

CATALOGUE EBARA PUMP MD SERIES



EBARA

SPECIFICATIONS

50Hz

Rev. Q

PUMP			
Liquid Handled	Type of liquid	Clean water	
	Temperature [°C]	min. -5 max. +90 max. +110 (H-HS-HW-HSW) max. +120 (E)	
Maximum working pressure	[MPa]	1	
Flange		UNI 2236	
Counterflange (On request)		UNI 2247	
Construction	Impeller	Closed centrifugal type	
	Shaft seal type	Mechanical seal	
	Bearing	Sealed ball bearing	
Pipe Connection	Suction	Flange to DIN 2532 (50 mm - 65 mm)	
	Discharge	Flange to DIN 2532 (32 mm - 40 mm - 50 mm)	
Material	Casing	Cast iron	
	Impeller	AISI 304	
	Shaft seal		Ceramic/Carbon/NBR (for MD) Ceramic/Carbon/FPM (for MDH) SiC/SiC/FPM (for MDHS) Tungsten Carbide/Tungsten Carbide/FPM (for MDHW) Carbon/Ceramic/EPDM VBEGF (for MDE) * SiC/Tungsten Carbide/FPM (for MDHSW)
		Shaft	AISI 304 (wet extension)
		Bracket	Cast iron
Applicable standard of test		ISO 9906:2012- Grade 3B	

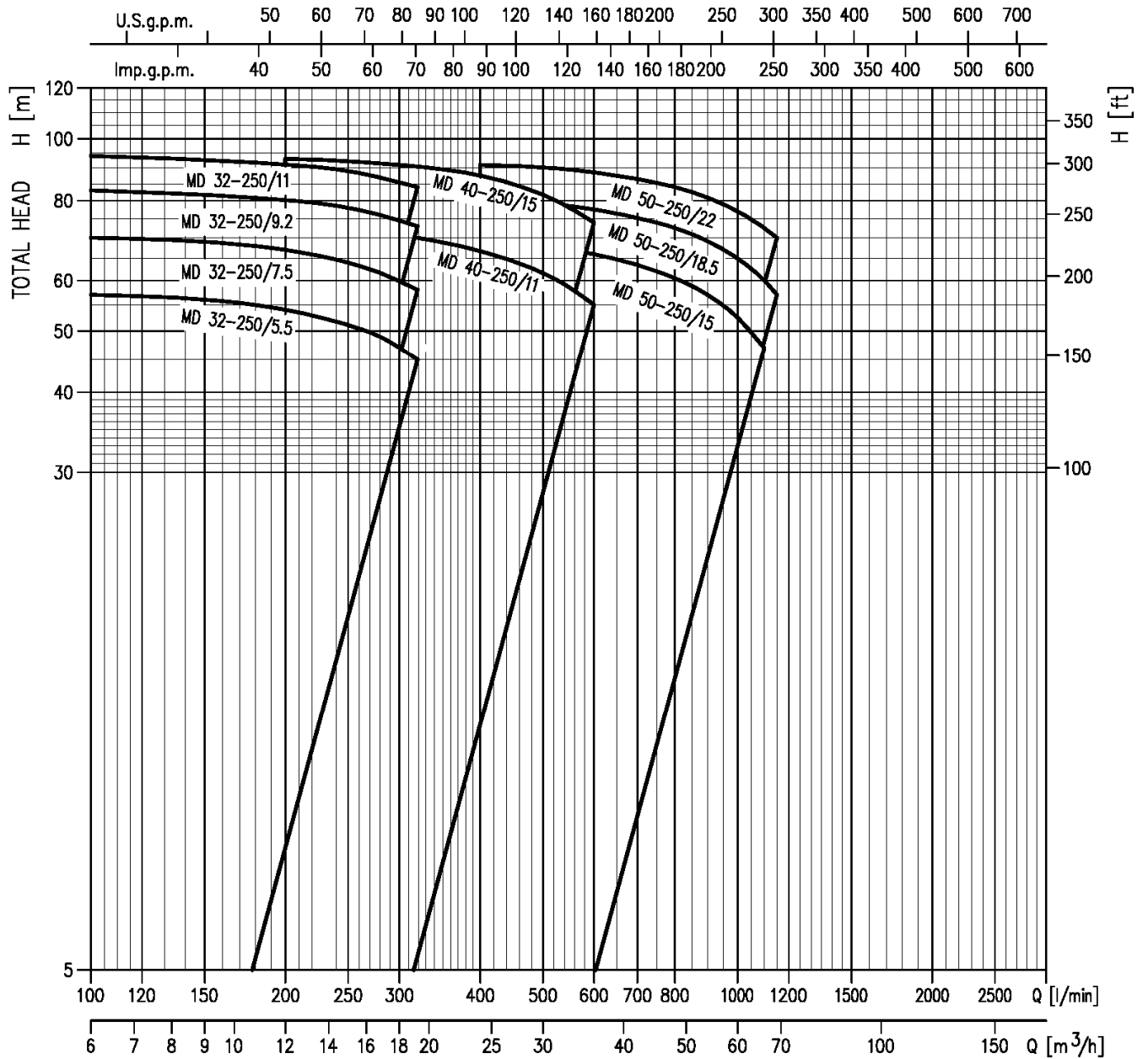
MOTOR		
Type	Electric – TEFC Three Phase	
Efficiency level (Reg. 640/2009)	IE2 and IE3 from 5.5 kW up to 22 kW	
No. of Poles	2	
Rotation speed [min-1]	≈2900	
Insulation Class	F	
Protection degree (CEI EN 60034-5)	IP 55	
Power rating [kW]	5.5 ÷ 22	
	[HP]	7.5 ÷ 30
Frequency [Hz]	50	
Voltage [V]	400/690 ±10%	
Over load protection	Provided by the user	
Casing material	Aluminium	
Base material/motor support	Aluminium / Steel	
Dimensions of cable entry	PG 13.5 - PG 16 - PG 21 (see dimensions pages 400-401)	

SELECTION CHART

50Hz

Rev. Q

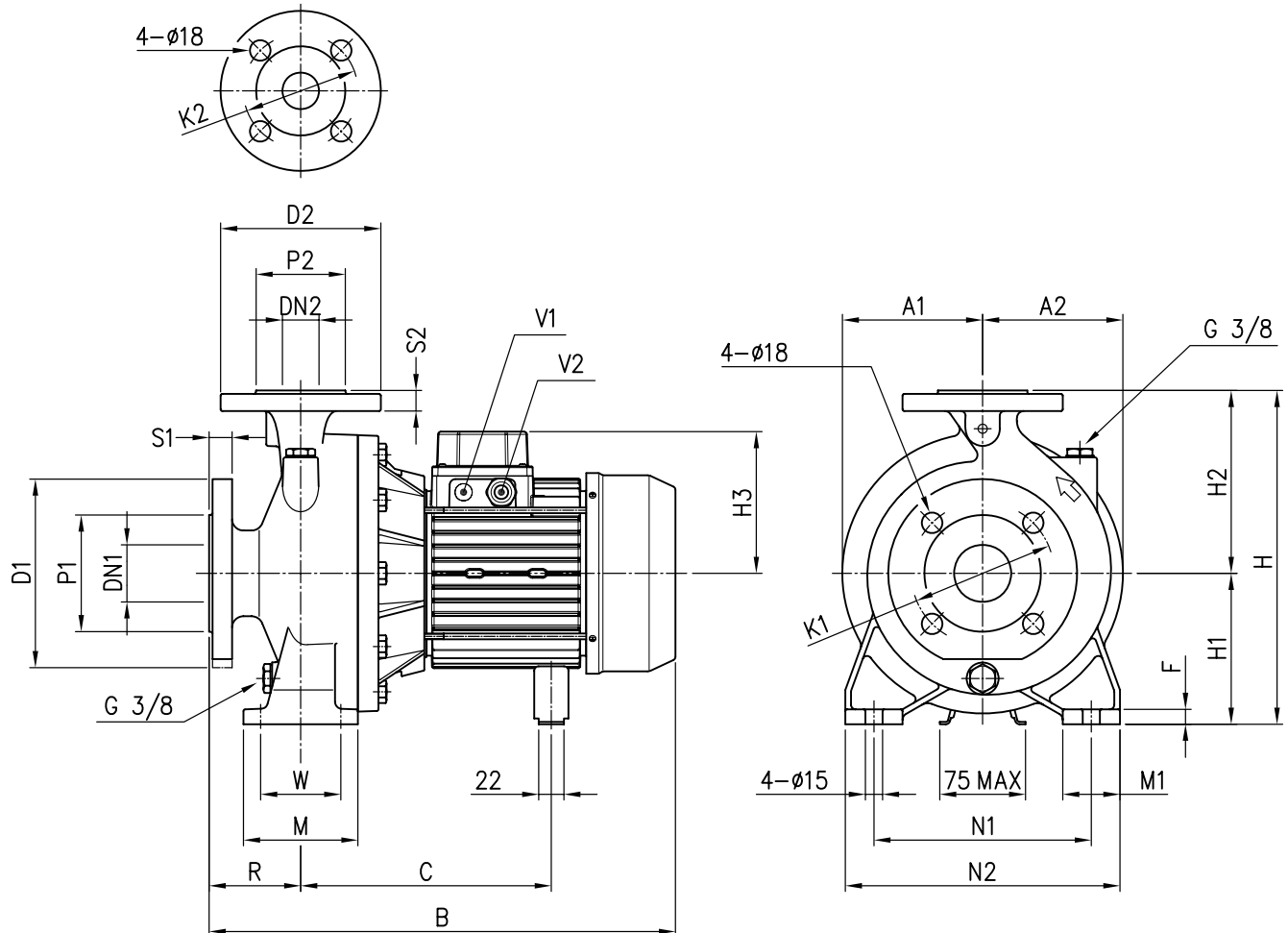
PERFORMANCE RANGE



SELECTION CHART

Pump Type	Power		Q=Capacity																		
	[kW]	[HP]	l/min	0	100	200	250	280	320	400	550	600	667	700	800	1000	1100	1150	1200	1300	
			m ³ /h	0	6	12	15	17	19	24	33	36	40	42	48	60	66	69	72	78	
H=Total manometric head in meters																					
MD 32-250/5.5	5,5	7,5	58	56,5	53	50,4	48,6	45,7	38	-	-	-	-	-	-	-	-	-	-	-	
MD 32-250/7.5	7,5	10	71,5	70	67,1	64,5	62,7	60	53	-	-	-	-	-	-	-	-	-	-	-	
MD 32-250/9.2	9,2	12,5	82,5	81,2	78,2	75,8	74	71,4	65	-	-	-	-	-	-	-	-	-	-	-	
MD 32-250/11	11	15	91	89	86	84	82	79	73	-	-	-	-	-	-	-	-	-	-	-	
MD 40-250/11	11	15	75	-	74	73	72,2	71	68,2	60,1	56,3	49,8	46	-	-	-	-	-	-	-	
MD 40-250/15	15	20	93,8	-	92,7	92,1	91,7	90,8	88,1	81,2	78	72,9	70	-	-	-	-	-	-	-	
MD 50-250/15	15	20	72,8	-	-	-	-	-	71,2	69,2	68,2	66,6	65,7	62,6	54,2	49	46,1	43	-	-	
MD 50-250/18.5	18,5	25	82,8	-	-	-	-	-	81,5	79,5	78,5	77	76,1	73,2	66	61,4	58,9	56,1	50	-	
MD 50-250/22	22	30	93	-	-	-	-	-	91,6	89,7	88,9	87,6	86,9	84,3	77,4	73	70,4	67,7	61,5	-	

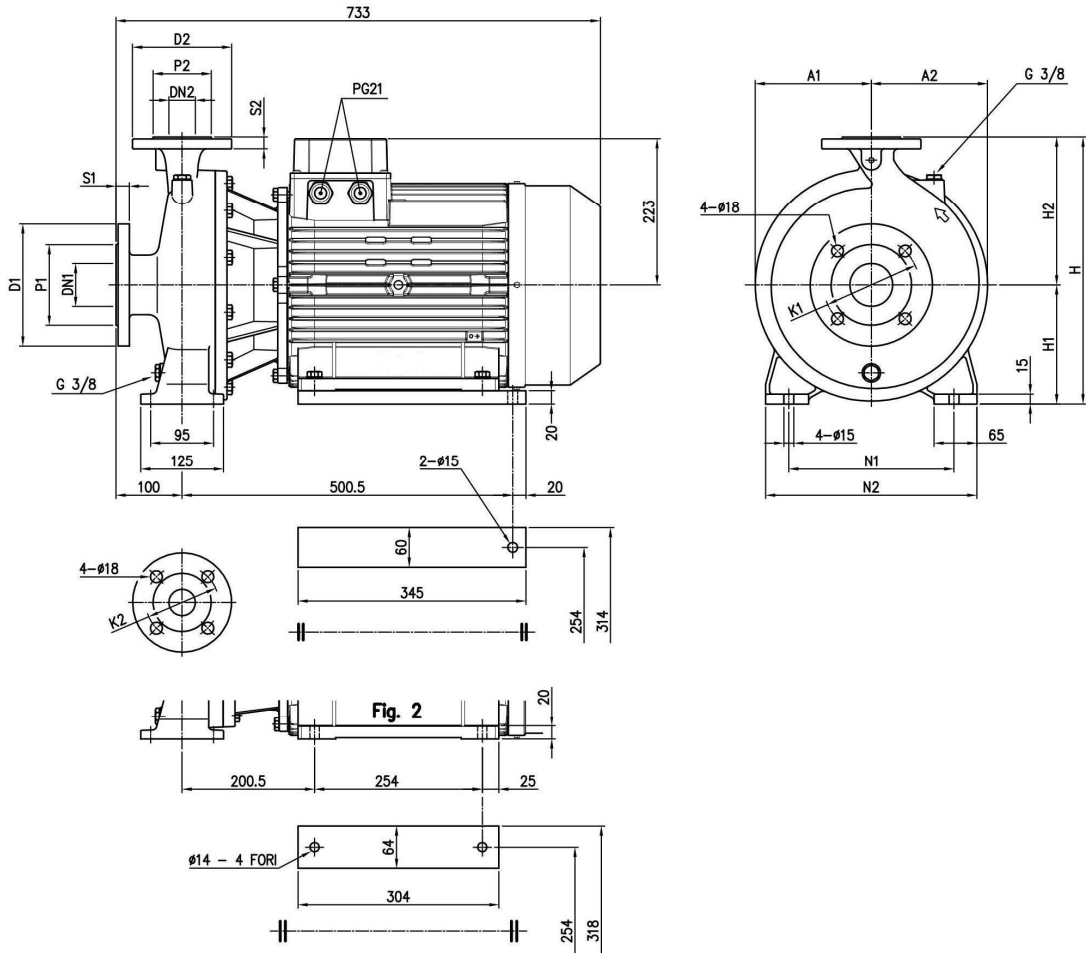
PUMP MD 32-250 / 40-250



Model	Dimensions (mm)																							Weight [kgf]						
	Ø DN1	Ø P1	Ø K1	Ø D1	S1	Ø DN2	Ø P2	Ø K2	Ø D2	S2	H	H1	H2	H3	R	W	M	M1	N1	N2	A1	A2	B (*)	C	F	V1	V2	(*)		
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	537	557	275	15	PG 13.5	PG 16	74,6	77,7
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	95	97,4
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	98	100,4

(*) Only for IE3 Motors

PUMP MD 40-250 / 50-250



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

(*) Only for IE3 Motors

MOTOR DATA

Pump type	Power		Efficiency	Efficiency (% load)			Input [kW]	Full load current		Locked rotor current	
	[kW]	[HP]		h %				[A]		[A]	
				50%	75%	100%		400 V	690 V	400 V	690 V
MD 32-250/5.5	5.5	7.5	IE2	82.9	86.0	87.4	6.29	10.4	6.0	116	67
MD 32-250/5.5	5.5	7.5	IE3	89.2	90.6	90.4	6.09	10.6	6.1	115.3	67
MD 32-250/7.5	7.5	10	IE2	86.1	88.2	88.8	8.45	13.7	7.9	140.0	81
MD 32-250/7.5	7.5	10	IE3	89.0	90.7	90.8	8.26	13.6	7.9	144	83
MD 32-250/9.2	9.2	12.5	IE2	88.6	90.0	89.9	10.23	16.8	9.7	166	96
MD 32-250/9.2	9.2	12.5	IE3	90.1	90.8	90.9	10.12	17.2	10.0	166	96
MD 32-250/11	11	15	IE2	88.9	90.3	90.2	12.20	21.9	12.7	186	108
MD 32-250/11	11	15	IE3	90.4	91.2	91.8	11.98	21.3	12.3	184	107
MD 40-250/11	11	15	IE2	88.9	90.3	90.2	12.20	21.9	12.7	186	108
MD 40-250/11	11	15	IE3	90.4	91.2	91.8	11.98	21.3	12.3	184	107
MD 40-250/15	15	20	IE2	89.3	91.0	91.1	18.00	30.0	17.3	246	143
MD 40-250/15	15	20	IE3	91.2	92.0	91.9	16.32	27.7	17.3	225	130
MD 50-250/15	15	20	IE2	89.3	91.0	91.1	18.00	30.0	17.3	246	143
MD 50-250/15	15	20	IE3	91.2	92.0	91.9	16.32	27.7	17.3	225	130
MD 50-250/18.5	18.5	25	IE2	89.8	91.2	91.7	20.17	36.3	21.0	325	188
MD 50-250/18.5	18.5	25	IE3	91.6	93.0	92.6	19.98	35.0	20.3	328	190
MD 50-250/22	22	30	IE2	89.9	91.9	92.4	23.80	40.8	23.6	383	222
MD 50-250/22	22	30	IE3	92.0	93.1	93.2	23.58	39.7	23.6	391	227

NOISE DATA

Pump type	Power		L _{PA} - dB(A) *
	[kW]	[HP]	
MD 32-250/5.5	5,5	7,5	75
MD 32-250/7.5	7,5	10	
MD 32-250/9.2	9,2	12,5	80
MD 32-250/11	11	15	
MD 40-250/11	11	15	80
MD 40-250/15	15	20	83-82
MD 50-250/15	15	20	83-82
MD 50-250/18,5	18,5	25	
MD 50-250/22	22	30	

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