

1 Products affected

Product hierarchy no. *				Part no.	SBU	Type / Description	Customer part no.
SBU	PG	PGU	Type				
01	001	025	0000000221	3413.0002.11	Protection	USFF 1206 – 0.050 A – 100 pieces	
01	001	025	0000000221	3413.0002.22	Protection	USFF 1206 – 0.050 A – 1'000 pieces	
01	001	025	0000000221	3413.0002.24	Protection	USFF 1206 – 0.050 A – 5'000 pieces	
01	001	025	0000000221	3413.0002.26	Protection	USFF 1206 – 0.050 A – 10'000 pieces	
01	001	025	0000000221	3413.0008.11	Protection	USFF 1206 – 0.160 A – 100 pieces	
01	001	025	0000000221	3413.0008.22	Protection	USFF 1206 – 0.160 A – 1'000 pieces	
01	001	025	0000000221	3413.0008.24	Protection	USFF 1206 – 0.160 A – 5'000 pieces	
01	001	025	0000000221	3413.0008.26	Protection	USFF 1206 – 0.160 A – 10'000 pieces	
01	001	025	0000000221	3413.0009.11	Protection	USFF 1206 – 0.200 A – 100 pieces	
01	001	025	0000000221	3413.0009.22	Protection	USFF 1206 – 0.200 A – 1'000 pieces	
01	001	025	0000000221	3413.0009.24	Protection	USFF 1206 – 0.200 A – 5'000 pieces	
01	001	025	0000000221	3413.0009.26	Protection	USFF 1206 – 0.200 A – 10'000 pieces	
01	001	025	0000000221	3413.0010.11	Protection	USFF 1206 – 0.250 A – 100 pieces	
01	001	025	0000000221	3413.0010.22	Protection	USFF 1206 – 0.250 A – 1'000 pieces	
01	001	025	0000000221	3413.0010.24	Protection	USFF 1206 – 0.250 A – 5'000 pieces	
01	001	025	0000000221	3413.0010.26	Protection	USFF 1206 – 0.250 A – 10'000 pieces	

*SBU (2-digit) / PG (3-digit) / PGU (3-digit) / Type (10-digit)

2 Type of change

Derating of the breaking capacity value at 125VAC only. DC breaking capacity remains the same.

3 Detailed description of change

Old label (Sample)	New label (Sample)
<p>The old label for part 3413.0008.24 shows a quantity of 5000. The description is 'USFF 1206 Surface mount fuse' with UL 248-1 / 248-14 FF 160mA 125V AC / 63V. The test specifications are circled in red: IR 100A / 125V AC and IR 100A / 63V DC. The date code is 1552.</p>	<p>The new label for part 3413.0008.24 shows a quantity of 5000. The description is 'USFF 1206 Surface mount fuse' with UL 248-1 / 248-14 FF 160mA 125VAC/63VDC. The test specifications are circled in red: IR 10A / 125V AC, IR 100A / 32V AC, and IR 100A / 63V DC. The date code is 1602.</p>

Product Change Notification					PCN Derating USFF 1206		
owner	creation date	release date	released by	change order no	rev	page	D10-000-679
ganderka	2015-12-18	2016-01-13	bergerra	2008873	A	1 of 2	

Old product rating (UL)	New product rating (UL)
AC: 100 A @ 125V AC – p.f. 0.95-1.0	AC: 10A @ 125V AC - p.f. 0.99-1.0 100A @ 32 V AC - p.f. 0.99-1.0
DC: 100 A @ 63V DC, Resistive	DC: 100 A @ 63V DC, Resistive

4 Reason of change

A recent breaking capacity test conducted by UL resulted in a derating of the breaking capacity of the USFF SMD fuse at 125VAC to 10A. The breaking capacity at DC voltage passed at 100A without any issues.

The USFF fuse passed prior UL testing at 100A / 125VAC. The derating is attributed to the fact that UL uses a range of closing angles for testing breaking capacity. The closing angle describes the angle of the sine wave at the moment when the test circuit is switched on. It determines the amount of energy of the signal and hence the results. Refer to Fig. 1 below.

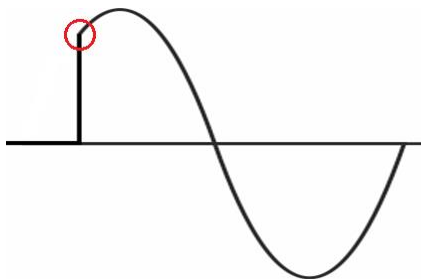


Fig. 1

The published breaking capacity for applications > 32VAC has been derated on our datasheet accordingly.

5 Release date

The change takes effect immediately (Date code 1602 or higher on label).

6 Impact of change and recommended action

Attribute	Affected	Comments
Form	No	
Fit	No	
Function	Yes	Breaking capacity rating for AC voltage derated.
Production Site	No	
Product Label	Yes	New breaking capacity rating at 125 VAC. Additional breaking capacity rating for 32 VAC.
Customer Action	Yes	Check electrical circuit design if nominal voltage is > 32 VAC, although unlikely as the USFF is moreover designed for use in DC applications. There is no change in DC ratings; therefore the use of the USFF in DC applications is not impacted.

7 Reference Documents / Attachments

Kind of document	Remarks
Data Sheet USFF 1206	

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ganderka	2015-12-18	2016-01-13	bergerra	2008873	A	2 of 2	