

# Motors

## Main motors for SINAMICS S110

**1PH8 asynchronous (induction) motors**  
**Forced ventilation, IP55 degree of protection**

### Selection and ordering data

Rated speed	Shaft height	Rated power	Rated torque	Rated current	Rated voltage	Rated frequency	Operating speed during field weakening, max. <sup>1)</sup>	Speed, max. <sup>2)</sup>	1PH8 asynchronous (induction) motor Forced ventilation NDE → DE Order No.	
$n_{\text{rated}}$ rpm	SH	$P_{\text{rated}}$ kW (hp)	$M_{\text{rated}}$ Nm (lb <sub>f</sub> -ft)	$I_{\text{rated}}$ A	$U_{\text{rated}}$ V	$f_{\text{rated}}$ Hz	$n_2$ rpm	$n_{\text{max}}$ rpm		
<b>Line voltage 400 V 3 AC</b>										
<b>400</b>	160	9.5 (12.74)	227 (167)	30	260	14.3	2150	6500	<b>1PH8163-1 B 1 - - - - 1</b>	
		13 (17.43)	310 (229)	36	300	14.1	1750	6500	<b>1PH8165-1 B 1 - - - - 1</b>	
<b>1000</b>	100	3.7 (4.96)	35 (25.8)	10	333	35.8	2550	9000	<b>1PH8103-1 D 1 - - - - 1</b>	
		6.3 (8.45)	60 (44.3)	17.5	307	35.5	4300	9000	<b>1PH8107-1 D 1 - - - - 1</b>	
	132	12 (16.1)	115 (84.8)	30	319	35.0	3000	8000	<b>1PH8133-1 D 1 - - - - 1</b>	
		17 (22.8)	162 (119)	43	307	34.8	4300	8000	<b>1PH8137-1 D 1 - - - - 1</b>	
	160	22 (29.5)	210 (155)	55	300	34.2	2800	6500	<b>1PH8163-1 D 1 - - - - 1</b>	
		28 (37.55)	267 (197)	71	292	34.2	4600	6500	<b>1PH8165-1 D 1 - - - - 1</b>	
<b>1500</b>	80	2.8 (3.75)	18 (13.3)	7.5	346	53.3	4700	10000	<b>1PH8083-1 F 1 - - - - 1</b>	
		3.7 (4.96)	24 (17.7)	10	336	53.2	5200	10000	<b>1PH8087-1 F 1 - - - - 1</b>	
	100	3.7 (4.96)	24 (17.7)	12.5	265	52.4	5000	9000	<b>1PH8101-1 F 1 - - - - 1</b>	
		5.5 (7.38)	35 (25.8)	13.5	368	52.4	4200	9000	<b>1PH8103-1 F 1 - - - - 1</b>	
		7.0 (9.39)	45 (33.2)	17.5	348	51.9	5250	9000	<b>1PH8105-1 F 1 - - - - 1</b>	
		9.0 (12.1)	57 (42)	23.5	330	52.2	4500	9000	<b>1PH8107-1 F 1 - - - - 1</b>	
	132	11 (14.75)	70 (51.6)	24	360	51.4	4800	8000	<b>1PH8131-1 F 1 - - - - 1</b>	
		15 (20.12)	96 (70.8)	34	342	51.3	5500	8000	<b>1PH8133-1 F 1 - - - - 1</b>	
		18.5 (24.81)	118 (87)	43	330	51.3	6150	8000	<b>1PH8135-1 F 1 - - - - 1</b>	
		22 (29.5)	140 (103)	56	308	51.3	4300	8000	<b>1PH8137-1 F 1 - - - - 1</b>	
		160	30 (40.23)	191 (141)	71	319	50.8	3500	6500	<b>1PH8163-1 F 1 - - - - 1</b>
			37 (49.62)	236 (174)	78	350	50.8	2800	6500	<b>1PH8165-1 F 1 - - - - 1</b>
	<b>Line voltage 480 V 3 AC</b>									
	<b>600</b>	160	14.5 (19.4)	231 (170)	30	370	21.0	2150	6500	<b>1PH8163-1 B 1 - - - - 1</b>
19 (25.5)			302 (223)	35	420	20.8	1800	6500	<b>1PH8165-1 B 1 - - - - 1</b>	
<b>1350</b>	100	4.7 (6.30)	33 (24.3)	9.7	423	47.3	3500	9000	<b>1PH8103-1 D 1 - - - - 1</b>	
		8.0 (10.7)	57 (42.0)	17	400	47.1	5045	9000	<b>1PH8107-1 D 1 - - - - 1</b>	
	132	15 (20.1)	106 (78.2)	28	417	46.5	3500	8000	<b>1PH8133-1 D 1 - - - - 1</b>	
		22 (29.5)	156 (115)	42	404	46.4	4000	8000	<b>1PH8137-1 D 1 - - - - 1</b>	
	160	28 (37.6)	198 (146)	52	400	45.8	4000	6500	<b>1PH8163-1 D 1 - - - - 1</b>	
		34 (45.6)	241 (178)	66	387	45.8	5600	6500	<b>1PH8165-1 D 1 - - - - 1</b>	
<b>2000</b>	80	3.7 (4.96)	18 (13.3)	7.6	447	70.0	5550	10000	<b>1PH8083-1 F 1 - - - - 1</b>	
		4.9 (6.57)	23 (17.0)	10	435	69.9	6100	10000	<b>1PH8087-1 F 1 - - - - 1</b>	
	100	4.7 (6.30)	22 (16.2)	12.5	343	69.0	7500	9000	<b>1PH8101-1 F 1 - - - - 1</b>	
		7 (9.39)	33 (24.3)	12.7	460	69.1	4100	9000	<b>1PH8103-1 F 1 - - - - 1</b>	
		9 (12.1)	43 (31.7)	17	453	68.5	6180	9000	<b>1PH8105-1 F 1 - - - - 1</b>	
		11 (14.8)	53 (39.1)	21.5	428	68.6	5500	9000	<b>1PH8107-1 F 1 - - - - 1</b>	
	132	15 (20.1)	72 (53.1)	24	460	68.2	5300	8000	<b>1PH8131-1 F 1 - - - - 1</b>	
		20 (26.8)	96 (70.8)	34	445	68.0	6200	8000	<b>1PH8133-1 F 1 - - - - 1</b>	
		24 (32.2)	115 (84.8)	43	434	67.9	7100	8000	<b>1PH8135-1 F 1 - - - - 1</b>	
		28 (37.6)	134 (98.8)	55	401	67.9	4000	8000	<b>1PH8137-1 F 1 - - - - 1</b>	
		160	37 (49.6)	177 (131)	68	416	67.4	3550	6500	<b>1PH8163-1 F 1 - - - - 1</b>
			45 (60.4)	215 (159)	75	440	67.5	3300	6500	<b>1PH8165-1 F 1 - - - - 1</b>

For versions, see  
 Order No. supplements  
 on Page 11/16.

Motor type (repeated)	Power factor	Magne- tizing current	Efficiency	Moment of inertia	Weight, approx.	Terminal box	SINAMICS S110 blocksize format	
							Rated output current <sup>3)</sup>	PM340 Power Module Air cooling
	$\cos \varphi$	$I_{\mu}$ A	$\eta$	$J$ kgm <sup>2</sup> (lb <sub>r</sub> -in-s <sup>2</sup> )	kg (lb)	Type	$I_{\text{rated}}$ A	Order No.
								Line voltage 380 ... 480 V 3 AC
1PH8163-1. B ...	0.91	8.1	0.823	0.2160 (1.912)	196 (432)	gk863	32	6SL3210-1SE23-2■A0
1PH8165-1. B ...	0.86	14.9	0.826	0.2320 (2.053)	230 (507)	gk863	38	6SL3210-1SE23-8■A0
1PH8103-1. D ...	0.82	4.6	0.814	0.0172 (0.152)	51 (112)	gk813	10.2	6SL3210-1SE21-0■A0
1PH8107-1. D ...	0.82	8.2	0.834	0.0289 (0.256)	73 (161)	gk813	18	6SL3210-1SE21-8■A0
1PH8133-1. D ...	0.88	10.1	0.871	0.0760 (0.673)	106 (234)	gk833	32	6SL3210-1SE23-2■A0
1PH8137-1. D ...	0.88	15.1	0.881	0.1090 (0.965)	141 (311)	gk833	45	6SL3210-1SE24-5■A0
1PH8163-1. D ...	0.89	17.3	0.909	0.2160 (1.912)	196 (432)	gk863	60	6SL3210-1SE26-0■A0
1PH8165-1. D ...	0.89	22.2	0.914	0.2320 (2.053)	230 (507)	gk863	75	6SL3210-1SE27-5■A0
1PH8083-1. F ...	0.80	3.8	0.809	0.0064 (0.057)	32 (70.6)	gk803	7.7	6SL3210-1SE17-7■A0
1PH8087-1. F ...	0.81	4.9	0.817	0.0089 (0.079)	39 (86.0)	gk803	10.2	6SL3210-1SE21-0■A0
1PH8101-1. F ...	0.80	6.0	0.835	0.0138 (0.122)	42 (92.6)	gk813	18	6SL3210-1SE21-8■A0
1PH8103-1. F ...	0.80	6.5	0.852	0.0172 (0.152)	51 (112)	gk813	18	6SL3210-1SE21-8■A0
1PH8105-1. F ...	0.79	8.8	0.867	0.0252 (0.223)	65 (143)	gk813	18	6SL3210-1SE21-8■A0
1PH8107-1. F ...	0.81	10.8	0.869	0.0289 (0.256)	73 (161)	gk813	25	6SL3210-1SE22-5■A0
1PH8131-1. F ...	0.84	10.4	0.899	0.0590 (0.522)	89 (196)	gk833	25	6SL3210-1SE22-5■A0
1PH8133-1. F ...	0.85	14.2	0.899	0.0760 (0.673)	106 (234)	gk833	38	6SL3210-1SE23-8■A0
1PH8135-1. F ...	0.85	18.1	0.898	0.0940 (0.832)	125 (276)	gk833	45	6SL3210-1SE24-5■A0
1PH8137-1. F ...	0.84	24.2	0.904	0.1090 (0.965)	141 (311)	gk833	60	6SL3210-1SE26-0■A0
1PH8163-1. F ...	0.87	25.6	0.923	0.2160 (1.912)	196 (432)	gk863	75	6SL3210-1SE27-5■A0
1PH8165-1. F ...	0.88	27.0	0.926	0.2320 (2.053)	230 (507)	gk863	90	6SL3210-1SE31-0■A0
								Line voltage 380 ... 480 V 3 AC
1PH8163-1. B ...	0.90	8.1	0.851	0.2160 (1.912)	196 (432)	gk863	32	6SL3210-1SE23-2■A0
1PH8165-1. B ...	0.88	12.0	0.850	0.2320 (2.053)	230 (507)	gk863	38	6SL3210-1SE23-8■A0
1PH8103-1. D ...	0.82	4.4	0.848	0.0172 (0.152)	51 (112)	gk813	10.2	6SL3210-1SE21-0■A0
1PH8107-1. D ...	0.80	8.2	0.867	0.0289 (0.256)	73 (161)	gk813	18	6SL3210-1SE21-8■A0
1PH8133-1. D ...	0.86	10.7	0.904	0.0760 (0.673)	106 (234)	gk833	32	6SL3210-1SE23-2■A0
1PH8137-1. D ...	0.86	15.9	0.902	0.1090 (0.965)	141 (311)	gk833	45	6SL3210-1SE24-5■A0
1PH8163-1. D ...	0.88	17.7	0.924	0.2160 (1.912)	196 (432)	gk863	60	6SL3210-1SE26-0■A0
1PH8165-1. D ...	0.86	22.5	0.928	0.2320 (2.053)	230 (507)	gk863	75	6SL3210-1SE27-5■A0
1PH8083-1. F ...	0.79	3.7	0.850	0.0064 (0.057)	32 (70.6)	gk803	7.7	6SL3210-1SE17-7■A0
1PH8087-1. F ...	0.80	4.9	0.864	0.0089 (0.079)	39 (86.0)	gk803	10.2	6SL3210-1SE21-0■A0
1PH8101-1. F ...	0.79	6.0	0.871	0.0138 (0.122)	42 (92.6)	gk813	18	6SL3210-1SE21-8■A0
1PH8103-1. F ...	0.81	5.8	0.894	0.0172 (0.152)	51 (112)	gk813	18	6SL3210-1SE21-8■A0
1PH8105-1. F ...	0.78	8.7	0.911	0.0252 (0.223)	65 (143)	gk813	18	6SL3210-1SE21-8■A0
1PH8107-1. F ...	0.79	10.8	0.901	0.0289 (0.256)	73 (161)	gk813	25	6SL3210-1SE22-5■A0
1PH8131-1. F ...	0.86	9.2	0.931	0.0590 (0.522)	89 (196)	gk833	25	6SL3210-1SE22-5■A0
1PH8133-1. F ...	0.85	13.5	0.933	0.0760 (0.673)	106 (234)	gk833	38	6SL3210-1SE23-8■A0
1PH8135-1. F ...	0.84	18.1	0.929	0.0940 (0.832)	125 (276)	gk833	45	6SL3210-1SE24-5■A0
1PH8137-1. F ...	0.84	23.1	0.931	0.1090 (0.965)	141 (311)	gk833	60	6SL3210-1SE26-0■A0
1PH8163-1. F ...	0.86	24.6	0.932	0.2160 (1.912)	196 (432)	gk863	75	6SL3210-1SE27-5■A0
1PH8165-1. F ...	0.89	23.6	0.936	0.2320 (2.053)	230 (507)	gk863	90	6SL3210-1SE31-0■A0

Line filter:

Without  
IntegratedU  
AYou can find further versions and components  
in SINAMICS S110 servo drives.1)  $n_2$ : Max. permissible thermal speed at constant power or speed, which is at the voltage limit when  $P = P_{\text{rated}}$ .2)  $n_{\text{max}}$ : Maximum speed that must not be exceeded (applicable to Standard: 14th data position B to C).

3) The rated pulse frequencies must be taken into account. The rated motor data is valid for 4 kHz.

# Motors

## Main motors for SINAMICS S110

**1PH8 asynchronous (induction) motors**  
**Water cooling, IP65 degree of protection**

### Selection and ordering data

Rated speed	Shaft height	Rated power	Rated torque	Rated current	Rated voltage	Rated frequency	Operating speed during field weakening, max. <sup>1)</sup>	Speed, max. <sup>2)</sup>	1PH8 asynchronous (induction) motor Water cooling
$n_{\text{rated}}$ rpm	SH	$P_{\text{rated}}$ kW (hp)	$M_{\text{rated}}$ Nm (lb <sub>f</sub> -ft)	$I_{\text{rated}}$ A	$U_{\text{rated}}$ V	$f_{\text{rated}}$ Hz	$n_2$ rpm	$n_{\text{max}}$ rpm	Order No.
<b>Line voltage 400 V 3 AC</b>									
<b>1500</b>	80	3.5 (4.69)	22 (16.2)	8.9	357	54.5	3550	10000	<b>1PH8083-1 F 2 - - - - - 1</b>
		4.6 (6.17)	29 (21.4)	13.7	316	53.3	6000	10000	<b>1PH8087-1 F 2 - - - - - 1</b>
	100	5 (6.71)	32 (23.6)	12.8	357	53.1	2500	9000	<b>1PH8101-1 F 2 - - - - - 1</b>
		7.1 (9.52)	45 (33.2)	19.7	317	53.0	4000	9000	<b>1PH8103-1 F 2 - - - - - 1</b>
		11 (14.8)	70 (51.6)	28.5	340	52.8	3500	9000	<b>1PH8105-1 F 2 - - - - - 1</b>
		14 (18.8)	89 (65.6)	43.7	277	53.3	5600	9000	<b>1PH8107-1 F 2 - - - - - 1</b>
	132	15 (20.1)	96 (70.8)	30	380	52.3	2500	8000	<b>1PH8131-1 F 2 - - - - - 1</b>
		17 (22.8)	108 (79.7)	38	345	51.5	3500	8000	<b>1PH8133-1 F 2 - - - - - 1</b>
		22 (29.5)	140 (103)	51	342	51.5	4000	8000	<b>1PH8135-1 F 2 - - - - - 1</b>
		27 (36.2)	172 (127)	67	315	51.6	4000	8000	<b>1PH8137-1 F 2 - - - - - 1</b>
		30 (40.2)	191 (141)	80	289	51.9	5000	8000	<b>1PH8138-1 F 2 - - - - - 1</b>
	160	37 (49.62)	236 (174)	84	328	51.1	3000	6500	<b>1PH8163-1 F 2 - - - - - 1</b>
46 (61.7)		293 (216)	104	330	50.9	3050	6500	<b>1PH8165-1 F 2 - - - - - 1</b>	
52 (69.7)		331 (224)	116	332	51.2	3050	6500	<b>1PH8166-1 F 2 - - - - - 1</b>	
<b>Line voltage 480 V 3 AC</b>									
<b>2000</b>	80	4.6 (6.2)	22 (16.2)	8.7	457	71.0	4250	10000	<b>1PH8083-1 F 2 - - - - - 1</b>
		6.1 (8.2)	29 (21.4)	13.7	402	70.0	6950	10000	<b>1PH8087-1 F 2 - - - - - 1</b>
	100	6.6 (8.9)	32 (23.6)	12.5	450	69.9	2500	9000	<b>1PH8101-1 F 2 - - - - - 1</b>
		9.4 (12.6)	45 (33.2)	19.7	411	69.7	5000	9000	<b>1PH8103-1 F 2 - - - - - 1</b>
		14 (18.8)	67 (49.4)	27.5	426	69.5	3000	9000	<b>1PH8105-1 F 2 - - - - - 1</b>
		18 (24.1)	86 (63.4)	42.6	363	69.7	3000	9000	<b>1PH8107-1 F 2 - - - - - 1</b>
	132	18.5 (24.8)	88 (64.9)	30	460	68.7	2500	8000	<b>1PH8131-1 F 2 - - - - - 1</b>
		22.5 (30.2)	107 (78.9)	38	452	68.2	4000	8000	<b>1PH8133-1 F 2 - - - - - 1</b>
		29 (38.9)	138 (102)	52	448	68.2	4500	8000	<b>1PH8135-1 F 2 - - - - - 1</b>
		36 (48.3)	172 (127)	67	415	68.3	4000	8000	<b>1PH8137-1 F 2 - - - - - 1</b>
		37 (49.6)	177 (131)	76	380	68.4	6000	8000	<b>1PH8138-1 F 2 - - - - - 1</b>
	160	49 (65.7)	234 (173)	84	430	67.7	3500	6500	<b>1PH8163-1 F 2 - - - - - 1</b>
		60 (80.5)	287 (212)	103	426	67.6	3050	6500	<b>1PH8165-1 F 2 - - - - - 1</b>
		68 (91.2)	325 (240)	116	426	67.9	3050	6500	<b>1PH8166-1 F 2 - - - - - 1</b>

For versions, see  
 Order No. supplements  
 on Page 11/16.

Motor type (repeated)	Power factor  $\cos \varphi$	Magne- tizing current  $I_{\mu}$ A	Efficiency  $\eta$	Moment of inertia  $J$ kgm <sup>2</sup> (lb <sub>r</sub> -in-s <sup>2</sup> )	Weight, approx.  kg (lb)	Terminal box  Type	SINAMICS S110 blocksize format	
							Rated output current <sup>3)</sup>  $I_{\text{rated}}$ A	PM340 Power Module Air cooling  Order No.
Line voltage 400 V 3 AC							Line voltage 380 ... 480 V 3 AC	
1PH8083-1.F2...	0.84	3.6	0.784	0.0064 (0.057)	36 (79.4)	gk803	10.2	6SL3210-1SE21-0■A0
1PH8087-1.F2...	0.78	7.2	0.814	0.0089 (0.079)	44 (97.0)	gk803	18	6SL3210-1SE21-8■A0
1PH8101-1.F2...	0.81	6.0	0.813	0.0138 (0.122)	51 (112)	gk823	18	6SL3210-1SE21-8■A0
1PH8103-1.F2...	0.82	8.6	0.827	0.0172 (0.152)	60 (132)	gk823	25	6SL3210-1SE22-5■A0
1PH8105-1.F2...	0.81	13.3	0.843	0.0252 (0.223)	74 (163)	gk823	32	6SL3210-1SE23-2■A0
1PH8107-1.F2...	0.83	17.8	0.829	0.0289 (0.256)	83 (183)	gk823	45	6SL3210-1SE24-5■A0
1PH8131-1.F2...	0.89	9.2	0.883	0.0590 (0.522)	105 (232)	gk843	32	6SL3210-1SE23-2■A0
1PH8133-1.F2...	0.86	14.2	0.897	0.0760 (0.673)	123 (271)	gk843	38	6SL3210-1SE23-8■A0
1PH8135-1.F2...	0.85	20.3	0.901	0.0940 (0.832)	141 (311)	gk843	60	6SL3210-1SE26-0■A0
1PH8137-1.F2...	0.86	25.3	0.900	0.1090 (0.965)	157 (346)	gk843	75	6SL3210-1SE27-5■A0
1PH8138-1.F2...	0.88	27.1	0.882	0.1090 (0.965)	157 (346)	gk843	75	6SL3210-1SE27-5■A0
1PH8163-1.F2...	0.88	27.4	0.916	0.2160 (1.912)	229 (505)	gk873	90	6SL3210-1SE31-0■A0
1PH8165-1.F2...	0.87	37.2	0.930	0.2320 (2.053)	264 (582)	gk873	110	6SL3210-1SE31-1■A0
1PH8166-1.F2...	0.88	36.7	0.936	0.2320 (2.053)	269 (593)	gk873	145	6SL3210-1SE31-5■A0
Line voltage 480 V 3 AC							Line voltage 380 ... 480 V 3 AC	
1PH8083-1.F2...	0.83	3.8	0.839	0.0064 (0.057)	36 (79.4)	gk803	10.2	6SL3210-1SE21-0■A0
1PH8087-1.F2...	0.79	6.8	0.868	0.0089 (0.079)	44 (97.0)	gk803	18	6SL3210-1SE21-8■A0
1PH8101-1.F2...	0.82	4.4	0.858	0.0138 (0.122)	51 (112)	gk823	18	6SL3210-1SE21-8■A0
1PH8103-1.F2...	0.82	8.5	0.869	0.0172 (0.152)	60 (132)	gk823	25	6SL3210-1SE22-5■A0
1PH8105-1.F2...	0.82	11.7	0.894	0.0252 (0.223)	74 (163)	gk823	32	6SL3210-1SE23-2■A0
1PH8107-1.F2...	0.81	19.1	0.873	0.0289 (0.256)	83 (183)	gk823	45	6SL3210-1SE24-5■A0
1PH8131-1.F2...	0.90	7.2	0.912	0.0590 (0.522)	105 (232)	gk843	32	6SL3210-1SE23-2■A0
1PH8133-1.F2...	0.86	14.4	0.938	0.0760 (0.673)	123 (271)	gk843	38	6SL3210-1SE23-8■A0
1PH8135-1.F2...	0.85	19.9	0.931	0.0940 (0.832)	141 (311)	gk843	60	6SL3210-1SE26-0■A0
1PH8137-1.F2...	0.86	25.4	0.928	0.1090 (0.965)	157 (346)	gk843	75	6SL3210-1SE27-5■A0
1PH8138-1.F2...	0.86	28.4	0.920	0.1090 (0.965)	157 (346)	gk843	75	6SL3210-1SE27-5■A0
1PH8163-1.F2...	0.88	26.9	0.925	0.2160 (1.912)	229 (505)	gk873	90	6SL3210-1SE31-0■A0
1PH8165-1.F2...	0.88	34.0	0.940	0.2320 (2.053)	264 (582)	gk873	110	6SL3210-1SE31-1■A0
1PH8166-1.F2...	0.89	32.8	0.941	0.2320 (2.053)	269 (593)	gk873	145	6SL3210-1SE31-5■A0

## Line filter:

Without  
IntegratedU  
AYou can find further versions and components  
in SINAMICS S110 servo drives.1)  $n_2$ : Max. permissible thermal speed at constant power or speed, which is at the voltage limit when  $P = P_{\text{rated}}$ .2)  $n_{\text{max}}$ : Maximum speed that must not be exceeded (applicable to Standard: 14. data position B to C).

3) The rated pulse frequencies must be taken into account. The rated motor data is valid for 4 kHz.

# Motors

## Main motors for SINAMICS S110

### 1PH8 asynchronous (induction) motors Selection guides

#### Order No. supplements for 1PH808/1PH810/1PH813/1PH816 motors

Data position of the Order No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
<b>Shaft height 80</b>	1	P	H	8	0	8	.	-	1	■	.	■	■	-	■	■	■	1
<b>Shaft height 100</b>	1	P	H	8	1	0	.	-	1	■	.	■	■	-	■	■	■	1
<b>Shaft height 132</b>	1	P	H	8	1	3	.	-	1	■	.	■	■	-	■	■	■	1
<b>Shaft height 160</b>	1	P	H	8	1	6	.	-	1	■	.	■	■	-	■	■	■	1
<b>Overall length<sup>1)</sup></b>	-																	
<b>Asynchronous variant</b>									1									
<b>Encoder systems for motors <u>without</u> DRIVE-CLiQ interface</b>																		
Without encoder										A								
Incremental encoder HTL 1024 S/R (encoder HTL1024S/R) <sup>2)</sup>										H								
Incremental encoder HTL 2048 S/R (encoder HTL2048S/R) <sup>3)</sup>										J								
<b>Rated speeds at 400 V to 480 V 3 AC</b> (winding design)																		
400 rpm/600 rpm										B								
1000 rpm/1350 rpm										D								
1500 rpm/2000 rpm										F								
<b>Cooling</b>		<b>Degree of protection</b>																
Forced ventilation NDE → DE		IP55																
Water cooling		IP65																
<b>Type of construction</b>																		
IM B3 (IM V5, IM V6)												0						
IM B5 (IM V1, IM V3)												2						
IM B35 (IM V15, IM V35) <sup>4)</sup>												3						
<b>Shaft extension DE</b>		<b>Balancing</b>																
Plain shaft		-																
Fitted key		Half-key																
		0																
		2																
<b>Bearing</b>		<b>Vibration magnitude acc. to Siemens/EN 60034-14<sup>5)</sup></b>					<b>Shaft and flange accuracy<sup>5)</sup></b>											
Standard		R/A					R											
Standard		S/A					R											
							B											
							C											
<b>Cable connection</b> (view of DE)																		
<u>Terminal box</u>					<u>Cable entry</u>					<u>Signal connection</u>								
Top					Right					DE								
Top					Left					DE								
Top					NDE					Left								
										A								
										B								
										C								
<b>Version status</b>																1		

#### Ordering example

Selection criteria	Design	Structure of the Order No.
<b>1PH8 motor</b>	Asynchronous variant, water cooling Shaft height 132 Version status 1	<b>1PH8131-1..2.-...1</b>
Encoder system	Incremental encoder HTL 1024 S/R (encoder HTL1024S/R)	<b>1PH8131-1H.2.-...1</b>
Rated operating point	1500 rpm, 15 kW (20.1 hp), 96 Nm (70.8 lb <sub>f</sub> -ft)	<b>1PH8131-1HF2.-...1</b>
Type of construction	IM B3 (IM V5, IM V6)	<b>1PH8131-1HF20-...1</b>
Shaft extension DE	Plain shaft	<b>1PH8131-1HF20-0..1</b>
Bearing version	Standard Vibration magnitude R/A Shaft and flange accuracy R	<b>1PH8131-1HF20-0B.1</b>
Connection	Cable connection terminal box top Cable entry on the right, signal connection DE	<b>1PH8131-1HF20-0BA1</b>

<sup>1)</sup> Not selectable. Determined by the choice of rated power.

<sup>2)</sup> Limited to  $n_{max} = 9000$  rpm.

<sup>3)</sup> Limited to  $n_{max} = 4600$  rpm.

<sup>4)</sup> Only possible with 1PH810 to 1PH816.

<sup>5)</sup> For definition, see 1PH8 Configuration Manual.