

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); 5,7 bar (45/120)

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 three 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

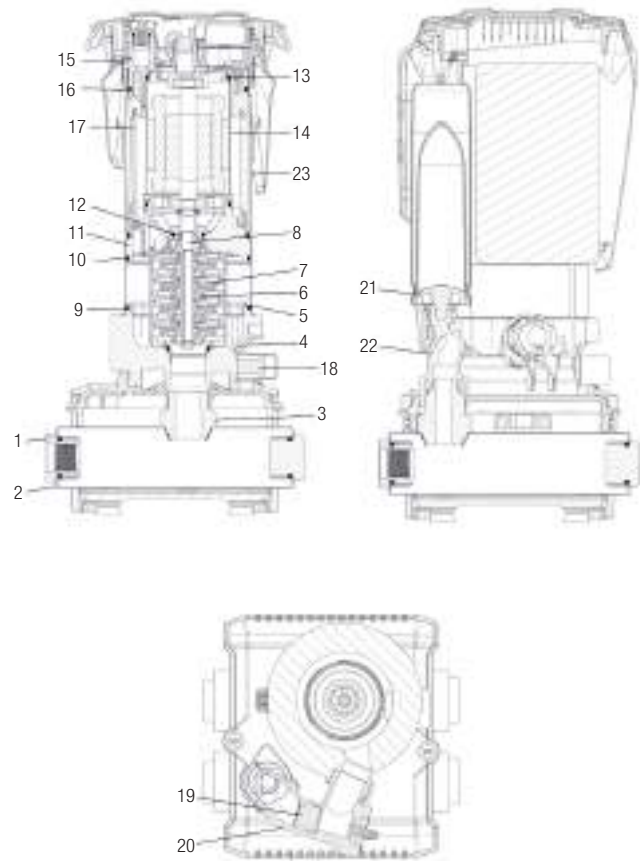
It is possible to configure and view the operating parameters on the large Esybox Max display or thanks to the DConnect app and the integrated Wi-Fi module, it is possible to do it remotely with an active DConnect service (an Internet connection is required).

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

With DSync 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.

MATERIALS

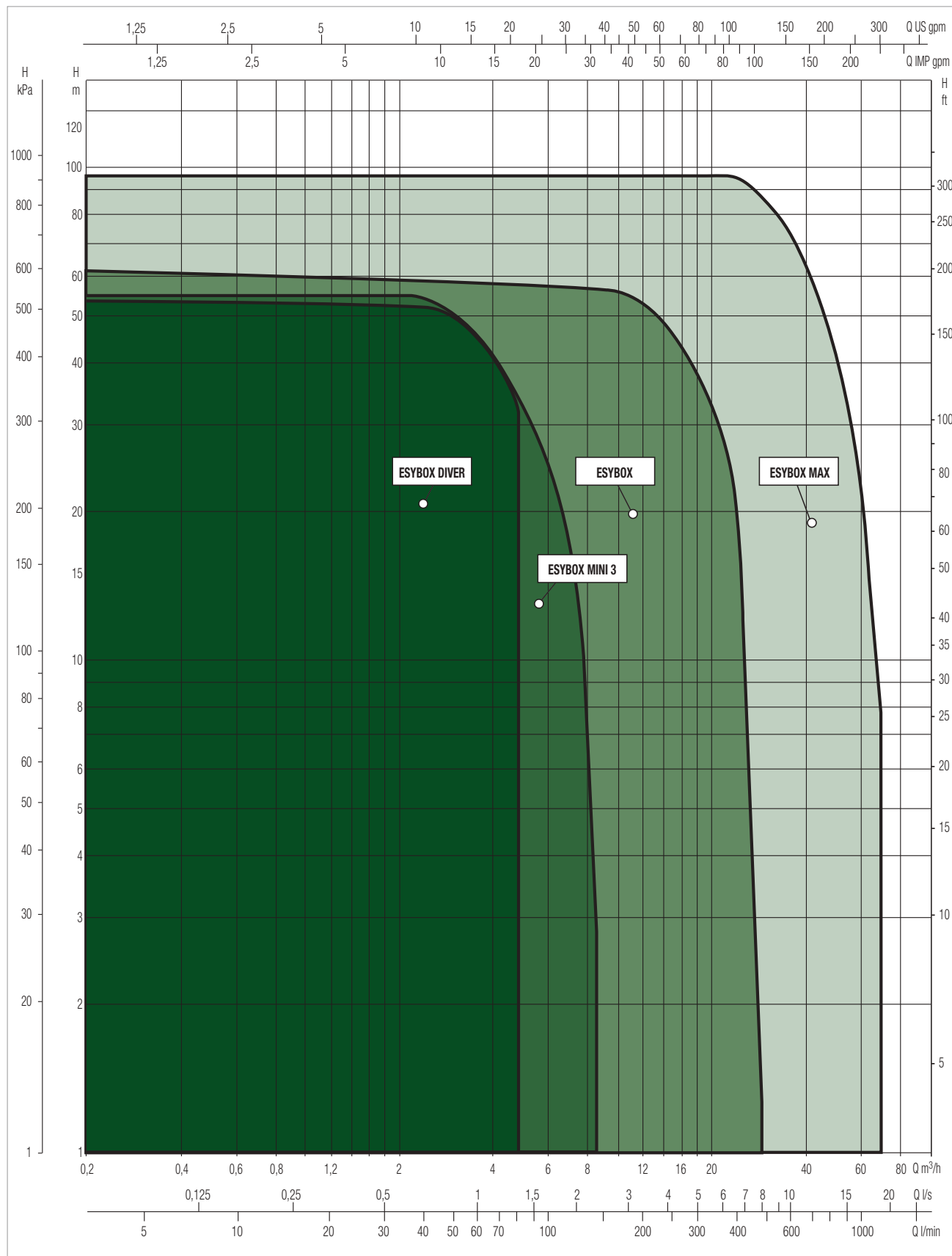
N°	PARTS	MATERIALS
1	FITTING	TECHNOPOLYMER PA66 30%GF
2	MANIFOLD	AISI 304 STEEL
3	FLANGE	TECHNOPOLYMER PA66 30%GF
4	PUMP BODY	TECHNOPOLYMER PA66 30%GF
5	PUMP BODY RING	TECHNOPOLYMER PP 30%GF
6	IMPELLER	TECHNOPOLYMER PPO 30%GF / AISI 304 STEEL
7	DIFFUSER	TECHNOPOLYMER PPO 30%GF / AISI 304 STEEL
8	MOTOR 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	TECHNOPOLYMER PA66 30%GF
16	O-RING	EPDM
17	CONVEYOR TUBE	TECHNOPOLYMER PP 30%GF
18	PRESSURE SENSOR	TECHNOPOLYMER NYLON / EPDM
19	NON RETURN VALVE	TECHNOPOLYMER POM / EPDM / AISI 302 STEEL
20	NON RETURN VALVE BODY	TECHNOPOLYMER PA66 30%GF
21	TANK	TECHNOPOLYMER NORYL / RUBBER
22	DELIVERY BODY	TECHNOPOLYMER PA66 30%GF
23	OUTER LINER	AISI 304 STEEL



PERFORMANCE RANGE

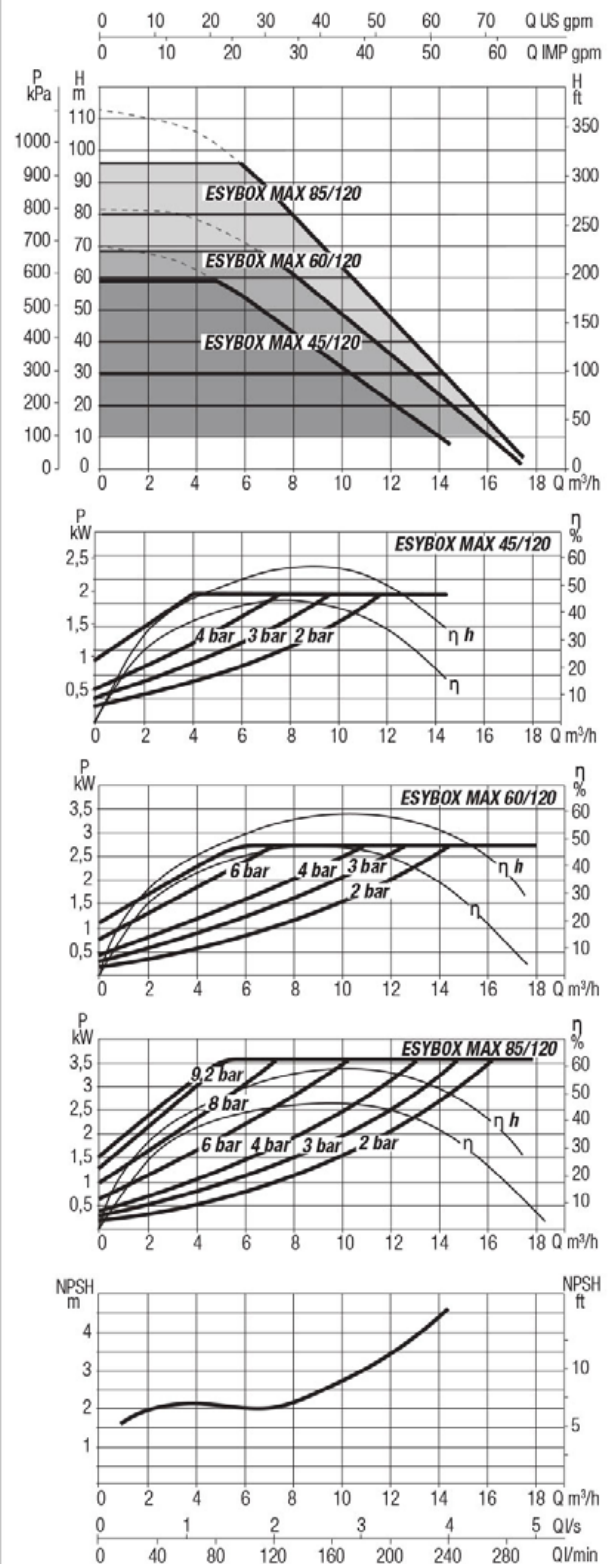
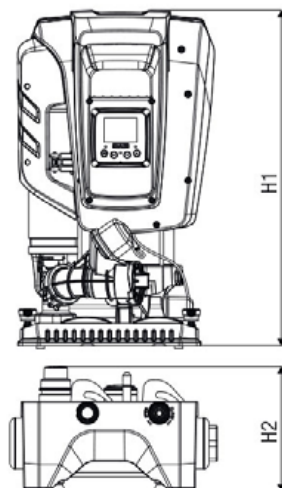
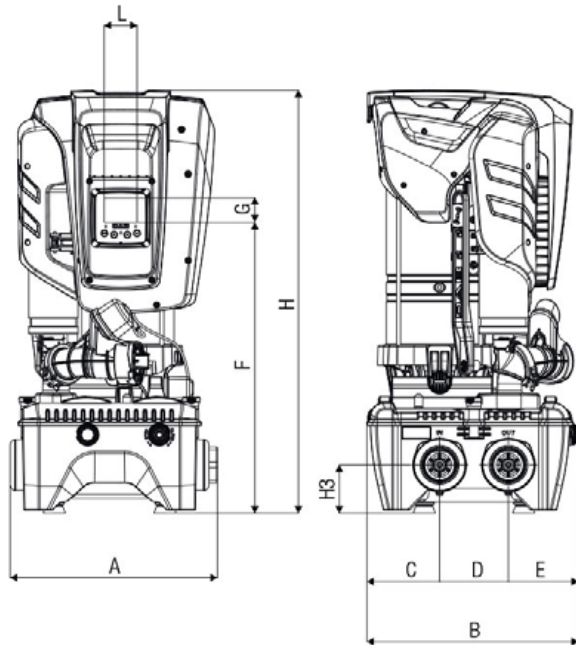
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE



ESYBOX MAX - ELECTRONIC BOOSTER SET

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



η: total efficiency - ηh: hydraulic efficiency (pump)

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.

ESYBOX MAX - ELECTRONIC BOOSTER SET

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

PERFORMANCE

MODEL	Q=m³/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 45/120 M / T	H (mt)	58	58	58	58	52	45	38,5	35,5	32,3	26	23	7	-
ESYBOX MAX 60/120 M / 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

ELECTRICAL DATA

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 45/120 M	3	1x208-240 V ~	1,97	2,68	9,4	58	5,7	1-12
ESYBOX MAX 45/120 T	3	3x380-480 V ~	1,93	2,59	3,4	58	5,7	1-12
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

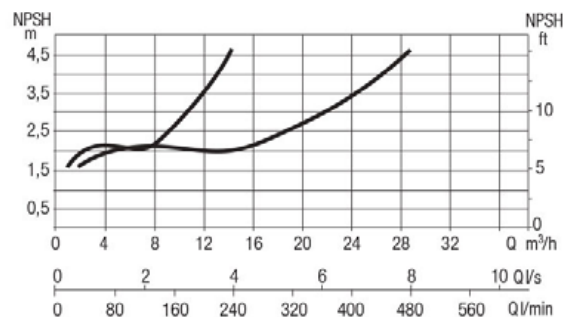
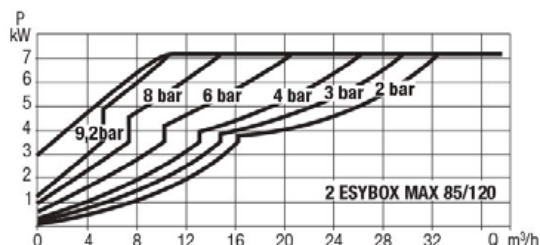
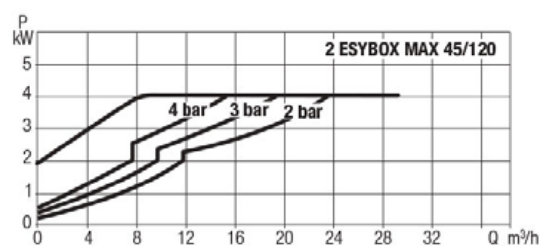
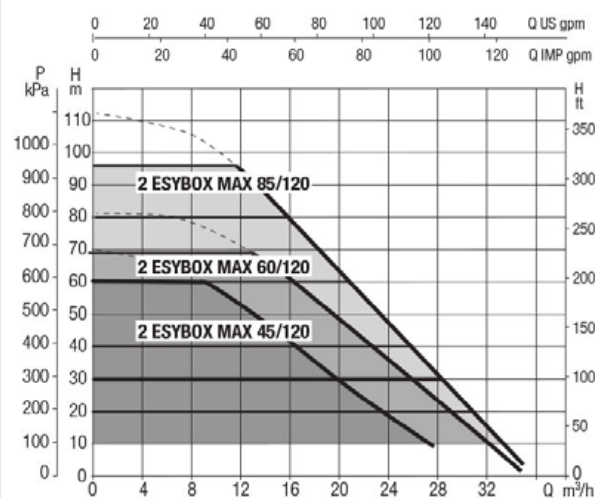
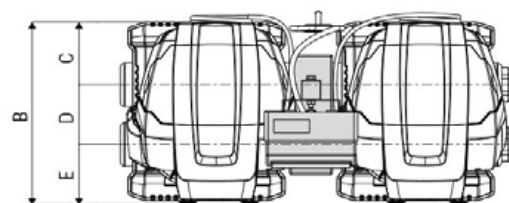
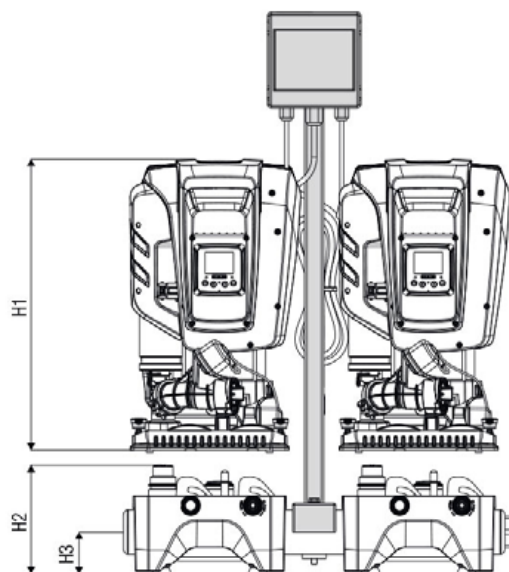
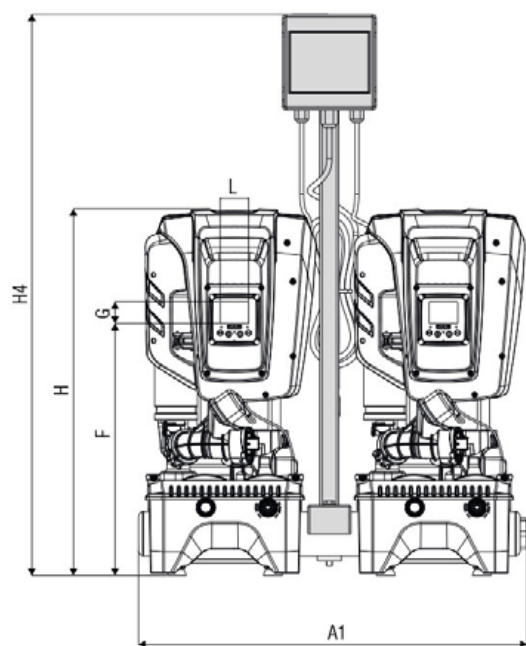
DIMENSIONS

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 kg	Q.TY X PALLET
															PUMP UNIT				DOCK				
															L/A	L/B	H		L/A	L/B	H		
ESYBOX MAX	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	6

* 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.

2 ESYBOX MAX - ELECTRONIC BOOSTER SET

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

PERFORMANCE

MODEL	Q=m³/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 45/120 M / T	H (mt)	58	58	58	58	52	45	38,5	35,5	32,3	26	23	7	-
2 ESYBOX MAX 60/120 M / 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

ELECTRICAL DATA

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 45/120 M	3	1x208-240 V ~	1,97	2,68	9,4	58	5,7	1-12
2 ESYBOX MAX 45/120 T	3	3x380-480 V ~	1,93	2,59	3,4	58	5,7	1-12
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

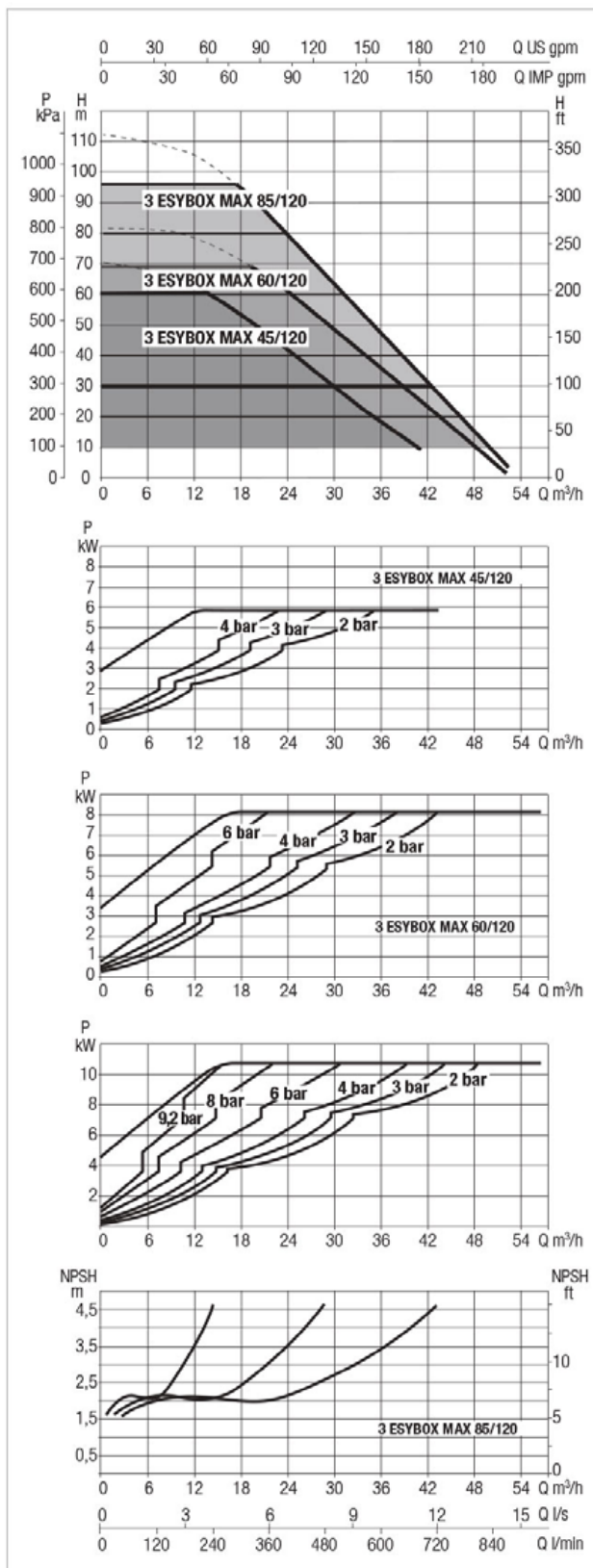
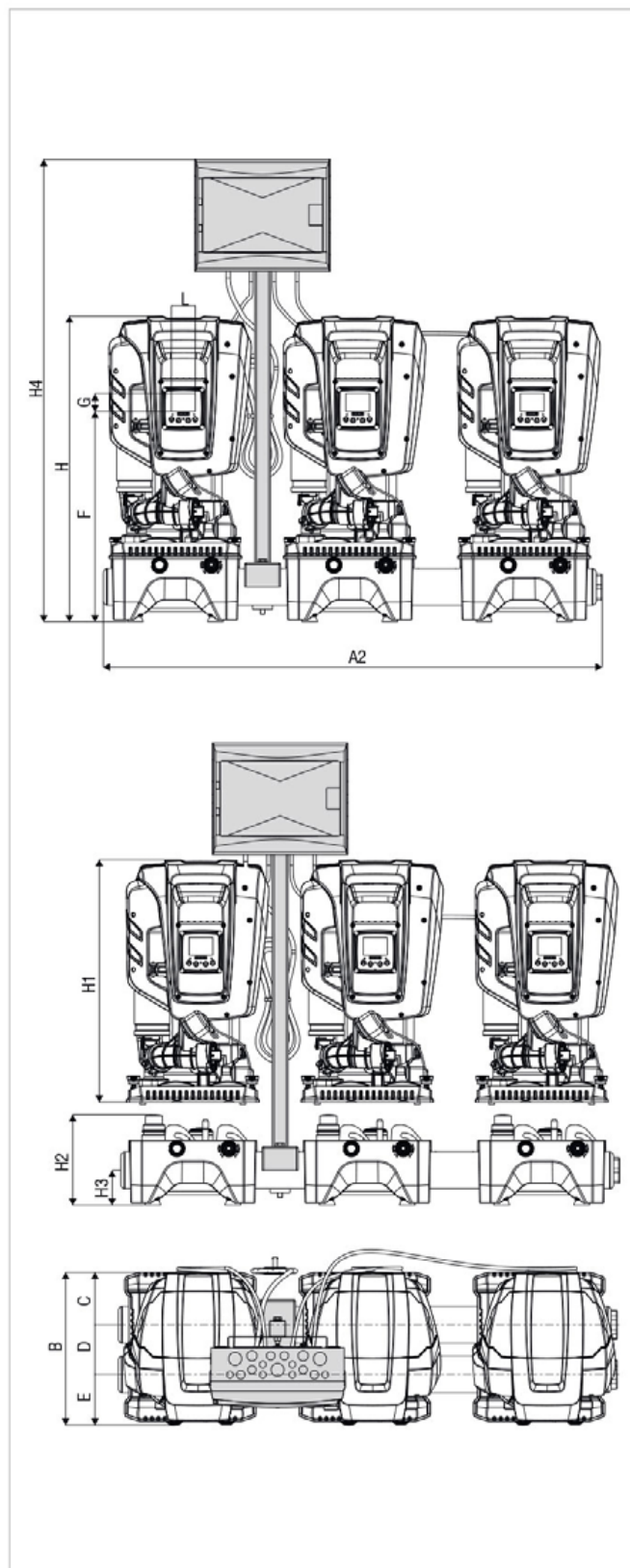
DIMENSIONS

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	Q.TY X PALLET
																PUMP UNIT				DOCK				
																L/A	L/B	H		L/A	L/B	H		
2 ESYBOX MAX	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	6

* 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.

3 ESYBOX MAX - ELECTRONIC BOOSTER SET

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

PERFORMANCE

MODEL	Q=m³/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 45/120 M / T	H (mt)	58	58	58	58	52	45	38,5	35,5	32,3	26	23	7	-
3 ESYBOX MAX 60/120 M / 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

ELECTRICAL DATA

MODEL	ELECTRICAL DATA							
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3 ESYBOX MAX 45/120 T	3	3x380-480 V ~	1,93	2,59	3,4	58	5,7	1-12
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

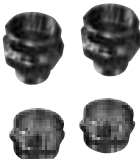
DIMENSIONS

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 Kg	Q.TY X PALLET
																PUMP UNIT				DOCK				
																L/A	L/B	H		L/A	L/B	H		
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	6

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

ACCESSORIES

ESYBOX MAX

	DESCRIPTION		ESYBOX MAX	2 ESYBOX MAX	3 ESYBOX MAX	4 ESYBOX MAX
	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).		•	•	•	•
	CONTROL PANEL Electrical connection panels for 2 or 3 pumps complete with magneto-thermic switches for powering multi-pump units. It can be installed on the wall or directly to Esybox Max units using the dedicated pillar kit.	ELECTRIC PANEL 2G5,2 M 230V		• 1 x 230 V		• 2 x 1 x 230 V
		ELECTRIC PANEL E2G7 T 400V		• 3 x 400 V		• 2 x 3 x 400 V
		ELECTRIC PANEL E3G7.8 M 230V			• 1 x 230 V	
		ELECTRIC PANEL E3G10.5 T 400V			• 3 x 400 V	
	COLUMN KIT Column for mounting the electrical panel directly on the frame of the multi-pump system.			•	•	• 2 x
	JOINT KIT 2 x 2 ESYBOX MAX Kit consisting of 2 pieces of 3-pieces unions and 2 pieces of 2" nipples to connect the delivery and suction of a pair of 2 Esydock Max to create 4-units Esybox Max groups.					•

	DESCRIPTION
 23 x 38 x 38 cm	ESYDOCK MAX Esydock Max is the mounting base to assemble the pumping system at the installation site quickly and conveniently. It connects to the system with four different hydraulic configuration modes and with its anti-vibration feet it maintains a high level of quietness.
 23 x 81 x 38 cm	2 ESYDOCK MAX It is the mounting base used to create two-pump units. The exceptional performance offered by the combined operation of two Esybox Max units is combined with a 50% reduction in dimensions compared to conventional systems with the same performance.
 23 x 125 x 38 cm	3 ESYDOCK MAX Mounting base for three-pump units. The modular concept is realised in an absolutely flexible, high-performance system. Maximum results with minimum space requirements and extremely easy and user-friendly installation.



EASY TO MOVE & INSTALL

Keeping it flexible, we have the On-Site Assembly concept. So if you have difficulties getting to the pumps location, due to narrow stairways and corridors etc., you can choose to assemble your booster on-site which will only require moving smaller lighter boxes into the location then carry out our quick assembly steps.



AS QUICK AS A "CLICK"

Install Esydock into your pipework system and simply "plug" your pumps in. A final quick set up via the digital DConnect app completes your installation project.

DWA

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

On-line selection tool



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