

## MD-MMD

### الکتروپمپ سانترفیوژ مونو بلاک چدنی مطابق با EN 733

### پمپ های سانترفیوژ مونو بلاک چدنی مطابق با EN 733

#### کاربردها:

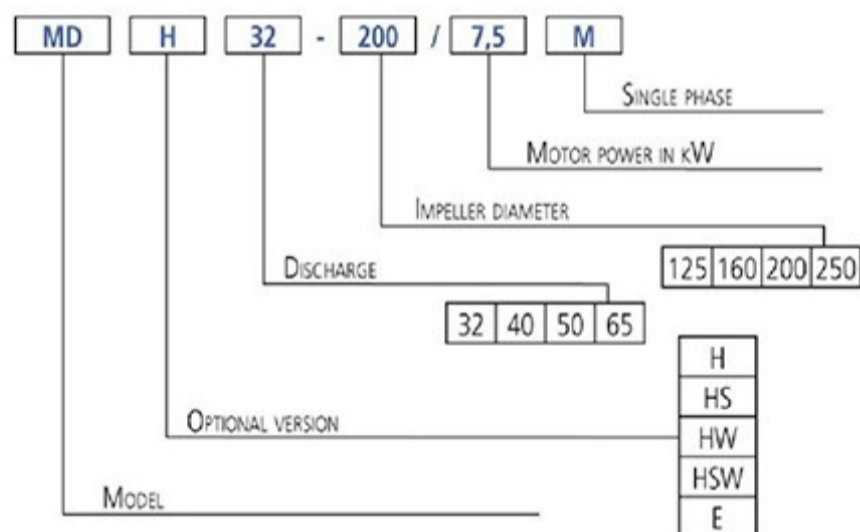


- انتقال آب تمیز برای مصارف شهری ، کشاورزی و صنعتی و برای واحدهای تقویت فشار
- تجهیزات گرمایشی و سیستم تهویه هوا
- آبیاری مزارع و باغات با مساحت کم
- تسهیلات ورزشگاه ها
- دستگاه های شست و شو

#### اطلاعات فنی:

- مناسب در انواع مختلف اتصالات

#### کد شناسایی



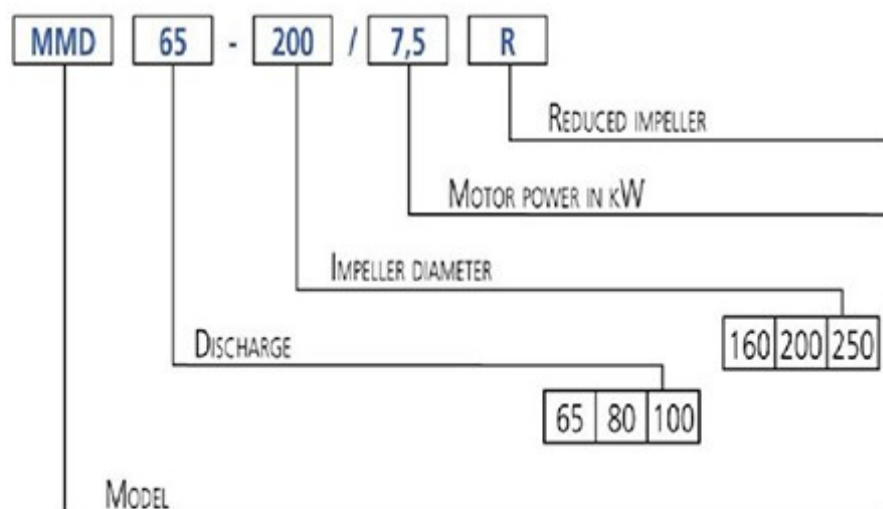
#### اطلاعات فنی پمپ:

- دمای مایع:
  - 5°C – +90°C (MD) ✓
  - 5°C – +110°C (MD مدل H-HS-HW-HSW) ✓
  - 5°C – +120°C (MD مدل E) ✓
  - 10°C – +130°C (MMD) ✓

- حداکثر فشار کار: 10bar

- MEI > 0.1

برای اطلاعات بیشتر ، به کتاب راهنما در سایت [www.ebaraurope.com](http://www.ebaraurope.com) مراجعه کنید .



**اطلاعات فنی موتور :**

- موتورهای IE2 از رنج 0.75KW راندمان در راه اندازی
- موتورهای ۲پل (۲۹۰۰ دور) و ۴پل (۱۴۰۰ دور) خود مکش
- کلاس عایق بندی F
- کلاس محافظت IP55
- 230/400V  $\pm 10\%$  ولتاژ سه فاز 50Hz تا 4kw - 400/690V  $\pm 10\%$  ، ولتاژ سه فاز 50Hz از توان 5.5kw و بالاتر
- MD از 7.5KW به بالا : متناسب با موتورهای IE3
- MMD از 7.5KW به بالا : در صورت درخواست ، متناسب با موتورهای IE3

مسئولیت محافظت از مدل سه فاز برعهده مصرف کننده است .

**جنس :**

- بدنه و روکش پمپ از جنس چدن
- شفت از جنس AISI 304 استیل - بخش در تماس با مایع (MD) از جنس استیل AISI 420 (MMD).
- جنس مکانیکال سیل :
- ✓ کربن / سرامیک / NBR ( MD )
- ✓ سرامیک / کربن / FPM ( مدل H )
- ✓ Sic / Sic / FPM ( مدل HS )
- ✓ کاربرد تنگستن / کاربرد تنگستن / FPM ( مدل HW )
- ✓ Sic / کاربرد تنگستن / FPM ( مدل HSW )
- ✓ سرامیک / کربن / EPDM ( مدل E )
- ✓ Sic / Sic / NBR ( MMD )
- جنس پروانه :
- ✓ استیل AISI 304 (MD 32-250, 40-250, 50-250, 65-250)
- ✓ چدن ( برای بقیه مدل های رنج MD ، MMD )

**لوازم جانبی ( در صورت درخواست ) :**

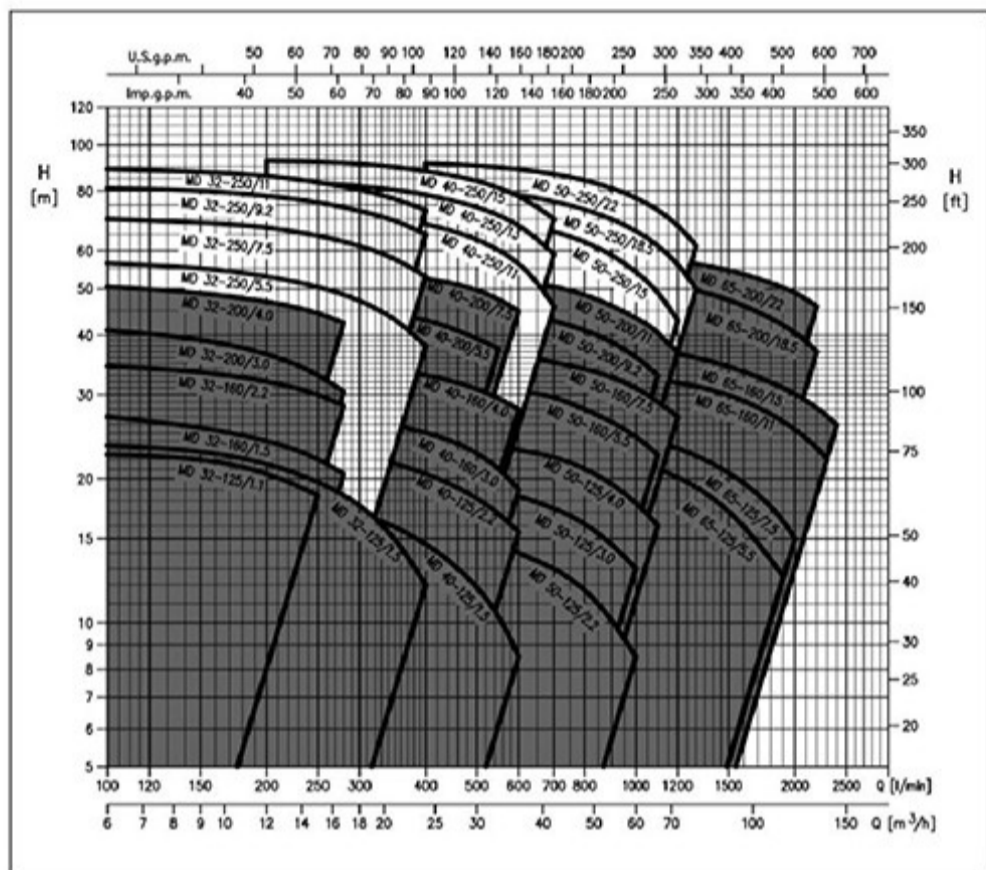
- فلنج های جانبی گالوانیزه



# MD-MMD

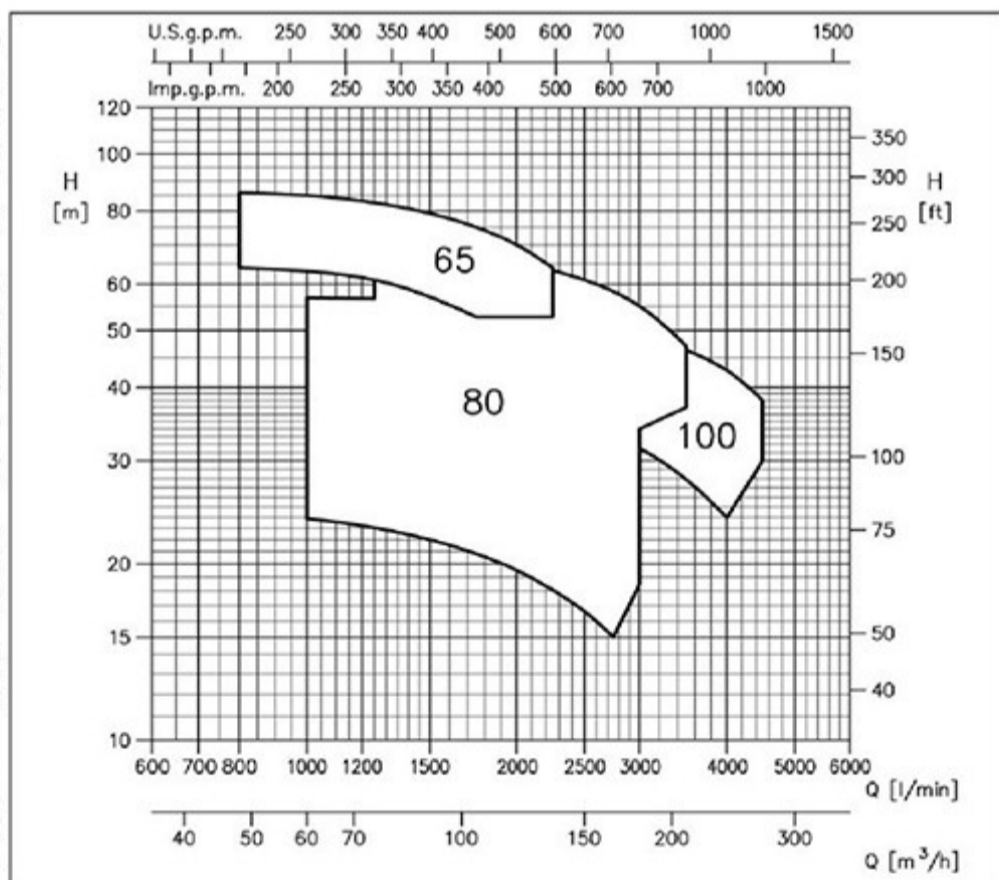
جدول راندمان MD

۲ Poles



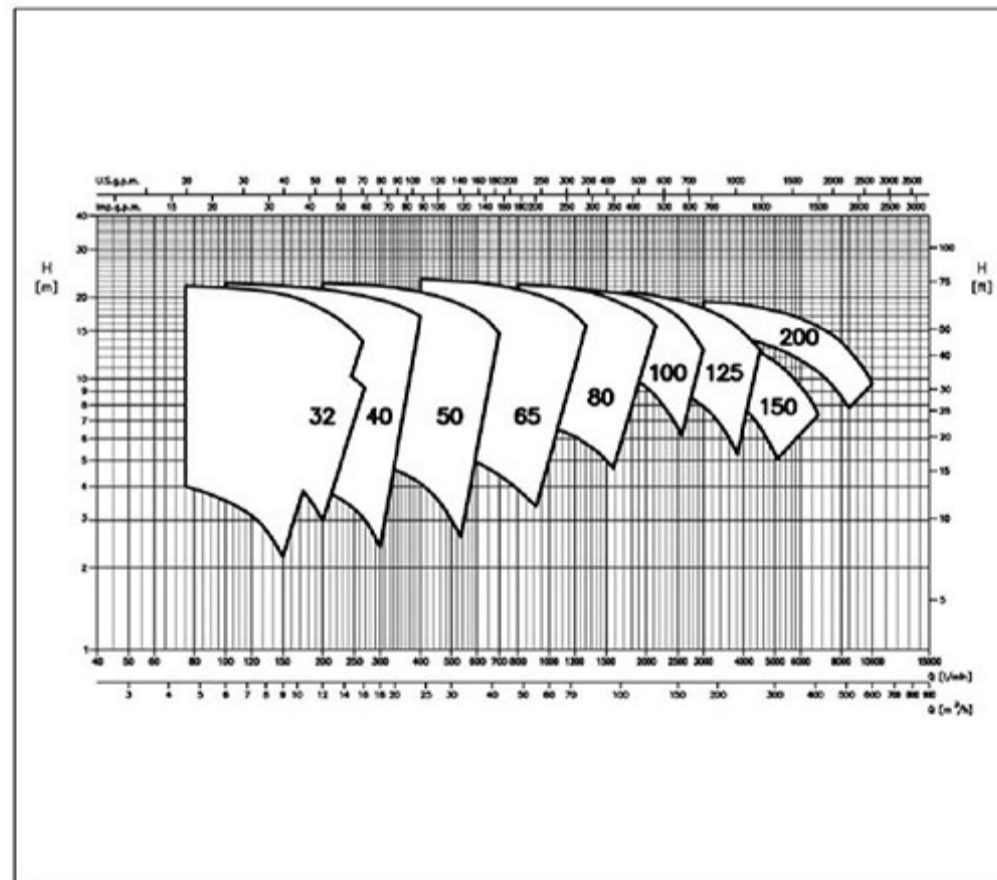
جدول راندمان MMD

۲ Poles



جدول راندمان MMD

4 Poles



## MD-MMD

جدول راندمان MD

2 Poles

Model	P <sub>i</sub>		Q=Flow rate																						
	[HP]	[kW]	l/min m <sup>3</sup> /h	H=Head [m]																					
				100 6	200 12	250 15	280 17	320 19	400 24	550 33	600 36	667 40	700 42	800 48	1000 60	1100 66	1150 69	1200 72	1300 78	1400 84	1900 114	2000 120	2200 132	2300 138	2400 144
MD 32-250/5.5	7,5	5,5	56,5	53,0	50,4	48,6	45,7	38,0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MD 32-250/7.5	10	7,5	70,0	67,1	64,5	62,7	60,0	53,0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MD 32-250/9.2	12,5	9,2	81,2	78,2	75,8	74,0	71,4	65,0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MD 32-250/11	15	11	89,0	86,0	84,0	82,0	79,0	73,0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MD 40-250/11	15	11	-	74,0	73,0	72,2	71,0	68,2	60,1	56,3	49,8	46,0	-	-	-	-	-	-	-	-	-	-	-	-	-
MD 40-250/15	20	15	-	92,7	92,1	91,7	90,8	88,1	81,2	78,0	72,9	70,0	-	-	-	-	-	-	-	-	-	-	-	-	-
MD 50-250/15	20	15	-	-	-	-	-	71,2	69,2	68,2	66,6	65,7	62,6	54,2	49,0	46,1	43,0	-	-	-	-	-	-	-	-
MD 50-250/18.5	25	18,5	-	-	-	-	-	81,5	79,5	78,5	77,0	76,1	73,2	66,0	61,4	58,9	56,1	50,0	-	-	-	-	-	-	-
MD 50-250/22	30	22	-	-	-	-	-	91,6	89,7	88,9	87,6	86,9	84,3	77,4	73,0	70,4	67,7	61,5	-	-	-	-	-	-	-

جدول راندمان MMD

2 Poles

Model	P <sub>i</sub>		Q=Flow rate																					
	[HP]	[kW]	l/min m <sup>3</sup> /h	H=Head [m]																				
				800 48	1000 60	1250 75	1500 90	1750 105	2000 120	2250 135	2500 150	2750 165	3000 180	3500 210	4000 240	4500 270								
MMD 65-250/22	30	22	64,0	63,0	61,0	57,0	53,0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MMD 65-250/30	40	30	77,0	76,0	74,0	70,0	66,0	60,0	53,0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MMD 65-250/37	55	37	86,0	85,0	83,0	79,0	75,0	70,0	64,0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MMD 80-160/11	15	11	-	24,0	23,0	22,0	21,0	19,5	18,0	16,5	15,0	-	-	-	-	-	-	-	-	-	-	-	-	-
MMD 80-160/15R	20	15	-	28,5	28,0	27,0	26,0	24,5	23,0	21,5	20,0	18,5	-	-	-	-	-	-	-	-	-	-	-	-
MMD 80-160/15	20	15	-	34,0	33,3	32,5	31,8	31,0	29,0	27,5	26,0	24,3	-	-	-	-	-	-	-	-	-	-	-	-
MMD 80-200/18,5	25	18,5	-	42,0	41,0	40,0	38,5	37,0	35,0	33,0	30,5	28,0	-	-	-	-	-	-	-	-	-	-	-	-
MMD 80-200/22	30	22	-	47,0	46,5	45,5	44,5	43,0	41,0	39,0	37,0	34,0	-	-	-	-	-	-	-	-	-	-	-	-
MMD 80-200/30	40	30	-	55,0	54,0	53,0	52,0	51,0	49,0	47,0	45,0	43,0	37,0	-	-	-	-	-	-	-	-	-	-	-
MMD 80-200/37	55	37	-	57,0	57,0	56,5	56,0	55,0	54,0	52,5	51,0	48,0	42,0	-	-	-	-	-	-	-	-	-	-	-
MMD 80-250/37	55	37	-	-	67,5	67,0	66,2	65,0	63,3	61,0	58,3	55,0	47,0	-	-	-	-	-	-	-	-	-	-	-
MMD 100-200/22	30	22	-	-	-	38,5	38,0	37,0	36,0	34,5	33,0	31,5	28,0	24,0	-	-	-	-	-	-	-	-	-	-
MMD 100-200/30	40	30	-	-	-	47,0	46,3	45,6	44,8	43,7	42,4	41,0	38,0	34,6	30,0	-	-	-	-	-	-	-	-	-
MMD 100-200/37	55	37	-	-	-	53,5	53,5	53,0	52,0	51,0	50,0	49,0	46,0	43,0	38,0	-	-	-	-	-	-	-	-	-



## MD-MMD

جدول راندمان **MMD4**

**4 Poles**

Model	P <sub>1</sub>		Q=Flow rate																			
	[HP]	[kW]	l/min m <sup>3</sup> /h	50	75	100	125	150	175	200	225	250	275	300	350	400	450	500	550	600	650	700
			H=Head [m]																			
MMD4 32-250/1,1	1,5	1,1	-	18,5	18,0	17,5	17,0	15,9	14,5	12,8	11,0	-	-	-	-	-	-	-	-	-	-	-
MMD4 32-250/1,5	2	1,5	-	22,0	21,6	21,2	20,5	19,4	18,0	16,5	15,0	13,0	-	-	-	-	-	-	-	-	-	-
MMD4 40-250/1,5	2	1,5	-	-	18,3	18,0	17,7	17,4	17,0	16,7	16,2	15,6	15,0	13,7	12,0	-	-	-	-	-	-	-
MMD4 40-250/2,2	3	2,2	-	-	22,5	22,3	22,0	21,7	21,4	21,2	20,5	20,2	19,5	18,5	17,0	-	-	-	-	-	-	-
MMD4 50-250/2,2	3	2,2	-	-	-	-	-	-	18,5	18,3	18,1	17,8	17,5	17,0	16,2	15,5	14,5	13,5	12,5	11,3	10,0	-
MMD4 50-250/3	4	3	-	-	-	-	-	-	22,5	22,4	22,3	22,2	22,0	21,5	20,9	20,2	19,4	18,5	17,5	16,3	14,7	-

Model	P <sub>1</sub>		Q=Flow rate																				
	[HP]	[kW]	l/min m <sup>3</sup> /h	300	350	400	450	500	550	600	650	700	800	900	1000	1100	1200	1300	1400	1500	1750	2000	2250
			H=Head [m]																				
MMD4 65-250/4	5,5	4	-	-	-	-	19,5	19,3	19,1	18,8	18,5	17,5	16,5	15,5	14,0	12,5	10,4	-	-	-	-	-	-
MMD4 65-250/5,5	7,5	5,5	-	-	-	-	23,0	22,8	22,6	22,4	22,2	21,4	20,6	19,7	18,7	17,3	15,7	14,0	-	-	-	-	-
MMD4 80-160/1,5	2	1,5	-	-	-	-	-	-	7,7	7,6	7,5	7,3	7,0	6,7	6,4	6,1	5,7	5,4	5,0	-	-	-	-
MMD4 80-160/2,2	3	2,2	-	-	-	-	-	-	9,7	9,6	9,5	9,3	9,0	8,8	8,5	8,2	7,9	7,5	7,1	6,0	-	-	-
MMD4 80-200/3	4	3	-	-	-	-	-	-	12,0	11,9	11,7	11,5	11,3	11,0	10,5	10,0	9,5	9,0	8,5	7,0	-	-	-
MMD4 80-200/4	5,5	4	-	-	-	-	-	-	14,4	14,3	14,2	14,0	13,8	13,5	13,1	12,6	12,2	11,6	11,0	9,0	6,5	-	-
MMD4 80-250/5,5	7,5	5,5	-	-	-	-	-	-	-	-	-	19,2	18,9	18,5	18,0	17,6	17,1	16,5	16,0	14,0	12,0	-	-
MMD4 80-250/7,5	10	7,5	-	-	-	-	-	-	-	-	-	22,3	22,1	21,9	21,7	21,3	21,0	20,5	20,0	18,5	16,9	14,5	-

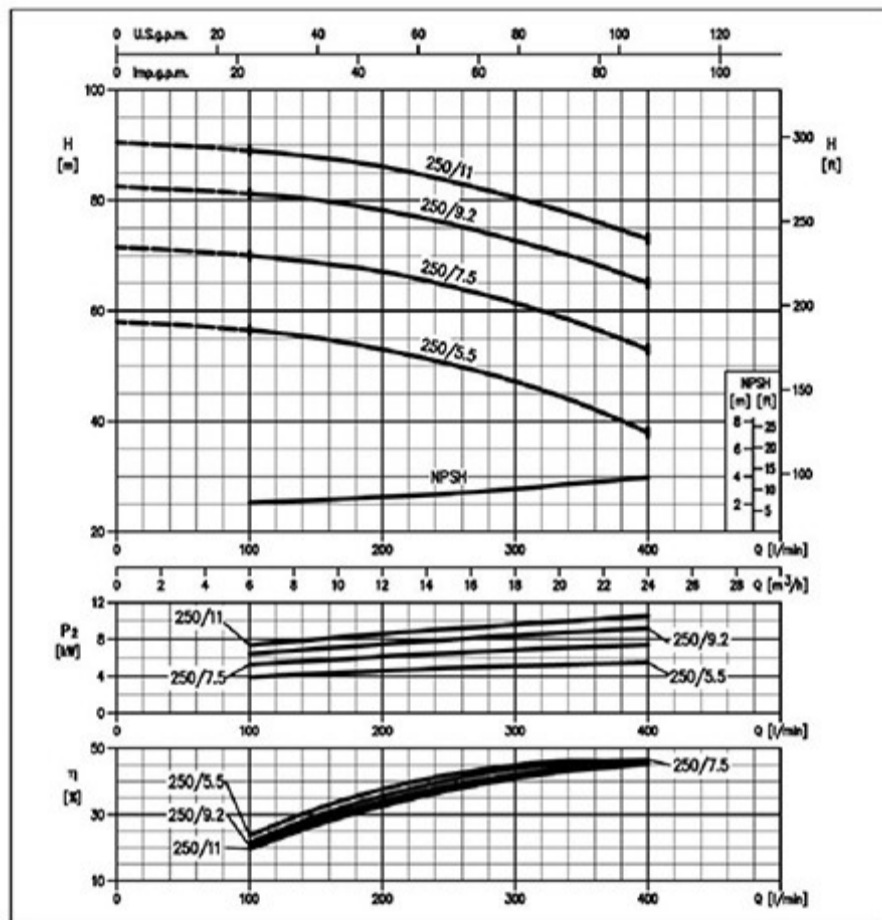
Model	P <sub>1</sub>		Q=Flow rate																											
	[HP]	[kW]	l/min m <sup>3</sup> /h	900	1000	1200	1500	1750	2000	2250	2500	2750	3000	3500	3700	4000	4500	5000	5500	6500	7000	8500	9000	9500	10000					
			H=Head [m]																											
MMD4 100-200/4	5,5	4	12,3	12,2	11,8	11,2	10,3	9,3	8,0	6,6	4,8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
MMD4 100-200/5,5	7,5	5,5	14,5	14,4	14,0	13,4	12,8	12,0	11,0	9,8	8,5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
MMD4 100-250/7,5	10	7,5	-	19,5	19,1	18,5	17,5	16,5	15,2	14,0	12,0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
MMD4 100-250/11	15	11	-	22,0	21,8	21,5	20,5	19,5	18,5	17,0	15,0	12,8	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
MMD4 125-200/5,5	7,5	5,5	-	-	-	10,5	10,3	9,9	9,5	9,1	8,5	7,9	6,4	5,7	-	-	-	-	-	-	-	-	-	-	-	-				
MMD4 125-200/7,5R	10	7,5	-	-	-	11,8	11,6	11,3	11,0	10,6	10,2	9,6	8,3	7,7	6,7	-	-	-	-	-	-	-	-	-	-	-				
MMD4 125-200/7,5	10	7,5	-	-	-	-	12,9	12,7	12,4	12,1	11,7	11,2	10,1	9,6	8,7	7,1	-	-	-	-	-	-	-	-	-	-				
MMD4 125-200/11	15	11	-	-	-	-	14,3	14,1	13,8	13,6	13,2	12,8	11,8	11,3	10,6	9,2	7,6	-	-	-	-	-	-	-	-	-				
MMD4 125-250/11	15	11	-	-	-	-	17,2	16,7	16,2	15,5	14,8	13,9	12,0	11,3	10,0	-	-	-	-	-	-	-	-	-	-	-				
MMD4 125-250/15	20	15	-	-	-	-	21,0	20,5	20,1	19,5	18,9	18,2	16,6	16,0	14,8	12,8	-	-	-	-	-	-	-	-	-	-				
MMD4 150-200/7,5	10	7,5	-	-	-	-	11,0	10,7	10,4	10,1	9,7	8,8	8,4	7,8	6,6	5,3	-	-	-	-	-	-	-	-	-	-				
MMD4 150-200/11R	15	11	-	-	-	-	12,0	11,8	11,6	11,2	10,9	10,2	9,8	9,2	8,0	6,8	5,6	-	-	-	-	-	-	-	-	-				
MMD4 150-200/11	15	11	-	-	-	-	-	-	-	13,7	13,5	13,2	12,5	12,2	11,7	10,8	9,8	8,7	6,1	-	-	-	-	-	-	-				
MMD4 150-200/15	20	15	-	-	-	-	-	-	-	15,2	14,9	14,7	14,2	13,8	13,4	12,5	11,6	10,5	8,2	6,8	-	-	-	-	-	-				
MMD4 200-250/18,5R	25	18,5	-	-	-	-	-	-	-	-	-	14,9	14,5	14,3	14,1	13,6	13,0	12,3	11,0	10,3	7,8	-	-	-	-	-				
MMD4 200-250/18,5	25	18,5	-	-	-	-	-	-	-	-	-	15,9	15,5	15,3	15,2	14,7	14,2	13,6	12,3	11,6	9,1	8,2	-	-	-	-				
MMD4 200-250/22R	30	22	-	-	-	-	-	-	-	-	-	-	18,0	17,8	17,6	17,1	16,6	16,0	14,7	13,9	11,2	10,1	9,0	-	-	-				
MMD4 200-250/22	30	22	-	-	-	-	-	-	-	-	-	-	19,1	18,9	18,8	18,3	17,8	17,3	16,0	15,3	12,7	11,7	10,7	9,6	-	-				



# MD-MMD

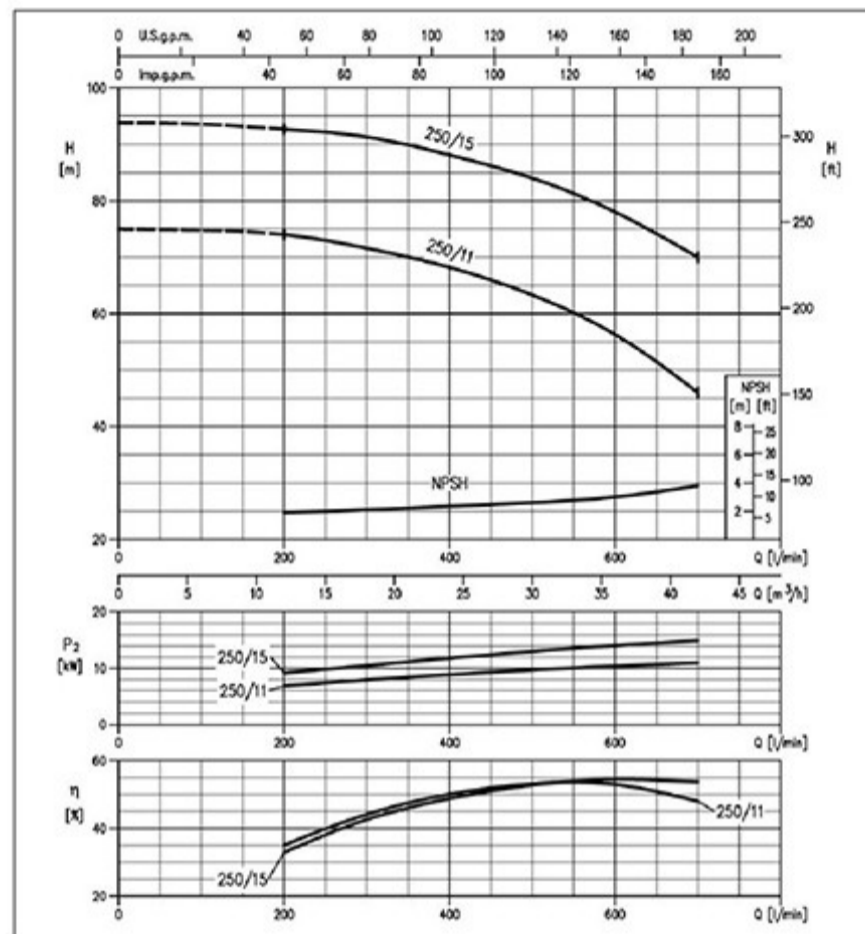
منحنی های راندمان MD 32-250

2 Poles



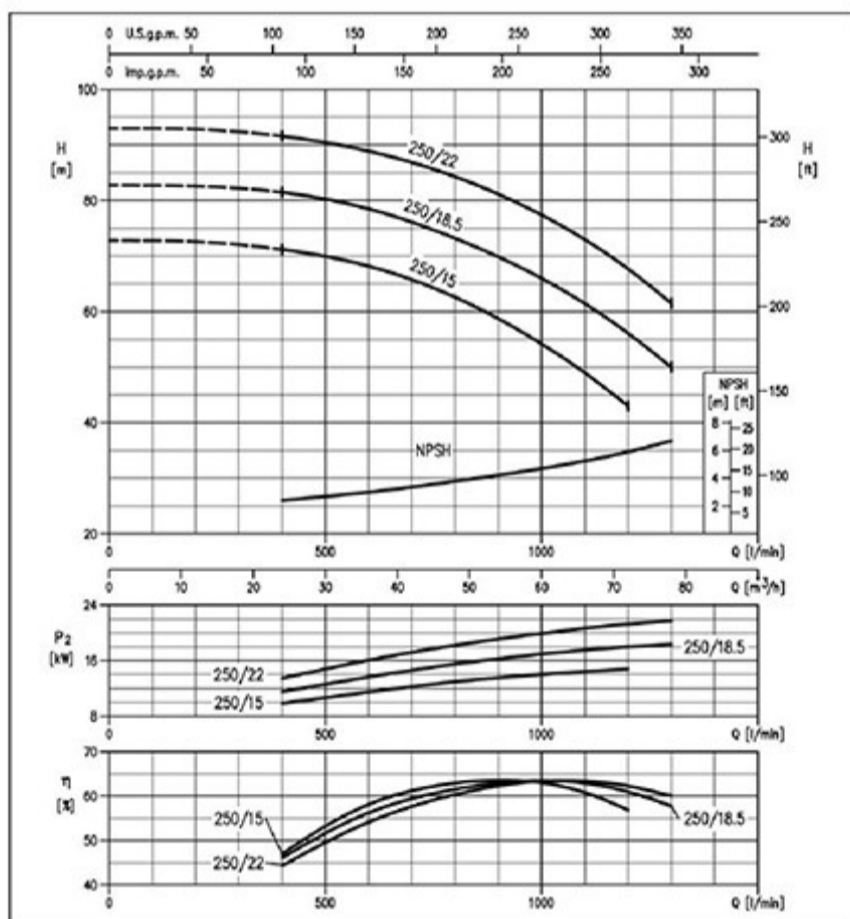
منحنی های راندمان MD 40-250

2 Poles



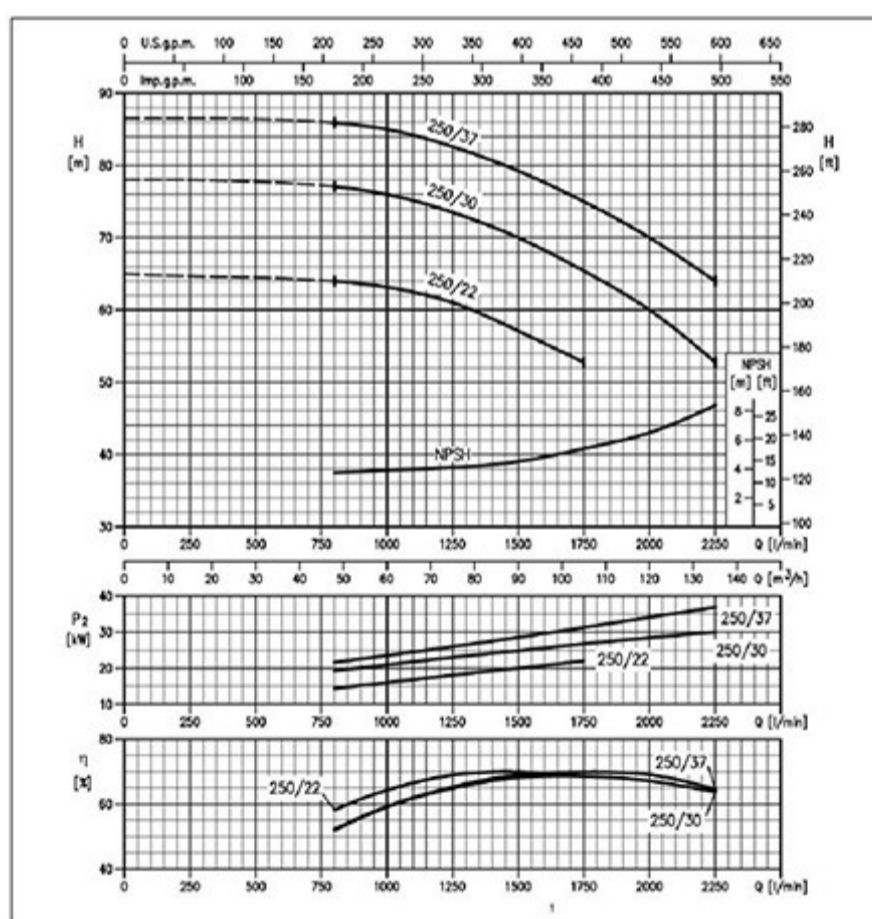
منحنی های راندمان MD 50-250 series

2 Poles



منحنی های راندمان MMD 65-250 series

2 Poles



منحنی های راندمان MMD 80-160 series

2 Poles

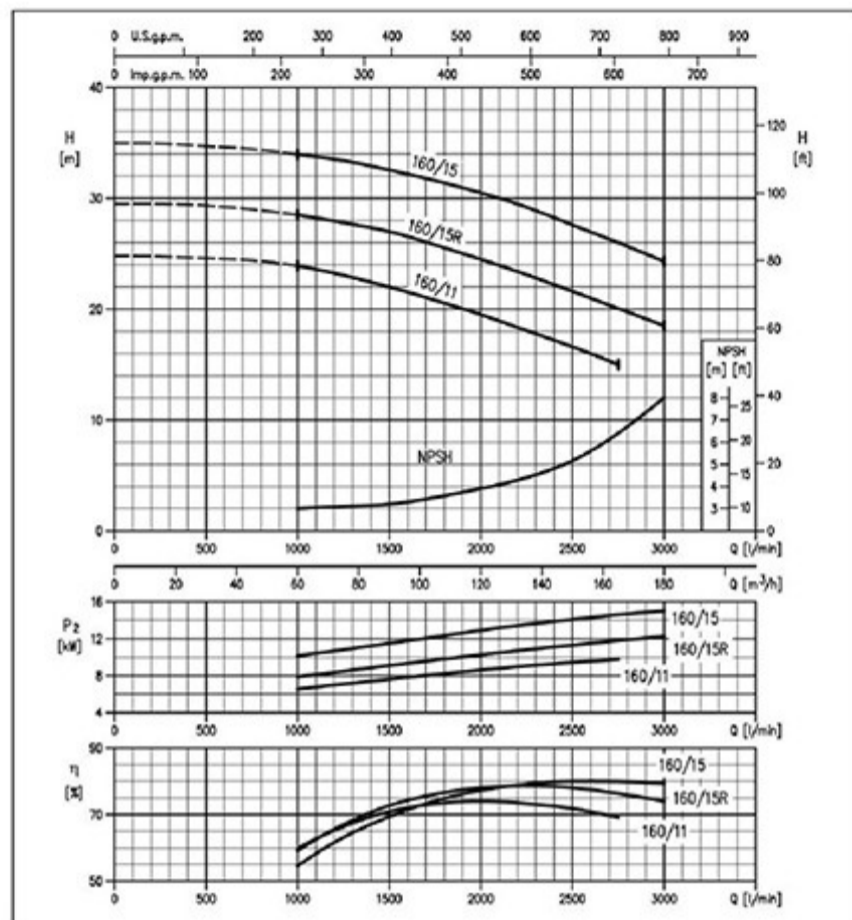
منحنی های راندمان MMD 80-200 series

2 Poles

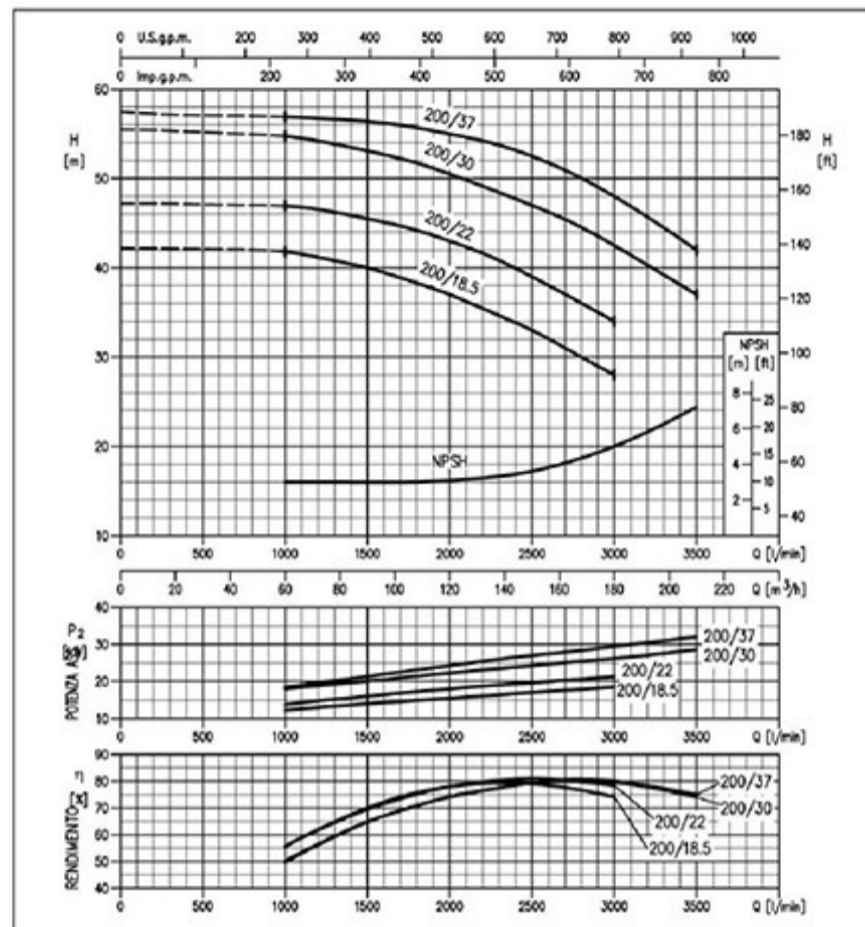


# MD-MMD

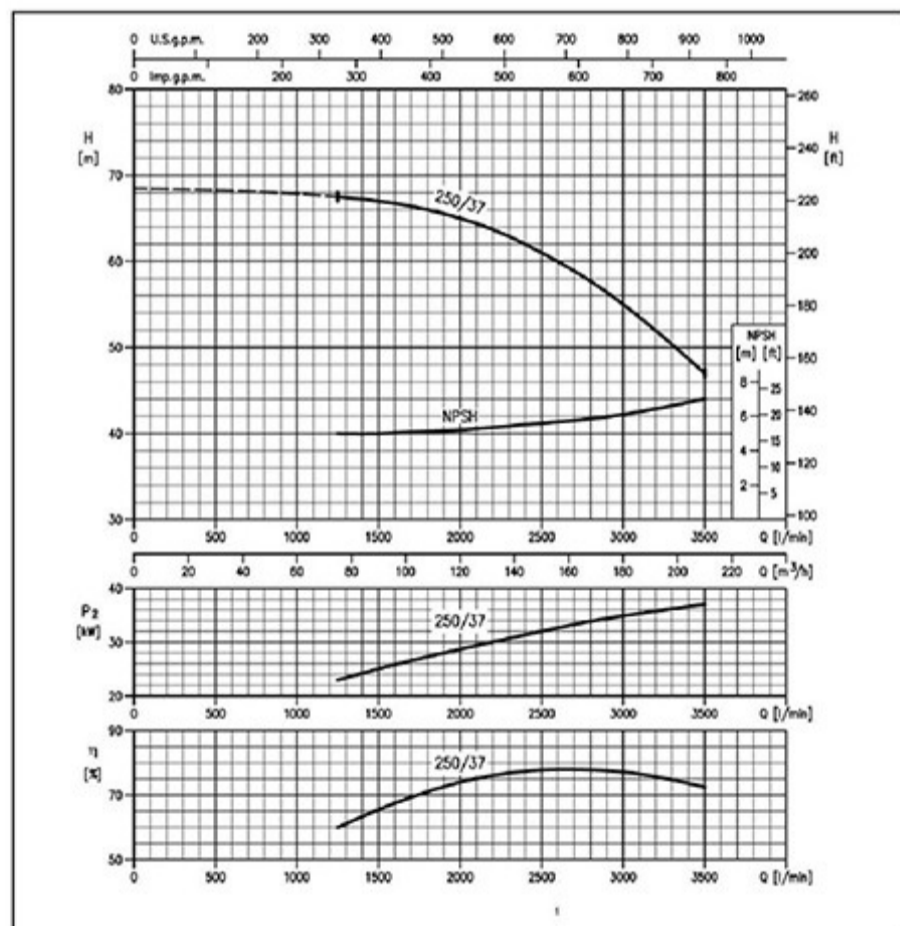
MMD 80-160 series 2 Poles منحنی های راندمان



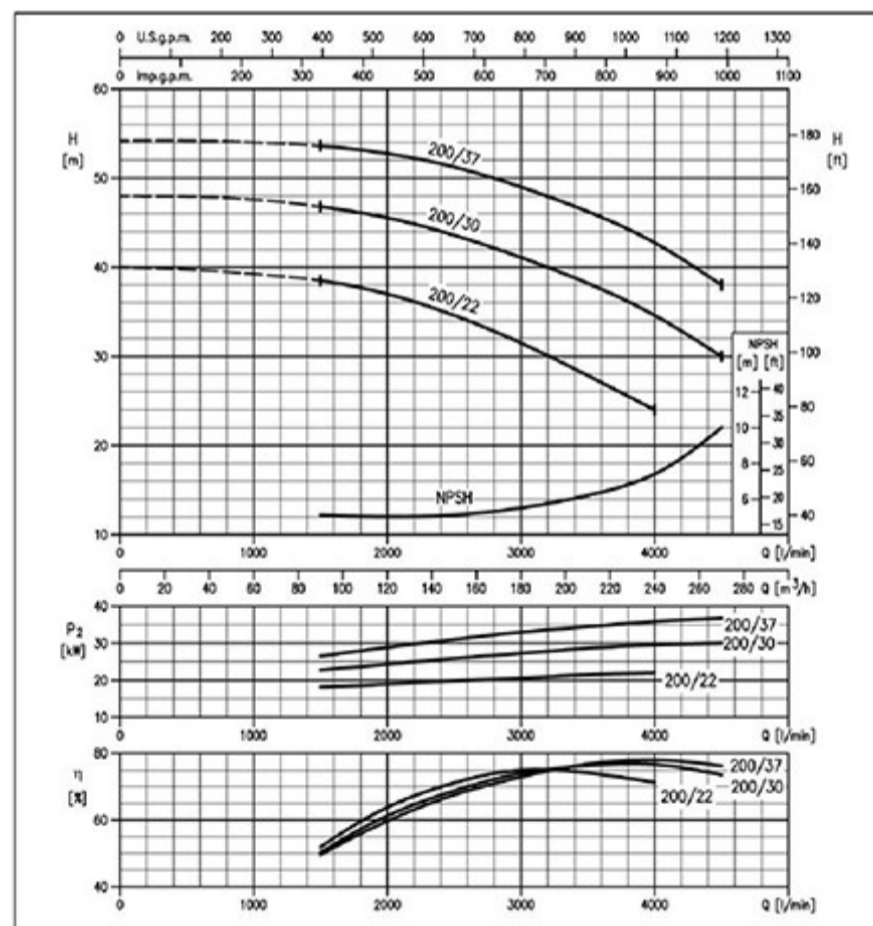
MMD 80-200 series 2 Poles منحنی های راندمان



MMD 80-250 series 2 Poles منحنی های راندمان



MMD 100-200 series 2 Poles منحنی های راندمان

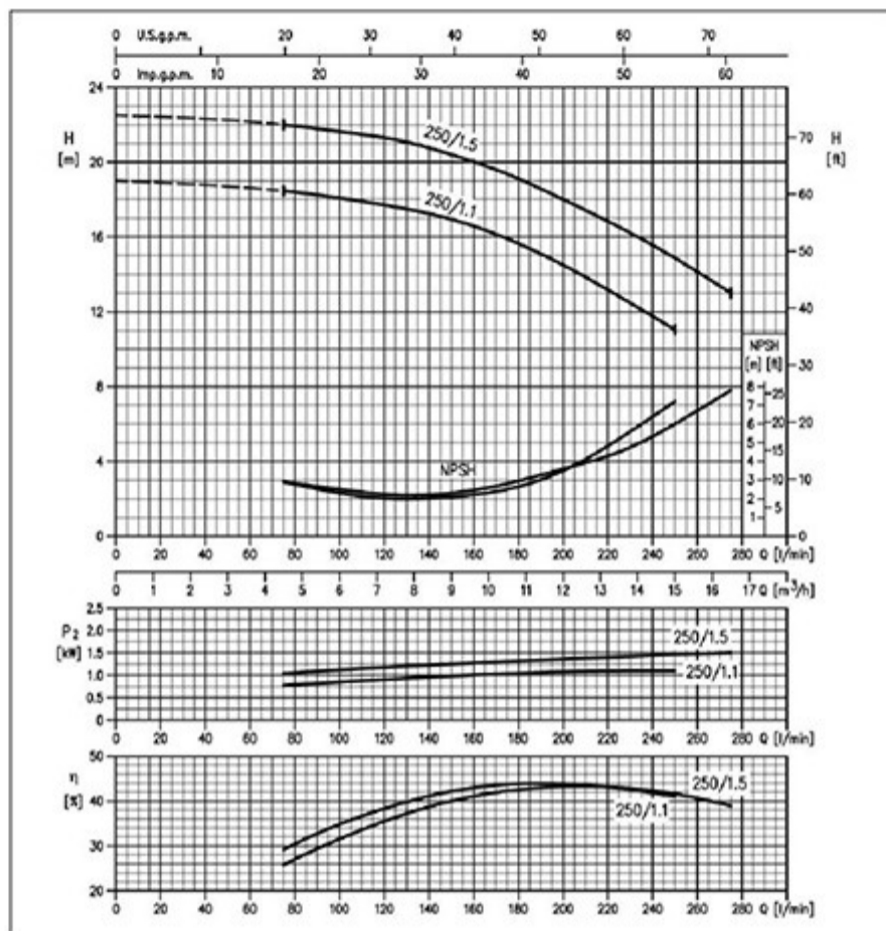




# MD-MMD

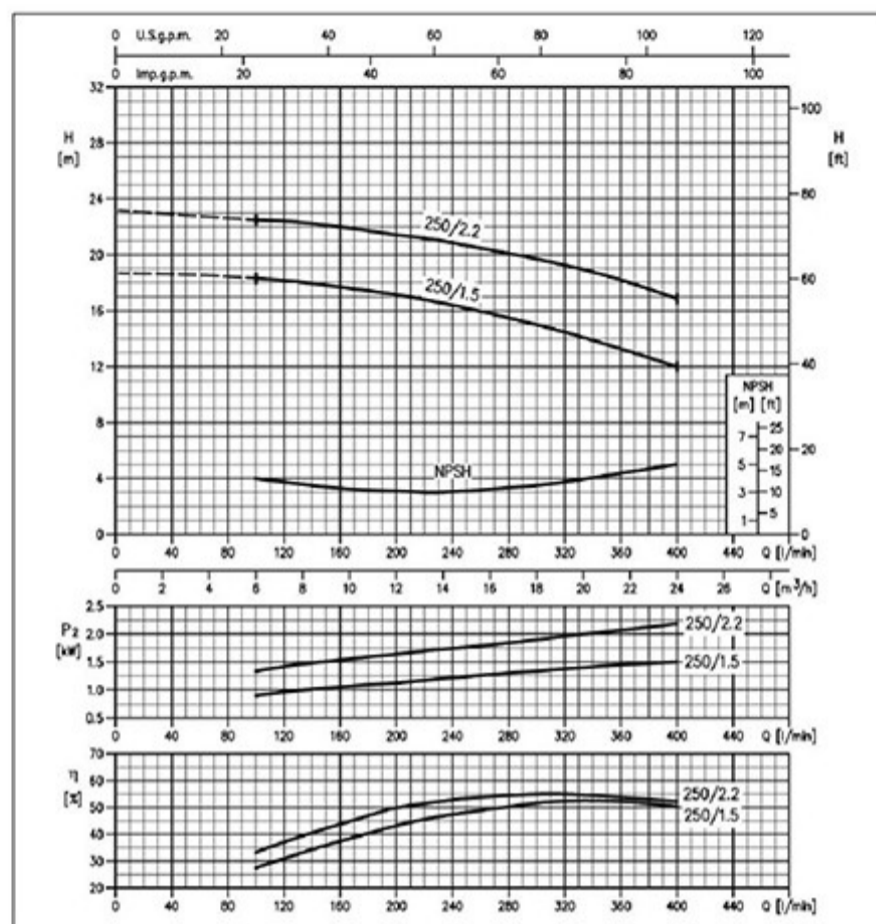
منحنی های راندمان MMD4 32-250 series

4 Poles



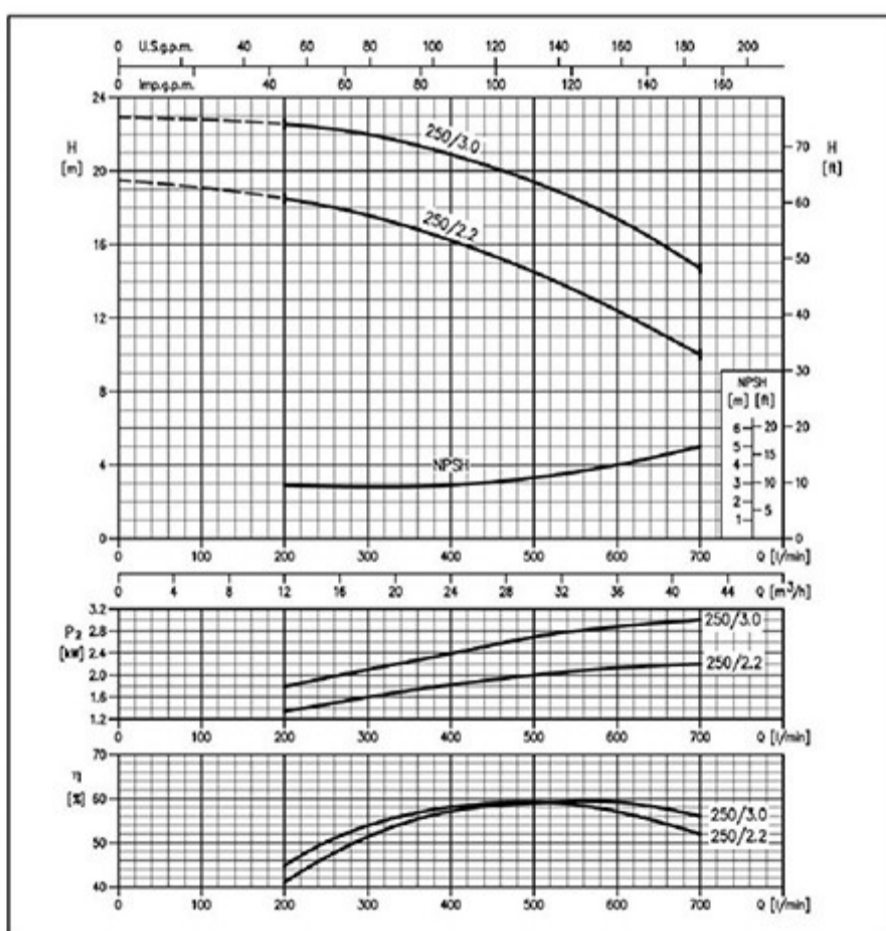
منحنی های راندمان MMD4 40-250 series

4Poles



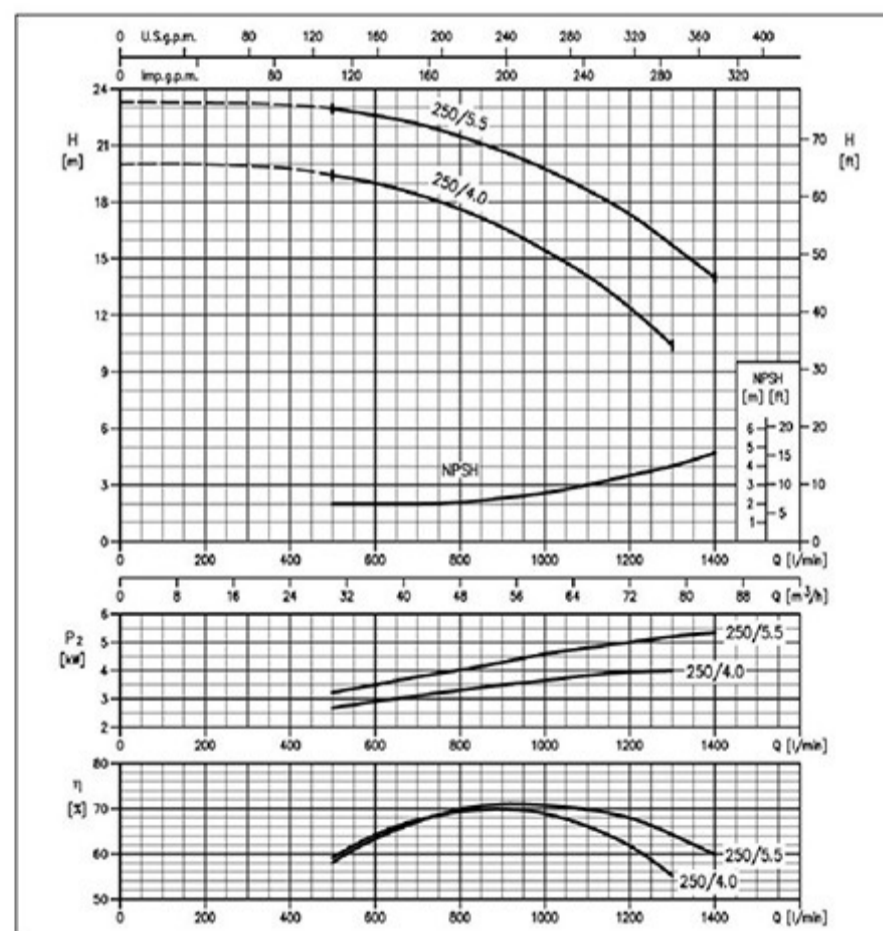
منحنی های راندمان MMD4 50-250 series

4Poles



منحنی های راندمان MMD4 65-250 series

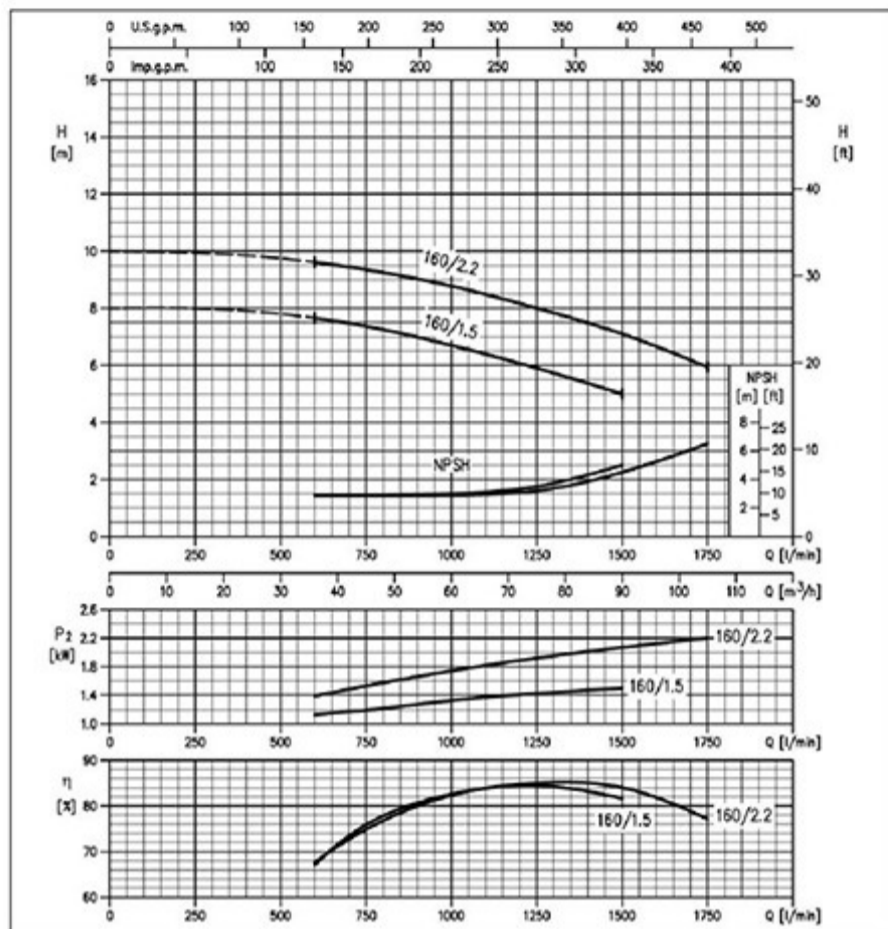
4Poles



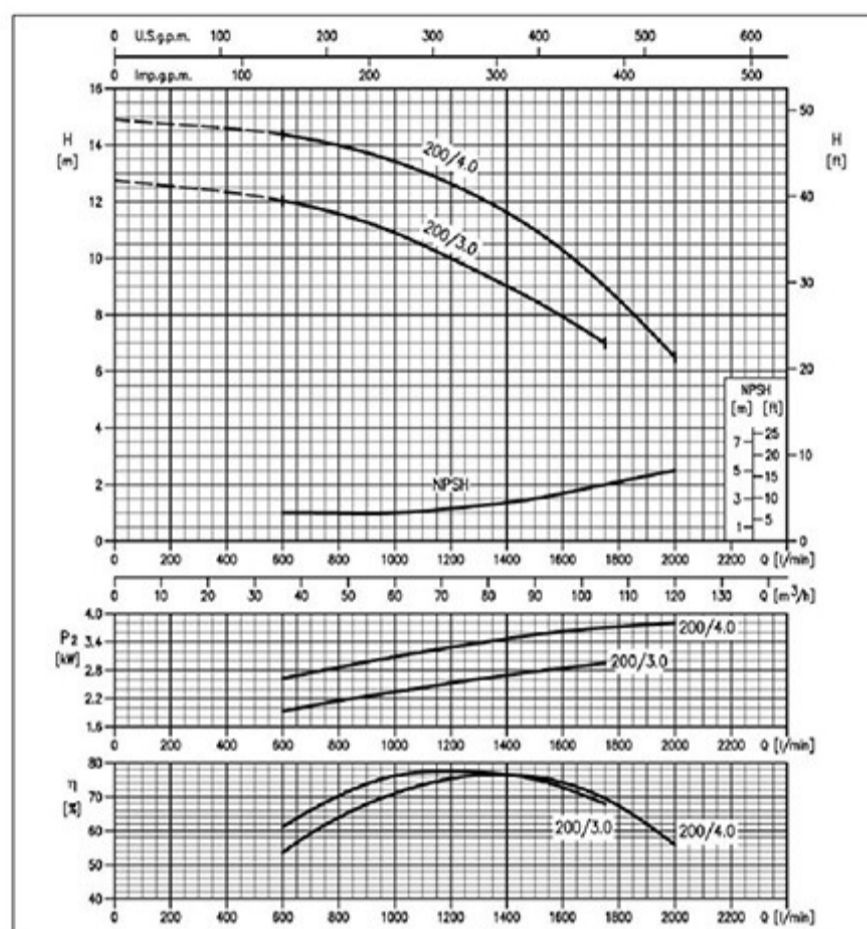


# MD-MMD

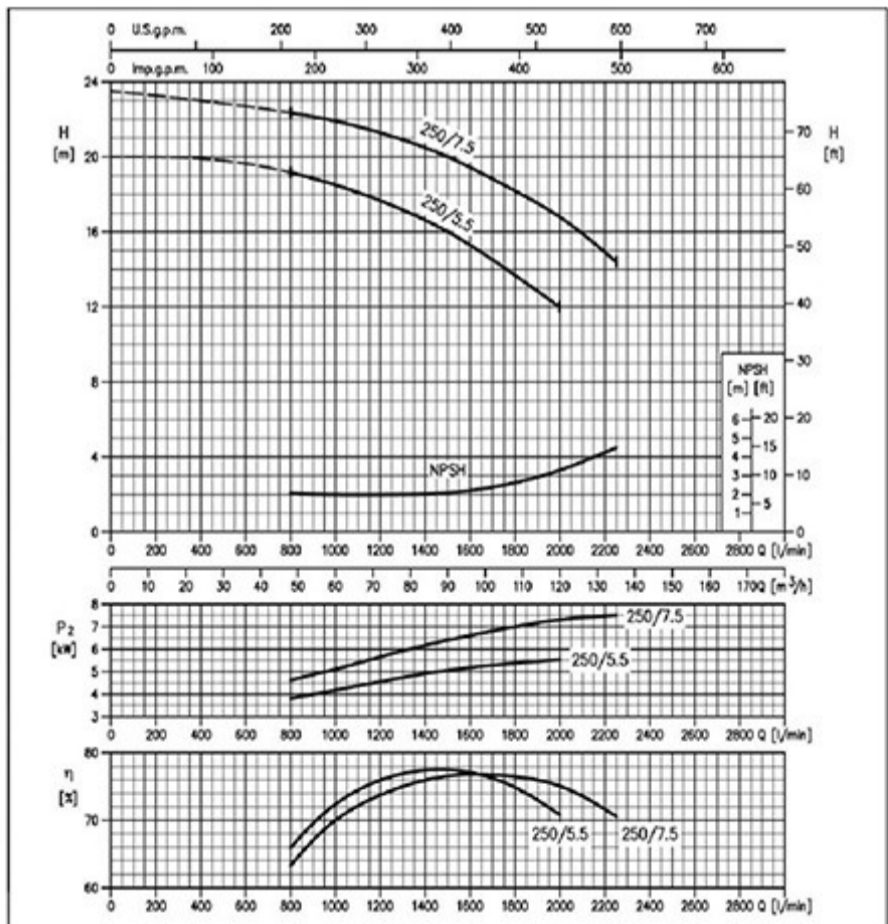
MMD4 80-160 series 4Poles منحنی های راندمان



MMD4 80-200 series 4Poles منحنی های راندمان



MMD4 80-250 series 4Poles منحنی های راندمان

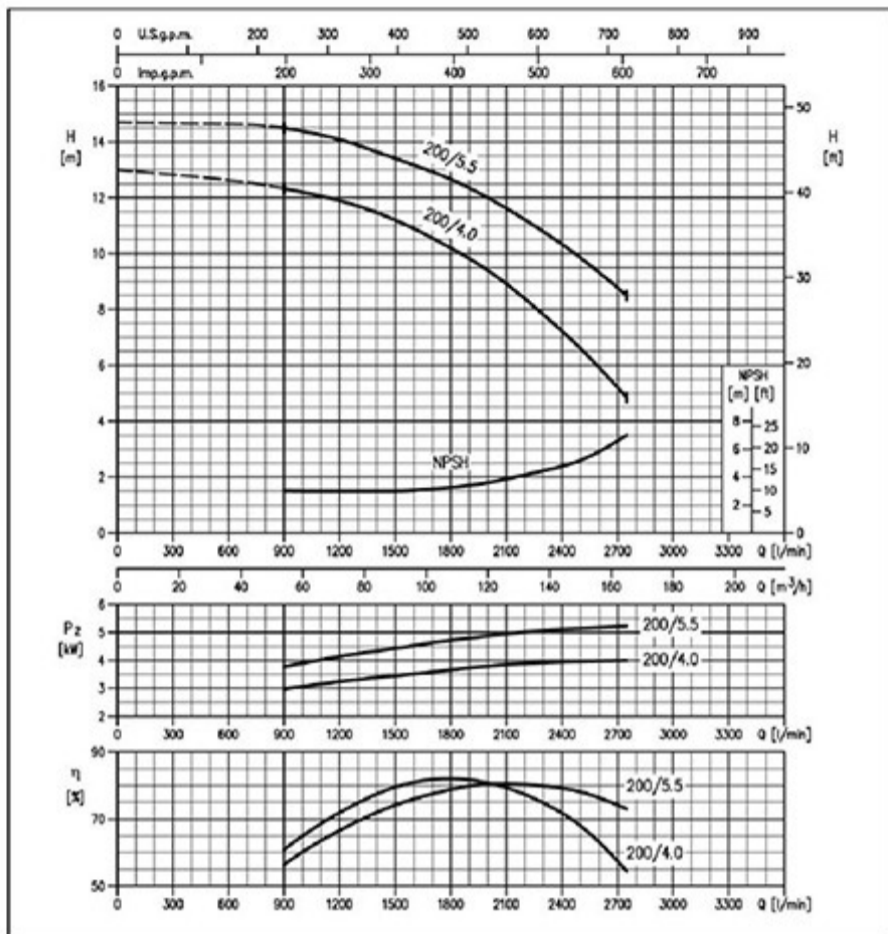




# MD-MMD

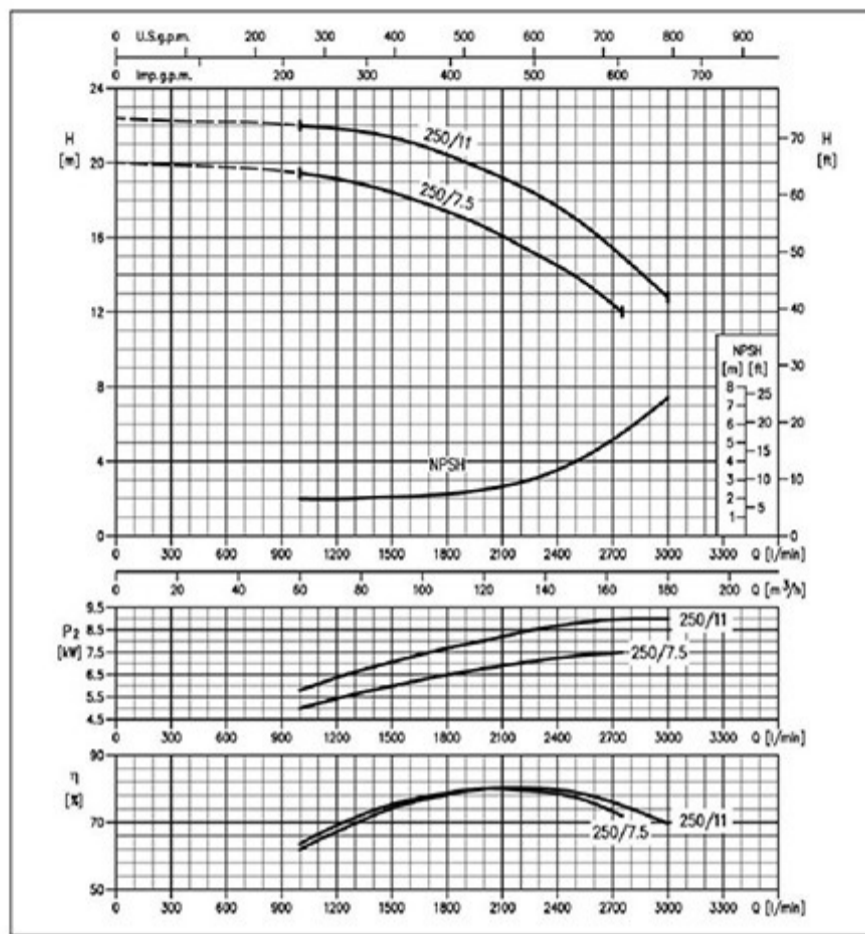
منحنی های راندمان MMD4 100-200serie

4Poles



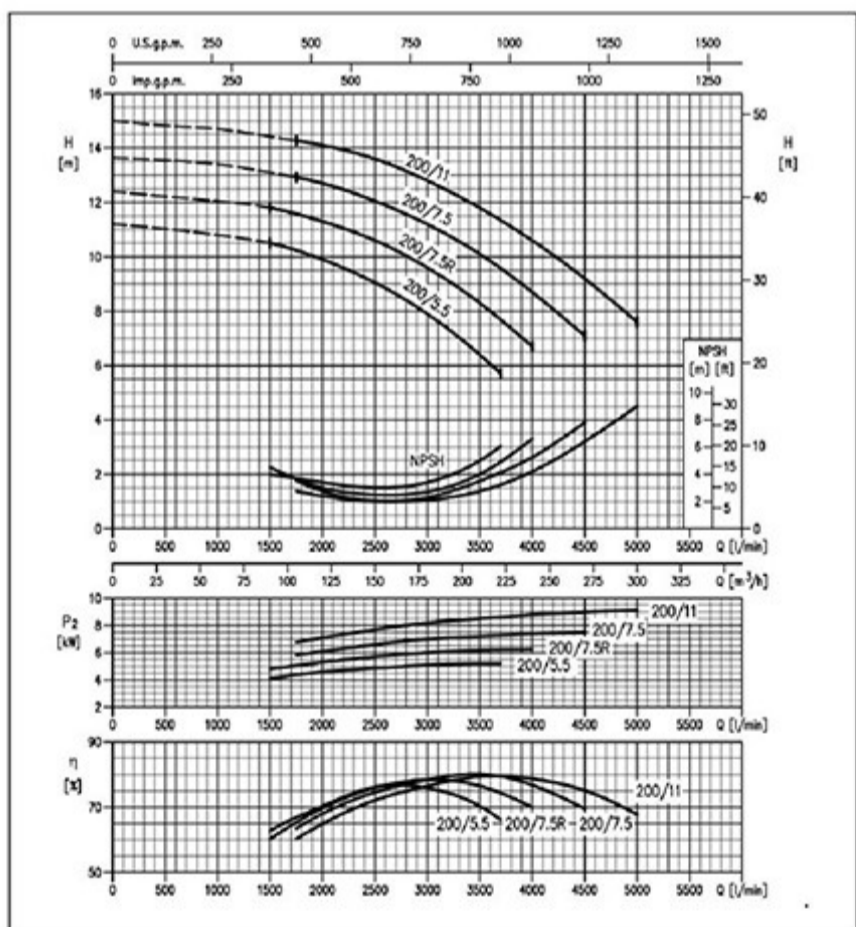
منحنی های راندمان MMD4 100-250series

4Poles



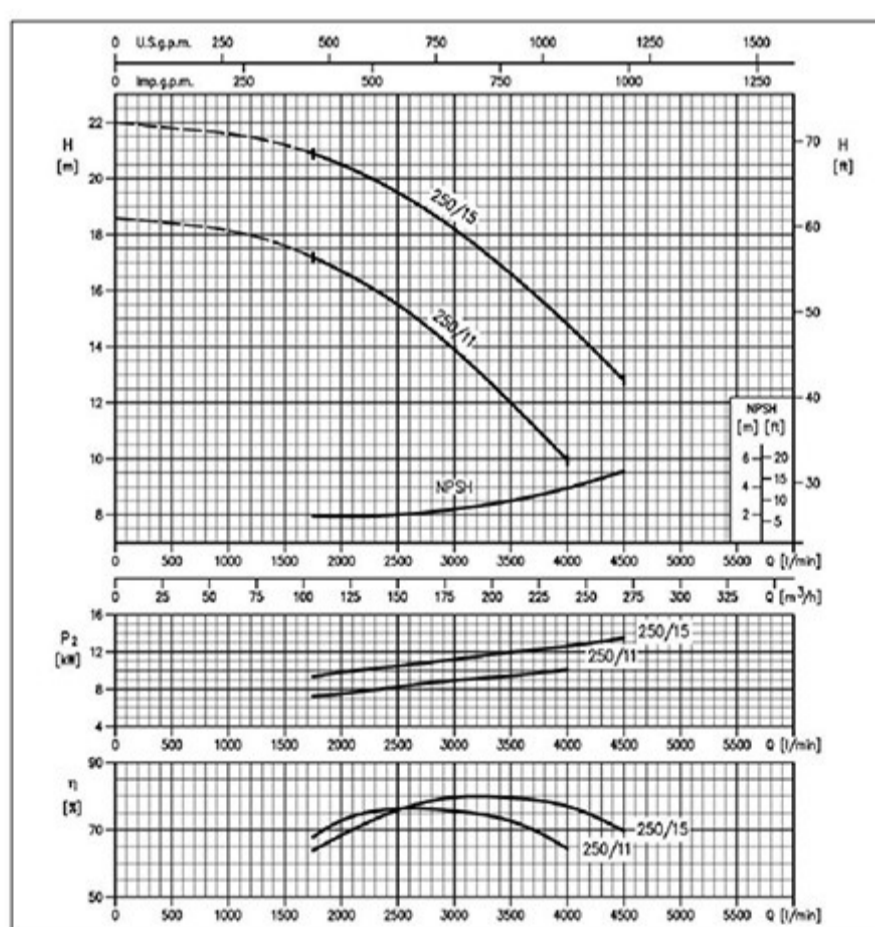
منحنی های راندمان MMD4 125-200series

4Poles



منحنی های راندمان MMD4 125-250series

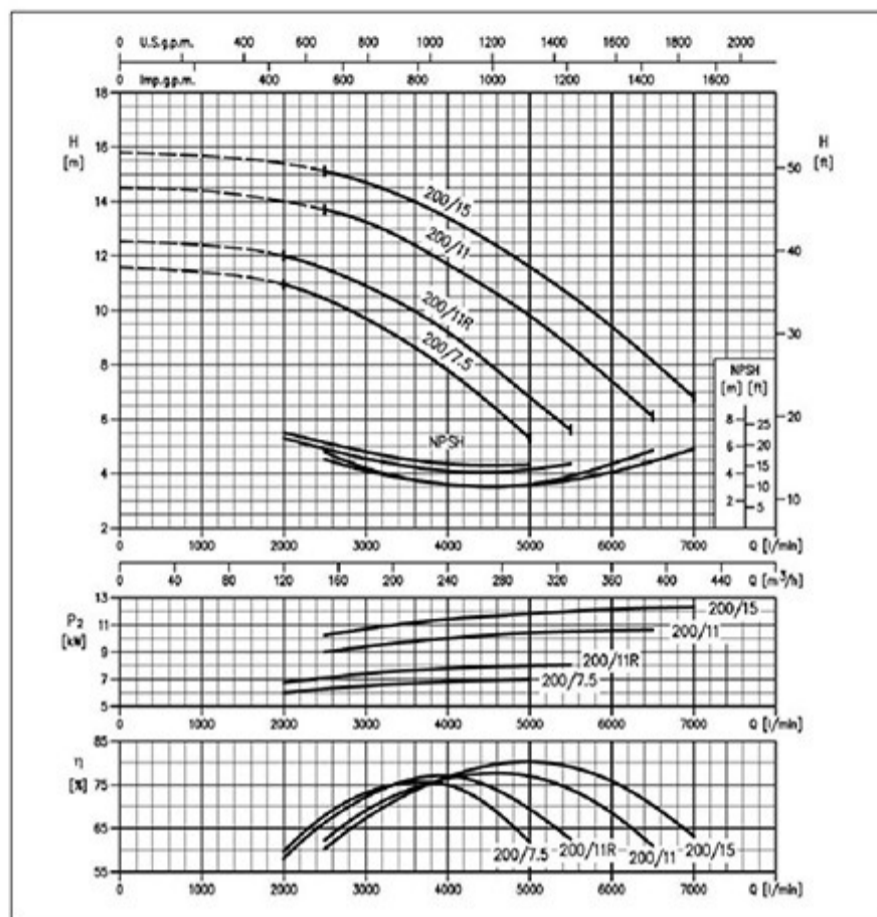
4Poles



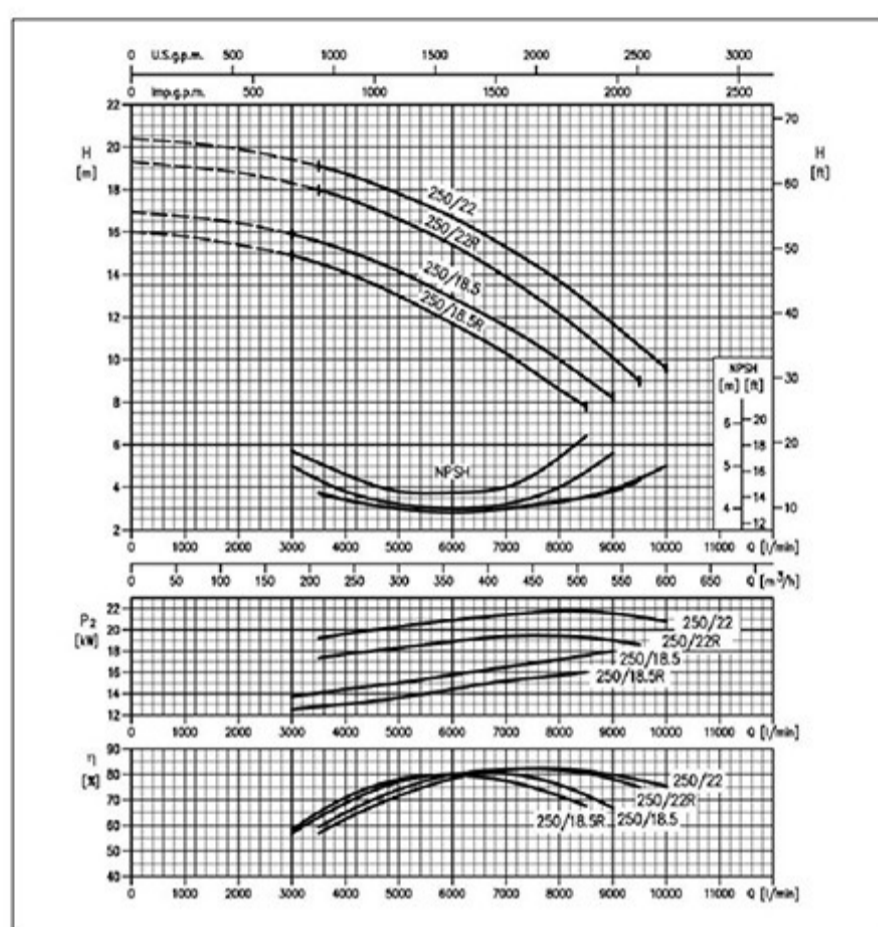


# MD-MMD

منحنی های راندمان MMD4 150-200series 4Poles



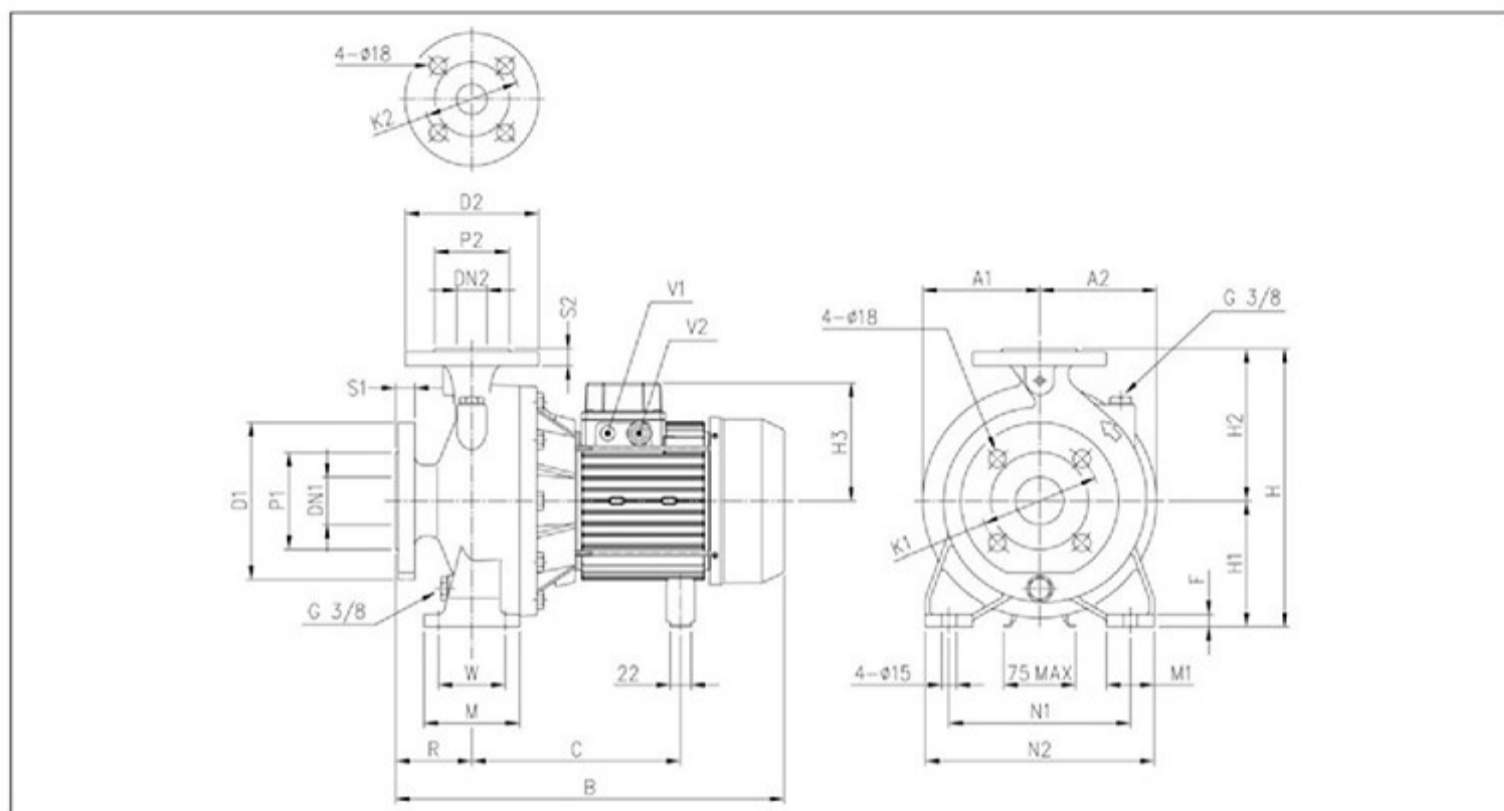
منحنی های راندمان MMD4 200-250series 4Poles



## MD-MMD

ابعاد MD

2Poles



جدول ابعاد

Model	Dimensions [mm]																								Weight [kg]						
	DN1	P1	K1	D1	S1	DN2	P2	K2	D2	S2	H	H1	H2	H3	R	W	M	M1	N1	N2	A1	A2	B	C	F	V1	V2	[2]	[1]		
MD 32-250/5.5	50	102	125	165	20	32	78	100	140	18	405	180	225	-	150	100	95	125	65	250	320	176	176	539	539	275	15	PG 13,5	PG 16	74,2	74,2
MD 32-250/7.5	50	102	125	165	20	32	78	100	140	18	405	180	225	-	150	100	95	125	65	250	320	176	176	557	537	275	15	PG 13,5	PG 16	77,7	74,6
MD 32-250/9.2	50	102	125	165	20	32	78	100	140	18	405	180	225	-	178	100	95	125	65	250	320	176	176	589	589	354	15	PG 13,5	PG 21	94,5	94,5
MD 32-250/11	50	102	125	165	20	32	78	100	140	18	405	180	225	-	178	100	95	125	65	250	320	176	176	589	589	354	15	PG 13,5	PG 21	97,4	95,0
MD 40-250/11	65	122	145	185	20	40	88	110	150	18	405	180	225	-	178	100	95	125	65	250	320	176	176	589	589	354	15	PG 13,5	PG 21	100,4	98,0

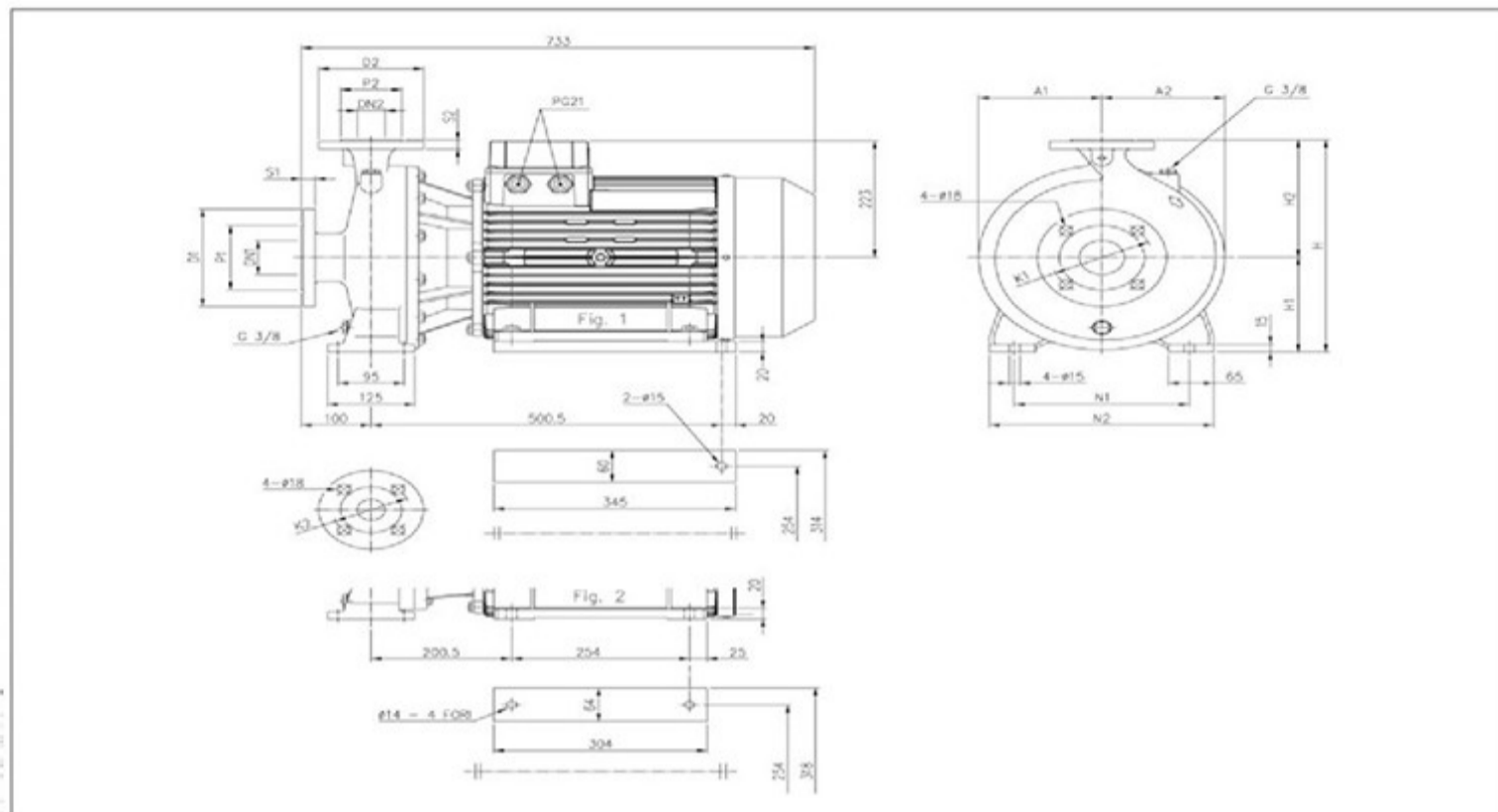
[2]= Only for IE3 Motors



## MD-MMD

ابعاد MD

2 Poles



جدول ابعاد

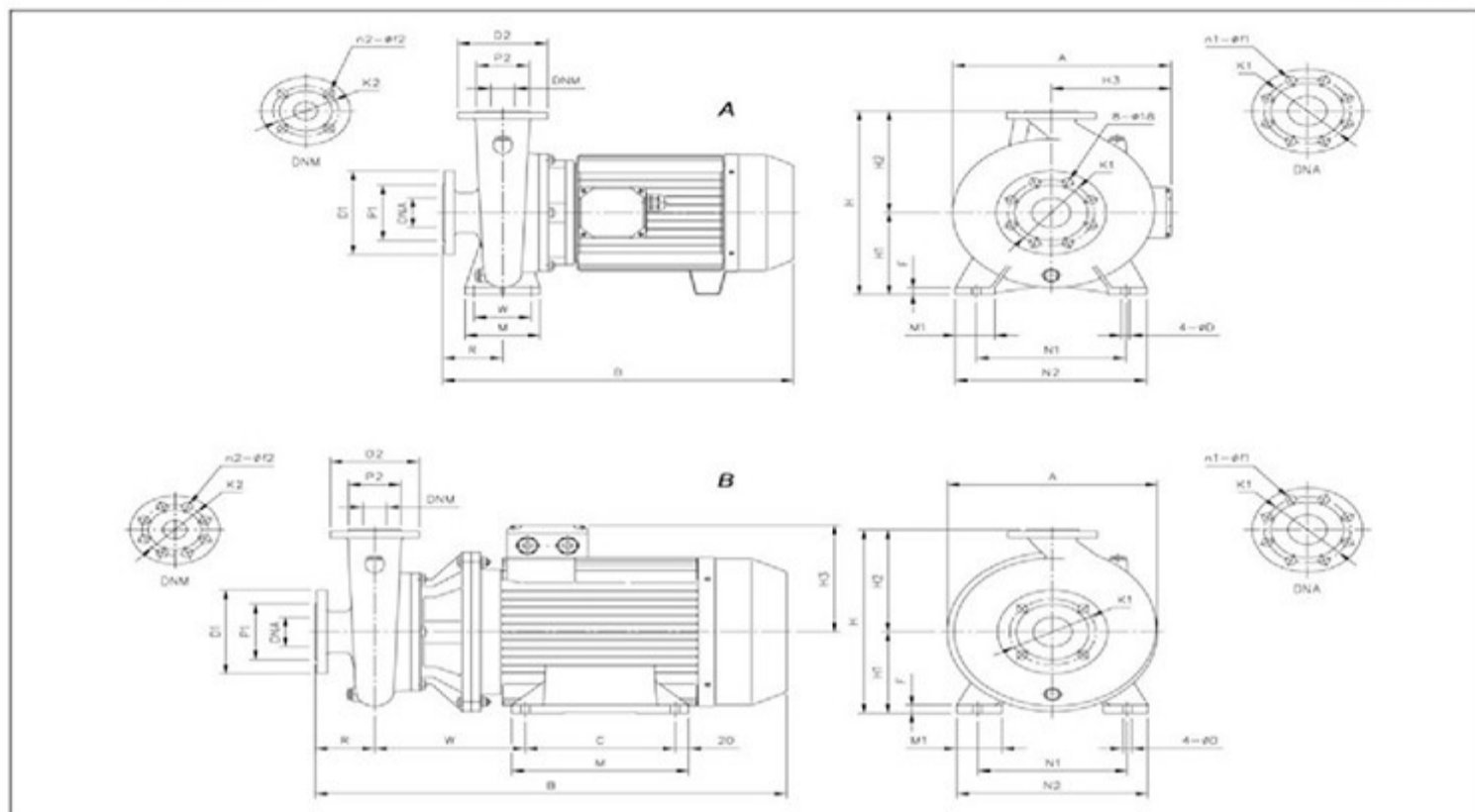
Model	Dimensions [mm]																		Weight [kg]	
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	S2	Fig.	H	H1	H2	N1	N2	A1	A2	[2]	[1]
MD 40-250/15	65	122	145	185	20	40	88	110	150	18	1	405	180	225	250	320	176	176	105,1	102,0
MD 50-250/15	65	122	145	185	20	50	102	125	165	20	1	405	180	225	250	320	176	176	106,1	103,0
MD 50-250/18.5	65	122	145	185	20	50	102	125	165	20	1	405	180	225	250	320	176	176	136,3	130,0
MD 50-250/22	65	122	145	185	20	50	102	125	165	20	1	405	180	225	250	320	176	176	161,1	155,0

[2]= Only for IE3 Motors

# MD-MMD

ابعاد MMD

2Poles



جدول ابعاد

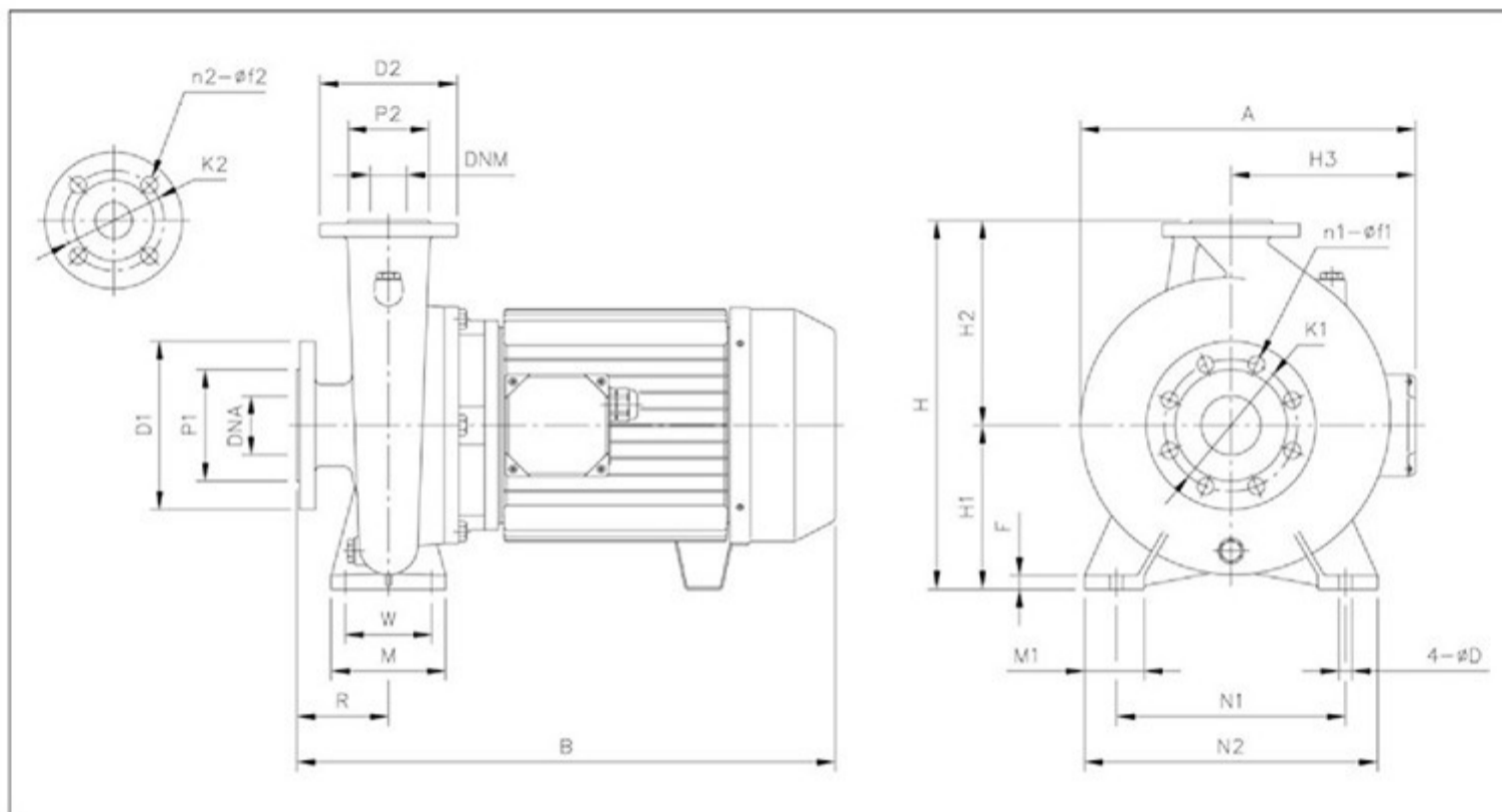
Model	Fig.	DNA	n1	f1	P1	K1	D1	DNM	n2	f2	P2	K2	Dimensions (mm)													Weight (kg)			
													D2	H	H1	H2	H3	R	W	N1	M	N2	M1	F	A		B	C	D
MMD 65-250/22	B	80	8	18	138	160	200	65	4	18	122	145	185	430	180	250	238	100	280	254	420	320	60	20	365	862	370	14	157
MMD 65-250/30	B	80	8	18	138	160	200	65	4	18	122	145	185	450	200	250	330	100	325	318	345	380	60	24	365	961	305	18	288
MMD 65-250/37	B	80	8	18	138	160	200	65	4	18	122	145	185	450	200	250	330	100	325	318	345	380	60	24	365	961	305	18	340
MMD 80-160/11	A	100	8	18	158	180	220	80	8	18	138	160	200	405	180	225	194	125	95	250	125	320	65	14	315	774	-	14	125
MMD 80-160/15R	A	100	8	18	158	180	220	80	8	18	138	160	200	405	180	225	194	125	95	250	125	320	65	14	315	774	-	14	135
MMD 80-160/15	A	100	8	18	158	180	220	80	8	18	138	160	200	405	180	225	194	125	95	250	125	320	65	14	315	774	-	14	134
MMD 80-200/18,5	B	100	8	18	158	180	220	80	8	18	138	160	200	430	180	250	238	125	280	254	420	320	60	20	360	857	370	14	154
MMD 80-200/22	B	100	8	18	158	180	220	80	8	18	138	160	200	430	180	250	238	125	280	254	420	320	60	20	360	887	370	14	163
MMD 80-200/30	B	100	8	18	158	180	220	80	8	18	138	160	200	450	200	250	330	125	325	318	345	380	60	24	400	986	305	18	308
MMD 80-200/37	B	100	8	18	158	180	220	80	8	18	138	160	200	450	200	250	330	125	325	318	345	380	60	24	400	986	305	18	360
MMD 80-250/37	B	100	8	18	158	180	220	80	8	18	138	160	200	480	200	280	330	125	325	318	345	380	60	24	400	986	305	18	346
MMD 100-200/22	B	125	8	18	188	210	250	100	8	18	158	180	220	460	180	280	238	125	280	254	420	320	60	20	380	887	370	14	173
MMD 100-200/30	B	125	8	18	188	210	250	100	8	18	158	180	220	480	200	280	330	125	325	318	345	380	60	24	400	986	305	18	318
MMD 100-200/37	B	125	8	18	188	210	250	100	8	18	158	180	220	480	200	280	330	125	325	318	345	380	60	24	400	986	305	18	370



## MD-MMD

ابعاد MMD4 up to 65

4Poles



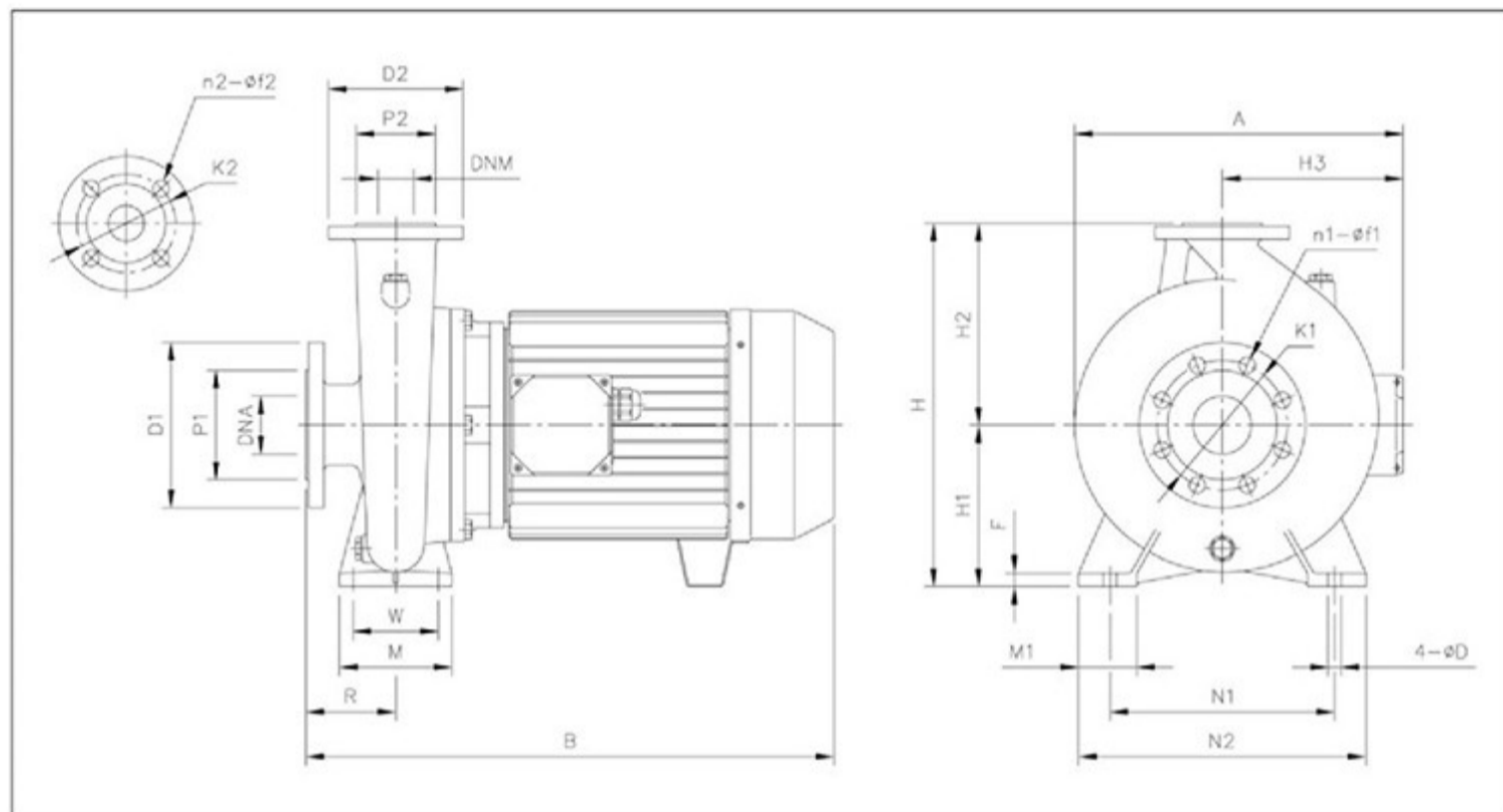
جدول ابعاد

Model	Dimensions [mm]																										Weight [kg]
	DNA	n1	f1	P1	K1	D1	DNM	n2	f2	P2	K2	D2	H	H1	H2	H3	R	W	N1	M	N2	M1	F	A	B	D	
MMD4/E 32-250/1,1	50	4	18	102	125	165	32	4	14	78	100	140	405	180	225	138	100	95	250	125	320	65	12	320	504	14	53
MMD4/E 32-250/1,5	50	4	18	102	125	165	32	4	14	78	100	140	405	180	225	138	100	95	250	125	320	65	12	320	504	14	55
MMD4/E 40-250/1,5	65	4	18	122	145	185	40	4	18	88	110	150	405	180	225	138	100	95	250	125	320	65	12	325	504	14	54
MMD4/E 40-250/2,2	65	4	18	122	145	185	40	4	18	88	110	150	405	180	225	145	100	95	250	125	320	65	12	325	551	14	64
MMD4/E 50-250/2,2	65	4	18	122	145	185	50	4	18	102	125	165	405	180	225	145	100	95	250	125	320	65	14	333	551	14	67
MMD4/E 50-250/3	65	4	18	122	145	185	50	4	18	102	125	165	405	180	225	145	100	95	250	125	320	65	14	333	551	14	75
MMD4/E 65-250/4	80	8	18	138	160	200	65	4	18	122	145	185	450	200	250	160	100	120	280	160	360	80	14	365	581	14	91
MMD4/E 65-250/5,5	80	8	18	138	160	200	65	4	18	122	145	185	450	200	250	194	100	120	280	160	360	80	14	365	631	14	103

## MD-MMD

ابعاد MMD 80-200

4Poles



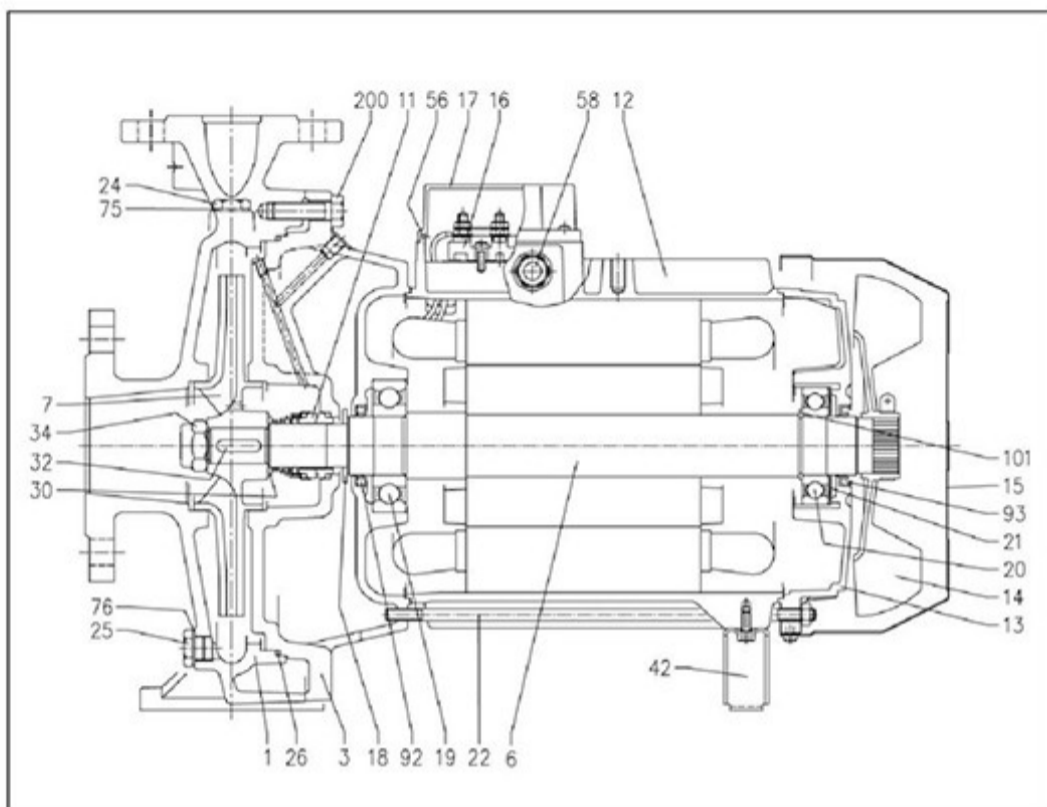
جدول ابعاد

Model	Dimensions [mm]																								Weight [kg]		
	DNA	n1	f1	P1	K1	D1	DNM	n2	f2	P2	K2	D2	H	H1	H2	H3	R	W	N1	M	N2	M1	F	A		B	D
MMD4 80-160/1,5	100	8	18	158	180	220	80	8	18	138	160	200	405	180	225	138	125	95	250	125	320	65	14	330	529	14	51
MMD4 80-160/2,2	100	8	18	158	180	220	80	8	18	138	160	200	405	180	225	145	125	95	250	125	320	65	14	330	576	14	61
MMD4 80-200/3	100	8	18	158	180	220	80	8	18	138	160	200	430	180	250	145	125	95	280	125	345	65	12	355	588	14	78
MMD4 80-200/4	100	8	18	158	180	220	80	8	18	138	160	200	430	180	250	160	125	95	280	125	345	65	12	355	606	14	84
MMD4 80-250/5,5	100	8	18	158	180	220	80	8	18	138	160	200	480	200	280	194	125	120	315	160	400	80	14	400	656	18	109
MMD4 80-250/7,5	100	8	18	158	180	220	80	8	18	138	160	200	480	200	280	194	125	120	315	160	400	80	14	400	706	18	119
MMD4 100-200/4	125	8	18	188	210	250	100	8	18	158	180	220	480	200	280	160	125	120	280	160	360	80	14	385	606	18	89
MMD4 100-200/5,5	125	8	18	188	210	250	100	8	18	158	180	220	480	200	280	194	125	120	280	160	360	80	14	385	656	18	103
MMD4 100-250/7,5	125	8	18	188	210	250	100	8	18	158	180	220	505	225	280	194	140	120	315	160	400	80	14	420	721	18	125
MMD4 100-250/11	125	8	18	188	210	250	100	8	18	158	180	220	505	225	280	238	140	120	315	160	400	80	14	420	801	18	198
MMD4 125-200/5,5	150	8	22	212	240	285	125	8	18	188	210	250	565	250	280	194	140	120	315	160	400	80	14	470	682	18	137
MMD4 125-200/7,5R	150	8	22	212	240	285	125	8	18	188	210	250	565	250	315	194	140	120	315	160	400	80	14	470	732	18	147
MMD4 125-200/7,5	150	8	22	212	240	285	125	8	18	188	210	250	565	250	315	194	140	120	315	160	400	80	14	470	732	18	147
MMD4 125-200/11	150	8	22	212	240	285	125	8	18	188	210	250	565	250	315	238	140	120	315	160	400	80	14	470	812	18	220
MMD4 125-250/11	150	8	22	212	240	285	125	8	18	188	210	250	605	250	355	238	140	120	315	160	400	80	16	470	812	18	226
MMD4 125-250/15	150	8	22	212	240	285	125	8	18	188	210	250	605	250	355	238	140	120	315	160	400	80	16	470	872	18	250
MMD4 150-200/7,5	200	12	22	268	295	340	150	8	22	212	240	285	680	280	400	194	160	155	450	200	550	100	22	550	752	24	180
MMD4 150-200/11R	200	12	22	268	295	340	150	8	22	212	240	285	680	280	400	238	160	155	450	200	550	100	22	550	832	24	253
MMD4 150-200/11	200	12	22	268	295	340	150	8	22	212	240	285	680	280	400	238	160	155	450	200	550	100	22	550	832	24	239
MMD4 150-200/15	200	12	22	268	295	340	150	8	22	212	240	285	680	280	400	238	160	155	450	200	550	100	22	550	892	24	263
MMD4 200-250/18,5R	250	12	25	320	355	405	200	12	22	268	295	340	765	315	450	238	200	155	450	200	550	100	22	630	962	24	363
MMD4 200-250/18,5	250	12	25	320	355	405	200	12	22	268	295	340	765	315	450	238	200	155	450	200	550	100	22	630	962	24	363
MMD4 200-250/22R	250	12	25	320	355	405	200	12	22	268	295	340	765	315	450	238	200	155	450	200	550	100	22	630	1002	24	378
MMD4 200-250/22	250	12	25	320	355	405	200	12	22	268	295	340	765	315	450	238	200	155	450	200	550	100	22	630	1002	24	378

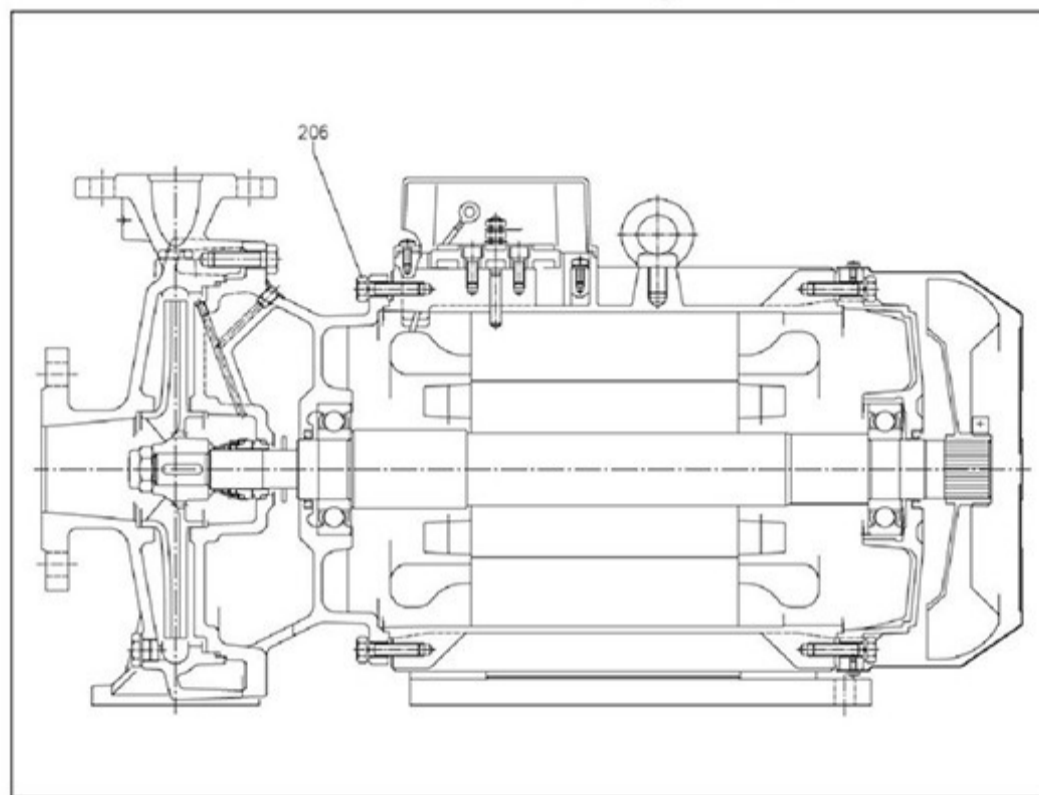


## MD-MMD

11KW تا MD نماى برشى



به بالا 15KE از MD نماى برشى



جدول مواد

Rif.	Name	Material	Rif.	Name	Material
001	Pump body	Cast iron EN-GJL-200-EN 1561	024	Filler cap	Brass
003	Motor support	Cast iron EN-GJL-200-EN 1561	025	Drain plug	Brass
006	Shaft	AISI 304 (wet extension)	026	O-Ring [3]	NBR
007	Impeller	Cast iron EN-GJL-200-EN 1561 AISI 304 (MD xx-250)	030	Spacer	AISI 304
011	Mechanical seal	Carbon/Ceramic/NBR	032	Key	AISI 316
012	Motor case	-	034	Impeller nut	AISI 304
013	Motor cover	Aluminium	042	Foot	Fe P04
014	Fan	PP	056	Terminal box cover gasket	NBR
015	Fan Cover	Fe P04 Galvanized steel	058	Cable gland [1]	-
016	Terminal box	-	075	Washer	Aluminium
017	Terminal box cover	Plastica [2] Aluminium [1]	076	Washer	Aluminium
018	Spray protector washer	NBR	092	Sealing ring	-
019	Bearing (pump side)	-	093	Sealing ring	-
020	Bearing (motor side)	-	101	Seeger ring (only for 9,2 and 11 kW)	Carbon steel TC 80
021	Adjusting ring	Stainless steel C70	200	Screw	Galvanized steel
022	Tie-rod	Fe 42 Galvanised (up to 11 kW and MD 65-160/15) Galvanized steel (from 15 kW and above)	206	Screw	Galvanized steel (from 15 kW and above - no MD 65-160/15)

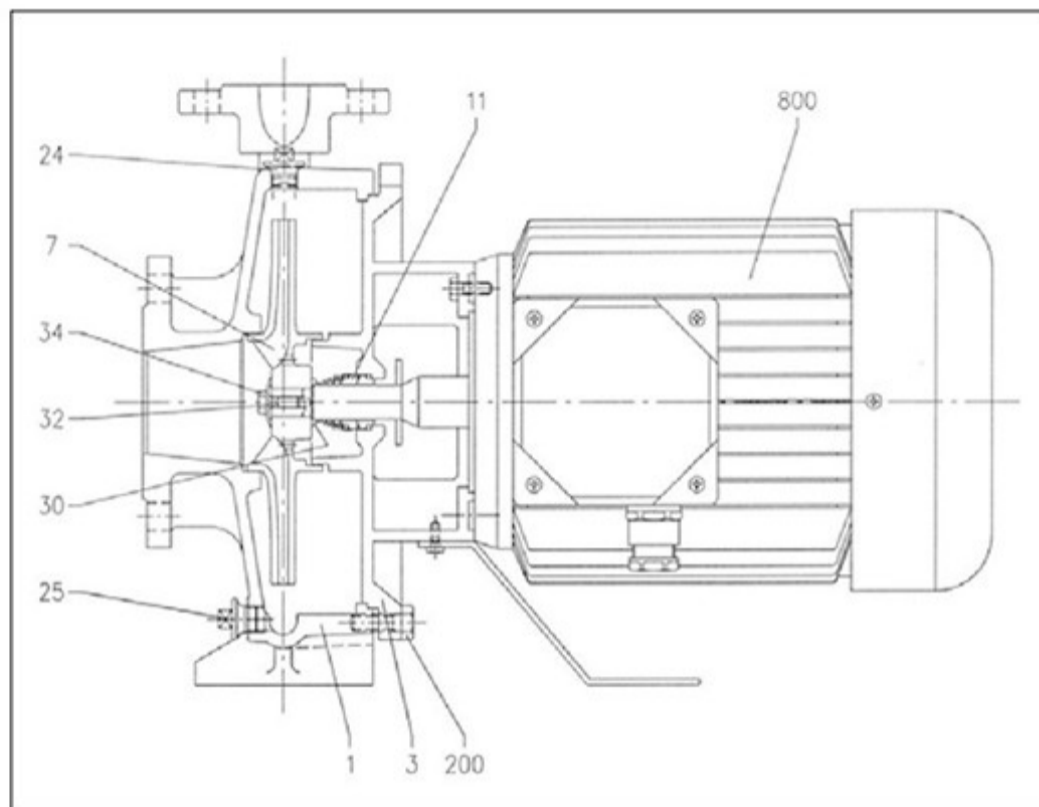
[1]= Only for Three phase

[2]= Only for Single phase

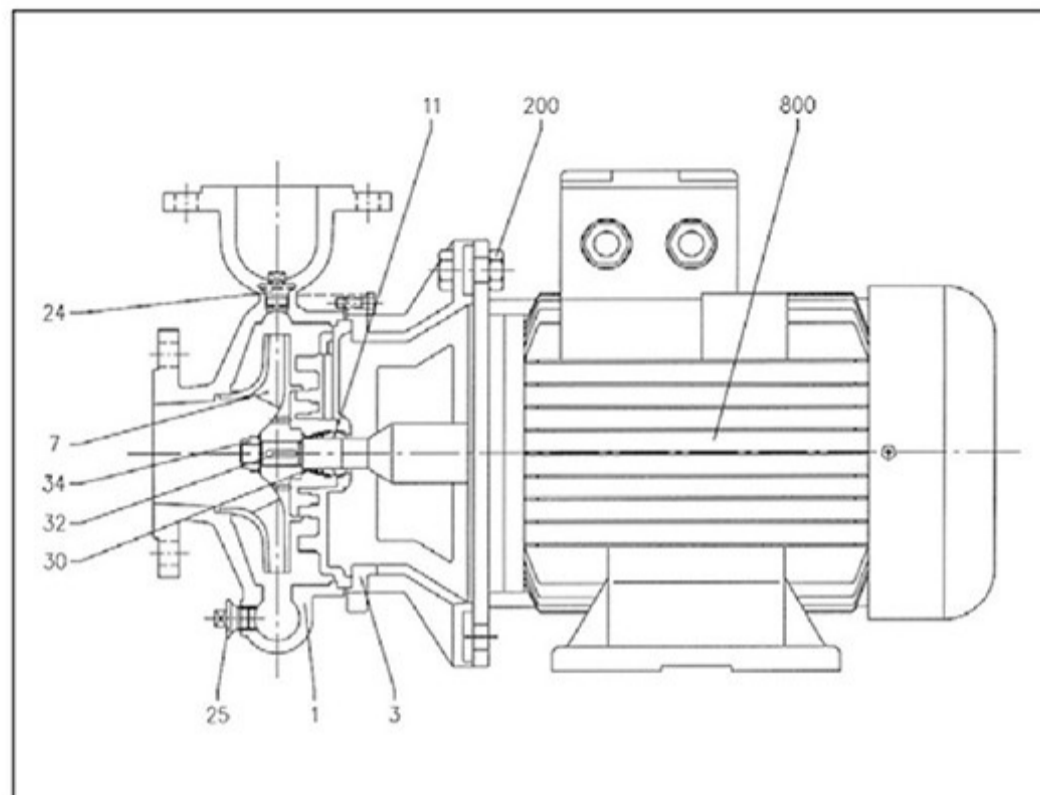
[3]= FPM for H-HS-HW-HSW version, EPDM for E version

## MD-MMD

MEC 132 تا MMD- MMD4 نمای برشی



بالا به MEC 160 از MMD-MMD4 نمای برشی



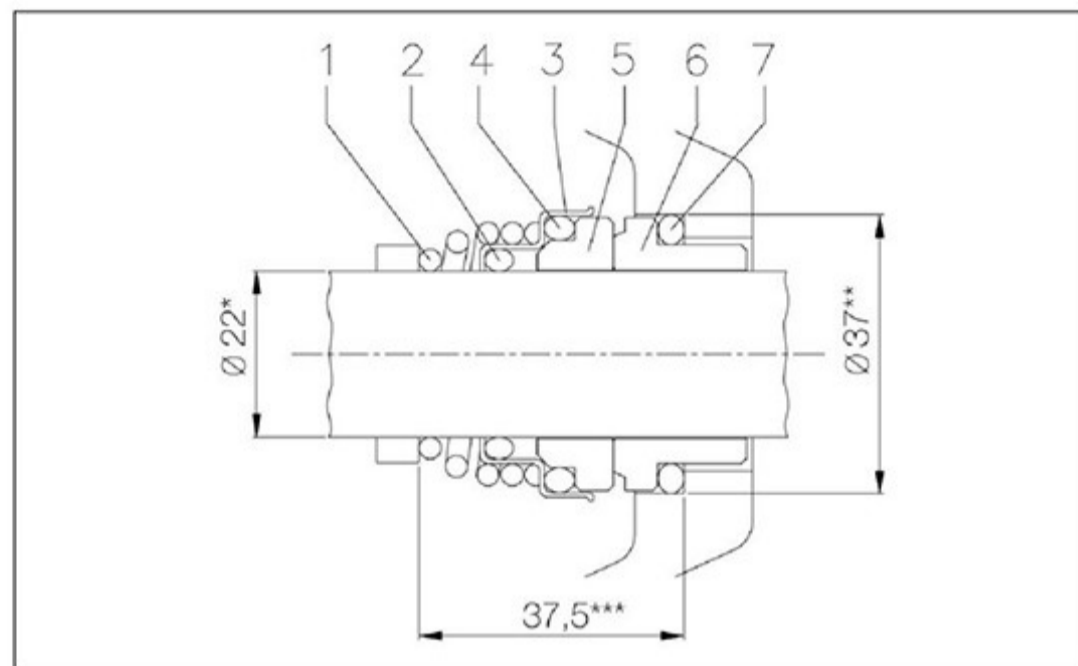
جدول مواد

Rif.	Name	Material	Rif.	Name	Material
1	Pump body	Cast iron EN-GJL-200-EN 1561	30	Spacer	Stainless steel
3	Motor support	Cast iron EN-GJL-200-EN 1561	32	Key	Stainless steel
7	Impeller	Cast iron EN-GJL-200-EN 1561	34	Impeller nut	Stainless steel
11	Mechanical seal	SiC/SiC/NBR	200	Screw (Pump body)	Stainless steel
24	Filler cap	Stainless steel	800	Motor	Aluminium (up to MEC 132) Cast iron (da MEC 160 e oltre)
25	Drain plug	Stainless steel			



## MD-MMD

MD مکانیکال سیل استاندارد



جدول مواد

Rif.	Name	Material
1	Self driving spring	AISI 316
2	O-Ring	NBR
3	Structure/Frame	AISI 304
4	O-Ring	NBR
5	Rotary seal ring	Ceramic
6	Stationary seal ring	Carbon
7	O-Ring	NBR

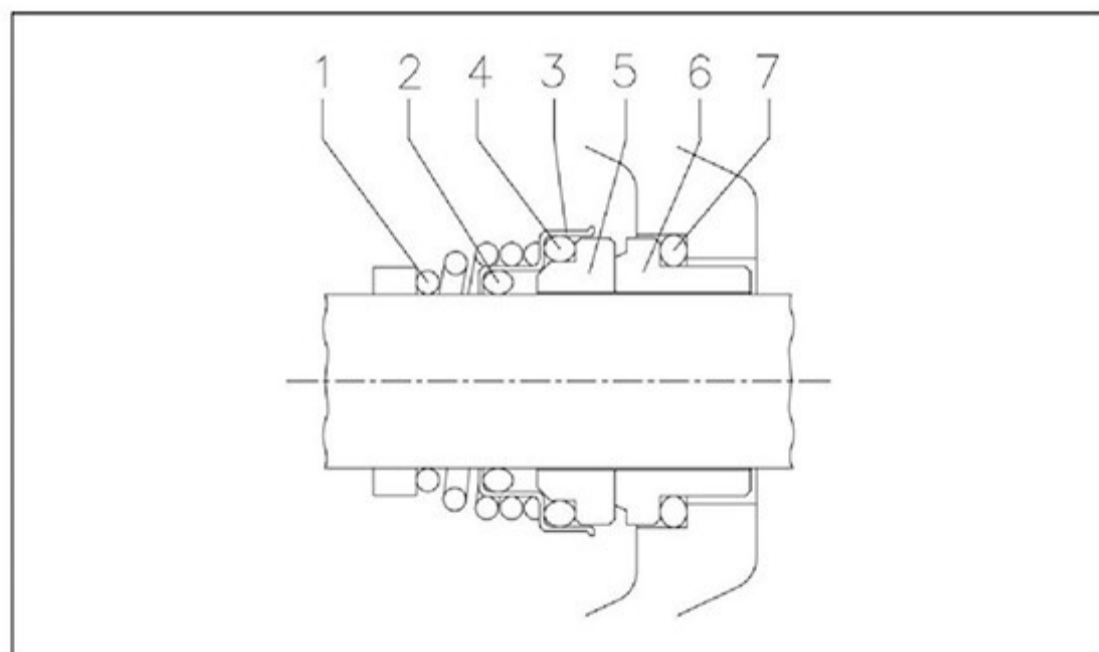
\* Ø30 from 9,2kW and above  
 \*\* Ø 45 from 9,2kW and above  
 \*\*\* 42,5mm from 9,2kW and above

(در صورت درخواست) MD مکانیکال سیل های ویژه

Name	Version H	Version HS	Material Version HW	Version HSW	Version E
Self driving spring	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316
O-ring	FPM	FPM	FPM	FPM	EPDM
Structure/frame	AISI 304 / AISI 316*	AISI 316	AISI 316	AISI 316	AISI 304
O-ring	FPM	FPM	FPM	FPM	EPDM
Rotary seal ring	Ceramic	SiC	Tungsten carbide	SiC	Ceramic
Stationary seal ring	Carbon	SiC	Tungsten carbide	Tungsten carbide	Carbon
O-ring	FPM	FPM	FPM	FPM	EPDM

\* Only for Ø30

MMD مکانیکال سیل



جدول مواد

Rif.	Name	Material
1	Spring	AISI 316
2	O-Ring	NBR
3	Structure/frame	AISI 316
4	O-Ring	NBR
5	Rotating part	SiC
6	Fixed part	SiC
7	O-Ring	NBR

## MD-MMD

جدول اطلاعات فنی MD

2Poles

Model Three-phase	P <sub>i</sub>		Efficiency Three-phase	Efficiency (%) Three-phase			P <sub>i</sub> Trifase [kW]	Absorbed Current [A] Three-phase		
	[HP]	[kW]		η %	50%	75%		100%	400V	690V
MD 32-250/5.5	7,5	5,5	IE2	82,9	86,0	87,4	6,29	10,4	6,0	
MD 32-250/7.5	10	7,5	IE2	86,1	88,2	88,8	8,45	13,7	7,9	
MD 32-250/9.2	12,5	9,2	IE2	88,6	90,0	89,9	10,23	16,8	9,7	
MD 32-250/11	15	11	IE2	88,9	90,3	90,2	12,2	21,9	12,7	
MD 40-250/11	15	11	IE2	88,9	90,3	90,2	12,2	21,9	12,7	
MD 40-250/15	20	15	IE2	89,3	91,0	91,1	18,0	30,0	17,3	
MD 50-250/15	20	15	IE2	89,3	91,0	91,1	18,0	30,0	17,3	
MD 50-250/18,5	25	18,5	IE2	89,8	91,2	91,7	20,17	36,3	21,0	
MD 50-250/22	30	22	IE2	89,9	91,9	92,4	23,8	40,8	23,6	

جدول اطلاعات فنی MD

2Poles

Model	P <sub>i</sub>		Efficiency	Efficiency (%)			P <sub>i</sub> [kW]	Absorbed Current [A]		L <sub>w</sub> - dB(A)*		
	[HP]	[kW]		η %	50%	75%		100%	400V	690V	400V	690V
MD 32-250/7,5	10	7,5	IE3	90,9	91,8	91,4	24,07	39,0	22,5	144,0	83,0	
MD 32-250/9,2	12,5	9,2	IE3	90,1	90,8	90,9	10,12	17,2	10,0	166,0	96,0	
MD 32-250/11	15	11	IE3	90,4	91,2	91,8	11,98	21,3	12,3	184,0	107,0	
MD 40-250/11	15	11	IE3	90,4	91,2	91,8	11,98	21,3	12,3	184,0	107,0	
MD 40-250/15	20	15	IE3	91,2	92,0	91,9	16,32	27,7	17,3	225,0	130,0	
MD 50-250/15	20	15	IE3	91,2	92,0	91,9	16,32	27,7	17,3	225,0	130,0	
MD 50-250/18,5	25	18,5	IE3	91,6	93,0	92,6	19,98	35,0	20,3	328,0	190,0	
MD 50-225/22	30	22	IE3	92,0	93,1	93,2	23,58	39,7	23,6	391,0	227,0	

جدول اطلاعات فنی MMD

2Poles

Model Three-phase	P <sub>i</sub>		Efficiency Three-phase	Efficiency (%) Three-phase			P <sub>i</sub> Three-phase [kW]	Absorbed Current [A] Three-phase		
	[HP]	[kW]		η %	50%	75%		100%	400V	690V
MMD 65-250/22	30	22	IE2	90,9	91,8	91,4	24,07	39,0	22,5	
MMD 65-250/30	40	30	IE2	91,3	92,3	92,4	32,49	53,3	30,8	
MMD 65-250/37	50	37	IE2	91,6	92,9	92,8	39,91	64,0	36,9	
MMD 80-160/11	15	11	IE2	88,1	90,0	89,7	12,34	19,8	11,4	
MMD 80-160/15R	20	15	IE2	90,0	91,0	90,8	16,58	27,2	15,7	
MMD 80-160/15	20	15	IE2	90,0	91,0	90,8	16,58	27,2	15,7	
MMD 80-200/18,5	25	18,5	IE2	90,3	91,6	91,2	20,3	33,3	19,2	
MMD 80-200/22	30	22	IE2	90,9	91,8	91,4	24,07	39,0	22,5	
MMD 80-200/30	40	30	IE2	91,3	92,3	92,4	32,49	53,3	30,8	
MMD 80-200/37	50	37	IE2	91,6	92,9	92,8	39,91	64,0	36,9	
MMD 80-250/37	50	37	IE2	91,6	92,9	92,8	39,91	64,0	36,9	
MMD 100-200/22	30	22	IE2	90,9	91,8	91,4	24,07	39,0	22,5	
MMD 100-200/30	40	30	IE2	91,3	92,3	92,4	32,49	53,3	30,8	
MMD 100-200/37	50	37	IE2	91,6	92,9	92,8	39,91	64,0	36,9	



## MD-MMD

جدول اطلاعات فنی MMD4

4Poles

Model Three-phase	P <sub>i</sub>		Efficiency Three-phase	Efficiency (%) Three-phase			P <sub>i</sub> Three-phase [kW]	Absorbed Current [A]			
	[HP]	[kW]		η %	50%	75%		100%	Three-phase		
									230V	400V	690V
MMD4 32-250/1,1	1,5	1,1	IE2	81,4	82,7	82,5	1,33	4,3	2,5	-	
MMD4 32-250/1,5	2	1,5	IE2	81,0	83,5	83,0	1,81	5,9	3,4	-	
MMD4 40-250/1,5	2	1,5	IE2	81,0	83,5	83,0	1,81	5,9	3,4	-	
MMD4 40-250/2,2	3	2,2	IE2	84,0	85,3	85,1	2,61	8,8	5,1	-	
MMD4 50-250/2,2	3	2,2	IE2	84,0	85,3	85,1	2,61	8,8	5,1	-	
MMD4 50-250/3	4	3	IE2	82,6	84,7	86,4	3,47	11,3	6,5	-	
MMD4 65-250/4	5,5	4	IE2	86,0	87,3	87,1	4,59	14,7	8,5	-	
MMD4 65-250/5,5	7,5	5,5	IE2	87,5	88,3	88,1	6,29	-	10,8	6,2	
MMD4 80-160/1,5	2	1,5	IE2	81,0	83,5	83,0	1,81	5,9	3,4	-	
MMD4 80-160/2,2	3	2,2	IE2	84,0	85,3	85,1	2,61	8,8	5,1	-	
MMD4 80-200/3	4	3	IE2	82,6	84,7	86,4	3,47	11,3	6,5	-	
MMD4 80-200/4	5,5	4	IE2	86,0	87,3	87,1	4,59	14,7	8,5	-	
MMD4 80-250/5,5	7,5	5,5	IE2	87,5	88,3	88,1	6,29	-	10,8	6,2	
MMD4 80-250/7,5	10	7,5	IE2	88,5	89,4	89,2	8,48	-	14,4	8,3	
MMD4 100-200/4	5,5	4	IE2	86,0	87,3	87,1	4,59	14,7	8,5	-	
MMD4 100-200/5,5	7,5	5,5	IE2	87,5	88,3	88,1	6,29	-	10,8	6,2	
MMD4 100-250/7,5	10	7,5	IE2	88,5	89,4	89,2	8,48	-	14,4	8,3	
MMD4 100-250/11	15	11	IE2	89,4	90,3	90,1	12,49	-	22,0	12,7	
MMD4 125-200/5,5	7,5	5,5	IE2	87,5	88,3	88,1	6,29	-	10,8	6,2	
MMD4 125-200/7,5R	10	7,5	IE2	88,5	89,4	89,2	8,48	-	14,4	8,3	
MMD4 125-200/7,5	10	7,5	IE2	88,5	89,4	89,2	8,48	-	14,4	8,3	
MMD4 125-200/11R	15	11	IE2	89,4	90,3	90,1	12,49	-	22,0	12,7	
MMD4 125-250/11	15	11	IE2	89,4	90,3	90,1	12,49	-	22,0	12,7	
MMD4 125-250/15	20	15	IE2	90,6	91,2	91,0	16,88	-	29,0	16,7	
MMD4 150-200/7,5	10	7,5	IE2	88,5	89,4	89,2	8,48	-	14,4	8,3	
MMD4 150-200/11R	15	11	IE2	89,4	90,3	90,1	12,49	-	22,0	12,7	
MMD4 150-200/11	15	11	IE2	89,4	90,3	90,1	12,49	-	22,0	12,7	
MMD4 150-200/15	20	15	IE2	90,6	91,2	91,0	16,88	-	29,0	16,7	
MMD4 200-250/18,5R	22	18,5	IE2	90,9	91,6	91,4	20,26	-	34,4	19,8	
MMD4 200-250/18,5	22	18,5	IE2	90,9	91,6	91,4	20,26	-	34,4	19,8	
MMD4 200-250/22R	30	22	IE2	91,1	92,0	91,6	24,03	-	41,3	23,8	
MMD4 200-250/22	30	22	IE2	91,1	92,0	91,6	24,03	-	41,3	23,8	

## MD-MMD

جدول مختصات پارازیت MD

2Poles

Single-phase	Model Three-phase	P <sub>2</sub>		L <sub>PA</sub> - dB(A)*
		[HP]	[kW]	
-	MD 32-250/5.5	7,5	5,5	75
-	MD 32-250/7.5	10	7,5	
-	MD 32-250/9.2	12,5	9,2	80
-	MD 32-250/11	15	11	
-	MD 40-250/11	15	11	80
-	MD 40-250/15	20	15	83-82
-	MD 50-250/15	20	15	83-82
-	MD 50-250/18,5	25	18,5	
-	MD 50-250/22	30	22	

\* Mean value of several measures at 1m distance around the pump.  
Tolerance ± 2.5 dB.

جدول مختصات پارازیت MMD

2Poles

Model Three-phase	P <sub>2</sub>		L <sub>PA</sub> - dB(A)*
	[HP]	[kW]	
MMD 65-250/22	30	22	81
MMD 65-250/30	40	30	83
MMD 65-250/37	50	37	
MMD 80-160/11	15	11	80
MMD 80-160/15R	20	15	
MMD 80-160/15	20	15	
MMD 80-200/18,5	25	18,5	81
MMD 80-200/22	30	22	
MMD 80-200/30	40	30	83
MMD 80-200/37	50	37	
MMD 80-250/37	50	37	83
MMD 100-200/22	30	22	81
MMD 100-200/30	40	30	83
MMD 100-200/37	50	37	

\* Mean value of several measures at 1m distance around the pump.  
Tolerance ± 2.5 dB.

جدول مختصات پارازیت MMD4

4Poles

Model Three-phase	P <sub>2</sub>		L <sub>PA</sub> - dB(A)*
	[HP]	[kW]	
MMD4 32-250/1,1	1,5	1,1	<70
MMD4 32-250/1,5	2	1,5	
MMD4 40-250/1,5	2	1,5	
MMD4 40-250/2,2	3	2,2	
MMD4 50-250/2,2	3	2,2	
MMD4 50-250/3,0	4	3	72
MMD4 65-250/4,0	5,5	4	78
MMD4 65-250/5,5	7,5	5,5	
MMD4 80-160/1,5	2	1,5	<70
MMD4 80-160/2,2	3	2,2	
MMD4 80-200/3	4	3	72
MMD4 80-200/4	5,5	4	78
MMD4 80-250/5,5	7,5	5,5	
MMD4 80-250/7,5	10	7,5	80
MMD4 100-200/4	5,5	4	78
MMD4 100-200/5,5	7,5	5,5	
MMD4 100-250/7,5	10	7,5	80
MMD4 100-250/11	15	11	
MMD4 125-200/5,5	7,5	5,5	78
MMD4 125-200/7,5R	10	7,5	
MMD4 125-200/7,5	10	7,5	80
MMD4 125-200/11R	15	11	
MMD4 125-250/11	15	11	
MMD4 125-250/15	20	15	
MMD4 150-200/7,5	10	7,5	
MMD4 150-200/11R	15	11	80
MMD4 150-200/11	15	11	
MMD4 150-200/15	20	15	81
MMD4 200-250/18,5R	22	18,5	
MMD4 200-250/18,5	22	18,5	
MMD4 200-250/22R	30	22	
MMD4 200-250/22	30	22	

\* Mean value of several measures at 1m distance around the pump.  
Tolerance ± 2.5 dB.