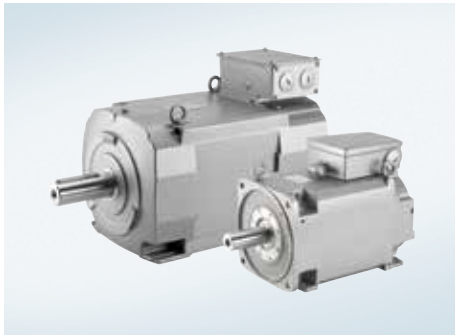


SIMOTICS M-1PH8

Technical documentation



SIMOTICS M-1PH8 main motors in asynchronous version— the ideal motor for operation with SINAMICS G120, G130, G150 or third-party adjustable speed drives

Configuring conditions

- SIMOTICS M-1PH8 main motor in asynchronous version
- SINAMICS G120 with Power Module PM240-2 and Control Unit Modules CU240B-2 and CU240E-2 sensorless vector control
- SINAMICS G120 with Power Module PM240-2 and Control Unit Modules CU250S-2 with incremental encoder HTL or DRIVE-CLIQ interface
- SINAMICS G130/G150 and Control Unit Module CU320-2 sensorless vector control or incremental encoder HTL
- Third-party adjustable speed drive sensorless vector control or incremental encoder HTL

System restrictions

- 1PH8 shaft height 80 to shaft height 160: pulse frequency ≥ 4 kHz
- 1PH8 shaft height 180 to shaft height 280: pulse frequency ≥ 2 kHz
- 1PH8 shaft height 355: pulse frequency ≥ 2.5 kHz

Complete system configuration of SIMOTICS M-1PH8 motor with SINAMICS G drives is supported by SIZER for Siemens Drives.

Combination of SIMOTICS M-1PH8 motor with SINAMICS G drives provides the optimum system interface between motor and adjustable speed drives to provide high usability through commissioning tools for startup and diagnostics.

The following tables document power matched SIMOTICS M-1PH8 with SINAMICS G120 Power Module PM240-2 for light overload applications such as fans. For high overload applications or applications which require additional overload operation, select Power Module PM240-2 with larger base load current.

Common description:

Encoder: Incremental encoder HTL 1024 S/R
Shaft: Shaft with fitted key; full key balancing

Cooling: Direction of air flow NDE -> DE
Terminal box: Above, cable entry on the right

Rated power	Shaft height	Part number	Rated speed	Rated current	Power Module PM240-2	Base load current
hp	mm		rpm	Amps	Light Overload	I _L (Amps)
5.77	80	1PH8087-1HF10-1GA1	1750	10	6SL3210-1PE21-1UL0	10.2
8.45	100	1PH8103-1HF10-1GA1	1750	13.1	6SL3210-1PE21-4UL0	13.2
10.7	100	1PH8105-1HF10-1GA1	1750	17.5	6SL3210-1PE21-8UL0	18
17.4	132	1PH8131-1HF10-1GA1	1750	24	6SL3210-1PE22-7UL0	26
23.5	132	1PH8133-1HF10-1GA1	1750	34	6SL3210-1PE23-8UL0	38
28.8	132	1PH8135-1HF10-1GA1	1750	43	6SL3210-1PE24-5UL0	45
33.5	132	1PH8137-1HF10-1GA1	1750	56	6SL3210-1PE26-0UL0	60
45.6	160	1PH8163-1HF10-1GA1	1750	70	6SL3210-1PE27-5UL0	75
55	160	1PH8165-1HF10-1GA1	1750	76	6SL3210-1PE28-8UL0	90
80.5	180	1PH8184-1HF10-1BA1	1750	120	6SL3210-1PE31-5UL0	145
114	180	1PH8186-1HF10-1BA1	1750	164	6SL3210-1PE31-8UL0	178
147	225	1PH8224-1HF10-1BA1	1750	198	6SL3210-1PE32-1UL0	205
181	225	1PH8226-1HF10-1BA1	1750	250	6SL3210-1PE32-5UL0	250
240	225	1PH8228-1HF10-1BA1	1750	330	N.A.	N.A.

Common description:

Encoder: DRIVE-CLiQ incremental encoder 22 bit
Shaft: Shaft with fitted key; full key balancing

Cooling: Direction of air flow NDE -> DE
Terminal box: Above, cable entry on the right

Rated power	Shaft height	Part number	Rated speed	Rated current	Power Module PM240-2	Base load current
hp	mm		rpm	Amps	Light Overload	I _L (Amps)
5.77	80	1PH8087-1DF10-1GA1	1750	10	6SL3210-1PE21-1UL0	10.2
8.45	100	1PH8103-1DF10-1GA1	1750	13.1	6SL3210-1PE21-4UL0	13.2
10.7	100	1PH8105-1DF10-1GA1	1750	17.5	6SL3210-1PE21-8UL0	18
17.4	132	1PH8131-1DF10-1GA1	1750	24	6SL3210-1PE22-7UL0	26
23.5	132	1PH8133-1DF10-1GA1	1750	34	6SL3210-1PE23-8UL0	38
28.8	132	1PH8135-1DF10-1GA1	1750	43	6SL3210-1PE24-5UL0	45
33.5	132	1PH8137-1DF10-1GA1	1750	56	6SL3210-1PE26-0UL0	60
45.6	160	1PH8163-1DF10-1GA1	1750	70	6SL3210-1PE27-5UL0	75
55	160	1PH8165-1DF10-1GA1	1750	76	6SL3210-1PE28-8UL0	90
80.5	180	1PH8184-1DF10-1BA1	1750	120	6SL3210-1PE31-5UL0	145
114	180	1PH8186-1DF10-1BA1	1750	164	6SL3210-1PE31-8UL0	178
147	225	1PH8224-1DF10-1BA1	1750	198	6SL3210-1PE32-1UL0	205
181	225	1PH8226-1DF10-1BA1	1750	250	6SL3210-1PE32-5UL0	250
240	225	1PH8228-1DF10-1BA1	1750	330	N.A.	N.A.

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