

MD - MMD

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron



Cast iron monoblock centrifugal pumps conforming to EN 733.

APPLICATIONS

- Handling of clean water for civil, agricultural, industrial uses and for pressurisation units, heating plants and air conditioning plants
- Irrigation in farming companies
- Sports facilities
- Washing plants

TECHNICAL FEATURES

- Available with various special sealing systems

PUMP SPECIFICATIONS

- Temperature of the liquid:
 - 5°C – +90°C (MD)
 - 5°C – +110°C (MD version H-HS-HW-HSW)
 - 5°C – +120°C (MD version E)
 - 10°C – +130°C (MMD)
- Maximum operating pressure: 10 bar
- MEI > 0.1

For further information, please consult our Data Books on the website www.ebaraurope.com

MOTOR SPECIFICATIONS

- IE2 high energy-efficiency motors starting from 0.75kW
- Self-ventilated 2-pole and 4-pole motors
- Insulation Class F
- Protection rating IP55
- Three-phase voltage 230/400V ±10% 50Hz up to 4 kW included, three-phase voltage 400/690V ±10% 50Hz from 5.5 kW and higher
- MD from 7,5 kW and above: available also IE3 motors
- MMD from 7,5 kW and above: IE3 motors available on request
- Protection to be arranged by the user for three-phase version

MATERIALS

- Cast iron pump body and support
- AISI 304 steel shaft - part coming into contact with liquid (MD), made of AISI 420 steel (MMD)
- Mechanical seal made of:
 - Carbon/Ceramic/NBR (MD)
 - Ceramic/Carbon/FPM (version H)
 - SiC/SiC/FPM (version HS)
 - Tungsten carbide/Tungsten carbide/FPM (version HW)
 - SiC/Tungsten carbide/FPM (version HSW)
 - Ceramic/Carbon/EPDM (version E)
 - SiC/SiC/NBR (MMD)
- Impeller made of:
 - AISI 304 steel (MD 32-250, 40-250, 50-250, 65-250)
 - cast iron (for the remaining models of the range MD, MMD)

ACCESSORIES (On request)

- Galvanized counterflanges

motralec

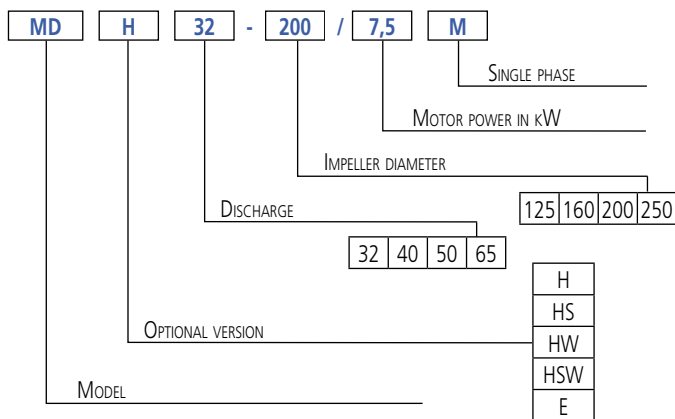
4 rue Lavoisier . ZA Lavoisier . 95223 HERBLAY CEDEX

Tel. : 01.39.97.65.10 / Fax. : 01.39.97.68.48

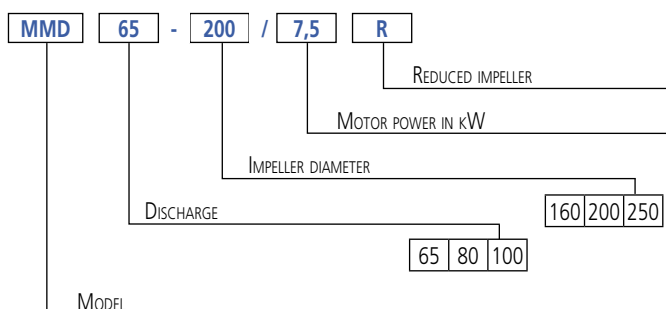
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IDENTIFICATION CODE



IDENTIFICATION CODE



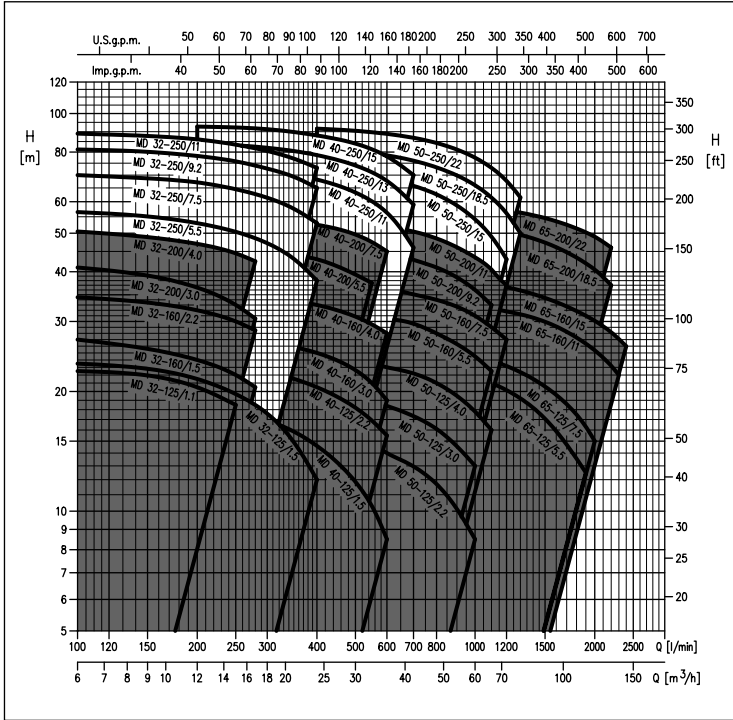


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in cast iron

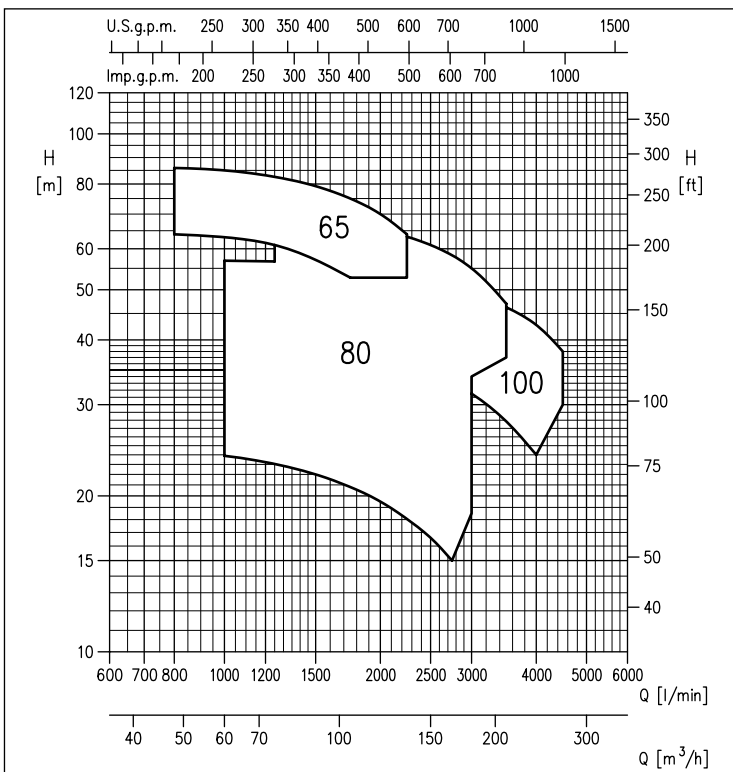
MD PERFORMANCE TABLE
(according to ISO 9906 Attachment A)

2 Poles



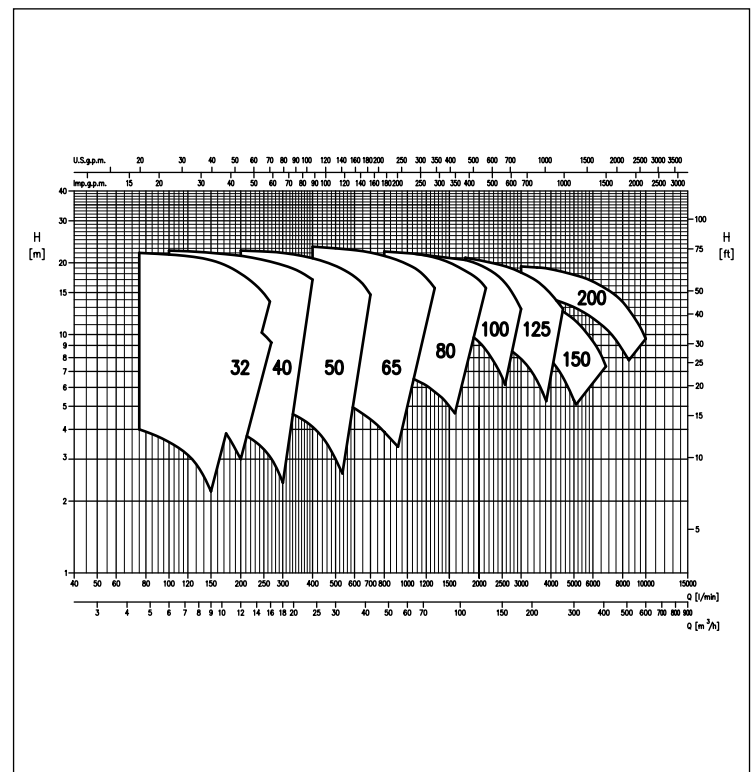
MMD PERFORMANCE TABLE
(according to ISO 9906 Attachment A)

2 Poles



MMD PERFORMANCE TABLE
(according to ISO 9906 Attachment A)

4 Poles



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MD - MMD

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron

MD PERFORMANCE TABLE

2 Poles

Model	P ₁		Q=Flow rate																							
	[HP]	[kW]	l/min m ³ /h	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	
			H=Head [m]																							
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	-	-	-	-	-	-	-	-

MMD PERFORMANCE TABLE

2 Poles

Model	P ₁		Q=Flow rate													
	[HP]	[kW]	l/min m ³ /h	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
			H=Head [m]													
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

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MMD4 PERFORMANCE TABLE

4 Poles

Model	P _e		Q=Flow rate																				
	[HP]	[kW]	l/min m ³ /h	50 3	75 5	100 6	125 8	150 9	175 11	200 12	225 14	250 15	275 17	300 18	350 21	400 24	450 27	500 30	550 33	600 36	650 39	700 42	
				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 _e		Q=Flow rate																				
	[HP]	[kW]	l/min m ³ /h	300 18	350 21	400 24	450 27	500 30	550 33	600 36	650 39	700 42	800 48	900 54	1000 60	1100 66	1200 72	1300 78	1400 84	1500 90	1750 105	2000 120	2250 135
				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 _e		Q=Flow rate																								
	[HP]	[kW]	l/min m ³ /h	900 54	1000 60	1200 72	1500 90	1750 105	2000 120	2250 135	2500 150	2750 165	3000 180	3500 210	3700 222	4000 240	4500 270	5000 300	5500 330	6500 390	7000 420	8500 510	9000 540	9500 570	10000 60		
				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	-	-	

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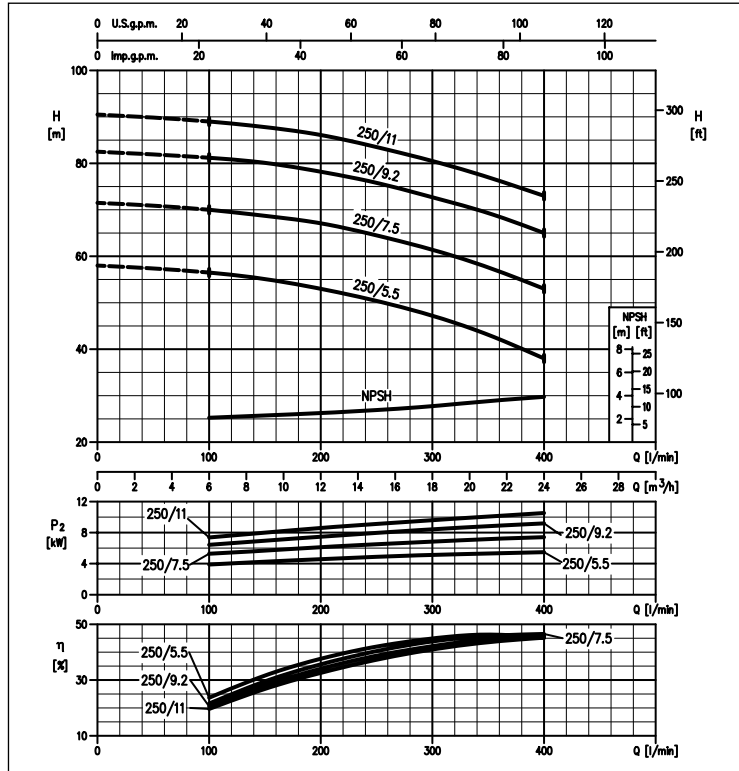


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in cast iron

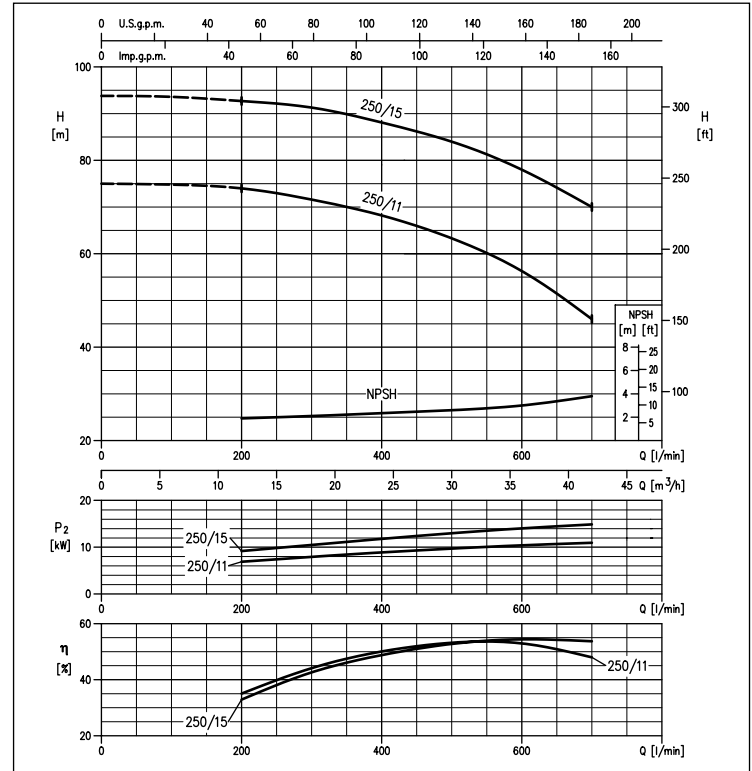
PERFORMANCE CURVES MD 32-250
(according to ISO 9906 Attachment A)

2 Poles



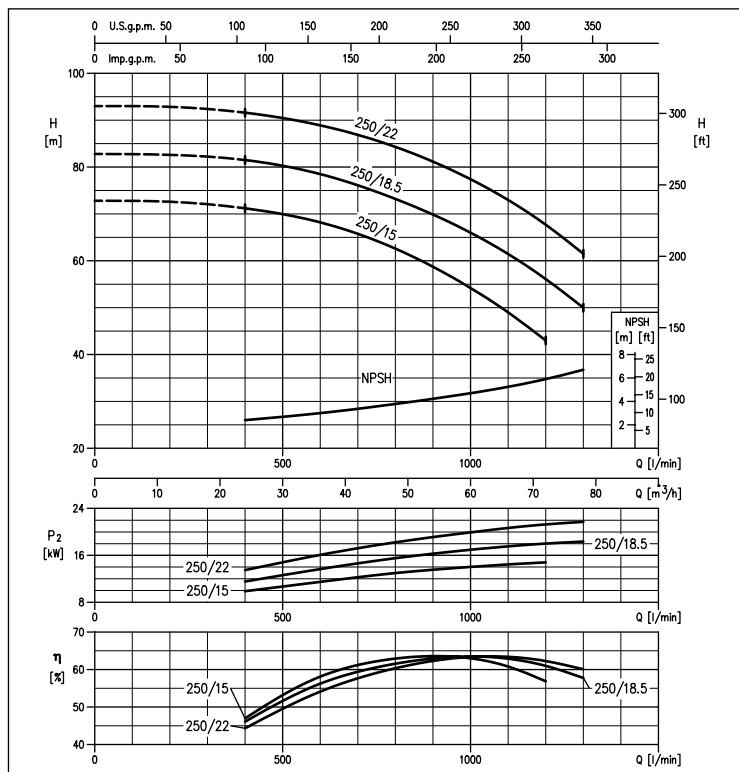
PERFORMANCE CURVES MD 40-250
(according to ISO 9906 Attachment A)

2 Poles



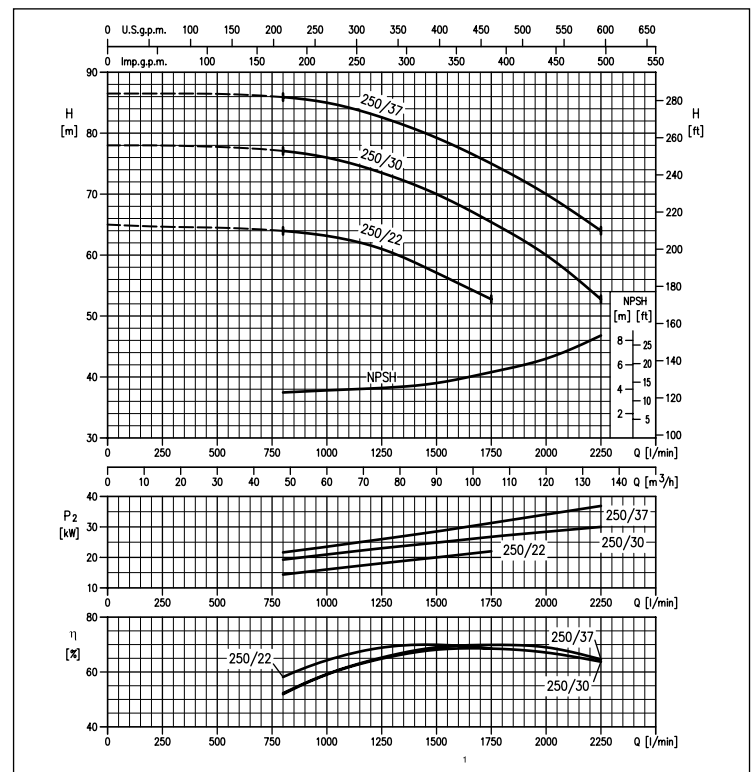
PERFORMANCE CURVES MD 50-250 series
(according to ISO 9906 Attachment A)

2 Poles



PERFORMANCE CURVES MMD 65-250 series
(according to ISO 9906 Attachment A)

2 Poles



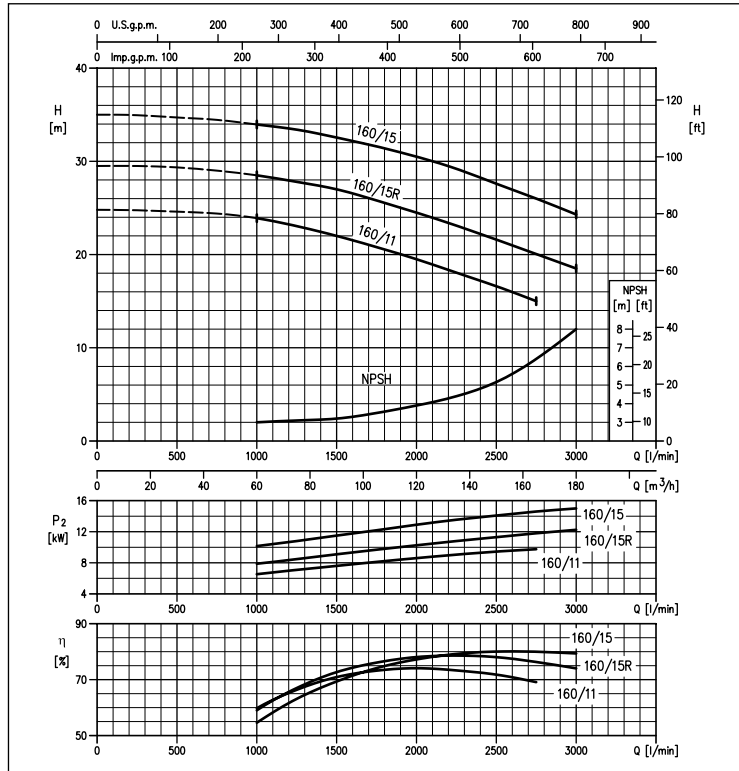


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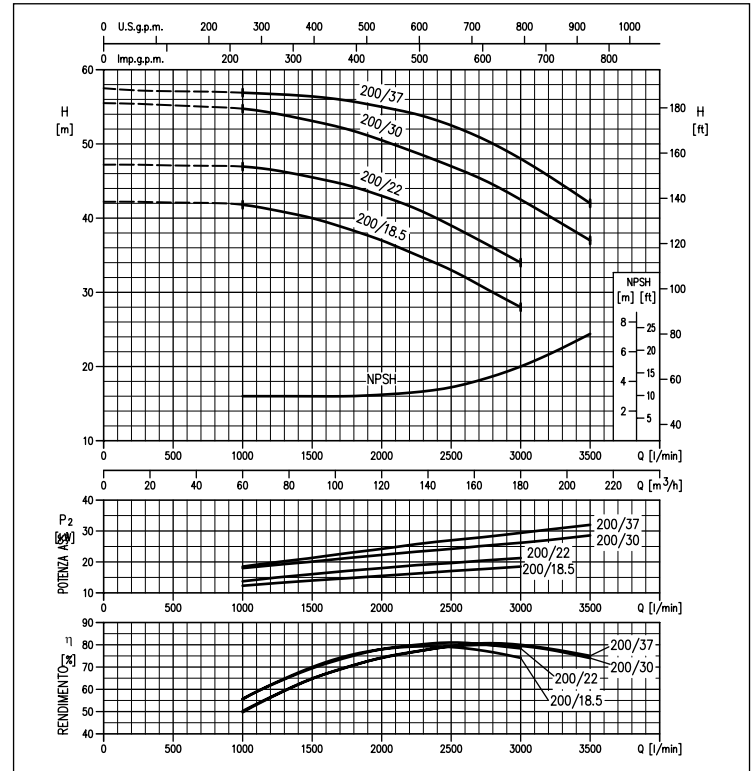
PERFORMANCE CURVES MMD 80-160 series
(according to ISO 9906 Attachment A)

2 Poles



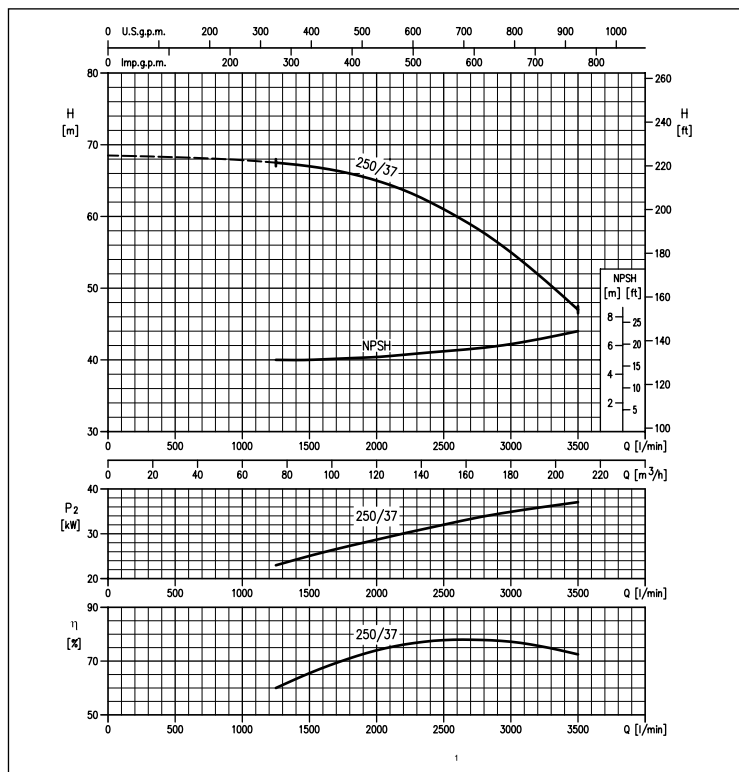
PERFORMANCE CURVES MMD 80-200 series
(according to ISO 9906 Attachment A)

2 Poles



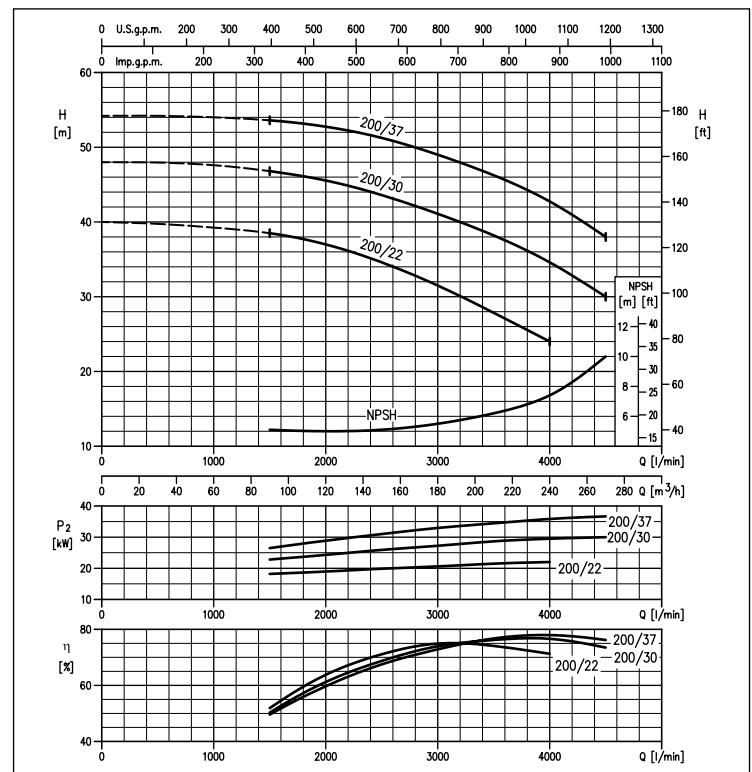
PERFORMANCE CURVES MMD 80-250 series
(according to ISO 9906 Attachment A)

2 Poles



PERFORMANCE CURVES MMD 100-200 series
(according to ISO 9906 Attachment A)

2 Poles



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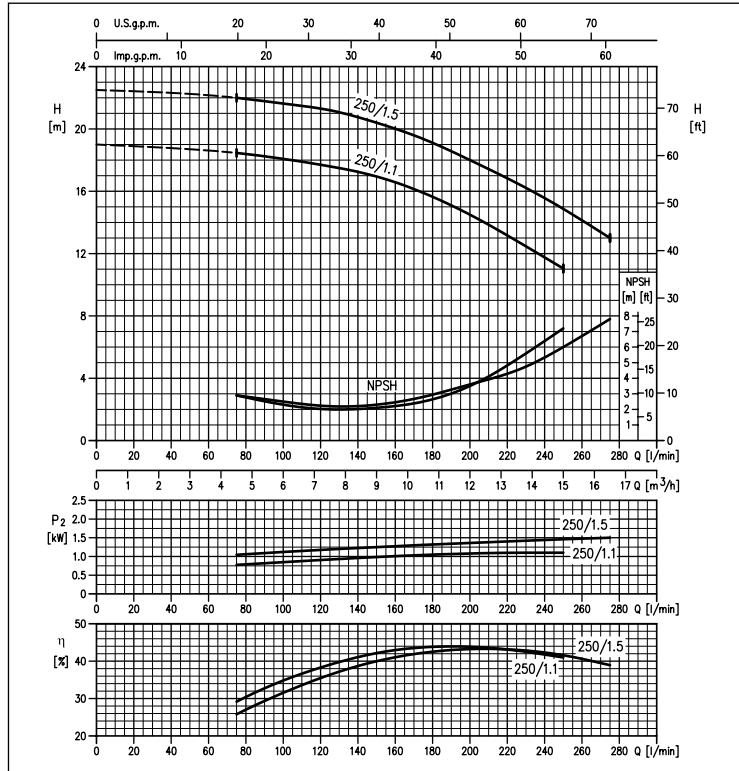


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MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733 in cast iron

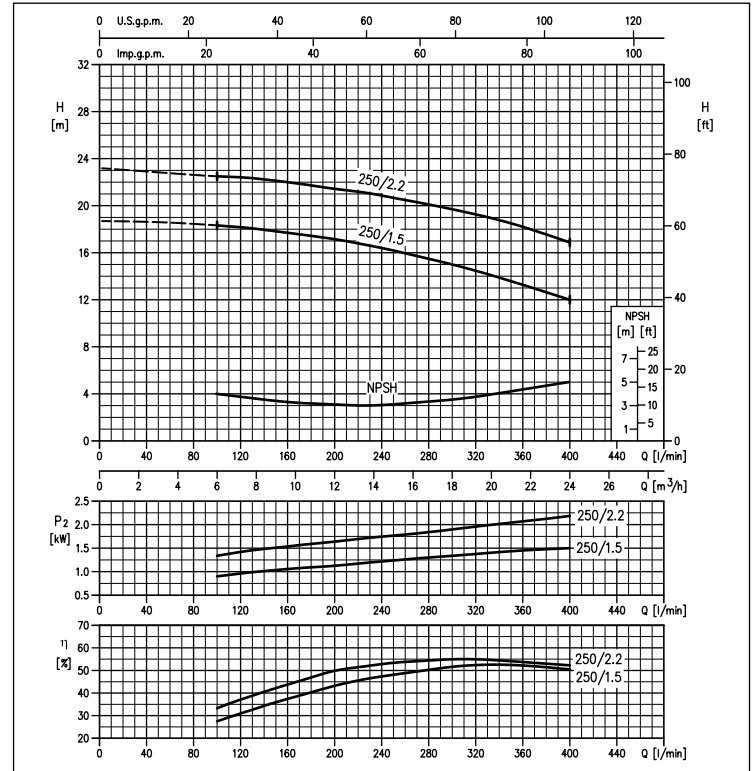
PERFORMANCE CURVES MMD4 32-250 series
(according to ISO 9906 Attachment A)

4 Poles



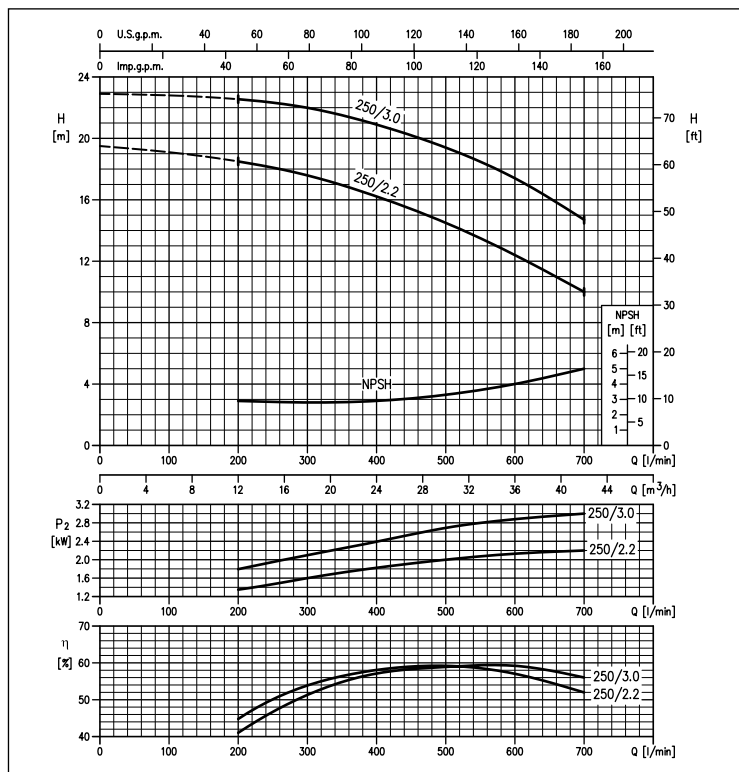
PERFORMANCE CURVES MMD4 40-250 series
(according to ISO 9906 Attachment A)

4 Poles



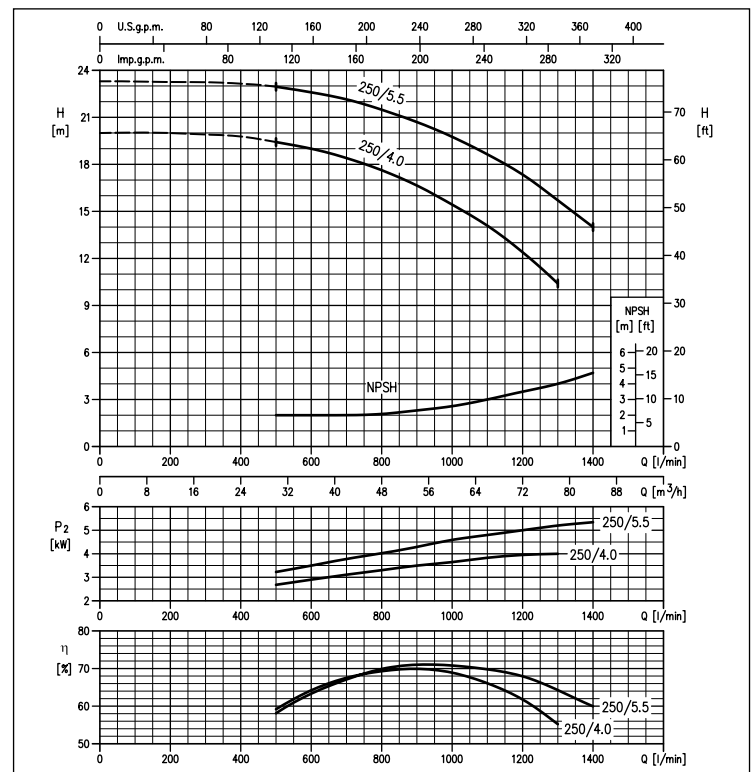
PERFORMANCE CURVES MMD4 50-250 series
(according to ISO 9906 Attachment A)

4 Poles



PERFORMANCE CURVES MMD4 65-250 series
(according to ISO 9906 Attachment A)

4 Poles



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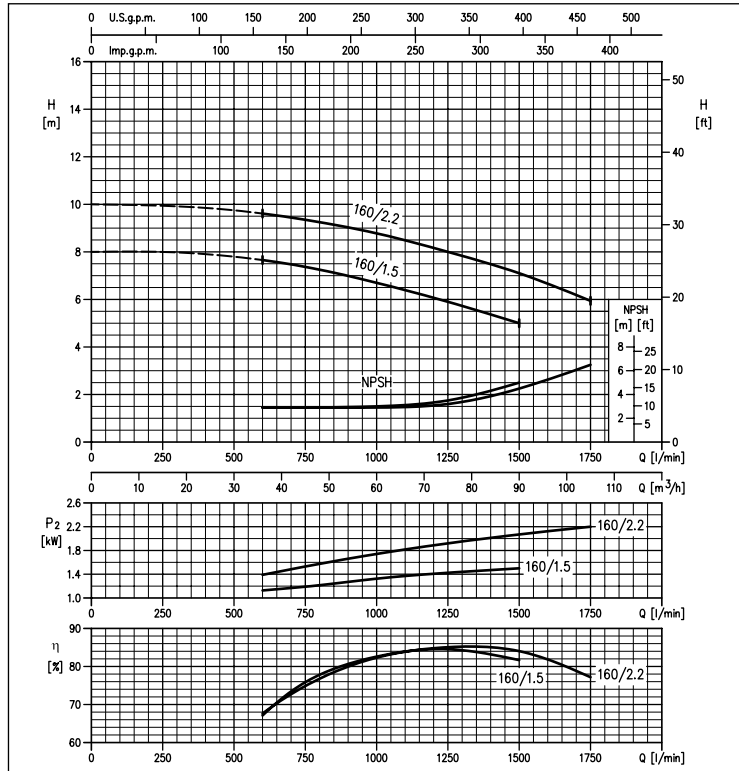


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in cast iron

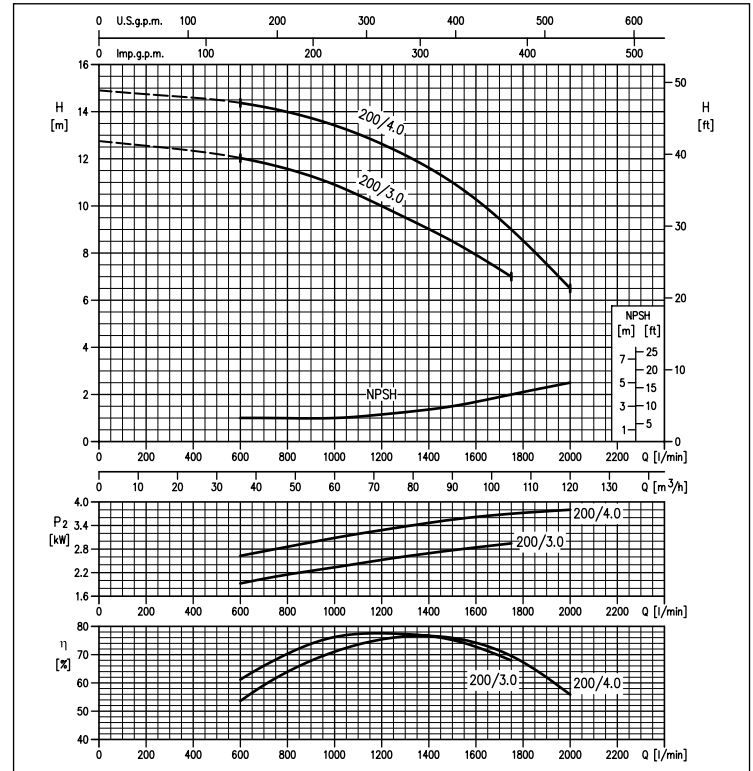
PERFORMANCE CURVES MMD4 80-160 series
(according to ISO 9906 Attachment A)

4 Poles



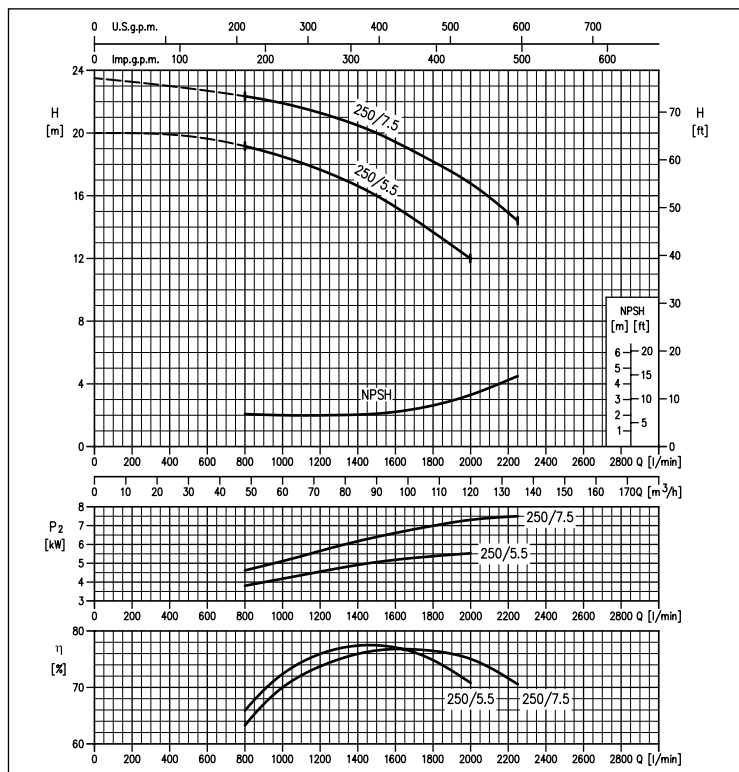
PERFORMANCE CURVES MMD4 80-200 series
(according to ISO 9906 Attachment A)

4 Poles



PERFORMANCE CURVES MMD4 80-250 series
(according to ISO 9906 Attachment A)

4 Poles



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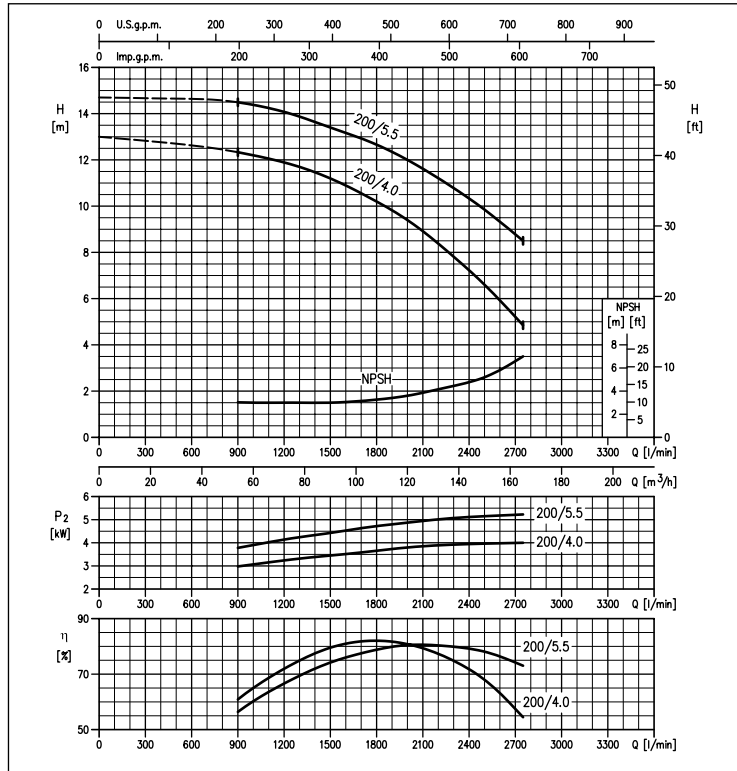


MD - MMD

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733 in cast iron

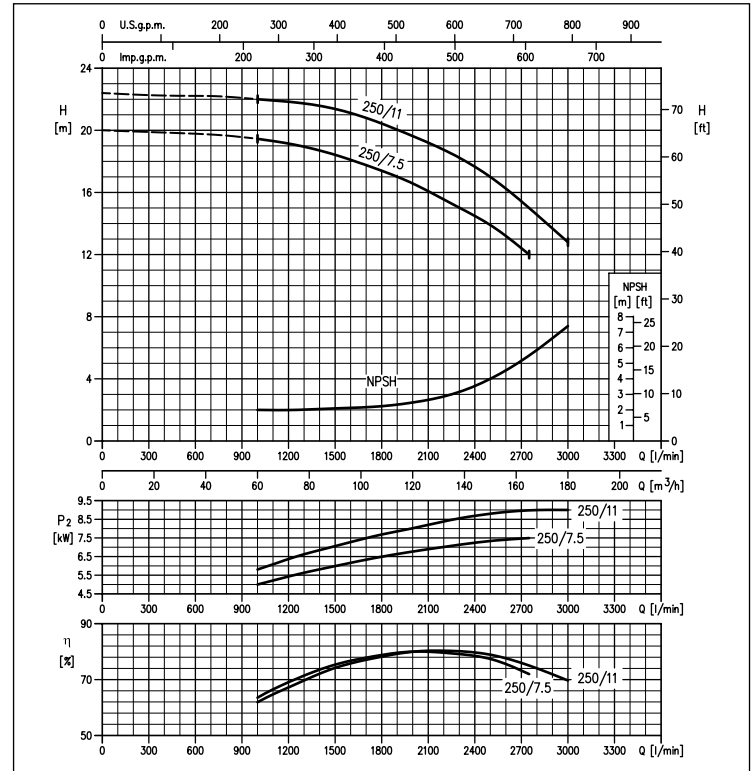
PERFORMANCE CURVES MMD4 100-200 series
(according to ISO 9906 Attachment A)

4 Poles



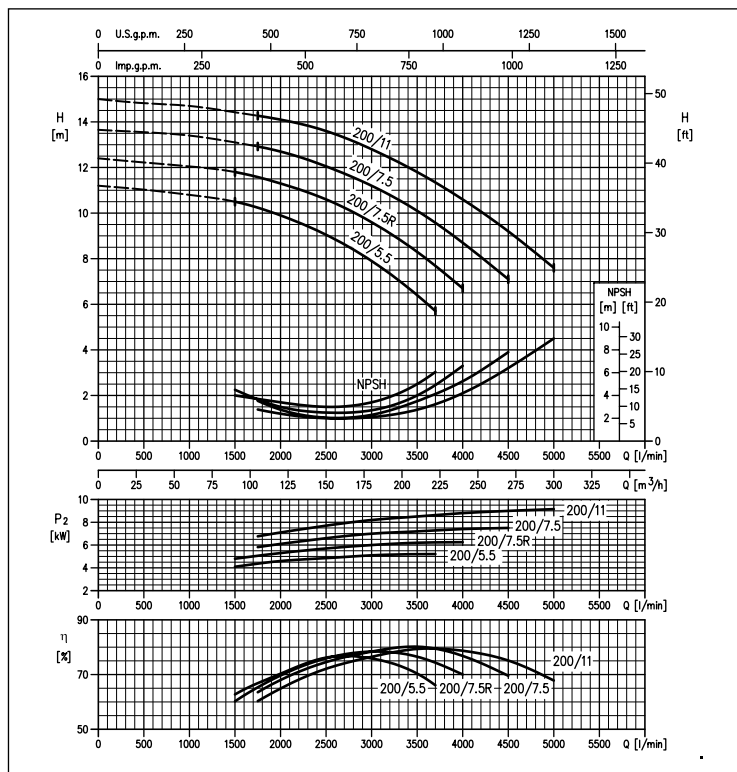
PERFORMANCE CURVES MMD4 100-250 series
(according to ISO 9906 Attachment A)

4 Poles



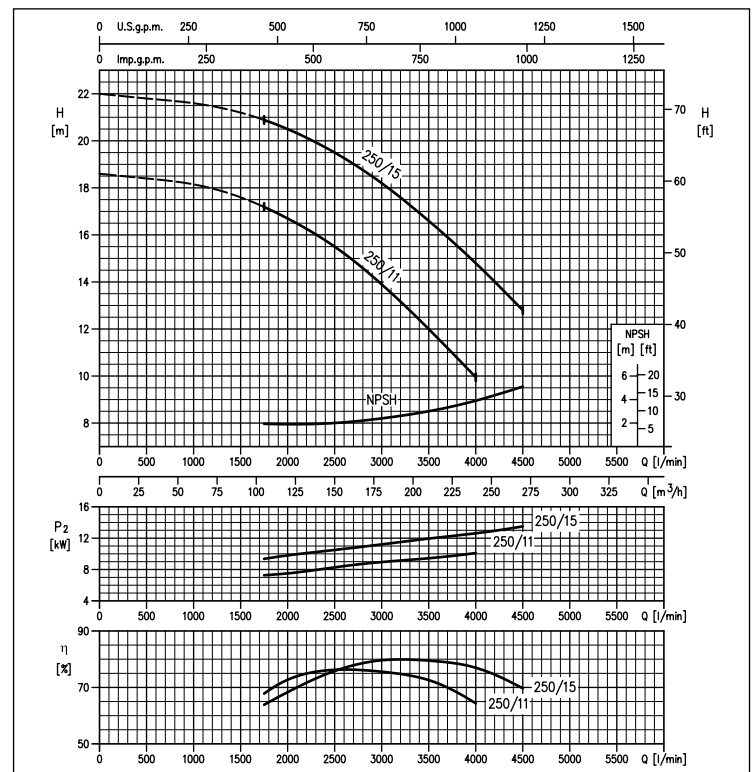
PERFORMANCE CURVES MMD4 125-200 series
(according to ISO 9906 Attachment A)

4 Poles



PERFORMANCE CURVES MMD4 125-250 series
(according to ISO 9906 Attachment A)

4 Poles





MD - MMD

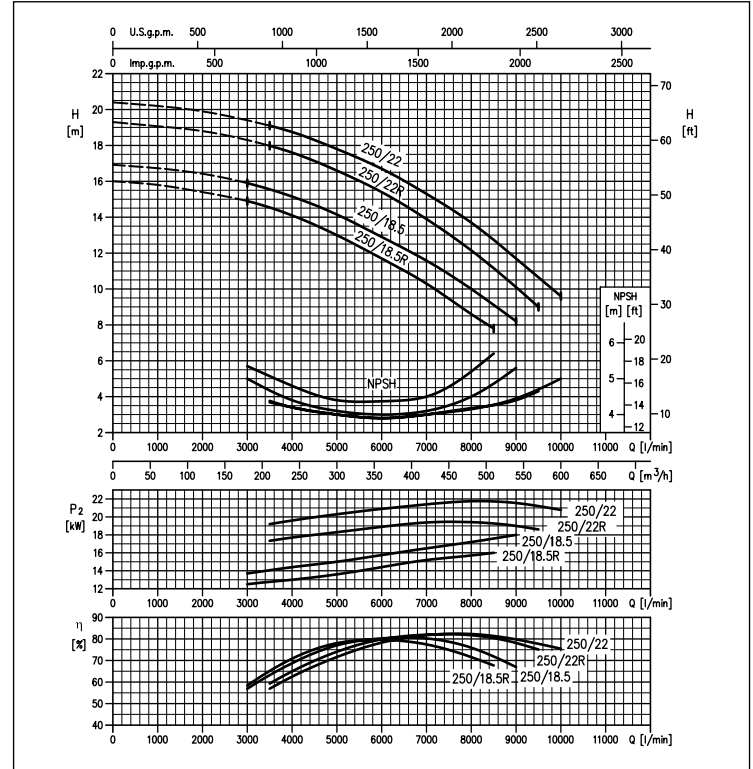
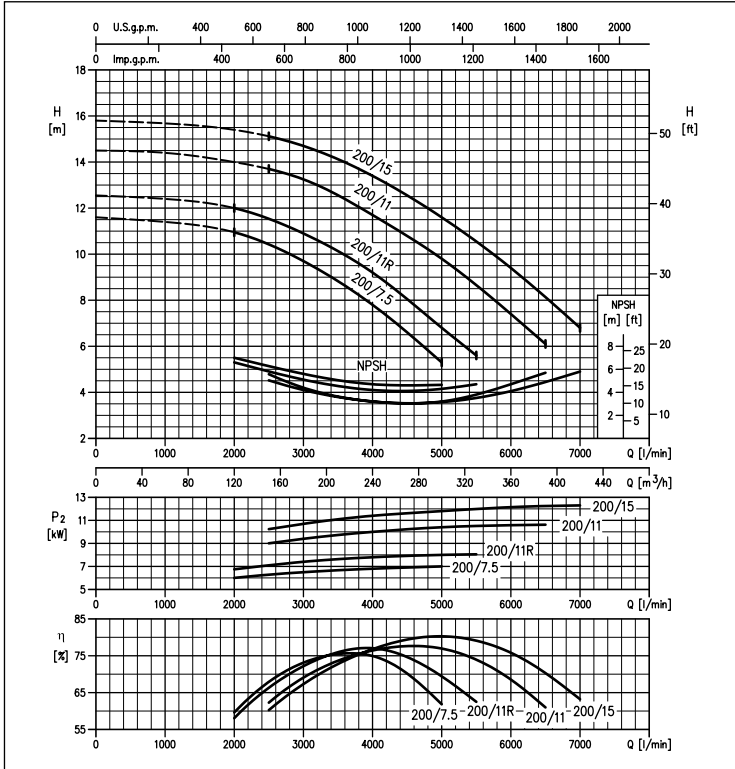
MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733 in cast iron

PERFORMANCE CURVES MMD4 150-200 series
(according to ISO 9906 Attachment A)

4 Poles

PERFORMANCE CURVES MMD4 200-250 series
(according to ISO 9906 Attachment A)

4 Poles



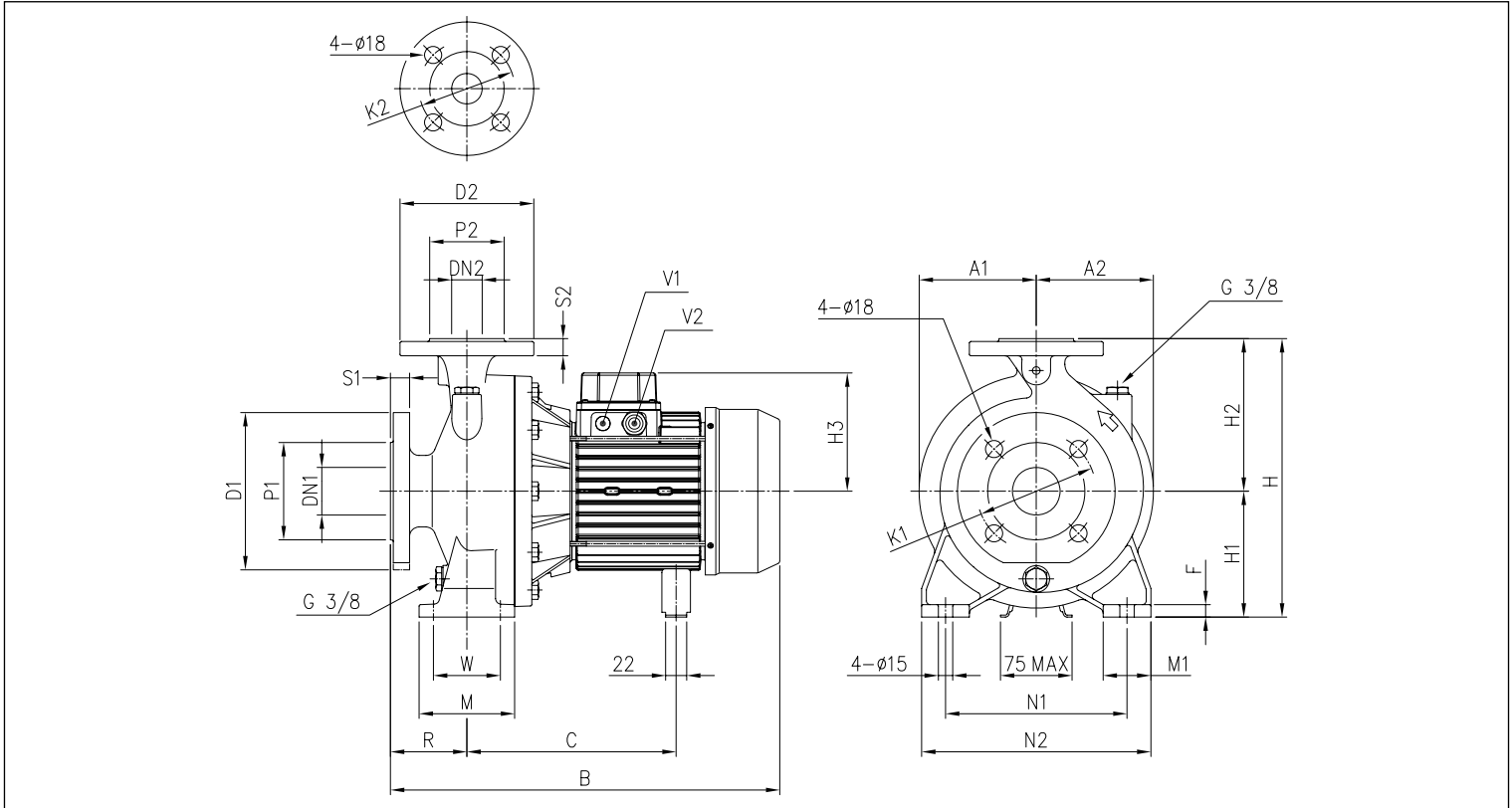
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MD - MMD

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733
in cast iron

MD DIMENSIONS

2 Poles



DIMENSIONAL TABLE

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]		
	Ø	Ø	Ø	Ø		Ø	Ø	Ø	Ø					[2]	[1]								[2]	[1]	[1]		[1]	[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

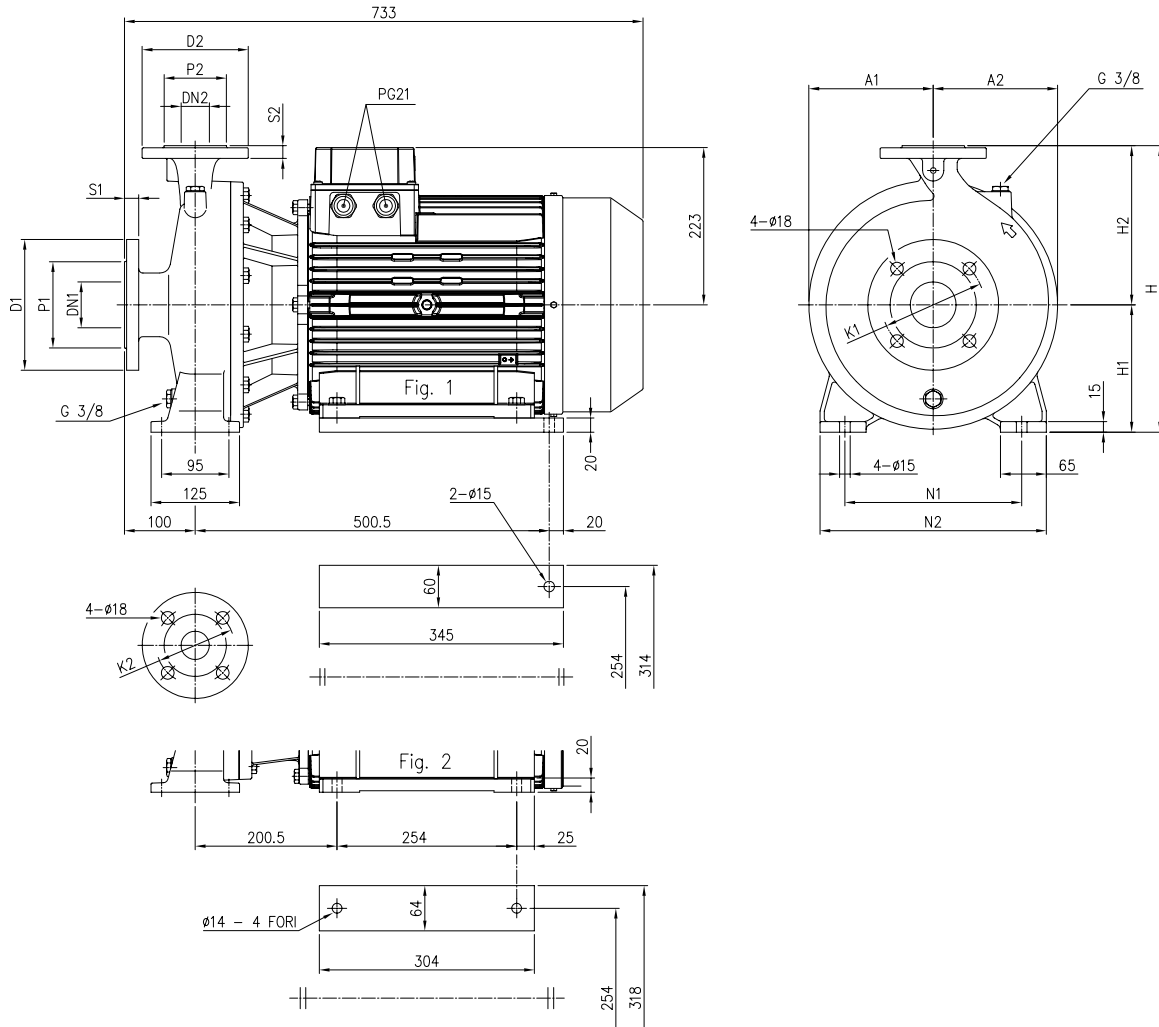
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MD - MMD

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733
in cast iron

MD DIMENSIONS

2 Poles



DIMENSIONAL TABLE

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

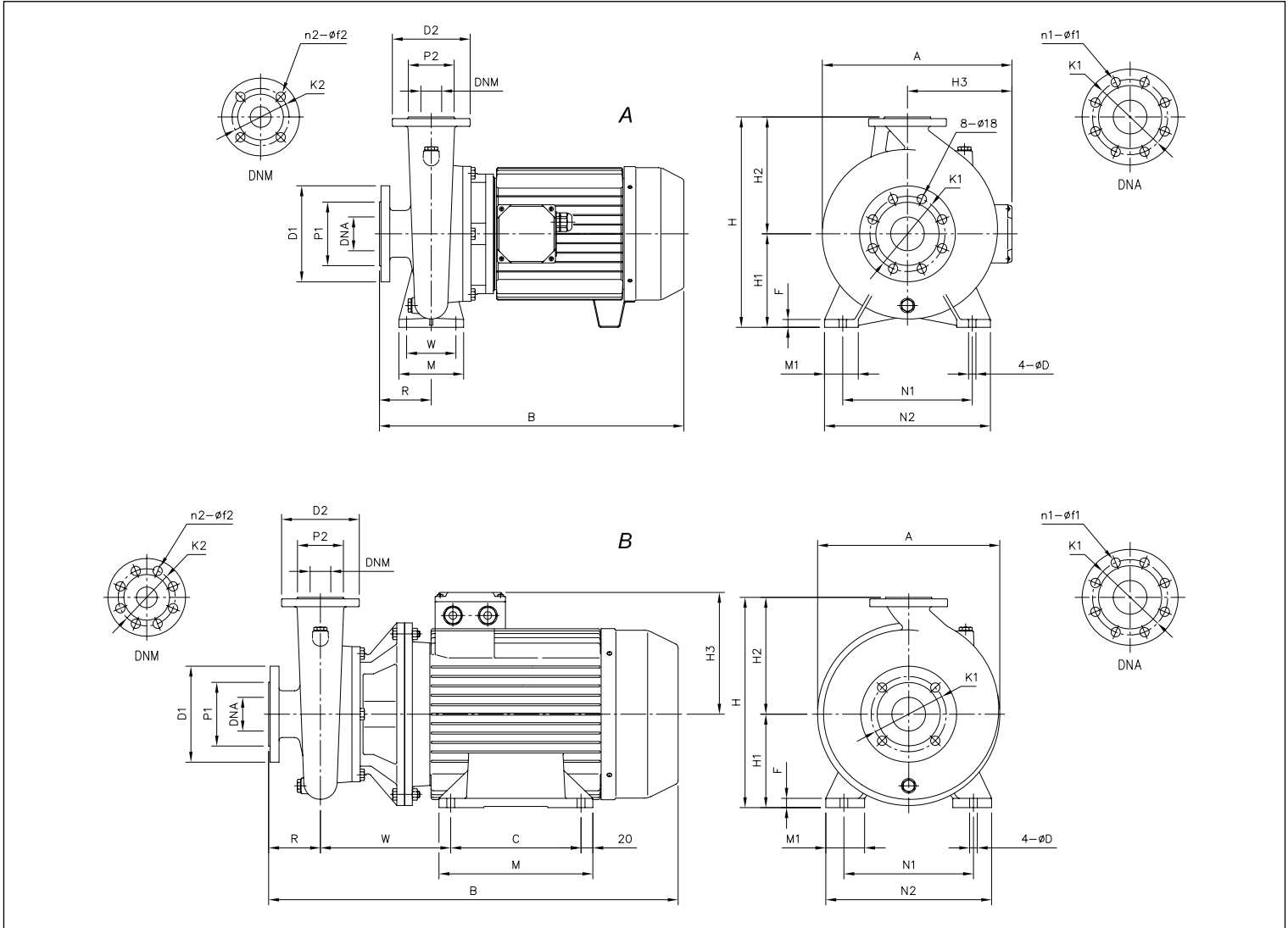
[2]= Only for IE3 Motors

MD - MMD

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733
in cast iron

MMD DIMENSIONS

2 Poles



DIMENSIONAL TABLE

Model	Fig.	DNA	Dimensions [mm]																				Weight [kg]						
			n1	f1	P1	K1	D1	DNM	n2	f2	P2	K2	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

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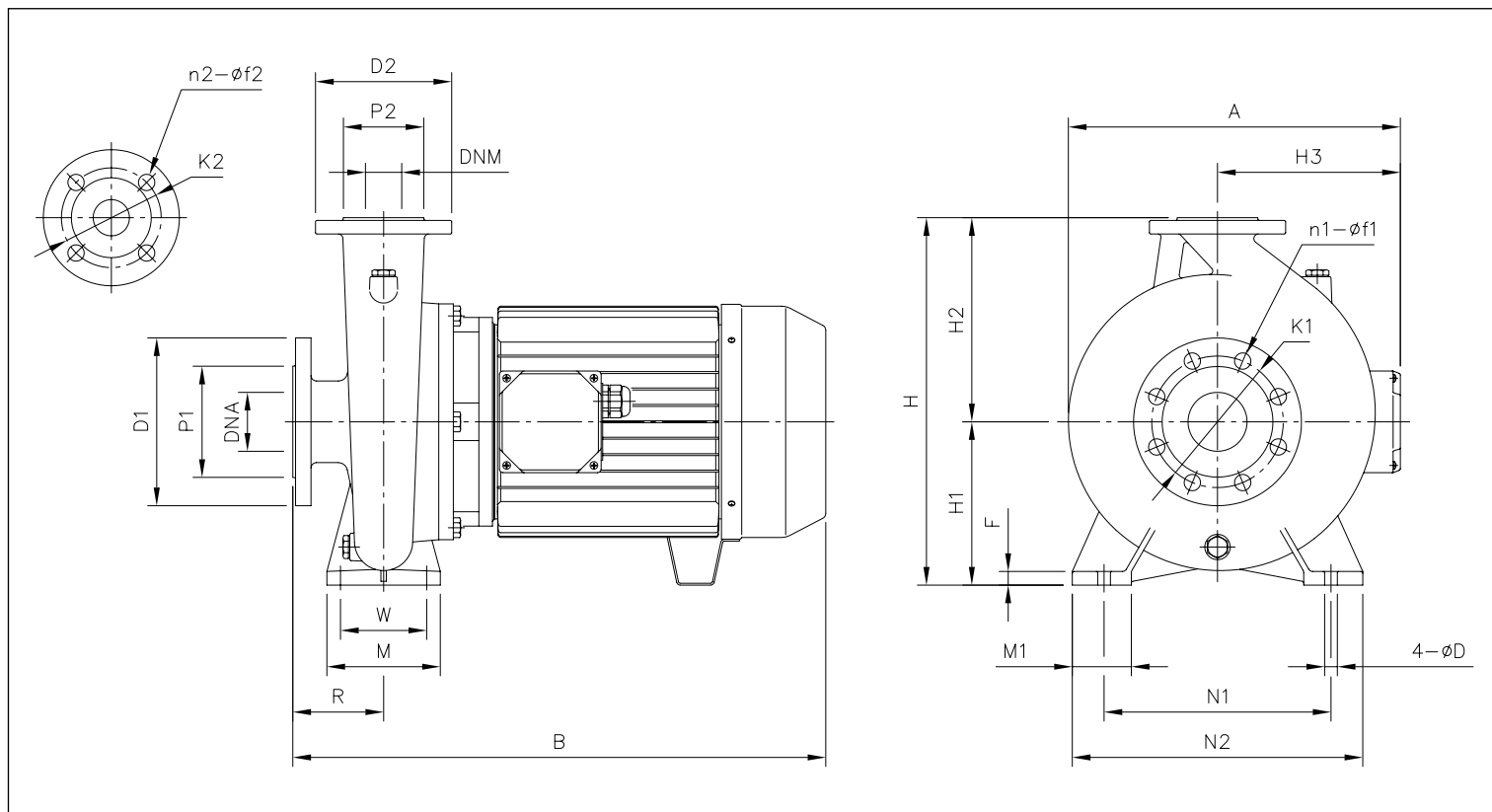
MD - MMD

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron

MMD4 DIMENSIONS up to 65

4 Poles



DIMENSIONAL TABLE

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

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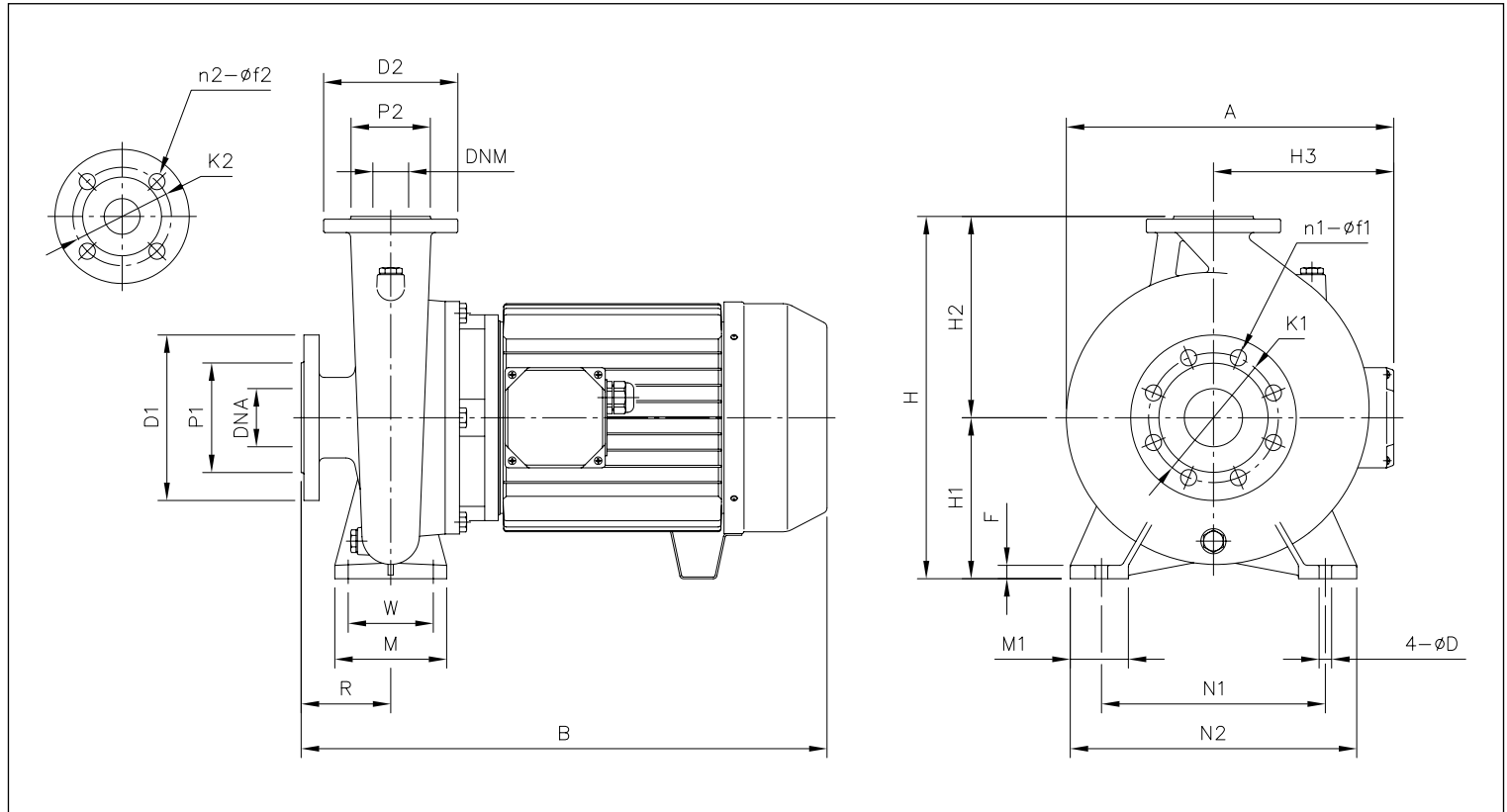
MD - MMD

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron

MMD4 DIMENSIONS from 80 to 200

4 Poles



DIMENSIONAL TABLE

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

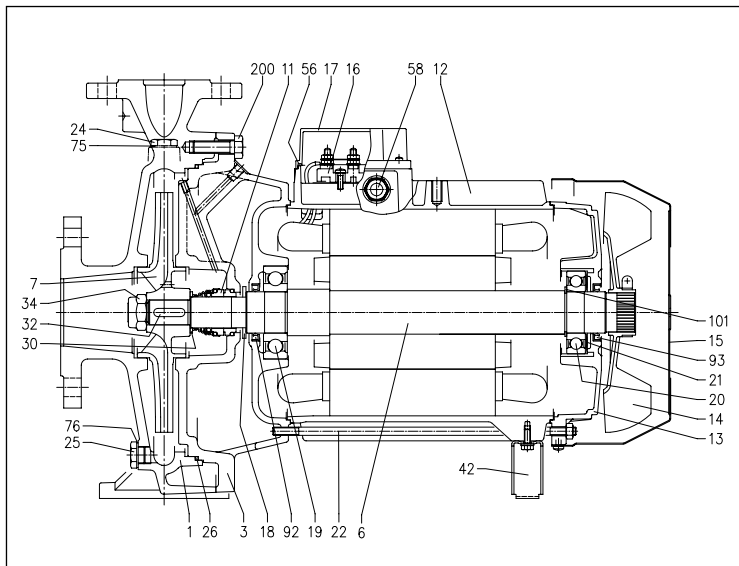
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MD - MMD

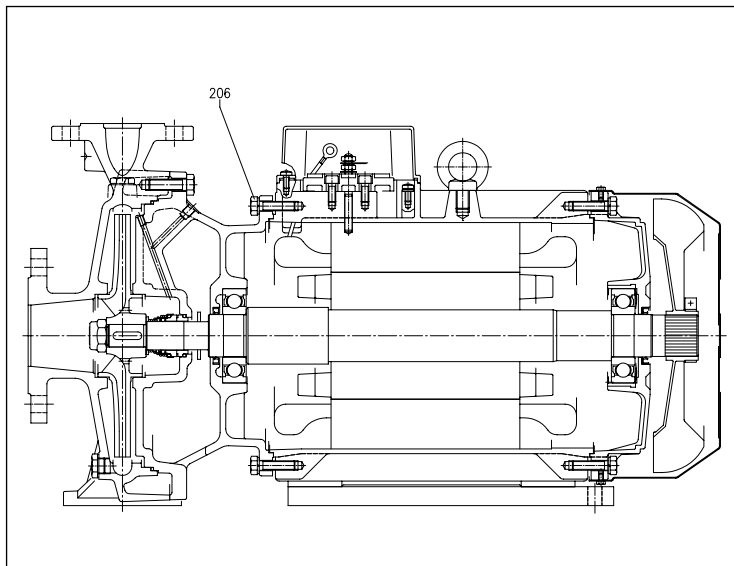
MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron

MD SECTIONAL VIEW up to 11 kW



MD SECTIONAL VIEW from 15 kW and over (excluding 65-160/15)



MATERIALS TABLE

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 (frm 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

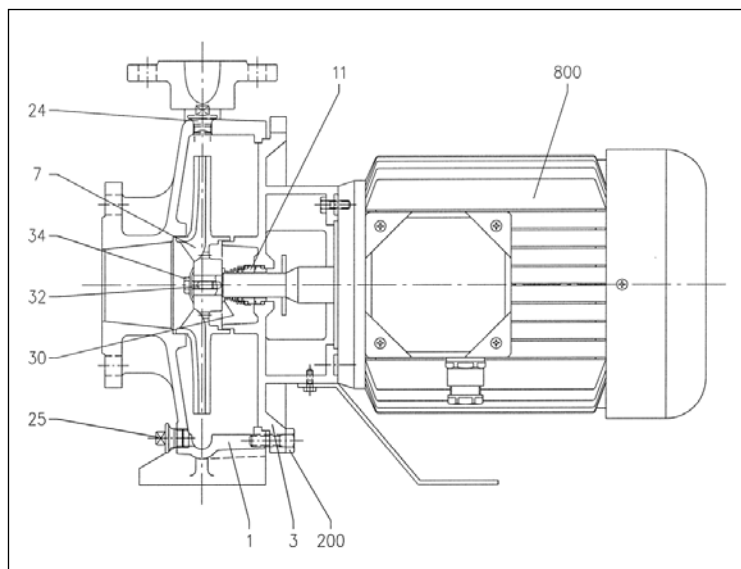
[3]= FPM for H-HS-HW-HSW version, EPDM for E version

MD - MMD

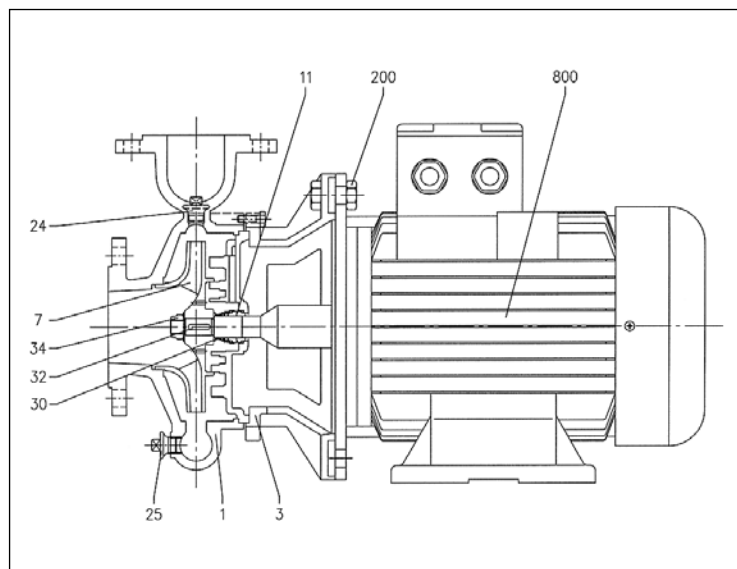
MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron

SECTIONAL VIEW MMD-MMD4 up to MEC 132



SECTIONAL VIEW MMD-MMD4 from MEC 160 and above



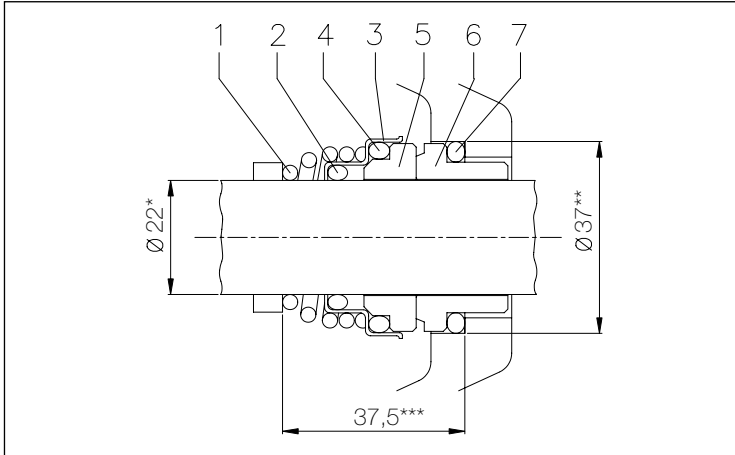
MATERIALS TABLE

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)
25	Drain plug	Stainless steel			Cast iron (da MEC 160 e oltre)

MD - MMD

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733 in cast iron

MECHANICAL SEAL MD standard



MATERIALS TABLE

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

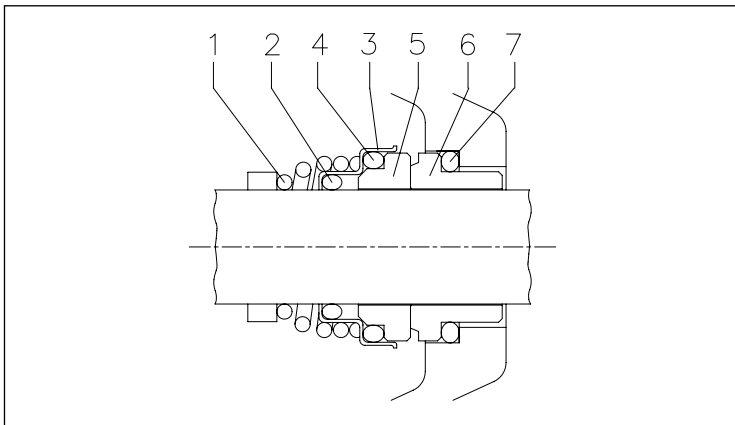
* Ø30 from 9,2kW and above
 ** Ø 45 from 9,2kW and above
 *** 42,5mm from 9,2kW and above

MD SPECIAL MECHANICAL SEALS (on request)

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	EDPM
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

MECHANICAL SEAL MMD



MATERIALS TABLE

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

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MD - MMD

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron

ELECTRIC DATA TABLE MD

2 Poles

Model Three-phase	P ₁		Efficiency Three-phase	Efficiency (%) Three-phase			P ₁ Trifase [kW]	Absorbed Current [A] Three-phase	
	[HP]	[kW]		50%	η % 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

ELECTRIC DATA TABLE MD

2 Poles

Model	P ₁		Efficiency	Efficiency (%)			P ₁ [kW]	Absorbed Current [A]		L _{wa} - dB(A)*	
	[HP]	[kW]		50%	η % 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

ELECTRIC DATA TABLE MMD

2 Poles

Model Three-phase	P ₁		Efficiency Three-phase	Efficiency (%) Three-phase			P ₁ Three-phase [kW]	Absorbed Current [A] Three-phase	
	[HP]	[kW]		50%	η % 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

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MD - MMD

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron

ELECTRIC DATA TABLE MMD4

4 Poles

Model Three-phase	P ₁		Efficiency Three-phase	Efficiency (%) Three-phase			P ₂ Three-phase [kW]	Absorbed Current [A] Three-phase		
	[HP]	[kW]		50%	η % 75%	100%		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

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733
in cast iron

NOISE DATA TABLE MD

2 Poles

Single-phase	Model Three-phase	P ₂		L _{pa} - 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	
-	MD 32-250/11	15	11	80
-	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.

NOISE DATA TABLE MMD

2 Poles

Model Three-phase	P ₂		L _{pa} - 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	
MMD 80-200/37	50	37	83
MMD 80-250/37	50	37	
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.

NOISE DATA TABLE MMD4

4 Poles

Model Three-phase	P ₂		L _{pa} - 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	<70
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	80
MMD4 80-250/7,5	10	7,5	
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	
MMD4 150-200/11	15	11	
MMD4 150-200/15	20	15	
MMD4 200-250/18,5R	22	18,5	
MMD4 200-250/18,5	22	18,5	
MMD4 200-250/22R	30	22	81
MMD4 200-250/22	30	22	

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