

Selection and ordering data

P _{ra} ted, 50 Hz	Frame size	Operating values at rated output										Motor type	Article No.	m IM B3	J kgm ²			
		n _{ra} ted, 50 Hz	T _{ra} ted, 50 Hz	IE class	η _{ra} ted, 50 Hz	η _{ra} ted, 50 Hz	η _{ra} ted, 50 Hz	η _{ra} ted, 50 Hz	cos φ rated	I _{ra} ted, 400 V	I _{ra} ted, 500 V					I _{ra} ted, 690 V	T _{LR} /T _{ra}	I _{LR} /I _{ra}
kW	FS	rpm	Nm	—	%	%	%	—	A	A	A	—	—	—	kg	kgm ²		
<ul style="list-style-type: none"> • Cooling: self-ventilated (IC 411) • Efficiency: High Efficiency IE2, 0.75 kW and above in accordance with IEC 60034-30 • Insulation: thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B), S1-100 % • Type of protection: "Explosion-proof enclosure" according to EN 60079-1; 2007: CE 0102 II 2G Ex d(e) IIC T4 Gb 																		
2-pole: 3000 rpm at 50 Hz																		
0.37	071 B	2840	1.24	¹⁾	69.5	69.5	68.0	0.77	1.00	0.8	0.58	3.6	6.5	3.1	DNGW-071BR-02	1MD5070- BD -4AA1	24	0.0004
0.55	071 B	2835	1.85	¹⁾	74.1	74.1	70.0	0.75	1.43	1.14	0.83	3.6	6.3	2.9	DNGW-071BS-02	1MD5071- BD -4AA1	25	0.0005
0.75	080 B	2805	2.55	IE2	77.4	79.5	78.8	0.84	1.67	1.34	0.97	1.9	4.9	2.3	DNGW-080BR-02	1MD5080- BD -4AA1	26	0.0008
1.1	080 B	2835	3.71	IE2	79.6	81.3	80.8	0.83	2.40	1.92	1.39	2.4	6.0	2.7	DNGW-080BS-02	1MD5081- BD -4AA1	28	0.0011
1.5	090 L	2885	4.96	IE2	81.3	82.3	80.8	0.84	3.15	2.52	1.83	2.7	6.9	3.6	DNGW-090LR-02	1MD5095- BD -4AA1	36	0.0017
2.2	090 L	2890	7.3	IE2	83.2	83.9	82.3	0.85	4.50	3.6	2.61	2.5	7.1	3.7	DNGW-090LS-02	1MD5098- BD -4AA1	36	0.0021
3	100 L	2905	9.9	IE2	84.6	85.2	84.7	0.84	6.1	4.9	3.54	2.3	7.0	3.3	DNGW-100LS-02	1MD5106- BD -4AA1	51	0.0044
4	112 M	2950	12.9	IE2	85.8	86.7	86.1	0.86	7.8	6.2	4.5	2.4	7.4	3.3	DNGW-112MS-02	1MD5113- BD -4AA1	66	0.0092
5.5	132 S	2950	17.8	IE2	87.0	88.0	87.4	0.87	10.5	8.4	6.1	1.8	6.6	2.9	DNGW-132SR-02	1MD5131- BD -4AA1	83	0.020
7.5	132 S	2950	24.3	IE2	88.1	88.7	88.6	0.87	14.1	11.3	8.2	2.2	7.5	3.1	DNGW-132SS-02	1MD5132- BD -4AA1	95	0.024
11	160 M	2955	35.5	IE2	89.4	90.0	89.1	0.87	20.5	16.4	11.9	2.1	7.4	3.2	DNGW-160MR-02	1MD5163- BD -4AA1	168	0.045
15	160 M	2955	48.5	IE2	90.3	90.9	90.3	0.88	27.0	21.6	15.7	2.4	7.6	3.4	DNGW-160MS-02	1MD5165- BD -4AA1	177	0.045
18.5	160 L	2955	59.8	IE2	90.9	91.2	90.4	0.88	33.5	26.8	19.4	2.9	7.9	3.6	DNGW-160LS-02	1MD5166- BD -4AA1	185	0.057
22	180 M	2940	71.5	IE2	91.3	91.8	91.4	0.87	40.0	32.0	23.2	2.7	7.4	3.6	DNGW-180MS-02	1MD5183- BD -4AA1	231	0.094
30	200 L	2955	96.9	IE2	92.0	92.3	91.7	0.87	54.0	43.2	31.3	2.5	6.9	3.3	DNGW-200LR-02	1MD5206- BD -4AA1	311	0.18
37	200 L	2960	119	IE2	92.5	92.8	92.3	0.88	66.0	52.8	38.3	2.7	7.4	3.5	DNGW-200LS-02	1MD5208- BD -4AA1	311	0.20
45	225 M	2965	145	IE2	92.9	93.1	92.5	0.88	79.0	63.2	45.8	2.7	7.8	3.7	DNGW-225MS-02	1MD5223- BD -4AA1	390	0.23
55	250 M	2970	177	IE2	93.2	93.3	92.4	0.89	96.0	76.8	55.7	2.3	6.8	3.1	DNGW-250MM-02	1MD5253- BD -4AA1	469	0.40
75	280 S	2978	240	IE2	93.8	93.6	92.4	0.87	133	106	77.1	2.5	7.2	3.2	DNGW-280SL-02	1MD5280- BD -4AA1	672	0.71
90	280 M	2975	289	IE2	94.1	94.2	93.5	0.88	157	126	91.0	2.5	7.1	3.1	DNGW-280MM-02	1MD5283- BD -4AA1	732	0.83
110	315 S	2982	352	IE2	94.3	94.2	93.3	0.90	187	150	108	2.4	7.3	3.0	DNGW-315SL-02	1MD5311- BD -4AA1	1004	1.3
132	315 M	2982	423	IE2	94.6	94.7	94.1	0.91	220	176	128	2.4	7.2	3.1	DNGW-315ML-02	1MD5313- BD -4AA1	1088	1.6
160	315 M	2982	512	IE2	94.8	94.9	94.3	0.92	265	212	154	2.3	7.0	3.1	DNGW-315MN-02	1MD5315- BD -4AA1	1132	1.8
200	315 L	2982	640	IE2	95.0	95.2	94.8	0.92	330	264	191	2.4	7.1	3.0	DNGW-315LL-02	1MD5316- BD -4AA1	1367	2.2
250	315 L	2985	800	IE2	95.0	95.5	95.2	0.92	415	332	241	3.2	8.6	3.5	DNGW-315LN-02	1MD5318- BD -4AA1	1561	3.5
315	355 M	2984	1008	IE2	95.6	95.4	94.5	0.88	540	432	313	1.6	6.8	2.3	DNGW-355MR-02 ²⁾	1MD5353- BD -4AA1	2520	4.8
360	355 M	2984	1152	IE2	95.9	95.6	95.0	0.89	610	488	354	1.7	6.8	2.4	DNGW-355MS-02 ²⁾	1MD5355- BD -4AA1	2660	5.3
460	355 M	2985	1472	¹⁾	96.3	96.3	95.7	0.90	770	616	446	1.9	6.8	2.6	DNGW-355MT-02 ²⁾	1MD5357- BD -4AA1	2800	6.4
Operating modes											Frame size			Order code				
Mains-fed operation											71 ... 355	0		—				
Converter-fed operation, standard insulation											71 ... 355	1		—				
Voltages											Frame size			Order code				
690 VΔ, 50 Hz											355	0		—				
230 V/400 V, 50 Hz											71 ... 200	1		—				
500 VY, 50 Hz											71 ... 315	3		—				
500 VΔ, 50 Hz											71 ... 355	5		—				
400 V/690 V, 50 Hz											71 ... 355	6		—				
For other voltages see Page 2/18											71 ... 355	9		...				
Types of construction											Frame size			Order code				
IM B3											71 ... 355	0		—				
IM B5											71 ... 315	1		—				
IM B34											71 ... 112	2		—				
IM B14											71 ... 112	3		—				
IM V1/cover											71 ... 355	4		—				
IM B35											71 ... 355	6		—				
Other types of construction see Page 1/28 and 2/18											71 ... 355	9		...				

¹⁾ Outside the IE code classification according to IEC 60034-30.²⁾ Direction of rotation must be specified (order code **K97** or **K98**).

Motors with Explosion Protection

SIMOTICS XP 1MD5 motor series

Motors in cast-iron version

Selection and ordering data (continued)

P _{ra} ted, 50 Hz	Frame size	Operating values at rated output										Motor type	Article No.	m IM B3	J kgm ²			
		n _{ra} ted, 50 Hz	T _{ra} ted, 50 Hz	IE class	η _{ra} ted, 50 Hz, 4/4	η _{ra} ted, 50 Hz, 3/4	η _{ra} ted, 50 Hz, 2/4	cos φ rated, 4/4	I _{ra} ted, 400 V	I _{ra} ted, 500 V	I _{ra} ted, 690 V					T _{LR} / T _{ra}	I _{LR} / I _{ra}	T _B / T _{ra}
kW	FS	rpm	Nm	—	%	%	%	—	A	A	A	—	—	—	—	—	kg	kgm ²
<ul style="list-style-type: none"> • Cooling: self-ventilated (IC 411) • Efficiency: High Efficiency IE2, 0.75 kW and above in accordance with IEC 60034-30 • Insulation: thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B), S1-100 % • Type of protection: "Explosion-proof enclosure" according to EN 60079-1; 2007: CE 0102 II 2G Ex d(e) IIC T4 Gb 																		
4-pole: 1500 rpm at 50 Hz																		
0.25	071 B	1410	1.69	¹⁾	68.5	68.5	60.0	0.64	0.68	0.54	0.39	3.6	4.3	3.1	DNGW-071BR-04	1MD5070- BD -4BA1	24	0.0007
0.37	071 B	1385	2.55	¹⁾	72.7	72.7	63.0	0.73	0.85	0.68	0.49	3.3	4.2	3.0	DNGW-071BS-04	1MD5071- BD -4BA1	24	0.0009
0.55	080 B	1440	3.65	¹⁾	78.1	78.9	76.1	0.74	1.14	0.91	0.66	2.2	5.3	3.1	DNGW-080BR-04	1MD5080- BD -4BA1	27	0.0017
0.75	080 B	1440	4.97	IE2	79.6	80.2	78.0	0.76	1.49	1.19	0.86	2.2	5.6	3.1	DNGW-080BS-04	1MD5081- BD -4BA1	28	0.0021
1.1	090 L	1425	7.4	IE2	81.4	81.7	79.9	0.78	2.15	1.72	1.25	2.3	5.6	2.9	DNGW-090LR-04	1MD5095- BD -4BA1	34	0.0028
1.5	090 L	1435	10.0	IE2	82.8	83.5	82.0	0.79	2.80	2.24	1.62	2.6	6.4	3.4	DNGW-090LS-04	1MD5098- BD -4BA1	37	0.0036
2.2	100 L	1455	14.4	IE2	84.3	85.1	84.3	0.81	3.75	3.0	2.17	2.1	6.9	3.3	DNGW-100LR-04	1MD5106- BD -4BA1	53	0.0086
3	100 L	1455	19.7	IE2	85.5	86.7	86.0	0.82	4.8	3.84	2.78	2.0	6.9	3.1	DNGW-100LS-04	1MD5108- BD -4BA1	55	0.011
4	112 M	1460	26.2	IE2	86.6	87.3	86.5	0.81	6.8	5.4	3.94	2.5	7.1	3.2	DNGW-112MS-04	1MD5113- BD -4BA1	66	0.014
5.5	132 S	1465	35.9	IE2	87.7	89.0	87.7	0.80	8.9	7.1	5.2	2.3	6.9	2.9	DNGW-132SR-04	1MD5131- BD -4BA1	93	0.027
7.5	132 M	1465	48.9	IE2	88.7	90.3	88.8	0.83	11.4	9.1	6.6	2.3	6.9	2.9	DNGW-132MS-04	1MD5133- BD -4BA1	102	0.034
11	160 M	1470	71	IE2	89.8	90.9	90.8	0.85	21.0	16.8	12.2	2.1	6.7	2.8	DNGW-160MR-04	1MD5163- BD -4BA1	168	0.077
15	160 L	1475	97	IE2	90.6	91.3	91.0	0.85	28.0	22.4	16.2	2.3	7.3	3.0	DNGW-160LS-04	1MD5166- BD -4BA1	185	0.098
18.5	180 M	1465	121	IE2	91.2	92.0	91.9	0.84	35.0	28.0	20.3	2.5	7.2	3.4	DNGW-180MR-04	1MD5183- BD -4BA1	231	0.16
22	180 L	1465	143	IE2	91.6	92.2	91.9	0.84	41.5	33.2	24.1	2.6	7.3	3.5	DNGW-180LS-04	1MD5186- BD -4BA1	242	0.16
30	200 L	1470	195	IE2	92.3	92.8	92.6	0.84	56.0	44.8	32.5	2.5	6.7	3.3	DNGW-200LS-04	1MD5206- BD -4BA1	311	0.27
37	225 S	1470	240	IE2	92.7	93.5	93.5	0.88	65.0	52.0	37.7	2.3	6.6	2.9	DNGW-225SR-04	1MD5220- BD -4BA1	390	0.42
45	225 M	1475	291	IE2	93.1	93.8	93.7	0.87	80.0	64.0	46.4	2.5	6.9	3.1	DNGW-225MS-04	1MD5223- BD -4BA1	420	0.46
55	250 M	1480	355	IE2	93.5	93.9	93.5	0.85	100	80.0	57.0	2.7	6.8	3.0	DNGW-250MM-04	1MD5253- BD -4BA1	518	0.75
75	280 S	1485	482	IE2	94.0	94.2	93.8	0.87	132	106	76.5	2.5	6.8	3.0	DNGW-280SL-04	1MD5280- BD -4BA1	752	1.3
90	280 M	1486	578	IE2	94.2	94.3	93.6	0.87	159	127	92.2	2.6	7.3	3.1	DNGW-280MM-04	1MD5283- BD -4BA1	785	1.4
110	315 S	1490	705	IE2	94.5	94.6	94.0	0.86	195	156	113	2.7	7.4	3.0	DNGW-315SL-04	1MD5311- BD -4BA1	1001	2.0
132	315 M	1490	846	IE2	94.7	94.9	94.6	0.87	230	184	133	2.7	7.1	2.9	DNGW-315ML-04	1MD5313- BD -4BA1	1033	2.3
160	315 M	1490	1025	IE2	94.9	95.0	94.5	0.87	280	224	162	2.8	7.2	3.1	DNGW-315MN-04	1MD5315- BD -4BA1	1126	2.8
200	315 L	1490	1282	IE2	95.1	95.3	94.7	0.87	350	280	203	3.1	7.5	3.2	DNGW-315LL-04	1MD5316- BD -4BA1	1341	3.5
250	315 L	1487	1605	IE2	95.1	95.4	95.0	0.87	435	348	252	2.6	7.5	2.6	DNGW-315LM-04	1MD5317- BD -4BA1	1449	4.2
315	355 M	1488	2022	IE2	95.5	95.6	95.0	0.85	560	448	325	2.0	6.8	2.2	DNGW-355MR-04 ²⁾	1MD5353- BD -4BA1	2480	6.1
360	355 M	1488	2310	IE2	95.7	95.8	95.2	0.85	640	512	371	2.2	6.9	2.2	DNGW-355MS-04 ²⁾	1MD5355- BD -4BA1	2610	6.8
460	355 M	1488	2952	¹⁾	96.0	96.1	95.8	0.86	800	640	464	2.2	7.1	2.2	DNGW-355MT-04 ²⁾	1MD5357- BD -4BA1	2750	8.5
Operating modes		Frame size													Order code			
Mains-fed operation		71 ... 355										0			—			
Converter-fed operation, standard insulation		71 ... 355										1			—			
Voltages		Frame size													Order code			
690 VΔ, 50 Hz		355										0			—			
230 V/400 V, 50 Hz		71 ... 200										1			—			
500 VY, 50 Hz		71 ... 315										3			—			
500 VΔ, 50 Hz		71 ... 355										5			—			
400 V/690 V, 50 Hz		71 ... 355										6			—			
For other voltages see Page 2/18		71 ... 315										9			...			
Types of construction		Frame size													Order code			
IM B3		71 ... 355										0			—			
IM B5		71 ... 315										1			—			
IM B34		71 ... 112										2			—			
IM B14		71 ... 112										3			—			
IM V1/cover		71 ... 355										4			—			
IM B35		71 ... 355										6			—			
Other types of construction see Page 1/28 and 2/18		71 ... 355										9			...			

¹⁾ Outside the IE code classification according to IEC 60034-30.

²⁾ Direction of rotation must be specified (order code **K97** or **K98**).

Selection and ordering data (continued)

P _{ra} ted, 50 Hz	Frame size	Operating values at rated output											Motor type	Article No.	m IM B3	J		
		η_{ra-} ted, 50 Hz	T_{ra-} ted, 50 Hz	IE class	η_{ra-} ted, 50 Hz	η_{ra-} ted, 50 Hz	η_{ra-} ted, 50 Hz	$\cos\varphi$ rated, 4/4	I_{ra-} ted, 400 V	I_{ra-} ted, 500 V	I_{ra-} ted, 690 V	$T_{LR}/$ T_{ra-} ted					$I_{LR}/$ I_{ra-} ted	$T_B/$ T_{ra-} ted
kW	FS	rpm	Nm	—	%	%	%	—	A	A	A	—	—	—		kg	kgm ²	
<ul style="list-style-type: none"> • Cooling: self-ventilated (IC 411) • Efficiency: High Efficiency IE2, 0.75 kW and above in accordance with IEC 60034-30 • Insulation: thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B), S1-100 % • Type of protection: "Explosion-proof enclosure" according to EN 60079-1; 2007: CE 0102 II 2G Ex d(e) IIC T4 Gb 																		
6-pole: 1000 rpm at 50 Hz																		
0.25	071 B	860	2.78	¹⁾	61.6	60.0	55.0	0.76	0.77	0.62	0.45	2.2	3.0	2.0	DNGW-071BS-06	1MD5070- BD -4CA1	24	0.0008
0.37	080 B	925	3.82	¹⁾	71.4	71.0	67.5	0.70	1.07	0.86	0.62	2.1	4.0	2.4	DNGW-080BR-06	1MD5080- BD -4CA1	27	0.0020
0.55	080 B	930	5.6	¹⁾	74.0	74.2	71.0	0.66	1.63	1.30	0.94	2.5	4.4	2.9	DNGW-080BS-06	1MD5081- BD -4CA1	30	0.0030
0.75	090 L	935	7.7	IE2	75.9	76.1	74.0	0.70	2.05	1.64	1.19	2.0	4.1	2.5	DNGW-090LR-06	1MD5095- BD -4CA1	36	0.0038
1.1	090 L	935	11.2	IE2	78.1	78.0	76.5	0.70	2.90	2.32	1.68	2.2	4.4	2.6	DNGW-090LS-06	1MD5098- BD -4CA1	42	0.0054
1.5	100 L	970	14.8	IE2	79.8	80.2	79.0	0.73	3.70	2.96	2.14	2.0	6.2	2.9	DNGW-100LS-06	1MD5106- BD -4CA1	55	0.011
2.2	112 M	965	21.8	IE2	81.8	82.5	81.3	0.75	5.2	4.2	3.01	2.1	6.0	3.1	DNGW-112MS-06	1MD5113- BD -4CA1	66	0.014
3	132 S	970	29.5	IE2	83.3	84.0	82.8	0.74	7.0	5.6	4.1	1.6	5.6	2.6	DNGW-132SR-06	1MD5131- BD -4CA1	92	0.024
4	132 M	970	39.4	IE2	84.6	85.8	85.0	0.78	8.7	7.0	5.0	1.6	5.6	2.5	DNGW-132MR-06	1MD5133- BD -4CA1	96	0.029
5.5	132 M	970	54	IE2	86.0	87.4	87.0	0.77	12.0	9.6	7.0	1.9	6.1	2.8	DNGW-132MS-06	1MD5135- BD -4CA1	104	0.037
7.5	160 M	975	73	IE2	87.2	88.0	87.3	0.74	16.8	12.9	9.33	1.9	4.7	2.2	DNGW-160MR-06	1MD5163- BD -4CA1	168	0.125
11	160 L	975	108	IE2	88.7	89.6	89.2	0.76	23.5	18.0	13.0	1.9	4.8	2.2	DNGW-160LS-06	1MD5166- BD -4CA1	177	0.144
15	180 L	975	147	IE2	89.7	90.1	90.2	0.78	31.0	24.8	18.0	2.5	6.0	3.1	DNGW-180LS-06	1MD5186- BD -4CA1	242	0.138
18.5	200 L	978	181	IE2	90.4	91.3	91.2	0.82	36.0	28.8	20.9	2.4	5.8	2.6	DNGW-200LR-06	1MD5206- BD -4CA1	311	0.33
22	200 L	978	215	IE2	90.9	91.6	91.2	0.82	42.5	34.0	24.6	2.5	6.2	2.6	DNGW-200LS-06	1MD5208- BD -4CA1	311	0.33
30	225 M	980	292	IE2	91.7	92.5	92.3	0.83	57.0	45.6	33.0	2.5	6.1	2.8	DNGW-225MS-06	1MD5223- BD -4CA1	395	0.58
37	250 M	982	360	IE2	92.2	93.1	93.1	0.83	70.0	56.0	40.6	2.8	6.0	2.5	DNGW-250MM-06	1MD5253- BD -4CA1	524	0.86
45	280 S	985	436	IE2	92.7	93.4	93.2	0.84	83.0	66.4	48.1	2.7	6.3	2.6	DNGW-280SL-06	1MD5280- BD -4CA1	638	1.1
55	280 M	985	533	IE2	93.1	93.9	94.0	0.86	99.0	79.2	57.4	2.5	6.4	2.6	DNGW-280MM-06	1MD5283- BD -4CA1	704	1.4
75	315 S	988	725	IE2	93.7	94.0	93.6	0.84	138	110	80.0	2.5	6.7	2.8	DNGW-315SL-06	1MD5311- BD -4CA1	905	2.1
90	315 M	988	870	IE2	94.0	94.3	93.6	0.84	165	132	95.7	2.6	6.9	2.8	DNGW-315ML-06	1MD5313- BD -4CA1	952	2.5
110	315 M	988	1063	IE2	94.3	94.6	94.5	0.86	196	157	114	2.7	7.0	2.8	DNGW-315MM-06	1MD5314- BD -4CA1	1111	3.6
132	315 M	988	1276	IE2	94.6	94.9	94.7	0.86	235	188	136	3.0	7.5	2.9	DNGW-315MN-06	1MD5315- BD -4CA1	1165	4.0
160	315 L	988	1546	IE2	94.8	94.7	94.4	0.86	285	228	165	3.1	7.7	3.3	DNGW-315LL-06	1MD5316- BD -4CA1	1319	4.7
200	315 L	990	1929	IE2	95.0	95.3	94.9	0.83	365	292	212	2.8	7.5	3.3	DNGW-315LM-06	1MD5317- BD -4CA1	1671	7.6
280	355 M	993	2693	IE2	95.7	95.7	95.2	0.82	520	416	301	2.1	7.1	2.8	DNGW-355MR-06	1MD5353- BD -4CA1	2460	13
315	355 M	993	3029	IE2	95.9	95.9	95.5	0.83	570	456	330	2.1	7.1	2.8	DNGW-355MS-06	1MD5355- BD -4CA1	2590	15
360	355 M	994	3458	IE2	96.0	96.1	95.7	0.83	650	520	377	2.2	7.2	2.9	DNGW-355MT-06	1MD5357- BD -4CA1	2730	16
Operating modes		Frame size													Order code			
Mains-fed operation		71 ... 355											0		—			
Converter-fed operation, standard insulation		71 ... 355											1		—			
Voltages		Frame size													Order code			
690 VΔ, 50 Hz		355											0		—			
230 V/400 V, 50 Hz		71 ... 200											1		—			
500 VY, 50 Hz		71 ... 315											3		—			
500 VΔ, 50 Hz		71 ... 355											5		—			
400 V/690 V, 50 Hz		71 ... 355											6		—			
For other voltages see Page 2/18		71 ... 315											9		...			
Types of construction		Frame size													Order code			
IM B3		71 ... 355											0		—			
IM B5		71 ... 315											1		—			
IM B34		71 ... 112											2		—			
IM B14		71 ... 112											3		—			
IM V1/cover		71 ... 355											4		—			
IM B35		71 ... 355											6		—			
Other types of construction see Page 1/28 and 2/18		71 ... 355											9		...			

¹⁾ Outside the IE code classification according to IEC 60034-30.

Motors with Explosion Protection

SIMOTICS XP 1MD5 motor series

Article No. supplements

Selection and ordering data

Voltages	Voltage code 11th position of the Article No.	Additional identifica- tion code with order code and plain text if required	Motor series													
			SIMOTICS XP													
1MD5...-...-.....			Frame size													
			71	80	90	100	112	132	160	180	200	225	250	280	315	355
Optional voltages																
415 VY, 50 Hz	9	L1C	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	–
415 VΔ, 50 Hz	9	L1D	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	–
380 VΔ/660 VY, 50 Hz	9	L1L	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	–

- ✓ With additional charge
– Not possible

Types of construction	Type of con- struc- tion code 12th position of the Article No.	Additional identifica- tion code with order code and plain text if required	Motor series													
			SIMOTICS XP													
1MD5...-...-.....			Frame size													
			71	80	90	100	112	132	160	180	200	225	250	280	315	355
Optional types of construction																
IM V6	9	M1E	○	○	○	○	○	○	○	○	○	○	○	○	○	✓
IM V5, with protective cover	9	M1F	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
IM V3	9	M1G	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
IM V15, with protective cover	9	M2K	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
IM V18, with protective cover	9	M2M	✓	✓	✓	✓	✓	–	–	–	–	–	–	–	–	–

- ✓ With additional charge
– Not possible
○ Without additional charge

For dual voltages 230 V/400 V, 220 V/380 V, 400 V/690 V
or 380 V/660 V:

- For motors for converter-fed operation, the converter rating
plate is stamped with 380 V or 400 V.

Selection and ordering data

Special versions	Additional identification code -Z with order code and plain text if required	Motor series													
		SIMOTICS XP													
1MD5...-Z		Frame size													
		71	80	90	100	112	132	160	180	200	225	250	280	315	355
Special electrical designs/winding protection															
Motor protection with 3 PTC thermistors for tripping – without surge arresters, sole protection not included	A11	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	–
Motor protection with 2 × 3 PTC thermistors for prewarning/tripping – without surge arresters, sole protection not included	A12	–	–	–	–	–	–	–	–	–	–	–	–	–	✓
Motor protection with 3 PTC thermistors for tripping as sole protection on converter (TMS)	A15	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	–
Motor protection with 2 × 3 PTC thermistors for prewarning/tripping as sole protection on converter (TMS)	A16	–	–	–	–	–	–	–	–	–	–	–	–	–	✓
2 Pt100 double resistance thermometers for 4-wire connection from terminal box for roller bearings – 1 × DE and 1 × NDE	A42	–	–	–	–	–	–	–	–	–	–	–	–	–	✓
6 Pt100 resistance thermometers in stator winding, 3-wire connection from auxiliary terminal box	A64	–	–	–	–	–	–	–	–	–	–	–	–	–	✓
Ambient temperature +45 °C, insulation class F, utilization B, derating 4 %	C22	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ambient temperature +50 °C, insulation class F, utilization B, derating 8 %	C23	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Colors and paint finish															
Coating system N08 – 110 µm (C3 medium) – standard finish with corrosion resistance acc. to EN/ISO 12944-5 = C3		□	□	□	□	□	□	□	□	□	□	□	□	□	□
Coating system N14/J08 – 170 µm (chemical industry + onshore, C5 industrial climate) – corrosion resistance acc. to EN/ISO 12944-5 = C5 (5 to 15 years) for industrial climate	V10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Coating system (chemical industry + onshore, C5 industry) – corrosion resistance acc. to EN/ISO 12944-5 = C5 (5 to 15 years) for industrial climate	W14	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Coating system Z21/J08 – 210 µm (offshore, C5M-M) – corrosion resistance acc. to EN/ISO 12944-5 = C5 (5 to 15 years) – sea climate	V11	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Unpainted, only primed	K24	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Unpainted	K23	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Special finish in RAL 1004, 1018, 2000, 2004, 5009, 5012, 5015, 6003, 6011, 7000, 7011, 7031, 7038, 9002 – specify special coating system in addition, e.g. V10, V11, W14 , etc.	Y54 • and special finish RAL....	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
RAL colors, other than those offered above	Y51 • and special finish RAL....	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Motors with Explosion Protection

SIMOTICS XP 1MD5 motor series

Special versions

Special versions	Additional identification code -Z with order code and plain text if required	Motor series													
		SIMOTICS XP													
		Frame size													
1MD5...-.....-Z		71	80	90	100	112	132	160	180	200	225	250	280	315	355
Design for Zones according to ATEX															
Design in double protection additionally for dust, Zone 22 for mains-fed operation, no hybrid certification – non-conductive dust	W20	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Design in double protection additionally for dust, Zone 21 for mains-fed operation, no hybrid certification – design and certification for conductive dust (incl. non-conductive dust)	W21	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Individual certifications															
China Energy Efficiency Label – relevant for outputs from 0.75 to 375 kW	D34	–	○	○	○	○	○	○	○	○	○	○	○	○	○
Certificate EAC for Eurasian Customs Union	D35	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
IECEx certificate	D37	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Ex certification for India (PESO – CCOE)	D38	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Special mechanical designs															
Terminal box on right-hand side (view onto DE)	K09	–	–	–	–	–	✓	✓	✓	✓	✓	✓	✓	✓	–
Terminal box on left-hand side (view onto DE)	K10	–	–	–	–	–	✓	✓	✓	✓	✓	✓	✓	✓	–
Terminal box on top		□	□	□	□	□	□	□	□	□	□	□	□	□	□
1 × cable gland for non-armored cable – one cable gland for supply cable in main terminal box, non-armored cable	K54	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cable gland, standard thread size for auxiliary connection, 1 unit – for connection cable of accessories in main or auxiliary terminal box	W33	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Explosion-proof main terminal box, Ex d IIC	K53	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Auxiliary terminal box Ex d IIC of cast-iron – only in combination with K53	V43	–	–	–	–	–	–	–	–	–	–	–	–	–	✓
Cable gland, standard Ex d (non-armored cable) 1 unit – only in combination with K53 , specify exact cable data	W91	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Auxiliary terminal box Ex e version/cast-iron – not in combination with order code K53 (Ex d terminal box)	W72	–	–	–	–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓
Separate auxiliary terminal box for anti-condensation heater – only in combination with M13	M52	–	–	–	–	–	–	–	–	–	–	–	–	–	✓
Cable entry from DE	K83	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Cable entry from NDE	K84	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Rotation of the terminal box by 180°	K85	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Vibration quantity level A – IEC 60034-14		□	□	□	□	□	□	□	□	□	□	□	□	□	□
Vibration quantity level B – IEC 60034-14 – for converter-fed operation only at lowest and highest speed of speed range	K02	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bearing for increased cantilever forces (roller bearing DE) with regreasing device – comprising K40	K20	–	–	–	–	–	–	✓	✓	✓	✓	✓	✓	✓	✓
Metal external fan	K35	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	□
Regreasing device DE/NDE	K40							✓	✓	✓	✓	✓	✓	□	□
Bearing insulation NDE for roller bearing – binding for frame sizes 315 to 355 and converter-fed operation	L27	–	–	–	–	–	–	–	–	–	✓	✓	✓	✓	✓

Motors with Explosion Protection

SIMOTICS XP 1MD5 motor series

Special versions

Special versions	Additional identification code -Z with order code and plain text if required	Motor series													
		SIMOTICS XP													
		Frame size													
1MD5.....-Z		71	80	90	100	112	132	160	180	200	225	250	280	315	355
Special mechanical designs (continued)															
Located bearing DE		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
VIK design	K30	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	–
Second rating plate, supplied loose	K31	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Second rating plate installed in terminal box	W47	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Extra rating plate with rated data for converter-fed operation - data for quadratic load torque in speed range 1:10 and constant load torque in speed range 1:3 and 1:10	Y80 • and identification code	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Extra rating plate for customer data (each plate) – data must be specified as text in the order	Y82 • and identification code	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Supplementary data on the rating plate and on the packaging label – max. 20 characters possible	Y84	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Anti-condensation heater 210 to 250 V (min. 200 V, max. 264 V)	M13	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
IP56 degree of protection	K51	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
IP65 degree of protection	K50	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Operation in both directions of rotation		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	–
Clockwise – direction of rotation must be specified for motors of FS 355 and above 2-/4-pole	K97	–	–	–	–	–	–	–	–	–	–	–	–	–	○
Counter-clockwise – direction of rotation must be specified for motors of FS 355 and above 2-/4-pole	K98	–	–	–	–	–	–	–	–	–	–	–	–	–	○
Noise reduction: silencer for air inlet (DW, NMA) – only in combination with K97 or K98	L20	–	–	–	–	–	–	–	–	–	–	–	–	–	○
Stainless steel screws and plates	W71	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SPM bearing monitoring: measuring nipple system 32 - thread M8, DE and NDE	G50	–	–	–	–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓
Version for gas – Group IIC, but stamped IIB	M99	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Documentation															
Terminal box drawing	U08	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Inspection certificate 3.1 EN10204 (multi)	U51	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Type test report (original motor)	U52	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Documentation package NM2	U91	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Documentation in English	D76	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Documentation in German	D00	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Test options															
Routine test to IEC (sine-wave voltage)	F00	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Extension of the liability for defects															
Extension of the liability for defects by 12 months to a total of 24 months from delivery	Q80	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Extension of the liability for defects by 18 months to a total of 30 months from delivery	Q81	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Extension of the liability for defects by 24 months to a total of 36 months from delivery	Q82	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

- ☐ Standard version
 ○ Without additional charge
 • This order code only determines the price of the version – Additional plain text is required.
- ✓ With additional charge
 – Not possible

Motors with Explosion Protection

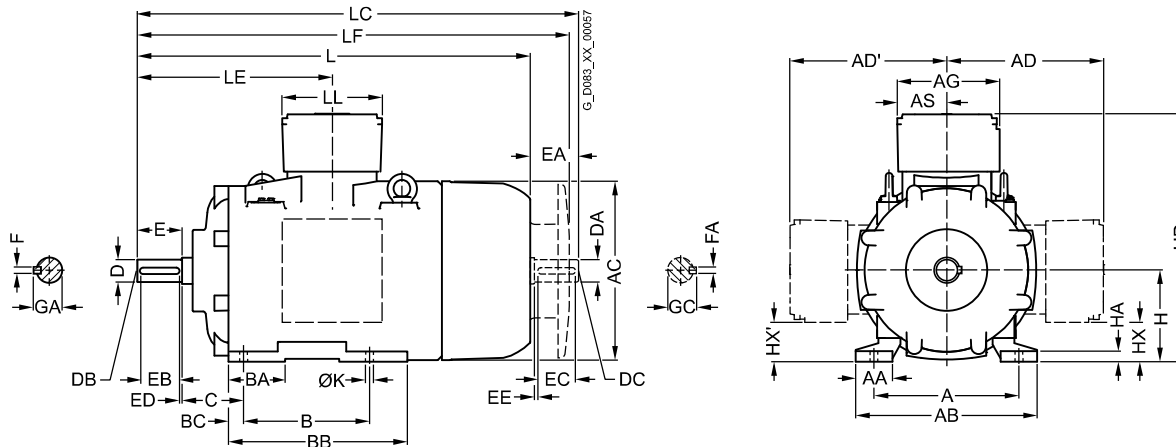
SIMOTICS XP 1MD5 motor series

Dimensions for frame sizes 71 B to 250 M

Dimensional drawings

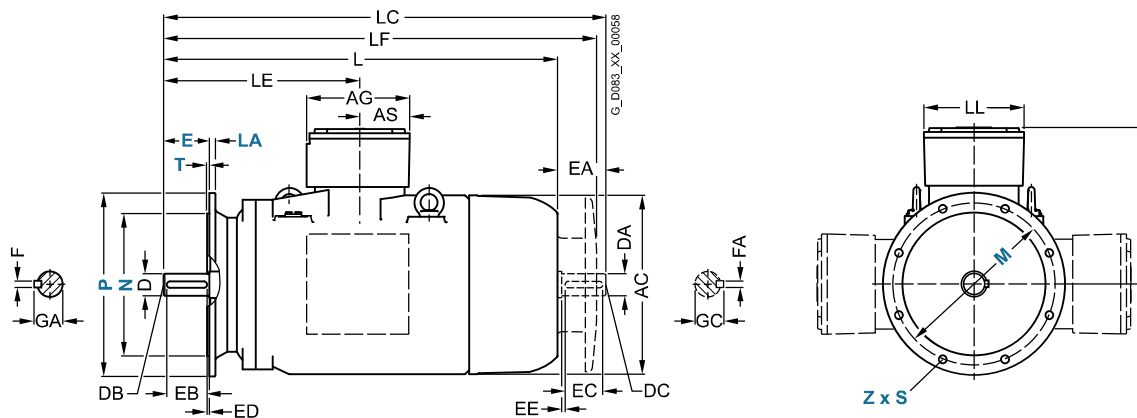
Type of construction IM B3

For flange dimensions, see Page 2/26.



Types of construction IM B5 and IM V1

For flange dimensions, see Page 2/26.



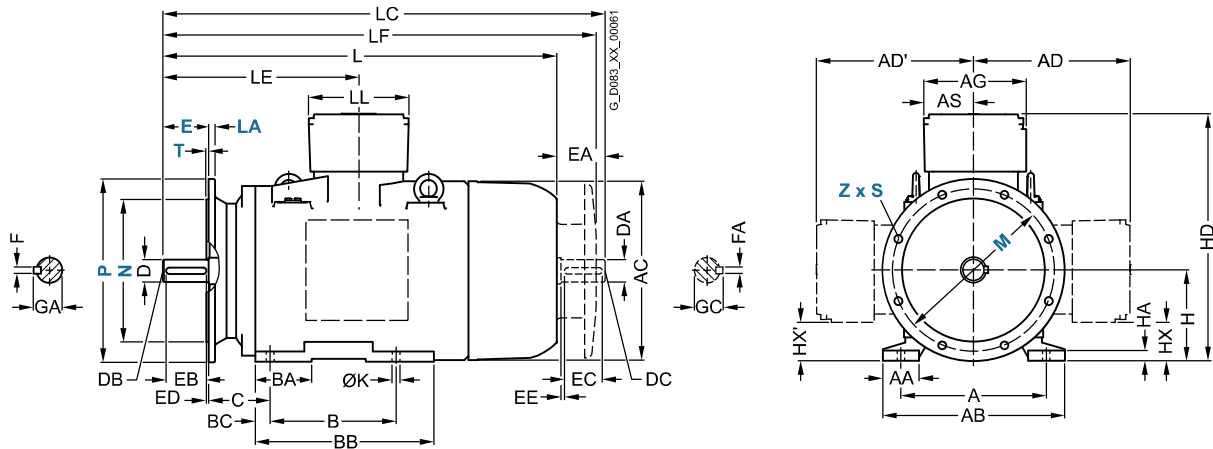
Dimension designation acc. to IEC

Frame size	No. of poles	A	AA	AB	AC	AD	AG	AS	B	BA	BB	BC	C	H	HA	HD	øK	L
SIMOTICS XP																		
71 B	2, 4, 6	112	30	140	148	-	138	69	90	30	125	10	45	71	10	271	7	345
80 B	2, 4, 6	125	35	160	168	-	138	69	100	35	130	13	50	80	10	289	10	358
90 L	2, 4, 6	140	40	180	186	-	138	69	125	40	155	15	56	90	13	303	10	426
100 L	2, 4, 6	160	45	205	213	-	138	69	140	45	170	15	63	100	18	327	12	482
112 M	2, 4, 6	190	50	240	237	-	138	69	140	60	170	15	70	112	18	352	12	465
132 S	2, 4, 6	216	50	260	278	274	186	92	140	88	228	25	89	132	18	406	12	574
132 M	2, 4, 6	216	50	260	278	274	186	92	178	88	228	25	89	132	18	406	12	574
160 M	2, 4, 6	254	60	310	331	304	186	92	210	61	307	21	108	160	27	465	15	786
160 L	2, 4, 6	254	60	310	331	304	186	92	254	61	307	21	108	160	27	465	15	786
180 M	2, 4, 6	279	70	349	363	349	254	123	241	99	359	24	121	180	19	529	15	822
180 L	2, 4, 6	279	70	349	363	349	254	123	279	99	359	24	121	180	19	529	15	822
200 L	2, 4, 6	318	80	400	402	367	254	123	305	120	425	32	133	200	25	569	19	884
225 S	2 4, 6	356	90	446	451	384	254	123	286	136	438	34	149	225	26	609	19	966 996
225 M	2 4, 6	356	90	446	451	384	254	123	311	136	438	34	149	225	26	609	19	966 996
250 M	2 4, 6	406	100	505	490	522	382	176	349	110	420	36	168	250	35	772	25	1028

Dimensional drawings (continued)

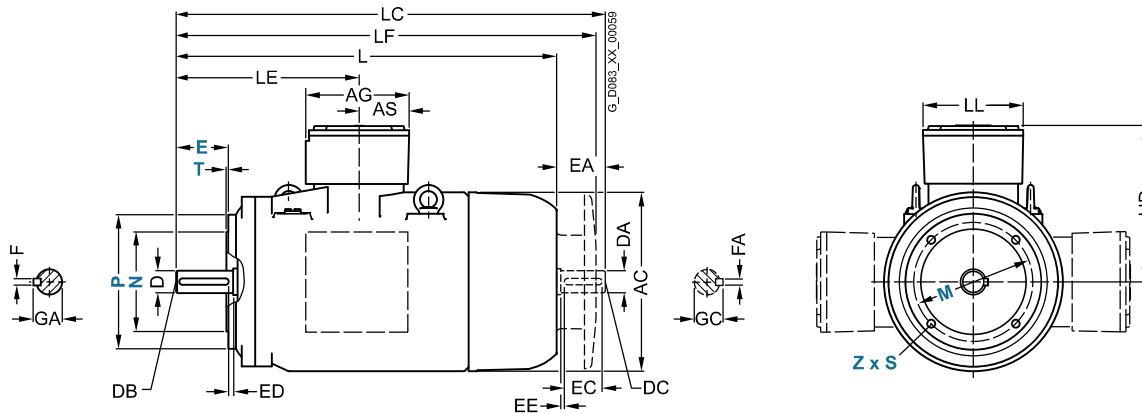
Type of construction IM B35

For flange dimensions, see Page 2/26.



Type of construction IM B14

For flange dimensions, see Page 2/26.



Frame size	No. of poles	Dimension designation acc. to IEC										DE shaft extension								NDE shaft extension							
		LC	LE	LF	LL	D	DB	E	EB	ED	F	GA	DA	DC	EA	EC	EE	FA	GC								
SIMOTICS XP																											
71 B	2, 4, 6	385	135	377	138	14	M5	30	22	4	5	16	14	M5	30	22	4	5	16								
80 B	2, 4, 6	408	158	391	138	19	M6	40	32	4	6	21.5	19	M6	40	32	4	6	22								
90 L	2, 4, 6	486	173	459	138	24	M8	50	40	5	8	27	24	M8	50	40	5	8	27								
100 L	2, 4, 6	552	205	520	138	28	M10	60	50	5	8	31	28	M10	60	50	5	8	31								
112 M	2, 4, 6	535	210	505	138	28	M10	60	50	5	8	31	28	M10	60	50	5	8	31								
132 S	2, 4, 6	664	270	638	184	38	M12	80	70	5	10	41	38	M12	80	70	5	10	41								
132 M	2, 4, 6	664	270	638	184	38	M12	80	70	5	10	41	38	M12	80	70	5	10	41								
160 M	2, 4, 6	906	381	850	184	42	M16	110	100	5	12	45	42	M16	110	100	5	12	45								
160 L	2, 4, 6	906	381	850	184	42	M16	110	100	5	12	45	42	M16	110	100	5	12	45								
180 M	2, 4, 6	942	415	912	246	48	M16	110	100	5	14	51.5	48	M16	110	100	5	14	52								
180 L	2, 4, 6	942	415	912	246	48	M16	110	100	5	14	51.6	48	M16	110	100	5	14	52								
200 L	2, 4, 6	1004	460	974	246	55	M20	110	100	5	16	59	55	M20	110	100	5	16	59								
225 S	2	1086	480	1062	246	55	M20	110	100	5	16	59	55	M20	110	100	5	16	59								
	4, 6	1146	510	1092		60		140	125	7.5	18	64	60		140	125	7.5	18	64								
225 M	2	1086	480	1062	246	55	M20	110	100	5	16	59	55	M20	110	100	5	16	59								
	4, 6	1146	510	1092		60		140	125	7.5	18	64	60		140	125	7.5	18	64								
250 M	2	1178	496	1140	354	60	M20	140	125	7.5	18	64	60	M20	140	125	7.5	18	64								
	4, 6					65						69	65						69								

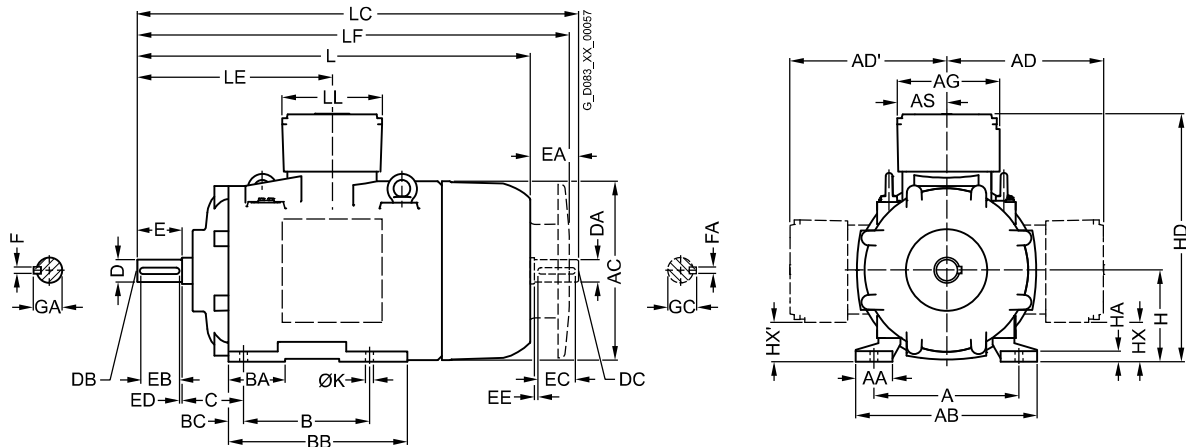
Motors with Explosion Protection

SIMOTICS XP 1MD5 motor series

Dimensions for frame sizes 280 S to 355 M

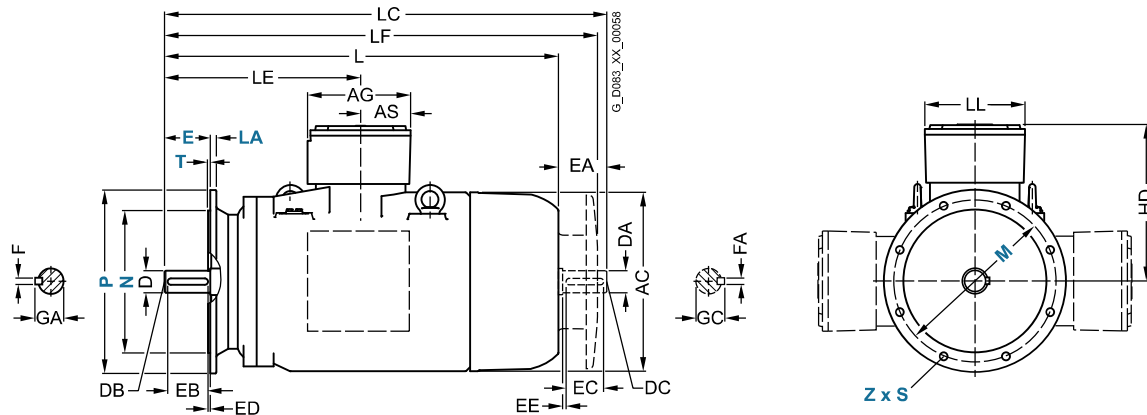
Dimensional drawings (continued)

Type of construction IM B3



Types of construction IM B5 and IM V1

For flange dimensions, see Page 2/26.



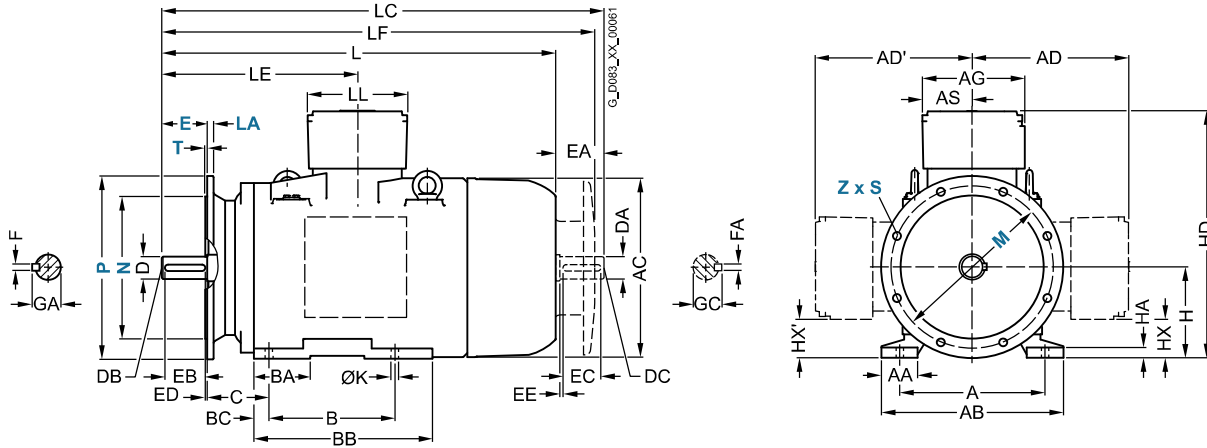
Dimension designation acc. to IEC

Frame size	No. of poles	A	AA	AB	AC	AD	AG	AS	B	BA	BB	BC	C	H	HA	HD	øK	L
SIMOTICS XP																		
280 S	2 4, 6	457	110	570	550	552	382	176	368	150	520	51	190	280	40	832	25	1119
280 M	2 4, 6	457	110	570	550	552	382	176	419	150	520	51	190	280	40	832	25	1119
315 S	2 4, 6	508	125	630	622	660	509	196	406	165	575	59	216	315	40	975	28	1304 1334
315 M	2 4, 6	508	125	630	622	660	509	196	457	165	575	59	216	315	40	975	28	1304 1334
315 LL	2 4, 6	508	125	630	622	676	509	196	508	165	575	59	216	315	40	991	28	1491 1521
315 L	2 4, 6	508	125	630	622	676	509	196	560	165	575	59	216	315	40	991	28	1491 1521
355 M	2 4, 6	630	150	780	734	-	509	196	800	220	980	90	254	355	35	1182	35	1781 1840

Dimensional drawings (continued)

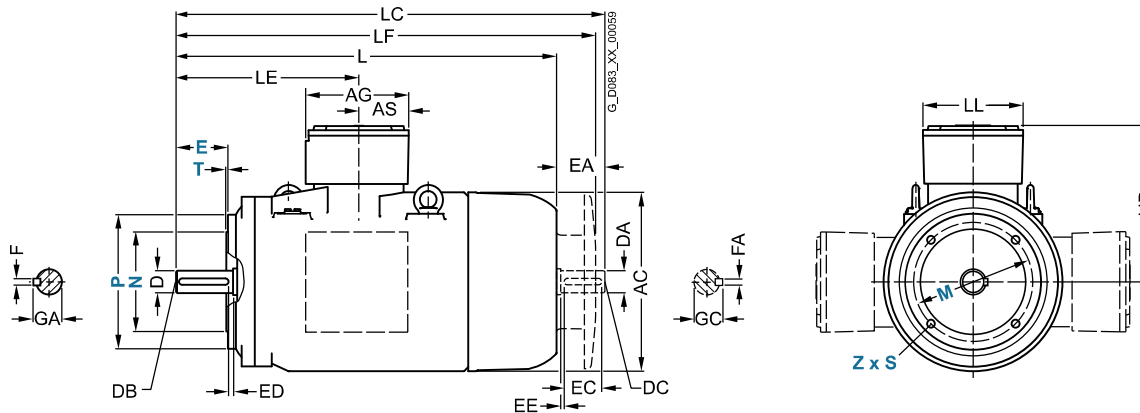
Type of construction IM B35

For flange dimensions, see Page 2/26.



Type of construction IM B14

For flange dimensions, see Page 2/26.



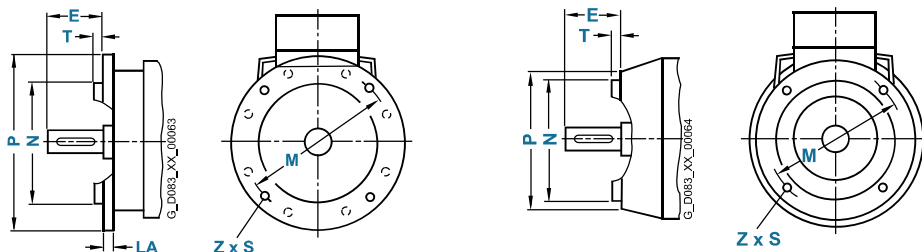
Frame size	No. of poles	Dimension designation acc. to IEC										DE shaft extension				NDE shaft extension			
		LC	LE	LF	LL	D	DB	E	EB	ED	F	GA	DA	DC	EA	EC	EE	FA	GC
SIMOTICS XP																			
280 S	2	1269	582	1231	354	65	M20	140	125	7.5	18	69	65	M20	140	125	7.5	18	69
	4, 6					75					20	79.5	75					20	79.5
280 M	2	1269	582	1231	354	65	M20	140	125	7.5	18	69	65	M20	140	125	7.5	18	69
	4, 6					75					20	79.5	75					20	79.5
315 S	2	1494	630	1422	401	65	M20	140	125	7.5	18	69	65	M20	140	125	7.5	18	69
	4, 6					80		170	140	15	22	79.5	80		170	140	15	22	80
315 M	2	1494	630	1422	401	65	M20	140	125	7.5	18	69	65	M20	140	125	7.5	18	69
	4, 6					80		170	140	15	22	85	80		170	140	15	22	85
315 LL	2	1694	630	1609	401	65	M20	140	125	7.5	18	69	65	M20	140	125	7.5	18	69
	4, 6					80		170	140	15	22	85	80		170	140	15	22	85
315 L	2	1694	630	1609	401	65	M20	140	125	7.5	18	69	65	M20	140	125	7.5	18	69
	4, 6					80		170	140	15	22	85	80		170	140	15	22	85
355 M	2	1986	793	1947	401	75	M20	140	125	7.5	20	79.5	75	M20	140	125	7.5	20	79.5
	4, 6					100	M24	210	180	15	28	106	75				7.5	20	79.5

Motors with Explosion Protection

SIMOTICS XP 1MD5 motor series

Flange dimensions

Dimensional drawings



In EN 50347, the frame sizes are allocated flange FF with through holes and flange FT with tapped holes.
(Z = the number of retaining holes)

Frame size	No. of poles	Flange with through hole (FF)/tapped hole (FT) acc. to EN 50347	Dimension designation acc. to IEC							
			LA	E	M	N	P	S	T	Z
SIMOTICS XP										
71 B	2, 4	FF130	10	30	130	110	160	9.5	3.5	4
		FT85	15	30	85	70	105	M6	2.5	4
80 B	2, 4	FF165	10	40	165	130	200	11.5	3.5	4
		FT100	15	40	100	80	120	M6	3	4
90 L	2, 4	FF165	10	50	165	130	200	11.5	3.5	4
		FT115	10	50	115	95	140	M8	3	4
100 L	2, 4	FF215	11	60	215	180	250	14	4	4
		FT130	10	60	130	110	160	M8	3.5	4
112 M	2, 4	FF215	11	60	215	180	250	14	4	4
		FT130	10	60	130	110	160	M8	3.5	4
132 S	2, 4	FF265	12	80	265	230	300	14	4	4
132 M	2, 4	FF265	12	80	265	230	300	14	4	4
160 M	2, 4, 6	FF300	20	110	300	250	350	18	5	4
160 L	2, 4, 6	FF300	20	110	300	250	350	18	5	4
180 M	2, 4, 6	FF300	16	110	300	250	350	18	5	4
180 L	2, 4, 6	FF300	16	110	300	250	350	18	5	4
200 L	2, 4, 6	FF350	20	110	350	300	400	18	5	8
225 S	2 4, 6	FF400	16	110	400	350	450	18	5	8
				140						
225 M	2 4, 6	FF400	16	110	400	350	450	18	5	8
				140						
250 M	2, 4, 6	FF500	18	140	500	450	550	18	5	8
280 S	2, 4, 6	FF500	18	140	500	450	550	18	5	8
280 M	2, 4, 6	FF500	18	140	500	450	550	18	5	8
315 S	2 4, 6	FF600	22	140	600	550	660	24	6	8
				170						
315 M	2 4, 6	FF600	22	140	600	550	660	24	6	8
				170						
315 LL	2 4, 6	FF600	22	140	600	550	660	24	6	8
				170						
315 L	2 4, 6	FF600	22	140	600	550	660	24	6	8
				170						
355 M	2 4, 6	FF740	25	140	740	680	800	24	6	8
				210						