

Rated output at 50 Hz	Frame size	Operating values at rated output								Locked- rotor torque	Locked- rotor current	Break- down torque	Torque class	Moment of inertia	Order No.	Price	Weight
		Rated speed at 50 Hz	Rated torque at 50 Hz	Efficiency at 50 Hz		Power factor at		Rated current at 50 Hz 400 V	with direct starting as multiple of rated					For Order No. supplements for voltage and type of construction, see table below			
				4/4- load	3/4- load	50 Hz 4/4- load	50 Hz 3/4- load		torque	current	torque						
P_{rated}	FS	n_{rated}	T_{rated}	η_{rated}	η_{rated}	$\cos \varphi_{rated}$	$\cos \varphi_{rated}$	I_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	T_B/T_{rated}		J				Type of con- struction IM B3 approx. m
kW		rpm	Nm	%	%			A				CL	kg m ²				kg
2-pole, 3000 rpm at 50 Hz, temperature class 155 (F), IP55 degree of protection																	
30	180 L	2950	97	93.2	93.3	0.86	0.82	54	2.4	7.1	3.4	16	0.086	1PP4 188-2FAQQ		170	
45	200 L	2955	145	94.0	94.1	0.89	0.87	78	2.5	6.9	3.2	16	0.182	1PP4 208-2FAQQ		245	
55	225 M	2960	177	95.1	95.3	0.89	0.86	94	2.6	7.3	3.2	16	0.266	1PP4 228-2FAQQ		325	
75	250 M	2970	241	94.9	94.9	0.88	0.85	130	2.4	7.1	3.1	16	0.483	1PP4 258-2FAQQ		405	
110	280 M	2975	353	95.8	95.9	0.90	0.88	184	2.5	7.0	3.0	13	1.00	1PP4 288-2FBQQ		610	
4-pole, 1500 rpm at 50 Hz, temperature class 155 (F), IP55 degree of protection																	
30	180 L	1465	196	92.0	92.2	0.80	0.76	59	2.6	6.3	2.9	16	0.144	1PP4 188-4FAQQ		175	
37	200 L	1465	241	92.8	93.1	0.83	0.78	70	2.6	6.5	3.0	16	0.234	1PP4 208-4FAQQ		220	
55	225 M	1475	356	93.6	94.1	0.86	0.83	99	2.5	6.5	2.7	16	0.486	1PP4 228-4FAQQ		320	
75	250 M	1482	483	94.5	94.6	0.85	0.81	136	2.5	7.0	3.0	16	0.856	1PP4 258-4FAQQ		445	
110	280 M	1488	706	95.5	95.2	0.84	0.78	198	2.8	7.9	3.3	16	1.71	1PP4 288-4FAQQ		660	

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 1)	IM B5, IM V1 without protective cover 2)	IM B35	IM B14, IM V19 IM V18 without protective cover	IM B34	IM B14 IM V19 IM V18 without protective cover
	1	6	3	5	0	1	6	2	7	3	
1PP4 188 - ... QQ	○	○	○	○	□	✓	✓	–	–	–	
1PP4 208 - ... QQ	○	○	○	○	□	✓	✓	–	–	–	
1PP4 228 - ... QQ	○	○	○	○	□	✓	✓	–	–	–	
1PP4 258 - ... QQ	○	○	○	○	□	✓	✓	–	–	–	
1PP4 288 - ... QQ	○	○	○	○	□	✓	✓	–	–	–	

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

Order other voltages with voltage code **9** in the penultimate position and the corresponding order code (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 1PP4 188-... to 1PP4 318-... (motor series 1PP4 frame sizes 180 L 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) Motors 1PP4 220-... to 1PP4 318-... (motor series 1PP4 frame sizes 225 S to 315 L) are supplied with two screw-in eyebolts in accordance with IM B5, whereby one can be relocated in accordance with IM V1 or IM V3. It is important to note that stress must not be applied perpendicular to the ring plane.

Rated output at 50 Hz	Frame size	Operating values at rated output							Locked- rotor torque	Locked- rotor current	Break- down torque	Torque class	Moment of in- ertia	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		Power factor at		Rated current at 50 Hz 400 V								
				4/4- load	3/4- load	50 Hz 4/4- load	50 Hz 3/4- load									
P_{rated}	FS	n_{rated}	T_{rated}	η_{rated}	η_{rated}	$\cos \varphi_{rated}$	$\cos \varphi_{rated}$	I_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	T_B/T_{rated}		J			Type of con- struc- tion IM B3 approx. m
kW		rpm	Nm	%	%			A				CL	kg m ²			kg
6-pole, 1000 rpm at 50 Hz, temperature class 155 (F), IP55 degree of protection																
18.5	180 L	970	182	89.8	90.5	0.80	0.75	37.5	2.3	4.9	2.4	16	0.203	1PP4 188-6FA□□		170
30	200 L	975	294	91.1	91.5	0.80	0.75	60	2.6	5.8	2.6	16	0.362	1PP4 208-6FA□□		235
37	225 M	978	361	92.3	93.1	0.83	0.80	70	2.5	5.9	2.8	16	0.624	1PP4 228-6FA□□		315
45	250 M	982	438	93.6	94.1	0.83	0.80	84	2.7	6.3	2.3	16	0.934	1PP4 258-6FA□□		390
75	280 M	985	727	94.0	94.5	0.85	0.80	136	3.0	6.8	2.8	16	1.65	1PP4 288-6FA□□		550
160	315 L	988	1547	95.2	95.3	0.86	0.82	285	3.0	7.5	3.0	16	4.71	1PP4 318-6FA□□		1160
8-pole, 750 rpm at 50 Hz, temperature class 155 (F), IP55 degree of protection																
15	180 L	720	199	88.0	88.7	0.73	0.63	34	2.0	4.5	2.4	13	0.206	1PP4 188-8FB□□		160
18.5	200 L	725	244	88.4	89.3	0.78	0.72	39	2.4	5.2	2.6	13	0.367	1PP4 208-8FB□□		220
30	225 M	730	392	90.5	91.3	0.79	0.74	61	2.6	5.6	2.8	13	0.658	1PP4 228-8FB□□		330
37	25 M	730	484	92.1	93.0	0.82	0.77	71	2.4	5.6	2.6	13	1.06	1PP4 258-8FB□□		415
55	280 M	735	715	93.1	93.9	0.81	0.77	106	2.4	5.6	2.3	13	1.63	1PP4 288-8FB□□		545
132	315 L	738	1708	94.3	94.7	0.83	0.79	245	2.5	6.5	2.9	13	4.52	1PP4 318-8FB□□		1080

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 ¹⁾	IM B5, IM V1 without protective cover ²⁾	IM V1 without protective cover ²⁾	IM B35	IM B14, IM V19 IM V18 without protective cover	IM B34	IM B14 IM V19 IM V18 without protective cover
	1	6	3	5	0	1	8	6	2	7	3	
1PP4 188 - ... □□	○	○	○	○	□	✓	–	✓	–	–	–	–
1PP4 208 - ... □□	○	○	○	○	□	✓	–	✓	–	–	–	–
1PP4 228 - ... □□	○	○	○	○	□	✓	–	✓	–	–	–	–
1PP4 258 - ... □□	○	○	○	○	□	✓	–	✓	–	–	–	–
1PP4 288 - ... □□	○	○	○	○	□	✓	–	✓	–	–	–	–
1PP4 318 - ... □□	–	○	–	○	□ ³⁾	–	✓	✓	–	–	–	–

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

Order other voltages with voltage code **9** in the penultimate position and the corresponding order code (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 1PP4 188-... to 1PP4 318-... (motor series 1PP4 frame sizes 180 L 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⁾ Motors 1PP4 220-... to 1PP4 318-... (motor series 1PP4 frame sizes 225 S to 315 L) are supplied with two screw-in eyebolts in accordance with IM B5, whereby one can be relocated in accordance with IM V1 or IM V3. It is important to note that stress must not be applied perpendicular to the ring plane.

³⁾ Type of construction IM V6 and IM V5 without protective cover is only possible using type of construction code **9** and order code **M1E** or **M1D**.