

Pressure Booster System

Hya-Solo

Type Series Booklet



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Type Series Booklet Hya-Solo

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Building Services: Water Supply

Pressure Booster Systems

Hya-Solo



Hya-Solo E



Hya-Solo D



Hya-Solo DV

Main applications

- Spray irrigation systems
- Irrigation systems
- Service water supply systems
- Domestic water supply
- Rainwater harvesting
- Water supply systems

Fluids handled

- Drinking water
- Service water
- Cooling water
- Fluids not chemically or mechanically aggressive to the pump materials

Operating data

Operating properties

Characteristic		Value	
		Hya-Solo E	Hya-Solo D/DV
Flow rate	Q	Up to 6 m ³ /h (1,7 l/s)	Up to 110 m ³ /h (30,6 l/s)
Head	H	Up to 50 m	Up to 160 m
Fluid temperature	t	60 °C	70 °C
Operating pressure	p	10 bar	16 bar

Designation

Example: Hya-Solo D 1 / 0405 / 2 B

Key to the designation

Code	Description
Hya-Solo	Type series
D	Three-phase current
1	Number of pumps
04	Pump size
05	Number of pump stages
2	Inlet pressure in bar (for DV, from - to)
B	Design status

Design details

Design

Hya-Solo E

- Fully automatic pressure booster package system
- Long-coupled design
- Membrane-type accumulator (direct-flow) to DIN 4807-5 on the discharge side as control tank, approved for drinking water
- 1,5 m power cable with shockproof plug
- Pressure gauge for pressure indication

Hya-Solo D

- Fully automatic pressure booster package system
- Membrane-type accumulator (direct-flow) to DIN 4807-5 on the discharge side as control tank, approved for drinking water
- Pressure gauge for pressure indication

Hya-Solo DV

- Fully automatic pressure booster package system
- Membrane-type accumulator (direct-flow) to DIN 4807-5 on the discharge side as control tank, approved for drinking water
- Pressure gauge for pressure indication

Type of installation

- Stationary installation

Drive

Hya-Solo E

- Single-phase a.c. motor
- 230 V - 50 Hz
- IP 55 enclosure
- Thermal class F

Hya-Solo D

- Three-phase asynchronous squirrel-cage motor
- 220-240 V / 380-420 V ; 380-420 V / 660-720 V
- IP 55 enclosure
- Thermal class F
- DOL starting up to and including 4 kW
- Star-delta starting for 5.5 kW and above

Hya-Solo DV

- Three-phase motor
- 380 V AC -10% up to 480 V AC +10%, 50/60 Hz
- IP 55 enclosure
- Thermal class F

Automation

Hya-Solo E

- Control unit (Brio 2000), IP 65, for pressure-controlled starting and flow-controlled stopping
- Function/fault indicated
- Reset key

Hya-Solo D

- Control unit for pressure-controlled starting and stopping
- Control cabinet IP 54
- LEDs (red) indicate faults and lack of water
- Motor protection switch
- Manual-0-automatic selector switch
- Timer for daily operation check run
- Terminal strip with markings for all connections
- Volt-free contacts for operation, fault, lack of water
- Remote ON/OFF
- Lockable master switch (repair switch)

Hya-Solo DV

- Self-cooling motor-mounted frequency inverter (PumpDrive) for pressure-controlled starting and demand-based stopping
- Plain-text display (for voltage, current, power, speed, frequency)
- Control panel with operating keys (manual-0-automatic), navigation and function keys
- LEDs signalling operational availability (green), warning (yellow), alert (red)
- Two freely parameterisable relay outputs (operation/fault, alert, etc.).
- Analog input for external setpoint adjustment
- Analog output for transmitting the actual value, motor speed, etc.
- Control cabinet IP 54
- Lockable master switch (repair switch)

Materials

Overview of available materials

Component	Material
Pump	
Pump casing	Stainless steel

Component	Material
Pump shroud	Stainless steel
Hydraulic system	Stainless steel
Sealing element	EPDM
Plain bearing	Aluminium oxide
Mechanical seal	Complies with EN 12756
Primary ring	Silicon carbide
Mating ring	Hard carbon
Elastomer	EPDM
Piping	
Hya-Solo E	Brass, gunmetal/chrome steel
Hya-Solo D/DV	Chrome steel
Housing PumpDrive	
Heat sink	Die-cast aluminium
Housing cover	PBT, glass fibre reinforced
Accumulator	Connection made of stainless steel, flow through valve to DIN 4807-5
Membrane	Approved for drinking water

Product benefits

- Corrosion-resistant due to stainless steel built-in components
- Space-saving through optimal arrangement of components and small dimensions

Hya-Solo E

- Easily connected to power supply by shockproof plug
- Optimum monitoring by means of integrated dry running protection

Selection information

Selection example

Requirements:

Specified duty point at:

- Flow rate: 18 m³/h
- Head: 60 m

Solution:

- The values are applied to the selection chart so that the pump most suitable can be selected.

⇒ At an inlet pressure of $P_{in} = 0$ bar: Movitec 15/6 ⇒ Hya-Solo D / 1506/0

Technical data of Hya-Solo D/DV with Movitec pumps 2B and 4B

Selection table

Size	Rated power	Rated current 3~400 V	Hya-Solo D	Hya-Solo DV	Connection Suction side - Discharge side
	P_2 [kW]	[A]	[kg]	[kg]	
1/0202 B	0,37	0,95	64	46	G 1 - R 1
1/0203 B	0,37	0,95	64	46	G 1 - R 1
1/0204 B	0,37	0,95	65	47	G 1 - R 1
1/0205 B	0,37	0,95	65	47	G 1 - R 1
1/0206 B	0,55	1,31	68	50	G 1 - R 1
1/0207 B	0,55	1,31	68	50	G 1 - R 1

Size	Rated power	Rated current 3~400 V	Hya-Solo D	Hya-Solo DV	Connection Suction side - Discharge side
	P ₂ [kW]	[A]	[kg]	[kg]	
1/0208 B	0,55	1,31	68	50	G 1 - R 1
1/0209 B	0,75	1,75	71	53	G 1 - R 1
1/0210 B	0,75	1,75	71	53	G 1 - R 1
1/0211 B	1,1	2,39	74	56	G 1 - R 1
1/0212 B	1,1	2,39	74	56	G 1 - R 1
1/0214 B	1,1	2,39	75	57	G 1 - R 1
1/0216 B	1,5	2,85	80	62	G 1 - R 1
1/0218 B	1,5	2,85	80	62	G 1 - R 1
1/0402 B	0,37	0,95	64	46	G 1 - R 1
1/0403 B	0,55	1,31	66	48	G 1 - R 1
1/0404 B	0,55	1,31	67	49	G 1 - R 1
1/0405 B	0,75	1,75	69	51	G 1 - R 1
1/0406 B	1,1	2,39	72	54	G 1 - R 1
1/0407 B	1,1	2,39	72	54	G 1 - R 1
1/0408 B	1,5	2,85	76	58	G 1 - R 1
1/0409 B	1,5	2,85	77	59	G 1 - R 1
1/0410 B	1,5	2,85	77	59	G 1 - R 1
1/0411 B	2,2	4,01	80	62	G 1 - R 1
1/0412 B	2,2	4,01	81	63	G 1 - R 1
1/0414 B	2,2	4,01	82	64	G 1 - R 1
1/0416 B	3,0	5,47	96	78	G 1 - R 1

Technical data of Hya-Solo D/DV with Movitec pumps 6B and 10B

Selection table

Size	Rated power	Rated current 3~400 V	Hya-Solo D	Hya-Solo DV	Connection Suction side - Discharge side
	P ₂ [kW]	[A]	[kg]	[kg]	
1/0602 B	0,37	0,95	65	58	G 1¼ - R 1¼
1/0603 B	0,75	1,75	69	62	G 1¼ - R 1¼
1/0604 B	1,1	2,39	72	65	G 1¼ - R 1¼
1/0605 B	1,1	2,39	73	66	G 1¼ - R 1¼
1/0606 B	1,5	2,85	77	70	G 1¼ - R 1¼
1/0607 B	1,5	2,85	77	70	G 1¼ - R 1¼
1/0608 B	2,2	4,01	81	74	G 1¼ - R 1¼
1/0609 B	2,2	4,01	81	74	G 1¼ - R 1¼
1/0610 B	2,2	4,01	82	75	G 1¼ - R 1¼
1/0611 B	3,0	5,47	92	85	G 1¼ - R 1¼
1/0612 B	3,0	5,47	92	85	G 1¼ - R 1¼
1/0614 B	3,0	5,47	93	86	G 1¼ - R 1¼
1/0616 B	4,0	7,3	103	96	G 1½ - R 1½
1/1002 B	0,75	1,75	82	64	G 1½ - R 1½
1/1003 B	1,1	2,39	85	67	G 1½ - R 1½
1/1004 B	1,5	2,85	90	72	G 1½ - R 1½
1/1005 B	2,2	4,01	94	76	G 1½ - R 1½
1/1006 B	2,2	4,01	94	76	G 1½ - R 1½
1/1007 B	3,0	3,79	103	85	G 1½ - R 1½
1/1008 B	3,0	3,79	104	86	G 1½ - R 1½
1/1009 B	4,0	7,3	111	93	G 1½ - R 1½
1/1010 B	4,0	7,3	112	94	G 1½ - R 1½
1/1011 B	4,0	7,3	113	95	G 1½ - R 1½
1/1013 B	5,5	10,5	156	135	G 1½ - R 1½

Technical data of Hya-Solo D with Movitec pumps 15B, 32, 45, 65 and 90B

Selection table

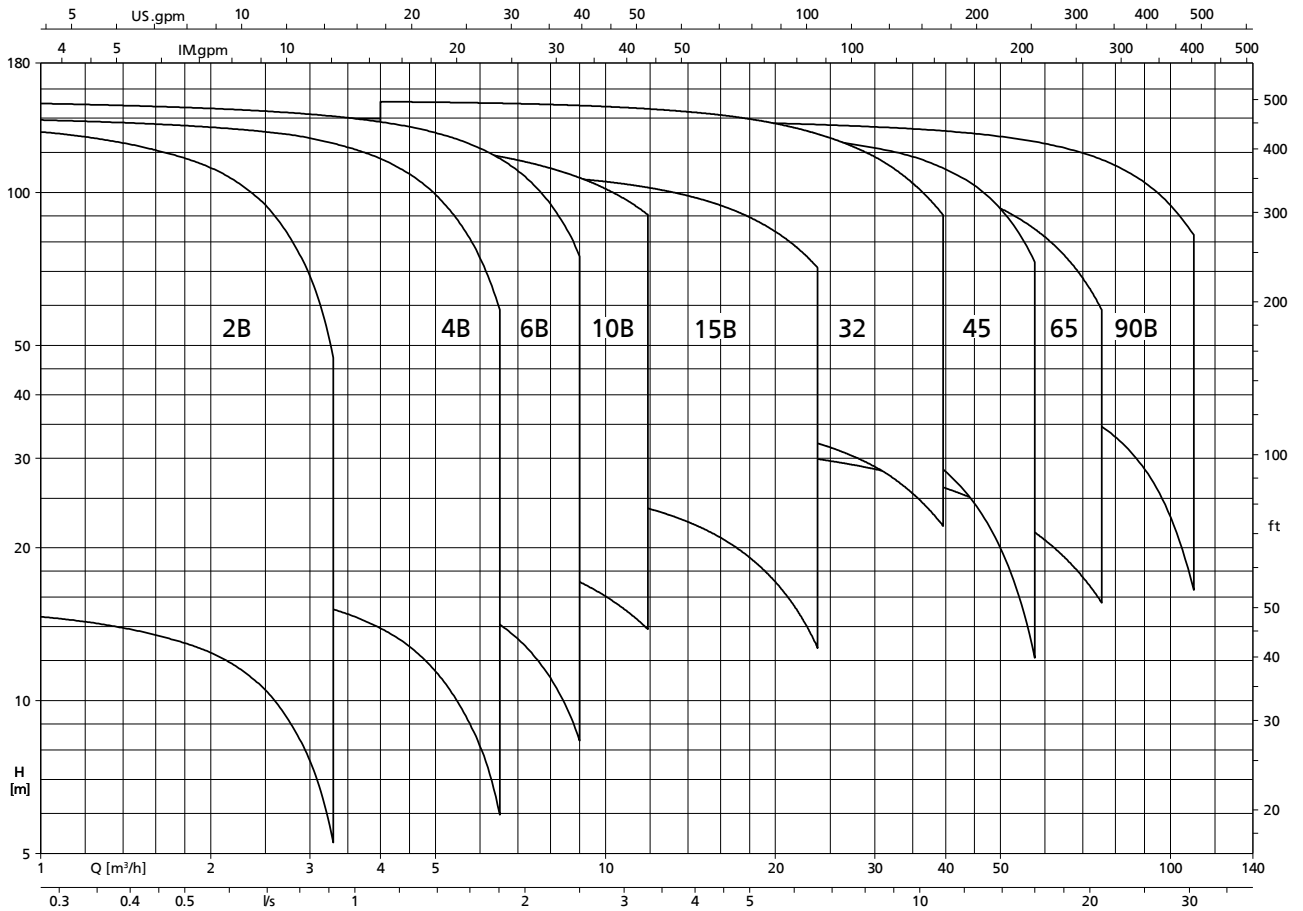
Size	Rated power	Rated current 3~400 V	System	Connection Suction side - Discharge side
	P ₂ [kW]	[A]	[kg]	
1/1502 B	2,2	4,01	91	G 2 - R 2
1/1503 B	3,0	5,47	100	G 2 - R 2
1/1504 B	4,0	7,3	106	G 2 - R 2
1/1505 B	5,5	10,5	148	G 2 - R 2
1/1506 B	5,5	10,5	149	G 2 - R 2
1/1507 B	7,5	13,5	154	G 2 - R 2
1/1508 B	7,5	13,5	156	G 2 - R 2
1/1509 B	11,0	20,0	238	G 2 - R 2
1/1510 B	11,0	20,0	239	G 2 - R 2
1/3202	4,0	7,3	137	DN 65
1/3203	5,5	10,5	148	DN 65
1/3204	7,5	13,5	155	DN 65
1/3205	11,0	20,0	231	DN 65
1/3206	11,0	20,0	233	DN 65
1/3207	15,0	26,0	276	DN 65
1/3208	15,0	26,0	278	DN 65
1/4502-1	5,5	10,5	147	DN 80
1/4502	7,5	13,5	151	DN 80
1/4503-1	11,0	20,0	228	DN 80
1/4503	11,0	20,0	228	DN 80
1/4504-1	11,0	20,0	230	DN 80
1/4504	15,0	26,0	270	DN 80
1/4505-1	15,0	26,0	272	DN 80
1/4505	18,5	32,0	296	DN 80
1/4506-1	18,5	32,0	298	DN 80
1/4506	22,0	38,0	335	DN 80
1/6502	5,5	10,5	156	DN 100
1/6503	11,0	20,0	168	DN 100
1/6504	11,0	20,0	238	DN 100
1/6505	15,0	26,0	281	DN 100
1/6506	15,0	26,0	284	DN 100
1/6507	18,5	32,0	311	DN 100
1/6508	22,0	38,0	351	DN 100
1/9002-2 B	11,0	19,5	298	DN 100
1/9002-1 B	15,0	26,2	330	DN 100
1/9002 B	15,0	26,2	330	DN 100
1/9003-2 B	18,5	32,1	365	DN 100
1/9003-1 B	22,0	39,0	402	DN 100
1/9003 B	22,0	39,0	402	DN 100
1/9004-2 B	30,0	52,0	527	DN 100
1/9004-1 B	30,0	52,0	527	DN 100
1/9004 B	30,0	52,0	527	DN 100
1/9005-2 B	37,0	64,0	567	DN 100
1/9005-1 B	37,0	64,0	567	DN 100
1/9005 B	37,0	64,0	567	DN 100

Technical data of Hya-Solo DV with Movitec pumps 15B, 32, 45, 65 and 90B

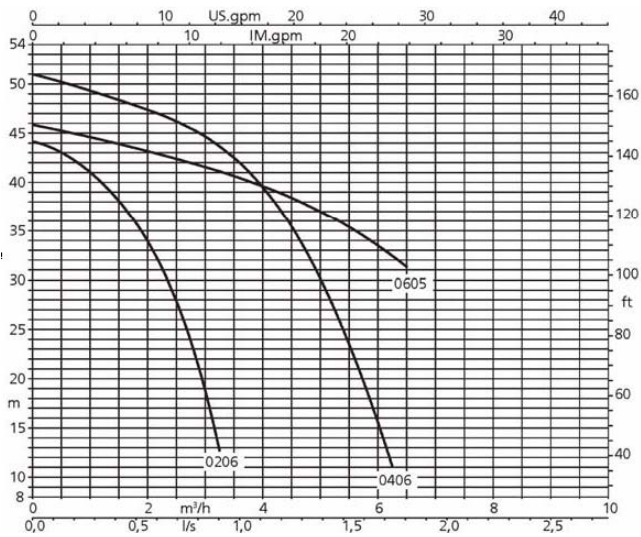
Selection table

Size	Rated power	Rated current 3~400 V	System	Connection Suction side - Discharge side
	P ₂ [kW]	[A]	[kg]	
1/1502 B	2,2	4,01	73	G 2 - R 2
1/1503 B	3,0	5,47	82	G 2 - R 2
1/1504 B	4,0	7,3	88	G 2 - R 2
1/1505 B	5,5	10,5	127	G 2 - R 2
1/1506 B	5,5	10,5	128	G 2 - R 2
1/1507 B	7,5	13,5	133	G 2 - R 2
1/1508 B	7,5	13,5	135	G 2 - R 2
1/1509 B	11,0	20,0	225	G 2 - R 2
1/1510 B	11,0	20,0	226	G 2 - R 2
1/3202	4,0	7,3	130	DN 65
1/3203	5,5	10,5	138	DN 65
1/3204	7,5	13,5	145	DN 65
1/3205	11,0	20,0	229	DN 65
1/3206	11,0	20,0	231	DN 65
1/3207	15,0	26,0	248	DN 65
1/3208	15,0	26,0	250	DN 65
1/4502-1	5,5	11,8	137	DN 80
1/4502	7,5	14,3	141	DN 80
1/4503-1	11,0	26,6	226	DN 80
1/4503	11,0	26,6	226	DN 80
1/4504-1	11,0	26,6	228	DN 80
1/4504	15,0	31,7	242	DN 80
1/4505-1	15,0	31,7	244	DN 80
1/4505	18,5	40,5	266	DN 80
1/4506-1	18,5	40,5	269	DN 80
1/4506	22,0	44,5	305	DN 80
1/6502	5,5	11,8	146	DN 100
1/6503	11,0	26,6	166	DN 100
1/6504	11,0	26,6	236	DN 100
1/6505	15,0	31,7	253	DN 100
1/6506	15,0	31,7	256	DN 100
1/6507	18,5	40,5	282	DN 100
1/6508	22,0	44,5	321	DN 100
1/9002-2 B	11,0	11,7	296	DN 100
1/9002-1 B	15,0	15,4	302	DN 100
1/9002 B	15,0	15,4	302	DN 100
1/9003-2 B	18,5	23,5	336	DN 100
1/9003-1 B	22,0	23,0	372	DN 100
1/9003 B	22,0	23,0	372	DN 100
1/9004-2 B	30,0	52,0	496	DN 100
1/9004-1 B	30,0	52,0	496	DN 100
1/9004 B	30,0	52,0	496	DN 100
1/9005-2 B	37,0	64,0	534	DN 100
1/9005-1 B	37,0	64,0	534	DN 100
1/9005 B	37,0	64,0	534	DN 100

Selection charts

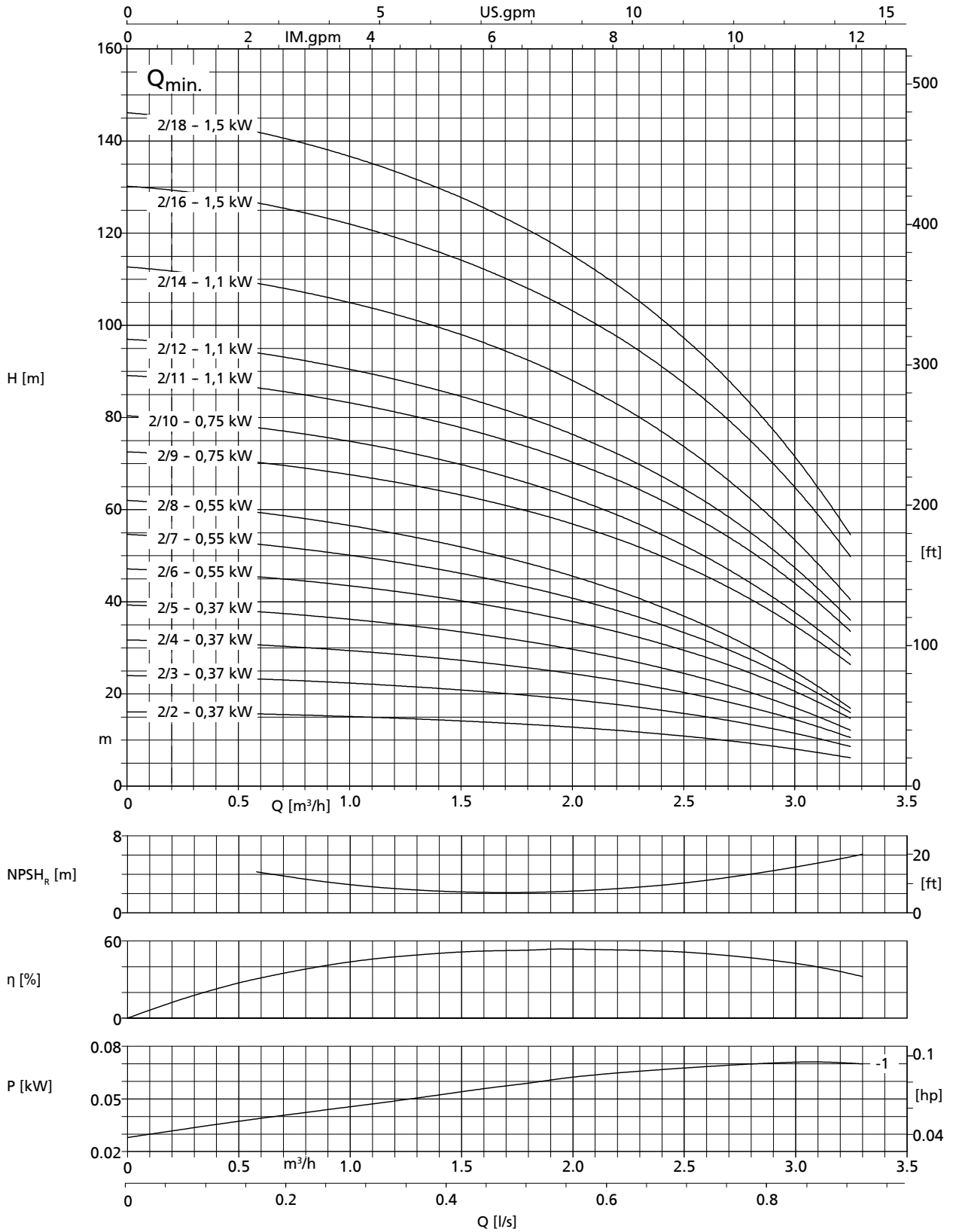


Hya-Solo E

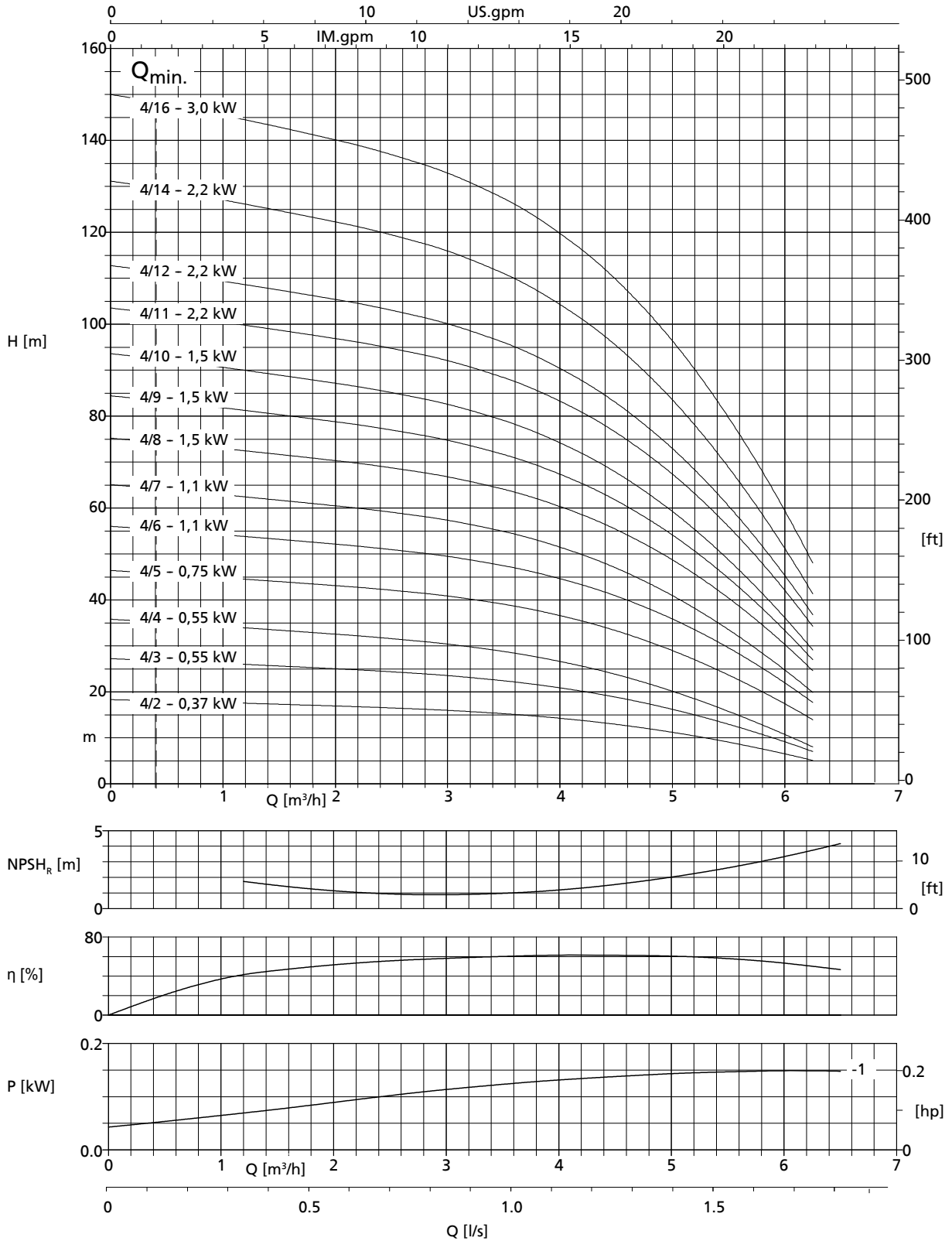


Selection charts

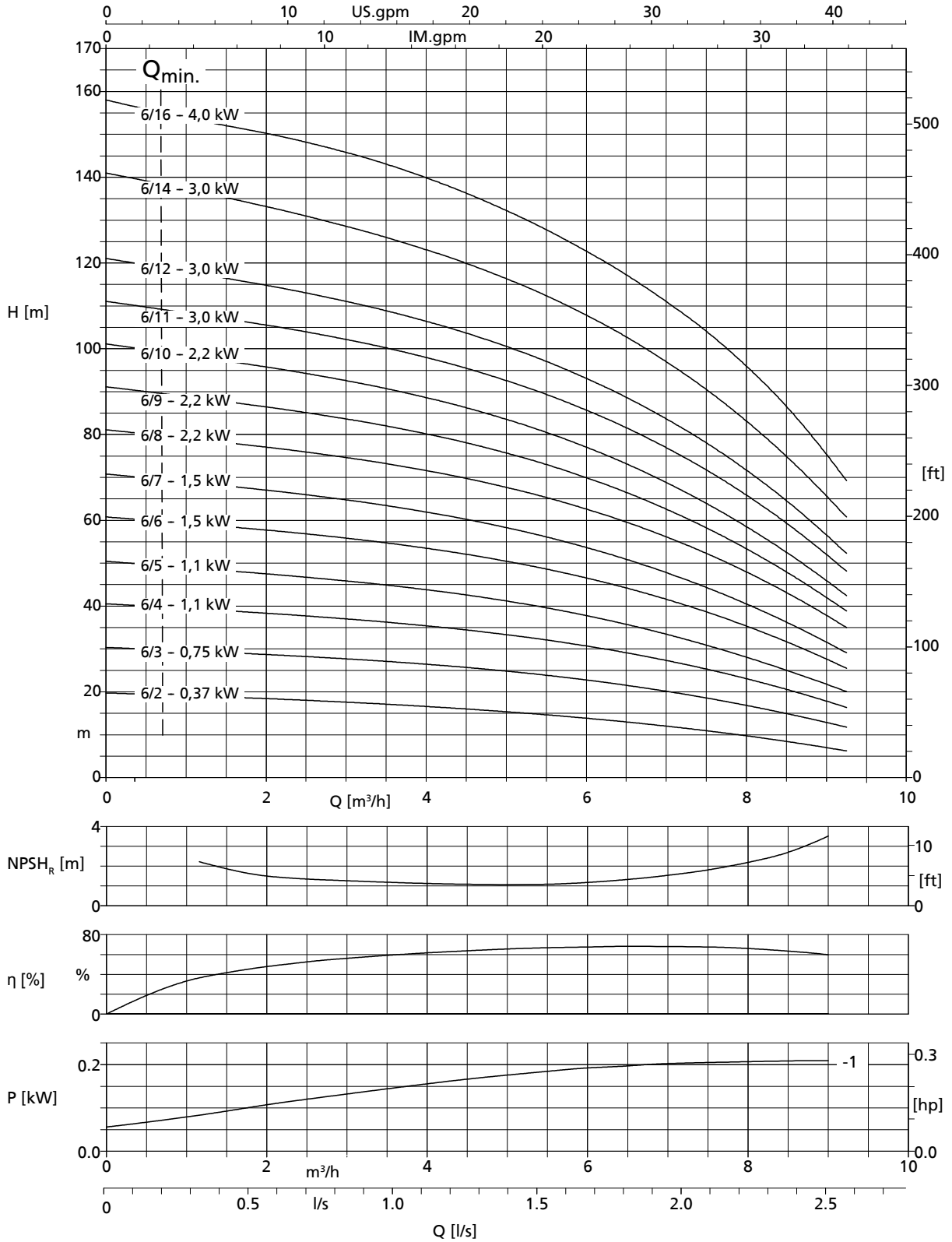
System with Movitec 2B



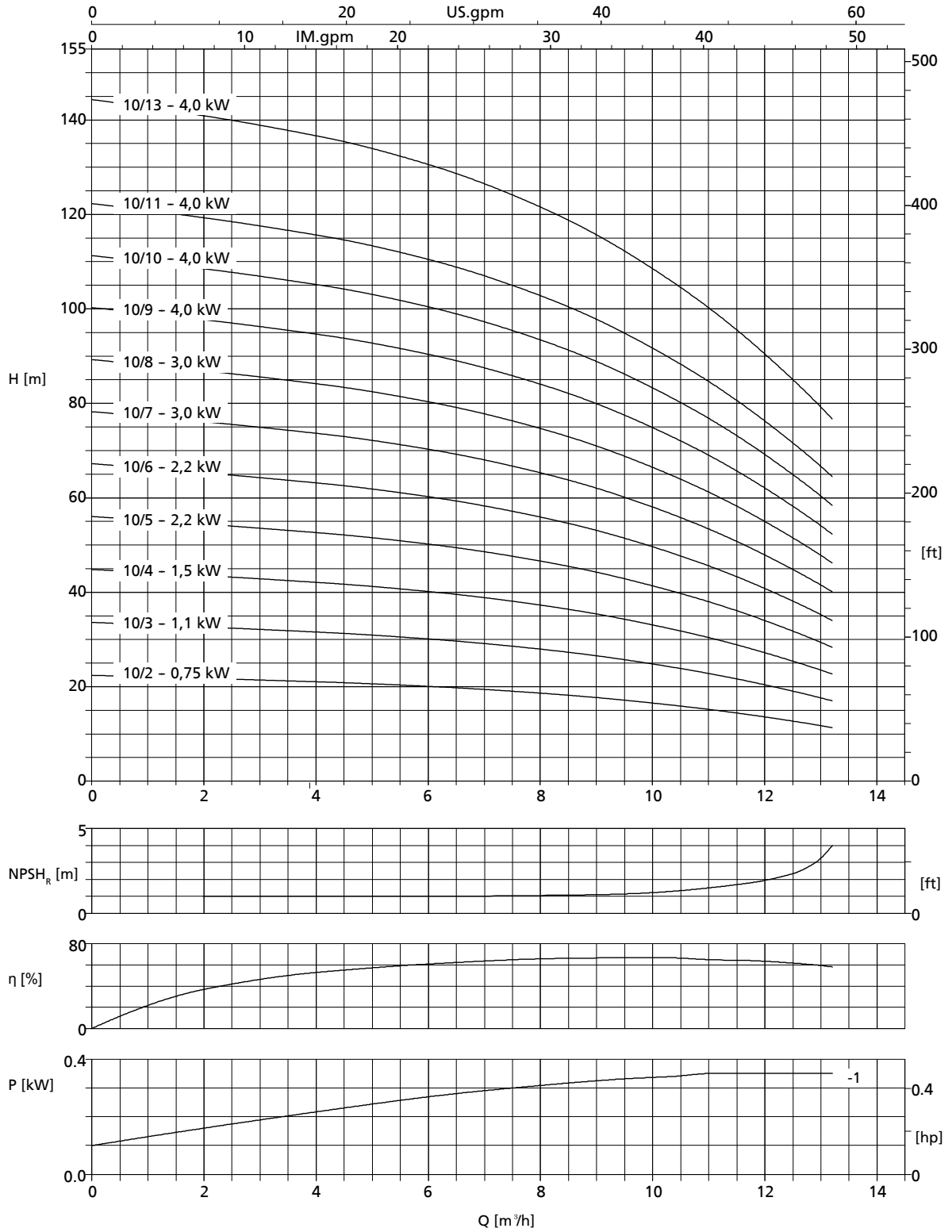
System with Movitec 4B



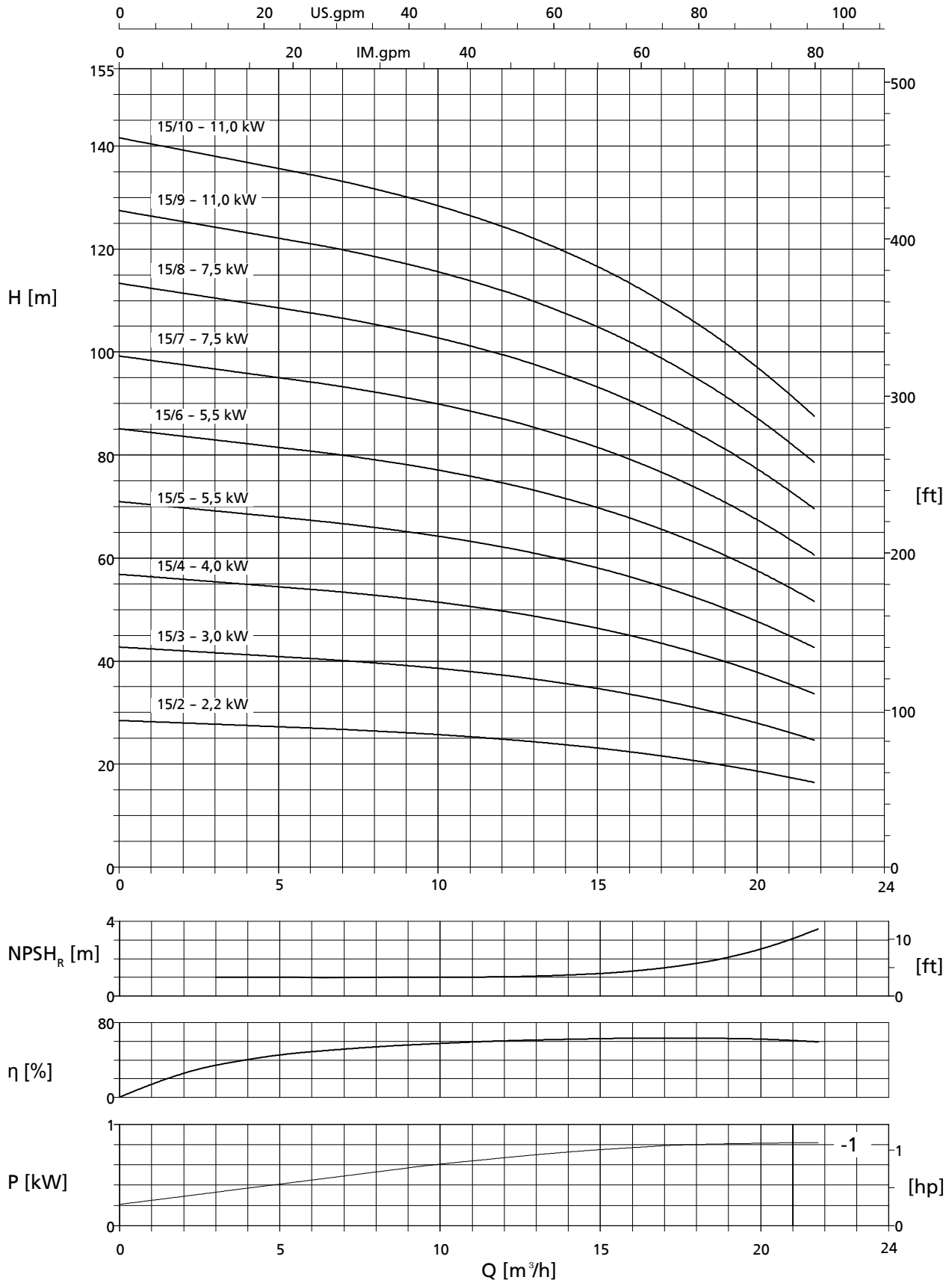
System with Movitec 6B



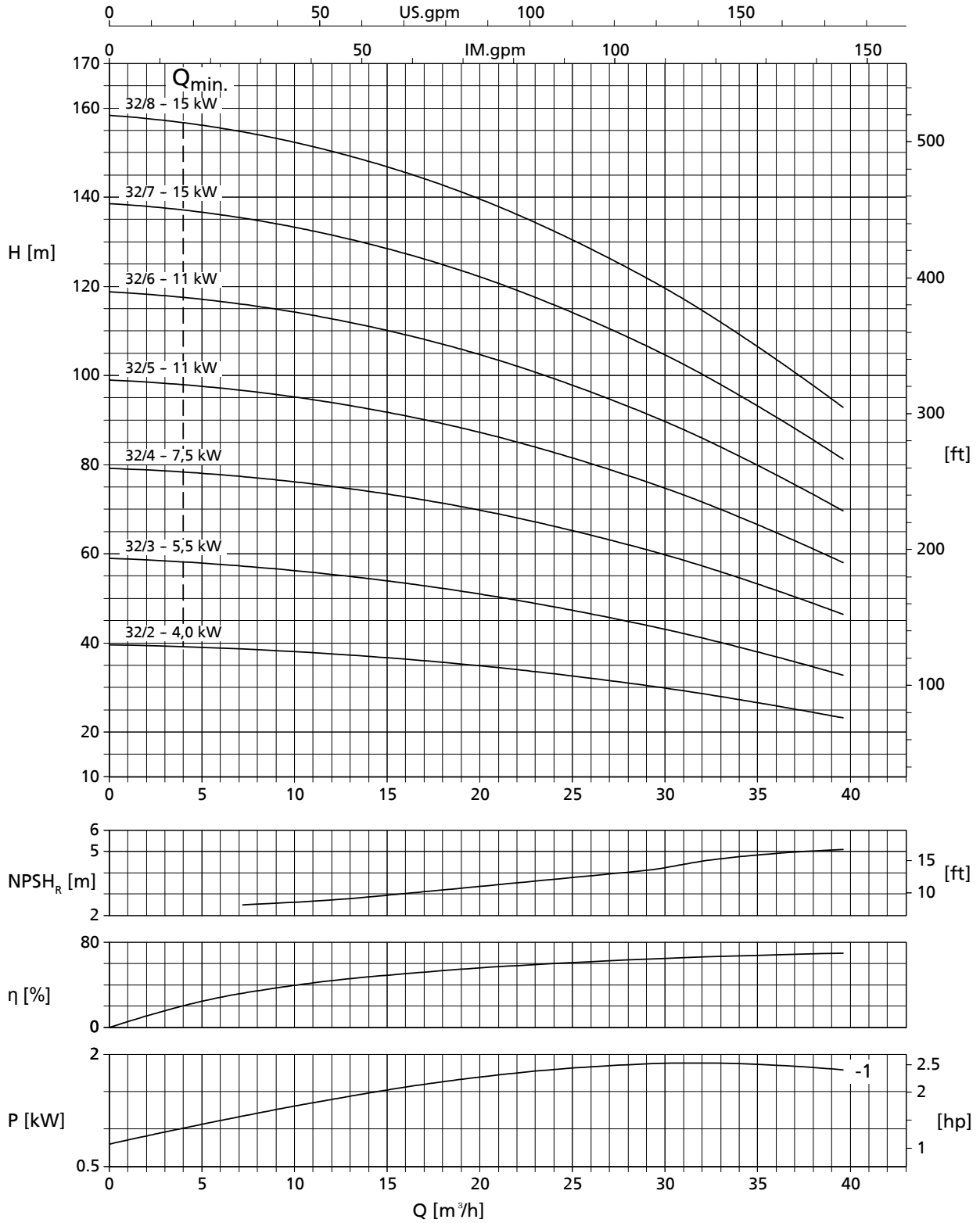
System with Movitec 10B



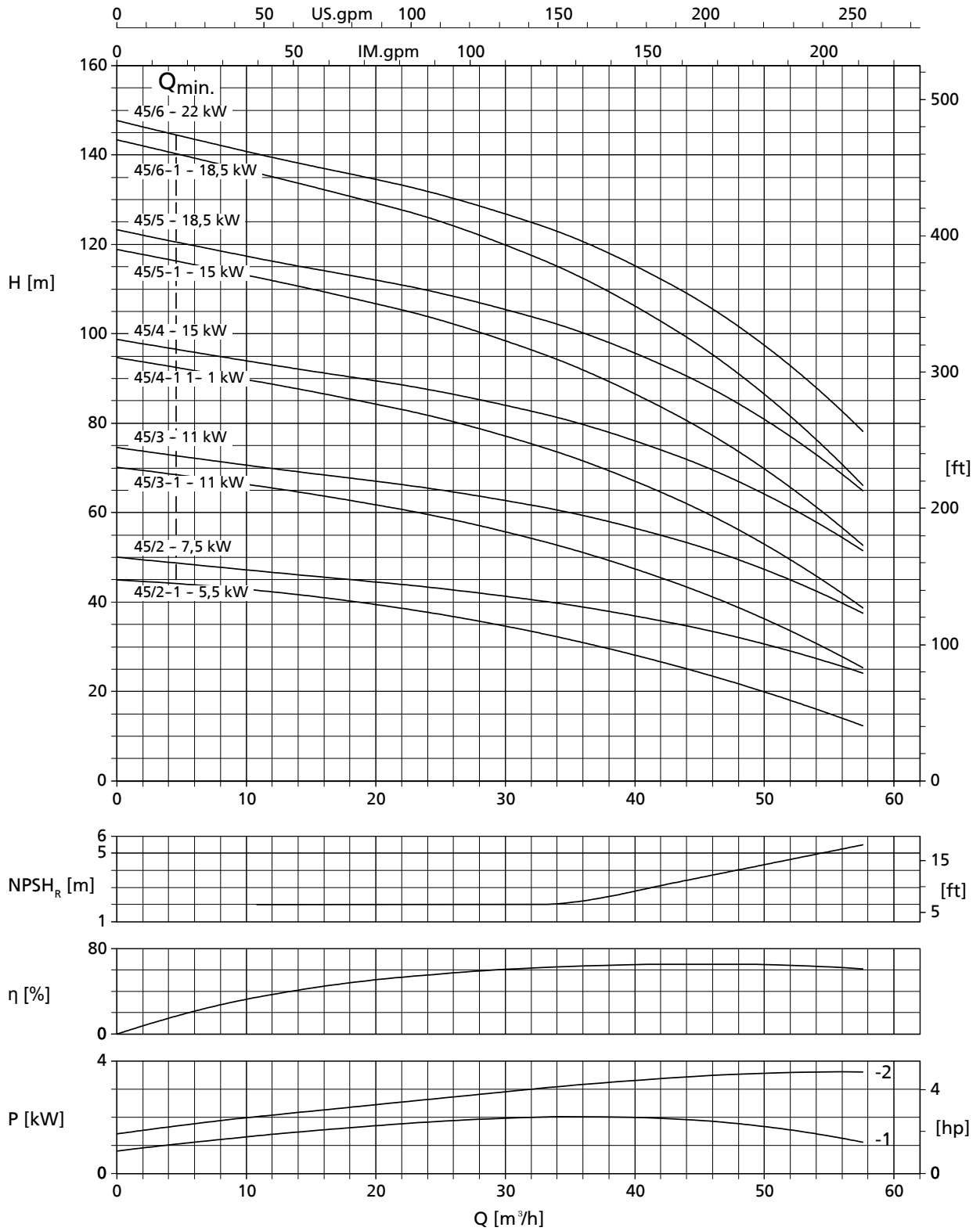
System with Movitec 15B



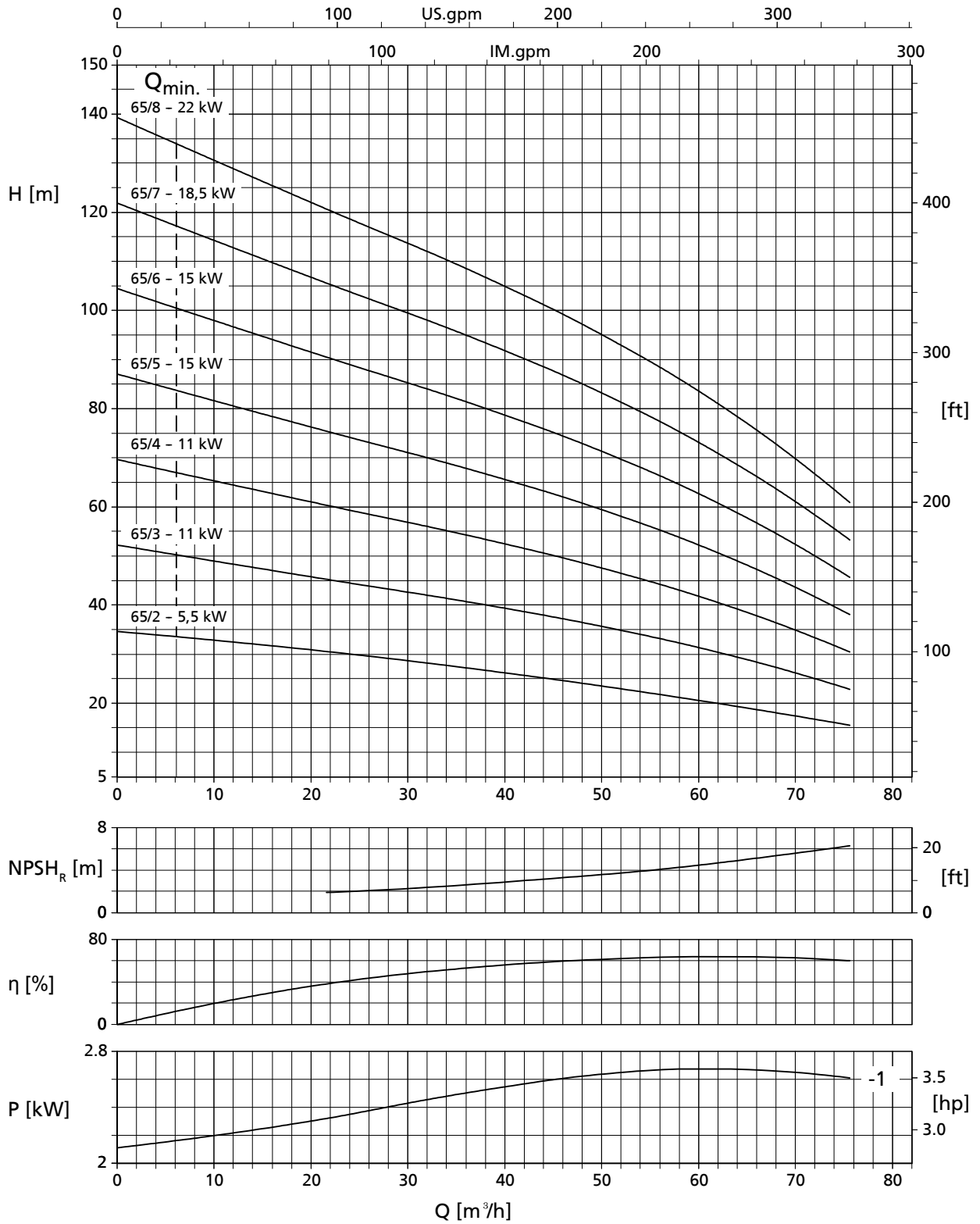
System with Movitec 32



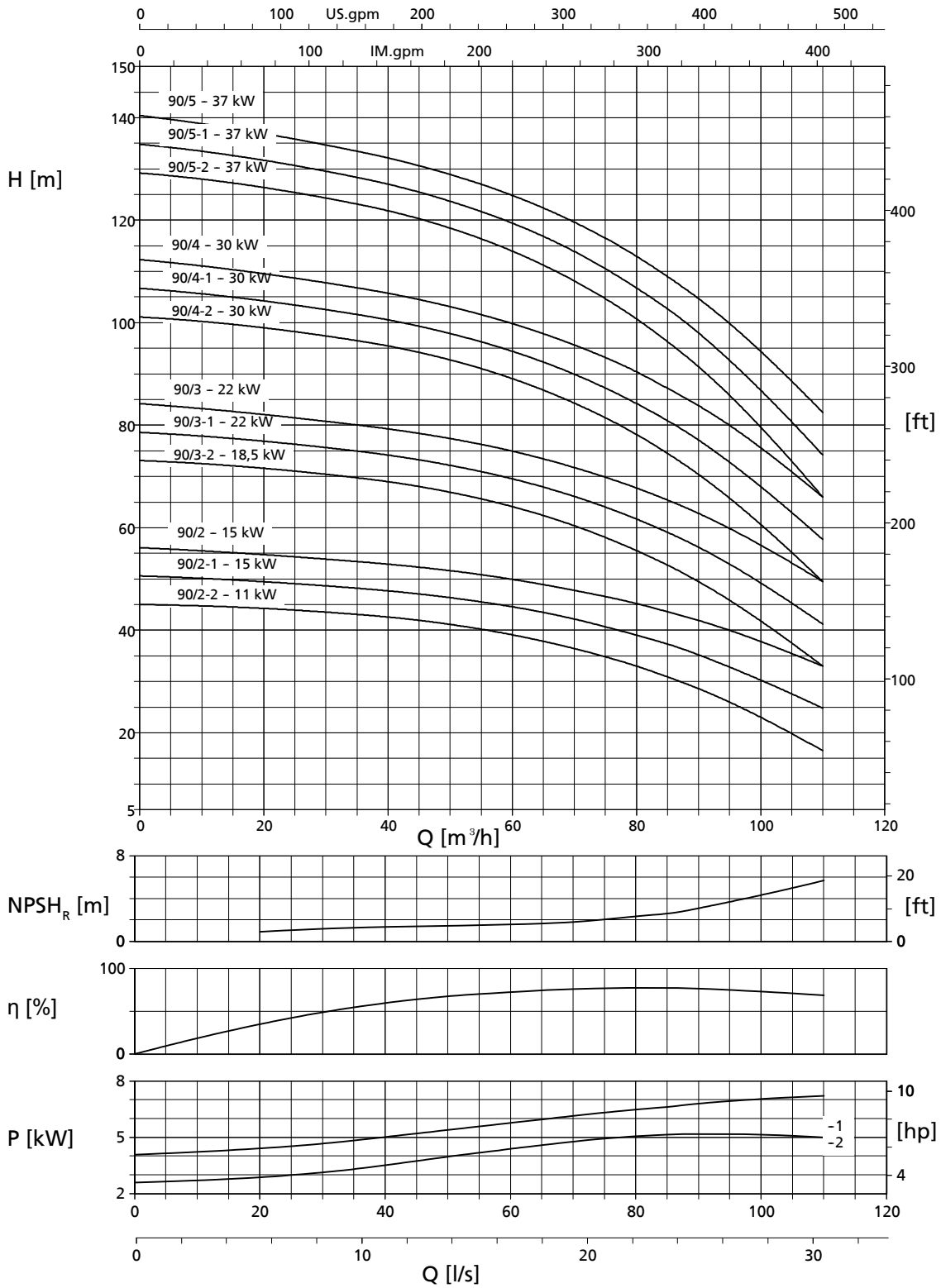
System with Movitec 45



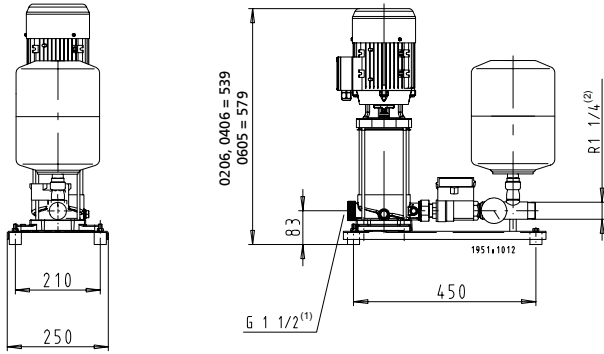
System with Movitec 65



System with Movitec 90B



HyaSolo E dimensions

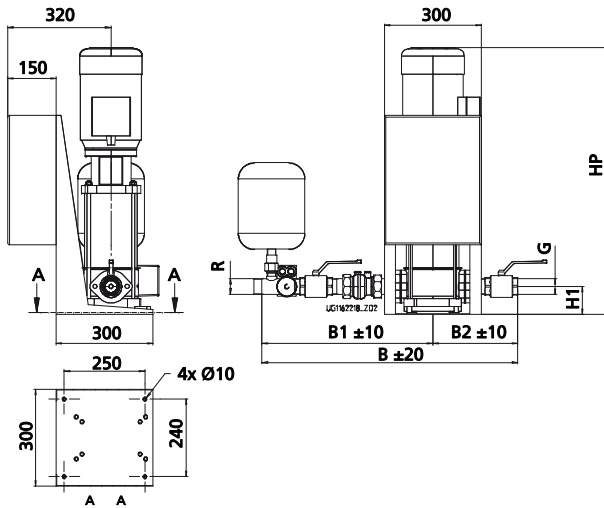


Dimensions [mm]

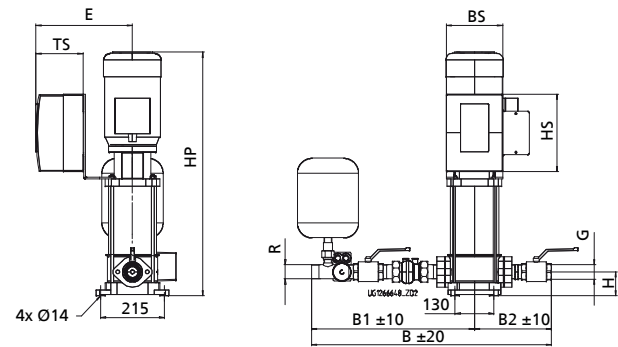
(1)	External thread
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Dimensions of Hya-Solo D / DV with Movitec pumps 2B and 4B

Hya-Solo D with Movitec 2B and 4B



Hya-Solo DV with Movitec 2B and 4B



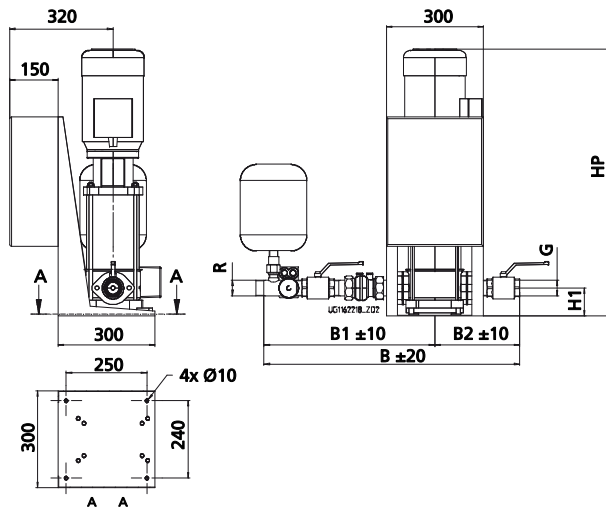
Dimensions [mm]

Hya-Solo D / DV	Connection Suction side - Discharge side	Pump					Pump Drive Hs x Ws x Ds	Distance E
		HP	H1	B	B1	B2		
1/0202 B	G 1 - R 1	472	50	684	476	208	400 x 300 x 150	251
1/0203 B	G 1 - R 1	493	50	684	476	208	400 x 300 x 150	251
1/0204 B	G 1 - R 1	515	50	684	476	208	400 x 300 x 150	251
1/0205 B	G 1 - R 1	536	50	684	476	208	400 x 300 x 150	251
1/0206 B	G 1 - R 1	558	50	684	476	208	400 x 300 x 150	251
1/0207 B	G 1 - R 1	579	50	684	476	208	400 x 300 x 150	251
1/0208 B	G 1 - R 1	601	50	684	476	208	400 x 300 x 150	251
1/0209 B	G 1 - R 1	676	50	684	476	208	400 x 300 x 150	251
1/0210 B	G 1 - R 1	698	50	684	476	208	400 x 300 x 150	251
1/0211 B	G 1 - R 1	719	50	684	476	208	400 x 300 x 150	251
1/0212 B	G 1 - R 1	741	50	684	476	208	400 x 300 x 150	251
1/0214 B	G 1 - R 1	784	50	684	476	208	400 x 300 x 150	286
1/0216 B	G 1 - R 1	833	50	684	476	208	400 x 300 x 150	286
1/0218 B	G 1 - R 1	833	50	684	476	208	400 x 300 x 150	286

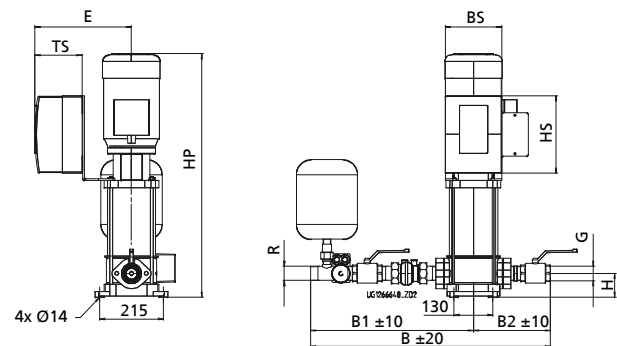
Hya-Solo D / DV	Connection Suction side - Discharge side	Pump					PumpDrive Hs x Ws x Ds	Distance E
		HP	H1	B	B1	B2		
1/0402 B	G 1 - R 1	472	50	728	502	226	400 x 300 x 150	251
1/0403 B	G 1 - R 1	493	50	728	502	226	400 x 300 x 150	251
1/0404 B	G 1 - R 1	515	50	728	502	226	400 x 300 x 150	251
1/0405 B	G 1 - R 1	590	50	728	502	226	400 x 300 x 150	251
1/0406 B	G 1 - R 1	612	50	728	502	226	400 x 300 x 150	251
1/0407 B	G 1 - R 1	633	50	728	502	226	400 x 300 x 150	251
1/0408 B	G 1 - R 1	661	50	728	502	226	400 x 300 x 150	286
1/0409 B	G 1 - R 1	682	50	728	502	226	400 x 300 x 150	286
1/0410 B	G 1 - R 1	704	50	728	502	226	400 x 300 x 150	286
1/0411 B	G 1 - R 1	754	50	728	502	226	400 x 300 x 150	286
1/0412 B	G 1 - R 1	776	50	728	502	226	400 x 300 x 150	286
1/0414 B	G 1 - R 1	819	50	728	502	226	400 x 300 x 150	286
1/0416 B	G 1 - R 1	904	50	728	502	226	400 x 300 x 150	286

Dimensions of Hya-Solo D / DV with Movitec pumps 6B and 10B

Hya-Solo D with Movitec 6B and 10B



Hya-Solo DV with Movitec 6B and 10B



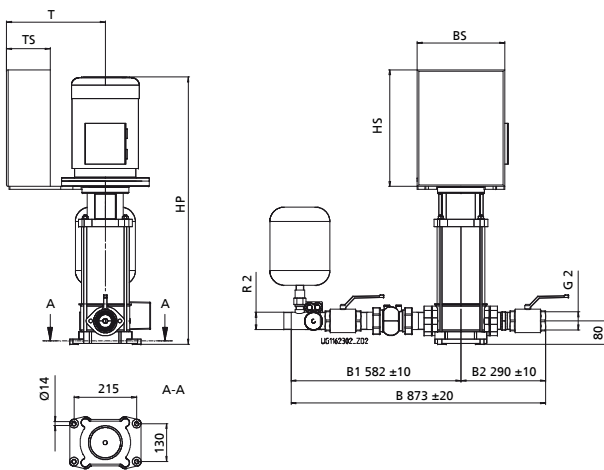
Dimensions [mm]

Hya-Solo D / DV	Connection Suction side - Discharge side	Pump					PumpDrive Hs x Ws x Ds	Distance E
		HP	H1	B	B1	B2		
1/0602 B	G 1¼ - R 1¼	479	50	728	502	226	400 x 300 x 150	251
1/0603 B	G 1¼ - R 1¼	558	50	728	502	226	400 x 300 x 150	251
1/0604 B	G 1¼ - R 1¼	583	50	728	502	226	400 x 300 x 150	251
1/0605 B	G 1¼ - R 1¼	608	50	728	502	226	400 x 300 x 150	286
1/0606 B	G 1¼ - R 1¼	639	50	728	502	226	400 x 300 x 150	286
1/0607 B	G 1¼ - R 1¼	664	50	728	502	226	400 x 300 x 150	286
1/0608 B	G 1¼ - R 1¼	718	50	728	502	226	400 x 300 x 150	286
1/0609 B	G 1¼ - R 1¼	743	50	728	502	226	400 x 300 x 150	286
1/0610 B	G 1¼ - R 1¼	768	50	728	502	226	400 x 300 x 150	286
1/0611 B	G 1¼ - R 1¼	835	50	728	502	226	400 x 300 x 150	286
1/0612 B	G 1¼ - R 1¼	835	50	728	502	226	400 x 300 x 150	286
1/0614 B	G 1¼ - R 1¼	860	50	728	502	226	400 x 300 x 150	286
1/0616 B	G 1¼ - R 1¼	910	50	728	502	226	400 x 300 x 150	286
1/1002 B	G 1½ - R 1½	608	80	818	554	264	400 x 300 x 150	251
1/1003 B	G 1½ - R 1½	634	80	818	554	264	400 x 300 x 150	251
1/1004 B	G 1½ - R 1½	666	80	818	554	264	400 x 300 x 150	286

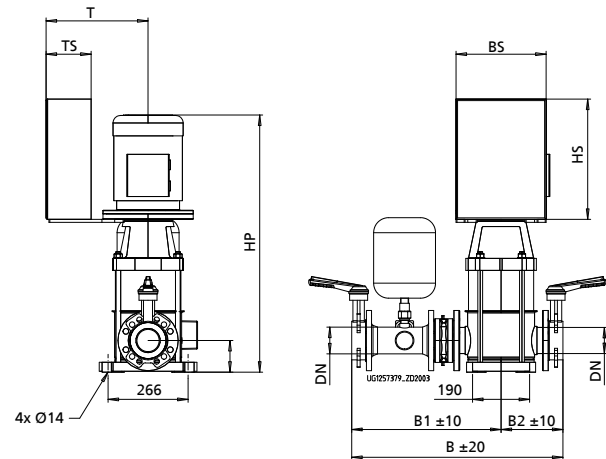
Hya-Solo D / DV	Connection Suction side - Discharge side	Pump					PumpDrive Hs x Ws x Ds	Distance E
		HP	H1	B	B1	B2		
1/1005 B	G 1½ - R 1½	707	80	818	554	264	400 x 300 x 150	286
1/1006 B	G 1½ - R 1½	734	80	818	554	264	400 x 300 x 150	286
1/1007 B	G 1½ - R 1½	815	80	818	554	264	400 x 300 x 150	286
1/1008 B	G 1½ - R 1½	842	80	818	554	264	400 x 300 x 150	286
1/1009 B	G 1½ - R 1½	878	80	818	554	264	400 x 300 x 150	305
1/1010 B	G 1½ - R 1½	905	80	818	554	264	400 x 300 x 150	305
1/1011 B	G 1½ - R 1½	931	80	818	554	264	400 x 300 x 150	328
1/1013 B	G 1½ - R 1½	1089	80	818	554	264	400 x 300 x 150	328

Dimensions of Hya-Solo D with Movitec pumps 15B, 32, 45, 65 and 90B

Hya-Solo D with Movitec 15B



Hya-Solo D with Movitec 32, 45 and 65

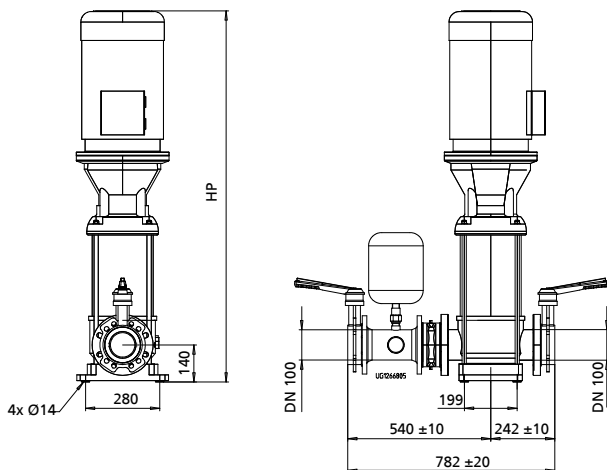


Flanges drilled to EN 1092-1 PN 16

Butterfly valves and dry running protection equipment are supplied but not fitted

Thread to DIN 2999 part 1 PN 16

Hya-Solo D with Movitec 90B



Thread to DIN 2999, part 1, PN 16

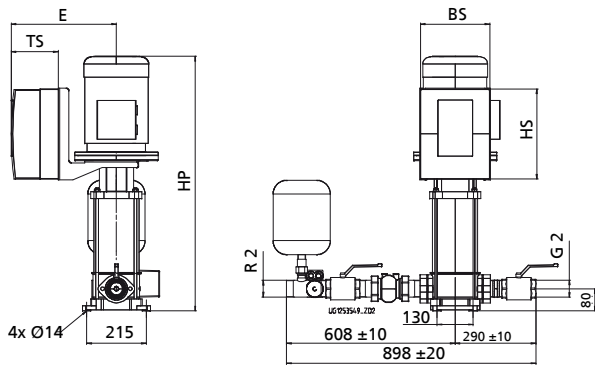
Control cabinet for wall mounting

Dimensions [mm]

Hya-Solo D	Connection Suction side/ Discharge side	Pump					Control unit Hs x Ws x Ds	Distance T
		HP	H1	B1	B2	B		
1/1502 B	G 2 - R 2	628	80	582	290	873	400 x 300 x 150	286
1/1503 B	G 2 - R 2	709	80	582	290	873	400 x 300 x 150	286
1/1504 B	G 2 - R 2	746	80	582	290	873	400 x 300 x 150	305
1/1505 B	G 2 - R 2	877	80	582	290	873	400 x 300 x 150	328
1/1506 B	G 2 - R 2	903	80	582	290	873	400 x 300 x 150	328
1/1507 B	G 2 - R 2	930	80	582	290	873	400 x 300 x 150	328
1/1508 B	G 2 - R 2	956	80	582	290	873	400 x 300 x 150	328
1/1509 B	G 2 - R 2	1146	80	582	290	873	400 x 300 x 150	431
1/1510 B	G 2 - R 2	1172	80	582	290	873	400 x 300 x 150	431
1/3202	DN 65	830	105	494	206	700	400 x 300 x 150	305
1/3203	DN 65	904	105	494	206	700	400 x 300 x 150	328
1/3204	DN 65	980	105	494	206	700	400 x 300 x 150	328
1/3205	DN 65	1279	105	494	206	700	400 x 300 x 150	431
1/3206	DN 65	1327	105	494	206	700	400 x 300 x 150	431
1/3207	DN 65	1376	105	494	206	700	600 x 400 x 200	431
1/3208	DN 65	1424	105	494	206	700	600 x 400 x 200	431
1/4502-1	DN 80	885	105	497	206	703	400 x 300 x 150	328
1/4502	DN 80	883	105	497	206	703	400 x 300 x 150	328
1/4503-1	DN 80	1182	105	497	206	703	400 x 300 x 150	431
1/4503	DN 80	1182	105	497	206	703	400 x 300 x 150	431
1/4504-1	DN 80	1230	105	497	206	703	400 x 300 x 150	431
1/4504	DN 80	1230	105	497	206	703	600 x 400 x 200	431
1/4505-1	DN 80	1279	105	497	206	703	600 x 400 x 200	431
1/4505	DN 80	1323	105	497	206	703	600 x 400 x 200	431
1/4506-1	DN 80	1371	105	497	206	703	600 x 400 x 200	431
1/4506	DN 80	1420	105	497	206	703	600 x 400 x 200	431
1/6502	DN 100	1008	145	533	234	767	400 x 300 x 150	328
1/6503	DN 100	1270	145	533	234	767	400 x 300 x 150	328
1/6504	DN 100	1389	145	533	234	767	600 x 400 x 200	431
1/6505	DN 100	1478	145	533	234	767	400 x 300 x 150	431
1/6506	DN 100	1567	145	533	234	767	600 x 400 x 200	431
1/6507	DN 100	1700	145	533	234	767	600 x 400 x 200	431
1/6508	DN 100	1838	145	533	234	767	600 x 400 x 200	431
1/9002-2 B	DN 100	1282	140	533	242	782	600 x 400 x 200	431
1/9002-1 B	DN 100	1282	140	533	242	782	600 x 400 x 200	431
1/9002 B	DN 100	1282	140	533	242	782	600 x 400 x 200	431
1/9003-2 B	DN 100	1484	140	533	242	782	600 x 400 x 200	431
1/9003-1 B	DN 100	1484	140	533	242	782	600 x 400 x 200	431
1/9003 B	DN 100	1484	140	533	242	782	600 x 400 x 200	431
1/9004-2 B	DN 100	1713	140	533	242	782	600 x 400 x 200	520
1/9004-1 B	DN 100	1713	140	533	242	782	600 x 400 x 200	520
1/9004 B	DN 100	1713	140	533	242	782	600 x 400 x 200	520
1/9005-2 B	DN 100	1822	140	533	242	782	600 x 400 x 200	520
1/9005-1 B	DN 100	1822	140	533	242	782	600 x 400 x 200	520
1/9005 B	DN 100	1822	140	533	242	782	600 x 400 x 200	520

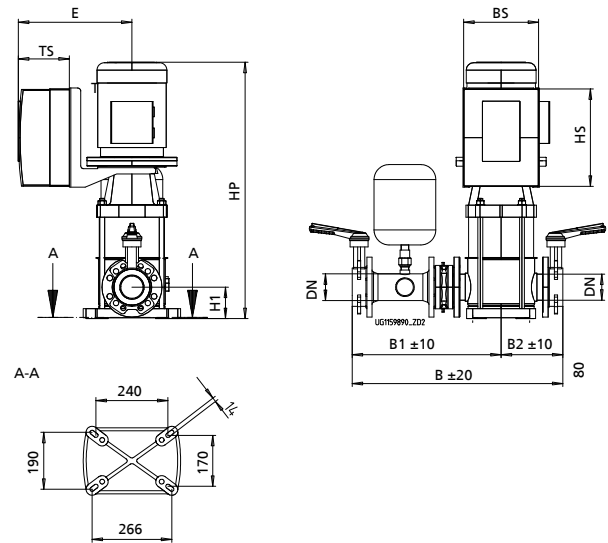
Dimensions of Hya-Solo DV with Movitec pumps 15B, 32, 45, 65 and 90B

Hya-Solo DV with Movitec 15B



Thread to DIN 2999, part 1, PN 16

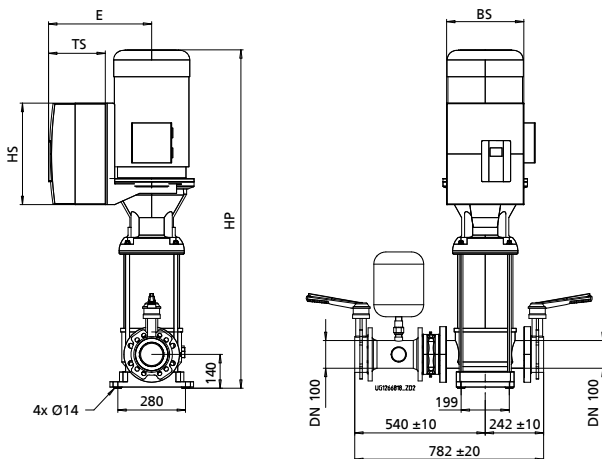
Hya-Solo DV with Movitec 32, 45 and 65



Flanges drilled to EN 1092-1 PN 16

Butterfly valves and dry running protection equipment are supplied but not fitted

Hya-Solo DV with Movitec 90B



Flanges drilled to EN 1092-1 PN 16

Butterfly valves and dry running protection equipment are supplied but not fitted

Dimensions [mm]

Hya-Solo DV	Connection Suction side - Discharge side	Pump					Control unit Hs x Ws x Ds	Distance E
		HP	H1	B1	B2	B		
1/1502 B	G 2 - R 2	628	80	608	290	898	260 x 190 x 158	286
1/1503 B	G 2 - R 2	709	80	608	290	898	260 x 190 x 158	286
1/1504 B	G 2 - R 2	746	80	608	290	898	260 x 190 x 158	305
1/1505 B	G 2 - R 2	877	80	608	290	898	325 x 250 x 170	328
1/1506 B	G 2 - R 2	903	80	608	290	898	325 x 250 x 170	328
1/1507 B	G 2 - R 2	930	80	608	290	898	325 x 250 x 170	328
1/1508 B	G 2 - R 2	956	80	608	290	898	325 x 250 x 170	328
1/1509 B	G 2 - R 2	1146	80	608	290	898	420 x 320 x 235	431

Hya-Solo DV	Connection Suction side - Discharge side	Pump					Control unit	Distance
		HP	H1	B1	B2	B	Hs x Ws x Ds	E
1/1510 B	G 2 - R 2	1172	80	608	290	898	420 x 320 x 235	431
1/3202	DN 65	830	105	494	206	700	325 x 250 x 170	305
1/3203	DN 65	904	105	494	206	700	325 x 250 x 170	328
1/3204	DN 65	980	105	494	206	700	325 x 250 x 170	328
1/3205	DN 65	1279	105	494	206	700	420 x 320 x 235	431
1/3206	DN 65	1327	105	494	206	700	420 x 320 x 235	431
1/3207	DN 65	1376	105	494	206	700	420 x 320 x 235	431
1/3208	DN 65	1424	105	494	206	700	420 x 320 x 235	431
1/4502-1	DN 80	855	105	497	206	703	325 x 250 x 170	328
1/4502	DN 80	883	105	497	206	703	325 x 250 x 170	328
1/4503-1	DN 80	1182	105	497	206	703	420 x 320 x 235	431
1/4503	DN 80	1182	105	497	206	703	420 x 320 x 235	431
1/4504-1	DN 80	1230	105	497	206	703	420 x 320 x 235	431
1/4504	DN 80	1230	105	497	206	703	420 x 320 x 235	431
1/4505-1	DN 80	1279	105	497	206	703	420 x 320 x 235	431
1/4505	DN 80	1323	105	497	206	703	420 x 320 x 235	431
1/4506-1	DN 80	1371	105	497	206	703	420 x 320 x 235	431
1/4506	DN 80	1420	105	497	206	703	420 x 320 x 235	431
1/6502	DN 100	1008	105	533	234	767	325 x 250 x 170	328
1/6503	DN 100	1270	105	533	234	767	420 x 320 x 235	431
1/6504	DN 100	1389	105	533	234	767	420 x 320 x 235	431
1/6505	DN 100	1478	105	533	234	767	420 x 320 x 235	431
1/6506	DN 100	1567	105	533	234	767	420 x 320 x 235	431
1/6507	DN 100	1700	105	533	234	767	420 x 320 x 235	431
1/6508	DN 100	1838	105	533	234	767	420 x 320 x 235	431
1/9002-2 B	DN 100	1282	140	540	242	782	420 x 320 x 235	431
1/9002-1 B	DN 100	1282	140	540	242	782	420 x 320 x 235	431
1/9002 B	DN 100	1282	140	540	242	782	420 x 320 x 235	431
1/9003-2 B	DN 100	1484	140	540	242	782	420 x 320 x 235	431
1/9003-1 B	DN 100	1484	140	540	242	782	420 x 320 x 235	431
1/9003 B	DN 100	1484	140	540	242	782	420 x 320 x 235	431
1/9004-2 B	DN 100	1713	140	540	242	782	600 x 450 x 290	520
1/9004-1 B	DN 100	1713	140	540	242	782	600 x 450 x 290	520
1/9004 B	DN 100	1713	140	540	242	782	600 x 450 x 290	520
1/9005-2 B	DN 100	1822	140	540	242	782	600 x 450 x 290	520
1/9005-1 B	DN 100	1822	140	540	242	782	600 x 450 x 290	520
1/9005 B	DN 100	1822	140	540	242	782	600 x 450 x 290	520

Accessories

Supplementary equipment / options (E No.) supplied fitted to the pump set

Accessories (Mat. No.) are included in the delivery but not fitted

Dry running protection

Dry running protection

Part No.	Description	E No.	Mat. No.	[kg]
81-45	Dry running protection float switch With weight, PG cable gland and KTW approval Special lengths on request	5 m	19071650	1
		10 m	19070395	5,5
		20 m	19071651	1,8

Part No.	Description	E No.	Mat. No.	[kg]	
81-45	Dry running protection float switch With KTW-approval Scope of supply: float switch with connection cable	5 m	11037630	1,1	
		10 m	11037631	1,5	
		20 m	11037632	2	
81-45	Dry-running protection float switch ¹⁾ Scope of supply: Float switch with connection cable	5 m	11037743	0,8	
		10 m	11037744	1,3	
		20 m	11037746	2,4	
59-11	Weight for adjusting the float switch level (weight with fastening elements)		18040615	1,2	
	Dry running protection, electrodes set, with analysis ²⁾ (When retrofitting it must be verified that sufficient space is provided in the control cabinet.)		01069615	0,3	
			00533947	0	
		E420			
693	Dry running protection ¹⁾ , (inlet pressure > 0,5 bar)	Movitec 2B + 4B	E095	18041170	1,2
		Movitec 6B	E095	18040935	1,8
		Movitec 10B	E095	18041171	1,6
		Movitec 15B	E095	18041172	2
		Movitec 32	E095	18040937	2,5
		Movitec 45	E095	18040938	3
		Movitec 65 und 90B	E095	18040939	3,6

Adapters

Adapters

Part No.	Description	Mat. No.	[kg]
82-5	Adapter 1" - 2" To connect Hya-Solo	01056171	0,5
82-5	Adapter 1¼" - 2" To connect Hya-Solo	01056161	0,7
82-5	Adapter 1" - 2½" To connect Hya-Solo	40982361	1,3
82-5	Adapter 2½" Victaulic coupling DN 65	11036866	0,4

Pressure reducer

Pressure reducer

Part No.	Size	Type Honeywell	Max. inlet pressure	Downstream pressure	Mat. No.	[kg]
69-7	R 1	D06 F...A	25 bar	1,5 - 6 bar	01057183	1,4
69-7	R 1	D06 FN...B	25 bar	0,5 - 2 bar	01057184	2,4
69-7	R 1¼	D06 F...A	25 bar	1,5 - 6 bar	01057185	2
69-7	R 1¼	D06 FN...B	25 bar	0,5 - 2 bar	01057186	2,8
69-7	R 2	D06 F...A	25 bar	1,5 - 6 bar	00522969	4,5
69-7	R 2	D06 FN...B	25 bar	0,5 - 2 bar	00522960	5,6
69-7	DN 65	D15	16 bar	1,5 - 6 bar	00522957	28,2
69-7	DN 65	D15N	16 bar	0,2 - 2 bar	00522959	37
69-7	DN 80	D15	16 bar	1,5 - 6 bar	00522958	41,5
69-7	DN 80	D15N	16 bar	0,2 - 2 bar	00522956	54
69-7	DN 100	D15	16 bar	1,5 - 6 bar	00119996	67
69-7	DN 100	D15N	16 bar	0,2 - 2 bar	00119997	87,5
69-7	DN 150	D15	16 bar	1,5 - 6 bar	00198244	150
69-7	DN 150	D15N	16 bar	0,2 - 2 bar	00198247	196
69-7	DN 200	D15	16 bar	1,5 - 6 bar	00198245	408
69-7	DN 200 Flanges drilled to PN 16, DIN 2533	D15N	16 bar	0,2 - 2 bar	00198248	580

¹⁾ Additional wiring to be effected by a trained electrician.

²⁾ Not for Hya-Solo DV

Expansion joints

Expansion joints PN 10

Part No.	Description		Mat. No.	[kg]
71-8	Expansion joints PN 10	R 1"	11037177	0,4
		R 1¼"	11037178	0,2
		R 1½" (non-DVGW)	11037179	0,3
71-8	DN 40 with adapter flange PN 10/16 type 50 with KTW approval		01125069	3,4
	DN 65 with adapter flange PN 10/16 type 50 with KTW approval		11037184	5,6
	DN 80 with adapter flange PN 10/16 type 50 with KTW approval		01125072	6,7
	Screwed flange R 1½ (internal thread) with screws, bolts and washers For expansion joint DN 40, types 49 and 50 For expansion joint DN 40, types 49 and 50	Mat. St-TZN	18040968	5
		Mat. 1.4541	18040969	5
	Screwed flange R 2 (internal thread) with screws, bolts and washers For expansion joint DN 65, type 50 For expansion joint DN 50, type 49	Mat. St-TZN	18040647	5
		Mat. 1.4541	18040646	5
	Screwed flange R 2½ (internal thread) with screws, bolts and washers For expansion joint DN 65, types 50 and 49	Mat. St-TZN	18040649	6
		Mat. 1.4541	18040648	7
	Screwed flange R 3 (internal thread) with screws, bolts and washers For expansion joint DN 80, types 50 and 49	Mat. St-TZN	18040970	7
		Mat. 1.4541	18040971	7

Expansion joints PN 16

Type 49, blue, Variant C with integrated length-limited expansion joints

Drinking water-approved as per regulation of the German health authority (Bundesgesundheitsamt) of 1986

Part No.	Size	Material	Mat. No.	[kg]
71-8	DN 40	Rubber, St-TZN	01125068	4,8
71-8	DN 50	Rubber, St-TZN	01057406	8
71-8	DN 65	Rubber, St-TZN	01057407	8
71-8	DN 80	Rubber, St-TZN	01049847	5,5
71-8	DN 100	Rubber, St-TZN	01049848	6,6
71-8	DN 150	Rubber, St-TZN	01049850	11,4
71-8	DN 200	Rubber, St-TZN	11037185	10

Inlet tank with accessories

Closed inlet tank under atmospheric pressure, made of polyethylene

Part No.	Total volume [l]	Effective volume [l]	Connection Inlet line	Connection Outlet line	Mat. No.	[kg]
591.01	300	150	R 1	DN 50	01136287	30
591.01	600	300	R 1½	DN 50	01136288	40
591.01	750	500	R 1½	DN 50	01136289	50
591.01	1500	800	2 x R 2	DN 80	01136290	150
591.01	1800	1000	2 x R 2	DN 80	01136291	170
591.01	2700	1500	2 x R 2	DN 100	01136292	250
591.01	3200	2000	2 x R 2	DN 125	01136293	330
591.01	2700	1500	DN 80	DN 100	01136294	250
591.01	3200	2000	DN 100	DN 125	01136295	330

3) Total volume in l

4) Adapter for DN 80 - DN 100: On request

Closed inlet tank under atmospheric pressure, made of steel

Part No.	Description	Type ³⁾ Nominal volume	Effective volume max.	Pipe connection	Mat. No.	[kg]
591	Membrane-type accumulator ⁴⁾ Double connection PN 10	80 l	60	DN 50	01064950	33
		200 l	150	DN 50	01065001	56
		300 l	225	DN 50	01065002	61
		500 l	350	DN 50	01065003	91
		600 l	340	DN 50	01056394	258
		800 l	450	DN 50	00198687	270
		1000 l	450	DN 50	00198688	345
		1001 l	750	DN 65	01054867	420
591	Membrane-type accumulator ⁴⁾ Double connection PN 16	80 l	60	DN 50	00198689	70
		200 l	150	DN 50	00198690	116
		300 l	225	DN 50	00198691	110
		400 l	300	DN 50	00198692	180
		600 l	340	DN 50	01056395	298
		800 l	450	DN 50	00198693	270
		1000 l	450	DN 50	00198694	345
		1001 l	750	DN 65	01054868	345
	Set of accessories DN 50	Blind flange for single connection			01054865	1
	Set of accessories DN 65	Blind flange for single connection			01054866	1
	Membrane fracture detector				01147508	1

Accessories for membrane-type accumulator

Part No.	Description	Pipe connection	Mat. No.	[kg]
81-42 and 741	Float valve inlet set for PE inlet tanks	R 1	19070392	1,5
		R 1½	19070393	2,5
		R 2	19070394	3,2
	Float valve inlet set for PE inlet tanks Variant for fully desalinated water	R 1	19072300	2,5
		R 1½	19072301	2,5
		R 2	19072302	3,2
741	Diaphragm valve inlet set	DN 80	19071381	30
		DN 100	19071382	40
81-42	BOA-Compact EKB shut-off valve DVGW	DN 80	19071383	18
		DN 100	19071384	21
70-3	Flushing device for inlet set Includes solenoid valve and digital timer With connection cable (approx. 2,5) and shockproof plug (not suitable for fully desalinated water)			
		Solenoid valve ½" (kv = 3,6 m³/h)	19074174	1,5
		Solenoid valve 1" (kv = 11 m³/h)	19074175	2
		Solenoid valve 1½" (kv = 30 m³/h)	19074176	2,5

Electrical accessories and supplementary equipment

Electrical accessories and supplementary equipment

Part No.	Description	E No.	Mat. No.	[kg]	
79-9	Timer for daily functional check run ⁵⁾	Hya-Solo D	E040	18040617	0,8
79-9	Digital timer for weekly programme ⁵⁾	Hya-Solo D	E050	18040618	0,8
79-8	Temperature monitoring of fluid handled at hydraulic section for each pump		E360	19071510	0,8
	Ammeter per pump		E340		0,1
	Voltmeter per system		E341		0,2
	(only available if combined) ⁵⁾				

⁵⁾ Not for Hya-Solo DV

Part No.	Description	E No.	Mat. No.	[kg]
	Operating hours counter per pump ⁵⁾ FWZ 36	E330		0,1
	Individual operation/fault indication via volt-free contacts on isolating terminals ⁵⁾			
	For Hya-Solo D Position master switch	E051		
	Control cabinet lighting with 230 V socket ⁵⁾ only available for control cabinets sized 1000 x 600 x 250 and larger	E059		
	Control cabinet heating for special climatic conditions ⁵⁾ (high humidity), 20 Watt	E039		0,3
	Phase monitoring relay ⁵⁾ with direction-of-rotation monitoring and phase failure safety device	E320		
	Over-voltage protection ⁵⁾	E060		
	Separate control cabinet installation (wall-mounted) ⁵⁾ with intermediate terminal box and 5 m cable for pumps and sensors	E061		
	Telecommunications module with CD ⁵⁾ for fault signalling via analog telephone lines up to 4 fax, text (mobile phone) and e-mail messages, incl. battery buffer	E043		
	For connection to Profibus networks (only for Hya-Solo DV)	E840		
	Profibus branch switch for connecting PumpDrive to a Profibus network via a stub line without terminating resistor (Hya-Solo DV)		01150961	0
	Profibus branch switch for connecting PumpDrive to a Profibus network via a stub line with terminating resistor (Hya-Solo DV)		01150962	0
	Connection to emergency back-up power supply on second terminal strip ⁵⁾ External activation	E058		



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