



ES 3/8

5" STAINLESS STEEL CLOSE-COUPLED
SUBMERSIBLE MULTISTAGE ELECTRIC PUMPS



5" STAINLESS STEEL CLOSE-COUPLED SUBMERSIBLE MULTISTAGE ELECTRIC PUMPS

FEATURES AND BENEFITS

APPLICATIONS



Water Distribution Pressure Boosting



Rainwater Recovering



Irrigation, Gardening, Sprinklers



Wash down unit



Slightly corrosive liquids



Water supply to and from tanks, reservoir and wells

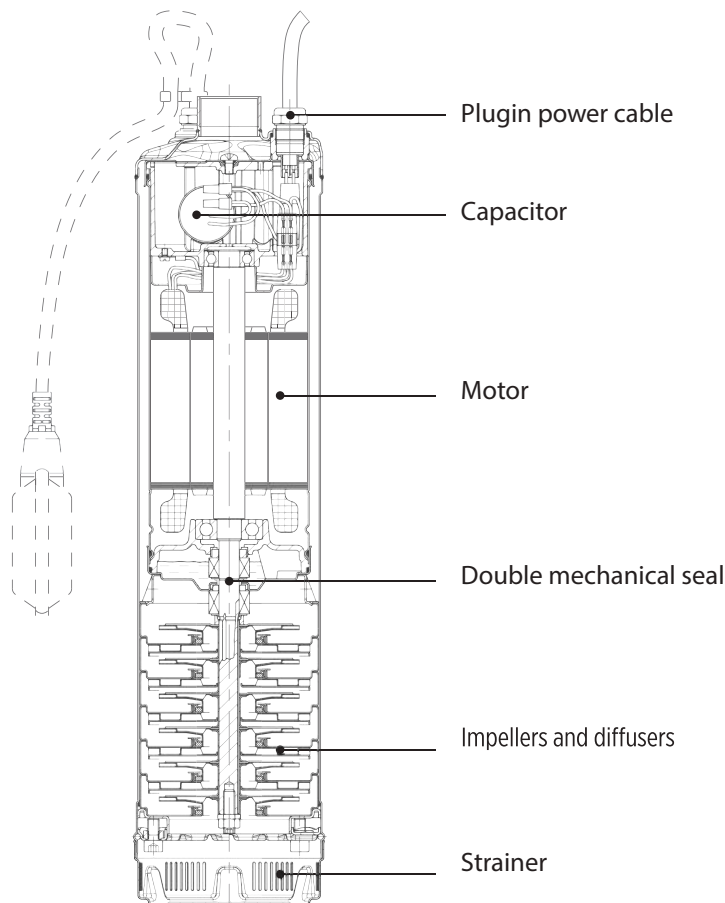
COMPACT CLOSE-COUPLED DESIGN

- ⌋ Easy installation: the single-phase version have internal capacitor and thermic motor-protection thus is not necessary to connect the electric pump to a control panel
- ⌋ Compact close-coupled design, robust and corrosion resistant
- ⌋ Plug-in type power cable and level control (floater) for easy replacement
- ⌋ Motor cooling is guaranteed by the pumped liquid
- ⌋ Continuous operation either in vertical or horizontal position

HIGH QUALITY MATERIALS

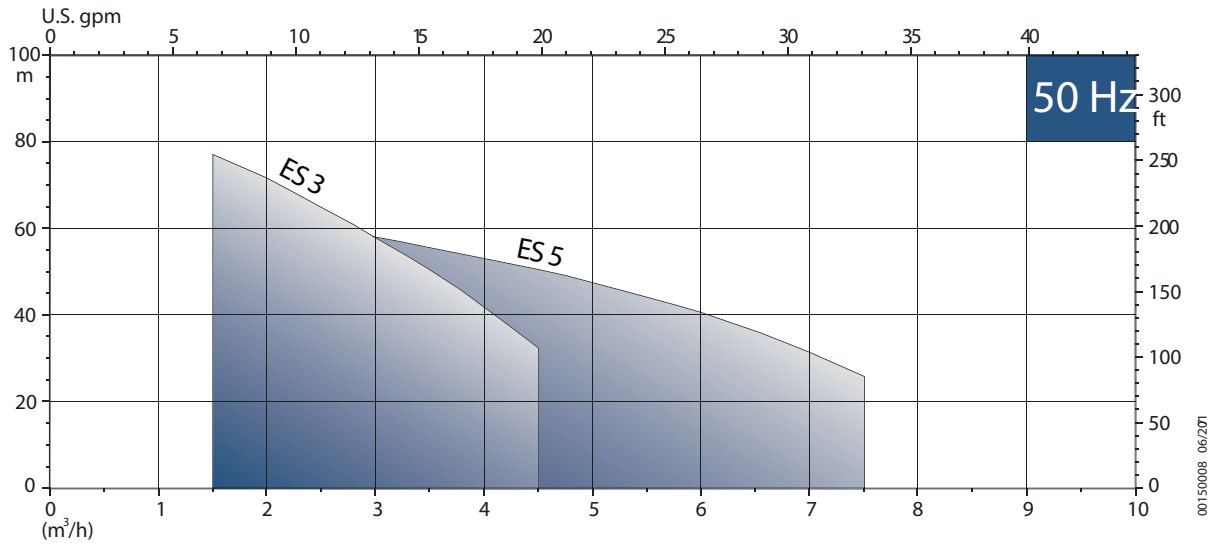
- ⌋ Heavy duty over size motor shaft
- ⌋ Stainless steel water proof capsule to protect the motor
- ⌋ Double mechanical seal separated by an oil chamber* for maximum motor protection

*In compliance with FDA - Food, Drug Administration - and the annex to G.U. no. 104 of 20/04/73 for oils in contact with food stuffs

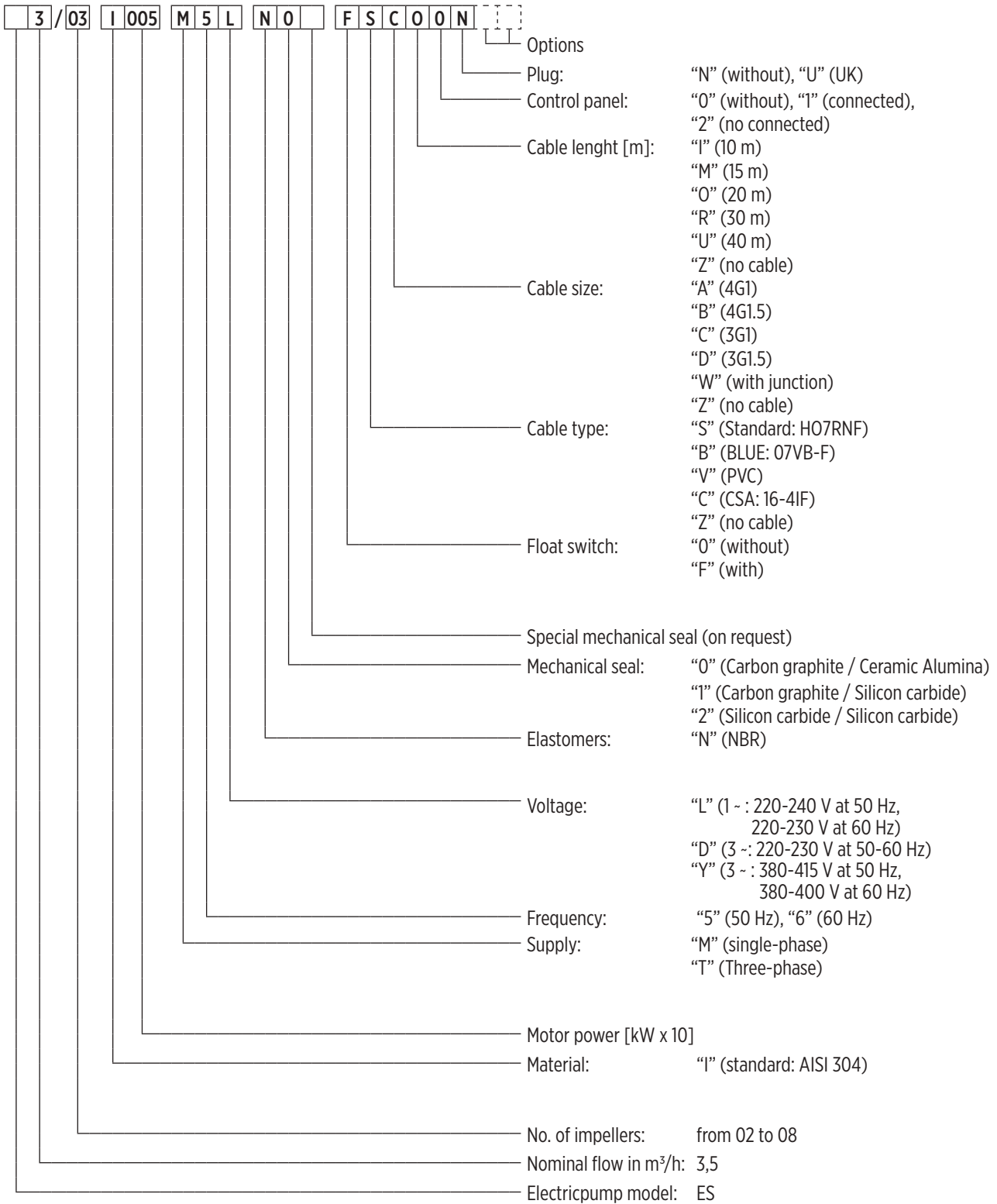


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FAMILY CURVES



PUMP IDENTIFICATION CODE



004005 08/201

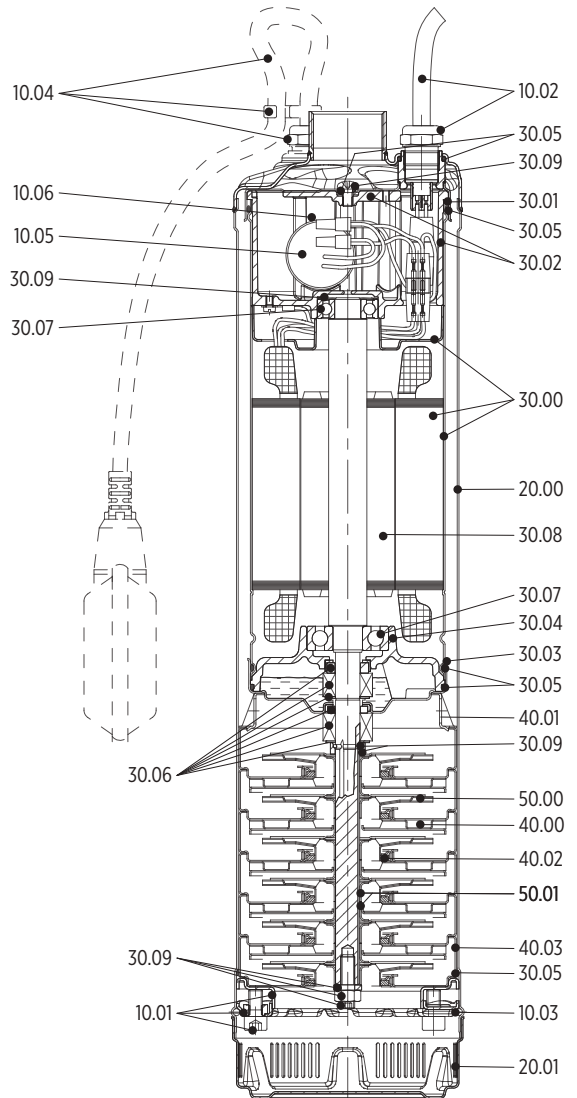
GENERAL FEATURES

Model	3	5	3	5
Frequency:	50 Hz		60 Hz	
Nominal flow [m ³ /h]	3	5	3	5
Liquid temperature range [°C]	-5 / +40			
Max. D hydraulic [%]	42.3	56.1	42.3	56.1
Range [m ³ /h]	1.5 - 4.5	2.5 - 7.5	2.5 - 5.5	3.0 - 9.0
Max. head [m]	75.5	58.5	69	58
Maximum operating pressure [bar]	10			
Discharge outlet:	1"¼ Rp			
Power cable:	20 m, type H07RN F			
Maximum immersion depth [m]:	17 (with 20m power cable length) 20 (with power cable longer than 20m)			
Maximum allowable amount of sand/Maximum solids size:	50 gr/m ³ , up to 2 mm			
Float switch option:	Single phase version without level regulator			
Motor power [kW]:	0,55 ÷ 1,1kW		0,75 ÷ 1,1kW	
Motor type:	Asynchronous Protection degree: IP68 Insulation class: F			
Motor standard voltage:	Single Phase	220-240 V ± 5 %		220-230V ± 5 %
	Three Phase	380-415 V ± 5 % (220-240 V ± 5 % on request)		380-400V ± 5% (220-230V ± 5 % on request)
Thermal protection	Single phase version: built into the motor up to 1.1 kW Three phase: to be provided into the starter panel by the Installer			
Capacitor:	Built in for single phase version			
Motor frequency of starts:	max. 40 starts/hour (with min. 1 minutes resting time)			

SPARE PARTS AND MATERIALS

Ref. No.	Spare parts description	Material	Standard	
			ASME	DIN / EN
10.01 *	Screws and flanges for pre-loading	Stainless steel	-	UNI-EN 12165-98
10.02 *	Power cable assembly	Cable: H07RN-F		
		Cable gland: nickel plated brass / NBR		
10.03 *	Seeger-ring	Stainless steel	AISI 304	1.4301
10.04 *	Level control assembly	Cable: H07RN-F		
		Float switch: PP		
		Holding cable plate: PA66		
		Cable gland: nickel plated brass / NBR		
10.05	Capacitor with cables and connectors	-		
10.06	Clamp for capacitor	-		
20.00 *	Outer case	Stainless steel	AISI 304	1.4301
20.01 *	Suction strainer	Stainless steel	AISI 304	1.4301
30.00 *	Motor housing and stator	Stainless steel	AISI 304	1.4301
30.01 *	Upper motor cover	Stainless steel	AISI 304	1.4301
30.02	Upper bearing housing with cover	Aluminum		
30.03 *	Lower motor cover	Stainless steel	AISI 304	1.4301
30.04	Lower bearing cover	Aluminum		
30.05 *	O-Ring	NBR		
30.06 *	Mechanical seals	Ceramic alumina / Carbon graphite / NBR		
30.07	Ball bearings	6202 2Z-C3 / 6303 2Z-C3		
30.08 *	Rotor and pump shaft	Stainless steel	AISI 304	1.4301
30.09 *	Screws, nut and washers	Stainless steel	AISI 304	1.4301
			AISI 316	1.4401
40.00 *	Stage housing and diffuser	Stainless steel	AISI 304	1.4301
40.01 *	Spacer	Stainless steel	AISI 304	1.4301
40.02 *	Floating neck ring	PPS		
40.03 *	Initial stage housing	Stainless steel	AISI 304	1.4301
50.00 *	Impeller	Stainless steel	AISI 304	1.4301
50.01 *	Impeller spacers	Stainless steel	AISI 304	1.4301

* Spare parts in contact with liquid



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TECHNICAL DATA AND PERFORMANCE CURVES AT 50 HZ

HYDRAULIC PERFORMANCE

Electric pump model	RATED POWER		Q = DELIVERY															
			l/min	0	16.6	25.0	33.3	42	50.0	58.3	67	75.0	83.3	92	100.0	116.7	125	133.3
			m ³ /h	0	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	7	7.5	8
	US gpm	0	4.4	6.6	8.8	11.0	13.2	15	17.6	19.8	22.0	24.2	26	30.8	33	35.2		
	[kW]	[HP]	H = TOTAL METERS HEAD OF WATER COLUMN [m]															
ES 3/3	0.55	0.75	34		30.5	28.5	26	24	21	17.5	14							
ES 3/4	0.55	0.75	45		40	37.5	34	31	27	23	18							
ES 3/5	0.75	1	56		49	46	42	38	33	27.5	22							
ES 3/6	0.75	1	66.5		58.5	54	49	44	38.5	32	25							
ES 3/7	0.9	1.2	77		67	62	56	50	45	37.5	28							
ES 3/8	1.1	1.5	87		75.5	70	63	56	50.5	42	31							
ES 5/3	0.55	0.75	35				31	30	29	28	27	25.5	23.5	22	17.5	15		
ES 5/4	0.75	1	46				40.5	39	38	36.5	34.5	33	30.5	28	22	18.5		
ES 5/5	0.9	1.2	57				50	48	47.5	45.5	42	40	38	34	27.5	22		
ES 5/6	1.1	1.5	67.5				58.5	56.5	55.5	53	49	46	44	39	31.5	24		

ES 3 - 50 HZ

TECHNICAL DATA

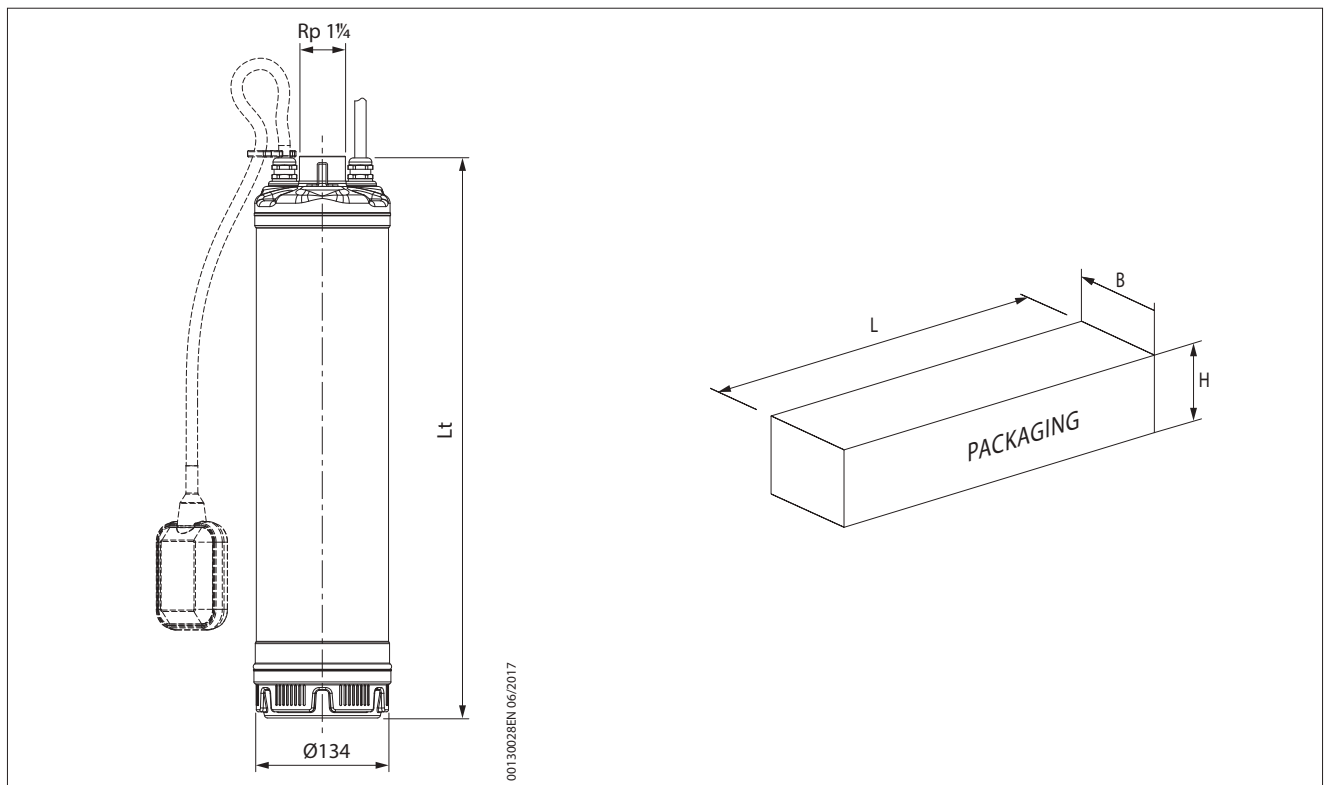
Electric pump model		Number of stages	MOTOR POWER		INPUT POWER	Capacitor		RATED CURRENT		
Single-phase	Three-phase		[kW]	[HP]		μ F	V	Single-phase 220-240 V	Three-phase 220-240 V 380-415 V	
ES 3/3	ES 3/3T	3	0.55	0.75	0.63	16	450	3.6	3.12	1.8
ES 3/4	ES 3/4T	4	0.55	0.75	0.81	16	450	4.0	3.5	2.0
ES 3/5	ES 3/5T	5	0.75	1	0.99	20	450	4.7	3.7	2.1
ES 3/6	ES 3/6T	6	0.75	1	1.15	20	450	5.2	4.0	2.3
ES 3/7	ES 3/7T	7	0.9	1.2	1.34	30	450	6.7	4.4	2.5
ES 3/8	ES 3/8T	8	1.1	1.5	1.50	30	450	7.2	4.7	2.7

DIMENSIONS AND WEIGHTS

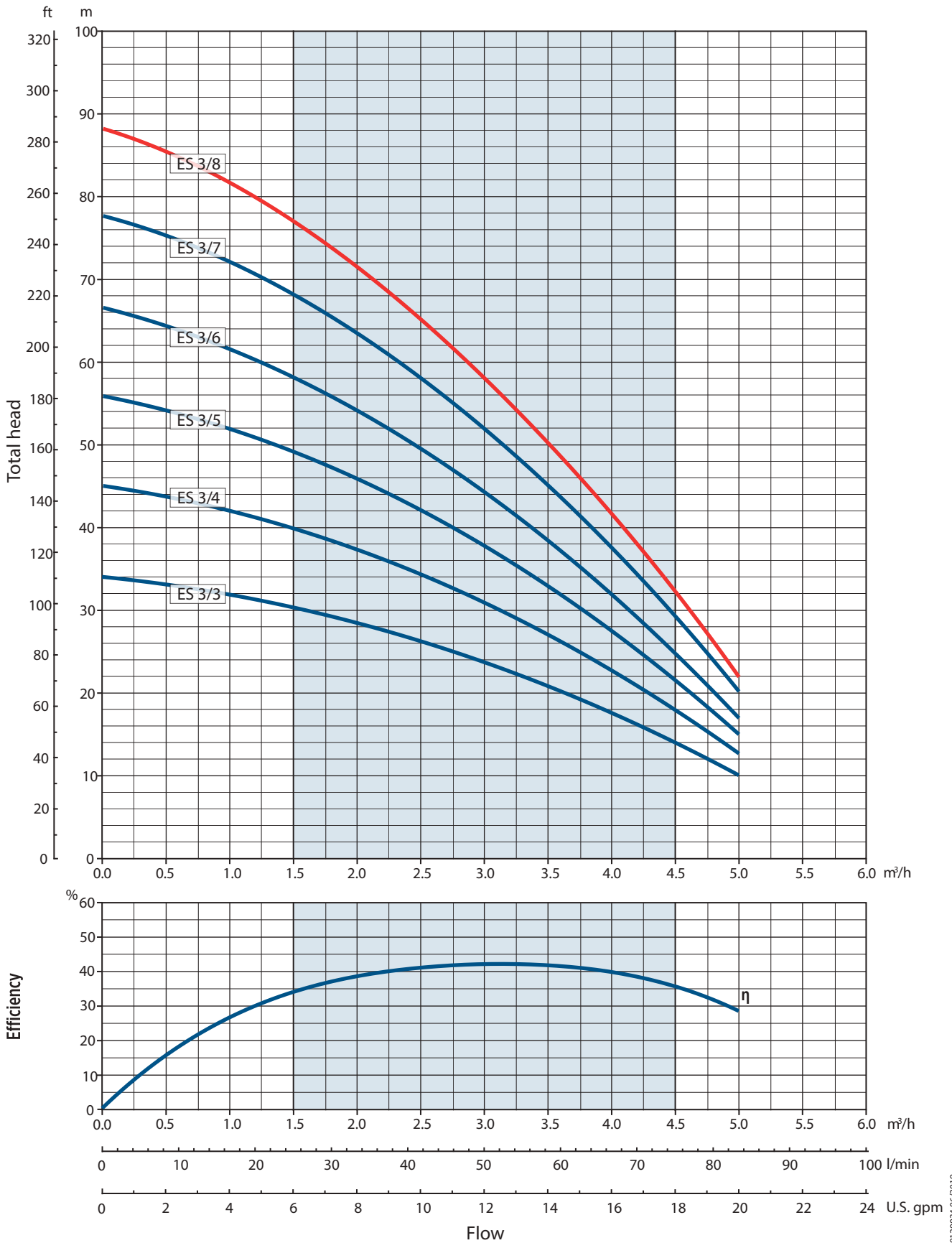
Electric pump			Weight* [Kg]		Packaging [mm]		
Single-phase	Three-phase	Lt [mm]	Single-phase	Three-phase	L	B	H
ES 3/3	ES 3/3T	446	12	13.3	720	230	175
ES 3/4	ES 3/4T	470	12.7	13.95	720	230	175
ES 3/5	ES 3/5T	544	14.3	14.45	720	230	175
ES 3/6	ES 3/6T	568	14.8	15	720	230	175
ES 3/7	ES 3/7T	592	17	15.45	720	230	175
ES 3/8	ES 3/8T	616	17.1	16	720	230	175

* Electric pump weight without float switch

DIMENSIONAL DRAWINGS



ES 3 PERFORMANCE CURVES AT 50 HZ



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