Type	Dimensions(mm)					Weight(Kg)
Three-phase	A	B	C	D	E	
WPR-SP-322	629	RP/NPT 1 1/4"	98	424	1053	15.7
WPR-SP-325	692		98	424	1116	16.3
WPR-SP-333	883		98	474	1357	21.4

Performance Curva

WPR-SP-5



WPR-SP-5

Selection Chart

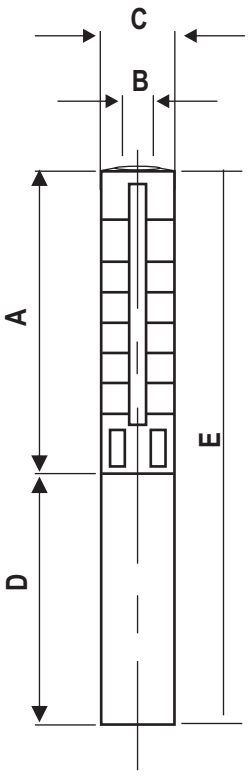
Pump Type		STAGES	kW	HP	Q=DELIVERY																
					l/min 0	15	20	25	30	35	40	45	50	60	70	80	90	100	120	140	160
					m^3/h 0	0.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0	3.6	4.2	4.8	5.4	6.0	7.2	8.4	9.6
Single-phase	Three-phase				H=TOTAL HEAD IN METER																
WPR-SP-508m	—	8	0.75	1.0	52				45	44	43	42	41	39	36	33	28	23			
WPR-SP-512m	—	12	1.1	1.5	77				68	67	66	64	63	60	56	50	44	37			
WPR-SP-517m	WPR-SP-517	17	1.5	2.0	108				96	94	93	90	88	84	77	70	63	54			
WPR-SP-521m	WPR-SP-521	21	2.2	3.0	134				118	115	113	111	108	103	96	87	77	67			
WPR-SP-525m	WPR-SP-525	25	2.2	3.0	157				138	136	133	129	127	121	113	103	90	78			
—	WPR-SP-533	33	3.0	4.0	209				184	180	176	172	168	159	149	137	123	105			
—	WPR-SP-544	44	4.0	5.5	279				247	242	237	231	226	215	202	187	166	143			

Selection Chart 1Phase

Pump Type	Dimensions(mm)					Weight(Kg)
Single-phase	A	B	C	D	E	
WPR-SP-508m	335	RP/NPT 1 1/2"	98	394	729	11.3
WPR-SP-512m	419		98	424	843	13.8
WPR-SP-517m	524		98	474	998	16.2
WPR-SP-521m	608		98	519	1127	20.3
WPR-SP-525m	692		98	519	1112	21.0

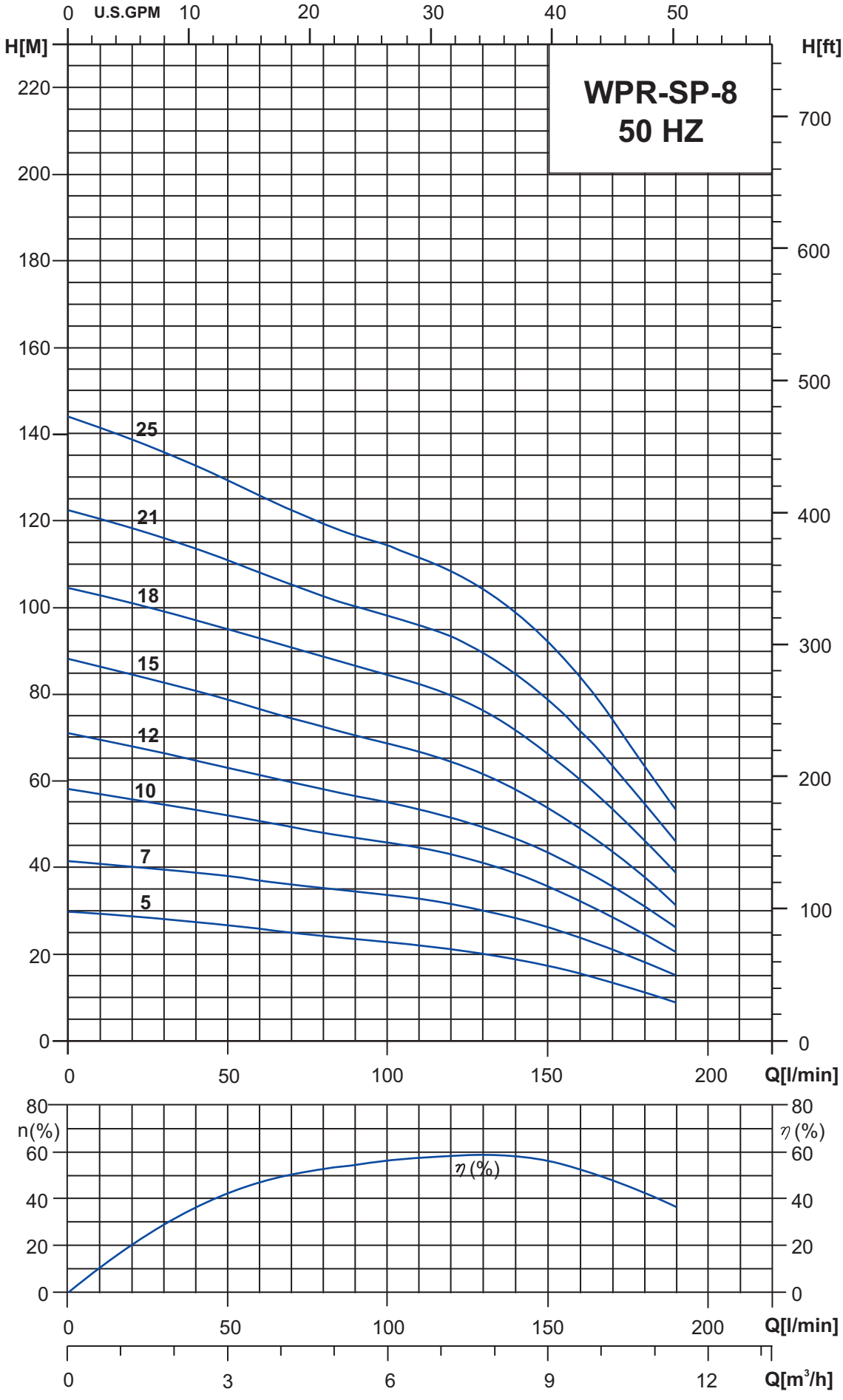
Selection Chart 3Phase

Pump Type	Dimensions(mm)					Weight(Kg)
Three-phase	A	B	C	D	E	
WPR-SP-517	524	RP/NPT 1 1/2"	98	424	948	14.7
WPR-SP-521	608		98	474	1082	14.5
WPR-SP-525	692		98	474	1166	17.7
WPR-SP-533	868		98	560	1428	24.6
WPR-SP-544	1099		98	560	1747	37.1



Performance Curva

WPR-SP-8

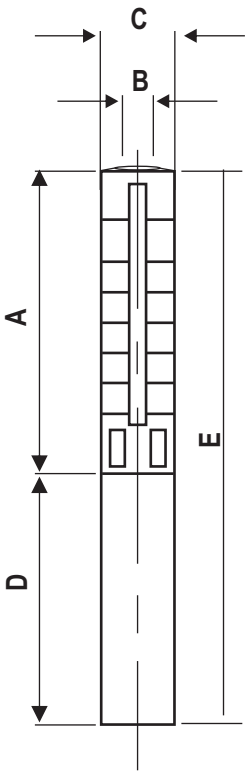


Selection Chart

Pump Type		STAGES	kW	HP	Q=DELIVERY																	
					l/min 0	30	35	40	45	50	60	70	80	90	100	120	140	160	180	200	250	300
					m^3/h 0	1.8	2.1	2.4	2.7	3.0	3.6	4.2	4.8	5.4	6.0	7.2	8.4	9.6	10.8	12	15	18
Single-phase	Three-phase				H=TOTAL HEAD IN METER																	
WPR-SP-805m	—	5	0.75	1.0	30			28	27	26	26	25	24	23	22	21	19	15	12			
WPR-SP-807m	—	7	1.1	1.5	41			38	37	36	36	35	35	34	34	32	27	24	17			
WPR-SP-810m	WPR-SP-810	10	1.5	2.0	58			54	53	52	51	49	47	47	46	43	38	32	25			
WPR-SP-812m	WPR-SP-812	12	2.2	3.0	71			65	64	63	61	60	58	57	55	52	47	40	31			
WPR-SP-815m	WPR-SP-815	15	2.2	3.0	87			80	79	78	76	74	72	70	68	64	57	49	38			
—	WPR-SP-818	18	3.0	4.0	104			98	96	95	93	90	88	86	84	79	72	60	47			
—	WPR-SP-821	21	4.0	5.5	122			114	113	111	107	105	102	100	98	93	85	72	55			
—	WPR-SP-825	25	4.0	5.5	144			133	131	128	126	123	119	116	114	107	97	84	64			

Selection Chart 1Phase

Pump Type	Dimensions(mm)					Weight(Kg)
Single-phase	A	B	C	D	E	
WPR-SP-805m	412	RP/NPT 2”	98	394	806	12.8
WPR-SP-807m	496		98	424	920	15.5
WPR-SP-810m	622		98	474	1096	18.5
WPR-SP-812m	706		98	519	1225	22.8
WPR-SP-815m	832		98	519	1351	24.3

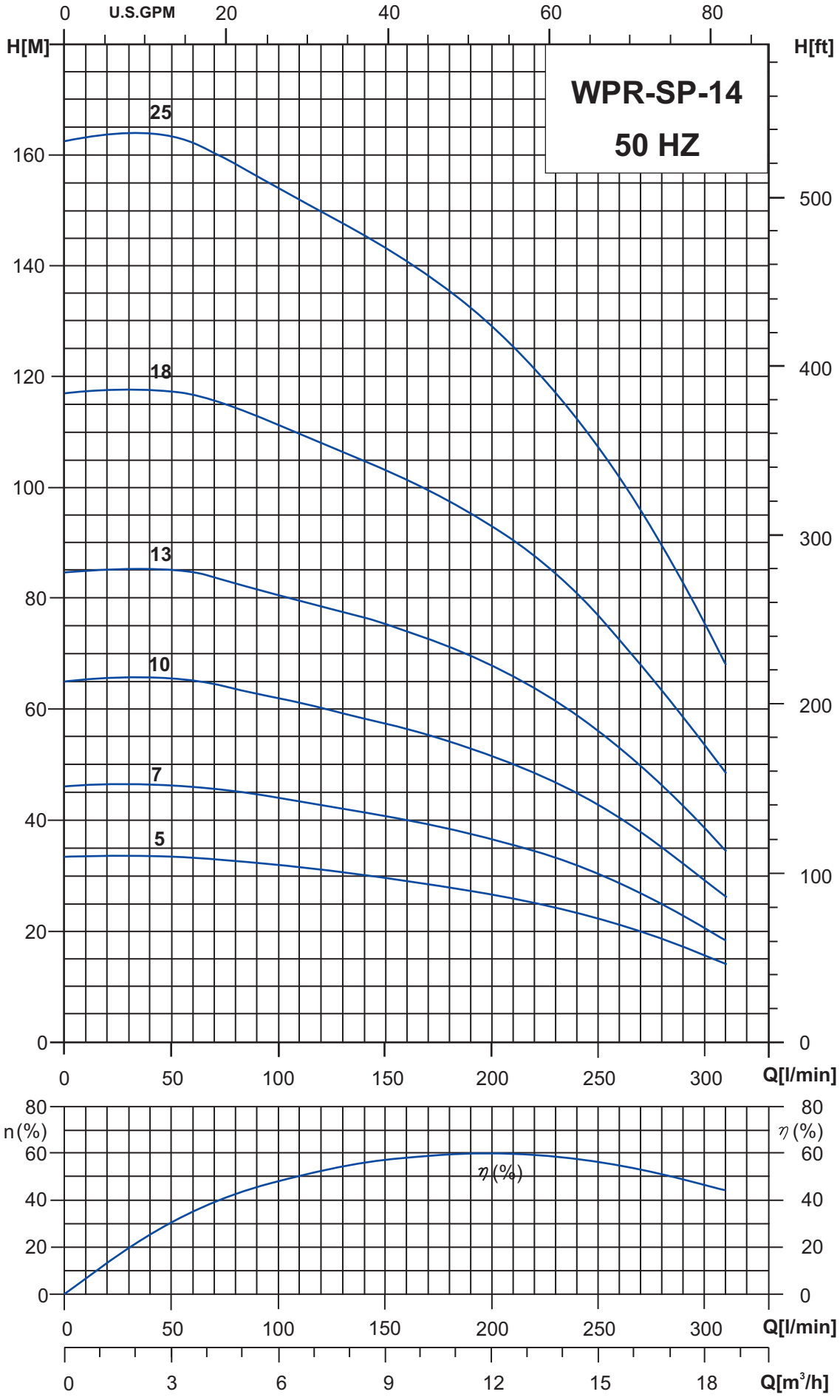


Selection Chart 3Phase

Pump Type	Dimensions(mm)					Weight(Kg)
Three-phase	A	B	C	D	E	
WPR-SP-810	622	RP/NPT 2”	98	424	1046	17.0
WPR-SP-812	706		98	474	1180	19.5
WPR-SP-815	832		98	474	1306	21.0
WPR-SP-818	958		98	543	1501	25.8
WPR-SP-821	1084		98	648	1732	32.4
WPR-SP-825	1252		98	648	1900	34.4

Performance Curva

WPR-SP-14

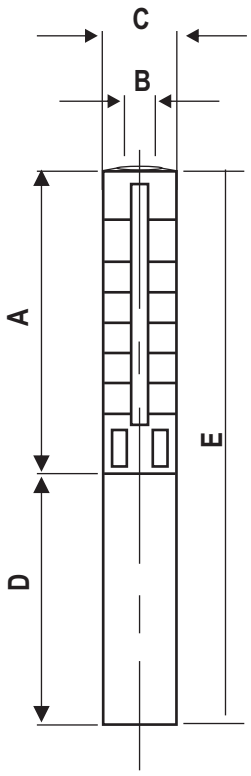


Selection Chart

Pump Type		STAGES	kW	HP	Q=DELIVERY														
					l/min 0	70	80	90	100	120	140	160	180	200	250	300	320	340	360	380
					m^3/h 0	4.2	4.8	5.4	6.0	7.2	8.4	9.6	10.8	12	15	18	19	20	22	23
Single-phase	Three-phase				H=TOTAL HEAD IN METER															
WPR-SP-1405m	WPR-SP-1405	5	1.5	2.0	33				32	31	30	28	27	26	22	16				
—	WPR-SP-1407	7	2.2	3.0	46				44	43	42	40	37	36	30	20				
—	WPR-SP-1410	10	3.0	4.0	65				62	60	58	57	54	52	43	29				
—	WPR-SP-1413	13	4.0	5.5	84				80	78	77	74	72	67	56	38				
—	WPR-SP-1418	18	5.5	7.5	117				111	108	104	102	79	93	77	54				
—	WPR-SP-1425	25	7.5	10	163				154	149	145	141	135	129	107	75				

Selection Chart 1Phase

Pump Type	Dimensions(mm)					Weight(Kg)
Single-phase	A	B	C	D	E	
WPR-SP-1405m	505	RP/NPT 2”	98	474	979	16.7



Selection Chart 3Phase

Pump Type	Dimensions(mm)					Weight(Kg)
Three-phase	A	B	C	D	E	
WPR-SP-1405	505	RP/NPT 2”	98	424	929	15.2
WPR-SP-1407	635		98	474	1109	18.0
WPR-SP-1410	830		98	543	1373	23.2
WPR-SP-1413	1025		98	648	1673	30.3
WPR-SP-1418	1350		98	738	2088	38.1
WPR-SP-1425	1805		98	838	2643	46.8

www.alvapompa.com
ASC (Alva Service Center) Telp. 021-62201902
YouTube : POMPA AIR PEDROLLO