



## **Arc Flash Solutions**

Stock Labels
Make-it-yourself Solutions
Training Aids
Arc Flash Facts

#### **Arc Flash Fact Sheet**

## **Arc Flash Hazard Categories & Personal Protection Requirements**

Taken from NFPA 70E, Standard for Electrical Safety in the Workplace

the Wor	ne Workplace			
Hazard Category	• •	Incident Energy cal/cm²		
	Hazard Category 0			
0	Longsleeve Shirt & Long Pants	n/a		
	(natural fibers)			
0	Safety Glasses or Safety Goggles	n/a		
0	Hearing Protection (Ear Canal Inserts)	n/a		
0	Leather Gloves (as needed)	n/a		
	Hazard Category 1			
1	Arc-Rated Longsleeve Shirt & Long Pants (or Arc-Rated Coverall)	4		
1	Arc-Rated Face Shield or Arc Flash Hood	4		
1	Arc-Rated Jacket, Parka, Rain Wear or Hard Hat Liner (as needed)	4		
1	Hard Hat	4		
1	Safety Glasses or Safety Goggles	4		
1	Hearing Protection (Ear Canal Inserts)	4		
1	Leather Gloves	4		
1	Leather Work Shoes (as needed)	4		
	Hazard Category 2			
2	Arc-Rated Longsleeve Shirt & Long Pants (or Arc-Rated Coverall)	8		
2	Arc-Rated Face Shield or Arc Flash Hood	8		
2	Arc-Rated Jacket, Parka, Rain Wear or Hard Hat Liner (as needed)	8		
2	Hard Hat	8		
2	Safety Glasses or Safety Goggles	8		
2	Hearing Protection (Ear Canal Inserts)	8		
2	Leather Gloves	8		
2	Leather Work Shoes	8		
	Hazard Category 3			
3	Arc-Rated Longsleeve Shirt & Long Pants (or Arc-Rated Coverall)	25		
3	Arc-Rated Arc Flash Suit Jacket & Pants	25		
3	Arc-Rated Arc Flash Hood	25		
3	Arc-Rated Jacket, Parka, Rain Wear or Hard Hat Liner (as needed)	25		
3	Hard Hat & Arc-Rated Hard Hat Liner	25		
3	Safety Glasses or Safety Goggles	25		
3	Hearing Protection (Ear Canal Inserts)	25		
3	Leather Work Shoes	25		
3	Arc-Rated Gloves	25		
	Hazard Category 4			
4	Arc-Rated Longsleeve Shirt & Long Pants (or Arc-Rated Coverall)	40		
4	Arc-Rated Arc Flash Suit Jacket & Pants	40		
4	Arc-Rated Arc Flash Hood	40		
4	Arc-Rated Jacket, Parka, Rain Wear or Hard Hat Liner (as needed)	40		
4	Hard Hat & Arc-Rated Hard Hat Liner	40		
4	Safety Glasses or Safety Goggles	40		
4	Hearing Protection (Ear Canal Inserts)	40		
4	Leather Work Shoes	40		
4	Arc-Rated Gloves	40		

<sup>\*</sup> Arc Rating of PPE should correspond with the Hazard level and Incident Energy present. Voltage-rated gloves and other shock protection may also be required when working on exposed energized electrical parts.



## OSHA is citing for arc flash violations. Know the requirements!

## NFPA 70E Standard For Electrical Safety In The Workplace, 2012

#### 130.3 (C) Equipment Labeling

Electrical equipment that is in other than dwelling units, and is likely to require examination, adjustment, servicing, or maintenance while energized, shall be field marked with a label containing all the following information:

- (1) At least one of the following: Available incident energy with corresponding working distance, Minimum arc rating of clothing, Required level of PPE, and/or Highest Hazard/Risk Category (HRC) for the equipment.
- (2) Nominal system voltage.
- (3) Arc flash boundary rating.

## NFPA 70 National Electric Code, 2012 110.16 Flash Protection

Switchboards, panelboards, industrial control panels, meter socket enclosures, and motor control centers that are in other than dwelling occupancies and are likely to require examination, adjustment, servicing, or maintenance while energized shall be field marked to warn qualified persons of potential electric arc flash hazards. The marking shall be located so as to be clearly visible to qualified persons before examination, adjustment, servicing, or maintenance of the equipment.





### **Brady Stock Labels**

Brady offers a variety of stock label formats. Basic warning and danger labels meet all OSHA and NFPA requirements, or for more complete accident prevention use write-on labels and fill in the appropriate hazard and safety information.

#### **Arc Flash Labels with Pre-printed Hazard Categories**

- Labels come with the hazard category and PPE requirements preprinted
- Write-in areas for specifics such as min arc rating, flash protection boundary, etc.
- B-7569 Vinyl can be written on with pen or marker.



4" x 6" Arc flash hazard

Part #	Header	Hazard	Size	Quantity
121095	Warning	0	4" x 6"	5/pack
121097	Warning	1	4" x 6"	5/pack
121099	Warning	2	4" x 6"	5/pack
121101	Warning	3	4" x 6"	5/pack
121103	Warning	4	4" x 6"	5/pack
121096	Danger	0	4" x 6"	5/pack
121098	Danger	1	4" x 6"	5/pack
121100	Danger	2	4" x 6"	5/pack
121102	Danger	3	4" x 6"	5/pack
121104	Danger	4	4" x 6"	5/pack

	NGER
	Shock Hazard PPE Required
FLASH PROTECTION Arc Flash Boundary Hazard Risk Category Incident Energy (cal/cm²) Corresponding Work Distance VAC Shock Hazard When:	SHOCK PROTECTION Limited Approach Boundary Restricted Approach Boundary Prohibited Approach Boundary  PPE: • Class • V-rating
Minimum Arc Rating of Clothing  Nominal System Voltage  PPE: ○ Arc-rated long sleeve shirt and long ○ Arc-rated flash suit jacket, pants and ○ Hard hat (with arc-rated hard hat line ○ Safety glasses or safety goggles	pants OR arc-rated coverall hood rAN) • Hearing protection (ear canal inserts) • Arc-rated gloves and leather work shoe

5" x 7" Arc flash & shock hazard

Part #	Header	Hazard	Size	Quantity
121083	Warning	0	5" x 7"	5/pack
121085	Warning	1	5" x 7"	5/pack
121087	Warning	2	5" x 7"	5/pack
121091	Warning	3	5" x 7"	5/pack
121093	Warning	4	5" x 7"	5/pack
121084	Danger	0	5" x 7"	5/pack
121086	Danger	1	5" x 7"	5/pack
121088	Danger	2	5" x 7"	5/pack
121092	Danger	3	5" x 7"	5/pack
121094	Danger	4	5" x 7"	5/pack

#### **Learn more** with our Arc Flash **Whitepaper** Download the Arc Flash Labeling Whitepaper to learn more details about compliance regulations,

Download by visiting www.BradyID.com/arcflash

labeling standards, best practices and more.



#### Write-On Arc Flash Labels

- Write-in areas for equipment-specific information like flash protection boundary, hazard category, and required PPE.
- B-7569 Vinyl can be written on with pen or marker.



4" x 6" Arc flash hazard

Part #	Header	Size	Quantity
121079	Warning	4" x 6"	5/pack
121080	Danger	4" x 6"	5/pack



5" x 7" Arc flash & shock hazard

Part #	Header	Size	Quantity
121077	Warning	5" x 7"	5/pack
121078	Danger	5" x 7"	5/pack



#### **Protective Overlaminate** for Write-on Labels

1.5 mil clear polyester overlaminate sheets help protect handwritten data on vinyl labels from chemicals and abrasion. Sheets have an acrylic layflat liner.

Part #	Size	Quantity
99272	4.5" x 6.5"	25/pack
99276	5.5" x 7.5"	25/pack



## **Brady Make-it-Yourself Printing Systems**

Brady's Make-it-Yourself printing systems feature Brady's Performance 300 dpi Thermal Transfer Printers optimized to print Brady Media and your Arc Flash labeling requirements. The printers are designed to be a convenient, flexible and cost-effective way to create, modify and print labels on demand.



#### **Brady IP™ Thermal Transfer Printer**

Brady's IP™ Thermal Transfer Printer is a new, smart solution for high-performance printing. The Brady IP™ Printer is a fully integrated, easy-to-use printer, material, and software system. Smart Cell technology allows the printer, materials, and ribbon to communicate with each other. The system offers material recognition, automatic formatting, and userfriendly printer features for labels, sleeves, and tags.

#### **Brady IP™ Thermal Transfer Printer**

Part #	Description
BP-IP300	Brady IP 300 dpi Printer
BP-IP300-C	Brady IP 300 dpi Printer with cutter
BP-IP600	Brady IP 600 dpi Printer
BP-IP600-C	Brady IP 600 dpi Printer with cutter
IP-R6000	Brady IP Printer Ribbon, Black







#### BradyPrinter™ PR Plus Printer

The Bradyprinter PR Plus is a high performance, heavy duty industrial thermal transfer printer designed to last in industrial environments. For enhanced usability, the thermal transfer printer features an easy-to-read graphic and alphanumeric LCD menu display with a convenient navigator pad and a backlit graphic display for fast, easy access to menu options. The printer offers the barcoding and graphics features you need in a durable, high-volume printer that's easy to use.

#### BradyPrinter™ PR Plus Printer

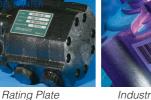
Part #	Description
BP-PR300+	PR300 Plus 300 dpi Printer
BP-PR300+-PPR	PR300 Plus 300 dpi Printer with Peel & Present
BP-PR360+	PR360 Plus 300 dpi Printer
BP-PR360+-PPR	PR360 Plus 300 dpi Printer with Peel & Present
BP-PR600+	PR600 Plus 600 dpi Printer
BP-PR600+-PPR	PR600 Plus 600 dpi Printer with Peel & Present
PR+-AutoCutter-FI	PR+ Field Installable Cutter CU4

#### **Pre-printed Header Labels for IP and PR Plus Printers**

Part #	Size	Description
THTEL-184-483-1-DA	3" x 3"	Pre-Printed Danger Header Labels
THTEL-25-483-1-DA	4" x 6"	Pre-Printed Danger Header Labels
THTEL-161-483-1-DA	4" x 4"	Pre-Printed Danger Header Labels
THTEL-184-483-1-WA	3" x 3"	Pre-Printed Warning Header Labels
THTEL-25-483-1-WA	4" x 6"	Pre-Printed Warning Header Labels
THTEL-161-483-1-WA	4" x 4"	Pre-Printed Warning Header Labels

#### Brady's benchtop printers are also ideal for:













Raised Panel Labels

Wire & Cable Marking Industrial Bar Codes General Identification





#### GlobalMark®2 Printer and BBP®31 Sign & Label Printer

Create your own custom signs, labels, pipemarkers, tags and more on demand with this easy to use, industrial label printer. Brady's advanced touch-screen technology, powered by a Microsoft Windows® CE operating system, makes producing professional labels fast and simple. Choose MarkWare™ Facility Identification Software to expand your label-making capabilities.

#### GlobalMark®2 Printer

Part #	Description
76801	GlobalMark Color & Cut Printer
76800	GlobalMark MultiColor Printer
76771	GlobalMark Ribbon, Black/Orange
76762	GlobalMark Ribbon, Black/Red
51447	GlobalMark Ribbon, Black/Red/Orange/Blue

#### Pre-printed Header Labels GlobalMark®2

Part #	Size	Description
Labels		
76698	2.25" x 100'	Indoor/Outdoor White Vinyl Tape
76542	4" x 100'	Indoor/Outdoor White Vinyl Tape
76543	3" x 100'	Indoor/Outdoor White Vinyl Tape
113155	2.25" x 100'	Pre-Printed Red Stripe
113157	3" x 100'	Pre-Printed Red Stripe
113161	4" x 100'	Pre-Printed Red Stripe
113156	2.25" x 100'	Pre-Printed Orange Stripe
113158	3" x 100'	Pre-Printed Orange Stripe
113162	4" x 100'	Pre-Printed Orange Stripe
115774	2.25" x 100'	Pre-Printed Yellow Stripe
113159	3" x 100'	Pre-Printed Yellow Stripe
113163	4" x 100'	Pre-Printed Yellow Stripe



If you own eTap, SKM, or Easy Power software, you can print your arc flash labels directly from this software to your GlobalMark printer.

#### BBP®31 Sign and Label Printer

Part #	Description
BBP31	BBP31 Sign & Label Printer
BBP31-ARCFLASH-KIT	BBP31 Printer w/ Arc Flash Supply Kit
B30KIT-ARCFLASH-W	Arc Flash Supply Kit for BBP31
B30-R10000	BBP31 Printer Ribbon, Black

#### **Pre-printed Header Labels BBP®31**

Part #	Size	Description
Labels		
B30-25-595-ANSIDA	4" x 6"	Danger Header Vinyl Tape
B30-241-595-ANSIDA	2.25" x 3"	Danger Header Vinyl Tape
B30-25-595-ANSIWA	4" x 6"	Warning Header Vinyl Tape
B30-241-595-ANSIWA	2.25" x 3"	Warning Header Vinyl Tape



Brady Arc Flash templates also available to download at www.BradyID.com/arcflash

#### The GlobalMark®2 Series and BBP®31 printers are also ideal for:



SWITCH 237

SWITCH 237

A 460 VOLTS 30 30 Amp







Pipe Markers Panel & Switch ID

Right to Know

Equipment Identification

Lockout / Tagout

## **Brady Arc Flash Training Aids**

#### Promote awareness of the dangers associated with arc flash accidents and make sure your workers know how to protect themselves!



#### **Poster**

- Highlights the common causes of arc flash and provides safe work practices and personal protection equipment requirements
- Laminated on both sides to stand up to industrial environments
- Full-color printing and eye-catching graphics for optimum visual impact

Catalog #	Size	Description	Quantity
104571	18" x 24"	Poster	1 each

## **Arc Flash Protection** Protective Clothing & Equip FR = Flame Resistant Arc Flash Protection Sign Label

Sign & Label

- Post signs and labels in the work area and near electrical equipment to boost awareness and compliance
- Signs and labels specify the personal protection equipment required for each arc flash hazard category
- Sign: BradyTuff<sup>TM</sup> B-401 rigid plastic, laminated graphics Label: Self-sticking B-302 polyester with overlaminate

Catalog #	Size	Description	Quantity
102523	7" x 10"	Sign	1 each
102524	3.5" x 5"	Label	5/pack

# Energized Electrical Work Permi Dut to person the other was word from prefer the own control influence, \* No were the formulae about of major persons on a reason specific to provide a plan of the operand \* in \$100 the phone prefix the personal float later as providing on it is not controlled to the operand \* in a finite phone person in the controlled to person weights worthing and it represe to the all phone or entering the property of some personal controlled to person weights worthing

Work Permit

Arc Flash Protection

Wallet Card

Front

#### **Work Permit**

- Meets NFPA 70E 130.1(A) requirements which mandate the use of a written permit when performing live electrical work
- 2-ply carbonless copy paper

Catalog #	Size	Description	Quantity
99287	8.5" x 11"	Permit	25/pack

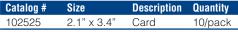
#### Wallet Card

- Ensure compliance and safety by
- Card specifies the personal protection equipment required for each arc flash hazard category
- two-sided printing

Catalog #	Size	Description	Quantity
102525	2.1" x 3.4"	Card	10/pack



- providing each employee with their own arc flash wallet card
- Made of laminated cardstock,







Customer Service: 1-888-272-3946 Inside Sales: 1-888-311-0775

Customer Service: 1-800-263-6179

Customer Service: 1-800-262-7777 Inside Sales: 1-800-262-7777 ext 177 www.BradyLatinAmerica.com

USA

www.BradyID.com

www.BradyCanada.ca

Wallet Card