

CPS

ELECTRONIC FREQUENCY CONVERTER

Easy to install, Low power consumption, Compact size

CPS is an electronic device designed to vary the frequency of a pump. It is incorporated directly on the motor to enable control of the speed to provide the utility with a constant pressure even in the event of changes in water demands. CPS is a compact, essential, reliable solution and it is easy to use; designed also to offer great comfort and benefits in applications in irrigation, greenhouses, light industries, fountains and water games.

The system consists of a pump and an electronic control system (inverter) which allows to keep the pressure constant in the system, reducing or increasing the speed of rotation of the pump. When the system pressure falls below the set threshold, the module starts up the pump to restore the set point pressure; the pump rotation speed

varies according to water demand and therefore increases speed on requests for increased quantities, through to the maximum setting. If the water demand is lower, the speed of the pump will be reduced until the minimum speed set has been reached, after which, if the pressure does not continue to drop (that is more water demands) the pump will stop (Stand By) until a new cycle is started.



APPLICATIONS

- Pressurization systems
- Water supply
- Industry
- Construction
- Washes

PROTECTION DEVICES

- Dry running
- Overcurrent
- Overtemperature of electronic devices
- Frost protection via external device

TECHNICAL SPECIFICATIONS

- Supply voltage: inverter 1x230 Vac $\pm 10\%$.
- Inverter output voltage: 3x230 Vac $\pm 10\%$
- Maximum rated power: 2.4 Kw
- Input frequency: 50/60 Hz + 3%
- Output maximum rated power: 8 Amp
- Degree of protection IP55 (if installed on motors with a degree of protection IP55 or above)
- Ambient temperature from +0°C to +40°C
- Waveform: sinusoidal
- Input filter complying with EMC directive
- Pressure transmitter 0 - 5 Volt - 0 - 10 Bar 0 - 20 Bar depending on the model of pump
- Set-point 2
- Serial interface connectivity RS 485
- Optional contacts 3 (external set-point, alarm, system inhibition)

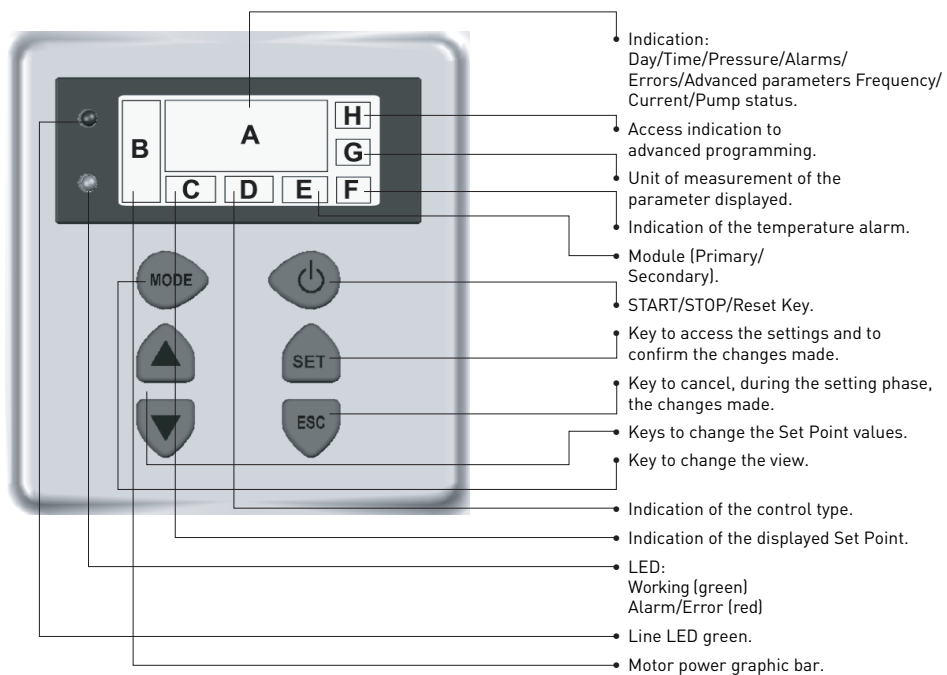
CPS

ELECTRONIC FREQUENCY CONVERTER

VERSIONS AVAILABLE

VERTICAL	HORIZONTAL	SELF PRIMING
CPS10 MULTINOX VE+ 4	CPS10/DHI 2	Multi EVO-E P 3
CPS10 MULTINOX VE+ 6	CPS10/DHI 4	Multi EVO-E P 5
CPS10 MULTINOX VE+ 8	CPS10/DHR 4	CPS10/JET 1000
CPS10 PVM 1	CPS10/DHR 9	
CPS10 PVM 3	CPS10/DHR 9	
CPS10 PVM 5	Multi EVO-E 3	
CPS10 PVM 10	Multi EVO-E 5	
	Multi EVO-E 8	

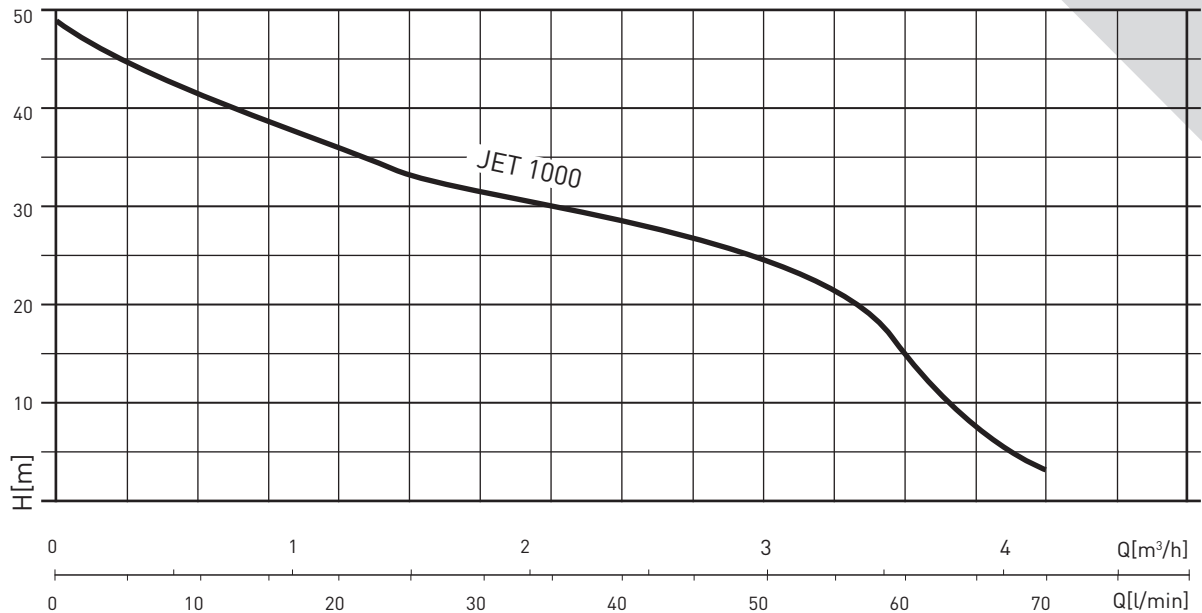
CONTROL PANEL



- Backlight display (switches off automatically after a reset time and can be turned on again by pressing any key)

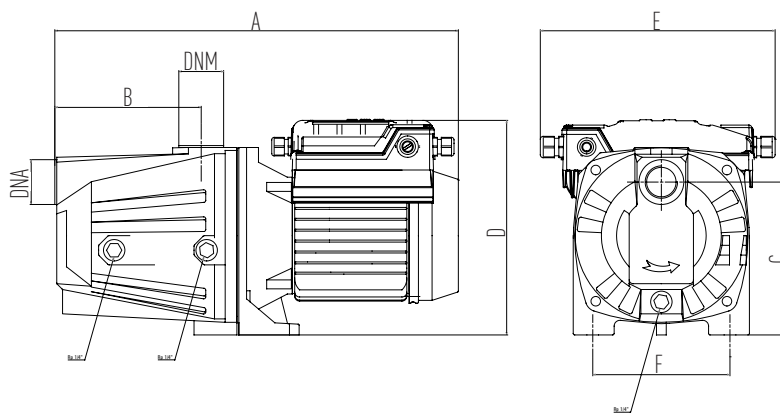
CPS10/JET
ELECTRONIC FREQUENCY CONVERTER

HYDRAULIC PERFORMANCE



PERFORMANCE TABLE

MODEL	P2		VOLT. (V)	In (A)	0	Q								
	HP	kW				l/min	0	5	20	30	40	50	60	70
CPS10/JET 1000	1,36	1	1~230	6,5	m.c.w.	49	45	36	32	28	25	15	3	
						m³/h	0	0,3	1,2	1,8	2,4	3	3,6	4,2



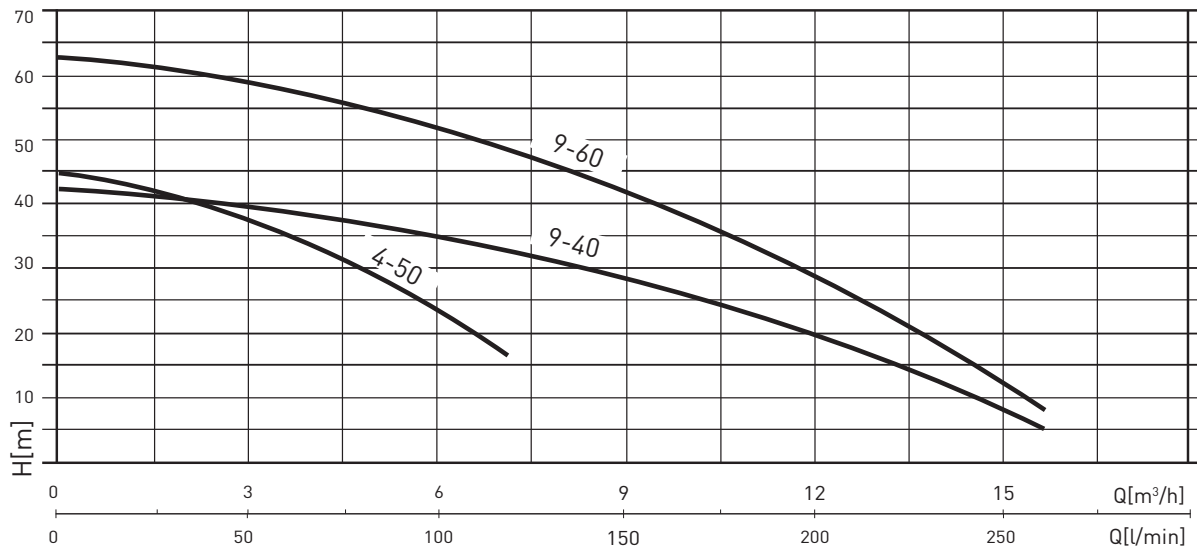
OVERALL DIMENSIONS AND WEIGHTS

MODEL	Dimensions mm.							WEIGHT Kg
	A	B	C	D	E	DNA	DNM	
CPS10/JET 1000	400	147	160	260	195	1"	1"	20,8

CPS10/DHR

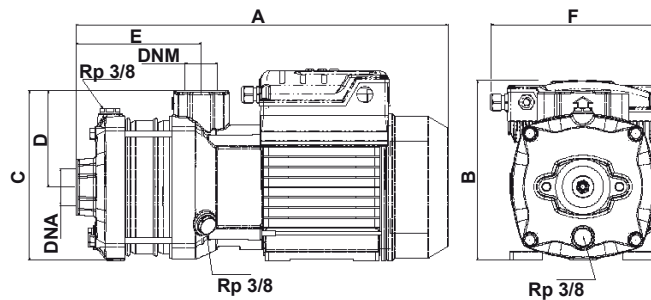
ELECTRONIC FREQUENCY CONVERTER

HYDRAULIC PERFORMANCE



PERFORMANCE TABLE

MODEL	P2		VOLT. (V)	In (A)	Q	m.c.w.											
	HP	kW				l/min	0	40	60	80	100	120	160	200	240	260	
						m³/h	0	2,4	3,6	4,8	6	7,2	9,6	12	14,4	15,6	
CPS10/DHR 4-50	1,5	0,9	1~230	9,1			44	39	35	30	24	17					
CPS10/DHR 9-40	1,74	1,3	1~230	12,5			41,5	40	39	38	35	33	27	19	10	5	
CPS10/DHR 9-60	2,4	1,8	1~230	15,8			62	60	58	56	52	49	40	29	14	6	



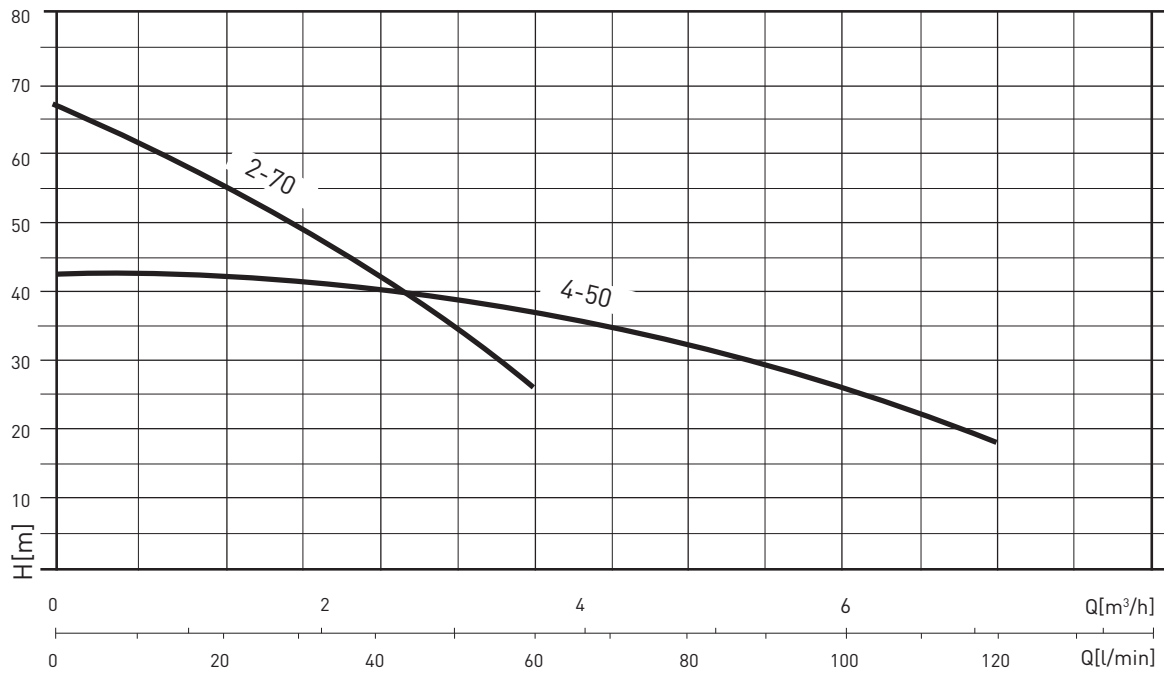
OVERALL DIMENSIONS AND WEIGHTS

MODEL	Dimensions mm.								WEIGHT Kg
	A	B	C	D	E	F	DNA	DNM	
CPS10/DHR 4-50	445	225	155	65	190	232	1" 1/4	1"	18
CPS10/DHR 9-40	408	215	185	105	137	232	1" 1/4	1" 1/4	21,1
CPS10/DHR 9-60	468	215	185	105	198	232	1" 1/2	1" 1/4	26

CPS10/DHI

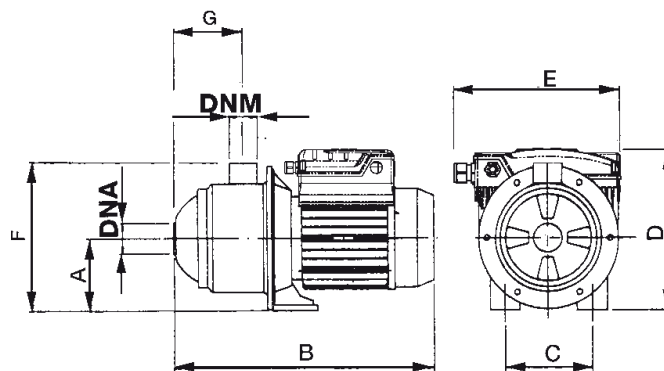
ELECTRONIC FREQUENCY CONVERTER

HYDRAULIC PERFORMANCE



PERFORMANCE TABLE

MODEL	P2		VOLT. (V)	In (A)	0	Q										
	HP	kW				l/min	0	10	20	30	40	50	60	80	100	120
						m³/h	0	0,6	1,2	1,8	2,4	3	3,6	4,8	6	7,2
CPS10/DHI 2-70	1,25	0,9	1~230	10,6		m.c.w.	68	63	57	50	43	35	26			
CPS10/DHI 4-50	1,25	0,9	1~230	10,6			43				42	39	36	33	27	18



OVERALL DIMENSIONS AND WEIGHTS

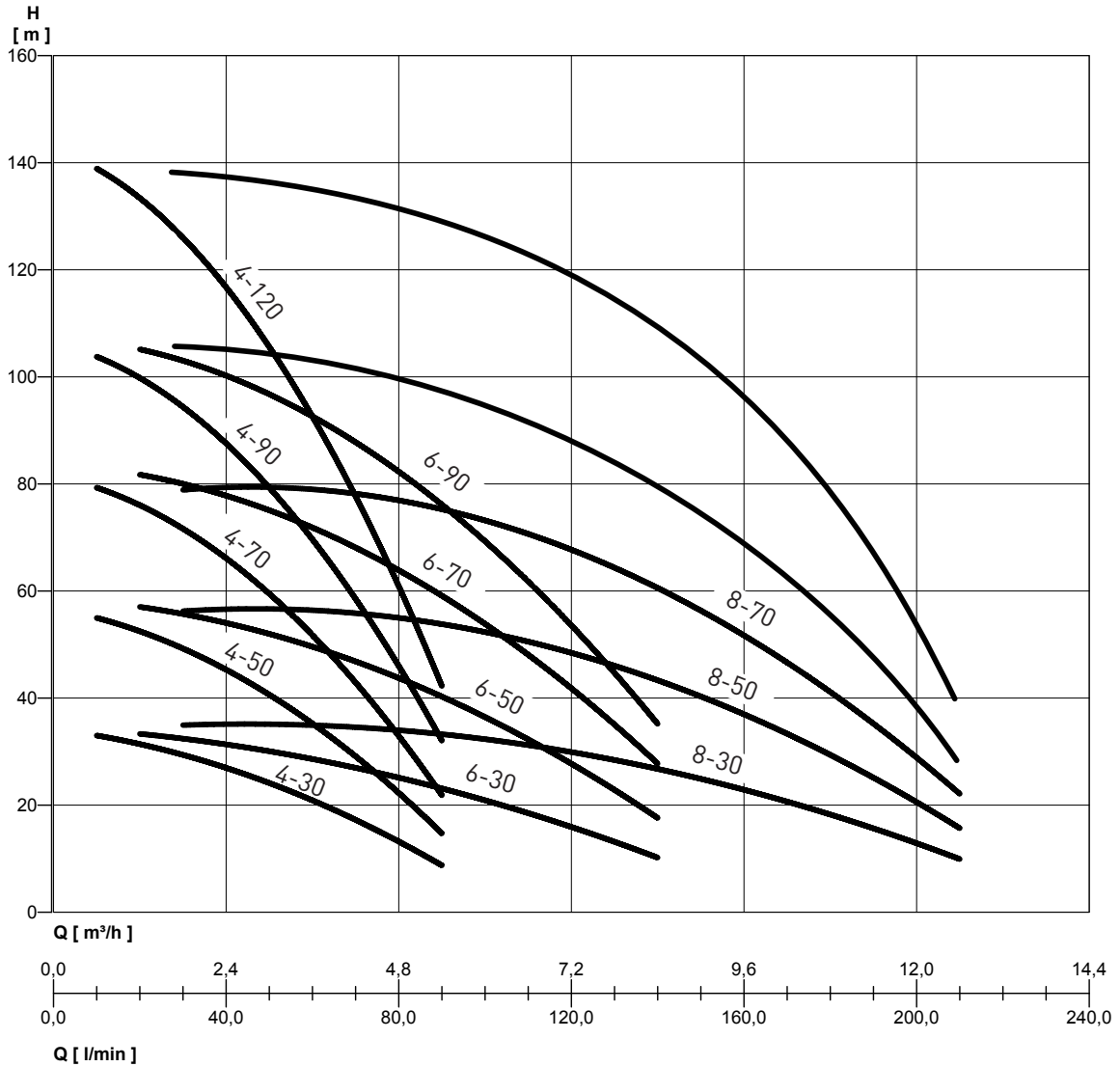
MODEL	Dimensions mm.									Weight (Kg)
	A	B	C	D	E	F	G	DNA	DNM	
CPS10/DHI 2-70	105	460	141	245	232	235	135	1" 1/4	1" 1/4	17,4
CPS10/DHI 4-50	105	460	141	245	232	235	135	1" 1/4	1" 1/4	17,4

CPS10 MULTINOX VE+

ELECTRONIC FREQUENCY CONVERTER



HYDRAULIC PERFORMANCE



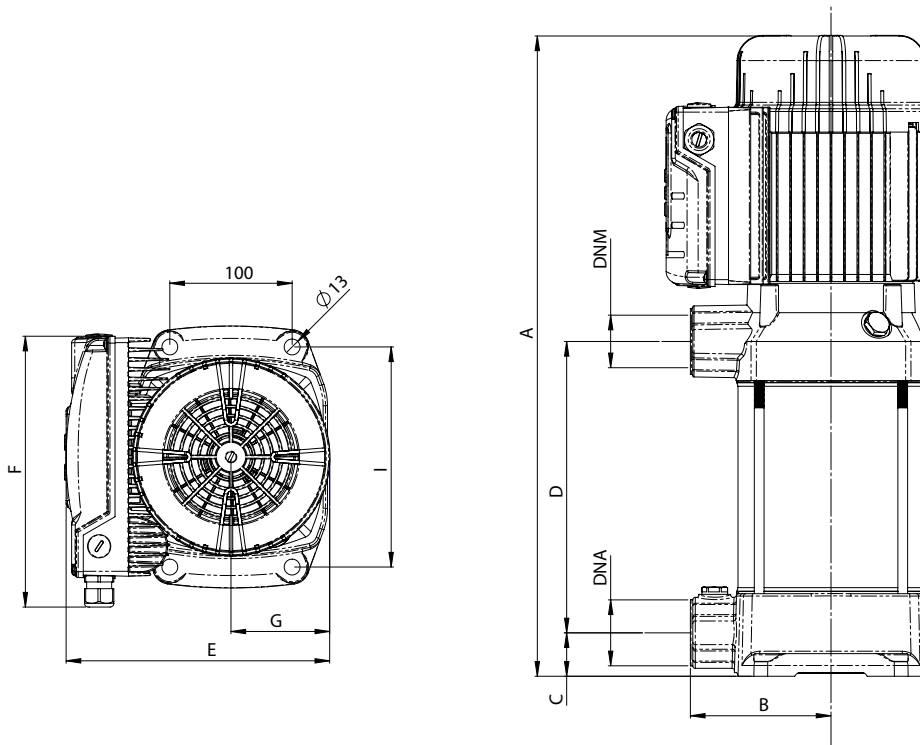
MEI ≥ 0.1 - Reference MEI ≥ 0.70 - The information on the reference efficiency is available at the address: www.europump.org/efficiencycharts
For the efficiency data see the PUMPS of the series MULTINOX-VE+

PERFORMANCE TABLE

MODEL	P2		VOLT. (V)	In (A)	0	m.c.w.																
	HP	kW				l/min	10	20	30	40	50	60	70	80	90	100	120	140	150	180	210	
						m³/h	0,6	1,2	2	2,4	3	3,6	4,2	5	5,4	6	7,2	8,4	9	11	13	
CPS10 MULTINOX VE+ 4-30	0,68	0,5	1 ~ 230	4,4		33	31	30	27	24	21	17	13	9								
CPS10 MULTINOX VE+ 4-50	1,1	0,84	1 ~ 230	6,71		55	52	50	45	41	35	29	22	15								
CPS10 MULTINOX VE+ 4-70	1,6	1,17	1 ~ 230	9,39		79	76	72	67	59	51	43	33	22								
CPS10 MULTINOX VE+ 4-90	2	1,5	1 ~ 230	12,08		104	99	95	88	79	69	59	46	32								
CPS10 MULTINOX VE+ 4-120	3	2	1 ~ 230	16,3		138	134	127	117	105	92	78	60	43								
CPS10 MULTINOX VE+ 6-30	0,9	0,67	1 ~ 230	5,95			34	32	31	30	28	27	26	23	21	16	10					
CPS10 MULTINOX VE+ 6-50	1,5	1,1	1 ~ 230	9,02			58	56	53	51	49	47	44	41	37	28	17					
CPS10 MULTINOX VE+ 6-70	2	1,5	1 ~ 230	13,82			83	80	77	74	71	68	64	60	55	42	27					
CPS10 MULTINOX VE+ 6-90	3	2	1 ~ 230	15,75			107	103	99	95	92	87	83	77	71	54	34					
CPS10 MULTINOX VE+ 8-30	1,35	1	1 ~ 230	8,7				35	35	35	35	35	34	33	32	30	27	25	18	10		
CPS10 MULTINOX VE+ 8-50	2	1,5	1 ~ 230	14,4				57	57	56	56	56	54	53	52	50	45	40	28	16		
CPS10 MULTINOX VE+ 8-70	2,5	1,9	1 ~ 230	15,5				80	80	79	78	78	76	74	72	70	63	56	40	22		

CPS10 MULTINOX VE+

ELECTRONIC FREQUENCY CONVERTER



OVERALL DIMENSIONS AND WEIGHTS

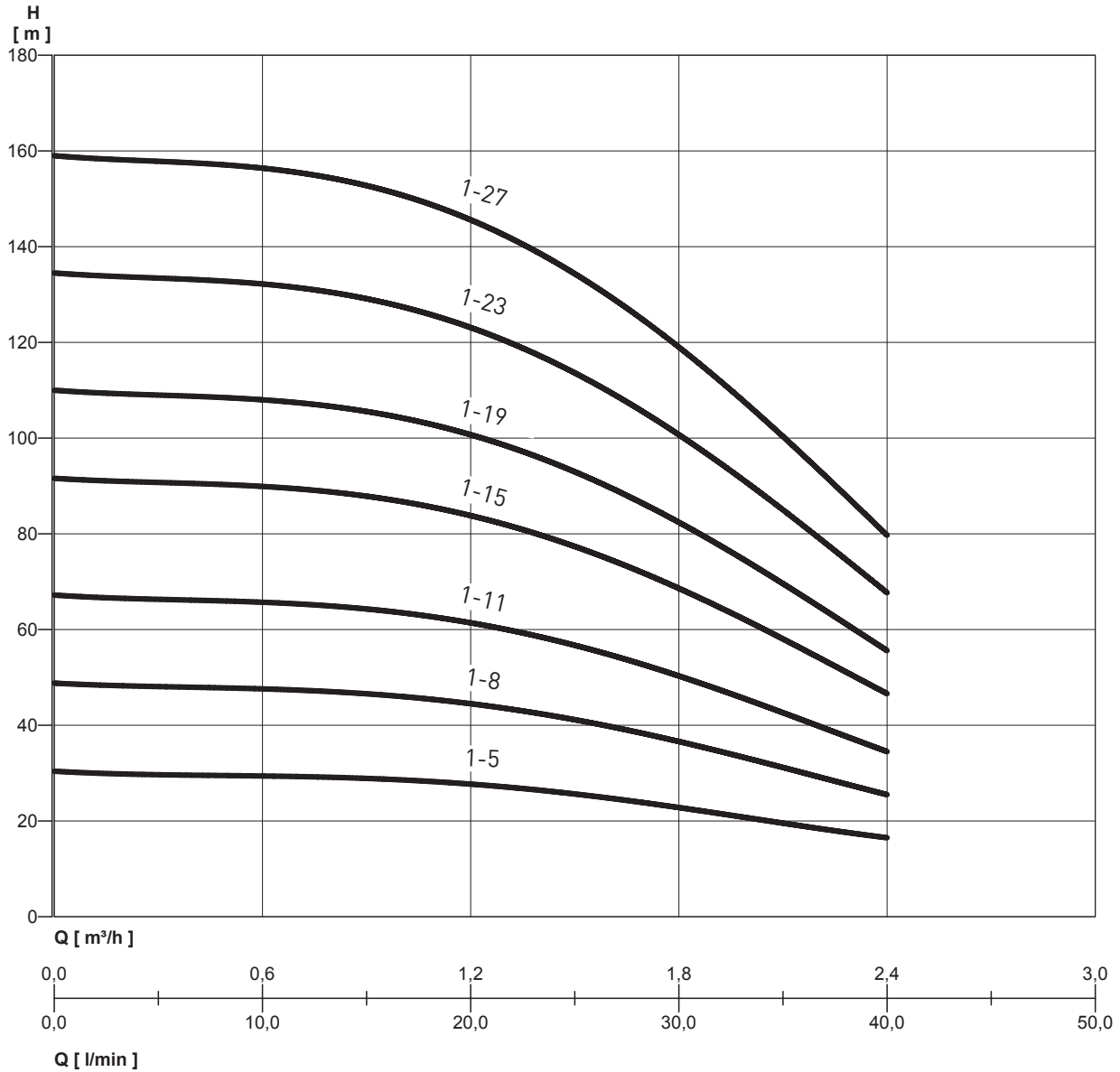
MODEL	Dimensions mm.										WEIGHT Kg
	A	B	C	D	E	F	G	I	DNA	DNM	
CPS10 MULTINOX VE+ 4-30	416	115	35	130	213	220	80	180	1" 1/4	1" 1/4	21
CPS10 MULTINOX VE+ 4-50	470	115	35	184	213	220	80	180	1" 1/4	1" 1/4	25
CPS10 MULTINOX VE+ 4-70	524	115	35	238	213	220	80	180	1" 1/4	1" 1/4	29
CPS10 MULTINOX VE+ 4-90	578	115	35	292	213	220	80	180	1" 1/4	1" 1/4	30
CPS10 MULTINOX VE+ 4-120	660	115	35	373	213	220	80	180	1" 1/4	1" 1/4	32
CPS10 MULTINOX VE+ 6-30	416	115	35	130	213	220	80	180	1" 1/4	1" 1/4	21
CPS10 MULTINOX VE+ 6-50	470	115	35	184	213	220	80	180	1" 1/4	1" 1/4	25
CPS10 MULTINOX VE+ 6-70	524	115	35	238	213	220	80	180	1" 1/4	1" 1/4	29
CPS10 MULTINOX VE+ 6-90	578	115	35	292	213	220	80	180	1" 1/4	1" 1/4	30
CPS10 MULTINOX VE+ 8-30	416	115	35	130	213	220	80	180	1" 1/4	1" 1/4	21
CPS10 MULTINOX VE+ 8-50	470	115	35	184	213	220	80	180	1" 1/4	1" 1/4	25
CPS10 MULTINOX VE+ 8-70	524	115	35	373	213	220	80	180	1" 1/4	1" 1/4	41

CPS10 PVM

ELECTRONIC FREQUENCY CONVERTER



HYDRAULIC PERFORMANCE



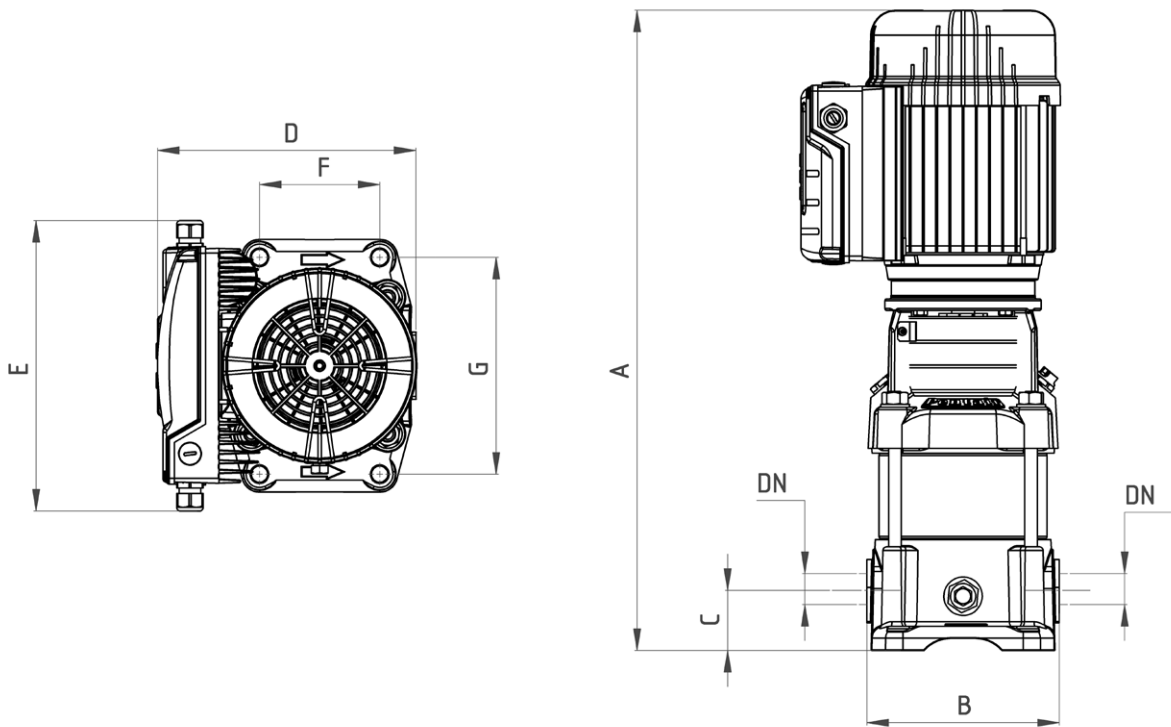
MEI ≥ 0.4 - Reference MEI ≥ 0.70 - The information on the reference efficiency is available at the address: www.europump.org/efficiencycharts
For the efficiency data see the PUMPS of the series PVM

PERFORMANCE TABLE

MODEL	P2		VOLT. (V)	In (A)	Q	m.c.w.				
	HP	kW				0	10	20	30	40
						0	0,6	1,2	1,8	2,4
CPS10 PVM 1-5	0,5	0,4	1 ~ 230	2,7		30,4	29,4	22,7	22,8	16,5
CPS10 PVM 1-8	0,8	0,6	1 ~ 230	4,1		48,8	47,6	44,5	36,6	25,5
CPS10 PVM 1-11	0,8	0,6	1 ~ 230	4,4		67,2	65,7	61,4	50,3	34,5
CPS10 PVM 1-15	1	0,8	1 ~ 230	5,8		91,6	89,9	83,8	68,6	46,6
CPS10 PVM 1-19	1,5	1,1	1 ~ 230	7,4		110	108	101	82,4	55,6
CPS10 PVM 1-23	1,5	1,1	1 ~ 230	8,3		135	132	123	101	67,7
CPS10 PVM 1-27	2	1,5	1 ~ 230	9,9		159	156	146	119	79,7

CPS10 PVM

ELECTRONIC FREQUENCY CONVERTER



OVERALL DIMENSIONS AND WEIGHTS

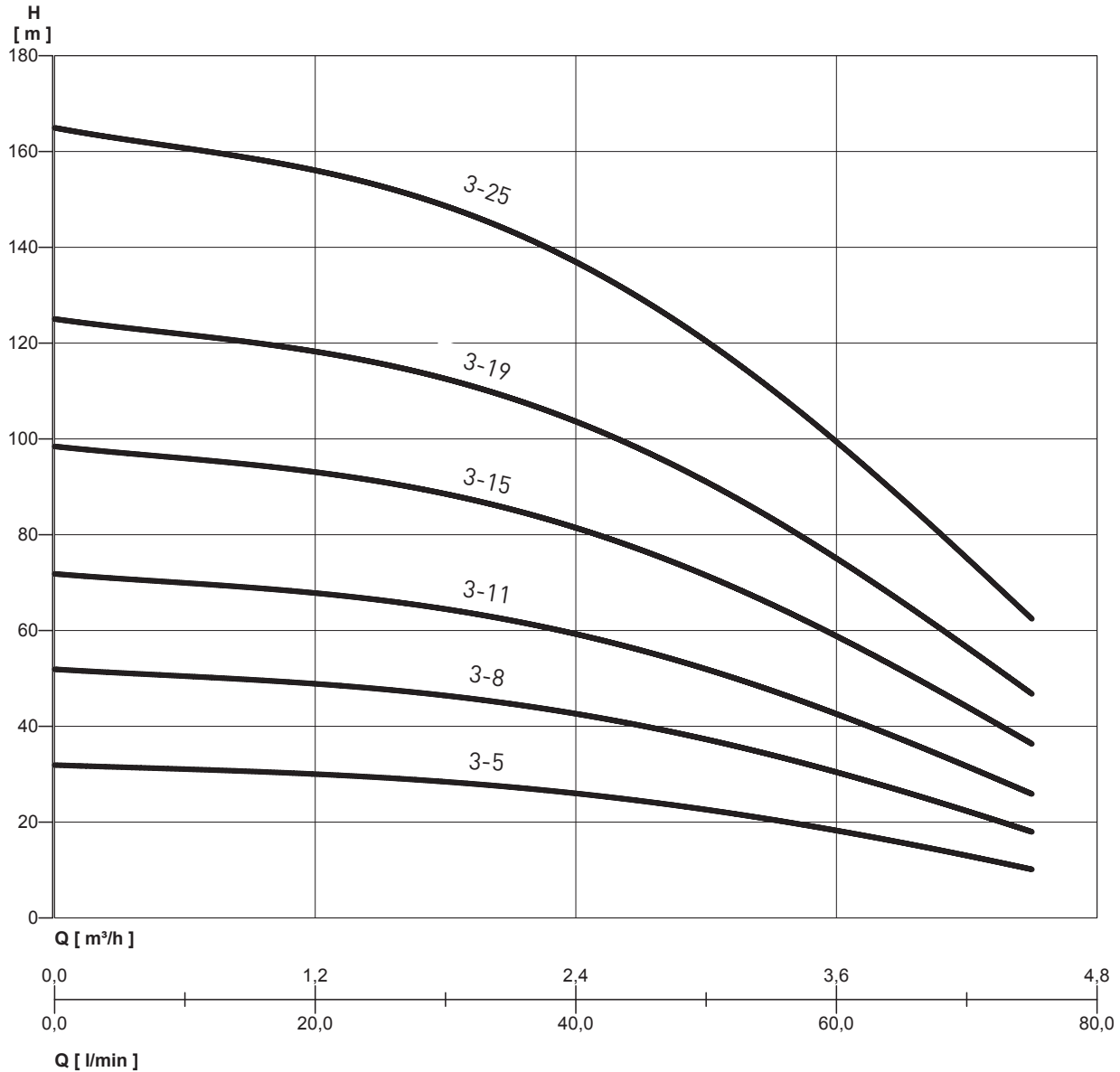
MODEL	Dimensions mm.								WEIGHT Kg
	A	B	C	D	E	F	G	DN	
CPS10 PVM 1-5	510	250	75	135	232	100	180	DN 25/DN 32	29
CPS10 PVM 1-8	564	250	75	135	232	100	180	DN 25/DN 32	31
CPS10 PVM 1-11	618	250	75	135	232	100	180	DN 25/DN 32	32
CPS10 PVM 1-15	736	250	75	135	232	100	180	DN 25/DN 32	36
CPS10 PVM 1-19	808	250	75	135	232	100	180	DN 25/DN 32	38
CPS10 PVM 1-23	880	250	75	135	232	100	180	DN 25/DN 32	40
CPS10 PVM 1-27	1024	250	75	135	232	100	180	DN 25/DN 32	50

CPS10 PVM

ELECTRONIC FREQUENCY CONVERTER



HYDRAULIC PERFORMANCE



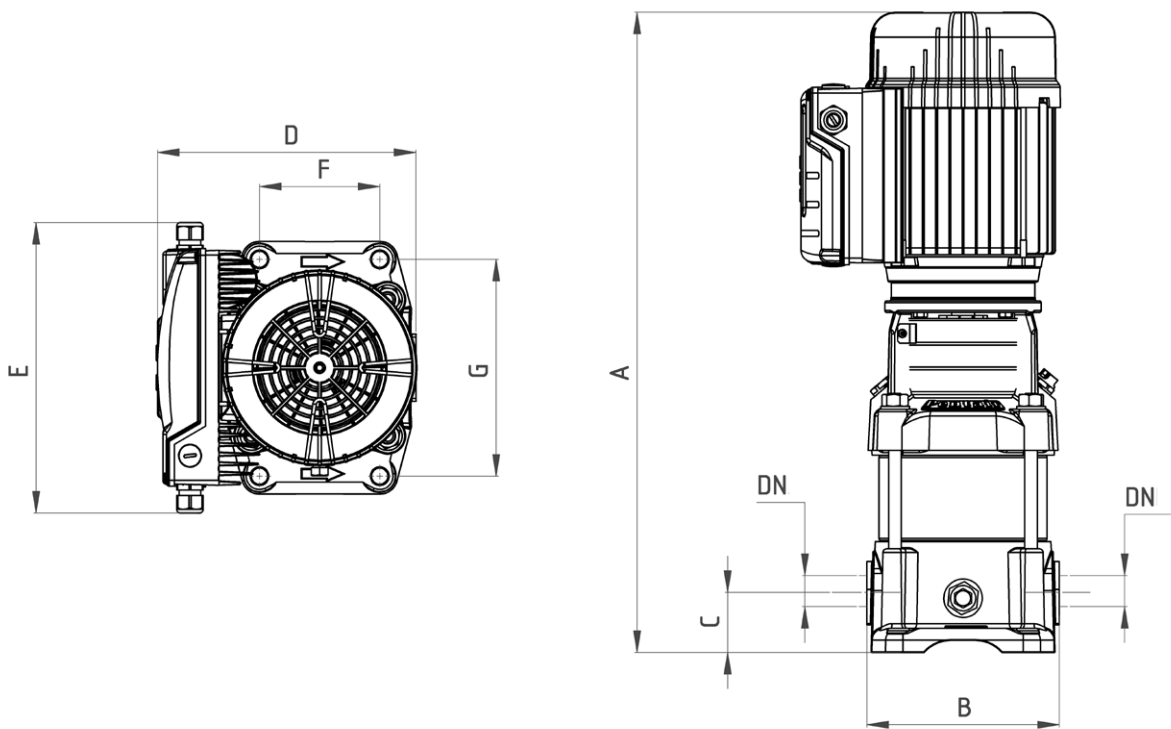
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For the efficiency data see the PUMPS of the series PVM

PERFORMANCE TABLE

MODEL	P2		VOLT. (V)	In (A)	Q	Flow Rate (l/min)									
	HP	kW				0	10	20	30	40	50	60	70	75	
						0	0,6	1,2	1,8	2,4	3,0	3,6	4,2	4,5	
CPS10 PVM 3-5	0,5	0,4	1~230	3	m.c.w.	31,9	31,1	30	28,3	26,2	22,6	18	13,3	10	
CPS10 PVM 3-8	1	0,8	1~230	4,8		51,9	50,5	48,9	46,2	42,9	37,3	30,1	22,7	17,8	
CPS10 PVM 3-11	1,5	1,1	1~230	6,6		71,8	70	67,9	64,1	59,6	52,1	42,1	32,1	25,7	
CPS10 PVM 3-15	1,5	1,1	1~230	9		98,4	96	93,2	88	81,9	71,7	58,2	44,7	36,1	
CPS10 PVM 3-19	2	1,5	1~230	11		125	121,9	118	111,9	104	91,3	74,3	57,2	46,5	
CPS10 PVM 3-25	3	2,2	1~230	15		165	160,8	156	147,8	138	120,8	98,4	76	62,1	

CPS10 PVM

ELECTRONIC FREQUENCY CONVERTER



OVERALL DIMENSIONS AND WEIGHTS

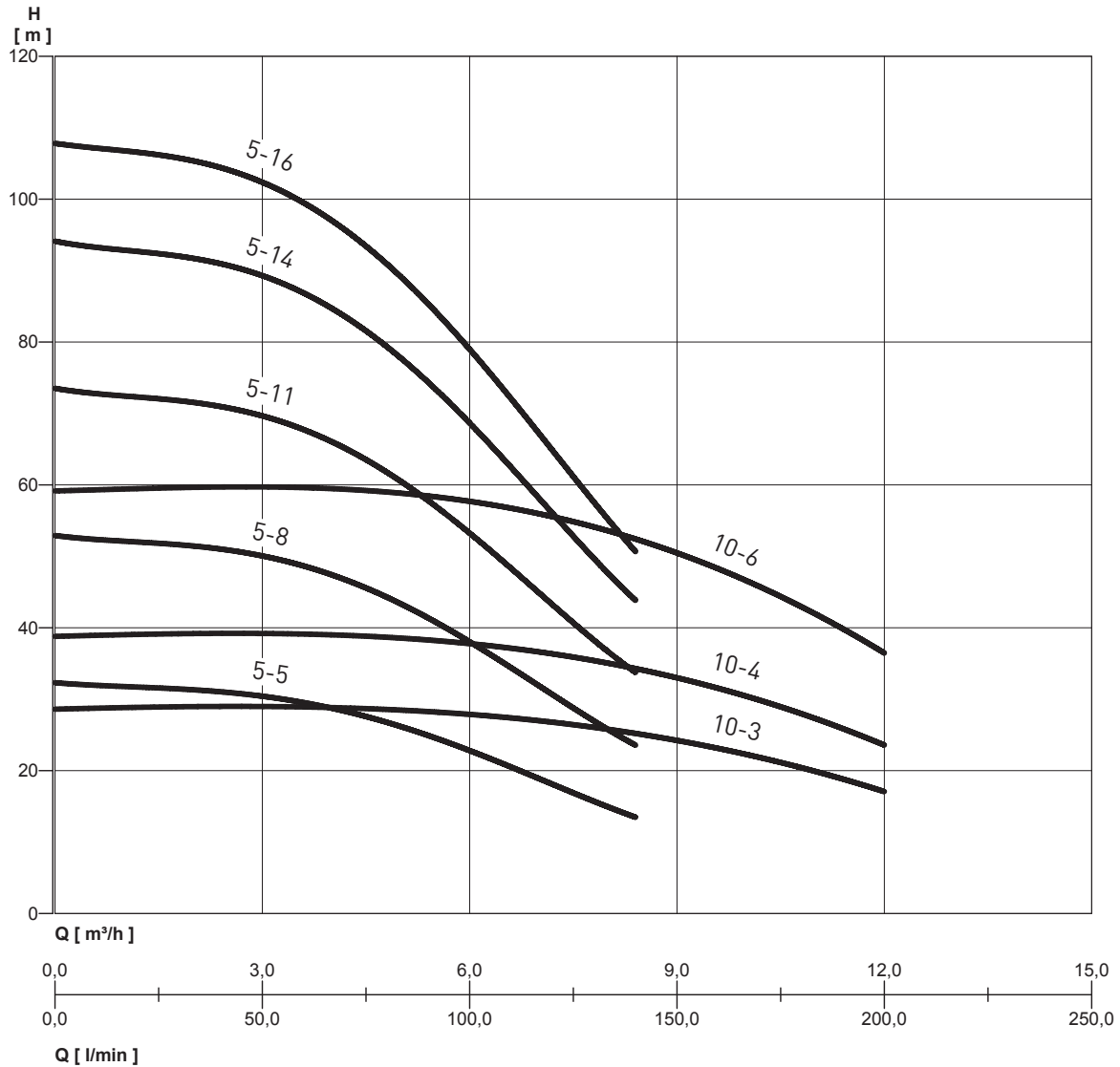
MODEL	Dimensions mm.								WEIGHT Kg
	A	B	C	D	E	F	G	DN	
CPS10 PVM 3-5	510	510	510	510	510	510	510	DN 25/DN 32	29
CPS10 PVM 3-8	610	610	610	610	610	610	610	DN 25/DN 32	33
CPS10 PVM 3-11	664	664	664	664	664	664	664	DN 25/DN 32	35
CPS10 PVM 3-15	736	736	736	736	736	736	736	DN 25/DN 32	37
CPS10 PVM 3-19	880	880	880	880	880	880	880	DN 25/DN 32	47
CPS10 PVM 3-25	988	988	988	988	988	988	988	DN 25/DN 32	52

CPS10 PVM

ELECTRONIC FREQUENCY CONVERTER



HYDRAULIC PERFORMANCE



MEI ≥ 0.4 - Reference MEI ≥ 0.70 - The information on the reference efficiency is available at the address: www.europump.org/efficiencycharts
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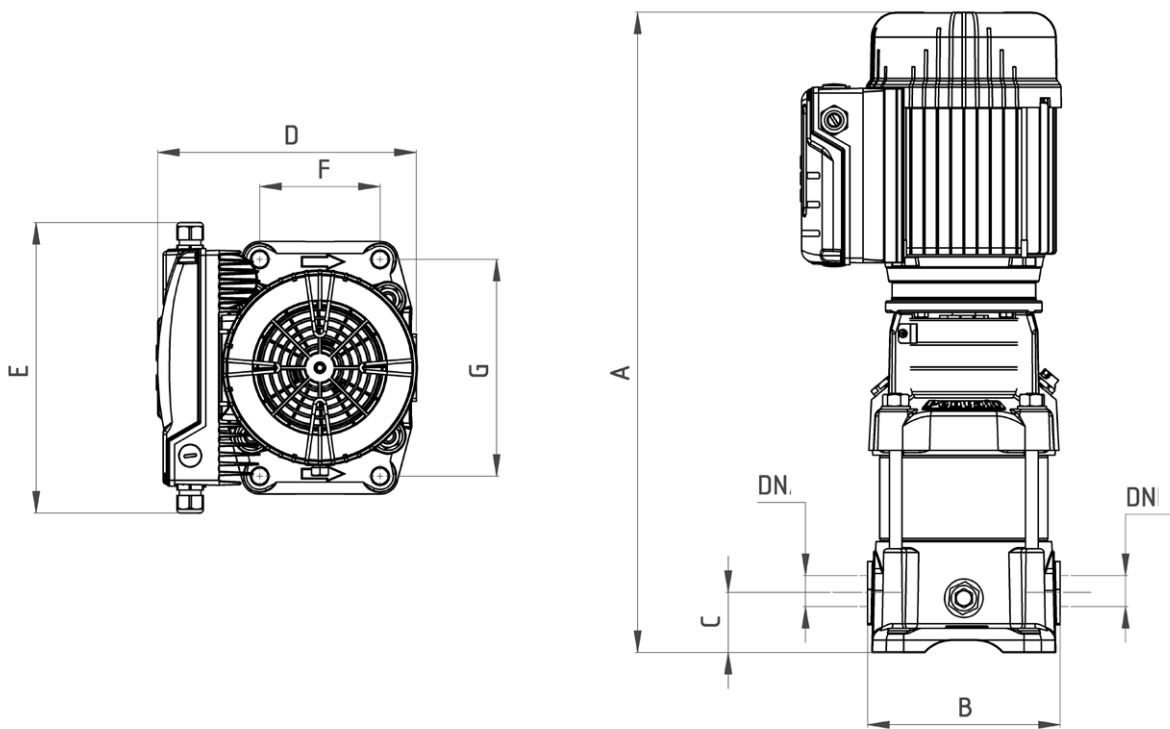
PERFORMANCE TABLE

MODEL	P2		VOLT. (V)	In (A)	Q	m.c.w.							
	HP	kW				l/min	0	40	60	80	100	120	140
						m³/h	0	2,4	3,6	4,8	6	7,2	8,4
CPS10 PVM 5-5	1	0,75	1-230	5,4			32,3	31,1	29,4	26,8	22,9	18	13,5
CPS10 PVM 5-8	1,5	1,1	1-230	8,7			52,9	51,1	48,5	44,3	38,2	30,5	23,6
CPS10 PVM 5-11	3	2,2	1-230	12,0			73,5	71,1	67,5	61,8	53,5	43	33,8
CPS10 PVM 5-14	3	2,2	1-230	15,2			94,1	91,1	86,6	79,4	68,9	55,8	43,9
CPS10 PVM 5-16	3	2,2	1-230	17,4			108	104,5	99,3	91	79,1	64,7	50,7

MODEL	P2		VOLT. (V)	In (A)	Q	m.c.w.									
	HP	kW				l/min	0	25	50	75	100	125	150	175	200
						m³/h	0	1,5	3	4,5	6	7,5	9	10,5	12
CPS10 PVM 10-3	1,5	1,1	1-230	2,4			28,6	28,9	29	28,7	27,8	26,4	24,4	21	17,1
CPS10 PVM 10-4	2	1,5	1-230	3,2			38,8	39,1	39,2	38,9	37,7	35,8	33,2	28,8	23,6
CPS10 PVM 10-6	3	2,2	1-230	4,8			59,2	59,4	59,8	59,4	57,5	54,7	50,8	44,2	36,5

CPS10 PVM

ELECTRONIC FREQUENCY CONVERTER



OVERALL DIMENSIONS AND WEIGHTS

MODEL	Dimensions mm.								WEIGHT Kg
	A	B	C	D	E	F	G	DN	
CPS10 PVM 5-5	601	250	75	135	232	100	180	DN 25/DN 32	32
CPS10 PVM 5-8	682	250	75	135	232	100	180	DN 25/DN 32	35
CPS10 PVM 5-11	835	250	75	135	232	100	180	DN 25/DN 32	48
CPS10 PVM 5-14	916	250	75	135	232	100	180	DN 25/DN 32	50
CPS10 PVM 5-16	970	250	75	135	232	100	180	DN 25/DN 32	51
CPS10 PVM 10-3	612	280	80	160	232	130	215	DN 40	45
CPS10 PVM 10-4	714	280	80	160	232	130	215	DN 40	55
CPS10 PVM 10-6	774	280	80	160	232	130	215	DN 40	60