



订货号 : 6SL3210-1PH31-4AL0  
Article No. :

客户订单号 :  
Client order no. :  
西门子订单号 :  
Order no. :  
报价号 :  
Offer no. :  
注释 :  
Remarks :

物品号 :  
Item no. :  
托运号 :  
Consignment no. :  
项目 :  
Project :

额定数据  
Rated data

|                                 |                     |  |
|---------------------------------|---------------------|--|
| 输入<br>Input                     |                     |  |
| 相位数<br>Number of phases         | 3 AC                |  |
| 电源电压<br>Line voltage            | 500 ... 690 V ±10 % |  |
| 电源频率<br>Line frequency          | 47 ... 63 Hz        |  |
| 额定电流 (LO)<br>Rated current (LO) | 137.00 A            |  |
| 额定电流 (HO)<br>Rated current (HO) | 122.00 A            |  |

|                                                   |              |                        |
|---------------------------------------------------|--------------|------------------------|
| 输出<br>Output                                      |              |                        |
| 相位数<br>Number of phases                           | 3 AC         |                        |
| 额定电压<br>Rated voltage                             | 690V IEC     | 600V NEC <sup>1)</sup> |
| 额定功率 (LO)<br>Rated power (LO)                     | 132.00 kW    | 125.00 hp              |
| 额定功率 (HO)<br>Rated power (HO)                     | 110.00 kW    | 100.00 hp              |
| 额定电流 (LO)<br>Rated current (LO)                   | 142.00 A     |                        |
| 额定电流 (HO)<br>Rated current (HO)                   | 115.00 A     |                        |
| 最大输出电流<br>Max. output current                     | 230.00 A     |                        |
| 脉冲频率<br>Pulse frequency                           | 2 kHz        |                        |
| 矢量控制时的输出频率<br>Output frequency for vector control | 0 ... 200 Hz |                        |
| V/f控制时的输出频率<br>Output frequency for V/f control   | 0 ... 550 Hz |                        |

|                                |                                                                                                                                                                                                                                                                         |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 过载能力<br>Overload capability    |                                                                                                                                                                                                                                                                         |
| 低过载 (LO)<br>Low Overload (LO)  | 在一个 300 秒循环时间内 57 秒的 1.1 × 额定输出电流（即 110%过载），在一个 300 秒循环时间内 3 秒的 1.5 × 额定输出电流（即 150%过载）<br>1.1 x rated output current (i.e. 110 % overload) for 57 s with a cycle time of 300 s<br>1.5 x rated output current (i.e. 150 % overload) for 3 s with a cycle time of 300 s   |
| 高过载 (HO)<br>High Overload (HO) | 一个 300 秒的循环时间有 57 秒的 1.5 × 测定电流（即 150 % 过载），在一个 300 秒的循环时间中有 3 秒的 2 × 测定电流（即 200 % 过载）<br>1.5 x output current rating (i.e., 150 % overload) for 57 s with a cycle time of 300 s<br>2 x output current rating (i.e., 200 % overload) for 3 s with a cycle time of 300 s |

|                                          |                |
|------------------------------------------|----------------|
| 通用技术参数<br>General tech. specifications   |                |
| 功率系数 λ<br>Power factor λ                 | 0.90           |
| 偏移角 cos φ<br>Offset factor cos φ         | 0.99           |
| 效率 η<br>Efficiency η                     | 0.99           |
| 声压级 LpA(1m)<br>Sound pressure level (1m) | 68 dB          |
| 损耗功率<br>Power loss                       | 2.35 kW        |
| 滤波器等级（集成式）<br>Filter class (integrated)  | A 级<br>Class A |



SINAMICS 数据表 功率模块 PM240-2  
Data sheet for SINAMICS Power module PM240-2

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| 环境条件<br>Ambient conditions        |                                                      |
|-----------------------------------|------------------------------------------------------|
| 冷却<br>Cooling                     | 内部风冷<br>Internal air cooling                         |
| 冷却空气需求<br>Cooling air requirement | 0.153 m³/s (5.403 ft³/s)                             |
| 安装高度<br>Installation altitude     | 1,000 米 (3,280.84 ft)                                |
| 环境温度<br>Ambient temperature       |                                                      |
| 运行 LO<br>Operation LO             | -20 ... 40 °C (-4 ... 104 °F)                        |
| 运行 HO<br>Operation HO             | -20 ... 50 °C (-4 ... 122 °F)                        |
| 运输<br>Transport                   | -40 ... 70 °C (-40 ... 158 °F)                       |
| 存放温度<br>Storage                   | -40 ... 70 °C (-40 ... 158 °F)                       |
| 相对空气湿度<br>Relative humidity       |                                                      |
| 运行, 最大<br>Max. operation          | 95 % RH, 禁止凝露<br>95 % RH, condensation not permitted |

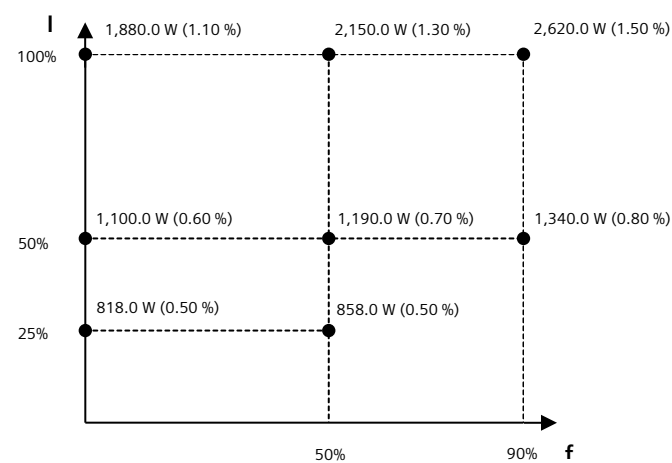
| 接口<br>Connections                              |                                            |
|------------------------------------------------|--------------------------------------------|
| 电源侧<br>Line side                               |                                            |
| 规格<br>Version                                  | M10 螺杆<br>M10 bolt                         |
| 接口横截面<br>Conductor cross-section               | 35.00 ... 120.00 mm²<br>(AWG 2 ... AWG -3) |
| 电机侧<br>Motor end                               |                                            |
| 规格<br>Version                                  | M10 螺杆<br>M10 bolt                         |
| 接口横截面<br>Conductor cross-section               | 35.00 ... 120.00 mm²<br>(AWG 2 ... AWG -3) |
| 直流母线（用于制动电阻）<br>DC link (for braking resistor) |                                            |
| 规格<br>Version                                  | 螺钉型端子<br>Screw-type terminals              |
| 接口横截面<br>Conductor cross-section               | 25.00 ... 70.00 mm²<br>(AWG 4 ... AWG -1)  |
| 电缆长度<br>Cable length                           | 10 米 (32.81 ft)                            |
| PE 端子<br>PE connection                         | M10 螺杆<br>M10 screw studs                  |
| 最大电机电缆长度<br>Max. motor cable length            |                                            |
| 屏蔽<br>Shielded                                 | 300 米 (984.25 ft)                          |
| 非屏蔽<br>Unshielded                              | 450 米 (1,476.38 ft)                        |

| 机械数据<br>Mechanical data           |                                                                            |
|-----------------------------------|----------------------------------------------------------------------------|
| 防护等级<br>Degree of protection      | IP20 / UL 开放式<br>IP20 / UL open type                                       |
| 外形尺寸<br>Frame size                | FSF                                                                        |
| 净重<br>Net weight                  | 64.00 kg (141.10 lb)                                                       |
| 外形尺寸<br>Dimensions                |                                                                            |
| 宽度<br>Width                       | 305 mm (12.01 in)                                                          |
| 高度<br>Height                      | 708 mm (27.87 in)                                                          |
| 深度<br>Depth                       | 357 mm (14.06 in)                                                          |
| 标准<br>Standards                   |                                                                            |
| 符合标准<br>Compliance with standards | UL, cUL, CE, C-Tick (RCM), SEMI F47<br>UL, cUL, CE, C-Tick (RCM), SEMI F47 |
| CE 标志<br>CE marking               | 低压准则 2006/95/EC<br>Low-voltage directive 2006/95/EC                        |

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|                                                                              |     |
|------------------------------------------------------------------------------|-----|
| 符合IEC61800-9-2的变频器损耗*<br>Converter losses to IEC61800-9-2*                   |     |
| 效率等级<br>Efficiency class                                                     | IE2 |
| 对比参考变频器 (90% / 100%)<br>Comparison with the reference converter (90% / 100%) |     |
| 37.80 %                                                                      |     |



百分比值给定了以变频器额定视在功率为基准的损耗。  
The percentage values show the losses in relation to the rated apparent power of the converter.

该图显示了相对转矩电流 (I) 超过相对电机定子频率 (f) 时间点 (根据标准 IEC61800-9-2) 上的损耗。这些值适用于不带选件/附件的基本型变频器。  
The diagram shows the losses for the points (as per standard IEC61800-9-2) of the relative torque generating current (I) over the relative motor stator frequency (f). The values are valid for the basic version of the converter without options/components.

\*计算值  
\*calculated values

<sup>1)</sup> 输出电流和功率数据适用于电压范围 550 V 到 600 V  
The output current and HP ratings are valid for the voltage range 550V-600V