

Hydro-unit Utility Line

Technical specification booklet
series: Hydro-Unit DPV(F)



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1 Introduction

1.1 Abbreviations

Abbreviation	Explanation
HU	Hydro-Unit
MC	Megacontrol each pump runs via direct on line
MCMF	Megacontrol Multi- Frequency inverter (FRK, FRP)
DOL	Direct On Line via a relais
SFT	Direct On Line via a softstarter
S/D	Direct On Line via star/delta start up
FRK	Multi- frequency (each pump an inverter) mounted in the cabinet
FRP	Multi- frequency (each pump an inverter) mounted on the motor
-A, -B, -C, -D, -E	type / size control panel
CI	Cast Iron
AISI	Stainless Steel
PN	Pressure nominal
NW	Flanged connection
G	Gas thread
NAP	Normal Amsterdam Peil
rpm	rounds per minute
NA	not applicable

1.2 Range

Table 1: HU 2, 3 and 4 pumps (with control panel)

HU2-4	DPV2	DPV4	DPV6	DPV10	DPV15	DPVF25	DPVF40	DPVF60
MC	/2 - /14	/2 - /12	/2 - /12	/2 - /10	/2 - /8	/2 - /4	/1 - /2	/1 - /2
MCMF	/2 - /10 (60Hz)	/2 - /9 (60Hz)	/2 - /8 (60Hz)	/2 - /10 (50Hz)	/2 - /8 (50 Hz)	/2 - /4 (50 Hz)	/1 - /2 (50 Hz)	/1 - /2-2 (50 Hz)

Table 2: HU2, 3, 4, 5 and 6 pumps (with separate control panel)

HU2-6	DPVF25	DPVF40	DPVF60	DPVF85
separate cabinet	/2 - /9	/3-2 - /8	/2 - /7	/1-1 - /6



ATTENTION

Pump ranges, which are not mentioned above are available on request

Table 3: Control panel range

Type	number of pumps	Amperage range [A]	Available versions
DOL	2 - 6	0,9 - 16	Standard / Industrial
FRK	2 - 3	2,2 - 42,2	Standard / Industrial
FRK	4	2,2 - 15	Standard / Industrial
FRP	2 - 6	24 - 90	Industrial
S/D	2 - 6	11 - 16	Standard / Industrial
S/D	2 - 6	16 - 90	Industrial
SFT	2 - 6	5,5 - 12	Industrial

1.3 Working range

The working range of the installation can be summarised as follows:

Table 4: Specification of the working range

Type	DP
Ambient temperature [°C]	0 - 30
Liquid temperature [°C]	+4 - 70 ¹
Maximum working pressure [kPa]	see PN class booster set
Supply pressure [kPa]	Non-cavitating ¹ . Minimum: 50 kPa ² Maximum: supply pressure plus pump pressure together may not exceed 1600 kPa
Maximum height	1000 m above NAP

1. Contact your supplier for more detailed advice.
2. Select the correct run dry protection when incoming pressure is lower

Table 5: Specific applications

Type	Area of application
HU Utility LINE	(Drinking) water supply systems, pressure increase in apartment buildings, water treatment systems, cooling systems

1.4 Basic materials

Item	Hydraulic part	Casting parts	Sealing
Pump	1.4301	1.4308	EPDM
Non-return valve (thread version)	POM	1.4404	Rubber
Shut-off valve (thread version)	1.4301	1.4301	
Non-return valve (flanged version) DN65	Bronze	JL 1040	EPDM
Non-return valve (flanged version) >DN65	JL 1040	JL 1040	EPDM
Shut-off valve (flanged version)	1.4408	JS 1030	EPDM
Piping	1.4301		
Diaphragm vessel	Stainless steel connection / epoxy coating		Butyl rubber
Pressure transmitter	1.4305		
Drain	Brass		
Misc.	May contain brass parts		

1.5 Standard motor data

Table 6: Motor data 3 phase, 2p 50 Hz

Article number	Rated power output [kW]	Frame size	Motor efficiency class	Rated Voltage [V]	Rated current [A]	Starting current Ia/In	Cos Phi	Tolerance rated voltage	Rated speed [rpm]	Motor efficiency 50%	Motor efficiency 75%	Motor efficiency 100%	Sound pressure [dB(A)]	Cable gland	Max. starts per hour
3710021003	0,37	71B	-	230/400	1,6/0,95	4,5	0,76	10%	2865	-	-	76	60	1xM20x1,5	50
3710021005	0,55	71C	-	230/400	2,1/1,2	5,3	0,8	10%	2880	-	-	82	60	1xM20x1,5	50
3710011007	0,75	80B	IE2	230/400	3,1/1,8	6,0	0,77	10%	2865	-	-	80	60	1xM20x1,5	50
3710011011	1,1	80C	IE2	230/400	4,2/2,4	6,8	0,81	10%	2870	-	-	82,5	60	1xM20x1,5	50
3710011015	1,5	90S	IE2	230/400	5,7/3,3	7,6	0,81	10%	2880	-	-	81,8	56	1xM20x1,5	50
3710011022	2,2	90L	IE2	230/400	8,2/4,7	7,3	0,81	10%	2870	-	-	83,5	56	1xM20x1,5	30
3710112030	3	100L	IE2	400/690	6,2/3,6	9,0	0,83	10%	2905	-	-	84,6	58	2xM20x1,5	30
3710112040	4	112M	IE2	400/690	7,7/4,5	8,5	0,87	10%	2915	-	-	86,3	59	2xM20x1,5	30
3710112055	5,5	132S	IE2	400/690	10,1/5,9	8,8	0,9	10%	2930	-	-	87,5	64	2xM25x1,5	20
3710112075	7,5	132S	IE2	400/690	13,2/7,7	8,5	0,92	10%	2920	-	-	88,6	64	2xM25x1,5	20
3710152075	7,5	132S	IE3	400/690	13,3/7,7	9,2	0,89	10%	2940	89,0	90,3	90,1	63	2xM25x1,5	20
3710112110	11	160M	IE2	400/690	21,0/12,2	7,8	0,84	10%	2950	-	-	90,0	71	2xM32x1,5	15
3710152110	11	160M	IE3	400/690	19,3/11,2	7,3	0,9	10%	2945	89,7	91,0	91,2	69	2xM32x1,5	15
3710112150	15	160M	IE2	400/690	28,2/16,3	7,6	0,85	10%	2945	-	-	90,3	70	2xM32x1,5	15
3710152150	15	160M	IE3	400/690	26,2/15,2	7,4	0,9	10%	2945	89,8	91,9	91,9	69	2xM32x1,5	15

Article number	Rated power output [kW]	Frame size	Motor efficiency class	Rated Voltage [V]	Rated current [A]	Starting current Ia/In	Cos Phi	Tolerance rated voltage	Rated speed [rpm]	Motor efficiency 50%	Motor efficiency 75%	Motor efficiency 100%	Sound pressure [dB(A)]	Cable gland	Max. starts per hour
3710112185	18,5	160L	IE2	400/690	33,6/19,5	9,3	0,87	10%	2950	-	-	91,3	73	2xM32x1,5	15
3710152185	18,5	160L	IE3	400/690	32,1/18,6	7,7	0,9	10%	2940	92,2	92,8	92,4	69	2xM32x1,5	15
3710112220	22	180M	IE2	400/690	39,5/22,9	7,5	0,88	10%	2945	-	-	91,3	75	2xM32x1,5	12
3710152220	22	180M	IE3	400/690	38,1/22,1	9,2	0,9	10%	2955	92,1	92,9	92,7	74	2xM32x1,5	12
3700112300	30	200L	IE2	400/690	51,8/29,9	7,5	0,91	10%	2955	-	-	92,9	80	2xM50x1,5	12
3700152300	30	200L	IE3	400/690	51,6/29,9	8,5	0,9	10%	2965	92,3	93,2	93,3	73	2xM50x1,5	15
3700112370	37	200L	IE2	400/690	63,5/36,7	7,5	0,91	10%	2950	-	-	93,3	80	2xM50x1,5	12
3700152370	37	200L	IE3	400/690	63,3/36,7	8,5	0,9	10%	2965	92,8	93,8	93,7	73	2xM50x1,5	15
3700112450	45	225M	IE2	400/690	76/43,9	7,5	0,91	10%	2969	-	-	93,7	80	2xM50x1,5	12
3700152450	45	225M	IE3	400/690	76,8/44,5	8,5	0,9	10%	2970	93,2	94,2	94,0	75	2xM50x1,5	15

Table 7: Motor data 3 phase, 2p 60 Hz

Article number	Rated power output [kW]	Frame size	Motor efficiency class	Rated Voltage [V]	Rated current [A]	Starting current Ia/In	Cos Phi	Tolerance rated voltage	Rated speed [rpm]	Motor efficiency 50%	Motor efficiency 75%	Motor efficiency 100%	Sound pressure [dB(A)]	Cable gland	Max. starts per hour
3710021003	0,37	71B	-	230/400	1,6/0,95	4,5	0,76	-10,+20%	3430	-	-	76	60	1xM20x1,5	50
3710021005	0,55	71C	-	230/400	2,1/1,2	5,3	0,8	-10,+20%	3460	-	-	82	60	1xM20x1,5	50
3710011007	0,75	80B	IE2	230/400	3,1/1,8	6,0	0,77	-10,+20%	3430	-	-	80	60	1xM20x1,5	50
3710051007	0,75	80A	IE3	230/400	2,8/1,6	6,2	0,84	-10,+25%	3460	76,3	79,7	80,7	58	1xM20x1,5	50
3710011011	1,1	80C	IE2	230/400	4,2/2,4	6,8	0,81	-10,+20%	3440	-	-	82,5	60	1xM20x1,5	50
3710051011	1,1	80B	IE3	230/400	3,8/2,2	6,4	0,86	-10,+25%	3440	84,6	85,5	84	58	1xM20x1,5	50
3710011015	1,5	90S	IE2	230/400	5,2/3,0	7,2	0,88	-10,+20%	3450	-	-	81,9	59	1xM20x1,5	50
3710051015	1,5	90S	IE3	230/400	5,1/2,9	7,5	0,88	-10,+25%	3455	82,4	84,3	84	58	1xM20x1,5	50
3710011022	2,2	90L	IE2	230/400	7,5/4,3	6,6	0,89	-10,+20%	3420	-	-	83,3	59	1xM20x1,5	30
3710051022	2,2	90L	IE3	230/400	7,1/4,1	8,6	0,90	-10,+25%	3480	82,5	85,2	86,5	58	1xM20x1,5	30
3710111030	3	100L	IE2	230/400	9,9/5,7	8,6	0,89	-10,+20%	3480	-	-	86	62	2xM20x1,5	30
3710151030	3	100L	IE3	230/400	9,7/5,6	7,6	0,90	-10,+25%	3495	85,6	86,9	86,4	61	2xM20x1,5	30
3710112030	3	100L	IE2	400/690	5,7/3,3	8,6	0,89	-10,+20%	3480	-	-	86	62	2xM20x1,5	30
3710152030	3	100L	IE3	400/690	5,6/3,2	7,6	0,90	-10,+25%	3495	85,6	86,9	86,4	61	2xM20x1,5	30
3710111040	4	112M	IE2	230/400	12,6/7,3	7,3	0,91	-10,+20%	3495	-	-	87,5	62	2xM20x1,5	30
3710151040	4	112M	IE3	230/400	12,5/7,2	8,8	0,92	-10,+25%	3525	85,1	87	87,2	62	2xM20x1,5	30
3710112040	4	112M	IE2	400/690	7,3/4,2	7,3	0,91	-10,+20%	3495	-	-	87,5	62	2xM20x1,5	30
3710152040	4	112M	IE3	400/690	7,2/4,2	8,8	0,92	-10,+25%	3525	85,1	87	87,2	62	2xM20x1,5	30
3710111055	5,5	132S	IE2	230/400	16,7/9,6	7,7	0,93	-10,+20%	3520	-	-	89	68	2xM25x1,5	20
3710151055	5,5	132S	IE3	230/400	17/9,8	7,8	0,92	-10,+25%	3525	85,8	88,2	88,5	67	2xM25x1,5	20
3710112055	5,5	132S	IE2	400/690	9,6/5,6	7,7	0,93	-10,+20%	3520	-	-	89	68	2xM25x1,5	20
3710152055	5,5	132S	IE3	400/690	9,8/5,6	7,8	0,92	-10,+25%	3525	85,8	88,2	88,5	67	2xM25x1,5	20
3710111075	7,5	132S	IE2	230/400	22,9/13,2	7,3	0,94	-10,+20%	3500	-	-	87,4	68	2xM25x1,5	20
3710151075	7,5	132S	IE3	230/400	22,5/13,0	8,0	0,93	-10,+25%	3525	87,5	89,3	89,5	67	2xM25x1,5	20
3710112075	7,5	132S	IE2	400/690	13,2/7,7	7,3	0,94	-10,+20%	3500	-	-	87,4	68	2xM25x1,5	20
3710152075	7,5	132S	IE3	400/690	13,0/7,5	8,0	0,93	-10,+25%	3525	87,5	89,3	89,5	67	2xM25x1,5	20
3710111110	11	160M	IE2	230/400	34,5/19,8	6,7	0,89	-10,+20%	3530	-	-	90	75	2xM32x1,5	15
3710151110	11	160M	IE3	230/400	32,9/19,0	6,3	0,92	-10,+25%	3530	90,3	91,3	91	73	2xM32x1,5	15

Article number	Rated power output [kW]	Frame size	Motor efficiency class	Rated Voltage [V]	Rated current [A]	Starting current Ia/In	Cos Phi	Tolerance rated voltage	Rated speed [rpm]	Motor efficiency 50%	Motor efficiency 75%	Motor efficiency 100%	Sound pressure [dB(A)]	Cable gland	Max. starts per hour
3710112110	11	160M	IE2	400/690	19,8/11,5	6,7	0,89	-10,+20%	3530	-	-	90	75	2xM32x1,5	15
3710152110	11	160M	IE3	400/690	19,0/11,0	6,3	0,92	-10,+25%	3530	90,3	91,3	91	73	2xM32x1,5	15
3710111150	15	160M	IE2	230/400	46,6/26,8	6,6	0,9	-10,+20%	3530	-	-	89,8	74	2xM32x1,5	15
3710151150	15	160M	IE3	230/400	44,3/25,6	6,5	0,92	-10,+25%	3530	91,9	92,5	92	73	2xM32x1,5	15
3710112150	15	160M	IE2	400/690	26,8/15,5	6,6	0,9	-10,+20%	3530	-	-	89,8	74	2xM32x1,5	15
3710152150	15	160M	IE3	400/690	25,6/14,8	6,5	0,92	-10,+25%	3530	91,9	92,5	92	73	2xM32x1,5	15
3710111185	18,5	160L	IE2	230/400	55,7/32,0	8,0	0,91	-10,+20%	3540	-	-	91,6	77	2xM32x1,5	15
3710151185	18,5	160L	IE3	230/400	54,6/31,5	7,7	0,92	-10,+25%	3525	92,1	92,6	92	73	2xM32x1,5	15
3710112185	18,5	160L	IE2	400/690	32,0/18,6	8,0	0,91	-10,+20%	3540	-	-	91,6	77	2xM32x1,5	15
3710152185	18,5	160L	IE3	400/690	31,5/18,3	7,7	0,92	-10,+25%	3525	92,1	92,6	92	73	2xM32x1,5	15
3710111220	22	180M	IE2	230/400	67,1/38,8	6,5	0,9	-10,+20%	3530	-	-	91,5	80	2xM32x1,5	12
3710151220	22	180M	IE3	230/400	65,5/37,8	7,8	0,91	-10,+25%	3550	90,1	91,9	92,2	79	2xM32x1,5	12
3710112220	22	180M	IE2	400/690	38,8/22,4	6,5	0,9	-10,+20%	3530	-	-	91,5	80	2xM32x1,5	12
3710152220	22	180M	IE3	400/690	37,8/21,9	7,8	0,91	-10,+25%	3550	90,1	91,9	92,2	79	2xM32x1,5	12
3700111300	30	200L	IE2	230/400	86,5/49,7	6,4	0,92	-5,+20%	3546	-	-	94,8	80	2xM50x1,5	12
3700151300	30	200	IE3	230/400	88,5/50,9	7,7	0,91	-10,+20%	3550	92,4	93,4	93,5	76	2xM50x1,5	15
3700112300	30	200L	IE2	400/690	49,7/28,8	6,4	0,92	-5,+20%	3540	-	-	94,8	80	2xM50x1,5	12
3700152300	30	200	IE3	400/690	50,9/29,5	7,7	0,91	-10,+20%	3550	92,4	93,4	93,5	76	2xM50x1,5	15
3700111370	37	200L	IE2	230/400	106,2/61,1	6,4	0,92	-5,+20%	3548	-	-	95,2	80	2xM50x1,5	20
3700151370	37	200	IE3	230/400	109/62,5	7,7	0,91	-10,+20%	3550	92,8	93,8	93,9	76	2xM50x1,5	15
3700112370	37	200L	IE2	400/690	61,1/35,4	6,4	0,92	-5,+20%	3540	-	-	95,2	80	2xM50x1,5	12
3700152370	37	200	IE3	400/690	62,5/36,2	7,7	0,91	-10,+20%	3550	92,8	93,8	93,9	76	2xM50x1,5	15
3700111450	45	225M	IE2	230/400	128,6/73,9	6,4	0,92	-5,+20%	3563	-	-	95,6	80	2xM50x1,5	20
3700151450	45	225	IE3	230/400	132/75,8	7,7	0,91	-10,+20%	3560	93,4	94,1	95,6	78	2xM50x1,5	15
3700112450	45	225M	IE2	400/690	73,9/42,9	6,4	0,92	-5,+20%	3563	-	-	95,6	80	2xM50x1,5	12
3700152450	45	225	IE3	400/690	75,8/43,9	7,7	0,91	-10,+20%	3560	93,4	94,1	94,2	78	2xM50x1,5	15

1.6 Approvals

VEWIN water worksheets

CE Complies with the European Safety Directive

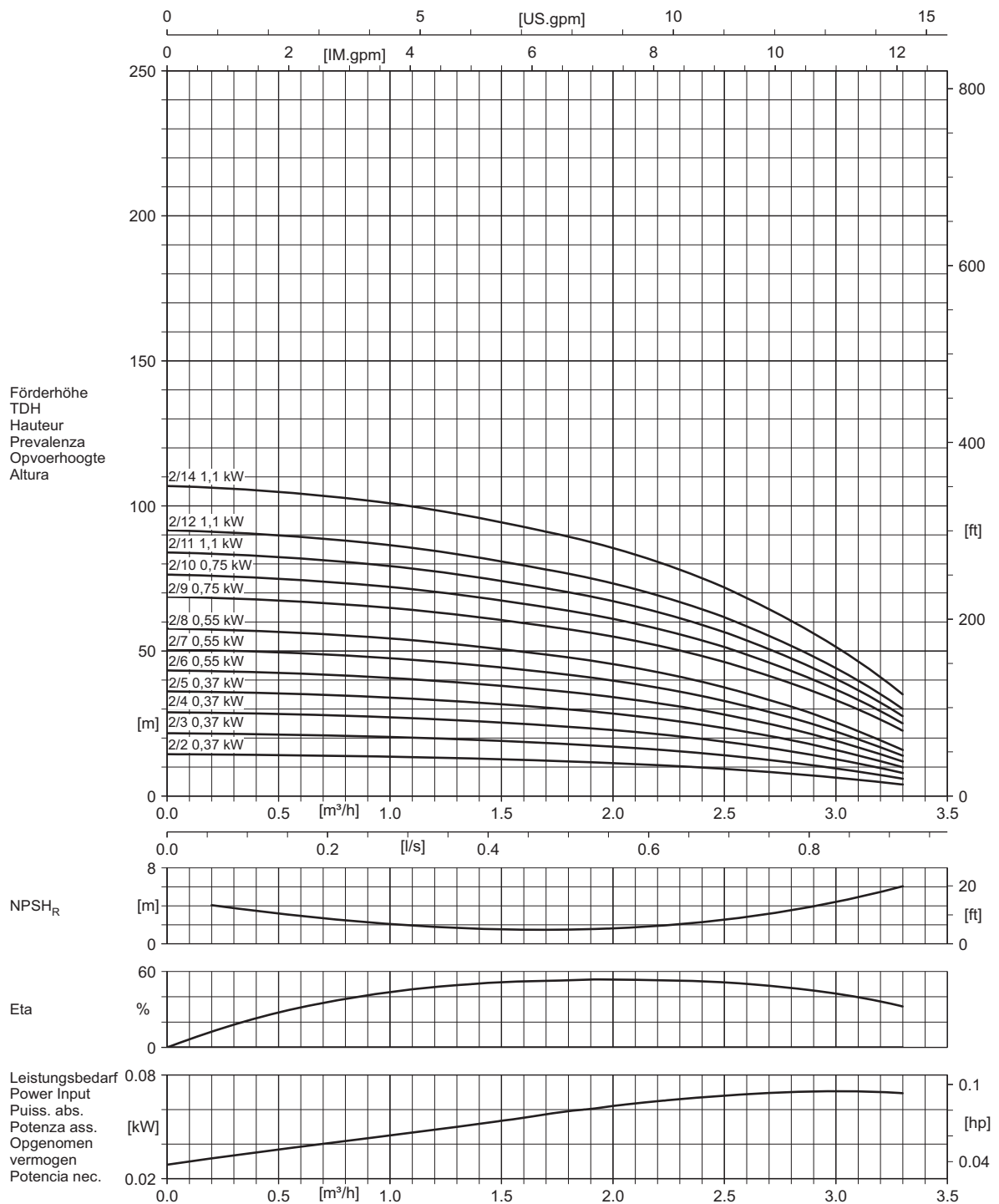
1.7 Model code

Table 8: Explanation of installation name

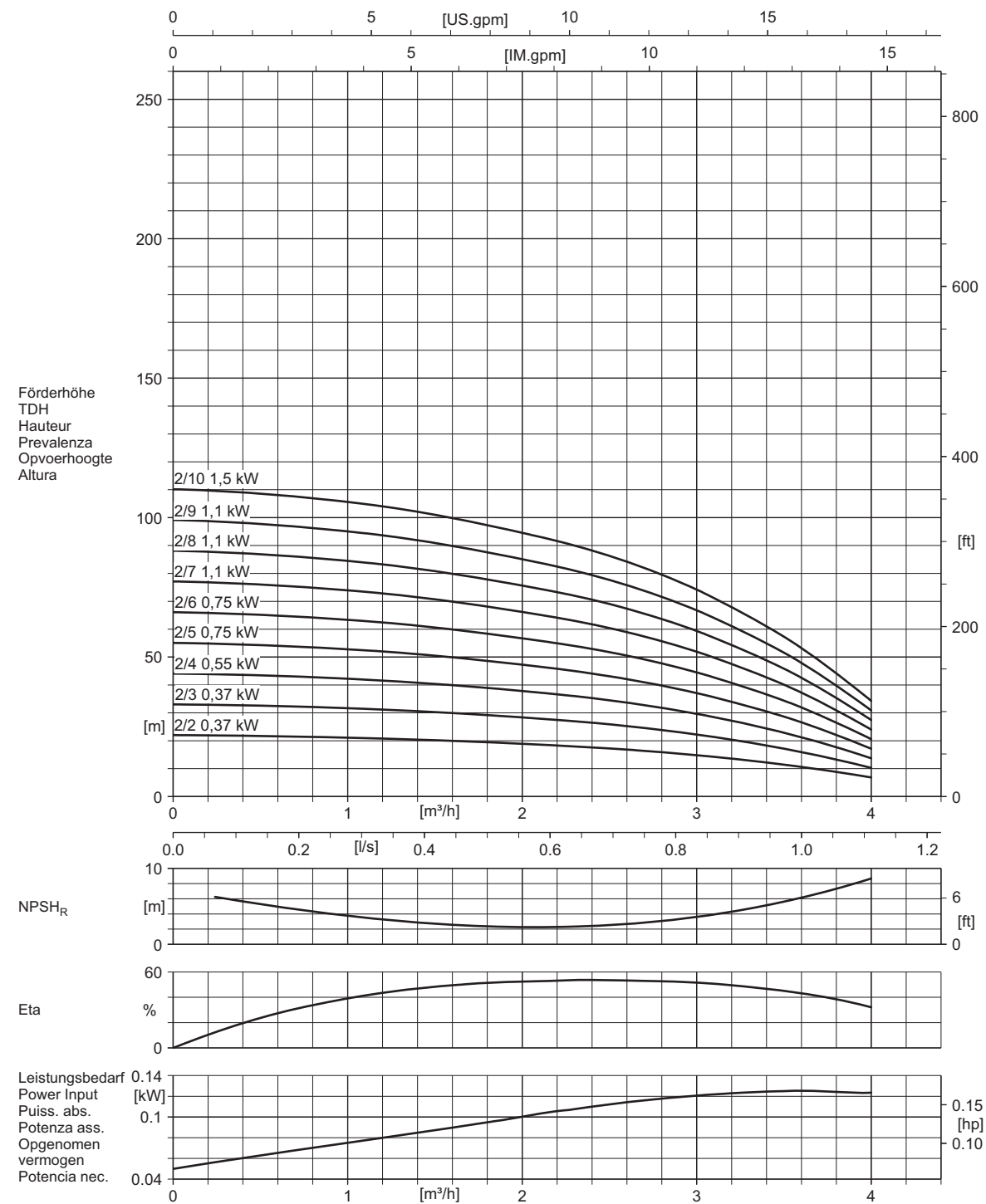
HU	2	DPV	2	/2	AISI304	G5/4	AISI304	G 6/4	PN10	PT	MC DOL	A	3 x 400 V	50 Hz	3,00A	2850 rpm	Hydro-unit
HU																	Number of pumps
	2-6																Pump series
		DPV DPVF															Pump type
			2 - 85														Number of stages
				/2./14													Material fittings
					AISI304 Cl												Fitting size
						G 5/4 - NW100											Material manifold
							AISI304										Connection manifold
								G 6/4 - NW250									Pressure class of installation
									PN10 - PN25								Run-dry protection
										PT							Type of control: DOL = Direct On Line SFT = Soft starter S/D = Star-delta MCMF = Frequency converter each pump 50 Hz = pump frequency 60 Hz = pump frequency
											MC DOL MC SFT MC S/D MCMF 50 Hz MCMF 60 Hz						Switch box type: A= w x h = 400 x 800 B= w x h = 600 x 1000 C= w x h = 800 x 1200 D = w x h = 1200 x 1200
												A B C D					Supply voltage and frequency
													3 x 400 V	50 Hz	3,00A		Absorbed current of the installation at full load
																	Pump speed
																2850 rpm 3450 rpm	

2 Performance graphs

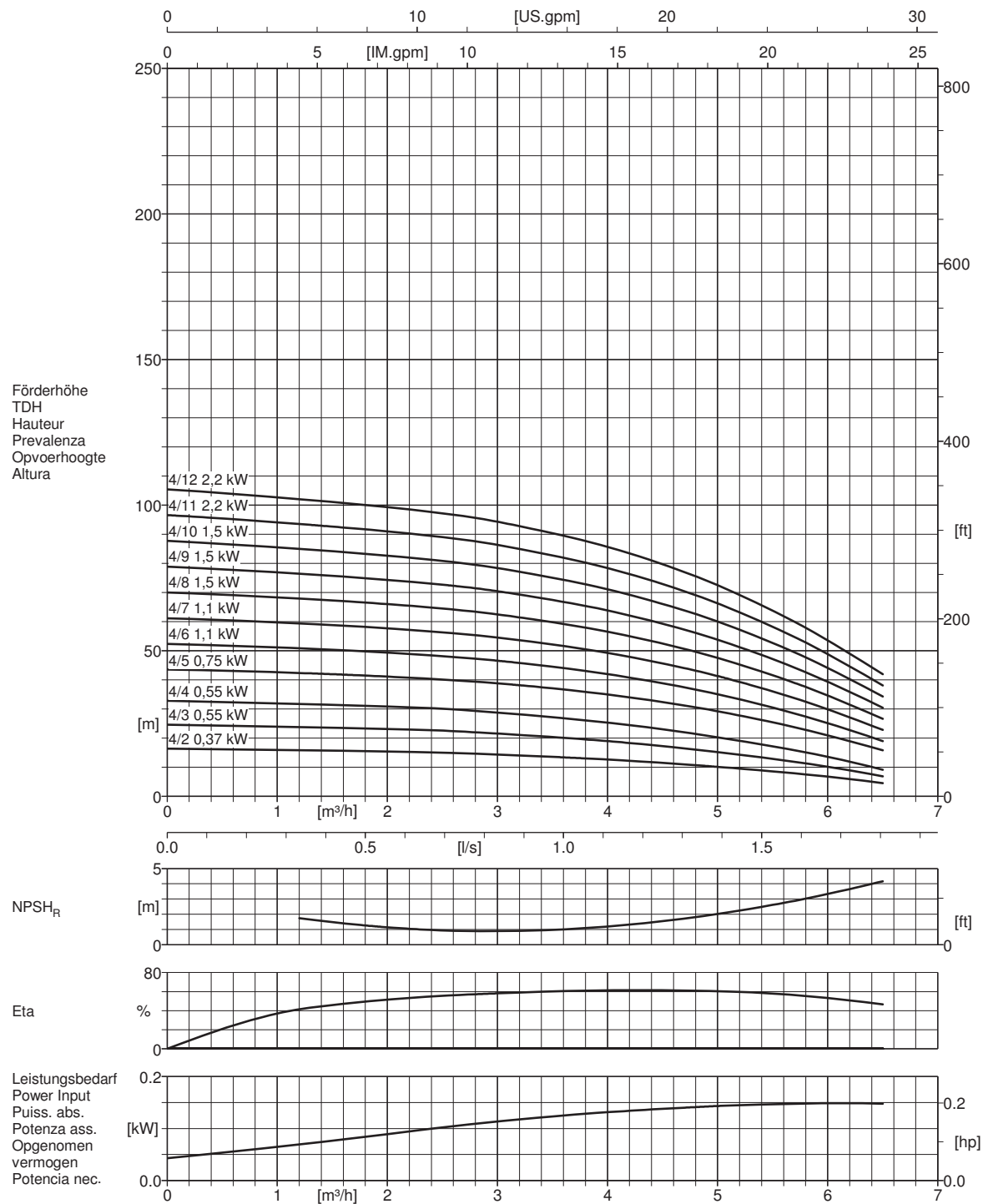
2.1 Hydraulic performance curve DPV2 (50 Hz ~ 2850 rpm) (1 pump in operation)



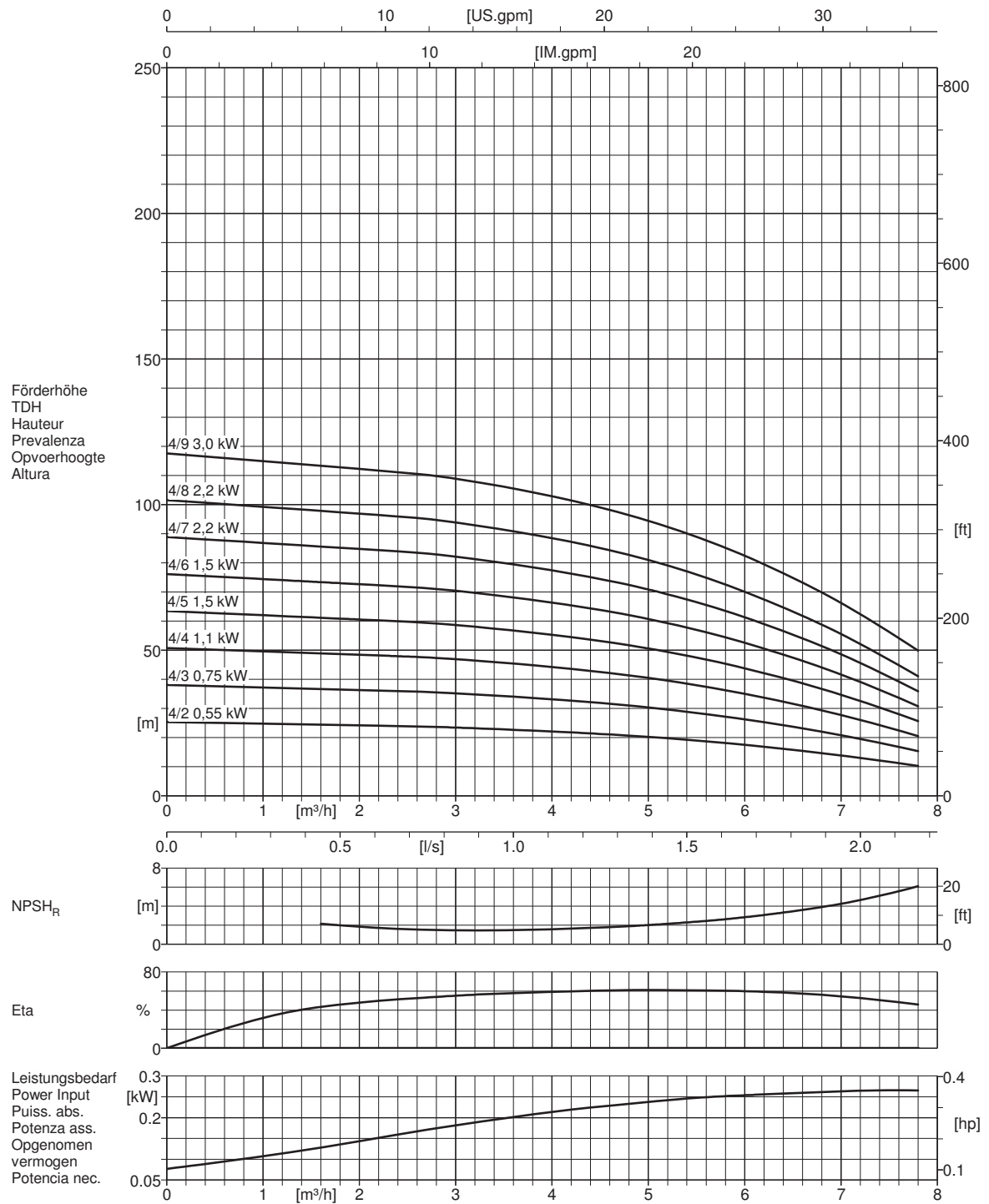
2.2 **Hydraulic performance curve DPV2 (60 Hz ~ 3450 rpm)**
(1 pump in operation)



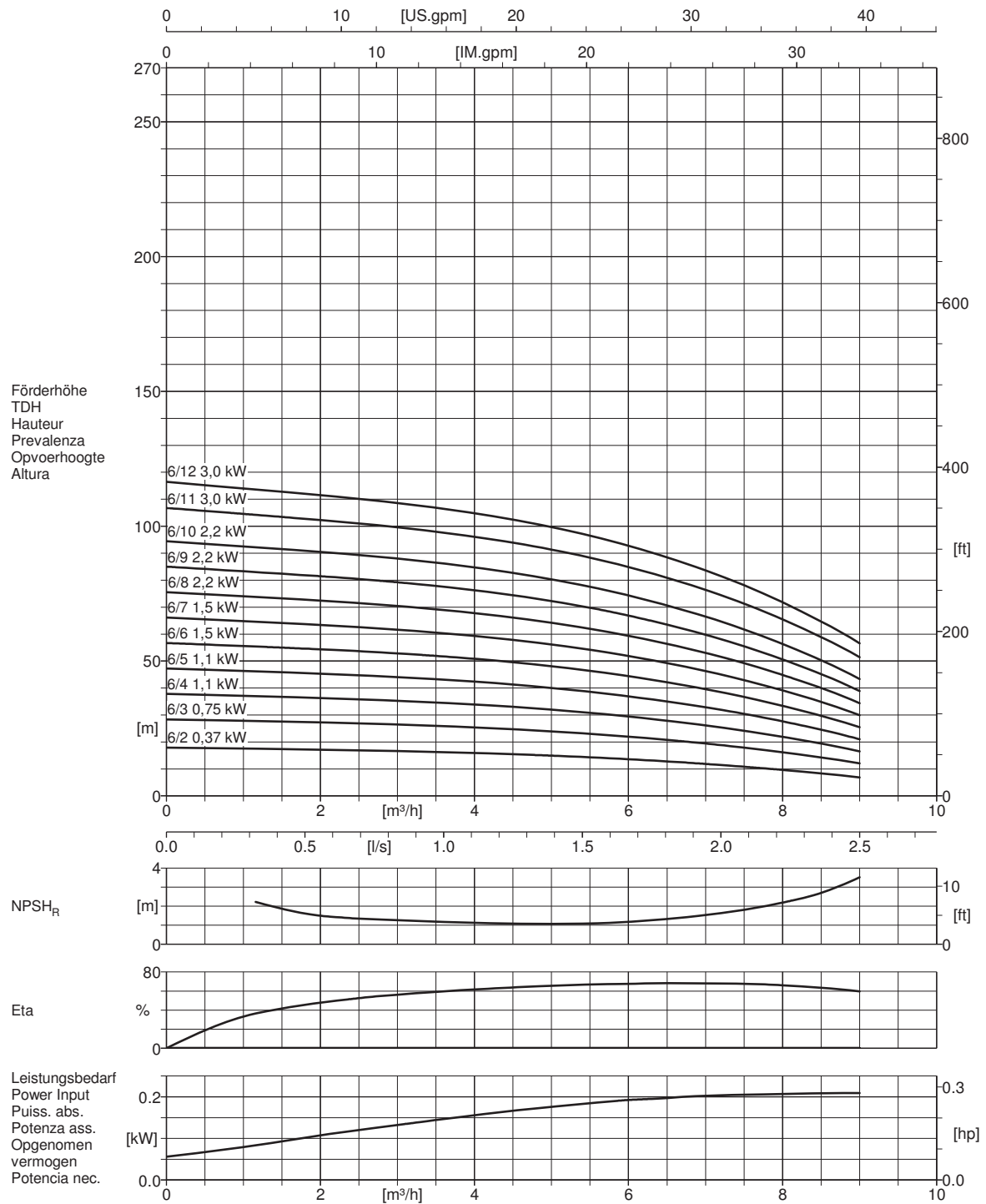
2.3 Hydraulic performance curve DPV4 (50 Hz ~ 2850 rpm) (1 pump in operation)



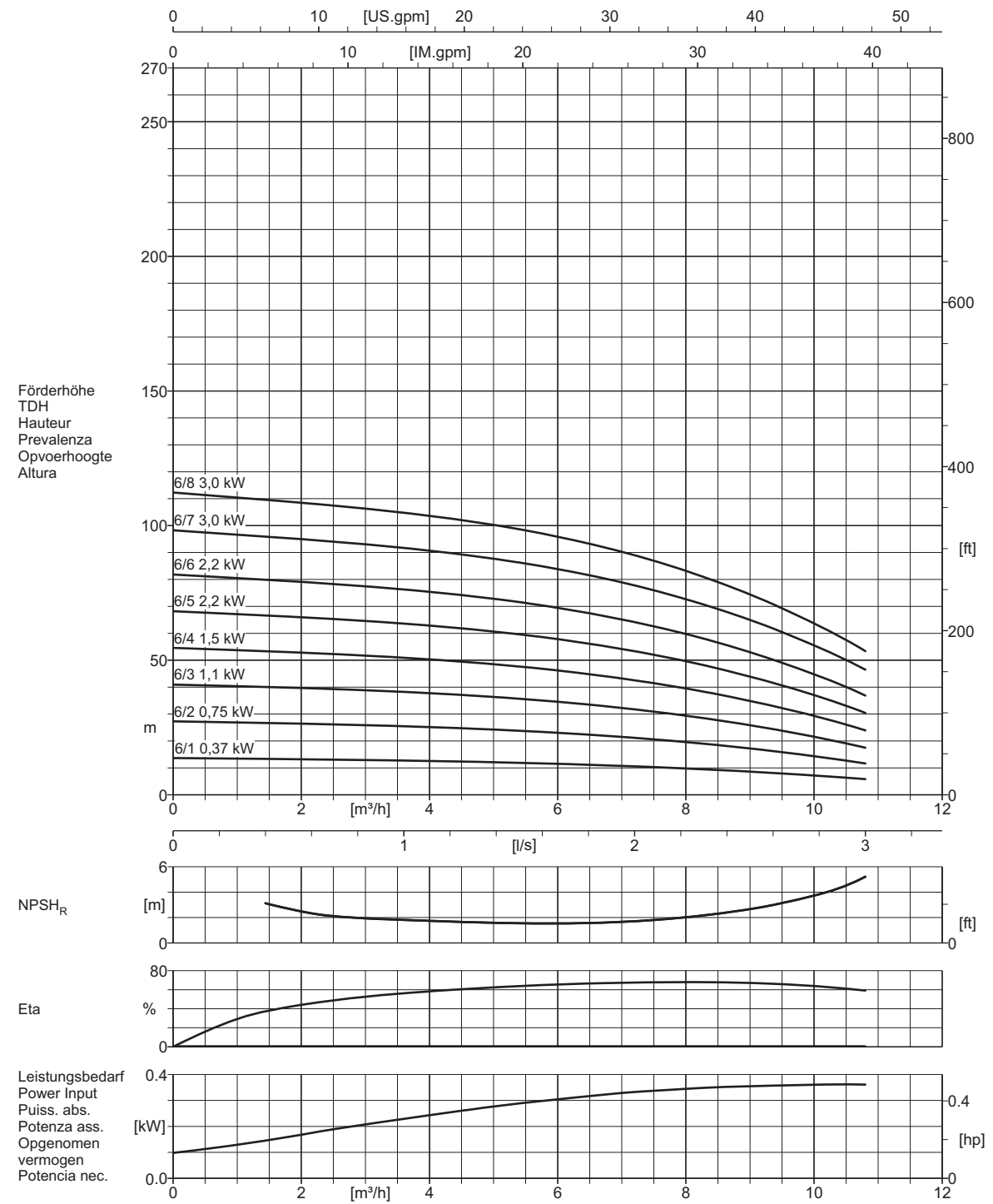
2.4 Hydraulic performance curve DPV4 (60 Hz ~ 3450 rpm) (1 pump in operation)



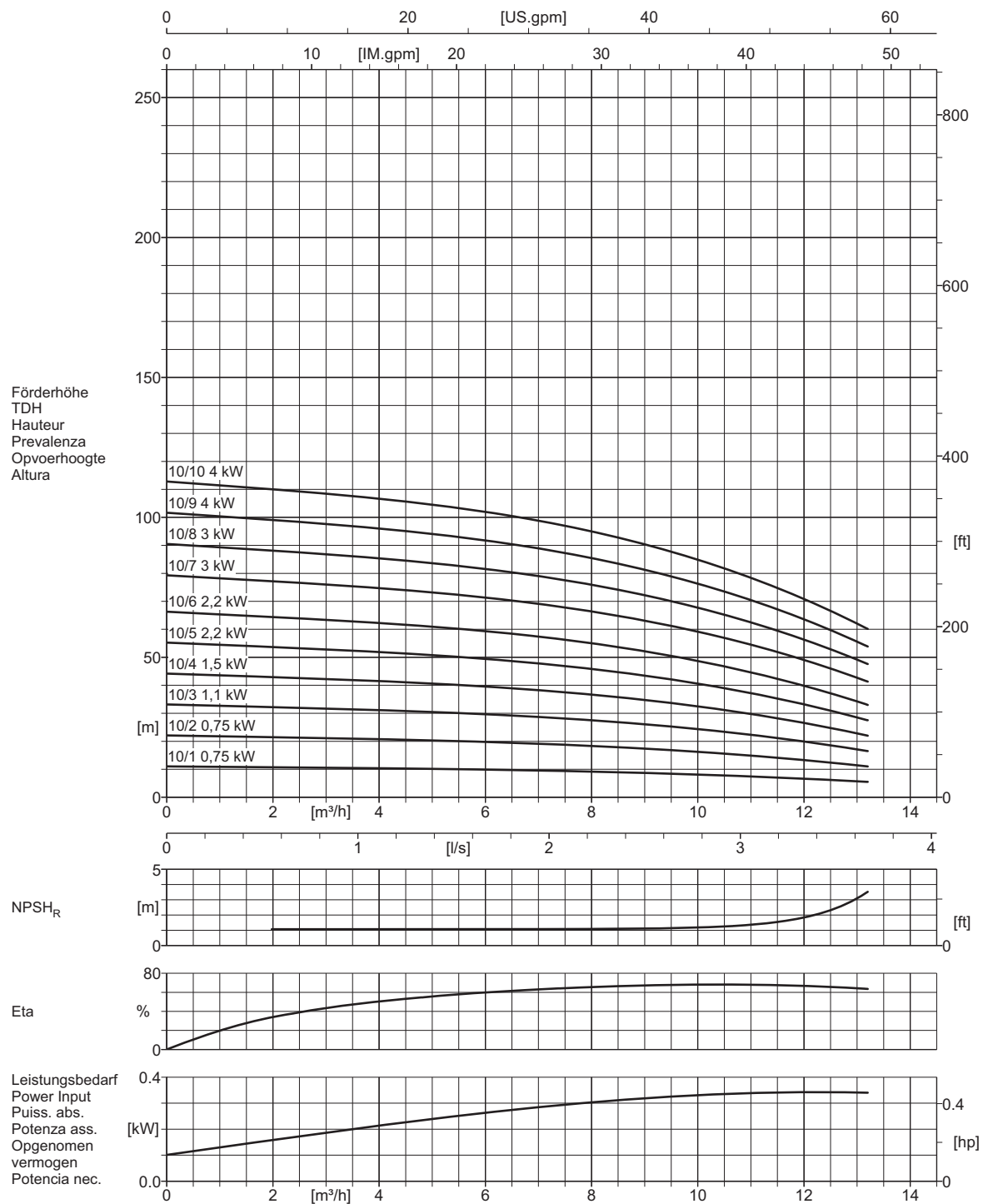
2.5 Hydraulic performance curve DPV6 (50 Hz ~ 2850 rpm) (1 pump in operation)



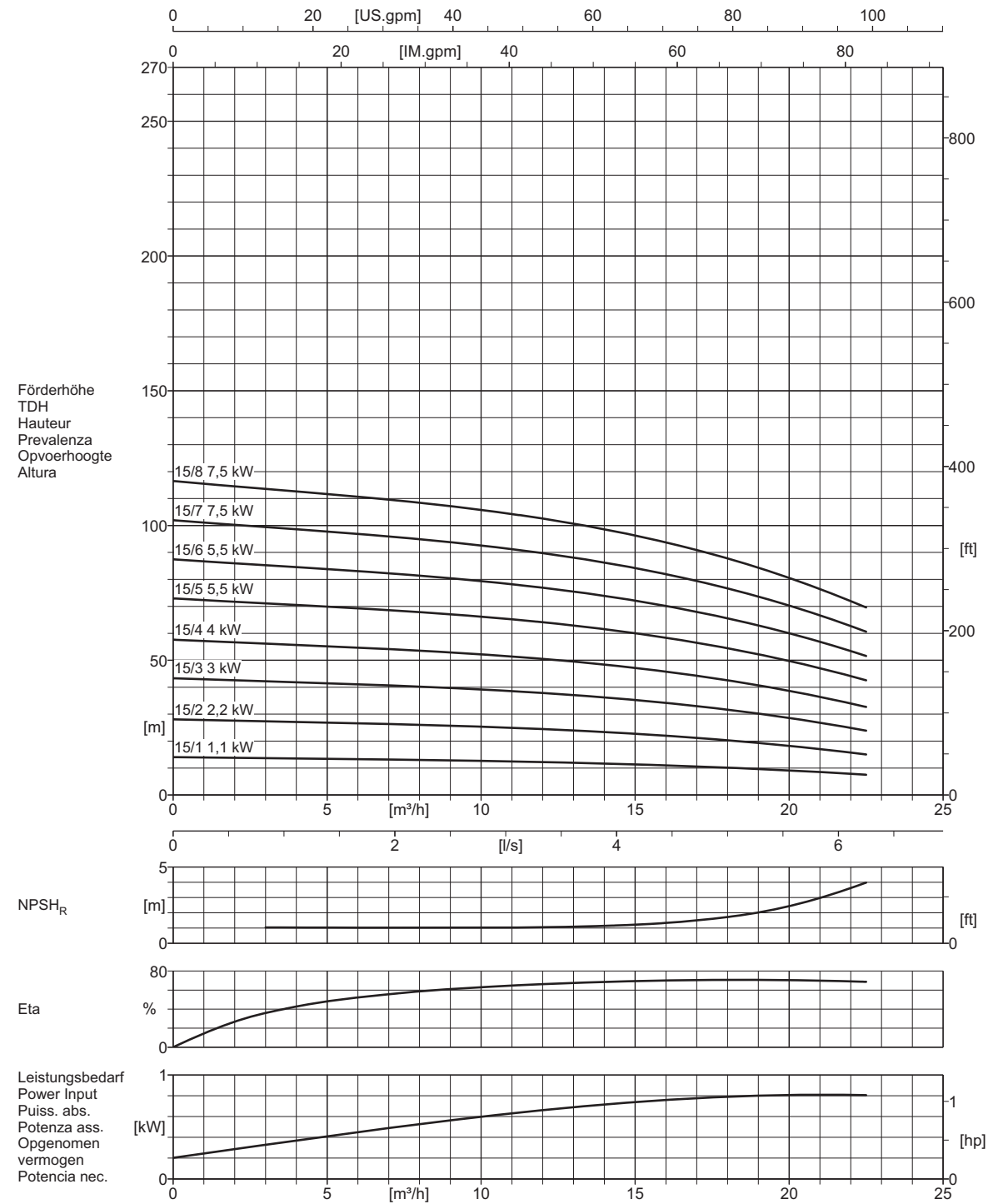
2.6 Hydraulic performance curve DPV6 (60 Hz ~ 3450 rpm) (1 pump in operation)



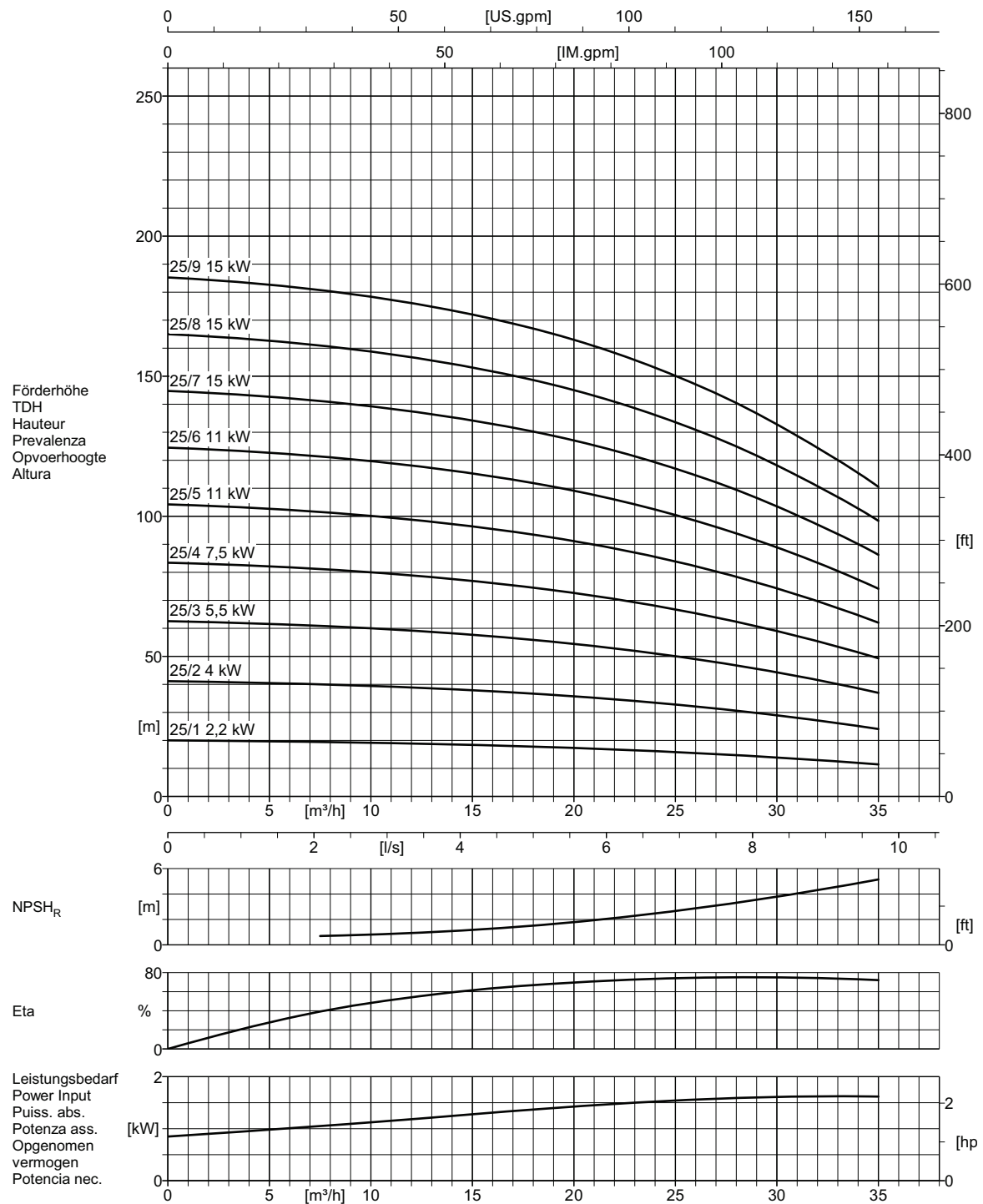
2.7 Hydraulic performance curve DPV 10 (50 Hz ~ 2850 rpm) (1 pump in operation)



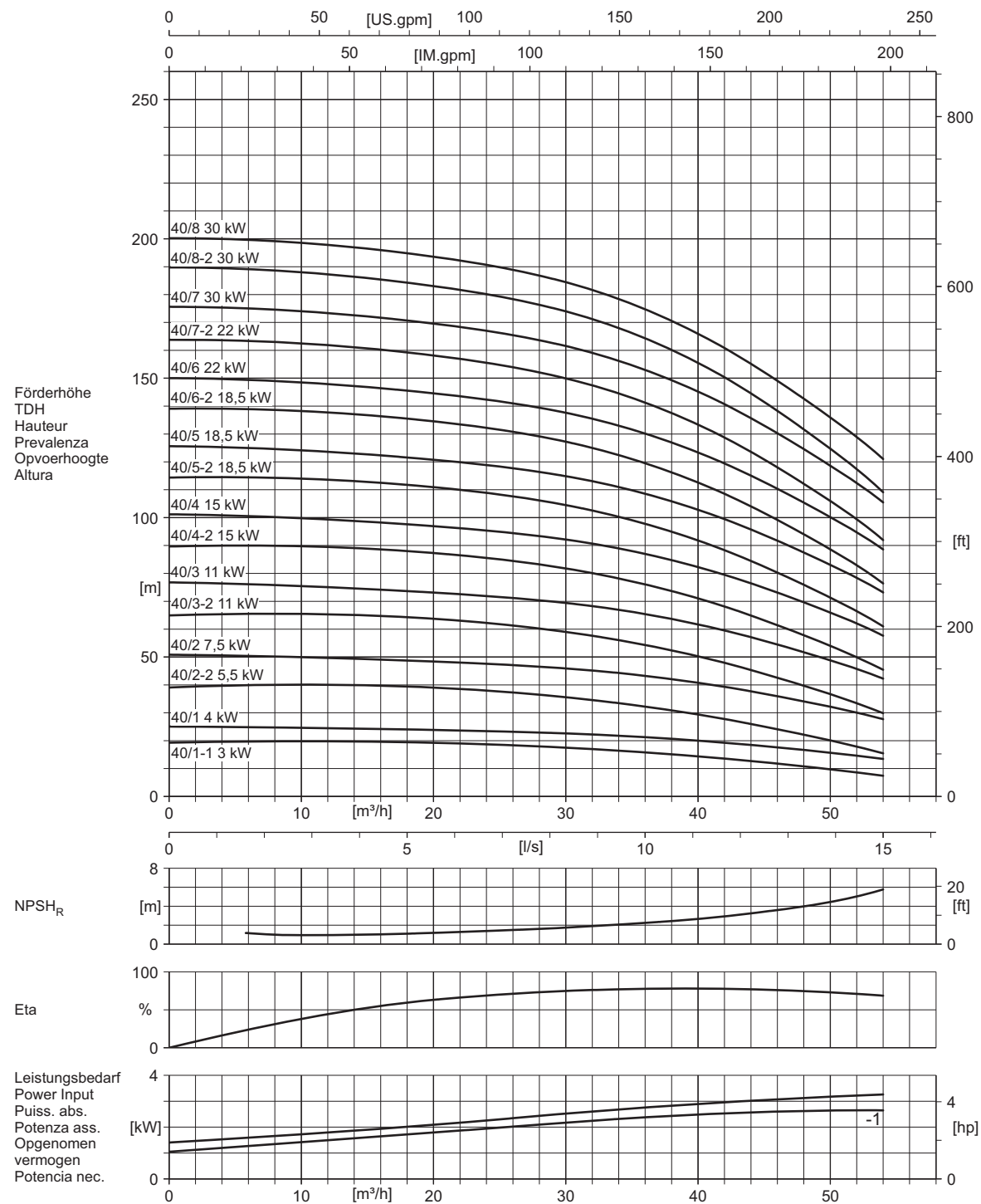
2.8 Hydraulic performance curve DPV 15 (50 Hz ~ 2850 rpm) (1 pump in operation)



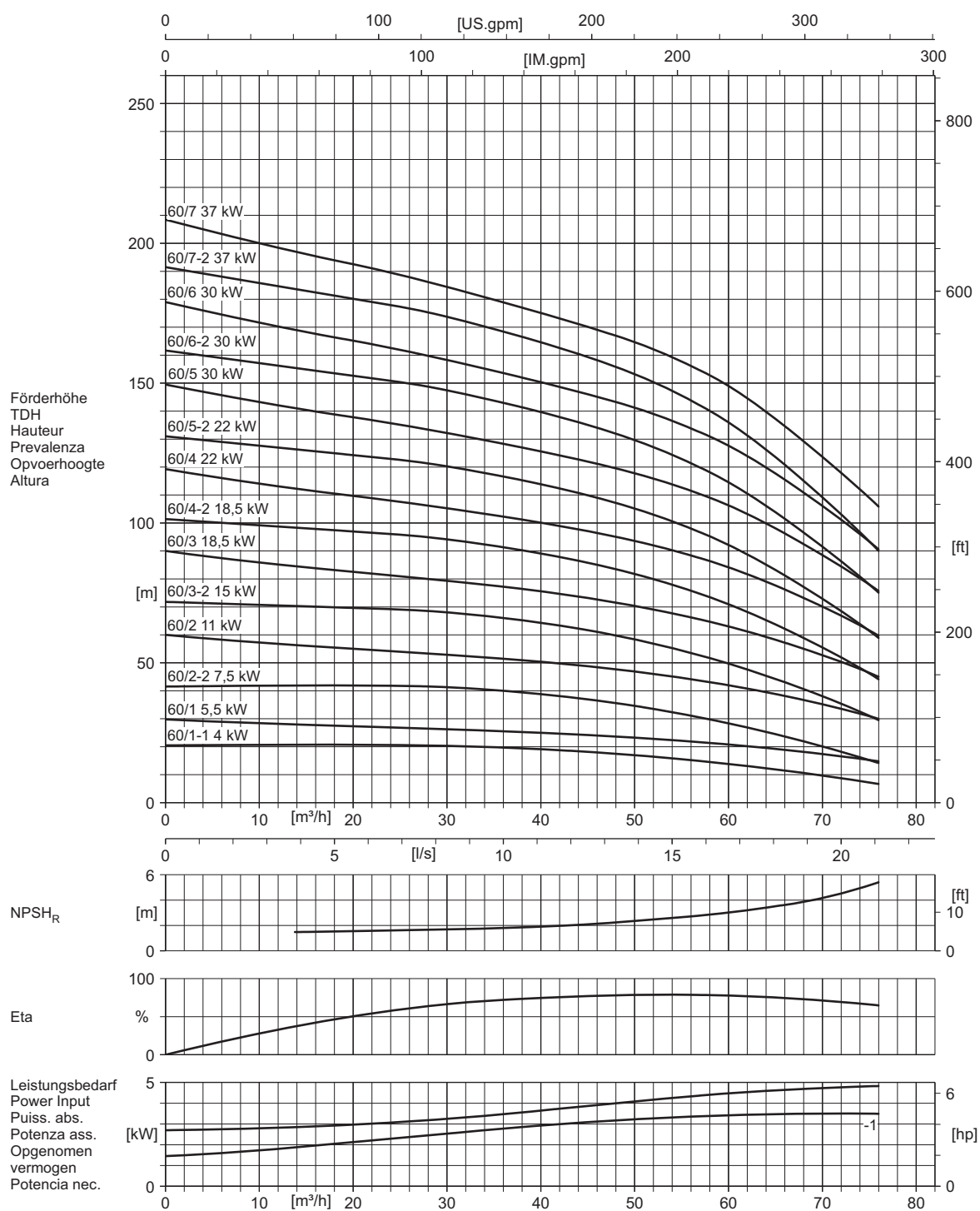
2.9 Hydraulic performance curve DPVF 25 (50 Hz ~ 2920 rpm) (1 pump in operation)



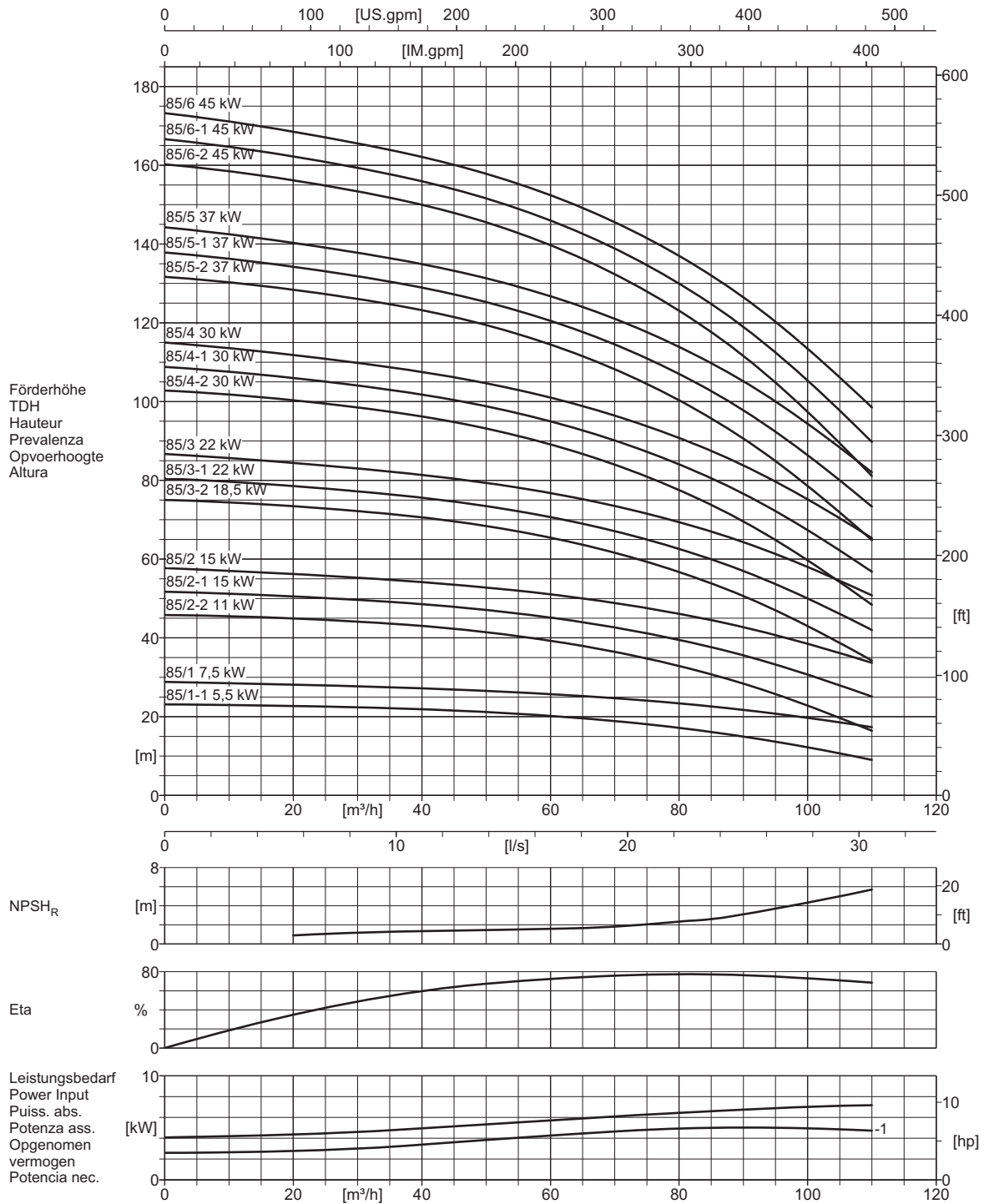
2.10 Hydraulic performance curve DPVF 40 (50 Hz ~ 2850 rpm) (1 pump in operation)



2.11 Hydraulic performance curve DPVF 60 (50 Hz ~ 2850 rpm) (1 pump in operation)



2.12 Hydraulic performance curve DPVF 85 (50 Hz ~ 2850 rpm) (1 pump in operation)



3 Specification Direct On Line

3.1 Dimensions HU2 DOL

3.1.1 HU2 DPV2/4/6 MC DOL - A

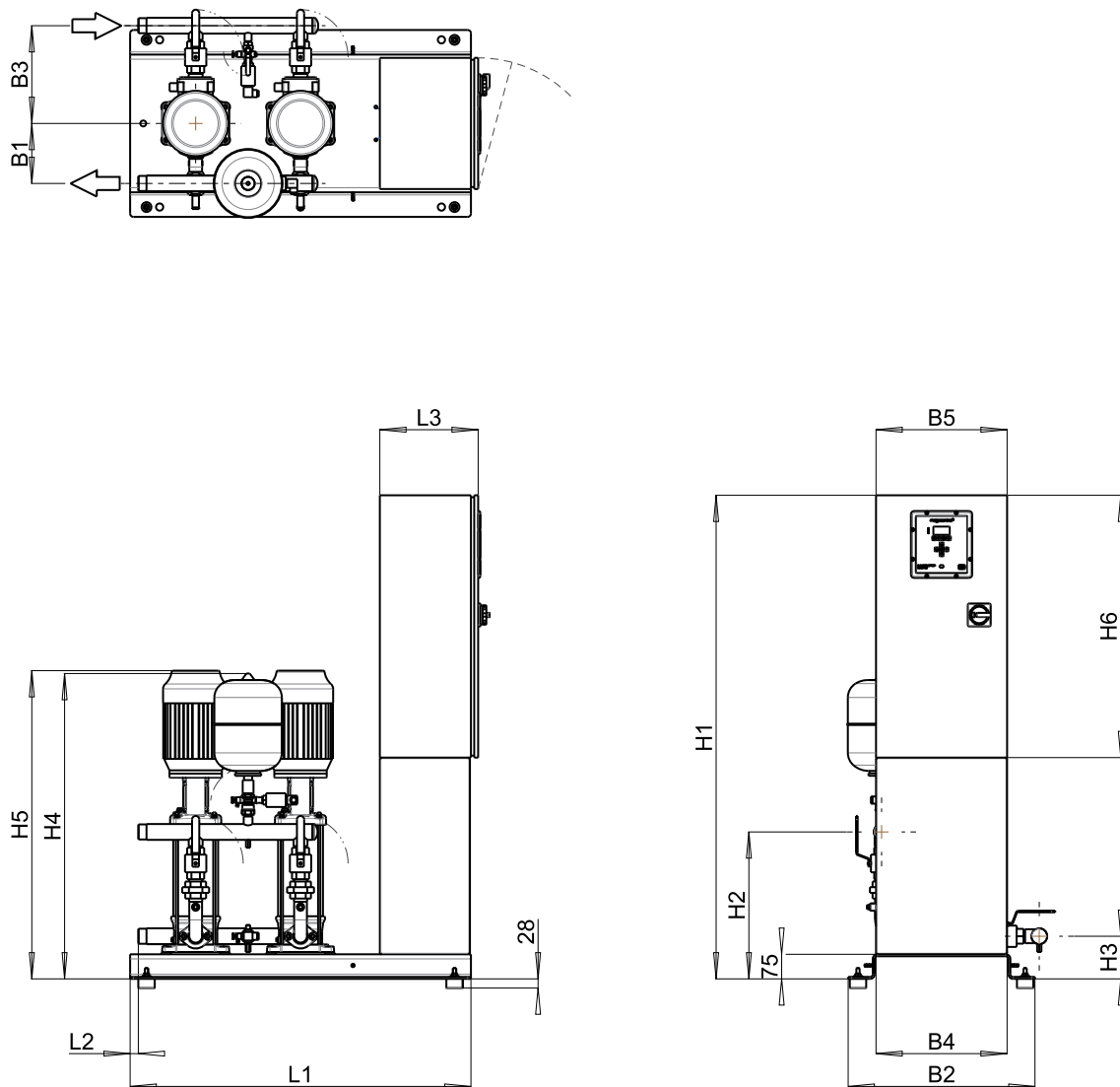


Figure 1: HU 2 DPV2/4/6

Table 9: Dimensions

Pump type	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H6 [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	B5 [mm]	L1 [mm]	L2 [mm]	L3 [mm]
DPV2	1475	449	130	932	800	255	570	240	400	400	1040	25	300
DPV4	1475	449	130	932	800	255	570	240	400	400	1040	25	300
DPV6	1475	449	130	932	800	255	570	240	400	400	1040	25	300

20100075-B

Table 10: General

Run-dry protection	Pressure transmitter
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Protection class	IP55
Drawing number	20100075

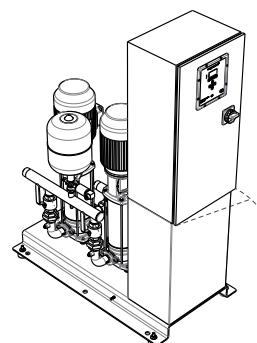


Figure 2: HU 2 DPV2/4/6

Table 11: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max Unit	Max fuse	Control	Pump speed	H5 [mm]	Mass [kg]
HU2 DPV2										
HU232201D31A	/2	AISI304 G 5/4	AISI304 G 6/4	PN10	3,00A	25A	MC DOL - A	2750 rpm	547	155
HU232301D31A	/3	AISI304 G 5/4	AISI304 G 6/4	PN10	3,00A	25A	MC DOL - A	2750 rpm	568	155
HU232401D31A	/4	AISI304 G 5/4	AISI304 G 6/4	PN10	3,00A	25A	MC DOL - A	2750 rpm	590	155
HU232501D31A	/5	AISI304 G 5/4	AISI304 G 6/4	PN10	3,00A	25A	MC DOL - A	2750 rpm	611	155
HU232601D31A	/6	AISI304 G 5/4	AISI304 G 6/4	PN10	4,00A	25A	MC DOL - A	2790 rpm	633	155
HU232701D31A	/7	AISI304 G 5/4	AISI304 G 6/4	PN10	4,00A	25A	MC DOL - A	2790 rpm	654	155
HU232801D31A	/8	AISI304 G 5/4	AISI304 G 6/4	PN10	4,00A	25A	MC DOL - A	2790 rpm	676	155
HU232902D31A	/9	AISI304 G 5/4	AISI304 G 6/4	PN16	5,00A	25A	MC DOL - A	2875 rpm	751	155
HU232A02D31A	/10	AISI304 G 5/4	AISI304 G 6/4	PN16	5,00A	25A	MC DOL - A	2875 rpm	773	175
HU232B02D31A	/11	AISI304 G 5/4	AISI304 G 6/4	PN16	6,00A	25A	MC DOL - A	2875 rpm	834	175
HU232C02D31A	/12	AISI304 G 5/4	AISI304 G 6/4	PN16	6,00A	25A	MC DOL - A	2875 rpm	816	175
HU232E02D31A	/14	AISI304 G 5/4	AISI304 G 6/4	PN16	6,00A	25A	MC DOL - A	2875 rpm	859	175
HU2 DPV4										
HU234201D31A	/2	AISI304 G 5/4	AISI304 G 6/4	PN10	3,00A	25A	MC DOL - A	2750 rpm	547	155
HU234301D31A	/3	AISI304 G 5/4	AISI304 G 6/4	PN10	4,00A	25A	MC DOL - A	2790 rpm	568	155
HU234401D31A	/4	AISI304 G 5/4	AISI304 G 6/4	PN10	4,00A	25A	MC DOL - A	2790 rpm	590	155
HU234501D31A	/5	AISI304 G 5/4	AISI304 G 6/4	PN10	5,00A	25A	MC DOL - A	2875 rpm	665	155
HU234601D31A	/6	AISI304 G 5/4	AISI304 G 6/4	PN10	6,00A	25A	MC DOL - A	2875 rpm	687	175
HU234702D31A	/7	AISI304 G 5/4	AISI304 G 6/4	PN16	6,00A	25A	MC DOL - A	2875 rpm	708	175
HU234802D31A	/8	AISI304 G 5/4	AISI304 G 6/4	PN16	7,00A	25A	MC DOL - A	2900 rpm	736	175
HU234902D31A	/9	AISI304 G 5/4	AISI304 G 6/4	PN16	7,00A	25A	MC DOL - A	2900 rpm	757	195
HU234A02D31A	/10	AISI304 G 5/4	AISI304 G 6/4	PN16	7,00A	25A	MC DOL - A	2900 rpm	779	195
HU234B02D31A	/11	AISI304 G 5/4	AISI304 G 6/4	PN16	10,00A	25A	MC DOL - A	2900 rpm	829	195
HU234C02D31A	/12	AISI304 G 5/4	AISI304 G 6/4	PN16	10,00A	25A	MC DOL - A	2900 rpm	851	195
HU2 DPV6										
HU236201D31A	/2	AISI304 G 5/4	AISI304 G 6/4	PN10	3,00A	25A	MC DOL - A	2750 rpm	562	155
HU236301D31A	/3	AISI304 G 5/4	AISI304 G 6/4	PN10	5,00A	25A	MC DOL - A	2875 rpm	651	155
HU236401D31A	/4	AISI304 G 5/4	AISI304 G 6/4	PN10	6,00A	25A	MC DOL - A	2875 rpm	676	175
HU236501D31A	/5	AISI304 G 5/4	AISI304 G 6/4	PN10	6,00A	25A	MC DOL - A	2875 rpm	701	175
HU236601D31A	/6	AISI304 G 5/4	AISI304 G 6/4	PN10	7,00A	25A	MC DOL - A	2900 rpm	731	185
HU236702D31A	/7	AISI304 G 5/4	AISI304 G 6/4	PN16	7,00A	25A	MC DOL - A	2900 rpm	756	185
HU236802D31A	/8	AISI304 G 5/4	AISI304 G 6/4	PN16	10,00A	25A	MC DOL - A	2900 rpm	796	195
HU236902D31A	/9	AISI304 G 5/4	AISI304 G 6/4	PN16	10,00A	25A	MC DOL - A	2900 rpm	821	195
HU236A02D31A	/10	AISI304 G 5/4	AISI304 G 6/4	PN16	10,00A	25A	MC DOL - A	2900 rpm	846	195
HU236B02D31A	/11	AISI304 G 5/4	AISI304 G 6/4	PN16	13,00A	25A	MC DOL - A	2900 rpm	926	195
HU236C02D31A	/12	AISI304 G 5/4	AISI304 G 6/4	PN16	13,00A	25A	MC DOL - A	2900 rpm	951	195

3.1.2 HU2 DPV10/15 MC DOL/SFT - A

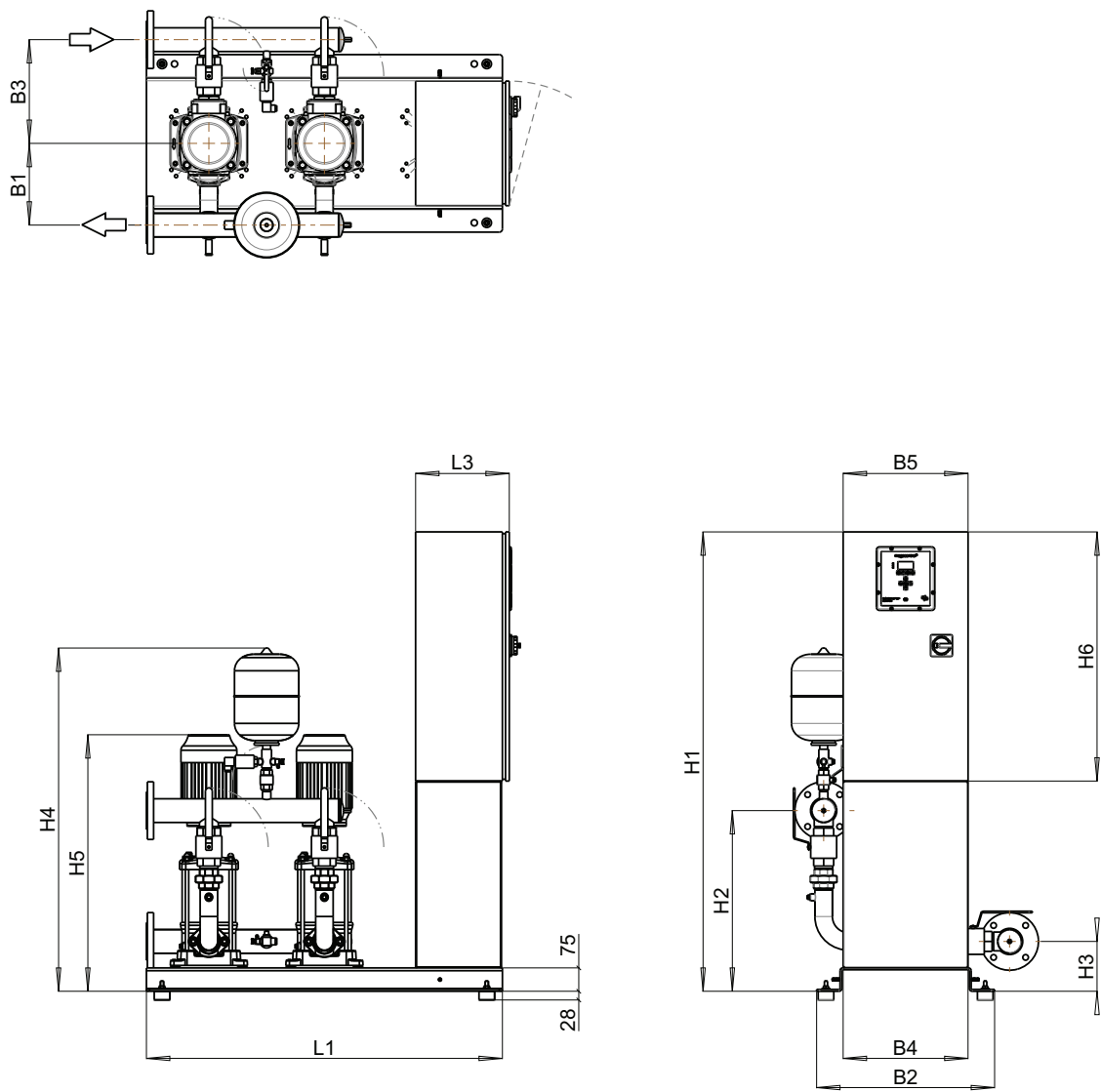


Figure 3: HU2 DPV10/15 MC DOL/SFT - A

Table 12: Dimensions

Pump type	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H6 [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	B5 [mm]	L1 [mm]	L3 [mm]
DPV10	1475	582	160	1075	800	265	570	340	400	400	1140	300
DPV15	1475	582	160	1075	800	265	570	340	400	400	1140	300

201001101

Table 13: General

Run-dry protection	Pressure transmitter
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Protection class	IP55
Drawing number	20101101

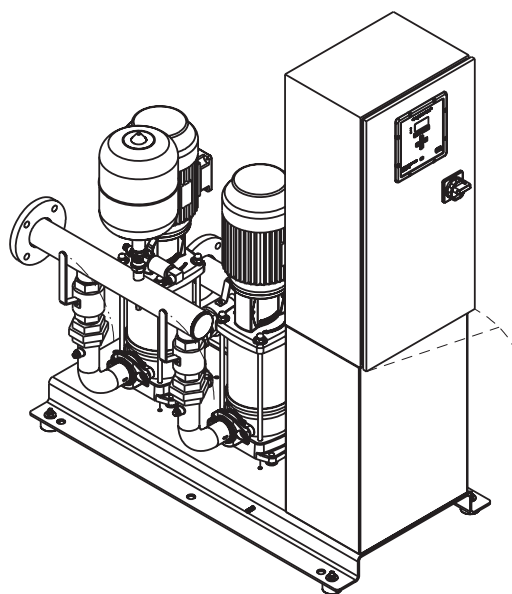


Figure 4: HU 2 DPV10/15

20101101

Table 14: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max Unit	Max fuse	Control	Pump speed	H5 [mm]	Mass [kg]
HU2 DPV10										
HU23A201K31C	/2	AISI304 G 2	AISI304 NW65	PN10	4,44A	25A	MC DOL - A	2850 rpm	696	190
HU23A301K31C	/3	AISI304 G 2	AISI304 NW65	PN10	5,86A	25A	MC DOL - A	2850 rpm	722	200
HU23A401K31C	/4	AISI304 G 2	AISI304 NW65	PN10	6,80A	25A	MC DOL - A	2850 rpm	754	210
HU23A501K31C	/5	AISI304 G 2	AISI304 NW65	PN10	9,34A	25A	MC DOL - A	2850 rpm	795	210
HU23A602K31C	/6	AISI304 G 2	AISI304 NW65	PN16	9,34A	25A	MC DOL - A	2850 rpm	822	210
HU23A702K31C	/7	AISI304 G 2	AISI304 NW65	PN16	12,10A	25A	MC DOL - A	2850 rpm	903	230
HU23A702K32C	/7	AISI304 G 2	AISI304 NW65	PN16	12,10A	25A	MC SFT - A	2850 rpm	903	230
HU23A802K31C	/8	AISI304 G 2	AISI304 NW65	PN16	12,10A	25A	MC DOL - A	2850 rpm	930	230
HU23A802K32C	/8	AISI304 G 2	AISI304 NW65	PN16	12,10A	25A	MC SFT - A	2850 rpm	930	230
HU23A902K31C	/9	AISI304 G 2	AISI304 NW65	PN16	15,58A	40A	MC DOL - A	2850 rpm	966	250
HU23A902K32C	/9	AISI304 G 2	AISI304 NW65	PN16	15,58A	25A	MC SFT - A	2850 rpm	966	250
HU23AA02K31C	/10	AISI304 G 2	AISI304 NW65	PN16	15,58A	40A	MC DOL - A	2850 rpm	993	250
HU23AA02K32C	/10	AISI304 G 2	AISI304 NW65	PN16	15,58A	25A	MC SFT - A	2850 rpm	993	250
HU2 DPV15										
HU23B201K31C	/2	AISI304 G 2	AISI304 NW65	PN10	9,34A	25A	MC DOL - A	2850 rpm	716	210
HU23B301K31C	/3	AISI304 G 2	AISI304 NW65	PN10	12,10A	25A	MC DOL - A	2850 rpm	797	230
HU23B301K32C	/3	AISI304 G 2	AISI304 NW65	PN10	12,10A	25A	MC SFT - A	2850 rpm	797	230
HU23B401K31C	/4	AISI304 G 2	AISI304 NW65	PN10	15,58A	40A	MC DOL - A	2850 rpm	834	250
HU23B401K32C	/4	AISI304 G 2	AISI304 NW65	PN10	15,58A	25A	MC SFT - A	2850 rpm	834	250
HU23B502K31C	/5	AISI304 G 2	AISI304 NW65	PN16	21,14A	50A	MC DOL - A	2850 rpm	965	320
HU23B502K32C	/5	AISI304 G 2	AISI304 NW65	PN16	21,14A	40A	MC SFT - A	2850 rpm	965	320
HU23B602K31C	/6	AISI304 G 2	AISI304 NW65	PN16	21,14A	50A	MC DOL - A	2850 rpm	991	320
HU23B602K32C	/6	AISI304 G 2	AISI304 NW65	PN16	21,14A	40A	MC SFT - A	2850 rpm	991	320

3.1.3 HU2 DPV15 MC DOL S/D - B

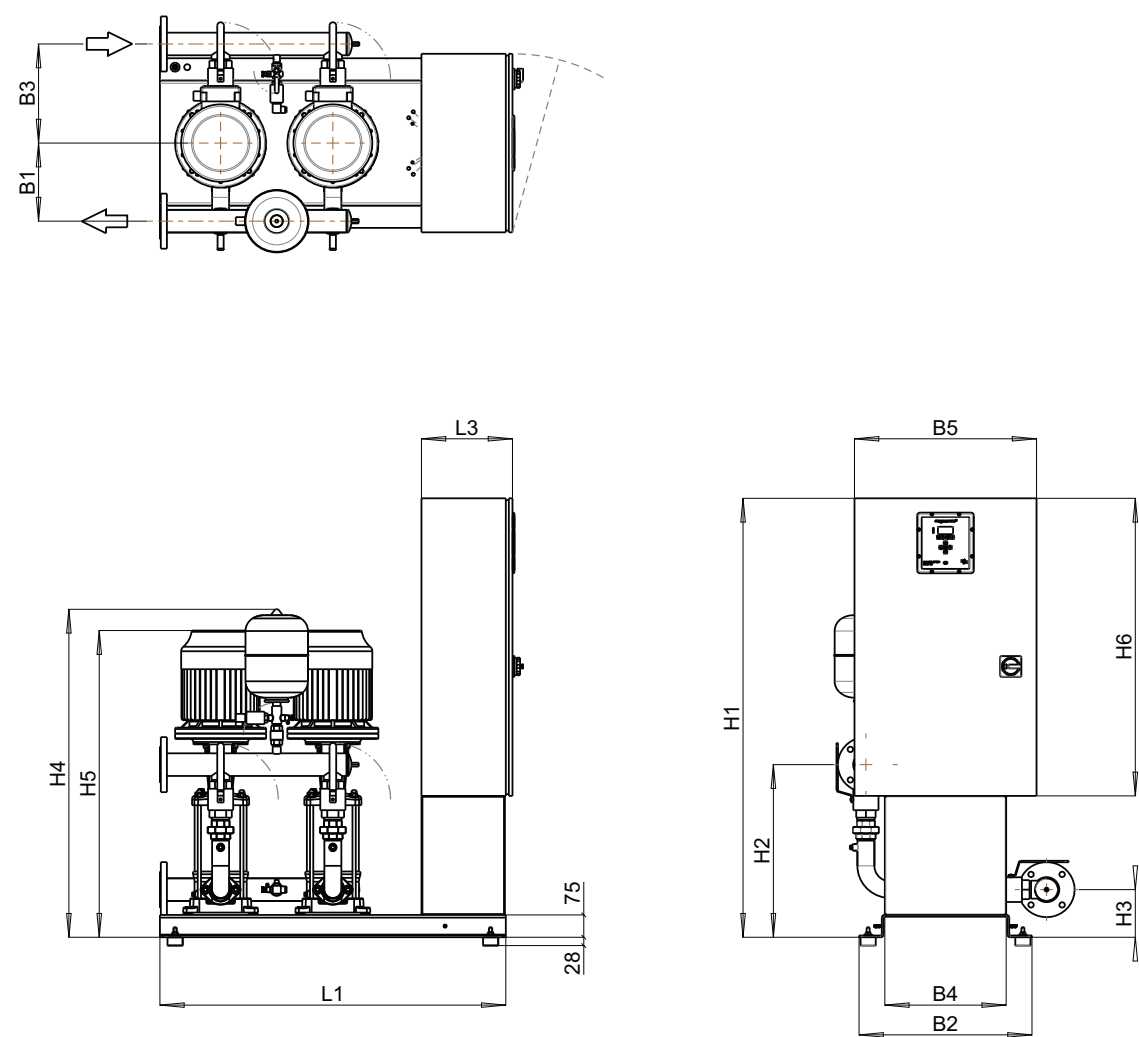


Figure 5: HU2 DPV15 MC DOL S/D - B

Table 15: Dimensions

Pump type	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H6 [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	B5 [mm]	L1 [mm]	L3 [mm]
DPV15	1475	582	160	1075	1000	265	570	340	400	600	1140	300

201001104

Table 16: General

Run-dry protection	Pressure transmitter
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Protection class	IP55
Drawing number	20101104

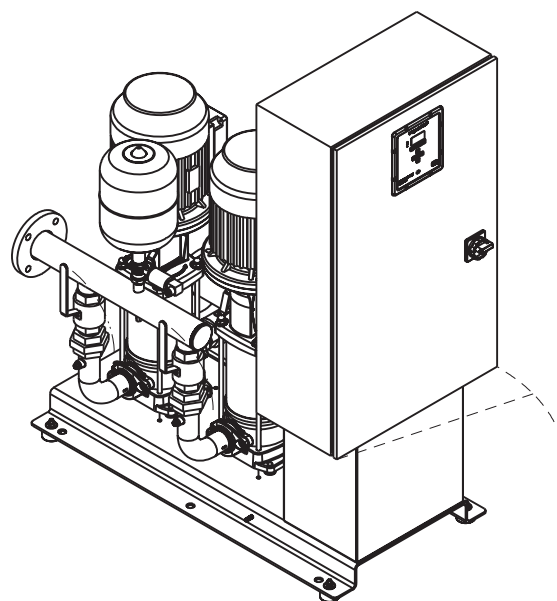


Figure 6: HU 2 DPV15

Table 17: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max Unit	Max fuse	Control	Pump speed	H5 [mm]	Mass [kg]
HU2 DPV15										
HU23B702K31C	/7 IE3	AISI304 G 2	AISI304 NW65	PN16	28,20A	63A	MC DOL - B	2850 rpm	1018	330
HU23B702K33C	/7 IE3	AISI304 G 2	AISI304 NW65	PN16	28,20A	40A	MC S/D - B	2850 rpm	1018	330
HU23B802K31C	/8 IE3	AISI304 G 2	AISI304 NW65	PN16	28,20A	63A	MC DOL - B	2850 rpm	1044	330
HU23B802K33C	/8 IE3	AISI304 G 2	AISI304 NW65	PN16	28,20A	40A	MC S/D - B	2850 rpm	1044	330

3.1.4 HU2 DPVF25/40/60 MC DOL

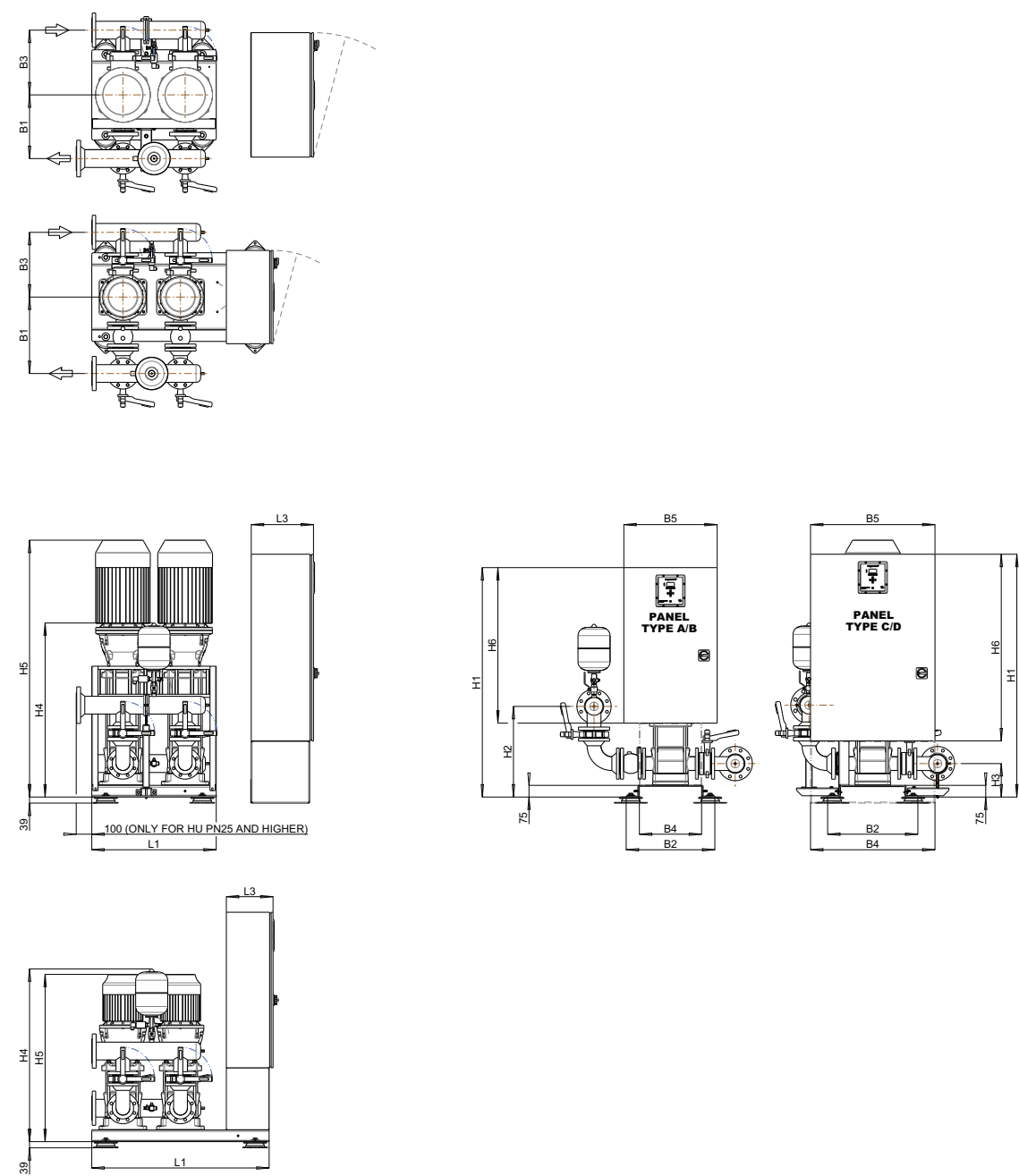


Figure 7: HU2 DPVF25/40/60 MC

Table 18: Dimensions

pumptype	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	L1 [mm]	L3 [mm]
DPVF25	1475	516	178	1010	358	570	381	400	1140	300
DPVF40	1475	583	215	1138	492	570	416	400	1140	300
DPVF60	1475	655	215	1237	562	570	450	400	1140	300

Table 19: General

Run-dry protection	Pressure transmitter
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Protection class	IP55
Drawing number	20140261

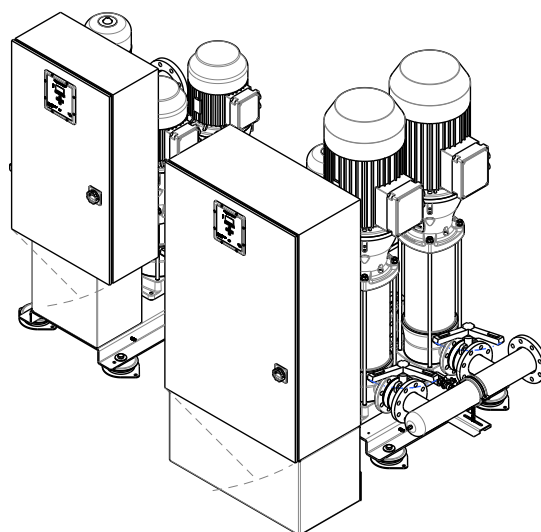


Figure 8: HU 2 DPVF25/40/60

Table 20: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+c on)	Press class	I max unit	Max fuse	Control	Pump speed	H5 [mm]	H6 [mm]	B5 [mm]	Mass [kg]
HU2 DPVF25												
HU26C208L31C	/2	CI NW65	AISI304 NW80	PN10	17,4A	50A	MC DOL - A	2920	885	800	400	380
HU26C208L32C	/2	CI NW65	AISI304 NW80	PN10	17,4A	40A	MC SFT - A	2920	885	800	400	380
HU26C309L31C	/3	CI NW65	AISI304 NW80	PN16	22,2A	50A	MC DOL - A	2940	1064	800	400	438
HU26C309L32C	/3	CI NW65	AISI304 NW80	PN16	22,2A	40A	MC SFT - A	2940	1064	800	400	438
HU26C409L31C	/4 IE3	CI NW65	AISI304 NW80	PN16	28,4A	80A	MC DOL - B	2940	1129	1000	600	462
HU26C409L33C	/4 IE3	CI NW65	AISI304 NW80	PN16	28,4A	40A	MC S/D - B	2940	1129	1000	600	462
HU2 DPVF40												
HU26D101M31C	/1	CI NW80	AISI304 NW100	PN10	15,6A	40A	MC DOL - A	2920	902	800	400	483
HU26D221M31C	/2-2	CI NW80	AISI304 NW100	PN10	21A	50A	MC DOL - A	2940	1077	800	400	567
HU26D201M31C	/2	CI NW80	AISI304 NW100	PN10	28A	80A	MC DOL - B	2940	1077	1000	600	601
HU2 DPVF60												
HU26E101P31C	/1	CI NW100	AISI304 NW150	PN10	21A	50A	MC DOL - A	2940	1017	800	400	566
HU26E221P31C	/2-2 IE3	CI NW100	AISI304 NW150	PN10	28A	80A	MC DOL - B	2940	1077	1000	600	594

3.2 Dimensions HU3 DOL

3.2.1 HU3 DPV2/4/6 MC DOL - A

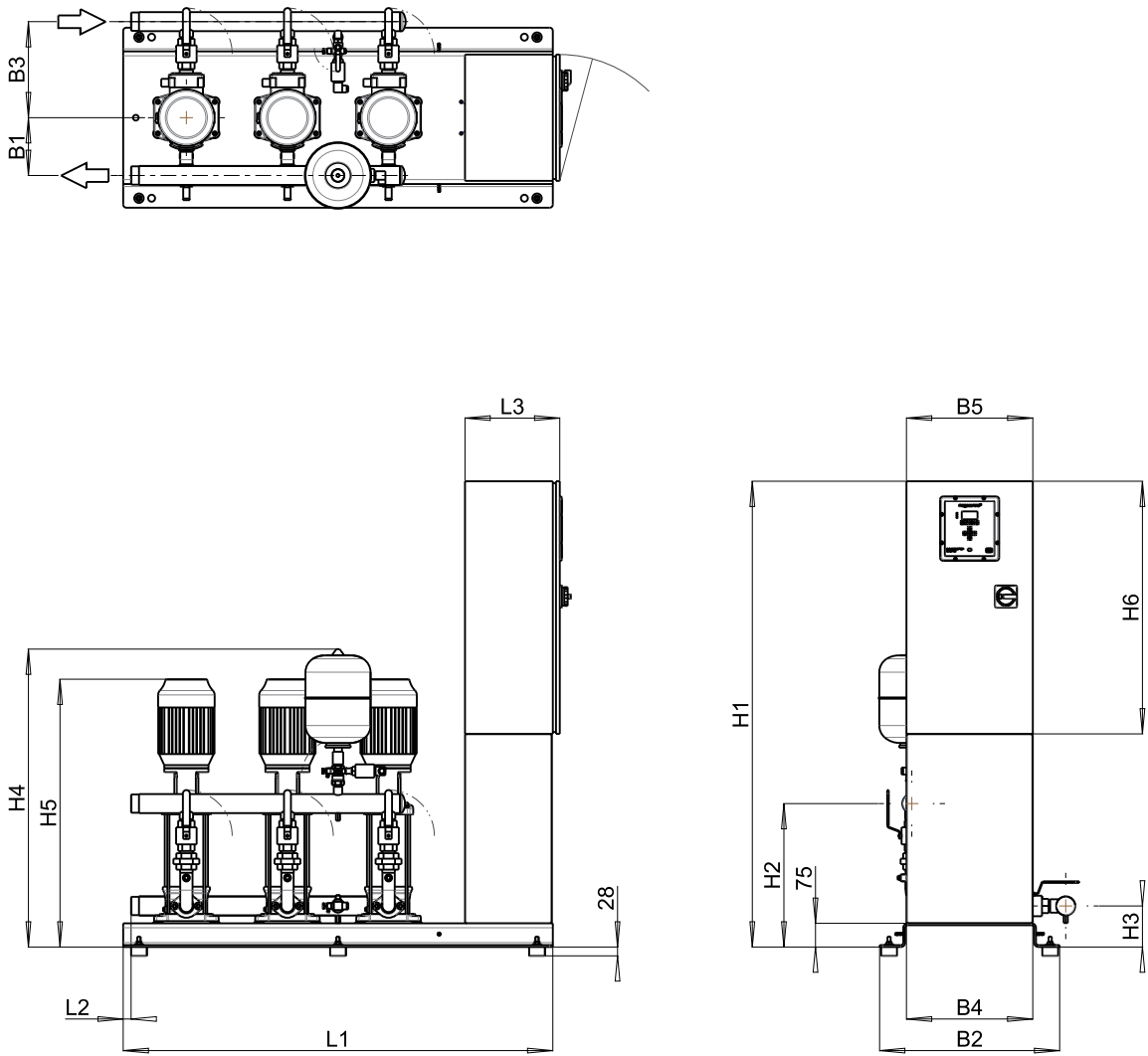


Figure 9: HU 3 DPV2/4/6

Table 21: Dimensions

Pump-type	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H6 [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	B5 [mm]	L1 [mm]	L2 [mm]	L3 [mm]
DPV2	1475	449	130	932	800	183	570	298	400	400	1360	25	300
DPV4	1475	449	130	932	800	183	570	298	400	400	1360	25	300
DPV6	1475	455	130	944	800	183	570	304	400	400	1360	25	300

Table 22: General

Run-dry protection	Pressure transmitter
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Protection class	IP55
Drawing number	20100076

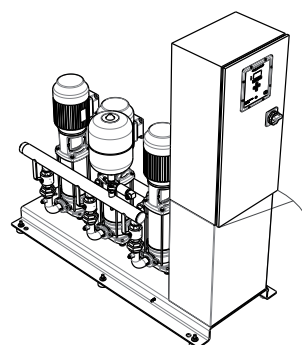


Figure 10: HU 3 DPV2/4/6

Table 23: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max Unit	Max fuse	Control	Pump speed	H5 [mm]	Mass [kg]
HU3 DPV2										
HU332201D31A	/2	AISI304 G 5/4	AISI304 G 6/4	PN10	4,00A	25A	MC DOL - A	2750 rpm	547	195
HU332301D31A	/3	AISI304 G 5/4	AISI304 G 6/4	PN10	4,00A	25A	MC DOL - A	2750 rpm	568	195
HU332401D31A	/4	AISI304 G 5/4	AISI304 G 6/4	PN10	4,00A	25A	MC DOL - A	2750 rpm	590	195
HU332501D31A	/5	AISI304 G 5/4	AISI304 G 6/4	PN10	4,00A	25A	MC DOL - A	2750 rpm	611	195
HU332601D31A	/6	AISI304 G 5/4	AISI304 G 6/4	PN10	5,00A	25A	MC DOL - A	2790 rpm	633	195
HU332701D31A	/7	AISI304 G 5/4	AISI304 G 6/4	PN10	5,00A	25A	MC DOL - A	2790 rpm	654	195
HU332801D31A	/8	AISI304 G 5/4	AISI304 G 6/4	PN10	5,00A	25A	MC DOL - A	2790 rpm	676	195
HU332902D31A	/9	AISI304 G 5/4	AISI304 G 6/4	PN16	7,00A	25A	MC DOL - A	2875 rpm	751	215
HU332A02D31A	/10	AISI304 G 5/4	AISI304 G 6/4	PN16	7,00A	25A	MC DOL - A	2875 rpm	773	215
HU332B02D31A	/11	AISI304 G 5/4	AISI304 G 6/4	PN16	9,00A	25A	MC DOL - A	2875 rpm	834	215
HU332C02D31A	/12	AISI304 G 5/4	AISI304 G 6/4	PN16	9,00A	25A	MC DOL - A	2875 rpm	816	215
HU332E02D31A	/14	AISI304 G 5/4	AISI304 G 6/4	PN16	9,00A	25A	MC DOL - A	2875 rpm	859	215
HU3 DPV4										
HU334201D31A	/2	AISI304 G 5/4	AISI304 G 6/4	PN10	4,00A	25A	MC DOL - A	2750 rpm	547	195
HU334301D31A	/3	AISI304 G 5/4	AISI304 G 6/4	PN10	5,00A	25A	MC DOL - A	2790 rpm	568	195
HU334401D31A	/4	AISI304 G 5/4	AISI304 G 6/4	PN10	5,00A	25A	MC DOL - A	2790 rpm	590	195
HU334501D31A	/5	AISI304 G 5/4	AISI304 G 6/4	PN10	7,00A	25A	MC DOL - A	2875 rpm	665	195
HU334601D31A	/6	AISI304 G 5/4	AISI304 G 6/4	PN10	9,00A	25A	MC DOL - A	2875 rpm	687	225
HU334702D31A	/7	AISI304 G 5/4	AISI304 G 6/4	PN16	9,00A	25A	MC DOL - A	2875 rpm	708	225
HU334802D31A	/8	AISI304 G 5/4	AISI304 G 6/4	PN16	10,00A	25A	MC DOL - A	2900 rpm	736	245
HU334902D31A	/9	AISI304 G 5/4	AISI304 G 6/4	PN16	10,00A	25A	MC DOL - A	2900 rpm	757	245
HU334A02D31A	/10	AISI304 G 5/4	AISI304 G 6/4	PN16	10,00A	25A	MC DOL - A	2900 rpm	779	245
HU334B02D31A	/11	AISI304 G 5/4	AISI304 G 6/4	PN16	14,00A	25A	MC DOL - A	2900 rpm	829	245
HU334C02D31A	/12	AISI304 G 5/4	AISI304 G 6/4	PN16	14,00A	25A	MC DOL - A	2900 rpm	851	245
HU3 DPV6										
HU336201E31A	/2	AISI304 G 5/4	AISI304 G 2	PN10	4,00A	25A	MC DOL - A	2750 rpm	562	195
HU336301E31A	/3	AISI304 G 5/4	AISI304 G 2	PN10	7,00A	25A	MC DOL - A	2875 rpm	651	195
HU336401E31A	/4	AISI304 G 5/4	AISI304 G 2	PN10	9,00A	25A	MC DOL - A	2875 rpm	676	225
HU336501E31A	/5	AISI304 G 5/4	AISI304 G 2	PN10	9,00A	25A	MC DOL - A	2875 rpm	701	225
HU336601E31A	/6	AISI304 G 5/4	AISI304 G 2	PN10	10,00A	25A	MC DOL - A	2900 rpm	731	245
HU336702E31A	/7	AISI304 G 5/4	AISI304 G 2	PN16	10,00A	25A	MC DOL - A	2900 rpm	756	245
HU336802E31A	/8	AISI304 G 5/4	AISI304 G 2	PN16	14,00A	25A	MC DOL - A	2900 rpm	796	245
HU336902E31A	/9	AISI304 G 5/4	AISI304 G 2	PN16	14,00A	25A	MC DOL - A	2900 rpm	821	245
HU336A02E31A	/10	AISI304 G 5/4	AISI304 G 2	PN16	14,00A	25A	MC DOL - A	2900 rpm	846	245
HU336B02E31A	/11	AISI304 G 5/4	AISI304 G 2	PN16	18,00A	40A	MC DOL - A	2900 rpm	926	245
HU336C02E31A	/12	AISI304 G 5/4	AISI304 G 2	PN16	18,00A	40A	MC DOL - A	2900 rpm	951	245

3.2.2 HU3 DPV10/15 MC DOL/SFT - A

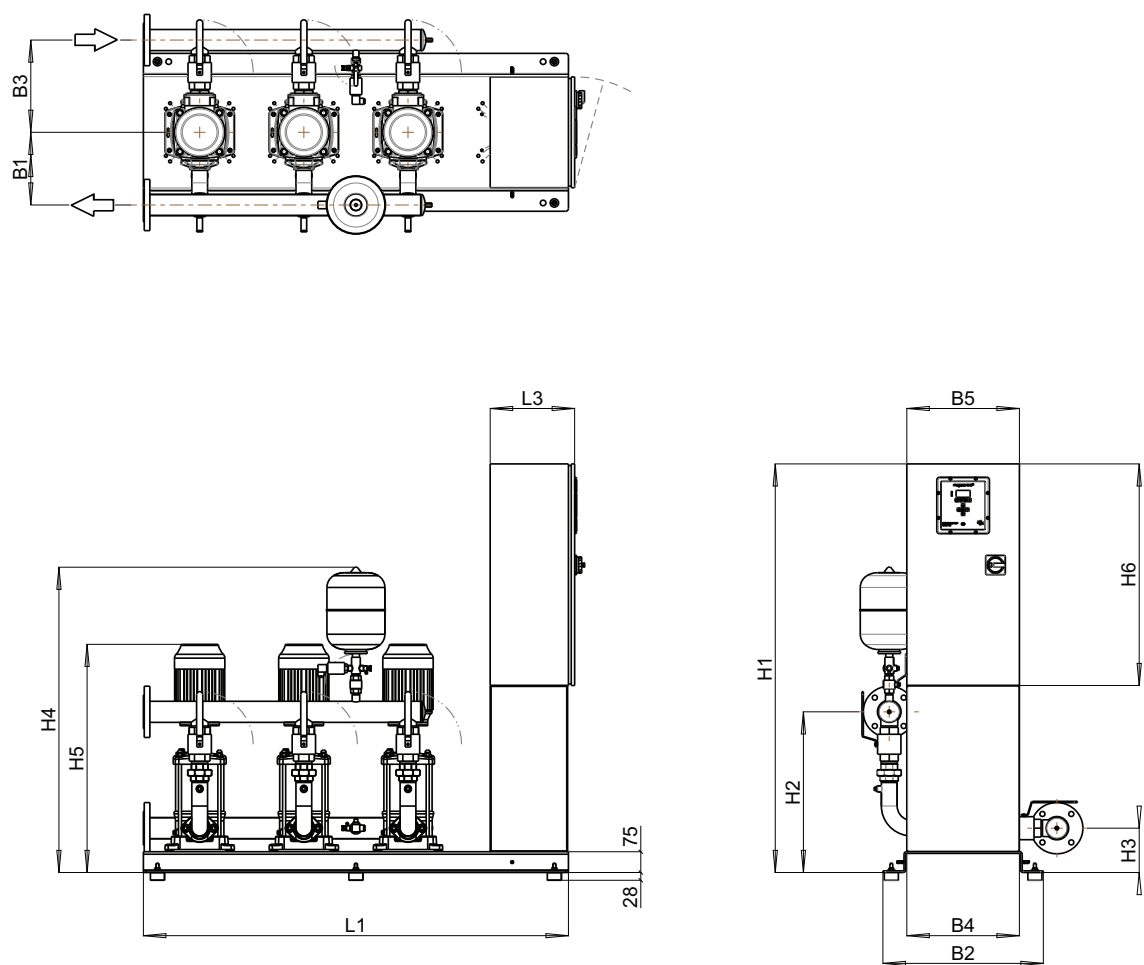


Figure 11: HU3 DPV10/15 MC DOL/SFT - A

Table 24: Dimensions

Pump-type	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H6 [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	B5 [mm]	L1 [mm]	L3 [mm]
DPV10	1475	582	160	1075	800	265	570	340	400	400	1510	300
DPV15	1475	589	160	1085	800	275	570	350	400	400	1510	300

201001102

Table 25: General

Run-dry protection	Pressure transmitter
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Protection class	IP55
Drawing number	20101102

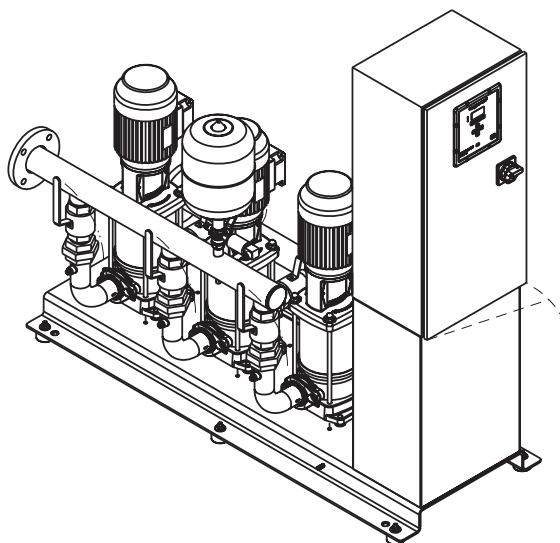


Figure 12: HU 3 DPV10/15

Table 26: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max Unit	Max fuse	Control	Pump speed	H5 [mm]	Mass [kg]
HU3 DPV10										
HU33A201K31C	/2	AISI304 G 2	AISI304 NW65	PN10	6,16A	25A	MC DOL - A	2850 rpm	696	280
HU33A301K31C	/3	AISI304 G 2	AISI304 NW65	PN10	8,29A	25A	MC DOL - A	2850 rpm	722	290
HU33A401K31C	/4	AISI304 G 2	AISI304 NW65	PN10	9,70A	25A	MC DOL - A	2850 rpm	754	300
HU33A501K31C	/5	AISI304 G 2	AISI304 NW65	PN10	13,51A	25A	MC DOL - A	2850 rpm	795	310
HU33A602K31C	/6	AISI304 G 2	AISI304 NW65	PN16	13,51A	25A	MC DOL - A	2850 rpm	822	310
HU33A702K31C	/7	AISI304 G 2	AISI304 NW65	PN16	17,65A	40A	MC DOL - A	2850 rpm	903	340
HU33A702K32C	/7	AISI304 G 2	AISI304 NW65	PN16	17,65A	40A	MC SFT - A	2850 rpm	903	340
HU33A802K31C	/8	AISI304 G 2	AISI304 NW65	PN16	17,65A	40A	MC DOL - A	2850 rpm	930	340
HU33A802K32C	/8	AISI304 G 2	AISI304 NW65	PN16	17,65A	40A	MC SFT - A	2850 rpm	930	340
HU33A902K31C	/9	AISI304 G 2	AISI304 NW65	PN16	22,87A	40A	MC DOL - A	2850 rpm	966	360
HU33A902K32C	/9	AISI304 G 2	AISI304 NW65	PN16	22,87A	40A	MC SFT - A	2850 rpm	966	360
HU33AA02K31C	/10	AISI304 G 2	AISI304 NW65	PN16	22,87A	40A	MC DOL - A	2850 rpm	993	360
HU33AA02K32C	/10	AISI304 G 2	AISI304 NW65	PN16	22,87A	40A	MC SFT - A	2850 rpm	993	360
HU3 DPV15										
HU33B201L31C	/2	AISI304 G 2	AISI304 NW80	PN10	13,51A	25A	MC DOL - A	2850 rpm	716	320
HU33B301L31C	/3	AISI304 G 2	AISI304 NW80	PN10	17,65A	40A	MC DOL - A	2850 rpm	797	340
HU33B301L32C	/3	AISI304 G 2	AISI304 NW80	PN10	17,65A	40A	MC SFT - A	2850 rpm	797	340
HU33B401L31C	/4	AISI304 G 2	AISI304 NW80	PN10	22,87A	40A	MC DOL - A	2850 rpm	834	370
HU33B401L32C	/4	AISI304 G 2	AISI304 NW80	PN10	22,87A	40A	MC SFT - A	2850 rpm	834	370
HU33B502L31C	/5	AISI304 G 2	AISI304 NW80	PN16	31,21A	50A	MC DOL - A	2850 rpm	965	470
HU33B502L32C	/5	AISI304 G 2	AISI304 NW80	PN16	31,21A	40A	MC SFT - A	2850 rpm	965	470
HU33B602L31C	/6	AISI304 G 2	AISI304 NW80	PN16	31,21A	50A	MC DOL - A	2850 rpm	991	470
HU33B602L32C	/6	AISI304 G 2	AISI304 NW80	PN16	31,21A	40A	MC SFT - A	2850 rpm	991	470

3.2.3 HU3 DPV15 MC DOL S/D - B

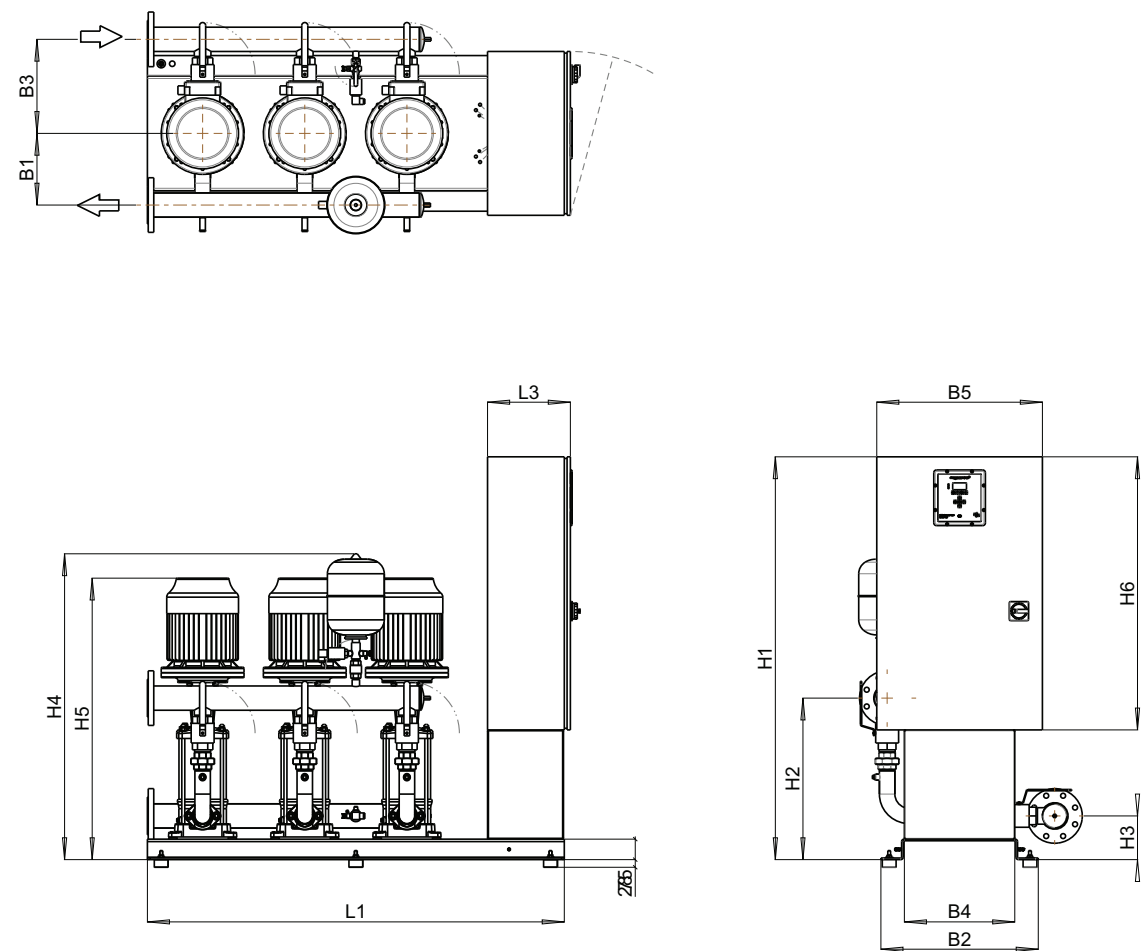


Figure 13: HU3 DPV15 MC DOL S/D - B

Table 27: Dimensions

Pump-type	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H6 [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	B5 [mm]	L1 [mm]	L3 [mm]
DPV15	1475	589	160	1085	1000	275	570	350	400	600	1510	300

201001105

Table 28: General

Run-dry protection	Pressure transmitter
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Protection class	IP55
Drawing number	20101105

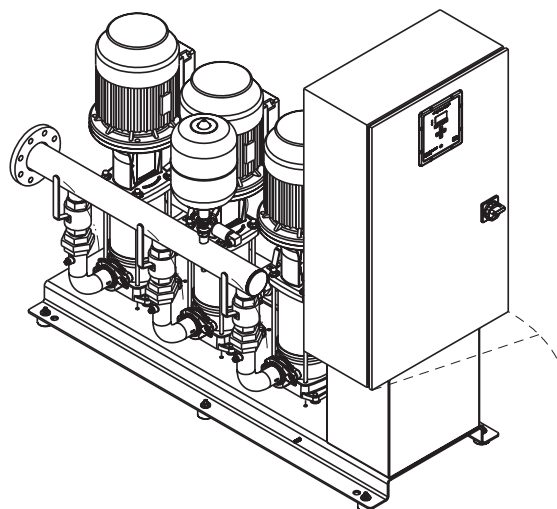


Figure 14: HU 3 DPV15

Table 29: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	l max Unit	Max fuse	Control	Pump speed	H5 [mm]	Mass [kg]
HU3 DPV15										
HU33B702L31C	/7 IE3	AISI304 G 2	AISI304 NW80	PN16	41,80A	63A	MC DOL - B	2850 rpm	1018	490
HU33B702L33C	/7 IE3	AISI304 G 2	AISI304 NW80	PN16	41,80A	50A	MC S/D - B	2850 rpm	1018	490
HU33B802L31C	/8 IE3	AISI304 G 2	AISI304 NW80	PN16	41,80A	63A	MC DOL - B	2850 rpm	1044	490
HU33B802L33C	/8 IE3	AISI304 G 2	AISI304 NW80	PN16	41,80A	50A	MC S/D - B	2850 rpm	1044	490

3.2.4 HU3 DPVF25/40/60 MC

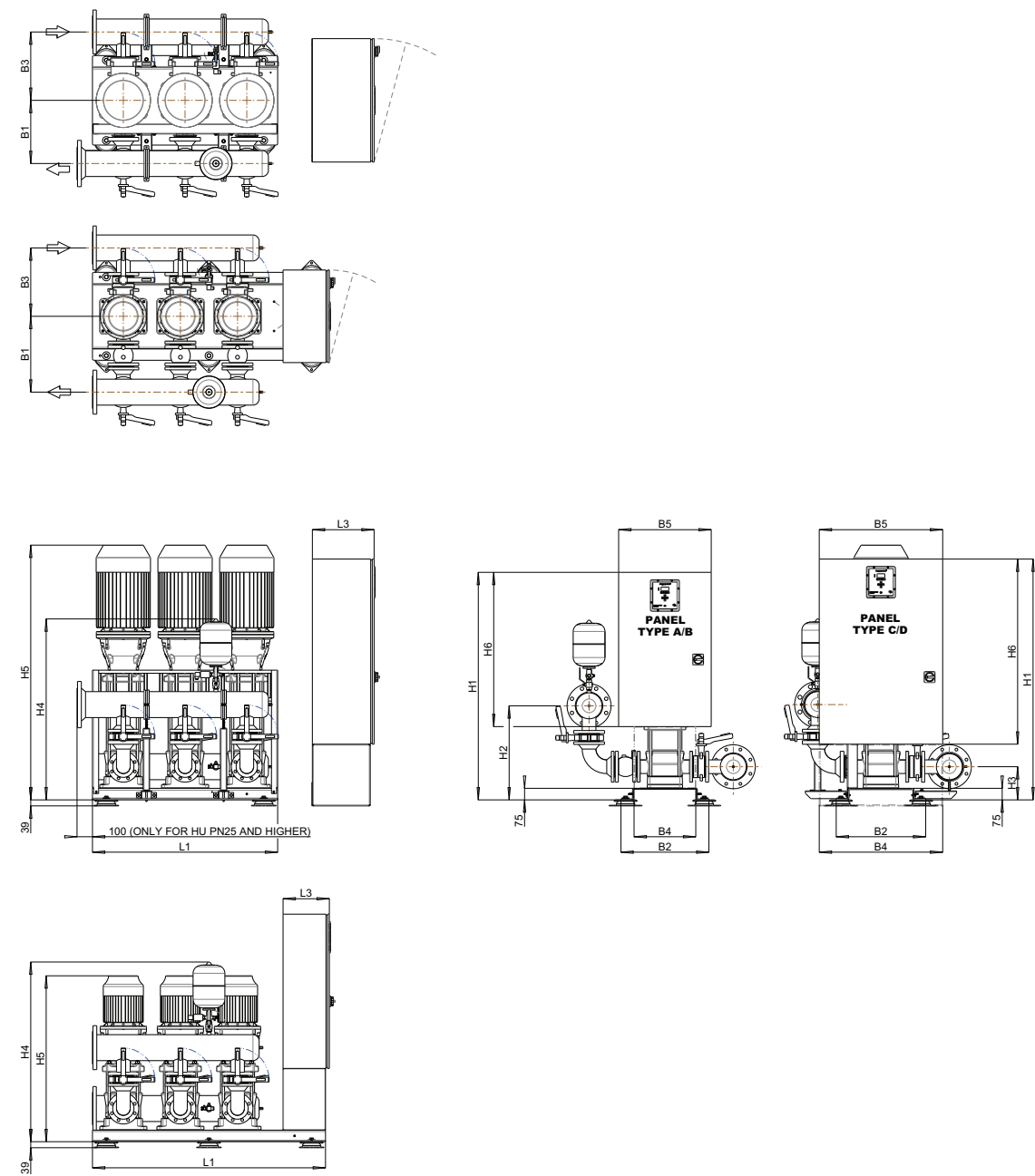


Figure 15: HU3 DPVF25/40/60 MC

Table 30: Dimensions

pump type	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	L1 [mm]	L3 [mm]
DPVF25	1475	528	178	1036	358	570	394	400	1510	300
DPVF40	1475	610	215	1165	492	570	443	400	1510	300
DPVF60	1475	655	215	1237	562	570	450	400	1510	300

Table 31: General

Run-dry protection	Pressure transmitter
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Protection class	IP55
Drawing number	20140262

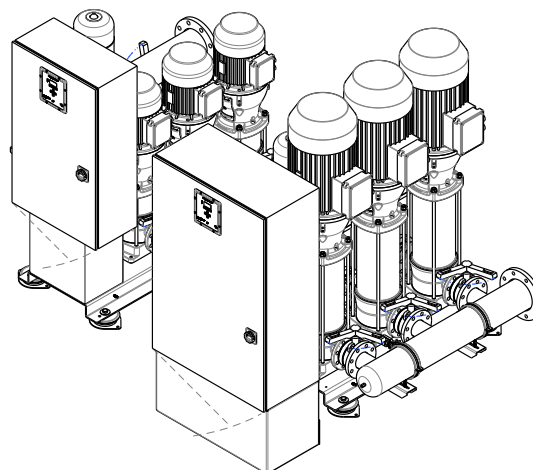


Figure 16: HU 3 DPVF25/40/60

Table 32: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max unit	Max fuse	Control	Pump speed	H5 [mm]	H6 [mm]	B5 [mm]	Mass [kg]
HU3 DPVF25												
HU36C208M31C	/2	CI NW65	AISI304 NW100	PN10	25,1A	50A	MC - A	2920	885	800	400	526
HU36C208M32C	/2	CI NW65	AISI304 NW100	PN10	25,1A	40A	MC SFT - A	2920	885	800	400	526
HU36C309M31C	/3	CI NW65	AISI304 NW100	PN16	32,3A	50A	MC - A	2940	1064	800	400	612
HU36C309M33C	/3	CI NW65	AISI304 NW100	PN16	32,3A	40A	MC SFT - A	2940	1064	800	400	612
HU36C409M31C	/4 IE3	CI NW65	AISI304 NW100	PN16	41,6A	80A	MC - B	2940	1129	1000	600	617
HU36C409M33C	/4 IE3	CI NW65	AISI304 NW100	PN16	41,6A	50A	MC S/D - B	2940	1129	1000	600	617
HU3 DPVF40												
HU36D101P31C	/1	CI NW80	AISI304 NW150	PN10	23A	50A	MC - A	2920	902	800	400	680
HU36D221P31C	/2-2	CI NW80	AISI304 NW150	PN10	31A	50A	MC - A	2940	1077	800	400	806
HU36D201P31C	/2 IE3	CI NW80	AISI304 NW150	PN10	42A	80A	MC - B	2940	1077	1000	600	852
HU3 DPVF60												
HU36E101P31C	/1	CI NW100	AISI304 NW150	PN10	31A	50A	MC - A	2940	1017	800	400	824
HU36E221P31C	/2-2 IE3	CI NW100	AISI304 NW150	PN10	42A	80A	MC - B	2940	1095	1000	600	861

3.3 Dimensions HU4 DOL

3.3.1 HU4 DPV2/4 MC DOL - A

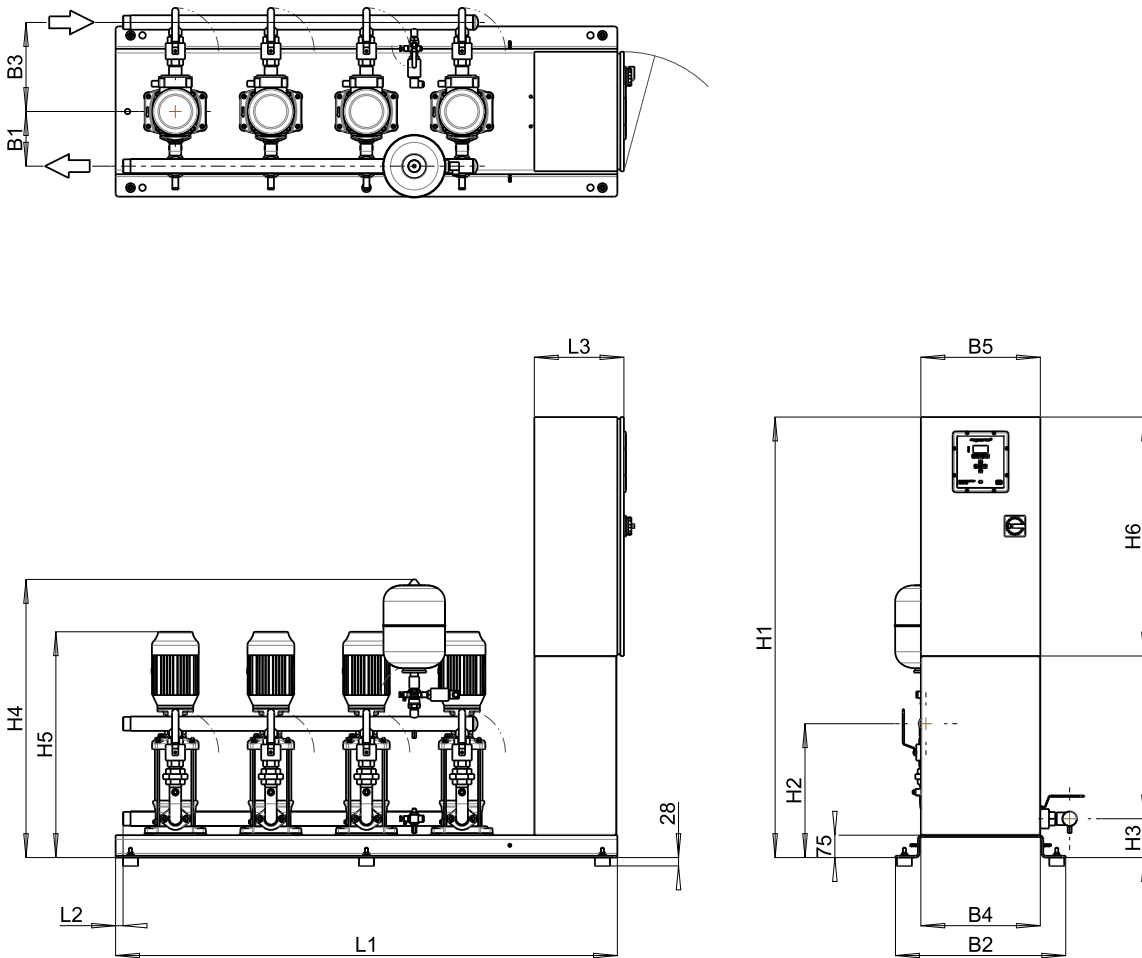


Figure 17: HU 4 DPV2/4

Table 33: Dimensions

Pump-type	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H6 [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	B5 [mm]	L1 [mm]	L2 [mm]	L3 [mm]
DPV2	1475	449	130	932	800	183	570	298	400	400	1680	25	300
DPV4	1475	455	130	944	800	183	570	304	400	400	1680	25	300

Table 34: General

Run-dry protection	Pressure transmitter
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Protection class	IP55
Drawing number	20100078

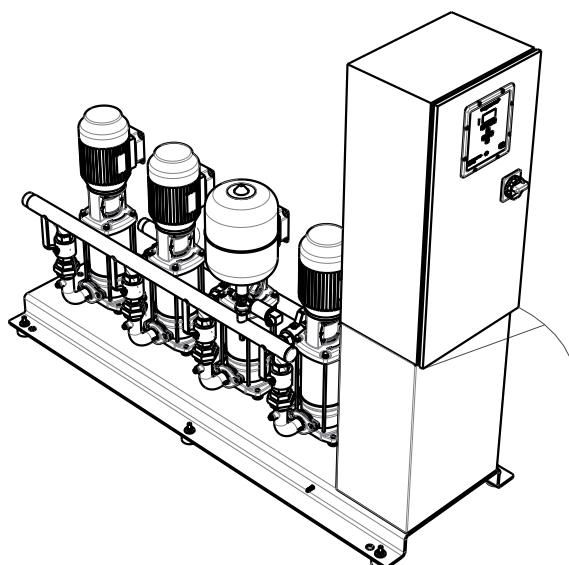


Figure 18: HU 4 DPV2/4

Table 35: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max Unit	Max fuse	Control	Pump speed	H5 [mm]	Mass [kg]
HU4 DPV2										
HU432201D31A	/2	AISI304 G 5/4	AISI304 G 6/4	PN10	5,00A	25A	MC DOL - A	2750 rpm	547	245
HU432301D31A	/3	AISI304 G 5/4	AISI304 G 6/4	PN10	5,00A	25A	MC DOL - A	2750 rpm	568	245
HU432401D31A	/4	AISI304 G 5/4	AISI304 G 6/4	PN10	5,00A	25A	MC DOL - A	2750 rpm	590	245
HU432501D31A	/5	AISI304 G 5/4	AISI304 G 6/4	PN10	5,00A	25A	MC DOL - A	2750 rpm	611	255
HU432601D31A	/6	AISI304 G 5/4	AISI304 G 6/4	PN10	7,00A	25A	MC DOL - A	2790 rpm	633	255
HU432701D31A	/7	AISI304 G 5/4	AISI304 G 6/4	PN10	7,00A	25A	MC DOL - A	2790 rpm	654	255
HU432801D31A	/8	AISI304 G 5/4	AISI304 G 6/4	PN10	7,00A	25A	MC DOL - A	2790 rpm	676	255
HU432902D31A	/9	AISI304 G 5/4	AISI304 G 6/4	PN16	8,00A	25A	MC DOL - A	2875 rpm	751	275
HU432A02D31A	/10	AISI304 G 5/4	AISI304 G 6/4	PN16	8,00A	25A	MC DOL - A	2875 rpm	773	275
HU432B02D31A	/11	AISI304 G 5/4	AISI304 G 6/4	PN16	11,00A	25A	MC DOL - A	2875 rpm	834	285
HU432C02D31A	/12	AISI304 G 5/4	AISI304 G 6/4	PN16	11,00A	25A	MC DOL - A	2875 rpm	816	285
HU432E02D31A	/14	AISI304 G 5/4	AISI304 G 6/4	PN16	11,00A	25A	MC DOL - A	2875 rpm	859	285
HU4 DPV4										
HU434201E31A	/2	AISI304 G 5/4	AISI304 G 6/4	PN10	5,00A	25A	MC DOL - A	2750 rpm	547	245
HU434301E31A	/3	AISI304 G 5/4	AISI304 G 6/4	PN10	7,00A	25A	MC DOL - A	2790 rpm	568	255
HU434401E31A	/4	AISI304 G 5/4	AISI304 G 6/4	PN10	7,00A	25A	MC DOL - A	2790 rpm	590	255
HU434501E31A	/5	AISI304 G 5/4	AISI304 G 6/4	PN10	8,00A	25A	MC DOL - A	2875 rpm	665	275
HU434601E31A	/6	AISI304 G 5/4	AISI304 G 6/4	PN10	11,00A	25A	MC DOL - A	2875 rpm	687	285
HU434702E31A	/7	AISI304 G 5/4	AISI304 G 6/4	PN16	11,00A	25A	MC DOL - A	2875 rpm	708	285
HU434802E31A	/8	AISI304 G 5/4	AISI304 G 6/4	PN16	13,00A	25A	MC DOL - A	2900 rpm	736	285
HU434902E31A	/9	AISI304 G 5/4	AISI304 G 6/4	PN16	13,00A	25A	MC DOL - A	2900 rpm	757	315
HU434A02E31A	/10	AISI304 G 5/4	AISI304 G 6/4	PN16	13,00A	25A	MC DOL - A	2900 rpm	779	315
HU434B02E31A	/11	AISI304 G 5/4	AISI304 G 6/4	PN16	18,00A	40A	MC DOL - A	2900 rpm	829	315
HU434C02E31A	/12	AISI304 G 5/4	AISI304 G 6/4	PN16	18,00A	40A	MC DOL - A	2900 rpm	851	315

3.3.2 HU4 DPV6 MC DOL - A

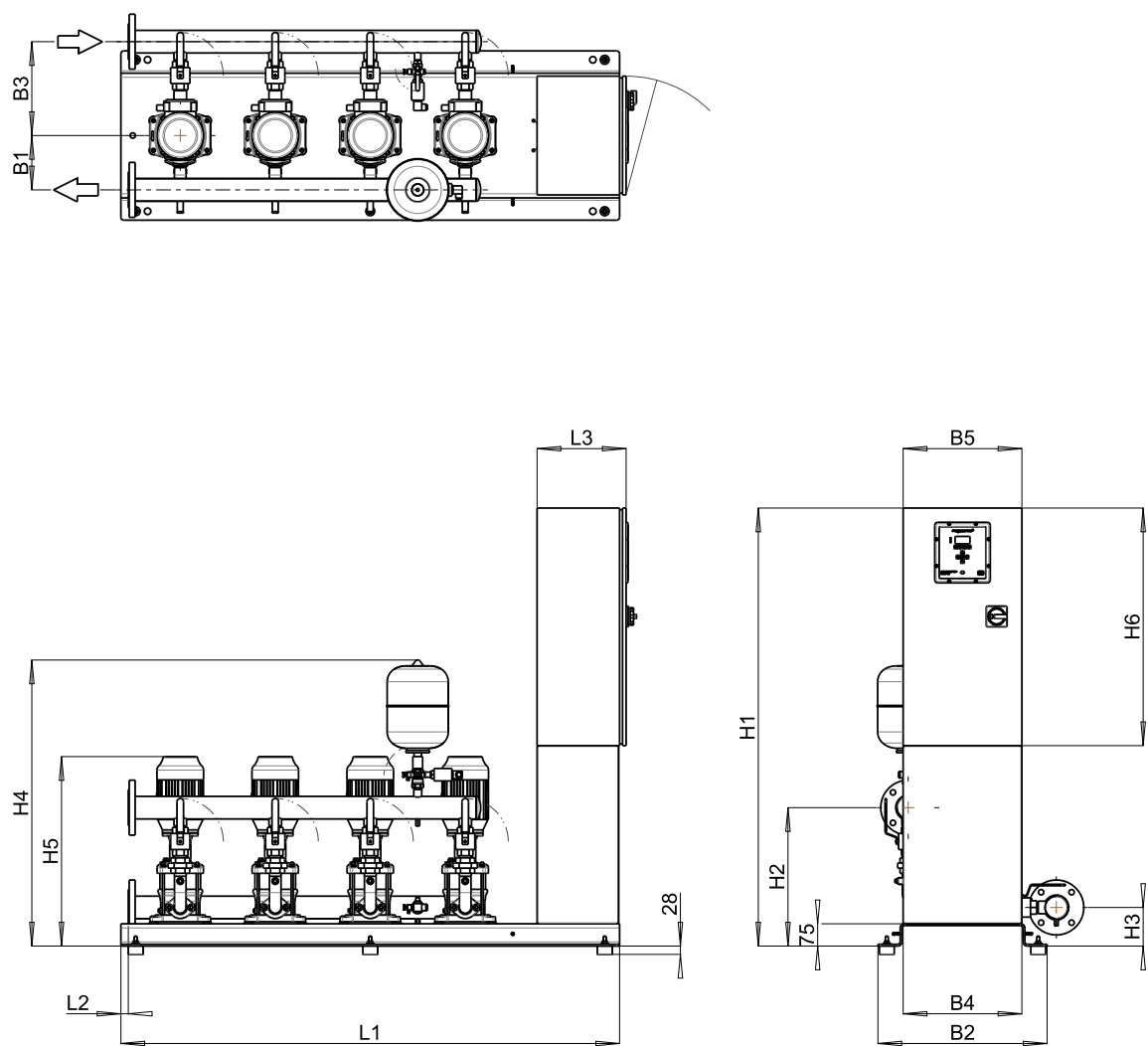


Figure 19: HU 4 DPV6

Table 36: Dimensions

Pump-type	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H6 [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	B5 [mm]	L1 [mm]	L2 [mm]	L3 [mm]
DPV6	1475	463	130	960	800	183	570	312	400	400	1680	25	300

20100079-B

Table 37: General

Run-dry protection	Pressure transmitter
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Protection class	IP55
Drawing number	20100079

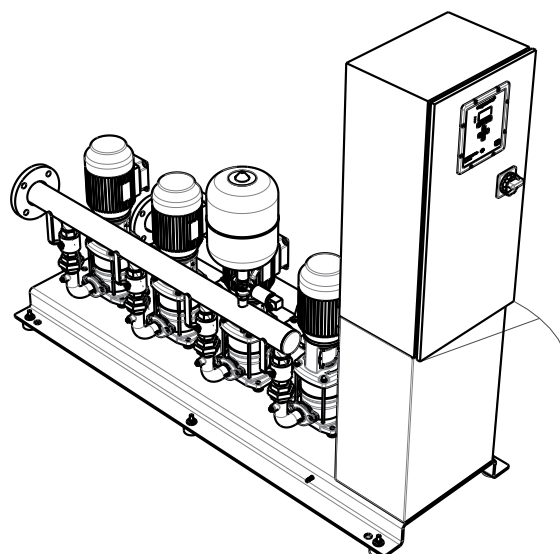


Figure 20: HU4 DPV6

Table 38: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max Unit	Max fuse	Control	Pump speed	H5 [mm]	Mass [kg]
HU4 DPV6										
HU436201K31A	/2	AISI304 G 5/4	AISI304 NW65	PN10	5,00A	25A	MC DOL - A	2750 rpm	562	245
HU436301K31A	/3	AISI304 G 5/4	AISI304 NW65	PN10	8,00A	25A	MC DOL - A	2875 rpm	651	275
HU436401K31A	/4	AISI304 G 5/4	AISI304 NW65	PN10	11,00A	25A	MC DOL - A	2875 rpm	676	285
HU436501K31A	/5	AISI304 G 5/4	AISI304 NW65	PN10	11,00A	25A	MC DOL - A	2875 rpm	701	285
HU436601K31A	/6	AISI304 G 5/4	AISI304 NW65	PN10	13,00A	25A	MC DOL - A	2900 rpm	731	305
HU436702K31A	/7	AISI304 G 5/4	AISI304 NW65	PN16	13,00A	25A	MC DOL - A	2900 rpm	756	305
HU436802K31A	/8	AISI304 G 5/4	AISI304 NW65	PN16	18,00A	40A	MC DOL - A	2900 rpm	796	305
HU436902K31A	/9	AISI304 G 5/4	AISI304 NW65	PN16	18,00A	40A	MC DOL - A	2900 rpm	821	315
HU436A02K31A	/10	AISI304 G 5/4	AISI304 NW65	PN16	18,00A	40A	MC DOL - A	2900 rpm	846	315
HU436B02K31A	/11	AISI304 G 5/4	AISI304 NW65	PN16	18,00A	40A	MC DOL - A	2900 rpm	926	315
HU436C02K31A	/12	AISI304 G 5/4	AISI304 NW65	PN16	18,00A	40A	MC DOL - A	2900 rpm	951	315

3.3.3 HU4 DPV10/15 MC DOL/SFT - A

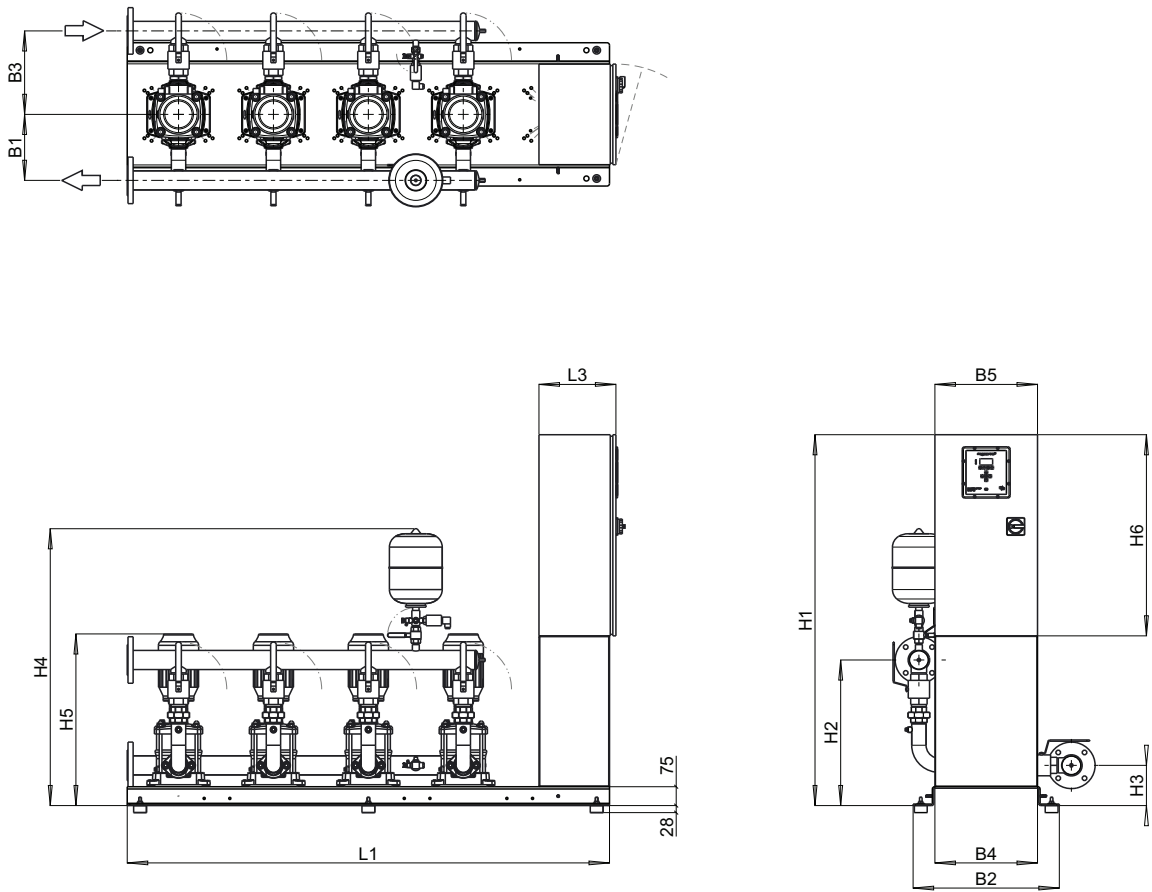


Figure 21: HU4 DPV10/15 MC DOL/SFT - A

Table 39: Dimensions

Pump-type	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H6 [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	B5 [mm]	L1 [mm]	L3 [mm]
DPV10	1475	582	160	1075	800	265	570	340	400	400	1880	300
DPV15	1475	602	160	1095	800	285	570	360	400	400	1880	300

Table 40: General

Run-dry protection	Pressure transmitter
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Protection class	IP55
Drawing number	20101103

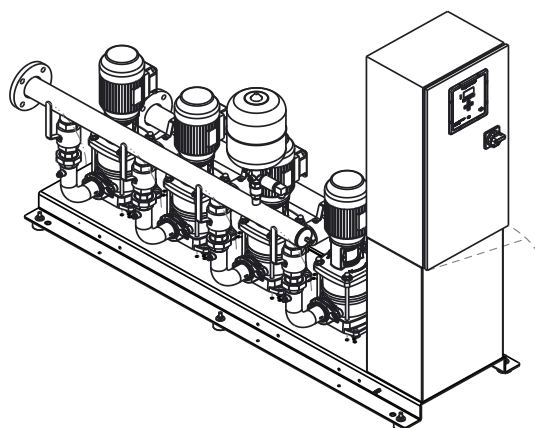


Figure 22: HU4 DPV10/15

Table 41: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max Unit	Max fuse	Control	Pump speed	H5 [mm]	Mass [kg]
HU4 DPV10										
HU43A201K31C	/2	AISI304 G 2	AISI304 NW65	PN10	7,88A	25A	MC DOL - A	2850 rpm	696	340
HU43A301K31C	/3	AISI304 G 2	AISI304 NW65	PN10	10,72A	25A	MC DOL - A	2850 rpm	722	350
HU43A401K31C	/4	AISI304 G 2	AISI304 NW65	PN10	12,60A	25A	MC DOL - A	2850 rpm	754	370
HU43A501K31C	/5	AISI304 G 2	AISI304 NW65	PN10	17,68A	25A	MC DOL - A	2850 rpm	795	380
HU43A602K31C	/6	AISI304 G 2	AISI304 NW65	PN16	17,68A	25A	MC DOL - A	2850 rpm	822	380
HU43A702K31C	/7	AISI304 G 2	AISI304 NW65	PN16	23,20A	40A	MC DOL - A	2850 rpm	903	420
HU43A702M32C	/7	AISI304 G 2	AISI304 NW65	PN16	23,20A	40A	MC SFT - A	2850 rpm	903	420
HU43A802K31C	/8	AISI304 G 2	AISI304 NW65	PN16	23,20A	40A	MC DOL - A	2850 rpm	930	420
HU43A802M32C	/8	AISI304 G 2	AISI304 NW65	PN16	23,20A	40A	MC SFT - A	2850 rpm	930	420
HU43A902K31C	/9	AISI304 G 2	AISI304 NW65	PN16	30,16A	40A	MC DOL - A	2850 rpm	966	450
HU43A902M32C	/9	AISI304 G 2	AISI304 NW65	PN16	30,16A	50A	MC SFT - A	2850 rpm	966	450
HU43AA02K31C	/10	AISI304 G 2	AISI304 NW65	PN16	30,16A	40A	MC DOL - A	2850 rpm	993	450
HU43AA02M32C	/10	AISI304 G 2	AISI304 NW65	PN16	30,16A	50A	MC SFT - A	2850 rpm	993	450
HU4 DPV15										
HU43B201M31C	/2	AISI304 G 2	AISI304 NW100	PN10	17,68A	25A	MC DOL - A	2850 rpm	716	380
HU43B301M31C	/3	AISI304 G 2	AISI304 NW100	PN10	23,20A	40A	MC DOL - A	2850 rpm	797	420
HU43B301M32C	/3	AISI304 G 2	AISI304 NW100	PN10	23,20A	40A	MC SFT - A	2850 rpm	797	420
HU43B401M31C	/4	AISI304 G 2	AISI304 NW100	PN10	30,16A	50A	MC DOL - A	2850 rpm	834	450
HU43B401M32C	/4	AISI304 G 2	AISI304 NW100	PN10	30,16A	40A	MC SFT - A	2850 rpm	834	450
HU43B502M31C	/5	AISI304 G 2	AISI304 NW100	PN16	41,28A	63A	MC DOL - A	2850 rpm	965	590
HU43B502M32C	/5	AISI304 G 2	AISI304 NW100	PN16	41,28A	63A	MC SFT - A	2850 rpm	965	590
HU43B602M31C	/6	AISI304 G 2	AISI304 NW100	PN16	41,28A	63A	MC DOL - A	2850 rpm	991	590
HU43B602M32C	/6	AISI304 G 2	AISI304 NW100	PN16	41,28A	63A	MC SFT - A	2850 rpm	991	590

3.3.4 HU4 DPV15 MC DOL S/D - B

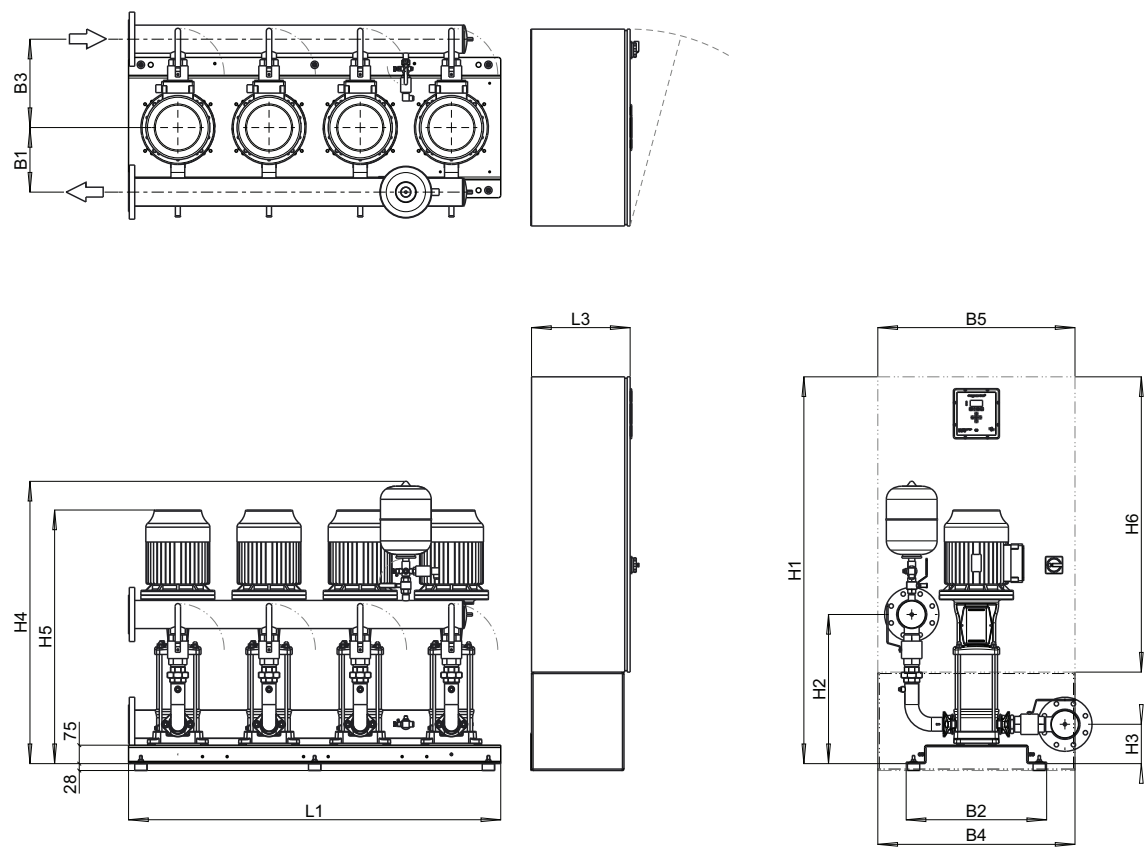


Figure 23: HU4 DPV15 MC DOL S/D - B

Table 42: Dimensions

Pump-type	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H6 [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	B5 [mm]	L1 [mm]	L3 [mm]
DPV15	1475	602	160	1095	1000	285	570	360	400	600	1880	300

201001106

Table 43: General

Run-dry protection	Pressure transmitter
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Protection class	IP55
Drawing number	20101106

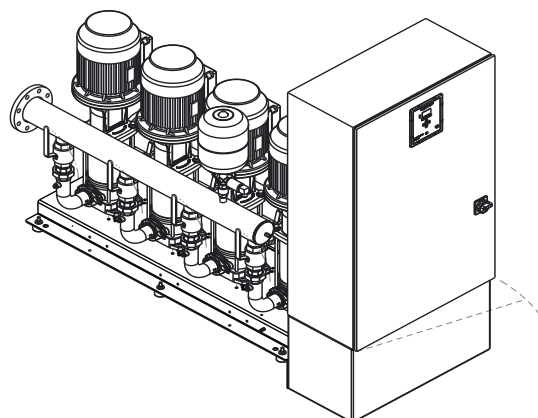


Figure 24: HU4 DPV15

Table 44: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max Unit	Max fuse	Control	Pump speed	H5 [mm]	Mass [kg]
HU4 DPV15										
HU43B702M31C	/7 IE3	AISI304 G 2	AISI304 NW100	PN16	55,40A	80A	MC DOL - B	2850 rpm	1018	620
HU43B702M33C	/7 IE3	AISI304 G 2	AISI304 NW100	PN16	55,40A	80A	MC S/D - B	2850 rpm	1018	620
HU43B802M31C	/8 IE3	AISI304 G 2	AISI304 NW100	PN16	55,40A	80A	MC DOL - B	2850 rpm	1044	620
HU43B802M33C	/8 IE3	AISI304 G 2	AISI304 NW100	PN16	55,40A	80A	MC S/D - B	2850 rpm	1044	620

3.3.5 HU4 DPVF25/40/60 MC

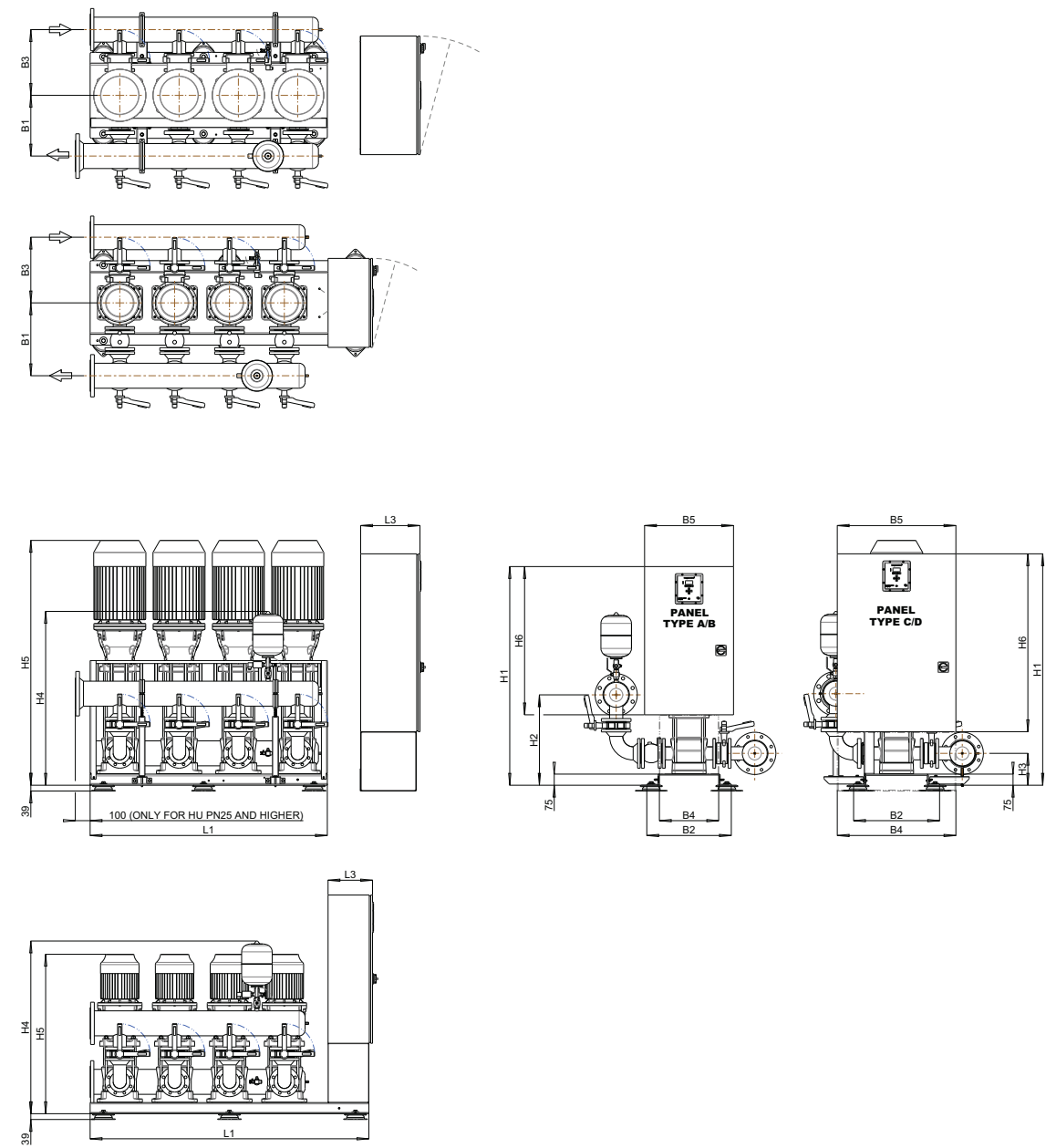


Figure 25: HU4 DPVF25/40/60 MC

Table 45: Dimensions

pump type	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	L1 [mm]	L3 [mm]
DPVF25	1475	555	178	1090	358	570	421	400	1880	300
DPVF40	1475	610	215	1165	492	570	443	400	1880	300
DPVF60	1475	681	215	1262	562	570	475	400	1880	300

Table 46: General

Run-dry protection	Pressure transmitter
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Protection class	IP55
Drawing number	20140263

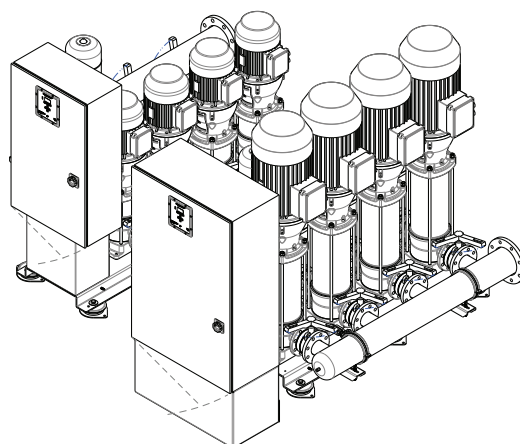


Figure 26: HU4 DPVF25/40/60

Table 47: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max unit	Max fuse	Control	Pump speed	H5 [mm]	H6 [mm]	B5 [mm]	Mass [kg]
HU4 DPVF25												
HU46C208P31C	/2	CI NW65	AISI304 NW150	PN10	32,8A	80A	MC - A	2920	885	800	400	697
HU46C208P32C	/2	CI NW65	AISI304 NW150	PN10	32,8A	80A	MC SFT - A	2920	885	800	400	697
HU46C309P31C	/3	CI NW65	AISI304 NW150	PN16	42,4A	80A	MC - A	2940	1064	800	400	812
HU46C309P32C	/3	CI NW65	AISI304 NW150	PN16	42,4A	80A	MC SFT - A	2940	1064	800	400	812
HU46C409P31C	/4 IE3	CI NW65	AISI304 NW150	PN16	54,8A	80A	MC - B	2940	1129	1000	600	850
HU46C409P33C	/4 IE3	CI NW65	AISI304 NW150	PN16	54,8A	80A	MC DOL - B	2940	1129	1000	600	850
HU4 DPVF40												
HU46D101P31C	/1	CI NW80	AISI304 NW150	PN10	30A	50A	MC - A	2920	902	800	400	853
HU46D221P31C	/2-2	CI NW80	AISI304 NW150	PN10	41A	80A	MC - A	2940	1077	800	400	1021
HU46D201P31C	/2 IE3	CI NW80	AISI304 NW150	PN10	55A	80A	MC - B	2940	1077	1000	600	1077
HU4 DPVF60												
HU46E101Q31C	/1	CI NW100	AISI304 NW200	PN10	41A	80A	MC - A	2940	1017	800	400	1064
HU46E221Q31C	/2-2 IE3	CI NW100	AISI304 NW200	PN10	550A	80A	MC - B	2940	1095	1000	600	1108

3.4 Specification

3.4.1 Specification text fitted units (up to G2" fittings)

Two-, three- or four-pump booster unit consisting of:

- Two, three or four DPV vertical multi-stage centrifugal pumps of which all metal parts come into contact with the medium have been made of AISI304.
- Two, three or four special DP non-return valve bends AISI304.
- Four, six or eight ball valves AISI304.
- AISI304 pump counter flanges
- AISI304 Manifold with one side capped in connection with a short, dead pipe.
- Run-dry protection kit consisting of a pressure transmitter with drain option.
- Discharge pressure control kit consisting of a pressure transmitter with drain option and an 8 litres membrane tank.



ATTENTION

Note: various small parts may have been made of brass.

The installation has a switch box that is mounted unto the powder coated base frame of the installation in the factory and that has also been equipped with a Megacontrol control system. The installation is delivered on vibration-absorbers.

Additionally, the switch box includes:

- For each pump a relay (MC DOL), for each pump a soft starter (SFT) or for each pump a star-delta switch (S/D)
- Main switch with door opening protection.
- For each pump a thermal motor protection switch.
- Fail-safe voltage-free failure outputs urgent and not-urgent (NO and NC).

The Megacontrol microprocessor control module has the following basic functions:

- Pressure control
- Optimised pump staging.
- Continuously optimised minimum-run time of the pumps.
- Adjustable correction factor for pressure loss in the system.
- 24-hours test-run function.
- Adjustable delay of the under pressure/run-dry protection.
- Option for controlling the level in a storage tank.
- Display options: actual system values, pump status, operating hours, comprehensive failure interface.

Discharge bend

The discharge bend has a plastic non-return valve with the certifications:

Table 48: Certifications non-return valve

Approvals	
KIWA	NL
SITAC	S
DVGW	D
NF	F
WRAS	UK
ETA	DK
ABP	D
NSF	USA

All our booster units comply with the NEN1006 (nl) standard and have been constructed as described in the most actual water worksheets (NL).

3.4.2 Specification text flanged units

Two-, three- or four-pump booster unit consisting of:

- Two, three or four DPVF vertical multi-stage centrifugal pumps of which all metal parts come into contact with the medium have been made of AISI304.
- Two, three or four cast-iron non-return valves.
- Four, six or eight butterfly valves AISI316 (inside) / cast-iron (outside)
- AISI304 Manifold with one side capped in connection with a short, dead pipe.
- Run-dry protection kit consisting of a pressure transmitter with drain option.
- Discharge pressure control kit consisting of a pressure transmitter with drain option and an 8 litres membrane tank.



ATTENTION

Note: various small parts may have been made of brass.

The installation has a switch box that is mounted unto the powder coated base frame of the installation in the factory and that has also been equipped with a Megacontrol control system. The installation is delivered with machine feet that are adjustable in height and a vibration free connection to the floor. They are delivered separately.

Additionally, the switch box includes:

- For each pump a relay (MC DOL), for each pump a soft starter (SFT) or for each pump a star-delta switch (S/D)
- Main switch with door opening protection.
- For each pump a thermal motor protection switch.
- Fail-safe voltage-free failure outputs urgent and not-urgent (NO and NC).

The Megacontrol microprocessor control module has the following basic functions:

- Pressure control
- Optimised pump staging.
- Continuously optimised minimum-run time of the pumps.
- Adjustable correction factor for pressure loss in the system.
- 24-hours test-run function.
- Adjustable delay of the under pressure/run-dry protection.
- Option for controlling the level in a storage tank.
- Display options: actual system values, pump status, operating hours, comprehensive failure interface.

Machine feet

The installation has by default machine feet for setting the height of the installation and a vibration free connection to the floor. They are delivered separately.

All our booster units comply with the NEN1006 (nl) standard and have been constructed as described in the most actual water worksheets (NL).

4 Specification Frequency

4.1 Dimensions HU2 MCMF

4.1.1 HU2 DPV2/4/6 MCMF 60 Hz- A

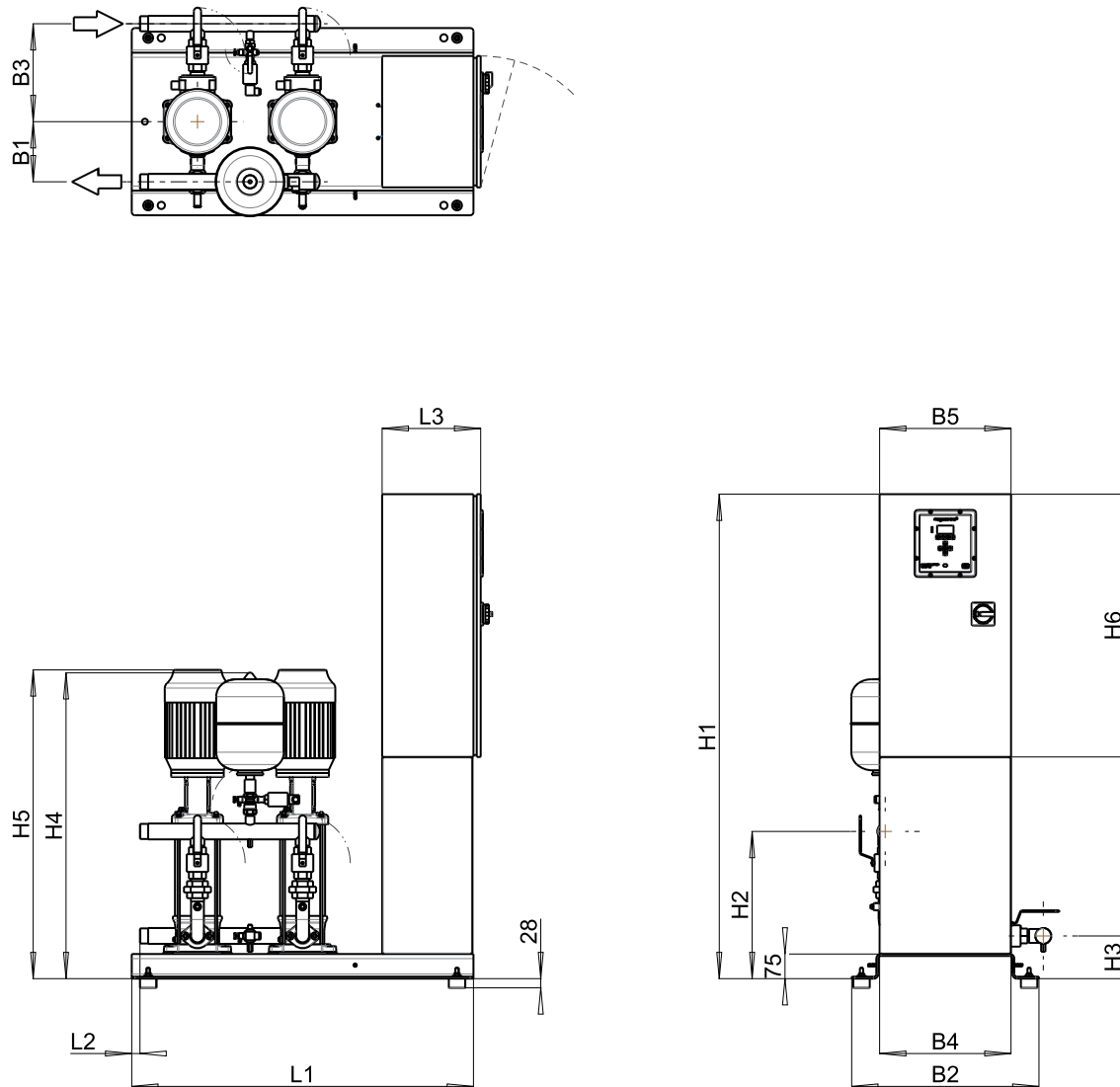


Figure 27: HU2 DPV2/4/6

Table 49: Dimensions

Pump type	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H6 [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	B5 [mm]	L1 [mm]	L2 [mm]	L3 [mm]
DPV2	1475	449	130	932	800	255	570	240	400	400	1040	25	300
DPV4	1475	449	130	932	800	255	570	240	400	400	1040	25	300
DPV6	1475	449	130	932	800	255	570	240	400	400	1040	25	300

Table 50: General

Run-dry protection	Pressure transmitter
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Protection class	IP55
Drawing number	20100075

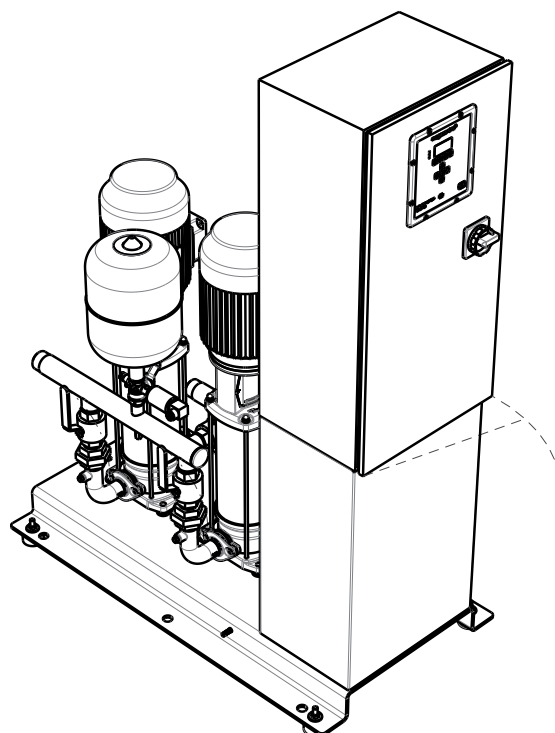


Figure 28: HU2 DPV2/4/6

Table 51: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max Unit	Max fuse	Control	Pump speed	H5 [mm]	Mass [kg]
HU2 DPV2										
HU232201D64A	/2	AISI304 G 5/4	AISI304 G 6/4	PN10	5,00A	25A	MCMF 60Hz-A	3300 rpm	547	160
HU232301D64A	/3	AISI304 G 5/4	AISI304 G 6/4	PN10	5,00A	25A	MCMF 60Hz-A	3300 rpm	568	160
HU232401D64A	/4	AISI304 G 5/4	AISI304 G 6/4	PN10	6,00A	25A	MCMF 60Hz-A	3345 rpm	590	160
HU232501D64A	/5	AISI304 G 5/4	AISI304 G 6/4	PN10	8,00A	25A	MCMF 60Hz-A	3450 rpm	665	160
HU232602D64A	/6	AISI304 G 5/4	AISI304 G 6/4	PN16	8,00A	25A	MCMF 60Hz-A	3450 rpm	687	160
HU232702D64A	/7	AISI304 G 5/4	AISI304 G 6/4	PN16	9,00A	25A	MCMF 60Hz-A	3450 rpm	708	160
HU232802D64A	/8	AISI304 G 5/4	AISI304 G 6/4	PN16	9,00A	25A	MCMF 60Hz-A	3450 rpm	730	160
HU232902D64A	/9	AISI304 G 5/4	AISI304 G 6/4	PN16	9,00A	25A	MCMF 60Hz-A	3450 rpm	751	180
HU232A02D64A	/10	AISI304 G 5/4	AISI304 G 6/4	PN16	12,00A	25A	MCMF 60Hz-A	3480 rpm	779	180
HU2 DPV4										
HU234201D64A	/2	AISI304 G 5/4	AISI304 G 6/4	PN10	6,00A	25A	MCMF 60Hz-A	3345 rpm	547	160
HU234301D64A	/3	AISI304 G 5/4	AISI304 G 6/4	PN10	8,00A	25A	MCMF 60Hz-A	3450 rpm	622	160
HU234401D64A	/4	AISI304 G 5/4	AISI304 G 6/4	PN10	9,00A	25A	MCMF 60Hz-A	3450 rpm	644	160
HU234502D64A	/5	AISI304 G 5/4	AISI304 G 6/4	PN16	12,00A	25A	MCMF 60Hz-A	3480 rpm	671	180
HU234602D64A	/6	AISI304 G 5/4	AISI304 G 6/4	PN16	12,00A	25A	MCMF 60Hz-A	3480 rpm	693	180
HU234702D64A	/7	AISI304 G 5/4	AISI304 G 6/4	PN16	16,00A	25A	MCMF 60Hz-A	3480 rpm	743	180
HU234802D64A	/8	AISI304 G 5/4	AISI304 G 6/4	PN16	16,00A	25A	MCMF 60Hz-A	3480 rpm	765	190
HU2 DPV6										
HU236201D64A	/2	AISI304 G 5/4	AISI304 G 6/4	PN10	8,00A	25A	MCMF 60Hz-A	3450 rpm	585	160
HU236301D64A	/3	AISI304 G 5/4	AISI304 G 6/4	PN10	9,00A	25A	MCMF 60Hz-A	3450 rpm	651	180
HU236401D64A	/4	AISI304 G 5/4	AISI304 G 6/4	PN10	12,00A	25A	MCMF 60Hz-A	3480 rpm	681	180
HU236502D64A	/5	AISI304 G 5/4	AISI304 G 6/4	PN16	16,00A	25A	MCMF 60Hz-A	3480 rpm	721	180
HU236602D64A	/6	AISI304 G 5/4	AISI304 G 6/4	PN16	16,00A	25A	MCMF 60Hz-A	3480 rpm	746	190

4.1.2 HU2 DPV4/6 MCMF 60 Hz- B

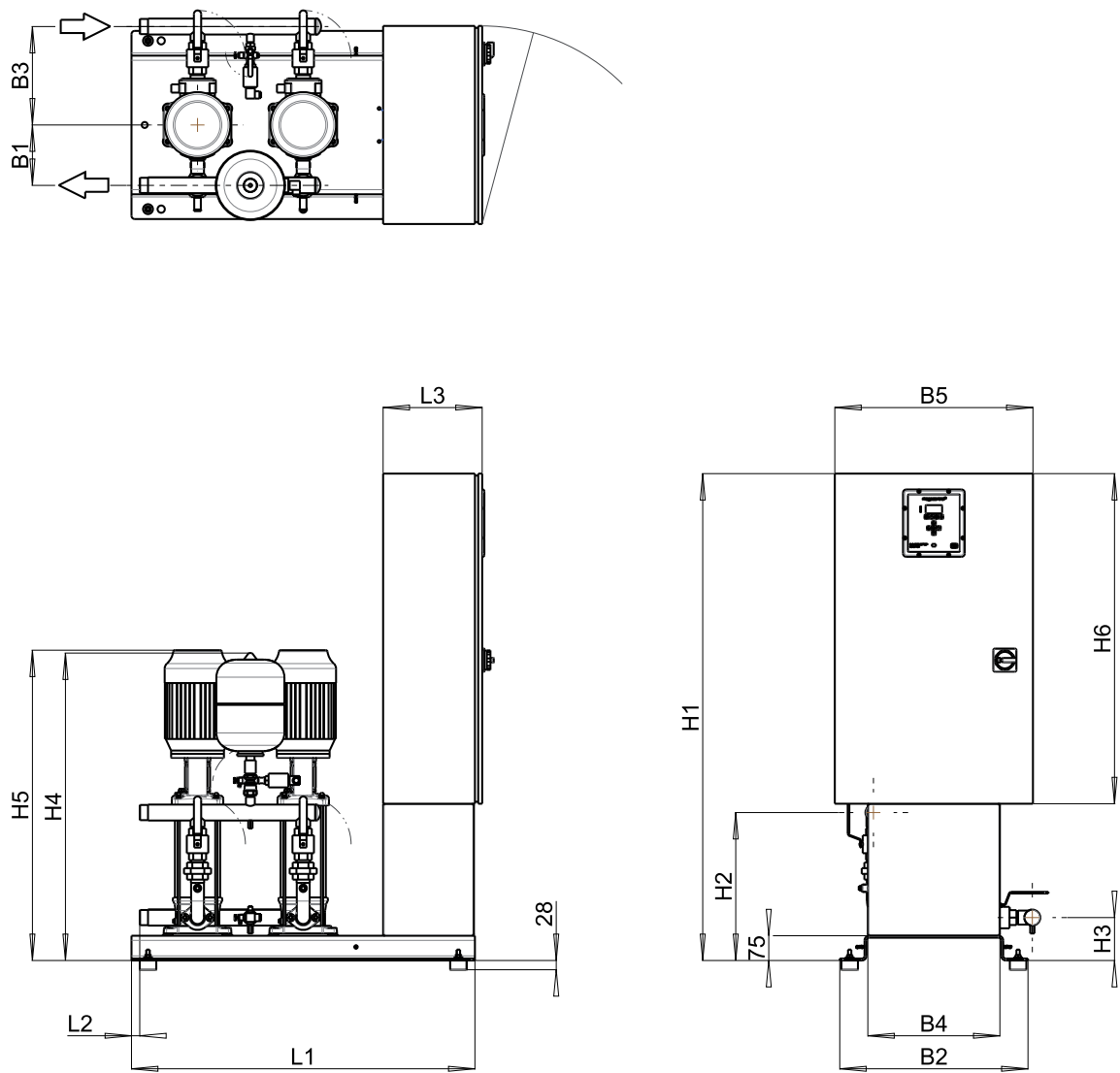


Figure 29: HU2 DPV4/6

Table 52: Dimensions

Pump type	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H6 [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	B5 [mm]	L1 [mm]	L2 [mm]	L3 [mm]
DPV4	1475	449	130	932	1000	255	570	240	400	600	1040	25	300
DPV6	1475	449	130	932	1000	255	570	240	400	600	1040	25	300

20100082-B

Table 53: General

Run-dry protection	Pressure transmitter
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Protection class	IP55
Drawing number	20100082

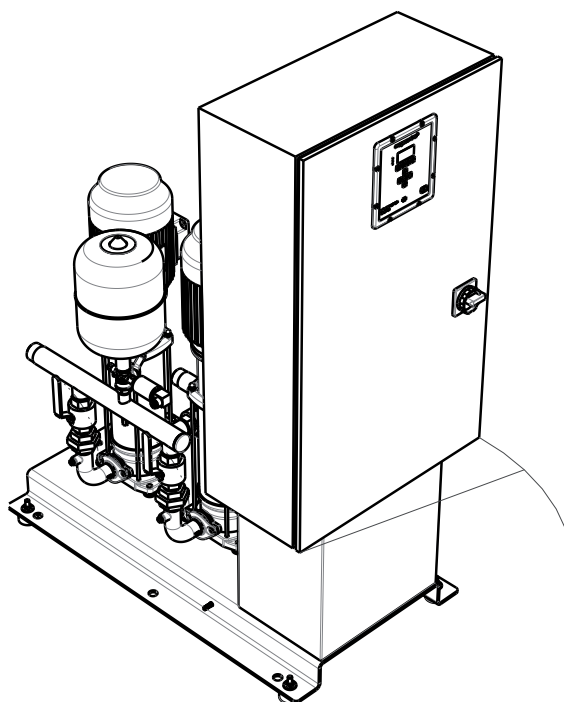


Figure 30: HU2 DPV4/6

Table 54: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max Unit	Max fuse	Control	Pump speed	H5 [mm]	Mass [kg]
HU2 DPV4										
HU234902D64A	/9	AISI304 G 5/4	AISI304 G 6/4	PN16	21,00A	25A	MCMF 60Hz-B	3480 rpm	786	200
HU2 DPV6										
HU236702D64A	/7	AISI304 G 5/4	AISI304 G 6/4	PN16	21,00A	25A	MCMF 60Hz-B	3480 rpm	826	190
HU236802D64A	/8	AISI304 G 5/4	AISI304 G 6/4	PN16	21,00A	25A	MCMF 60Hz-B	3480 rpm	851	200

4.1.3 HU2 DPV10/15 MCMF - A 50Hz

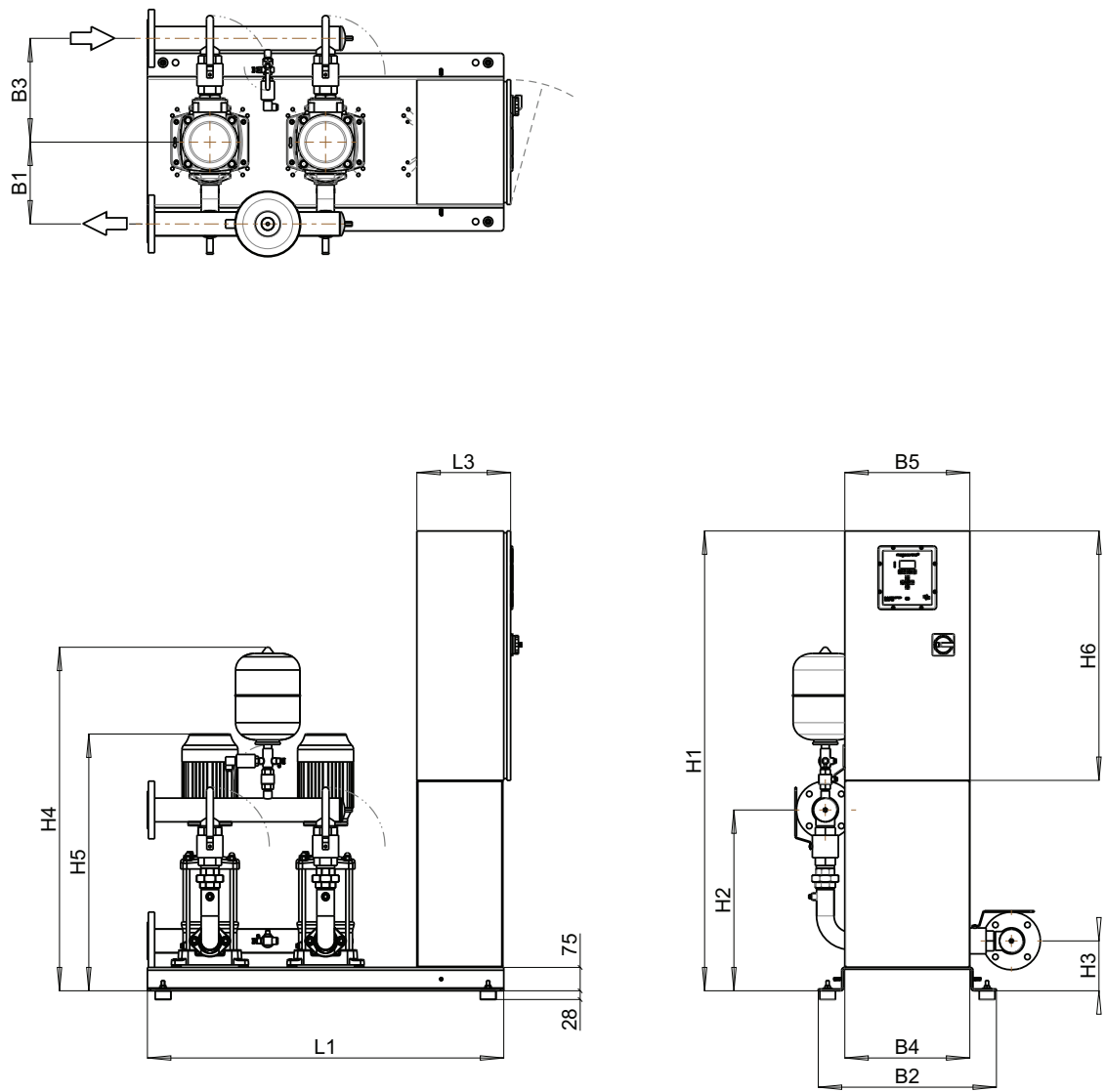


Figure 31: HU2 DPV10/15 MCMF

Table 55: Dimensions

Pump type	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H6 [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	B5 [mm]	L1 [mm]	L3 [mm]
DPV10	1475	582	160	1075	800	265	570	340	400	400	1140	300
DPV15	1475	582	160	1075	800	265	570	340	400	400	1140	300

Table 56: General

Run-dry protection	Pressure transmitter
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Protection class	IP55
Drawing number	20101101

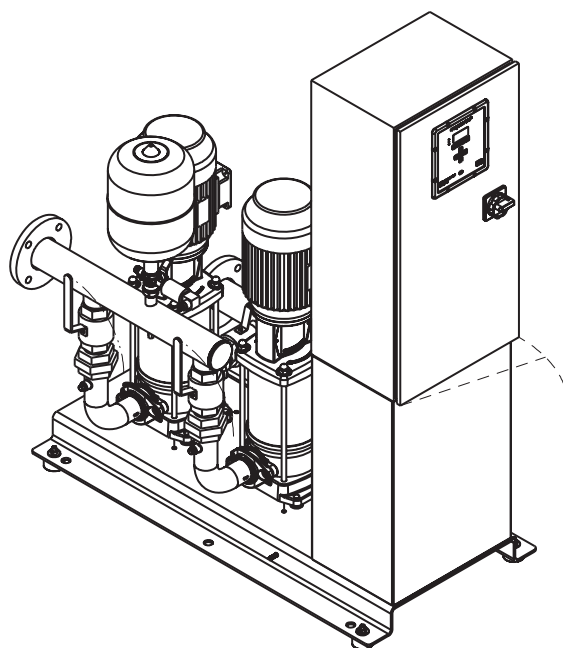


Figure 32: HU2 DPV10/15

Table 57: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max Unit	Max fuse	Control	Pump speed	H5 [mm]	Mass [kg]
HU2 DPV10										
HU23A201K64C	/2	AISI304 G 2	AISI304 NW65	PN10	6,73A	25A	MCMF - A	2850 rpm	696	190
HU23A301K64C	/3	AISI304 G 2	AISI304 NW65	PN10	9,10A	25A	MCMF - A	2850 rpm	722	200
HU23A401K64C	/4	AISI304 G 2	AISI304 NW65	PN10	10,67A	25A	MCMF - A	2850 rpm	754	210
HU23A501K64C	/5	AISI304 G 2	AISI304 NW65	PN10	14,90A	25A	MCMF - A	2850 rpm	795	220
HU23A602K64C	/6	AISI304 G 2	AISI304 NW65	PN16	14,90A	25A	MCMF - A	2850 rpm	822	220
HU2 DPV15										
HU23B201K64C	/2	AISI304 G 2	AISI304 NW65	PN10	14,90A	25A	MCMF - A	2850 rpm	716	220

4.1.4 HU2 DPV10/15 MCMF - B

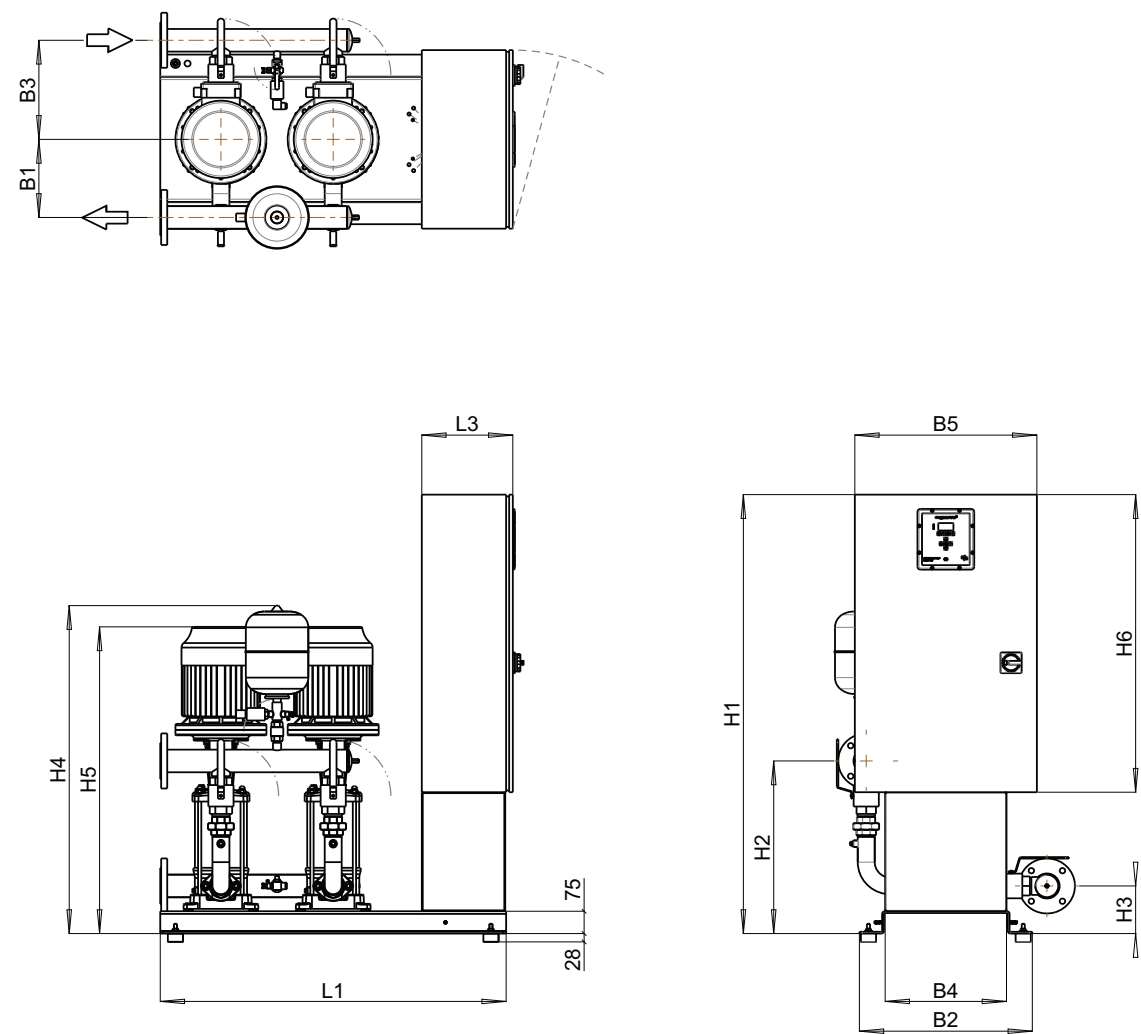


Figure 33: HU2 DPV10/15 MCMF - B

Table 58: Dimensions

Pump type	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H6 [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	B5 [mm]	L1 [mm]	L3 [mm]
DPV10	1475	582	160	1075	1000	265	570	340	400	600	1140	300
DPV15	1475	582	160	1075	1000	265	570	340	400	600	1140	300

Table 59: General

Run-dry protection	Pressure transmitter
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Protection class	IP55
Drawing number	20101104

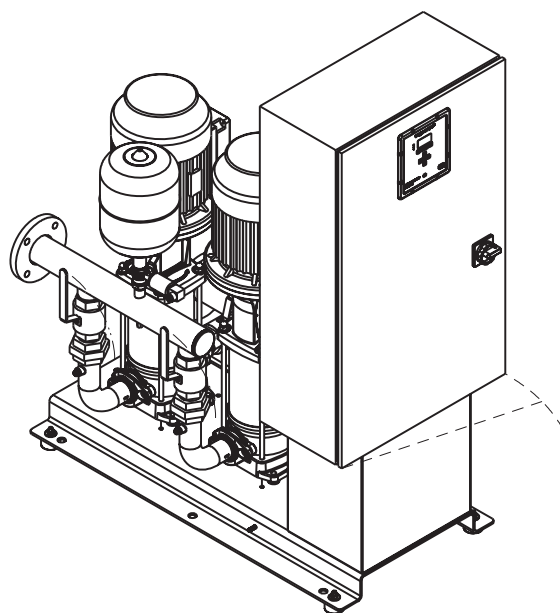


Figure 34: HU 2 DPV10/15

Table 60: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max Unit	Max fuse	Control	Pump speed	H5 [mm]	Mass [kg]
HU2 DPV10										
HU23A702K64C	/7	AISI304 G 2	AISI304 NW65	PN16	19,50A	25A	MCMF - B	2850 rpm	903	250
HU23A802K64C	/8	AISI304 G 2	AISI304 NW65	PN16	19,50A	25A	MCMF - B	2850 rpm	930	250
HU23A902K64C	/9	AISI304 G 2	AISI304 NW65	PN16	25,30A	40A	MCMF - B	2850 rpm	966	260
HU23AA02K64C	/10	AISI304 G 2	AISI304 NW65	PN16	25,30A	40A	MCMF - B	2850 rpm	993	260
HU2 DPV15										
HU23B301K64C	/3	AISI304 G 2	AISI304 NW65	PN10	19,50A	25A	MCMF - B	2850 rpm	797	250
HU23B401K64C	/4	AISI304 G 2	AISI304 NW65	PN10	25,30A	40A	MCMF - B	2850 rpm	834	260
HU23B502K64C	/5	AISI304 G 2	AISI304 NW65	PN16	34,75A	50A	MCMF - B	2850 rpm	965	340
HU23B602K64C	/6	AISI304 G 2	AISI304 NW65	PN16	34,75A	50A	MCMF - B	2850 rpm	991	340
HU23B702K64C	/7	AISI304 G 2	AISI304 NW65	PN16	46,33A	63A	MCMF - B	2850 rpm	1018	350
HU23B802K64C	/8	AISI304 G 2	AISI304 NW65	PN16	46,33A	63A	MCMF - B	2850 rpm	1044	350

4.1.5 HU2 DPVF25/40/60 MCMF - B

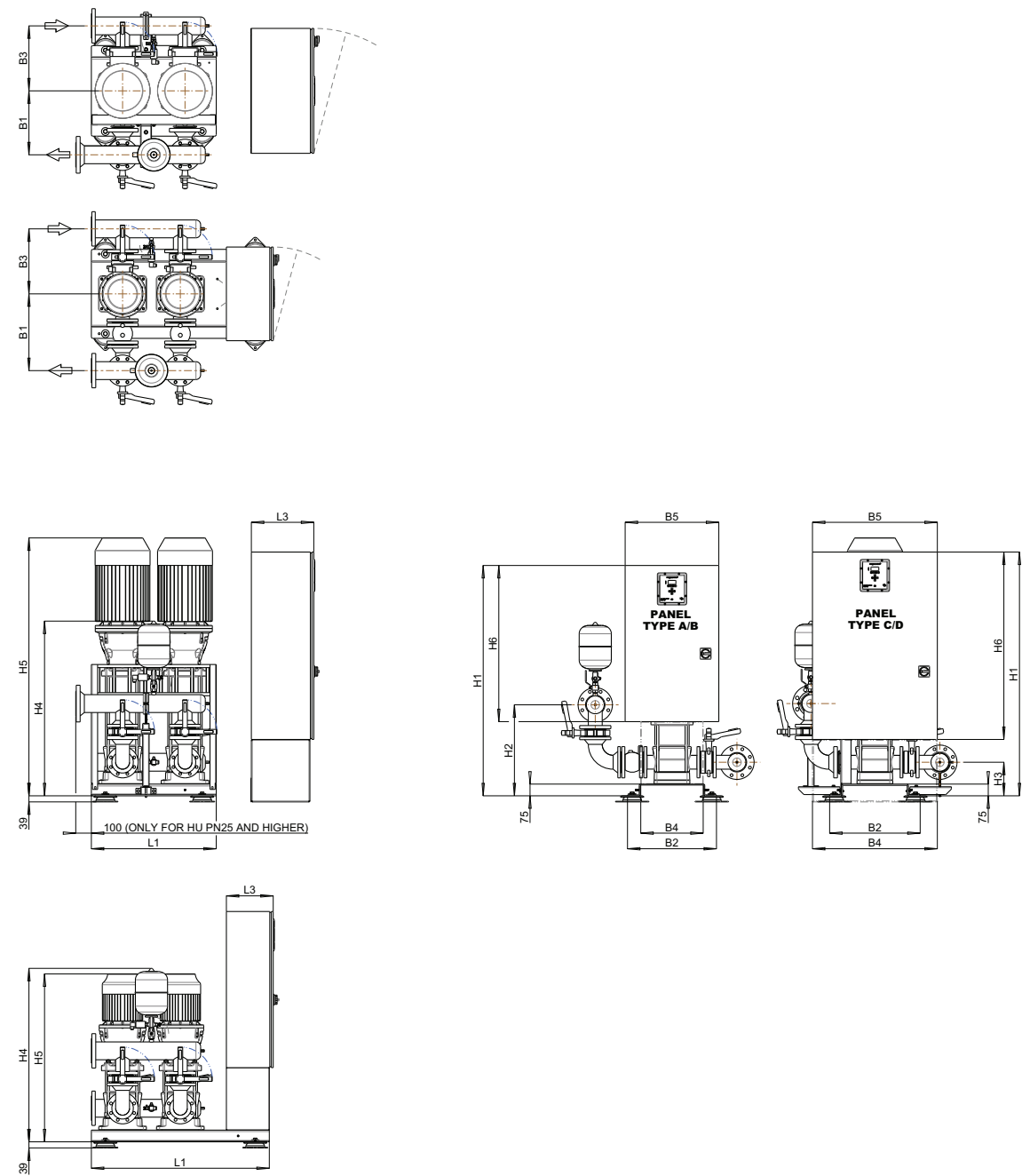


Figure 35: HU2 DPVF25/40/60 MCMF - B

Table 61: Dimensions

pump type	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H6 [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	B5 [mm]	L1 [mm]	L3 [mm]
DPVF25	1475	516	178	1010	1000	358	570	381	400	600	1140	300
DPVF40	1475	583	215	1138	1000	492	570	416	400	600	1140	300
DPVF60	1475	655	215	1237	1000	562	570	450	400	600	1140	300

Table 62: General

Run-dry protection	Pressure transmitter
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Protection class	IP55
Drawing number	20140261

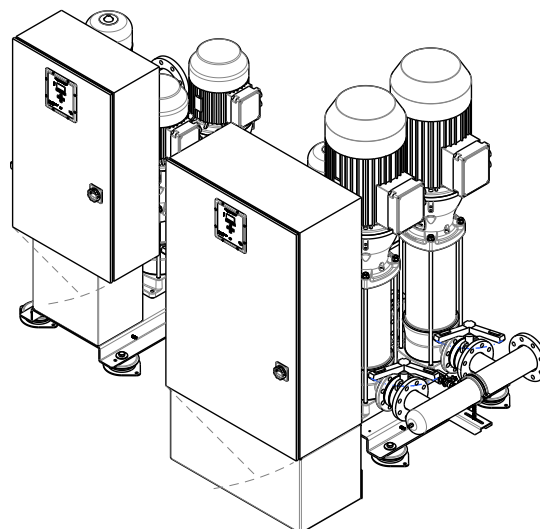


Figure 36: HU2 DPVF25/40/60

Table 63: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max unit	Max fuse	Control	Pump speed	H5 [mm]	Mass [kg]
HU2 DPVF25										
HU26C208L64C	/2	CI NW65	AISI304 NW80	PN10	17,4A	50A	MCMF - B	2920 rpm	885	398
HU26C309L64C	/3	CI NW65	AISI304 NW80	PN16	22,2A	50A	MCMF - B	2940 rpm	1064	456
HU26C409L64C	/4	CI NW65	AISI304 NW80	PN16	28,4A	80A	MCMF - B	2940 rpm	1129	469
HU2 DPVF40										
HU26D101M64C	/1	CI NW80	AISI304 NW100	PN10	30A	40A	MCMF - B	2920 rpm	902	501
HU26D221M64C	/2-2	CI NW80	AISI304 NW100	PN10	39A	50A	MCMF - B	2940 rpm	1077	585
HU26D201M64C	/2	CI NW80	AISI304 NW100	PN10	51A	80A	MCMF - B	2940 rpm	1077	607
HU2 DPVF60										
HU26E101P64C	/1	CI NW100	AISI304 NW150	PN10	39A	50A	MCMF - B	2940 rpm	1017	584
HU26E221P64C	/2-2	CI NW100	AISI304 NW150	PN10	51A	80A	MCMF - B	2940 rpm	1095	600

4.2 Dimensions HU3 MCMF

4.2.1 HU3 DPV2/4/6 MCMF 60 Hz- A

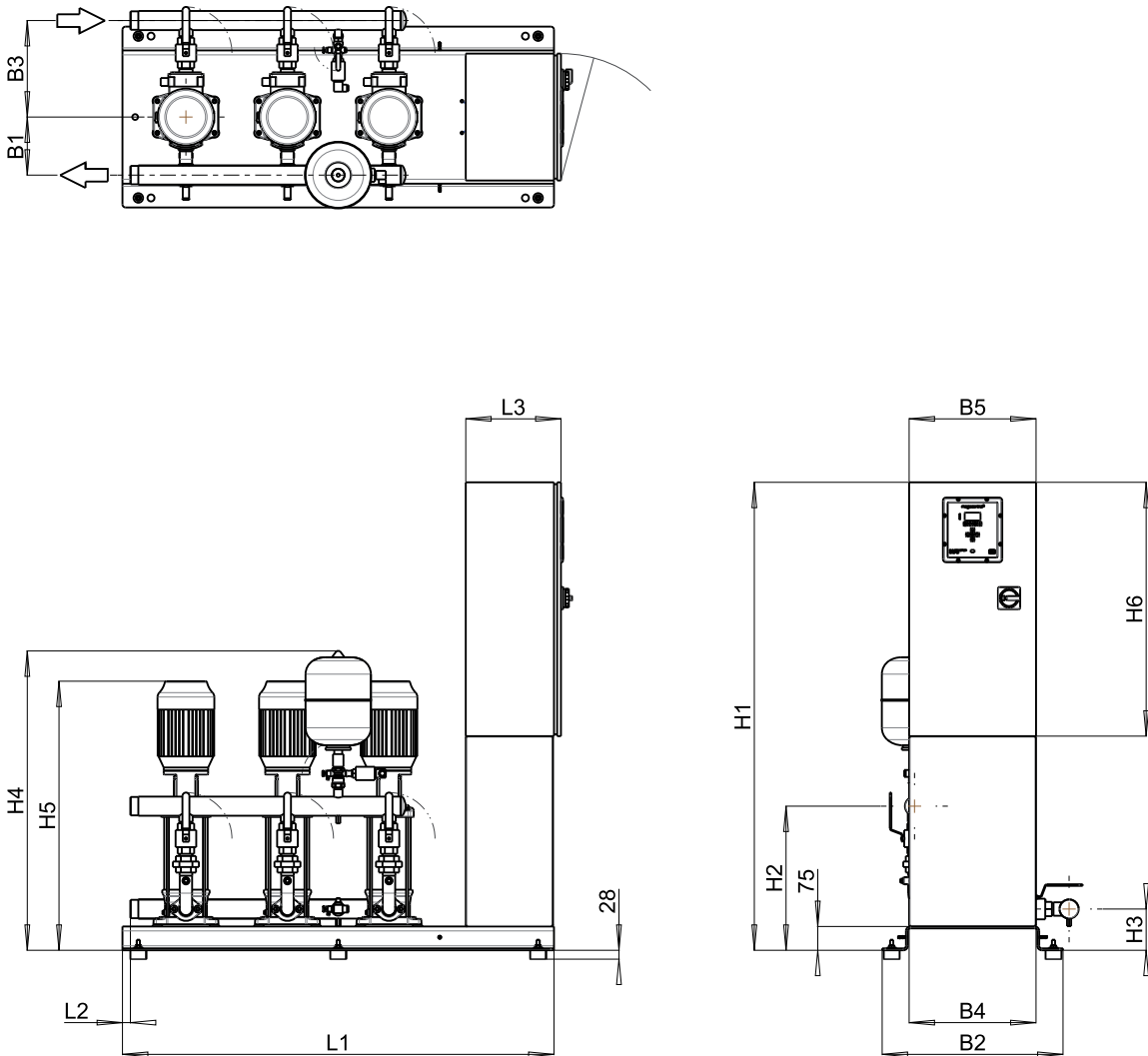


Figure 37: HU3 DPV2/4/6

Table 64: Dimensions

Pump type	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H6 [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	B5 [mm]	L1 [mm]	L2 [mm]	L3 [mm]
DPV2	1475	449	130	932	800	183	570	298	400	400	1360	25	300
DPV4	1475	449	130	932	800	183	570	298	400	400	1360	25	300
DPV6	1475	455	130	944	800	183	570	304	400	400	1360	25	300

Table 65: General

Run-dry protection	Pressure transmitter
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Protection class	IP55
Drawing number	20100076

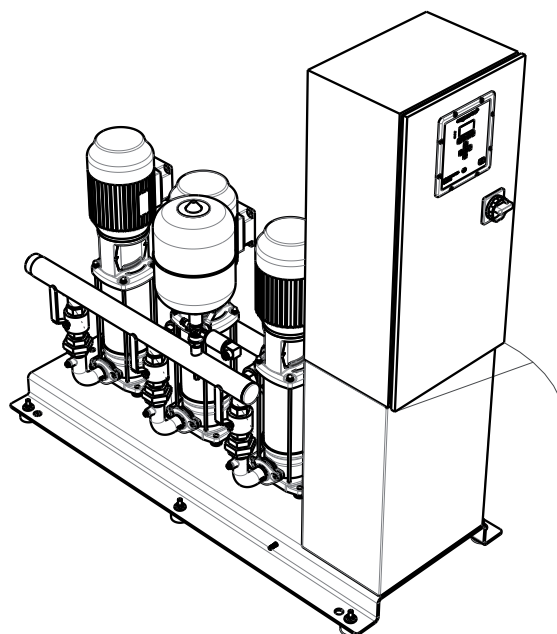


Figure 38: HU3 DPV2/4/6

Table 66: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max Unit	Max fuse	Control	Pump speed	H5 [mm]	Mass [kg]
HU3 DPV2										
HU332201D64A	/2	AISI304 G 5/4	AISI304 G 6/4	PN10	7,00A	25A	MCMF 60Hz-A	3300 rpm	547	200
HU332301D64A	/3	AISI304 G 5/4	AISI304 G 6/4	PN10	7,00A	25A	MCMF 60Hz-A	3300 rpm	568	200
HU332401D64A	/4	AISI304 G 5/4	AISI304 G 6/4	PN10	9,00A	25A	MCMF 60Hz-A	3345 rpm	590	200
HU332501D64A	/5	AISI304 G 5/4	AISI304 G 6/4	PN10	11,00A	25A	MCMF 60Hz-A	3450 rpm	665	200
HU332602D64A	/6	AISI304 G 5/4	AISI304 G 6/4	PN16	11,00A	25A	MCMF 60Hz-A	3450 rpm	687	200
HU332702D64A	/7	AISI304 G 5/4	AISI304 G 6/4	PN16	12,00A	25A	MCMF 60Hz-A	3450 rpm	708	200
HU332802D64A	/8	AISI304 G 5/4	AISI304 G 6/4	PN16	12,00A	25A	MCMF 60Hz-A	3450 rpm	730	200
HU332902D64A	/9	AISI304 G 5/4	AISI304 G 6/4	PN16	12,00A	25A	MCMF 60Hz-A	3450 rpm	751	220
HU332A02D64A	/10	AISI304 G 5/4	AISI304 G 6/4	PN16	16,00A	25A	MCMF 60Hz-A	3480 rpm	779	220
HU3 DPV4										
HU334201D64A	/2	AISI304 G 5/4	AISI304 G 6/4	PN10	9,00A	25A	MCMF 60Hz-A	3345 rpm	547	200
HU334301D64A	/3	AISI304 G 5/4	AISI304 G 6/4	PN10	11,00A	25A	MCMF 60Hz-A	3450 rpm	622	200
HU334401D64A	/4	AISI304 G 5/4	AISI304 G 6/4	PN10	12,00A	25A	MCMF 60Hz-A	3450 rpm	644	200
HU334502D64A	/5	AISI304 G 5/4	AISI304 G 6/4	PN16	16,00A	25A	MCMF 60Hz-A	3480 rpm	671	220
HU334602D64A	/6	AISI304 G 5/4	AISI304 G 6/4	PN16	16,00A	25A	MCMF 60Hz-A	3480 rpm	693	230
HU334702D64A	/7	AISI304 G 5/4	AISI304 G 6/4	PN16	23,00A	40A	MCMF 60Hz-A	3480 rpm	743	230
HU334802D64A	/8	AISI304 G 5/4	AISI304 G 6/4	PN16	23,00A	40A	MCMF 60Hz-A	3480 rpm	765	250
HU3 DPV6										
HU336201E64A	/2	AISI304 G 5/4	AISI304 G 2	PN10	11,00A	25A	MCMF 60Hz-A	3450 rpm	585	200
HU336301E64A	/3	AISI304 G 5/4	AISI304 G 2	PN10	12,00A	25A	MCMF 60Hz-A	3450 rpm	651	200
HU336401E64A	/4	AISI304 G 5/4	AISI304 G 2	PN10	16,00A	25A	MCMF 60Hz-A	3480 rpm	681	230
HU336502E64A	/5	AISI304 G 5/4	AISI304 G 2	PN16	23,00A	40A	MCMF 60Hz-A	3480 rpm	721	230
HU336602E64A	/6	AISI304 G 5/4	AISI304 G 2	PN16	23,00A	40A	MCMF 60Hz-A	3480 rpm	746	230

4.2.2 HU3 DPV4/6 MCMF 60 Hz- B

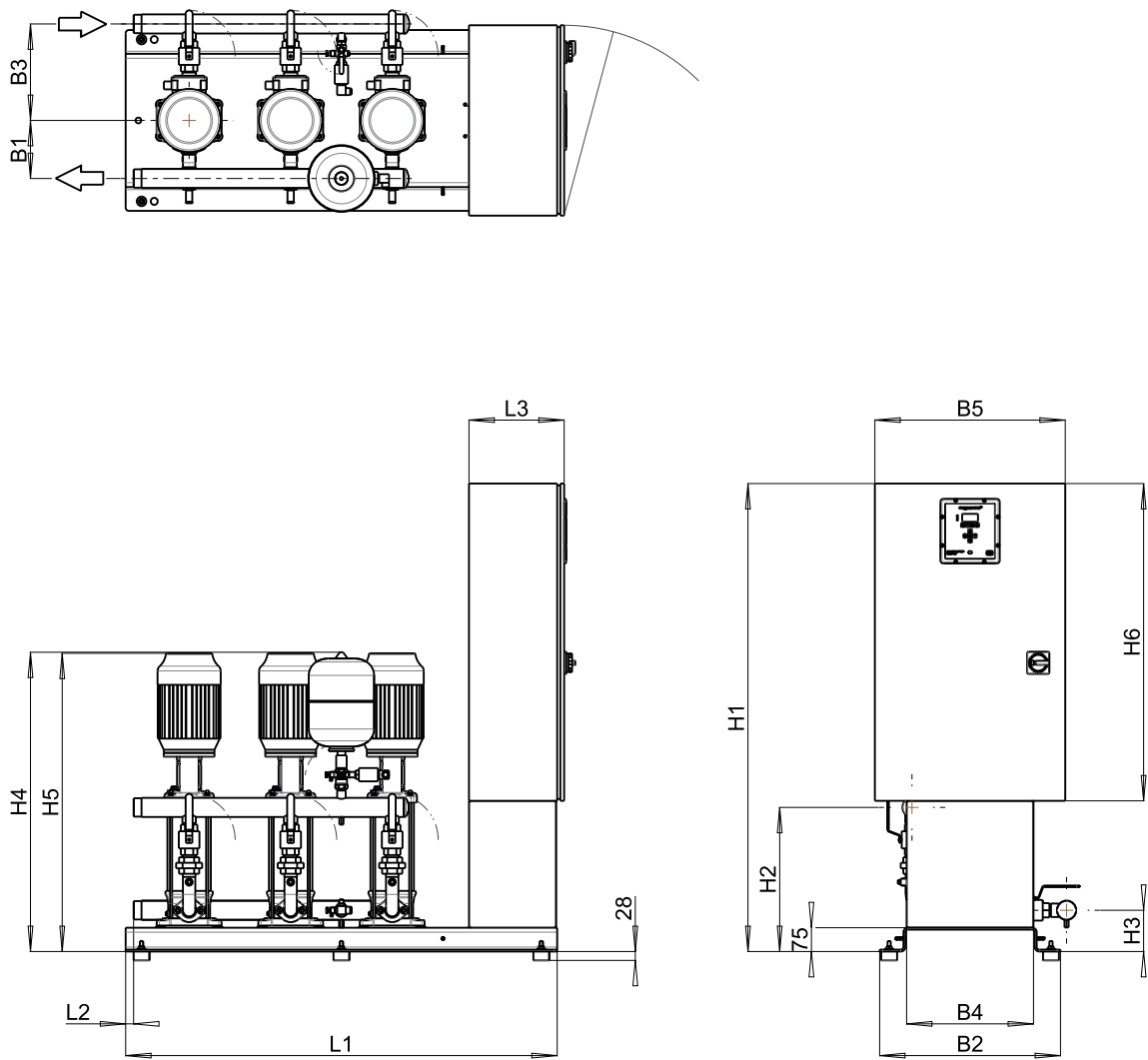


Figure 39: HU3 DPV4/6

Table 67: Dimensions

Pump type	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H6 [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	B5 [mm]	L1 [mm]	L2 [mm]	L3 [mm]
DPV4	1475	449	130	932	1000	183	570	298	400	600	1360	25	300
DPV6	1475	455	130	944	1000	183	570	304	400	600	1360	25	300

20100077-B

Table 68: General

Run-dry protection	Pressure transmitter
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Protection class	IP55
Drawing number	20100077

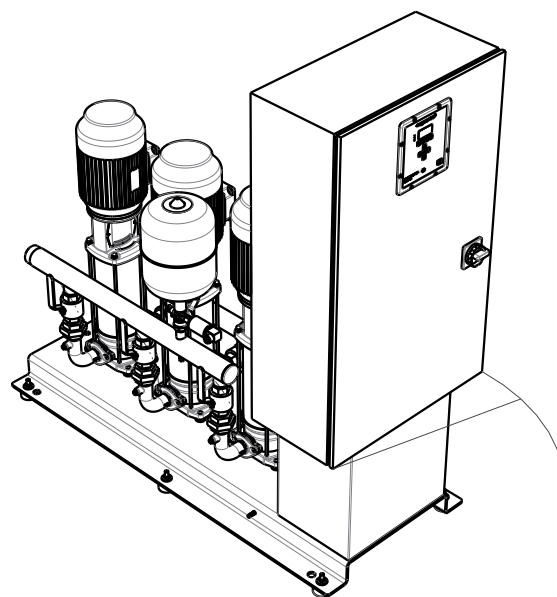


Figure 40: HU3 DPV4/6

Table 69: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max Unit	Max fuse	Control	Pump speed	H5 [mm]	Mass [kg]
HU3 DPV4										
HU334902D64A	/9	AISI304 G 5/4	AISI304 G 6/4	PN16	30,00A	40A	MCMF 60Hz-B	3480 rpm	786	250
HU3 DPV6										
HU336702E64A	/7	AISI304 G 5/4	AISI304 G 2	PN16	30,00A	40A	MCMF 60Hz-B	3480 rpm	826	250
HU336802E64A	/8	AISI304 G 5/4	AISI304 G 2	PN16	30,00A	40A	MCMF 60Hz-B	3480 rpm	851	250

4.2.3 HU3 DPV10/15 MCMF - A 50Hz

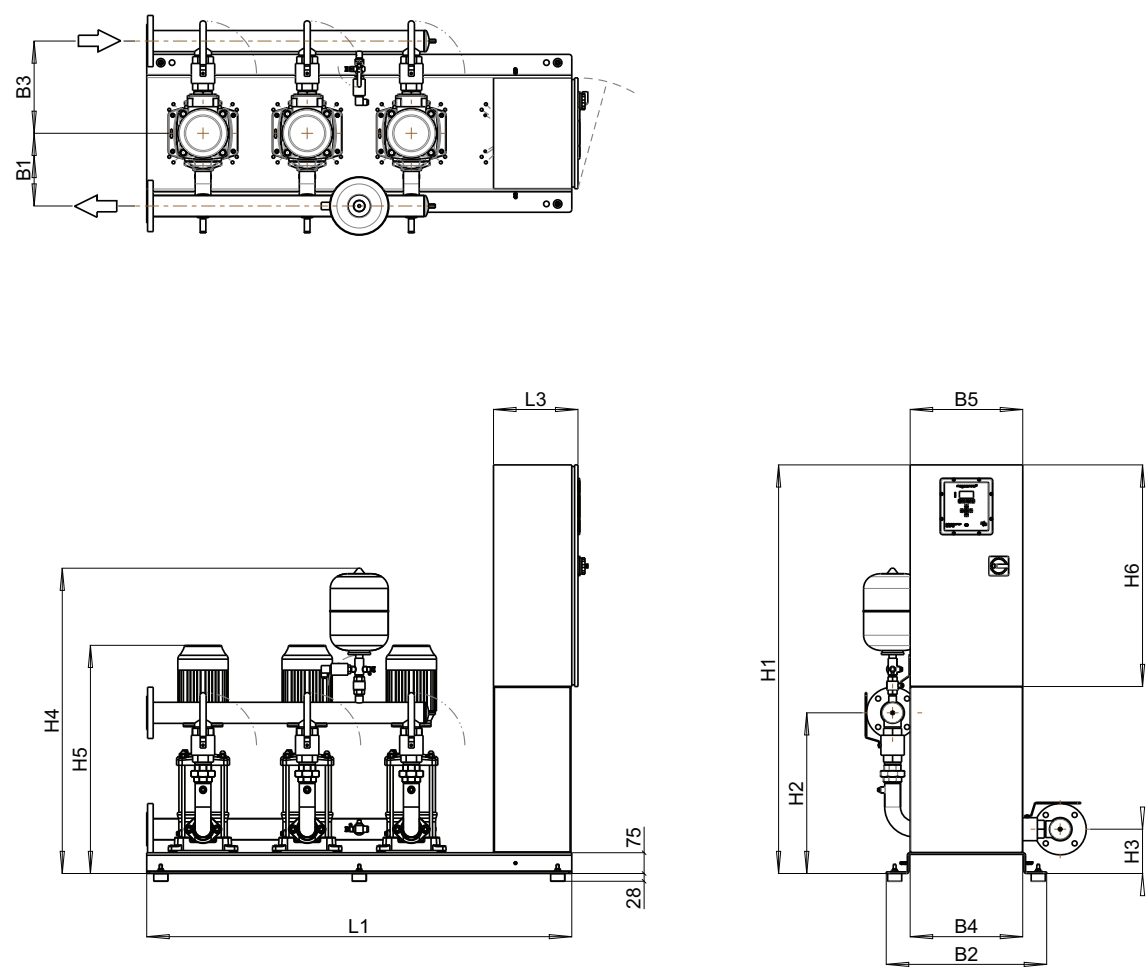


Figure 41: HU3 DPV10/15 MCMF

Table 70: Dimensions

Pump type	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H6 [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	B5 [mm]	L1 [mm]	L3 [mm]
DPV10	1475	582	160	1075	800	265	570	340	400	400	1510	300
DPV15	1475	589	160	1085	800	275	570	350	400	400	1510	300

201001102

Table 71: General

Run-dry protection	Pressure transmitter
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Protection class	IP55
Drawing number	20101102

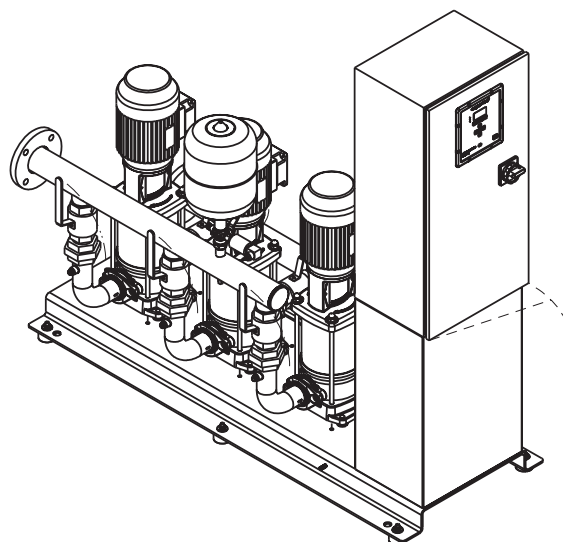


Figure 42: HU3 DPV10/15

Table 72: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max Unit	Max fuse	Control	Pump speed	H5 [mm]	Mass [kg]
HU3 DPV10										
HU33A201K64C	/2	AISI304 G 2	AISI304 NW65	PN10	9,60A	25A	MCMF - A	2850 rpm	696	280
HU33A301K64C	/3	AISI304 G 2	AISI304 NW65	PN10	13,15A	25A	MCMF - A	2850 rpm	722	290
HU33A401K64C	/4	AISI304 G 2	AISI304 NW65	PN10	20,00A	25A	MCMF - A	2850 rpm	754	310
HU33A501K64C	/5	AISI304 G 2	AISI304 NW65	PN10	21,85A	40A	MCMF - A	2850 rpm	795	320
HU33A602K64C	/6	AISI304 G 2	AISI304 NW65	PN16	21,85A	40A	MCMF - A	2850 rpm	822	320
HU3 DPV15										
HU33B201L64C	/2	AISI304 G 2	AISI304 NW80	PN10	21,85A	40A	MCMF - A	2850 rpm	716	320

4.2.4 HU3 DPV10/15 MCMF - B

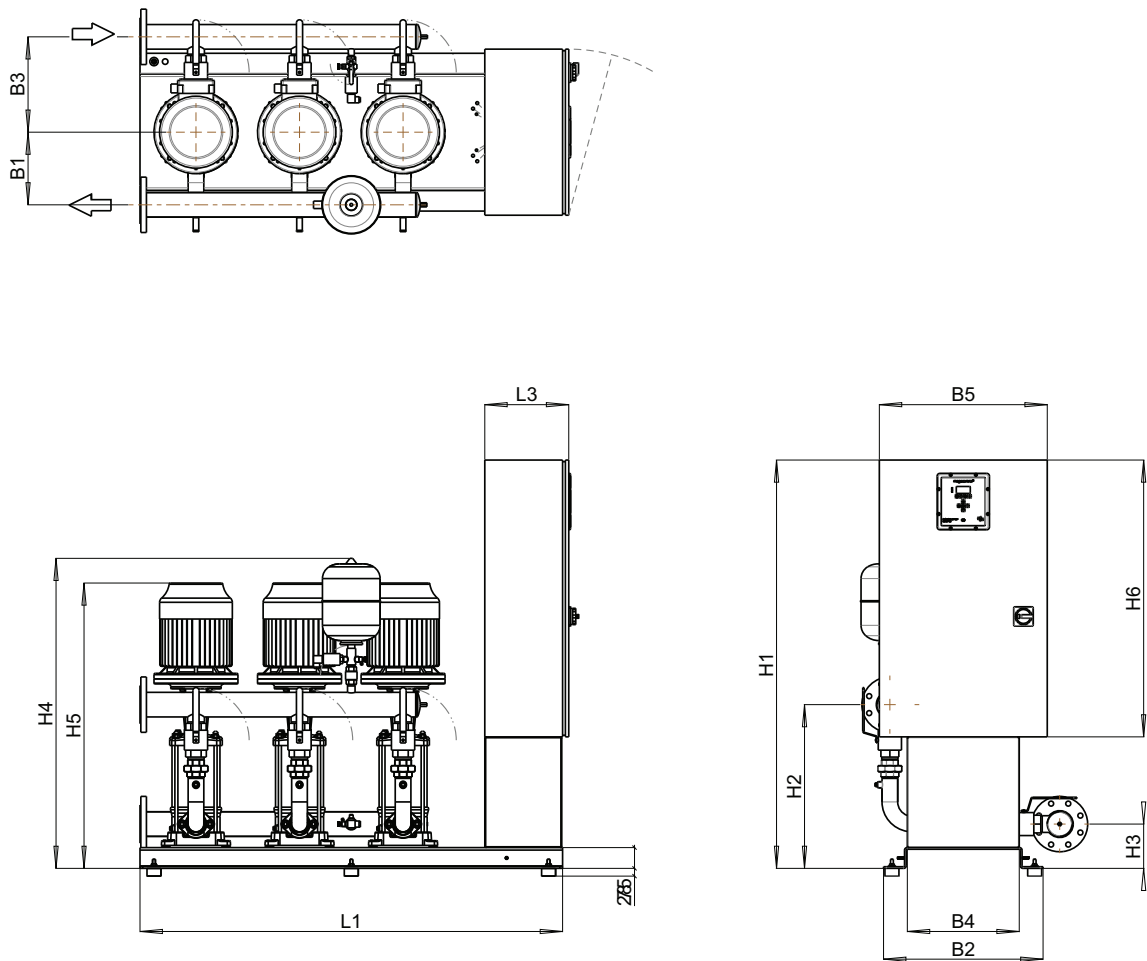


Figure 43: HU3 DPV10/15 MCMF - B

Table 73: Dimensions

Pump type	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H6 [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	B5 [mm]	L1 [mm]	L3 [mm]
DPV10	1475	582	160	1075	1000	265	570	340	400	600	1510	300
DPV15	1475	589	160	1085	1000	275	570	350	400	600	1510	300

Table 74: General

Run-dry protection	Pressure transmitter
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Protection class	IP55
Drawing number	20101105

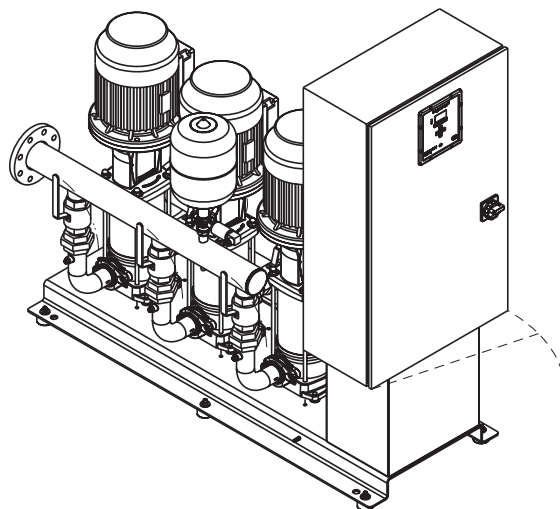


Figure 44: HU3 DPV10/15

Table 75: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max Unit	Max fuse	Control	Pump speed	H5 [mm]	Mass [kg]
HU3 DPV10										
HU33A702K64C	/7	AISI304 G 2	AISI304 NW65	PN16	28,75A	40A	MCMF - B	2850 rpm	903	360
HU33A802K64C	/8	AISI304 G 2	AISI304 NW65	PN16	28,75A	40A	MCMF - B	2850 rpm	930	360
HU33A902K64C	/9	AISI304 G 2	AISI304 NW65	PN16	37,45A	50A	MCMF - B	2850 rpm	966	380
HU33AA02K64C	/10	AISI304 G 2	AISI304 NW65	PN16	37,45A	50A	MCMF - B	2850 rpm	993	380
HU3 DPV15										
HU33B301L64C	/3	AISI304 G 2	AISI304 NW80	PN10	28,75A	40A	MCMF - B	2850 rpm	797	370
HU33B401L64C	/4	AISI304 G 2	AISI304 NW80	PN10	37,45A	50A	MCMF - B	2850 rpm	834	390
HU33B502L64C	/5	AISI304 G 2	AISI304 NW80	PN16	51,35A	63A	MCMF - B	2850 rpm	965	490
HU33B602L64C	/6	AISI304 G 2	AISI304 NW80	PN16	51,35A	63A	MCMF - B	2850 rpm	991	490
HU33B702L64C	/7	AISI304 G 2	AISI304 NW80	PN16	69,00A	80A	MCMF - B	2850 rpm	1018	510
HU33B802L64C	/8	AISI304 G 2	AISI304 NW80	PN16	69,00A	80A	MCMF - B	2850 rpm	1044	510

4.2.5 HU3 DPVF25/40/60 MCMF - B

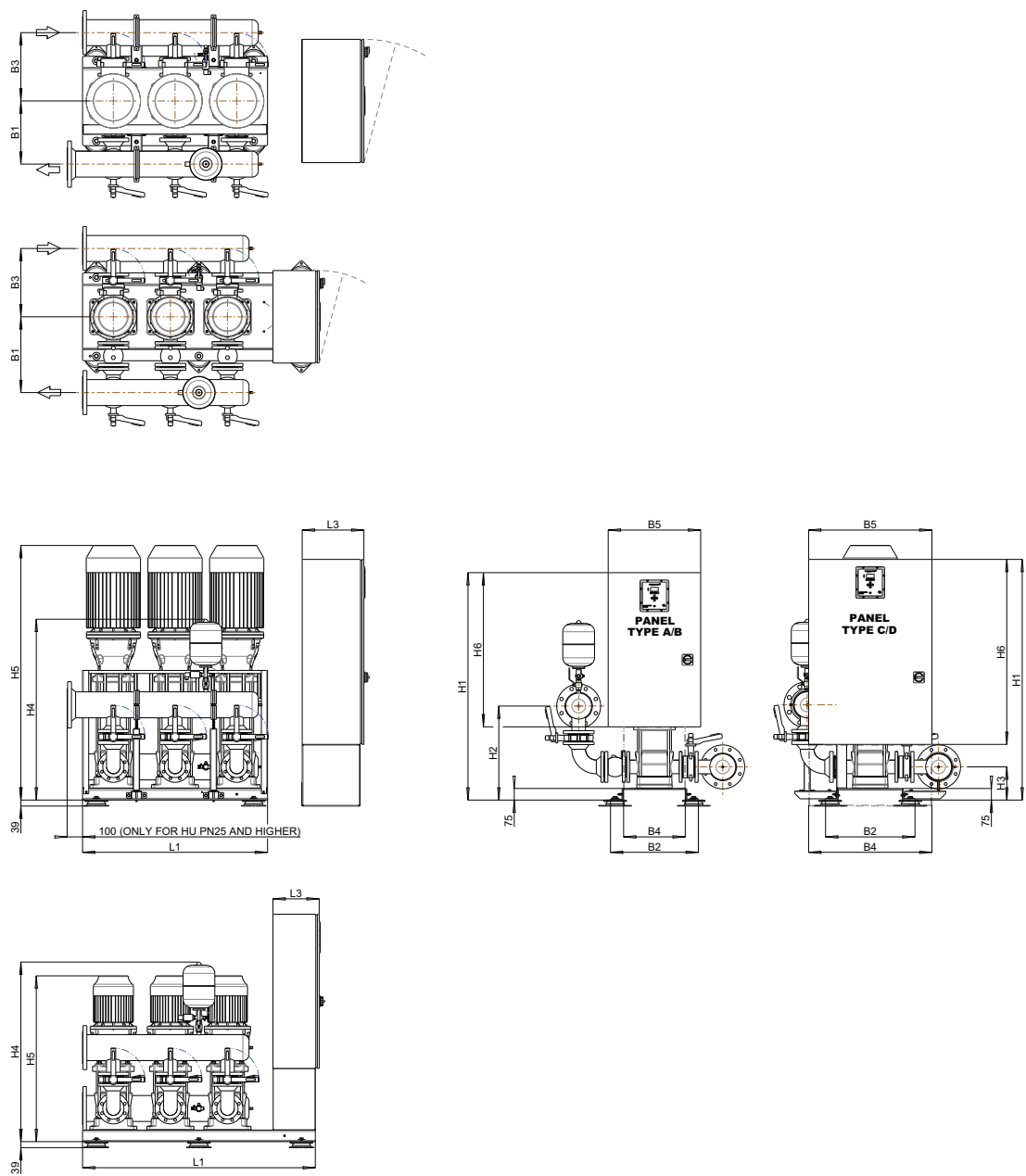


Figure 45: HU3 DPVF25/40/60 MCMF - B

Table 76: Dimensions

pump type	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H6 [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	B5 [mm]	L1 [mm]	L3 [mm]
DPVF25	1475	528	178	1036	1000	358	570	394	400	600	1510	300
DPVF40	1475	610	215	1165	1000	492	570	443	400	600	1510	300
DPVF60	1475	655	215	1237	1000	562	570	450	400	600	1510	300

Table 77: General

Run-dry protection	Pressure transmitter
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Protection class	IP55
Drawing number	20140262

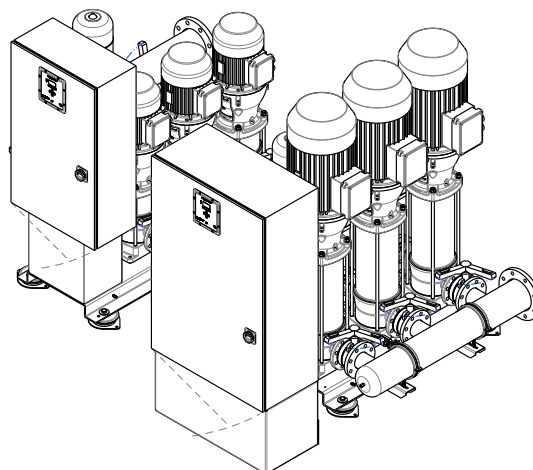


Figure 46: HU3 DPVF25/40/60

Table 78: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	l max unit	Max fuse	Control	Pump speed	H5 [mm]	Mass [kg]
HU3 DPVF25										
HU36C208M64C	/2	CI NW65	AISI304 NW100	PN10	25,1A	80A	MCMF - B	2920 rpm	885	547
HU36C309M64C	/3	CI NW65	AISI304 NW100	PN16	32,3A	80A	MCMF - B	2940 rpm	1064	633
HU36C409M64C	/4	CI NW65	AISI304 NW100	PN16	41,6A	80A	MCMF - B	2940 rpm	1129	653
HU3 DPVF40										
HU36D101P64C	/1	CI NW80	AISI304 NW150	PN10	44A	50A	MCMF - B	2920 rpm	902	701
HU36D221P64C	/2-2	CI NW80	AISI304 NW150	PN10	59A	80A	MCMF - B	2940 rpm	1077	827
HU36D201P64C	/2	CI NW80	AISI304 NW150	PN10	75A	80A	MCMF - B	2940 rpm	1077	860
HU3 DPVF60										
HU36E101P64C	/1	CI NW100	AISI304 NW150	PN10	59A	80A	MCMF - B	2940 rpm	1017	845
HU36E221P64C	/2-2	CI NW100	AISI304 NW150	PN10	75A	80A	MCMF - B	2940 rpm	1095	869

4.3 Dimensions HU4 MCMF

4.3.1 HU4 DPV2/4 MCMF 60 Hz- B

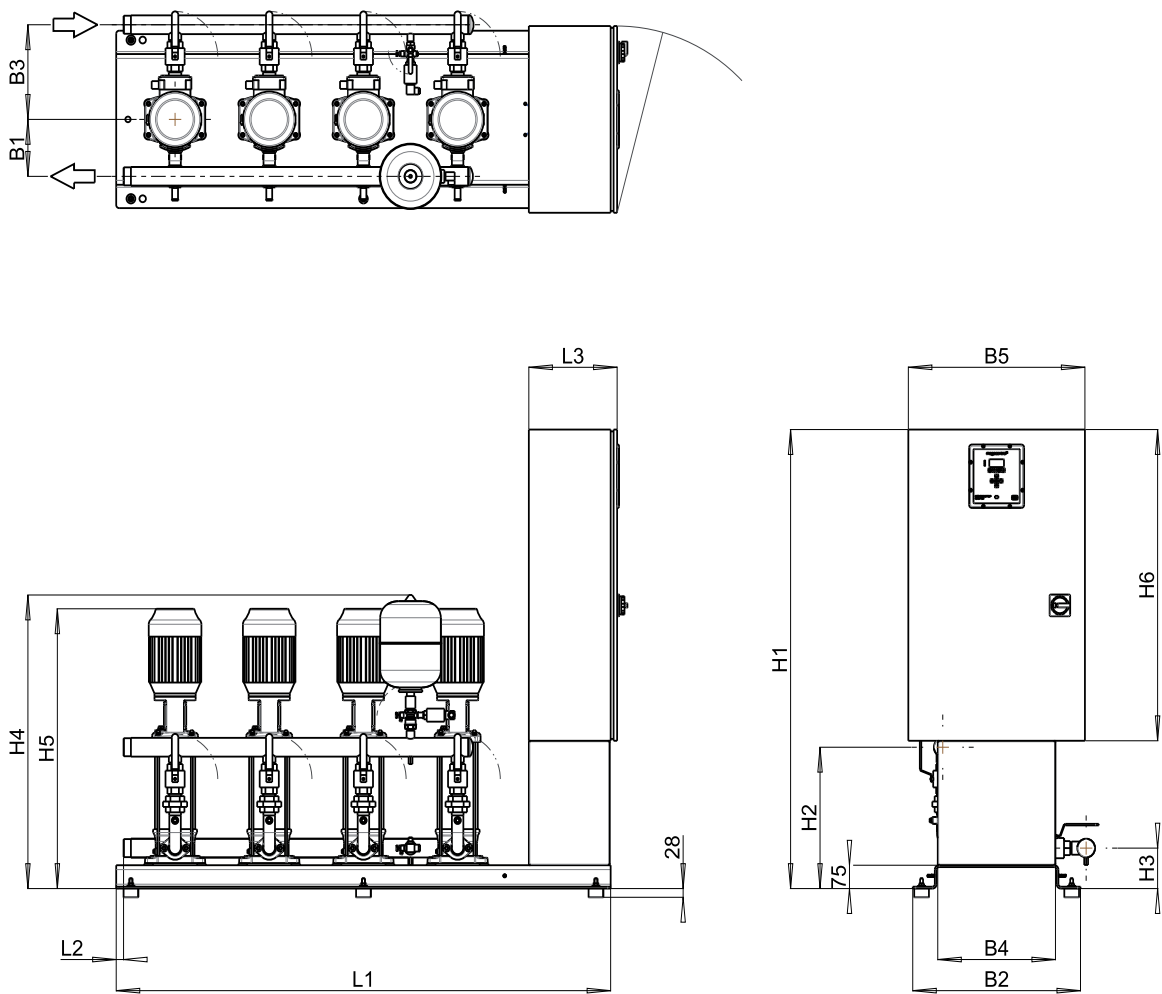


Figure 47: HU4 DPV2/4

Table 79: Dimensions

Pump type	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H6 [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	B5 [mm]	L1 [mm]	L2 [mm]	L3 [mm]
DPV2	1475	449	130	932	1000	183	570	298	400	600	1680	25	300
DPV4	1475	455	130	944	1000	183	570	304	400	600	1680	25	300

20100080-B

Table 80: General

Run-dry protection	Pressure transmitter
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Protection class	IP55
Drawing number	20100080

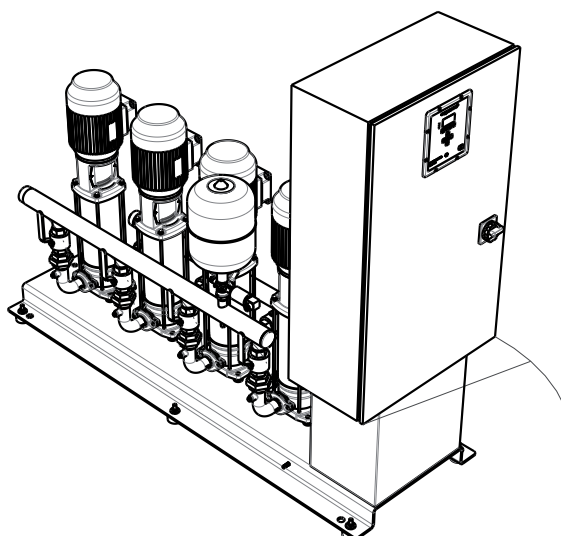


Figure 48: HU4 DPV2/4

Table 81: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max Unit	Max fuse	Control	Pump speed	H5 [mm]	Mass [kg]
HU4 DPV2										
HU432201D64A	/2	AISI304 G 5/4	AISI304 G 6/4	PN10	8,00A	25A	MCMF 60Hz-B	3300 rpm	547	250
HU432301D64A	/3	AISI304 G 5/4	AISI304 G 6/4	PN10	8,00A	25A	MCMF 60Hz-B	3300 rpm	568	250
HU432401D64A	/4	AISI304 G 5/4	AISI304 G 6/4	PN10	11,00A	25A	MCMF 60Hz-B	3345 rpm	590	250
HU432501D64A	/5	AISI304 G 5/4	AISI304 G 6/4	PN10	13,00A	25A	MCMF 60Hz-B	3450 rpm	665	260
HU432602D64A	/6	AISI304 G 5/4	AISI304 G 6/4	PN16	13,00A	25A	MCMF 60Hz-B	3450 rpm	687	260
HU432702D64A	/7	AISI304 G 5/4	AISI304 G 6/4	PN16	15,00A	25A	MCMF 60Hz-B	3450 rpm	708	260
HU432802D64A	/8	AISI304 G 5/4	AISI304 G 6/4	PN16	15,00A	25A	MCMF 60Hz-B	3450 rpm	730	260
HU432902D64A	/9	AISI304 G 5/4	AISI304 G 6/4	PN16	15,00A	25A	MCMF 60Hz-B	3450 rpm	751	280
HU432A02D64A	/10	AISI304 G 5/4	AISI304 G 6/4	PN16	21,00A	40A	MCMF 60Hz-B	3480 rpm	779	280
HU4 DPV4										
HU434201E64A	/2	AISI304 G 5/4	AISI304 G 2	PN10	11,00A	25A	MCMF 60Hz-B	3345 rpm	547	250
HU434301E64A	/3	AISI304 G 5/4	AISI304 G 2	PN10	13,00A	25A	MCMF 60Hz-B	3450 rpm	622	260
HU434401E64A	/4	AISI304 G 5/4	AISI304 G 2	PN10	15,00A	25A	MCMF 60Hz-B	3450 rpm	644	260
HU434502E64A	/5	AISI304 G 5/4	AISI304 G 2	PN16	21,00A	25A	MCMF 60Hz-B	3480 rpm	671	280
HU434602E64A	/6	AISI304 G 5/4	AISI304 G 2	PN16	21,00A	25A	MCMF 60Hz-B	3480 rpm	693	290
HU434702E64A	/7	AISI304 G 5/4	AISI304 G 2	PN16	30,00A	40A	MCMF 60Hz-B	3480 rpm	743	290
HU434802E64A	/8	AISI304 G 5/4	AISI304 G 2	PN16	30,00A	40A	MCMF 60Hz-B	3480 rpm	765	320
HU434902E64A	/9	AISI304 G 5/4	AISI304 G 2	PN16	39,00A	63A	MCMF 60Hz-B	3480 rpm	786	320

4.3.2 HU4 DPV6 MCMF 60 Hz- B

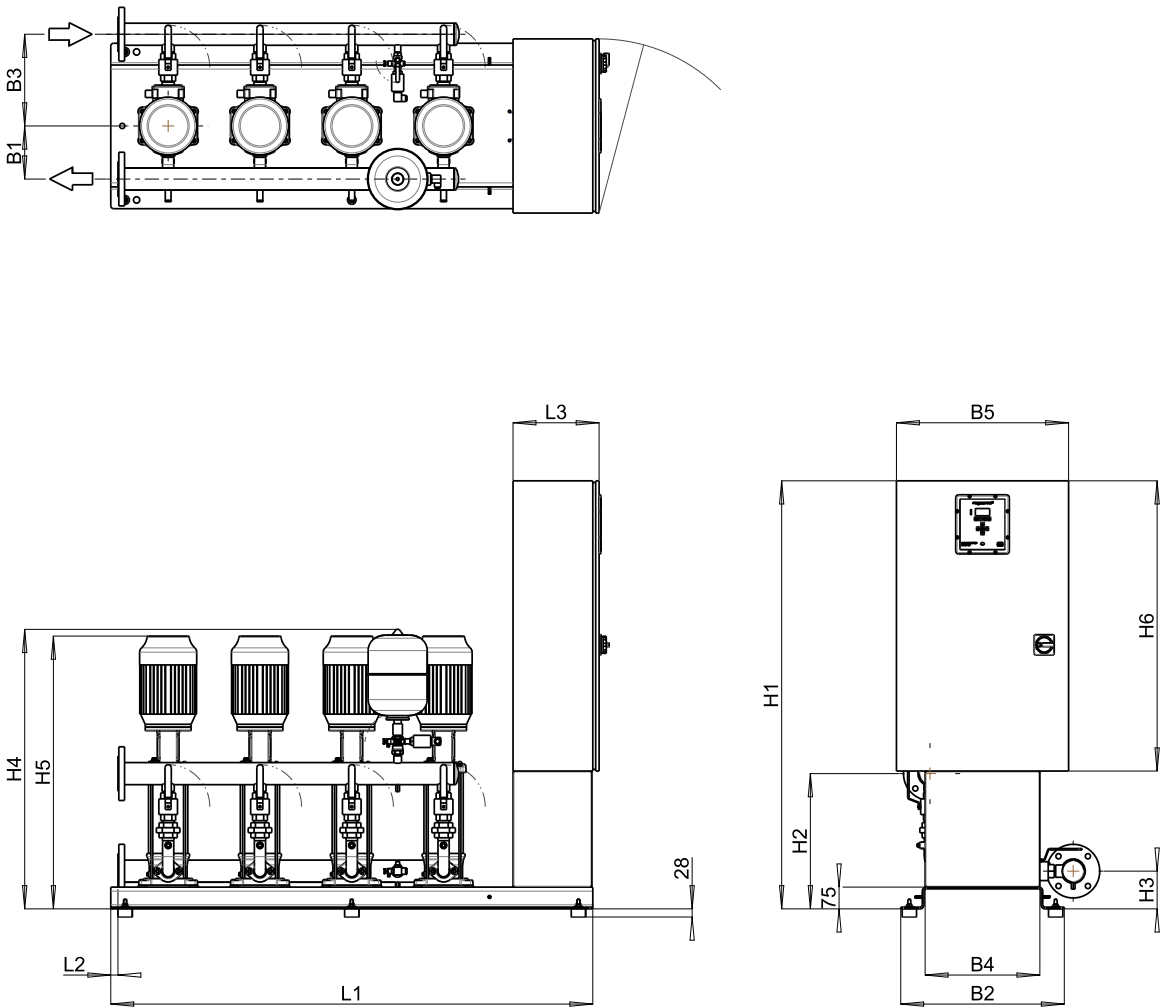


Figure 49: HU4 DPV6

Table 82: Dimensions

Pump type	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H6 [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	B5 [mm]	L1 [mm]	L2 [mm]	L3 [mm]
DPV6	1475	463	130	960	1000	183	570	312	400	600	1680	25	300

Table 83: General

Run-dry protection	Pressure transmitter
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Protection class	IP55
Drawing number	20100081

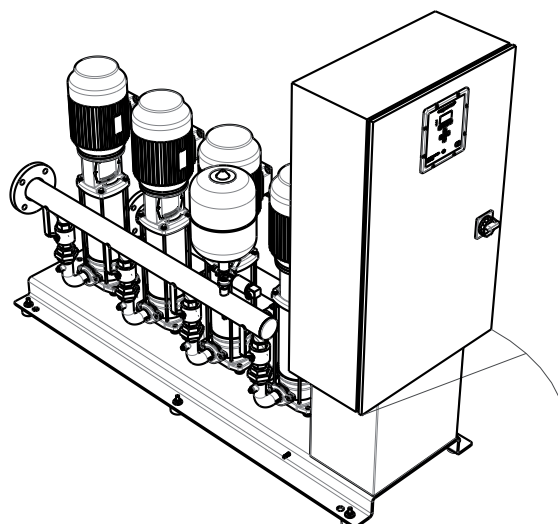


Figure 50: HU4 DPV6

Table 84: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max Unit	Max fuse	Control	Pump speed	H5 [mm]	Mass [kg]
HU4 DPV6										
HU436201K64A	/2	AISI304 G 5/4	AISI304 NW65	PN16	13,00A	25A	MCMF 60Hz-B	3450 rpm	585	250
HU436301K64A	/3	AISI304 G 5/4	AISI304 NW65	PN16	15,00A	25A	MCMF 60Hz-B	3450 rpm	651	280
HU436401K64A	/4	AISI304 G 5/4	AISI304 NW65	PN16	21,00A	40A	MCMF 60Hz-B	3480 rpm	681	290
HU436502K64A	/5	AISI304 G 5/4	AISI304 NW65	PN16	30,00A	40A	MCMF 60Hz-B	3480 rpm	721	290
HU436602K64A	/6	AISI304 G 5/4	AISI304 NW65	PN16	30,00A	40A	MCMF 60Hz-B	3480 rpm	746	320
HU436702K64A	/7	AISI304 G 5/4	AISI304 NW65	PN16	39,00A	63A	MCMF 60Hz-B	3480 rpm	826	320
HU436802K64A	/8	AISI304 G 5/4	AISI304 NW65	PN16	39,00A	63A	MCMF 60Hz-B	3480 rpm	851	320

4.3.3 HU4 DPV10/15 MCMF - B 50Hz

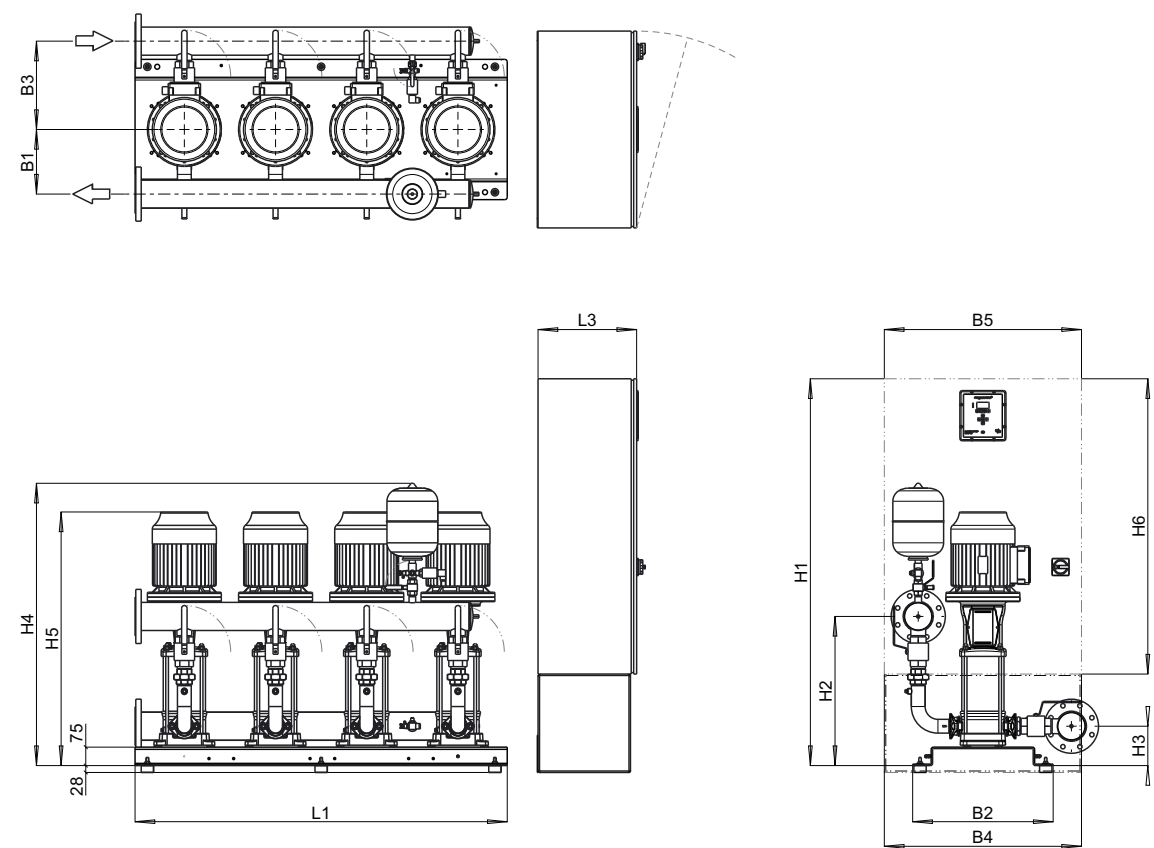


Figure 51: HU4 DPV10/15 MCMF

Table 85: Dimensions

Pump type	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H6 [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	B5 [mm]	L1 [mm]	L3 [mm]
DPV10	1475	582	160	1075	800	265	570	340	400	400	1880	300
DPV15	1475	602	160	1095	800	285	570	360	400	400	1880	300

Table 86: General

Run-dry protection	Pressure transmitter
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Protection class	IP55
Drawing number	20101106

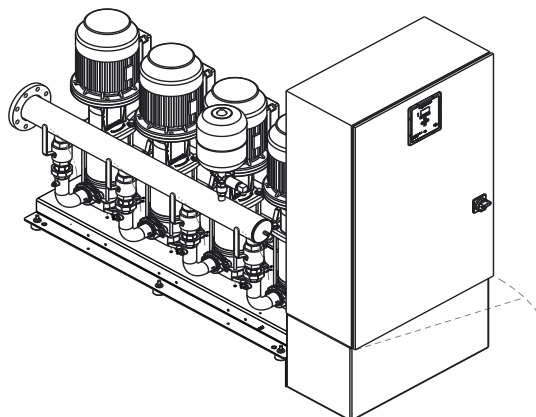


Figure 52: HU4 DPV10/15

Table 87: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max Unit	Max fuse	Control	Pump speed	H5 [mm]	Mas s [kg]
HU4 DPV10										
HU43A201K64C	/2	AISI304 G 2	AISI304 NW65	PN10	12,47A	25A	MCMF - B	2850 rpm	696	340
HU43A301K64C	/3	AISI304 G 2	AISI304 NW65	PN10	17,20A	25A	MCMF - B	2850 rpm	722	350
HU43A401K64C	/4	AISI304 G 2	AISI304 NW65	PN10	20,33A	40A	MCMF - B	2850 rpm	754	390
HU43A501K64C	/5	AISI304 G 2	AISI304 NW65	PN10	28,50A	40A	MCMF - B	2850 rpm	795	400
HU43A602K64C	/6	AISI304 G 2	AISI304 NW65	PN16	28,50A	40A	MCMF - B	2850 rpm	822	400
HU43A702K64C	/7	AISI304 G 2	AISI304 NW65	PN16	38,00A	50A	MCMF - B	2850 rpm	903	440
HU43A802K64C	/8	AISI304 G 2	AISI304 NW65	PN16	38,00A	50A	MCMF - B	2850 rpm	930	440
HU43A902K64C	/9	AISI304 G 2	AISI304 NW65	PN16	49,60A	63A	MCMF - B	2850 rpm	966	470
HU43AA02K64C	/10	AISI304 G 2	AISI304 NW65	PN16	49,60A	63A	MCMF - B	2850 rpm	993	470
HU4 DPV15										
HU43B201M64C	/2	AISI304 G 2	AISI304 NW100	PN10	37,00A	40A	MCMF - B	2850 rpm	716	400
HU43B301M64C	/3	AISI304 G 2	AISI304 NW100	PN10	38,00A	50A	MCMF - B	2850 rpm	797	440
HU43B401M64C	/4	AISI304 G 2	AISI304 NW100	PN10	49,60A	63A	MCMF - B	2850 rpm	834	470
HU43B502M64C	/5	AISI304 G 2	AISI304 NW100	PN16	68,13A	80A	MCMF - B	2850 rpm	965	610
HU43B602M64C	/6	AISI304 G 2	AISI304 NW100	PN16	68,13A	80A	MCMF - B	2850 rpm	991	610
HU43B702M64C	/7	AISI304 G 2	AISI304 NW100	PN16	91,67A	125A	MCMF - B	2850 rpm	1018	640
HU43B802M64C	/8	AISI304 G 2	AISI304 NW100	PN16	91,67A	125A	MCMF - B	2850 rpm	1044	640

4.3.4 HU4 DPVF25/40/60 MCMF - B

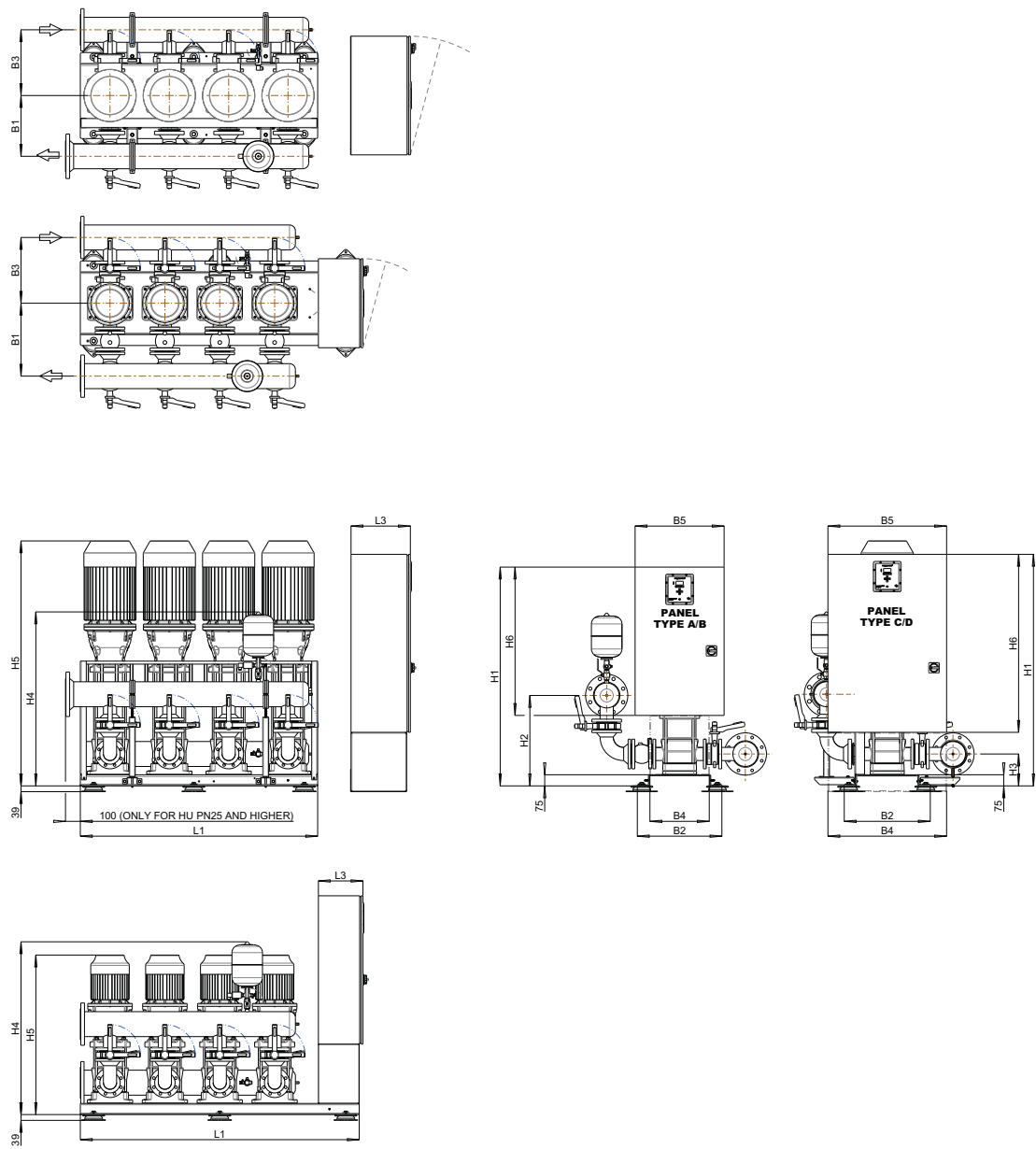


Figure 53: HU4 DPVF25/40/60 MCMF - B

Table 88: Dimensions

pump type	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H6 [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	B5 [mm]	L1 [mm]	L3 [mm]
DPVF25	1475	555	178	1090	1000	358	570	421	400	600	1880	300
DPVF40	1475	610	215	1165	1000	492	570	443	400	600	1880	300
DPVF60	1475	681	215	1262	1000	562	570	475	400	600	1880	300

Table 89: General

Run-dry protection	Pressure transmitter
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Protection class	IP55
Drawing number	20140263

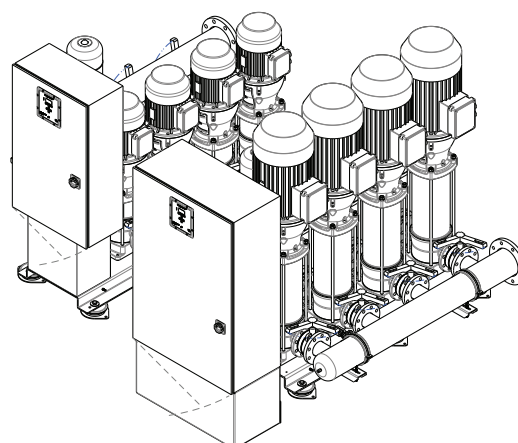


Figure 54: HU4 DPVF25/40/60

Table 90: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max unit	Max fuse	Control	Pump speed	H5 [mm]	Mass [kg]
HU4 DPVF25										
HU46C208P64C	/2	CI NW65	AISI304 NW150	PN10	32,8A	80A	MCMF - B	2920 rpm	885	721
HU46C309P64C	/3	CI NW65	AISI304 NW150	PN16	42,4A	80A	MCMF - B	2940 rpm	1064	835
HU46C409P64C	/4	CI NW65	AISI304 NW150	PN16	54,8A	125A	MCMF - B	2940 rpm	1129	881
HU4 DPVF40										
HU46D101P64C	/1	CI NW80	AISI304 NW150	PN10	59A	80A	MCMF - B	2920 rpm	902	877
HU46D221P64C	/2-2	CI NW80	AISI304 NW150	PN10	78A	80A	MCMF - B	2940 rpm	1077	1045
HU46D201P64C	/2	CI NW80	AISI304 NW150	PN10	100A	125A	MCMF - B	2940 rpm	1077	1089
HU4 DPVF60										
HU46E101Q64C	/1	CI NW100	AISI304 NW200	PN10	78A	80A	MCMF - B	2940 rpm	1017	1087
HU46E221Q64C	/2-2	CI NW100	AISI304 NW200	PN10	100A	125A	MCMF - B	2940 rpm	1095	1119

4.4 Specification

4.4.1 Specification text fitted units (up to G2" fittings)

Two-, three- or four-pump booster unit consisting of:

- Two, three or four DPV vertical multi-stage centrifugal pumps of which all metal parts come into contact with the medium have been made of AISI304.
- Two, three or four special DP non-return valve bends AISI304.
- Four, six or eight ball valves AISI304.
- AISI304 pump counter flanges
- AISI304 Manifold with one side capped in connection with a short, dead pipe.
- Run-dry protection kit consisting of a pressure transmitter with drain option.
- Discharge pressure control kit consisting of a pressure transmitter with drain option and an 8 litres membrane tank.



ATTENTION

Note: various small parts may have been made of brass.

The installation has a switch box that is mounted unto the powder coated base frame of the installation in the factory and that has also been equipped with a Megacontrol control system. The installation is delivered on vibration-absorbers.

Additionally, the switch box includes:

- For each pump a frequency drive (MCMF)
- Main switch with door opening protection.
- For each pump a thermal motor protection switch.
- Fail-safe voltage-free failure outputs urgent and not-urgent (NO and NC).

The Megacontrol microprocessor control module has the following basic functions:

- Pressure control
- Optimised pump staging.
- Continuously optimised minimum-run time of the pumps.
- Adjustable correction factor for pressure loss in the system.
- 24-hours test-run function.
- Adjustable delay of the under pressure/run-dry protection.
- Option for controlling the level in a storage tank.
- Display options: actual system values, pump status, operating hours, comprehensive failure interface.

Discharge bend

The discharge bend has a plastic non-return valve with the certifications:

Table 91: Certifications of the non-return valve

Approvals	
KIWA	NL
SITAC	S
DVGW	D
NF	F
WRAS	UK
ETA	DK
ABP	D
NSF	USA

All our booster units comply with the NEN1006 (nl) standard and have been constructed as described in the most actual water worksheets (NL).

4.4.2 Specification text flanged units

Two-, three- or four-pump booster unit consisting of:

- Two, three or four DPVF vertical multi-stage centrifugal pumps of which all metal parts come into contact with the medium have been made of AISI304.
- Two, three or four cast-iron non-return valves.
- Four, six or eight butterfly valves AISI316 (inside) / cast-iron (outside)
- AISI304 Manifold with one side capped in connection with a short, dead pipe.
- Run-dry protection kit consisting of a pressure transmitter with drain option.
- Discharge pressure control kit consisting of a pressure transmitter with drain option and an 8 litres membrane tank.



ATTENTION

Note: various small parts may have been made of brass.

The installation has a switch box that is mounted unto the powder coated base frame of the installation in the factory and that has also been equipped with a Megacontrol control system. The installation has machine feet that are adjustable in height and a vibration free connection to the floor. They are delivered separately.

Additionally, the switch box includes:

MCMF

- For each pump a frequency inverter
- Main switch with door opening protection.
- For each frequency inverter a thermal motor protection switch.
- Fail-safe voltage-free failure outputs urgent and not-urgent (NO and NC).

The Megacontrol microprocessor control module has the following basic functions:

- Pressure control
- Optimised pump staging.
- Continuously optimised minimum-run time of the pumps.
- Adjustable correction factor for pressure loss in the system.
- 24-hours test-run function.
- Adjustable delay of the under pressure/run-dry protection.
- Option for controlling the level in a storage tank.
- Display options: actual system values, pump status, operating hours, comprehensive failure interface.

Machine feet

The installation has by default machine feet for setting the height of the installation and a vibration free connection to the floor. They are delivered separately.

All our booster units comply with the NEN1006 (nl) standard and have been constructed as described in the most actual water worksheets (NL).

5 Specification without cabinet

5.1 Dimensions HU2 without cabinet

5.1.1 HU2 DPVF25/40/60/85 without Cabinet

Table 92: General

Base frame	Base frame A/B
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Control panel	without control panel
Drawing number	20140261

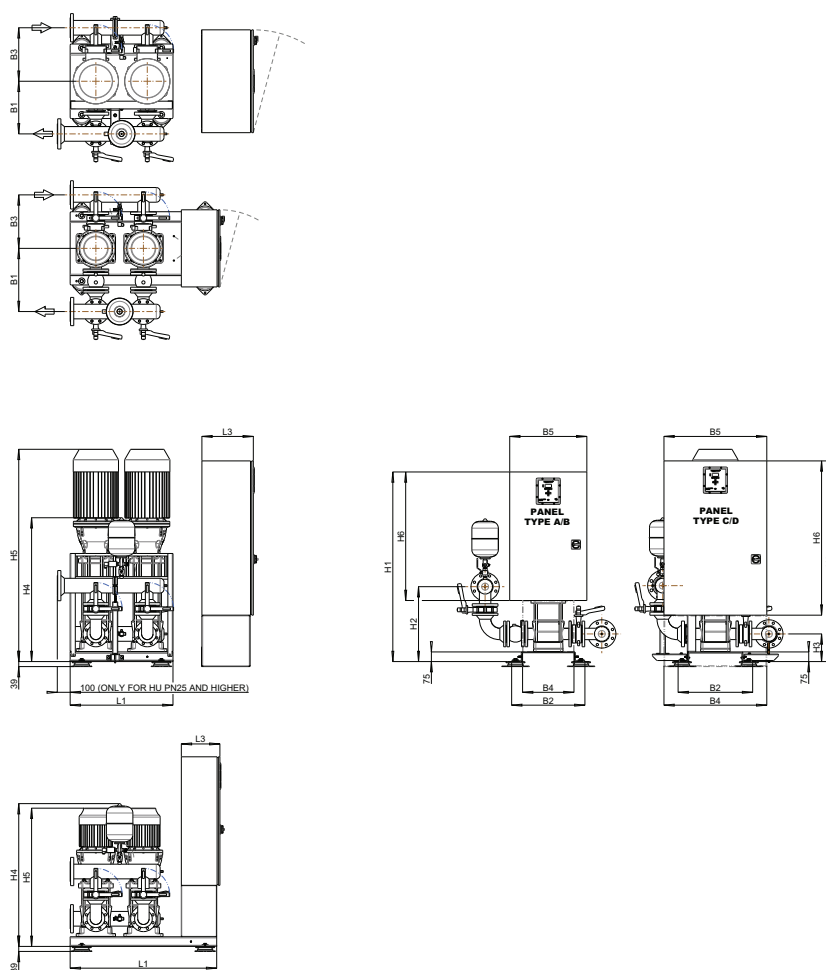


Figure 55: HU2 DPVF25/40/60/85

Table 93: Dimensions general

Pumptype	H2 [mm]	H3 [mm]	H4 [mm]	B2 [mm]	B3 [mm]
DPVF25	516	178	1010	580	381
DPVF40	583	215	1138	580	416
DPVF60	655	215	1237	580	450
DPVF85	691	250	1147	580	458

20140261

Table 94: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max pump	Pump speed	H5 [mm]	B1 [mm]	L1 [mm]	Mass [kg]
HU2 DPVF25										
HU26C509L00E	/5 IE3	CI NW65	AISI304 NW80	PN16	19,3A	2945 rpm	1376	358	1200	602
HU26C603L00E	/6 IE3	AISI NW65	AISI304 NW80	PN25	19,3A	2945 rpm	1441	358	1200	598
HU26C703L00E	/7 IE3	AISI NW65	AISI304 NW80	PN25	26,2A	2945 rpm	1506	358	1200	620
HU26C803L00E	/8 IE3	AISI NW65	AISI304 NW80	PN25	26,2A	2945 rpm	1571	358	1200	648
HU26C903L00E	/9 IE3	AISI NW65	AISI304 NW80	PN25	26,2A	2945 rpm	1718	358	1200	653
HU2 DPVF40										
HU26D322M00E	/3-2 IE3	CI NW80	AISI304 NW100	PN16	19,3A	2945 rpm	1336	492	1200	649
HU26D302M00E	/3 IE3	CI NW80	AISI304 NW100	PN16	19,3A	2945 rpm	1336	492	1200	649
HU26D422M00E	/4-2 IE3	CI NW80	AISI304 NW100	PN16	26,2A	2945 rpm	1414	492	800	730
HU26D402M00E	/4 IE3	CI NW80	AISI304 NW100	PN16	26,2A	2945 rpm	1414	492	800	730
HU26D522M00E	/5-2 IE3	CI NW80	AISI304 NW100	PN16	32,1A	2940 rpm	1574	492	800	772
HU26D503M00E	/5 IE3	AISI304 NW80	AISI304 NW100	PN25	32,1A	2940 rpm	1574	410	800	762
HU26D623M00E	/6-2 IE3	AISI304 NW80	AISI304 NW100	PN25	32,1A	2940 rpm	1652	410	800	768
HU26D603M00E	/6 IE3	AISI304 NW80	AISI304 NW100	PN25	38,1A	2955 rpm	1652	410	800	768
HU26D723M00E	/7-2 IE3	AISI304 NW80	AISI304 NW100	PN25	38,1A	2955 rpm	1730	410	800	860
HU26D703M00G	/7 IE3	AISI304 NW80	AISI304 NW100	PN25	51,6A	2965 rpm	1835	410	1000	889
HU26D823M00G	/8-2 IE3	AISI304 NW80	AISI304 NW100	PN25	51,6A	2965 rpm	1913	410	1000	1067
HU26D803M00G	/8 IE3	AISI304 NW80	AISI304 NW100	PN25	51,6A	2965 rpm	1913	410	1000	1067
HU2 DPVF60										
HU26E201P00E	/2 IE3	CI NW100	AISI304 NW150	PN10	19,3A	2945 rpm	1258	562	1200	722
HU26E322P00E	/3-2 IE3	CI NW100	AISI304 NW150	PN16	26,2A	2945 rpm	1336	562	800	745
HU26E302P00E	/3 IE3	CI NW100	AISI304 NW150	PN16	32,1A	2940 rpm	1416	562	800	823
HU26E422P00E	/4-2 IE3	CI NW100	AISI304 NW150	PN16	32,1A	2940 rpm	1496	562	800	835
HU26E402P00E	/4 IE3	CI NW100	AISI304 NW150	PN16	38,1A	2955 rpm	1496	562	800	907
HU26E523P00E	/5-2 IE3	AISI304 NW100	AISI304 NW150	PN25	38,1A	2955 rpm	1574	465	800	921
HU26E503P00G	/5 IE3	AISI304 NW100	AISI304 NW150	PN25	51,6A	2965 rpm	1679	465	1000	1083
HU26E623P00G	/6-2 IE3	AISI304 NW100	AISI304 NW150	PN25	51,6A	2965 rpm	1757	465	1000	1099
HU26E603P00G	/6 IE3	AISI304 NW100	AISI304 NW150	PN25	51,6A	2965 rpm	1757	465	1000	1111
HU26E723P00G	/7-2 IE3	AISI304 NW100	AISI304 NW150	PN25	63,3A	2965 rpm	1835	465	1000	1127
HU26E703P00G	/7 IE3	AISI304 NW100	AISI304 NW150	PN25	63,3A	2965 rpm	1835	465	1000	1127
HU2 DPVF85										
HU26F118P00E	/1-1 IE3	CI NW100	AISI304 NW150	PN10	10,0A	2940 rpm	1108	479	1200	790
HU26F108P00E	/1 IE3	CI NW100	AISI304 NW150	PN10	13,3A	2940 rpm	1080	479	1200	790
HU26F228P00E	/2-2 IE3	CI NW100	AISI304 NW150	PN10	19,3A	2945 rpm	1392	479	1200	790
HU26F218P00E	/2-1 IE3	CI NW100	AISI304 NW150	PN10	26,2A	2945 rpm	1392	479	1200	820
HU26F208P00E	/2 IE3	CI NW100	AISI304 NW150	PN10	26,2A	2945 rpm	1392	479	1200	820
HU26F328P00E	/3-2 IE3	CI NW100	AISI304 NW150	PN10	32,1A	2940 rpm	1545	479	1200	870
HU26F318P00E	/3-1 IE3	CI NW100	AISI304 NW150	PN10	38,1A	2955 rpm	1594	479	1200	950
HU26F308P00E	/3 IE3	CI NW100	AISI304 NW150	PN10	38,1A	2955 rpm	1594	479	1200	950
HU26F429P00G	/4-2 IE3	CI NW100	AISI304 NW150	PN16	51,6A	2965 rpm	1758	389	1500	1160
HU26F419P00G	/4-1 IE3	CI NW100	AISI304 NW150	PN16	51,6A	2965 rpm	1758	389	1500	1160
HU26F409P00G	/4 IE3	CI NW100	AISI304 NW150	PN16	51,6A	2965 rpm	1758	389	1500	1160
HU26F523P00G	/5-2 IE3	AISI304 NW100	AISI304 NW150	PN25	63,3A	2965 rpm	1867	389	1500	1200
HU26F513P00G	/5-1 IE3	AISI304 NW100	AISI304 NW150	PN25	63,3A	2965 rpm	1867	389	1500	1200
HU26F503P00G	/5 IE3	AISI304 NW100	AISI304 NW150	PN25	63,3A	2965 rpm	1867	389	1500	1200
HU26F623P00G	/6-2 IE3	AISI304 NW100	AISI304 NW150	PN25	76,8A	2970 rpm	2033	389	1500	1480
HU26F613P00G	/6-1 IE3	AISI304 NW100	AISI304 NW150	PN25	76,8A	2970 rpm	2033	389	1500	1480
HU26F603P00G	/6 IE3	AISI304 NW100	AISI304 NW150	PN25	76,8A	2970 rpm	2033	389	1500	1480

5.1.2 Cabinet for HU2 DPVF25/40/60/85

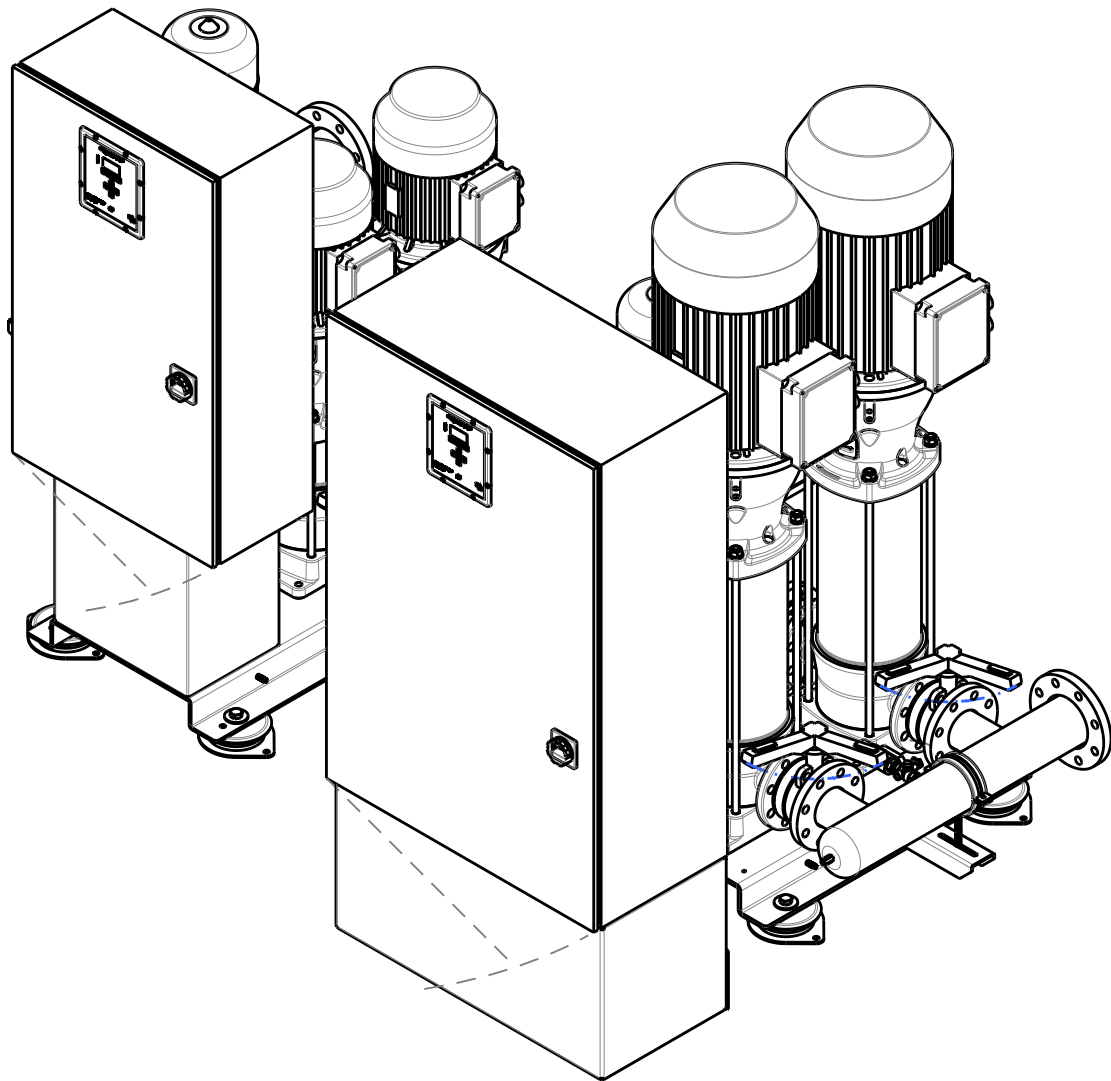


Figure 56: Cabinet HU2 DPVF25/40/60/85

Table 95: General

Number of pumps	2
Connection voltage	3 x 400 V 50 Hz
Insulation class panel	IP54
Alarm contact	2 (not urgent and urgent)
Run dry protection	universal (switch, level transmitter or pressure transmitter)
Cabinet mounting	Floor mounting

Table 96: Detailed

Art. nbr	Pump st.	Ampere range	Option	Max. f.	Wir. dia. nbr	H1 [mm]	H6xB5xL3 [mm]	Type
DKVO 720 DOL								
9032120120	DOL	9,00 - 14,0 A	Standard	50A	20167001	1475	800x400x300	A
9032120160	DOL	13,00 - 18,00 A	Standard	80A	20167001	1475	1000x600x300	B
9032123120	DOL	9,00 - 14,0 A	Industrial	50A	20167101	1475	800x400x300	A
9032123160	DOL	13,00 - 18,00 A	Industrial	80A	20167101	1475	1000x600x300	B
DKVO 720 S/D								
9032220160	S/D	13,00 - 18,00 A	Standard	40A	EF1C10EN	1475	1000x600x300	B
9032223160	S/D	13,00 - 18,00 A	Industrial	40A	20167121	1475	1000x600x300	B
9032223200	S/D	17,00 - 23,00 A	Industrial	50A	20167121	1475	1000x600x300	B
9032223320	S/D	23,00 - 32,00 A	Industrial	80A	20167121	1475	1000x600x300	B
9032223400	S/D	30,00 - 40,00 A	Industrial	100A	20167121	1475	1000x600x300	B
9032223500	S/D	37,00 - 50,00 A	Industrial	125A	20167123	1600	1200x800x400	C
9032223630	S/D	48,00 - 65,00 A	Industrial	160A	20167131	1600	1200x800x400	C
9032223750	S/D	62,00 - 73,00 A	Industrial	160A	20167131	1600	1200x800x400	C
9032223900	S/D	70,00 - 80,00 A	Industrial	250A	20167131	1600	1200x800x400	C
DKVO 720 SFT								
9032320120	SFT	9,00 - 14,0 A	Standard	40A	20167011	1475	800x400x300	A
9032323120	SFT	9,00 - 14,0 A	Industrial	40A	20167111	1475	800x400x300	A
DKVO 720 FRK								
9032420120	FRK	12,00 A	Standard	50A	20167043	1475	1000x600x300	B
9032420155	FRK	15,00 A	Standard	80A	20167043	1475	1000x600x300	B
9032420230	FRK	23,00 A	Standard	80A	20167044	1600	1200x800x400	C
9032423120	FRK	12,00 A	Industrial	50A	20167143	1475	1000x600x300	B
9032423155	FRK	15,00 A	Industrial	80A	20167143	1475	1000x600x300	B
9032423230	FRK	23,00 A	Industrial	80A	20167144	1600	1200x800x400	C
9032423310	FRK	31,00 A	Industrial	100A	20167144	1600	1200x800x400	C
9032423370	FRK	37,00 A	Industrial	100A	20167144	1600	1200x800x400	C
9032423412	FRK	41,20 A	Industrial	100A	20167144	1600	1200x800x400	C

5.1.3 Cabinet for a HU2 DPVF25/40/60/85 FRP

Table 97: General

Number of pumps	2
Connection voltage	3 x 400 V 50 Hz
Insulation class panel	IP54
Alarm contact	2 (not urgent and urgent)
Run dry protection	universal (switch, level transmitter or pressure transmitter)
Cabinet mounting	Floor mounting
Drawing number	20140465

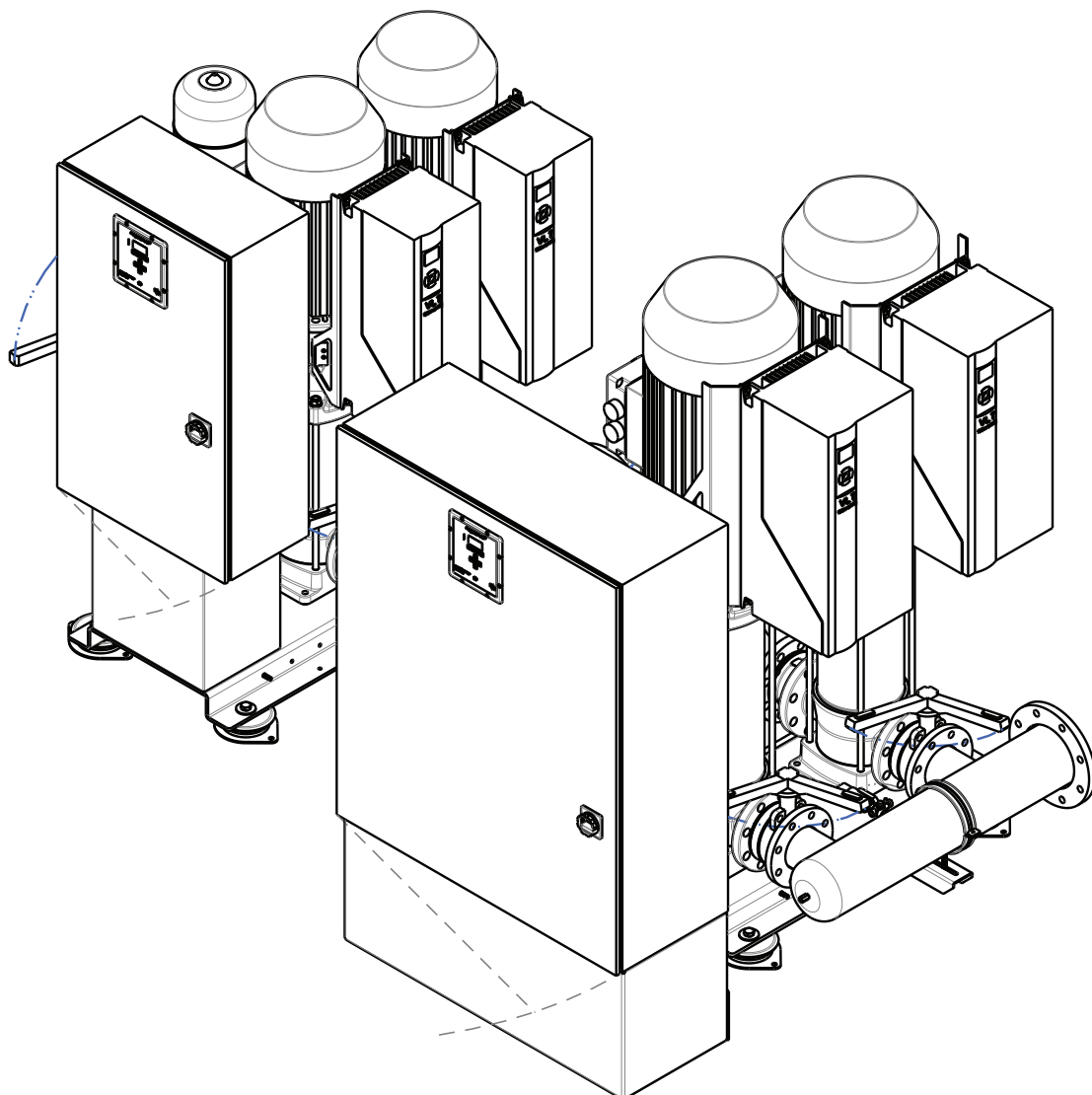


Table 98: Detailed

Art. nbr	Pump start	Ampere range	Option	Max. fuse	Wiring diagram nbr	H1 [mm]	H6 x B5 x L3 [mm]	Type
DKVO 720 FRP								
9032423240	FRP	24,00 A	Industrial	50A	20167151	1600	1200x800x400	C
9032423320	FRP	32,00 A	Industrial	80A	20167151	1600	1200x800x400	C
9032423375	FRP	37,50 A	Industrial	100A	20167151	1600	1200x800x400	C
9032423440	FRP	44,00 A	Industrial	100A	20167151	1600	1200x800x400	C
9032423610	FRP	61,00 A	Industrial	125A	20167152	1600	1200x800x400	C
9032423730	FRP	73,00 A	Industrial	160A	20167152	1600	1200x800x400	C
9032423900	FRP	90,00 A	Industrial	250A	20167152	1600	1200x800x400	C

5.1.4 VFD set per pump (2x mounted on the pump)

Table 99: Detailed EXTRA VFD set per pump.

Art. nbr.	for pump type	Ampere range
Art. per pump		
77115210	25	24,00 A
77115211	25	32,00 A
77115212	25	37,50 A
77115213	25	44,00 A
77115214	25	61,00 A
77115215	25	73,00 A
77115220	40/60	24,00 A
77115221	40/60	32,00 A
77115222	40/60	37,50 A
77115223	40/60	44,00 A
77115224	40/60/85	61,00 A
77115225	40/60/85	73,00 A
77115226	40/60/85	90,00 A
77115230	85	24,00 A
77115231	85	32,00 A
77115232	85	37,50 A
77115233	85	44,00 A



ATTENTION

For a complete unit with each pump a drive (VFD), each pump needs a VFD set!

You Need 4 article numbers!

UNIT+CABINET + number of pumps x VFD set + mounting cost

Example: HU4 DPVF85 /3 MCMF (FRP)

Part	Article number
HU4 DPVF85 /3 (39,5A)	HU46F308Q00E
Cabinet (FRP 44,0A)	9034423440
VFD set	4*77115223
Cost mounting VFD	4*BB000010

5.2 Dimensions HU3 without cabinet

5.2.1 HU3 DPVF25/40/60/85 without Cabinet

Table 100: General

Base frame	Base frame A/B
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Control panel	without control panel
Drawing number	20140262

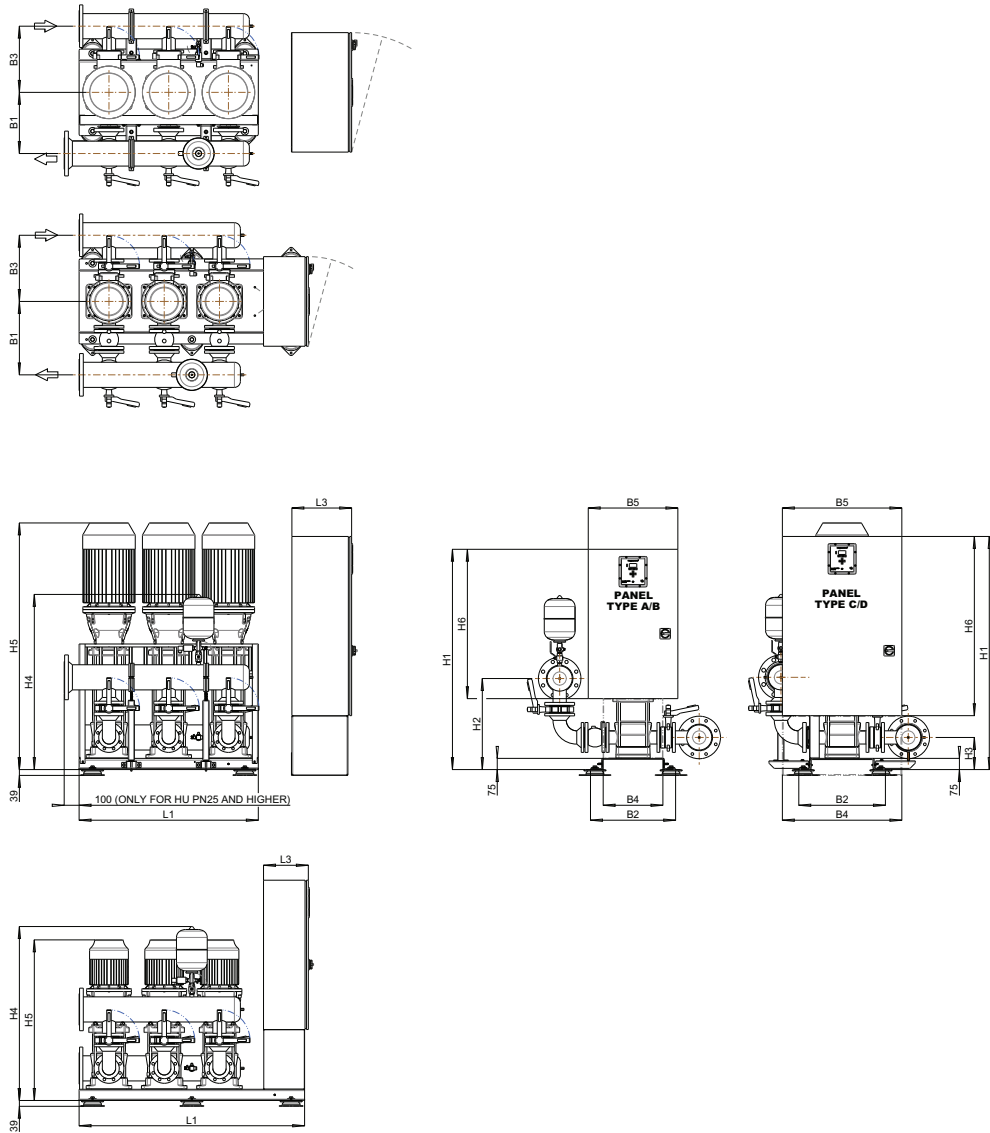


Figure 57: HU3 DPVF25/40/60/85

Table 101: Dimensions general

Pumptype	H2 [mm]	H3 [mm]	H4 [mm]	B2 [mm]	B3 [mm]
DPVF25	528	178	1036	580	394
DPVF40	610	215	1165	580	443
DPVF60	655	215	1237	580	450
DPVF85	718	250	1279	580	485

Table 102: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max pump	Pump speed	H5 [mm]	B1 [mm]	L1 [mm]	Mass [kg]
HU3 DPVF25										
HU36C509M00E	/5 IE3	CI NW65	AISI304 NW100	PN16	19,3A	2945 rpm	1376	358	1600	869
HU36C603M00E	/6 IE3	AISI NW65	AISI304 NW100	PN25	19,3A	2945 rpm	1441	358	1600	859
HU36C703M00E	/7 IE3	AISI NW65	AISI304 NW100	PN25	26,2A	2945 rpm	1506	358	1600	896
HU36C803M00E	/8 IE3	AISI NW65	AISI304 NW100	PN25	26,2A	2945 rpm	1571	358	1600	942
HU36C903M00E	/9 IE3	AISI NW65	AISI304 NW100	PN25	26,2A	2945 rpm	1718	358	1600	946
HU3 DPVF40										
HU36D322P00E	/3-2 IE3	CI NW80	AISI304 NW150	PN16	19,3A	2945 rpm	1336	492	1600	1018
HU36D302P00E	/3 IE3	CI NW80	AISI304 NW150	PN16	19,3A	2945 rpm	1336	492	1600	1018
HU36D422P00E	/4-2 IE3	CI NW80	AISI304 NW150	PN16	26,2A	2945 rpm	1414	492	1200	1051
HU36D402P00E	/4 IE3	CI NW80	AISI304 NW150	PN16	26,2A	2945 rpm	1414	492	1200	1051
HU36D522P00E	/5-2 IE3	CI NW80	AISI304 NW150	PN16	32,1A	2940 rpm	1574	492	1200	1114
HU36D503P00E	/5 IE3	AISI304 NW80	AISI304 NW150	PN25	32,1A	2940 rpm	1574	410	1200	1098
HU36D623P00E	/6-2 IE3	AISI304 NW80	AISI304 NW150	PN25	32,1A	2940 rpm	1652	410	1200	1107
HU36D603P00E	/6 IE3	AISI304 NW80	AISI304 NW150	PN25	38,1A	2955 rpm	1652	410	1200	1107
HU36D723P00E	/7-2 IE3	AISI304 NW80	AISI304 NW150	PN25	38,1A	2955 rpm	1730	410	1200	1245
HU36D703P00G	/7 IE3	AISI304 NW80	AISI304 NW150	PN25	51,6A	2965 rpm	1835	410	1500	1292
HU36D823P00G	/8-2 IE3	AISI304 NW80	AISI304 NW150	PN25	51,6A	2965 rpm	1913	410	1500	1559
HU36D803P00G	/8 IE3	AISI304 NW80	AISI304 NW150	PN25	51,6A	2965 rpm	1913	410	1500	1559
HU3 DPVF60										
HU36E201P00E	/2 IE3	CI NW100	AISI304 NW150	PN10	19,3A	2945 rpm	1258	562	1600	1086
HU36E322P00E	/3-2 IE3	CI NW100	AISI304 NW150	PN16	26,2A	2945 rpm	1336	562	1200	1125
HU36E302P00E	/3 IE3	CI NW100	AISI304 NW150	PN16	32,1A	2940 rpm	1416	562	1200	1181
HU36E422P00E	/4-2 IE3	CI NW100	AISI304 NW150	PN16	32,1A	2940 rpm	1496	562	1200	1199
HU36E402P00E	/4 IE3	CI NW100	AISI304 NW150	PN16	38,1A	2955 rpm	1496	562	1200	1307
HU36E523P00E	/5-2 IE3	AISI304 NW100	AISI304 NW150	PN25	38,1A	2955 rpm	1574	465	1200	1331
HU36E503P00G	/5 IE3	AISI304 NW100	AISI304 NW150	PN25	51,6A	2965 rpm	1679	465	1500	1565
HU36E623P00G	/6-2 IE3	AISI304 NW100	AISI304 NW150	PN25	51,6A	2965 rpm	1757	465	1500	1589
HU36E603P00G	/6 IE3	AISI304 NW100	AISI304 NW150	PN25	51,6A	2965 rpm	1757	465	1500	1607
HU36E723P00G	/7-2 IE3	AISI304 NW100	AISI304 NW150	PN25	63,3A	2965 rpm	1835	465	1500	1631
HU36E703P00G	/7 IE3	AISI304 NW100	AISI304 NW150	PN25	63,3A	2965 rpm	1835	465	1500	1631
HU3 DPVF85										
HU36F118Q00E	/1-1 IE3	CI NW100	AISI304 NW200	PN10	10,0A	2940 rpm	1108	479	1600	1160
HU36F108Q00E	/1 IE3	CI NW100	AISI304 NW200	PN10	13,3A	2940 rpm	1080	479	1600	1160
HU36F228Q00E	/2-2 IE3	CI NW100	AISI304 NW200	PN10	19,3A	2945 rpm	1392	479	1600	1160
HU36F218Q00E	/2-1 IE3	CI NW100	AISI304 NW200	PN10	26,2A	2945 rpm	1392	479	1600	1200
HU36F208Q00E	/2 IE3	CI NW100	AISI304 NW200	PN10	26,2A	2945 rpm	1392	479	1600	1200
HU36F328Q00E	/3-2 IE3	CI NW100	AISI304 NW200	PN10	32,1A	2940 rpm	1545	479	1600	1280
HU36F318Q00E	/3-1 IE3	CI NW100	AISI304 NW200	PN10	38,1A	2955 rpm	1594	479	1600	1390
HU36F308Q00E	/3 IE3	CI NW100	AISI304 NW200	PN10	38,1A	2955 rpm	1594	479	1600	1390
HU36F429Q00G	/4-2 IE3	CI NW100	AISI304 NW200	PN16	51,6A	2965 rpm	1758	389	2000	1700
HU36F419Q00G	/4-1 IE3	CI NW100	AISI304 NW200	PN16	51,6A	2965 rpm	1758	389	2000	1700
HU36F409Q00G	/4 IE3	CI NW100	AISI304 NW200	PN16	51,6A	2965 rpm	1758	389	2000	1700
HU36F523Q00G	/5-2 IE3	AISI304 NW100	AISI304 NW200	PN25	63,3A	2965 rpm	1867	389	2000	1770
HU36F513Q00G	/5-1 IE3	AISI304 NW100	AISI304 NW200	PN25	63,3A	2965 rpm	1867	389	2000	1770
HU36F503Q00G	/5 IE3	AISI304 NW100	AISI304 NW200	PN25	63,3A	2965 rpm	1867	389	2000	1770
HU36F623Q00G	/6-2 IE3	AISI304 NW100	AISI304 NW200	PN25	76,8A	2970 rpm	2033	389	2000	2180
HU36F613Q00G	/6-1 IE3	AISI304 NW100	AISI304 NW200	PN25	76,8A	2970 rpm	2033	389	2000	2180
HU36F603Q00G	/6 IE3	AISI304 NW100	AISI304 NW200	PN25	76,8A	2970 rpm	2033	389	2000	2180

5.2.2 Cabinet for HU3 DPVF25/40/60/85

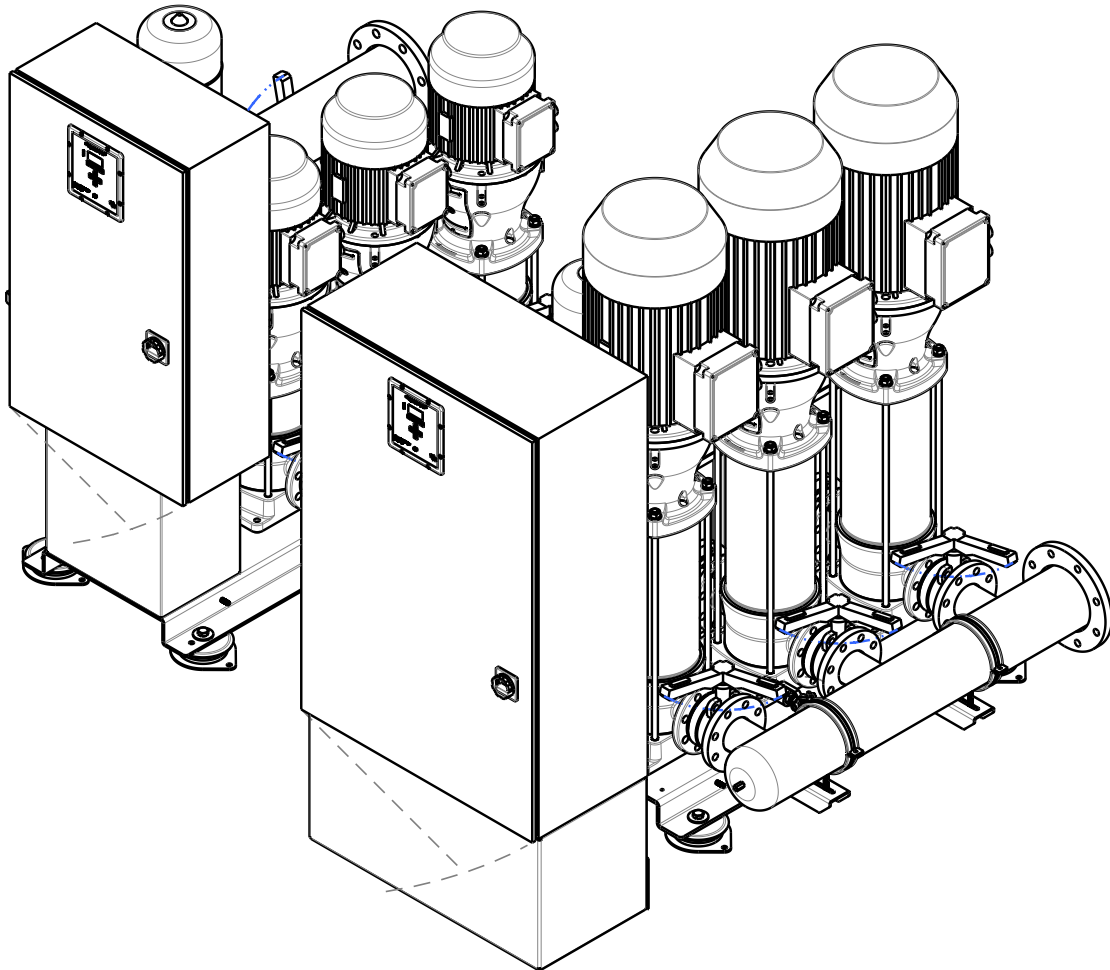


Figure 58: Cabinet HU3 DPVF25/40/60/85

Table 103: General

Number of pumps	3
Connection voltage	3 x 400 V 50 Hz
Insulation class panel	IP54
Alarm contact	2 (not urgent and urgent)
Run dry protection	universal (switch, level transmitter or pressure transmitter)
Cabinet mounting	Floor mounting

Table 104: Detailed

Art. nbr	Pump st.	Ampere range	Option	Max. f.	Wir. dia. nbr	H1 [mm]	H6xB5xL3 [mm]	Type
DKVO 730 DOL								
9033120120	DOL	9,00 - 14,0 A	Standard	50A	20167001	1475	800x400x300	A
9033120160	DOL	13,00 - 18,00 A	Standard	80A	20167001	1475	1000x600x300	B
9033123120	DOL	9,00 - 14,0 A	Industrial	50A	20167101	1475	800x400x300	A
9033123160	DOL	13,00 - 18,00 A	Industrial	80A	20167101	1475	1000x600x300	B
DKVO 730 S/D								
9033220160	S/D	13,00 - 18,00 A	Standard	50A	EF1C10EN	1475	1000x600x300	B
9033223160	S/D	13,00 - 18,00 A	Industrial	50A	20167121	1475	1000x600x300	B
9033223200	S/D	17,00 - 23,00 A	Industrial	80A	20167121	1475	1000x600x300	B
9033223320	S/D	23,00 - 32,00 A	Industrial	100A	20167121	1475	1000x600x300	B
9033223400	S/D	30,00 - 40,00 A	Industrial	125A	20167123	1600	1200x800x400	C
9033223500	S/D	37,00 - 50,00 A	Industrial	160A	20167123	1600	1200x800x400	C
9033223630	S/D	48,00 - 65,00 A	Industrial	250A	20167132	1600	1200x1000x400	D
9033223750	S/D	62,00 - 73,00 A	Industrial	250A	20167132	1600	1200x1000x400	D
9033223900	S/D	70,00 - 80,00 A	Industrial	400A	20167132	1600	1200x1000x400	D
DKVO 730 SFT								
9033320120	SFT	9,00 - 14,0 A	Standard	40A	20167011	1475	800x400x300	A
9033323120	SFT	9,00 - 14,0 A	Industrial	40A	20167111	1475	800x400x300	A
DKVO 730 FRK								
9033420120	FRK	12,00 A	Standard	80A	20167043	1475	1000x600x300	B
9033420155	FRK	15,00 A	Standard	80A	20167043	1475	1000x600x300	B
9033420230	FRK	23,00 A	Standard	125A	20167044	1600	1200x800x400	C
9033423120	FRK	12,00 A	Industrial	80A	20167143	1475	1000x600x300	B
9033423155	FRK	15,00 A	Industrial	80A	20167143	1475	1000x600x300	B
9033423230	FRK	23,00 A	Industrial	125A	20167144	1600	1200x800x400	C
9033423310	FRK	31,00 A	Industrial	125A	20167144	1600	1200x800x400	C
9033423370	FRK	37,00 A	Industrial	125A	20167144	1600	1200x800x400	C

5.2.3 Cabinet for a HU3 DPVF25/40/60/85 FRP

Table 105: General

Number of pumps	3
Connection voltage	3 x 400 V 50 Hz
Insulation class panel	IP54
Alarm contact	2 (not urgent and urgent)
Run dry protection	universal (switch, level transmitter or pressure transmitter)
Cabinet mounting	Floor mounting
Drawing number	20140267

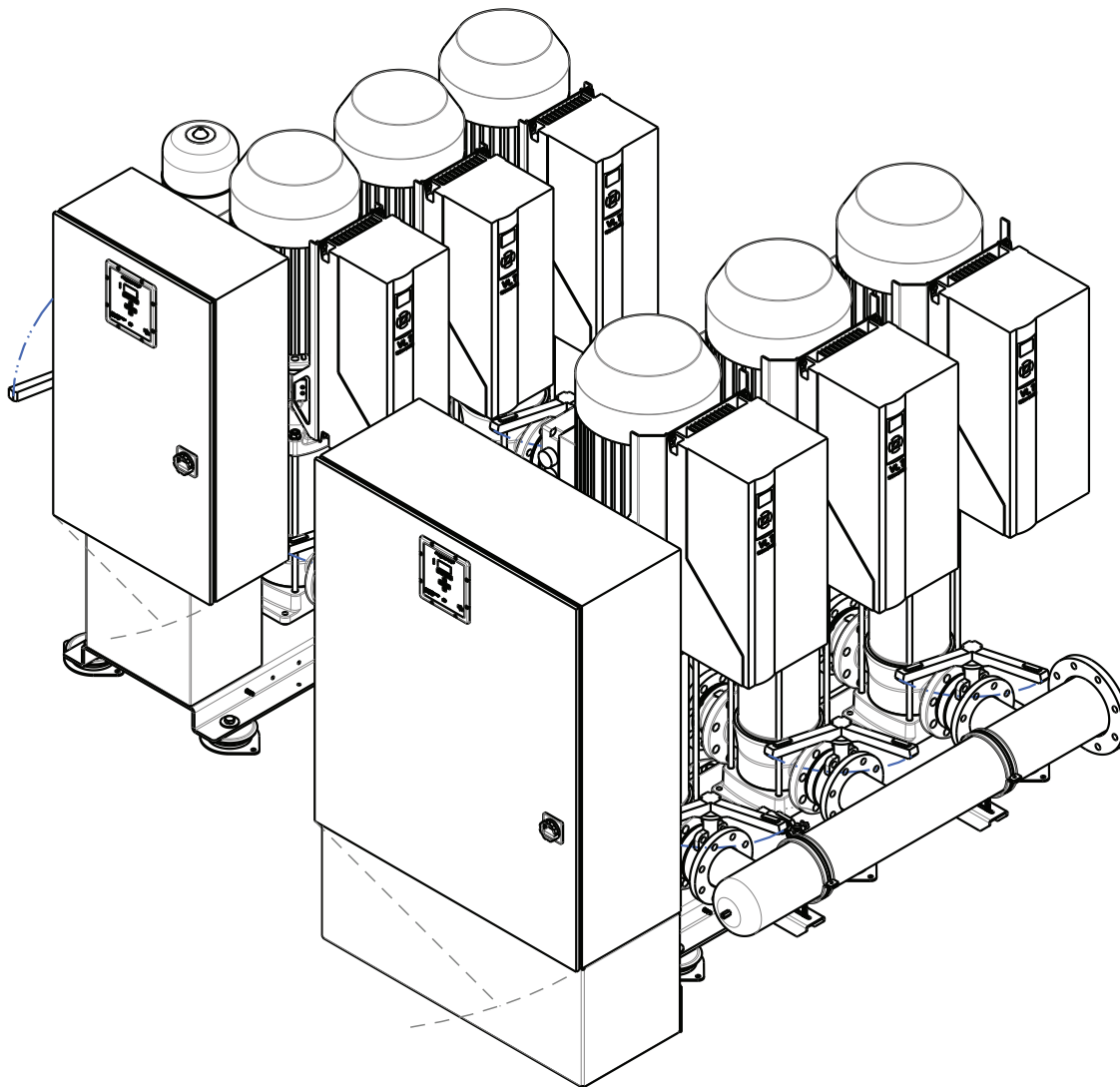


Table 106: Detailed

Art. nbr	Pump start	Ampere range	Option	Max. fuse	Wiring diagram nbr	H1 [mm]	H6 x B5 x L3 [mm]	Type
DKVO 730 FRP								
9033423240	FRP	24,00 A	Industrial	80A	20167153	1600	1200x800x400	C
9033423320	FRP	32,00 A	Industrial	125A	20167153	1600	1200x800x400	C
9033423375	FRP	37,50 A	Industrial	125A	20167154	1600	1200x800x400	C
9033423440	FRP	44,00 A	Industrial	125A	20167154	1600	1200x800x400	C
9033423610	FRP	61,00 A	Industrial	250A	20167154	1600	1200x800x400	C
9033423730	FRP	73,00 A	Industrial	250A	20167154	1600	1200x800x400	C
9033423900	FRP	90,00 A	Industrial	250A	20167154	1600	1200x800x400	C

5.2.4 VFD set per pump (3x mounted on the pump)

Table 107: Detailed EXTRA VFD set per pump.

Art. nbr.	for pump type	Ampere range
Art. per pump		
77115210	25	24,00 A
77115211	25	32,00 A
77115212	25	37,50 A
77115213	25	44,00 A
77115214	25	61,00 A
77115215	25	73,00 A
77115220	40/60	24,00 A
77115221	40/60	32,00 A
77115222	40/60	37,50 A
77115223	40/60	44,00 A
77115224	40/60/85	61,00 A
77115225	40/60/85	73,00 A
77115226	40/60/85	90,00 A
77115230	85	24,00 A
77115231	85	32,00 A
77115232	85	37,50 A
77115233	85	44,00 A



ATTENTION

For a complete unit with each pump a drive (VFD), each pump needs a VFD set!

You Need 4 article numbers!

Unit + cabinet + number of pumps x VFD set + mounting cost

Example: HU4 DPVF85 /3 MCMF (FRP)

Part	Article number
HU4 DPVF85 /3 (39,5A)	HU46F308Q00E
Cabinet (FRP 44,0A)	9034423440
VFD set	4*77115223
Cost mounting VFD	4*BB000010

5.3 Dimensions HU4 without cabinet

5.3.1 HU4 DPVF25/40/60/85 without Cabinet

Table 108: General

Base frame	Base frame A/B
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Control panel	without control panel
Drawing number	20140263

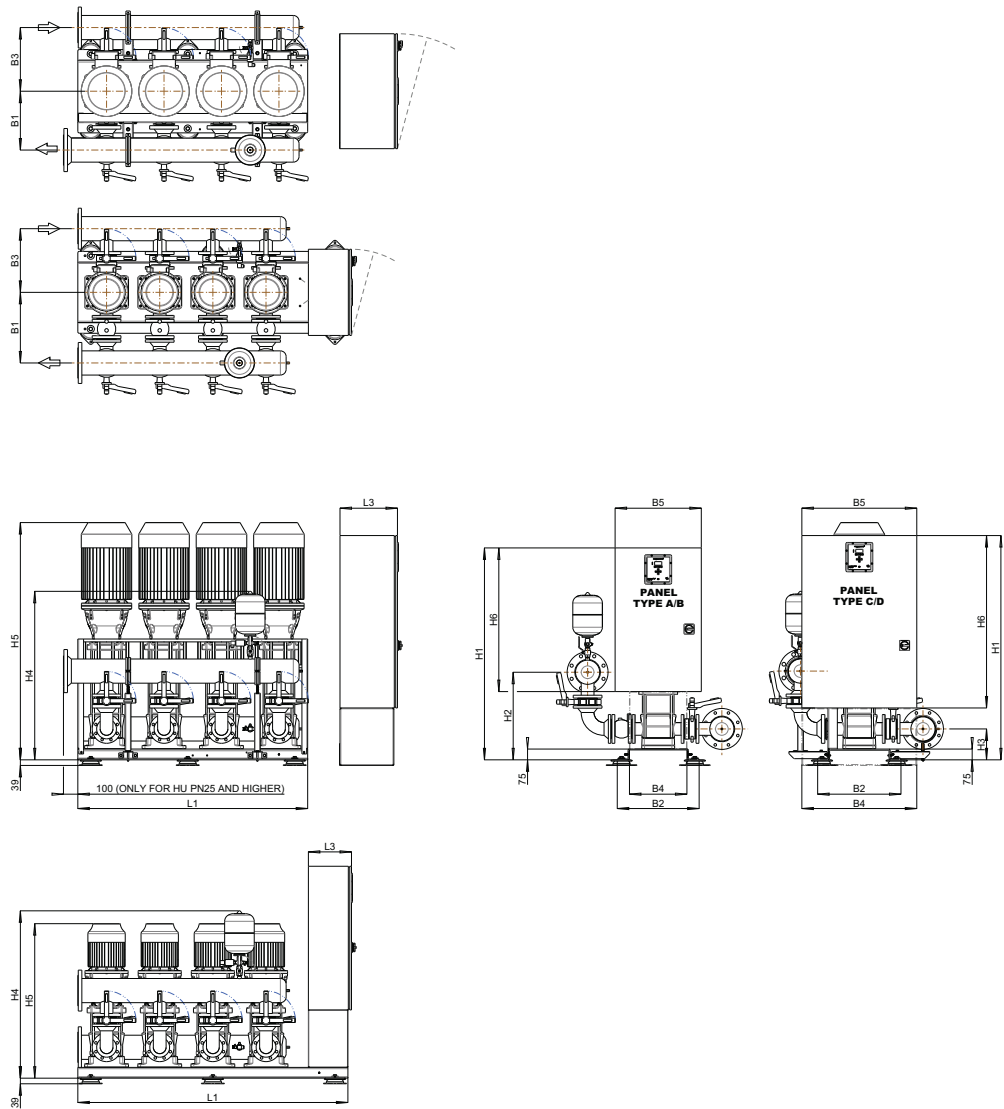


Figure 59: HU4 DPVF25/40/60/85

Table 109: Dimensions general

Pumptype	H2 [mm]	H3 [mm]	H4 [mm]	B2 [mm]	B3 [mm]
DPVF25	555	178	1090	580	421
DPVF40	610	215	1165	580	443
DPVF60	681	215	1262	580	475
DPVF85	718	250	1279	580	485

20140263

Table 110: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max pump	Pump speed	H5 [mm]	B1 [mm]	L1 [mm]	Mass [kg]
HU4 DPVF25										
HU46C509P00E	/5 IE3	CI NW65	AISI304 NW150	PN16	19,3A	2945 rpm	1376	358	2000	1167
HU46C603P00E	/6 IE3	AISI NW65	AISI304 NW150	PN25	19,3A	2945 rpm	1441	358	2000	1157
HU46C703P00E	/7 IE3	AISI NW65	AISI304 NW150	PN25	26,2A	2945 rpm	1506	358	2000	1207
HU46C803P00E	/8 IE3	AISI NW65	AISI304 NW150	PN25	26,2A	2945 rpm	1571	358	2000	1258
HU46C903P00E	/9 IE3	AISI NW65	AISI304 NW150	PN25	26,2A	2945 rpm	1718	358	2000	1268
HU4 DPVF40										
HU46D322P00E	/3-2 IE3	CI NW80	AISI304 NW150	PN16	19,3A	2945 rpm	1336	492	2000	1308
HU46D302P00E	/3 IE3	CI NW80	AISI304 NW150	PN16	19,3A	2945 rpm	1336	492	2000	1308
HU46D422P00E	/4-2 IE3	CI NW80	AISI304 NW150	PN16	26,2A	2945 rpm	1414	492	1600	1352
HU46D402P00E	/4 IE3	CI NW80	AISI304 NW150	PN16	26,2A	2945 rpm	1414	492	1600	1352
HU46D522P00E	/5-2 IE3	CI NW80	AISI304 NW150	PN16	32,1A	2940 rpm	1574	492	1600	1436
HU46D503P00E	/5 IE3	AISI304 NW80	AISI304 NW150	PN25	32,1A	2940 rpm	1574	410	1600	1415
HU46D623P00E	/6-2 IE3	AISI304 NW80	AISI304 NW150	PN25	32,1A	2940 rpm	1652	410	1600	1427
HU46D603P00E	/6 IE3	AISI304 NW80	AISI304 NW150	PN25	38,1A	2955 rpm	1652	410	1600	1427
HU46D723P00E	/7-2 IE3	AISI304 NW80	AISI304 NW150	PN25	38,1A	2955 rpm	1730	410	1600	1611
HU46D703P00G	/7 IE3	AISI304 NW80	AISI304 NW150	PN25	51,6A	2965 rpm	1835	410	2000	1668
HU46D823P00G	/8-2 IE3	AISI304 NW80	AISI304 NW150	PN25	51,6A	2965 rpm	1913	410	2000	2024
HU46D803P00G	/8 IE3	AISI304 NW80	AISI304 NW150	PN25	51,6A	2965 rpm	1913	410	2000	2024
HU4 DPVF60										
HU46E201Q00E	/2 IE3	CI NW100	AISI304 NW200	PN10	19,3A	2945 rpm	1258	562	2000	1416
HU46E322Q00E	/3-2 IE3	CI NW100	AISI304 NW200	PN16	26,2A	2945 rpm	1336	562	1600	1468
HU46E302Q00E	/3 IE3	CI NW100	AISI304 NW200	PN16	32,1A	2940 rpm	1416	562	1600	1541
HU46E422Q00E	/4-2 IE3	CI NW100	AISI304 NW200	PN16	32,1A	2940 rpm	1496	562	1600	1565
HU46E402Q00E	/4 IE3	CI NW100	AISI304 NW200	PN16	38,1A	2955 rpm	1496	562	1600	1709
HU46E523Q00E	/5-2 IE3	AISI304 NW100	AISI304 NW200	PN25	38,1A	2955 rpm	1574	465	1600	1748
HU46E503Q00G	/5 IE3	AISI304 NW100	AISI304 NW200	PN25	51,6A	2965 rpm	1679	465	2000	2045
HU46E623Q00G	/6-2 IE3	AISI304 NW100	AISI304 NW200	PN25	51,6A	2965 rpm	1757	465	2000	2077
HU46E603Q00G	/6 IE3	AISI304 NW100	AISI304 NW200	PN25	51,6A	2965 rpm	1757	465	2000	2101
HU46E723Q00G	/7-2 IE3	AISI304 NW100	AISI304 NW200	PN25	63,3A	2965 rpm	1835	465	2000	2133
HU46E703Q00G	/7 IE3	AISI304 NW100	AISI304 NW200	PN25	63,3A	2965 rpm	1835	465	2000	2133
HU4 DPVF85										
HU46F118Q00E	/1-1 IE3	CI NW100	AISI304 NW200	PN10	10,0A	2940 rpm	1108	479	2000	1500
HU46F108Q00E	/1 IE3	CI NW100	AISI304 NW200	PN10	13,3A	2940 rpm	1080	479	2000	1500
HU46F228Q00E	/2-2 IE3	CI NW100	AISI304 NW200	PN10	19,3A	2945 rpm	1392	479	2000	1500
HU46F218Q00E	/2-1 IE3	CI NW100	AISI304 NW200	PN10	26,2A	2945 rpm	1392	479	2000	1550
HU46F208Q00E	/2 IE3	CI NW100	AISI304 NW200	PN10	26,2A	2945 rpm	1392	479	2000	1550
HU46F328Q00E	/3-2 IE3	CI NW100	AISI304 NW200	PN10	32,1A	2940 rpm	1545	479	2000	1660
HU46F318Q00E	/3-1 IE3	CI NW100	AISI304 NW200	PN10	38,1A	2955 rpm	1594	479	2000	1810
HU46F308Q00E	/3 IE3	CI NW100	AISI304 NW200	PN10	38,1A	2955 rpm	1594	479	2000	1810
HU46F429Q00G	/4-2 IE3	CI NW100	AISI304 NW200	PN16	51,6A	2965 rpm	1758	389	2000	2220
HU46F419Q00G	/4-1 IE3	CI NW100	AISI304 NW200	PN16	51,6A	2965 rpm	1758	389	2000	2220
HU46F409Q00G	/4 IE3	CI NW100	AISI304 NW200	PN16	51,6A	2965 rpm	1758	389	2000	2220
HU46F523Q00G	/5-2 IE3	AISI304 NW100	AISI304 NW200	PN25	63,3A	2965 rpm	1867	389	2500	2320
HU46F513Q00G	/5-1 IE3	AISI304 NW100	AISI304 NW200	PN25	63,3A	2965 rpm	1867	389	2500	2320
HU46F503Q00G	/5 IE3	AISI304 NW100	AISI304 NW200	PN25	63,3A	2965 rpm	1867	389	2500	2320
HU46F623Q00G	/6-2 IE3	AISI304 NW100	AISI304 NW200	PN25	76,8A	2970 rpm	2033	389	2500	2870
HU46F613Q00G	/6-1 IE3	AISI304 NW100	AISI304 NW200	PN25	76,8A	2970 rpm	2033	389	2500	2870
HU46F603Q00G	/6 IE3	AISI304 NW100	AISI304 NW200	PN25	76,8A	2970 rpm	2033	389	2500	2870

5.3.2 Cabinet for HU4 DPVF25/40/60/85

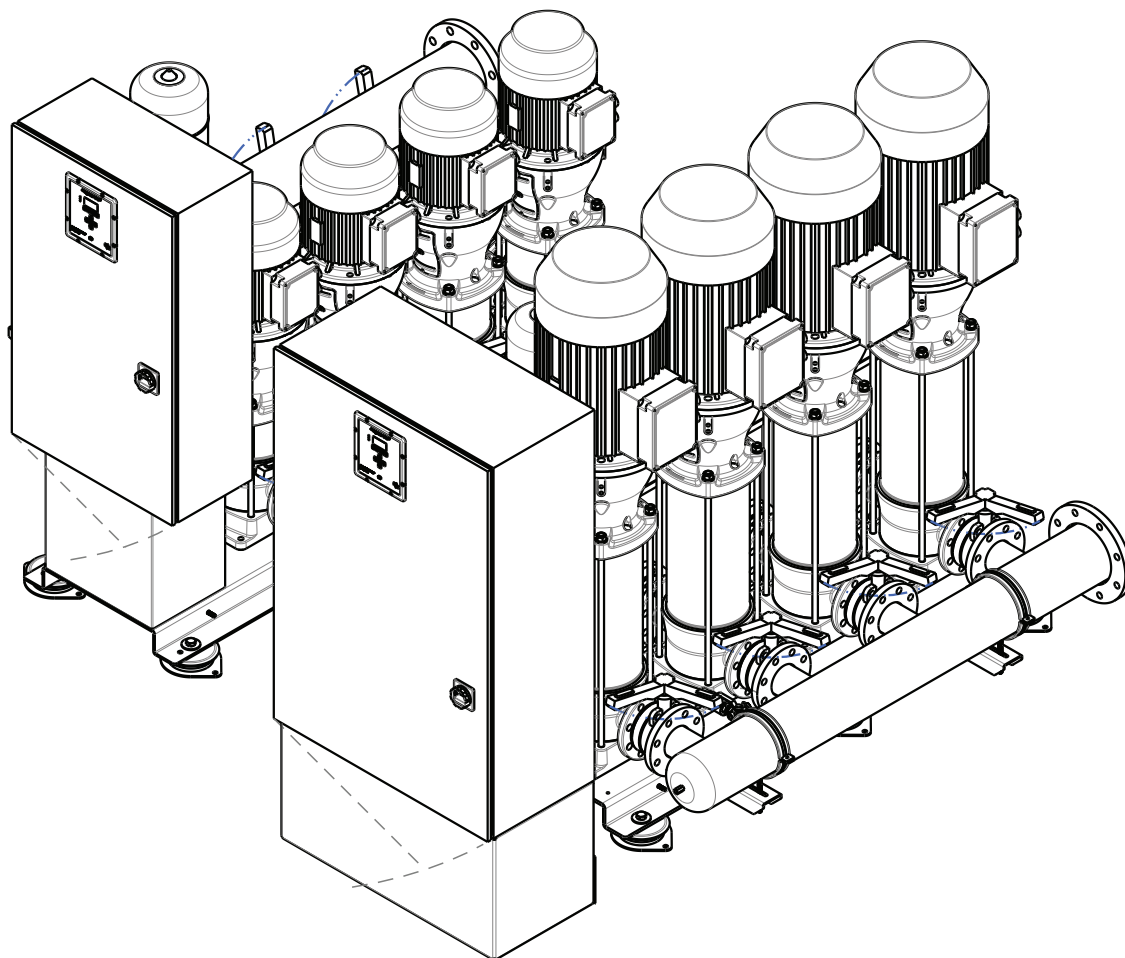


Figure 60: Cabinet HU4 DPVF25/40/60/85

Table 111: General

Number of pumps	4
Connection voltage	3 x 400 V 50 Hz
Insulation class panel	IP54
Alarm contact	2 (not urgent and urgent)
Run dry protection	universal (switch, level transmitter or pressure transmitter)
Cabinet mounting	Floor mounting

Table 112: Detailed

Art. nbr	Pump start	Ampere range	Option	Max. fuse	Wiring diagram nbr	H1 [mm]	H6 x B5 x L3 [mm]	Type
DKVO 740 DOL								
9034120120	DOL	9,00 - 14,0 A	Standard	80A	20167001	1475	800x400x300	A
9034120160	DOL	13,00 - 18,00 A	Standard	80A	20167002	1475	1000x600x300	B
9034123120	DOL	9,00 - 14,0 A	Industrial	80A	20167102	1475	1000x600x300	B
9034123160	DOL	13,00 - 18,00 A	Industrial	80A	20167101	1475	1000x600x300	B
DKVO 740 S/D								
9034220160	S/D	13,00 - 18,00 A	Standard	80A	EF1C10EN	1475	1000x600x300	B
9034223160	S/D	13,00 - 18,00 A	Industrial	80A	20167122	1600	1200x800x400	C
9034223200	S/D	17,00 - 23,00 A	Industrial	100A	20167122	1600	1200x800x400	C
9034223320	S/D	23,00 - 32,00 A	Industrial	160A	20167123	1600	1200x800x400	C
9034223400	S/D	30,00 - 40,00 A	Industrial	250A	20167123	1600	1200x800x400	C
9034223500	S/D	37,00 - 50,00 A	Industrial	250A	20167123	1600	1200x800x400	C
9034223630	S/D	48,00 - 65,00 A	Industrial	400A	20167132	1600	1200x1200x400	D
9034223750	S/D	62,00 - 73,00 A	Industrial	400A	20167132	1600	1200x1200x400	D
9034223900	S/D	70,00 - 80,00 A	Industrial	400A	20167132	1600	1200x1200x400	D
DKVO 740 SFT								
9034320120	SFT	9,00 - 14,0 A	Standard	80A	20167011	1475	800x400x300	A
9034323120	SFT	9,00 - 14,0 A	Industrial	80A	20167112	1475	1000x600x300	B
DKVO 740 FRK								
9034420120	FRK	12,00 A	Standard	80A	20167043	1475	1000x600x300	B
9034420155	FRK	15,00 A	Standard	125A	20167044	1600	1200x800x400	C
9034423120	FRK	12,00 A	Industrial	80A	20167143	1475	1000x600x300	B
9034423155	FRK	15,00 A	Industrial	125A	20167144	1600	1200x800x400	C

5.3.3 Cabinet for a HU4 DPVF25/40/60/85 FRP

Table 113: General

Number of pumps	4
Connection voltage	3 x 400 V 50 Hz
Insulation class panel	IP54
Alarm contact	2 (not urgent and urgent)
Run dry protection	universal (switch, level transmitter or pressure transmitter)
Cabinet mounting	Floor mounting
Drawing number	20140268

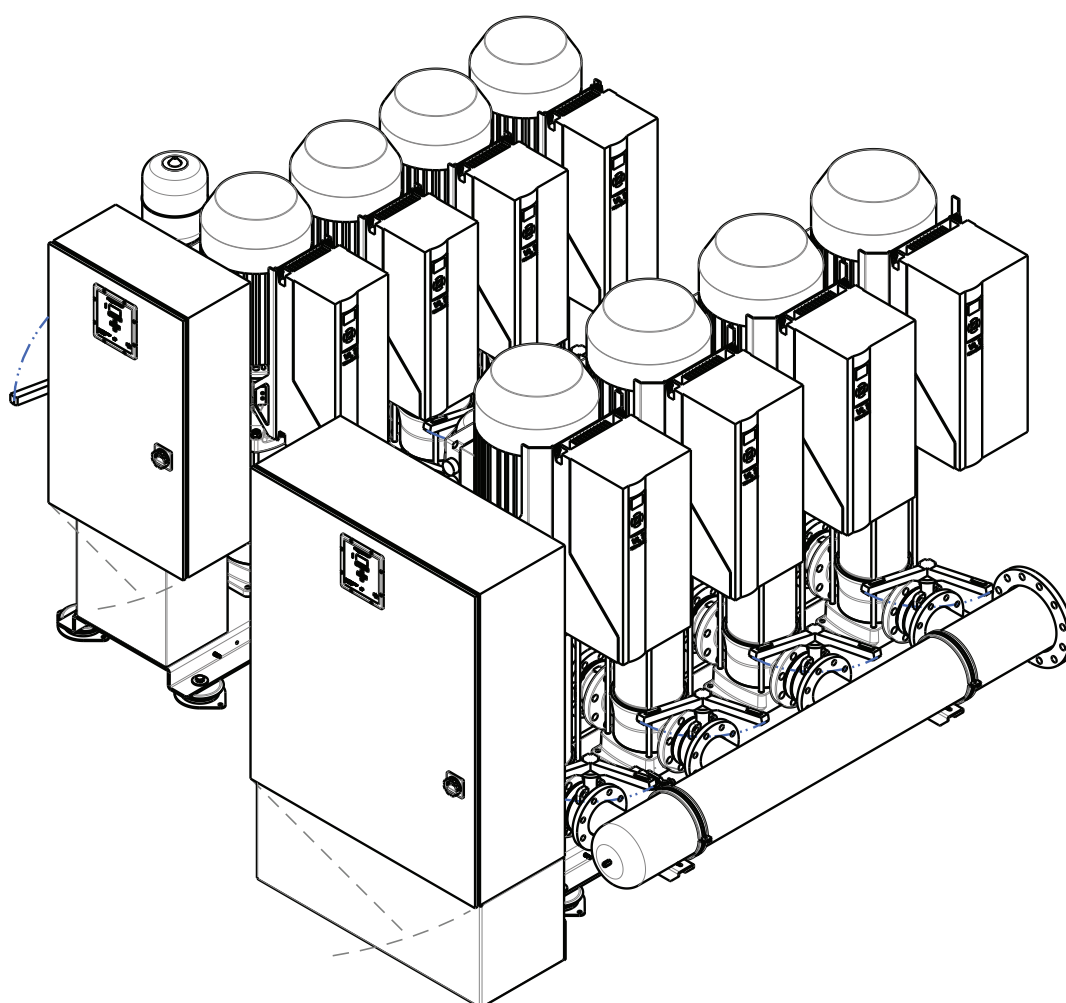


Table 114: Detailed

Art. nbr	Pump start	Ampere range	Option	Max. fuse	Wiring diagram nbr	H1 [mm]	H6 x B5 x L3 [mm]	Type
DKVO 740 FRP								
9034423240	FRP	24,00 A	Industrial	100A	20167153	1600	1200x800x400	C
9034423320	FRP	32,00 A	Industrial	125A	20167154	1600	1200x800x400	C
9034423375	FRP	37,50 A	Industrial	160A	20167154	1600	1200x800x400	C
9034423440	FRP	44,00 A	Industrial	250A	20167154	1600	1200x800x400	C
9034423610	FRP	61,00 A	Industrial	250A	20167154	1600	1200x800x400	C
9034423730	FRP	73,00 A	Industrial	400A	20167154	1600	1200x800x400	C
9034423900	FRP	90,00 A	Industrial	400A	20167154	1600	1200x800x400	C

5.3.4 VFD set per pump (4x mounted on the pump)

Table 115: Detailed EXTRA VFD set per pump.

Art. nbr.	for pump type	Ampere range
Art. per pump		
77115210	25	24,00 A
77115211	25	32,00 A
77115212	25	37,50 A
77115213	25	44,00 A
77115214	25	61,00 A
77115215	25	73,00 A
77115220	40/60	24,00 A
77115221	40/60	32,00 A
77115222	40/60	37,50 A
77115223	40/60	44,00 A
77115224	40/60/85	61,00 A
77115225	40/60/85	73,00 A
77115226	40/60/85	90,00 A
77115230	85	24,00 A
77115231	85	32,00 A
77115232	85	37,50 A
77115233	85	44,00 A



ATTENTION

For a complete unit with each pump a drive (VFD), each pump needs a VFD set!

You Need 4 article numbers!

Unit + cabinet + number of pumps x VFD set + mounting cost

Example: HU4 DPVF85 /3 MCMF (FRP)

Part	Article number
HU4 DPVF85 /3 (39,5A)	HU46F308Q00E
Cabinet (FRP 44,0A)	9034423440
VFD set	4*77115223
Cost mounting VFD	4*BB000010

5.4 Dimensions HU5 without cabinet

5.4.1 HU5 DPVF25/40/60/85 without Cabinet

Table 116: General

Base frame	Base frame C/D
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Control panel	without control panel
Drawing number	20140264

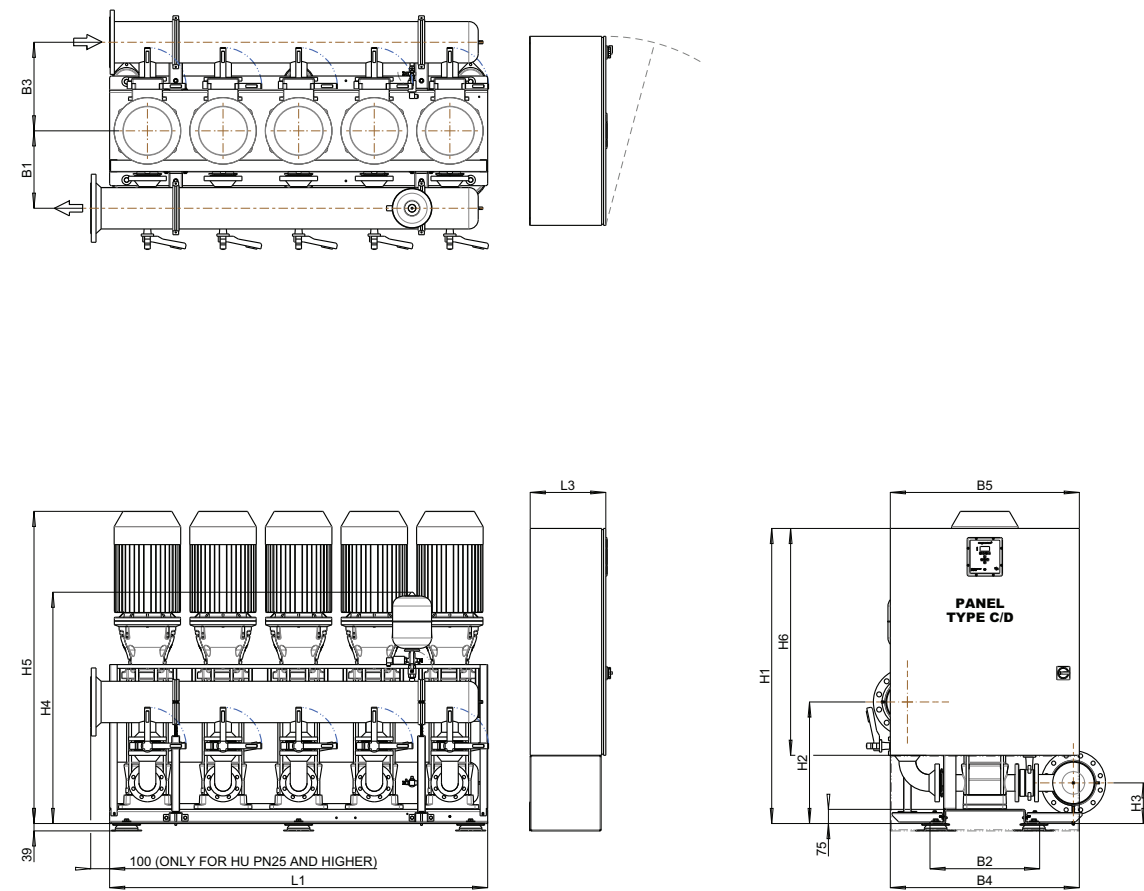


Figure 61: HU5 DPVF25/40/60/85

Table 117: Dimensions general

Pumptype	H2 [mm]	H3 [mm]	H4 [mm]	B2 [mm]	B3 [mm]
DPVF25	555	178	1090	580	421
DPVF40	635	215	1190	580	468
DPVF60	681	215	1262	580	475
DPVF85	743	250	1306	580	510

20140264

Table 118: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max pump	Pump speed	H5 [mm]	B1 [mm]	L1 [mm]	Mass [kg]
HU5 DPVF25										
HU56C208P00C	/2	CI NW65	AISI304 NW150	PN10	7,4A	2930 rpm	885	358	2000	827
HU56C309P00C	/3	CI NW65	AISI304 NW150	PN16	10,0A	2940 rpm	1064	358	2000	970
HU56C409P00C	/4 IE3	CI NW65	AISI304 NW150	PN16	13,3A	2940 rpm	1129	358	2000	1003
HU56C509P00F	/5 IE3	CI NW65	AISI304 NW150	PN16	19,3A	2945 rpm	1376	358	2000	1416
HU56C603P00F	/6 IE3	AISI NW65	AISI304 NW150	PN25	19,3A	2945 rpm	1441	358	2000	1404
HU56C703P00F	/7 IE3	AISI NW65	AISI304 NW150	PN25	26,2A	2945 rpm	1506	358	2000	1467
HU56C803P00F	/8 IE3	AISI NW65	AISI304 NW150	PN25	26,2A	2945 rpm	1571	358	2000	1527
HU56C903P00F	/9 IE3	AISI NW65	AISI304 NW150	PN25	26,2A	2945 rpm	1718	358	2000	1543
HU5 DPVF40										
HU56D322P00F	/3-2 IE3	CI NW80	AISI304 NW150	PN16	19,3A	2945 rpm	1336	492	2000	1603
HU56D302P00F	/3 IE3	CI NW80	AISI304 NW150	PN16	19,3A	2945 rpm	1336	492	2000	1603
HU56D422P00F	/4-2 IE3	CI NW80	AISI304 NW150	PN16	26,2A	2945 rpm	1414	492	2000	1658
HU56D402P00F	/4 IE3	CI NW80	AISI304 NW150	PN16	26,2A	2945 rpm	1414	492	2000	1658
HU56D522P00F	/5-2 IE3	CI NW80	AISI304 NW150	PN16	32,1A	2940 rpm	1574	492	2000	1763
HU56D503P00F	/5 IE3	AISI304 NW80	AISI304 NW150	PN25	32,1A	2940 rpm	1574	410	2000	1749
HU56D623P00F	/6-2 IE3	AISI304 NW80	AISI304 NW150	PN25	32,1A	2940 rpm	1652	410	2000	1765
HU56D603P00F	/6 IE3	AISI304 NW80	AISI304 NW150	PN25	38,1A	2955 rpm	1652	410	2000	1765
HU56D723P00F	/7-2 IE3	AISI304 NW80	AISI304 NW150	PN25	38,1A	2955 rpm	1730	410	2000	1995
HU56D703P00H	/7 IE3	AISI304 NW80	AISI304 NW150	PN25	51,6A	2965 rpm	1835	410	2500	2051
HU56D823P00H	/8-2 IE3	AISI304 NW80	AISI304 NW150	PN25	51,6A	2965 rpm	1913	410	2500	2496
HU56D803P00H	/8 IE3	AISI304 NW80	AISI304 NW150	PN25	51,6A	2965 rpm	1913	410	2500	2496
HU5 DPVF60										
HU56E201Q00F	/2 IE3	CI NW100	AISI304 NW200	PN10	19,3A	2945 rpm	1258	562	2000	1716
HU56E322Q00F	/3-2 IE3	CI NW100	AISI304 NW200	PN16	26,2A	2945 rpm	1336	562	2000	1781
HU56E302Q00F	/3 IE3	CI NW100	AISI304 NW200	PN16	32,1A	2940 rpm	1416	562	2000	1871
HU56E422Q00F	/4-2 IE3	CI NW100	AISI304 NW200	PN16	32,1A	2940 rpm	1496	562	2000	1901
HU56E402Q00F	/4 IE3	CI NW100	AISI304 NW200	PN16	38,1A	2955 rpm	1496	562	2000	2081
HU56E523Q00F	/5-2 IE3	AISI304 NW100	AISI304 NW200	PN25	38,1A	2955 rpm	1574	465	2000	2119
HU56E503Q00H	/5 IE3	AISI304 NW100	AISI304 NW200	PN25	51,6A	2965 rpm	1679	465	2500	2500
HU56E623Q00H	/6-2 IE3	AISI304 NW100	AISI304 NW200	PN25	51,6A	2965 rpm	1757	465	2500	2540
HU56E603Q00H	/6 IE3	AISI304 NW100	AISI304 NW200	PN25	51,6A	2965 rpm	1757	465	2500	2570
HU56E723Q00H	/7-2 IE3	AISI304 NW100	AISI304 NW200	PN25	63,3A	2965 rpm	1835	465	2500	2610
HU56E703Q00H	/7 IE3	AISI304 NW100	AISI304 NW200	PN25	63,3A	2965 rpm	1835	465	2500	2610
HU5 DPVF85										
HU56F118R00F	/1-1	CI NW100	AISI304 NW250	PN10	10,0A	2940 rpm	1108	570	2000	1870
HU56F108R00F	/1 IE3	CI NW100	AISI304 NW250	PN10	13,3A	2940 rpm	1080	570	2000	1870
HU56F228R00F	/2-2 IE3	CI NW100	AISI304 NW250	PN10	19,3A	2945 rpm	1392	570	2000	1870
HU56F218R00F	/2-1 IE3	CI NW100	AISI304 NW250	PN10	26,2A	2945 rpm	1392	570	2000	1940
HU56F208R00F	/2 IE3	CI NW100	AISI304 NW250	PN10	26,2A	2945 rpm	1392	570	2000	1940
HU56F328R00F	/3-2 IE3	CI NW100	AISI304 NW250	PN10	32,1A	2940 rpm	1545	570	2000	2080
HU56F318R00F	/3-1 IE3	CI NW100	AISI304 NW250	PN10	38,1A	2955 rpm	1594	570	2000	2260
HU56F308R00F	/3 IE3	CI NW100	AISI304 NW250	PN10	38,1A	2955 rpm	1594	570	2000	2260
HU56F429R00H	/4-2 IE3	CI NW100	AISI304 NW250	PN16	51,6A	2965 rpm	1758	460	2500	2770
HU56F419R00H	/4-1 IE3	CI NW100	AISI304 NW250	PN16	51,6A	2965 rpm	1758	460	2500	2770
HU56F409R00H	/4 IE3	CI NW100	AISI304 NW250	PN16	51,6A	2965 rpm	1758	460	2500	2770
HU56F523R00H	/5-2 IE3	AISI304 NW100	AISI304 NW250	PN25	63,3A	2965 rpm	1867	460	2500	2890
HU56F513R00H	/5-1 IE3	AISI304 NW100	AISI304 NW250	PN25	63,3A	2965 rpm	1867	460	2500	2890
HU56F503R00H	/5 IE3	AISI304 NW100	AISI304 NW250	PN25	63,3A	2965 rpm	1867	460	2500	2890
HU56F623R00H	/6-2 IE3	AISI304 NW100	AISI304 NW250	PN25	76,8A	2970 rpm	2033	460	2500	3570
HU56F613R00H	/6-1 IE3	AISI304 NW100	AISI304 NW250	PN25	76,8A	2970 rpm	2033	460	2500	3570
HU56F603R00H	/6 IE3	AISI304 NW100	AISI304 NW250	PN25	76,8A	2970 rpm	2033	460	2500	3570

5.4.2 Cabinet for HU5 DPVF25/40/60/85

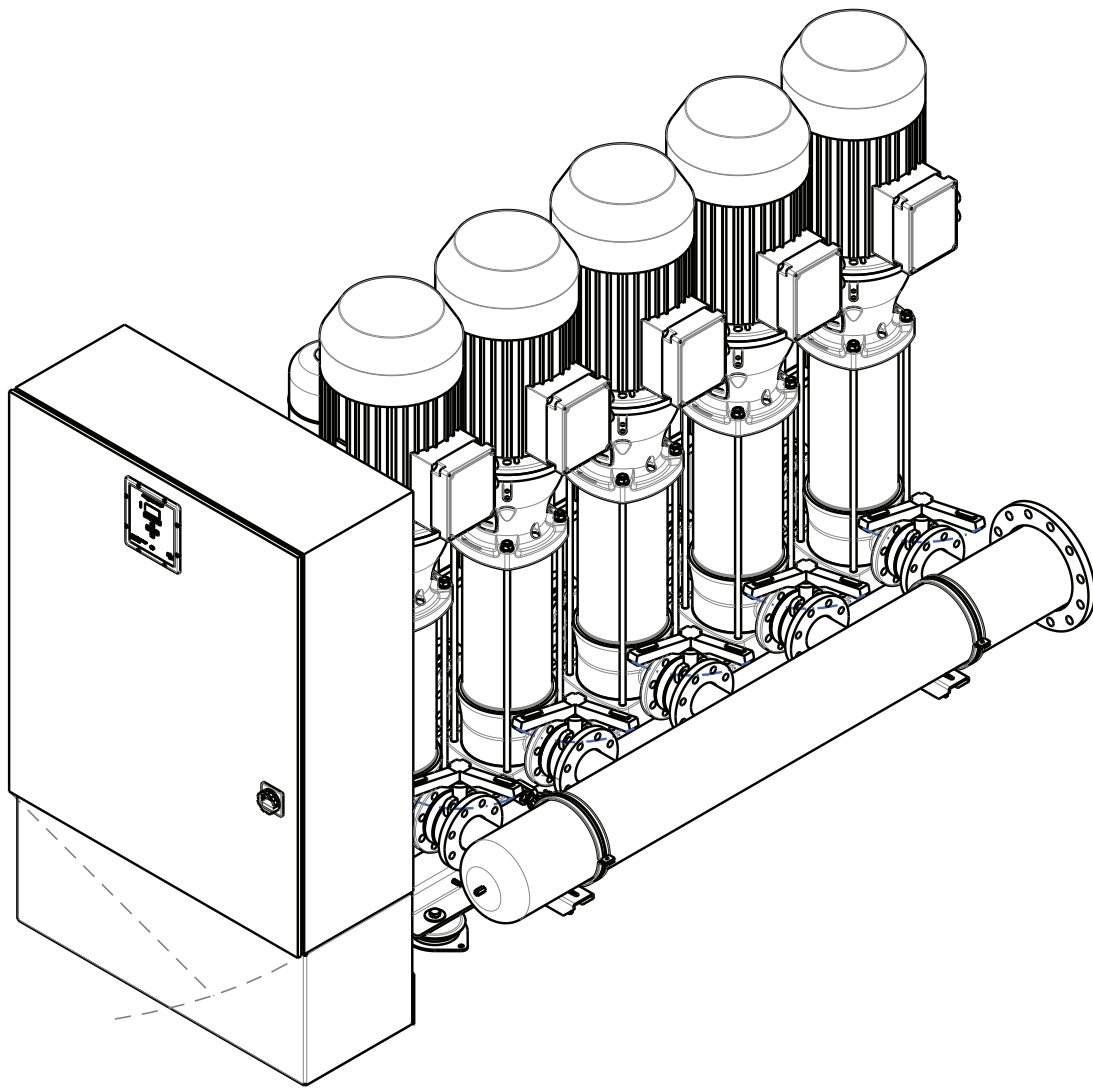


Figure 62: Cabinet HU5 DPVF25/40/60/85

Table 119: General

Number of pumps	5
Connection voltage	3 x 400 V 50 Hz
Insulation class panel	IP54
Alarm contact	2 (not urgent and urgent)
Run dry protection	universal (switch, level transmitter or pressure transmitter)
Cabinet mounting	Floor mounting

Table 120: Detailed

Art. nbr	Pump start	Ampere range	Option	Max. fuse	Wiring diagram nbr	H1 [mm]	H6 x B5 x L3 [mm]	Type
DKVO 750 DOL								
9035120120	DOL	9,00 - 14,0 A	Standard	80A	20167002	1475	1000x600x300	B
9035120160	DOL	13,00 - 18,00 A	Standard	100A	20167002	1475	1000x600x300	B
9035123120	DOL	9,00 - 14,0 A	Industrial	80A	20167102	1475	1000x600x300	B
9035123160	DOL	13,00 - 18,00 A	Industrial	100A	20167102	1475	1000x600x300	B
DKVO 750 S/D								
9035220160	S/D	13,00 - 18,00 A	Standard	100A	EF1C10EN	1475	1000x600x300	B
9035223160	S/D	13,00 - 18,00 A	Industrial	100A	20167122	1600	1200x800x400	C
9035223200	S/D	17,00 - 23,00 A	Industrial	125A	20167123	1600	1200x800x400	C
9035223320	S/D	23,00 - 32,00 A	Industrial	250A	20167124	1600	1200x1000x400	D
9035223400	S/D	30,00 - 40,00 A	Industrial	250A	20167124	1600	1200x1000x400	D
9035223500	S/D	37,00 - 50,00 A	Industrial	400A	20167124	1600	1200x1000x400	D
9035223630	S/D	48,00 - 65,00 A	Industrial	400A	20167133	1600	1200x1200x400	E
9035223750	S/D	62,00 - 73,00 A	Industrial	400A	20167133	1600	1200x1200x400	E
9035223900	S/D	70,00 - 80,00 A	Industrial	630A	20167133	1600	1200x1200x400	E
DKVO 750 SFT								
9035320120	SFT	9,00 - 14,0 A	Standard	80A	20167012	1475	1000x600x300	B
9035323120	SFT	9,00 - 14,0 A	Industrial	80A	20167112	1475	1000x600x300	B

5.4.3 Cabinet for a HU5 DPVF25/40/60/85 FRP

Table 121: General

Number of pumps	5
Connection voltage	3 x 400 V 50 Hz
Insulation class panel	IP54
Alarm contact	2 (not urgent and urgent)
Run dry protection	universal (switch, level transmitter or pressure transmitter)
Cabinet mounting	Floor mounting
Drawing number	20140269

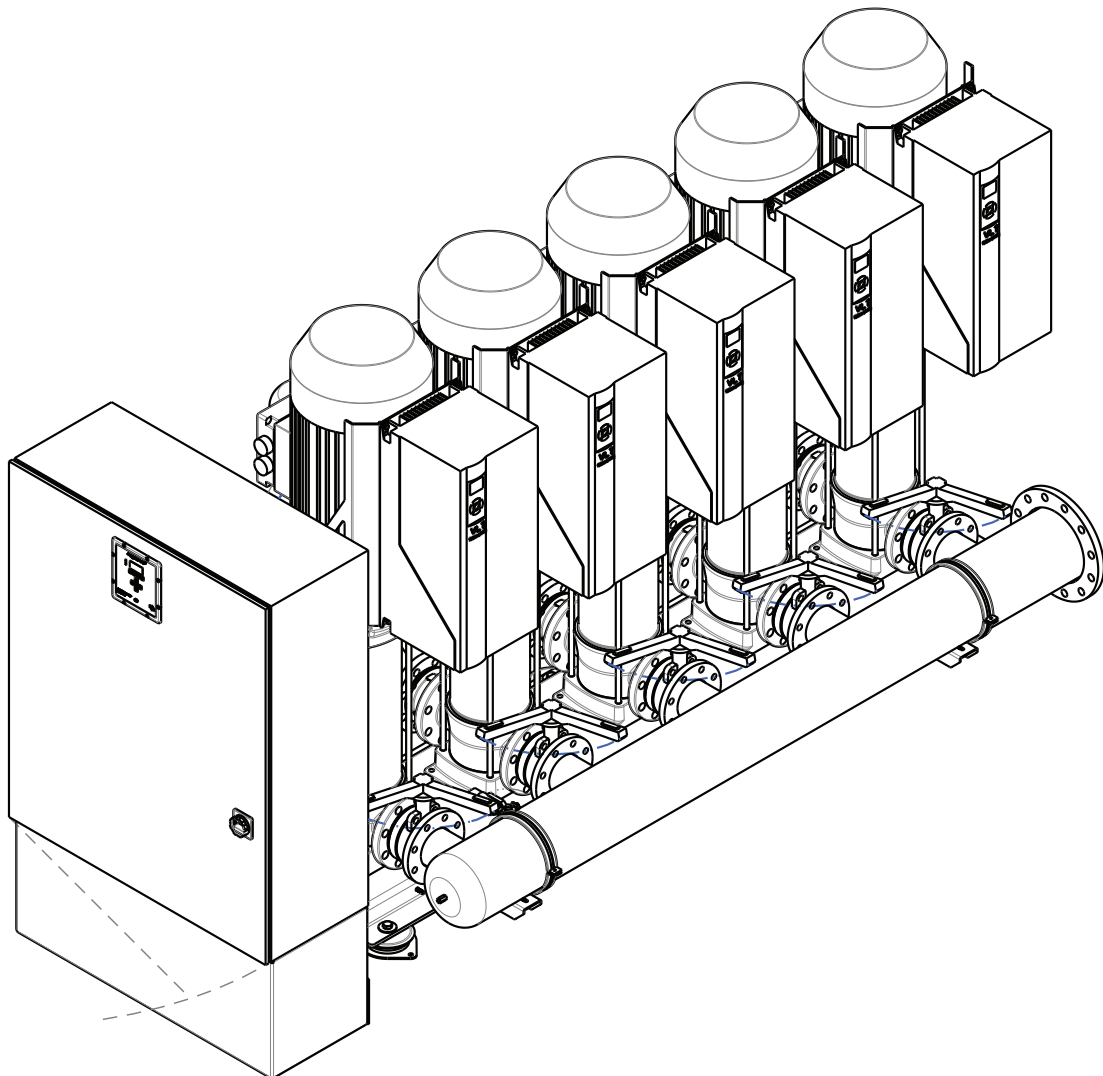


Table 122: Detailed

Art. nbr	Pump start	Ampere range	Option	Max. fuse	Wiring diagram nbr	H1 [mm]	H6 x B5 x L3 [mm]	Type
DKVO 750 FRP								
9035423240	FRP	24,00 A	Industrial	125A	20167154	1600	1200x800x400	C
9035423320	FRP	32,00 A	Industrial	160A	20167154	1600	1200x800x400	C
9035423375	FRP	37,50 A	Industrial	250A	20167154	1600	1200x800x400	C
9035423440	FRP	44,00 A	Industrial	250A	20167154	1600	1200x800x400	C
9035423610	FRP	61,00 A	Industrial	400A	20167154	1600	1200x800x400	C
9035423730	FRP	73,00 A	Industrial	400A	20167154	1600	1200x800x400	C
9035423900	FRP	90,00 A	Industrial	630A	20167155	1600	1200x1000x400	D

5.4.4 VFD set per pump (5x mounted on the pump)

Table 123: Detailed EXTRA VFD set per pump.

Art. nbr.	for pump type	Ampere range
Art. per pump		
77115210	25	24,00 A
77115211	25	32,00 A
77115212	25	37,50 A
77115213	25	44,00 A
77115214	25	61,00 A
77115215	25	73,00 A
77115220	40/60	24,00 A
77115221	40/60	32,00 A
77115222	40/60	37,50 A
77115223	40/60	44,00 A
77115224	40/60/85	61,00 A
77115225	40/60/85	73,00 A
77115226	40/60/85	90,00 A
77115230	85	24,00 A
77115231	85	32,00 A
77115232	85	37,50 A
77115233	85	44,00 A



ATTENTION

For a complete unit with each pump a drive (VFD), each pump needs a VFD set!

You Need 4 article numbers!

Unit + cabinet + number of pumps x VFD set + mounting cost

Example: HU4 DPVF85 /3 MCMF (FRP)

Part	Article number
HU4 DPVF85 /3 (39,5A)	HU46F308Q00E
Cabinet (FRP 44,0A)	9034423440
VFD set	4*77115223
Cost mounting VFD	4*BB000010

5.5 Dimensions HU6 without cabinet

5.5.1 HU6 DPVF25/40/60/85 without Cabinet

Table 124: General

Base frame	Base frame C/D
Membrane vessel	8 l
Connection voltage	3 x 400 V 50 Hz
Control panel	without control panel
Drawing number	20140265

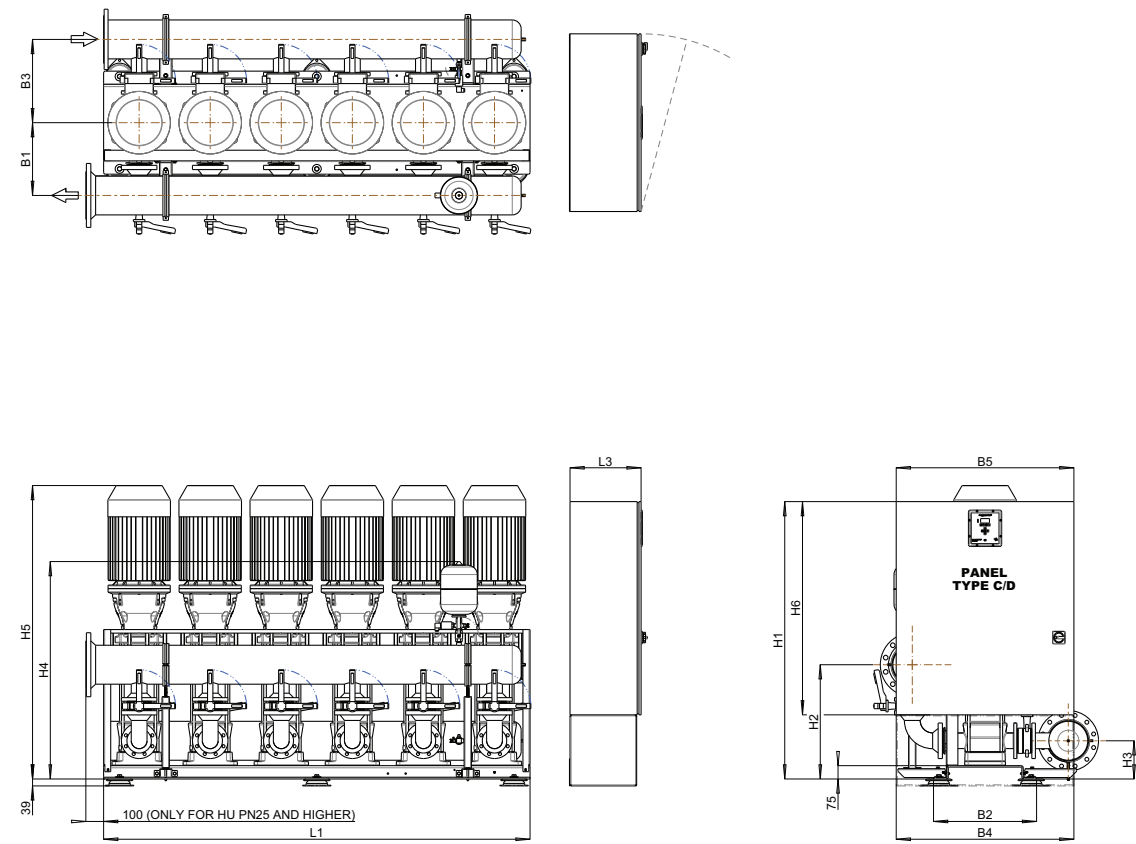


Figure 63: HU6 DPVF25/40/60/85

Table 125: Dimensions general

Pumptype	H2 [mm]	H3 [mm]	H4 [mm]	B2 [mm]	B3 [mm]
DPVF25	555	178	1090	580	421
DPVF40	635	215	1190	580	468
DPVF60	681	215	1262	580	475
DPVF85	718	250	1279	580	510

20140265

Table 126: Detailed

Article number	st.	Fitting (mat. + conn)	Collecting pipe(mat+con)	Press class	I max pump	Pump speed	H5 [mm]	B1 [mm]	L1 [mm]	Mass [kg]
HU6 DPVF25										
HU66C208P00C	/2	CI NW65	AISI304 NW150	PN10	7,4A	2930 rpm	885	358	2400	968
HU66C309P00C	/3	CI NW65	AISI304 NW150	PN16	10,0A	2940 rpm	1064	358	2400	1140
HU66C409P00C	/4 IE3	CI NW65	AISI304 NW150	PN16	13,3A	2940 rpm	1129	358	2400	1179
HU66C509P00F	/5 IE3	CI NW65	AISI304 NW150	PN16	19,3A	2945 rpm	1376	358	2400	1675
HU66C603P00F	/6 IE3	AISI NW65	AISI304 NW150	PN25	19,3A	2945 rpm	1441	358	2400	1661
HU66C703P00F	/7 IE3	AISI NW65	AISI304 NW150	PN25	26,2A	2945 rpm	1506	358	2400	1736
HU66C803P00F	/8 IE3	AISI NW65	AISI304 NW150	PN25	26,2A	2945 rpm	1571	358	2400	1812
HU66C903P00F	/9 IE3	AISI NW65	AISI304 NW150	PN25	26,2A	2945 rpm	1718	358	2400	1828
HU6 DPVF40										
HU66D322Q00F	/3-2 IE3	CI NW80	AISI304 NW200	PN16	19,3A	2945 rpm	1336	492	2400	1895
HU66D302Q00F	/3 IE3	CI NW80	AISI304 NW200	PN16	19,3A	2945 rpm	1336	492	2400	1895
HU66D422Q00F	/4-2 IE3	CI NW80	AISI304 NW200	PN16	26,2A	2945 rpm	1414	492	2400	1961
HU66D402Q00F	/4 IE3	CI NW80	AISI304 NW200	PN16	26,2A	2945 rpm	1414	492	2400	1961
HU66D522Q00F	/5-2 IE3	CI NW80	AISI304 NW200	PN16	32,1A	2940 rpm	1574	492	2400	2087
HU66D503P00E	/5 IE3	AISI304 NW80	AISI304 NW200	PN25	32,1A	2940 rpm	1574	410	2400	2065
HU66D623P00E	/6-2 IE3	AISI304 NW80	AISI304 NW200	PN25	32,1A	2940 rpm	1652	410	2400	2084
HU66D603P00E	/6 IE3	AISI304 NW80	AISI304 NW200	PN25	38,1A	2955 rpm	1652	410	2400	2084
HU66D723P00E	/7-2 IE3	AISI304 NW80	AISI304 NW200	PN25	38,1A	2955 rpm	1730	410	2400	2360
HU66D703P00H	/7 IE3	AISI304 NW80	AISI304 NW200	PN25	51,6A	2965 rpm	1835	410	3000	2430
HU66D823P00H	/8-2 IE3	AISI304 NW80	AISI304 NW200	PN25	51,6A	2965 rpm	1913	410	3000	2964
HU66D803P00H	/8 IE3	AISI304 NW80	AISI304 NW200	PN25	51,6A	2965 rpm	1913	410	3000	2964
HU6 DPVF60										
HU66E201Q00F	/2 IE3	CI NW100	AISI304 NW200	PN10	19,3A	2945 rpm	1258	562	2400	2033
HU66E322Q00F	/3-2 IE3	CI NW100	AISI304 NW200	PN16	26,2A	2945 rpm	1336	562	2400	2111
HU66E302Q00F	/3 IE3	CI NW100	AISI304 NW200	PN16	32,1A	2940 rpm	1416	562	2400	2218
HU66E422Q00F	/4-2 IE3	CI NW100	AISI304 NW200	PN16	32,1A	2940 rpm	1496	562	2400	2254
HU66E402Q00F	/4 IE3	CI NW100	AISI304 NW200	PN16	38,1A	2955 rpm	1496	562	2400	2470
HU66E523Q00F	/5-2 IE3	AISI304 NW100	AISI304 NW200	PN25	38,1A	2955 rpm	1574	465	2400	2415
HU66E503Q00H	/5 IE3	AISI304 NW100	AISI304 NW200	PN25	51,6A	2965 rpm	1679	465	3000	2967
HU66E623Q00H	/6-2 IE3	AISI304 NW100	AISI304 NW200	PN25	51,6A	2965 rpm	1757	465	3000	3015
HU66E603Q00H	/6 IE3	AISI304 NW100	AISI304 NW200	PN25	51,6A	2965 rpm	1757	465	3000	3051
HU66E723Q00H	/7-2 IE3	AISI304 NW100	AISI304 NW200	PN25	63,3A	2965 rpm	1835	465	3000	3099
HU66E703Q00H	/7 IE3	AISI304 NW100	AISI304 NW200	PN25	63,3A	2965 rpm	1835	465	3000	3099
HU6 DPVF85										
HU66F118R00F	/1-1	CI NW100	AISI304 NW250	PN10	10,0A	2940 rpm	1108	570	2400	2220
HU66F108R00F	/1 IE3	CI NW100	AISI304 NW250	PN10	13,3A	2940 rpm	1080	570	2400	2220
HU66F228R00F	/2-2 IE3	CI NW100	AISI304 NW250	PN10	19,3A	2945 rpm	1392	570	2400	2220
HU66F218R00F	/2-1 IE3	CI NW100	AISI304 NW250	PN10	26,2A	2945 rpm	1392	570	2400	2300
HU66F208R00F	/2 IE3	CI NW100	AISI304 NW250	PN10	26,2A	2945 rpm	1392	570	2400	2300
HU66F328R00F	/3-2 IE3	CI NW100	AISI304 NW250	PN10	32,1A	2940 rpm	1545	570	2400	2470
HU66F318R00F	/3-1 IE3	CI NW100	AISI304 NW250	PN10	38,1A	2955 rpm	1594	570	2400	2680
HU66F308R00F	/3 IE3	CI NW100	AISI304 NW250	PN10	38,1A	2955 rpm	1594	570	2400	2680
HU66F429R00H	/4-2 IE3	CI NW100	AISI304 NW250	PN16	51,6A	2965 rpm	1758	460	3000	3290
HU66F419R00H	/4-1 IE3	CI NW100	AISI304 NW250	PN16	51,6A	2965 rpm	1758	460	3000	3290
HU66F409R00H	/4 IE3	CI NW100	AISI304 NW250	PN16	51,6A	2965 rpm	1758	460	3000	3290
HU66F523R00H	/5-2 IE3	AISI304 NW100	AISI304 NW250	PN25	63,3A	2965 rpm	1867	460	3000	3440
HU66F513R00H	/5-1 IE3	AISI304 NW100	AISI304 NW250	PN25	63,3A	2965 rpm	1867	460	3000	3440
HU66F503R00H	/5 IE3	AISI304 NW100	AISI304 NW250	PN25	63,3A	2965 rpm	1867	460	3000	3440
HU66F623R00H	/6-2 IE3	AISI304 NW100	AISI304 NW250	PN25	76,8A	2970 rpm	2033	460	3000	4260
HU66F613R00H	/6-1 IE3	AISI304 NW100	AISI304 NW250	PN25	76,8A	2970 rpm	2033	460	3000	4260
HU66F603R00H	/6 IE3	AISI304 NW100	AISI304 NW250	PN25	76,8A	2970 rpm	2033	460	3000	4260

5.5.2 Cabinet for HU6 DPVF25/40/60/85

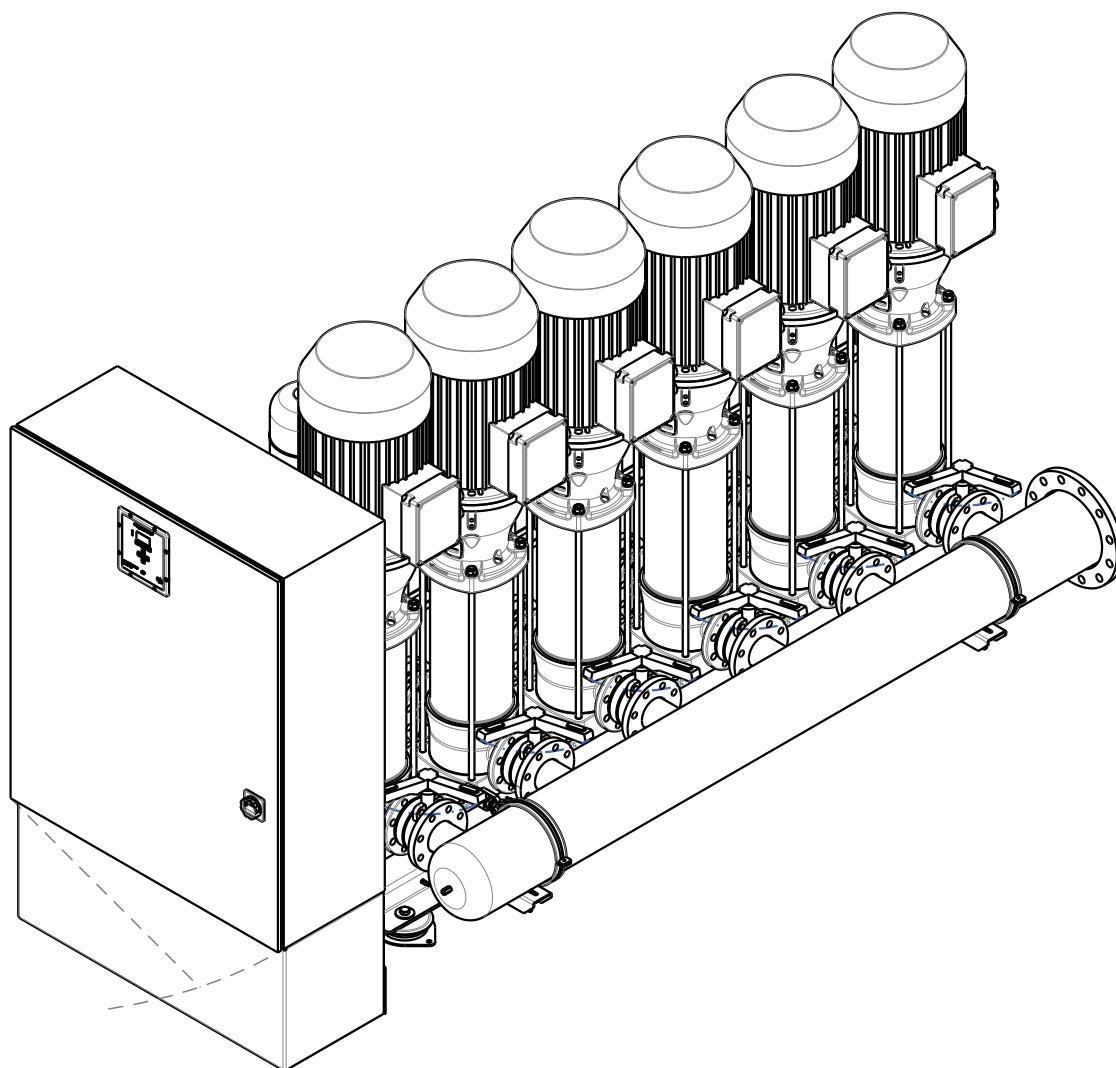


Figure 64: Cabinet HU6 DPVF25/40/60/85

Table 127: General

Number of pumps	6
Connection voltage	3 x 400 V 50 Hz
Insulation class panel	IP54
Alarm contact	2 (not urgent and urgent)
Run dry protection	universal (switch, level transmitter or pressure transmitter)
Cabinet mounting	Floor mounting

Table 128: Detailed

Art. nbr	Pump start	Ampere range	Option	Max. fuse	Wiring diagram nbr	H1 [mm]	H6 x B5 x L3 [mm]	Type
DKVO 760 DOL								
9036120120	DOL	9,00 - 14,0 A	Standard	80A	20167003	1600	1200x800x400	C
9036120160	DOL	13,00 - 18,00 A	Standard	100A	20167003	1600	1200x800x400	C
9036123120	DOL	9,00 - 14,0 A	Industrial	80A	20167103	1600	1200x800x400	C
9036123160	DOL	13,00 - 18,00 A	Industrial	100A	20167103	1600	1200x800x400	C
DKVO 760 S/D								
9036220160	S/D	13,00 - 18,00 A	Standard	100A	EF1C10EN	1600	1200x800x400	C
9036223160	S/D	13,00 - 18,00 A	Industrial	100A	20167122	1600	1200x800x400	C
9036223200	S/D	17,00 - 23,00 A	Industrial	125A	20167123	1600	1200x800x400	C
9036223320	S/D	23,00 - 32,00 A	Industrial	250A	20167124	1600	1200x1000x400	D
9036223400	S/D	30,00 - 40,00 A	Industrial	250A	20167124	1600	1200x1000x400	D
9036223500	S/D	37,00 - 50,00 A	Industrial	400A	20167124	1600	1200x1000x400	D
9036223630	S/D	48,00 - 65,00 A	Industrial	400A	20167133	1600	1200x1200x400	E
9036223750	S/D	62,00 - 73,00 A	Industrial	630A	20167133	1600	1200x1200x400	E
9036223900	S/D	70,00 - 80,00 A	Industrial	630A	20167133	1600	1200x1200x400	E
DKVO 760 SFT								
9036320120	SFT	9,00 - 14,0 A	Standard	80A	20167013	1600	1200x800x400	C
9036323120	SFT	9,00 - 14,0 A	Industrial	80A	20167113	1600	1200x800x400	C

5.5.3 Cabinet for a HU6 DPVF25/40/60/85 FRP

Table 129: General

Number of pumps	6
Connection voltage	3 x 400 V 50 Hz
Insulation class panel	IP54
Alarm contact	2 (not urgent and urgent)
Run dry protection	universal (switch, level transmitter or pressure transmitter)
Cabinet mounting	Floor mounting
Drawing number	20140270

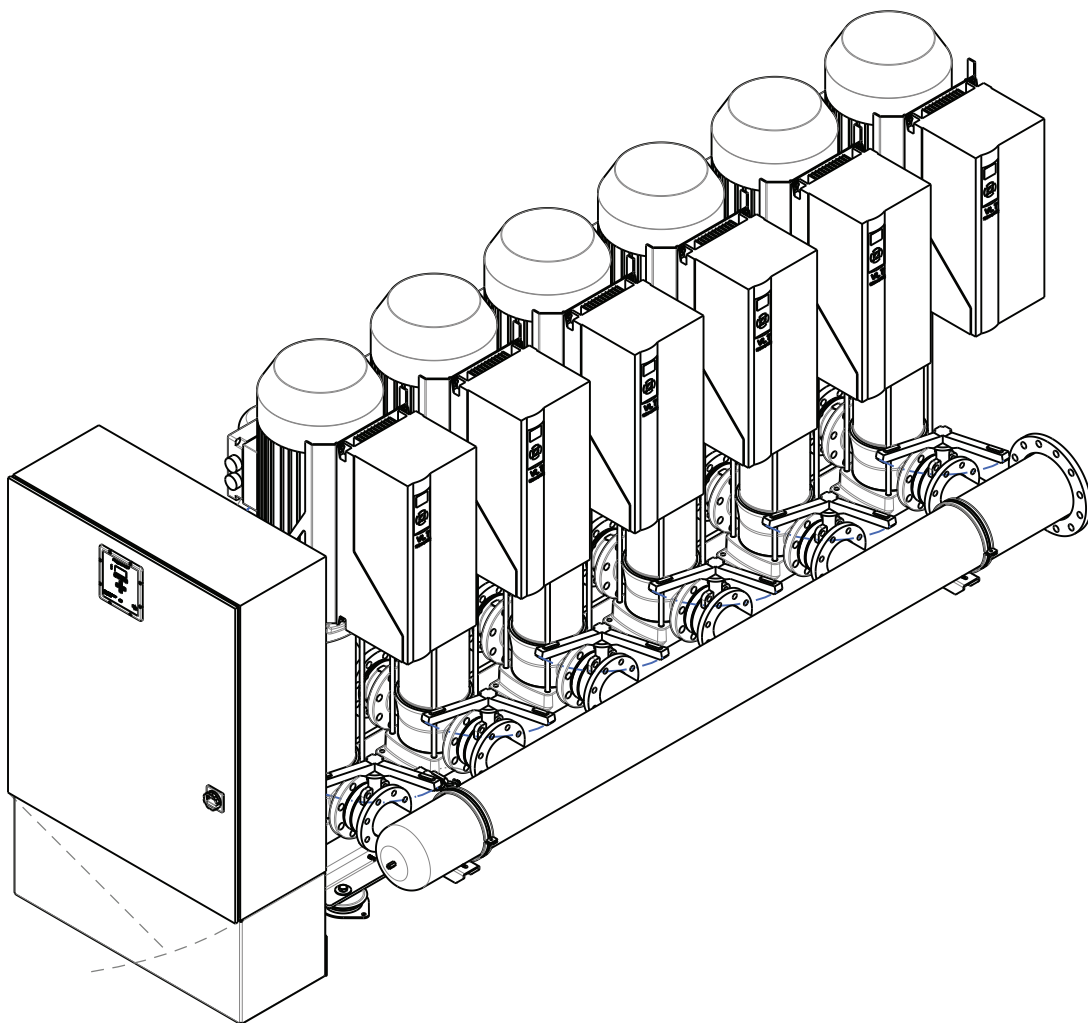


Table 130: Detailed

Art. nbr	Pump start	Ampere range	Option	Max. fuse	Wiring diagram nbr	H1 [mm]	H6 x B5 x L3 [mm]	Type
DKVO 760 FRP								
9036423240	FRP	24,00 A	Industrial	160A	20167154	1600	1200x800x400	C
9036423320	FRP	32,00 A	Industrial	250A	20167154	1600	1200x800x400	C
9036423375	FRP	37,50 A	Industrial	250A	20167154	1600	1200x800x400	C
9036423440	FRP	44,00 A	Industrial	250A	20167154	1600	1200x800x400	C
9036423610	FRP	61,00 A	Industrial	400A	20167154	1600	1200x800x400	C
9036423730	FRP	73,00 A	Industrial	400A	20167154	1600	1200x800x400	C
9036423900	FRP	90,00 A	Industrial	630A	20167155	1600	1200x1000x400	D

5.5.4 VFD set per pump (6x mounted on the pump)

Table 131: Detailed EXTRA VFD set per pump.

Art. nbr.	for pump type	Ampere range
Art. per pump		
77115210	25	24,00 A
77115211	25	32,00 A
77115212	25	37,50 A
77115213	25	44,00 A
77115214	25	61,00 A
77115215	25	73,00 A
77115220	40/60	24,00 A
77115221	40/60	32,00 A
77115222	40/60	37,50 A
77115223	40/60	44,00 A
77115224	40/60/85	61,00 A
77115225	40/60/85	73,00 A
77115226	40/60/85	90,00 A
77115230	85	24,00 A
77115231	85	32,00 A
77115232	85	37,50 A
77115233	85	44,00 A



ATTENTION

For a complete unit with each pump a drive (VFD), each pump needs a VFD set!

You Need 4 article numbers!

Unit + cabinet + number of pumps x VFD set + mounting cost

Example: HU4 DPVF85 /3 MCMF (FRP)

Part	Article number
HU4 DPVF85 /3 (39,5A)	HU46F308Q00E
Cabinet (FRP 44,0A)	9034423440
VFD set	4*77115223
Cost mounting VFD	4*BB000010

5.6 Specification

5.6.1 Specification text flanged units

Two-, three-, four-, five- or six- pump booster unit consisting of:

- Two, three, four, five or six DPVF vertical multi-stage centrifugal pumps of which all metal parts that come into contact with the medium have been made of AISI304.
- Two, three, four, five or six non-return valves.
- Four, six, eight, ten or twelve butterfly valves AISI316 (inside) / cast-iron (outside)
- AISI304 Manifold with one side capped in connection with a short, dead pipe.
- Run-dry protection kit consisting of a pressure transmitter with drain option.
- Discharge pressure control kit consisting of a pressure transmitter with drain option and an 8 litres membrane tank.



ATTENTION

Note: various small parts may have been made of brass.

The installation has a switch box that is mounted unto the powder coated base frame of the installation in the factory and that has also been equipped with a Megacontrol control system.

Additionally, the switch box includes:

- For each pump a relay (MC DOL) or for each pump a soft starter (SFT) or for each pump a star-delta switch (S/D) or for each pump a frequency drive (MCMF)
- Main switch with door opening protection.
- For each pump a thermal motor protection switch.
- Fail-safe voltage-free failure outputs urgent and not-urgent (NO and NC).

The Megacontrol microprocessor control module has the following basic functions:

- Pressure control
- Optimised pump staging.
- Continuously optimised minimum-run time of the pumps.
- Adjustable correction factor for pressure loss in the system.
- 24-hours test-run function.
- Adjustable delay of the under pressure/run-dry protection.
- Option for controlling the level in a storage tank.
- Display options: actual system values, pump status, operating hours, comprehensive failure interface.

Machine feet

The installation has by default machine feet for setting the height of the installation and a vibration free connection to the floor. They are delivered separately.

All our booster units comply with the NEN1006 (nl) standard and have been constructed as described in the most actual water worksheets (NL).

6 Options

6.1 Options for the Utility line

Art. number	Option
OV10020610	Connection switch box instead of a pressure transmitter as run-dry protection ¹
OV10020135	Membrane tank 25 l instead of 8 l (PN10)
OV10021910	Switch box extension INDUSTRY ²
OV10022306	Level control (On/off supply valve) (excluding level transmitter) ³
OV10022554	1 room temperature sensor PT1000 and WSD
OV10022802	Finishing DP English UTILITY LINE
OV10022915	Adjustable machine feet iso rubber dampers (HU2-HU4 2/4/6/10/15) (delivered directly with the booster)
OV10022785	Communication module: ModBus see 6.1.1 Communication modules
OV10022786	Communication module: ProfiBus see 6.1.1 Communication modules
OV10023000	Test report plus parameter list
CEHU003101	Certificate booster 3.1 DP Pumps EN
CEHU003102	Certificate booster 3.1 DP Pumps NL
CEHU003103	Certificate booster 3.1 Duijvelaar Pompen EN
CEHU003104	Certificate booster 3.1 Duijvelaar Pompen NL
CEHU003201	Certificate booster 3.2 DP Pumps and customer EN
CEHU003202	Certificate booster 3.2 DP Pumps and customer NL
CEHU003203	Certificate booster 3.2 Duijvelaar Pompen and customer EN
CEHU003204	Certificate booster 3.2 Duijvelaar Pompen and customer NL

1. A device with a switch contact (NC, if water is present) that trips at interruption of the water supply to the installation is to be connected to the terminal strip (e.g. a float switch or a pressure switch)
2. The switch board has the following extensions in comparison with the default switch box:
 - Phase net guard complete with alarm contact
 - Emergency - Off - Auto switch for each pump
 - Alarm contact for each pump (failure, in operation)
 - Alarm contact that one of the pumps has not been set to automatic.
3. Connection for a supply valve with a voltage of 1 x 230 V with a maximum amperage of 2.5 A, this option does not include a hydrostatic pressure transmitter. For a correct transmitter see below.

Art. number	Hydrostatic type level transmitter
11068053	Hydrostatic level transmitter, 0-200 mbar (0 -2 m), G 1/2 external thread, AISI316, 4-20 mA, M12x1
11068054	Hydrostatic level transmitter, 0-400 mbar (0 -4 m), G 1/2 external thread, AISI316, 4-20 mA, M12x1
11068055	Hydrostatic level transmitter, 0-600 mbar (0 -6 m), G 1/2 external thread, AISI316, 4-20 mA, M12x1
11068056	Hydrostatic level transmitter, 0-1 bar (0 -10 m), G 1/2 external thread, AISI316, 4-20 mA, M12x1
11068071	Cable for level transmitter, cable length = 3 m, M12x1
11068072	Cable for level transmitter, cable length = 10 m, M12x1
77601093	Immersible hydrostatic level transmitter, 0-150 mbar (0 - 1.5 m), cable length = 10 m
77601094	Immersible hydrostatic level transmitter, 0-300 mbar (0 - 3 m), cable length = 15 m
77601095	Immersible hydrostatic level transmitter, 0-600 mbar (0 - 6 m), cable length = 25 m
77601096	Immersible hydrostatic level transmitter, 0-1 bar (0 - 10 m), cable length = 25 m

6.1.1 Communication modules

There are two communication modules, to connect the booster system to a building management system (BMS).

- Modbus RTU OV10022785
- Profibus OV10022786

Modbus

Table 132: Properties

Communication protocol	Modbus (RTU)
Emission rate	9600 or 19200 Baud
Device type	slave
Bus access	Polling method between Master and Slave
Communication parameters	Parity = Even
	Stop-Bits = 1
	Data-Bits = 8

Profibus

The Module is delivered with the configuration file OFAO.gsd

Table 133: Parameter list READ

Parameter Number	Name
1	Status
2 - 5	Message 1 - 4
6	System pressure
7	Pump load
8	Run Dry Protection
9	Suction pressure
10	Level storage tank %
11	level storage tank m
12	Ambient temperature
13	Position valve (open/closed)
14	Position valve (%)
15	Used set point
16	PCB temperature
17	Operating Hours
18	Service interval
19	Current minimum run time
20	Number of pumps
21	Pumps running
22	Thermal faillure pumps
23	Common digital inputs
24	Pump 1 Load
25	Pump 1 operating hours
26	Pump 1 operating hours after service
27	Pump 1 starts
28	Pump 1 errors

Parameter Number	Name
29	Pump 1 status
30 - 59	Pump 2, 3, 4, 5 and 6
60 - 68	IO, HMI FW/HW versions
70	Set point
71 - 74	Date and time

Table 134: Parameter list WRITE

Parameter Number	Name
1	Set point
2	Alternative Set point
3	Error Acknowledge
4 - 7	Date and Time

6.2 Mounting sets

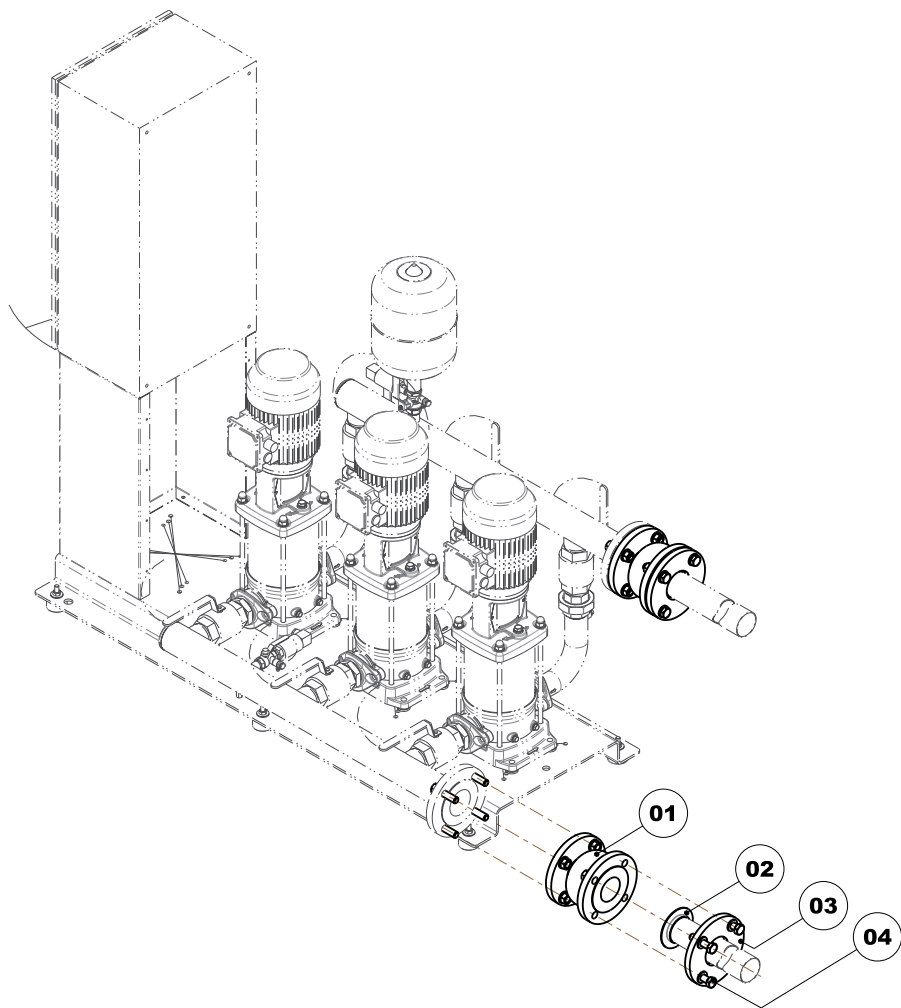


Figure 65: Mounting set

Table 135: HU mounting set

Article number	Description
71100173	Mounting SET HYDRO-UNIT DN65 > 67 mm cap
71100174	Mounting SET HYDRO-UNIT DN80 > 80 mm cap
71100175	Mounting SET HYDRO-UNIT DN100 > 106 mm cap
71100176	Mounting SET HYDRO-UNIT DN65 > G 5/2" Inner thread
71100177	Mounting SET HYDRO-UNIT DN80 > G 3" Inner thread
71100178	Mounting SET HYDRO-UNIT DN100 > G 4" Inner thread

Tabel 136: Parts

Item	Description	Amount
1	Compensator	2
2	Collar bush ¹	2
3	lose plate flange (cap) or Inner thread flange (G")	2
4	Bold kit	2

1. only available when "cap"

20111194

6.3 Data interconnection pipe for membrane tank

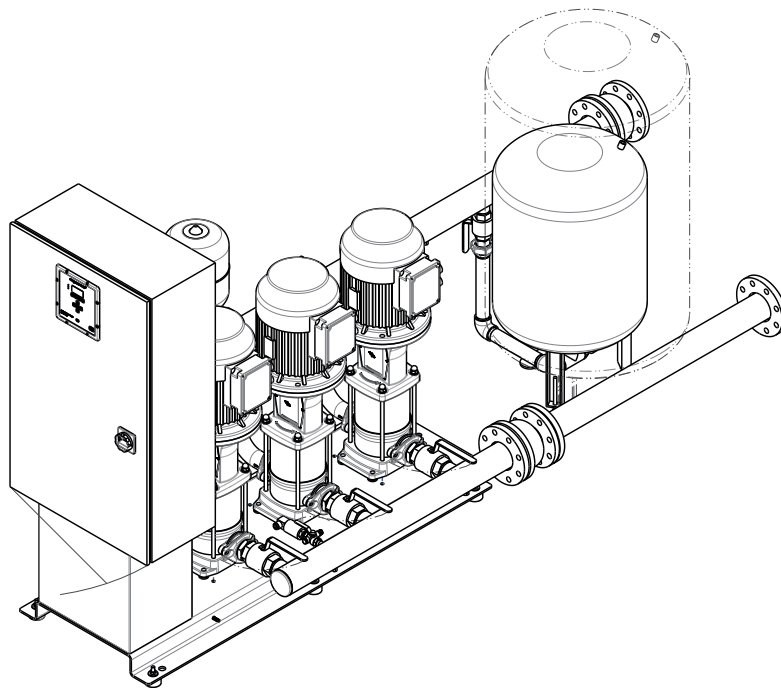


Figure 66: Installation example membrane tank

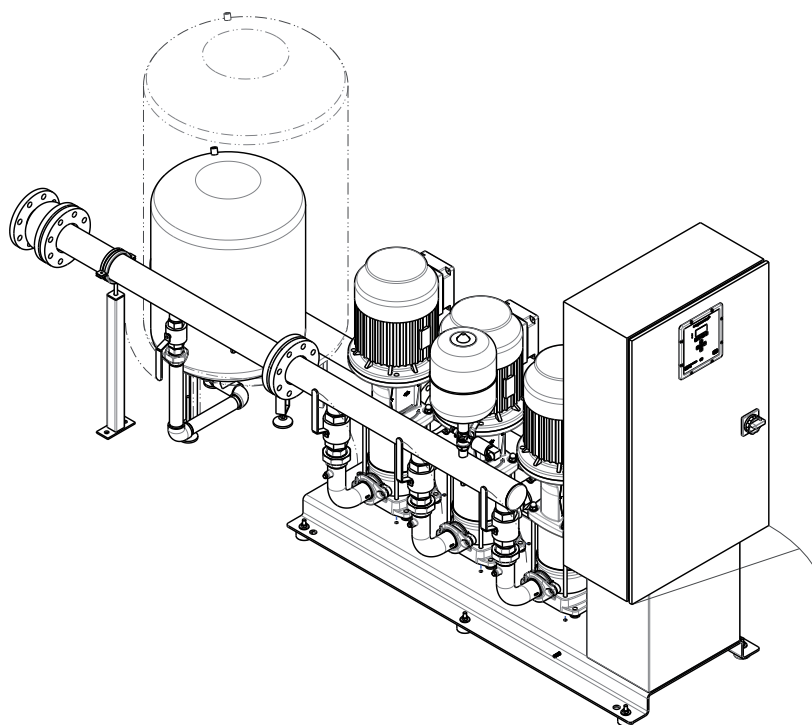


Figure 67: Installation example membrane tank



ATTENTION

When installing the membrane tank watch out for the membrane tank feet, they should not touch the suction pipe.

6.3.1 Interconnection pipe with thread connection

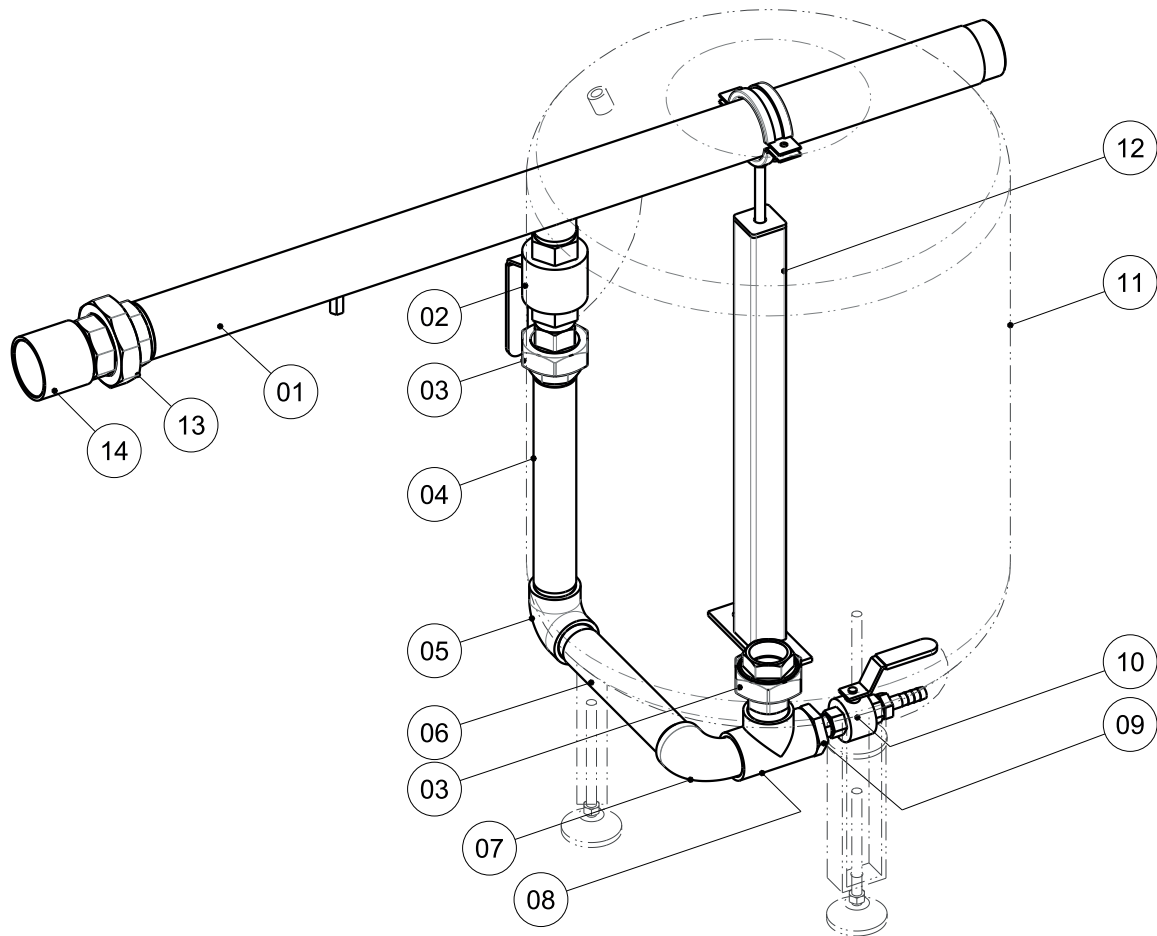


Figure 68: Membrane connection pipe with thread connection

Table 137: General

Pos.	Part description	Material
1	Connection pipe (G6/4-G2)	AISI 304
2	Ball valve G5/4	Nickel-plated brass
3	Coupling 3 parts G5/4	AISI 304
4 + 6	Pipe nipple G5/4	AISI 316
5	Knee G5/4	AISI 304
7	Knee G5/4	AISI 316
8	T-piece G5/4	AISI 316
9	Adapter ring G5/4 x G1/2 + double nipple G1/2	AISI 316
10	Ball valve G1/2 + hose connection 13mm	MS / AISI
11	Membrane tank with adjustable feet	Steel coated
12	Pipe support	AISI 304 /316
13	Coupling G6/4 x G2	AISI 316
14	Socket G6/4 x G2	AISI 316

20110574

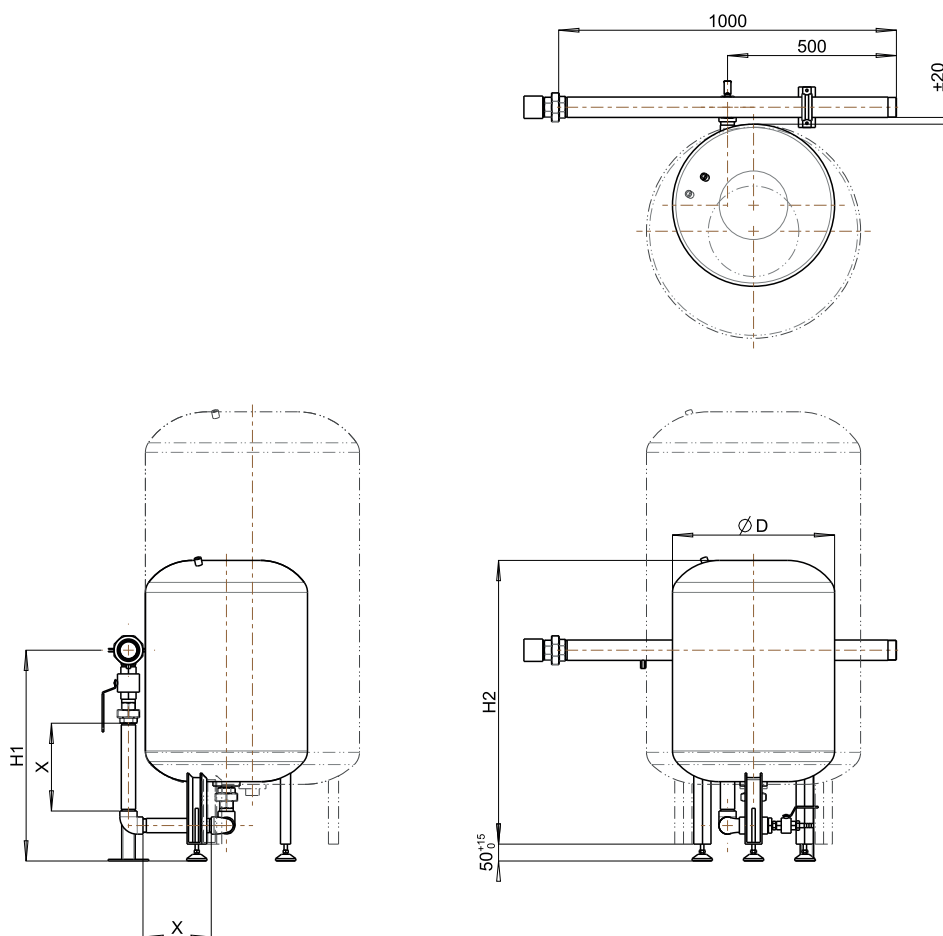


Figure 69: Connection pipe set complete

20110574



ATTENTION

Length "X" should be determined in the field

Tabel 138: Detailed

Article number	PN	Volume tank [l]	Connection tank	Connection manifold (to unit)	Ø D	H2
OV10022811	10	100	G5/4	G6/4	480	835
OV10022812	10	100	G5/4	G2	480	835
OV10022821	10	200	G5/4	G6/4	634	970
OV10022822	10	200	G5/4	G2	634	970
OV10022871	10	300	G5/4	G6/4	634	1270
OV10022872	10	300	G5/4	G2	634	1270
OV10022831	10	500	G5/4	G6/4	740	1475
OV10022832	10	500	G5/4	G2	740	1475
OV10022841	16	100	G5/4	G6/4	480	835
OV10022842	16	100	G5/4	G2	480	835
OV10022851	16	200	G5/4	G6/4	634	970
OV10022852	16	200	G5/4	G2	634	970
OV10022881	16	300	G5/4	G6/4	634	1270
OV10022882	16	300	G5/4	G2	634	1270
OV10022861	16	500	G5/4	G6/4	740	1615
OV10022862	16	500	G5/4	G2	740	1615

6.3.2 Interconnection pipe with flange connection

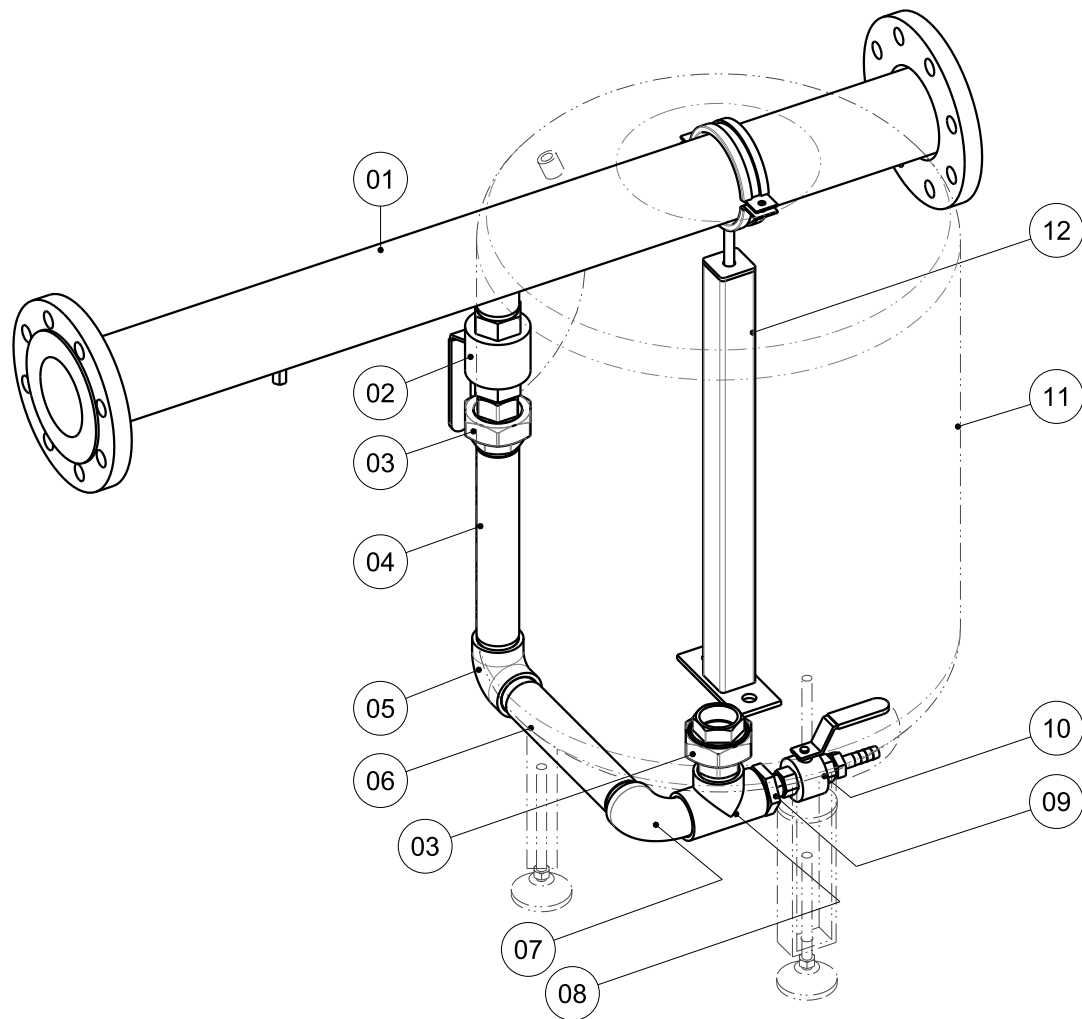


Figure 70: Membrane connection pipe with flange connection

Table 139: General

Pos.	Part description	Material
1	Connection pipe (NW65-80-100-150-200-250)	AISI 304
2	Ball valve G5/4	Nickel-plated brass
3	Coupling 3 parts G5/4	AISI 304
4 + 6	Pipe nipple G5/4	AISI 316
5	Knee G5/4	AISI 304
7	Knee G5/4	AISI 316
8	T-piece G5/4	AISI 316
9	Adapter ring G5/4 x G1/2 + double nipple G1/2	AISI 316
10	Ball valve G1/2 + hose connection 13mm	MS / AISI
11	Membrane tank with adjustable feet	Steel coated
12	Pipe support	AISI 304 /316

20091270-B

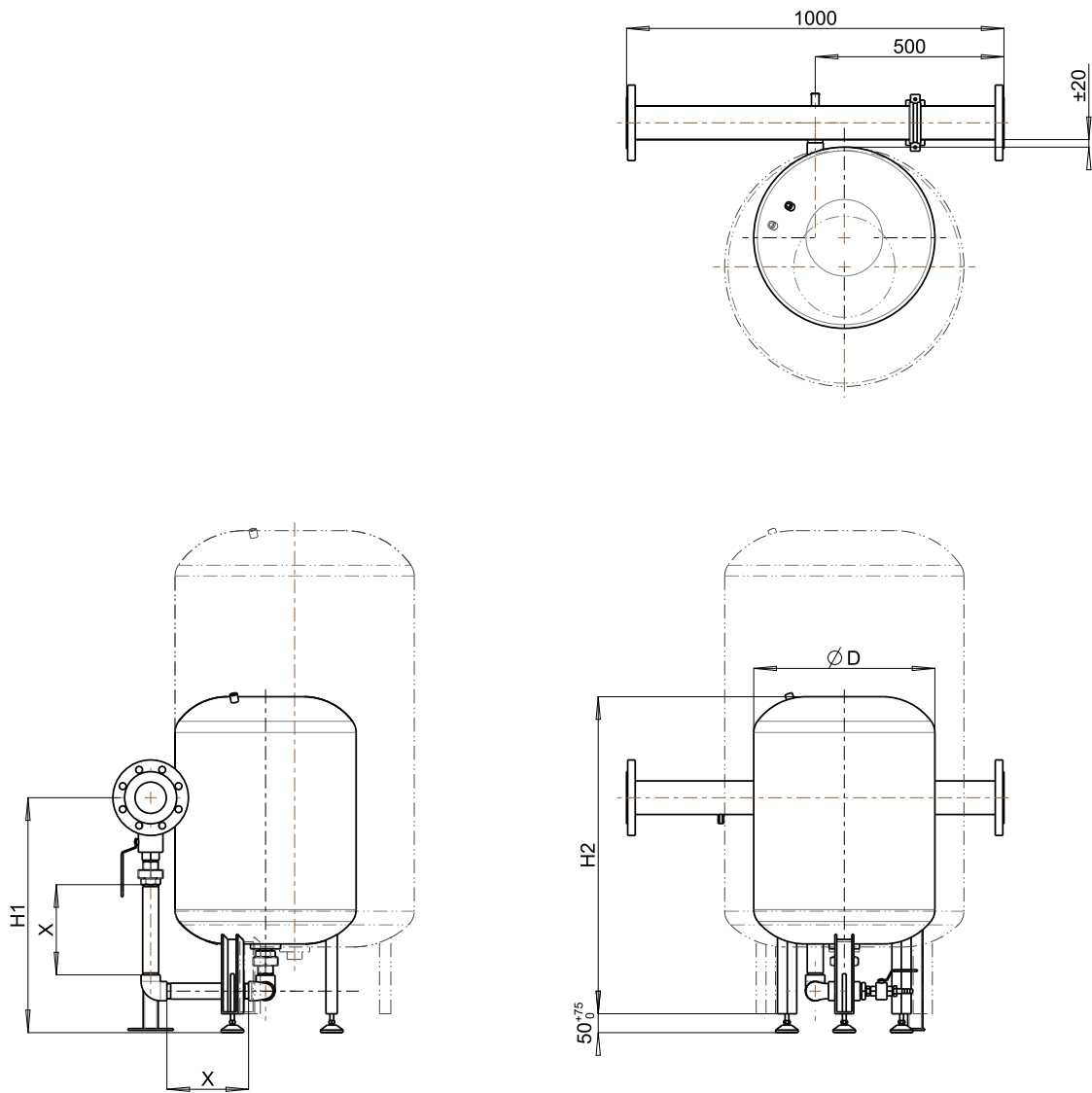


Figure 71: Connection pipe set complete

ATTENTION
 Length "X" should be determined in the field

20091270-B

Table 140: Detailed

Article number	PN	Volume tank [l]	Connection tank	Connection manifold (to unit)	Ø D	H2
OV10022813	10	100	G5/4	NW65	480	835
OV10022814	10	100	G5/4	NW80	480	835
OV10022815	10	100	G5/4	NW100	480	835
OV10022816	10	100	G5/4	NW150	480	835
OV10022817	10	100	G5/4	NW200	480	835
OV10022818	10	100	G5/4	NW250	480	835
OV10022823	10	200	G5/4	NW65	634	970
OV10022824	10	200	G5/4	NW80	634	970
OV10022825	10	200	G5/4	NW100	634	970
OV10022826	10	200	G5/4	NW150	634	970
OV10022827	10	200	G5/4	NW200	634	970
OV10022828	10	200	G5/4	NW250	634	970
OV10022873	10	300	G5/4	NW65	634	1270
OV10022874	10	300	G5/4	NW80	634	1270
OV10022875	10	300	G5/4	NW100	634	1270
OV10022876	10	300	G5/4	NW150	634	1270
OV10022877	10	300	G5/4	NW200	634	1270
OV10022878	10	300	G5/4	NW250	634	1270
OV10022833	10	500	G5/4	NW65	740	1475
OV10022834	10	500	G5/4	NW80	740	1475
OV10022835	10	500	G5/4	NW100	740	1475
OV10022836	10	500	G5/4	NW150	740	1475
OV10022837	10	500	G5/4	NW200	740	1475
OV10022838	10	500	G5/4	NW250	740	1475
OV10022843	16	100	G5/4	NW65	480	835
OV10022844	16	100	G5/4	NW80	480	835
OV10022845	16	100	G5/4	NW100	480	835
OV10022846	16	100	G5/4	NW150	480	835
OV10022847	16	100	G5/4	NW200	480	835
OV10022848	16	100	G5/4	NW250	480	835
OV10022853	16	200	G5/4	NW65	634	970
OV10022854	16	200	G5/4	NW80	634	970
OV10022855	16	200	G5/4	NW100	634	970
OV10022856	16	200	G5/4	NW150	634	970
OV10022857	16	200	G5/4	NW200	634	970
OV10022858	16	200	G5/4	NW250	634	970
OV10022883	16	300	G5/4	NW65	634	1270
OV10022884	16	300	G5/4	NW80	634	1270
OV10022885	16	300	G5/4	NW100	634	1270
OV10022886	16	300	G5/4	NW150	634	1270
OV10022887	16	300	G5/4	NW200	634	1270
OV10022888	16	300	G5/4	NW250	634	1270
OV10022863	16	500	G5/4	NW65	740	1615
OV10022864	16	500	G5/4	NW80	740	1615
OV10022865	16	500	G5/4	NW100	740	1615
OV10022866	16	500	G5/4	NW150	740	1615
OV10022867	16	500	G5/4	NW200	740	1615
OV10022868	16	500	G5/4	NW250	740	1615

7 Annexes

7.1 Structure of article numbers

Table 141: Structure of article numbers

Structure of article numbers												
Unit type	Number of pumps	Pump type	Pump size	Stages	Reduced stages	Material + pressure class	Manifolds	Control	starting method	Construction	Description	Design version
HU	1	2	3	4	5	6	7	8	9	10		
	2										2 pumps	
	3										3 pumps	
	4										4 pumps	
	5										5 pumps	
	6										6 pumps	
	3										V	
	6										VF	
		2									2	B
		4									4	B
		6									6	B
		A									10	B
		B									15	B
		C									25	B
		D									40	B
		E									60	B
		F									85	B
			1								1 stage	
			2								2 stages	
			3								3 stages	
			4								4 stages	
			5								5 stages	
			6								6 stages	
			7								7 stages	
			8								8 stages	
			9								9 stages	
			A								10 stages	
			B								11 stages	
			C								12 stages	
			0								no half stage	
			1								-1 (half stage)	
			2								-2 (half stages)	
				1							AISI 304 PN10	
				2							AISI 304 PN16	
				3							AISI 304 PN25	
					D						G 6/4	
					E						G 2	
					K						NW65	

Structure of article numbers											Design version
Unit type	Number of pumps	Pump type	Pump size	Stages	Reduced stages	Material + pressure class	Manifolds	Control	starting method	Construction	
HU	1	2	3	4	5	6	7	8	9	10	
							L				NW80
							M				NW100
							P				NW150
							Q				NW200
							R				NW250
							S				NW300
								3			MC
								6			MCMF (FR)
								7			MC - Industry
								9			MCMF - Industry
									1		DOL
									2		SFT
									3		S/D
									4		FRK
									5		FRP
										A	HOH 320 cabinet on base
										B	HOH 320 cabinet free-standing
										C	HOH 370 cabinet on base
										D	HOH 370 cabinet free-standing
										E	HOH 400 cabinet on base
										F	HOH 400 cabinet free-standing
										G	HOH 500 cabinet on base
										H	HOH 500 cabinet free-standing
										S	SPECIAL



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