



50 HZ MH SERIES

HORIZONTAL MULTI-STAGE PUMPS





50 HZ MH SERIES HORIZONTAL MULTI-STAGE PUMPS

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For the most up-to-date product information, visit franklinwater.com.

FEATURES

- Compact close-coupled design; robust and rust resistant; superior efficiency and performance
- Heavy-duty oversized motor shaft
- Impellers and diffusers made of 300 series stainless steel for maximum durability
- Easy maintenance
- Robust ball bearing fitted into the motor bracket for greater longevity

APPLICATIONS

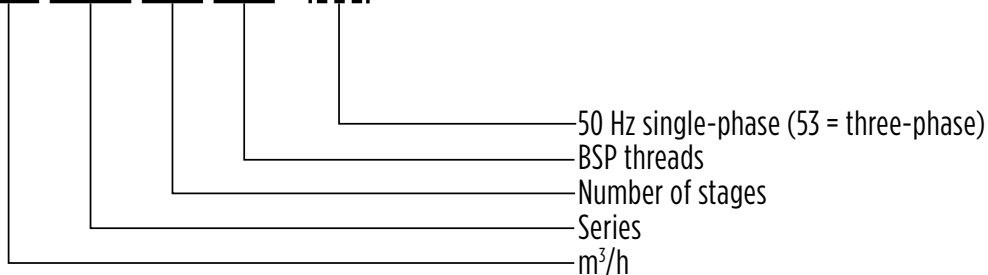
- Small domestic and industrial systems / domestic water supply
- Water distribution / pressure boosting
- Irrigation / gardening / sprinklers / rain water collection
- Industrial plants / wash-down unit
- Cooling and chilling / heating and conditioning / air conditioning systems
- Other various installations

SPECIFICATIONS

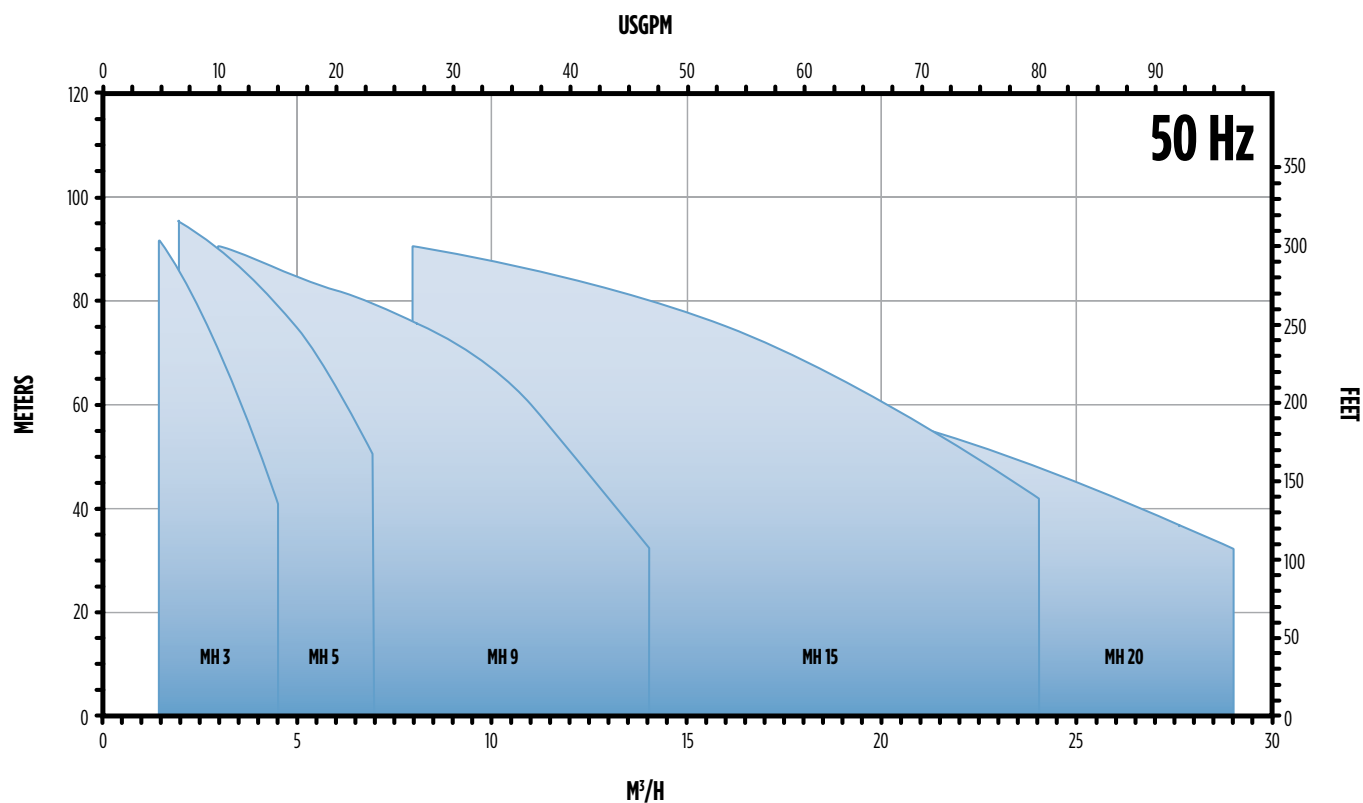
- Capacities up to 29 m³/h at 50 Hz
- Heads up to 104 meters at 50 Hz
- Suction inlet: 1.25" BSP (MH 3/5); 1.5" BSP (MH 9); 2" BSP (MH 15/20)
- Discharge outlet: 1" BSP (MH 3/5); 1.25" BSP (MH 9); 1.5" BSP (MH 15/20)
- Maximum working pressure of 10 Bar
- Maximum ambient temperature of 40 °C
- Liquid temperature range of -15 °C to 110 °C
- Asynchronous, TEFC, Class F insulation, IP55 protection motor
- Capacitor inside terminal box
- Single-phase motors with built-in thermal relay

MODEL NOMENCLATURE

3 **FMH** **2** **B** - **51**



FAMILY CURVE



MATERIALS/FLUIDS COMPATIBILITY

POS.	DESCRIPTION	TYPE	MATERIAL	
			AISI	DIN/EN
20.00	Pump Casing	Stainless steel	304	1.4301
20.02	Seal Housing	Stainless steel		
20.05	Filling / Drain Plug	Stainless steel		
20.07	Inlet Cover	Stainless steel		
30.05	O-ring	EPDM	-	-
30.06	Mechanical Seal	Carbon/ceramic/EPDM; Carbon/silicon carbide/EPDM	-	-
30.08	Pump Shaft	Stainless steel	304	1.4301
30.09	Screws / Washers	Stainless steel		
40.00	Diffuser(s)	Stainless steel		
40.01				
40.03				
50.00	Impeller(s) w/ Spacers	Stainless steel		
50.01				

MH 3 - TECHNICAL DATA

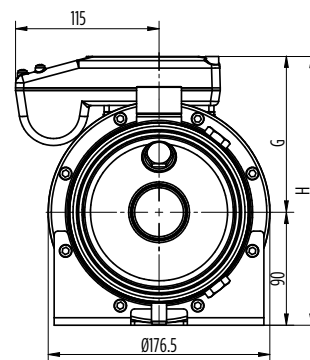
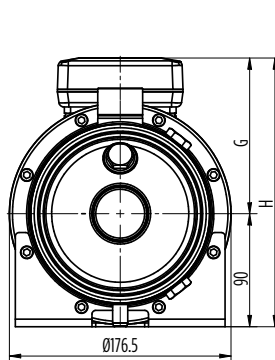
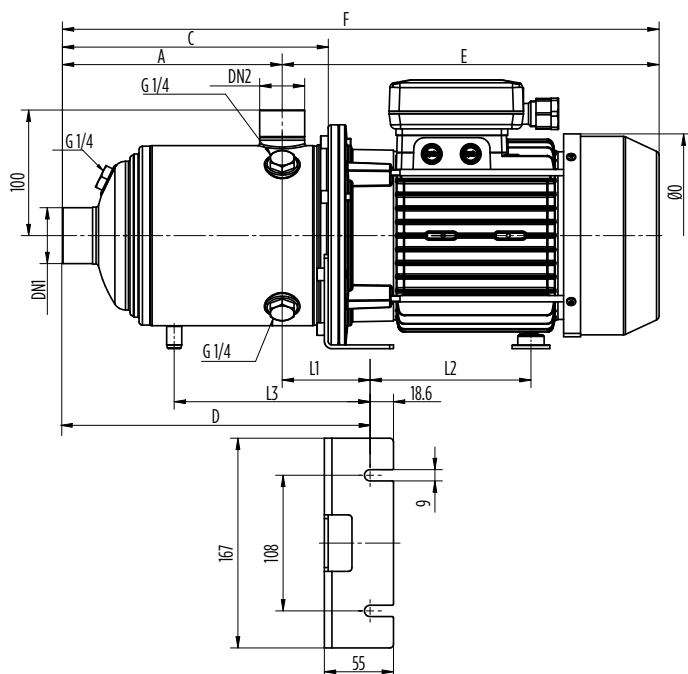
SINGLE-PHASE* 220-240 V		THREE-PHASE** 380-415 V		NO. OF STAGES	MOTOR POWER		INPUT POWER	INTERNAL CAPACITOR		RATED CURRENT (50 HZ)		
MODEL NO.	ORDER NO.	MODEL NO.	ORDER NO.		KW	HP		μF	V	SINGLE-PHASE	THREE-PHASE	
										220-240 V	220-240 V	380-415 V
3FMH2B-51	96140003102	3FMH2B-53	96140003302	2	0.33	0.45	0.44	16	450	2.5	2.4	1.4
3FMH3B-51	96140003103	3FMH3B-53	96140003303	3	0.45	0.6	0.59	16		3.0	2.6	1.5
3FMH4B-51	96140003104	3FMH4B-53	96140003304	4	0.55	0.75	0.75	16		3.7	2.9	1.7
3FMH5B-51	96140003105	3FMH5B-53	96140003305	5	0.75	1	0.90	16		4.3	3.1	1.8
3FMH6B-51	96140003106	3FMH6B-53	96140003306	6	0.9	1.2	1.14	30		5.4	4.3	2.5
3FMH7B-51	96140003107	3FMH7B-53	96140003307	7	1.1	1.5	1.29	30		6.0	4.7	2.7
3FMH8B-51	96140003108	3FMH8B-53	96140003308	8	1.3	1.8	1.46	30		6.9	5.5	3.2
3FMH9B-51	96140003109	3FMH9B-53	96140003309	9	1.5	2	1.61	30		7.5	5.9	3.4

*Single-phase motors: 220-240 V $\pm$ 5 % / 50 Hz. Thermal protection built into the motor.

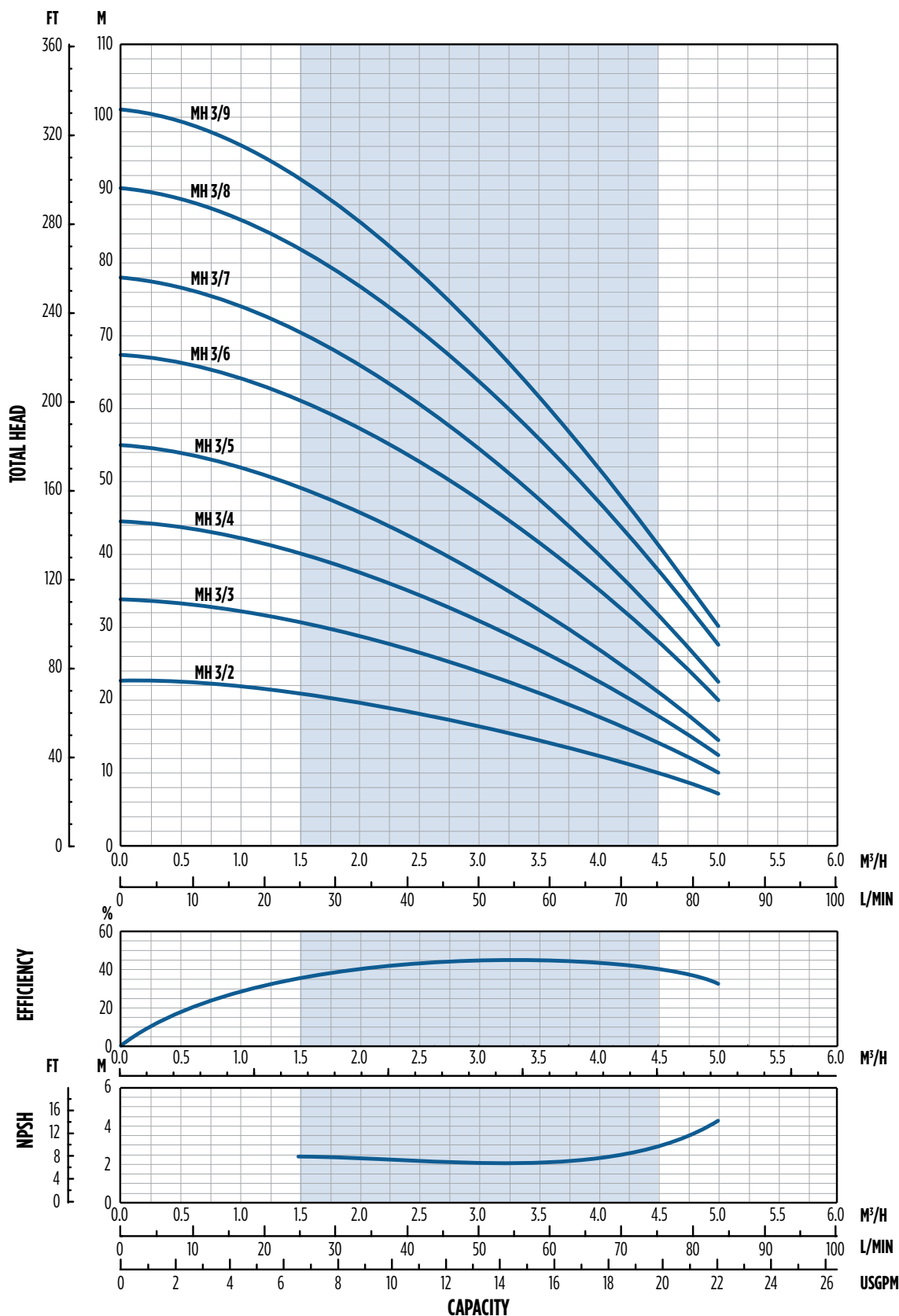
**Three-phase motors: 380-415 V $\pm$ 5 % / 50 Hz. Thermal protection to be provided into the starter panel by the installer.

MH 3 - DIMENSIONS

SINGLE-PHASE 220-240 V	THREE-PHASE 380-415 V	DIMENSIONS													WEIGHT (KG)		
		MM						IN		MM							
MODEL NO.	MODEL NO.	A	E	C	D	F	G	DN1	DN2	ØB	H	L1	L2	L3	SINGLE-PHASE	THREE-PHASE	
3FMH2B-51	3FMH2B-53	103	258	139.6	173	361	117	1.25 BSP	1 BSP	144		70	100.6	-	11.2	11	
3FMH3B-51	3FMH3B-53	103	258	139.6	173	361	117			144	207	70	100.6	-	-	11.3	11.1
3FMH4B-51	3FMH4B-53	127	258	163.6	197	385	117			144	207	70	100.6	-	-	11.9	11.6
3FMH5B-51	3FMH5B-53	151	258	187.6	221	409	117			144	207	70	100.6	-	-	12.4	12.2
3FMH5B-51	3FMH6B-53	175	258	211.6	245	433	117			144	207	70	100.6	-	-	14.4	14.2
3FMH7B-51	3FMH7B-53	199	258	235.6	269	457	117			144	207	70	100.6	180		15	14.7
3FMH8B-51	3FMH8B-53	223	300	259.6	293	523	124			162	214	70	128.1	204		18.8	18.6
3FMH9B-51	3FMH9B-53	247	300	283.6	317	547	124			162	214	70	128.1	228		19.4	19.1



MH 3 - PERFORMANCE



MH 5 - TECHNICAL DATA

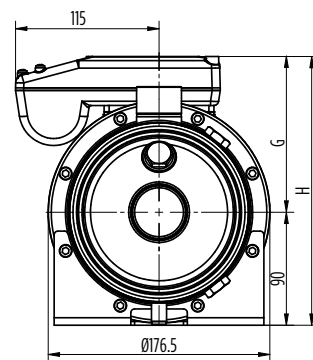
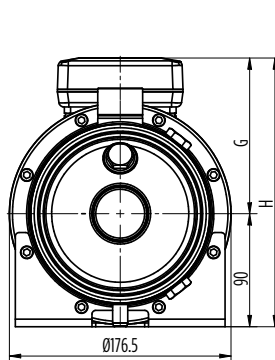
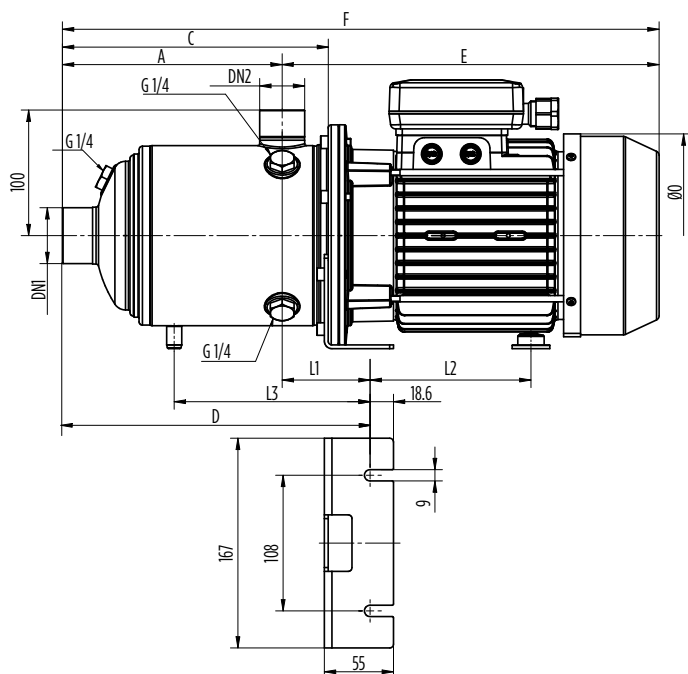
SINGLE-PHASE* 220-240 V		THREE-PHASE** 380-415 V		NO. OF STAGES	MOTOR POWER		INPUT POWER	INTERNAL CAPACITOR		RATED CURRENT		
MODEL NO.	ORDER NO.	MODEL NO.	ORDER NO.		KW	HP		μF	V	SINGLE-PHASE	THREE-PHASE	
										220-240 V	220-240 V	380-415 V
5FMH2B-51	96140005102	5FMH2B-53	96140005302	2	0.45	0.6	0.58	16	450	3.0	2.6	1.5
5FMH3B-51	96140005103	5FMH3B-53	96140005303	3	0.55	0.75	0.80	16	450	3.9	2.9	1.7
5FMH4B-51	96140005104	5FMH4B-53	96140005304	4	0.9	1.2	1.10	30	450	5.3	4.3	2.5
5FMH5B-51	96140005105	5FMH5B-53	96140005305	5	1.1	1.5	1.33	30	450	6.2	4.7	2.7
5FMH6B-51	96140005106	5FMH6B-53	96140005306	6	1.3	1.8	1.56	30	450	7.3	5.7	3.3
5FMH7B-51	96140005107	5FMH7B-53	96140005307	7	1.5	2	1.79	30	450	8.2	6.2	3.6
5FMH8B-51	96140005108	5FMH8B-53	96140005308	8	1.5	2	2.00	30	450	8.9	6.6	3.8
-	-	5FMH9B-53	96140005309	9	1.85	2.5	2.30	-	-	-	7.1	4.1

*Single-phase motors: 220-240 V $\pm$ 5 % / 50 Hz. Thermal protection built into the motor.

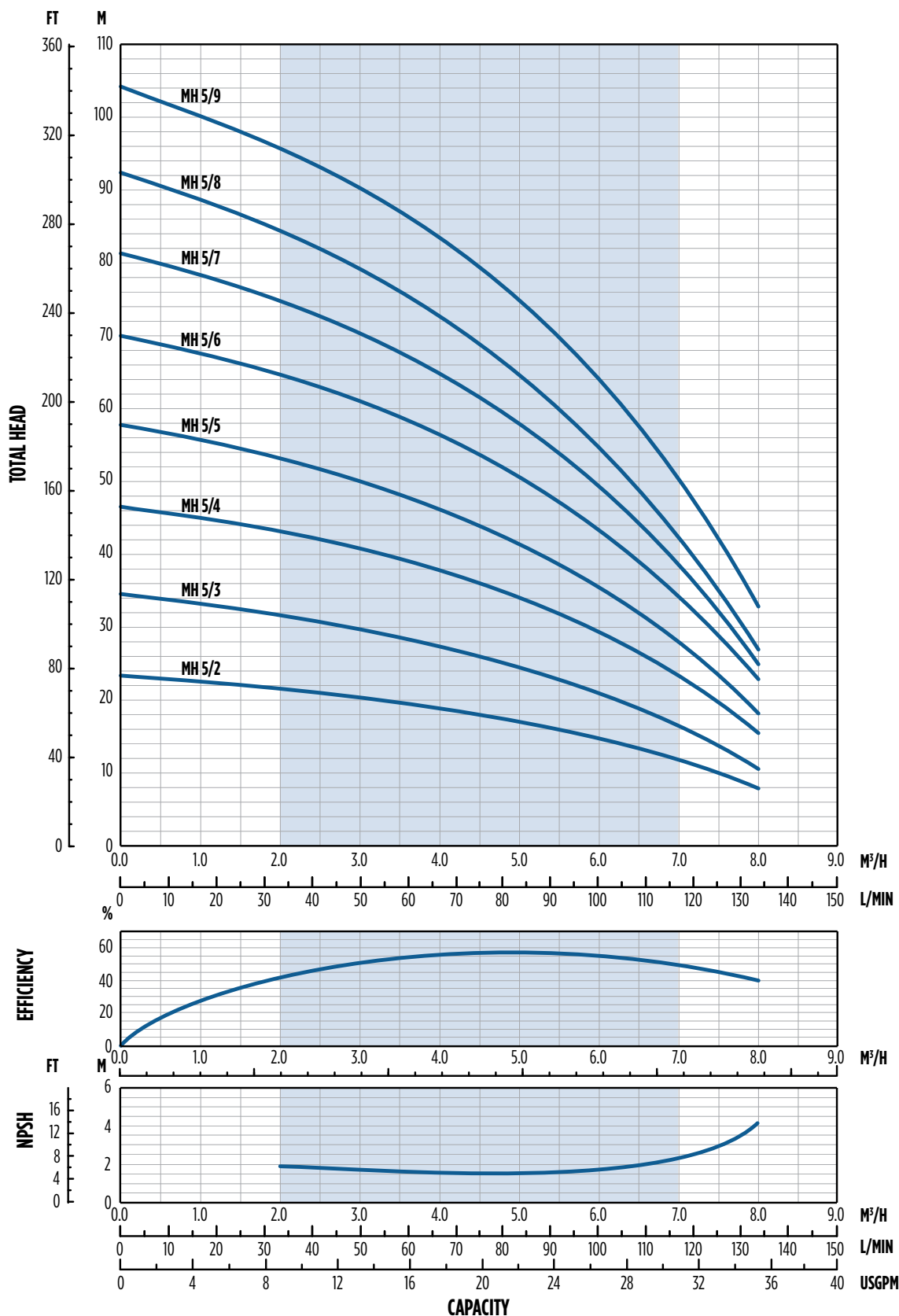
**Three-phase motors: 380-415 V $\pm$ 5 % / 50 Hz. Thermal protection to be provided into the starter panel by the installer.

MH 5 - DIMENSIONS

SINGLE-PHASE 220-240 V	THREE-PHASE 380-415 V	DIMENSIONS													WEIGHT (KG)	
		MM						IN		MM						
MODEL NO.	MODEL NO.	A	E	C	D	F	G	DN1	DN2	ØB	H	L1	L2	L3	SINGLE-PHASE	THREE-PHASE
5FMH2B-51	5FMH2B-53	103	258	139.6	173	361	117	1.25 BSP	1 BSP	144	207	70	100.6	-	11.2	11
5FMH3B-51	5FMH3B-53	103	258	139.6	173	361	117			144	207	70	100.6	-	11.4	11.1
5FMH4B-51	5FMH4B-53	127	258	163.6	197	385	117			144	207	70	100.6	-	13.4	13.1
5FMH5B-51	5FMH5B-53	151	258	187.6	221	409	117			144	207	70	100.6	-	13.9	13.7
5FMH6B-51	5FMH6B-53	175	300	211.6	245	475	124			162	214	70	128.1	-	17.7	17.5
5FMH7B-51	5FMH7B-53	199	300	253.6	269	499	124			162	214	70	128.1	180	18.3	18
5FMH8B-51	5FMH8B-53	223	300	259.6	293	523	124			162	214	70	128.1	204	18.8	18.6
-	5FMH9B-53	247	300	283.6	317	547	124			162	214	70	128.1	228	-	19.1



MH 5 - PERFORMANCE



MH 9 - TECHNICAL DATA

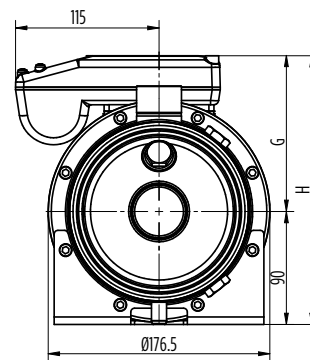
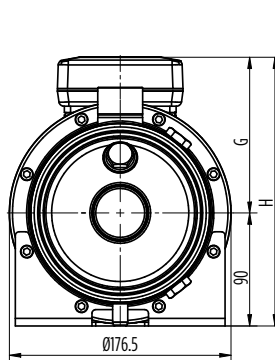
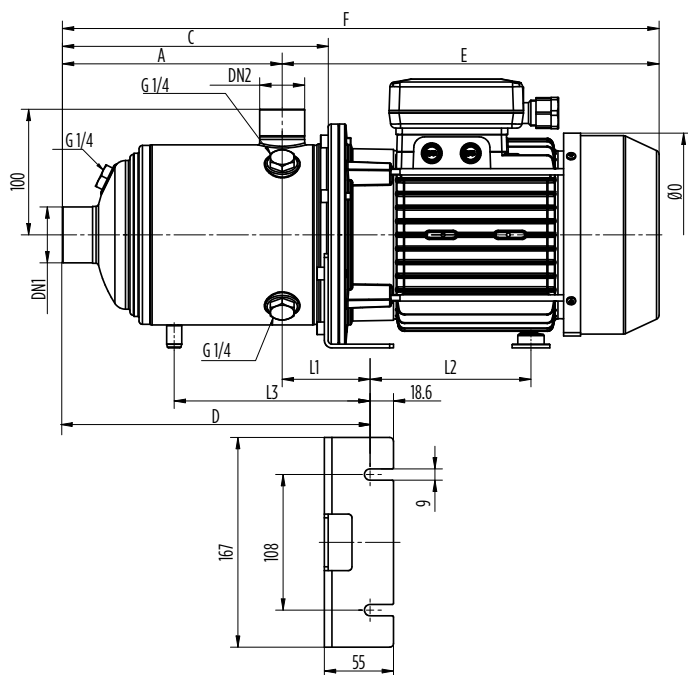
SINGLE-PHASE* 220-240 V		THREE-PHASE** 380-415 V		NO. OF STAGES	MOTOR POWER		INPUT POWER	INTERNAL CAPACITOR		RATED CURRENT		
MODEL NO.	ORDER NO.	MODEL NO.	ORDER NO.		KW	HP		μF	V	SINGLE-PHASE	THREE-PHASE	
										220-240 V	220-240 V	380-415 V
9FMH2B-51	96140009102	9FMH2B-53	96140009302	2	0.75	1	0.90	16	450	4.3	3.1	1.8
9FMH3B-51	96140009103	9FMH3B-53	96140009303	3	1.1	1.5	1.37	30	450	6.4	4.7	2.7
9FMH4B-51	96140009104	9FMH4B-53	96140009304	4	1.5	2	1.77	30	450	8.2	6.1	3.5
-	-	9FMH5B-53	96140009305	5	1.85	2.5	2.21	-	-	-	6.9	4.0
-	-	9FMH6B-53	96140009306	6	2	2.7	2.61	-	-	-	7.8	4.5
-	-	9FMH7B-53	96140009307	7	3	4	3.18	-	-	-	11.0	6.4
-	-	9FMH8B-53	96140009308	8	3	4	3.59	-	-	-	12.0	6.9

*Single-phase motors: 220-240 V $\pm$ 5 % / 50 Hz. Thermal protection built into the motor.

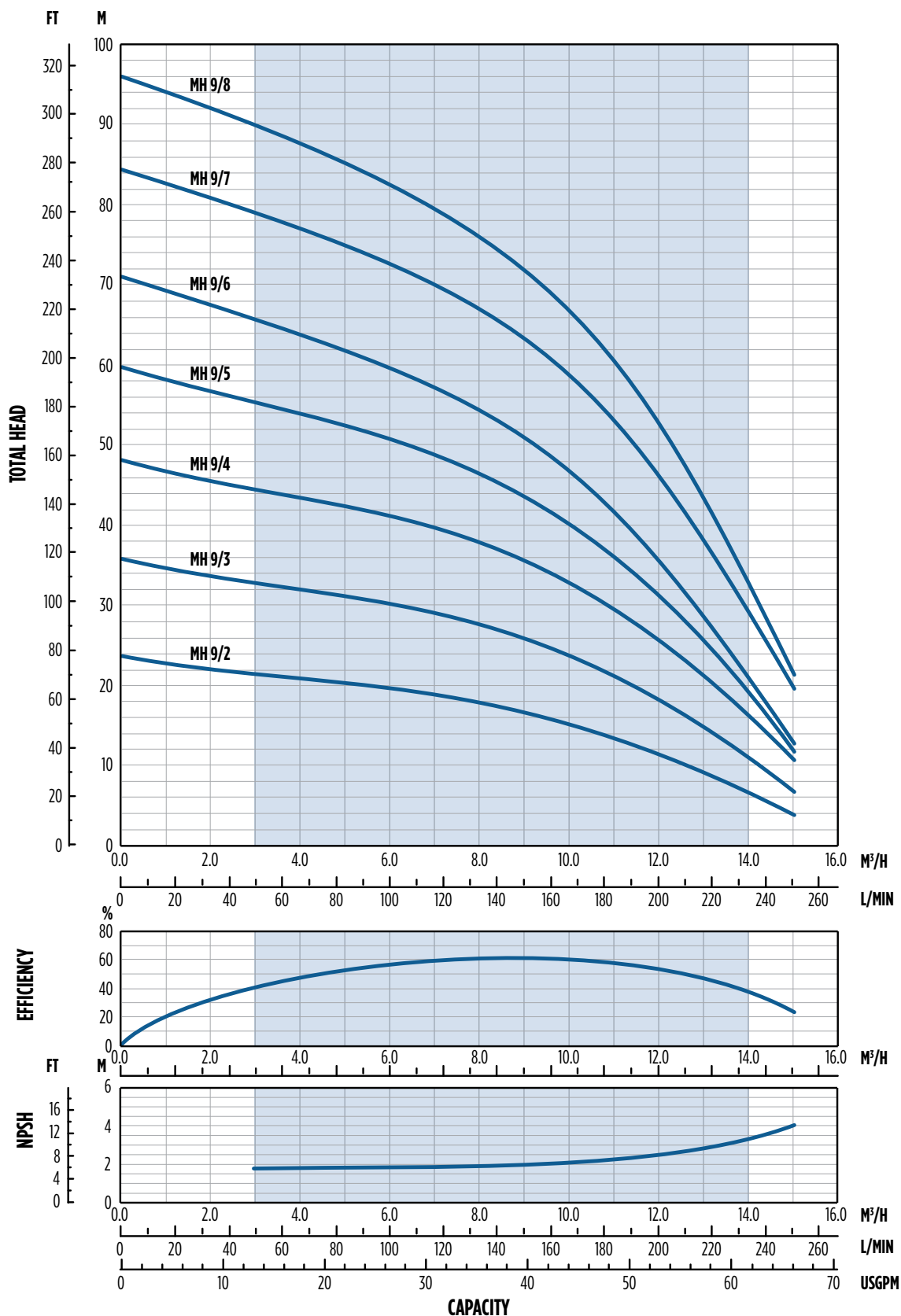
**Three-phase motors: 380-415 V $\pm$ 5 % / 50 Hz. Thermal protection to be provided into the starter panel by the installer.

MH 9 - DIMENSIONS

SINGLE-PHASE 220-240 V	THREE-PHASE 380-415 V	DIMENSIONS													WEIGHT (KG)	
		MM						IN		MM						
MODEL NO.	MODEL NO.	A	E	C	D	F	G	DN1	DN2	ØB	H	L1	L2	L3	SINGLE-PHASE	THREE-PHASE
9FMH2B-51	9FMH2B-53	118	262	158.6	192	380	120	1.5 BSP	1 BSP	144	207	74	100.6	-	11.5	11.3
9FMH3B-51	9FMH3B-53	118	262	158.6	192	380	120			144	207	74	100.6	-	13.1	12.9
9FMH4B-51	9FMH4B-53	148	304	188.6	222	452	124			162	214	74	128.1	-	17.1	16.8
-	9FMH5B-53	178	304	218.6	252	482	124			162	214	74	128.1	-	-	17.5
-	9FMH6B-53	208	304	248.6	282	512	124			162	214	74	128.1	192.1	-	18.1
-	9FMH7B-53	238	349	278.6	312	587	131			179	221	74	171.6	222.1	-	25.5
-	9FMH8B-53	268	349	308.6	342	617	131			179	221	74	171.6	252.1	-	26.1



MH 9 - PERFORMANCE



MH 15 - TECHNICAL DATA

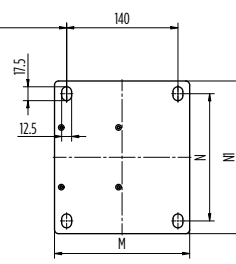
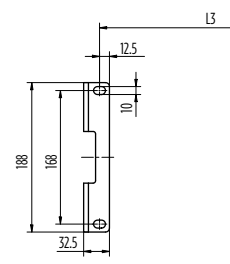
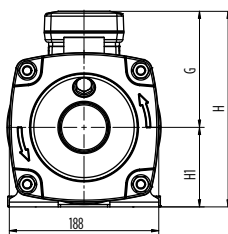
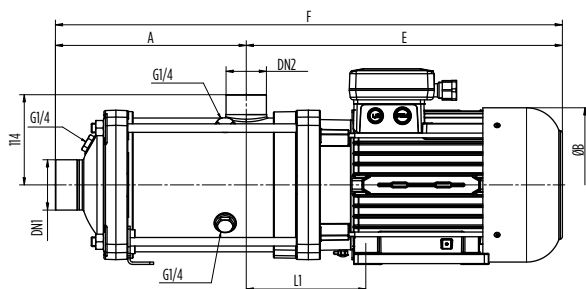
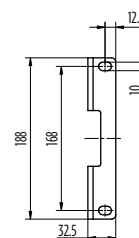
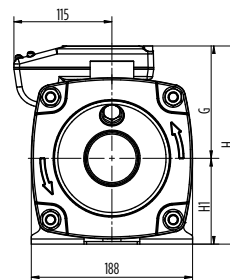
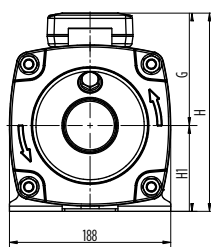
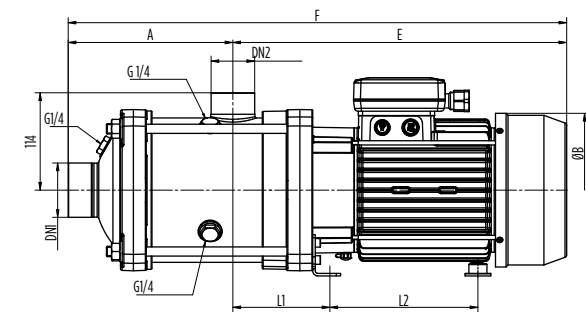
SINGLE-PHASE 220-240 V		THREE-PHASE** 380-415 V		NO. OF STAGES	MOTOR POWER		INPUT POWER	INTERNAL CAPACITOR		RATED CURRENT		
MODEL NO.	ORDER NO.	MODEL NO.	ORDER NO.		KW	HP		μF	V	SINGLE-PHASE 220-240 V	THREE-PHASE 220-240 V 380-415 V	
-	-	15FMH2B-53	96140015302	2	1.5	2	1.71	-	-	-	5.7	3.3
-	-	15FMH3B-53	96140015303	3	2.2	3	2.55	-	-	-	8.3	4.8
-	-	15FMH4B-53	96140015304	4	3	4	3.38	-	-	-	11.4	6.6
-	-	15FMH5B-53	96140015305	5	4	5.5	4.22	-	-	-	13.2	7.6
-	-	15FMH6B-53	96140015306	6	5.5	7.5	5.13	-	-	-	15.2	8.8
-	-	15FMH7B-53	96140015307	7	5.5	7.5	5.91	-	-	-	17.0	9.8

*Single-phase motors: 220-240 V ± 5 % / 50 Hz. Thermal protection built into the motor.

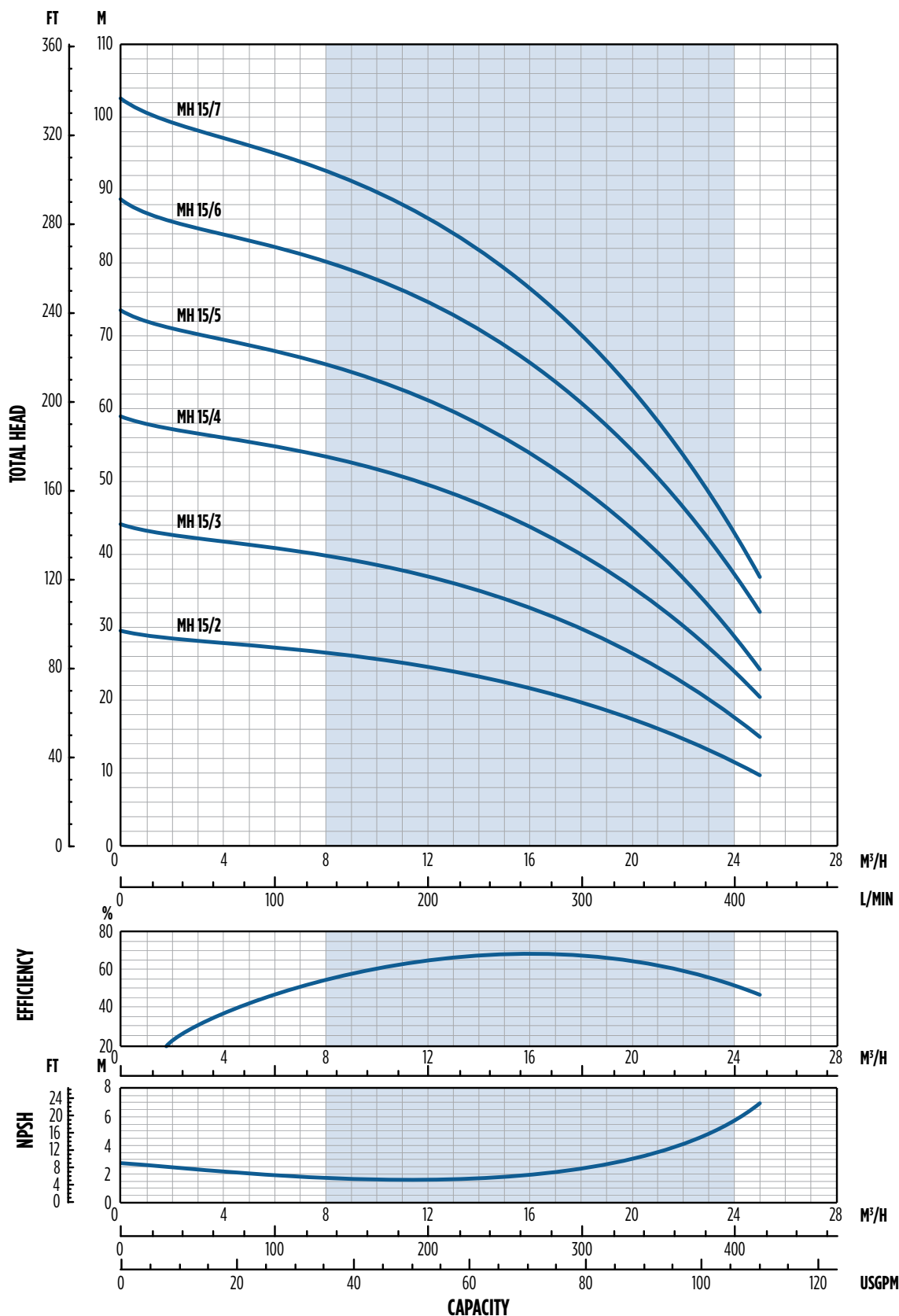
**Three-phase motors: 380-415 V ± 5 % / 50 Hz. Thermal protection to be provided into the starter panel by the installer.

MH 15 - DIMENSIONS

SINGLE-PHASE 220-240 V	THREE-PHASE 380-415 V	DIMENSIONS														WEIGHT (KG)	
		MM				IN		MM								SINGLE-PHASE	THREE-PHASE
MODEL NO.	MODEL NO.	A	E	F	G	DN1	DN2	ØB	H	HI	L1	L2	L3	M	N		
-	15FMH2B-53	144	344	488	124	2 BSP	1.5 BSP	162	224	100	113.1	129.1	-	-	-	-	20
-	15FMH3B-53	144	388.5	532.5	131			179	231	100	113.1	172.6	-	-	-	-	24.5
-	15FMH4B-53	192	388.5	580.5	131			179	231	100	113.1	172.6	-	-	-	-	28.5
-	15FMH5B-53	240	397	637	146			194	246	100	150.2	-	279.2	170	160	192	35.5
-	15FMH6B-53	288	412	700	151			218	263	112	151.7	-	328.7	180	190	220	47.5
-	15FMH7B-53	336	412	748	151			218	263	112	151.7	-	376.7	180	190	220	48.5



MH 15 - PERFORMANCE



MH 20 - TECHNICAL DATA

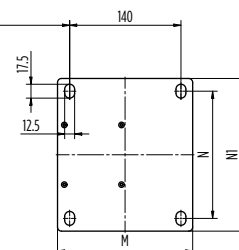
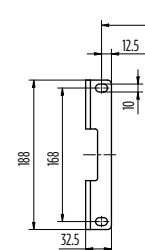
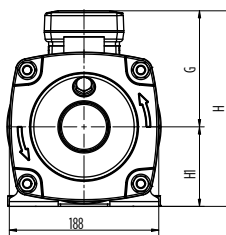
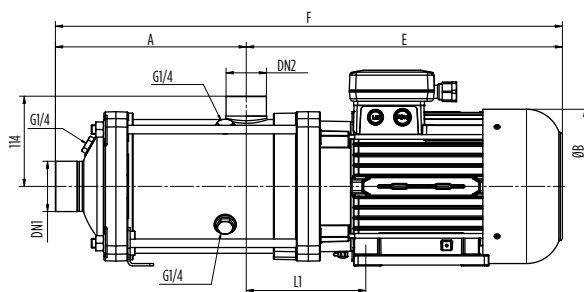
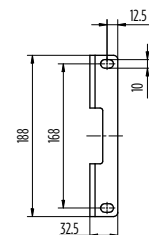
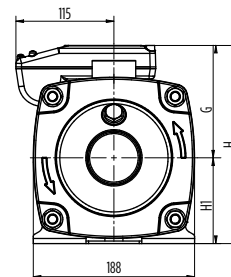
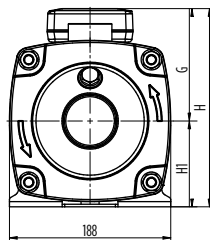
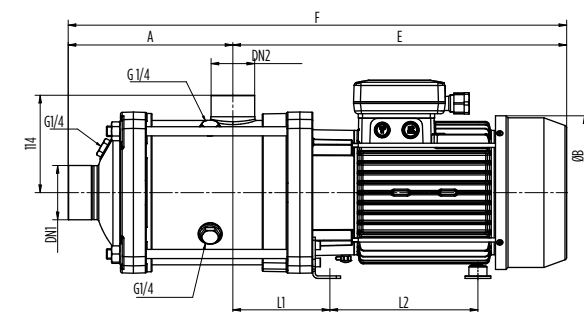
SINGLE-PHASE* 220-240 V		THREE-PHASE** 380-415 V		NO. OF STAGES	MOTOR POWER		INPUT POWER	INTERNAL CAPACITOR		RATED CURRENT		
MODEL NO.	ORDER NO.	MODEL NO.	ORDER NO.		KW	HP		μF	V	SINGLE-PHASE 220-240 V	THREE-PHASE 220-240 V 380-415 V	
-	-	20FMH2B-53	96140020302	2	2.2	3	2.35	-	-	-	8.0	4.6
-	-	20FMH3B-53	96140020303	3	3	4	3.46	-	-	-	11.6	6.7
-	-	20FMH4B-53	96140020304	4	4	5.5	4.57	-	-	-	14.0	8.1
-	-	20FMH5B-53	96140020305	5	5.5	7.5	5.79	-	-	-	16.6	9.6

*Single-phase motors: 220-240 V $\pm$ 5 % / 50 Hz. Thermal protection built into the motor.

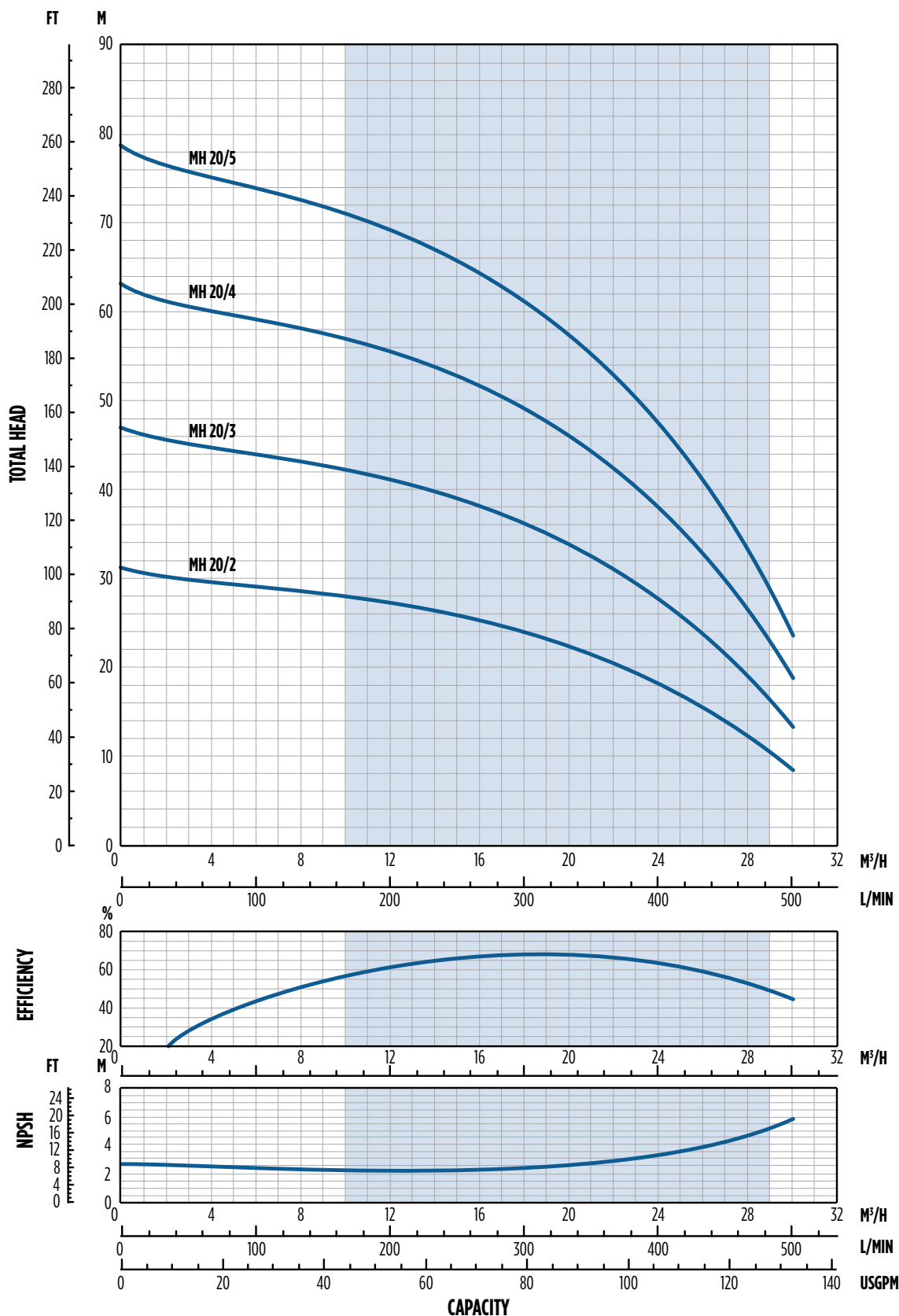
**Three-phase motors: 380-415 V $\pm$ 5 % / 50 Hz. Thermal protection to be provided into the starter panel by the installer.

MH 20 - DIMENSIONS

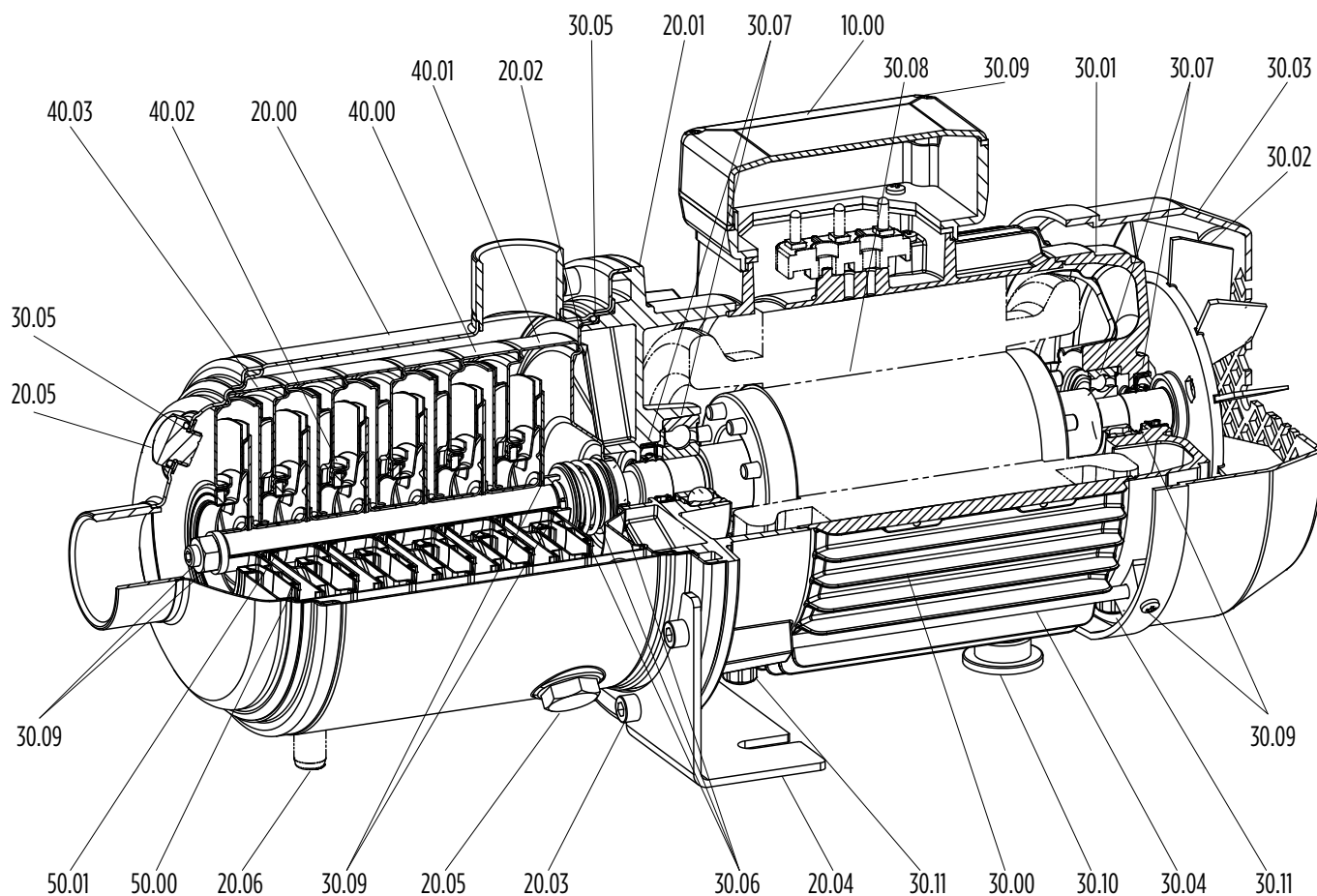
SINGLE-PHASE 220-240 V	THREE-PHASE 380-415 V	DIMENSIONS															WEIGHT (KG)		
		MM				IN		MM											
MODEL NO.	MODEL NO.	A	E	F	G	DN1	DN2	ØB	H	H1	L1	L2	L3	M	N	N1	SINGLE-PHASE	THREE-PHASE	
-	20FMH2B-53	144	388.5	532.5	131	2 BSP	1.5 BSP	179	231	100	113.1	172.6	-	-	-	-	-	24.5	
-	20FMH3B-53	144	388.5	532.5	131			179	231	100	113.1	172.6	-	-	-	-	-	-	27.5
-	20FMH4B-53	192	397	589	146			194	246	100	150.2	-	231.2	170	160	192	-	-	34.5
-	20FMH5B-53	240	412	652	151			218	263	112	151.7	-	280.7	180	190	220	-	-	46



MH 20 - PERFORMANCE



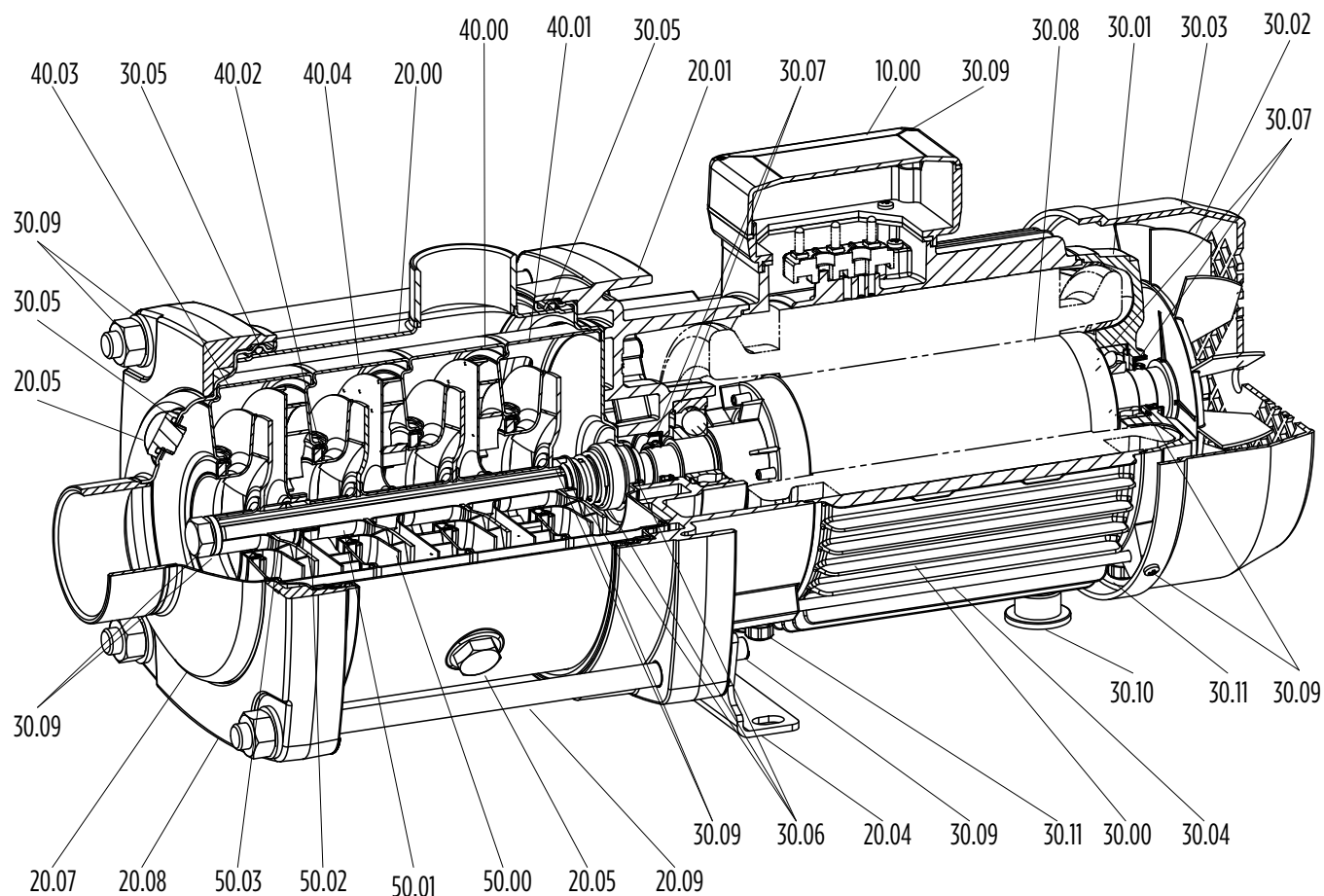
MH 3-5-9 - MATERIALS



REF. NO.	DESCRIPTION
10.00	Terminal Box Cover
20.00	Pump Casing
20.01	Motor Bracket
20.02	Seal Housing
20.03	Pump Casing Screws
20.04	Support Foot
20.05	Filling and Drain Plug w/ O-ring
20.06	Pump Casing Foot
30.00	Motor Housing and Stator
30.01	Bearing Housing
30.02	Fan
30.03	Fan Cover
30.04	Tie Rod

REF. NO.	DESCRIPTION
30.05	O-rings
30.06	Mechanical Seals
30.07	Ball Bearings and Lip Seal
30.08	Rotor and Pump Shaft
30.09	Screws, Nuts, and Washers
30.10	Motor Foot
30.11	Valve Plug
40.00	Stage Housing and Diffuser
40.01	Last Stage w/ Holes
40.02	Floating Neck Ring Assembly
40.03	Initial Stage Housing
50.00	Impeller
50.01	Impeller Spacers

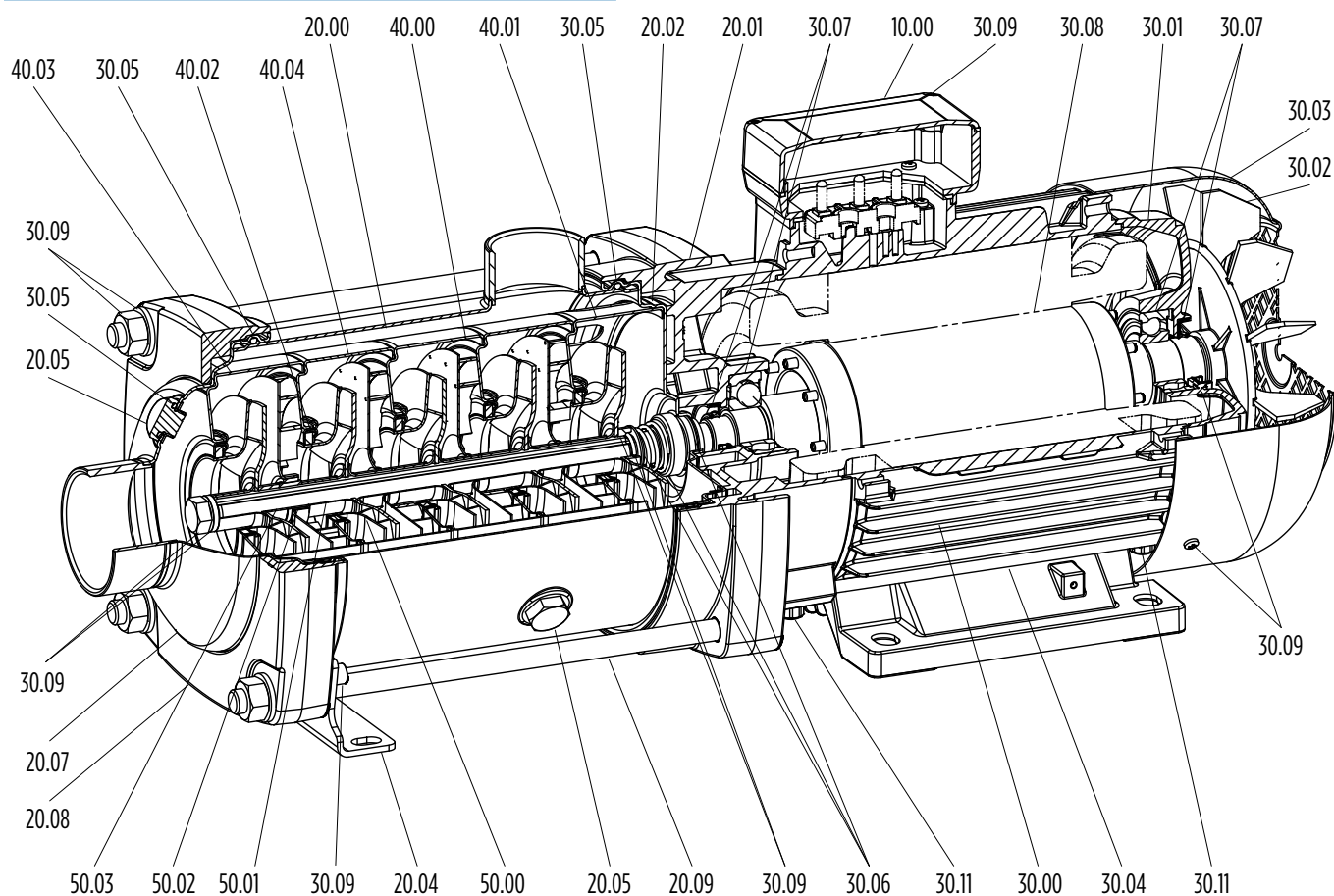
MH 15-20 - MATERIALS (CONFIGURATION UP TO 3 KW)



REF. NO.	DESCRIPTION
10.00	Terminal Box Cover
20.00	Pump Casing
20.01	Motor Bracket
20.02	Seal Housing
20.04	Impeller Spacers
20.05	Filling and Draining Plugs
20.07	Inlet Cover
20.08	Flange
20.09	Pump Casing Tie Rods
30.00	Motor Housing and Stator
30.01	Bearing Housing
30.02	Fan
30.03	Fan Cover
30.04	Motor Tie Rod
30.05	O-rings

REF. N.	DESCRIPTION
30.06	Mechanical Seals
30.07	Ball Bearings and Lip Seal
30.08	Rotor and Pump Shaft
30.09	Screws, Nuts, and Washers
30.10	Motor Foot
30.11	Valve Plug
40.00	Stage Housing and Diffuser
40.01	Last Stage w/ Holes
40.02	Floating Neck Ring Assembly
40.03	Initial Stage Housing
40.04	Stage Housing and Diffuser w/ Bearing
50.00	Impeller
50.01	Impeller Spacers
50.02	Intermediary Sleeve
50.03	Intermediary Sleeve Spacer

MH 15-20 - MATERIALS (CONFIGURATION 4 KW AND GREATER)



REF. NO.	DESCRIPTION
10.00	Terminal Box Cover
20.00	Pump Casing
20.01	Motor Bracket
20.02	Seal Housing
20.04	Support Foot
20.05	Filling and Draining Plug
20.07	Inlet Cover
20.08	Flange
20.09	Pump Casing Tie Rods
30.00	Motor Housing and Stator
30.01	Bearing Housing
30.02	Fan
30.03	Fan Cover
30.04	Motor Tie Rod
30.05	O-rings

REF. NO.	DESCRIPTION
30.06	Mechanical Seals
30.07	Ball Bearings and Lip Seal
30.08	Rotor and Pump Shaft
30.09	Screws, Nuts, and Washers
30.10	Motor Foot
30.11	Valve Plug
40.00	Stage Housing and Diffuser
40.01	Last Stage w/ Holes
40.02	Floating Neck Ring Assembly
40.03	Initial Stage Housing
40.04	Stage Housing and Diffuser w/ Bearing
50.00	Impeller
50.01	Impeller Spacers
50.02	Intermediary Sleeve
50.03	Intermediary Sleeve Spacer

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