Selection and ordering data

Rated speed	Continuous speed, max.	Rated power for S1 duty	Rated torque	Static torque	1PH8 asynchronous motor Forced ventilation DE → NDE Terminal box top	Efficiency	Moment of inertia	Weight, approx.
n_{rated} rpm	n_{max1} rpm	P_{rated} kW	M_{rated} Nm	M_0 Nm	Order No.	η %	J kgm^2	m kg
Shaft height SH 80 – Line voltage 400 V 3 AC								
1500	10000	**2.8**	18	21	**1PH8083-1DF0 ■ - ■ CA1**	80.9	0.0064	32
1500	12000	**2.8**	18	21	**1PH8083-1DF0 ■ - ■ LA1**	80.9	0.0064	32
2000	10000	**3.7**	18	21	**1PH8083-1DG0 ■ - ■ CA1**	83.2	0.0064	32
2000	15000	**3.7**	18	21	**1PH8083-1UG0 ■ - ■ LA1**	83.2	0.0064	32
3000	10000	**4.1**	13	21	**1PH8083-1DM0 ■ - ■ CA1**	86.9	0.0064	32
3000	15000	**4.1**	13	21	**1PH8083-1UM0 ■ - ■ LA1**	86.9	0.0064	32
4500	10000	**4.8**	10	19	**1PH8083-1DN0 ■ - ■ CA1**	86.4	0.0064	32
4500	15000	**4.8**	10	19	**1PH8083-1UN0 ■ - ■ LA1**	86.4	0.0064	32
1500	10000	**3.7**	24	27	**1PH8087-1DF0 ■ - ■ CA1**	81.7	0.0089	39
1500	14000	**3.7**	24	27	**1PH8087-1UF0 ■ - ■ LA1**	81.7	0.0089	39
2000	10000	**4.9**	23	27	**1PH8087-1DG0 ■ - ■ CA1**	85.3	0.0089	39
2000	15000	**4.9**	23	27	**1PH8087-1UG0 ■ - ■ LA1**	85.3	0.0089	39
3000	10000	**4.8**	15	27	**1PH8087-1DM0 ■ - ■ CA1**	87.1	0.0089	39
3000	15000	**4.8**	15	27	**1PH8087-1UM0 ■ - ■ LA1**	87.1	0.0089	39
4500	10000	**5.8**	12	25	**1PH8087-1DN0 ■ - ■ CA1**	86.8	0.0089	39
4500	15000	**5.8**	12	25	**1PH8087-1UN0 ■ - ■ LA1**	86.8	0.0089	39
Shaft height SH 100 – Line voltage 400 V 3 AC								
1500	9000	**3.7**	24	29	**1PH8101-1DF0 ■ - ■ CA1**	83.5	0.0138	42
1500	12000	**3.7**	24	29	**1PH8101-1DF0 ■ - ■ LA1**	83.5	0.0138	42
1000	9000	**3.7**	35	38	**1PH8103-1DD0 ■ - ■ CA1**	81.4	0.0172	51
1000	12000	**3.7**	35	38	**1PH8103-1DD0 ■ - ■ LA1**	81.4	0.0172	51
1500	9000	**5.5**	35	38	**1PH8103-1DF0 ■ - ■ CA1**	85.2	0.0172	51
1500	12000	**5.5**	35	38	**1PH8103-1DF0 ■ - ■ LA1**	85.2	0.0172	51
2000	9000	**7**	33	38	**1PH8103-1DG0 ■ - ■ CA1**	87.7	0.0172	51
2000	12000	**7**	33	38	**1PH8103-1DG0 ■ - ■ LA1**	87.7	0.0172	51
3000	9000	**8.4**	27	38	**1PH8103-1DM0 ■ - ■ CA1**	90.0	0.0172	51
3000	12000	**8.4**	27	38	**1PH8103-1DM0 ■ - ■ LA1**	90.0	0.0172	51
1500	9000	**7**	45	52	**1PH8105-1DF0 ■ - ■ CA1**	86.7	0.0252	65
1500	12000	**7**	45	52	**1PH8105-1DF0 ■ - ■ LA1**	86.7	0.0252	65
1000	9000	**6.3**	60	63	**1PH8107-1DD0 ■ - ■ CA1**	83.4	0.0289	73
1000	12000	**6.3**	60	63	**1PH8107-1DD0 ■ - ■ LA1**	83.4	0.0289	73
1500	9000	**9**	57	63	**1PH8107-1DF0 ■ - ■ CA1**	86.9	0.0289	73
1500	12000	**9**	57	63	**1PH8107-1DF0 ■ - ■ LA1**	86.9	0.0289	73
2000	9000	**10.5**	50	63	**1PH8107-1DG0 ■ - ■ CA1**	89.7	0.0289	73
2000	12000	**10.5**	50	63	**1PH8107-1DG0 ■ - ■ LA1**	89.7	0.0289	73
Shaft height SH 132 – Line voltage 400 V 3 AC								
1500	8000	**11**	70	96	**1PH8131-1DF0 ■ - ■ CA1**	89.9	0.059	89
1500	10000	**11**	70	96	**1PH8131-1DF0 ■ - ■ LA1**	89.9	0.059	89
1000	8000	**12**	115	128	**1PH8133-1DD0 ■ - ■ CA1**	87.1	0.076	106
1000	10000	**12**	115	128	**1PH8133-1DD0 ■ - ■ LA1**	87.1	0.076	106

Type of construction						
IM B3 (IM V5, IM V6)		0				
IM B5 (IM V1, IM V3)		2				
Shaft extension DE	**Balancing**			**Bearing version**	**Vibration magnitude acc. to Siemens[1]/ EN 60034-14**	**Shaft and flange accuracy**
Plain shaft	–	0	C	Standard	S/A	R
Fitted key	Full-key	1	L	Performance	SPECIAL/B	SPECIAL
Fitted key	Half-key	2				

Motor type (repeated)	Rated current for S1 duty	Static current	SINAMICS S120 Combi						
			Rated output current for S1 duty	3-axis Power Modules Order No.			4-axis Power Modules Order No.		
	I_{rated} A	I_0 A	I_{rated} A	6SL3111-3VE21-6FA0	6SL3111-3VE21-6EA0	6SL3111-3VE22-0HA0	6SL3111-4VE21-6FA0	6SL3111-4VE21-6EA0	6SL3111-4VE22-0HA0
1PH8083-1.F...	**7.5**	8	9	O	O/●	O/●	O/●	O/●	O/●
1PH8083-1.F...	**7.5**	8	9	O	O/●	O/●	O/●	O/●	O/●
1PH8083-1.G...	**11.6**	12	12	O	O	O	O	O	O/●
1PH8083-1.G...	**11.6**	12	12	O	O	O	O	O	O/●
1PH8083-1.M...	**13.6**	17	18	O	O	O	O	O	O/●[2]
1PH8083-1.M...	**13.6**	17	18	O	O	O	O	O	O/●[2]
1PH8083-1.N...	**17**	23	18	✓	O	O	✓	O	O
1PH8083-1.N...	**17**	23	18	✓	O	O	✓	O	O
1PH8087-1.F...	**10**	11	12	O	O/●[2]	O/●[2]	O/●[2]	O/●[2]	O/●
1PH8087-1.F...	**10**	11	12	O	O/●[2]	O/●[2]	O/●[2]	O/●[2]	O/●
1PH8087-1.G...	**14.1**	15	18	O	O	O	O	O	O
1PH8087-1.G...	**14.1**	15	18	O	O	O	O	O	O
1PH8087-1.M...	**17.3**	23	18	✓	O	O	✓	O	O
1PH8087-1.M...	**17.3**	23	18	✓	O	O	✓	O	O
1PH8087-1.N...	**19.5**	28	30	✓[2]	O	O	✓[2]	O	O
1PH8087-1.N...	**19.5**	28	30	✓[2]	O	O	✓[2]	O	O
1PH8101-1.F...	**12.5**	14	12	O	O	O	O	O	O/●
1PH8101-1.F...	**12.5**	14	12	O	O	O	O	O	O/●
1PH8103-1.D...	**10**	11	12	O	O/●[2]	O/●[2]	O/●[2]	O/●[2]	O/●
1PH8103-1.D...	**10**	11	12	O	O/●[2]	O/●[2]	O/●[2]	O/●[2]	O/●
1PH8103-1.F...	**13.5**	14	18	O	O	O	O	O	O/●[2]
1PH8103-1.F...	**13.5**	14	18	O	O	O	O	O	O/●[2]
1PH8103-1.G...	**17.5**	19	18	✓	O	O	✓	O	O
1PH8103-1.G...	**17.5**	19	18	✓	O	O	✓	O	O
1PH8103-1.M...	**25.7**	31	30	–	✓[2]	O	–	✓[2]	O
1PH8103-1.M...	**25.7**	31	30	–	✓[2]	O	–	✓[2]	O
1PH8105-1.F...	**17.5**	20	18	✓	O	O	✓	O	O
1PH8105-1.F...	**17.5**	20	18	✓	O	O	✓	O	O
1PH8107-1.D...	**17.5**	19	18	✓	O	O	✓	O	O
1PH8107-1.D...	**17.5**	19	18	✓	O	O	✓	O	O
1PH8107-1.F...	**23.5**	25	24	–	✓	O	–	✓	O
1PH8107-1.F...	**23.5**	25	24	–	✓	O	–	✓	O
1PH8107-1.G...	**26**	29	30	–	✓[2]	✓	–	✓[2]	✓
1PH8107-1.G...	**26**	29	30	–	✓[2]	✓	–	✓[2]	✓
1PH8131-1.F...	**24**	30	24	–	✓	O	–	✓	O
1PH8131-1.F...	**24**	30	24	–	✓	O	–	✓	O
1PH8133-1.D...	**30**	32	30	–	–	✓	–	–	✓
1PH8133-1.D...	**30**	32	30	–	–	✓	–	–	✓

Motor is part of quick packages.

✓ fits perfectly as main spindle
O fits as main spindle
● fits perfectly as driven tool
– does not fit

[1] For a definition of vibration magnitude according to Siemens, please see 1PH8 Motors Configuration Manual.
[2] With derating.