

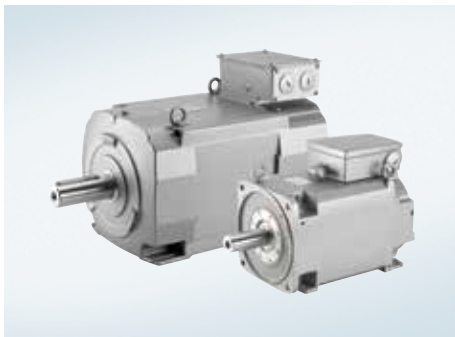
# SIEMENS

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Technical documentation

## SIMOTICS M-1PH8

[usa.siemens.com/simotics-m](http://usa.siemens.com/simotics-m)



**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  $\geq 4$  kHz
- 1PH8 shaft height 180 to shaft height 280: pulse frequency  $\geq 2$  kHz
- 1PH8 shaft height 355: pulse frequency  $\geq 2.5$  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 <sub>L</sub> (Amps)
5.77	80	1PH8087-1HF10-1GA2	1750	10	6SL3210-1PE21-1U0L0	10.2
8.45	100	1PH8103-1HF10-1GA2	1750	13.1	6SL3210-1PE21-4U0L0	13.2
10.7	100	1PH8105-1HF10-1GA2	1750	17.5	6SL3210-1PE21-8U0L0	18
17.4	132	1PH8131-1HF10-1GA2	1750	24	6SL3210-1PE22-7U0L0	26
23.5	132	1PH8133-1HF10-1GA2	1750	34	6SL3210-1PE23-8U0L0	38
28.8	132	1PH8135-1HF10-1GA2	1750	43	6SL3210-1PE24-5U0L0	45
33.5	132	1PH8137-1HF10-1GA2	1750	56	6SL3210-1PE26-0U0L0	60
45.6	160	1PH8163-1HF10-1GA2	1750	70	6SL3210-1PE27-5U0L0	75
55	160	1PH8165-1HF10-1GA2	1750	76	6SL3210-1PE28-8U0L0	90
80.5	180	1PH8184-1HF10-1BA2	1750	120	6SL3210-1PE31-5U0L0	145
114	180	1PH8186-1HF10-1BA2	1750	164	6SL3210-1PE31-8U0L0	178
147	225	1PH8224-1HF10-1BA2	1750	198	6SL3210-1PE32-1U0L0	205
181	225	1PH8226-1HF10-1BA2	1750	250	6SL3210-1PE32-5U0L0	250
240	225	1PH8228-1HF10-1BA2	1750	330	6SL3224-0XE41-6UA0	370

**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 <sub>L</sub> (Amps)
5.77	80	1PH8087-1DF10-1GA1	1750	10	6SL3210-1PE21-1U0L0	10.2
8.45	100	1PH8103-1DF10-1GA1	1750	13.1	6SL3210-1PE21-4U0L0	13.2
10.7	100	1PH8105-1DF10-1GA1	1750	17.5	6SL3210-1PE21-8U0L0	18
17.4	132	1PH8131-1DF10-1GA1	1750	24	6SL3210-1PE22-7U0L0	26
23.5	132	1PH8133-1DF10-1GA1	1750	34	6SL3210-1PE23-8U0L0	38
28.8	132	1PH8135-1DF10-1GA1	1750	43	6SL3210-1PE24-5U0L0	45
33.5	132	1PH8137-1DF10-1GA1	1750	56	6SL3210-1PE26-0U0L0	60
45.6	160	1PH8163-1DF10-1GA1	1750	70	6SL3210-1PE27-5U0L0	75
55	160	1PH8165-1DF10-1GA1	1750	76	6SL3210-1PE28-8U0L0	90
80.5	180	1PH8184-1DF10-1BA1	1750	120	6SL3210-1PE31-5U0L0	145
114	180	1PH8186-1DF10-1BA1	1750	164	6SL3210-1PE31-8U0L0	178
147	225	1PH8224-1DF10-1BA1	1750	198	6SL3210-1PE32-1U0L0	205
181	225	1PH8226-1DF10-1BA1	1750	250	6SL3210-1PE32-5U0L0	250
240	225	1PH8228-1DF10-1BA1	1750	330	6SL3224-0XE41-6UA0	370

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