

esybox MAX

ELECTRONIC BOOSTER SET



ESYBOX MAX

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TECHNICAL DATA

Flow rate: up to 17,4 m³/h (For single unit)
Head: up to 96 m
Type of pumped liquid: clean, free from solid or abrasive substances, non-viscous, non-aggressive, non-crystallized and chemically neutral
Liquid temperature: +50°C
Maximum ambient temperature: +55°C
Maximum inlet pressure: 5 bar
Operation pressure: 12 bar / 1200 kPa
Maximum differential pressure: 9,4 bar (85/120); 6,7 bar (60/120)
Constant pressure range: 1-12 bar (3 bar by default)
Maximum suction height: 4 m (with bottom valve)
Motor protection class: IP X5
Motor insulation class: F
Impeller material: technopolymer with steel wear rings
Single phase power input: 208-240V 50/60Hz
Three phase power input: 380-480V 50/60Hz
Type of installation: fixed in vertical position
Certification: WRAS, ACS, NSF61

Integrated pumping system for pressurization in commercial building service. Available in two power sizes, it consists of modular elements that allow different configurations to cover the needs of medium/large condominiums and high buildings (even over 14 floors).

Each unit consists of the single, double or triple connection base and the pumping units; a four-pumps system is available with the additional kit to connect two double bases.

The modular construction allows to assemble the pumping groups directly at the installation site (O.S.A. - On Site Assembly).

The silence and compactness of dimensions allow installation in all rooms, even inhabited.

CONSTRUCTION FEATURES OF THE PUMP

Electronic vertical multi-impeller pump, with display, pressure sensors on intake and delivery, non-return valve on delivery and an integrated expansion tank. Technopolymer pump body, technopolymer impeller with steel wear rings, steel jacket.

CONSTRUCTION FEATURES OF THE MOTOR

Water-cooled permanent magnet motor, stainless steel motor jacket. Motor shaft in AISI 303 stainless steel. The efficiency is comparable to the IE5 efficiency class (according to internal laboratory tests).

CONSTRUCTION FEATURES OF THE ELECTRONIC

The variable frequency drive keeps the pressure constant by varying the number of motor revolutions according to the request.

There is a large display for the configuration and control.

The expansion module (Esy I/O, available as an accessory) makes it possible to interface Esybox max with the other elements of the system (B.M.S. - Building Management System).

Integrated protections: protection from dry running, amperometric and abnormal voltages, overheating, freezing, anti-blocking and anti-cycling.

DCONNECT

It is possible to configure and view the operating parameters on the large Esybox Max display or thanks to the DConnect app and the integrated Wi-Fi module, it is possible to do it remotely with an active DConnect service (an Internet connection is required).

From a smartphone or a tablet it is possible to control and manage system pressure, alarms and check the instantaneous and historical consumption.

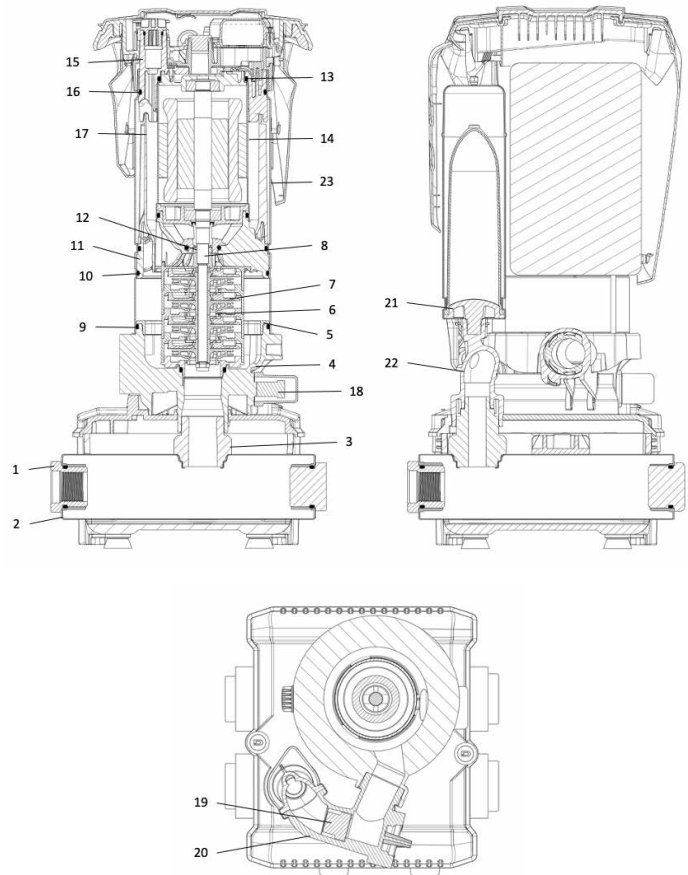
With DSyn technology, the user experience of Esybox Max is simplified. Using their smartphone or tablet, the installer interfaces with the pump that automatically detects the language, the time and the unit of measurement used in the Country of installation. In the case of a booster set, once the installation of the first pump is completed, the Esybox Max automatically synchronize the other pumps. The DSyn also allows you to connect the pump to the outside world, through the Modbus protocol.

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MATERIAL

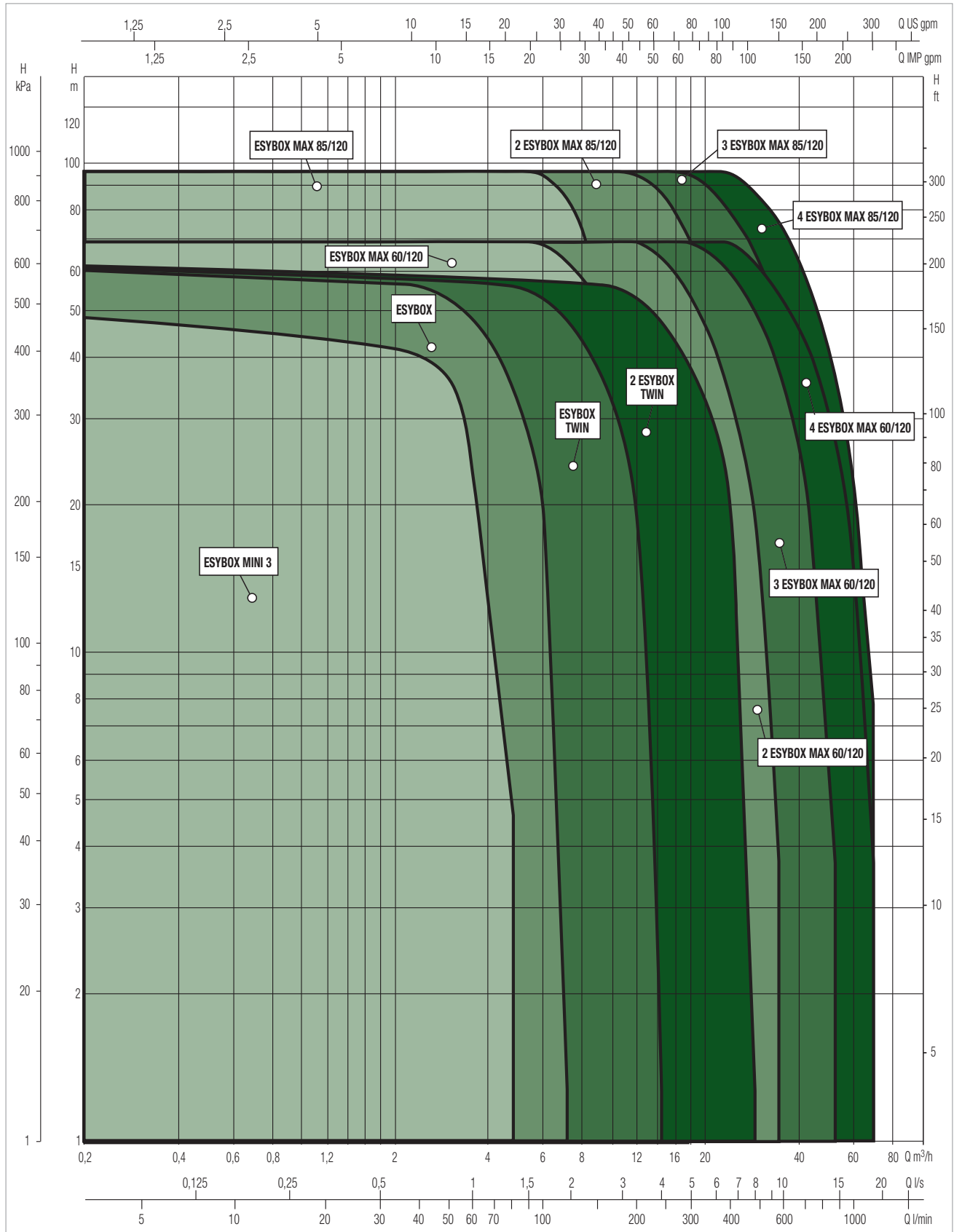
N°	PARTS	MATERIALS
1	FITTING	TECHNOPOLYMER PA66 30%GF
2	MANIFOLD	AISI 304 STEEL
3	FLANGE	TECHNOPOLYMER PA66 30%GF
4	PUMP BODY	TECHNOPOLYMER PA66 30%GF
5	PUMP BODY RING	TECHNOPOLYMER PP 30%GF
6	IMPELLER	TECHNOPOLYMER PPO 30%GF / AISI 304 STEEL
7	DIFFUSER	TECHNOPOLYMER PPO 30%GF / AISI 304 STEEL
8	MOTOR SHAFT	AISI 303 STEEL
9	O-RING	EPDM
10	O-RING	EPDM
11	MOTOR FLANGE	TECHNOPOLYMER PA66 30%GF
12	MECHANICAL SEAL	CARBON IMPREGNATED RESIN / SILICON CARBIDE / EPDM
13	O-RING	EPDM
14	MOTOR LINER	AISI 304 STEEL
15	MOTOR BODY	TECHOPOLYMER PA66 30%GF
16	O-RING	EPDM
17	CONVEYOR TUBE	TECHNOPOLYMER PP 30%GF
18	PRESSURE SENSOR	TECHOPOLYMER NYLON / EPDM
19	NON RETURN VALVE	TECHOPOLYMER POM / EPDM / AISI 302 STEEL
20	NON RETURN VALVE BODY	TECHNOPOLYMER PA66 30%GF
21	TANK	TECHOPOLYMER NORYL / RUBBER
22	DELIVERY BODY	TECHNOPOLYMER PA66 30%GF
23	OUTER LINER	AISI 304 STEEL



PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE



SELECTION TABLE

MODEL	Q=m ³ /h	0,012	2,4	3,6	4,8	6	7,2	8,4	9	9,6	10,8	11,4	14,4	17,4
	Q=l/min	0,2	40	60	80	100	120	140	150	160	180	190	240	290
ESYBOX MAX 60/120 M	H (mt)	69	69	69	69	69	61	53	50	46,5	40,5	37,2	21	3,9
ESYBOX MAX 60/120 T		69	69	69	69	69	61	53	50	46,5	40,5	37,2	21	3,9
ESYBOX MAX 85/120 T		96	96	96	96	96	84	75	71	65,0	56,7	51,6	29	9

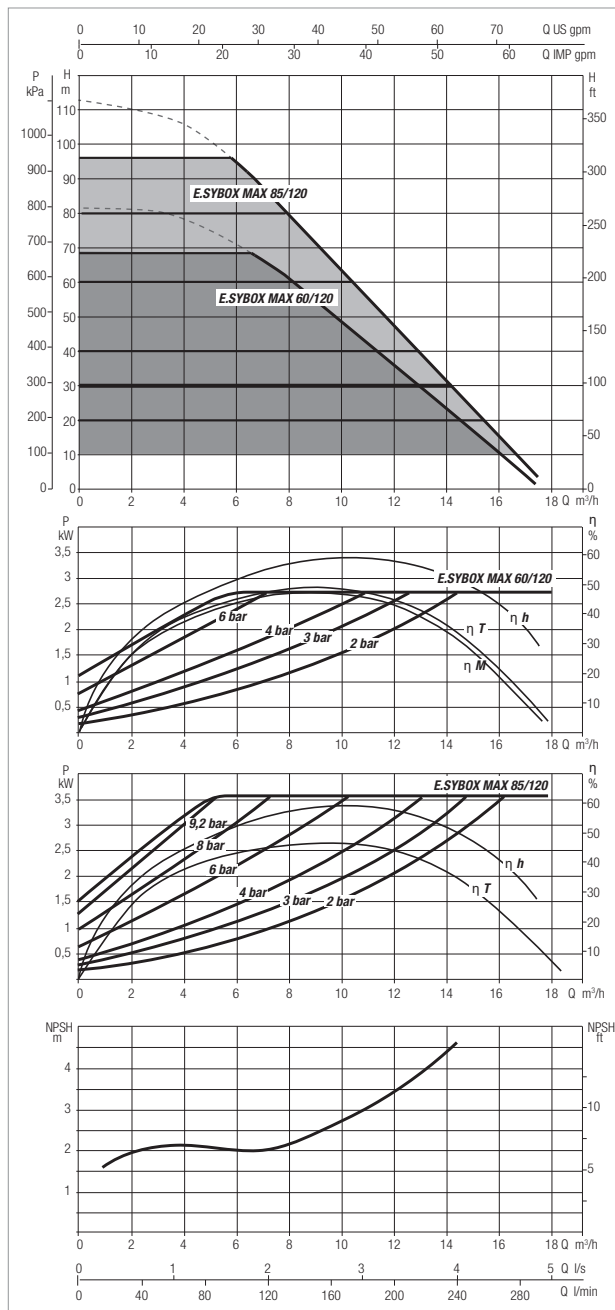
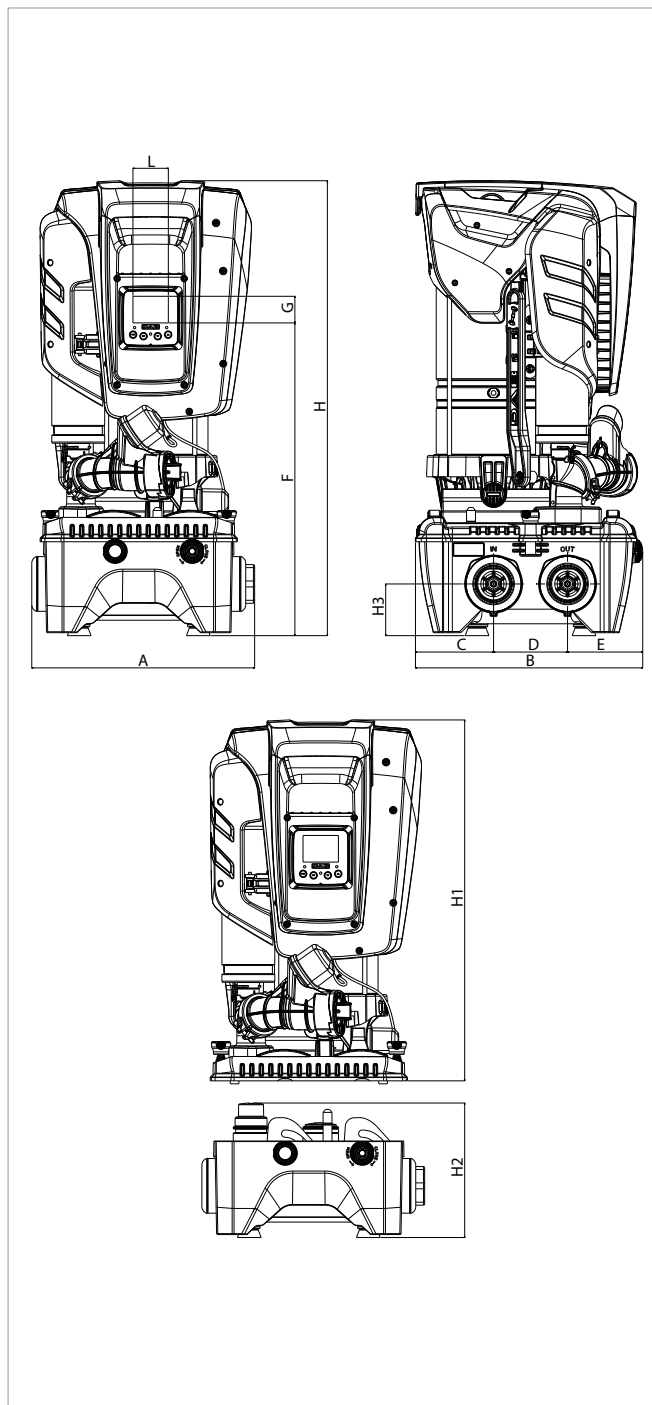
MODEL	Q=m ³ /h	0,024	4,8	7,2	9,6	12	14,4	16,8	18	19,2	21,6	22,8	28,8	34,8
	Q=l/min	0,4	80	120	160	200	240	280	300	320	360	380	480	580
2 ESYBOX MAX 60/120 M	H (mt)	69	69	69	69	69	61	53	50	46,5	40,5	37,2	21	3,9
2 ESYBOX MAX 60/120 T		69	69	69	69	69	61	53	50	46,5	40,5	37,2	21	3,9
2 ESYBOX MAX 85/120 T		96	96	96	96	96	84	75	71	65,0	56,7	51,6	29	9

MODEL	Q=m ³ /h	0,036	7,2	10,8	14,4	18	21,6	25,2	27	28,8	32,4	34,2	43,2	52,2
	Q=l/min	0,6	120	180	240	300	360	420	450	480	540	570	720	870
3 ESYBOX MAX 60/120 M	H (mt)	69	69	69	69	69	61	53	50	46,5	40,5	37,2	21	3,9
3 ESYBOX MAX 60/120 T		69	69	69	69	69	61	53	50	46,5	40,5	37,2	21	3,9
3 ESYBOX MAX 85/120 T		96	96	96	96	96	84	75	71	65,0	56,7	51,6	29	9

MODEL	Q=m ³ /h	0,048	9,6	14,4	19,2	24	28,8	33,6	36	38,4	43,2	45,6	57,6	69,6
	Q=l/min	0,8	160	240	320	400	480	560	600	640	720	760	960	1160
4 ESYBOX MAX 60/120 M	H (mt)	69	69	69	69	69	61	53	50	46,5	40,5	37,2	21	3,9
4 ESYBOX MAX 60/120 T		69	69	69	69	69	61	53	50	46,5	40,5	37,2	21	3,9
4 ESYBOX MAX 85/120 T		96	96	96	96	96	84	75	71	65,0	56,7	51,6	29	9

ESYBOX MAX - ELECTRONIC BOOSTER SET

Liquid temperature: +50°C - Maximum ambient temperature: +55°C



η_T : efficiency of three-phase version - η_M : efficiency of single-phase version
 η_h : hydraulic efficiency (pump + dock)

The performance curves are based on the kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA							
	N° IMPELLERS	POWER SUPPLY 50/60 Hz	P1 MAX		In A	DELTA P MAX		SET POINT
			kW	HP		Hmax m.c.a.	bar	
ESYBOX MAX 60/120 M	3	1x208-240 V ~	2,68	3,6	12,5 - 11,5	69	6,7	1-12
ESYBOX MAX 60/120 T	3	3x380-480 V ~	2,65	3,5	4,4	69	6,7	1-12
ESYBOX MAX 85/120 T	4	3x380-480 V ~	3,50	4,7	5,6	96	9,4	1-12

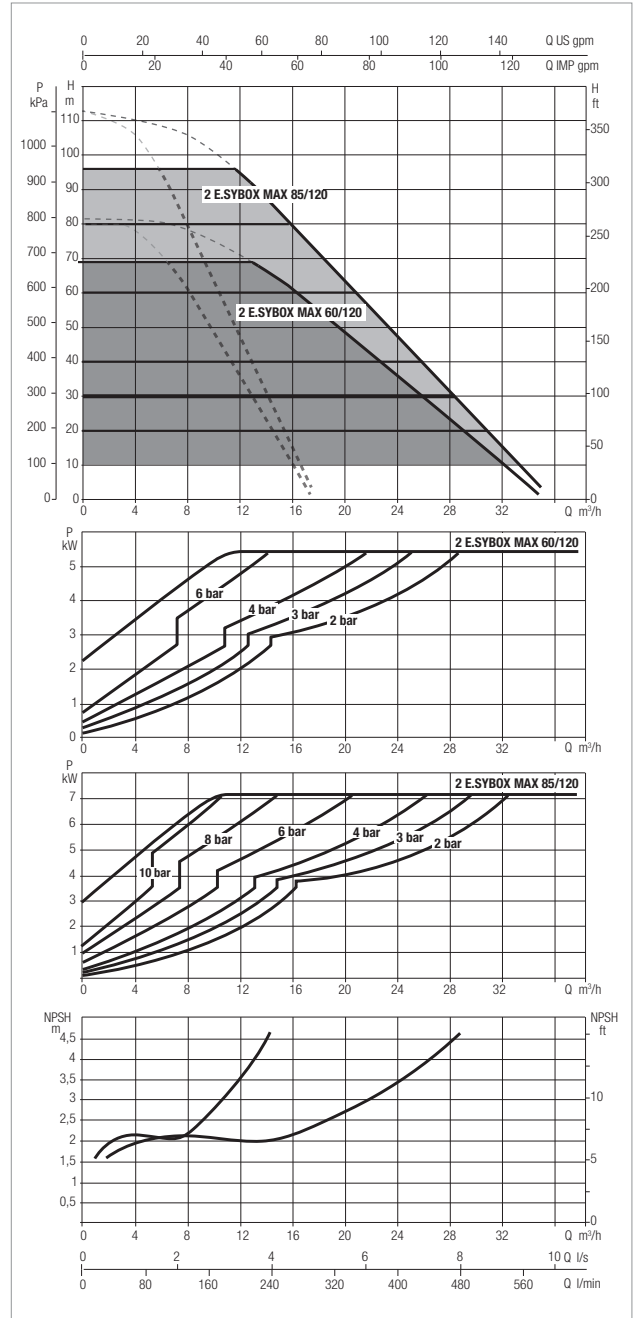
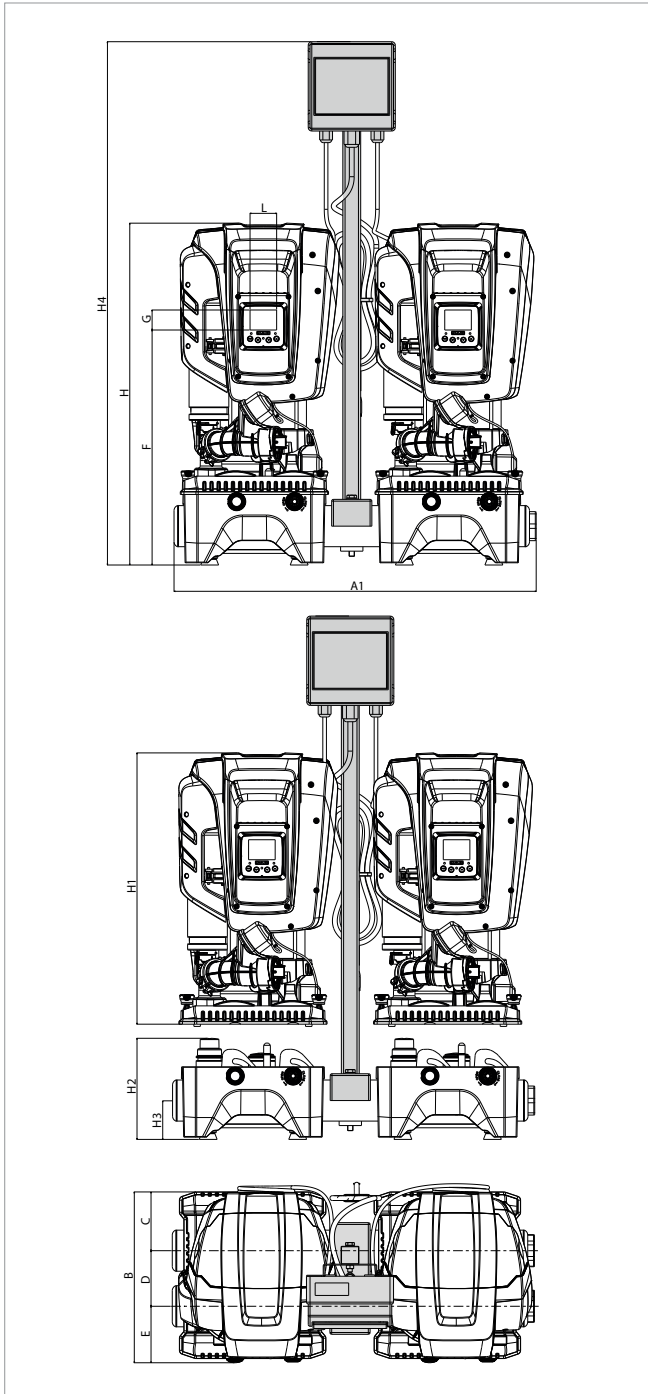
MODEL	A	B	C	D	E	F	G	H	H1	H2	H3	L	DNA	DNM	PACKING DIMENSIONS*			WEIGHT* PUMP UNIT Kg	PACKING DIMENSIONS DOCK			WEIGHT DOCK Kg
															PUMP UNIT				DOCK			
															L/A	L/B	H	L/A	L/B	H		
ESYBOX MAX 60/120	375	384	131.8	124.5	127.7	526	45	766	613	228	87	59,5	1"1/4 - 2"	1"1/4 - 2"	400	380	800	29	400	400	250	9
ESYBOX MAX 85/120	375	384	131.8	124.5	127.7	526	45	766	613	228	87	59,5	1"1/4 - 2"	1"1/4 - 2"	400	380	800	30	400	400	250	9

* Weights and packaging dimensions refer to a pump unit



2 ESYBOX MAX - ELECTRONIC BOOSTER SET

Liquid temperature: +50°C - Maximum ambient temperature: +55°C



The performance curves are based on the kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Curve tolerance according to ISO 9906.
For the four-pump version, it is necessary to double the flow rate.

MODEL	ELECTRICAL DATA							
	N° IMPELLERS	POWER SUPPLY 50/60 Hz	P1 MAX		In A	DELTA P MAX		SET POINT
			kW	HP		Hmax m.c.a.	bar	
2 ESYBOX MAX 60/120 M	3	1x208-240 V ~	2,68	3,6	12,5 - 11,5	69	6,7	1-12
2 ESYBOX MAX 60/120 T	3	3x380-480 V ~	2,65	3,5	4,4	69	6,7	1-12
2 ESYBOX MAX 85/120 T	4	3x380-480 V ~	3,50	4,7	5,6	96	9,4	1-12

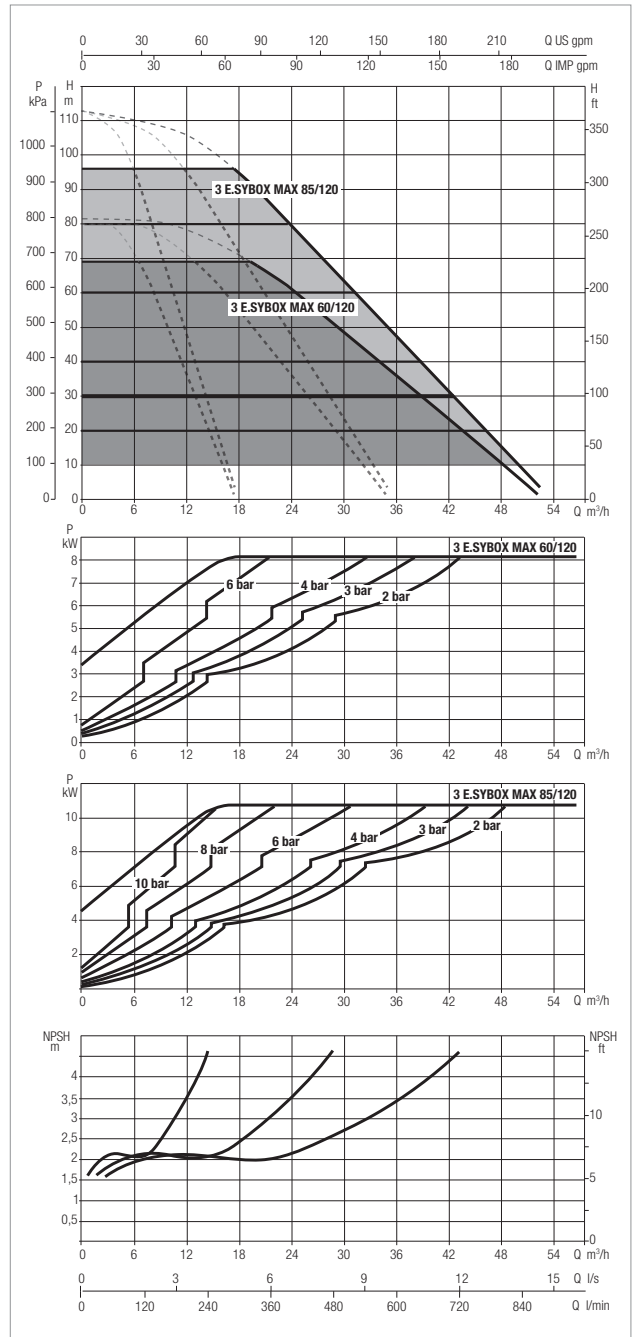
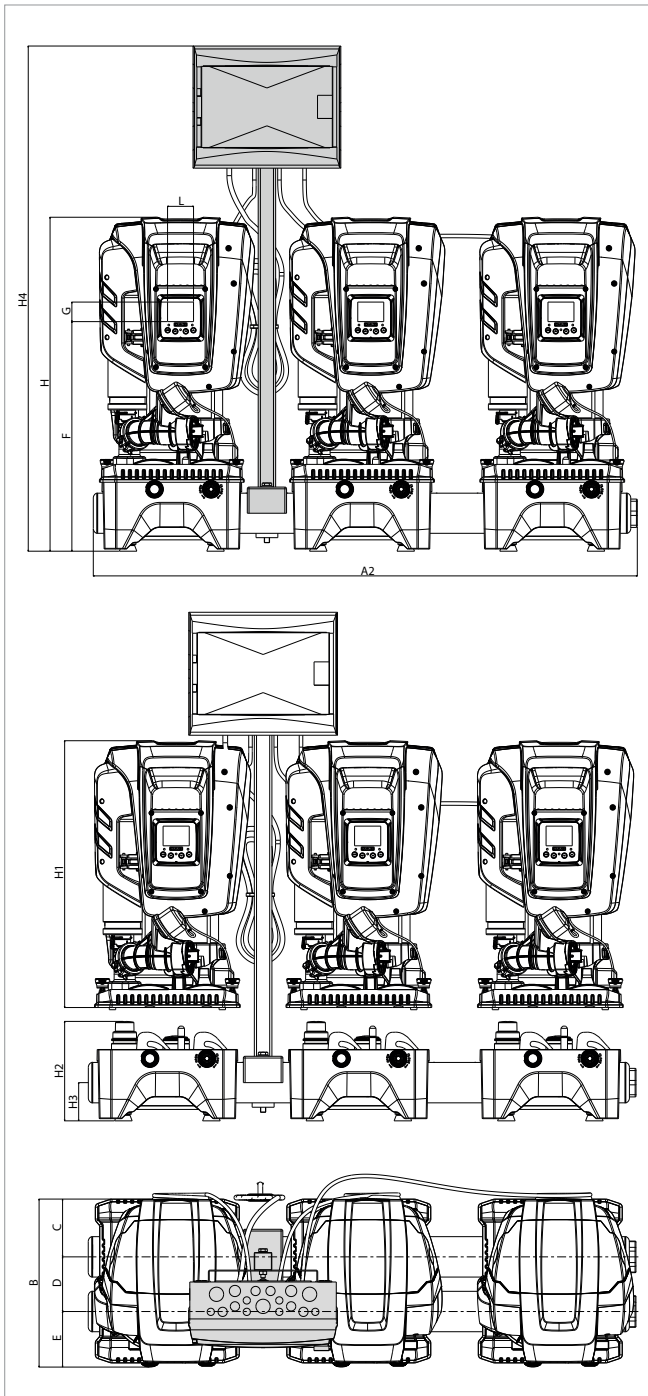
MODEL	A1	B	C	D	E	F	G	H	H1	H2	H3	H4**	L	DNA	DNM	PACKING DIMENSIONS*			WEIGHT* PUMP UNIT Kg	PACKING DIMENSIONS DOCK			WEIGHT DOCK Kg
																PUMP UNIT				DOCK			
																L/A	L/B	H	L/A	L/B	H		
2 ESYBOX MAX 60/120	811	384	131.8	124.5	127.7	526	45	766	613	228	87	1172	59.5	2"	2"	400	380	800	29	900	400	250	18
2 ESYBOX MAX 85/120	811	384	131.8	124.5	127.7	526	45	766	613	228	87	1172	59.5	2"	2"	400	380	800	30	900	400	250	18

* Weights and packaging dimensions refer to a pump unit **Control panel and Mounting bracket sold separately as optional accessories



3 ESYBOX MAX - ELECTRONIC BOOSTER SET

Liquid temperature: +50°C - Maximum ambient temperature: +55°C



The performance curves are based on the kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Curve tolerance according to ISO 9906.





MODEL	ELECTRICAL DATA							
	N° IMPELLERS	POWER SUPPLY 50/60 Hz	P1 MAX		In A	DELTA P MAX		SET POINT
			kW	HP		Hmax m.c.a.	bar	
3 ESYBOX MAX 60/120 M	3	1x208-240 V ~	2,68	3,6	12,5 - 11,5	69	6,7	1-12
3 ESYBOX MAX 60/120 T	3	3x380-480 V ~	2,65	3,5	4,4	69	6,7	1-12
3 ESYBOX MAX 85/120 T	4	3x380-480 V ~	3,50	4,7	5,6	96	9,4	1-12

MODEL	A2	B	C	D	E	F	G	H	H1	H2	H3	H4**	L	DNA	DNM	PACKING DIMENSIONS*			WEIGHT* PUMP UNIT Kg	PACKING DIMENSIONS DOCK			WEIGHT DOCK Kg
																PUMP UNIT				DOCK			
																L/A	L/B	H	L/A	L/B	H		
3 ESYBOX MAX 60/120	1250	384	131,8	124,5	127,7	526	45	766	613	228	87	1158	59,5	2"	2"	400	380	800	29	1250	400	250	27
3 ESYBOX MAX 85/120	1250	384	131,8	124,5	127,7	526	45	766	613	228	87	1158	59,5	2"	2"	400	380	800	30	1250	400	250	27

* Weights and packaging dimensions refer to a pump unit **Control panel and Mounting bracket sold separately as optional accessories

ACCESSORIES

ESYBOX MAX

	DESCRIPTION	MODEL	ESYBOX MAX	2 ESYBOX MAX	3 ESYBOX MAX	4 ESYBOX MAX	
	CONTROL PANEL Electrical connection panels for 2 or 3 pumps complete with magnetohermic switches for powering multi-pump units. It can be installed on the wall or directly to Esybox Max units using the dedicated pillar kit.	CONTROL PANEL E2G5,2 M 230V		● Single phase		● 2 x Single phase	
		CONTROL PANEL E2G7 T 400V		● Three-phase		● 2 x Three-phase	
		CONTROL PANEL E3G7.8 M 230V			● Single phase		
		CONTROL PANEL E3G10.5 T 400V			● Three-phase		
	PILLAR KIT Column for mounting the electrical panel directly on the frame of the multi-pump system.			●	●	● 2 x	
	ESY I/O The electronic expansion module allows Esybox Max to interface with the external input/output devices (eg: float switch, pressure switch, remote alarm) and with the BMS world (Building Management System).		●	●	●	●	
	2X2 ESYDOCK JUNCTION KIT Inside the kit there are 2 pipe union, 3 pieces and 2 2" nipples to connect the outlet and inlet and of a pair of Esydock Max. Allows you to create groups of 4 Esybox Max.					●	

DAB

P U M P S S E L E C T O R

On-line selection tool



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