

Rated output at 50 Hz	Frame size	Operating values at rated output					Rated rotor torque	Locked-rotor torque	Locked-rotor current	Break-down torque	Torque class	Moment of inertia	Order No. For Order No. supplements for voltage and type of construction, see table below	Price	Weight
		Rated speed at 50 Hz	Rated torque at 50 Hz	Efficiency at 50 Hz 4/4-load	Power factor at 50 Hz 4/4-load	Rated current at 50 Hz 400 V									
$P_{rated}$ kW	FS	$n_{rated}$ rpm	$T_{rated}$ Nm	$\eta_{rated}$ %	$\cos\varphi_{rated}$	$I_{rated}$ A	$T_{LR}/T_{rated}$	$I_{LR}/I_{rated}$	$T_B/T_{rated}$	CL	J kg m <sup>2</sup>				
<b>2-pole, 3000 rpm at 50 Hz, cooling method IC 411, IP55 degree of protection, with test certificate according to EN 12101-3</b>															
0.75	80 M	2830	2.5	63.0	0.83	2.1	2.3	5.6	2.4	16	0.00085	1PP7 080-2TAQQ		9.8	
1.1	80 M	2845	3.7	74.0	0.80	2.7	2.6	6.1	2.7	16	0.0011	1PP7 083-2TAQQ		11.5	
1.5	90 S	2860	5.0	73.0	0.80	3.7	2.4	5.5	2.7	16	0.0015	1PP7 090-2TAQQ		14.6	
2.2	90 L	2880	7.3	78.0	0.80	5.1	2.8	6.3	3.1	16	0.002	1PP7 096-2TAQQ		17.4	
3	100 L	2890	9.9	77.0	0.83	6.8	2.8	6.8	3.0	16	0.0038	1PP7 106-2TAQQ		23	
4	112 M	2905	13	82.0	0.83	8.5	2.6	7.2	2.9	16	0.0055	1PP7 113-2TAQQ		31	
5.5	132 S	2925	18	85.5	0.87	10.7	2.0	5.9	2.8	16	0.016	1PP7 130-2TAQQ		44	
7.5	132 S	2930	24	88.0	0.89	13.8	2.3	6.9	3.0	16	0.021	1PP7 131-2TAQQ		52	
11	160 M	2940	36	88.0	0.86	21	2.1	6.5	2.9	16	0.034	1PP7 163-2TAQQ		71	
15	160 M	2940	49	90.8	0.90	26.5	2.2	6.6	3.0	16	0.04	1PP7 164-2TAQQ		82	
18.5	160 L	2940	60	90.3	0.91	32.5	2.4	7.0	3.1	16	0.052	1PP7 166-2TAQQ		95	
22	180 M	2940	71	91.1	0.85	41	2.5	6.9	3.2	16	0.077	1PP5 183-2TAQQ		119	
30	200 L	2945	97	91.8	0.89	53	2.4	7.2	2.8	16	0.14	1PP5 206-2TAQQ		168	
37	200 L	2945	120	92.3	0.89	65	2.4	7.7	2.8	16	0.16	1PP5 207-2TAQQ		191	
45	225 M	2960	145	93.6	0.89	78	2.8	7.7	3.4	16	0.2	1PP5 223-2TAQQ		226	
55	250 M	2975	177	95.1	0.90	94	2.5	7.4	3.3	13	0.466	1PP6 253-2TBQQ		405	
75	280 S	2975	241	95.3	0.91	126	2.6	7.5	2.9	13	0.832	1PP6 280-2TBQQ		510	
90	280 M	2975	289	95.6	0.90	152	3.0	7.5	3.0	13	1.00	1PP6 283-2TBQQ		595	
110	315 S	2985	352	95.9	0.90	186	2.6	7.5	3.2	13	1.39	1PP6 310-2TBQQ		770	
132	315 M	2984	422	96.1	0.91	220	2.7	7.4	3.0	13	1.62	1PP6 313-2TBQQ		895	
160	315 L	2984	512	96.3	0.93	260	2.8	7.5	3.1	13	2.09	1PP6 316-2TBQQ		1035	
200	315 L	2984	640	96.4	0.93	325	2.5	7.0	2.8	13	2.46	1PP6 317-2TBQQ		1225	
<b>4-pole, 1500 rpm at 50 Hz, cooling method IC 411, IP55 degree of protection, with test certificate according to EN 12101-3</b>															
0.55	80 M	1395	3.7	57.0	0.75	1.85	2.2	3.9	2.2	16	0.0015	1PP7 080-4TAQQ		9.6	
0.75	80 M	1405	5.1	63.0	0.73	2.35	2.3	4.2	2.3	16	0.0018	1PP7 083-4TAQQ		11	
1.1	90 S	1415	7.4	68.0	0.74	3.15	2.3	4.6	2.4	16	0.0028	1PP7 090-4TAQQ		14	
1.5	90 L	1420	10	73.0	0.74	4.0	2.4	5.3	2.6	16	0.0035	1PP7 096-4TAQQ		17.3	
2.2	100 L	1420	15	75.0	0.78	5.4	2.5	5.6	2.8	16	0.0048	1PP7 106-4TAQQ		23	
3	100 L	1415	20	77.0	0.78	7.2	2.7	5.6	3.0	16	0.0058	1PP7 107-4TAQQ		26	
4	112 M	1440	27	78.0	0.78	9.2	2.7	6.5	3.0	16	0.011	1PP7 113-4TAQQ		33	
5.5	132 S	1450	36	88.5	0.78	12	2.5	6.3	3.1	16	0.018	1PP7 130-4TAQQ		46	
7.5	132 M	1455	49	84.0	0.78	16.5	2.7	6.7	3.2	16	0.024	1PP7 133-4TAQQ		52	
11	160 M	1455	72	89.0	0.81	23	2.2	6.2	2.7	16	0.04	1PP7 163-4TAQQ		70	
15	160 L	1460	98	84.5	0.80	32	2.6	6.5	3.0	16	0.052	1PP7 166-4TAQQ		95	
18.5	180 M	1460	121	86.5	0.79	39	2.3	7.5	3.0	16	0.13	1PP5 183-4TAQQ		116	
22	180 L	1475	144	88.0	0.78	46.5	2.3	7.5	3.0	16	0.15	1PP5 186-4TAQQ		130	
30	200 L	1465	196	89.0	0.81	60	2.6	7.0	3.2	16	0.24	1PP5 207-4TAQQ		173	
37	225 S	1470	241	92.1	0.84	69	2.8	7.0	3.2	16	0.32	1PP5 220-4TAQQ		218	
45	225 M	1470	293	92.2	0.87	80	2.8	7.7	3.3	16	0.36	1PP5 223-4TAQQ		244	
55	250 M	1485	354	94.9	0.86	97	2.9	7.5	3.3	16	0.856	1PP6 253-4TAQQ		445	
75	280 S	1486	482	95.0	0.87	132	2.6	7.3	2.8	16	1.39	1PP6 280-4TAQQ		555	
90	280 M	1485	579	94.9	0.88	156	2.5	7.3	2.8	16	1.71	1PP6 283-4TAQQ		655	
110	315 S	1488	706	95.3	0.87	192	2.6	6.9	2.8	16	2.31	1PP6 310-4TAQQ		790	
132	315 M	1488	847	95.5	0.87	230	2.7	7.0	2.7	16	2.88	1PP6 313-4TAQQ		945	
160	315 L	1488	1027	95.9	0.87	275	2.9	7.4	2.9	16	3.46	1PP6 316-4TAQQ		1085	
200	315 L	1488	1284	95.7	0.88	345	3.2	7.3	3.1	16	4.22	1PP6 317-4TAQQ		1285	

## Order No. supplements

Motor type	Penultimate position: Voltage code				Final position: Type of construction code							
	50 Hz				Without flange	With flange			With standard flange		With special flange	
	230 VΔ/ 400 VY	400 VΔ/ 690 VY	500 VY	500 VΔ	IM B3/6/7/8, IM V6/5 without protective cover <sup>1)</sup>	IM B5, IM V3 <sup>2)3)</sup>	IM V1 without protective cover <sup>2)</sup>	IM B35	IM B14, IM V19/18 without protective cover	IM B34	IM B14, IM V19/18 without protective cover	
	1	6	3	5	0	1	1	8	6	2	7	3
1PP7 08 . . . . □□	○	○	○	–	□	✓	✓	–	✓	✓	✓	✓
1PP7 09 . . . . □□	○	○	○	–	□	✓	✓	–	✓	✓	✓	✓
1PP7 10 . . . . □□	○	○	○	○	□	✓	✓	–	✓	✓	✓	✓
1PP7 11 . . . . □□	○	○	○	○	□	✓	✓	–	✓	✓	✓	✓
1PP7 13 . . . . □□	○	○	○	○	□	✓	✓	–	✓	✓	✓	✓
1PP7 16 . . . . □□	○	○	○	○	□	✓	✓	–	✓	✓	✓	✓
1PP5 18 . . . . □□	○	○	○	○	□	✓ <sup>4)</sup>	✓	–	✓	–	–	–
1PP5 20 . . . . □□	○	○	○	○	□	✓ <sup>4)</sup>	✓	–	✓	–	–	–
1PP5 22 . . . . □□	○	○	○	○	□	✓ <sup>4)</sup>	✓	–	✓	–	–	–
1PP6 25 . . . . □□	○	○	○	○	□	✓ <sup>4)</sup>	✓	–	✓	–	–	–
1PP6 28 . . . . □□	○	○	○	○	□	✓ <sup>4)</sup>	✓	–	✓	–	–	–
1PP6 310 . . . . □□	○	○	○	○	□	✓ <sup>4)</sup>	✓	–	✓	–	–	–
1PP6 313 . . . . □□	○	○	○	○	□	✓ <sup>4)</sup>	✓	–	✓	–	–	–
1PP6 316 . . . . □□	–	○	–	○	□ <sup>5)</sup>	–	–	✓	✓	–	–	–
1PP6 317 . . . . □□	–	○	–	○	□ <sup>5)</sup>	–	–	✓	✓	–	–	–

- Standard version
- Without additional charge
- ✓ With additional charge
- Not possible

Order other voltages with voltage code **9** in the penultimate position and with order code **L1Y** (see “Special versions” in the “Options” under “Voltages”).

Order other types of construction with type of construction code **9** in the final position and the corresponding order code (see “Special versions” in the “Options” under “Types of construction”).

1) If motors frame sizes 180 M to 315 L in types of construction with feet IM B6, IM B7, IM V6 or IM V5 without protective cover are fixed to the wall, it is recommended that the motor feet are supported.

2) 1PP5 183-... to 1PP5 223-... motors (motor series 1PP5, frame size 180 M to 225 M) can be supplied with two additional eyebolts; specify supplement “**Z**” and order code **K32**.

3) 1PP6 253-... to 1PP6 318-... motors (motor series 1PP6 frame sizes 250 M to 315 L) are supplied with two screw-in eyebolts in accordance with IM B5, whereby one can be rotated in accordance with IM V1 or IM V3. It is important to note that stress must not be applied perpendicular to the ring plane.

4) Type of construction IM V3 is only possible using type of construction code **9** and order code **M1G**.

5) Not possible for type of construction IM V6 and IM V5 without protective cover.

Rated output at 50 Hz	Frame size	Operating values at rated output					Rated current at 50 Hz 400 V	Locked-rotor torque	Locked-rotor current	Break-down torque	Torque class	Moment of inertia	Order No. For Order No. supplements for voltage and type of construction, see table below	Price	Weight
		Rated speed at 50 Hz	Rated torque at 50 Hz	Efficiency at 50 Hz 4/4-load	Power factor at 50 Hz 4/4-load	with direct starting as multiple of rated torque		with direct starting current	torque	Type of construction IM B3 approx. <i>m</i> kg					
$P_{rated}$ kW	FS	$n_{rated}$ rpm	$T_{rated}$ Nm	$\eta_{rated}$ %	$\cos\phi_{rated}$	$I_{rated}$ A	$T_{LR}/T_{rated}$	$I_{LR}/I_{rated}$	$T_B/T_{rated}$	CL	<i>J</i> kg m <sup>2</sup>				
<b>6-pole, 1000 rpm at 50 Hz, cooling method IC 411, IP55 degree of protection, with test certificate according to EN 12101-3</b>															
0.37	80 M	920	3.9	62.0	0.72	1.2	1.9	3.1	2.1	16	0.0015	<b>1PP7 080-6TA□□</b>		9.6	
0.55	80 M	910	5.8	67.0	0.74	1.9	2.1	3.4	2.2	16	0.0018	<b>1PP7 083-6TA□□</b>		11	
0.75	90 S	920	7.8	68.0	0.76	2.1	2.2	3.7	2.2	16	0.0028	<b>1PP7 090-6TA□□</b>		14.2	
1.1	90 L	915	11.5	71.0	0.77	2.9	2.3	3.8	2.3	16	0.0035	<b>1PP7 096-6TA□□</b>		17.4	
1.5	100 L	925	15	74.0	0.70	4.25	2.3	4	2.3	16	0.0063	<b>1PP7 106-6TA□□</b>		25	
2.2	112 M	940	22	76.0	0.70	6.0	2.2	4.6	2.5	16	0.011	<b>1PP7 113-6TA□□</b>		29	
3	132 S	950	30	72.0	0.76	7.2	1.9	4.2	2.2	16	0.015	<b>1PP7 130-6TA□□</b>		44	
4	132 M	950	40	81.0	0.76	9.4	2.1	4.5	2.4	16	0.019	<b>1PP7 133-6TA□□</b>		49	
5.5	132 M	950	55	70.0	0.74	15.4	2.3	5	2.6	16	0.025	<b>1PP7 134-6TA□□</b>		57	
7.5	160 M	960	75	83.5	0.72	18	2.1	4.6	2.5	16	0.041	<b>1PP7 163-6TA□□</b>		78	
11	160 L	960	109	87.5	0.71	25.5	2.3	4.8	2.6	16	0.049	<b>1PP7 166-6TA□□</b>		104	
15	180 L	970	148	89.5	0.70	34.5	2.0	5.2	2.4	16	0.15	<b>1PP5 186-6TA□□</b>		130	
18.5	200 L	975	181	90.1	0.71	42.5	2.7	5.5	2.8	16	0.24	<b>1PP5 206-6TA□□</b>		173	
22	200 L	975	215	93.5	0.77	45.5	2.8	5.5	2.9	16	0.28	<b>1PP5 207-6TA□□</b>		193	
30	225 M	978	294	92.2	0.68	71	2.8	5.7	2.9	16	0.36	<b>1PP5 223-6TA□□</b>		234	
37	250 M	984	359	92.6	0.84	69	2.7	6.4	2.4	16	0.934	<b>1PP6 253-6TA□□</b>		390	
45	280 S	986	436	92.8	0.86	81	2.5	6.6	2.5	16	1.37	<b>1PP6 280-6TA□□</b>		500	
55	280 M	986	533	92.7	0.87	99	2.5	6.5	2.5	16	1.65	<b>1PP6 283-6TA□□</b>		550	
75	315 S	990	723	93.9	0.85	136	2.7	7.0	2.9	16	2.50	<b>1PP6 310-6TA□□</b>		740	
90	315 M	990	868	94.3	0.86	160	2.7	7.3	3.0	16	3.20	<b>1PP6 313-6TA□□</b>		915	
110	315 L	990	1061	94.7	0.87	192	2.6	7.4	3.0	16	4.02	<b>1PP6 316-6TA□□</b>		990	
132	315 L	988	1276	94.8	0.87	230	3.0	7.2	2.8	16	4.71	<b>1PP6 317-6TA□□</b>		1160	
160	315 L	990	1543	95.0	0.86	285	3.1	7.5	3.0	16	5.39	<b>1PP6 318-6TA□□</b>		1225	

## Order No. supplements

Motor type	Penultimate position: Voltage code				Final position: Type of construction code							
	50 Hz				Without flange	With flange			With standard flange		With special flange	
	230 VΔ/ 400 VY	400 VΔ/ 690 VY	500 VY	500 VΔ	IM B3/6/7/8, IM V6/5 without protective cover <sup>1)</sup>	IM B5, IM V3 <sup>2)3)</sup>	IM V1 without protective cover <sup>2)</sup>	IM B35	IM B14, IM V19/18 without protective cover	IM B34	IM B14, IM V19/18 without protective cover	
	1	6	3	5	0	1	1	8	6	2	7	3
1PP7 08 .-... □□	○	○	○	–	□	✓	✓	–	✓	✓	✓	✓
1PP7 09 .-... □□	○	○	○	–	□	✓	✓	–	✓	✓	✓	✓
1PP7 10 .-... □□	○	○	○	○	□	✓	✓	–	✓	✓	✓	✓
1PP7 11 .-... □□	○	○	○	○	□	✓	✓	–	✓	✓	✓	✓
1PP7 13 .-... □□	○	○	○	○	□	✓	✓	–	✓	✓	✓	✓
1PP7 16 .-... □□	○	○	○	○	□	✓	✓	–	✓	✓	✓	✓
1PP5 18 .-... □□	○	○	○	○	□	✓ <sup>4)</sup>	✓	–	✓	–	–	–
1PP5 20 .-... □□	○	○	○	○	□	✓ <sup>4)</sup>	✓	–	✓	–	–	–
1PP5 22 .-... □□	○	○	○	○	□	✓ <sup>4)</sup>	✓	–	✓	–	–	–
1PP6 25 .-... □□	○	○	○	○	□	✓ <sup>4)</sup>	✓	–	✓	–	–	–
1PP6 28 .-... □□	○	○	○	○	□	✓ <sup>4)</sup>	✓	–	✓	–	–	–
1PP6 310 .-... □□	○	○	○	○	□	✓ <sup>4)</sup>	✓	–	✓	–	–	–
1PP6 313 .-... □□	○	○	○	○	□	✓ <sup>4)</sup>	✓	–	✓	–	–	–
1PP6 316 .-... □□	–	○	–	○	□ <sup>5)</sup>	–	–	✓	✓	–	–	–
1PP6 317 .-... □□	–	○	–	○	□ <sup>5)</sup>	–	–	✓	✓	–	–	–
1PP6 318 .-... □□	–	○	–	○	□ <sup>5)</sup>	–	–	✓	✓	–	–	–

- Standard version
- Without additional charge
- ✓ With additional charge
- Not possible

Order other voltages with voltage code **9** in the penultimate position and with order code **L1Y** (see “Special versions” in the “Options” under “Voltages”).

Order other types of construction with type of construction code **9** in the final position and the corresponding order code (see “Special versions” in the “Options” under “Types of construction”).

1) If motors frame sizes 180 M to 315 L in types of construction with feet IM B6, IM B7, IM V6 or IM V5 without protective cover are fixed to the wall, it is recommended that the motor feet are supported.

2) 1PP5 183-... to 1PP5 223-... motors (motor series 1PP5, frame size 180 M to 225 M) can be supplied with two additional eyebolts; specify supplement “**Z**” and order code **K32**.

3) 1PP6 253-... to 1PP6 318-... motors (motor series 1PP6 frame sizes 250 M to 315 L) are supplied with two screw-in eyebolts in accordance with IM B5, whereby one can be rotated in accordance with IM V1 or IM V3. It is important to note that stress must not be applied perpendicular to the ring plane.

4) Type of construction IM V3 is only possible using type of construction code **9** and order code **M1G**.

5) Not possible for type of construction IM V6 and IM V5 without protective cover.