
Technical Note 019

Fuses for ABB drives

Acceptable fuses

Purpose

This document outlines which alternative fuses may be used various ABB drives.

How to use this information

The specific drive's hardware manual includes fuse recommendations for the drive. In addition to the fuses identified in the manuals, alternative fuses can be used if they meet certain characteristics. The guidelines in this document describe which fuses are an acceptable alternative.

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ACS380 drives

Purpose

This section outlines which alternative fuses may be used with ACS380-04 base drives R0 through R4 frame size.

How to use this information

The drive hardware manual includes fuse recommendations for the drive. In addition to the fuses identified in the manual, alternative fuses can be used if they meet certain characteristics. The guidelines in this document describe which fuses are an acceptable alternative. This document is a supplement to the following drive hardware manuals:

- 3AXD50000029274 ACS380-04 drives

Information

ACS380-04 drives are suitable for use on a circuit capable of delivering not more than 100 kA symmetrical amperes (RMS) at 240 and 480 V maximum, when protected by appropriate fuses.

The drives are tested to UL 61800-5-1 standard on a circuit having available system fault of 100 kA. Hardware manuals for ACS380-04 drives recommend:

- Listed Class T (UL 248-15) fast acting fuses up to 100A.

ABB performed the fault testing with “umbrella fuses.” These fuses are calibrated to create worst case peak let-through current (I_{peak}) and let-through energy (I^2t) limits. The umbrella fuse testing allows other listed fuses, which have let-through characteristics equal to or below these limits, to be used. Therefore, listed Class CC (UL 248-4) fuses (up to 30A) and listed (UL 248-8) Class J fast acting and high-speed fuses can also be used, since they provide equal or better protection. Likewise, listed (UL 248-17) fast acting cubed body (CF) fuses can be used as well.

In addition to the above guidelines, the following are additional rules that should be followed:

1. The UL listed fuses in the hardware manual tables, or the tables in this document, are the required branch circuit protection per NEC.
2. Fuses are required as part of the installation. Fuses are not included in the base drive configuration and must be provided by others.
3. Fuses with a higher current rating than specified must not be used.
4. Fuses with a lower current rating than specified may be used if they are of the same voltage and are UL 248 listed fast acting or high-speed fuses.
5. A fuse of a different class can be used at the high fault rating where the I_{peak} and I^2t of the new fuse is not greater than that of the specified fuse.
6. Recommended drive fuses must be used to maintain drive UL listing. Additional protection can be used. Refer to local codes and regulations.
7. When installing a drive always follow installation instructions and NEC requirements.
8. UL 248 listed, fast acting or high-speed fuses from other manufacturers can be used if they meet the rating requirements specified in the rules above.

Alternate recommended fuses for some of the major fuse manufacturers can be found in tables on the following pages. Other manufacturers not found on the tables below may be used if they meet the fuse requirements stated above.

Table 1: ACS380-04, 200...240 V, 1-phase

Frame Size	1-Phase 200....240 V ACS380-04	Input Current	UL Fuse Size (A) and Voltage (V)		UL 248-15 Class T Fast Acting Fuses 300 V or 600 V				UL 248-8 Fast Acting Class J Fuses 600 V			
			Max Current	Voltage Rating	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison
			A	V								
R0	02A4-1	5.0	10	300 or 600	JJN-10 or JJS-10	JLLN010 or JLLS010	A3T10 or A6T10	TJN10 or TJS10	JKS-10	JLS10	A4J10	JFL10
R0	03A7-1	7.8	10	300 or 600	JJN-10 or JJS-10	JLLN010 or JLLS010	A3T10 or A6T10	TJN10 or TJS10	JKS-10	JLS10	A4J10	JFL10
R1	04A8-1	10.1	20	300 or 600	JJN-20 or JJS-20	JLLN020 or JLLS020	A3T20 or A6T20	TJN20 or TJS20	JKS-20	JLS20	A4J20	JFL20
R1	06A9-1	14.5	20	300 or 600	JJN-20 or JJS-20	JLLN020 or JLLS020	A3T20 or A6T20	TJN20 or TJS20	JKS-20	JLS20	A4J20	JFL20
R1	07A8-1	16.4	25	300 or 600	JJN-25 or JJS-25	JLLN025 or JLLS025	A3T25 or A6T25	TJN25 or TJS25	JKS-25	JLS25	A4J25	JFL25
R2	09A8-1	20.6	25	300 or 600	JJN-25 or JJS-25	JLLN025 or JLLS025	A3T25 or A6T25	TJN25 or TJS25	JKS-25	JLS25	A4J25	JFL25
R2	12A2-1	25.6	35	300 or 600	JJN-35 or JJS-35	JLLN035 or JLLS035	A3T35 or A6T35	TJN35 or TJS35	JKS-35	JLS35	A4J35	JFL35

Frame Size	1-Phase 200....240 V ACS380-04	Input Current	UL Fuse Size (A) and Voltage (V)		UL 248-8 High Speed Class J Fuses 600 V				UL 248-4 Class CC Fast Acting Fuses 600 V				UL 248-17 Class CF Fast Acting Cube Fuse 600 V
			Max Current	Voltage Rating	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann
			A	V									
R0	02A4-1	5.0	10	300 or 600	DFJ-10	LDFJ010	HSJ10	JHL10	KTK-R-10	KLKR10	ATMR10	HCLR10	FCF10RN
R0	03A7-1	7.8	10	300 or 600	DFJ-10	LDFJ010	HSJ10	JHL10	KTK-R-10	KLKR10	ATMR10	HCLR10	FCF10RN
R1	04A8-1	10.1	20	300 or 600	DFJ-20	LDFJ020	HSJ20	JHL20	KTK-R-20	KLKR20	ATMR20	HCLR20	FCF20RN
R1	06A9-1	14.5	20	300 or 600	DFJ-20	LDFJ020	HSJ20	JHL20	KTK-R-20	KLKR20	ATMR20	HCLR20	FCF20RN
R1	07A8-1	16.4	25	300 or 600	DFJ-25	LDFJ025	HSJ25	JHL25	KTK-R-25	KLKR25	ATMR25	HCLR25	FCF25RN
R2	09A8-1	20.6	25	300 or 600	DFJ-25	LDFJ025	HSJ25	JHL25	KTK-R-25	KLKR25	ATMR25	HCLR25	FCF25RN
R2	12A2-1	25.6	35	300 or 600	DFJ-35	LDFJ035	HSJ35	JHL35	-	-	-	-	FCF35RN

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Table 2: ACS380-04, 200...240 V

Frame Size	3-Phase 200...240 V ACS380-04	Input Current	UL Fuse Size (A) and Voltage (V)		UL 248-15 Class T Fast Acting Fuses				UL 248-8 Fast Acting Class J Fuses			
			Maximum Current	Voltage Rating	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison
			A	V								
R1	02A4-2	3.6	6	600	JJS-6	JLLS006	A6T6	TJS6	JKS-6	JLS6	A4J6	JFL6
R1	03A7-2	5.6	10	600	JJS-10	JLLS010	A6T10	TJS10	JKS-10	JLS10	A4J10	JFL10
R1	04A8-2	7.2	10	600	JJS-10	JLLS010	A6T10	TJS10	JKS-10	JLS10	A4J10	JFL10
R1	06A9-2	10.4	20	600	JJS-20	JLLS020	A6T20	TJS20	JKS-20	JLS20	A4J20	JFL20
R1	07A8-2	11.7	20	600	JJS-20	JLLS020	A6T20	TJS20	JKS-20	JLS20	A4J20	JFL20
R1	09A8-2	14.7	20	600	JJS-20	JLLS020	A6T20	TJS20	JKS-20	JLS20	A4J20	JFL20
R2	12A2-2	18.3	25	600	JJS-25	JLLS025	A6T25	TJS25	JKS-25	JLS25	A4J25	JFL25
R3	17A5-2	24.6	35	600	JJS-35	JLLS035	A6T35	TJS35	JKS-35	JLS35	A4J35	JFL35
R3	25A0-2	35.1	40	600	JJS-40	JLLS040	A6T40	TJS40	JKS-40	JLS40	A4J40	JFL40
R4	032A-2	45.0	60	600	JJS-60	JLLS060	A6T60	TJS60	JKS-60	JLS60	A4J60	JFL60
R4	048A-2	57.6	100	600	JJS-100	JLLS100	A6T100	TJS100	JKS-100	JLS100	A4J100	JFL100
R4	055A-2	60.0	100	600	JJS-100	JLLS100	A6T100	TJS100	JKS-100	JLS100	A4J100	JFL100

Frame Size	3-Phase 200...240 V ACS380-04	Input Current	UL Fuse Size (A) and Voltage (V)		UL 248-8 High Speed Class J Fuses				UL 248-4 Class CC Fast Acting Fuses				UL 248-17 Class CF Fast Acting Cube Fuse
			Maximum Current	Voltage Rating	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann
			A	V									
R1	02A4-2	3.6	6	600	DFJ-6	LDFJ006	HSJ6	JHL6	CTK-R-6	KLKR6	ATMR6	HCLR6	FCF6RN
R1	03A7-2	5.6	10	600	DFJ-10	LDFJ010	HSJ10	JHL10	CTK-R-10	KLKR10	ATMR10	HCLR10	FCF10RN
R1	04A8-2	7.2	10	600	DFJ-10	LDFJ010	HSJ10	JHL10	CTK-R-10	KLKR10	ATMR10	HCLR10	FCF10RN
R1	06A9-2	10.4	20	600	DFJ-20	LDFJ020	HSJ20	JHL20	CTK-R-20	KLKR20	ATMR20	HCLR20	FCF20RN
R1	07A8-2	11.7	20	600	DFJ-20	LDFJ020	HSJ20	JHL20	CTK-R-20	KLKR20	ATMR20	HCLR20	FCF20RN
R1	09A8-2	14.7	20	600	DFJ-20	LDFJ020	HSJ20	JHL20	CTK-R-20	KLKR20	ATMR20	HCLR20	FCF20RN
R2	12A2-2	18.3	25	600	DFJ-25	LDFJ025	HSJ25	JHL25	CTK-R-25	KLKR25	ATMR25	HCLR25	FCF25RN
R3	17A5-2	24.6	35	600	DFJ-35	LDFJ035	HSJ35	JHL35	-	-	-	-	FCF35RN
R3	25A0-2	35.1	40	600	DFJ-40	LDFJ040	HSJ40	JHL40	-	-	-	-	FCF40RN
R4	032A-2	45.0	60	600	DFJ-60	LDFJ060	HSJ60	JHL60	-	-	-	-	FCF60RN
R4	048A-2	57.6	100	600	DFJ-100	LDFJ100	HSJ100	JHL100	-	-	-	-	FCF100RN
R4	055A-2	60.0	100	600	DFJ-100	LDFJ100	HSJ100	JHL100	-	-	-	-	FCF100RN

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Table 3: ACS380-04, 380...480 V

Frame Size	3-Phase 380...480 V ACS380-04	Input Current	UL Fuse Size (A) and Voltage (V)		UL 248-15 Class T Fast Acting Fuses				UL 248-8 Fast Acting Class J Fuses			
			Max Current	Voltage Rating	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison
			A	V								
R0	01A8-4	2.9 / 2.6	6	600	JJS-6	JLLS006	A6T6	TJS6	JKS-6	JLS6	A4J6	JFL6
R1	02A6-4	4.2 / 3.4	6	600	JJS-6	JLLS006	A6T6	TJS6	JKS-6	JLS6	A4J6	JFL6
R1	03A3-4	5.3 / 4.8	6	600	JJS-6	JLLS006	A6T6	TJS6	JKS-6	JLS6	A4J6	JFL6
R1	04A0-4	6.4 / 5.4	10	600	JJS-10	JLLS010	A6T10	TJS10	JKS-10	JLS10	A4J10	JFL10
R1	05A6-4	9.0 / 7.7	10	600	JJS-10	JLLS010	A6T10	TJS10	JKS-10	JLS10	A4J10	JFL10
R1	07A2-4	11.5 / 9.6	20	600	JJS-20	JLLS020	A6T20	TJS20	JKS-20	JLS20	A4J20	JFL20
R1	09A4-4	15.0 / 12.2	20	600	JJS-20	JLLS020	A6T20	TJS20	JKS-20	JLS20	A4J20	JFL20
R2	12A6-4	20.2 / 17.6	25	600	JJS-25	JLLS025	A6T25	TJS25	JKS-25	JLS25	A4J25	JFL25
R3	17A0-4	27.2 / 22.4	35	600	JJS-35	JLLS035	A6T35	TJS35	JKS-35	JLS35	A4J35	JFL35
R3	25A0-4	40.0 / 33.6	40	600	JJS-40	JLLS040	A6T40	TJS40	JKS-40	JLS40	A4J40	JFL40
R4	032A-4	45.0 / 37.9	60	600	JJS-60	JLLS060	A6T60	TJS60	JKS-60	JLS60	A4J60	JFL60
R4	038A-4	50.0 / 44.7	80	600	JJS-80	JLLS080	A6T80	TJS80	JKS-80	JLS80	A4J80	JFL80
R4	045A-4	56.0 / 49.8	100	600	JJS-100	JLLS100	A6T100	TJS100	JKS-100	JLS100	A4J100	JFL100
R4	050A-4	60.0 / 50.4	100	600	JJS-100	JLLS100	A6T100	TJS100	JKS-100	JLS100	A4J100	JFL100

Frame Size	3-Phase 380....480 V ACS380-04	Input Current	UL Fuse Size (A) and Voltage (V)		UL 248-8 High Speed Class J Fuses				UL 248-4 Class CC Fast Acting Fuses				UL 248-17 Class CF Fast Acting Cube Fuse
			Max Current	Voltage Rating	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	
			A	V									
R0	01A8-4	2.9 / 2.6	6	600	DFJ-6	LDFJ006	HSJ6	JHL6	KTK-R-6	KLKR6	ATMR6	HCLR6	FCF6RN
R1	02A6-4	4.2 / 3.4	6	600	DFJ-6	LDFJ006	HSJ6	JHL6	KTK-R-6	KLKR6	ATMR6	HCLR6	FCF6RN
R1	03A3-4	5.3 / 4.8	6	600	DFJ-6	LDFJ006	HSJ6	JHL6	KTK-R-6	KLKR6	ATMR6	HCLR6	FCF6RN
R1	04A0-4	6.4 / 5.4	10	600	DFJ-10	LDFJ010	HSJ10	JHL10	KTK-R-10	KLKR10	ATMR10	HCLR10	FCF10RN
R1	05A6-4	9.0 / 7.7	10	600	DFJ-10	LDFJ010	HSJ10	JHL10	KTK-R-10	KLKR10	ATMR10	HCLR10	FCF10RN
R1	07A2-4	11.5 / 9.6	20	600	DFJ-20	LDFJ020	HSJ20	JHL20	KTK-R-20	KLKR20	ATMR20	HCLR20	FCF20RN
R1	09A4-4	15.0 / 12.2	20	600	DFJ-20	LDFJ020	HSJ20	JHL20	KTK-R-20	KLKR20	ATMR20	HCLR20	FCF20RN
R2	12A6-4	20.2 / 17.6	25	600	DFJ-25	LDFJ025	HSJ25	JHL25	KTK-R-25	KLKR25	ATMR25	HCLR25	FCF25RN
R3	17A0-4	27.2 / 22.4	35	600	DFJ-35	LDFJ035	HSJ35	JHL35	-	-	-	-	FCF35RN
R3	25A0-4	40.0 / 33.6	40	600	DFJ-40	LDFJ040	HSJ40	JHL40	-	-	-	-	FCF40RN
R4	032A-4	45.0 / 37.9	60	600	DFJ-60	LDFJ060	HSJ60	JHL60	-	-	-	-	FCF60RN
R4	038A-4	50.0 / 44.7	80	600	DFJ-80	LDFJ080	HSJ80	JHL80	-	-	-	-	FCF80RN
R4	045A-4	56.0 / 49.8	100	600	DFJ-100	LDFJ100	HSJ100	JHL100	-	-	-	-	FCF100RN
R4	050A-4	60.0 / 50.4	100	600	DFJ-100	LDFJ100	HSJ100	JHL100	-	-	-	-	FCF100RN

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Table 4: [Table reserved for future use]

Table 5: [Table reserved for future use]

Table 6: [Table reserved for future use]

ACx580 drives

Purpose

This section outlines which alternative fuses may be used with ACH580-01/31, ACQ580-01/31, and ACS580-01 base drives through the R8 frame size.

How to use this information

The drive hardware manual includes fuse recommendations for the drive. In addition to the fuses identified in the manual, alternative fuses can be used if they meet certain characteristics. The guidelines in this document describe which fuses are an acceptable alternative. This document is a supplement to the following drive hardware manuals:

- 3AXD50000044839 ACH580-01 drives
- 3AXD50000044862 ACQ580-01 drives
- 3AXD50000018826 ACS580-01 drives
- 3AXD50000037066 ACH580-31 drives
- 3AXD50000045935 ACQ580-31 drives

Information

ACH580-01, ACQ580-01 and ACS580-01 drives are suitable for use on a circuit capable of delivering not more than 100 kA symmetrical amperes (RMS) at 240, 480 and 600 V maximum, when protected by appropriate fuses.

ACH580-31 and ACQ580-31 drives are suitable for use on a circuit capable of delivering not more than 100 kA symmetrical amperes (RMS) at 480 V maximum, when protected by appropriate fuses.

The drives are tested to UL 61800-5-1 standard on a circuit having available system fault of 100 kA. Hardware manuals for ACH580-01/31, ACQ580-01/31 and ACS580-01 drives recommend:

- Listed Class CC (UL 248-4) fuses (up to 30A)
- Listed Class T (UL 248-15) fast acting fuses up to 400A.

ABB performed the fault testing with “umbrella fuses.” These fuses are calibrated to create worst case peak let-through current (I_{peak}) and let-through energy (I^2t) limits. The umbrella fuse testing allows other listed fuses, which have let-through characteristics equal to or below these limits, to be used. Therefore, listed (UL 248-8) Class J fast acting and high-speed fuses can also be used, since they provide equal or better protection. Likewise, listed (UL 248-17) fast acting cubed body (CF) fuses can be used as well.

In addition to the above guidelines, the following are additional rules that should be followed:

1. The UL listed fuses in the hardware manual tables, or the tables in this document, are the required branch circuit protection per NEC.
2. Fuses are required as part of the installation. Fuses are not included in the base drive configuration and must be provided by others.
3. Fuses with a higher current rating than specified must not be used.
4. Fuses with a lower current rating than specified may be used if they are of the same voltage and are UL 248 listed fast acting or high-speed fuses.
5. A fuse of a different class can be used at the high fault rating where the I_{peak} and I^2t of the new fuse is not greater than that of the specified fuse.
6. Recommended drive fuses must be used to maintain drive UL listing. Additional protection can be used. Refer to local codes and regulations.
7. When installing a drive always follow installation instructions and NEC requirements.
8. UL 248 listed, fast acting or high-speed fuses from other manufacturers can be used if they meet the rating requirements specified in the rules above.

Alternate recommended fuses for some of the major fuse manufacturers can be found in tables on the following pages. Other manufacturers not found on the tables below may be used if they meet the fuse requirements stated above.

Table 7: ACH/ACQ/ACS580-01, 208/230 V

Frame Size	208/230 V ACH580-01 ACQ580-01 ACS580-01	Input Current	UL Fuse Size (A) and Voltage (V)		UL 248-15 Class T Fast Acting Fuses				UL 248-8 Fast Acting Class J Fuses			
			Maximum Current	Voltage Rating	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison
			A	V								
R1	04A6-2	4.6	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R1	06A6-2	6.6	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R1	07A5-2	7.5	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R1	10A6-2	10.6	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R1	017A-2	16.7	30	600	JJS-30	JLLS030	A6T30	TJS30	JKS-30	JLS30	A4J30	JFL30
R2	024A-2	24.2	40	600	JJS-40	JLLS040	A6T40	TJS40	JKS-40	JLS40	A4J40	JFL40
R2	031A-2	30.8	40	600	JJS-40	JLLS040	A6T40	TJS40	JKS-40	JLS40	A4J40	JFL40
R3	046A-2	46.2	80	600	JJS-80	JLLS080	A6T80	TJS80	JKS-80	JLS80	A4J80	JFL80
R3	059A-2	59.4	80	600	JJS-80	JLLS080	A6T80	TJS80	JKS-80	JLS80	A4J80	JFL80
R4	075A-2	74.8	100	600	JJS-100	JLLS100	A6T100	TJS100	JKS-100	JLS100	A4J100	JFL100
R5	088A-2	88.0	150	600	JJS-150	JLLS150	A6T150	TJS150	JKS-150	JLS150	A4J150	JFL150
R5	114A-2	114	150	600	JJS-150	JLLS150	A6T150	TJS150	JKS-150	JLS150	A4J150	JFL150
R6	143A-2	143	200	600	JJS-200	JLLS200	A6T200	TJS200	JKS-200	JLS200	A4J200	JFL200
R7	169A-2	169	250	600	JJS-250	JLLS250	A6T250	TJS250	JKS-250	JLS250	A4T250	JFL250
R7	211A-2	211	300	600	JJS-300	JLLS300	A6T300	TJS300	JKS-300	JLS300	A4J300	JFL300
R8	273A-2	273	400	600	JJS-400	JLLS400	A6T400	TJS400	JKS-400	JLS400	A4J400	JFL400

Frame Size	208/230 V ACH580-01 ACQ580-01 ACS580-01	Input Current	UL Fuse Size (A) and Voltage (V)		UL 248-8 High Speed Class J Fuses				UL 248-4 Class CC Fast Acting Fuses				UL 248-17 Class CF Fast Acting Cube Fuse
			Maximum Current	Voltage Rating	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann
			A	V									
R1	04A6-2	4.6	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	KTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R1	06A6-2	6.6	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	KTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R1	07A5-2	7.5	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	KTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R1	10A6-2	10.6	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	KTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R1	017A-2	16.7	30	600	DFJ-30	LDFJ030	HSJ30	JHL30	KTK-R-30	KLKR30	ATMR30	HCLR30	FCF30RN
R2	024A-2	24.2	40	600	DFJ-40	LDFJ040	HSJ40	JHL40	-	-	-	-	FCF40RN
R2	031A-2	30.8	40	600	DFJ-40	LDFJ040	HSJ40	JHL40	-	-	-	-	FCF40RN
R3	046A-2	46.2	80	600	DFJ-80	LDFJ080	HSJ80	JHL80	-	-	-	-	FCF80RN
R3	059A-2	59.4	80	600	DFJ-80	LDFJ080	HSJ80	JHL80	-	-	-	-	FCF80RN
R4	075A-2	74.8	100	600	DFJ-100	LDFJ100	HSJ100	JHL100	-	-	-	-	FCF100RN
R5	088A-2	88.0	150	600	DFJ-150	LDFJ150	HSJ150	JHL150	-	-	-	-	-
R5	114A-2	114	150	600	DFJ-150	LDFJ150	HSJ150	JHL150	-	-	-	-	-
R6	143A-2	143	200	600	DFJ-200	LDFJ200	HSJ200	JHL200	-	-	-	-	-
R7	169A-2	169	250	600	DFJ-250	LDFJ250	HSJ250	JHL250	-	-	-	-	-
R7	211A-2	211	300	600	DFJ-300	LDFJ300	HSJ300	JHL300	-	-	-	-	-
R8	273A-2	273	400	600	DFJ-400	LDFJ400	HSJ400	JHL400	-	-	-	-	-

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Table 8: ACH580-01, 480 V

Frame Size	480 V ACH580-01	Input Current	UL Fuse Size (A) and Voltage (V)		UL 248-15 Class T Fast Acting Fuses				UL 248-8 Fast Acting Class J Fuses			
			Maximum Current	Voltage Rating	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison
			A	V								
R1	02A1-4	2.1	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R1	03A0-4	3.0	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R1	03A5-4	3.5	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R1	04A8-4	4.8	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R1	07A6-4	7.6	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R1	012A-4	12.0	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R2	014A-4	14.0	30	600	JJS-30	JLLS030	A6T30	TJS30	JKS-30	JLS30	A4J30	JFL30
R2	023A-4	23.0	30	600	JJS-30	JLLS030	A6T30	TJS30	JKS-30	JLS30	A4J30	JFL30
R3	027A-4	27.0	40	600	JJS-40	JLLS040	A6T40	TJS40	JKS-40	JLS40	A4J40	JFL40
R3	034A-4	34.0	60	600	JJS-60	JLLS060	A6T60	TJS60	JKS-60	JLS60	A4J60	JFL60
R3	044A-4	44.0	60	600	JJS-60	JLLS060	A6T60	TJS60	JKS-60	JLS60	A4J60	JFL60
R4	052A-4	52	80	600	JJS-80	JLLS080	A6T80	TJS80	JKS-80	JLS80	A4J80	JFL80
R4	065A-4	65	100	600	JJS-100	JLLS100	A6T100	TJS100	JKS-100	JLS100	A4J100	JFL100
R4	077A-4	77	100	600	JJS-100	JLLS100	A6T100	TJS100	JKS-100	JLS100	A4T100	JFL100
R5	096A-4	96	150	600	JJS-150	JLLS150	A6T150	TJS150	JKS-150	JLS150	A4J150	JFL150
R6	124A-4	124	200	600	JJS-200	JLLS200	A6T200	TJS200	JKS-200	JLS200	A4J200	JFL200
R7	156A-4	156	225	600	JJS-225	JLLS225	A6T225	TJS225	JKS-225	JLS225	A4J225	JFL225
R7	180A-4	180	300	600	JJS-300	JLLS300	A6T300	TJS300	JKS-300	JLS300	A4J300	JFL300
R8	240A-4	240	350	600	JJS-350	JLLS350	A6T350	TJS350	JKS-350	JLS350	A4J350	JFL350

Frame Size	480 V ACH580-01	Input Current	UL Fuse Size (A) and Voltage (V)		UL 248-8 High Speed Class J Fuses				UL 248-4 Class CC Fast Acting Fuses				UL 248-17 Class CF Fast Acting Cube Fuse
			Maximum Current	Voltage Rating	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann
			A	V									
R1	02A1-4	2.1	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	CTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R1	03A0-4	3.0	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	CTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R1	03A5-4	3.5	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	CTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R1	04A8-4	4.8	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	CTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R1	07A6-4	7.6	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	CTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R1	012A-4	12.0	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	CTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R2	014A-4	14.0	30	600	DFJ-30	LDFJ030	HSJ30	JHL30	CTK-R-30	KLKR30	ATMR30	HCLR30	FCF30RN
R2	023A-4	23.0	30	600	DFJ-30	LDFJ030	HSJ30	JHL30	CTK-R-30	KLKR30	ATMR30	HCLR30	FCF30RN
R3	027A-4	27.0	40	600	DFJ-40	LDFJ040	HSJ40	JHL40	-	-	-	-	FCF40RN
R3	034A-4	34.0	60	600	DFJ-60	LDFJ060	HSJ60	JHL60	-	-	-	-	FCF60RN
R3	044A-4	44.0	60	600	DFJ-60	LDFJ060	HSJ60	JHL60	-	-	-	-	FCF60RN
R4	052A-4	52	80	600	DFJ-80	LDFJ080	HSJ80	JHL80	-	-	-	-	FCF80RN
R4	065A-4	65	100	600	DFJ-100	LDFJ100	HSJ100	JHL100	-	-	-	-	FCF100RN
R4	077A-4	77	100	600	DFJ-100	LDFJ100	HSJ100	JHL100	-	-	-	-	-
R5	096A-4	96	150	600	DFJ-150	LDFJ150	HSJ150	JHL150	-	-	-	-	-
R6	124A-4	124	200	600	DFJ-200	LDFJ200	HSJ200	JHL200	-	-	-	-	-
R7	156A-4	156	225	600	DFJ-225	LDFJ225	HSJ225	JHL225	-	-	-	-	-
R7	180A-4	180	300	600	DFJ-300	LDFJ300	HSJ300	JHL300	-	-	-	-	-
R8	240A-4	240	350	600	DFJ-350	LDFJ350	HSJ350	JHL350	-	-	-	-	-

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Table 9: ACQ/ACS580-01, 480 V

Frame Size	480 V ACQ580-01 ACS580-01	Input Current	UL Fuse Size (A) and Voltage (V)		UL 248-15 Class T Fast Acting Fuses				UL 248-8 Fast Acting Class J Fuses			
			Maximum Current	Voltage Rating	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison
			A	V								
R1	02A1-4	2.1	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R1	03A0-4	3.0	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R1	03A5-4	3.5	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R1	04A8-4	4.8	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R1	07A6-4	7.6	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R1	012A-4	12.0	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R2	014A-4	14.0	30	600	JJS-30	JLLS030	A6T30	TJS30	JKS-30	JLS30	A4J30	JFL30
R2	023A-4	23.0	30	600	JJS-30	JLLS030	A6T30	TJS30	JKS-30	JLS30	A4J30	JFL30
R3	027A-4	27.0	40	600	JJS-40	JLLS040	A6T40	TJS40	JKS-40	JLS40	A4J40	JFL40
R3	034A-4	34.0	60	600	JJS-60	JLLS060	A6T60	TJS60	JKS-60	JLS60	A4J60	JFL60
R3	044A-4	44.0	60	600	JJS-60	JLLS060	A6T60	TJS60	JKS-60	JLS60	A4J60	JFL60
R4	052A-4	52	80	600	JJS-80	JLLS080	A6T80	TJS80	JKS-80	JLS80	A4J80	JFL80
R4	065A-4	65	100	600	JJS-100	JLLS100	A6T100	TJS100	JKS-100	JLS100	A4J100	JFL100
R4	077A-4	77	100	600	JJS-100	JLLS100	A6T100	TJS100	JKS-100	JLS100	A4T100	JFL100
R5	096A-4	96	150	600	JJS-150	JLLS150	A6T150	TJS150	JKS-150	JLS150	A4J150	JFL150
R6	124A-4	124	200	600	JJS-200	JLLS200	A6T200	TJS200	JKS-200	JLS200	A4J200	JFL200
R7	156A-4	156	225	600	JJS-225	JLLS225	A6T225	TJS225	JKS-225	JLS225	A4J225	JFL225
R7	180A-4	180	300	600	JJS-300	JLLS300	A6T300	TJS300	JKS-300	JLS300	A4J300	JFL300
R8	240A-4	240	350	600	JJS-350	JLLS350	A6T350	TJS350	JKS-350	JLS350	A4J350	JFL350
R8	260A-4	240	400	600	JJS-400	JLLS400	A6T400	TJS400	JKS-400	JLS400	A4J400	JFL400

Frame Size	480 V ACQ580-01 ACS580-01	Input Current	UL Fuse Size (A) and Voltage (V)		UL 248-8 High Speed Class J Fuses				UL 248-4 Class CC Fast Acting Fuses				UL 248-17 Class CF Fast Acting Cube Fuse
			Maximum Current	Voltage Rating	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann
			A	V									
R1	02A1-4	2.1	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	CTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R1	03A0-4	3.0	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	CTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R1	03A5-4	3.5	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	CTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R1	04A8-4	4.8	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	CTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R1	07A6-4	7.6	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	CTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R1	012A-4	12.0	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	CTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R2	014A-4	14.0	30	600	DFJ-30	LDFJ030	HSJ30	JHL30	CTK-R-30	KLKR30	ATMR30	HCLR30	FCF30RN
R2	023A-4	23.0	30	600	DFJ-30	LDFJ030	HSJ30	JHL30	CTK-R-30	KLKR30	ATMR30	HCLR30	FCF30RN
R3	027A-4	27.0	40	600	DFJ-40	LDFJ040	HSJ40	JHL40	-	-	-	-	FCF40RN
R3	034A-4	34.0	60	600	DFJ-60	LDFJ060	HSJ60	JHL60	-	-	-	-	FCF60RN
R3	044A-4	44.0	60	600	DFJ-60	LDFJ060	HSJ60	JHL60	-	-	-	-	FCF60RN
R4	052A-4	52	80	600	DFJ-80	LDFJ080	HSJ80	JHL80	-	-	-	-	FCF80RN
R4	065A-4	65	100	600	DFJ-100	LDFJ100	HSJ100	JHL100	-	-	-	-	FCF100RN
R4	077A-4	77	100	600	DFJ-100	LDFJ100	HSJ100	JHL100	-	-	-	-	-
R5	096A-4	96	150	600	DFJ-150	LDFJ150	HSJ150	JHL150	-	-	-	-	-
R6	124A-4	124	200	600	DFJ-200	LDFJ200	HSJ200	JHL200	-	-	-	-	-
R7	156A-4	156	225	600	DFJ-225	LDFJ225	HSJ225	JHL225	-	-	-	-	-
R7	180A-4	180	300	600	DFJ-300	LDFJ300	HSJ300	JHL300	-	-	-	-	-
R8	240A-4	240	350	600	DFJ-350	LDFJ350	HSJ350	JHL350	-	-	-	-	-
R8	260A-4	240	400	600	DFJ-400	LDFJ400	HSJ400	JHL400	-	-	-	-	-

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Table 10: ACH/ACQ/ACS580-01, 575 V

Frame Size	575 V ACH580-01 ACQ580-01 ACS580-01	Input Current	UL Fuse Size (A) and Voltage (V)		UL 248-15 Class T Fast Acting Fuses				UL 248-8 Fast Acting Class J Fuses			
			Maximum Current	Voltage Rating	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison
			A	V								
R2	02A7-6	2.7	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R2	03A9-6	3.9	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R2	06A1-6	6.1	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R2	09A0-6	9	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R2	011A-6	11	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R2	017A-6	17	30	600	JJS-30	JLLS030	A6T30	TJS30	JKS-30	JLS30	A4J30	JFL30
R3	022A-6	22	40	600	JJS-40	JLLS040	A6T40	TJS40	JKS-40	JLS40	A4J40	JFL40
R3	027A-6	27	40	600	JJS-40	JLLS040	A6T40	TJS40	JKS-40	JLS40	A4J40	JFL40
R3	032A-6	32	40	600	JJS-40	JLLS040	A6T40	TJS40	JKS-40	JLS40	A4J40	JFL40
R5	041A-6	41	100	600	JJS-100	JLLS100	A6T100	TJS100	JKS-100	JLS100	A4T100	JFL100
R5	052A-6	52	100	600	JJS-100	JLLS100	A6T100	TJS100	JKS-100	JLS100	A4T100	JFL100
R5	062A-6	62	100	600	JJS-100	JLLS100	A6T100	TJS100	JKS-100	JLS100	A4T100	JFL100
R5	077A-6	77	100	600	JJS-100	JLLS100	A6T100	TJS100	JKS-100	JLS100	A4T100	JFL100
R7	099A-6	99	150	600	JJS-150	JLLS150	A6T150	TJS150	JKS-150	JLS150	A4J150	JFL150
R7	125A-6	125	200	600	JJS-200	JLLS200	A6T200	TJS200	JKS-200	JLS200	A4J200	JFL200
R8	144A-6	144	250	600	JJS-250	JLLS250	A6T250	TJS250	JKS-250	JLS250	A4J250	JFL250

Frame Size	575 V ACH580-01 ACQ580-01 ACS580-01	Input Current	UL Fuse Size (A) and Voltage (V)		UL 248-8 High Speed Class J Fuses				UL 248-4 Class CC Fast Acting Fuses				UL 248-17 Class CF Fast Acting Cube Fuse
			Maximum Current	Voltage Rating	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann
			A	V									
R2	02A7-6	2.7	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	KTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R2	03A9-6	3.9	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	KTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R2	06A1-6	6.1	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	KTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R2	09A0-6	9	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	KTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R2	011A-6	11	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	KTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R2	017A-6	17	30	600	DFJ-30	LDFJ030	HSJ30	JHL30	KTK-R-30	KLKR30	ATMR30	HCLR30	FCF30RN
R3	022A-6	22	40	600	DFJ-40	LDFJ040	HSJ40	JHL40	-	-	-	-	FCF40RN
R3	027A-6	27	40	600	DFJ-40	LDFJ040	HSJ40	JHL40	-	-	-	-	FCF40RN
R3	032A-6	32	40	600	DFJ-40	LDFJ040	HSJ40	JHL40	-	-	-	-	FCF40RN
R5	041A-6	41	100	600	DFJ-100	LDFJ100	HSJ100	JHL100	-	-	-	-	FCF100RN
R5	052A-6	52	100	600	DFJ-100	LDFJ100	HSJ100	JHL100	-	-	-	-	FCF100RN
R5	062A-6	62	100	600	DFJ-100	LDFJ100	HSJ100	JHL100	-	-	-	-	FCF100RN
R5	077A-6	77	100	600	DFJ-100	LDFJ100	HSJ100	JHL100	-	-	-	-	FCF100RN
R7	099A-6	99	150	600	DFJ-150	LDFJ150	HSJ150	JHL150	-	-	-	-	-
R7	125A-6	125	200	600	DFJ-200	LDFJ200	HSJ200	JHL200	-	-	-	-	-
R8	144A-6	144	250	600	DFJ-250	LDFJ250	HSJ250	JHL250	-	-	-	-	-

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Table 11: ACH/ACQ580-31, 480 V

Frame Size	480 V ACH580-31 ACQ580-31	Input Current	UL Fuse Size (A) and Voltage (V)		UL 248-15 Class T Fast Acting Fuses				UL 248-8 Fast Acting Class J Fuses			
			Maximum Current	Voltage Rating	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison
			A	V								
R3	07A6-4	7	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R3	012A-4	9	20	600	JJS-20	JLLS020	A6T20	TJS20	JKS-20	JLS20	A4J20	JFL20
R3	014A-4	12	25	600	JJS-25	JLLS025	A6T25	TJS25	JKS-25	JLS25	A4J25	JFL25
R3	023A-4	17	35	600	JJS-35	JLLS035	A6T35	TJS35	JKS-35	JLS35	A4J35	JFL35
R6	027A-4	24	40	600	JJS-40	JLLS040	A6T40	TJS40	JKS-40	JLS40	A4J40	JFL40
R6	034A-4	29	50	600	JJS-50	JLLS050	A6T50	TJS50	JKS-50	JLS50	A4J50	JFL50
R6	044A-4	34	60	600	JJS-60	JLLS060	A6T60	TJS60	JKS-60	JLS60	A4J60	JFL60
R6	052A-4	44	80	600	JJS-80	JLLS080	A6T80	TJS80	JKS-80	JLS80	A4J80	JFL80
R6	065A-4	54	90	600	JJS-90	JLLS090	A6T90	TJS90	JKS-90	JLS90	A4J90	JFL90
R6	077A-4	66	110	600	JJS-110	JLLS110	A6T110	TJS110	JKS-110	JLS110	A4J110	JFL110
R8	096A-4	82	150	600	JJS-150	JLLS150	A6T150	TJS150	JKS-150	JLS150	A4J150	JFL150
R8	124A-4	111	200	600	JJS-200	JLLS200	A6T200	TJS200	JKS-200	JLS200	A4J200	JFL200
R8	156A-4	134	225	600	JJS-225	JLLS225	A6T225	TJS225	JKS-225	JLS225	A4J225	JFL225
R8	180A-4	163	300	600	JJS-300	JLLS300	A6T300	TJS300	JKS-300	JLS300	A4T300	JFL300

Frame Size	480 V ACH580-31 ACQ580-31	Input Current	UL Fuse Size (A) and Voltage (V)		UL 248-8 High Speed Class J Fuses				UL 248-4 Class CC Fast Acting Fuses				UL 248-17 Class CF Fast Acting Cube Fuse
			Maximum Current	Voltage Rating	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann
			A	V									
R3	07A6-4	7	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	CTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R3	012A-4	9	20	600	DFJ-20	LDFJ020	HSJ20	JHL20	CTK-R-20	KLKR20	ATMR20	HCLR20	FCF20RN
R3	014A-4	12	25	600	DFJ-25	LDFJ025	HSJ25	JHL25	CTK-R-25	KLKR25	ATMR25	HCLR25	FCF25RN
R3	023A-4	17	35	600	DFJ-35	LDFJ035	HSJ35	JHL35	-	-	-	-	FCF35RN
R6	027A-4	24	40	600	DFJ-40	LDFJ040	HSJ40	JHL40	-	-	-	-	FCF40RN
R6	034A-4	29	50	600	DFJ-50	LDFJ050	HSJ50	JHL50	-	-	-	-	FCF50RN
R6	044A-4	34	60	600	DFJ-60	LDFJ060	HSJ60	JHL60	-	-	-	-	FCF60RN
R6	052A-4	44	80	600	DFJ-80	LDFJ080	HSJ80	JHL80	-	-	-	-	FCF80RN
R6	065A-4	54	90	600	DFJ-90	LDFJ090	HSJ90	JHL90	-	-	-	-	FCF90RN
R6	077A-4	66	110	600	DFJ-110	LDFJ110	HSJ110	JHL110	-	-	-	-	-
R8	096A-4	82	150	600	DFJ-150	LDFJ150	HSJ150	JHL150	-	-	-	-	-
R8	124A-4	111	200	600	DFJ-200	LDFJ200	HSJ200	JHL200	-	-	-	-	-
R8	156A-4	134	225	600	DFJ-225	LDFJ225	HSJ225	JHL225	-	-	-	-	-
R8	180A-4	163	300	600	DFJ-300	LDFJ300	HSJ300	JHL300	-	-	-	-	-

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ACS880 drives

Purpose

This section outlines which fuses alternatively may be used with ACS880-01 R1 through R8 frame sizes and ACS880-11 and ACS880-31 R3, R6 and R8 frame sizes.

How to use this information

The drive hardware manual includes fuse recommendations for the drive. In addition to the fuses identified in the manual, alternative fuses can be used if they meet certain characteristics. The guidelines in this document describe which fuses are an acceptable alternative. This document is a supplement to the following drive hardware manuals:

- 3AUA0000078093 ACS880-01 drives
- 3AXD50000045932 ACS880-11 drives
- 3AXD50000045933 ACS880-31 drives

Information

ACS880-01 drives are suitable for use on a circuit capable of delivering not more than 100 kA symmetrical amperes (RMS) at 240, 480 and 600 V maximum, when protected by appropriate fuses.

ACS880-11 and ACS880-31 drives are suitable for use on a circuit capable of delivering not more than 100 kA symmetrical amperes (RMS) at 480 V maximum when protected by appropriate fuses.

The drives are tested to UL 61800-5-1 standard on a circuit having available system fault of 100 kA. Hardware manuals for ACS880-01, ACS880-11 and ACS880-31 drives recommend listed Class T (UL 248-15) fast acting fuses up to 400A.

ABB performed the fault testing with “umbrella fuses.” These fuses are calibrated to create worst case peak let-through current (I_{peak}) and let-through energy (I^2t) limits. The umbrella fuse testing allows other Listed fuses, which have let-through characteristics equal to or below these limits, to be used. Therefore, listed (UL 248-8) Class J fast acting and high-speed fuses can also be used, since they provide equal or better protection. Likewise, listed (UL 248-17) fast acting cubed body (CF) fuses can be used as well.

In addition to the above guidelines, the following are additional rules that should be followed:

1. The UL listed fuses in the hardware manual tables, or the tables in this document, are the required branch circuit protection per NEC.
2. Fuses are required as part of the installation. Fuses are not included in the base drive configuration and must be provided by others.
3. Fuses with a higher current rating than specified must not be used.
4. Fuses with a lower current rating than specified may be used if they are of the same voltage and are UL 248 listed fast acting or high-speed fuses.
5. A fuse of a different class can be used at the high fault rating where the I_{peak} and I^2t of the new fuse is not greater than that of the specified fuse.
6. Recommended drive fuses must be used to maintain drive UL listing. Additional protection can be used. Refer to local codes and regulations.
7. When installing a drive always follow installation instructions and NEC requirements.
8. UL 248 listed, fast acting or high-speed fuses from other manufacturers can be used if they meet the rating requirements specified in the rules above.

Alternate recommended fuses for some of the major fuse manufacturers can be found in tables on the following pages. Other manufacturers not found on the tables below may be used if they meet the fuse requirements stated above.

Table 12: ACS880-01, 230 V

Frame Size	230 V ACS880-01	Input Current	UL Fuse Size (A) and Voltage (V)		UL 248-15 Class T Fast Acting Fuses				UL 248-8 Fast Acting Class J Fuses			
			Maximum Current	Voltage Rating	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison
			A	V								
R1	04A6-2	4.4	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R1	06A6-2	6.3	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R1	07A5-2	7.1	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R1	10A6-2	10.1	20	600	JJS-20	JLLS020	A6T20	TJS20	JKS-20	JLS20	A4J20	JFL20
R2	16A8-2	16.0	25	600	JJS-25	JLLS025	A6T25	TJS25	JKS-25	JLS25	A4J25	JFL25
R2	24A3-2	23.1	40	600	JJS-40	JLLS040	A6T40	TJS40	JKS-40	JLS40	A4J40	JFL40
R3	031A-2	29.3	50	600	JJS-50	JLLS050	A6T50	TJS50	JKS-50	JLS50	A4J50	JFL50
R4	046A-2	44.0	80	600	JJS-80	JLLS080	A6T80	TJS80	JKS-80	JLS80	A4J80	JFL80
R4	061A-2	58.0	100	600	JJS-100	JLLS100	A6T100	TJS100	JKS-100	JLS100	A4J100	JFL100
R5	075A-2	71.0	125	600	JJS-125	JLLS125	A6T125	TJS125	JKS-125	JLS125	A4J125	JFL125
R5	087A-2	83.0	125	600	JJS-125	JLLS125	A6T125	TJS125	JKS-125	JLS125	A4J125	JFL125
R6	115A-2	109	150	600	JJS-150	JLLS150	A6T150	TJS150	JKS-150	JLS150	A4J150	JFL150
R6	145A-2	138	200	600	JJS-200	JLLS200	A6T200	TJS200	JKS-200	JLS200	A4J200	JFL200
R7	170A-2	162	250	600	JJS-250	JLLS250	A6T250	TJS250	JKS-250	JLS250	A4T250	JFL250
R7	206A-2	196	300	600	JJS-300	JLLS300	A6T300	TJS300	JKS-300	JLS300	A4J300	JFL300
R8	274A-2	260	400	600	JJS-400	JLLS400	A6T400	TJS400	JKS-400	JLS400	A4J400	JFL400

Frame Size	230 V ACS880-01	Input Current	UL Fuse Size (A) and Voltage (V)		UL 248-8 High Speed Class J Fuses				UL 248-4 Class CC Fast Acting Fuses				UL 248-17 Class CF Fast Acting Cube Fuse
			Maximum Current	Voltage Rating	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann
			A	V									
R1	04A6-2	4.4	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	KTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R1	06A6-2	6.3	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	KTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R1	07A5-2	7.1	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	KTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R1	10A6-2	10.1	20	600	DFJ-20	LDFJ020	HSJ20	JHL20	KTK-R-20	KLKR20	ATMR20	HCLR20	FCF20RN
R2	16A8-2	16.0	25	600	DFJ-25	LDFJ025	HSJ25	JHL25	KTK-R-25	KLKR25	ATMR25	HCLR25	FCF25RN
R2	24A3-2	23.1	40	600	DFJ-40	LDFJ040	HSJ40	JHL40	-	-	-	-	FCF40RN
R3	031A-2	29.3	50	600	DFJ-50	LDFJ050	HSJ50	JHL50	-	-	-	-	FCF50RN
R4	046A-2	44.0	80	600	DFJ-80	LDFJ080	HSJ80	JHL80	-	-	-	-	FCF80RN
R4	061A-2	58.0	100	600	DFJ-100	LDFJ100	HSJ100	JHL100	-	-	-	-	FCF100RN
R5	075A-2	71.0	125	600	DFJ-125	LDFJ125	HSJ125	JHL125	-	-	-	-	-
R5	087A-2	83.0	125	600	DFJ-125	LDFJ125	HSJ125	JHL125	-	-	-	-	-
R6	115A-2	109	150	600	DFJ-150	LDFJ150	HSJ150	JHL150	-	-	-	-	-
R6	145A-2	138	200	600	DFJ-200	LDFJ200	HSJ200	JHL200	-	-	-	-	-
R7	170A-2	162	250	600	DFJ-250	LDFJ250	HSJ250	JHL250	-	-	-	-	-
R7	206A-2	196	300	600	DFJ-300	LDFJ300	HSJ300	JHL300	-	-	-	-	-
R8	274A-2	260	400	600	DFJ-400	LDFJ400	HSJ400	JHL400	-	-	-	-	-

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Table 13: ACS880-01, 480 V

Frame Size	480 V ACS880-01	Input Current	UL Fuse Size (A) and Voltage (V)		UL 248-15 Class T Fast Acting Fuses				UL 248-8 Fast Acting Class J Fuses			
			Maximum Current	Voltage Rating	Busmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Busmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison
			A	V								
R1	02A1-5	2.1	3	600	JJS-3	JLLS003	A6T3	TJS3	JKS-3	JLS3	A4J3	JFL3
R1	03A0-5	3.0	6	600	JJS-6	JLLS006	A6T6	TJS6	JKS-6	JLS6	A4J6	JFL6
R1	03A4-5	3.4	6	600	JJS-6	JLLS006	A6T6	TJS6	JKS-6	JLS6	A4J6	JFL6
R1	04A8-5	4.8	10	600	JJS-10	JLLS010	A6T10	TJS10	JKS-10	JLS10	A4J10	JFL10
R1	05A2-5	5.2	10	600	JJS-10	JLLS010	A6T10	TJS10	JKS-10	JLS10	A4J10	JFL10
R1	07A6-5	7.6	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R1	11A0-5	11	20	600	JJS-20	JLLS020	A6T20	TJS20	JKS-20	JLS20	A4J20	JFL20
R2	014A-5	14	25	600	JJS-25	JLLS025	A6T25	TJS25	JKS-25	JLS25	A4J25	JFL25
R2	021A-5	21	35	600	JJS-35	JLLS035	A6T35	TJS35	JKS-35	JLS35	A4J35	JFL35
R3	027A-5	27	40	600	JJS-40	JLLS040	A6T40	TJS40	JKS-40	JLS40	A4J40	JFL40
R3	034A-5	34	50	600	JJS-50	JLLS050	A6T50	TJS50	JKS-50	JLS50	A4J50	JFL50
R4	040A-5	40	60	600	JJS-60	JLLS060	A6T60	TJS60	JKS-60	JLS60	A4J60	JFL60
R4	052A-5	52	80	600	JJS-80	JLLS080	A6T80	TJS80	JKS-80	JLS80	A4J80	JFL80
R5	065A-5	65	90	600	JJS-90	JLLS090	A6T90	TJS90	JKS-90	JLS90	A4J90	JFL90
R5	077A-5	77	110	600	JJS-110	JLLS110	A6T110	TJS110	JKS-110	JLS110	A4J110	JFL110
R6	096A-5	96	150	600	JJS-150	JLLS150	A6T150	TJS150	JKS-150	JLS150	A4J150	JFL150
R6	124A-5	124	200	600	JJS-200	JLLS200	A6T200	TJS200	JKS-200	JLS200	A4J200	JFL200
R7	156A-5	156	225	600	JJS-225	JLLS225	A6T225	TJS225	JKS-225	JLS225	A4J225	JFL225
R7	180A-5	180	300	600	JJS-300	JLLS300	A6T300	TJS300	JKS-300	JLS300	A4J300	JFL300
R8	240A-5	240	350	600	JJS-350	JLLS350	A6T350	TJS350	JKS-350	JLS350	A4J350	JFL350
R8	260A-5	260	400	600	JJS-400	JLLS400	A6T400	TJS400	JKS-400	JLS400	A4J400	JFL400

Frame Size	480 V ACS880-01	Input Current	UL Fuse Size (A) and Voltage (V)		UL 248-8 High Speed Class J Fuses				UL 248-4 Class CC Fast Acting Fuses				UL 248-17 Class CF Fast Acting Cube Fuse
			Maximum Current	Voltage Rating	Busmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Busmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Busmann
			A	V									
R1	02A1-5	2.1	3	600	DFJ-3	LDFJ003	HSJ3	JHL3	CTK-R-3	KLKR3	ATMR3	HCLR3	FCF3RN
R1	03A0-5	3.0	6	600	DFJ-6	LDFJ006	HSJ6	JHL6	CTK-R-6	KLKR6	ATMR6	HCLR6	FCF6RN
R1	03A4-5	3.4	6	600	DFJ-6	LDFJ006	HSJ6	JHL6	CTK-R-6	KLKR6	ATMR6	HCLR6	FCF6RN
R1	04A8-5	4.8	10	600	DFJ-10	LDFJ010	HSJ10	JHL10	CTK-R-10	KLKR10	ATMR10	HCLR10	FCF10RN
R1	05A2-5	5.2	10	600	DFJ-10	LDFJ010	HSJ10	JHL10	CTK-R-10	KLKR10	ATMR10	HCLR10	FCF10RN
R1	07A6-5	7.6	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	CTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R1	11A0-5	11	20	600	DFJ-20	LDFJ020	HSJ20	JHL20	CTK-R-20	KLKR20	ATMR20	HCLR20	FCF20RN
R2	014A-5	14	25	600	DFJ-25	LDFJ025	HSJ25	JHL25	CTK-R-25	KLKR25	ATMR25	HCLR25	FCF25RN
R2	021A-5	21	35	600	DFJ-35	LDFJ035	HSJ35	JHL35	-	-	-	-	FCF35RN
R3	027A-5	27	40	600	DFJ-40	LDFJ040	HSJ40	JHL40	-	-	-	-	FCF40RN
R3	034A-5	34	50	600	DFJ-50	LDFJ050	HSJ50	JHL50	-	-	-	-	FCF50RN
R4	040A-5	40	60	600	DFJ-60	LDFJ060	HSJ60	JHL60	-	-	-	-	FCF60RN
R4	052A-5	52	80	600	DFJ-80	LDFJ080	HSJ80	JHL80	-	-	-	-	FCF80RN
R5	065A-5	65	90	600	DFJ-90	LDFJ090	HSJ90	JHL90	-	-	-	-	FCF90RN
R5	077A-5	77	110	600	DFJ-110	LDFJ110	HSJ110	JHL110	-	-	-	-	-
R6	096A-5	96	150	600	DFJ-150	LDFJ150	HSJ150	JHL150	-	-	-	-	-
R6	124A-5	124	200	600	DFJ-200	LDFJ200	HSJ200	JHL200	-	-	-	-	-
R7	156A-5	156	225	600	DFJ-225	LDFJ225	HSJ225	JHL225	-	-	-	-	-
R7	180A-5	180	300	600	DFJ-300	LDFJ300	HSJ300	JHL300	-	-	-	-	-
R8	240A-5	240	350	600	DFJ-350	LDFJ350	HSJ350	JHL350	-	-	-	-	-
R8	260A-5	260	400	600	DFJ-400	LDFJ400	HSJ400	JHL400	-	-	-	-	-

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Table 14: ACS880-01, 575 V

Frame Size	575 V ACS880-01	Input Current	UL Fuse Size (A) and Voltage (V)		UL 248-15 Class T Fast Acting Fuses				UL 248-8 Fast Acting Class J Fuses			
			Maximum Current	Voltage Rating	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison
		A	A	V								
R3	07A4-7	7	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R3	09A9-7	9.4	20	600	JJS-20	JLLS020	A6T20	TJS20	JKS-20	JLS20	A4J20	JFL20
R3	14A3-7	13.6	30	600	JJS-30	JLLS030	A6T30	TJS30	JKS-30	JLS30	A4J30	JFL30
R3	019A-7	18	40	600	JJS-40	JLLS040	A6T40	TJS40	JKS-40	JLS40	A4J40	JFL40
R3	023A-7	22	50	600	JJS-50	JLLS050	A6T50	TJS50	JKS-50	JLS50	A4J50	JFL50
R3	027A-7	27	50	600	JJS-50	JLLS050	A6T50	TJS50	JKS-50	JLS50	A4J50	JFL50
R5	07A3-7	9	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R5	09A8-7	11	20	600	JJS-20	JLLS020	A6T20	TJS20	JKS-20	JLS20	A4J20	JFL20
R5	14A2-7	17	30	600	JJS-30	JLLS030	A6T30	TJS30	JKS-30	JLS30	A4J30	JFL30
R5	018A-7	22	40	600	JJS-40	JLLS040	A6T40	TJS40	JKS-40	JLS40	A4J40	JFL40
R5	022A-7	27	50	600	JJS-50	JLLS050	A6T50	TJS50	JKS-50	JLS50	A4J50	JFL50
R5	026A-7	32	50	600	JJS-50	JLLS050	A6T50	TJS50	JKS-50	JLS50	A4J50	JFL50
R5	035A-7	41	60	600	JJS-60	JLLS060	A6T60	TJS60	JKS-60	JLS60	A4T60	JFL60
R5	042A-7	52	80	600	JJS-80	JLLS080	A6T80	TJS80	JKS-80	JLS80	A4T80	JFL80
R5	049A-7	52	80	600	JJS-80	JLLS080	A6T80	TJS80	JKS-80	JLS80	A4T80	JFL80
R6	061A-7	62	110	600	JJS-110	JLLS110	A6T110	TJS110	JKS-110	JLS110	A4J110	JFL110
R6	084A-7	77	150	600	JJS-150	JLLS150	A6T150	TJS150	JKS-150	JLS150	A4J150	JFL150
R7	098A-7	99	150	600	JJS-150	JLLS150	A6T150	TJS150	JKS-150	JLS150	A4J150	JFL150
R7	119A-7	125	200	600	JJS-200	JLLS200	A6T200	TJS200	JKS-200	JLS200	A4J200	JFL200
R8	142A-7	144	250	600	JJS-250	JLLS250	A6T250	TJS250	JKS-250	JLS250	A4J250	JFL250
R8	174A-7	180	300	600	JJS-300	JLLS300	A6T300	TJS300	JKS-300	JLS300	A4J300	JFL300

Frame Size	575 V ACS880-01	Input Current	UL Fuse Size (A) and Voltage (V)		UL 248-8 High Speed Class J Fuses				UL 248-4 Class CC Fast Acting Fuses				UL 248-17 Class CF Fast Acting Cube Fuse
			Maximum Current	Voltage Rating	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann
		A	A	V									
R3	07A4-7	7	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	KTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R3	09A9-7	9.4	20	600	DFJ-20	LDFJ020	HSJ20	JHL20	KTK-R-20	KLKR20	ATMR20	HCLR20	FCF20RN
R3	14A3-7	13.6	30	600	DFJ-30	LDFJ030	HSJ30	JHL30	KTK-R-30	KLKR30	ATMR30	HCLR30	FCF30RN
R3	019A-7	18	40	600	DFJ-40	LDFJ040	HSJ40	JHL40	-	-	-	-	FCF40RN
R3	023A-7	22	50	600	DFJ-50	LDFJ050	HSJ50	JHL50	-	-	-	-	FCF50RN
R3	027A-7	27	50	600	DFJ-50	LDFJ050	HSJ50	JHL50	-	-	-	-	FCF50RN
R5	07A3-7	9	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	KTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R5	09A8-7	11	20	600	DFJ-20	LDFJ020	HSJ20	JHL20	KTK-R-20	KLKR20	ATMR20	HCLR20	FCF20RN
R5	14A2-7	17	30	600	DFJ-30	LDFJ030	HSJ30	JHL30	KTK-R-30	KLKR30	ATMR30	HCLR30	FCF30RN
R5	018A-7	22	40	600	DFJ-40	LDFJ040	HSJ40	JHL40	-	-	-	-	FCF40RN
R5	022A-7	27	50	600	DFJ-50	LDFJ050	HSJ50	JHL50	-	-	-	-	FCF50RN
R5	026A-7	32	50	600	DFJ-50	LDFJ050	HSJ50	JHL50	-	-	-	-	FCF50RN
R5	035A-7	41	60	600	DFJ-60	LDFJ060	HSJ60	JHL60	-	-	-	-	FCF60RN
R5	042A-7	52	80	600	DFJ-80	LDFJ080	HSJ80	JHL80	-	-	-	-	FCF80RN
R5	049A-7	52	80	600	DFJ-80	LDFJ080	HSJ80	JHL80	-	-	-	-	FCF80RN
R6	061A-7	62	110	600	DFJ-110	LDFJ110	HSJ110	JHL110	-	-	-	-	-
R6	084A-7	77	150	600	DFJ-150	LDFJ150	HSJ150	JHL150	-	-	-	-	-
R7	098A-7	99	150	600	DFJ-150	LDFJ150	HSJ150	JHL150	-	-	-	-	-
R7	119A-7	125	200	600	DFJ-200	LDFJ200	HSJ200	JHL200	-	-	-	-	-
R8	142A-7	144	250	600	DFJ-250	LDFJ250	HSJ250	JHL250	-	-	-	-	-
R8	174A-7	180	300	600	DFJ-300	LDFJ300	HSJ300	JHL300	-	-	-	-	-

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Table 15: ACS880-31, 480 V

Frame Size	480 V ACS880-31	Input Current	UL Fuse Size (A) and Voltage (V)		UL 248-15 Class T Fast Acting Fuses				UL 248-8 Fast Acting Class J Fuses			
			Maximum Current	Voltage Rating	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison
			A	V								
R3	07A6-5	5.8	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R3	11A0-5	7.8	20	600	JJS-20	JLLS020	A6T20	TJS20	JKS-20	JLS20	A4J20	JFL20
R3	014A-5	10.6	25	600	JJS-25	JLLS025	A6T25	TJS25	JKS-25	JLS25	A4J25	JFL25
R3	021A-5	15.6	35	600	JJS-35	JLLS035	A6T35	TJS35	JKS-35	JLS35	A4J35	JFL35
R6	027A-5	21.3	40	600	JJS-40	JLLS040	A6T40	TJS40	JKS-40	JLS40	A4J40	JFL40
R6	034A-5	26.2	50	600	JJS-50	JLLS050	A6T50	TJS50	JKS-50	JLS50	A4J50	JFL50
R6	040A-5	31.2	60	600	JJS-60	JLLS060	A6T60	TJS60	JKS-60	JLS60	A4J60	JFL60
R6	052A-5	40.1	80	600	JJS-80	JLLS080	A6T80	TJS80	JKS-80	JLS80	A4J80	JFL80
R6	065A-5	49.5	90	600	JJS-90	JLLS090	A6T90	TJS90	JKS-90	JLS90	A4J90	JFL90
R6	077A-5	60.2	110	600	JJS-110	JLLS110	A6T110	TJS110	JKS-110	JLS110	A4J110	JFL110
R8	101A-5	74	150	600	JJS-150	JLLS150	A6T150	TJS150	JKS-150	JLS150	A4J150	JFL150
R8	124A-5	100	200	600	JJS-200	JLLS200	A6T200	TJS200	JKS-200	JLS200	A4J200	JFL200
R8	156A-5	120	225	600	JJS-225	JLLS225	A6T225	TJS225	JKS-225	JLS225	A4J225	JFL225
R8	180A-5	147	300	600	JJS-300	JLLS300	A6T300	TJS300	JKS-300	JLS300	A4T300	JFL300

Frame Size	480 V ACS880-31	Input Current	UL Fuse Size (A) and Voltage (V)		UL 248-8 High Speed Class J Fuses				UL 248-4 Class CC Fast Acting Fuses				UL 248-17 Class CF Fast Acting Cube Fuse
			Maximum Current	Voltage Rating	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann
			A	V									
R3	07A6-5	5.8	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	CTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R3	11A0-5	7.8	20	600	DFJ-20	LDFJ020	HSJ20	JHL20	CTK-R-20	KLKR20	ATMR20	HCLR20	FCF20RN
R3	014A-5	10.6	25	600	DFJ-25	LDFJ025	HSJ25	JHL25	CTK-R-25	KLKR25	ATMR25	HCLR25	FCF25RN
R3	021A-5	15.6	35	600	DFJ-35	LDFJ035	HSJ35	JHL35	-	-	-	-	FCF35RN
R6	027A-5	21.3	40	600	DFJ-40	LDFJ040	HSJ40	JHL40	-	-	-	-	FCF40RN
R6	034A-5	26.2	50	600	DFJ-50	LDFJ050	HSJ50	JHL50	-	-	-	-	FCF50RN
R6	040A-5	31.2	60	600	DFJ-60	LDFJ060	HSJ60	JHL60	-	-	-	-	FCF60RN
R6	052A-5	40.1	80	600	DFJ-80	LDFJ080	HSJ80	JHL80	-	-	-	-	FCF80RN
R6	065A-5	49.5	90	600	DFJ-90	LDFJ090	HSJ90	JHL90	-	-	-	-	FCF90RN
R6	077A-5	60.2	110	600	DFJ-110	LDFJ110	HSJ110	JHL110	-	-	-	-	-
R8	101A-5	74	150	600	DFJ-150	LDFJ150	HSJ150	JHL150	-	-	-	-	-
R8	124A-5	100	200	600	DFJ-200	LDFJ200	HSJ200	JHL200	-	-	-	-	-
R8	156A-5	120	225	600	DFJ-225	LDFJ225	HSJ225	JHL225	-	-	-	-	-
R8	180A-5	147	300	600	DFJ-300	LDFJ300	HSJ300	JHL300	-	-	-	-	-

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Table 16: ACS880-11, 480 V

Frame Size	480 V ACS880-11	Input Current	UL Fuse Size (A) and Voltage (V)		UL 248-15 Class T Fast Acting Fuses				UL 248-8 Fast Acting Class J Fuses			
			Maximum Current	Voltage Rating	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison
			A	V								
R3	07A6-5	5.8	15	600	JJS-15	JLLS015	A6T15	TJS15	JKS-15	JLS15	A4J15	JFL15
R3	11A0-5	7.8	20	600	JJS-20	JLLS020	A6T20	TJS20	JKS-20	JLS20	A4J20	JFL20
R3	014A-5	10.6	25	600	JJS-25	JLLS025	A6T25	TJS25	JKS-25	JLS25	A4J25	JFL25
R3	021A-5	15.6	35	600	JJS-35	JLLS035	A6T35	TJS35	JKS-35	JLS35	A4J35	JFL35
R6	027A-5	21.3	40	600	JJS-40	JLLS040	A6T40	TJS40	JKS-40	JLS40	A4J40	JFL40
R6	034A-5	26.2	50	600	JJS-50	JLLS050	A6T50	TJS50	JKS-50	JLS50	A4J50	JFL50
R6	040A-5	31.2	60	600	JJS-60	JLLS060	A6T60	TJS60	JKS-60	JLS60	A4J60	JFL60
R6	052A-5	40.1	80	600	JJS-80	JLLS080	A6T80	TJS80	JKS-80	JLS80	A4J80	JFL80
R6	065A-5	49.5	90	600	JJS-90	JLLS090	A6T90	TJS90	JKS-90	JLS90	A4J90	JFL90
R6	077A-5	60.2	110	600	JJS-110	JLLS110	A6T110	TJS110	JKS-110	JLS110	A4J110	JFL110
R8	101A-5	74	150	600	JJS-150	JLLS150	A6T150	TJS150	JKS-150	JLS150	A4J150	JFL150
R8	124A-5	100	200	600	JJS-200	JLLS200	A6T200	TJS200	JKS-200	JLS200	A4J200	JFL200
R8	156A-5	120	225	600	JJS-225	JLLS225	A6T225	TJS225	JKS-225	JLS225	A4J225	JFL225
R8	180A-5	147	300	600	JJS-300	JLLS300	A6T300	TJS300	JKS-300	JLS300	A4T300	JFL300

Frame Size	480 V ACS880-11	Input Current	UL Fuse Size (A) and Voltage (V)		UL 248-8 High Speed Class J Fuses				UL 248-4 Class CC Fast Acting Fuses				UL 248-17 Class CF Fast Acting Cube Fuse
			Maximum Current	Voltage Rating	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann	Littelfuse	Mersen/ Ferraz Shawmut	Edison	Bussmann
			A	V									
R3	07A6-5	5.8	15	600	DFJ-15	LDFJ015	HSJ15	JHL15	CTK-R-15	KLKR15	ATMR15	HCLR15	FCF15RN
R3	11A0-5	7.8	20	600	DFJ-20	LDFJ020	HSJ20	JHL20	CTK-R-20	KLKR20	ATMR20	HCLR20	FCF20RN
R3	014A-5	10.6	25	600	DFJ-25	LDFJ025	HSJ25	JHL25	CTK-R-25	KLKR25	ATMR25	HCLR25	FCF25RN
R3	021A-5	15.6	35	600	DFJ-35	LDFJ035	HSJ35	JHL35	-	-	-	-	FCF35RN
R6	027A-5	21.3	40	600	DFJ-40	LDFJ040	HSJ40	JHL40	-	-	-	-	FCF40RN
R6	034A-5	26.2	50	600	DFJ-50	LDFJ050	HSJ50	JHL50	-	-	-	-	FCF50RN
R6	040A-5	31.2	60	600	DFJ-60	LDFJ060	HSJ60	JHL60	-	-	-	-	FCF60RN
R6	052A-5	40.1	80	600	DFJ-80	LDFJ080	HSJ80	JHL80	-	-	-	-	FCF80RN
R6	065A-5	49.5	90	600	DFJ-90	LDFJ090	HSJ90	JHL90	-	-	-	-	FCF90RN
R6	077A-5	60.2	110	600	DFJ-110	LDFJ110	HSJ110	JHL110	-	-	-	-	-
R8	101A-5	74	150	600	DFJ-150	LDFJ150	HSJ150	JHL150	-	-	-	-	-
R8	124A-5	100	200	600	DFJ-200	LDFJ200	HSJ200	JHL200	-	-	-	-	-
R8	156A-5	120	225	600	DFJ-225	LDFJ225	HSJ225	JHL225	-	-	-	-	-
R8	180A-5	147	300	600	DFJ-300	LDFJ300	HSJ300	JHL300	-	-	-	-	-

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