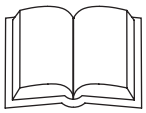
- SERIE MRDV -
Riduttori a Vite Senza Fine -
MRDV Series Worm-Gear Speed Reducers

ELLE.GI SRL
Organi di Trasmissione



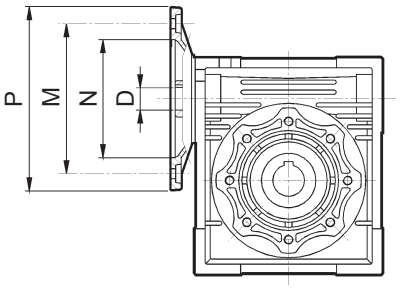
PARAMETRI Mesh parameter

	i	7.5	10	15	20	25	30	40	50	60	80	100
	Z_1	4	3	2	2	2	1	1	1	1		
	M_n	1.3	1.3	1.3	0.995	0.8	1.3	0.995	0.8	0.67		
MRDV025	γ	25°18'	19°31'	13°18'	11°02'	9°05'	6°44'	5°34'	4°34'	3°55'		
	η_d(1400)	0.85	0.83	0.79	0.75	0.71	0.67	0.62	0.58	0.55		
	η_s	0.71	0.68	0.61	0.56	0.5	0.46	0.41	0.36	0.34		
	Z_1	4	3	2	2	1	1	1	1	1	1	
	M_n	1.44	1.44	1.44	1.1	1.7	1.44	1.1	0.89	0.74	0.56	
MRDV030	γ	18°55'	14°25'	9°44'	7°50'	5°33'	4°54'	3°55'	3°17'	2°43'	2°07'	
	η_d(1400)	0.85	0.82	0.77	0.73	0.68	0.65	0.59	0.55	0.51	0.44	
	η_s	0.67	0.63	0.55	0.5	0.43	0.39	0.35	0.31	0.27	0.23	
	Z_1	4	3	2	2	2	1	1	1	1	1	1
	M_n	2.05	2.05	2.05	1.56	1.27	2.05	1.56	1.27	1.06	0.8	0.65
MRDV040	γ	23°54'	18°23'	12°30'	10°03'	8°45'	6°19'	5°04'	4°24'	3°42'	2°52'	2°29'
	η_d(1400)	0.87	0.85	0.82	0.78	0.75	0.7	0.65	0.62	0.58	0.52	0.47
	η_s	0.71	0.67	0.6	0.55	0.51	0.45	0.4	0.36	0.32	0.28	0.24
	Z_1	4	3	2	2	2	1	1	1	1	1	1
	M_n	2.56	2.56	2.56	1.95	1.58	2.56	1.95	1.58	1.32	1	0.8
MRDV050	γ	23°49'	18°19'	12°27'	10°03'	8°33'	6°18'	5°04'	4°18'	3°38'	2°52'	2°17'
	η_d(1400)	0.88	0.86	0.82	0.79	0.76	0.72	0.67	0.63	0.59	0.53	0.49
	η_s	0.7	0.66	0.59	0.55	0.51	0.44	0.39	0.35	0.32	0.27	0.23
	Z_1	4	3	2	2	2	1	1	1	1	1	1
	M_n	3.25	3.25	3.25	2.48	2	3.25	2.48	2	1.68	1.27	1.02
MRDV063	γ	24°31'	18°53'	12°51'	10°29'	8°45'	6°30'	5°17'	4°24'	3°49'	2°59'	2°26'
	η_d(1400)	0.88	0.87	0.83	0.81	0.78	0.74	0.7	0.66	0.62	0.57	0.51
	η_s	0.71	0.67	0.6	0.55	0.51	0.45	0.4	0.36	0.33	0.28	0.24
	Z_1	4	3	2	2	2	1	1	1	1	1	1
	M_n	3.95	3.95	3.95	3	2.42	3.95	3	2.42	2.03	1.54	1.24
MRDV075	γ	26°38'	20°37'	14°05'	11°19'	9°29'	7°09'	5°43'	4°46'	4°01'	3°17'	2°44'
	η_d(1400)	0.89	0.88	0.85	0.82	0.8	0.76	0.72	0.69	0.65	0.6	0.55
	η_s	0.71	0.68	0.61	0.57	0.53	0.46	0.42	0.38	0.35	0.29	0.26
	Z_1	4	3	2	2	2	1	1	1	1	1	1
	M_n	4.84	4.84	4.84	3.69	2.98	4.84	3.69	2.98	2.5	1.89	1.52
MRDV090	γ	29°05'	22°39'	15°33'	12°50'	10°53'	7°55'	6°30'	5°29'	4°46'	3°45'	3°06'
	η_d(1400)	0.9	0.89	0.86	0.84	0.82	0.78	0.75	0.72	0.69	0.63	0.59
	η_s	0.73	0.7	0.64	0.6	0.56	0.49	0.45	0.41	0.38	0.32	0.28
	Z_1	4	3	2	2	2	1	1	1	1	1	1
	M_n	5,875	5,875	5,875	4.62	3.73	5,875	4.62	3.73	3.13	2.37	1.91
MRDV110	γ	28°15'	21°57'	15°02'	14°42'	12°33'	7°39'	7°29'	6°21'	5°33'	4°27'	3°46'
	η_d(1400)	0.9	0.89	0.86	0.85	0.84	0.79	0.78	0.75	0.72	0.67	0.63
	η_s	0.72	0.69	0.63	0.62	0.59	0.48	0.48	0.44	0.41	0.36	0.32
	Z_1	4	3	2	2	2	1	1	1	1	1	1
	M_n	6.97	6.97	6.97	5.4	4.37	6.97	5.4	4.37	3.67	2.77	2.23
MRDV130	γ	28°43'	22°20'	15°19'	13°47'	11°54'	7°48'	7°00'	6°01'	5°16'	4°07'	3°27'
	η_d(1400)	0.91	0.89	0.87	0.86	0.84	0.8	0.78	0.75	0.72	0.68	0.64
	η_s	0.72	0.69	0.63	0.61	0.58	0.49	0.46	0.43	0.39	0.34	0.3

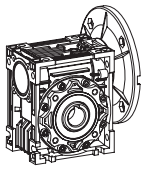
PREDISPOSIZIONI - Predisposition

(*) Per un ingresso con motore speciale contattare il nostro ufficio tecnico

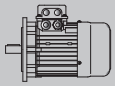
(*) If you want special key , please call our Technical Service

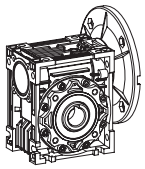


MRDV	PAM IEC	N	M	P	D										
					7.5	10	15	20	25	30	40	50	60	80	100
025	56B14	50	65	80	9	9	9	9		9	9	9	9		
030	63B5	95	115	140	11	11	11	11	11	11	11	11			
	63B14	60	75	90											
	56B5	80	100	120	9	9	9	9	9	9	9	9	9	9	
	56B14	50	65	80											
040	71B5	110	130	160	14	14	14	14	14	14	14				
	71B14	70	85	105											
	63B5	95	115	140	11	11	11	11	11	11	11	11	11	11	11
	63B14	60	75	90											
	56B5	80	100	120								9	9	9	9
050	80B5	130	165	200	19	19	19	19	19	19					
	80B14	80	100	120											
	71B5	110	130	160	14	14	14	14	14	14	14	14	14	14	
	71B14	70	85	105											
	63B5	95	115	140							11	11	11	11	11
063	90B5	130	165	200	24	24	24	24	24	24					
	90B14	95	115	140											
	80B5	130	165	200	19	19	19	19	19	19	19	19	19		
	80B14	80	100	120											
	71B5	110	130	160							14	14	14	14	14
	71B14	70	85	105											
075	100/112B5	180	215	250	28	28	28								
	100/112B14	110	130	160											
	90B5	130	165	200	24	24	24	24	24	24	24				
	90B14	95	115	140											
	80B5	130	165	200				19	19	19	19	19	19	19	19
	80B14	80	100	120											
	71B5	110	130	160								14	14	14	14
090	100/112B5	180	215	250	28	28	28	28	28	28					
	100/112B14	110	130	160											
	90B5	130	165	200	24	24	24	24	24	24	24	24	24		
	90B14	95	115	140											
	80B5	130	165	200							19	19	19	19	19
	80B14	80	100	120											
110	132B5	230	265	300	38*	38*	38*	38*							
	100/112B5	180	215	250	28	28	28	28	28	28	28	28	28		
	90B5	130	165	200					24	24	24	24	24	24	24
	80B5	130	165	200										19	19
130	132B5	230	265	300	38*	38*	38*	38*	38*	38*	38*				
	100/112B5	180	215	250					28	28	28	28	28	28	28
	90B5	130	165	200										24	24



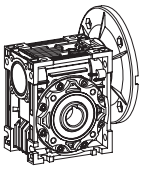
PRESTAZIONI - PERFORMANCE PARAMETER

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	i	Fr_2 [N]	fs			
0.37	18	126	50	6073	1.8	**MRDV075**	**8016**	63
	15	144	60	6453	1.5			
	11.3	173	80	7103	1.2			
	9	196	100	7380	1			
	18.7	138	75	6000	1.8	**PC071+MRDV075**	**7124**	69
	15.6	154	90	6375	1.9			
	11.7	191	120	7017	1.5			
	9.3	223	150	7380	1.1			
	7.8	254	180	7380	0.9			
	12	206	75	6952	1.6	**PC080+MRDV075**	**8016**	69
	10	230	90	7380	1.7			
	7.5	283	120	7380	1.3			
	6	324	150	7380	1			
	4.7	405	300	7380	1	**MRDV040+075**	**7124**	73
	3.5	498	400	7380	0.7			
	11.3	185	80	7859	1.7	**MRDV090**	**8016**	64
	9	212	100	8180	1.3			
	7.8	268	180	8180	1.5	**PC071+MRDV090**	**7124**	69
	5.8	321	240	8180	1.1			
	4.7	371	300	8180	0.9			
	6	347	150	8180	1.6	**PC080+MRDV090**	**8016**	70
	5	389	180	8180	1.3			
	3.8	471	240	8180	1			
	4.7	402	300	8180	1.5	**MRDV040+090**	**7124**	73
	3.5	523	400	8180	1.2			
	2.8	611	500	8180	0.9			
	2.3	757	600	8180	0.8			
	3.8	509	240	10320	1.6	**PC080+MRDV110**	**8016**	70
	3	577	300	10320	1.3			
	1.9	950	750	10320	1.3	**MRDV050+110**	**7124**	73
	1.6	1079	900	10320	1.2			
	1.2	1396	1200	10320	0.8			
	0.9	1674	1500	13500	1.1	**MRDV063+130**	**7124**	74
	0.78	1887	1800	13500	0.9			
0.55	373.3	13	7.5	1044	2.2	**MRDV040**	**7122**	60
	280	17	10	1149	1.8			
	186.7	24	15	1315	1.3			
	140	31	20	1447	0.9			
	112	37	25	1559	0.8			



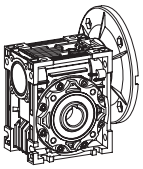
PRESTAZIONI - PERFORMANCE PARAMETER

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	i	Fr_2 [N]	fs			
0.55	30	128	30	5122	2	**MRDV075**	**8026**	65
	22.5	159	40	5637	1.5			
	18	187	50	6073	1.2			
	15	214	60	6453	1			
	18.7	205	75	6000	1.2	**PC080+MRDV075**	**8014**	69
	15.6	230	90	6375	1.3			
	11.7	284	120	7017	1			
	9.3	332	150	7380	0.8			
	12	306	75	6952	1.1	**PC080+MRDV075**	**8026**	69
	10	341	90	7380	1.1			
	17.5	189	80	6783	1.5	**MRDV090**	**8014**	64
	14	221	100	7306	1.2			
	18	198	50	6719	2	**MRDV090**	**8026**	64
	15	224	60	7140	1.6			
	11.3	275	80	7859	1.1			
	9	315	100	8180	0.9			
	15.6	240	90	7054	2.3	**PC080+MRDV090**	**8014**	70
	11.7	297	120	7764	1.6			
	9.3	355	150	8180	1.3			
	7.8	398	180	8180	1			
	10	357	90	8174	2	**PC080+MRDV090**	**8026**	70
	7.5	441	120	8180	1.4			
	6	516	150	8180	1.1			
	5	578	180	8180	0.9			
	9.3	306	300	8180	2	**MRDV040+090**	**7122**	73
	7	403	400	8180	1.5			
	5.6	470	500	8180	1.2			
	17.5	201	80	8571	2.6	**MRDV110**	**8014**	65
	14	236	100	9232	2			
	11.3	294	80	9931	1.9	**MRDV110**	**8026**	65
	9	338	100	10320	1.5			
	7.8	425	180	10320	1.8	**PC080+MRDV110**	**8014**	70
	5.8	513	240	10320	1.3			
	4.7	597	300	10320	1			
	7.5	462	120	10320	2.6	**PC080+MRDV110**	**8026**	70
	6	552	150	10320	2			
	5	620	180	10320	1.6			
	3.8	756	240	10320	1.1			

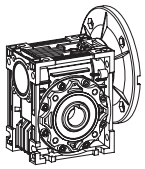


PRESTAZIONI - PERFORMANCE PARAMETER

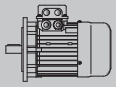
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	i	Fr_2 [N]	fs			
0.75	56	102	25	4160	2	**MRDV075**	**8024**	63
	46.7	117	30	4421	2			
	35	147	40	4865	1.5			
	28	177	50	5241	1.2			
	23.3	200	60	5569	1			
	60	98	15	4065	2.4	**MRDV075**	**90S6**	63
	45	126	20	4474	1.9			
	36	153	25	4820	1.4			
	30	174	30	5122	1.5			
	22.5	216	40	5637	1.1			
	18.7	280	75	6000	0.9	**PC080+MRDV075**	**8024**	69
	15.6	313	90	6375	1			
	35	141	80	5383	1.6	**MRDV090**	**8012**	64
	28	166	100	5799	1.2			
	28	184	50	5799	1.8	**MRDV090**	**8024**	64
	23.3	212	60	6163	1.5			
	17.5	258	80	6783	1.1			
	14	302	100	7306	0.9			
	30	179	30	5667	2.6	**MRDV090**	**90S6**	64
	22.5	226	40	6238	1.8			
	18	271	50	6719	1.4			
	15	306	60	7140	1.1			
	15.6	327	90	7054	1.7	**PC080+MRDV090**	**8024**	70
	11.7	405	120	7764	1.2			
	9.3	483	150	8180	0.9			
	7.8	543	180	8180	0.7			
	7	549	400	8180	1.1	**MRDV040+090**	**8012**	73
	5.6	642	500	8180	0.9			
	17.5	274	80	8571	1.9	**MRDV110**	**8024**	65
	14	322	100	9232	1.5			
	15	325	60	9023	2.1	**MRDV110**	**90S6**	65
	11.3	401	80	9931	1.4			
	9	462	100	10320	1.1			
	11.7	430	120	9811	2.2	**PC080+MRDV110**	**8024**	70
	9.3	506	150	10320	1.7			
	7.8	580	180	10320	1.3			
	5.8	700	240	10320	0.9			

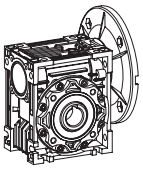


P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	i	Fr_2 [N]	fs			
1.1	186.7	50	7.5	2359	2.6	**MRDV063**	**90S4**	62
	140	65	10	2597	2			
	93.3	93	15	2973	1.5			
	70	122	20	3272	1.1			
	56	146	25	3524	0.9			
	46.7	167	30	3745	1			
	112	78	25	3302	1.9	**MRDV075**	**8022**	63
	93.3	90	30	3509	1.9			
	70	116	40	3862	1.4			
	56	139	50	4160	1.1			
	46.7	160	60	4421	0.9			
	90	100	10	3551	2.3	**MRDV075**	**90L6**	63
	60	144	15	4065	1.6			
	45	184	20	4474	1.3			
	36	225	25	4820	1			
	30	256	30	5122	1			
	93.3	96	15	3509	2.1	**MRDV075**	**90S4**	63
	70	123	20	3862	1.7			
	56	150	25	4160	1.3			
	46.7	171	30	4421	1.3			
	35	216	40	4865	1			
	35	207	80	5383	1.1	**MRDV090**	**8022**	64
	28	244	100	5799	0.8			
	36	231	25	5333	1.6	**MRDV090**	**90L6**	64
	30	263	30	5667	1.8			
	22.5	331	40	6238	1.2			
	18	397	50	6719	1			
	15	448	60	7140	0.8			
	35	225	40	5383	1.6	**MRDV090**	**90S4**	64
	28	270	50	5799	1.3			
	23.3	311	60	6163	1			
	22.5	345	40	7882	2.3	**MRDV110**	**90L6**	65
	18	414	50	8491	1.8			
	15	476	60	9023	1.4			
	11.3	588	80	9931	1			
	28	281	50	7328	2.3	**MRDV110**	**90S4**	65
	23.3	324	60	7787	1.9			
	17.5	402	80	8571	1.3			
	14	473	100	9232	1			



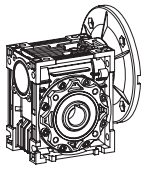
PRESTAZIONI - PERFORMANCE PARAMETER

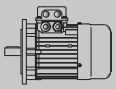
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	i	Fr_2 [N]	fs			
1.5	373.3	35	7.5	1873	2.7	**MRDV063**	**90S2**	62
	280	46	10	2061	2.1			
	186.7	66	15	2359	1.6			
	140	86	20	2597	1.2			
	112	105	25	2797	0.9			
	93.3	120	30	2973	1			
	120	105	7.5	3227	2	**MRDV075**	**100L6**	63
	90	137	10	3551	1.7			
	60	196	15	4065	1.2			
	56	189	50	4160	0.8	**MRDV075**	**90S2**	63
	46.7	218	60	4421	0.7			
	140	90	10	3065	2.2	**MRDV075**	**90L4**	63
	93.3	130	15	3509	1.5			
	70	168	20	3862	1.3			
	56	205	25	4160	1			
	46.7	233	30	4421	1			
	280	46	10	2433	3.1	**MRDV075**	**90S2**	63
	186.7	67	15	2785	2.2			
	140	87	20	3065	1.8	**MRDV075**	**90S2**	63
	112	106	25	3302	1.4			
	93.3	123	30	3509	1.4			
	70	158	40	3862	1			
	90	138	10	3929	2.7	**MRDV090**	**100L6**	64
	60	201	15	4498	2.1			
	45	258	20	4951	1.5			
	36	314	25	5333	1.2			
	30	358	30	5667	1.3			
	70	172	20	4273	2.1	**MRDV090**	**90L4**	64
	56	210	25	4603	1.6			
	46.7	239	30	4891	1.7			
	35	307	40	5383	1.2			
	28	368	50	5799	0.9			
	23.3	424	60	6163	0.8			
	56	194	50	4603	1.4	**MRDV090**	**90S2**	64
	46.7	227	60	4891	1.1			
	45	264	20	6256	2.7	**MRDV110**	**100L6**	65
	36	322	25	6739	2.4			
	30	363	30	7161	2.3			
	22.5	471	40	7882	1.7			
	18	565	50	8491	1.3			
	15	649	60	9023	1.1			



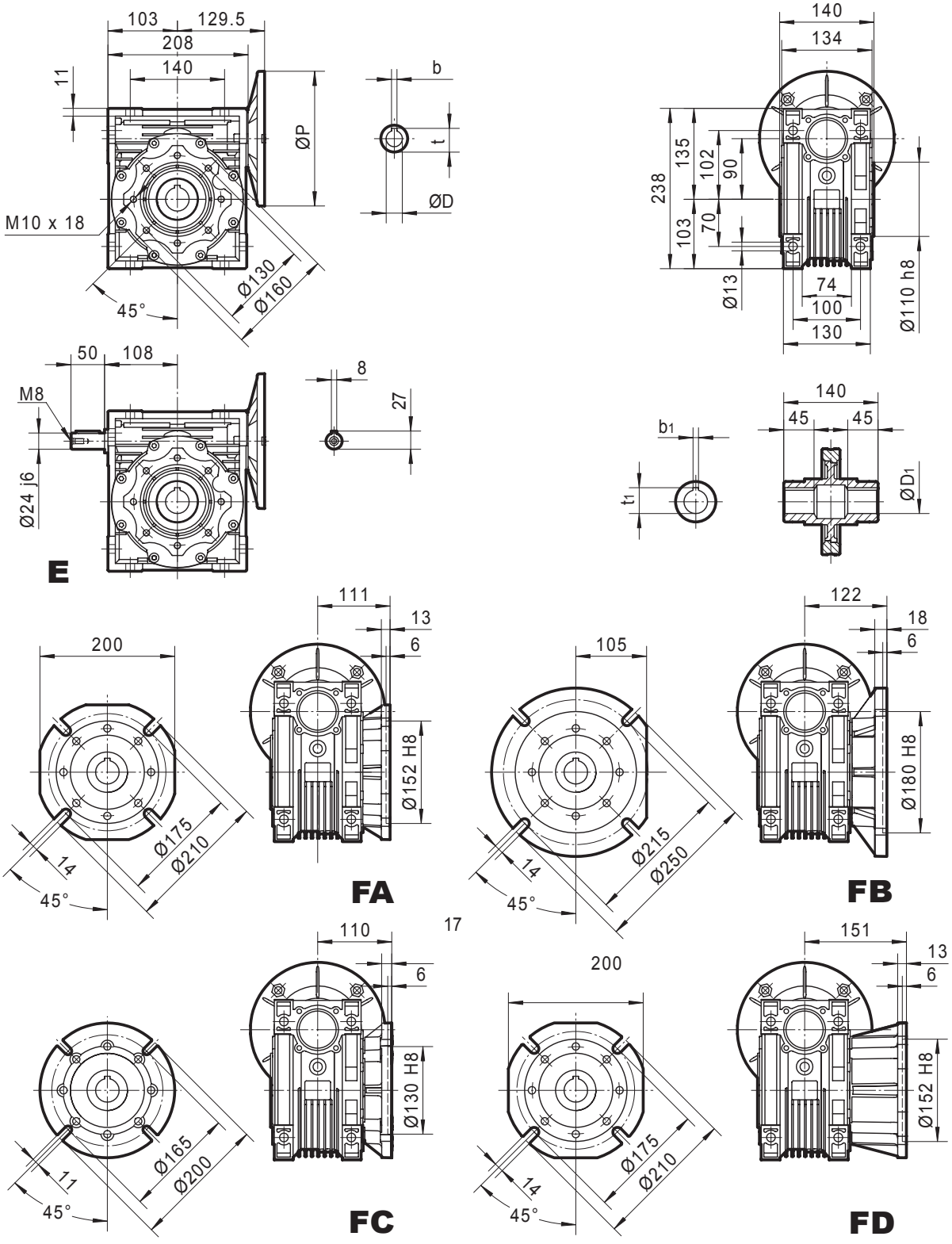
PRESTAZIONI - PERFORMANCE PARAMETER

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	i	Fr_2 [N]	fs			
2.2	373.3	51	7.5	2210	2.5	**MRDV075**	**90L2**	63
	280	68	10	2433	2.1			
	186.7	98	15	2785	1.5			
	140	128	20	3065	1.3			
	112	156	25	3302	1			
	93.3	180	30	3509	0.9			
	186.7	101	7.5	3081	2.9	**MRDV090**	**100LA4**	64
	140	134	10	3391	2.3			
	93.3	194	15	3882	1.9			
	70	252	20	4273	1.4			
	56	308	25	4603	1.1			
	46.7	351	30	4891	1.2			
	120	156	7.5	3570	2.2	**MRDV090**	**112M6**	64
	90	203	10	3929	1.8			
	60	294	15	4498	1.4			
	45	378	20	4951	1			
	140	131	20	3391	2	**MRDV090**	**90L2**	64
	112	159	25	3653	1.6			
	93.3	185	30	3882	1.7			
	70	237	40	4273	1.2			
	56	285	50	4603	0.9			
	70	255	20	5399	2.5	**MRDV110**	**100LA4**	65
	56	315	25	5816	2.2			
	46.7	356	30	6181	2			
	35	468	40	6803	1.5			
	28	563	50	7328	1.2			
	23.3	648	60	7787	1			
	90	205	10	4965	3.5	**MRDV110**	**112M6**	65
	60	298	15	5684	2.6			
	45	388	20	6256	1.9			
	36	473	25	6739	1.6			
	30	532	30	7161	1.6			
	112	163	25	4616	3.1	**MRDV110**	**90L2**	65
	93.3	187	30	4905	3			
	70	246	40	5399	2.1	**MRDV110**	**90L2**	65
	56	296	50	5816	1.7			
	46.7	347	60	6181	1.4			
	38.6	398	73	6586	2.1	**PC090+MRDV110**	**90L2**	70
	28.9	516	96.8	7249	1.5			
	23.1	617	121	7809	1.2			



P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	i	Fr_2 [N]	fs			
2.2	35	468	40	8897	2.2	**MRDV130**	**100LA4**	66
	28	563	50	9584	1.7			
	23.3	648	60	10185	1.4			
	17.5	816	80	11210	1			
	36	479	25	8814	2.2	**MRDV130**	**112M6**	66
	30	546	30	9366	2.1			
	22.5	700	40	10309	1.6			
	18	840	50	11105	1.2	**MRDV130**	**112M6**	66
	15	966	60	11801	1			
	35	438	80	8897	1.3	**MRDV130**	**90L2**	66
	28	525	100	9584	1			
	38.6	409	73	8614	2.9	**PC090+MRDV130**	**90L2**	70
	28.9	545	96.8	9481	2			
	23.1	654	121	10213	1.6			
	19.3	752	145.2	10853	1.3			
3	373.3	70	7.5	2210	1.9	**MRDV075**	**100L2**	63
	280	92	10	2433	1.6			
	186.7	137	7.5	2785	1.4	**MRDV075**	**100LB4**	63
	140	180	10	3065	1.1			
	93.3	261	15	3509	0.8			
	373.3	71	7.5	2446	3	**MRDV090**	**100L2**	64
	280	92	10	2692	2.6			
	186.7	138	7.5	3081	2.1	**MRDV090**	**100LB4**	64
	140	182	10	3391	1.7			
	93.3	264	15	3882	1.4			
	70	344	20	4273	1			
	56	420	25	4603	0.8			
	46.7	479	30	4891	0.9			
	93.3	264	15	4905	2.5	**MRDV110**	**100LB4**	64
	70	348	20	5399	1.9			
	56	430	25	5816	1.6			
	46.7	485	30	6181	1.5			
	35	638	40	6803	1.1			
	28	767	50	7328	0.9			
	120	212	7.5	4511	3.1	**MRDV110**	**132S6**	64
	90	280	10	4965	2.5			
	60	406	15	5684	1.9			
	45	528	20	6256	1.4			

MRDV **090**



Peso senza motore **≈ 13 kg** Weight without motor ≈ 13 kg

Per i dati dei motori **(P, D, b, t)** , **riferirsi** **alla tab. pag.78**

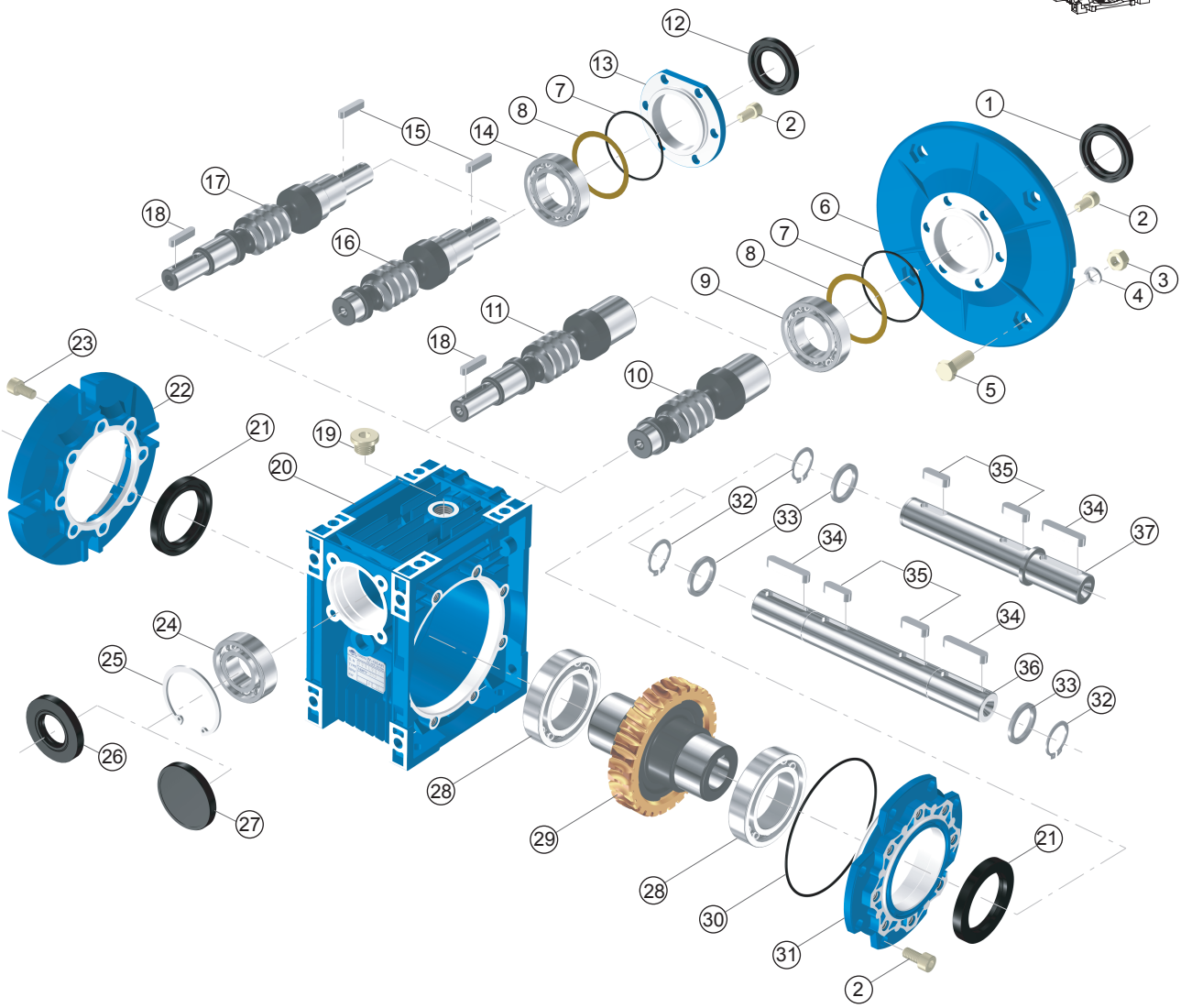
For the dimensions concerning the motor connection area (P, D, b, t) please refer to the table shown at page 78.

ØD1 H8	**b1**	**t1**
Ø35	10	38.3
Ø38*	10*	41.3*

(*) **Modello non standard**

(*) Nonstandard model

Esploso e parti di ricambio - EXPLODED VIEW & NAME OF PARTS



1. **Anello di tenuta -** oil seal
2. **Vite -** inner hex screw
3. **Dado -** nut
4. **Rondella -** spring washer
5. **Bullone -** hex screw
6. **Flangia in ingresso -** input flange
7. **O-Ring -** O-Ring
8. **Distanziale -** adjust spacer
9. **Cuscinetto -** bearing
10. **Vite forata in ingresso -** hole input worm
11. **Vite cilindrica in ingresso e albero maschio -** hole input and shaft & output worm
12. **Anello di tenuta -** oil seal
13. **Coperchio in ingresso -** input cover
14. **Cuscinetto -** Bearing
15. **Chiavetta -** key
16. **Albero in ingresso -** shaft input worm
17. **Albero in ingresso e vite in uscita -** shaft input and shaft output worm
18. **Chiavetta -** key
19. **Tappo per olio -** oil plug
20. **Carcassa -** casing
21. **Anello di tenuta -** oil seal
22. **Flangia in uscita -** output flange
23. **Bullone -** inner hex screw
24. **Cuscinetto -** bearing
25. **Seeger -** hole-circlip
26. **Anello di tenuta -** oil seal
27. **Coperchio -** cover
28. **Cuscinetto -** bearing
29. **Vite -** worm wheel
30. **O-Ring -** O-Ring
31. **Coperchio in uscita -** output cover
32. **Seeger albero -** shaft-circlip
33. **Distanziale -** spacer
34. **Chiavetta -** key
35. **Chiavetta -** key
36. **Albero bisporgente in uscita -** ouble output shaft
37. **Albero sporgente in uscita -** single output shaft