

				UL-Coding								
Type	File	Volume	Section	Type	UG	FW	U (V)	I (A)	TC	OL	SC	Remarks
<b>Section 1</b>												
17plus	E216113	1	4				250 AC 80 DC	25/50 A Si 1/10 A				UL 60950-1
19-xx	E335289	1	2		B, D	1	300	16				UL 1059
80-PCB	E335289	1	2		B, D	1	300	16				UL 1059
10PLUS	E335289	1			B, C	2	300	10				UL 1059
X8340-S02	E216113	1	1				250 AC 80 DC	25/100 A Si 6 A			3.5 kA	UL 60950-1
X8340-S04	E216113	1	2				250 AC 80 DC	25/100 A Si 6 A			3.5 kA	UL 60950-1
X8340-SZ4	E216113	1	3				250 AC 80 DC	25/150 A Si 6 A			3.5 kA	UL 60950-1
X8345-D	E216113	1	5				277 AC 110 DC	125/600 A Si 6 A				UL 60950-1
HPCFAP	E216113	X2: A12					60 DC	125/375				UL 60950-1
HCFAP_R	E216113	X2: A13					60 DC	100/300				UL 60950-1
Powerbox 2U	E216113	X2					48 DC	24				UL 60950-1
X8345R-S...0617	E216113	X3: A6					72 DC	125/750 A				UL 60950-1
X8345R-S...0618	E216113	X3: A8					72 DC	50/300 A				UL 60950-1
80 PLUS	E335289	1			B, C	2	300 AC	16				UL 1059
81 PLUS	E335289	1	1		B	2	277 AC 50 DC	16 16				UL 1059
18PLUS	E335289	1	3		B, D, F	2	300 / 30 (Si)	65, 16 / 1 (Si)				UL 1059
<b>Section 2</b>												
104, 105, 106	E67320	1	1	OC	A, C	0	250 AC 48 DC	0.05-10 0.05-10	2	0	2 kA, C, 1 0.2 kA, C, 1	
127, 129 157, 158 2-5000 2-5200 2-5700	E67320	1	12	OC	A, C	0	250 AC 120 AC 50 DC	0.05-20 0.05-20 0.05-5 6-25	2 2 2 2	0 1 0 0	2 kA, C, 1a 2 kA, C, 2 2.5 kA, U, 1a 2 kA, C, 1	
1110	E67320	1	17	OC	B, D	0	250 AC 125 AC 50 DC	0.05-6.5 7-16 0.05-16	1	0	1 kA, C, 1 1 kA, U, 1 1 kA, C, 1	
1115	E67320	1		OC	A, B, C, D	0	250 AC 250 AC 32 DC 32 DC	1-2.5 3-16 1-2.5 3-16	2 1 2 1	0 0 0 0	1.0 kA, C, 1 1.0 kA, C, 1 0.2 kA, C, 1 0.2 kA, C, 1	
1140	E67320	1	21	OC	B	0	250 AC 50 DC	0.05-16 0.05-16	2	0	2 kA, C, 1 2 kA, U, 1	
1180	E67320	1	32	OC	D	0	250 AC 72 DC	0.1-10 0.1-10	2	0	2 kA, C, 1 2 kA, C, 1	
1410	E67320	1	18	OC	B, D	0	250 AC L/G: 50 DC F: 60 DC F: 50 DC	0.63-10 0.63-10 0.63-5 5.5-8	2	0	2 kA, C, 1 0.2 kA, C, 1 0.2 kA, U, 1 0.2 kA, C, 1	
1657	E67320	1		OC	A, B C, D	0	250 AC 250 AC 125 AC 125 AC 50 DC	3-20 3-30 3-20 3-30 3-30	2 2 2 2 2	1 1 1 1 0	0.4 kA, U, 3 1 kA, C, 1 0.4 kA, U, 3 1 kA, C, 1 0.3 kA, C, 1	additional UL 1500
1658-G..., 1658-E00, 1658-F...	E67320	2	1	OC	A, C	0	240 AC 240 AC 125 AC 125 AC 32 DC 32 DC	5-16 17-30 5-30 5-30 5-30 5-30	1 1 1 1 1 1	1 0 1 1 0 0	1 kA, C, 1 0.5 kA, C, 1 2 kA, C, 1 0.5 kA, U, 3 2 kA, C, 1 0.5 kA, U, 3	

				UL-Coding								
Type	File	Volume	Section	Type	UG	FW	U (V)	I (A)	TC	OL	SC	Remarks
1658-A...	E29255	1	6	OC	A, C	0	120 AC 28 DC	5-30 5-30	0			UL 244A
1659	E67320	1		OC	A, B C, D	0	250 AC 250 AC 125 AC 125 AC 50 DC 50 DC	3-30 3-50 3-30 3-50 3-30 31-50	2 2 2 2 2 2	1 1 1 1 1 0	0.4 kA, U, 3 1 kA, C, 1 0.4 kA, U, 3 1 kA, C, 1 0.3 kA, C, 1 0.3 kA, C, 1	additional UL 1500
3120 3120-M2 -X3120-S -X3120-N -X3120-U	E67320	1	13	OC	B D E A <sup>5)</sup>	0	250 AC 250 AC 250 AC 250 AC <sup>5)</sup> 250 AC <sup>5)</sup> 250 AC <sup>5)</sup> 250 AC <sup>5)</sup> 250 AC <sup>5)</sup> 125 AC 50 DC 50 DC <sup>5)</sup> 50 DC <sup>5)</sup> 50 DC <sup>5)</sup> 50 DC <sup>5)</sup> 50 DC <sup>5)</sup> 50 DC <sup>5)</sup>	0.1-20 21-30 <sup>2)</sup> 0.1-10 <sup>3)</sup> 0.1-2 A 2.5-20 A 2.5-20 A <sup>4)</sup> 0.1-16 A <sup>3)</sup> 0.1-16 A <sup>3)4)</sup> 11-16 <sup>3)</sup> 0.1-20 0.1-2 A 2.5-20 A 2.5-20 A <sup>4)</sup> 0.1-16 A <sup>3)</sup> 0.1-16 A <sup>3)4)</sup>	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 <sup>1)</sup> 0 1 1 0 0 1 1 0 0 0 0 0 0 0	5 kA, C, 1 5 kA, C, 1 2 kA, C, 1 10 In, U, 3 0.15 kA, U, 3 0.25 kA, U, 3 0.15 kA, U, 3 0.25 kA, U, 3 1 kA, C, 1 1 kA, C, 1 10 In, U, 3 0.15 kA, U, 3 0.25 kA, U, 3 0.15 kA, U, 3 0.25 kA, U, 3	1) <sup>1)</sup> for $I_N \leq 16 A$ : $O_L 1$ 2) two single poles connected in parallel 3) with X3120-M1 magn. release module 4) 2-pole version 5) not valid for CSA approval certificate 1231669
3130	E67320	1	23	OC	B, D	0	250 AC 250 AC 50 DC	0.1-16 0.1-12 0.1-16	2 2 2	1 1 1	3.5 kA, C, 1 5 kA, C, 1 2 kA, C, 1	1- and 2-pole 3-pole 1-, 2- & 3 pole
X3120, X3130	E467544	1	1				250 AC	1-20				UL 498
3131	E67320	1	37	OC	A, C	0	250 AC 32 DC 32 DC 12 DC	0.1-20 0.1-20 0.1-20 0.1-20	2 2 2 2	0 0 0 0	3.0 kA, U, 1a 2.5 kA, U, 1a 2.5 kA, C, 3 2.5 kA, U, 3	
3140	E67320	1	13	OC	B D E A <sup>5)</sup>	0	250 AC 250 AC 250 AC 125 AC 50 DC	0.1-16 21-30 <sup>2)</sup> 0.1-10 <sup>3)</sup> 11-16 <sup>3)</sup> 0.1-16	1 1 1 1 1	1 0 1 1 0	5 kA, C, 1 5 kA, C, 1 2 kA, C, 1 1 kA, C, 1 1 kA, C, 1	2) two single poles connected in parallel 3) with X3120-M1 magn. release module 5) not valid for CSA approval certificate 1231669
4130	E67320	1	30	OC	A	0	240 AC 120 AC 120 AC 50 DC 50 DC	20-80 20-60 80 20-50 60-80	2 2 2 2 2	0 0 0 0 0	1 kA, C, 1 3.5 kA, C, 1 2 kA, C, 1 3.5 kA, C, 1 2 kA, C, 1	
2-6200, 2-6400	E67320	1	7	OC	A, C	0	250 AC 250 AC 250 AC	0.05-4.5 5-8 8.5-16	2 2 2	0 0 0	0.2 kA, C, 1 1 kA, C, 1 2 kA, C, 1	
				<b>UL-Coding</b>								

Type	File	Volume	Section	Type	UG	FW	U (V)	I (A)	TC	OL	SC	Remarks
<b>Section 3</b>												
3300, 3400, 3500, 3600, 201	E67320	1	27	OC	A, C	0	250 AC 80 DC 65 DC	0.05-16 0.05-16 0.05-25	2	0	1 kA, U, 1 1 kA, U, 1 1 kA, U, 1	
2210	E67320	1	14	OC	B, C, D,	0  2210-S: E A 2210-T: A	277 AC 277 AC 277/480 AC 277/480 AC 277 AC 277 AC 277/480 AC 277/480 AC 65 DC 65 DC 65 DC	0.1-16 18-32 0.1-16 18-32 0.1-5 6-32 0.1-5 6-32 0.1-32 0.1-5 6-32	1	0	5 kA, C, 1 2 kA, C, 1 5 kA, C, 1 2 kA, C, 1 0.4 kA, U, 3 1) 0.8 kA, U, 3 1) 0.4 kA, U, 3 1) 0.5 kA, U, 3 1) 2 kA, U, 1a 2) 0.4 kA, U, 3 1) 0.8 kA, U, 3 1)	1) not valid for CSA approval certificate 1648301 2) 2kA, U1 for CSA approval certificate 1648301
2215	E67320	1	19	OC	B, D	0	250 AC 250 AC 250 AC 75 DC 75 DC	0,05 0.1-6.5 7-10 0.05-12.5 20	2	0	0.2 kA, C, 1 1 kA, C, 1 2 kA, C, 1 1 kA, U, 1 0.8 kA, U, 1	
2216	E67320	1	40	OC	A	0	277 AC 277 AC 50 DC 80 DC 80 DC	0.1-10 12-16 0.1-16 0.1-10 12-16	1 1 1 1 1	1 0 1 1 0	1 kA, C, 1 1 kA, C, 1 1 kA, C, 1 1 kA, C, 1 1 kA, C, 1	1-pole 2-pole 2-pole
2216 +socket- 80PLUS +socket- 81PLUS	E362760	1	1	AC-1 DC-1 DC-1	gen. use	1	277 AC 50 DC 80 DC	0.1-10 0.1-16 0.1-10				1-pole 2-pole UL 60947-4-1A listing
4220	E67320	1	39	OC	A	0	277 AC 277/480 AC 60 DC	0.1-32 0.1-32 0.1-32	2	0	5 kA, U, 1 5 kA, U, 1 5 kA, U, 1	
4220	E223877	1	2				120 AC 60 DC	0.1-32 0.1-32			5 kA 5 kA	1-pole, UL 489, listing
4230	E67320	1		OC	A	3	240 AC 277 AC 480 AC 60 DC 125 DC	1-63 1-63 1-63 1-63 1-63	1 1 1 1 1	1 0 1 0 0	7,5 kA, U, 1 5 kA, U, 1 7,5 kA, U, 1 7,5 kA, U, 1 7,5 kA, U, 1	2-4-pole 2 poles connected in series
4230	E223877	1					120 AC 240 AC  277 AC 480Y/ 277 AC 60 DC 125 DC	1-63 1-63  1-32 1-32  1-63 1-63			10kA, 1-pole 10kA, 2-3-pole 10kA, 1-pole 10kA, 2-3-pole 10kA, 1-pole 10kA, 2-pole	UL 489, listing
4231	E67320	1		OC	A	0	120 AC 50 DC	1-15 1-20	1	1	1 kA, C, 1 1 kA, U, 1	

				UL-Coding									
Type	File	Volume	Section	Type	UG	FW	U (V)	I (A)	TC	OL	SC	Remarks	
<b>Section 4</b>													
808	E67320	1	22	OC	B, D	0	120 AC 60 DC	0.01-8 0.01-8	2	0	2 kA, U, 1 1 kA, U, 1		
8335	E217526	3	1				80 DC	1-50			1.5 kA	1-, 2-pole UL 489 A	
8335	E67320	5	1	OC	A, C	0	80 V DC 80 V DC 32 V DC 65 V DC 125 V AC 125 V AC 250 V AC 250 V AC 250 V AC 250 V AC 125/250 V AC 125/250 V AC 125/250 V AC 250 V AC 250 V AC	1-30 A 35-50 A 1-50 A 1-50 A 1-30 A 30-35 A 1-30 A 30-50 A 1-30 A 1-30 A 1-30 A 30-35 A 30-50 A 1-30 A 30-50 A	0 *) 0 0 0 1 1 0 0 0 1 1 0 0 1 1 0 0 0	0 0 0 0 1 1 0 0 0 1 1 0 0 1 1 0 0 0	3 kA, U, 1a 1.5 kA, U, 1a 5 kA, U, 3 3 kA, U, 1a 3 kA, U, 1a 1 kA, U, 1a 3 kA, U, 1a 1 kA, U, 1a 5 kA, C, 1a 3 kA, U, 1a 2 kA, U, 3 2 kA, U, 3 5 kA, U, 1a 1 kA, U, 3	1 pole 1 pole 1+2 pole 1+2 pole 2 pole 2 pole 3 pole 3 pole	UL 1500 UL 1500 UL 1500 UL 1500 UL 1500
8340	E67320	1	15	OC	B, D	0	F/T: 250 AC F/T: 250 AC F/T: 80 AC G:250 AC G: 80 DC G: 80 DC F/G/T:80 DC	0,02-30 0,02-30 0,05-50 0,025-30 0,02-30 0,02-50 60-100	2	0	3,5 kA, U, 1 5 kA, U, 1 3,5 kA, U, 1 3,5 kA, U, 1 3,5 kA, U, 2 3,5 kA, U, 1 3,5 kA, U, 1	1-pole 2- & 3-pole 1- & 2-pole - - 1- & 2-pole 1-pole, parallel	
8340	E217526	1					80 DC	0.05-30				1+2-pole, UL 489 A	
8345 X8345-F X8345-S X8345-R	E67320	1	35	OC	A, C	0	80 V DC 80 V DC 125 V DC 277/480 V AC 480 V AC 277 V AC	0.02-125 0.02-50 0.02-100 0.02-70 0.02-70 0.02-50	*	0 1 0 0 0 1	0 1 0 0 0 1	10 kA, U, 2 10 kA, U, 2 3 kA, U, 3 5 kA,C,1 5 kA, C, 1 5 kA, C, 1	1- to 2-pole 1- to 2-pole 1- to 2-pole 1- to 6-pole 1- to 6-pole 1- to 6-pole
8345	E223877	1	1				240 AC 120/240 AC 120 AC 80 DC	0.05-20 0.05-80 0.05-80 0.05-125			5 kA 5 kA 5 kA 10 kA	1-pole, UL 489 2-pole, UL 489 1-pole, UL 489 1+2pole, UL 489	
<b>Section 5</b>													
412	E67320	1	26	OC	B, D	0	28 DC	0.1-35	2	0	6 kA, U, 2		
413	E67320	1	25	OC	B, D	0	28 DC	30-90	2	0	6 kA, U, 1		
446	E67320	1	29	OC	A, C	0	28 DC	30-400	1	0	10 kA, U, 3		
447	E67320	1	29	OC	A, C	0	28 DC	80-400	1	0	10 kA, U, 3		
449	E67320	1	29	OC	A, C	0	28 DC	100-350	1	0	10 kA, U, 3		
452	E67320	1	28	OC	A, C	0	28 DC 72 DC	50-125 50-125	2 2	0 0	6 kA, U, 2 900 A, U, 2		
482	E67320	1	31	OC	A, C	0	72 DC	0.1-50	2	0	5 kA, U, 1a		
483	E67320	1	24	OC	B, D	0	250 AC 75 DC	1-25 1-35	2	0	1 kA, C, 1 3.5 kA, C, 1		
4120	E67320	1	36	OC	A, C	0	50 DC	0.5-25	2	0	6 kA, U, 1		
520	E67320	1	33	OC	A, C	0	277 AC	7-125	2	0	5 kA, U, 1		
PVSEC	E356917	1	1				1000 DC	30			0.1 kA	UL 1699B	
PVARC	E356917	1	1				1000 DC	30				UL 1699B	
<b>UL-Coding</b>													

\*) TC2 for F1, F2

\* 2 for characteristic curve: F1, F2, G1, G2, H, MO, R, X  
0 for all other characteristic curves

Type	File	Volume	Section	Type	UG	FW	U (V)	I (A)	TC	OL	SC	Remarks
<b>Section 6</b>												
ESS20, SESS20	E67320	1	34	OC	A, C	0	28 DC	0.5-10	0	0	5 kA, U, 2	
ESS22	E67320	1	41	OC	A, C	0	30 V DC	0,5-10	2	0	5 kA, C3	
							30 V DC	0,5-10	2	0	0,3 kA, U3	
ESS31, ESS30	E67320	1	42	OC	A, C	0	30 DC	0.5-12 <sup>1)</sup>	0	1	2 kA, C, 3	<sup>1)</sup> ESS30 max. 10 A
							30 DC	0.5-12 <sup>1)</sup>	0	1	0.3 kA, U, 3	
ESX10/ESX10-T/ ESX10-S	E306740	1	1				24 DC	0.5-16				UL 2367
							12 DC	0.5-10				
							48 DC	0.5-16				only ESX10-TC
ESX10/ESX10-T	E320024	1	1				24 DC	0.5-12				ISA12.12.01 cl. 1 div. 2 hazardous locations
ESX10/ESX10-T/ ESX10-S	E322549	1	1				24 DC	0.5-16				UL 508
							12 DC	0.5-10				
ESX10-T	E322549	2	2			1	12 DC	0.5-10				UL 508 listing
							24 DC	0.5-16				
REF16	E306740	1	2				24 DC	0.05-10				UL 2367
REF16 +socket 80PLUS +socket 81PLUS	E322549	2	1			1	24 DC	0.05-10				UL 508 listing
REX12, REX12D	E306740	1	3				24 DC	1-10				UL2367
								1/1-6/6				
REX12, REX12D	E492388	1	1			1	24 DC	1-10				UL508 listing
								1/1-6/6				

**Coding: UL 1077 and CSA C 22.2 No. 235-04 Supplementary protectors**

type	circuit breaker type	OC OV UV	Overcurrent type Overvoltage protection low voltage protection
UG	User Group	A B C D	General, Industrial Appliances Household, Kitchen Appliances Household Appliances Commercial Appliances
FW	Terminals	0 1 2 3	Factory wiring Line-Anschluss Field wiring Load-Anschluss Field wiring Line- und Load-Anschluss Field wiring

TC	Tripping Current	0 1 2	Tripping current < 1.25 x I <sub>N</sub> Tripping current 1.25...1.35 x I <sub>N</sub> Tripping current > 1.35 x I <sub>N</sub>
OL	Overload Rating	0 1	1,5 x I <sub>N</sub> AC 6 x I <sub>N</sub> , DC 10 x I <sub>N</sub>
SC	Short Circuit	1 1a 2 3	without recalibration test, without dielectric strength test dielectric strength test, voltage withstand test recalibration test, dielectric strength test recalibration test, dielectric strength test, voltage withstand test

<b>Example:</b>	Cat.No	type	UG	FW	Max V	Max Amps.	TC	OL	SC
	4130	OC	A	0	120 V AC	20-60 A	2	0	3,5 kA, C, 1

All dimensions without tolerances are for reference only. In the interest of improved design, performance and cost effectiveness the right to make changes in these specifications without notice is reserved. Product markings may not be exactly as the ordering codes. Errors and omissions excepted.