

SIEMENS

常问问题 • 02/2015

如何使用 CAD CREATOR 导出 设备尺寸图

CAD Creator, Dimension Drawing

<https://support.industry.siemens.com/cs/cn/zh/view/109477020>

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1 概述

CAD CREATOR 是西门子提供的驱动产品选型并生成其产品尺寸图的一个工具软件，用于 SIMOTICS、SINAMICS、SIMOTION 和 SINUMERICK 产品。软件有在线和离线两个版本，在线版可直接在网页上进行操作，通过点击下述链接进入：

<http://www.cad-creator.com/CADCreator/>

离线版本(当前最新版本是 CAD CREATOR 2.0)需要先下载，之后安装软件进行离线配置，本文以离线版本为准，介绍它的具体使用方法。

2 离线版本的软件安装

对于操作系统的要求:

- Windows 7 Ultimate、Enterprise 和 Professional 64 位、Enterprise、Professional 和 Home Basic 32 位
- Windows Vista Business 32 位

软件下载链接如下:

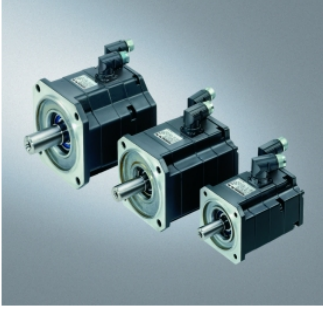
<http://support.automation.siemens.com/WW/view/en/57218443>

当下载软件后将 ZIP 文件进行解压缩，双击 SETUP.EXE 文件后进行软件安装。

3 软件使用步骤

软件使用步骤如表 3-1 所示。

序号	说明
1	<p>打开 CAD CREATOR 软件，可以直接在右边的红框中输入电机的订货号，点击 " Order No. search " 按钮，可直接搜寻到该电机的 CAD 图形数据。</p> 
2	<p>如果需要进行简单的驱动器及电机的选型，可以从左边红框里选出想要的组件。</p> 
3	<p>以 1FK7 电机为例进行说明：</p>

	<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>↓ SIMOTICS</p> <p>→ SIMOTICS S - 1FK7</p> <ul style="list-style-type: none"> → Geometrical data → Techn. description → Order number <ul style="list-style-type: none"> → SIMOTICS S - 1FT6 → SIMOTICS S - 1FT7 → SIMOTICS M - 1FE1 → SIMOTICS T - 1FW3 → SIMOTICS T - 1FW6 → SIMOTICS S - Geared motors → SIMOTICS M - 1PH7 → SIMOTICS M - 1PH4 → SIMOTICS M - 1PL6 → SIMOTICS M - 1PM4 → SIMOTICS M - 1PM6 → SIMOTICS M - 1PH8 → Motor spindles 2SP1 → SIMOTICS L - 1FN3 → SIMOTICS L - 1FN6 • SINAMICS S110 / S120 • SIMOTION • SINUMERIK </div> <div style="width: 35%;"> <p>Overview</p>  <p>The 1FK7 motors are extremely compact, permanent-magnet synchronous motors. The available options, gear units, and encoders together with the expanded product range, mean that the 1FK7 motors can be optimally adapted to</p> </div> <div style="width: 30%;"> <p>The motors are designed for operation without external cooling whereby generated heat is dissipated through the motor surface.</p> <p>Use</p> <p>Features of 1FK7 Compact Motors:</p> <ul style="list-style-type: none"> • Space saving installations due to extremely high power density • Universal usable for many applications • Huge motor spectrum • Expanded power spectrum <p>Features of 1FK7 High Dynamic Motors:</p> <ul style="list-style-type: none"> • Extremely high dynamic response due to low rotor moment of inertia • High short-time overload capacity <p>The 1FK7 High Inertia offer:</p> <ul style="list-style-type: none"> • Robust stabilization features by high and </div> </div>																										
4	<p>选择电机的轴高:</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>Product choice</p> <p>↓ SIMOTICS</p> <p>↓ SIMOTICS S - 1FK7</p> <ul style="list-style-type: none"> → Geometrical data → Techn. description → Order number <ul style="list-style-type: none"> • SIMOTICS S - 1FT6 • SIMOTICS S - 1FT7 • SIMOTICS M - 1FE1 • SIMOTICS T - 1FW3 • SIMOTICS T - 1FW6 • SIMOTICS S - Geared motors • SIMOTICS M - 1PH7 • SIMOTICS M - 1PH4 • SIMOTICS M - 1PL6 • SIMOTICS M - 1PM4 • SIMOTICS M - 1PM6 • SIMOTICS M - 1PH8 • Motor spindles 2SP1 • SIMOTICS L - 1FN3 • SIMOTICS L - 1FN6 </div> <div style="width: 35%;"> <p>Order number</p> <p>1FK7 - [] [] [] [] [] [] - [] [] [] []</p> <p>Motor size:</p> <table border="1"> <thead> <tr> <th>Selection</th> <th>Description</th> </tr> </thead> <tbody> <tr><td>011</td><td>Shaft height 20</td></tr> <tr><td>015</td><td>Shaft height 20</td></tr> <tr><td>022</td><td>Shaft height 28</td></tr> <tr><td>024</td><td>Shaft height 28</td></tr> <tr><td>032</td><td>Shaft height 36</td></tr> <tr><td>033</td><td>Shaft height 36</td></tr> <tr><td>034</td><td>Shaft height 36</td></tr> <tr><td>040</td><td>Shaft height 48</td></tr> <tr><td>041</td><td>Shaft height 48</td></tr> <tr><td>042</td><td>Shaft height 48</td></tr> <tr><td>043</td><td>Shaft height 48</td></tr> <tr><td>044</td><td>Shaft height 48</td></tr> </tbody> </table> </div> <div style="width: 30%;"> <p>Back Continue</p> </div> </div>	Selection	Description	011	Shaft height 20	015	Shaft height 20	022	Shaft height 28	024	Shaft height 28	032	Shaft height 36	033	Shaft height 36	034	Shaft height 36	040	Shaft height 48	041	Shaft height 48	042	Shaft height 48	043	Shaft height 48	044	Shaft height 48
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5	<p>选择电机的类型:</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>Product choice</p> <p>↓ SIMOTICS</p> <p>↓ SIMOTICS S - 1FK7</p> <ul style="list-style-type: none"> → Geometrical data → Techn. description → Order number <ul style="list-style-type: none"> • SIMOTICS S - 1FT6 • SIMOTICS S - 1FT7 • SIMOTICS M - 1FE1 • SIMOTICS T - 1FW3 • SIMOTICS T - 1FW6 • SIMOTICS S - Geared motors • SIMOTICS M - 1PH7 • SIMOTICS M - 1PH4 </div> <div style="width: 35%;"> <p>Order number</p> <p>1FK7 011 - [] [] [] [] [] [] - [] [] [] []</p> <p>Code No.:</p> <table border="1"> <thead> <tr> <th>Selection</th> <th>Description</th> </tr> </thead> <tbody> <tr><td>5</td><td>Compact (Generation 1)</td></tr> </tbody> </table> </div> <div style="width: 30%;"> <p>Back Continue</p> </div> </div>	Selection	Description	5	Compact (Generation 1)																						
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7	<p>选择电机的额定转速:</p> <p>Product choice</p> <ul style="list-style-type: none"> ↓ SIMOTICS ↓ SIMOTICS S - 1FK7 <ul style="list-style-type: none"> → Geometrical data → Techn. description → Order number • SIMOTICS S - 1FT6 • SIMOTICS S - 1FT7 • SIMOTICS M - 1FE1 • SIMOTICS T - 1FW3 • SIMOTICS T - 1FW6 <p>Order number Back Continue</p> <p>1FK7 011 - 5 A I - - - - -</p> <p>Rated speed:</p> <table border="1"> <thead> <tr> <th>Selection</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>K</td> <td>6000 rpm</td> </tr> </tbody> </table>	Selection	Description	K	6000 rpm		
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8	<p>选择电机的直流母线电压:</p> <p>Product choice</p> <ul style="list-style-type: none"> ↓ SIMOTICS ↓ SIMOTICS S - 1FK7 <ul style="list-style-type: none"> → Geometrical data → Techn. description → Order number • SIMOTICS S - 1FT6 • SIMOTICS S - 1FT7 • SIMOTICS M - 1FE1 • SIMOTICS T - 1FW3 • SIMOTICS T - 1FW6 • SIMOTICS S - Geared motors <p>Order number Back Continue</p> <p>1FK7 011 - 5 A K I - - - - -</p> <p>DC link voltage:</p> <table border="1"> <thead> <tr> <th>Selection</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>300 V</td> </tr> <tr> <td>7</td> <td>600 V</td> </tr> </tbody> </table>	Selection	Description	2	300 V	7	600 V
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7	600 V						
9	<p>选择电机的安装方式:</p> <p>Product choice</p> <ul style="list-style-type: none"> ↓ SIMOTICS ↓ SIMOTICS S - 1FK7 <ul style="list-style-type: none"> → Geometrical data → Techn. description → Order number • SIMOTICS S - 1FT6 • SIMOTICS S - 1FT7 • SIMOTICS M - 1FE1 • SIMOTICS T - 1FW3 • SIMOTICS T - 1FW6 <p>Order number Back Continue</p> <p>1FK7 011 - 5 A K 7 I - - - - -</p> <p>Type of construction:</p> <table border="1"> <thead> <tr> <th>Selection</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>IM B5</td> </tr> </tbody> </table>	Selection	Description	1	IM B5		
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10	<p>选择电机的连接接头:</p> <p>Product choice</p> <ul style="list-style-type: none"> ↓ SIMOTICS ↓ SIMOTICS S - 1FK7 <ul style="list-style-type: none"> → Geometrical data → Techn. description → Order number • SIMOTICS S - 1FT6 • SIMOTICS S - 1FT7 • SIMOTICS M - 1FE1 • SIMOTICS T - 1FW3 • SIMOTICS T - 1FW6 <p>Order number Back Continue</p> <p>1FK7 011 - 5 A K 7 1 - I - - - - -</p> <p>Connection system:</p> <table border="1"> <thead> <tr> <th>Selection</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Connector rotatable</td> </tr> </tbody> </table>	Selection	Description	1	Connector rotatable		
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11	<p>选择电机的编码器类型:</p>						

	<div style="display: flex; justify-content: space-between;"> <div style="width: 25%;"> <p>Product choice</p> <p>↓ SIMOTICS</p> <p>↓ SIMOTICS S - 1FK7</p> <p>→ Geometrical data</p> <p>→ Techn. description</p> <p>→ Order number</p> <ul style="list-style-type: none"> • SIMOTICS S - 1FT6 • SIMOTICS S - 1FT7 • SIMOTICS M - 1FE1 • SIMOTICS T - 1FW3 • SIMOTICS T - 1FW6 • SIMOTICS S - Geared motors • SIMOTICS M - 1PH7 </div> <div style="width: 60%;"> <p>Order number Back Continue</p> <p>1FK7 011 - 5 A K 7 1 - 1 I</p> <p>Encoder system:</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Selection</th> <th>Description</th> </tr> </thead> <tbody> <tr style="background-color: #e0e0e0;"> <td>A</td> <td>Incremental encoder sin/cos 1Vpp 2048 S/R with C track and D track, witho</td> </tr> <tr> <td>J</td> <td>Absolut encoder EnDat 16 pulses/revolution, without DRIVE-CLiQ</td> </tr> <tr> <td>S</td> <td>Resolver multipolar, without DRIVE-CLiQ</td> </tr> <tr> <td>T</td> <td>Resolver 2-pole, without Drive CLiQ</td> </tr> </tbody> </table> </div> </div>	Selection	Description	A	Incremental encoder sin/cos 1Vpp 2048 S/R with C track and D track, witho	J	Absolut encoder EnDat 16 pulses/revolution, without DRIVE-CLiQ	S	Resolver multipolar, without DRIVE-CLiQ	T	Resolver 2-pole, without Drive CLiQ
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12	<p>选择电机是否带抱闸和轴端的键:</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 25%;"> <p>Product choice</p> <p>↓ SIMOTICS</p> <p>↓ SIMOTICS S - 1FK7</p> <p>→ Geometrical data</p> <p>→ Techn. description</p> <p>→ Order number</p> <ul style="list-style-type: none"> • SIMOTICS S - 1FT6 • SIMOTICS S - 1FT7 • SIMOTICS M - 1FE1 • SIMOTICS T - 1FW3 • SIMOTICS T - 1FW6 • SIMOTICS S - Geared motors • SIMOTICS M - 1PH7 </div> <div style="width: 60%;"> <p>Order number Back Continue</p> <p>1FK7 011 - 5 A K 7 1 - 1 A I</p> <p>Mechanical options:</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Selection</th> <th>Description</th> </tr> </thead> <tbody> <tr style="background-color: #e0e0e0;"> <td>A</td> <td>Shaft with key, radial eccentricity tolerance N, without holding brake</td> </tr> <tr> <td>B</td> <td>Shaft with key, radial eccentricity tolerance N, with holding brake</td> </tr> <tr> <td>G</td> <td>Keyless shaft, radial eccentricity tolerance N, without holding brake</td> </tr> <tr> <td>H</td> <td>Keyless shaft, radial eccentricity tolerance N, with holding brake</td> </tr> </tbody> </table> </div> </div>	Selection	Description	A	Shaft with key, radial eccentricity tolerance N, without holding brake	B	Shaft with key, radial eccentricity tolerance N, with holding brake	G	Keyless shaft, radial eccentricity tolerance N, without holding brake	H	Keyless shaft, radial eccentricity tolerance N, with holding brake
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H	Keyless shaft, radial eccentricity tolerance N, with holding brake										
13	<p>选择电机的防护等级:</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 25%;"> <p>Product choice</p> <p>↓ SIMOTICS</p> <p>↓ SIMOTICS S - 1FK7</p> <p>→ Geometrical data</p> <p>→ Techn. description</p> <p>→ Order number</p> <ul style="list-style-type: none"> • SIMOTICS S - 1FT6 • SIMOTICS S - 1FT7 • SIMOTICS M - 1FE1 • SIMOTICS T - 1FW3 • SIMOTICS T - 1FW6 </div> <div style="width: 60%;"> <p>Order number Back Continue</p> <p>1FK7 011 - 5 A K 7 1 - 1 A A I</p> <p>Protection class/Coating:</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Selection</th> <th>Description</th> </tr> </thead> <tbody> <tr style="background-color: #e0e0e0;"> <td>3</td> <td>IP54, coated (Standard: anthracite grey RAL 7016)</td> </tr> </tbody> </table> </div> </div>	Selection	Description	3	IP54, coated (Standard: anthracite grey RAL 7016)						
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14	<p>选择电机的喷漆颜色:</p> <div style="border: 1px solid #ccc; padding: 5px;"> <p>Options</p> <p>special color</p> <ul style="list-style-type: none"> <input type="checkbox"/> X01 Jet black RAL 9005 i <input type="checkbox"/> X02 Cream RAL 9001 i <input type="checkbox"/> X03 Reseda green RAL 6011 i <input type="checkbox"/> X04 Pebble gray RAL 7032 i <input type="checkbox"/> X05 Sky blue RAL 5015 i <input type="checkbox"/> X06 Light ivory RAL 1015 i </div>										
15	<p>所有电机数据输入配置完成后，即可以在最终的画面中导出电机的2D，3D尺寸图，在红框位置输出相应的图纸:</p>										

1FK7011-5AK71-1AA3
Back

Description	Technical data
Motor type	1FK7 Synchronous motor
Motor size	011 Shaft height 20
Code No.	5 Compact (Generation 1)
Cooling type	A Natural cooling
Rated speed	K 6000 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 IP54, coated (Standard: anthracite grey RAL 7016)

Project

- New
- Insert
- Edit

CAD data

- Dimension drawing
- 2D-Viewer
- 3D-Viewer
- 2D-Export
- 3D-Export

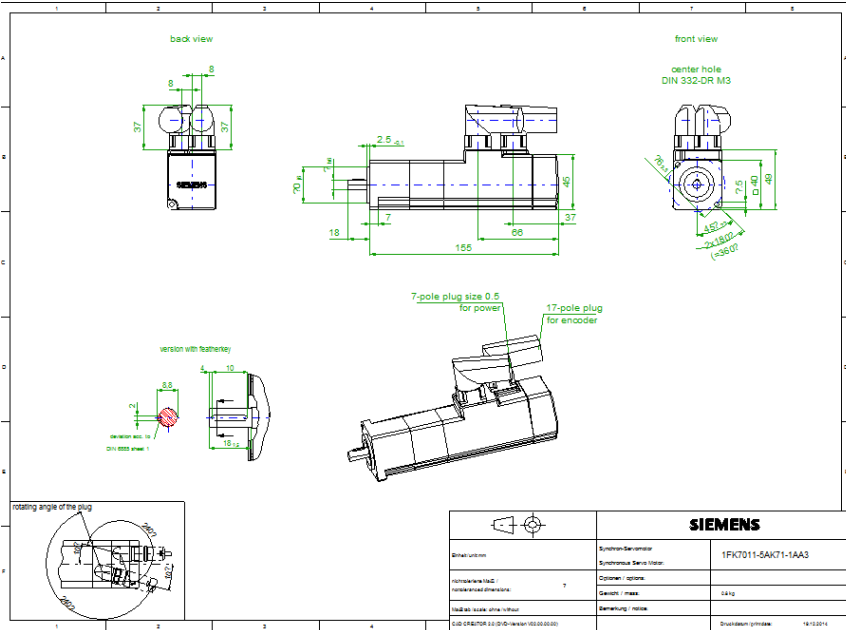
Product information

- Documentation
- Print
- ↓ PDF Save as PDF
- ↓ RTF Save as RTE

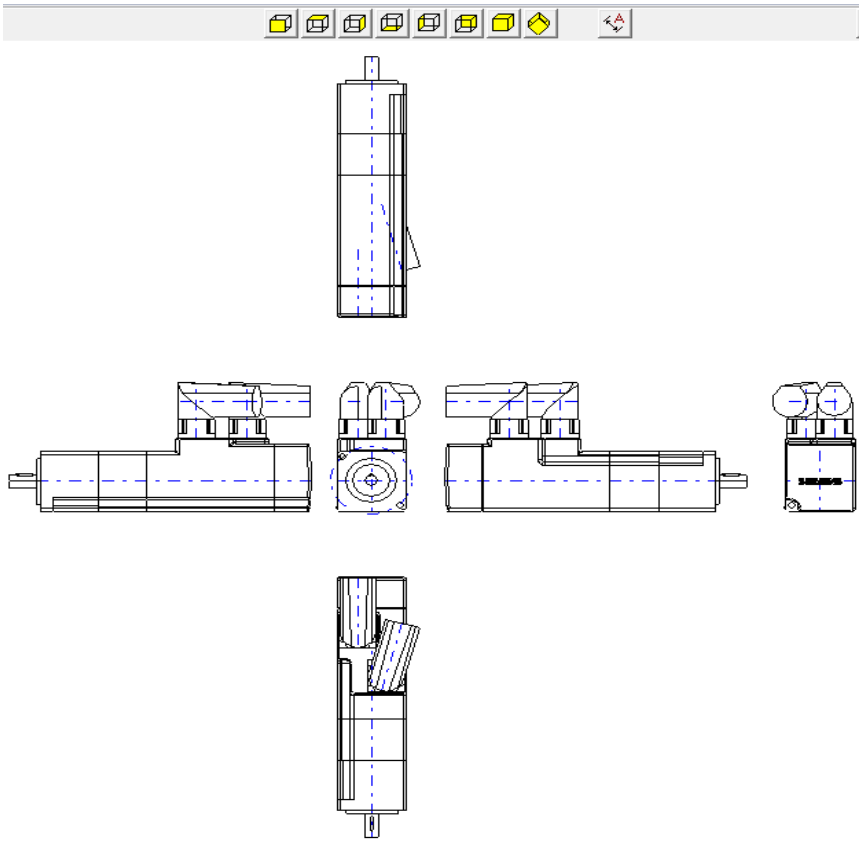
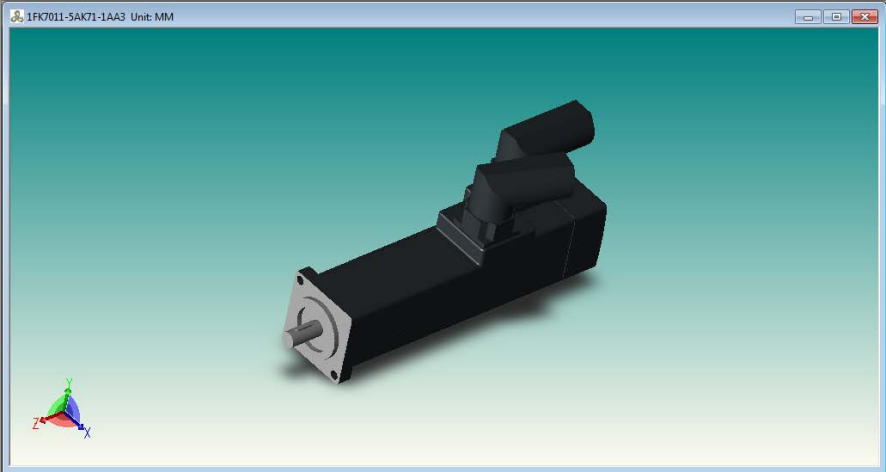
Help

- ↓ PDF FAQs/Tips&Tricks
- ↓ PDF How to work effective with the CAD CREATOR

16 Dimension Drawing, 显示电机各个部分的尺寸大小:



17 2D-viewer, 电机各个角度的 2D 视图 :

	
18	3D-viewer, 电机的 3D 视图: 
19	2D-Export, 2D 视图导出, 可以导出 dxf 格式的文件:

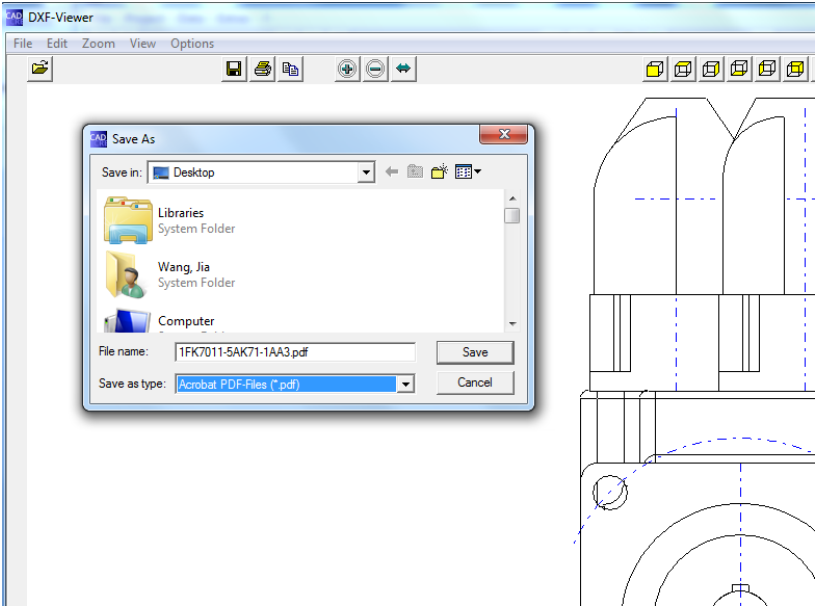
	<p>1FK7011-5AK71-1AA3 Back Export</p> <ul style="list-style-type: none"> <input checked="" type="radio"/> Front view <input type="radio"/> Top view <input type="radio"/> Left view <input type="radio"/> Right view <input type="radio"/> Rear view <input type="radio"/> Bottom view <input type="radio"/> 3D view <input type="radio"/> all views
20	<p>CAD CREATOR 自带的 dxf-viewer 可以打开此文件，并把其另存为 pdf 格式：</p> 
21	<p>3D-Export, 将 3D 视图以自己所需的格式导出：</p> <p>1FK7011-5AK71-1AA3 Back Export</p> <p>CAD-target system</p> <p>AutoCAD</p> <p>When importing into AutoCAD select within the menu "Insert" the entry "ACIS file" or the command ACISIN.</p> <ul style="list-style-type: none"> <input checked="" type="radio"/> SAT <input type="radio"/> CATIA <input type="radio"/> IGES <input type="radio"/> PARASOLID <input type="radio"/> STEP <input type="radio"/> VDAFS <p>Dimension unit</p> <ul style="list-style-type: none"> <input checked="" type="radio"/> mm <input type="radio"/> inch <input type="radio"/> m

表 3-1 软件使用步骤