Low Voltage, Branch Circuit Rated Fuses



Selecting circuit protection

The following fuse selection guides are based on the 2005 $\rm NEC^{\ast}$ and provided fuse recommendations for the various applications listed.

These are only suggestions. Final fuse selection should be performed only by a qualified personnel able to fully asses an application's circuit protection requirements. If you need assistance in selecting a fuse for a particular application, call the Cooper Bussmann Application Engineering team. This team is staffed by degreed electrical engineers and available by phone for technical and application support Monday – Friday, 8:00 a.m. – 5:00 p.m. Central Time.

Application Engineering can be reached via phone, fax or e-mail:

• Phone: 636-527-1270

FNQ FNW

- Fax: 636-527-1607
- · E-mail: fusetech@cooperbussmann.com

Ballasts

Thursday Thursday		Fuse & Holder Recommendations					
Indoor Fluorescent	Consult fixture manufacturer for size and type.	Fuse	Holder(s)	Fuse	Holder(s)		
		GLR	HLR	GLQ	HLQ		
		GMF		GMQ			
		GRF					
All Other (Mercury,		Fuse & Holder Recommendations					
Sodium, etc.)	Consult fixture manufacturer for size and type.	Fuse	Holder(s)	Fuse	Holder(s)	Fuse	Holder(s)
		BAF	HPF	KTK-R	HPS-RR	SC 0-15	HPF-EE
		BAN	HPS	FNQ-R	HPF-RR		HPS-EE
		KTK		LP-CC		SC 20	HPF-JJ
		FNM					HPS-JJ
		FNQ		KTQ	HPS-L	SC 25-30	HPF-FF
		FNW		BBS	HPF-L		HPS-FF
		Fuse & Holder Recommendations			tions		
Outdoor Mercury, Sodium, etc.	Consult fixture manufacturer for size and type.	Fuse	Holder(s)	Fuse	Holder(s)		
		BAF	HEB	KTK-R	HEY		
		BAN	HEX	FNQ-R			
		KTK	HPC-D	LP-CC			
		FNM					

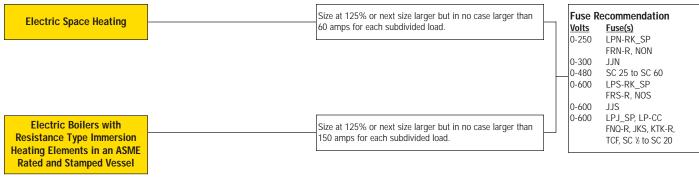
Capacitors (NEC® 460)

Protected by Time-Delay Fuses.	150% to 175% of Full Load Current		Fuse Recommendations Volts Fuse(s) 0-250 LPN-RK_SP, FRN-R 0-600 LPS-RK_SP, FRS-R 0-600 LPJ_SP, LP-CC, FNQ-R, TCF
Protected by Non-Time-Delay Fuses.	250% to 300% of Full Load Current.		Fuse Recommendations Volts Fuse(s) 0-250 KTN-R, NON
On Load Side of Motor Running Overcurrent Device.	Protection recommended as shown, but not required.	0-600	0-600 JKS, KTK-R



Selecting circuit protection

Electric Heat (NEC[®] 424)



Mains, Feeders, Branches

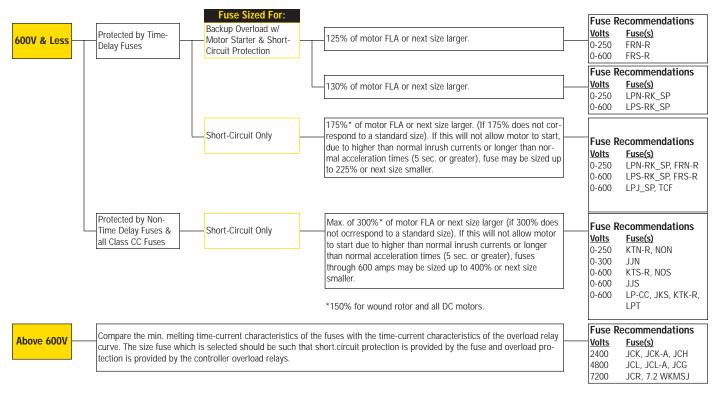
Feeder Circuits (600A & Less)	No Motor Load	100% of non-continuous load plus 125% of continuous load.	Fuse Recommendations Volts Fuse(s) 0-250 LPN-RK_SP, FRN-R 0-300 JJN 0-600 LPS-RK_SP, FRS-R 0-600 JJS 0-600 LPJ_SP, LP-CC JKS, KTK-R, LPT
	Combination Motor Loads and Other Loads	150%* of the FLA of largest motor (if there are two or more motors of same size, one is considered to be the largest) plus the sum of ail the FLA for all other motors plus 100% of non- continuous, non-motor load plus 125% of continuous, non- motor load.	Fuse Recommendations Volts Fuse(s) 0-250 LPN-RK_SP, FRN-R 0-600 LPS-RK SP, FRS-R
	Motor Loads	s 150%* of the FLA of largest motor (if there are two or more motors of same size, one is considered to be the largest) plus the sum of ail the FLA for ail other motors. *A max. of 175% (or the next standard size if 175% does not correspond to a standard size) is allowed for all but wound rotor and all dc motors.	0-600 LPJ- SP, LP-CC
Main, Branch & Feeder Circuits (601-6000A)		150% to 225% of full load current of largest motor plus 100% of full load current of all other motors plus 125% of continuous non-motor load plus 100% of non-continuous non-motor load.	Fuse Recommendation Volts Fuse(s) 0-600 KRP-C_SP

For product Data Sheets, visit www.bussmann.com/products/datasheet.asp



Selecting circuit protection

Motor Loads (NEC® 430)



Solenoids (Coils)

Branch Circuit Fuses	Size at 125% or next size smaller.	Fuse Recommendation Volts Fuse(s) 0-250 Best: LPN-RK_SP FRN-R 0-600 LPS-RK_SP FRS-R 0-600 LPJ_SP, LP-CC FNQ-R, TCF FNQ-R, TCF
Supplementary Fuses	Size at 125% or next size larger.	Fuse Recommendation Volts Fuse(s) 0-32 MDL 9-30A, FNM 20-30A FNM 20-30A, 0-125 MDA 25-30A, FNM 12-15A O-250 0-250 MDL ½-8A, MDA ½0-20A, FNM ½-10A, FNW 12-30A, MDQ ½0-7A, 0-500 FNQ ½-30A,

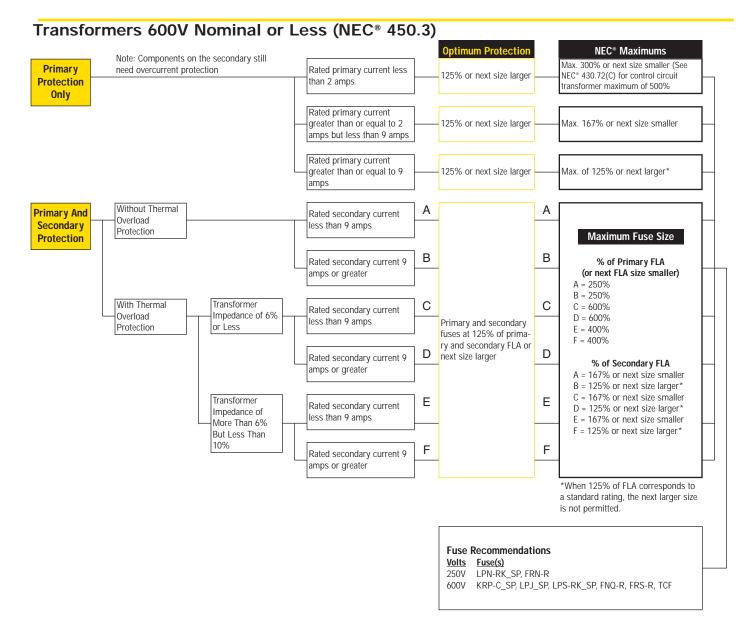
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Low Voltage, Branch Circuit Rated Fuses



Selecting circuit protection



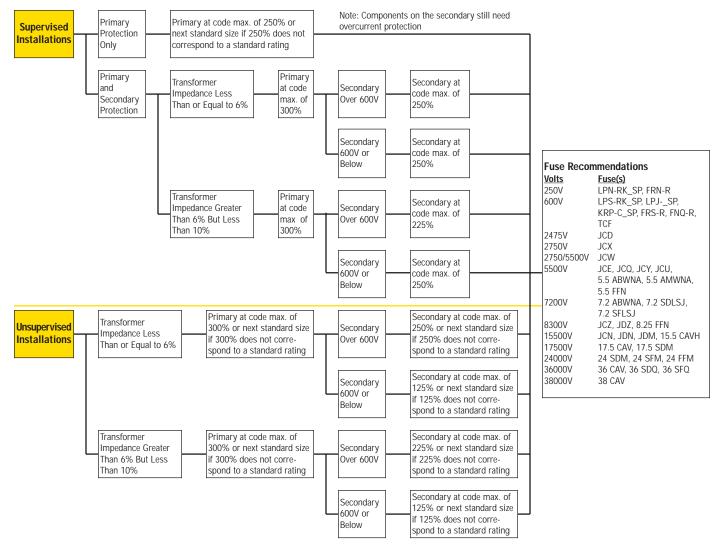
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Low Voltage, Branch Circuit Rated Fuses



Selecting circuit protection

Transformers Over 600V Nominal (NEC® 450.3)



Solid State Devices (Diodes, SCRs, Triacs, Transistors)

Short-Circuit	ircuit	Fuse Recommendations		
Protection	"F," "S," "K," & 170M Series fuses sized up to several sizes larger than full load RMS or dc rating of device.	Volts	Fuse(s)	
Only	larger than tun load Rivis of de rating of device.	0-130 0-250	FWA FWX	
		0-500	FWH	
		0-600	FWC, KAC, KBC	
		0-700	FWP, 170M Series,	
		0 1000	SPP FWJ, 170M Series,	
		0-1000	SPJ	