



SINAMICS V20 数据表  
Data sheet for SINAMICS V20

订货号：6SL3210-5BE13-7CV0  
Article No.：



图像类似  
Figure similar

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    | 380 ... 480 V -15 % +10 % |  |
| 电源频率<br>Line frequency  | 47 ... 63 Hz              |  |

|                                 |              |             |
|---------------------------------|--------------|-------------|
| 输出<br>Output                    |              |             |
| 相位数<br>Number of phases         | 3 AC         |             |
| 额定电压<br>Rated voltage           | 400V IEC     | 480V NEC 1) |
| 额定功率 (LO)<br>Rated power (LO)   | 0.37 kW      | 0.50 hp     |
| 额定功率 (HO)<br>Rated power (HO)   | 0.37 kW      | 0.50 hp     |
| 额定电流 (LO)<br>Rated current (LO) | 1.30 A       | 1.30 A      |
| 额定电流 (HO)<br>Rated current (HO) | 1.30 A       | 1.30 A      |
| 额定电流 (IN)<br>Rated current (IN) | 1.30 A       |             |
| 脉冲频率<br>Pulse frequency         | 4.00 kHz     |             |
| 输出频率<br>Output frequency        | 0 ... 550 Hz |             |

|                                |                                                                                           |  |
|--------------------------------|-------------------------------------------------------------------------------------------|--|
| 过载能力<br>Overload capability    |                                                                                           |  |
| 低过载 (LO)<br>Low Overload (LO)  | 110 % 的额定输出电流，持续 60 s，循环时间 300 s<br>110 % rated output current for 60 s, cycle time 300 s |  |
| 高过载 (HO)<br>High Overload (HO) | 150 % 的额定输出电流，持续 60 s，循环时间 300 s<br>150 % rated output current for 60 s, cycle time 300 s |  |

通用技术参数  
General tech. specifications

|                                         |                |
|-----------------------------------------|----------------|
| 功率系数 λ<br>Power factor λ                | 0.72           |
| 偏移角 cos φ<br>Offset factor cos φ        | 0.95           |
| 效率 η<br>Efficiency η                    | 0.98           |
| 滤波器等级（集成式）<br>Filter class (integrated) | A 级<br>Class A |

通讯  
Communication

|                     |                                    |
|---------------------|------------------------------------|
| 通讯<br>Communication | USS, Modbus RTU<br>USS, Modbus RTU |
|---------------------|------------------------------------|

输入/输出  
Inputs / outputs

|                                       |   |
|---------------------------------------|---|
| 数字量输入 - 标准<br>Standard digital inputs |   |
| 数量<br>Number                          | 4 |

|                                                   |   |
|---------------------------------------------------|---|
| 数字量输出<br>Digital outputs                          |   |
| 作为继电器转换器的数量<br>Number as relay changeover contact | 1 |
| 作为晶体管的数量<br>Number as transistor                  | 1 |

|                        |                                                                 |
|------------------------|-----------------------------------------------------------------|
| 模拟量输入<br>Analog inputs |                                                                 |
| 数量<br>Number           | 2 (可用于作为附加数字输入端)<br>2 (Can be used as additional digital input) |

|                         |   |
|-------------------------|---|
| 模拟量输出<br>Analog outputs |   |
| 数量<br>Number            | 1 |

## SINAMICS V20 数据表

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Article No. :

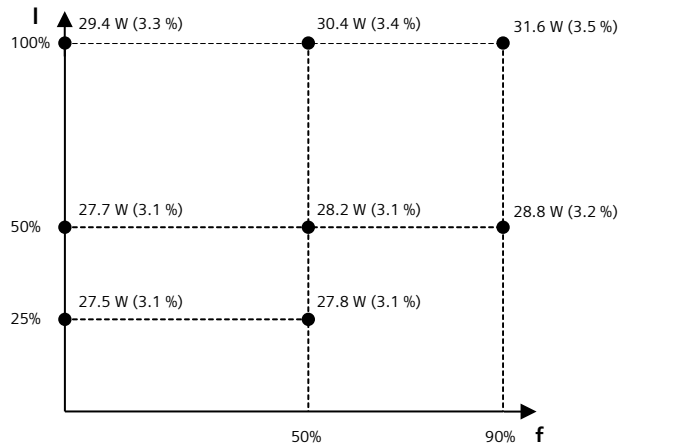
| 环境条件<br>Ambient conditions    |                                |
|-------------------------------|--------------------------------|
| 冷却<br>Cooling                 | 对流冷却<br>convection cooling     |
| 安装高度<br>Installation altitude | 1,000 米 (3,280.84 ft)          |
| 环境温度<br>Ambient temperature   |                                |
| 运行 <sup>2)</sup><br>Operation | -10 ... 60 °C (14 ... 140 °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 %                           |

| 接口<br>Connections                   |                  |
|-------------------------------------|------------------|
| 最大电机电缆长度<br>Max. motor cable length |                  |
| 屏蔽<br>Shielded                      | 10 米 (32.81 ft)  |
| 非屏蔽<br>Unshielded                   | 50 米 (164.04 ft) |

| 机械数据<br>Mechanical data      |                                                         |
|------------------------------|---------------------------------------------------------|
| 安装位置<br>Mounting position    | 墙面安装 / 密集式结构样式<br>Wall mounting / side-by-side mounting |
| 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           | FSA                                                     |
| 净重<br>Net weight             | 1.00 kg (2.20 lb)                                       |
| 外形尺寸<br>Dimensions           |                                                         |
| 宽度<br>Width                  | 90.0 mm (3.54 in)                                       |
| 高度<br>Height                 | 150.0 mm (5.91 in)                                      |
| 深度<br>Depth                  | 145.5 mm (5.73 in)                                      |

| 标准<br>Standards                   |                                                                                    |
|-----------------------------------|------------------------------------------------------------------------------------|
| 符合标准<br>Compliance with standards | CE, cULus, C-Tick (RCM), KC<br>CE, cULus, C-Tick (RCM), KC                         |
| CE 标志<br>CE marking               | EN 61800-5-1 / EN 60204-1 和 EN 61800-3<br>EN 61800-5-1 / EN 60204-1 and EN 61800-3 |

| 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%) |        |
|                                                                              | 20.8 % |



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项/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 440 V 到 480 V  
The output current and HP ratings are valid for the voltage range 440V-480V  
<sup>2)</sup>超过 40 °C 时注意降级  
Please observe derating at temperatures of 40 °C or above