


Printing Arc Flash Labels from EasyPower®



This tutorial demonstrates how to print PDF Arc Flash Hazard labels.

1. Entering Short Circuit Focus

To perform Arc Flash Hazard analysis, you must be in the Short Circuit focus.

- Open the one-line you will use to create the arc flash hazard labels.
- Enter Short Circuit focus by choosing the  (Short Circuit) button on the toolbar. A Short Circuit toolbar appears.

2. Calculating Arc Flash Hazards / Currents

- Select all the desired bus labels. For multiple buses, hold down the **Ctrl Key** while selecting buses.
- Press the  (Arc Flash) toolbar button.
- Press the  (Fault) toolbar button. This runs a batch fault of all buses selected in the system. If no buses are selected, all buses are faulted.
Shortcut: double click on buses to individually fault them.

The program displays the arc flash boundary (AFB), incident energy, and the recommended personal protective equipment (PPE) category for operation near the energized buses in the system [See Figure 1].

For example, a PPE category of three is recommended (based on IEEE 1584) for any person working 18 inches from energized BUS-4.

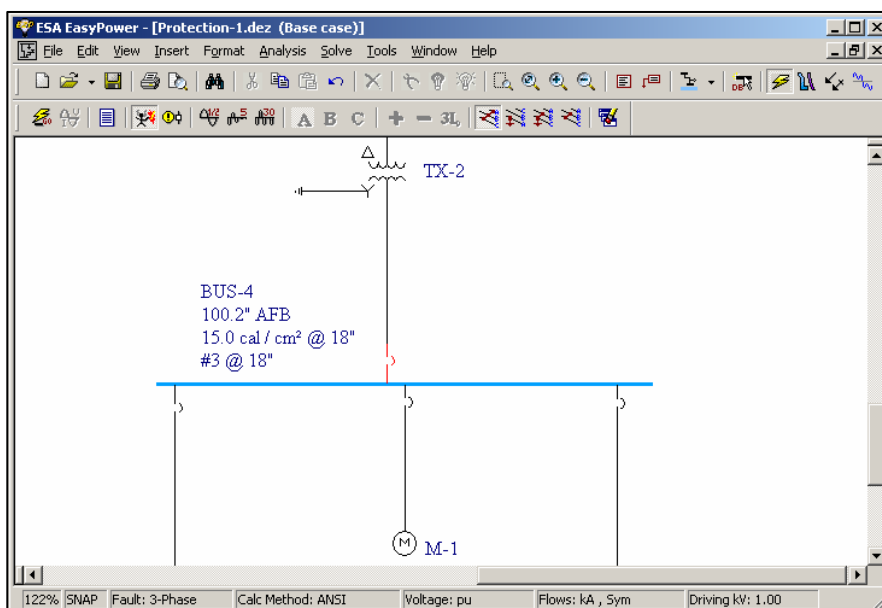


Figure 1: Arc Flash Results on the one-line

3. Creating an Arc Flash Spreadsheet Report

- Select **Tools**, then **Short Circuit Options** from the menu. A dialog box will appear. Choose the **Arc Flash Hazard** tab. Click on box next to Arc Flash Spreadsheet [See Figure 2].
- To view the Arc Flash Spreadsheet, select **Arc Flash Hazard Report** from the **Window** menu [See Figure 3].

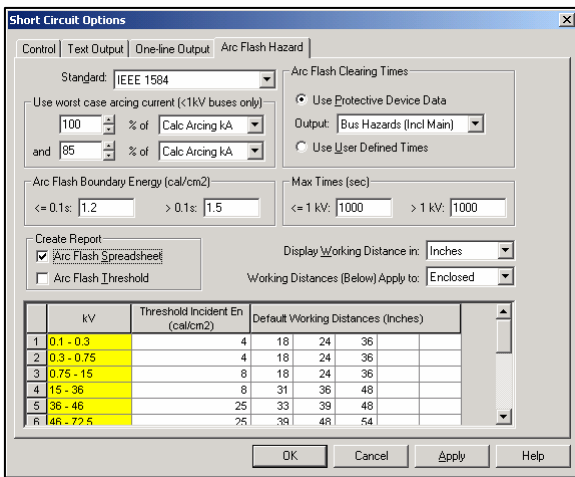


Figure 2: Arc Flash Hazard dialog box

The screenshot shows the 'Arc Flash Hazard Report for "Protection-1.dez (Base case)"' window. The report table contains the following data:

Arc Fault Bus Name	Arc Fault Bus kV	Upstream Trip Device Name	Upstream Trip Device Function	Equip Type	Arc Gap (mm)	Bolted Fault (kA)	Est Arc Fault (kA)	Trip Time (sec)	Opening Time (sec)	Arc Time (sec)	Est Arc Flash Boundary	Working Distance (inches)	Incident Energy (cal/cm2)	Required Clothing Class
BUS-3	13.8	Primary	51/50	Open Air	153	9.843	9.56			0.2	31.8	26	1.8	#0
BUS-4	0.48	BL-1		Switchgear	32	18.706	10.645	0.34	0	0.34	100.2	18	15	#3
BUS-7	13.8	Primary	51/50	Open Air	153	9.92	9.634			0.2	31.9	26	1.8	#0
BUS-9	13.8	Primary	51/50	Open Air	153	9.725	9.447			0.2	31.6	26	1.8	#0
BUS-10	0.48	Primary	51/50	Switchgear	32	8.743	5.649			0.2	37	18	3.5	#1
MAIN SWG	13.8	R-4	51/50	Switchgear	153	9.301	9.042	0.32	0.083	0.403	157.7	18	9.9	#3
MCC-1	0.48	BL-2		MCC	25	17.812	10.773	0.19	0	0.19	56.6	18	7.9	#2
MCC-2	0.48	BL-4		MCC	25	18.607	11.183	0.19	0	0.19	55.8	18	7.7	#2

Figure 3: Arc Flash Hazard Report

4. Printing Arc Flash Labels to PDF

The interface for printing arc flash labels is inside the EasyPower Arc Flash Spreadsheet. Right mouse click on a spreadsheet row, and choose either “Print Label for Current Device” or “Print Label for All Devices”. When selecting “Print Label for All Devices”, please note that all labels are printed in the same order as shown on the Arc Flash Spreadsheet.

- Specify label dimensions. We recommend the following label dimensions:
Height: 4 inches
Width: 6 inches

To print customized dimensions:

Select the PDF writer installed on your computer from the **Print Dialog Box**.

Click on Properties to set label dimensions. Setting page sizes may differ for each PDF writer.

- If any additional comments are needed, add them in the Comment Text box.
- Press **OK**.
- A dialog box will appear requesting a file name and location to save the PDF. Name and save the file.
- A PDF label is shown in Figure 4.


 WARNING	
Arc Flash and Shock Hazard Appropriate PPE Required	
13' - 2" 9.9 #3	Flash Hazard Boundary cal/cm ² Flash Hazard at 18 Inches PPE Level Cotton underwear plus FR shirt & FR pants plus FR coverall
13.8 5' - 0" 2' - 2" 0' - 7"	kV Shock Hazard when cover is removed Limited Approach Restricted Approach - Class 2 Voltage Gloves Prohibited Approach - Class 2 Voltage Gloves
Equipment Name: MAIN SWG Comment	

Figure 4: PDF of an Arc Flash Hazard Label

Tips for Printing Labels

- Organize the labels by Switchgear, Panel, MCC, or other method to make it easier for you to place the labels in the field.
- The printer driver prints only one label in each row of the Arc Flash Spreadsheet at a time. If you need more than one label for a piece of equipment, create additional PDF labels by repeating the printing procedure.
- To remove rows, right mouse click on the spreadsheet row and choose “Delete Row”.
- For buses not needing labels, check the “Exclude this bus from Arc Flash Report” box under the arc flash tab in the Bus data dialog box (located in Database focus). This bus will not appear in the Arc Flash Spreadsheet.

ESA’s Printing Services

ESA can provide high-quality, multi-color, self-adhesive Arc Flash hazard labels meeting OSHA requirements and industry standards. Please note all labels will be printed and returned in the order submitted. Following the receipt of your order and EasyPower ArcFlash PDF files, we will process and ship as soon as possible. Pricing is available upon request. Contact sales@EasyPower.com for more information.