

E7 recommendations found in the E7 Users Manual.

Branch Short Circuit Protection

Select fuses and MCCB based on NEC Table 430-152 and the data provided.

Table E.1 208-240Vac Input								
Model CIMR-E7U	Nominal Hp	Rated Input Amps	Rated Output Amps	Fuse Selection Criteria		MCCB Selection Criteria		
				Minimum Voltage Rating (Vac)	Maximum I^2t Melt Rating	Circuit Breaker Type	Minimum Volt- age Rating (Vac)	Minimum MCCB Amp Rating
20P4	0.5/0.75	4.3	3.6	250	17	Inverse Time	240	7
20P7	1	5.5	4.6	250	17	Inverse Time	240	7
21P5	1.5/2	9.4	7.8	250	27	Inverse Time	240	15
22P2	3	13	10.8	250	60	Inverse Time	240	30
23P7	5	20	16.8	250	200	Inverse Time	240	30
25P5	7.5	24	23	250	276	Inverse Time	240	30
27P5	10	37	31	250	560	Inverse Time	240	50
2011	15	53	46.2	250	810	Inverse Time	240	100
2015	20	70	59.4	250	1570	Inverse Time	240	100
2018	25	89	74.8	250	2260	Inverse Time	240	150
2022	30	98	88	250	2260	Inverse Time	240	150
2030	40	120	115	250	4010	Inverse Time	240	150
2037	50	180	162	250	7320	Inverse Time	240	250
2045	60	212	192	250	9630	Inverse Time	240	400
2055	75	237	215	250	16000	Inverse Time	240	400
2075	75/100	350	312	250	31000	Inverse Time	240	600
2090	125							
2110	150							

Table E.2 480Vac Input

Model CIMR-E7U	Nominal Hp	Rated Input Amps	Rated Output Amps	Fuse Selection Criteria		MCCB Selection Criteria		
				Minimum Voltage Rating (Vac)	Maximum I^2t Melt Rating	Circuit Breaker Type	Minimum Voltage Rating (Vac)	Minimum MCCB Amp Rating
40P4	0.5/0.75	2.2	1.8	500	26	Inverse Time	480	3
40P7	1	2.5	2.1	500	26	Inverse Time	480	7
41P5	1.5/2	4.4	3.7	500	26	Inverse Time	480	7
42P2	3	6.4	5.3	500	26	Inverse Time	480	15
43P7	5	9	7.6	500	59	Inverse Time	480	15
45P5	7.5	15	12.5	500	317	Inverse Time	480	30
47P5	10	20	17	500	317	Inverse Time	480	30
4011	15/20	33	27	500	317	Inverse Time	480	50
4015	25	40	34	500	564	Inverse Time	480	50
4018	30	48	40	500	1022	Inverse Time	480	100
4030	40/50	74	67.2	500	1022	Inverse Time	480	100
4037	60	85	77	500	3070	Inverse Time	480	150
4045	75	106	96	500	3070	Inverse Time	480	150
4055	100	134	125	500	5200	Inverse Time	480	250
4075	125	172	156	500	17700	Inverse Time	480	250
4090	150	198	180	500	17700	Inverse Time	480	400
4110	200	264	240	500	19000	Inverse Time	480	400
4160	250	334	304	500	24000	Inverse Time	480	600
4185	300/350							
4220	400/450	567	515	500	59000	Inverse Time	480	800
4300	500+							

F7 Branch Short Circuit Protection

Fuse Type:

UL designated Time-Delay or Non-Time Delay Fuse

Class: CC, J, T, RK1 or RK5

Designators (typical): KTK, FNQ, FRS, LPJ, LPS, JKS, JJN, or JJS

Voltage Rating: 250V for drives with 208 - 240V input / 600V for drives with 480V input

Circuit Breaker Type:

Inverse Time MCCB

Voltage Rating: 600V

Recommended fuse and MCCB based on NEC Table 430-152.

If available current ratings cannot be provided, the fuse rating (A) should match rated input current of the drive.

Warning: Input fuses are required for proper branch circuit short circuit protection of all drives.

Failure to use the listed fuses may result in damage to the drive and/or personal injury.

Table E.1 208-240Vac Input						
Model CIMR-F7U	Hp	Rated Input Amps	Rated Output Amps	Fuse Selection Criteria		MCCB Selection Criteria
				Maximum Time-Delay Fuse Raing (A)	Maximum Non-Time Delay Fuse Rating (A)	Maximum MCCB Rating (A)
20P4	0.5/0.75	4.3	3.6	6	12	15
20P7	1	5.5	4.6	8	12	15
21P5	1.5/2	9.4	7.8	15	15	15
22P2	3	13	10.8	20	20	20
23P7	5	20	16.8	30	30	35
25P5	7.5	24	23	40	50	45
27P5	10	37	31	60	80	80
2011	15	53	46.2	80	80	100
2015	20	70	59.4	110	125	125
2018	25	89	74.8	125	150	150
2022	30	98	88	150	150	175
2030	40	120	115	200	200	225
2037	50	180	162	250	250	300
2045	60	212	192	300	300	350
2055	75	237	215	350	350	450
2075	75/100	350	312	450	450	600
2090	125	396	360	600	600	700
2110	150	457	415	700	700	900

Table E.2 480Vac Input

Model CIMR-F7U	Hp	Rated Input Amps	Rated Output Amps	Fuse Selection Criteria		MCCB Selection Criteria
				Maximum Time-Delay Fuse Raing (A)	Maximum Non-Time Delay Fuse Rating (A)	Maximum MCCB Rating (A)
40P4	0.5/0.75	2.2	1.8	4	10	15
40P7	1	2.5	2.1	4	10	15
41P5	1.5/2	4.4	3.7	8	12	15
42P2	3	6.4	5.3	10	15	15
43P7	5	9	7.6	15	20	20
45P5	7.5	15	12.5	25	30	30
47P5	10	20	17	30	30	40
4011	15/20	33	27	45	50	60
4015	25	40	34	60	70	80
4018	30	48	40	70	80	90
4030	40/50	74	67.2	100	100	125
4037	60	85	77	125	125	150
4045	75	106	96	150	150	200
4055	100	134	125	200	200	225
4075	125	172	156	250	250	300
4090	150	198	180	300	300	400
4110	200	264	240	350	350	450
4160	250	334	304	450	450	700
4185	300/3.50	456	414	600	600	800
4220	400/4.50	567	515	700	700	1000
4300	500+	743	675	900	900	1200