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Overview

SITOR fuses protect power semiconductors from the effects of short circuits because the super quick disconnect characteristic is far quicker than with conventional LV HRC fuses. They protect expensive devices and system components, such as converters with fuses in the input and the DC link, UPS systems and soft starters for motors.

Panel mounting requirements have given rise to various connection versions and designs.

The fuses with blade contacts comply with IEC 60269-2 and are suitable for installation in LV HRC fuse bases, in LV HRC fuse switch disconnectors and switch disconnectors with fuses. They also include fuses with slotted blade contacts for screw fixing with 110 mm mounting dimension, whose sizes are according to IEC 60269-4.

Fuses with slotted blade contacts for screw fixing with 80 mm or 110 mm mounting dimension are often screwed directly onto busbars for optimum heat dissipation. Even better heat transmission is provided by the compact fuses with M10 or M12 female thread, which are also mounted directly onto busbars.

Bolt-on links with 80 mm mounting dimension are another panel-mounting version for direct busbar mounting.

The fuses for SITOR thyristor sets, railway rectifiers or electrolysis systems were developed specially for these applications.

The LV HRC bases useable for SITOR fuses and safety switching devices are on page 49 et.seq.

The fuse characteristic curves and configuration information and the assignment of SITOR fuses to the 3NP and 3KL fuse bases and safety switching devices can be found on the Internet

http://support.automation.siemens.com/WW/view/de/14474639/134300

The new size 3 type ranges have a round ceramic body instead of a square one. These series are characterized by small I^2t values with low power dissipation and high capability under alternating load. The dimensions and functional dimensions correspond to the current standards IEC 60269-4/ EN 60269-4 (VDE 0636-4).

Note:
The ordering data of the fuses are listed in ascending order of the rated voltage in the selection tables.

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Characteristics

SITOR fuse links protect converter equipment against short circuits.

The power semiconductors used in these devices (diodes, thyristors, GTOs and others) require high-speed elements for protection due to their low thermal capacity. SITOR fuse links (super quick fuse links for semiconductor protection) are ideal for this type of application.

The following types of short-circuit faults can occur:

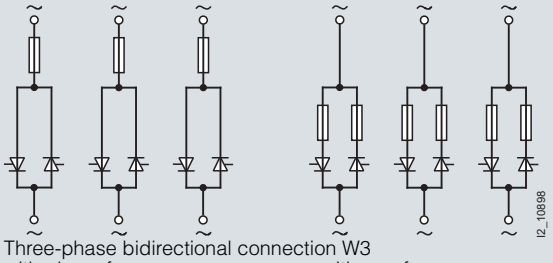
- Internal short circuit:
  A faulty semiconductor device causes a short circuit within the power converter.
- External short circuit:
  A fault in the load causes a short circuit on the output side of the power converter.
- Inverter shoot-throughs:
  In the event of a failure of the chassis converter control system during inverter operation (commutation failure), the converter connection forms a short-circuit type connection between the DC and AC power supply system.

Fuse links can be arranged in a number of ways within the converter connection. A distinction is made between phase fuses in three-phase current incoming feeders and, if applicable, DC fuses and arm fuses in the arms of the converter connections (see adjacent graphs). In the case of center tap connections, fuse links can only be arranged as phase fuses in three-phase current incoming feeders.

When using SITOR fuse links of operational class aR, the overload protection of converter equipment, up to approx.3.5 times the rated current of the fuse link, is taken from conventional protective devices (for example, thermal-delayed overload relays) or, in the case of controlled power converters, from the current limiter (exception: full range fuses).

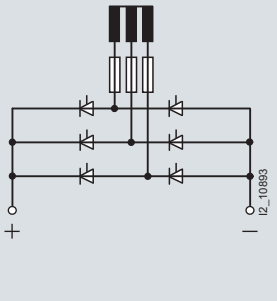
As semiconductor protection, SITOR fuse links of the 3NE1 ...-0 series with gS operational class are also suitable for the overload and short-circuit protection of cables, lines and busbars. All other dual-function fuses of the SITOR series have a gR characteristic. Overload protection is ensured as long as the rated current of the SITOR fuse links of the series 3NE1 ...-0 is selected as $I_n \leq I_Z$ (DIN VDE 0100 Part 430).

The rules of DIN VDE 0100 Part 430 must be applied when rating short-circuit protection for cables, lines and busbars.

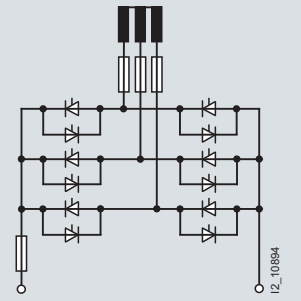


Three-phase bidirectional connection W3
with phase fuses with arm fuses

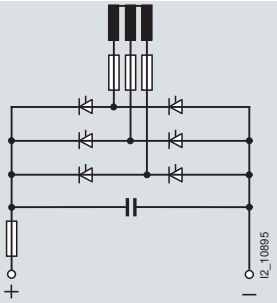
Configuration options



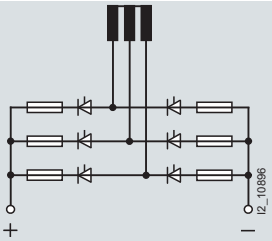
Six-pulse bridge circuit B6 with phase fuses



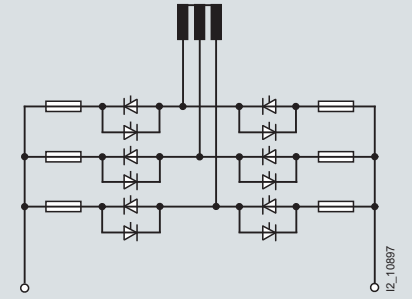
Six-pulse bridge circuit B6 with phase fuses and DC fuse (reversible connection)



Six-pulse bridge circuit B6 with phase fuses and DC fuse (switching for converter)



Six-pulse bridge circuit B6 with arm fuses



Six-pulse bridge circuit B6 with arm fuses (reversible connection)

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LV HRC design, 3NC, 3NE

Use in switch disconnectors

When using SITOR semiconductor fuses in 3KL and 3KM switch disconnectors with fuses and 3NP fuse switch disconnectors, the rated current of the fuse must sometimes be reduced due to the higher power loss compared to LV HRC fuses for line protection. Sometimes when using SITOR semiconductor fuses in switch disconnectors, the currents designated can be higher than the rated currents of the switches. These higher currents only apply when using SITOR switch disconnectors with semiconductor fuses and cannot be used when using switch disconnectors with standard LV HRC fuses. You will find further details in the following selection table.

When using SITOR semiconductor fuses of the 3NC2 4, 3NC8 4, 3NE3 3 and 3NE4 3 series, the standard switching capacity of the fuse must not be used as the blades of these fuses (in contrast to LV HRC fuses) are slotted. Occasional switching of currents up to the rated current of the fuses is permissible.

Due to the mechanical strain on the comparatively long fuse blade, SITOR semiconductor fuses of the 3NE4 1 series may only be occasionally switched, and only without load. If only switching without load is permissible, this must be clearly stated on the switch itself.

The use of SITOR semiconductor fuses > 63 A for overload protection is not permitted – even if gR fuses are used (exception: 3NE1).

The operational voltage is limited by the rated voltage of the switch disconnector or the fuse. If switching without load, the limit value is the rated insulation voltage of the switch disconnector.

The 3NE1 "double protection fuses" can be used as full range fuses (gS) for semiconductor and line protection.

For further information on the assignment of SITOR fuses to the fuse bases and safety switching devices, please refer to the tables on pages 82 ff.

Technical specifications

MLFB	Operational class (IEC 60269)	Rated voltage U_n	Rated voltage U_n	Rated current I_n 1)	Melting I^2t value I^2t_s (t_{vs} = 1 ms)	Breaking I^2t value I^2t_a at U_n	Temperature rise at I_n body center 2)	Power dissipation at I_n 2)	Varying load factor WL
		V AC	V DC	A	A^2s	A^2s	K	W	
3NC2 423-0C	gR	500	--	150 3)	7000	33000	26	35	0.85
3NC2 423-3C	gR	500	--	150 3)	7000	33000	26	35	0.85
3NC2 425-0C	gR	500	--	200 3)	13600	64000	25	40	0.85
3NC2 425-3C	gR	500	--	200 3)	13600	64000	25	40	0.85
3NC2 427-0C	gR	500	--	250 3)	21000	99000	30	50	0.85
3NC2 427-3C	gR	500	--	250 3)	21000	99000	30	50	0.85
3NC2 428-0C	gR	500	--	300 3)	28000	132000	40	65	0.85
3NC2 428-3C	gR	500	--	300 3)	28000	132000	40	65	0.85
3NC2 431-0C	gR	500	--	350 3)	53000	249000	35	60	0.85
3NC2 431-3C	gR	500	--	350 3)	53000	249000	35	60	0.85
3NC2 432-0C	aR	500	--	400 3)	83000	390000	30	50	0.85
3NC2 432-3C	aR	500	--	400 3)	83000	390000	30	50	0.85
3NC3 236-1	aR	690	--	630	32500	244000	120	120	0.85
3NC3 236-6	aR	690	--	630	32500	244000	125	125	0.9
3NC3 237-1	aR	690	--	710	46100	346000	125	130	0.85
3NC3 237-6	aR	690	--	710	46100	346000	125	130	0.9
3NC3 238-1	aR	690	--	800	66400	498000	125	135	0.9
3NC3 238-6	aR	690	--	800	66400	498000	120	135	0.95
3NC3 240-1	aR	690	--	900	90300	677000	130	145	0.9
3NC3 240-6	aR	690	--	900	90300	677000	125	140	0.95
3NC3 241-1	aR	690	--	1000	130000	975000	125	155	0.95
3NC3 241-6	aR	690	--	1000	130000	975000	120	145	1
3NC3 242-1	aR	690	--	1100	184000	1382000	125	165	0.95
3NC3 242-6	aR	690	--	1100	184000	1382000	115	150	1
3NC3 243-1	aR	690	--	1250	265000	1990000	130	175	0.95
3NC3 243-6	aR	690	--	1250	265000	1990000	110	155	1
3NC3 244-1	aR	500	--	1400	382000	2100000	140	200	0.95
3NC3 244-6	aR	500	--	1400	382000	2100000	115	175	1
3NC3 245-1	aR	500	--	1600	520000	2860000	160	240	0.9
3NC3 245-6	aR	500	--	1600	520000	2860000	120	195	0.95
3NC3 336-1	aR	1000	--	630	66400	418000	160	145	0.85
3NC3 336-6	aR	1000	--	630	66400	418000	140	130	0.9
3NC3 337-1	aR	1000	--	710	90300	569000	160	150	0.85
3NC3 337-6	aR	1000	--	710	90300	569000	140	140	0.9
3NC3 338-1	aR	1000	--	800	130000	819000	150	155	0.85
3NC3 338-6	aR	1000	--	800	130000	819000	130	150	0.9
3NC3 340-1	aR	1000	--	900	184000	1160000	145	165	0.9
3NC3 340-6	aR	1000	--	900	184000	1160000	130	160	0.95
3NC3 341-1	aR	1000	--	1000	265000	1670000	140	170	0.9
3NC3 341-6	aR	1000	--	1000	265000	1670000	125	165	0.95
3NC3 342-1	aR	800	--	1100	382000	1910000	150	185	0.9
3NC3 342-6	aR	800	--	1100	382000	1910000	130	175	0.95
3NC3 343-1	aR	800	--	1250	520000	2600000	165	210	0.9
3NC3 343-6	aR	800	--	1250	520000	2600000	135	185	0.95
3NC3 430-1	aR	1250	--	315	10600	72500	60	80	0.95
3NC3 430-6	aR	1250	--	315	10600	72500	60	80	0.95

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MLFB	Operational class (IEC 60269)	Rated voltage U_n	Rated voltage U_n	Rated current I_n [1]	Melting I^2t value I^2t_s (t_{vs} = 1 ms)	Breaking I^2t value I^2t_a at U_n	Temperature rise at I_n body center [2]	Power dissipation at I_n [2]	Varying load factor WL
		V AC	V DC	A	A^2s	A^2s	K	W	
3NC3 432-1	aR	1250	--	400	23900	163000	95	95	0.95
3NC3 432-6	aR	1250	--	400	23900	163000	95	95	0.95
3NC3 434-1	aR	1250	--	500	42500	290000	115	115	0.9
3NC3 434-6	aR	1250	--	500	42500	290000	115	115	0.9
3NC3 436-1	aR	1250	--	630	96600	650000	120	120	0.95
3NC3 436-6	aR	1250	--	630	96600	650000	120	120	0.95
3NC3 438-1	aR	1100	--	800	170000	985000	145	145	0.9
3NC3 438-6	aR	1100	--	800	170000	985000	145	145	0.9
3NC5 531[4]	aR	800	--	350[5]	66000	260000	200	80	0.9
3NC5 838[4]	aR	1000	--	800[5]	360000	1728000	130	170	0.9
3NC5 840[4]	aR	1000	--	600[5]	185000	888000	110	150	0.9
3NC5 841[4]	aR	800	--	630[5]	185000	888000	110	145	0.9
3NC7 327-2	aR	680	--	250	244000	635000	45	25	0.9
3NC7 331-2	aR	680	--	350	550000	1430000	66	32	0.9
3NC8 423-0C	gR	690	--	150[3]	1100	17600	33	40	0.85
3NC8 423-3C	gR	690	--	150[3]	1100	17600	33	40	0.85
3NC8 425-0C	gR	690	--	200[3]	2400	38400	46	55	0.85
3NC8 425-3C	gR	690	--	200[3]	2400	38400	46	55	0.85
3NC8 427-0C	gR	690	--	250[3]	4400	70400	95	72	0.85
3NC8 427-3C	gR	690	--	250[3]	4400	70400	95	72	0.85
3NC8 431-0C	gR	690	--	350[3]	11000	176000	65	95	0.85
3NC8 431-3C	gR	690	--	350[3]	11000	176000	65	95	0.85
3NC8 434-0C	gR	690	--	500[3]	28000	448000	75	130	0.85
3NC8 434-3C	gR	690	--	500[3]	28000	448000	75	130	0.85
3NC8 444-3C	aR	600	--	1000	400000	2480000	110	140	0.9
3NE1 020-2	gR	690	--	80	780	5800	45	10.5	1
3NE1 021-0	gS	690	--	100	3100	33000	36	10	1
3NE1 021-2	gR	690	--	100	1490	11000	49	11.5	1
3NE1 022-0	gS	690	--	125	6000	63000	40	11	1
3NE1 022-2	gR	690	--	125	3115	23000	55	13.5	1
3NE1 224-0	gS	690	--	160	7400	60000	60	24	1
3NE1 224-2	gR	690	--	160	2650	18600	70	30	1
3NE1 224-3	gR	690	--	160	2650	18600	70	30	1
3NE1 225-0	gS	690	--	200	14500	100000	65	27	1
3NE1 225-2	gR	690	--	200	5645	51800	62	28	1
3NE1 225-3	gR	690	--	200	5645	51800	62	28	1
3NE1 227-0	gS	690	--	250	29500	200000	75	30	1
3NE1 227-2	gR	690	--	250	11520	80900	70	35	1
3NE1 227-3	gR	690	--	250	11520	80900	70	35	1
3NE1 230-0	gS	690	--	315	46100	310000	80	38	1
3NE1 230-2	gR	690	--	315	22580	168000	75	42	1
3NE1 230-3	gR	690	--	315	22580	168000	75	42	1
3NE1 331-0	gS	690	--	350	58000	430000	75	42	1
3NE1 331-2	gR	690	--	350	29500	177000	82	44	1
3NE1 331-3	gR	690	--	350	29500	177000	82	44	1
3NE1 332-0	gS	690	--	400	84000	590000	85	45	1
3NE1 332-2	gR	690	--	400	37300	177000	100	54	1
3NE1 332-3	gR	690	--	400	37300	177000	100	54	1
3NE1 333-0	gS	690	--	450	104000	750000	85	53	1
3NE1 333-2	gR	690	--	450	46100	276500	100	62	1
3NE1 333-3	gR	690	--	450	46100	276500	100	62	1
3NE1 334-0	gS	690	--	500	149000	950000	90	56	1
3NE1 334-2	gR	690	--	500	66400	398000	100	65	1
3NE1 334-3	gR	690	--	500	66400	398000	100	65	1
3NE1 435-0	gS	690	--	560	215000	1700000	65	50	1
3NE1 435-2	gR	690	--	560	130000	890000	80	60	1
3NE1 436-3	gR	690	--	560	130000	890000	80	60	1
3NE1 436-0	gS	690	--	630	293000	2350000	70	55	1
3NE1 436-2	gR	690	--	630	203000	1390000	82	62	1
3NE1 436-3	gR	690	--	630	203000	1390000	82	62	1
3NE1 437-0	gS	690	--	710	437000	3400000	68	60	1
3NE1 437-1	gR	600	--	710	321000	2460000	85	65	1
3NE1 437-2	gR	690	--	710	265000	1818000	90	72	1
3NE1 437-3	gR	690	--	710	265000	1818000	90	72	1

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LV HRC design, 3NC, 3NE

MLFB	Operational class (IEC 60269)	Rated voltage U_n	Rated voltage U_n	Rated current I_n [1]	Melting I^2t value I^2t_s (t_{vs} = 1 ms)	Breaking I^2t value I^2t_a at U_n	Temperature rise at I_n body center [2]	Power dissipation at I_n [2]	Varying load factor WL
		V AC	V DC	A	A^2s	A^2s	K	W	
3NE1 438-0	gS	690	--	800	723000	5000000	70	59	1
3NE1 438-1	gR	600	--	800	437000	3350000	95	72	1
3NE1 438-2	gR	690	--	800	361000	2475000	95	82	1
3NE1 438-3	gR	690	--	800	361000	2475000	95	82	1
3NE1 447-2	gR	690	--	670	240000	1640000	90	65	1
3NE1 447-3	gR	690	--	670	240000	1640000	90	65	1
3NE1 448-2	gR	690	--	850	520000	3640000	95	76	1
3NE1 448-3	gR	690	--	850	520000	3640000	95	76	1
3NE1 802-0	gS	690	--	40	295	3000	30	5	1
3NE1 803-0	gS	690	--	35	166	1700	35	5	1
3NE1 813-0	gS	690	--	16	18	200	25	3	1
3NE1 814-0	gS	690	-	20	41	430	25	3.5	1
3NE1 815-0	gS	690	--	25	74	780	30	4	1
3NE1 817-0	gS	690	--	50	461	4400	35	6	1
3NE1 818-0	gS	690	--	63	903	9000	40	7	1
3NE1 820-0	gS	690	--	80	1843	18000	40	8	1
3NE3 221	aR	1000	--	100	665	4800	65	28	0.95
3NE3 222	aR	1000	--	125	1040	7200	70	36	0.95
3NE3 224	aR	1000	--	160	1850	13000	90	42	1
3NE3 225	aR	1000	--	200	4150	30000	80	42	1
3NE3 227	aR	1000	--	250	6650	48000	90	50	1
3NE3 230-0B	aR	1000	--	315	13400	80000	100	65	0.95
3NE3 231	aR	1000	--	350	16600	100000	120	75	0.9
3NE3 232-0B	aR	1000	--	400	22600	135000	140	85	0.9
3NE3 233	aR	1000	--	450	29500	175000	130	95	0.9
3NE3 332-0B	aR	1000	--	400	22600	135000	120	85	1
3NE3 333	aR	1000	--	450	29500	175000	125	90	1
3NE3 334-0B	aR	1000	--	500	46100	260000	115	90	1
3NE3 335	aR	1000	--	560	66500	360000	120	95	1
3NE3 336	aR	1000	---	630	104000	600000	110	100	1
3NE3 337-8	aR	900	--	710	149000	800000	125	110	1
3NE3 338-8	aR	800	--	800	184000	850000	140	130	0.95
3NE3 340-8	aR	690	--	900	223000	920000	160	165	0.95
3NE3 421-0C	aR	1000	--	100	1800	13500	45	25	1
3NE3 430-0C	aR	1000	--	315	29000	218000	120	80	1
3NE3 432-0C	aR	1000	--	400	48500	364000	130	110	1
3NE3 434-0C	aR	1000	--	500	116000	870000	120	95	1
3NE3 525-5 [6]	aR	1000	--	200 [7]	7150	44000	75	50	0.85
3NE3 535-5 [6]	aR	1000	--	450 [7]	64500	395000	130	90	0.85
3NE3 626-0C	aR	1000	--	224	7200	54000	140	85	1
3NE3 635-0C	aR	1000	--	450	65000	488000	150	110	1
3NE3 635-6	aR	1000	--	450	65000	488000	150	110	1
3NE3 636-0C	aR	1000	--	630	170000	1280000	136	132	1
3NE3 637-0C	aR	1000	--	710	260000	1950000	170	145	1
3NE3 637-1C [8]	aR	1000	--	710	260000	1950000	170	145	1
3NE4 101	gR	1000	--	32	40	280	45	12	0.9
3NE4 102	gR	1000	--	40	75	500	50	13	0.9
3NE4 117	gR	1000	--	50	120	800	65	16	0.9
3NE4 117-5	gR	1000	--	50	135	1100	95	20	0.85
3NE4 118	aR	1000	--	63	230	1500	78	20	0.9
3NE4 120	aR	1000	--	80	450	3000	82	22	0.9
3NE4 121	aR	1000	--	100	900	6000	85	24	0.9
3NE4 121-5	aR	1000	--	100	900	7400	135	35	0.85
3NE4 122	aR	1000	--	125	1800	14000	100	30	0.9
3NE4 124	aR	1000	--	160	3600	29000	120	35	0.9
3NE4 146-5	aR	800	--	170	7370	60500	142	43	0.85
3NE4 327-0B	aR	800	--	250	3600	29700	175	105	0.85
3NE4 327-6B [6]	aR	800	--	250	3600	29700	175	105	0.85
3NE4 330-0B	aR	800	--	315	7400	60700	170	120	0.85
3NE4 330-6B [6]	aR	800	--	315	7400	60700	170	120	0.85
3NE4 333-0B	aR	800	--	450	29400	191000	190	140	0.85
3NE4 333-6B [6]	aR	800	--	450	29400	191000	190	140	0.85
3NE4 334-0B	aR	800	--	500	42500	276000	195	155	0.85
3NE4 334-6B [6]	aR	800	--	500	42500	276000	195	155	0.85
3NE4 337	aR	800	--	710	142000	923000	170	155	0.95
3NE4 337-6 [6]	aR	800	--	710	142000	923000	170	155	0.95

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MLFB	Operational class (IEC 60269)	Rated voltage U_n	Rated voltage U_n	Rated current I_n [1]	Melting I^2t value I^2t_s (t_{vs} = 1 ms)	Breaking I^2t value I^2t_a at U_n	Temperature rise at I_n body center [2]	Power dissipation at I_n [2]	Varying load factor WL
		V AC	V DC	A	A^2s	A^2s	K	W	
3NE5 424-0C	aR	1500	--	160	7200	54000	75	56	1
3NE5 426-0C	aR	1500	--	224	18400	138000	100	80	1
3NE5 430-0C	aR	1500	--	315	41500	311000	125	115	1
3NE5 431-0C	aR	1500	--	350	57000	428000	150	135	1
3NE5 433-0C	aR	1500	--	450	116000	870000	150	145	0.95
3NE5 433-1C	aR	1500	--	450	116000	870000	150	145	0.95
3NE5 627-0C	aR	1500	--	250	11200	84000	170	130	1
3NE5 633-0C	aR	1500	--	450	78500	590000	170	160	1
3NE5 643-0C	aR	1500	--	600	260000	1950000	160	145	1
3NE6 437	aR	900	--	710[9]	100000	620000	80	150	0.9
3NE6 437-7	aR	900	--	710[10]	100000	620000	110	150	0.9
3NE6 444	aR	900	--	900[9]	400000	1920000	80	170	0.9
3NE7 425-0C	aR	2000	--	200	18400	138000	85	75	1
3NE7 427-0C	aR	2000	--	250	29000	218000	110	110	1
3NE7 431-0C	aR	2000	--	350	74000	555000	105	120	1
3NE7 432-0C	aR	2000	--	400	116000	870000	130	150	1
3NE7 633-0C	aR	2000	--	450	128000	960000	165	160	1
3NE7 633-1C[11]	aR	2000	--	450	128000	960000	165	160	1
3NE7 636-0C	aR	2000	--	630	260000	1950000	200	220	1
3NE7 636-1C[11]	aR	2000	--	630	260000	1950000	200	220	1
3NE7 637-1C[11]	aR	2000	--	710	415000	3110000	230	275	1
3NE7 648-1C[11]	aR	2000	--	525	149000	1120000	210	210	1
3NE8 003-1	gR	690	--	35	70	400	45	9	0.95
3NE8 015-1	gR	690	--	25	30	180	35	7	0.95
3NE8 017-1	gR	690	--	50	120	700	65	14	0.95
3NE8 018-1	gR	690	--	63	260	1400	70	16	0.95
3NE8 020-1	aR	690	--	80	450	2400	80	19	0.95
3NE8 021-1	aR	690	--	100	850	4200	90	22	0.95
3NE8 022-1	aR	690	--	125	1400	6500	110	28	0.95
3NE8 024-1	aR	690	--	160	2800	13000	130	38	0.95
3NE8 701-1	gR	690	700[12]	32	40	285	45	10	0.9
3NE8 702-1	gR	690	700[12]	40	69	490	55	12	0.9
3NE8 714-1	gR	690	700[12]	20	12	83	40	7	0.9
3NE8 715-1	gR	690	700[12]	25	19	140	40	9	0.9
3NE8 717-1	gR	690	700[12]	50	115	815	60	15	0.9
3NE8 718-1	aR	690	700[12]	63	215	1550	70	16	0.95
3NE8 720-1	aR	690	700[12]	80	380	2700	80	18	0.9
3NE8 721-1	aR	690	700[12]	100	695	4950	75	19	0.95
3NE8 722-1	aR	690	700[12]	125	1250	9100	80	23	0.95
3NE8 724-1	aR	690	700[12]	160	2350	17000	100	31	0.9
3NE8 725-1	aR	690	700[12]	200	4200	30000	120	36	0.9
3NE8 727-1	aR	690	700[12]	250	7750	55000	125	42	0.9
3NE8 731-1	aR	690	700[12]	315	12000	85500	150	54	0.85
3NE9 440-6	gR	600	--	850	400000	2480000	74	85	1
3NE9 450	aR	600	--	1250[9]	400000	2480000	80	210	0.9
3NE9 450-7	aR	600	--	1250[10]	400000	2480000	105	210	0.9
3NE9 632-1C	aR	2500	--	400	81000	620000	160	205	1
3NE9 634-1C	aR	2500	--	500	170000	1270000	180	235	1
3NE9 636-1C	aR	2500	--	630	385000	2800000	198	275	1

1) Maximum tightening torque: M10 capped thread: 35 Nm, screw penetration depth ≥ 9 mm.

2) Temperature rise and power dissipation for operation in LV HRC fuse base.

3) Cooling air speed 1 m/s. In the case of natural air cooling, reduction of 5 %.

4) Maximum tightening torque:
- M10 thread (with indicator): 40 Nm
- M10 capped thread: 50 Nm, screw penetration depth ≥ 9 mm
- M24 × 1.5 thread: 60 Nm.

5) Temperature of water-cooled busbar max. +45 C.

6) Maximum tightening torque:
M10 capped thread: 35 Nm, screw penetration depth ≥ 9 mm.

7) Cooling air speed ≥ 0.5 m/s. In the case of natural air cooling, reduction of 5 %.

8) Gauge 140 mm, M12 screw connection.

9) Cooling air speed ≥ 2 m/s.

10) Bottom (cooled) connection max. +60 °C, top connection (M10) max. +110 °C.

11) M12 screw connection

12) Rated voltage according to UL.

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LV HRC design, 3NC, 3NE

Load rating of SITOR fuse links with 3NH LV HRC fuse bases

SITOR fuse links							LV HRC fuse bases			
Order No.	U_n	Operational class	BG	I_n	WL	$Ø_{min}$ Cu	Order No.	BG	I_{max}	I_{WL}
	V AC			A		mm^2			A	A
3NC2 423-3C	500	gR	3	150	0.95	70	**3NH3 420/3NH3 430**	3	150	143
3NC2 425-3C	500	gR	3	200	0.95	95		3	190	181
3NC2 427-3C	500	gR	3	250	0.95	120		3	240	228
3NC2 428-3C	500	gR	3	300	0.95	185		3	285	271
3NC2 431-3C	500	gR	3	350	0.95	240		3	330	314
3NC2 432-3C	500	aR	3	400	0.95	240		3	400	380
3NC3 336-1	1000	aR	3	630	0.85	480	**3NH3 420/3NH3 430**	3	560	476
3NC3 337-1	1000	aR	3	710	0.85	560		3	600	510
3NC3 338-1	1000	aR	3	800	0.85	640		3	640	544
3NC3 340-1	1000	aR	3	900	0.90	720		3	720	648
3NC3 341-1	1000	aR	3	1000	0.90	800		3	800	720
3NC3 342-1	800	aR	3	1100	0.90	880		3	880	792
3NC3 343-1	800	aR	3	1250	0.90	960		3	950	855
3NC8 423-3C	690	gR	3	150	0.85	70	**3NH3 420/3NH3 430**	3	135	115
3NC8 425-3C	690	gR	3	200	0.85	95		3	180	153
3NC8 427-3C	690	gR	3	250	0.85	120		3	250	213
3NC8 431-3C	690	gR	3	350	0.85	240		3	315	268
3NC8 434-3C	690	gR	3	500	0.85	2 × 150		3	450	383
3NC8 444-3C	600	aR	3	1000	0.95	2 × (60 × 6)		3	800	800
3NE1 020-2	690	gR	00	80	1.0	25	**3NH3 030/3NH4 030**	00	80	80
3NE1 021-0	690	gS	00	100	1.0	35		00	100	100
3NE1 021-2	690	gR	00	100	1.0	35		00	100	100
3NE1 022-0	690	gS	00	125	1.0	50		00	125	125
3NE1 022-2	690	gR	00	125	1.0	50		00	125	125
3NE1 224-0	690	gS	1	160	1.0	70	**3NH3 230/3NH4 230**	1	160	160
3NE1 224-2	690	gR	1	160	1.0	70		1	160	160
3NE1 224-3	690	gR	1	160	1.0	70		1	160	160
3NE1 225-0	690	gS	1	200	1.0	95		1	200	200
3NE1 225-2	690	gR	1	200	1.0	95		1	200	200
3NE1 225-3	690	gR	1	200	1.0	95		1	200	200
3NE1 227-0	690	gS	1	250	1.0	120		1	250	250
3NE1 227-2	690	gR	1	250	1.0	120		1	250	250
3NE1 227-3	690	gR	1	250	1.0	120		1	250	250
3NE1 230-0	690	gS	1	315	1.0	2 × 70	**3NH3 320/3NH3 330**	2	315	315
3NE1 230-2	690	gR	1	315	1.0	2 × 70		2	315	315
3NE1 230-3	690	gR	1	315	1.0	2 × 70		2	315	315
3NE1 331-0	690	gS	2	350	1.0	2 × 95	**3NH3 320/3NH3 330**	2	350	350
3NE1 331-2	690	gR	2	350	1.0	2 × 95		2	350	350
3NE1 331-3	690	gR	2	350	1.0	2 × 95		2	350	350
3NE1 332-0	690	gS	2	400	1.0	2 × 95		2	400	400
3NE1 332-2	690	gR	2	400	1.0	2 × 95		2	400	400
3NE1 332-3	690	gR	2	400	1.0	2 × 95		2	400	400
3NE1 333-0	690	gS	2	450	1.0	2 × 120	**3NH3 420/3NH3 430**	3	450	450
3NE1 333-2	690	gR	2	450	1.0	2 × 120		3	450	450
3NE1 333-3	690	gR	2	450	1.0	2 × 120		3	450	450
3NE1 334-0	690	gS	2	500	1.0	2 × 120		3	500	500
3NE1 334-2	690	gR	2	500	1.0	2 × 120		3	500	500
3NE1 334-3	690	gR	2	500	1.0	2 × 120		3	500	500
3NE1 435-0	690	gS	3	560	1.0	2 × 150	**3NH3 420/3NH3 430**	3	560	560
3NE1 435-2	690	gR	3	560	1.0	2 × 150		3	560	560
3NE1 435-3	690	gR	3	560	1.0	2 × 150		3	560	560
3NE1 436-0	690	gS	3	630	1.0	2 × 185		3	630	630
3NE1 436-2	690	gR	3	630	1.0	2 × 185		3	630	630
3NE1 436-3	690	gR	3	630	1.0	2 × 185		3	630	630
3NE1 437-0	690	gS	3	710	1.0	2 × (40 × 5)		3	710	710
3NE1 437-1	600	gR	3	710	1.0	2 × (40 × 5)		3	690	690
3NE1 437-2	690	gR	3	710	1.0	2 × (40 × 5)		3	710	710
3NE1 437-3	690	gR	3	710	1.0	2 × (40 × 5)		3	710	710
3NE1 438-0	690	gS	3	800	1.0	2 × (50 × 5)		3	800	800
3NE1 438-1	600	gR	3	800	1.0	2 × (50 × 5)		3	750	750
3NE1 438-2	690	gR	3	800	1.0	2 × (50 × 5)		3	800	800
3NE1 438-3	690	gR	3	800	1.0	2 × (50 × 5)		3	800	800
3NE1 447-2	690	gR	3	670	1.0	2 × (40 × 5)		3	670	670
3NE1 447-3	690	gR	3	670	1.0	2 × (40 × 5)		3	670	670
3NE1 448-2	690	gR	3	850	1.0	2 × (40 × 8)		3	850	850
3NE1 448-3	690	gR	3	850	1.0	2 × (40 × 8)		3	850	850

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SITOR fuse links							LV HRC fuse bases			
Order No.	U_n	Operational class	BG	I_n	WL	$Ø_{min}$ Cu	Order No.	BG	I_{max}	I_{WL}
	V AC			A		mm²			A	A
3NE1 813-0	690	gS	000	16	1.0	1.5	**3NH3 030/3NH4 030**	00	16	16
3NE1 814-0	690	gS	000	20	1.0	2.5		00	20	20
3NE1 815-0	690	gS	000	25	1.0	4		00	25	25
3NE1 803-0	690	gS	000	35	1.0	6		00	35	35
3NE1 802-0	690	gS	000	40	1.0	10		00	40	40
3NE1 817-0	690	gS	000	50	1.0	10		00	50	50
3NE1 818-0	690	gS	000	63	1.0	16		00	63	63
3NE1 820-0	690	gS	000	80	1.0	25		00	80	80
3NE3 221	1000	aR	1	100	0.95	35	**3NH3 230/3NH4 230**	1	100	95
3NE3 222	1000	aR	1	125	0.95	50		1	125	119
3NE3 224	1000	aR	1	160	1.0	70		1	160	160
3NE3 225	1000	aR	1	200	1.0	95		1	200	200
3NE3 227	1000	aR	1	250	1.0	120		1	250	250
3NE3 230-0B	1000	aR	1	315	0.95	185	**3NH3 320/3NH3 330**	2	305	290
3NE3 231	1000	aR	1	350	0.95	240		2	335	318
3NE3 232-0B	1000	aR	1	400	0.90	240		2	380	342
3NE3 233	1000	aR	1	450	0.90	2 × 150		2	425	383
3NE3 332-0B	1000	aR	2	400	1.0	240	**3NH3 420/3NH3 430**	3	400	400
3NE3 333	1000	aR	2	450	1.0	2 × 150		3	450	450
3NE3 334-0B	1000	aR	2	500	1.0	2 × 150		3	500	500
3NE3 335	1000	aR	2	560	1.0	2 × 185		3	560	560
3NE3 336	1000	aR	2	630	1.0	2 × 185		3	630	630
3NE3 337-8	900	aR	2	710	1.0	2 × 200		3	680	680
3NE3 338-8	800	aR	2	800	0.95	2 × 200		3	700	665
3NE3 340-8	690	aR	2	900	0.95	2 × 240		3	750	713
3NE4 101	1000	gR	0	32	0.9	6	**3NH3 120/3NH4 230**	0/1	32	29
3NE4 102	1000	gR	0	40	0.9	10		0/1	40	36
3NE4 117	1000	gR	0	50	0.9	10		0/1	50	45
3NE4 118	1000	aR	0	63	0.9	16		0/1	63	57
3NE4 120	1000	aR	0	80	0.9	25		0/1	80	72
3NE4 121	1000	aR	0	100	0.9	35		0/1	100	93
3NE4 122	1000	aR	0	125	0.9	50		0/1	125	113
3NE4 124	1000	aR	0	160	0.9	70		0/1	160	144
3NE4 327-0B	800	aR	2	250	0.85	120	**3NH3 320/3NH3 330**	2	240	204
3NE4 330-0B	800	aR	2	315	0.85	240		2	300	255
3NE4 333-0B	800	aR	2	450	0.85	2 × (30 × 5)	**3NH3 420/3NH3 430**	3	425	361
3NE4 334-0B	800	aR	2	500	0.85	2 × (30 × 5)		3	475	404
3NE4 337	800	aR	2	710	0.95	2 × (40 × 5)		3	630	599
3NE8 015-1	690	gR	00	25	0.95	4	**3NH3 030/3NH4 030**	00	25	24
3NE8 003-1	690	gR	00	35	0.95	6		00	35	33
3NE8 017-1	690	gR	00	50	0.90	10		00	50	45
3NE8 018-1	690	gR	00	63	0.95	16		00	63	60
3NE8 020-1	690	aR	00	80	0.95	25		00	80	76
3NE8 021-1	690	aR	00	100	0.95	35	**3NH3 030/3NH4 030**	00	100	95
3NE8 022-1	690	aR	00	125	0.95	50		00	125	119
3NE8 024-1	690	aR	00	160	0.95	70		00	160	152

U_n = Rated voltage
BG = Size
I_n = Rated current
WL = Varying load factor
$Ø_{min}$ Cu = Required conductor cross-section Cu
I_{max} = Maximum permissible current
I_{WL} = Maximum permissible current with varying load

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LV HRC design, 3NC, 3NE

Load rating of SITOR fuse links with 3NP LV HRC fuse switch disconnectors

SITOR fuse links					Ø min Cu	3NP LV HRC fuse switch disconnectors														
						Add-on units													Busbar devices			
Order No.	U_n V AC	BG	I_n A	WL	mm²	Order No.	BG	I_{max} A	I_{WL}	Order No.	BG	I_{max} A	I_{WL}	Order No.	BG	I_{max} A	I_{WL}	Order No.	BG	I_{max} A	I_{WL}
3NC2 423-3C	500	3	150	0.95	70	**3NP54**	3	145	125	**3NP1 163**	3	140	133					**On request** [1]	--	--	--
3NC2 425-3C	500	3	200	0.95	95		3	180	165		3	175	166						--	--	--
3NC2 427-3C	500	3	250	0.95	120		3	225	205		3	220	209						--	--	--
3NC2 428-3C	500	3	300	0.95	185		3	255	240		3	250	238						--	--	--
3NC2 431-3C	500	3	350	0.95	240		3	330	295		3	320	304						--	--	--
3NC2 432-3C	500	3	400	0.95	240		3	400	380		3	370	352						--	--	--
3NC3 336-1	1000	3	630	0.85	480	**3NP54**	3	530	451	**3NP1 163**	3	500	425					**--**	--	--	--
3NC3 337-1	1000	3	710	0.85	560		3	570	485	**--**	--	--	--						--	--	--
3NC3 338-1	1000	3	800	0.85	640		3	630	535		--	--	--						--	--	--
3NC3 340-1	1000	3	900	0.90	720		3	700	630		--	--	--						--	--	--
3NC3 341-1	1000	3	1000	0.90	800		3	770	693		--	--	--						--	--	--
3NC3 342-1	800	3	1100	0.90	880		3	800	720		--	--	--						--	--	--
3NC3 343-1	800	3	1250	0.90	960		3	800	765		--	--	--						--	--	--
3NC8 423-3C	660	3	150	0.85	70	**3NP54**	3	135	125	**3NP1 163**	3	120	102					**On request** [1]	--	--	--
3NC8 425-3C	660	3	200	0.85	95		3	180	165		3	160	136						--	--	--
3NC8 427-3C	660	3	250	0.85	120		3	225	205		3	200	170						--	--	--
3NC8 431-3C	660	3	350	0.85	240		3	300	275		3	270	230						--	--	--
3NC8 434-3C	690	3	500	0.85	2 ×150		3	425	400		3	385	327						--	--	--
3NC8 444-3C	600	3	1000	0.95	2× (60x6)	**3NP54**	3	800	760	**--**	--	--	--					**On request** [1]	--	--	--
3NE1 020-2	690	00	80	1.0	25	**3NP50**	00	80	80	**3NP1 133**	00	80	80					**On request** [1]	--	--	--
3NE1 021-0	690	00	100	1.0	35		00	100	100		00	100	100						--	--	--
3NE1 021-2	690	00	100	1.0	35		00	100	100		00	95	95						--	--	--
3NE1 022-0	690	00	125	1.0	50		00	125	125		00	120	120						--	--	--
3NE1 022-2	690	00	125	1.0	50		00	125	125		00	115	115						--	--	--
3NE1 224-0	690	1	160	1.0	70	**3NP52**	1	160	160	**3NP1 143**	1	160	160	**3NP1 153**	2	160	160	**On request** [1]	--	--	--
3NE1 224-2	690	1	160	1.0	70		1	160	160		1	150	150		2	160	160		--	--	--
3NE1 224-3	690	1	160	1.0	70		1	160	160		1	150	150		2	160	160		--	--	--
3NE1 225-0	690	1	200	1.0	95		1	200	200		1	190	190		2	200	200		--	--	--
3NE1 225-2	690	1	200	1.0	95		1	200	200		1	180	180		2	190	190		--	--	--
3NE1 225-3	690	1	200	1.0	95		1	200	200		1	180	180		2	190	190		--	--	--
3NE1 227-0	690	1	250	1.0	120		1	250	250		1	235	235		2	250	250		--	--	--
3NE1 227-2	690	1	250	1.0	120		1	250	250		1	220	220		2	235	235		--	--	--
3NE1 227-3	690	1	250	1.0	120		1	250	250		1	220	220		2	235	235		--	--	--
3NE1 230-0	690	1	315	1.0	2× 70	**3NP53**	2	315	315	**3NP1 153**	2	290	290					**On request** [1]	--	--	--
3NE1 230-2	690	1	315	1.0	2× 70		2	315	315		2	278	278						--	--	--
3NE1 230-3	690	1	315	1.0	2× 70		2	315	315		2	278	278						--	--	--
3NE1 331-0	690	2	350	1.0	2× 95	**3NP53**	2	350	350	**3NP1 153**	2	315	315	**3NP1 163**	3	340	340	**On request** [1]	--	--	--
3NE1 331-2	690	2	350	1.0	2× 95		2	350	350		2	300	300		3	330	330		--	--	--
3NE1 331-3	690	2	350	1.0	2× 95		2	350	350		2	300	300		3	330	330		--	--	--
3NE1 332-0	690	2	400	1.0	2× 95		2	400	400		2	340	340		3	380	380		--	--	--
3NE1 332-2	690	2	400	1.0	2× 95		2	400	400		2	328	328		3	370	370		--	--	--
3NE1 332-3	690	2	400	1.0	2× 95		2	400	400		2	328	328		3	370	370		--	--	--
3NE1 333-0	690	2	450	1.0	2× 120	**3NP54**	3	450	450	**3NP1 163**	3	450	450					**On request** [1]	--	--	--
3NE1 333-2	690	2	450	1.0	2× 120		3	450	450		3	430	430						--	--	--
3NE1 333-3	690	2	450	1.0	2× 120		3	450	450		3	430	430						--	--	--
3NE1 334-0	690	2	500	1.0	2× 120		3	500	500		3	500	500						--	--	--
3NE1 334-2	690	2	500	1.0	2× 120		3	500	500		3	475	475						--	--	--
3NE1 334-3	690	2	500	1.0	2× 120		3	500	500		3	475	475						--	--	--
3NE1 435-0	690	3	560	1.0	2× 150	**3NP54**	3	560	560	**3NP1 163**	3	560	560					**On request** [1]	--	--	--
3NE1 435-2	690	3	560	1.0	2× 150		3	560	560		3	555	555						--	--	--
3NE1 435-3	690	3	560	1.0	2× 150		3	560	560		3	555	555						--	--	--
3NE1 436-0	690	3	630	1.0	2× 185		3	630	630		3	630	630						--	--	--
3NE1 436-2	690	3	630	1.0	2× 185		3	625	625		3	620	620						--	--	--
3NE1 436-3	690	3	630	1.0	2× 185		3	625	625		3	620	620						--	--	--
3NE1 437-0	690	3	710	1.0	2× (40×5)		3	710	710	**--**	--	--	--						--	--	--
3NE1 437-1	600	3	710	1.0	2× (40×5)		3	690	690		--	--	--						--	--	--
3NE1 437-2	690	3	710	1.0	2× (40×5)		3	685	685		--	--	--						--	--	--
3NE1 437-3	690	3	710	1.0	2× (40×5)		3	685	685		--	--	--						--	--	--
3NE1 438-0	690	3	800	1.0	2× (50×5)	**3NP54**	3	800	800	**--**	--	--	--					**On request** [1]	--	--	--
3NE1 438-1	600	3	800	1.0	2× (50×5)		3	750	750		--	--	--						--	--	--
3NE1 438-2	690	3	800	1.0	2× (50×5)		3	770	770		--	--	--						--	--	--
3NE1 438-3	690	3	800	1.0	2× (50×5)		3	770	770		--	--	--						--	--	--
3NE1 447-2	690	3	670	1.0	2× (40×5)		3	655	655		--	--	--						--	--	--
3NE1 447-3	690	3	670	1.0	2× (40×5)		3	655	655		--	--	--						--	--	--
3NE1 448-2	690	3	850	1.0	2× (40×8)		3	820	820		--	--	--						--	--	--
3NE1 448-3	690	3	850	1.0	2× (40×8)		3	820	820		--	--	--						--	--	--

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SITOR fuse links					Ø min Cu	3NP LV HRC fuse switch disconnectors															
						Add-on units													Busbar devices			
Order No.	U_n V AC	BG	I_n A	WL	mm²	Order No.	BG	I_{max} A	I_{WL}	Order No.	BG	I_{max} A	I_{WL}	Order No.	BG	I_{max} A	I_{WL}	Order No.	BG	I_{max} A	I_{WL}
3NE1 813-0	690	000	16	1.0	1.5	**3NP53**	000	16	16	**3NP1 123**	000	16	16	**3NP1 133**	00	16	16	**On request** [1]	--	--	--
3NE1 814-0	690	000	20	1.0	2.5		000	20	20		000	20	20		00	20	20		--	--	--
3NE1 815-0	690	000	25	1.0	4		000	25	25		000	25	25		00	25	25		--	--	--
3NE1 803-0	690	000	35	1.0	6		000	35	35		000	35	35		00	35	35		--	--	--
3NE1 802-0	690	000	40	1.0	10		000	40	40		000	40	40		00	40	40		--	--	--
3NE1 817-0	690	000	50	1.0	10		000	50	50		000	50	50		00	50	50		--	--	--
3NE1 818-0	690	000	63	1.0	16		000	63	63		000	63	63		00	63	63		--	--	--
3NE1 820-0	690	000	80	1.0	25		000	80	80		000	80	80		00	80	80		--	--	--
3NE3 221	1000	1	100	0.95	35	**3NP52**	1	95	90	**3NP1 143**	1	88	84	**3NP1 153**	2	95	90	**On request** [1]	--	--	--
3NE3 222	1000	1	125	0.95	50		1	110	110		1	102	97		2	110	105		--	--	--
3NE3 224	1000	1	160	1.0	70		1	140	140		1	130	130		2	140	140		--	--	--
3NE3 225	1000	1	200	1.0	95		1	175	175		1	163	163		2	175	175		--	--	--
3NE3 227	1000	1	250	1.0	120		1	210	210		1	195	195		2	210	210		--	--	--
3NE3 230-0B	1000	1	315	0.95	185	**3NP53**	2	285	280	**3NP1 153**	2	270	257					**On request** [1]	--	--	--
3NE3 231	1000	1	350	0.95	240		2	310	300		2	290	276						--	--	--
3NE3 232-0B	1000	1	400	0.90	240		2	330	320		2	320	288						--	--	--
3NE3 233	1000	1	450	0.90	2× 150		2	360	340		2	360	324						--	--	--
3NE3 332-0B	1000	2	400	1.0	240	**3NP54**	3	360	345	**3NP1 153**	2	330	330	**3NP1 163**	3	360	360	**On request** [1]	--	--	--
3NE3 333	1000	2	450	1.0	2× 150		3	400	385		2	375	375						--	--	--
3NE3 334-0B	1000	2	500	1.0	2× 150		3	450	450		2	420	420						--	--	--
3NE3 335	1000	2	560	1.0	2× 185		3	510	510		2	475	475						--	--	--
3NE3 336	1000	2	630	1.0	2× 185		3	580	580		2	560	560						--	--	--
3NE3 337-8	900	2	710	1.0	2× 200		3	630	630		2	580	580						--	--	--
3NE3 338-8	800	2	800	0.95	2× 200		3	630	630		2	605	575						--	--	--
3NE3 340-8	690	2	900	0.95	2× 200		3	630	630		2	630	599						--	--	--
3NE4 101	1000	0	32	0.9	6	**3NP52**	1	32	29	**3NP1 143**	1	30	27					**On request** [1]	--	--	--
3NE4 102	1000	0	40	0.9	10		1	40	36		1	35	32						--	--	--
3NE4 117	1000	0	50	0.9	10		1	50	45		1	42	38						--	--	--
3NE4 118	1000	0	63	0.9	16		1	63	57		1	55	50						--	--	--
3NE4 120	1000	0	80	0.9	25		1	80	72		1	71	64						--	--	--
3NE4 121	1000	0	100	0.9	35		1	95	86		1	84	76						--	--	--
3NE4 122	1000	0	125	0.9	50		1	120	108		1	107	96						--	--	--
3NE4 124	1000	0	160	0.9	70		1	150	135		1	134	121						--	--	--
3NE4 327-0B	800	2	250	0.85	120	**3NP53/ 3NP54**	2/ 3	210/ 220	205/ 210	**3NP1 153**	2	195	166	**3NP1 163**	3	215	183	**On request** [1]	--	--	--
3NE4 330-0B	800	2	315	0.85	240		2/ 3	270/ 285	255/ 265		2	240	204		3	270	230		--	--	--
3NE4 333-0B	800	2	450	0.85	2× (30×5)		2/ 3	400/ 420	370/ 380	**3NP1 163**	3	370	315						--	--	--
3NE4 334-0B	800	2	500	0.85	2× (30×5)	**3NP54**	3	450	400		3	410	349					**On request** [1]	--	--	--
3NE4 337	800	2	710	0.95	2× (40×5)		3	600	570		3	540	513						--	--	--
3NE8 015-1	690	00	25	0.95	4	**3NP50**	00	25	24	**3NP1 133**	00	25	24					**On request** [1]	--	--	--
3NE8 003-1	690	00	35	0.95	6		00	33	31		00	32	30						--	--	--
3NE8 017-1	690	00	50	0.90	10		00	45	41		00	43	39						--	--	--
3NE8 018-1	690	00	63	0.95	16		00	54	51		00	52	49						--	--	--
3NE8 020-1	690	00	80	0.95	25		00	68	65		00	65	62						--	--	--
3NE8 021-1	690	00	100	0.95	35	**3NP50**	00	89	85	**3NP1 133**	00	85	81					**On request** [1]	--	--	--
3NE8 022-1	690	00	125	0.95	50		00	106	101		00	100	95						--	--	--
3NE8 024-1	690	00	160	0.95	70		00	130	124		00	120	114						--	--	--

U_n = Rated voltage
BG = Size
I_n = Rated current
WL = Varying load factor
$Ø_{min}$ Cu = Required conductor cross-section Cu
I_{max} = Maximum permissible current
I_{WL} = Maximum permissible current with varying load

[1] Available soon

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LV HRC design, 3NC, 3NE

Load rating of SITOR fuse links with 3KL/3KM LV HRC fuse switch disconnectors with fuses

SITOR fuse links					Ø min Cu	3KL /3KM switch disconnectors with fuses															
						3KL... add-on devices								3KM... busbar devices							
Order No.	U_n V AC	BG	I_n A	WL	mm²	Order No.	BG	I_{max} A	I_{WL}	Order No.	BG	I_{max} A	I_{WL}	Order No.	BG	I_{max} A	I_{WL}	Order No.	BG	I_{max} A	I_{WL}
3NC2 423-3C	500	3	150	0.95	70	**3KL61**	3	145	138	**3KL62**	3	150	143	--	--	--	--	--	--	--	--
3NC2 425-3C	500	3	200	0.95	95		3	180	171		3	190	181		--	--	--		--	--	--
3NC2 427-3C	500	3	250	0.95	120		3	225	214		3	240	228		--	--	--		--	--	--
3NC2 428-3C	500	3	300	0.95	185		3	255	242		3	270	257		--	--	--		--	--	--
3NC2 431-3C	500	3	350	0.95	240		3	330	314		3	345	328		--	--	--		--	--	--
3NC2 432-3C	500	3	400	0.95	240		3	400	380		3	400	380		--	--	--		--	--	--
3NC3 336-1	1000	3	630	0.85	480	--	--	--	--	**3KL62**	3	500	425	--	--	--	--	--	--	--	--
3NC3 337-1	1000	3	710	0.85	560		--	--	--		3	540	459		--	--	--		--	--	--
3NC3 338-1	1000	3	800	0.85	640		--	--	--		3	600	510		--	--	--		--	--	--
3NC3 340-1	1000	3	900	0.90	720		--	--	--		3	650	585		--	--	--		--	--	--
3NC3 341-1	1000	3	1000	0.90	800		--	--	--		3	720	648		--	--	--		--	--	--
3NC3 342-1	800	3	1100	0.90	880		--	--	--		3	800	720		--	--	--		--	--	--
3NC3 343-1	800	3	1250	0.90	960		--	--	--		3	800	720		--	--	--		--	--	--
3NC8 423-3C	660	3	150	0.85	70	**3KL61**	3	135	115	**3KL62**	3	140	119	--	--	--	--	--	--	--	--
3NC8 425-3C	660	3	200	0.85	95		3	180	153		3	190	162		--	--	--		--	--	--
3NC8 427-3C	660	3	250	0.85	120		3	225	191		3	240	204		--	--	--		--	--	--
3NC8 431-3C	660	3	350	0.85	240		3	300	255		3	315	268		--	--	--		--	--	--
3NC8 434-3C	660	3	500	0.85	2 × 150		3	425	361		3	450	383		--	--	--		--	--	--
3NC8 444-3C	600	3	1000	0.95	2 × (60 x 6)		3	800	800		3	630	630		--	--	--		--	--	--
3NE1 020-2	690	00	80	1.0	25	**3KL52**	00	80	80	**3KL53**	00	80	80	**3KM52**	00	80	80	**3KM53**	00	80	80
3NE1 021-0	690	00	100	1.0	35		00	100	100		00	100	100		00	100	100		00	100	100
3NE1 021-2	690	00	100	1.0	35		00	100	100		00	100	100		00	100	100		00	100	100
3NE1 022-0	690	00	125	1.0	125		00	125	125		00	125	125		00	125	125		00	125	125
3NE1 022-2	690	00	125	1.0	125		00	125	125		00	125	125		00	125	125		00	125	125
3NE1 224-0	690	1	160	1.0	70	**3KL55**	1	160	160	**3KL57**	2	160	160	**3KM55**	1	160	160	**3KM57**	2	160	160
3NE1 224-2	690	1	160	1.0	70		1	160	160		2	160	160		1	160	160		2	160	160
3NE1 224-3	690	1	160	1.0	70		1	160	160		2	160	160		1	160	160		2	160	160
3NE1 225-0	690	1	200	1.0	95		1	200	200		2	200	200		1	200	200		2	200	200
3NE1 225-2	690	1	200	1.0	95		1	200	200		2	200	200		1	200	200		2	200	200
3NE1 225-3	690	1	200	1.0	95		1	200	200		2	200	200		1	200	200		2	200	200
3NE1 227-0	690	1	250	1.0	120		1	250	250		2	250	250		1	250	250		2	250	250
3NE1 227-2	690	1	250	1.0	120		1	245	245		2	250	250		1	245	245		2	250	250
3NE1 227-3	690	1	250	1.0	120		1	245	245		2	250	250		1	245	245		2	250	250
3NE1 230-0	690	1	315	1.0	2× 70	**3KL57**	2	315	315	--	--	--	--	**3KM57**	2	315	315	--	--	--	--
3NE1 230-2	690	1	315	1.0	2× 70		2	280	280		--	--	--		2	280	280		--	--	--
3NE1 230-3	690	1	315	1.0	2× 70		2	280	280		--	--	--		2	280	280		--	--	--
3NE1 331-0	690	2	350	1.0	2× 95	**3KL57**	2	330	330	**3KL61**	3	350	350	**3KM57**	2	330	330	--	--	--	--
3NE1 331-2	690	2	350	1.0	2× 95		2	300	300		3	350	350		2	300	300		--	--	--
3NE1 331-3	690	2	350	1.0	2× 95		2	300	300		3	350	350		2	300	300		--	--	--
3NE1 332-0	690	2	400	1.0	2× 95		2	375	375		3	400	400		2	375	375		--	--	--
3NE1 332-2	690	2	400	1.0	2× 95		2	340	340		3	400	400		2	340	340		--	--	--
3NE1 332-3	690	2	400	1.0	2× 95		2	340	340		3	400	400		2	340	340		--	--	--
3NE1 333-0	690	2	450	1.0	2× 120	**3KL61**	3	450	450	**3KL62**	3	450	450		2	400	400		--	--	--
3NE1 333-2	690	2	450	1.0	2× 120		3	450	450		3	450	500		2	325	325		--	--	--
3NE1 333-3	690	2	450	1.0	2× 120		3	450	450		3	450	500		2	325	325		--	--	--
3NE1 334-0	690	2	500	1.0	2× 120		3	500	500		3	500	500		2	400	400		--	--	--
3NE1 334-2	690	2	500	1.0	2× 120		3	500	500		3	500	500		2	350	350		--	--	--
3NE1 334-3	690	2	500	1.0	2× 120		3	500	500		3	500	500		2	350	350		--	--	--
3NE1 435-0	690	3	560	1.0	2× 150	**3KL61**	3	560	560	**3KL62**	3	560	560	--	--	--	--	--	--	--	--
3NE1 435-2	690	3	560	1.0	2× 150		3	560	560		3	560	560		--	--	--		--	--	--
3NE1 435-3	690	3	560	1.0	2× 150		3	560	560		3	560	560		--	--	--		--	--	--
3NE1 436-0	690	3	630	1.0	2× 185		3	630	630		3	630	630		--	--	--		--	--	--
3NE1 436-2	690	3	630	1.0	2× 185		3	615	615		3	630	630		--	--	--		--	--	--
3NE1 436-3	690	3	630	1.0	2× 185		3	615	615		3	630	630		--	--	--		--	--	--
3NE1 437-0	690	3	710	1.0	2× (40×5)		3	630	630		3	710	710		--	--	--		--	--	--
3NE1 437-1	600	3	710	1.0	2× (40×5)		3	630	630		3	710	710		--	--	--		--	--	--
3NE1 437-2	690	3	710	1.0	2× (40×5)		3	630	630		3	700	700		--	--	--		--	--	--
3NE1 437-3	690	3	710	1.0	2× (40×5)		3	630	630		3	700	700		--	--	--		--	--	--
3NE1 438-0	690	3	800	1.0	2× (50×5)	**3KL61**	3	630	630	**3KL62**	3	800	800	--	--	--	--	--	--	--	--
3NE1 438-1	600	3	800	1.0	2× (50×5)		3	630	630		3	800	800		--	--	--		--	--	--
3NE1 438-2	690	3	800	1.0	2× (50×5)		3	630	630		3	760	760		--	--	--		--	--	--
3NE1 438-3	690	3	800	1.0	2× (50×5)		3	630	630		3	760	760		--	--	--		--	--	--
3NE1 447-2	690	3	670	1.0	2× (40×5)		3	630	630		3	670	670		--	--	--		--	--	--
3NE1 447-3	690	3	670	1.0	2× (40×5)		3	630	630		3	670	670		--	--	--		--	--	--
3NE1 448-2	690	3	850	1.0	2× (40×8)		3	630	630		3	790	790		--	--	--		--	--	--
3NE1 448-3	690	3	850	1.0	2× (40×8)		3	630	630		3	790	790		--	--	--		--	--	--

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SITOR fuse links					Ø min Cu	3KL /3KM switch disconnectors with fuses													
						3KL... add-on devices								3KM... busbar devices					
Order No.	U_n V AC	BG	I_n A	WL	mm²	Order No.	BG	I_{max} A	I_{WL}	Order No.	BG	I_{max} A	I_{WL}	Order No.	BG	I_{max} A	I_{WL}	Order No.	BG	I_{max} A	I_{WL}
3NE1 813-0	690	000	16	1.0	1.5	**3KL50**	00	16	16	**3KL52**	00	16	16	**3KM50**	00	16	16	**3KM52**	00	16	16
3NE1 814-0	690	000	20	1.0	2.5		00	20	20		00	20	20		00	20	20		00	20	20
3NE1 815-0	690	000	25	1.0	4		00	25	25		00	25	25		00	25	25		00	25	25
3NE1 803-0	690	000	35	1.0	6		00	35	35		00	35	35		00	35	35		00	35	35
3NE1 802-0	690	000	40	1.0	10		00	40	40		00	40	40		00	40	40		00	40	40
3NE1 817-0	690	000	50	1.0	10		00	50	50		00	50	50		00	50	50		00	50	50
3NE1 818-0	690	000	63	1.0	16		00	63	63		00	63	63		00	63	63		00	63	63
3NE1 820-0	690	000	80	1.0	25	**3KL52**	00	80	80	**--**	--	--	--	**3KM52**	00	80	80	**--**	--	--	--
3NE3 221	1000	1	100	0.95	35	**3KL55**	1	90	86	**3KL57**	2	95	90	**3KM55**	1	90	86	**3KM57**	2	95	90
3NE3 222	1000	1	125	0.95	50		1	110	105		2	115	109		1	110	105		2	115	109
3NE3 224	1000	1	160	1.0	70		1	140	140		2	150	150		1	140	140		2	150	150
3NE3 225	1000	1	200	1.0	95		1	175	175		2	180	180		1	175	175		2	180	180
3NE3 227	1000	1	250	1.0	120		1	210	210		2	220	220		1	210	210		2	220	220
3NE3 230-0B	1000	1	315	0.95	185	**3KL57**	2	240	228	**--**	--	--	--	**3KM57**	2	240	228	**--**	--	--	--
3NE3 231	1000	1	350	0.95	240		2	265	252		--	--	--		2	265	252		--	--	--
3NE3 232-0B	1000	1	400	0.90	240		2	290	261		--	--	--		2	290	261		--	--	--
3NE3 233	1000	1	450	0.90	2× 150		2	320	288		--	--	--		2	320	288		--	--	--
3NE3 332-0B	1000	2	400	1.0	240	**3KL61**	3	340	340	**3KL62**	3	360	360	**3KM57**	2	290	290	**--**	--	--	--
3NE3 333	1000	2	450	1.0	2× 150		3	380	380		3	400	400		2	320	320		--	--	--
3NE3 334-0B	1000	2	500	1.0	2× 150		3	440	440		3	470	470		2	360	360		--	--	--
3NE3 335	1000	2	560	1.0	2× 185		3	500	500		3	530	530		2	400	400		--	--	--
3NE3 336	1000	2	630	1.0	2× 185		3	540	540		3	580	580		2	400	400		--	--	--
3NE3 337-8	900	2	710	1.0	2× 200		3	600	600		3	640	640		2	400	400		--	--	--
3NE3 338-8	800	2	800	0.95	2× 200		3	630	630		3	720	680		2	400	400		--	--	--
3NE3 340-8	690	2	900	0.95	2× 200		3	630	630		3	800	750		2	400	400		--	--	--
3NE4 101	1000	0	32	0.9	6	**3KL55**	1	32	29	**--**	--	--	--	**3KM55**	1	32	29	**--**	--	--	--
3NE4 102	1000	0	40	0.9	10		1	40	36		--	--	--		1	40	36		--	--	--
3NE4 117	1000	0	50	0.9	10		1	50	45		--	--	--		1	50	45		--	--	--
3NE4 118	1000	0	63	0.9	16		1	63	57		--	--	--		1	63	57		--	--	--
3NE4 120	1000	0	80	0.9	25		1	80	72		--	--	--		1	80	72		--	--	--
3NE4 121	1000	0	100	0.9	35		1	95	86		--	--	--		1	95	86		--	--	--
3NE4 122	1000	0	125	0.9	50		1	120	108		--	--	--		1	120	108		--	--	--
3NE4 124	1000	0	160	0.9	70		1	150	135		--	--	--		1	150	135		--	--	--
3NE4 327-0B	800	2	250	0.85	120	**3KL57**	2	175	149	**3KL61**	3	200	170	**3KM57**	2	175	149	**--**	--	--	--
3NE4 330-0B	800	2	315	0.85	240		2	230	196		3	260	221		2	230	196		--	--	--
3NE4 333-0B	800	2	450	0.85	2× (30×5)		2	340	289		3	370	315		2	340	289		--	--	--
3NE4 334-0B	800	2	500	0.85	2× (30×5)	**3KL61**	3	425	361	**3KL62**	3	450	375		2	380	323		--	--	--
3NE4 337	800	2	710	0.95	2× (40×5)		3	600	570		3	630	600		2	400	400		--	--	--
3NE8 015-1	690	00	25	0.95	4	**3KL50**	00	25	24	**3KL52**	00	25	24	**3KM50**	00	25	24	**3KM52**	00	25	24
3NE8 003-1	690	00	35	0.95	6		00	33	31		00	35	33		00	33	31		00	35	33
3NE8 017-1	690	00	50	0.90	10		00	45	41		00	50	45		00	45	41		00	50	45
3NE8 018-1	690	00	63	0.95	16		00	54	51		00	60	57		00	54	51		00	60	57
3NE8 020-1	690	00	80	0.95	25	**3KL52**	00	68	65	**3KL53**	00	68	65	**3KM52**	00	68	65	**3KM53**	00	68	65
3NE8 021-1	690	00	100	0.95	35	**3KL52**	00	89	85	**3KL53**	00	89	85	**3KM52**	00	89	85	**3KM53**	00	89	85
3NE8 022-1	690	00	125	0.95	50		00	106	101		00	106	101		00	106	101		00	106	101
3NE8 024-1	690	00	160	0.95	70		00	130	124		00	130	124		00	130	124		00	130	124

U_n = Rated voltage
BG = Size
I_n = Rated current
WL = Varying load factor
$Ø_{min}$ Cu = Required conductor cross-section Cu
I_{max} = Maximum permissible current
I_{WL} = Maximum permissible current with varying load

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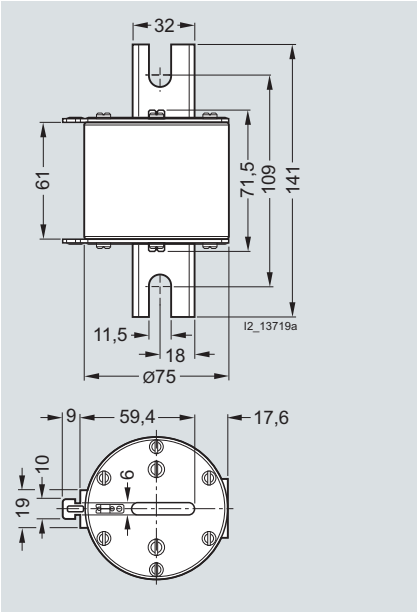
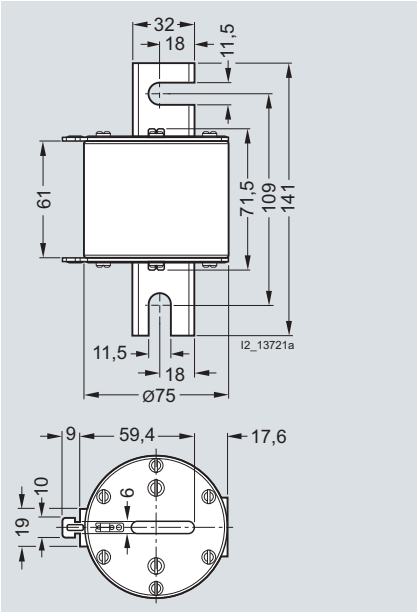
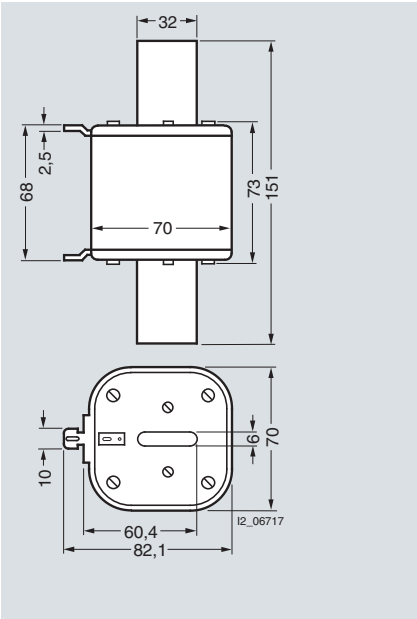
Dimensional drawings



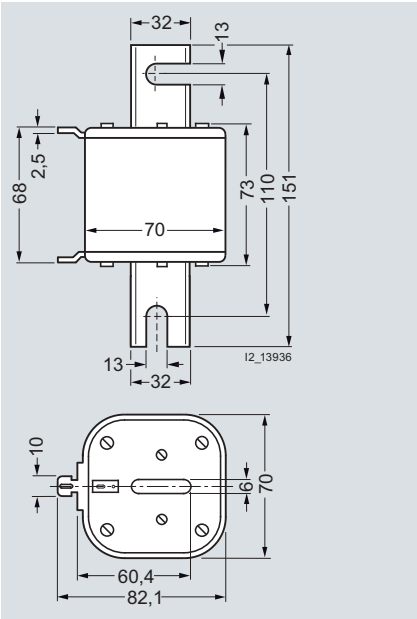
3NC2 4..-0C, 3NC8 4..-0C



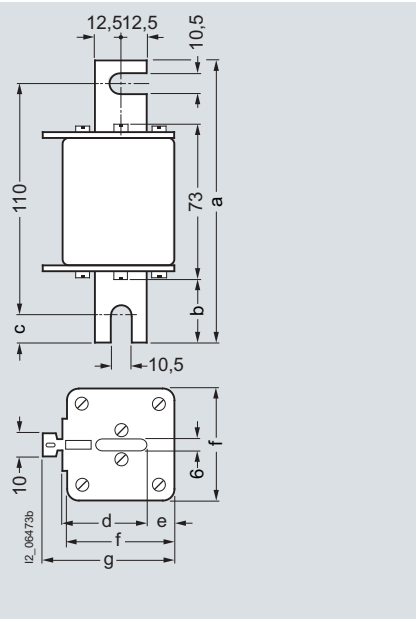
3NC2 4..-3C, 3NC8 4..-3C



3NE1 43.-0, 3NE1 43.-1



3NE1 4..-3



3NE1 2..-3, 3NE1 3..-3

Type	Dimensions (mm)						
	a	b	c	d	e	f	g
3NE1 2..-3	135	31	12.5	40.5	13.5	52	63.5
3NE1 3..-3	149	38	19.5	47.5	15	60	72

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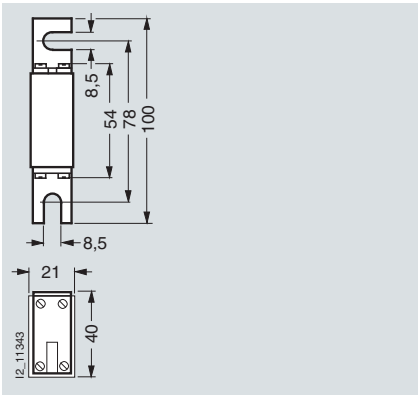
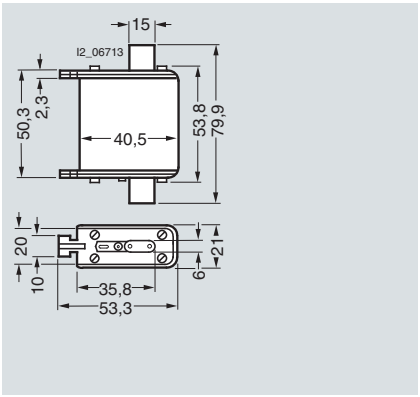
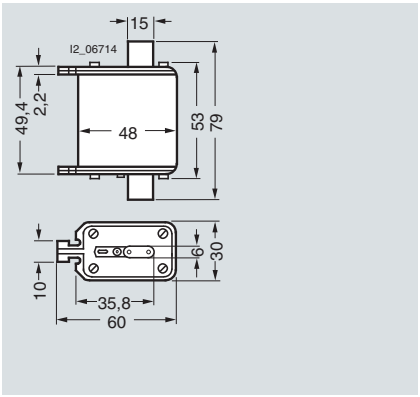


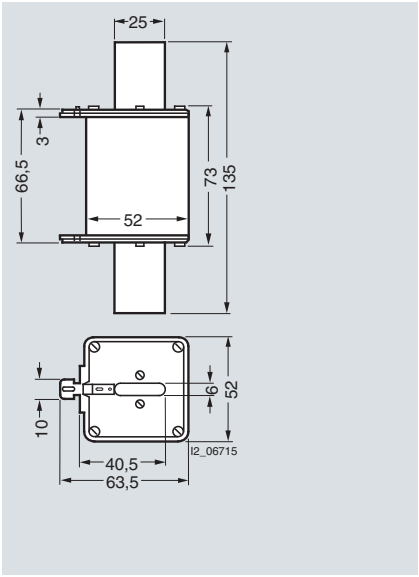
3NE8 7..-1



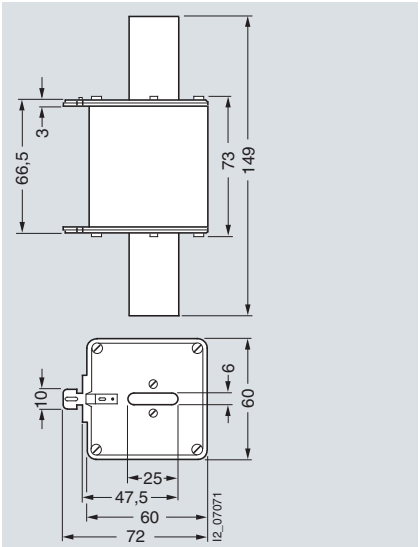
3NE1 8..-0



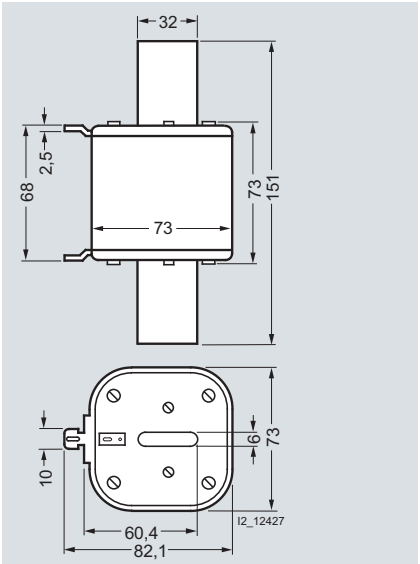
3NE1 02.-0, 3NE1 02.-2, 3NE8 0..-1



3NE1 2..-0, 3NE1 2..-2



3NE1 33.-0, 3NE1 33.-2



3NE1 4..-2

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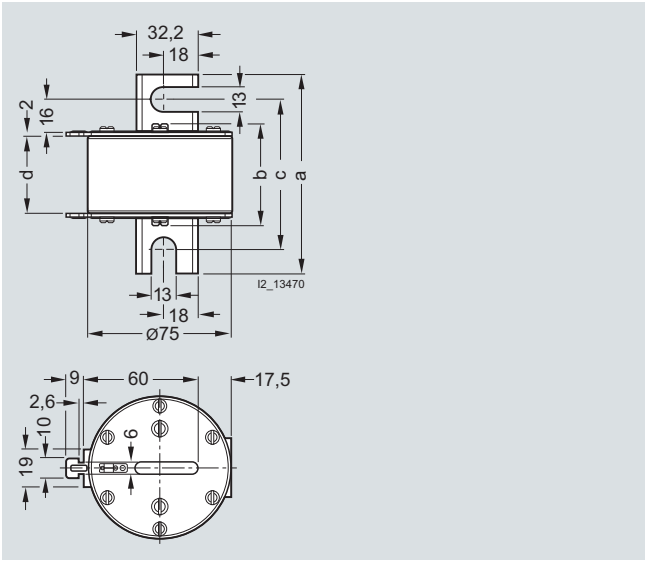
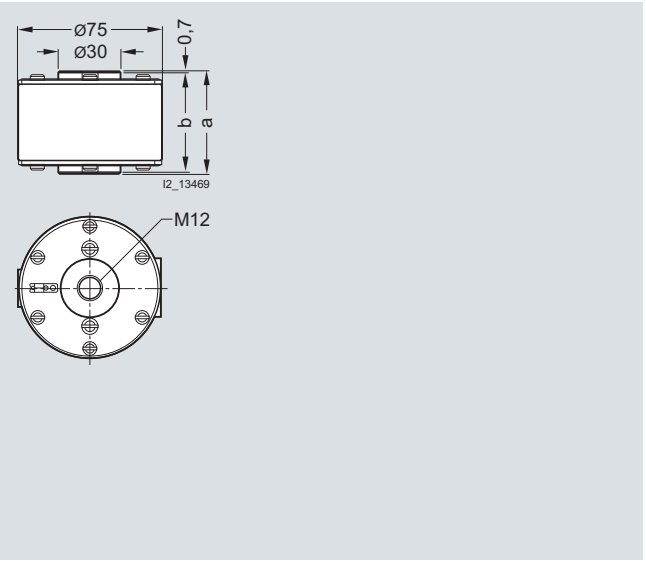
LV HRC design, 3NC, 3NE



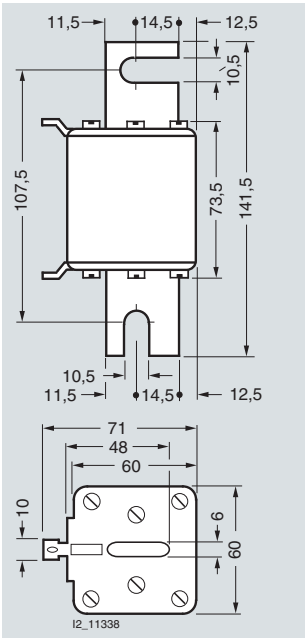
3NC3 2..-1, 3NC3 3..-1

Type	Dimensions (mm)			
	a	b	c	d
3NC3 2..-1	102	51	78	40
3NC3 3..-1	139	72	108	61

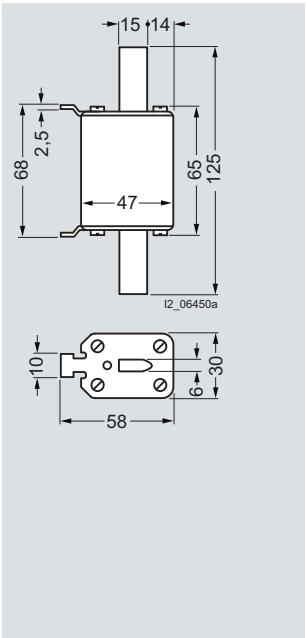


3NC3 2..-6, 3NC3 3..-6

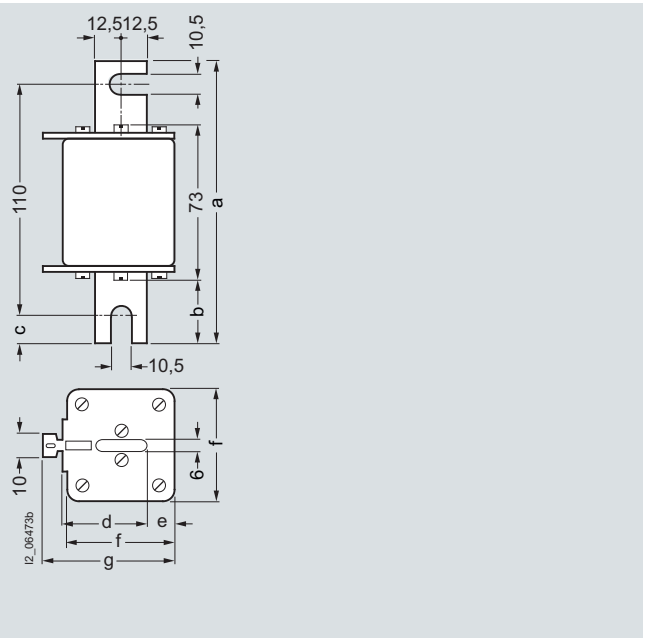
Type	Dimensions (mm)	
	a	b
3NC3 2..-6	52	50
3NC3 3..-6	73	71



3NE4 3..-0B, 3NE4 337



3NE4 1..



3NE3 22., 3NE3 23., 3NE3 3..

Type	Dimensions (mm)						
	a	b	c	d	e	f	g
3NE3 22.	135	31	12.5	40.5	13.5	52	63.5
3NE3 23.	135	31	12.5	40.5	13.5	52	63.5
3NE3 3..	149	38	19.5	47.5	15	60	72

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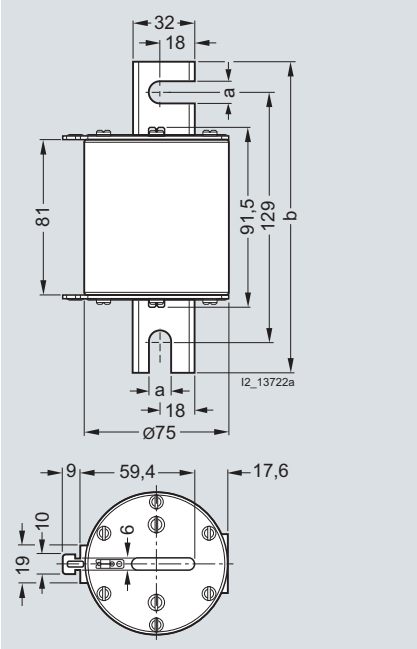
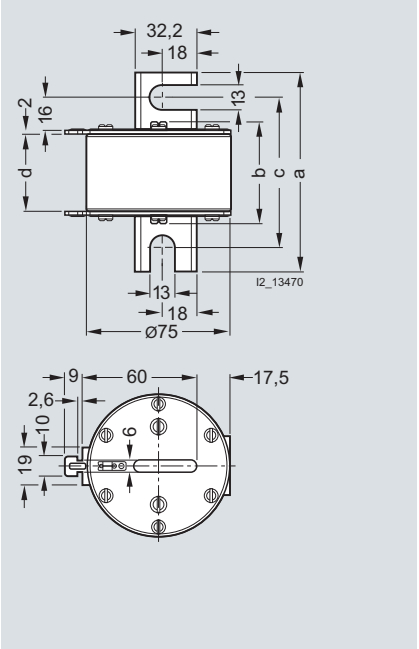


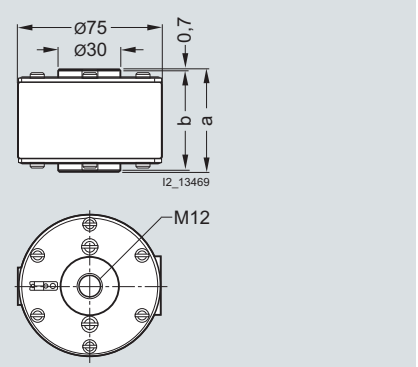
3NE3 . . .-0C, 3NE3 6. .-1C

Type	Dimensions (mm)	
	a	b
3NE3. . .-0C	11.5	161
3NE3 6. .-1C	13	171



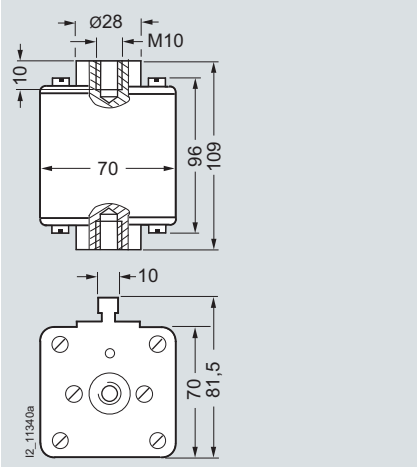
3NC3 4. .-1

Type	Dimensions (mm)			
	a	b	c	d
3NC3 4. .-1	139	72	108	61



3NC3 4. .-6

Type	Dimensions (mm)	
	a	b
3NC3 4. .-6	73	71



3NE3 635-6

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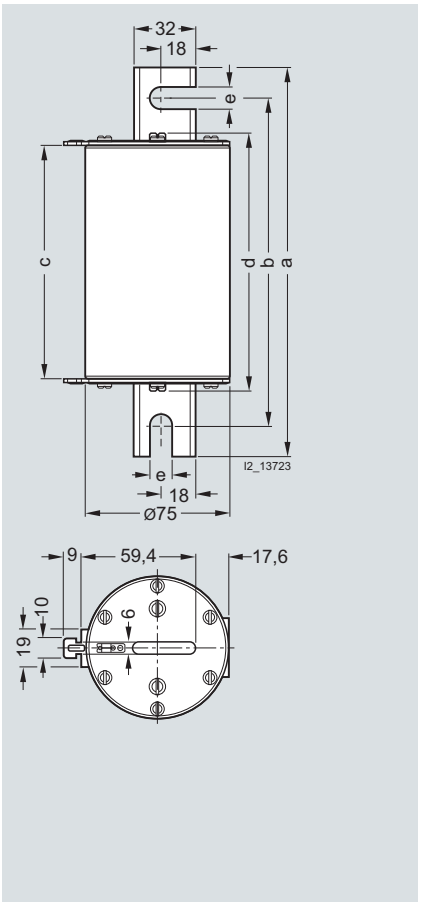
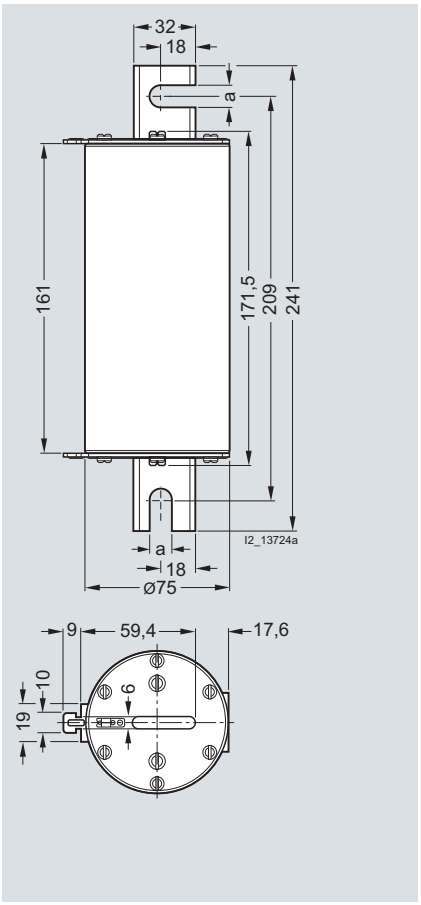
LV HRC design, 3NC, 3NE



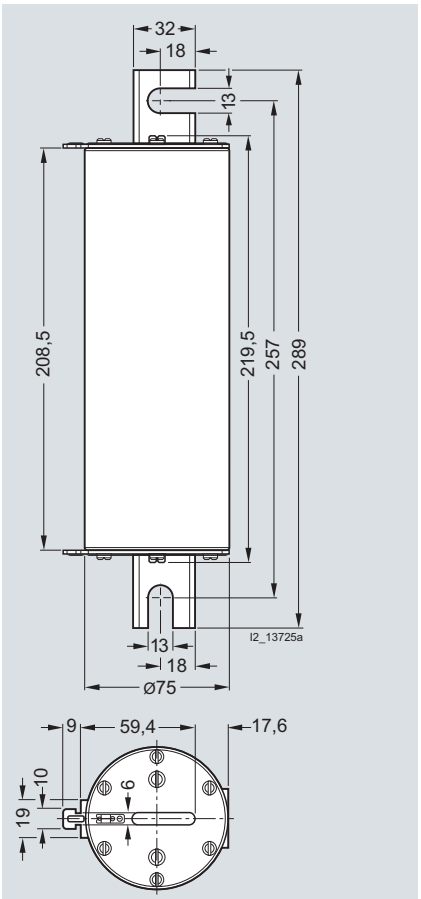
3NE5 6..-0C

Type	Dimensions (mm)				
	a	b	c	d	e
3NE5 6..-0C	201	169	121	131.5	11.5



3NE5 4..-0C, 3NE5 4..-1C;
3NE7 ...-0C, 3NE7 ...-1C

Type	Dimensions (mm)
	a
3NE5 4..-0C	11.5
3NE5 4..-1C	13
3NE7...-0C	11.5
3NE7...-1C	13



3NE9 6..-1C

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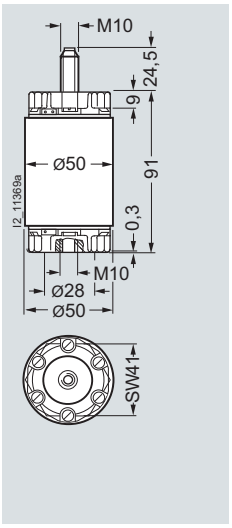
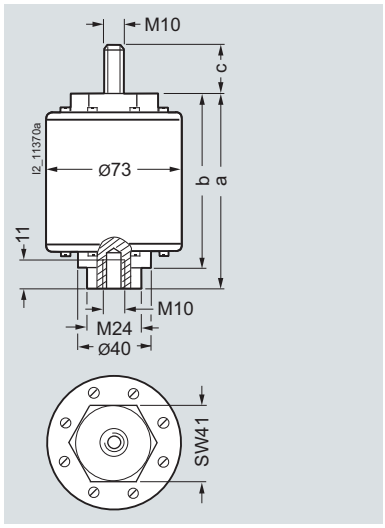
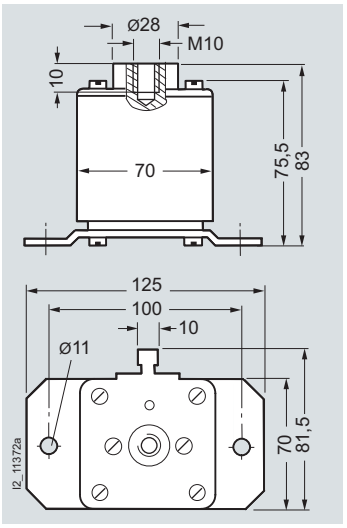


3NC5 531

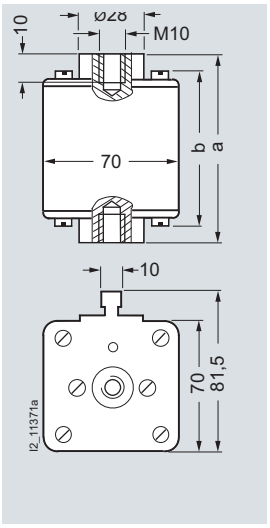


3NC5 8..

Type	Dimensions (mm)		
	a	b	c
3NC5 838	98	88.5	25
3NC5 841	98	88.5	25
3NC5 840	119	109.5	20.5

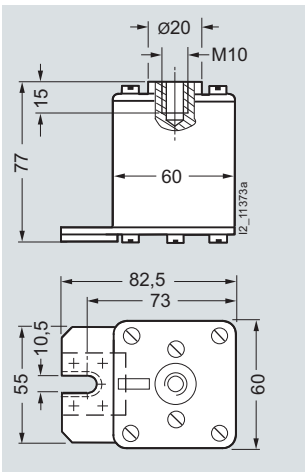


3NE6 4..-7, 3NE9 4..-7

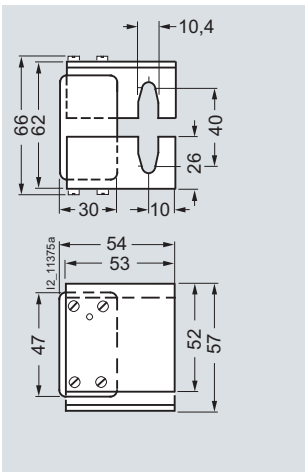


3NE6 4.., 3NE9 4..

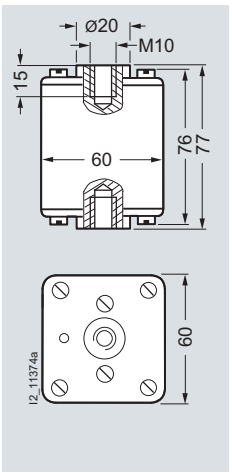
Type	Dimensions (mm)	
	a	b
3NE6 437	89	76
3NE9 450	89	76
3NE9 440-6	89	76
3NE6 444	99	86



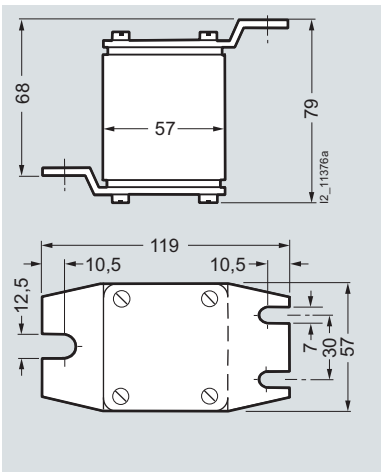
3NE3...-5



3NE4 1..-5



3NE4 3..-6B, 3NE4 337-6



3NC7 3..-2

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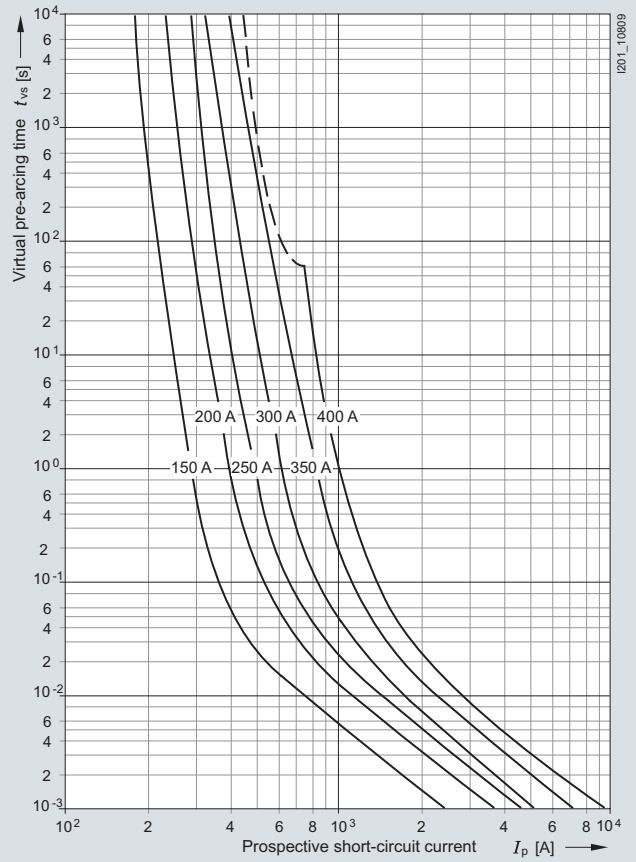
Characteristic curves

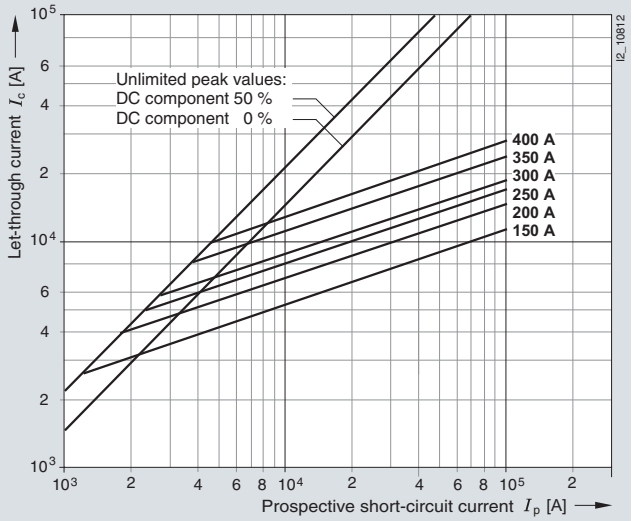
Series 3NC2 4..

Size: 3
Operational class: gR or aR
Rated voltage: 500 V AC
Rated current: 150 ... 400 A

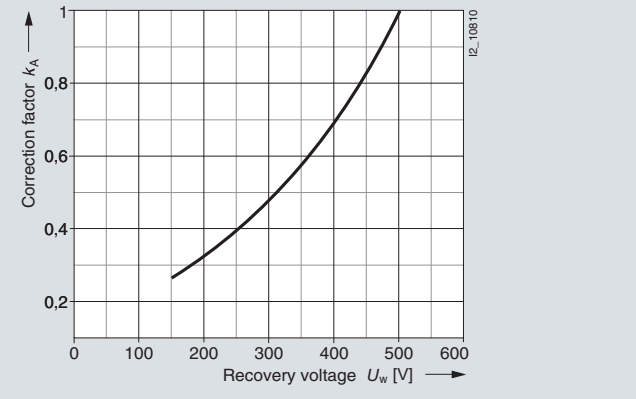
Time/current characteristics diagram



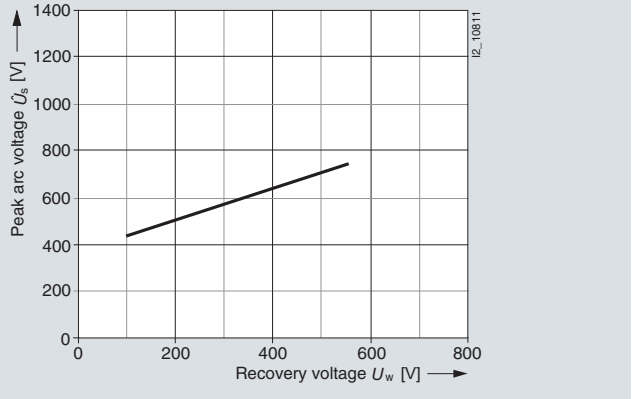
Let-through characteristics (current limitation at 50 Hz)



Correction factor k_A for breaking I^2t value



Peak arc voltage



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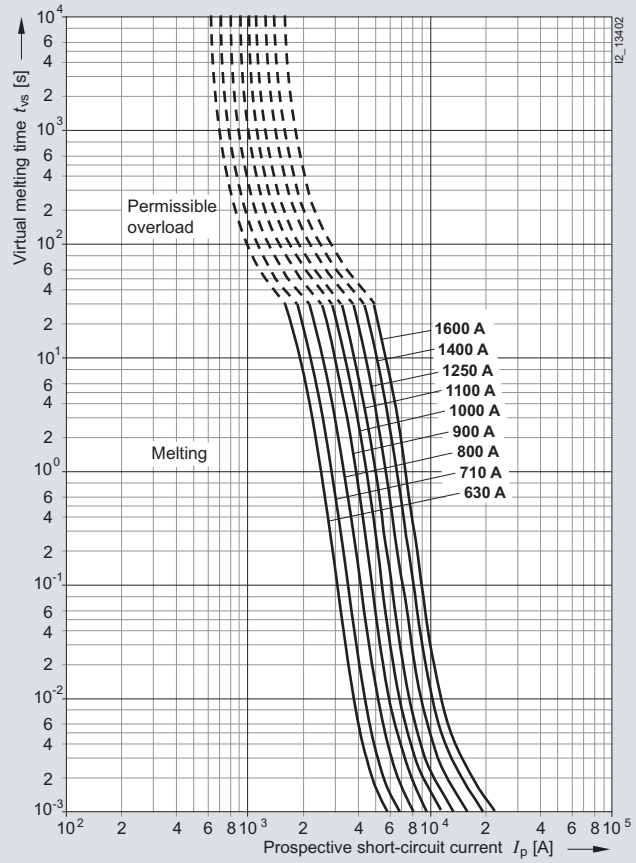
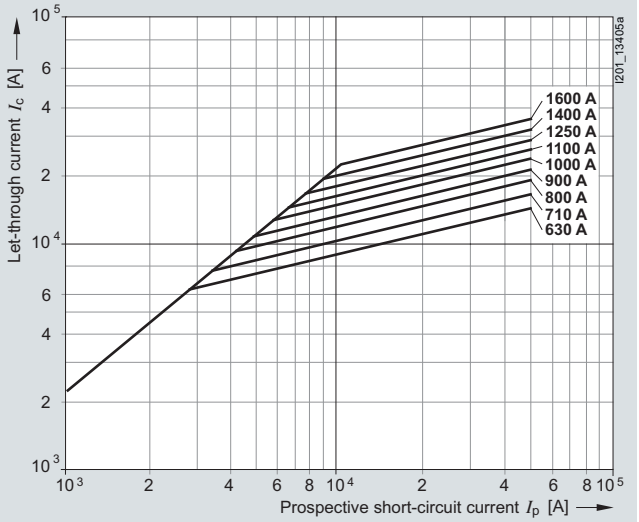
3NC3 2 series

Size:	3
Operational class:	aR
Rated voltage:	690 V AC (630 ... 1250 A), 500 V AC (1400 ... 1600 A)
Rated current:	630 ... 1600 A

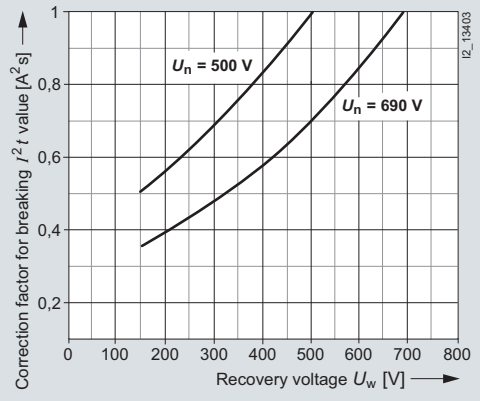
Time/current characteristics diagram



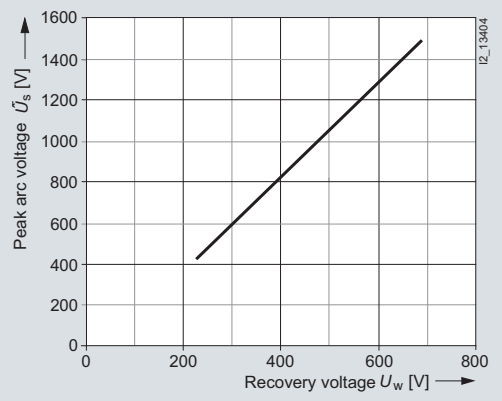
Let-through characteristic curves



Correction factor k_A for breaking I^2t value



Peak arc voltage



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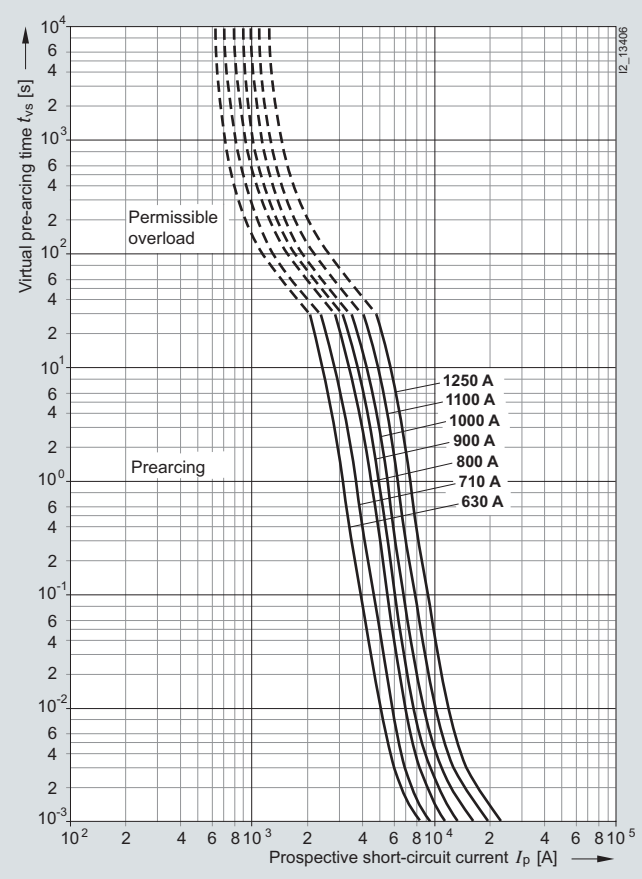
LV HRC design, 3NC, 3NE

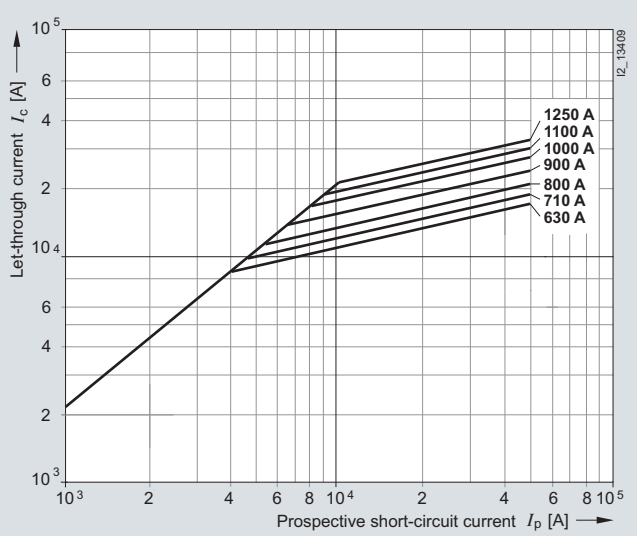
3NC3 3 series

Size:	3
Operational class:	aR
Rated voltage:	1000 V AC (630 ... 1000 A), 800 V AC (1100 ... 1250 A)
Rated current:	630 ... 1250 A

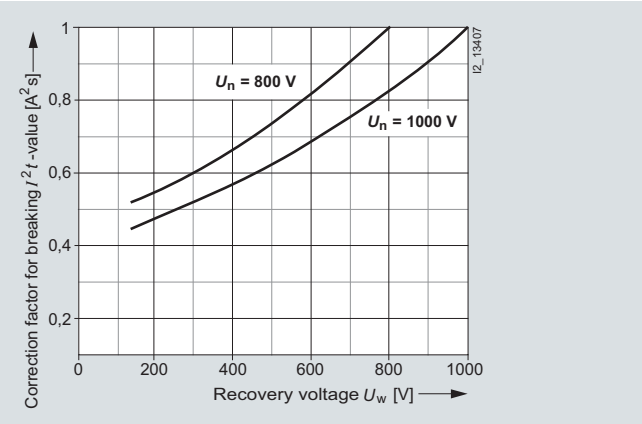
Time/current characteristics diagram



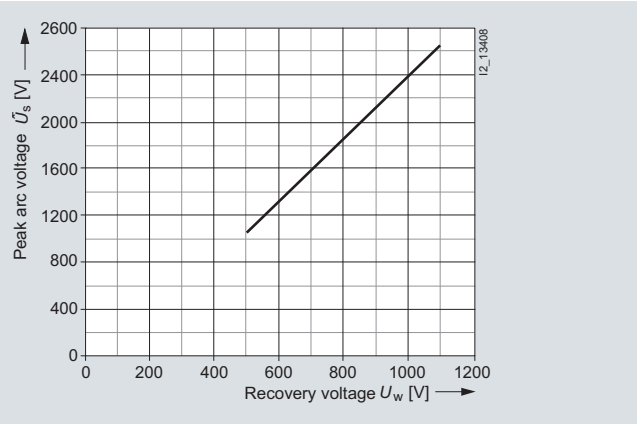
Let-through characteristic curves



Correction factor k_A for breaking I^2t value



Peak arc voltage



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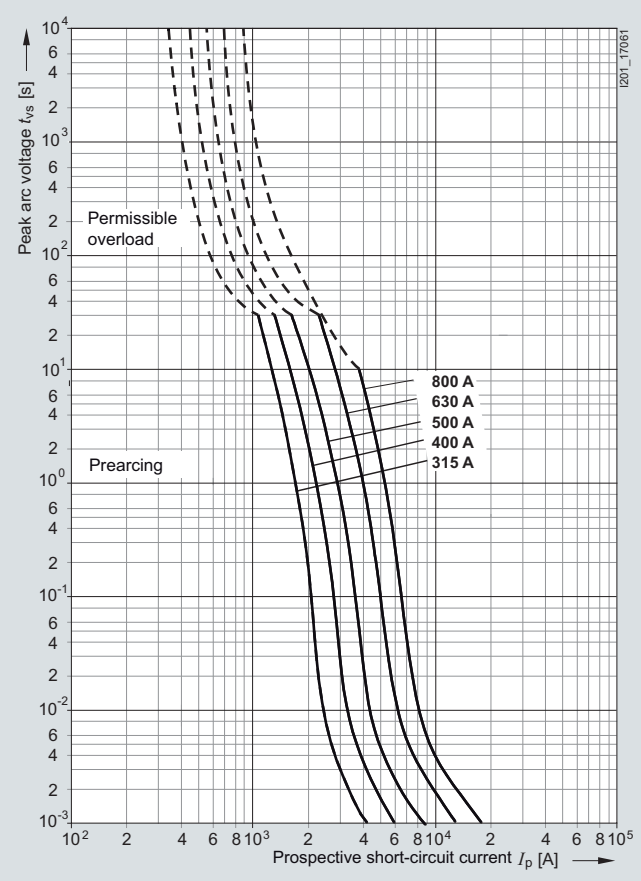
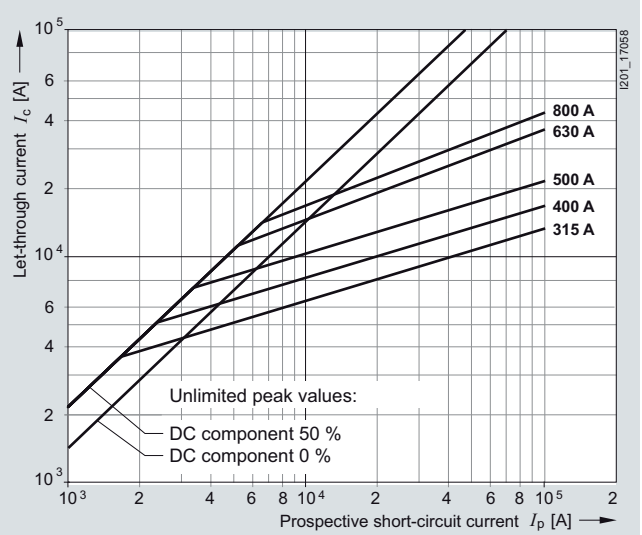
3NC3 4 series

Size:	3
Operational class:	aR
Rated voltage:	1250 V AC (315 ... 630 A), 1100 V AC (800 A)
Rated current:	315 ... 800 A

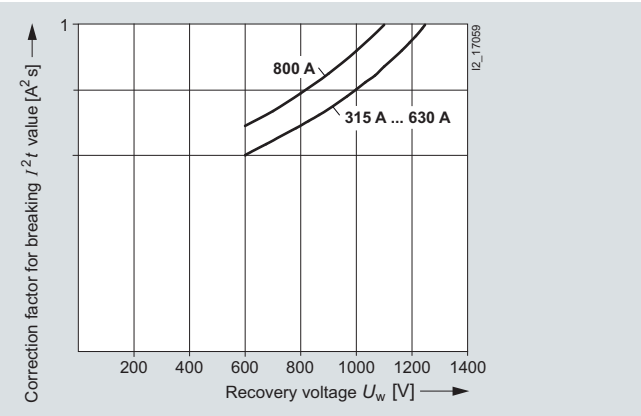
Time/current characteristics diagram



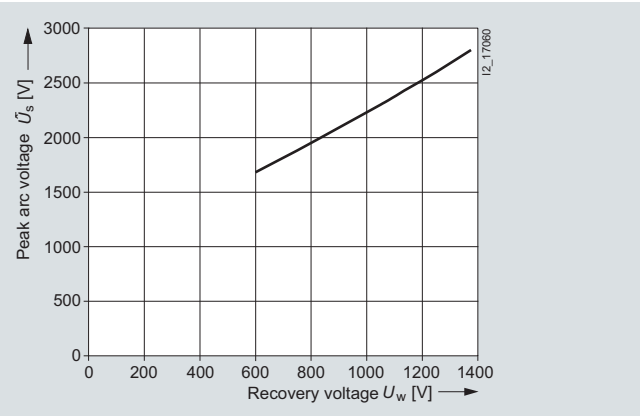
Let-through characteristic curves



Correction factor k_A for breaking I^2t value



Peak arc voltage



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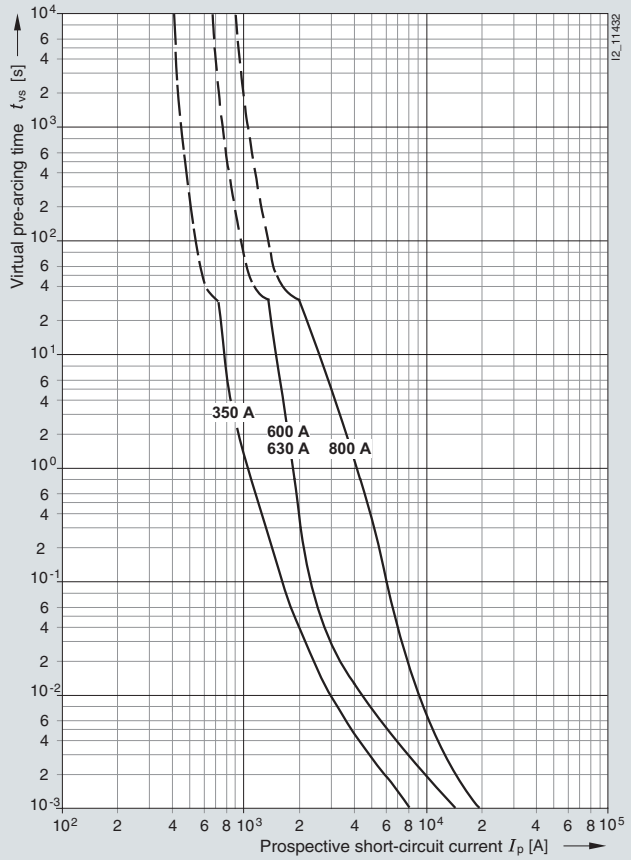
LV HRC design, 3NC, 3NE

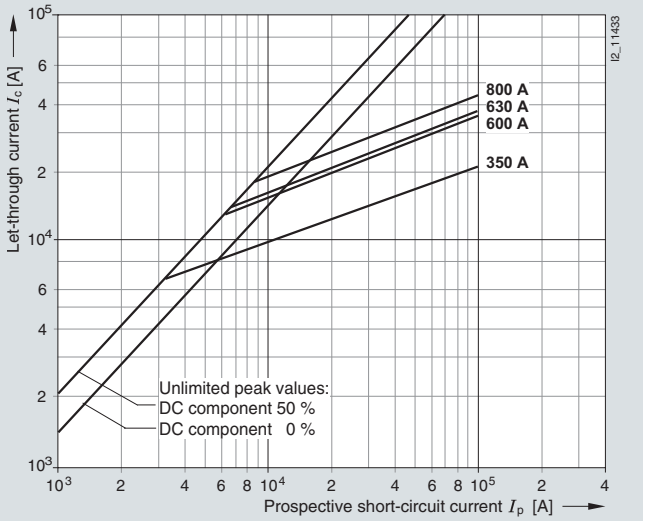
Series 3NC5 531, 3NC5 8..

Operational class: aR
Rated voltage: 800 V AC (350 A, 630 A), 1000 V AC (600 A, 800 A)
Rated current: 350 ... 800 A

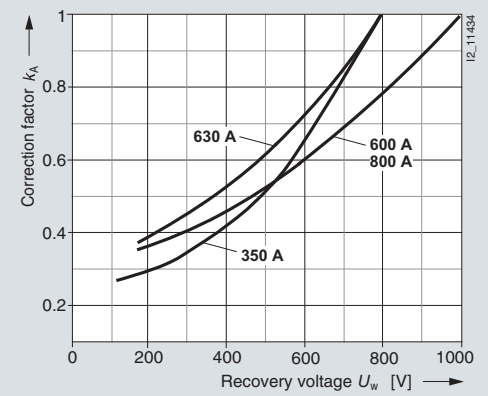
Time/current characteristics diagram



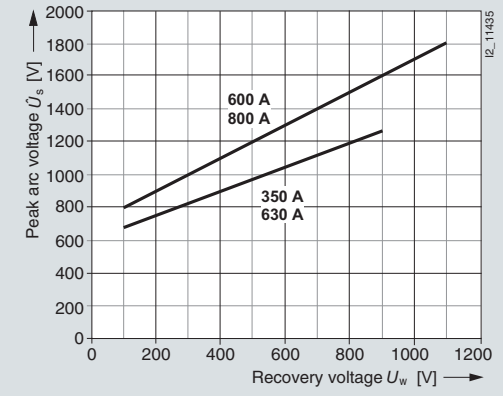
Let-through characteristics (current limitation at 50 Hz)



Correction factor k_A for breaking I^2t value



Peak arc voltage



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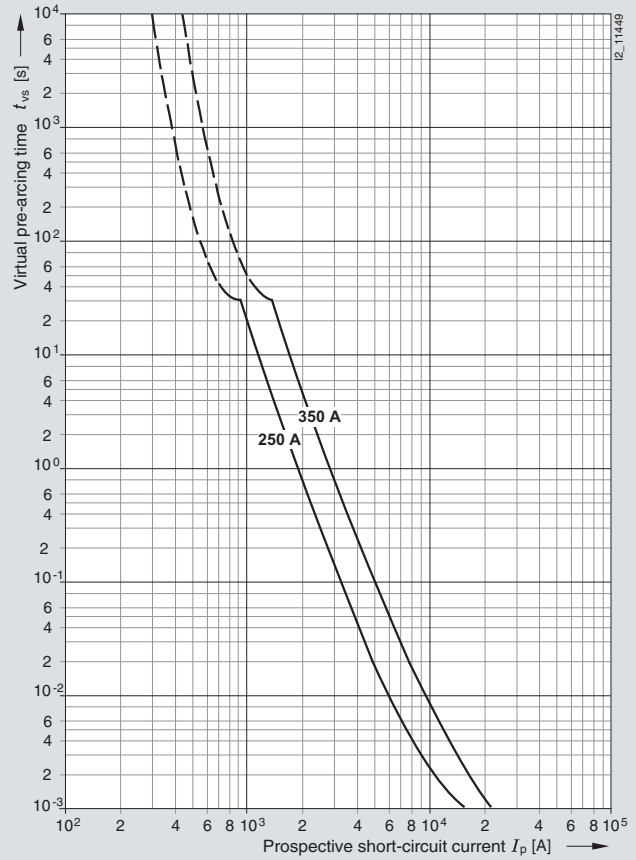
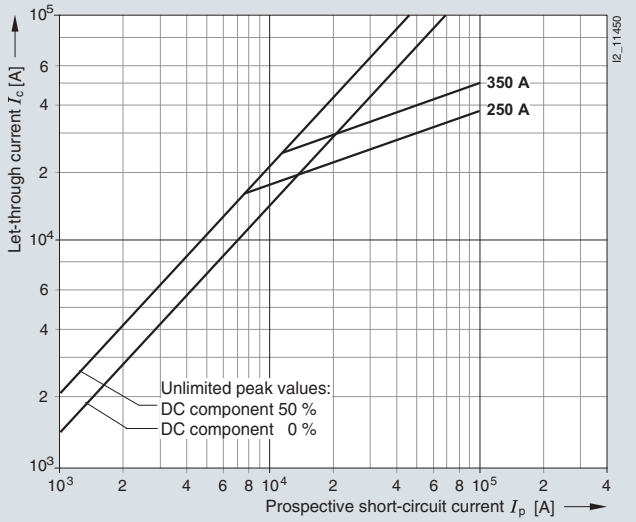
Series 3NC7 3..-2

Operational class: aR
Rated voltage: 680 V AC
Rated current: 250 A, 350 A

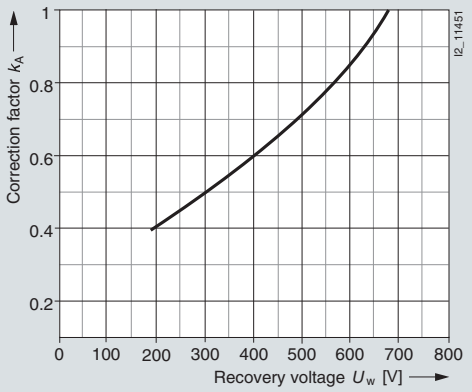
Time/current characteristics diagram



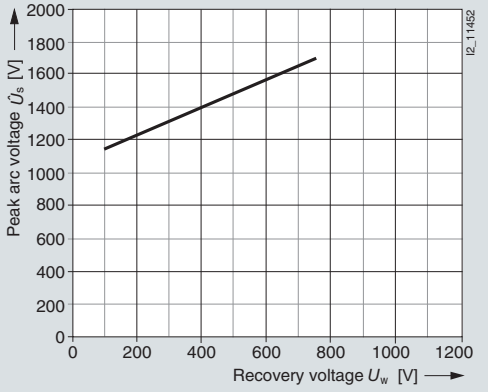
Let-through characteristics (current limitation at 50 Hz)



Correction factor k_A for breaking I^2t value



Peak arc voltage



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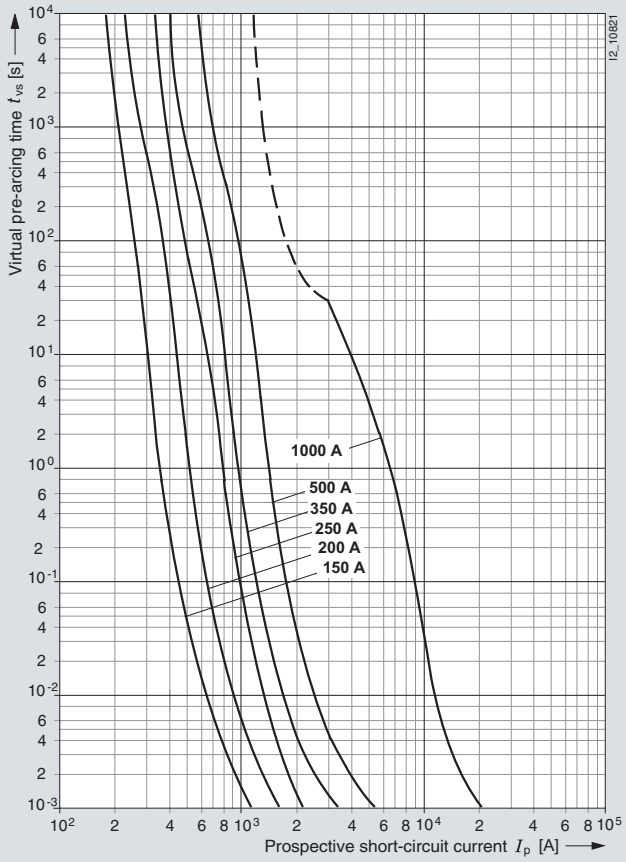
LV HRC design, 3NC, 3NE

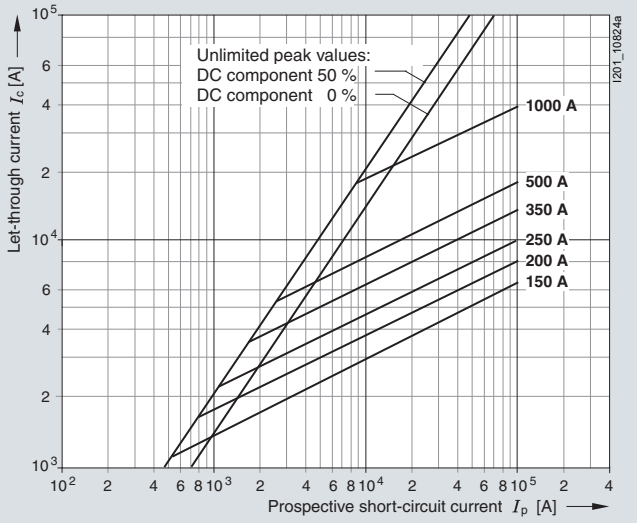
Series 3NC8 4..

Size: 3
Operational class: gR or aR
Rated voltage: 660 V AC
Rated current: 150 ... 1000 A

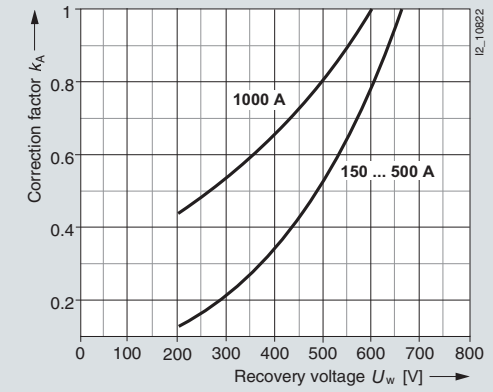
Time/current characteristics diagram



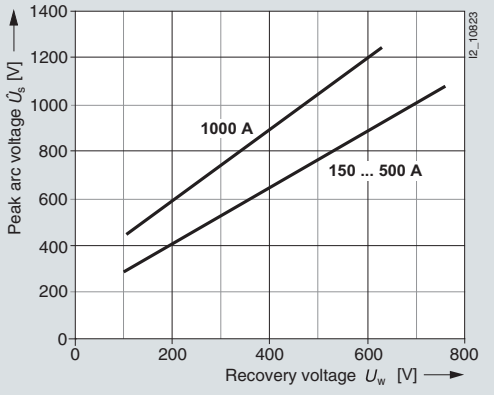
Let-through characteristics (current limitation at 50 Hz)



Correction factor k_A for breaking I^2t value



Peak arc voltage



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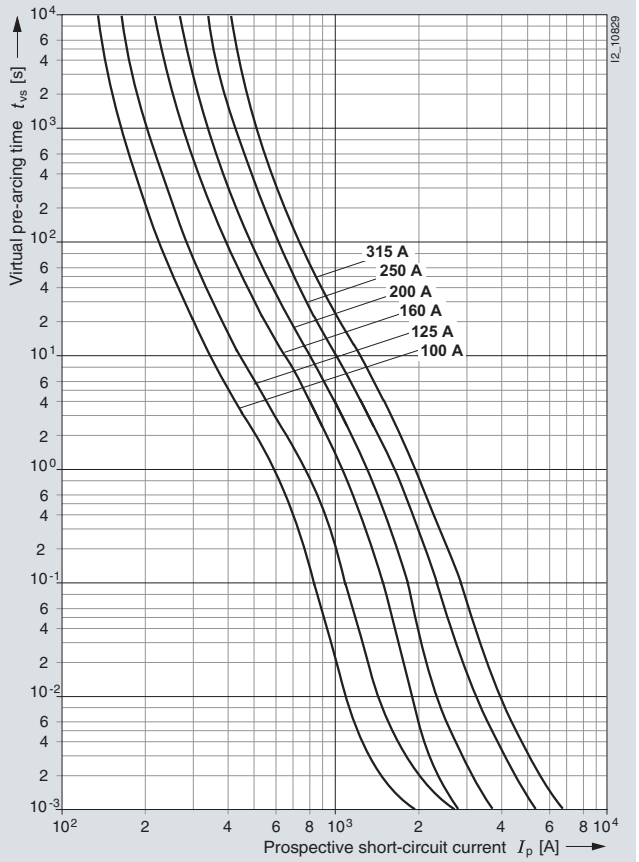
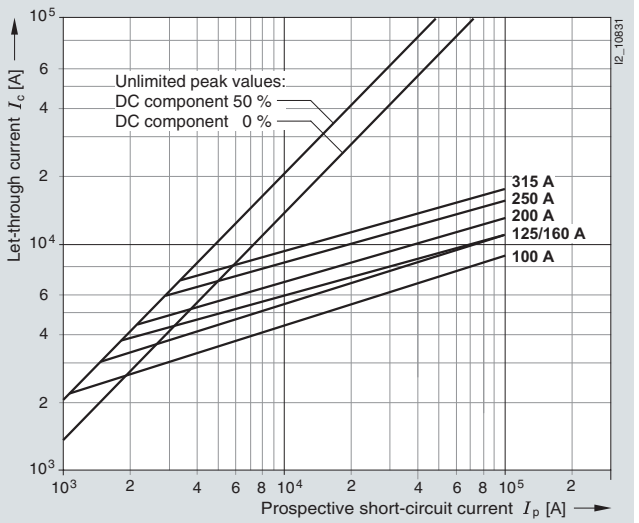
Series 3NE1 02.-0, 3NE1 2..-0

Size:	00, 1
Operational class:	gS
Rated voltage:	690 V AC
Rated current:	100 ... 315 A

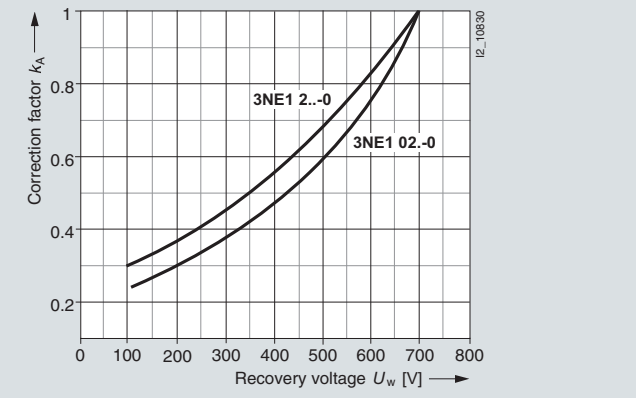
Time/current characteristics diagram



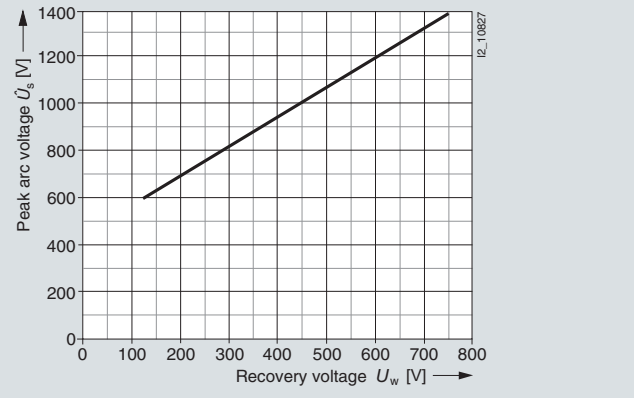
Let-through characteristics (current limitation at 50 Hz)



Correction factor k_A for breaking I^2t value



Peak arc voltage



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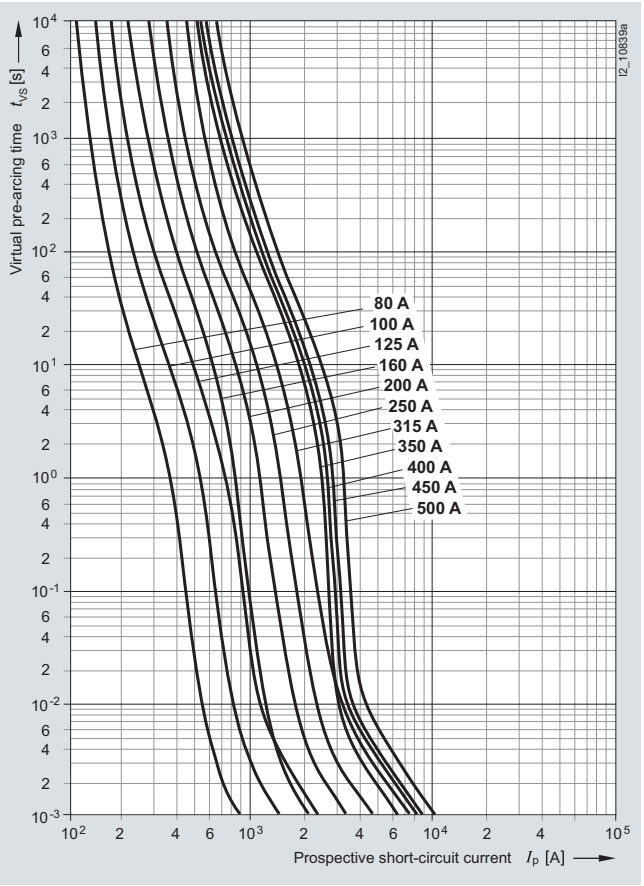
LV HRC design, 3NC, 3NE

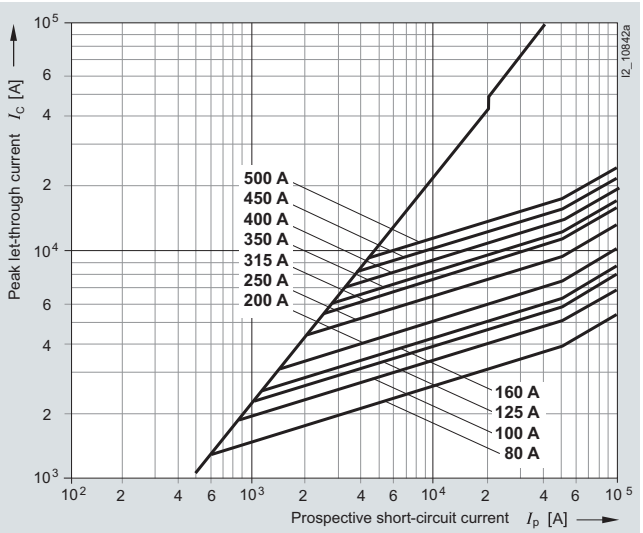
Series 3NE1 02.-2, 3NE1 2..-2, 3NE1 2..-3, 3NE1 3..-2, 3NE1 3..-3

Sizes:	00, 1, 2
Operational class:	gR
Rated voltage:	690 V AC
Rated current:	80 ... 500 A

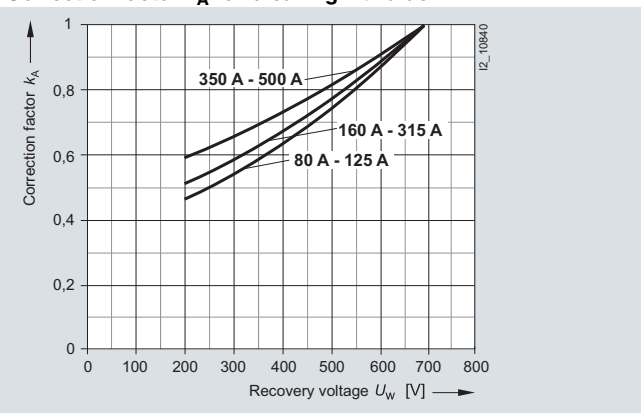
Time/current characteristics diagram



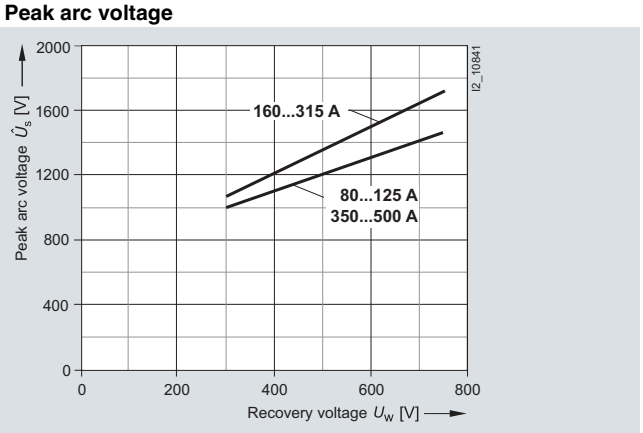
Let-through characteristics (current limitation at 50 Hz)



Correction factor k_A for breaking I^2t value



Peak arc voltage



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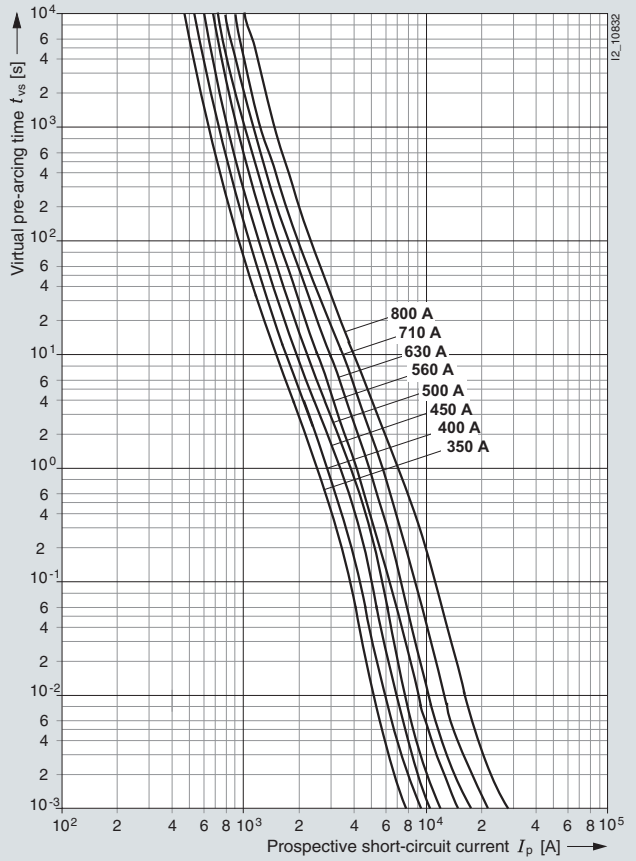
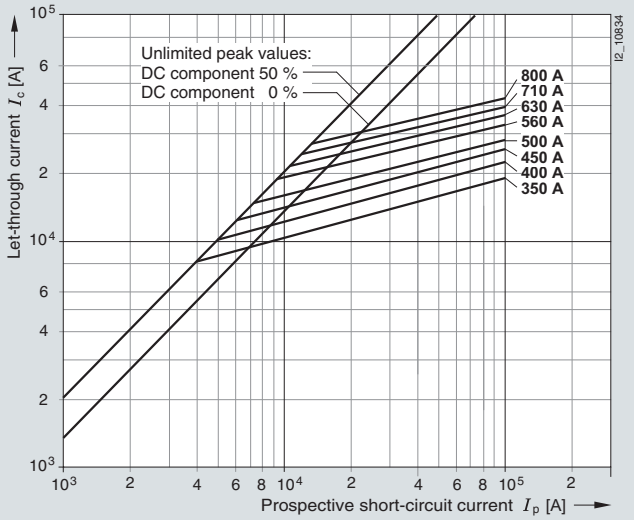
Series 3NE1 33.-0, 3NE1 43.-0

Size:	2, 3
Operational class:	gS
Rated voltage:	690 V AC
Rated current:	350 ... 800 A

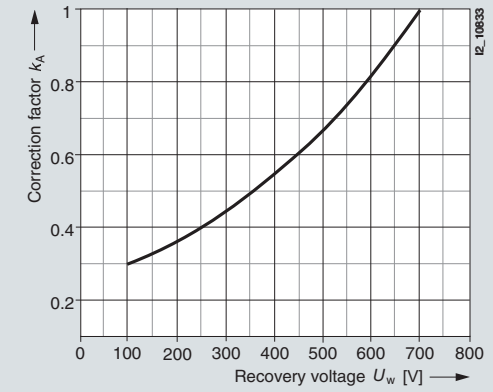
Time/current characteristics diagram



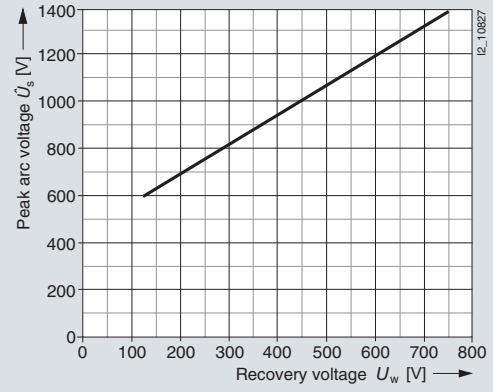
Let-through characteristics (current limitation at 50 Hz)



Correction factor k_A for breaking I^2t value



Peak arc voltage



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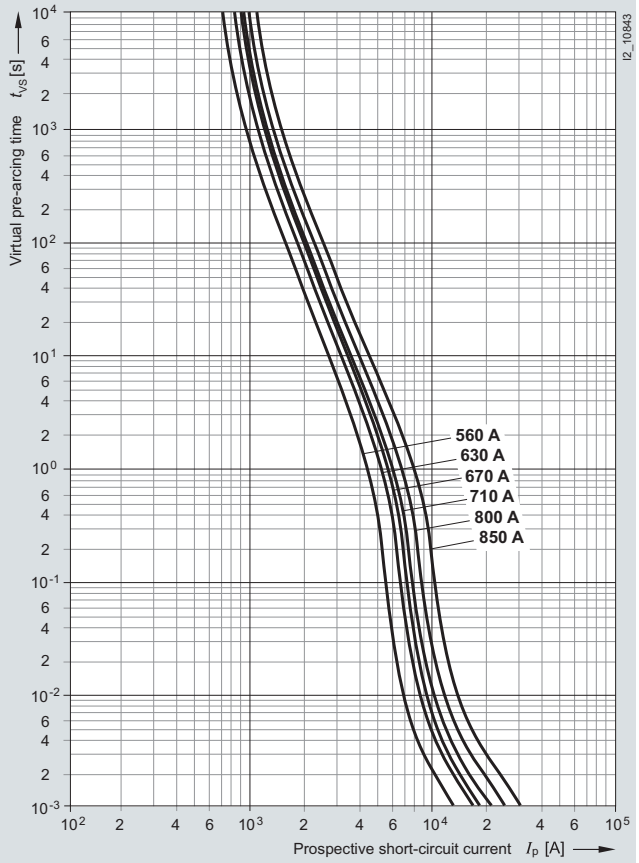
LV HRC design, 3NC, 3NE

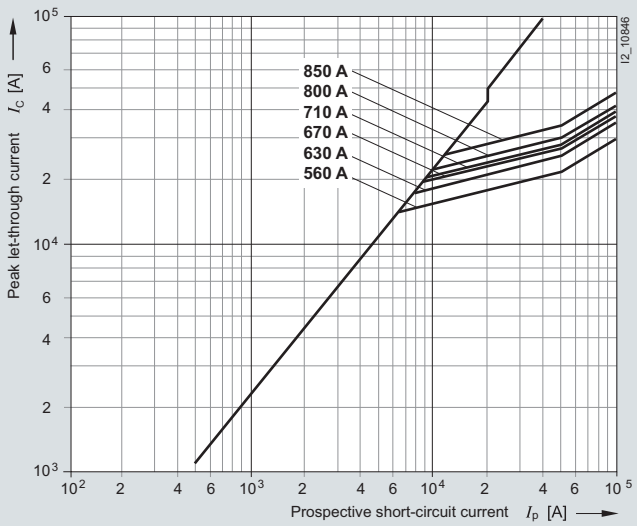
Series 3NE1 4..-2, 3NE1 4..-3

Size: 3
Operational class: gR
Rated voltage: 690 V AC
Rated current: 560 ... 850 A

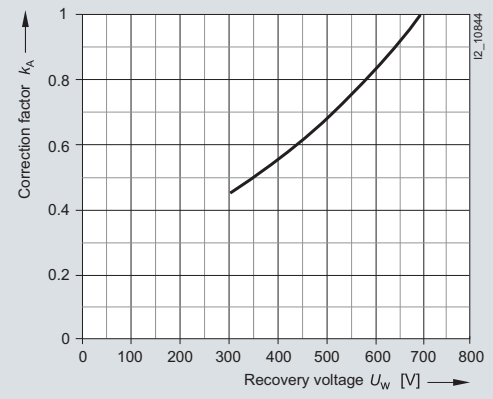
Time/current characteristics diagram



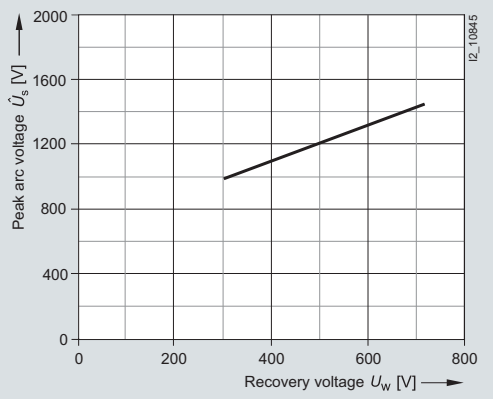
Let-through characteristics (current limitation at 50 Hz)



Correction factor k_A for breaking I^2t value



Peak arc voltage



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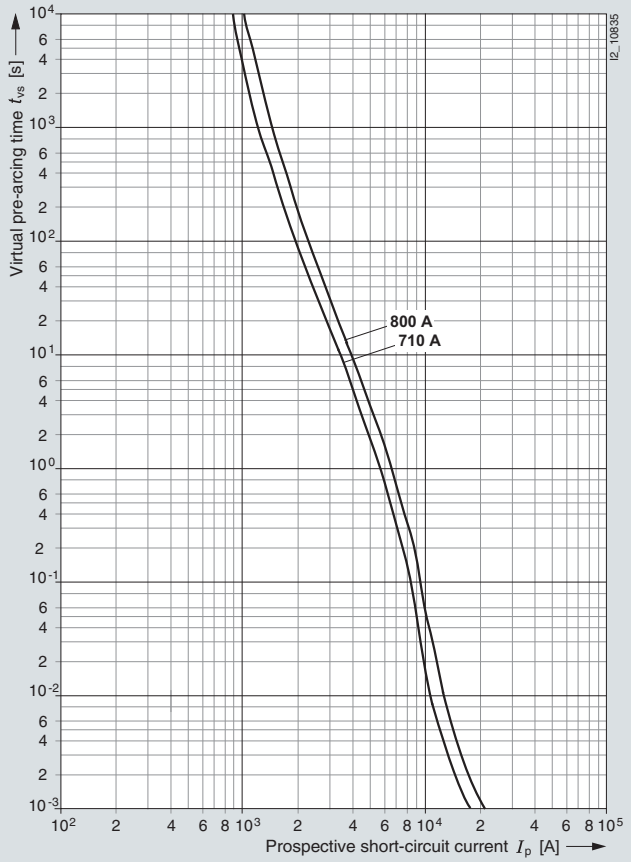
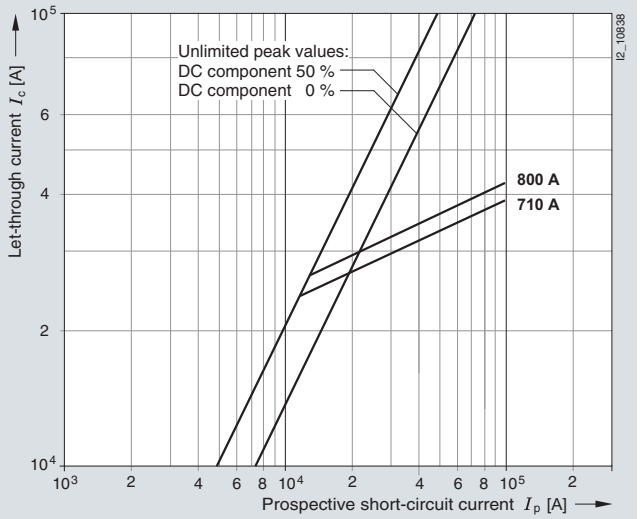
Series 3NE1 437-1, 3NE1 438-1

Size: 3
Operational class: gR
Rated voltage: 600 V AC
Rated current: 710 and 800 A

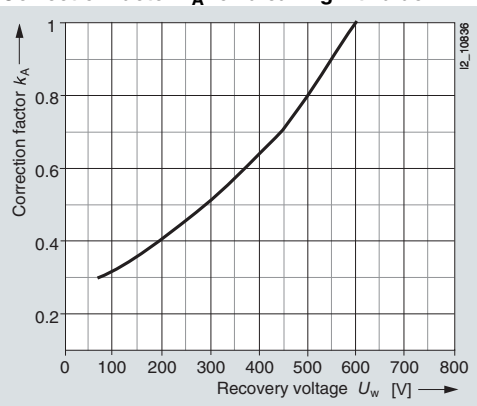
Time/current characteristics diagram



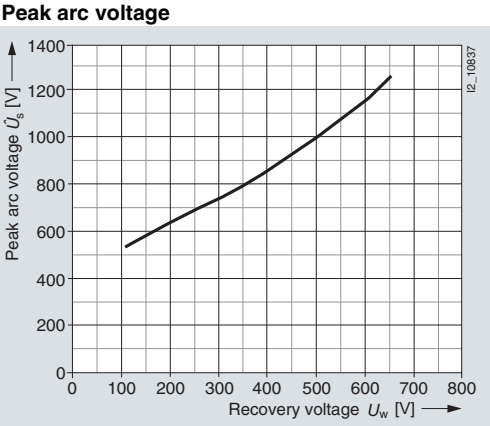
Let-through characteristics (current limitation at 50 Hz)



Correction factor k_A for breaking I^2t value



Peak arc voltage



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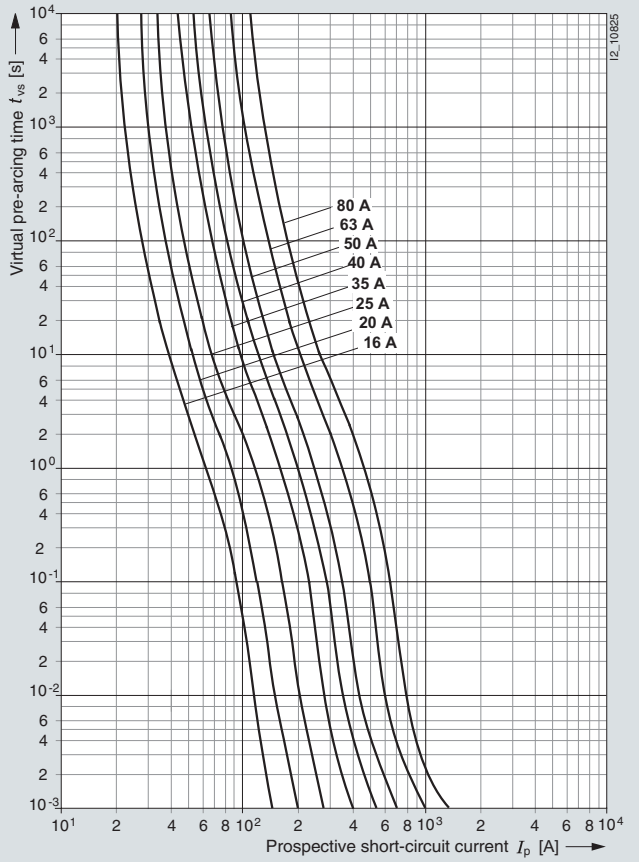
LV HRC design, 3NC, 3NE

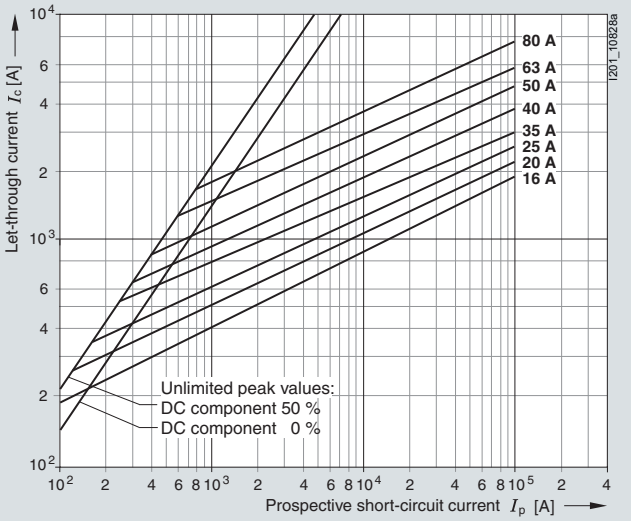
Series 3NE1 8..-0

Size: 000
Operational class: gS
Rated voltage: 690 V AC
Rated current: 16 ... 80 A

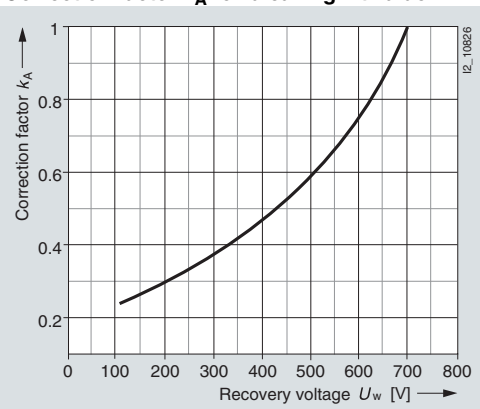
Time/current characteristics diagram



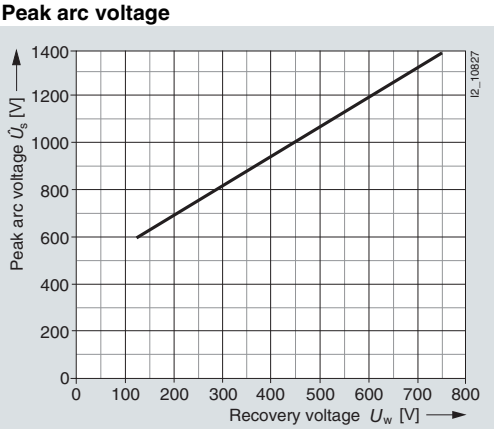
Let-through characteristics (current limitation at 50 Hz)



Correction factor k_A for breaking I^2t value



Peak arc voltage



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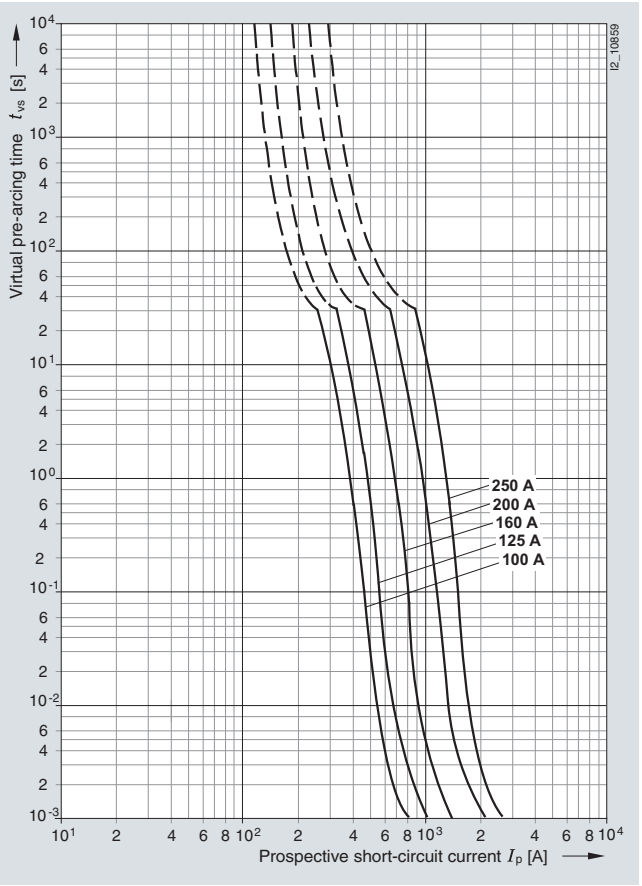
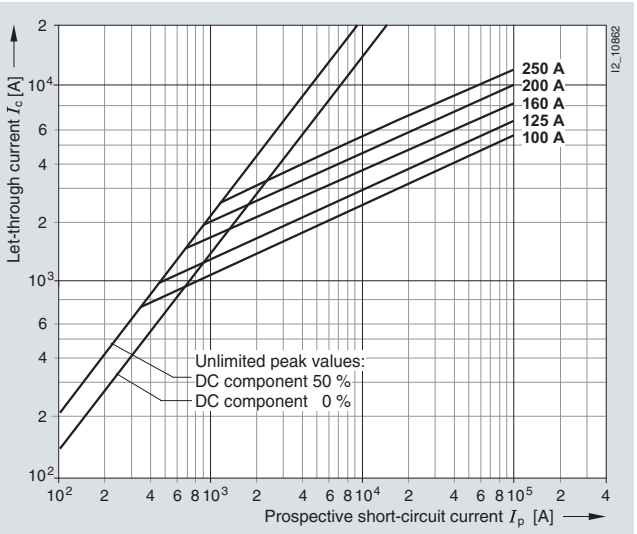
Series 3NE3 22.

Size: 1
Operational class: aR
Rated voltage: 1000 V AC
Rated current: 100 ... 250 A

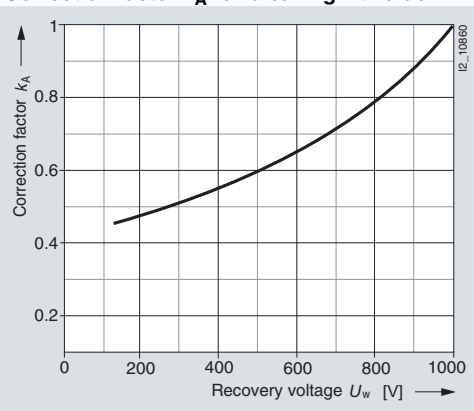
Time/current characteristics diagram



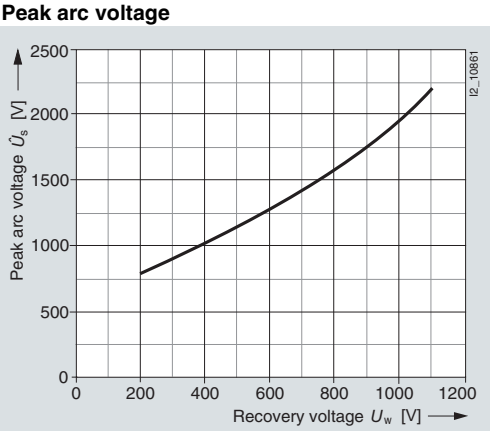
Let-through characteristics (current limitation at 50 Hz)



Correction factor k_A for breaking I^2t value



Peak arc voltage



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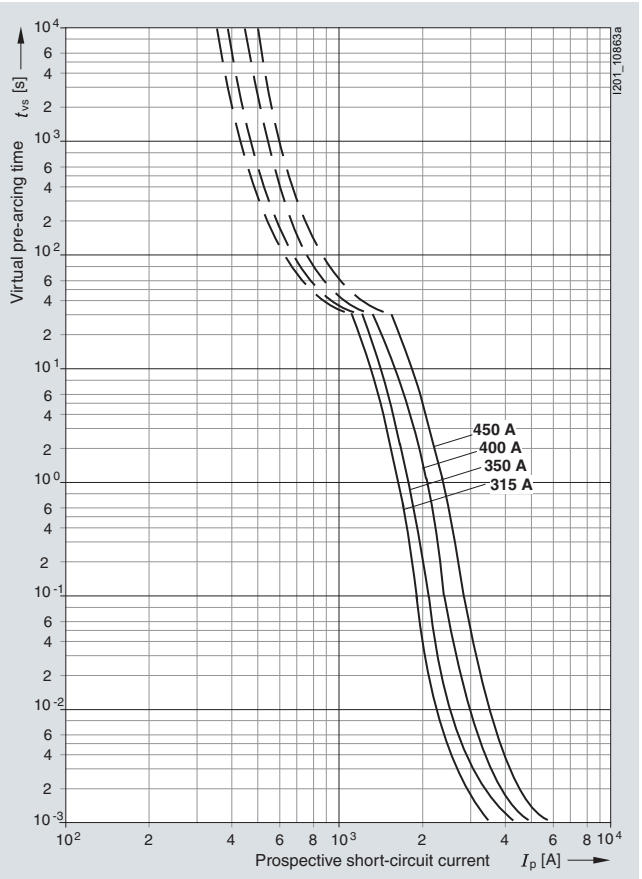
LV HRC design, 3NC, 3NE

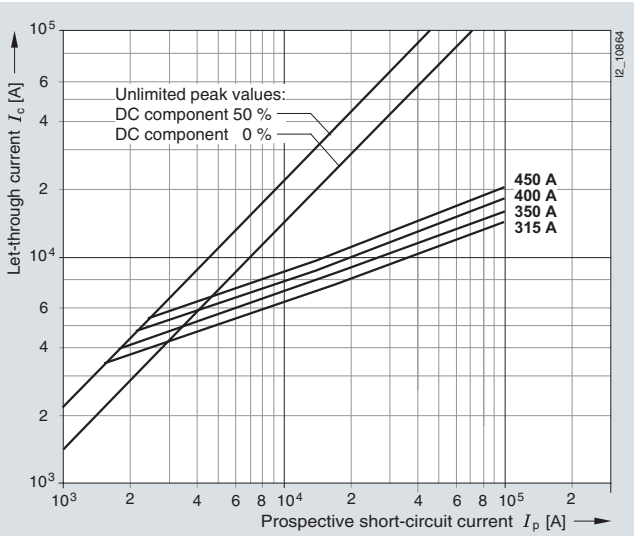
Series 3NE3 23.

Size: 1
Operational class: aR
Rated voltage: 1000 V AC
Rated current: 315 ... 450 A

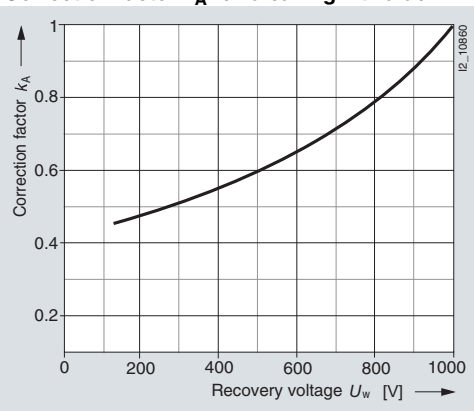
Time/current characteristics diagram



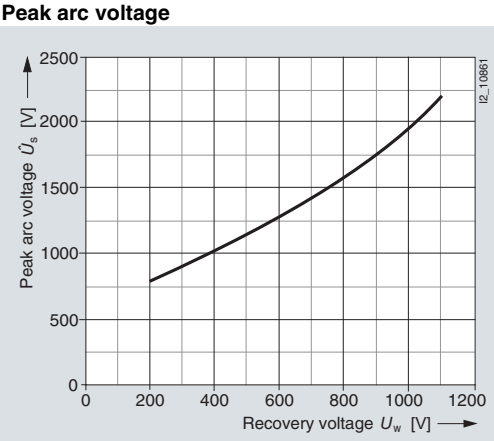
Let-through characteristics (current limitation at 50 Hz)



Correction factor k_A for breaking I^2t value



Peak arc voltage



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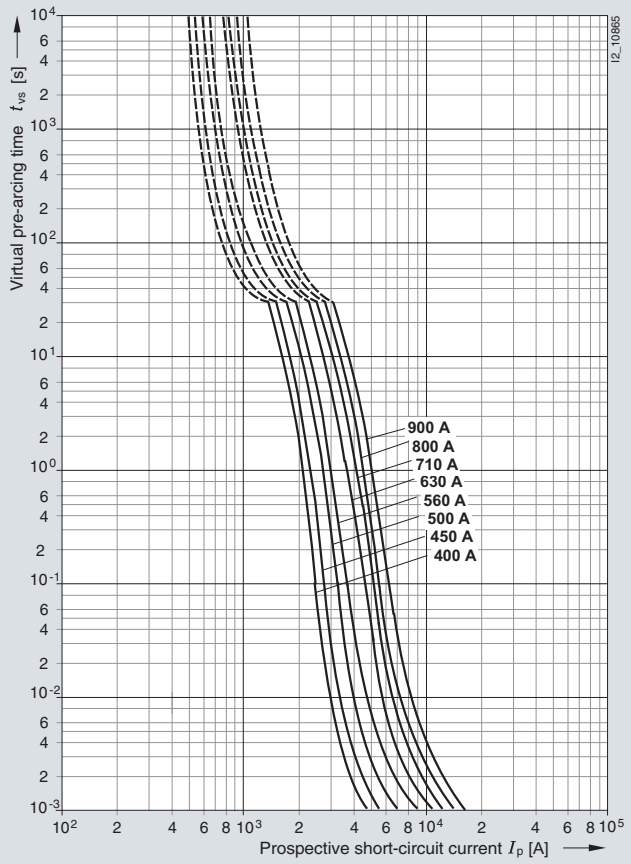
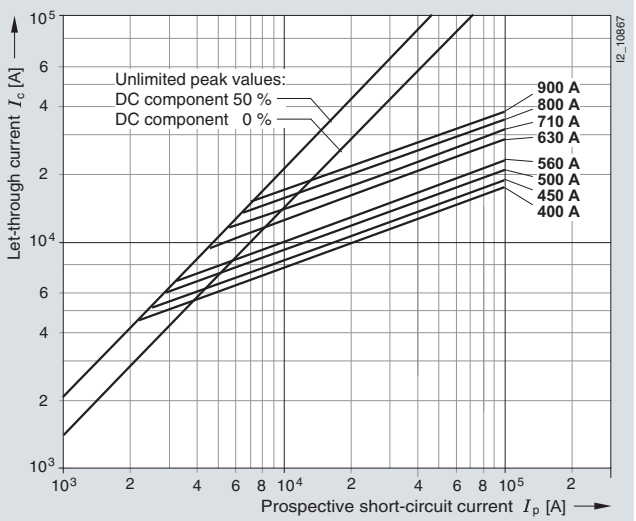
Series 3NE3 3..

Size:	2
Operational class:	aR
Rated voltage:	1000 V AC (up to 630 A) 900 V AC (710 A) 800 V AC (800 A) 690 V AC (900 A)
Rated current:	400 ... 900 A

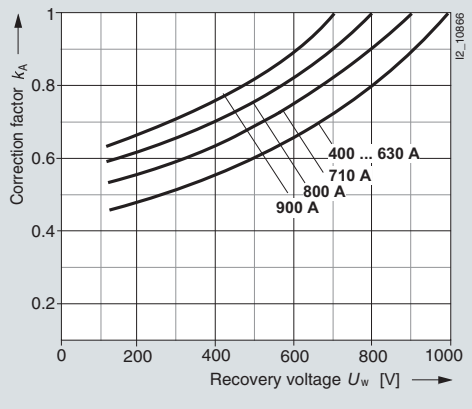
Time/current characteristics diagram



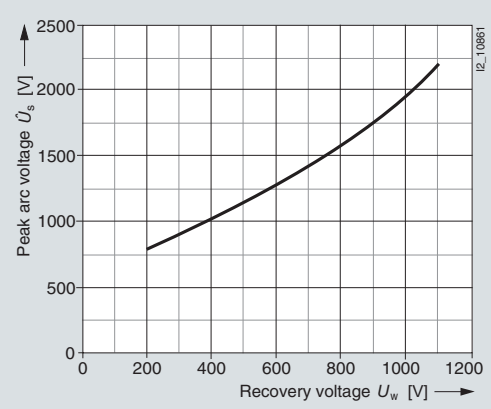
Let-through characteristics (current limitation at 50 Hz)



Correction factor k_A for breaking I^2t value



Peak arc voltage



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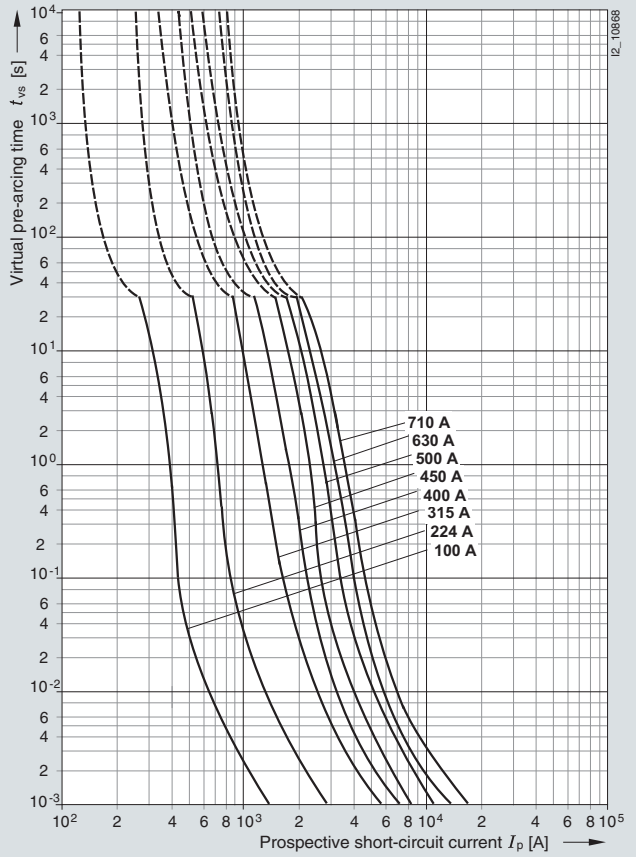
LV HRC design, 3NC, 3NE

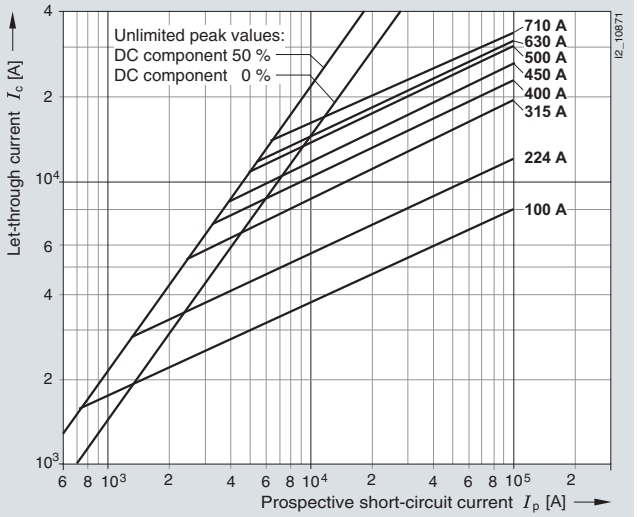
Series 3NE3 4.., 3NE3 6..

Size: 3
Operational class: aR
Rated voltage: 1000 V AC
Rated current: 100 ... 710 A

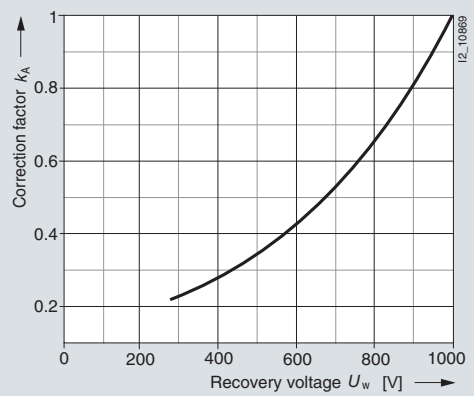
Time/current characteristics diagram



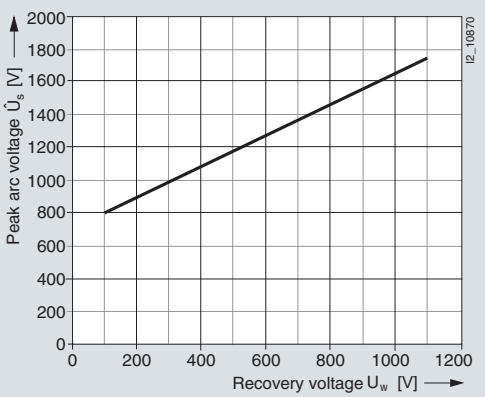
Let-through characteristics (current limitation at 50 Hz)



Correction factor k_A for breaking I^2t value



Peak arc voltage



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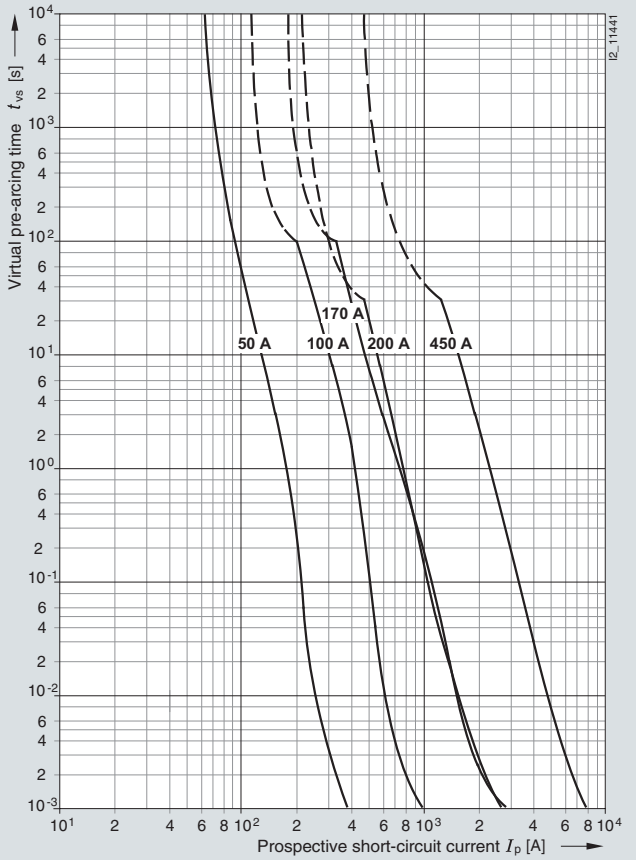
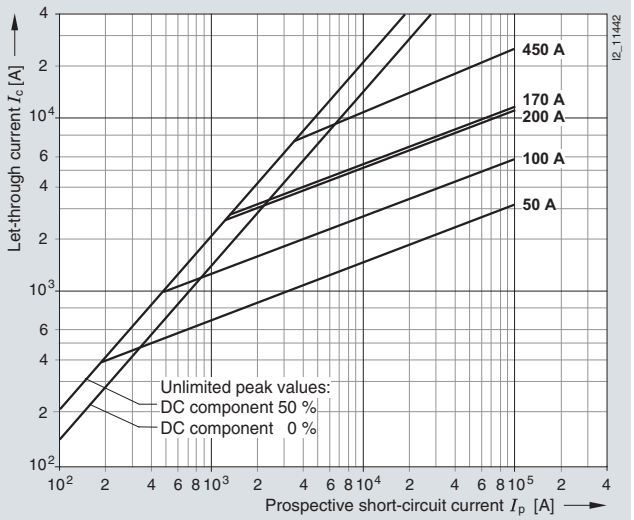
Series 3NE3 5.5-5, 3NE4 1..-5

Operational class: aR, gR
Rated voltage: 800 V AC (170 A)
1000 V AC (50 A, 100 A, 200 A, 450 A)
Rated current: 50 ... 450 A

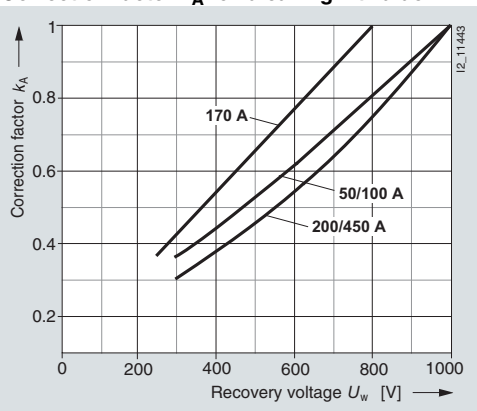
Time/current characteristics diagram



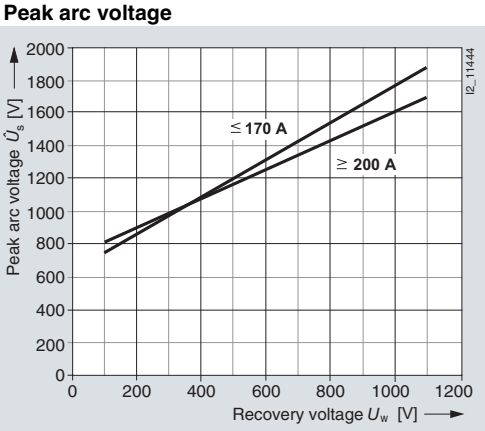
Let-through characteristics (current limitation at 50 Hz)



Correction factor k_A for breaking I^2t value



Peak arc voltage



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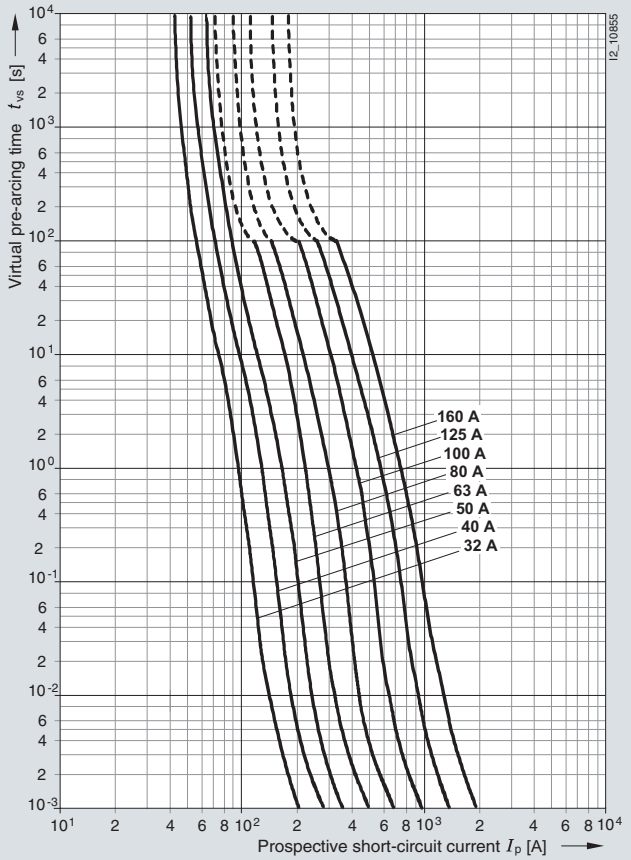
LV HRC design, 3NC, 3NE

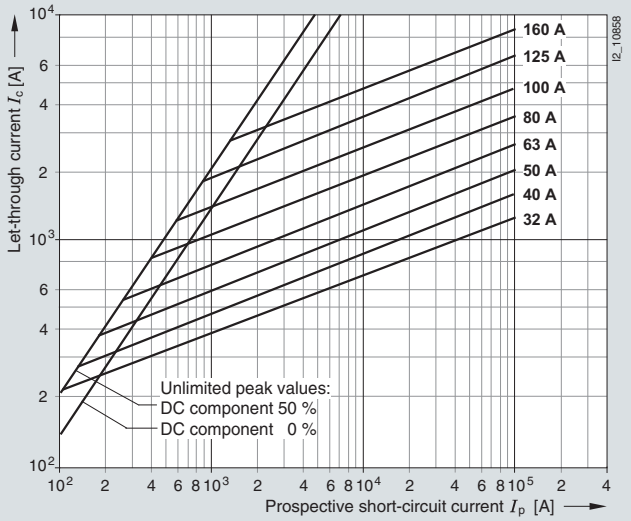
Series 3NE4 1..

Size:	0
Operational class:	gR or aR
Rated voltage:	1000 V AC
Rated current:	32 ... 160 A

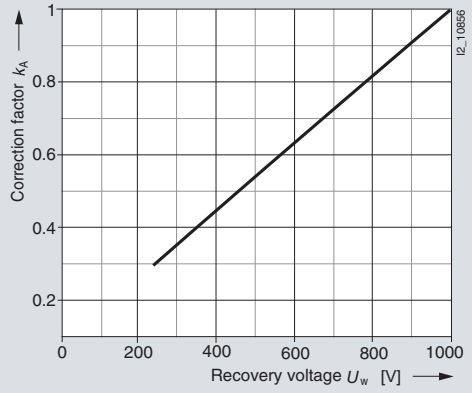
Time/current characteristics diagram



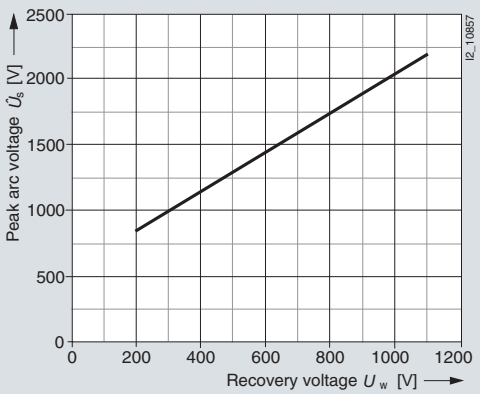
Let-through characteristics (current limitation at 50 Hz)



Correction factor k_A for breaking I^2t value



Peak arc voltage



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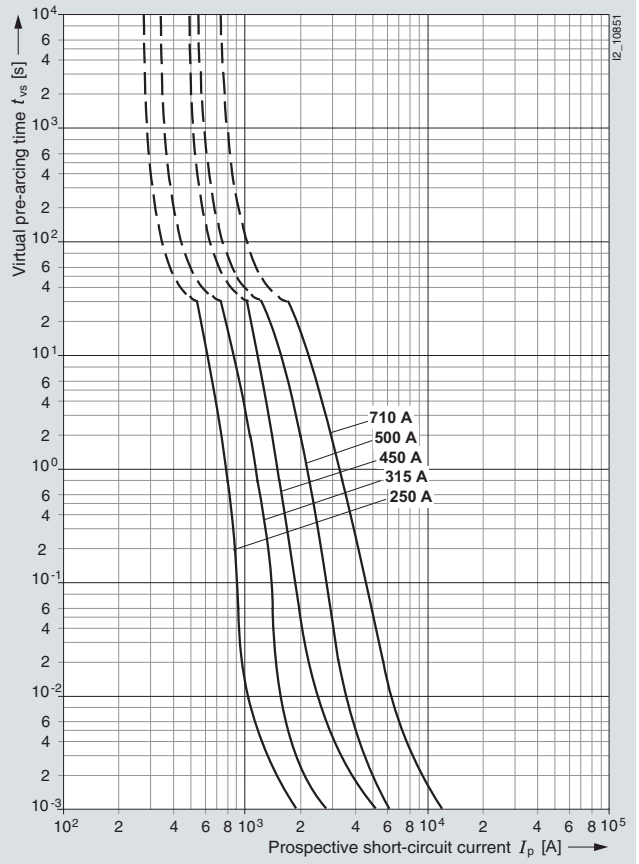
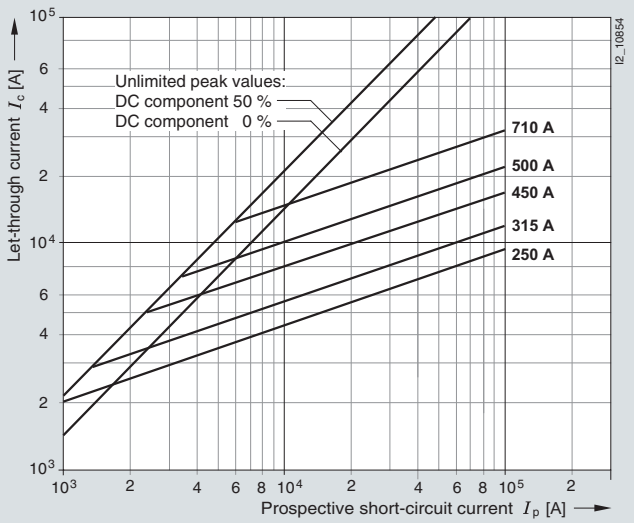
Series 3NE4 3..-0B, 3NE4 337

Size: 2
Operational class: aR
Rated voltage: 800 V AC
Rated current: 250 ... 710 A

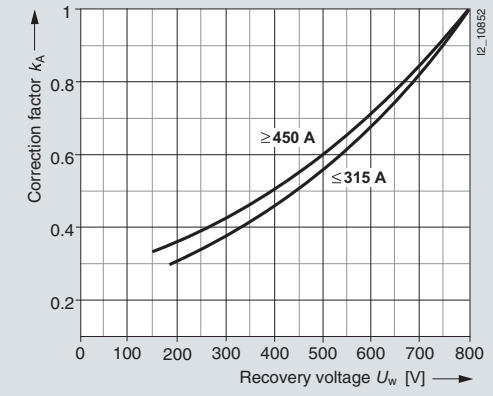
Time/current characteristics diagram



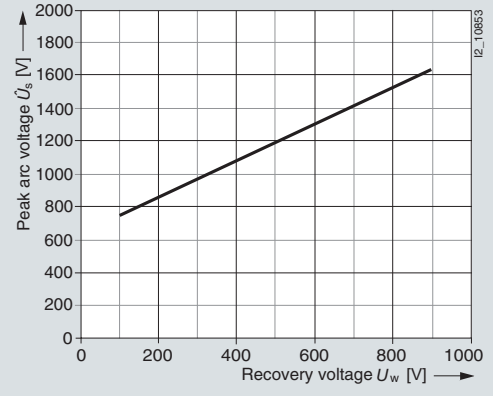
Let-through characteristics (current limitation at 50 Hz)



Correction factor k_A for breaking I^2t value



Peak arc voltage



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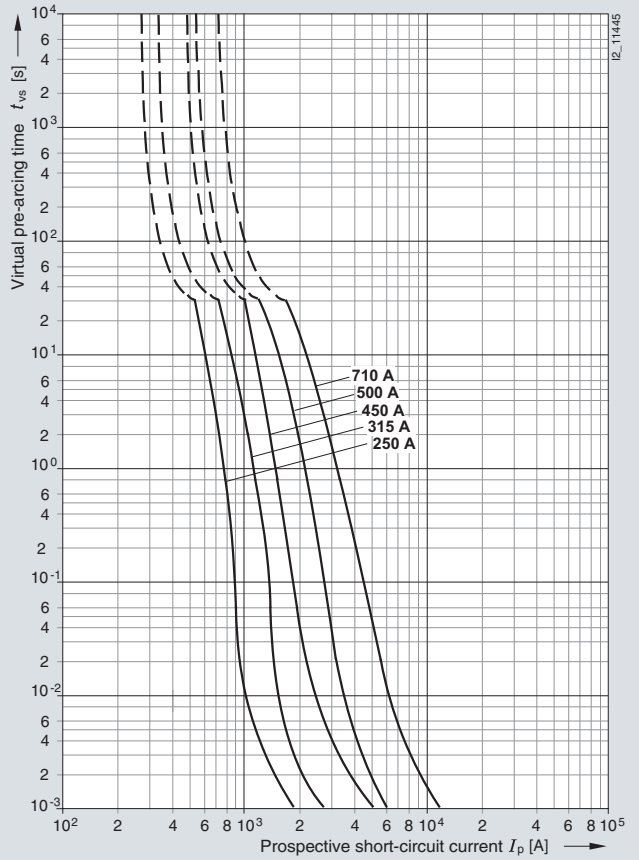
LV HRC design, 3NC, 3NE

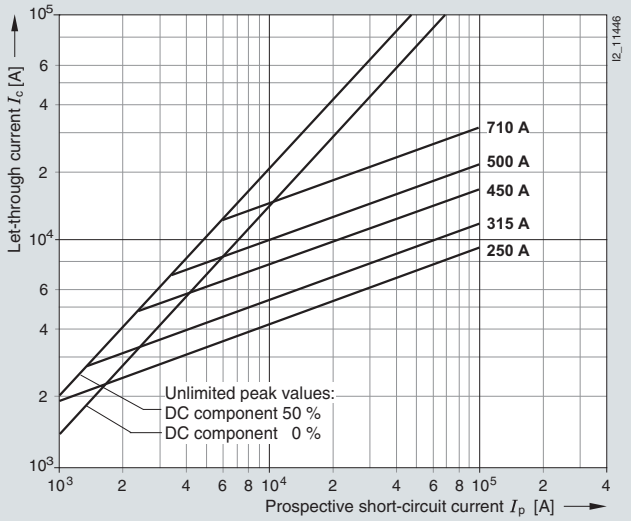
Series 3NE4 3..-6B, 3NE4 337-6

Operational class: aR
Rated voltage: 800 V AC
Rated current: 250 ... 710 A

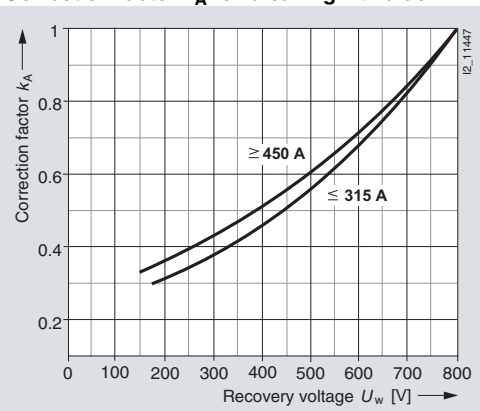
Time/current characteristics diagram



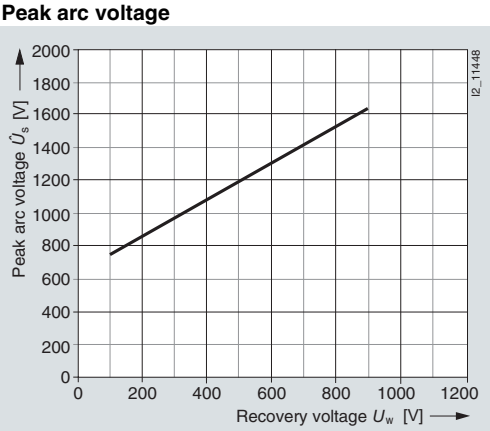
Let-through characteristics (current limitation at 50 Hz)



Correction factor k_A for breaking I^2t value



Peak arc voltage



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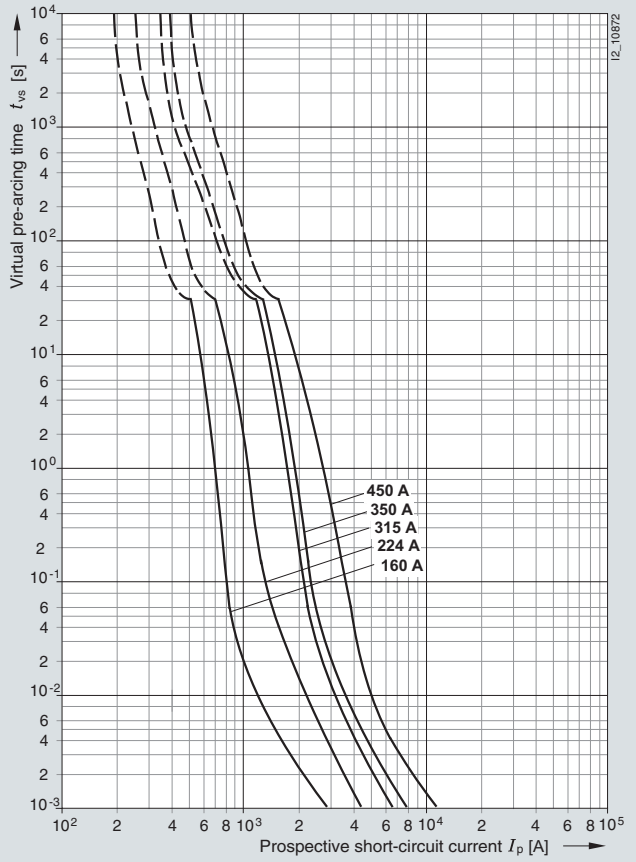
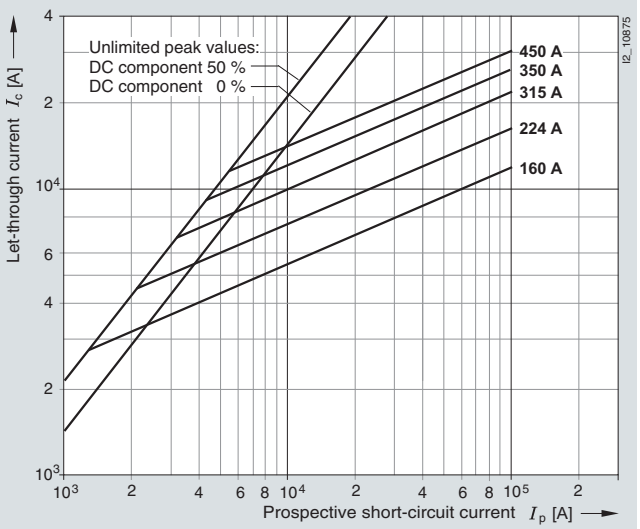
Series 3NE5 4..

Size: 3
Operational class: aR
Rated voltage: 1500 V AC
Rated current: 160 ... 450 A

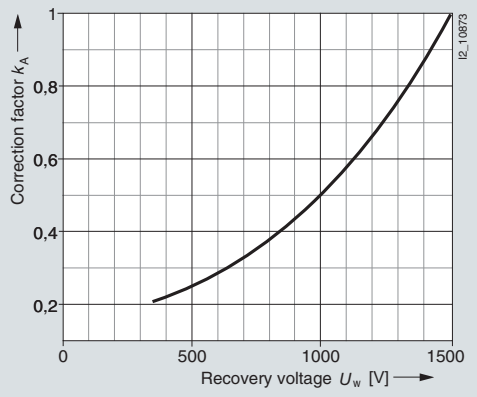
Time/current characteristics diagram



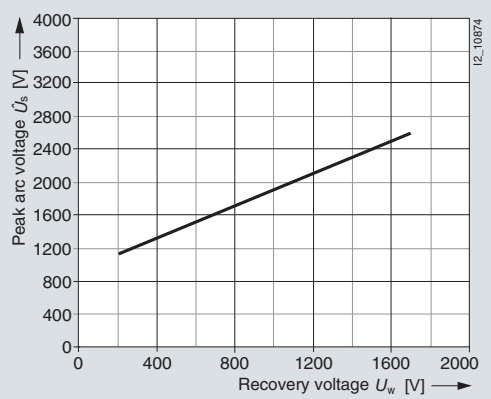
Let-through characteristics (current limitation at 50 Hz)



Correction factor k_A for breaking I^2t value



Peak arc voltage



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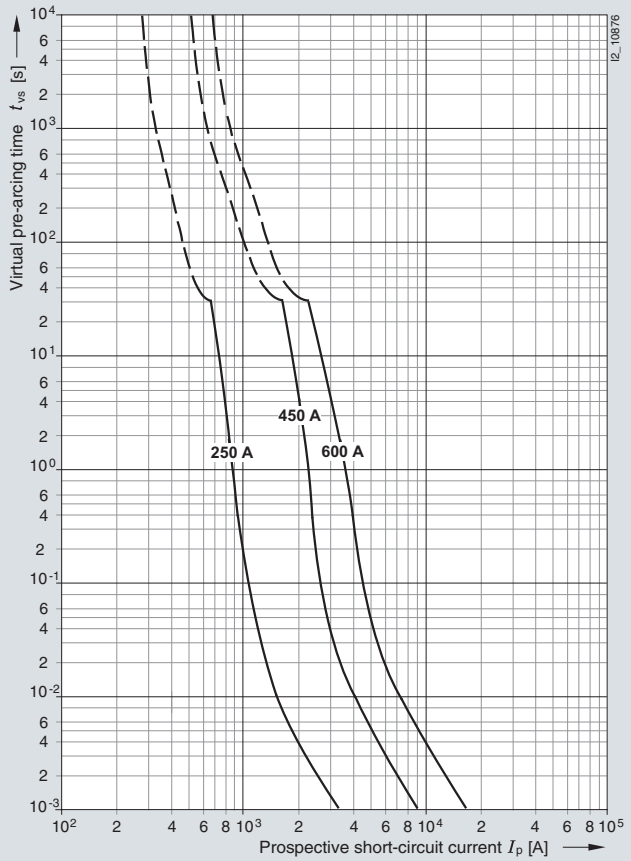
LV HRC design, 3NC, 3NE

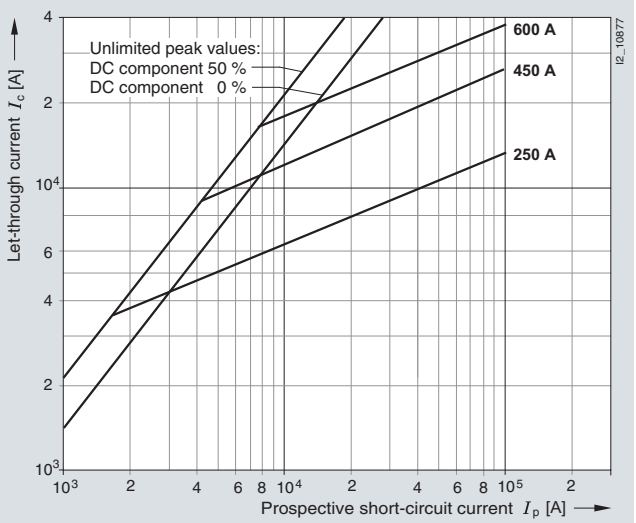
Series 3NE5 6..

Size: 3
Operational class: aR
Rated voltage: 1500 V AC
Rated current: 250 ... 600 A

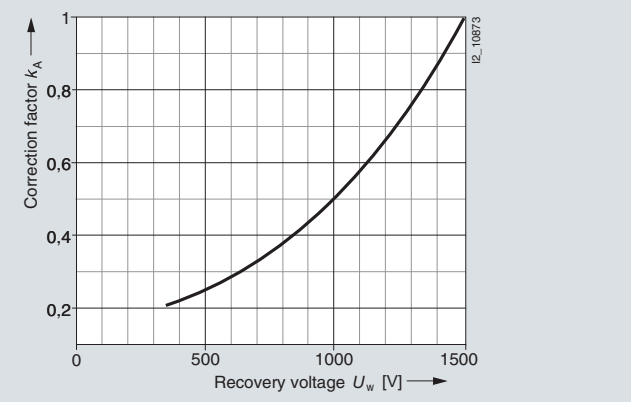
Time/current characteristics diagram



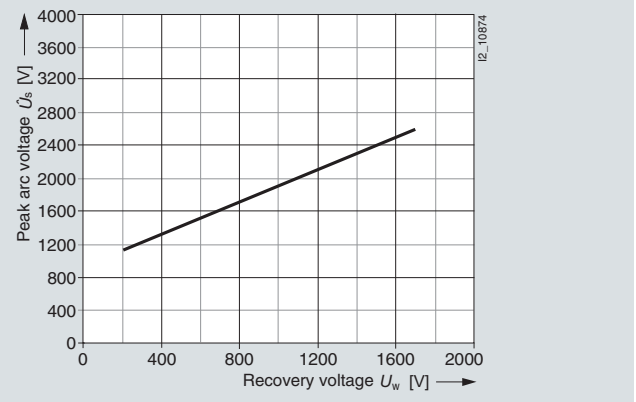
Let-through characteristics (current limitation at 50 Hz)



Correction factor k_A for breaking I^2t value



Peak arc voltage



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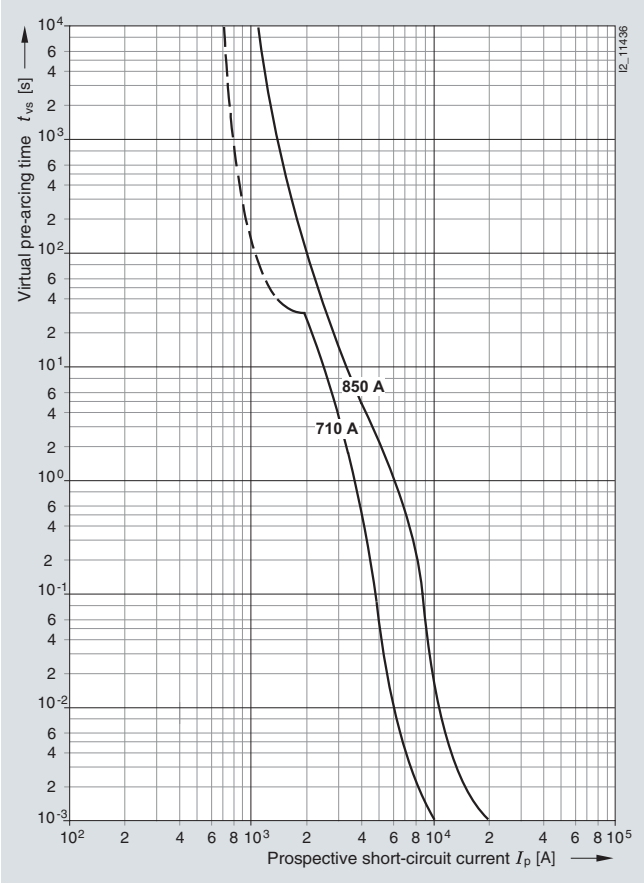
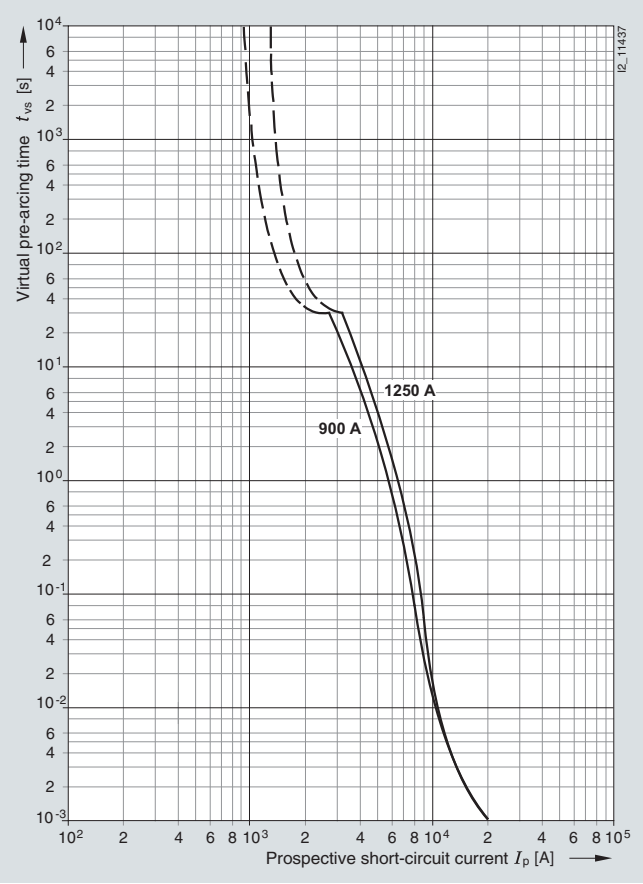
Series 3NE6 4.., 3NE9 4..

Operational class: aR, gR
Rated voltage: 600 V AC (850 A, 1250 A), 900 V AC (710 A, 900 A)
Rated current: 710 ... 1250 A

Time/current characteristics diagrams





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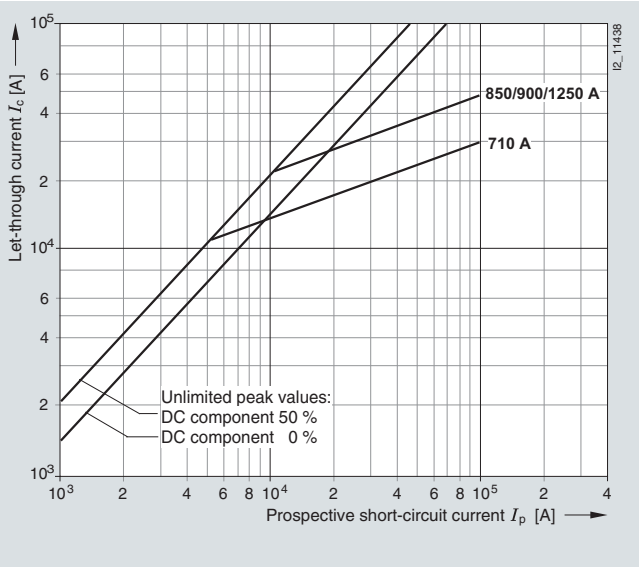
LV HRC design, 3NC, 3NE

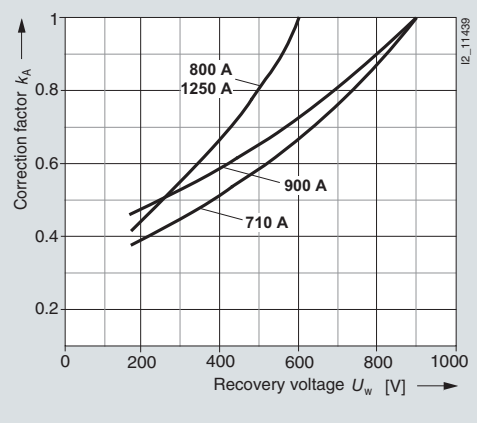
Series 3NE6 4.., 3NE9 4..

Operational class: aR, gR
Rated voltage: 600 V AC (850 A, 1250 A), 900 V AC (710 A, 900 A)
Rated current: 710 ... 1250 A

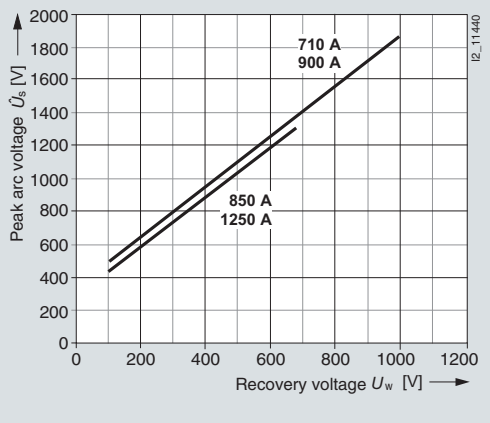
Let-through characteristics (current limitation at 50 Hz)



Correction factor k_A for breaking I^2t value



Peak arc voltage



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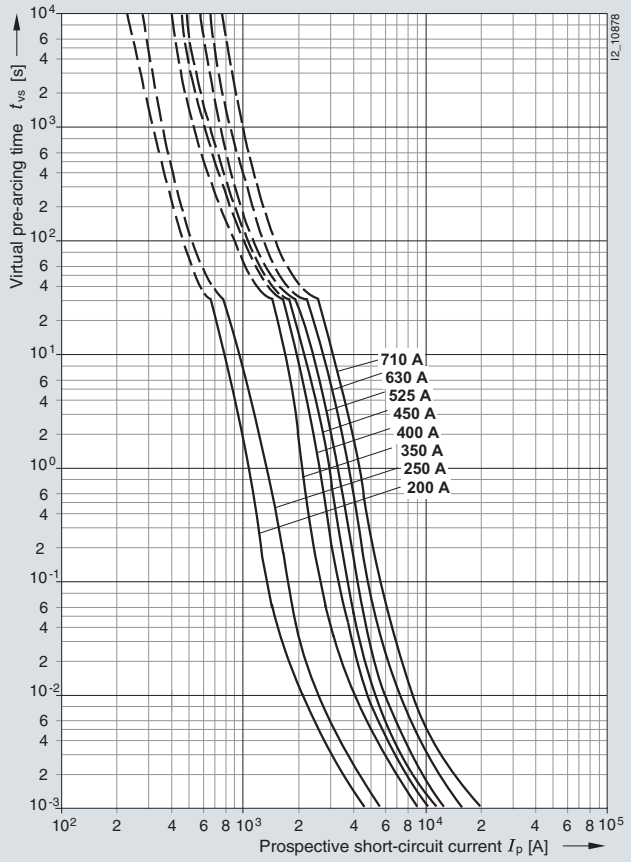
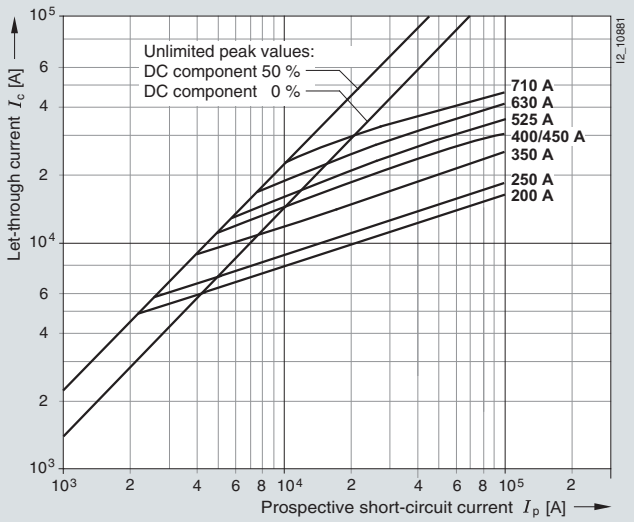
Series 3NE7 4.., 3NE7 6..

Size:	3
Operational class:	aR
Rated voltage:	2000 V AC
Rated current:	200 ... 710 A

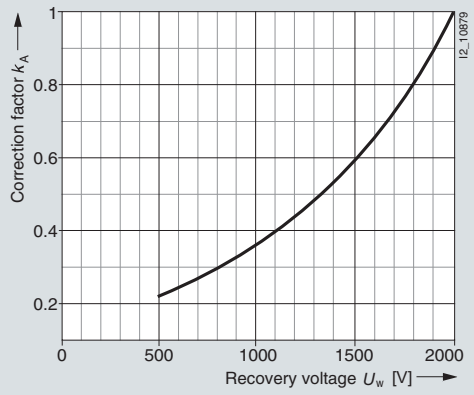
Time/current characteristics diagram



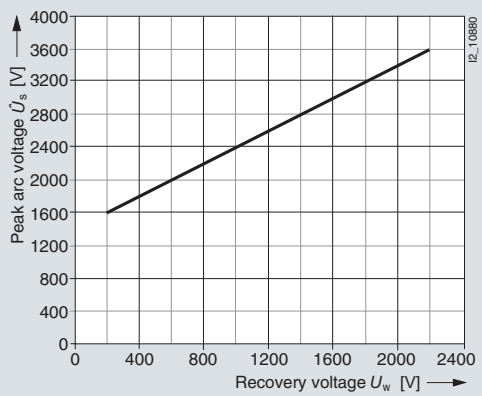
Let-through characteristics (current limitation at 50 Hz)



Correction factor k_A for breaking I^2t value



Peak arc voltage



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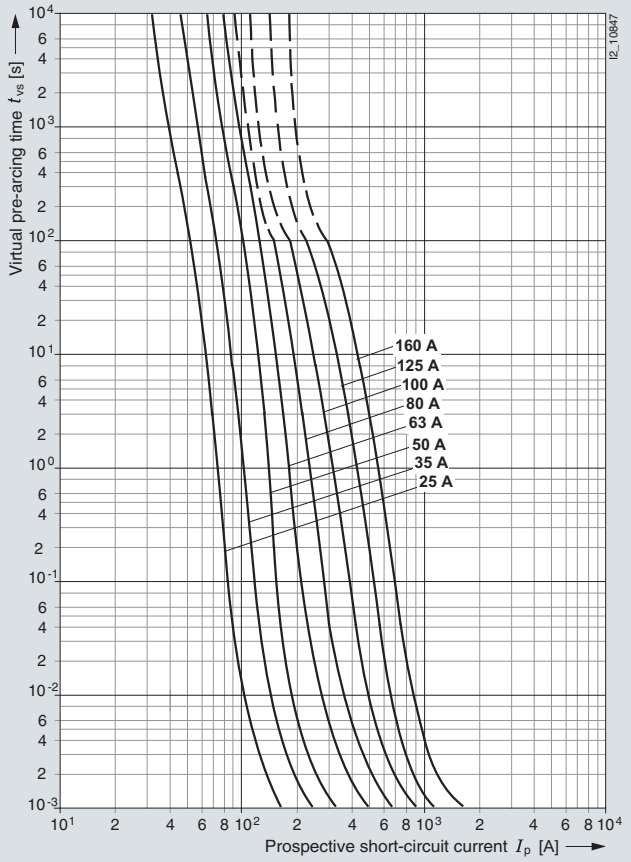
LV HRC design, 3NC, 3NE

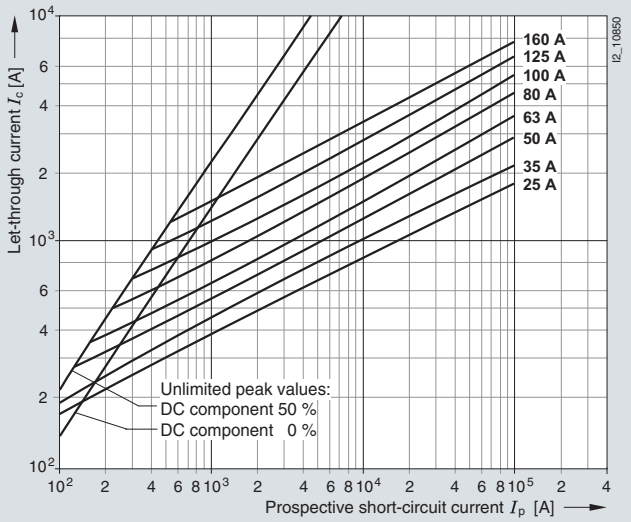
Series 3NE8 0..-1

Size:	00
Operational class:	gR or aR
Rated voltage:	690 V AC
Rated current:	25 ... 160 A

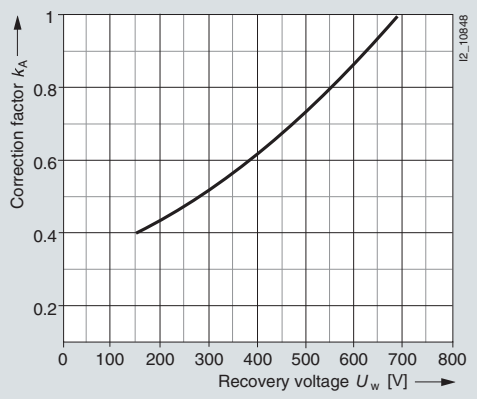
Time/current characteristics diagram



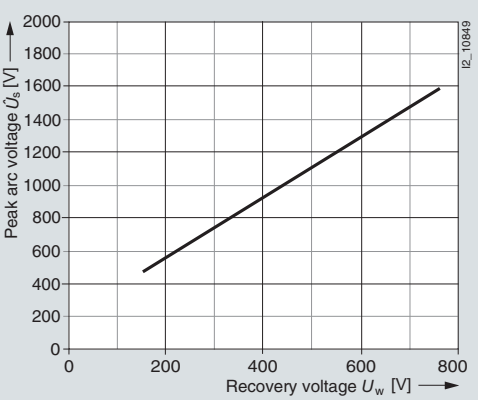
Let-through characteristics (current limitation at 50 Hz)



Correction factor k_A for breaking I^2t value



Peak arc voltage



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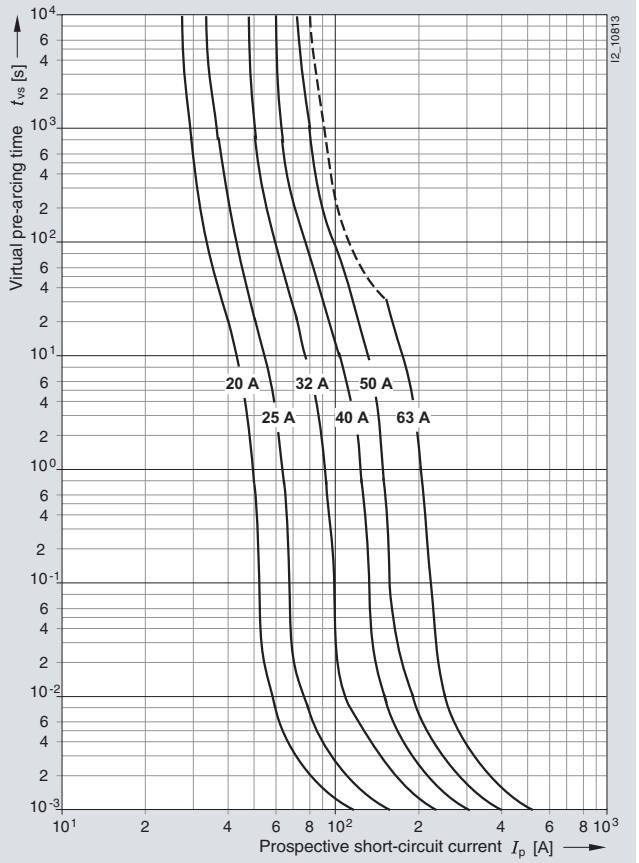
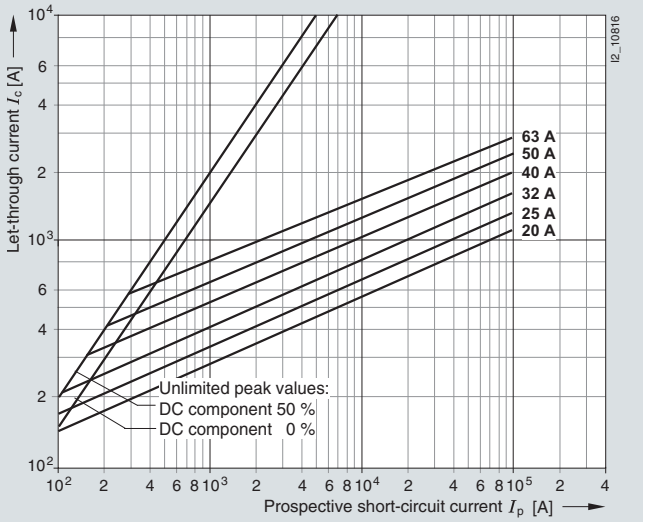
Series 3NE8 70.-1, 3NE8 71.-1

Size:	000
Operational class:	gR or aR
Rated voltage:	690 V AC/700 V DC
Rated current:	20 ... 63 A

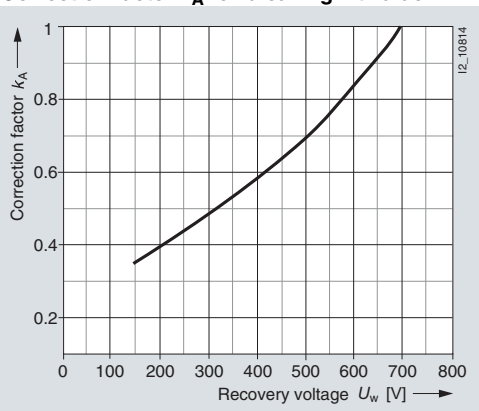
Time/current characteristics diagram



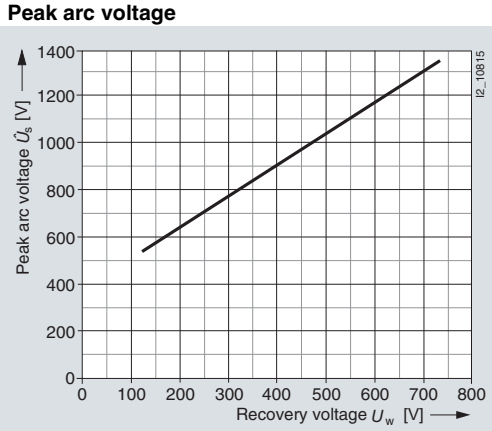
Let-through characteristics (current limitation at 50 Hz)



Correction factor k_A for breaking I^2t value



Peak arc voltage



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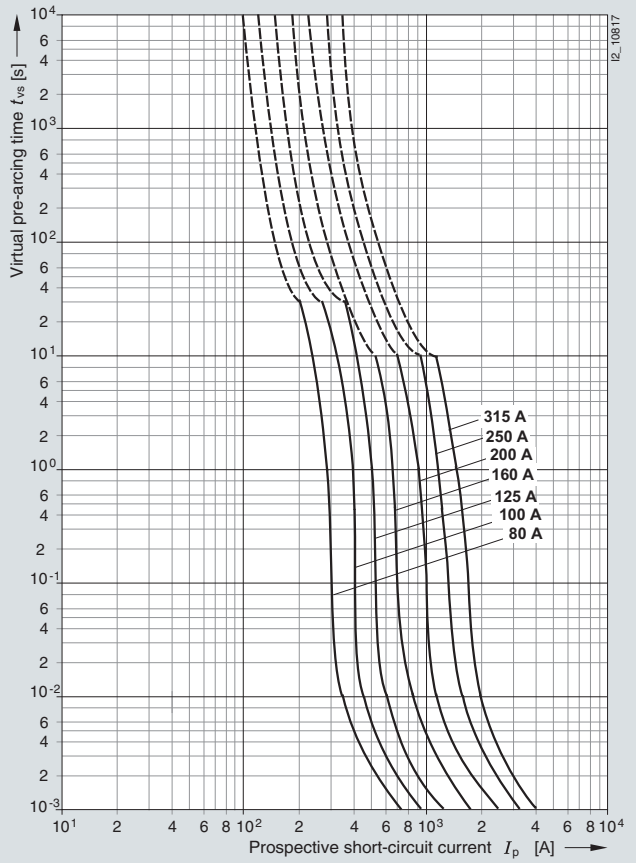
LV HRC design, 3NC, 3NE

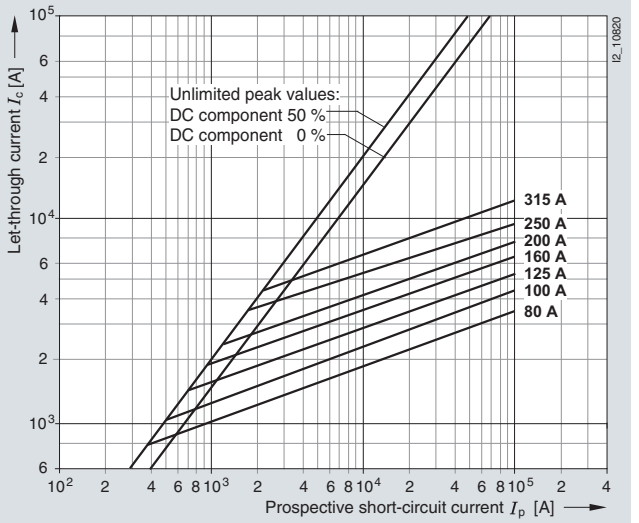
Series 3NE8 72.-1, 3NE8 731-1

Size:	000
Operational class:	aR
Rated voltage:	690 V AC/700 V DC according to UL
Rated current:	80 ... 315 A

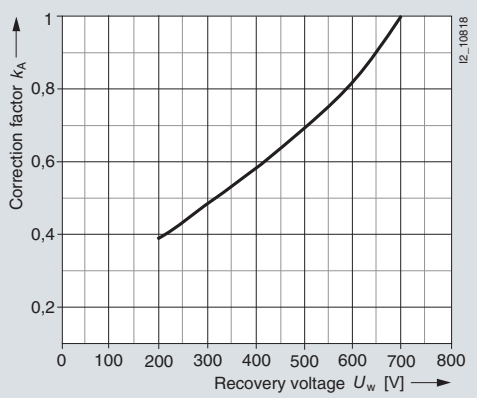
Time/current characteristics diagram



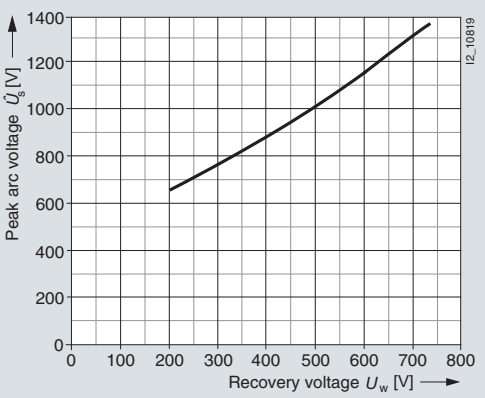
Let-through characteristics (current limitation at 50 Hz)



Correction factor k_A for breaking I^2t value



Peak arc voltage



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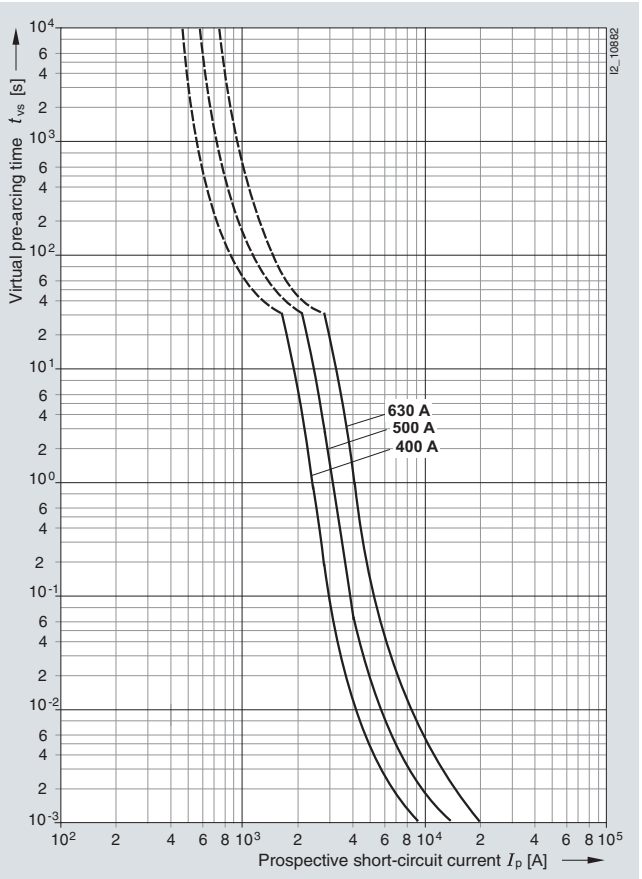
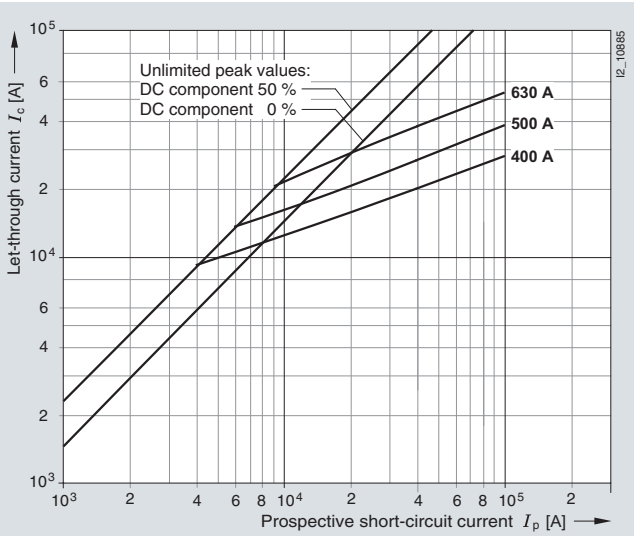
Series 3NE9 63.

Size:	3
Operational class:	aR
Rated voltage:	2500 V AC
Rated current:	400 ... 630 A

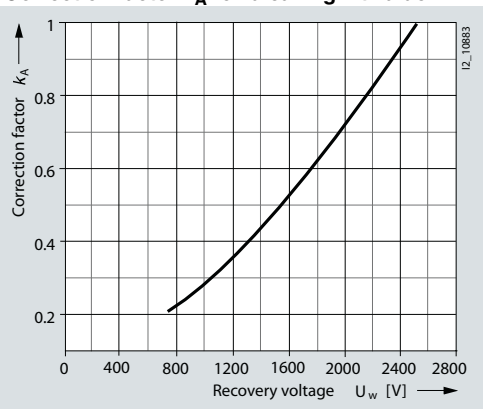
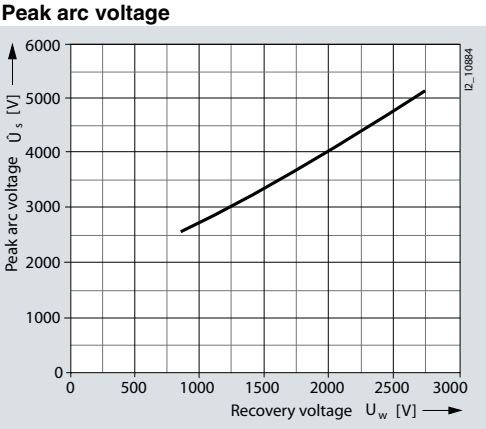
Time/current characteristics diagram



Let-through characteristics (current limitation at 50 Hz)



Correction factor k_A for breaking I^2t value



Peak arc voltage