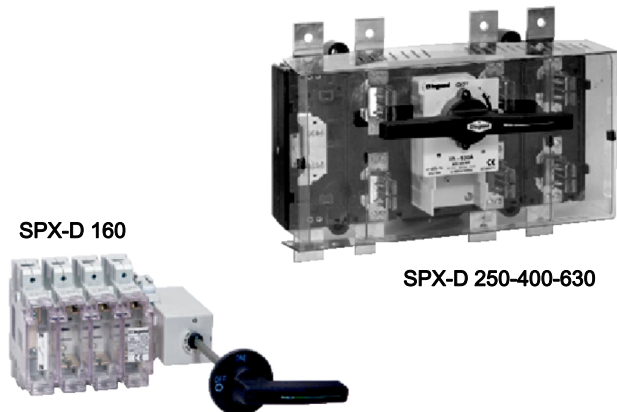


SPX-D 160 – 250 – 400 – 630

Référence(s) : 6051 00, 01, 02, 03, 10, 11, 12, 13

Switch NH fuses disconnectors



SOMMAIRE

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1. USE

The switches disconnectors SPX-D, are devices for the protection of the electric circuits from overcharge and short circuit using NH fuses type. They can be installed in systems with different features from power centres switch OFF-ON to secondary panels for the cut of the line. The NH fuses have a high value of Icu and their maintenance and substitution is very fast and easy.

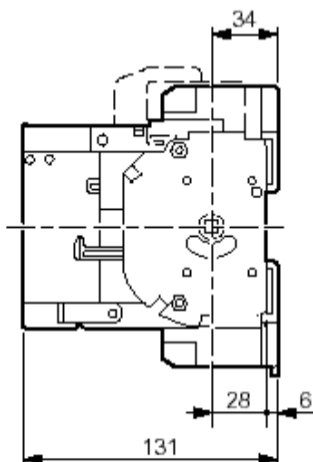
2. RANGE SPX-D

In [A]	3P	3P+N
160	6051 00	6051 10
250	6051 01	6051 11
400	6051 02	6051 12
630	6051 03	6051 13

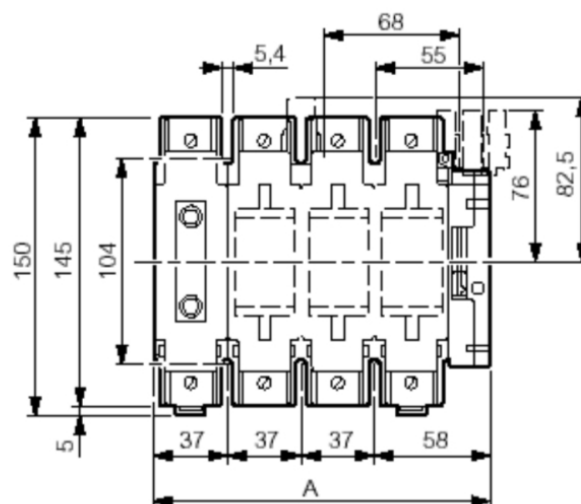
3. DIMENSION

SIZE 160 3P AND 3P+N

Side view



Front view



Dimension (mm)		A	M (Nm)	S max Cu (mm ²)
160 A	3P	132	4	95
	3P+N	169	4	95

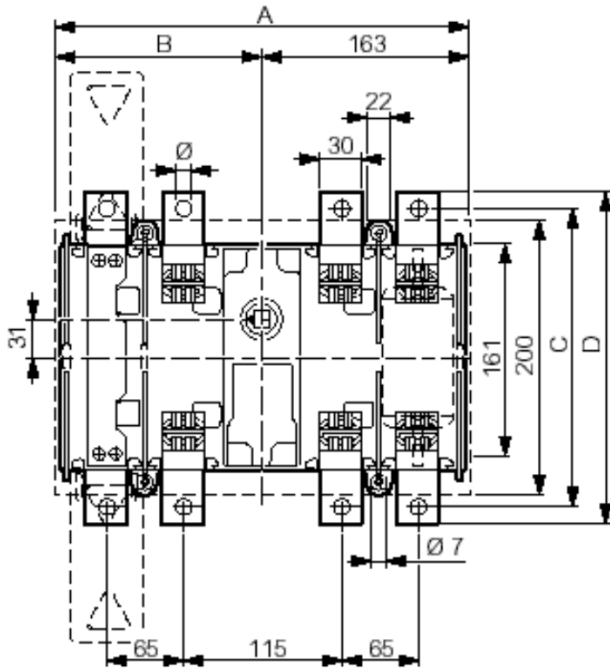
SPX-D 160 – 250 – 400 – 630

Référence(s) : 6051 00, 01, 02, 03, 10, 11, 12, 13

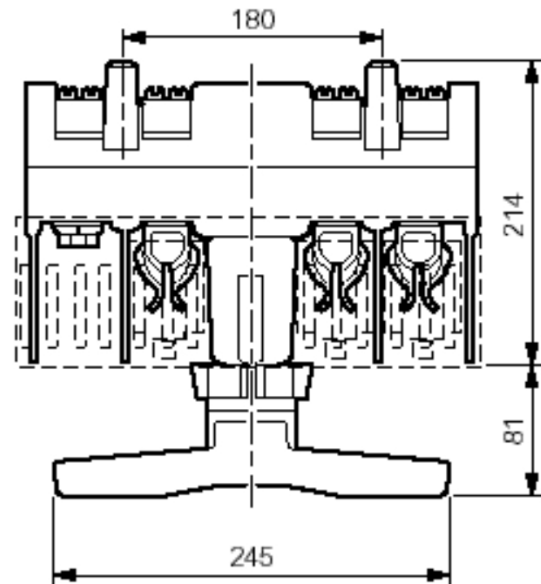
Switch NH fuses disconnectors

Size 250 - 400 3P and 3P+N

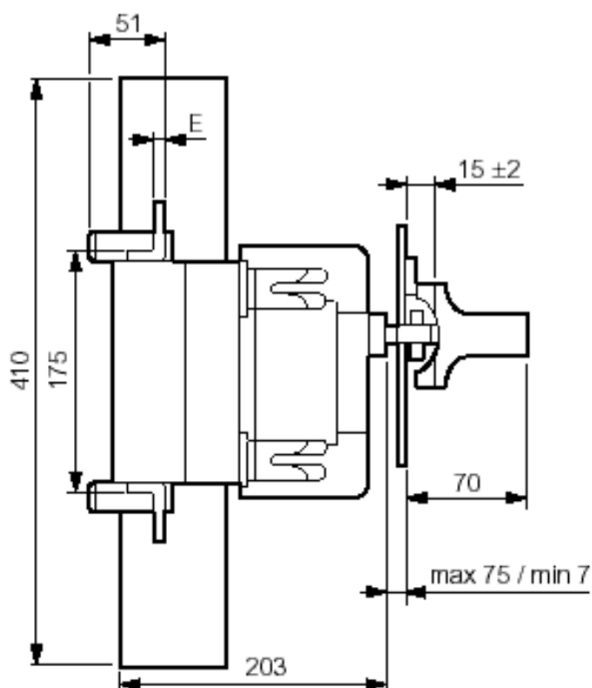
Front view



Upper view



Side view



Dimension (mm)		A	B	C	D
250 A	3P	274	111	216	246
	3P+N	329	166	216	246
400 A	3P	274	111	216	246
	3P+N	329	166	216	246

Dimension (mm)		E	Ø	Ø T
250 A	3P	4	10.5	M10
	3P+N	4	10.5	M10
400 A	3P	5	10.5	M10
	3P+N	5	10.5	M10

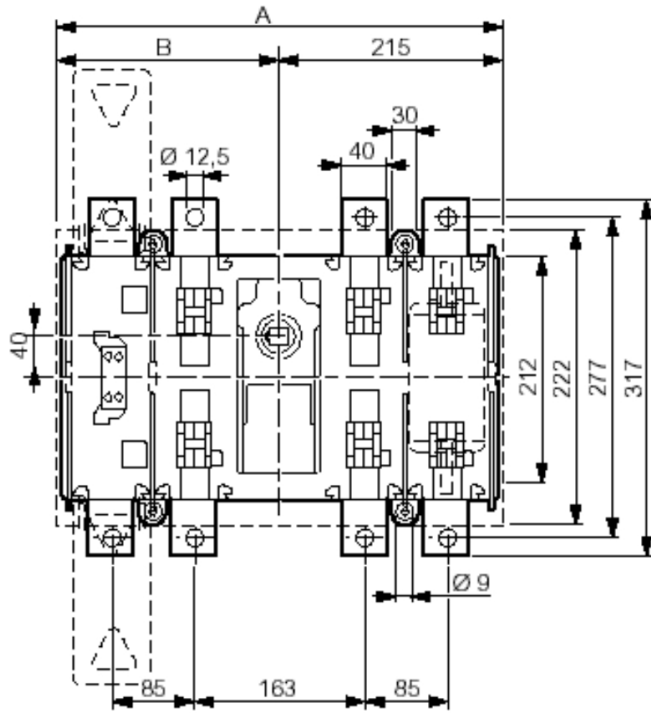
SPX-D 160 – 250 – 400 – 630

Référence(s) : 6051 00, 01, 02, 03, 10, 11, 12, 13

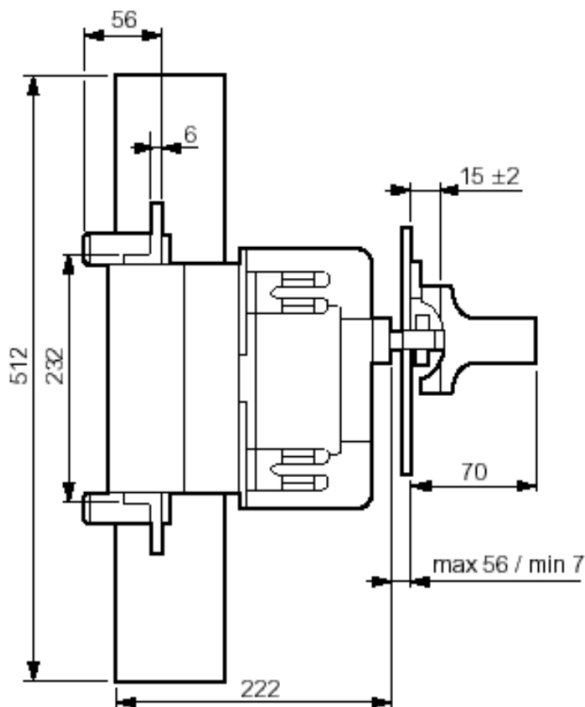
Switch NH fuses disconnectors

Size 630 3P and 3P+N

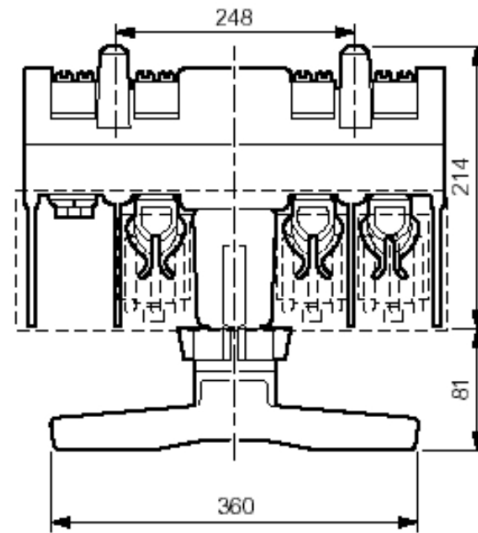
Front view



Side view



Upper view



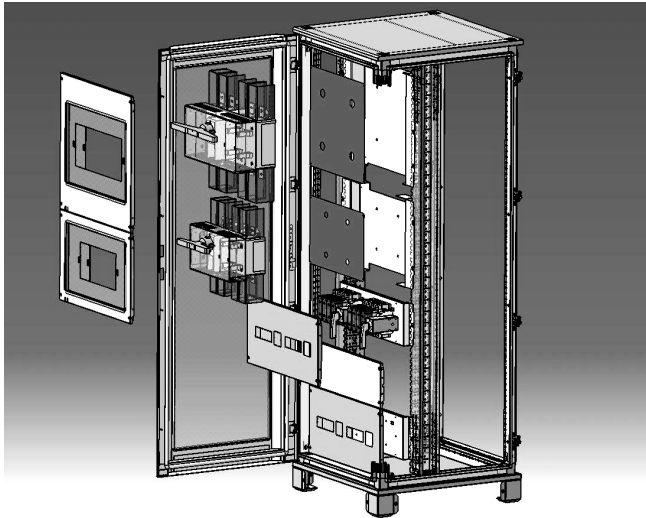
Dimension (mm)		A	B	∅ T
630 A	3P	381	166	M12
	3P+N	426	211	M12

Switch NH fuses disconnectors

4. MOUNTING

Integration in XL3 enclosure:

- horizontal mounting on plates
- plates and faceplates dedicated to XL3 enclosures



5. CABLING

Connecting capacity			160	250	400	630
Rigid cable (Cu)	max	mm ²	95	240	240	2x185
Bar (Thickness/Width)	max	mm	3/25	06/40	6/40	2x7/50
Tightening torque		Nm	4*/ 13**	24	24	45

Notes:

* Pillar type terminal

**Lug type terminal

Switch NH fuses disconnectors

6. ELECTRIC AND MECHANICAL FEATURES

According to IEC/EN 60947-3				160	250	400	630	
Fuses	NH			00	1	2	3	
Mounting on				DIN	Plate	Plate	Plate	
Rated insulation voltage	Ui	V		800	1000	1000	1000	
Rated dielectric strenght	50Hz, 1min	V		6000	8000	8000	8000	
Rated impulse withstand voltage	Uimn	kV		8	12	12	12	
Rated thermal current	I _{th} (40°C)	A		160	250	400	630	
Rated thermal current in enclosure	I _{the}	A		160	250	400	630	
Power dissipation with fuse links (1)				W	11,8	18,7	30	48
AC rated operational current	400 V	AC21A	A	160	250	400	630	
(Rated frequency 50/60 Hz)	400 V	AC22A	A	160	250	400	630	
	400 V	AC23A	A	160	250	400	630	
	500 V	AC21A	A	160	250	400	630	
	500 V	AC22A	A	160	250	400	630	
	500 V	AC23A	A	-	250	400	630	
	690 V	AC21A	A	-	250	400	630	
	690 V	AC22A	A	125	250	400	630	
	690 V	AC23A	A	100	200	315	400	
	800 V	AC20A	A	160	250	400	630	
	1000 V	AC20A	A	-	250	400	630	
AC rated operational power Pe	3x400 V	AC23A	kW	90	132	220	355	
	3x500 V	AC23A	kW	90	160	250	370	
	3x690 V	AC23A	kW	90	160	250	370	
Rated capacitor power	400 V		kVAr	60	115	200	250	
Rated breaking capacity	400 V; cos φ=0,35÷0,45		A	1280	2000	3200	5100	
Rated making capacity	400 V; cos φ=0,45		A	1600	2500	4000	6300	
Conditional short-circuit current								
Short-circuit withstand current (rms value) (2)				kA rms	100	100	100	100
Short-circuit making current (rms value) (2)				kA rms	50	100	100	100
Maximum cut-off current (peak value)				kA	12,7	43,3	43,3	60,8
Maximum power dissipation (I ² t)	A2s (x 10 ³)			42	120	1600	1600	4600
Minimum number of mechanical operations	cycles			10000	10000	10000	10000	5000
Minimum number of electrical operations	400 V-AC23	cycles		1500	1000	1000	1000	1000
Maximum weight (3/4 poles)				kg	1,7/2,2	6,6/8	6,6/8	13/15

Notes:

- (1) Power dissipation values of fuse-links used in type tests.
(2) With a protective device limiting the cut-off current and the joule integral to the indicated values

Switch NH fuses disconnectors

7. NORMATIVE

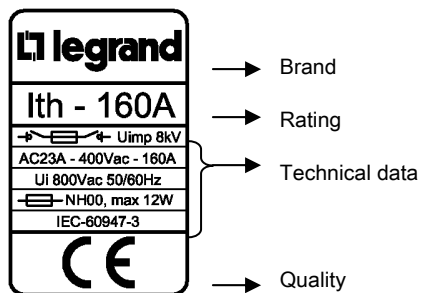
The Switches SPX-D are conformed according to the normative IEC 60947-3

The Switches SPX-D are certified **KEMA**

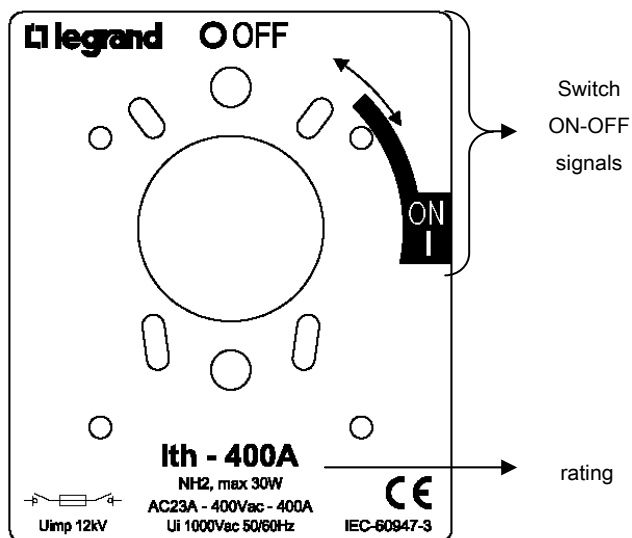
CE quality mark

7.1 Marking

SPX-D 160



SPX-D 250 – 400 – 630



8. ACCESSORIES

8.1 Auxiliary Contacts (2NO+ 2NC)

SPX-D 160	<i>ref. 6051 26</i>
SPX-D 250-400-630	<i>ref. 6051 27</i>

8.2 Direct handles

SPX-D 160	<i>ref. 6051 20</i>
SPX-D 250-400	<i>ref. 6051 21</i>
SPX-D 630	<i>ref. 6051 22</i>

8.3 External handles

SPX-D 160	<i>ref. 6051 23</i>	(up to 246mm)
SPX-D 250-400	<i>ref. 6051 24</i>	(up to 278mm)
SPX-D 630	<i>ref. 6051 25</i>	(up to 278mm)

8.4 Extended shaft (for external handles)

SPX-D 160	<i>ref. 6051 28</i>	(up to 393mm)
SPX-D 250-400	<i>ref. 6051 29</i>	(up to 428mm)
SPX-D 630	<i>ref. 6051 30</i>	(up to 428mm)

8.5 Terminal shield (kit of 4 shields)

SPX-D 250-400	<i>ref. 6051 32</i>
SPX-D 630	<i>ref. 6051 33</i>

8.6 Fixing plate for the integration in XL3

SPX-D 160	<i>ref. 6051 34</i>
SPX-D 250-400	<i>ref. 6051 35</i>
SPX-D 630	<i>ref. 6051 36</i>

8.7 Faceplate for the integration in XL3

(XL3 enclosures must be equipped with curved door)

SPX-D 160	<i>ref. 6051 37</i>
SPX-D 250-400	<i>ref. 6051 38</i>
SPX-D 630	<i>ref. 6051 39</i>

Switch NH fuses disconnectors

9. CURVES (OF FUSIBLES ASSOCIED)

HN fuses types **gG** or **aM** protect the electric circuit of systems from overcharge or short circuit.

Cartridges gG:

The report of selectivity is of 1,6 instead of 2

The power of breaking capacity is 120 kA and it permits a complete protection in the most critical situations:

Cartridges aM:

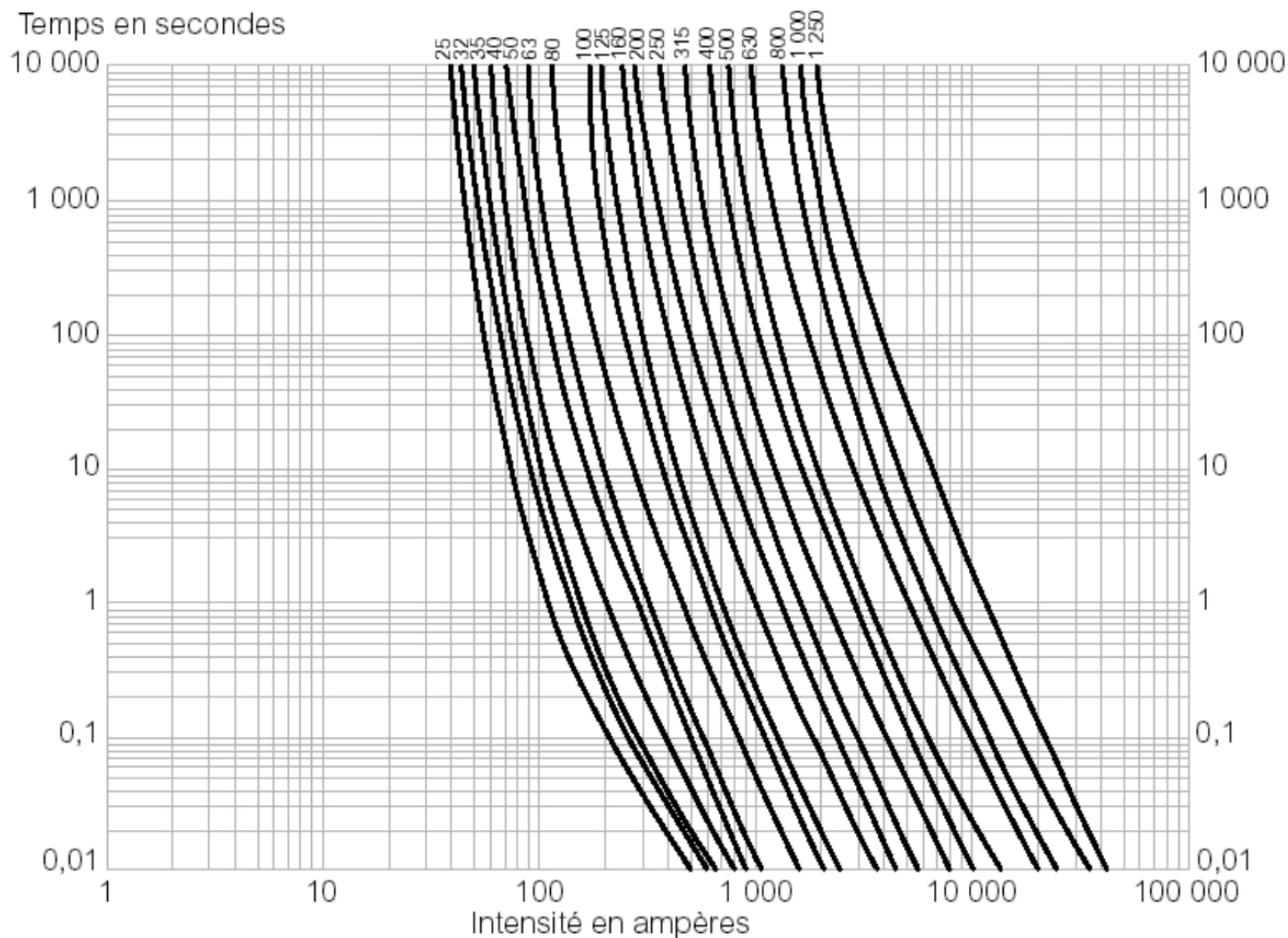
They must be associated inevitably to a thermal protective device of weak overcharge

The breaking capacity value at 100 kA from the size 10 x 38 permits a complete protection in the most critical situations.

9.1 Fusion Curves

Type gG

Temps en secondes

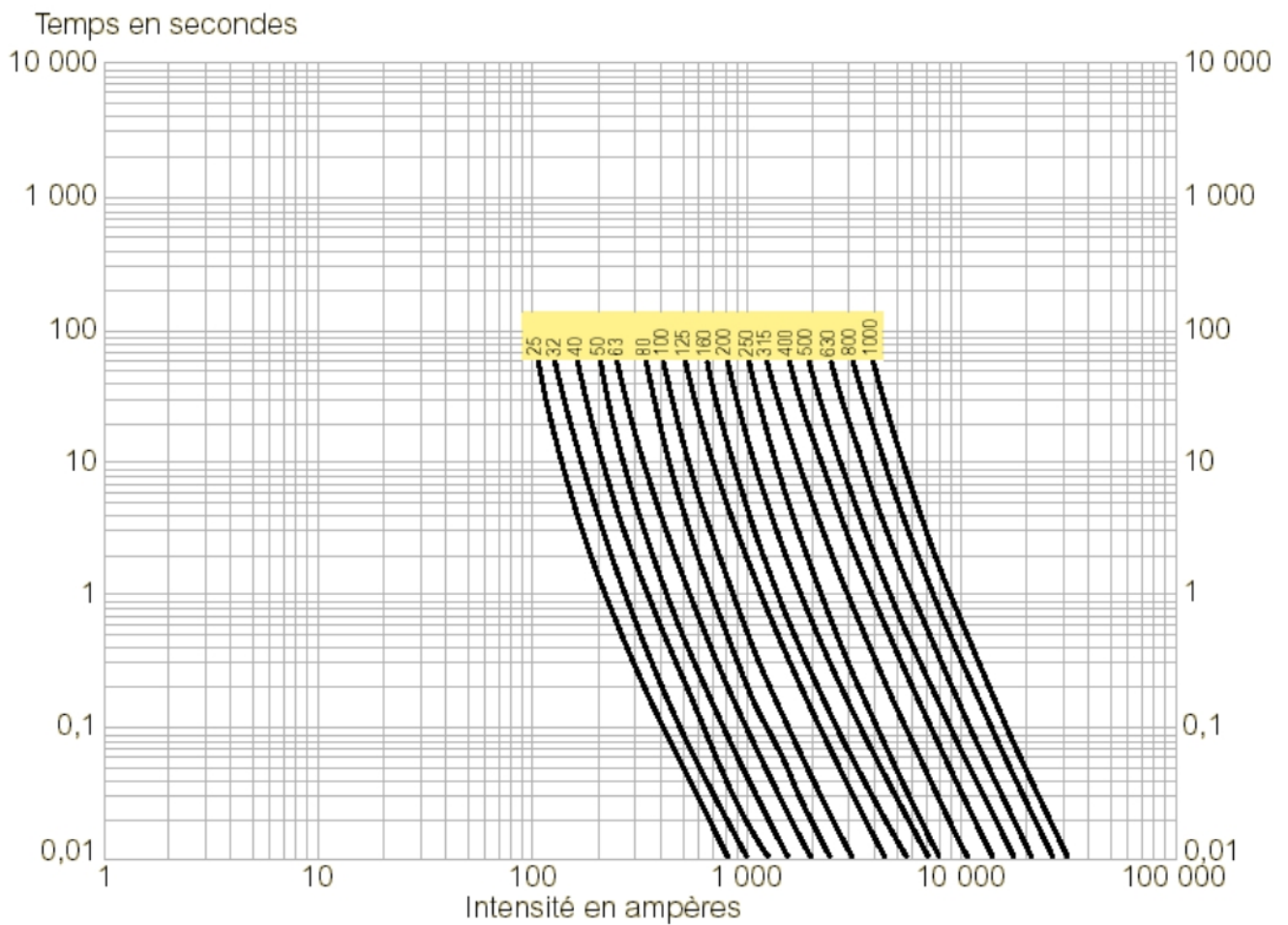


Switch NH fuses disconnectors

9. COURVES (CONTINUATION)

9.1 Fusion Curves

Type aM

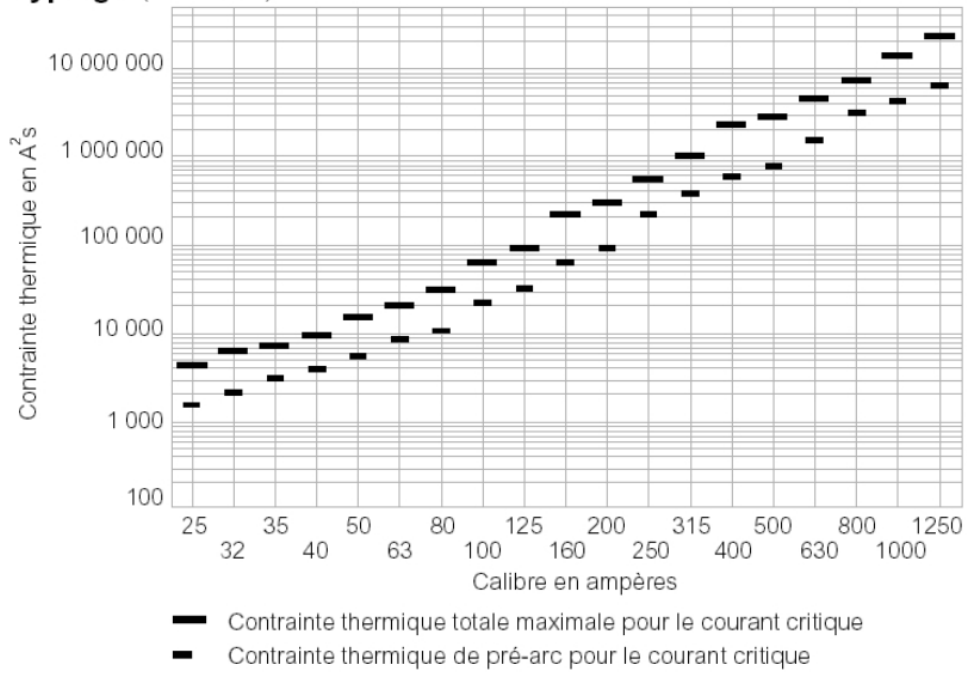


Switch NH fuses disconnectors

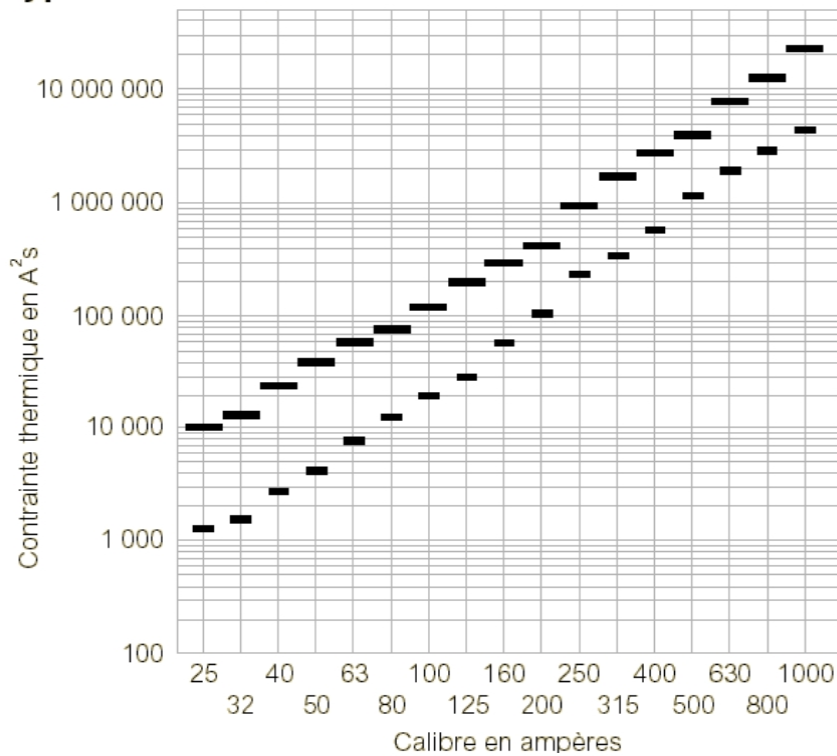
9. COURVES (CONTINUATION)

9.2 Thermal range curves

Type gG (en 500 V~)



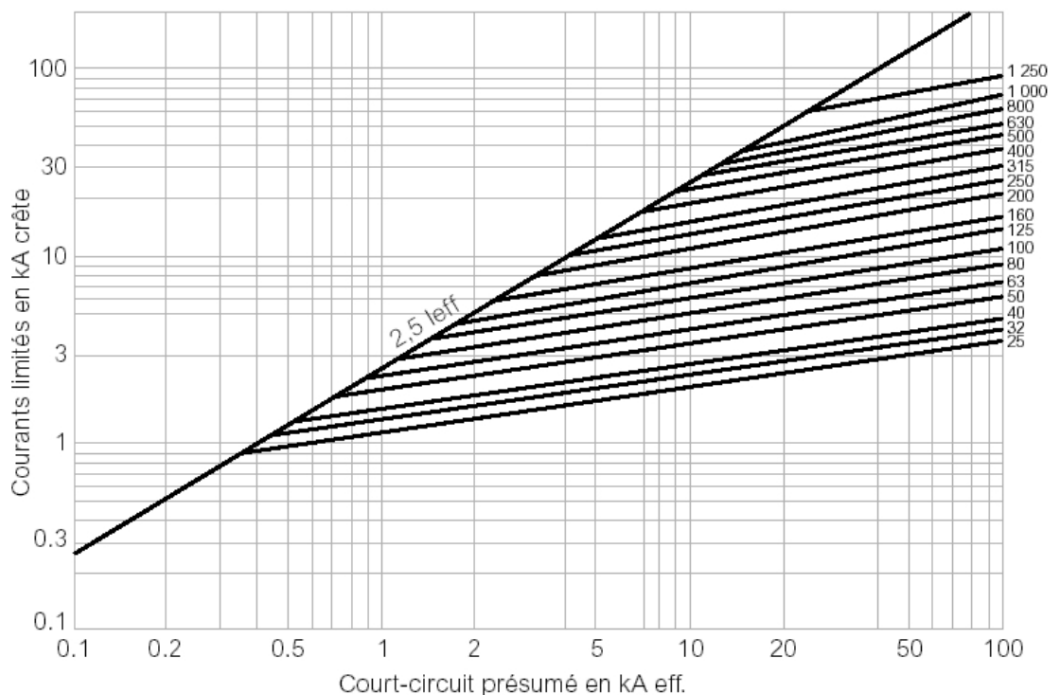
Type aM en 500 V~ - sauf 1250 A en 400 V



Switch NH fuses disconnectors

9. COURVES (CONTINUATION)

9.3 Limitation curve type gG



9.4 Power loss (Watt) under nominal current

Calibres (A)	Cartouches			
	gG		aM	
	Taille 00	Taille 0 à 4	Taille 00	Taille 0 à 4
25	2,1		1,3	
32	3		1,8	
35	3			
40	3,3	4,2	2,5	
50	4,5	5,5	3	
63	6	6,5	3,6	3,9
80	7	8,5	5,2	5,5
100	7,5	9,5	6	6,5
125	13	12	7	8,5
160	15	15		11,5
200		19		13,5
250		23		17
315		24		24
400		33		28
500		36		34
630		45		41
800		51		49
1000		77		70
1250		80		75