

HT

Vertical multistage electric pumps



MADE IN ITALY

 **PEDROLLO**[®]
the spring of life

HT Vertical multistage electric pumps



CAST IRON

- ※ **Robust, compact and efficient**
- ※ **HT multistage electric pumps** have been designed with the aid of special structured fluid-dynamic calculation software in order to guarantee high levels of hydraulic performance combined with a robust, compact and reliable mechanical construction. Using JL250 high-performance cast iron with a cataphoresis surface treatment ensures high levels of wear and corrosion resistance.
- ※ **Superior reliability and minimal operating costs**
- ※ **Hydraulics with efficiency indexes MEI ≥ 0.4**
- ※ **Impellers and diffusers: AISI 304 stainless steel**
- ※ **Motor shaft: AISI 431 stainless steel**
- ※ **Mechanical seal: Standard version with ceramic – graphite and NBR elastomer sliding faces.** Available with sliding faces made of silicon carbide and EPDM and VITON elastomers.
- ※ **O-rings: NBR standard version. EPDM and VITON available.**



PERFORMANCE RANGE

- Flow rate up to **800 l/min** (48 m³/h)
- Head up to **160 m**

APPLICATION LIMITS

- Manometric suction lift up to **7 m**
- Liquid temperature between **-15°C** and **+90°C**
- Ambient temperature up to **+40°C**
- Max. working pressure **16 bar**
- Continuous service **S1**

INSTALLATION AND USE

Suitable for a water supply, for transferring clean liquids, and for pressurizing civic, industrial and agricultural plants. The multi-stage construction ensures very low operating noise thresholds. The newly designed electric motor, made to work with inverters, features bal-

anced and quiet operation. Efficiency class **IE3**, insulation class **F** and protection **IPX4**. The **CERAMIC – GRAPHITE – NBR** mechanical seal allows reliable and smooth operation over a long period of time.

OPTIONS AVAILABLE ON REQUEST

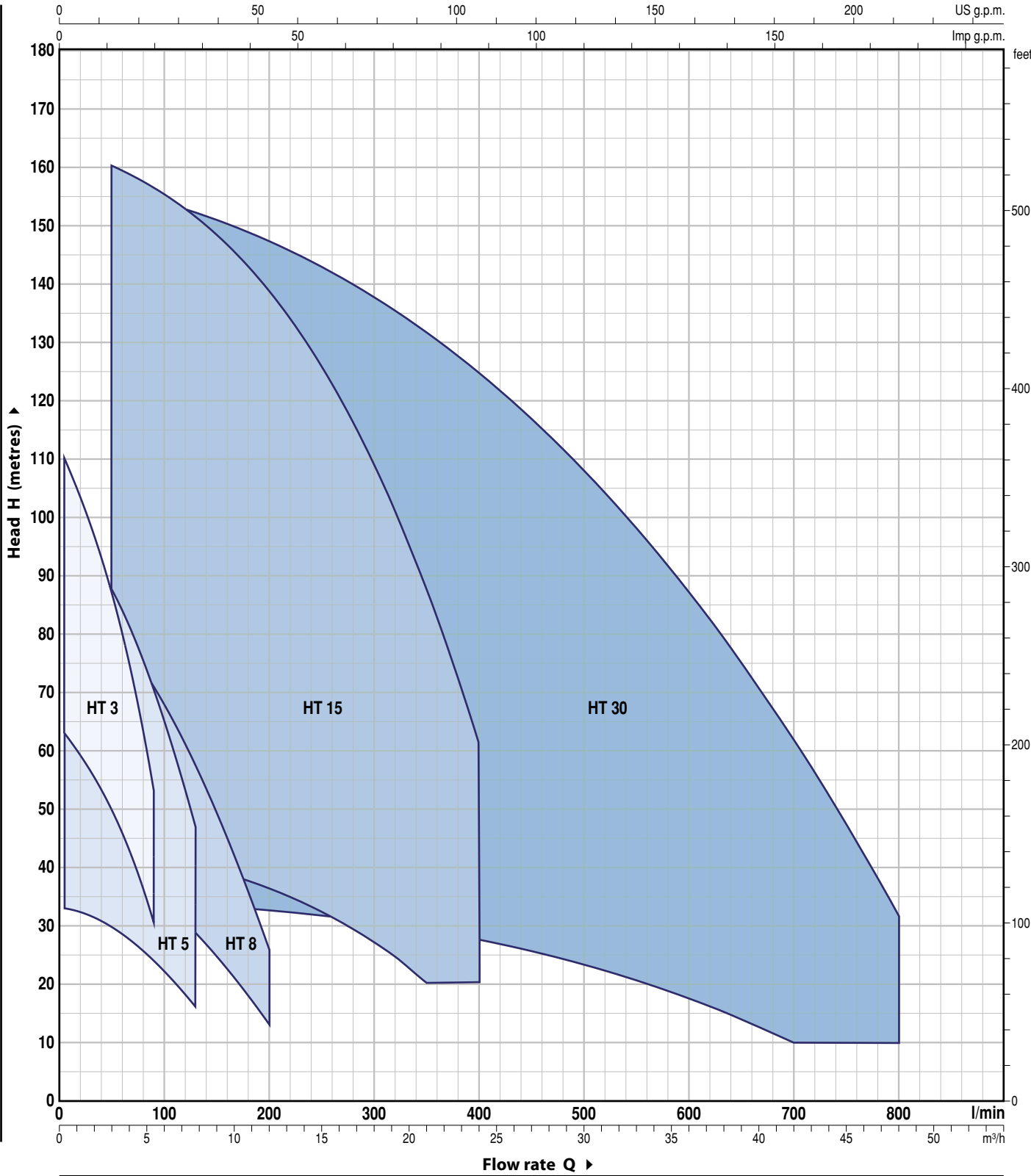
- Other voltages or 60 Hz frequency.
- For liquids with higher or lower temperatures (MAX 110°C).
- Pump body with NPT ANSI B 1.20.1 threaded ports
- Counterflanges
- Kit for dry running protection

WARRANTY

2 years as per our general terms and conditions of sale

PERFORMANCE RANGE

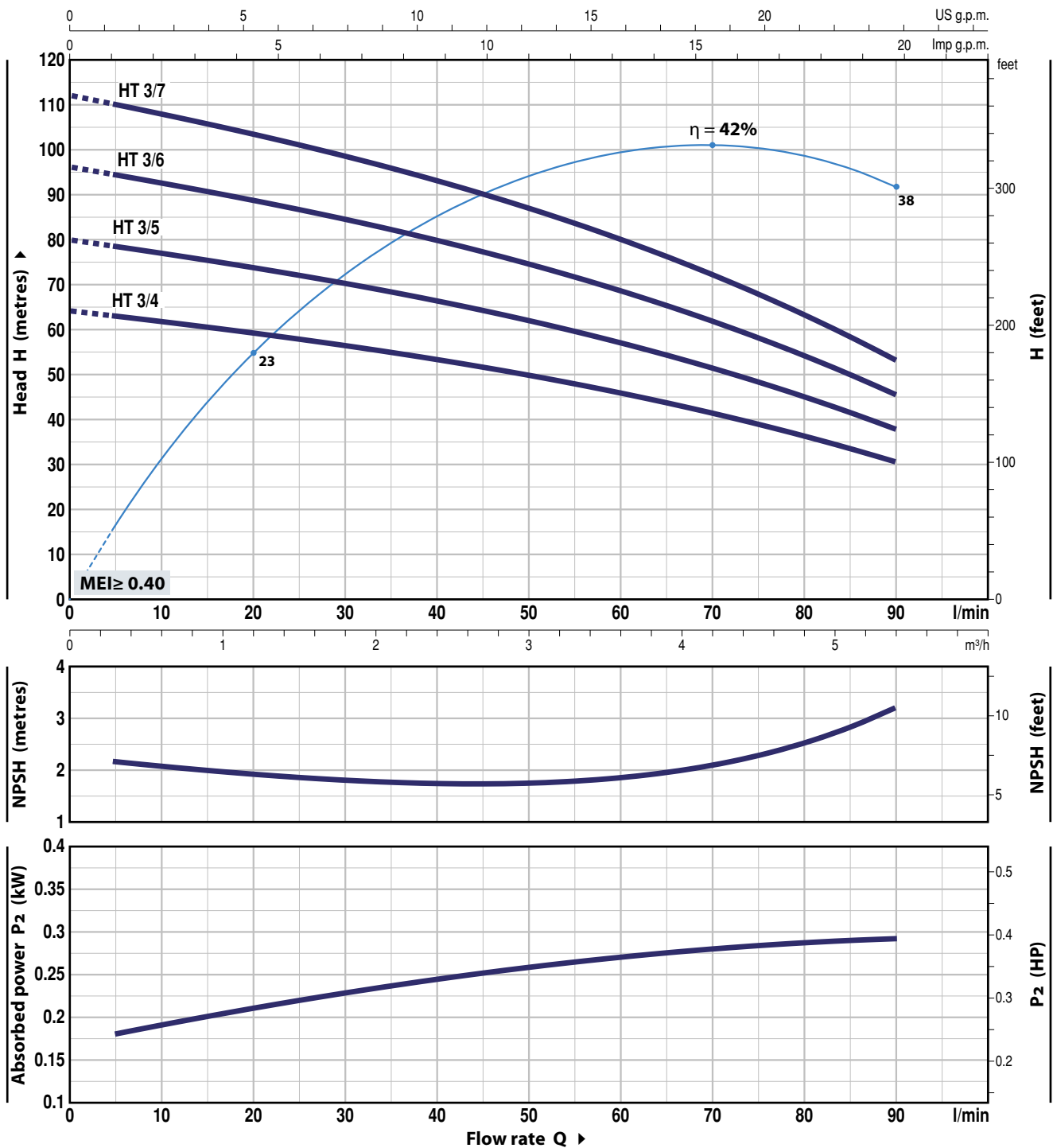
50 Hz n= 2900 min⁻¹ HS= 0 m



HT 3

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 min⁻¹ HS = 0 m



MODEL		POWER (P ₂)		Q	Flow rate (l/min)							
Single phase	Three phase	kW	HP		0	0.3	0.6	1.2	2.4	3.6	4.8	5.4
HTm 3/4	HT 3/4	0.75	1	IE3 H metres	0	5	10	20	40	60	80	90
HTm 3/5	HT 3/5	1.1	1.5		64	63	61.5	59	53	45.5	36	30.5
HTm 3/6	HT 3/6	1.5	2		80	79	77	74	66.5	57	45	38
HTm 3/7	HT 3/7	1.8	2.5		96	94	92	89	80	68.5	54	45.5
					112	110	108	103	93	80	63	53

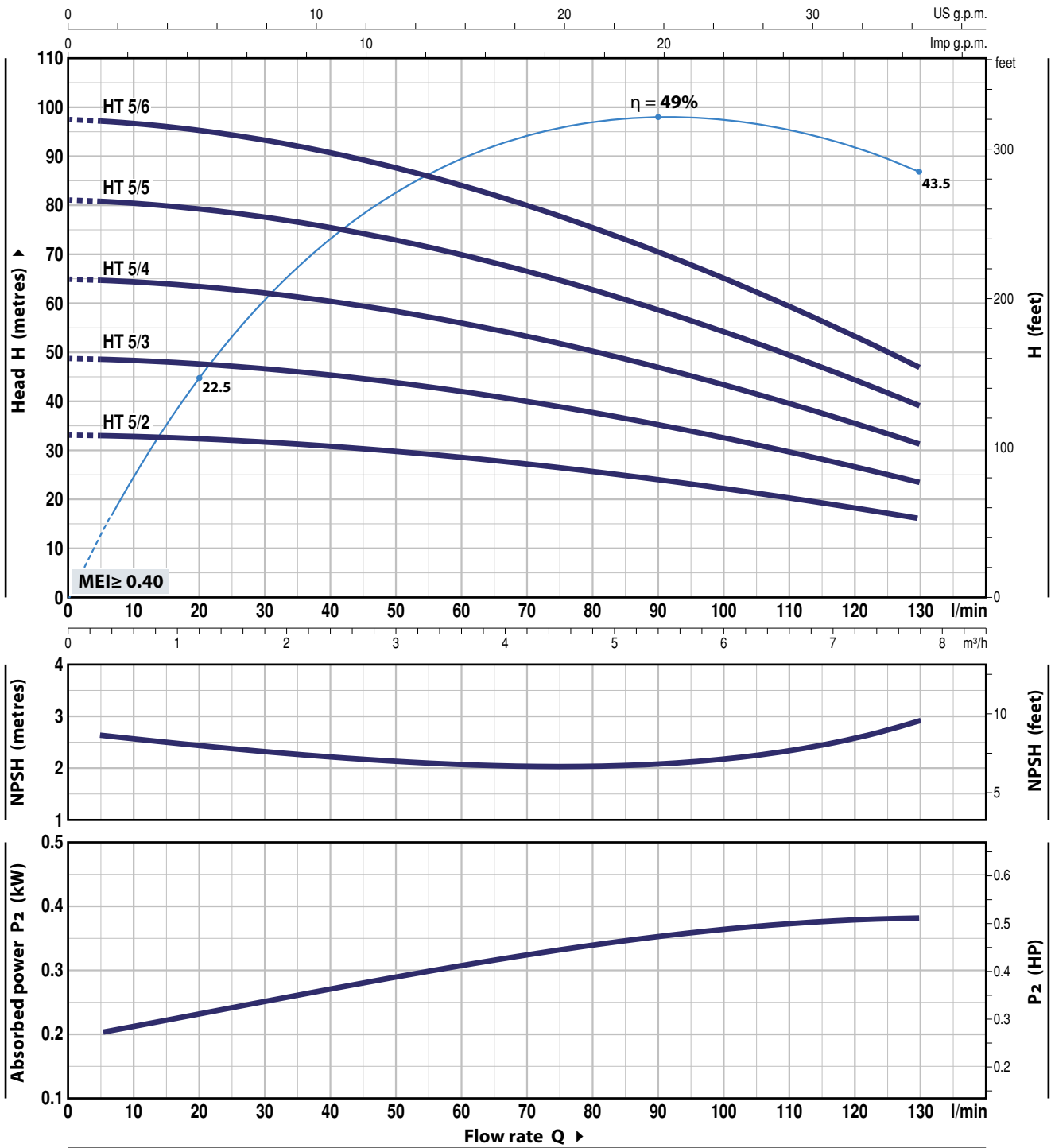
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B

▲ Three-phase motor efficiency class (IEC 60034-30-1)

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 min⁻¹ HS = 0 m



MODEL		POWER (P ₂)		▲	Q	Flow rate (l/min)												
Single phase	Three phase	kW	HP			0	0.3	0.6	1.2	2.4	3.6	4.8	5.4	6	7.8			
HTm 5/2	HT 5/2	0.75	1	IE3	H metres	0	5	10	20	40	60	80	90	100	130			
								33	33	32.7	32.3	30.5	28.5	25.5	24	22.2	16	
								49	49	48.5	47.5	45.5	42	37.5	35	32.5	24	
								65	65	64.5	63.5	60.5	56	50.5	47	43.5	32	
								81	81	80.5	79	76	70	63	58.5	54	39	
						98	97	97	95	91	84	75	70	65	47			

Q = Flow rate H = Total manometric head HS = Suction height

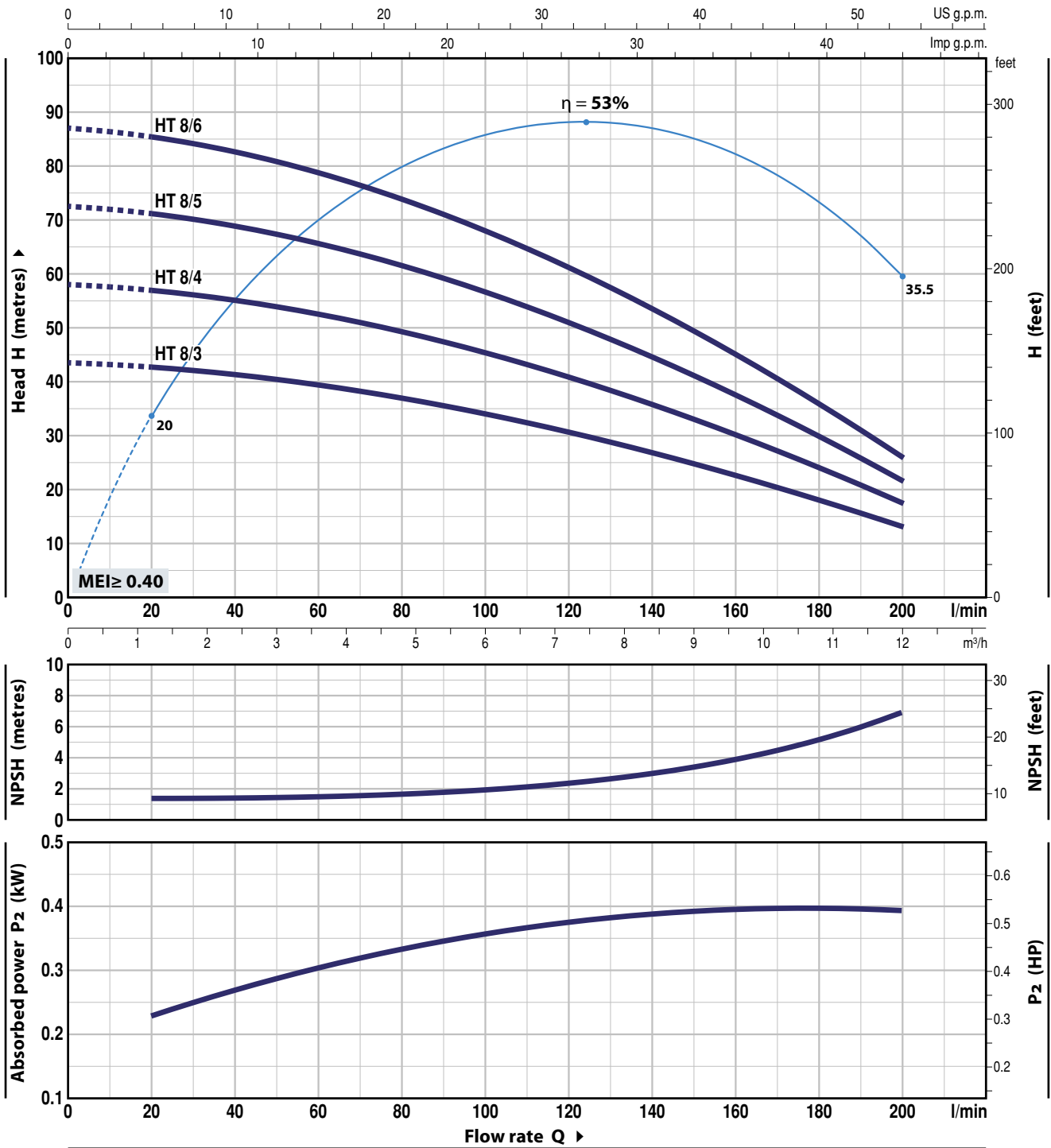
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B

▲ Three-phase motor efficiency class (IEC 60034-30-1)

HT 8

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min⁻¹ HS= 0 m



MODEL		POWER (P ₂)			Q	H metres											
Single phase	Three phase	kW	HP	▲		0	1.2	2.4	3.6	4.8	6.0	7.2	8.4	9.6	10.8	12.0	
						0	20	40	60	80	100	120	140	160	180	200	
HTm 8/3	HT 8/3	1.1	1.5	IE3	H metres	44	43	41.5	39.5	37	34	30.5	26.8	22.6	17.9	13	
HTm 8/4	HT 8/4	1.5	2			58	58	55	52.5	49.5	45.5	41	35.5	30	23.9	18	
HTm 8/5	HT 8/5	1.8	2.5			73	71.5	69	66	61.5	57	51	44.5	37.5	30	21.5	
HTm 8/6	HT 8/6	2.2	3			87	85.5	83	79	74	68	61.5	53.5	45	36	26	

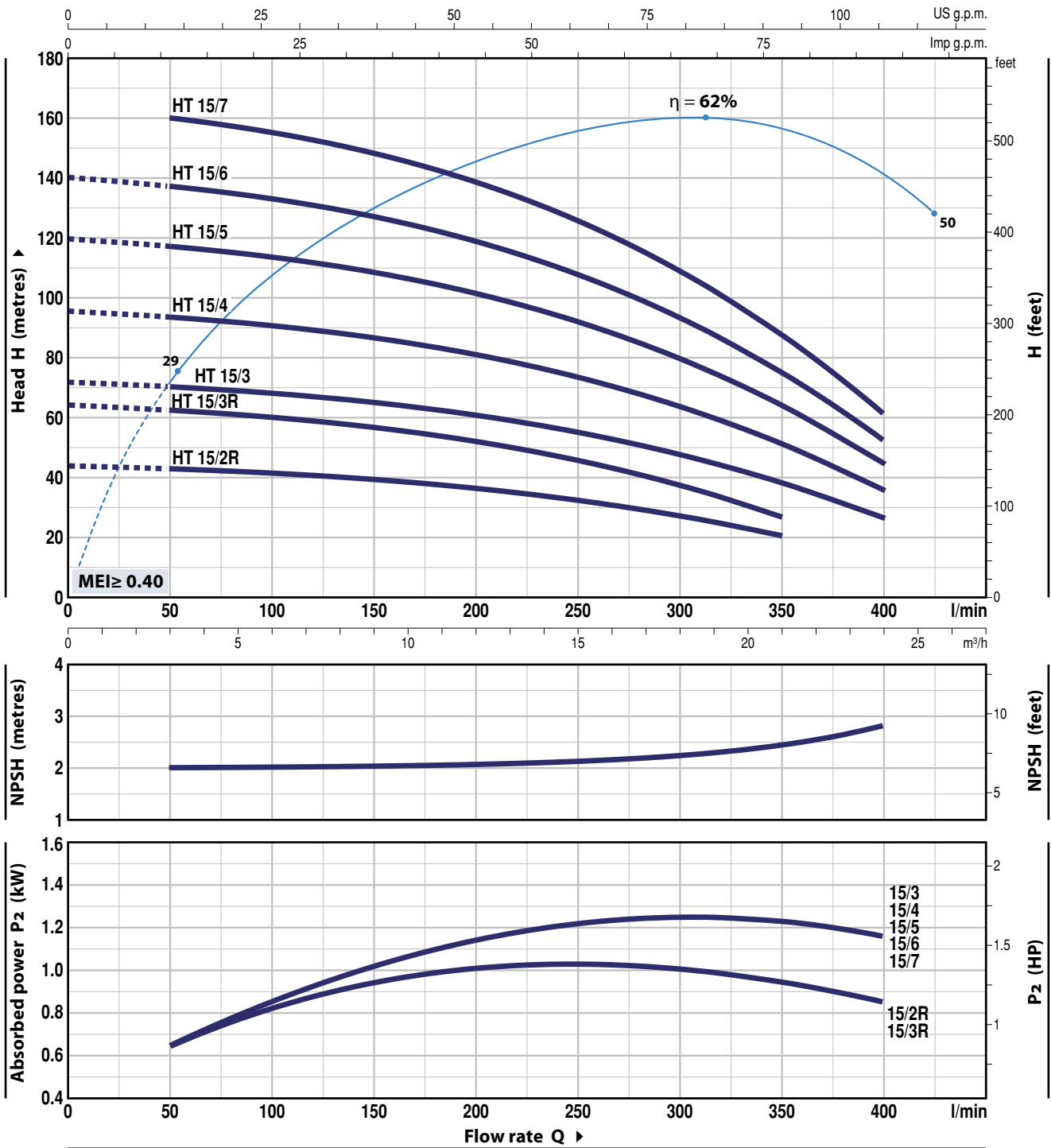
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B

▲ Three-phase motor efficiency class (IEC 60034-30-1)

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 min⁻¹ HS = 0 m



MODEL	POWER (P ₂)		▲	Q	Flow rate Q							
	kW	HP			0	3	6	12	18	21	24	
Three phase				l/min	0	50	100	200	300	350	400	
HT 15/2R	2.2	3	IE3 H metres		44	43	41.5	36.5	27.5	20.5	-	
HT 15/3R	3	4			64.5	62.5	60.5	52.0	37.5	27	-	
HT 15/3	4	5.5			72	70	68.5	61	48	38.5	27	
HT 15/4	5.5	7.5			96	94	91	81	64	51.5	36	
HT 15/5	7.5	10			120	117	114	102	80	64.5	45	
HT 15/6	9.2	12.5			140	137	133	119	94	75.5	52.5	
HT 15/7	9.2	12.5			-	160	155	139	109	88	61.5	

Q = Flow rate H = Total manometric head HS = Suction height

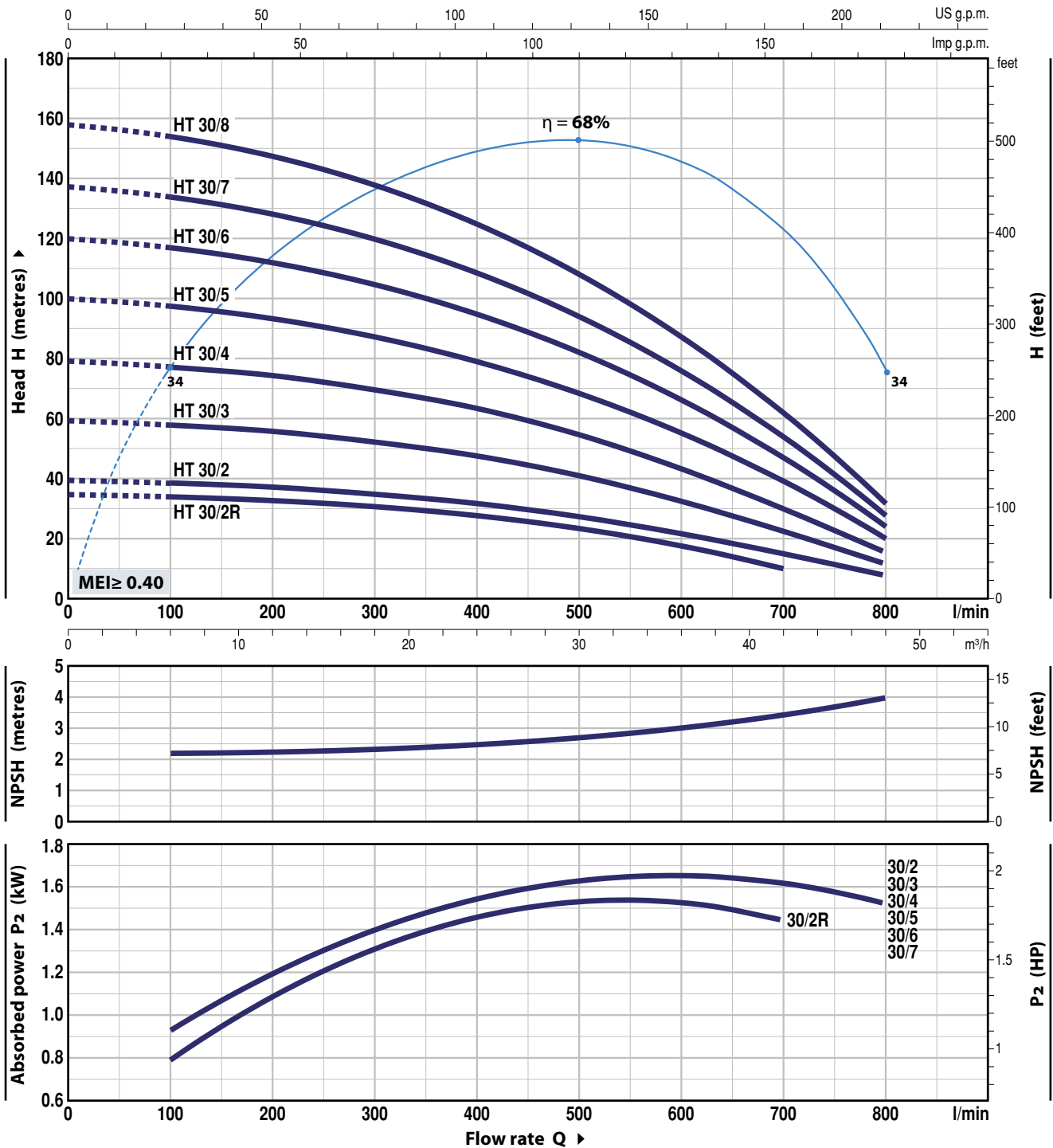
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B

▲ Three-phase motor efficiency class (IEC 60034-30-1)

HT 30

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 min⁻¹ HS = 0 m



MODEL	POWER (P ₂)		▲	Q	H metres											
	kW	HP			0	6	12	18	24	36	42	48				
Three phase				l/min	0	100	200	300	400	600	700	800				
HT 30/2R	3	4	IE3		35	34	33	31	28	17.6	10	-				
HT 30/2	4	5.5			40	39	37.5	35	31.5	22	15.7	8				
HT 30/3	5.5	7.5			60	58.5	56	52.5	47.5	33	23.5	12				
HT 30/4	7.5	10			80	78	75	70	63	44	31.3	16				
HT 30/5	9.2	12.5			100	98	93	87	79	55	39	20				
HT 30/6	11	15			120	117	112	105	95	66.5	47	24				
HT 30/7	15	20			137	134	128	120	108	76	53.5	27.5				
HT 30/8	15	20			158	154	147	138	125	87	62	31.5				

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B

▲ Three-phase motor efficiency class (IEC 60034-30-1)

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1 PUMP BODY	cast iron JL250 with cataphoresis treatment, equipped with ISO 228/1 threaded and flanged ports
2 COVER	JL250 cast iron with cataphoresis treatment
3 LINER	AISI 304 stainless steel
4 IMPELLERS	AISI 304 stainless steel
5 DIFFUSERS	AISI 304 stainless steel
6 PUMP SHAFT	AISI 431 stainless steel

7 MECHANICAL SEAL

<i>Electric pump Model</i>	<i>Seal Model</i>	<i>Shaft Diameter</i>	<i>Materials</i>			
			<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>	<i>Spring</i>
HT 3 HT 5 HT 8	FN-18	Ø 18 mm	Graphite	Ceramic	NBR	AISI 304
HT 15 HT 30	FN-KU-24 ISO 3069 EN 12756	Ø 24 mm	Graphite	Ceramic	NBR	AISI 304

- BEARINGS

<i>Electric pump Model</i>	<i>Model</i>
HT 3 HT 5 HT 8	6304 2RS-C3 / 6204 ZZ-C3E
HT 15 - HT 30	up to 7.5 kW - 6307 ZZ - C3 / 6206 ZZ-C3
HT 15 - HT 30	from 9.2 kW - 3309 A - 2RS1 / 6308 ZZ-C3

8 ELECTRIC MOTOR

- **HTm**: single phase
230 V - 50 Hz
with condenser and thermal overload protector incorporated into the winding

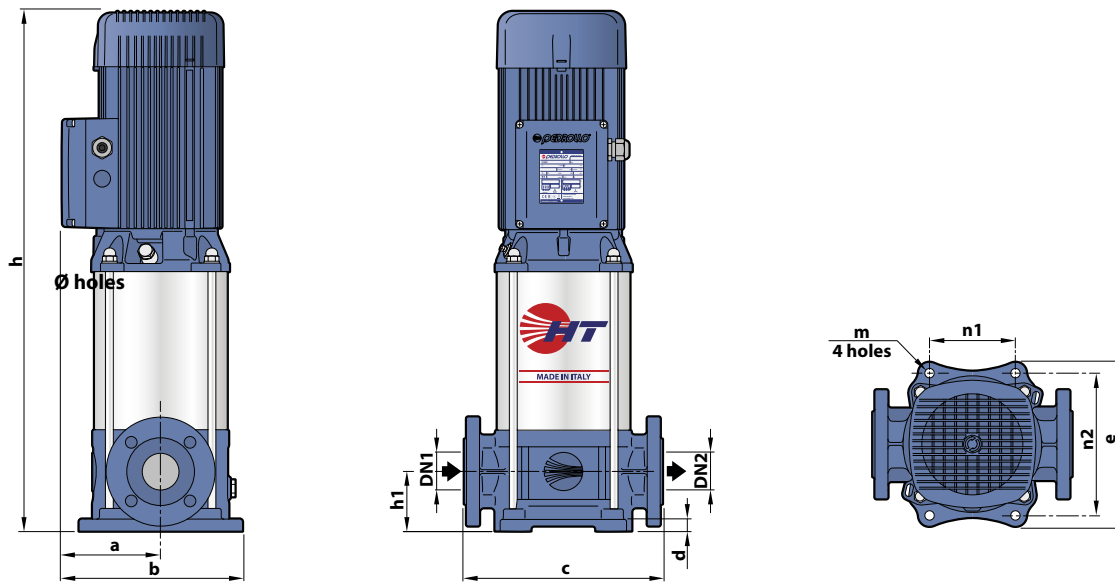
- **HT**: three phase
230/400 V - 50 Hz up to 4 kW
400/690 V - 50 Hz from 5.5 a 15 kW

➔ **The three phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)**

- Insulation: class F
- Protection: IP X4



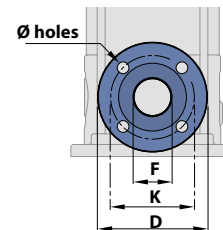
DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm										kg	
Single phase	Three phase	DN1	DN2	a	b	c	d	e	h	h1	n1	n2	m	1~	3~
HTm 3/4	HT 3/4	1"	1"						509						
HTm 3/5	HT 3/5								535						
HTm 3/6	HT 3/6								561						
HTm 3/7	HT 3/7								607						
HTm 5/2	HT 5/2	1¼"	1¼"	126	231	250	15	210	457	75	100	180	Ø 13		
HTm 5/3	HT 5/3								483						
HTm 5/4	HT 5/4								509						
HTm 5/5	HT 5/5								555						
HTm 5/6	HT 5/6	1½"	1½"						581	80					
HTm 8/3	HT 8/3								488						
HTm 8/4	HT 8/4								514						
HTm 8/5	HT 8/5								560						
HTm 8/6	HT 8/6	2"	2"	151	275	300			586						
-	HT 15/2R								589						
-	HT 15/3R								633						
-	HT 15/3								677						
-	HT 15/4	181	305						771	90					
-	HT 15/5								900						
-	HT 15/6								944						
-	HT 15/7								944						
-	HT 30/2R	2½"	2½"	151	275	320	18	247	604	105	130	215	Ø 14		
-	HT 30/2								648						
-	HT 30/3								742						
-	HT 30/4								871						
-	HT 30/5	181	305						915						
-	HT 30/6								959						
-	HT 30/7								1003						
-	HT 30/8								1003						

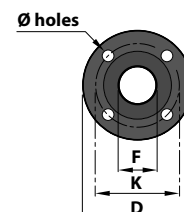
FLANGES

MODEL	DN FLANGES	F	D	K	HOLES	
	mm	mm	mm	mm	N°	Ø mm
HT 3	25	1"	115	85	4	14
HT 5	32	1¼"	140	100		18
HT 8	40	1½"	150	110		18
HT 15	50	2"	165	125		18
HT 30	65	2½"	185	145	8	



COUNTERFLANGES

MODEL	DN FLANGES	F	D	K	HOLES	
	mm	mm	mm	mm	N°	Ø mm
HT 3	25	1"	115	85	4	14
HT 5	32	1¼"	140	100		18
HT 8	40	1½"	150	110		18
HT 15	50	2"	165	125		18
HT 30	65	2½"	185	145	8	



CURRENT DRAW

MODEL	VOLTAGE	
	230 V	240 V
Single phase		
HTm 3/4	7.5 A	7.2 A
HTm 3/5	9.0 A	8.6 A
HTm 3/6	10.5 A	10.1 A
HTm 3/7	12.5 A	12.0 A
HTm 5/2	6.5 A	6.2 A
HTm 5/3	8.5 A	8.1 A
HTm 5/4	10.3 A	9.9 A
HTm 5/5	12.5 A	12.0 A
HTm 5/6	13.5 A	13.0 A
HTm 8/3	8.7 A	8.3 A
HTm 8/4	10.5 A	10.1 A
HTm 8/5	12.5 A	12.0 A
HTm 8/6	14.0 A	13.5 A

MODEL	VOLTAGE					
	230 V	400 V	690 V	240 V	415 V	720 V
Three phase						
HT 3/4	5.2 A	3.0 A	1.7 A	5.0 A	2.9 A	1.7 A
HT 3/5	6.1 A	3.5 A	2.0 A	5.9 A	3.4 A	1.9 A
HT 3/6	6.9 A	4.0 A	2.3 A	6.6 A	3.8 A	2.2 A
HT 3/7	8.3 A	4.8 A	2.8 A	8.0 A	4.6 A	2.7 A
HT 5/2	4.9 A	2.8 A	1.6 A	4.7 A	2.7 A	1.6 A
HT 5/3	5.6 A	3.2 A	1.8 A	5.4 A	3.1 A	1.8 A
HT 5/4	6.9 A	4.0 A	2.3 A	6.6 A	3.8 A	2.2 A
HT 5/5	8.7 A	5.0 A	2.9 A	8.3 A	4.8 A	2.8 A
HT 5/6	9.0 A	5.2 A	3.0 A	8.6 A	5.0 A	2.9 A
HT 8/3	5.9 A	3.4 A	2.0 A	5.7 A	3.3 A	1.9 A
HT 8/4	7.3 A	4.2 A	2.4 A	6.9 A	4.0 A	2.3 A
HT 8/5	8.7 A	5.0 A	2.9 A	8.3 A	4.8 A	2.8 A
HT 8/6	9.5 A	5.5 A	3.2 A	9.2 A	5.3 A	3.0 A
HT 15/2R	10.4 A	6.0 A	3.5 A	10.0 A	5.8 A	3.3 A
HT 15/3R	11.8 A	6.8 A	3.9 A	11.3 A	6.6 A	3.8 A
HT 15/3	15.2 A	8.8 A	5.1 A	14.6 A	8.4 A	4.9 A
HT 15/4	19.4 A	11.2 A	6.5 A	18.6 A	10.7 A	6.2 A
HT 15/5	24.4 A	14.1 A	8.2 A	23.4 A	13.5 A	7.8 A
HT 15/6	26.0 A	15.0 A	8.7 A	24.9 A	14.4 A	8.3 A
HT 15/7	28.5 A	16.5 A	9.5 A	27.3 A	15.8 A	9.1 A
HT 30/2R	12.2 A	7.0 A	4.1 A	11.7 A	6.7 A	3.9 A
HT 30/2	15.2 A	8.8 A	5.1 A	14.6 A	8.4 A	4.9 A
HT 30/3	19.4 A	11.2 A	6.5 A	18.6 A	10.7 A	6.2 A
HT 30/4	24.4 A	14.1 A	8.2 A	23.4 A	13.5 A	7.8 A
HT 30/5	28.5 A	16.5 A	9.5 A	27.3 A	15.8 A	9.1 A
HT 30/6	32.0 A	18.5 A	10.7 A	30.7 A	17.7 A	10.3 A
HT 30/7	37.2 A	21.5 A	12.4 A	35.7 A	20.6 A	11.9 A
HT 30/8	41.5 A	24.0 A	13.9 A	39.8 A	23.0 A	13.3 A

CAPACITOR

MODEL	CAPACITY
	(230 V o 240 V)
Single phase	
HTm 3/4	31.5 μ F 450 VL
HTm 3/5	
HTm 5/2	
HTm 5/3	
HTm 8/3	45 μ F 450 VL
HTm 3/6	
HTm 5/4	
HTm 8/4	50 μ F 450 VL
HTm 3/7	
HTm 5/5	
HTm 5/6	
HTm 8/5	
HTm 8/6	

*The data contained in this publication are not to be considered binding.
Pedrollo S.p.A. reserves the right to make any changes it deems appropriate to improve its production.*

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MADE IN ITALY

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