

常问问题 • 8月/2011年

# 如何使用 CAD Creator 工具生成 伺服电机的尺寸图

电机, 尺寸图

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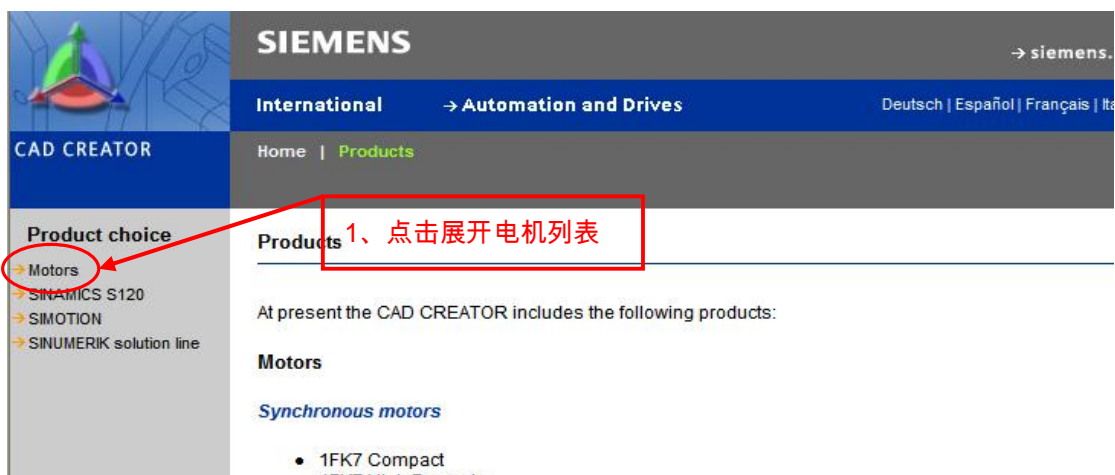
## 1 网站链接

<http://www.cad-creator.com/?Key=Produkte&Language=1>

## 2 使用指南

### 2.1 进入网站

使用上面链接进入 CAD CREATOR 网站：



按照上图指示点击进入下面页面：



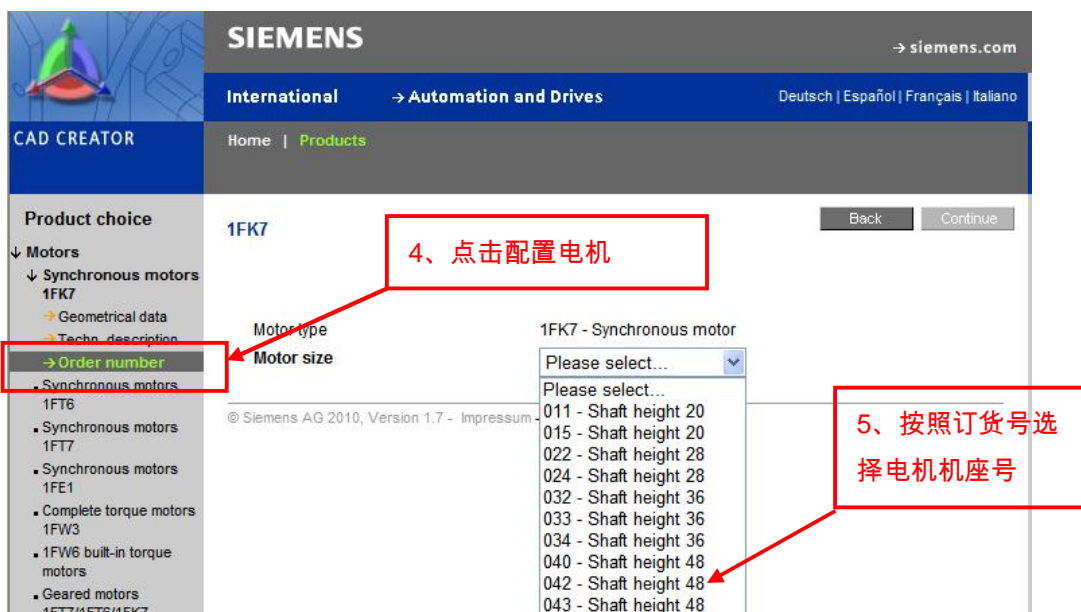
## 2.2 配置产品

点击所选电机系列后，可以按照几何参数 ( Geometrical data )、技术描述 ( Techn. Description )、订货号 ( order number ) 三种途径选定具体产品订货号。



一般情况下，已经知道电机订货号，需要尺寸图。这时，我们选择 order Number 选项进入进行配置。例如生成电机 1FK7042-5AF71-1AA3 的尺寸图，可以按照下面步骤操作：

### 1、选择电机轴高 ( 机座号 )



## 2、选择电机类型

SIEMENS → siemens.com

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CAD CREATOR Home | Products

Product choice 1FK7042- Back Continue

↓ Motors

↓ Synchronous motors

1FK7

→ Geometrical data

→ Techn. description

→ Order number

• Synchronous motors 1FT6

• Synchronous motors 1FT7

• Synchronous motors 1FE1

• Complete torque motors 1FW3

Motor type 1FK7 - Synchronous motor

Motor size 042 - Shaft height 48

Code No. 5 - Compact (Generation 1) Please select... 2 - Compact 3 - High Inertia 5 - Compact (Generation 1)

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6、按照订货号选择电机类型

## 3、选择电机的额定速度

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Product choice 1FK7042-5A Back Continue

↓ Motors

↓ Synchronous motors

1FK7

→ Geometrical data

→ Techn. description

→ Order number

• Synchronous motors 1FT6

• Synchronous motors 1FT7

• Synchronous motors 1FE1

• Complete torque motors 1FW3

• 1FW6 built-in torque motors

Motor type 1FK7 - Synchronous motor

Motor size 042 - Shaft height 48

Code No. 5 - Compact (Generation 1)

Cooling type A - Natural cooling

Rated speed Please select... Please select... C - 2000 rpm F - 3000 rpm K - 6000 rpm

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7、按照订货号选择电机速度

#### 4、选择驱动器直流母线电压等级

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**Product choice** 1FK7042-5AF [Back] [Continue]

↓ Motors  
 ↓ Synchronous motors  
 1FK7  
 → Geometrical data  
 → Techn. description  
 → Order number

- Synchronous motors 1FT6
- Synchronous motors 1FT7
- Synchronous motors 1FE1
- Complete torque motors 1FW3
- 1FW6 built-in torque motors
- Geared motors 1FT7/1FT6/1FK7
- Asynchronous motors

Motor type: 1FK7 - Synchronous motor  
 Motor size: 042 - Shaft height 48  
 Code No.: 5 - Compact (Generation 1)  
 Cooling type: A - Natural cooling  
 Rated speed: F - 3000 rpm  
 DC link voltage: Please select...  
 2 - 300 V  
 7 - 600 V

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8、按照订货号选择驱动器直流母线

#### 5、选择编码器类型

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**Product choice** 1FK7042-5AF71-1 [Back] [Continue]

↓ Motors  
 ↓ Synchronous motors  
 1FK7  
 → Geometrical data  
 → Techn. description  
 → Order number

- Synchronous motors 1FT6
- Synchronous motors 1FT7
- Synchronous motors 1FE1
- Complete torque motors 1FW3
- 1FW6 built-in torque motors
- Geared motors 1FT7/1FT6/1FK7
- Asynchronous motors 1PH7
- Asynchronous motors 1PH4
- Asynchronous motors 1PL6
- Asynchronous motors 1PM4
- Asynchronous motors

Motor type: 1FK7 - Synchronous motor  
 Motor size: 042 - Shaft height 48  
 Code No.: 5 - Compact (Generation 1)  
 Cooling type: A - Natural cooling  
 Rated speed: F - 3000 rpm  
 DC link voltage: 7 - 600 V  
 Type of construction: 1 - IM B5  
 Connection system: 1 - Connector rotatable  
 Encoder system: Please select...  
 Please select...  
 A - Incremental encoder sin/cos 1Vpp 2048 S/R with C...  
 D - Incremental encoder 22 bits with 11 bits communta...  
 E - Absolut encoder EnDat 2048 pulses/revolution, wit...  
 F - Absolut encoder 22 bit Singleturn + 12 bit Multit...  
 K - Absolut encoder 16 bit Singleturn + 12 bit Multit...  
 G - Absolut encoder EnDat 32 S/R, without DRIVE-CLiQ  
 P - Resolver 14 bit, with DRIVE-CLiQ  
 S - Resolver multipolar, without DRIVE-CLiQ  
 T - Resolver 2-pole, without Drive CLiQ  
 U - Resolver 15 bit, with DRIVE-CLiQ

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9、按照订货号选择编码器类型

## 6、选择电机机械要求

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CAD CREATOR Home | Products

Product choice **1FK7042-5AF71-1A** Back Continue

↓ Motors  
↓ Synchronous motors  
1FK7  
→ Geometrical data  
→ Techn. description  
→ Order number

- Synchronous motors 1FT6
- Synchronous motors 1FT7
- Synchronous motors 1FE1
- Complete torque motors 1FW3
- 1FW6 built-in torque motors
- Geared motors 1FT7/1FT6/1FK7
- Asynchronous motors 1PH7
- Asynchronous motors 1PH4

Motor type	1FK7 - Synchronous motor
Motor size	042 - Shaft height 48
Code No.	5 - Compact (Generation 1)
Cooling type	A - Natural cooling
Rated speed	F - 3000 rpm
DC link voltage	7 - 600 V
Type of construction	1 - IM B5
Connection system	1 - Connector rotatable
Encoder system	A - Incremental encoder sin/cos 1Vpp 2048 S/R with C track and D track, without DRIVE-CLiQ
Mechanical options	Please select... Please select... A - Shaft with key, radial eccentricity tolerance N, ... B - Shaft with key, radial eccentricity tolerance N, ... G - Keyless shaft, radial eccentricity tolerance N, w...

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10、按照订货号 选择机械要求

## 7、选择电机防护等级

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CAD CREATOR Home | Products

Product choice **1FK7042-5AF71-1AA** Back Continue

↓ Motors  
↓ Synchronous motors  
1FK7  
→ Geometrical data  
→ Techn. description  
→ Order number

- Synchronous motors 1FT6
- Synchronous motors 1FT7
- Synchronous motors 1FE1
- Complete torque motors 1FW3
- 1FW6 built-in torque motors
- Geared motors 1FT7/1FT6/1FK7
- Asynchronous motors 1PH7
- Asynchronous motors 1PH4
- Asynchronous motors 1PL6
- Asynchronous motors 1PM4

Motor type	1FK7 - Synchronous motor
Motor size	042 - Shaft height 48
Code No.	5 - Compact (Generation 1)
Cooling type	A - Natural cooling
Rated speed	F - 3000 rpm
DC link voltage	7 - 600 V
Type of construction	1 - IM B5
Connection system	1 - Connector rotatable
Encoder system	A - Incremental encoder sin/cos 1Vpp 2048 S/R with C track and D track, without DRIVE-CLiQ
Mechanical options	A - Shaft with key, radial eccentricity tolerance N, without holding brake
Protection class/Coating	Please select... Please select... 0 - IP64 2 - IP65 and additional IP67 drive end flange 3 - IP64, coated (Standard: anthracite grey RAL 7016) 5 - IP65 and additional IP67 drive end flange, with p...

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11、按照订货号 选择防护等级及喷漆要求

8、如果电机有可选件，勾选相应的选件号，然后点击 continue 按钮完成产品配置

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CAD CREATOR Home | Products

Product choice 1FK7042-5AF71-1AA3 Back Continue

↓ Motors

↓ Synchronous motors 1FK7

→ Geometrical data

→ Techn. description

→ Order number

• Synchronous motors 1FT6

• Synchronous motors 1FT7

• Synchronous motors 1FE1

• Complete torque motors 1FW3

• 1FW6 built-in torque motors

• Geared motors 1FT7/1FT6/1FK7

• Asynchronous motors 1PH7

• Asynchronous motors 1PH4

Options

special color

X01 Jet black RAL 9005 ⓘ

X02 Cream RAL 9001 ⓘ

X03 Reseda green RAL 6011 ⓘ

X04 Pebble gray RAL 7032 ⓘ

X05 Sky blue RAL 5015 ⓘ

X06 Light ivory RAL 1015 ⓘ

Shaft end

N05 Atypical shaft end (same dimensions as in 1FT5) ⓘ

12、点击完成配置

## 2.3 图纸生成

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CAD CREATOR Home | Products

Product choice 1FK7042-5AF71-1AA3 Back Continue

↓ Motors

↓ Synchronous motors 1FK7

→ Geometrical data

→ Techn. description

→ Order number

• Synchronous motors 1FT6

• Synchronous motors 1FT7

• Synchronous motors 1FE1

• Complete torque motors 1FW3

• 1FW6 built-in torque motors

• Geared motors 1FT7/1FT6/1FK7

• Asynchronous motors 1PH7

• Asynchronous motors 1PH4

• Asynchronous motors 1PL6

Description Technical data

Motor type	1FK7 Synchronous motor
Motor size	042 Shaft height 48
Code No.	5 Compact (Generation 1)
Cooling type	A Natural cooling
Rated speed	F 3000 rpm
DC link voltage	7 600 V
Type of construction	1 IM B5
Connection system	1 Connector rotatable
Encoder system	A Incremental encoder sin/cos 1Vpp 2048 S/R with C track and D track, without DRIVE-CLIQ
Mechanical options	A Shaft with key, radial eccentricity tolerance N, without holding brake
Protection class/Coating	3 IP64, coated (Standard: anthracite grey RAL 7016)

CAD data

→ Dimension drawing

→ 2D-Export

→ 3D-Export

Product information

→ Documentation

↓ Create PDF

↓ Create RTE

Help

↓ FAQs/Tips&Tricks

↓ How to work effective with the CAD CREATOR

Link Box

13、点击选择生成图纸类型



本例选择尺寸图 Dimension drawing

可以点击预览 PDF 格式的尺寸图，并另存为文档保存；也可以输入邮箱地址，系统会将图纸自动发送指定邮箱：

The screenshot shows the Siemens CAD Creator interface. The main content area is titled '1FK7042-5AF71-1AA3' and 'Dimension drawing'. It features several configuration options:

- Model dimension unit:** Radio buttons for 'mm' (selected) and 'Inch'.
- File format:** Radio buttons for 'PDF' (selected) and 'DXF'.
- Compression:** A dropdown menu set to 'WinZIP'.
- Your e-mail address:** An input field with a confirmation prompt below it.

Red annotations highlight the following elements:

- 16、点击接收图纸:** A red box around the 'Continue' button in the top right corner.
- 14、点击预览尺寸图:** A red box around the 'PDF-view' button in the left sidebar.
- 15、输入邮箱地址:** A red box around the email input field and its confirmation prompt.

尺寸图 Dimension drawing 样例：

