

MODELS: FR-D800 Series

**TITLE: Branch Circuit Protection Devices to Comply with the UL61800-5-1 Standard
for the FR-D800 Series Inverters**

Purpose

This document provides information on branch circuit protection devices used with the FR-D800 Series general-purpose inverter to comply with the UL 61800-5-1 standard.

Fuse Information

The fuse selection test is conducted in accordance with the UL 61800-5-1 standard in circuits where a maximum short circuit current of 100kA occur. Please refer to tables (1) to (4) below for the fuses to be used for each inverter model and capacity.

※Precautions

1. Semiconductor fuses are not included with the inverter and must be procured separately.
2. The semiconductor fuses listed in this document's tables are necessary branch circuit protection devices to comply with the NEC (National Electrical Code).
3. When installing the inverter, follow the inverter installation procedures and the requirements of the NEC (National Electrical Code).
4. The semiconductor fuses listed in the subsequent tables indicate only the basic part numbers. Fuses with indicators may also be used without affecting the inverter's UL certification, performance, or the ratings of the semiconductor fuses.

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FR-D820 3 ϕ 200V-240V SCCR with Fuse

FR-D820-[]	Input Current (A)	Output Current (A)	SCCR 100kA		
			Semiconductor Fuses		
			Current (A)	Voltage (V)	Bussmann
0.1K(008)	1.8	1.4	10	700	170M1408 170M1308 170M1358
0.2K(014)	3.4	2.5	10	700	170M1408 170M1308 170M1358
0.4K(025)	5.6	4.2	16	700	170M1409 170M1309 170M1359
0.75K(042)	8.0	6.0	25	700	170M1411 170M1311 170M1361
1.5K(070)	13.7	10.0	40	700	170M1413 170M1313 170M1363
2.2K(100)	20.6	16.5	50	700	170M1414 170M1314 170M1364
3.7K(165)	31.2	23.8	80	700	170M1416 170M1316 170M1366
5.5K(238)	40.5	31.8	100	700	170M1417 170M1317 170M1367
7.5K(318)	57.5	45.0	160	700	170M1419 170M1319 170M1369

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FR-D840 3 ϕ 380V- 480V SCCR with Fuse

FR-D840-[]	Input Current (A)	Output Current (A)	SCCR 100kA		
			Semiconductor Fuses		
			Current (A)	Voltage (V)	Bussmann
0.4K(012)	3.1	2.2	10	700	170M1408 170M1308 170M1358
0.75K(022)	6.0	3.7	16	700	170M1409 170M1309 170M1359
1.5K(037)	7.8	5.0	20	700	170M1410 170M1310 170M1360
2.2K(050)	11.9	8.1	32	700	170M1412 170M1312 170M1362
3.7K(081)	16.1	12.0	40	700	170M1413 170M1313 170M1363
5.5K(120)	21.3	16.3	50	700	170M1414 170M1314 170M1364
7.5K(163)	29.1	23.0	80	700	170M1416 170M1316 170M1366

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FR-D820S 1 ϕ 200V-240V SCCR with Fuse

FR-D820S-[]	Input Current (A)	Output Current (A)	SCCR 100kA		
			Semiconductor Fuses		
			Current (A)	Voltage (V)	Bussmann
0.1K(008)	2.3	0.8	10	700V	170M1408 170M1308 170M1358
0.2K(014)	3.9	1.4	10	700V	170M1408 170M1308 170M1358
0.4K(025)	6.6	2.5	16	700V	170M1409 170M1309 170M1359
0.75K(042)	10.9	4.2	32	700V	170M1412 170M1312 170M1362
1.5K(070)	17.4	7.0	50	700V	170M1414 170M1314 170M1364
2.2K(100)	24.2	10.0	63	700V	170M1415 170M1315 170M1365

FR-D810W 1 ϕ 100V-120V SCCR with fuse

FR-D810W-[]	Input Current (A)	Output Current (A)	SCCR 100kA		
			Semiconductor Fuses		
			Current (A)	Voltage (V)	Bussmann
0.1K(008)	3.8	0.8	10	700V	170M1408 170M1308 170M1358
0.2K(014)	6.2	1.4	16	700V	170M1409 170M1309 170M1359
0.4K(025)	10.5	2.5	25	700V	170M1411 170M1311 170M1361
0.75K(042)	18.8	4.2	50	700V	170M1414 170M1314 170M1364