

Main spindle motors

SIMOTICS M asynchronous and synchronous motors for SINAMICS S120

SIMOTICS M-1PH2 asynchronous built-in motors for direct drive – Water cooling

Selection and ordering data

Rated speed	Speed, max.	Rated output for duty type ¹⁾				SIMOTICS M-1PH2 asynchronous built-in motor for direct drive Standard type	Rated torque ¹⁾	
n_{rated}	n_{max}	P_{rated}					M_{rated}	
		S1	S1 $\Delta T=105\text{ K}$	S6-60 %	S6-40 %			$\Delta T=105\text{ K}$
rpm	rpm	kW (HP)	kW (HP)	kW (HP)	kW (HP)		Order No.	Nm (lb _f -ft)
1PH2 water cooling – Line voltage 400 V 3 AC, operation on Active Line Module								
1500	10000	7.5 (10.1)	9.4 (12.6)	8.2 (11.0)	9 (12.1)	1PH2093-6WF4	48 (35.4)	60 (44.3)
		10.1 (13.5)	13 (17.4)	11 (14.8)	12 (16.1)	1PH2095-6WF4	64 (47.2)	83 (61.2)
1500	10000	15.1 (20.2)	18.5 (24.8)	17 (22.8)	19 (25.5)	1PH2113-6WF4	95 (70.1)	118 (87.0)
		16.5 (22.1)	21.5 (28.8)	18.5 (24.8)	21 (28.2)	1PH2115-6WF4	105 (77.4)	137 (101)
		18.1 (24.3)	23.7 (31.8)	20.5 (27.5)	23 (30.8)	1PH2117-6WF4	115 (84.8)	151 (111)
		23.6 (31.6)	30.9 (41.4)	26 (34.9)	29.5 (39.6)	1PH2118-6WF4	146 (108)	197 (145)
Free cable ends:								
Length: 1.5 m (59.1 in)						1		
Length: 0.5 m (19.7 in) (preferred type)						2		

¹⁾ Data for $\Delta T = 70\text{ K}$, unless specified otherwise.

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Motor type (repeated)	Moment of inertia of rotor	Weight (rotor and stator), approx.	Rated current for duty type ¹⁾			SINAMICS S120 Motor Module	
			I_{rated}			Required rated output current for S1 duty	Booksize format For additional versions and components, see chapter SINAMICS S120 drive system
			S1	S6-60 %	S6-40 %		
	J kgm ² (lb _r -in-s ²)	m kg (lb)	A	A	A	A	Order No.
1PH2093-6W...	0.028 (0.25)	33 (72.8)	24	26	28	30	6SL312-1TE23-0AA3
1PH2095-6W...	0.036 (0.32)	42 (92.6)	30	32	34	30	6SL312-1TE23-0AA3
1PH2113-6W...	0.066 (0.58)	51 (112)	56	61	67	60	6SL312-1TE26-0AA3
1PH2115-6W...	0.073 (0.65)	56 (123)	55	60	66	60	6SL312-1TE26-0AA3
1PH2117-6W...	0.079 (0.70)	62 (137)	60	67	74	60	6SL312-1TE26-0AA3
1PH2118-6W...	0.100 (0.89)	78 (172)	82	90	100	85	6SL312-1TE28-5AA3
						Cooling: Internal air cooling External air cooling	
						0 1	
						Motor Module: Single Motor Module	
						1	