

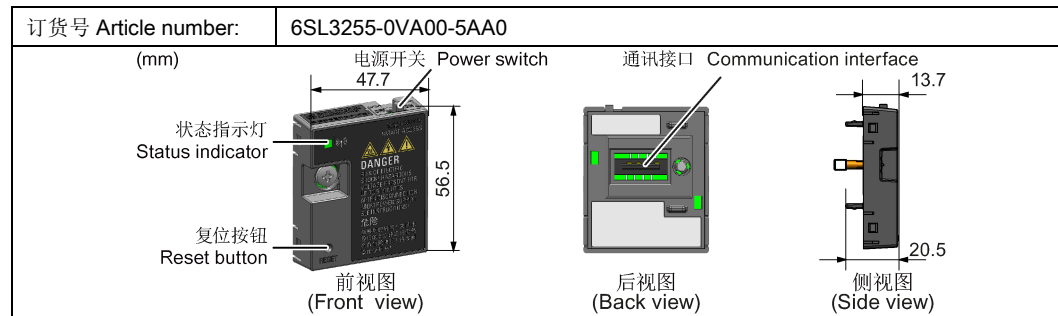
## SINAMICS V20 智能连接模块 (选项)

### SINAMICS V20 Smart Access (option)

模块支持的变频器固件版本为 3.92 或以上。有关模块的安装使用详情, 请见 SINAMICS V20 变频器操作说明。The supported inverter firmware version must be 3.92 or later. For more information on how to install and use the module, see SINAMICS V20 Inverter Operating Instructions.

(手册下载 Manual download: <https://support.industry.siemens.com/cs/ww/en/ps/13208/man>)

### 智能连接模块 SINAMICS V20 Smart Access



### 功能 Functionality

SINAMICS V20 智能连接模块是一款集成了 Wi-Fi 连接功能的 Web 服务器模块。该模块仅供调试使用, 不可长期与变频器共用。通过此模块可实现从所连设备 (带无线网卡的传统 PC、平板电脑或者智能手机) 对变频器的基于 Web 的访问, 从而对变频器进行快速调试、参数设置、JOG、监控、诊断、备份与恢复等操作。

SINAMICS V20 Smart Access is a Web server module with integrated Wi-Fi connectivity. This module is only for commissioning and thus cannot be used with the inverter permanently. It allows Web-based access to the inverter from a connected device (conventional PC with wireless network adapter installed, tablet or smart phone) to realize inverter operations including quick commissioning, inverter parameterization, JOG, monitoring, diagnostics, backup and restore, etc.

### 状态 LED Status LED

LED 颜色 LED color	含义 Meaning	
红色常亮 Solid red	客户端已连接至模块, 模块与变频器 USS 通讯失败。 One client is connected to the module and USS communication between the module and the inverter fails.	
绿色常亮 Solid green	模块正在工作, 客户端已连接至模块。 The module is running and one client is connected to it.	
黄色常亮 Solid yellow	模块正在工作, 无客户端连接至模块。 The module is running and no client is connected to it.	
红色闪烁 Flashing red	以 1 Hz 频率闪烁 Flashing at 1 Hz	无客户端连接至模块, 模块与变频器 USS 通讯失败。 No client is connected to the module and USS communication between the module and the inverter fails.
	以 0.5 Hz 频率闪烁 Flashing at 0.5 Hz	模块正在启动。 The module is starting.
绿色闪烁 Flashing green	模块正在工作, 一个 WebSocket 通道已连接至模块。 The module is running and one WebSocket channel is connected to it.	
黄色闪烁 Flashing yellow	模块重启提醒。 Reminder of restarting the module.	
红色和黄色交替闪烁 Flashing red and yellow alternatively	模块正在更新 Web 应用程序或固件版本。 The module is upgrading the Web application or firmware.	

### 技术规格 Technical specifications

额定电压 / 电压范围 Rated voltage/voltage range	24 V DC
无线技术和工作频率 Wireless technology and working frequency	Wi-Fi 2400 MHz - 2483.5 MHz
无线调制制式 Wireless modulation type	802.11 b/g
天线类型及增益 Antenna type & gain	1.9 dBi
极限工作温度范围 Extreme temperature range	-10 °C - 60 °C

#### 说明 Note

无线通讯距离 (无屏障) 最大可达 140 m, 但该值可能随环境条件发生变化。

The wireless communication distance (without barrier) can reach a maximum of 140 m; however, this value can vary with the environmental conditions.

### 连接设备 Connecting the device

将模块安装至 V20 之前, 如果存在 RS485 通讯, 必须先通过 BOP 将 P2010[1] 设置为 12。

Before fitting the module to V20, if RS485 communication is present, you must set P2010[1]=12 via the BOP.

	带无线网卡的设备 Device with wireless network adapter	操作系统 Operating system	推荐使用的 Web 浏览器 Recommended Web browser
	PC	Windows 7	<ul style="list-style-type: none"> <li>≥ Google Chrome 54.0</li> <li>≥ IE 11.0.9600</li> <li>≥ Firefox 51</li> </ul>
	智能手机/平板电脑 Smart phone/tablet	≥ Apple iOS 9.3	<ul style="list-style-type: none"> <li>≥ Google Chrome 54.0</li> <li>≥ Firefox 6.1</li> <li>Safari</li> </ul>
		≥ Android 4.4.4	<ul style="list-style-type: none"> <li>≥ Google Chrome 54.0</li> <li>≥ Firefox 51</li> </ul>


### 首次无线网络连接的操作步骤 Operating sequence for first wireless network connection


- 将模块安装至变频器, 并将模块的电源开关滑动至“ON”档给模块上电。  
Fit the module to the inverter and power on the module by sliding its power switch to “ON”.
  - 启用 PC/移动设备内的 Wi-Fi 接口。如需在 PC 上建立无线网络连接, 还须检查是否已启用自动 IP 设置。  
Activate the Wi-Fi interface inside your PC or mobile device. If you desire to establish the wireless network connection on your PC, additionally you check whether the automatic IP settings are activated.
  - 搜索 SINAMICS V20 的无线网络 SSID, 例如: “V20 smart access\_a4d3e1”。  
Search the wireless network SSID of the SINAMICS V20, for example, “V20 smart access\_a4d3e1”.
  - 输入无线网络密码启动连接 (默认密码: 12345678)。  
Enter the wireless password to launch the connection (default password: 12345678).
  - 在 PC 或移动设备浏览器的地址栏中输入网址 (<http://192.168.1.1>) 打开 V20 网页。  
Enter this address (<http://192.168.1.1>) in the URL bar of the browser on your PC or mobile device to open the V20 Web pages.
  - 输入新密码 (8 至 12 个字符, 仅限于以下三类字符: ① 字母: A-Z、a-z; ② 数字: 0-9; ③ 特殊字符: \_、-、~、!、@、#、\$、%、^、& 及 \*, 不可使用空格), 按下 <OK> 按钮确认, 模块自动重启。  
Enter the new password (8 to 12 characters limited to the following three categories of characters: ① letters: A-Z, a-z; ② numbers: 0-9; ③ special characters: \_ , - , ~ , ! , @ , # , \$ , % , ^ , & and \*, the space character is not allowed). Confirm the password with the <OK> button, then the module restarts.  
注意, 该密码设置页包含一个密码安全级别指示器。指示器会根据新密码的复杂程度给出如下提示:
    - 低: 弱密码。新密码仅包含一类字符。
    - 中: 中等强度密码。新密码包含两类字符。
    - 高: 强密码。新密码包含三类字符。
- Note that this password setting page includes a password security level indicator. The indicator displays as follows with the complexity of the new password:
- Low: weak password. The new password consists of only one category of characters.
  - Middle: middle-strength password. The new password consists of two categories of characters.
  - High: strong password. The new password consists of three categories of characters.

- 输入新设置的 Wi-Fi 密码启动连接。重复执行第 5 步访问 V20 网页。  
Enter the new Wi-Fi password to launch the connection. Repeat Step 5 to access the V20 Web pages.

## 无线网络连接示例 Wireless network connection examples

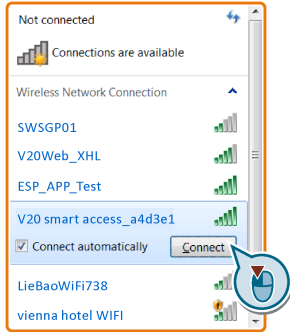
### Windows 7

1. 点击 PC 任务栏中的  图标。

Click the  icon in the taskbar on your PC.

2. 选择目标网络并输入无线网络密码启动连接。

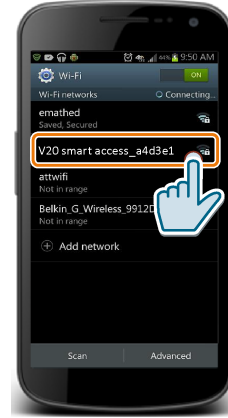
Select the target network and enter the wireless password to launch the connection.



### Android/iOS

进入平板电脑或智能手机的 Wi-Fi 界面，选择网络并输入无线网络密码启动连接。

Enter the Wi-Fi window of your tablet or smart phone, select the target network and enter the wireless password to launch the connection.



## 复位 Wi-Fi 配置 Resetting Wi-Fi configuration

变频器处于上电状态时，按下模块上的复位按钮可将 Wi-Fi 配置恢复至默认设置：

When the inverter is in power-on state, pressing the reset button on the module resets the Wi-Fi configuration to defaults:

- Wi-Fi (SSID): V20 smart access\_xxxxxx  
“xxxxxx”代表模块 MAC 地址最后六个字符。  
“xxxxxx” stands for the last six characters of the module MAC address.
- Wi-Fi 密码 Wi-Fi password: 12345678
- 频率通道 Frequency channel: 1

### 说明 Note

在按下复位按钮复位 Wi-Fi 配置之前，请先检查模块上的状态 LED 的颜色。只有在状态 LED 显示绿色常亮/黄色常亮或呈绿色闪烁时，按下复位按钮才可成功执行 Wi-Fi 配置复位。

Make sure you check the status LED on the module before pressing the reset button to reset the Wi-Fi configuration. Only when the status LED lights up solid green/solid yellow or flashes green, can the Wi-Fi configuration be reset successfully with the reset button.

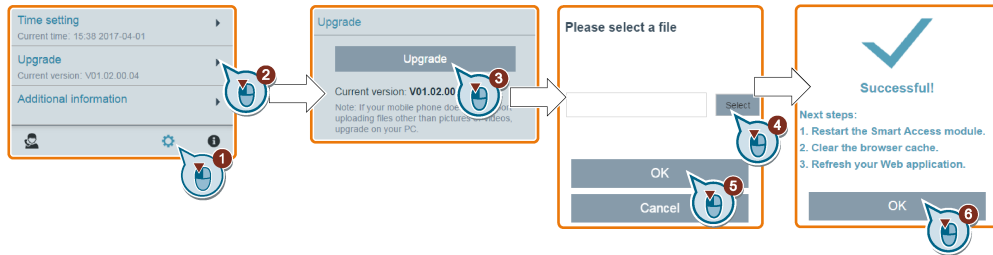
## 升级 Web 应用程序和 SINAMICS V20 智能连接模块固件版本 Upgrading the Web application and SINAMICS V20 Smart Access firmware

### 常规升级方法 Conventional upgrading method

1. 从此网站下载升级文件至本地磁盘（推荐在 PC 上操作）。Download the upgrade file from this Web to your local drive (recommended on PC). <https://support.industry.siemens.com/cs/ww/en/ps/13208>

2. 访问 V20 网页 (<http://192.168.1.1>)，按下图进行升级操作。

Access the V20 Web page (<http://192.168.1.1>). Proceed as follows to perform the upgrade.

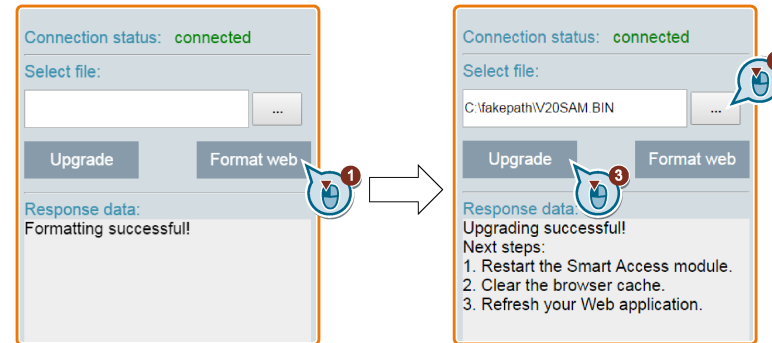


3. 重启模块，清除浏览器缓存并刷新 Web 应用程序。

Restart the module, clear the browser cache and refresh your Web application.

### 基本升级方法 Basic upgrading method

1. 从此网站下载升级文件至本地磁盘（推荐在 PC 上操作）。Download the upgrade file from this Web site to your local drive (recommended on PC). <https://support.industry.siemens.com/cs/ww/en/ps/13208>
2. 将模块电源开关滑动至“OFF”档，按住模块上的复位按钮，然后将电源开关滑动至“ON”档。  
Slide the power switch of the module to "OFF". Keep the reset button pressed and slide the power switch to "ON".
3. 访问此网站打开基本升级网页。Visit this Web site to open the Web page for basic upgrading. <http://192.168.1.1/factory/basicupgrade.html>
4. 按下图完成升级操作。Proceed as follows to complete the upgrade.



5. 重启模块，清除浏览器缓存并刷新 Web 应用程序。

Restart the module, clear the browser cache and refresh your Web application.