



Franklin Electric

HORIZONTAL MULTISTAGE PUMPS



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Stainless Steel Horizontal Multistage Pump

APPLICATIONS

- Small domestic and industrial systems / Domestic water supply
- Water distribution / pressure boosting
- Irrigation / Gardening / Sprinklers / Rainwater collection
- Industrial plants / Wash down unit
- Cooling and chilling / Heating and conditioning / Air conditioning systems
- Other various installations

FEATURES

- Compact close-coupled design, robust and rust resistant / Superior efficiency and performances
- Flexible application base plate
- Floating neck ring in AISI 304 and PTFE
- Heavy duty oversize motor shaft
- Impellers and diffusers are made of stainless steel in order to achieve durability
- Easy maintenance
- Possibility of removing the hydraulic stack without disconnecting the pump body from the pipelines
- Strong and leak-proof motor rolling bearing fitted in the motor bracket
- Pumping of clear non-loaded fluids
- Mechanical seal carbon / ceramic / EPDM

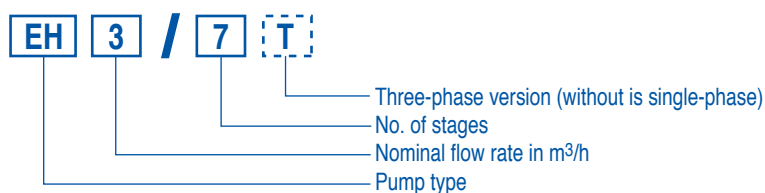
SPECIFICATIONS

- Capacities up to 14 m³/h at 50Hz
- Heads up to 11 Bar at 50Hz
- Discharge inlet 1"¼ Rp EH 3/5 - 1"½ Rp EH 9
- Discharge outlet 1" Rp EH 3/5 - 1"¼ Rp EH 9
- Maximum working pressure 10 Bar
- Maximum allowable amount of sand 50 gr/m³
- Ambient temperature range max 40°C
- Liquid temperature range -15° C to 110° C
- Maximum solids size up to 2 mm
- Asynchronous, TEFC, Class F insulation, IP55 protection motor
- Capacitor inside terminal box
- Single phase motors with built-in thermal relay
- Maximum number of starts per hour: 20

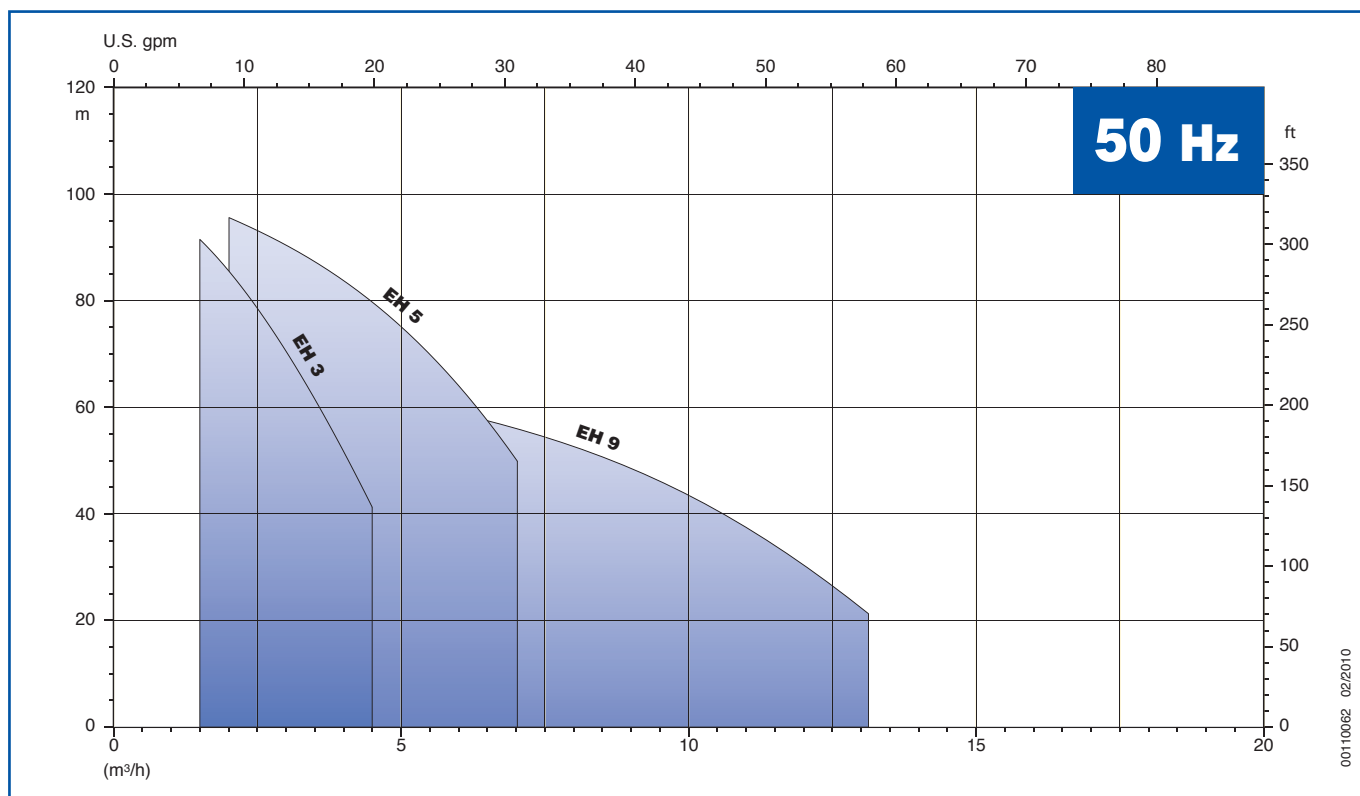
AVAILABLE ON REQUEST

- Special mechanical seal
- Discharge inlet/outlet NPT

PUMP IDENTIFICATION CODE



00117020 02/2010



MATERIAL IN CONTACT WITH THE LIQUID				
Pos.	PARTS DESCRIPTIONS	MATERIAL		
		Type	AISI	DIN / EN
20.00	Pump Casing	Stainless steel	AISI 304	1.4301
20.02	Seal housing	Stainless steel	AISI 304	1.4301
20.05	Filling and drain plug	Stainless steel	AISI 304	1.4301
30.05	O-Ring	EPDM		
30.06	Mechanical seal	Ceramic/Carbon/EPDM		
30.08	Pump shaft	Stainless steel	AISI 304	1.4301
30.09	Screws and washers	Stainless steel	AISI 304	1.4301
40.00	Diffuser/s	Stainless steel	AISI 304	1.4301
40.01				
40.03				
50.00 50.01	Impeller/s with spacers	Stainless steel	AISI 304	1.4301

EH 3-5-9

TABLE OF HYDRAULIC PERFORMANCES AT 50Hz

PUMP TYPE	RATED POWER		Q = DELIVERY																
			l/min 0	25,0	33,3	42	50,0	58,3	67	75,0	83,3	92	100,0	116,7	133	150,0	166,7	183	233,3
			m³/h 0	1,5	2	2,5	3	3,5	4	4,5	5	5,5	6	7	8	9	10	11	14
	kW	HP	US GMP 0	6,6	8,8	11,0	13,2	15	17,6	19,8	22,0	24,2	26	30,8	35,2	39,6	44,0	48	61,6
H = TOTAL HEAD METERS COLUMN OF WATER																			
EH3-2	0,33	0,45	23	21	19,5	18	16,5	14,5	12,5	10									
EH3-3	0,45	0,6	33,5	30,5	29	26,5	24	21	17,5	14									
EH3-4	0,55	0,75	44,5	40	37,5	34,5	31	27	23	18									
EH3-5	0,75	1	55	49	46	42	37	32,5	27	21									
EH3-6	0,9	1,2	67,5	61	57	53	47	41,5	35	28									
EH3-7	1,1	1,5	78	70,5	66	60,5	54	47,5	40	32									
EH3-8	1,3	1,8	90	82	77	71	64	56	47	38									
EH3-9	1,5	2	101	91,5	85,5	79	70,5	61,5	52	41									
EH5-2	0,45	0,6	23,5		21,5	21	20,5	19,5	19	18	17	16	25	11,5					
EH5-3	0,55	0,75	34,5		31,5	31	29,5	28,5	27,5	26	25	23	21	16					
EH5-4	0,9	1,2	46,5		43	42	41	39,5	38	36	34	32	29	23					
EH5-5	1,1	1,5	58		53	51,5	50	48,5	46,5	44	41,5	38,5	35,5	27,5					
EH5-6	1,3	1,8	70		64,5	63	61	59	56,5	54	51	47,5	43,5	34					
EH5-7	1,5	2	81,5		74,5	72,5	70	68	65	61,5	58	54	49,5	38,5					
EH5-8	1,5	2	92,5		84	82	79	76,5	73	69	65	60	54,5	42					
EH5-9	1,85	2,5	104		95,5	93	90,5	87,5	83,5	79,5	75	70	64	50					
EH9-2	0,75	1	23,5				21,5	21,5	21	21	20,5	20	19,5	19	18	16,5	15,5	13,5	7
EH9-3	1,1	1,5	35,5				33	32,5	32	31,5	31	30,5	30,5	29	27,5	25,5	23,5	21	11
EH9-4	1,5	2	47,5				44,5	43,5	43	42,5	42	41,5	41	39	37,5	35	32	29	15,5
EH9-5	1,85	2,5	59,5				55,5	54,5	54	53	52,5	51,5	50,5	48,5	46,5	43,5	40	36	19
EH9-6	2	2,7	71				65,5	64,5	64	63	62	61	59,5	57,5	54,5	51	47	41,5	21

EH Series

Technical Data and Performance Curves

EH 3 50Hz

EH 5 50Hz

EH 9 50Hz

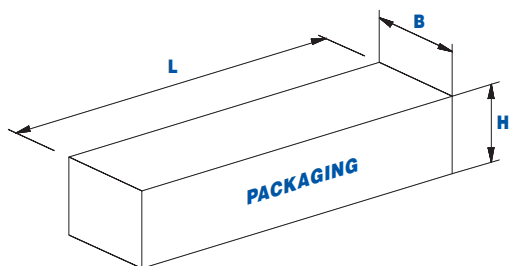
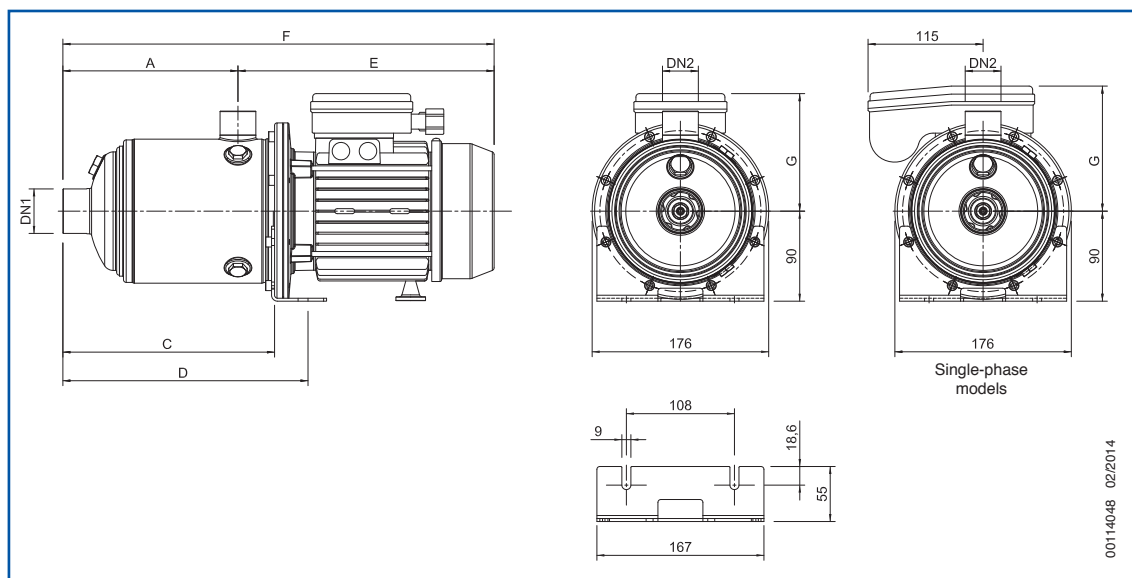
Technical data 50Hz

Pump model		NUMBER OF STAGES	MOTOR POWER		INPUT POWER	INTERNAL CAPACITOR		RATED CURRENT		
Single-phase 220-240V 50Hz	Three-phase 380-415V 50Hz		kW	HP		μF	V	Single-phase 220-240V 50Hz	Three-phase 220-240V 50Hz	380-415V 50Hz
EH 3/2	EH 3/2T	2	0.33	0.45	0.44	16	450	2.5	2.4	1.4
EH 3/3	EH 3/3T	3	0.45	0.6	0.59	16	450	3.0	2.6	1.5
EH 3/4	EH 3/4T	4	0.55	0.75	0.75	16	450	3.7	2.9	1.7
EH 3/5	EH 3/5T	5	0.75	1	0.90	16	450	4.3	3.1	1.8
EH 3/6	EH 3/6T	6	0.9	1.2	1.14	30	450	5.4	4.3	2.5
EH 3/7	EH 3/7T	7	1.1	1.5	1.29	30	450	6.0	4.7	2.7
EH 3/8	EH 3/8T	8	1.3	1.8	1.46	30	450	6.9	5.5	3.2
EH 3/9	EH 3/9T	9	1.5	2	1.61	30	450	7.5	5.9	3.4

- Single-phase motors: 220-240 V $\pm$ 5 % / 50Hz. Thermal protection built into the motor.
- Three-phase motors: 380-415 V $\pm$ 5 % / 50Hz. Thermal protection to be provided into the starter panel by the installer.

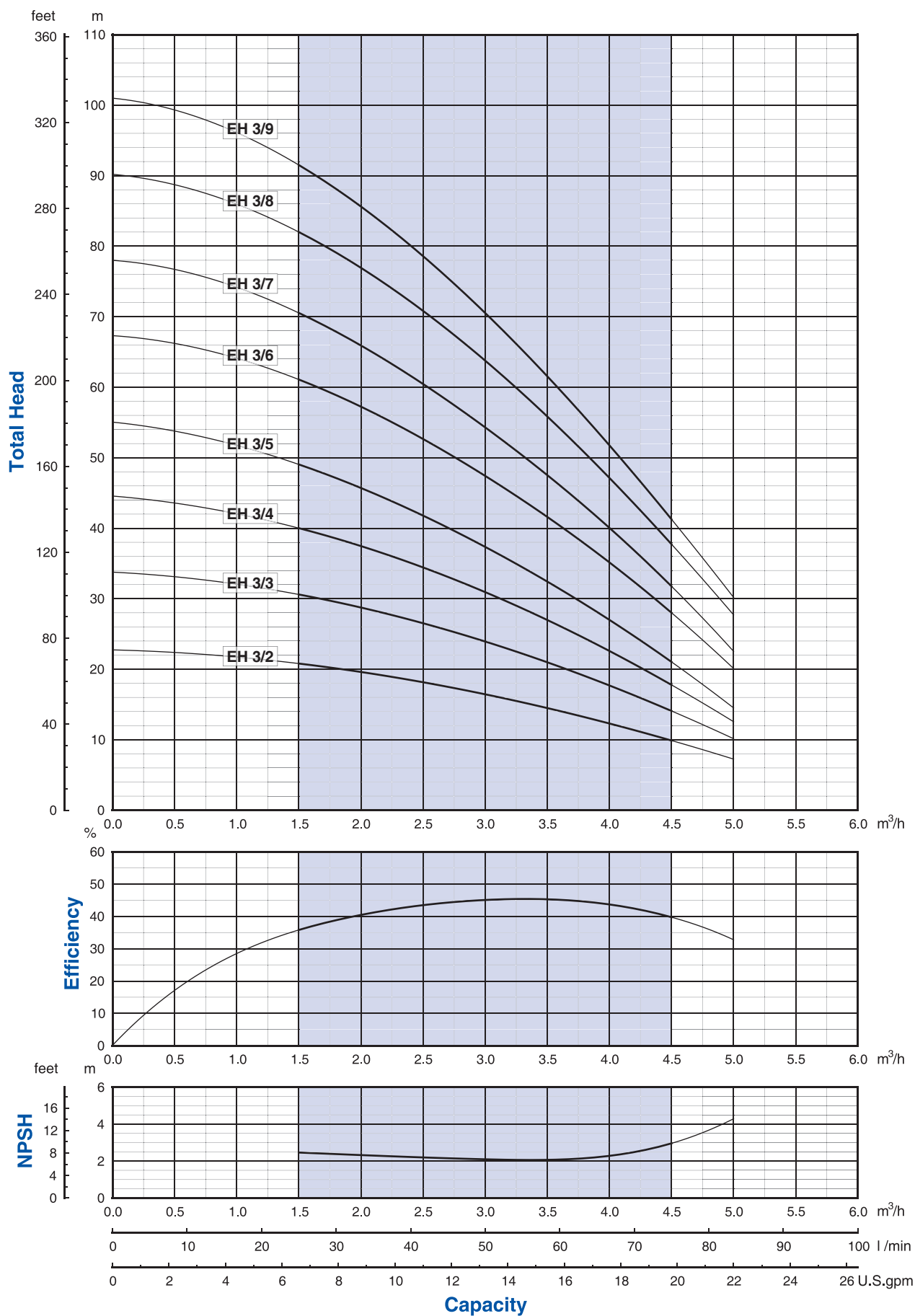
Dimensions and weights

Pump model		Dimensions								PACKAGING				
Single-phase 220-240V 50Hz	Three-phase 380-415V 50Hz	A mm	E mm	C mm	D mm	F mm	G		DN1	DN2	L mm	B mm	H mm	Weight kg
							1-phase	3-phase						
EH 3/2	EH 3/2T	103	256	139.6	173	359	120	118	Rp 1"¼	Rp 1"	500	200	260	10.5
EH 3/3	EH 3/3T	103	256	139.6	173	359	120	118			500	200	260	10.6
EH 3/4	EH 3/4T	127	256	163.6	197	383	120	118			500	200	260	11.1
EH 3/5	EH 3/5T	151	256	187.6	221	407	120	118			500	200	260	11.6
EH 3/6	EH 3/6T	175	256	211.6	245	431	120	118			500	200	260	14.0
EH 3/7	EH 3/7T	199	256	235.6	269	455	120	118			610	220	260	14.6
EH 3/8	EH 3/8T	223	300	259.6	293	523	125	125			610	220	260	18.1
EH 3/9	EH 3/9T	247	300	283.6	317	547	125	125			610	220	260	18.7



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Performance curves 50Hz



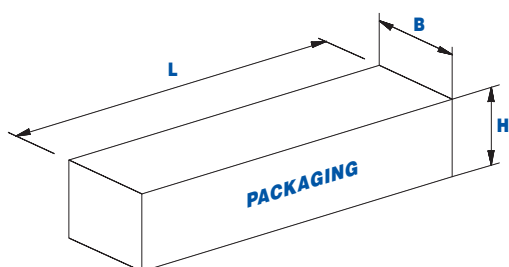
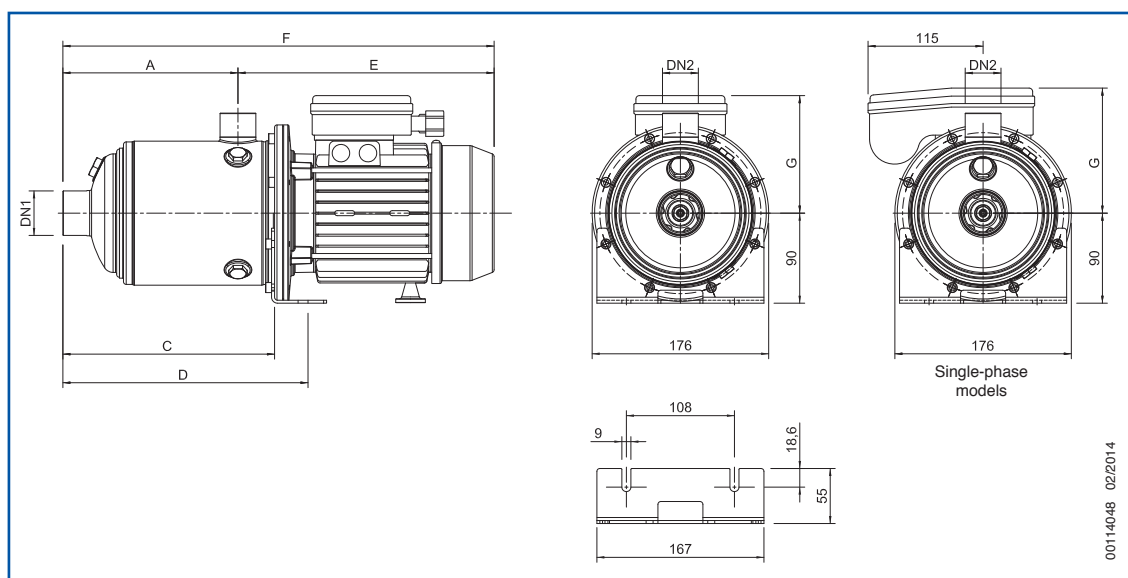
Technical data 50Hz

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Single-phase 220-240V 50Hz	Three-phase 380-415V 50Hz		kW	HP		μF	V	Single-phase 220-240V 50Hz	Three-phase 220-240V 50Hz	380-415V 50Hz
EH 5/2	EH 5/2T	2	0.45	0.6	0.58	16	450	3.0	2.6	1.5
EH 5/3	EH 5/3T	3	0.55	0.75	0.80	16	450	3.9	2.9	1.7
EH 5/4	EH 5/4T	4	0.9	1.2	1.10	30	450	5.3	4.3	2.5
EH 5/5	EH 5/5T	5	1.1	1.5	1.33	30	450	6.2	4.7	2.7
EH 5/6	EH 5/6T	6	1.3	1.8	1.56	30	450	7.3	5.7	3.3
EH 5/7	EH 5/7T	7	1.5	2	1.79	30	450	8.2	6.2	3.6
EH 5/8	EH 5/8T	8	1.5	2	2.00	30	450	8.9	6.6	3.8
-	EH 5/9T	9	1.85	2.5	2.30	-	-	-	7.1	4.1

- Single-phase motors: 220-240 V $\pm$ 5 % / 50Hz. Thermal protection built into the motor.
- Three-phase motors: 380-415 V $\pm$ 5 % / 50Hz. Thermal protection to be provided into the starter panel by the installer.

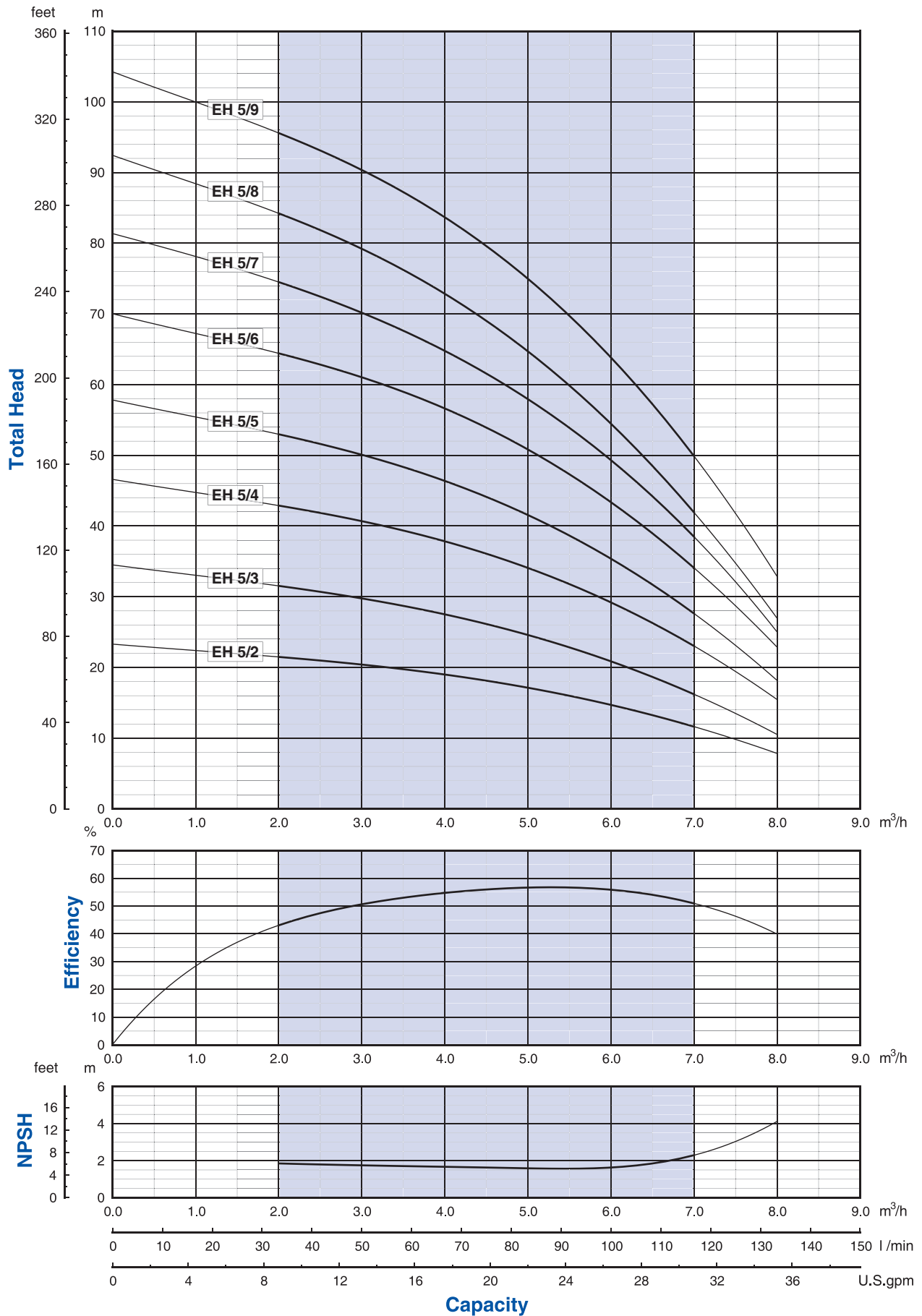
Dimensions and weights

Pump model		Dimensions								PACKAGING				
Single-phase 220-240V 50Hz	Three-phase 380-415V 50Hz	A mm	E mm	C mm	D mm	F mm	G		DN1	DN2	L mm	B mm	H mm	Weight kg
							1-phase	3-phase						
EH 5/2	EH 5/2T	103	256	139.6	173	359	120	118	Rp 1"¼	Rp 1"	500	200	260	10.5
EH 5/3	EH 5/3T	103	256	139.6	173	359	120	118			500	200	260	10.6
EH 5/4	EH 5/4T	127	256	163.6	197	383	120	118			500	200	260	13.0
EH 5/5	EH 5/5T	151	256	187.6	221	407	120	118			500	200	260	13.5
EH 5/6	EH 5/6T	175	300	211.6	245	475	125	125			610	220	260	17.1
EH 5/7	EH 5/7T	199	300	235.6	269	499	125	125			610	220	260	17.7
EH 5/8	EH 5/8T	223	300	259.6	293	523	125	125			610	220	260	18.2
-	EH 5/9T	247	300	283.6	317	547	125	125			610	220	260	18.7



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Performance curves 50Hz



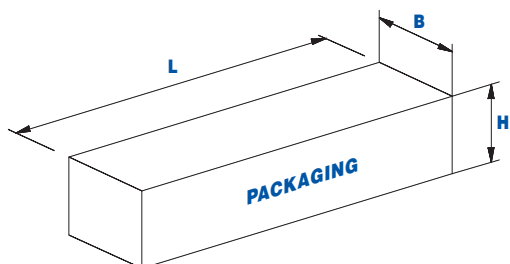
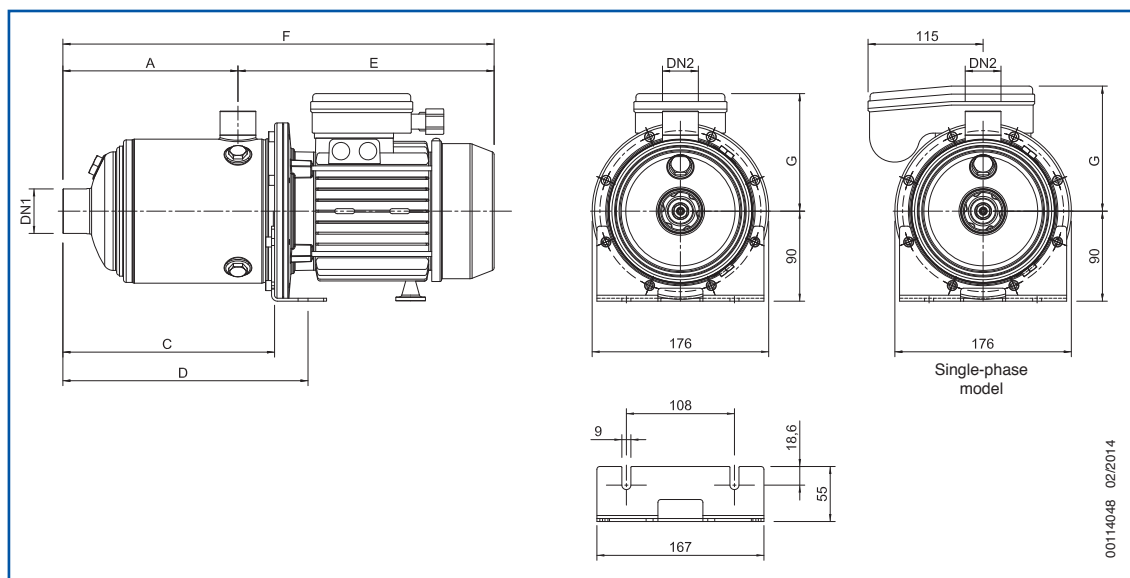
Technical data 50Hz

Pump model		NUMBER OF STAGES	MOTOR POWER		INPUT POWER	INTERNAL CAPACITOR		RATED CURRENT		
Single-phase 220-240V 50Hz	Three-phase 380-415V 50Hz		kW	HP		μF	V	Single-phase 220-240V 50Hz	Three-phase 220-240V 50Hz	380-415V 50Hz
EH 9/2	EH 9/2T	2	0.75	1	0.90	16	450	4.3	3.1	1.8
EH 9/3	EH 9/3T	3	1.1	1.5	1.37	30	450	6.4	4.7	2.7
EH 9/4	EH 9/4T	4	1.5	2	1.77	30	450	8.2	6.1	3.5
-	EH 9/5T	5	1.85	2.5	2.21	-	-	-	6.9	4.0
-	EH 9/6T	6	2	2.7	2.61	-	-	-	7.8	4.5

- Single-phase motors: 220-240 V ± 5 % / 50Hz. Thermal protection built into the motor.
- Three-phase motors: 380-415 V ± 5 % / 50Hz. Thermal protection to be provided into the starter panel by the installer.

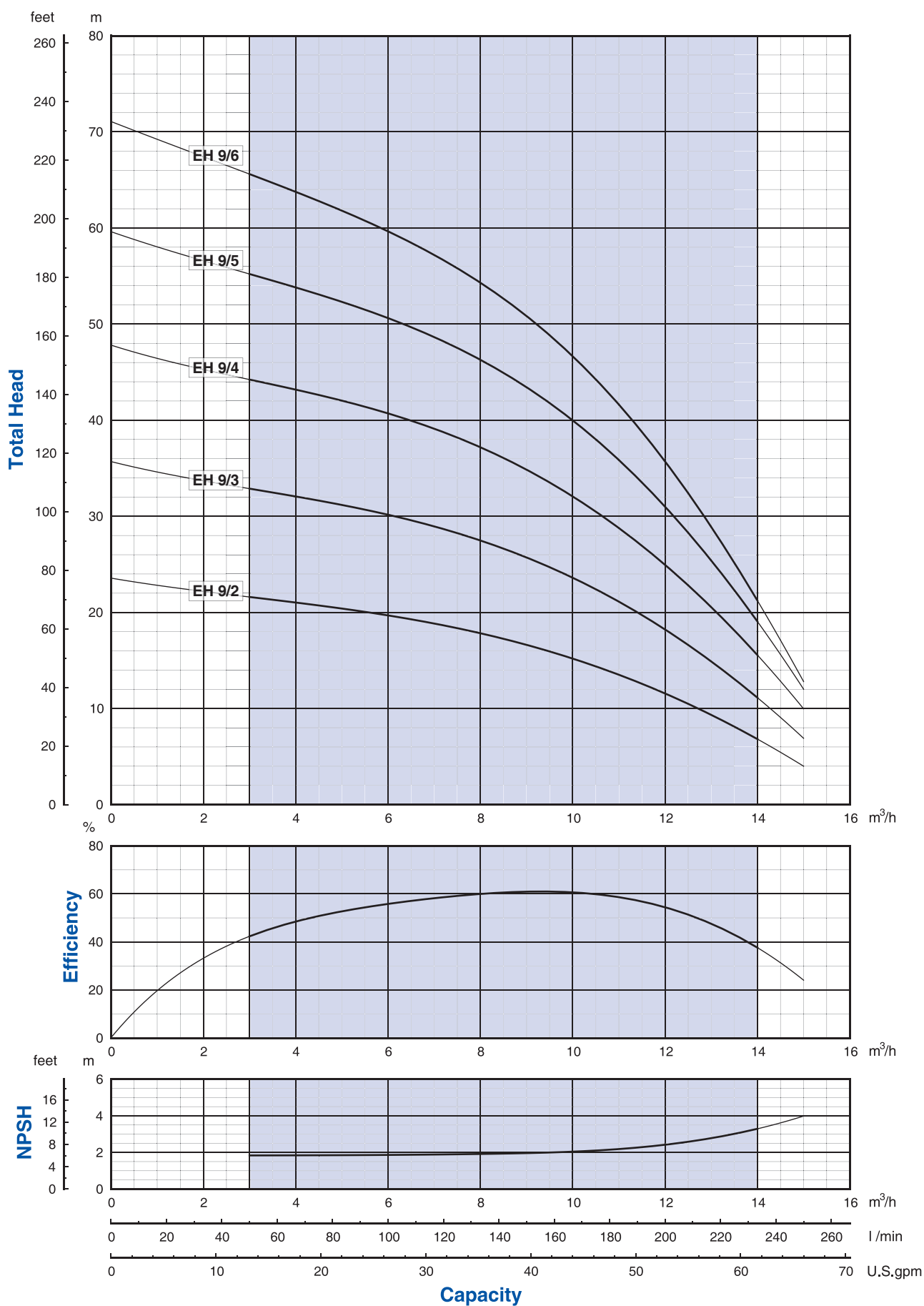
Dimensions and weights

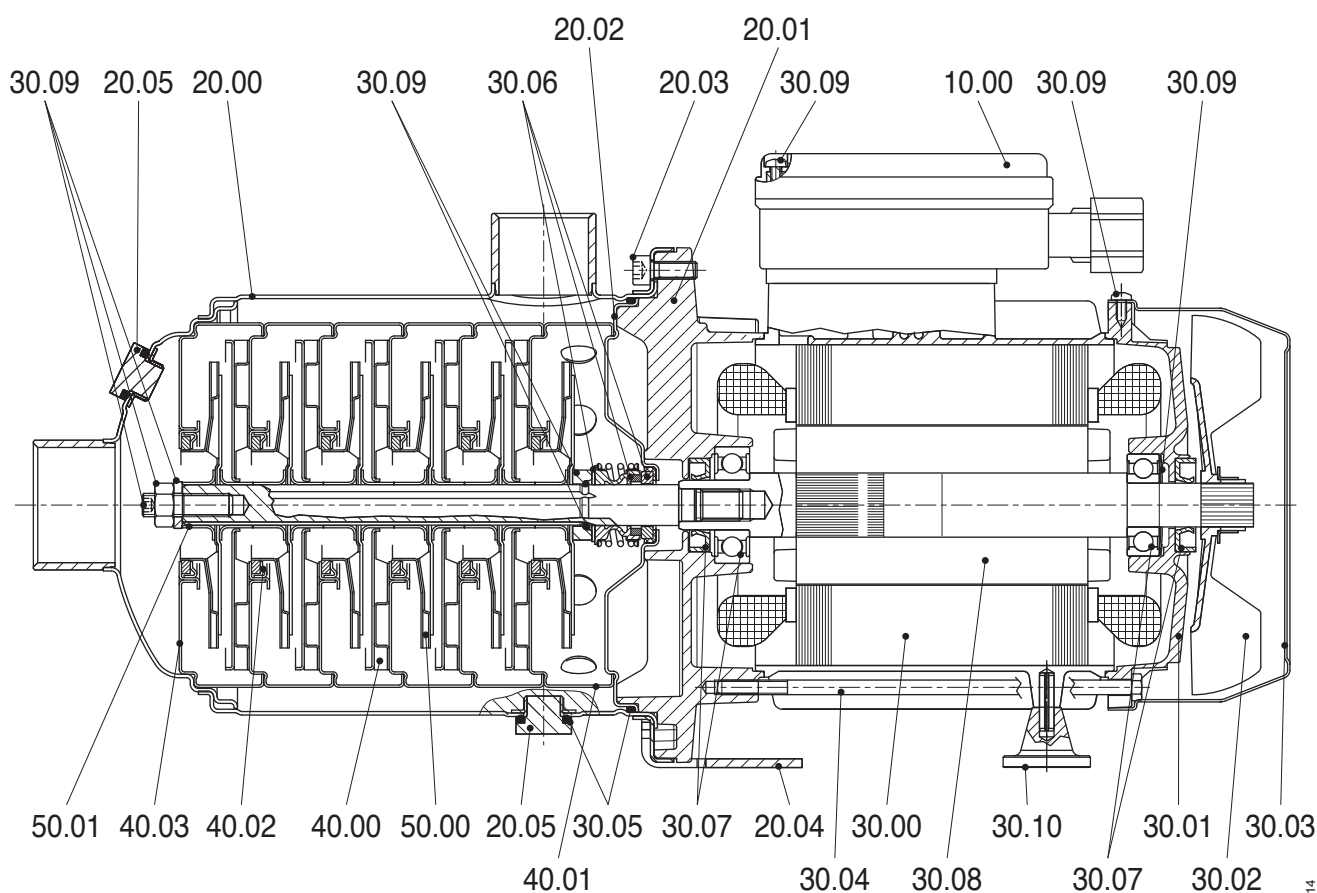
Pump model		Dimensions								PACKAGING				
Single-phase 220-240V 50Hz	Three-phase 380-415V 50Hz	A mm	E mm	C mm	D mm	F mm	G		DN1	DN2	L mm	B mm	H mm	Weight kg
							1-phase	3-phase						
EH 9/2	EH 9/2T	118	260	158.6	192	378	120	118	Rp 1½	Rp 1¼	500	200	260	10.8
EH 9/3	EH 9/3T	118	260	158.6	192	378	120	118			500	200	260	12.8
EH 9/4	EH 9/4T	148	304	188.6	222	452	125	125			610	220	260	16.5
-	EH 9/5T	178	304	218.6	252	482	125	125			610	220	260	17.2
-	EH 9/6T	208	304	248.6	282	512	125	125			610	220	260	17.8



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Performance curves 50Hz





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Ref. N.	Description
1000	Terminal box cover
2000	Pump casing
2001	Motor bracket
2002	Seal Housing
2003	Screws for Pump casing
2004	Support foot
2005	Filling and drain plug ¼" with O-Ring
3000	Motor housing and stator
3001	Bearing housing
3002	Fan
3003	Fan cover
3004	Tie rod

Ref. N.	Description
3005	Kit O-Rings (3 pcs)
3006	Kit mechanical seals (3 pcs)
3007	Kit ball bearings and Lip seal (2+2 pcs)
3008	Rotor and pump shaft
3009	Kit screws, nut and washers
3010	Motor foot
4000	Stage housing and diffuser
4001	Last stage with holes
4002	Floating neck ring assembly
4003	Initial stage housing
5000	Impeller
5001	Impeller spacers (2 pcs)



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