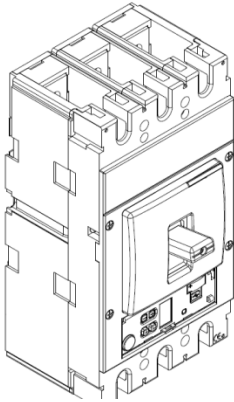


DPX³ 630 Magnetic only

Electronic release



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1. USE

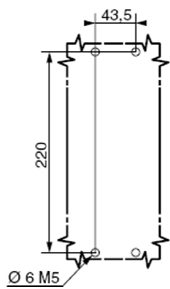
DPX³ "moulded case" circuit breaker offers optimal solutions to answer to protection requirements of tertiary and industrial installations.

2. RANGE

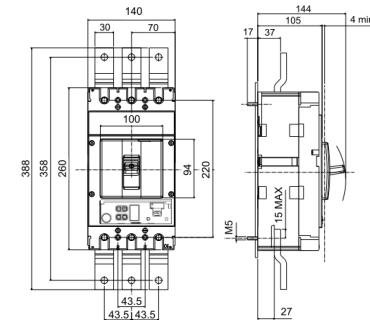
	36 kA	70 kA
I_n (A)	3P	3P
320	422608	422610
400	422609	422611

3. DIMENSIONS

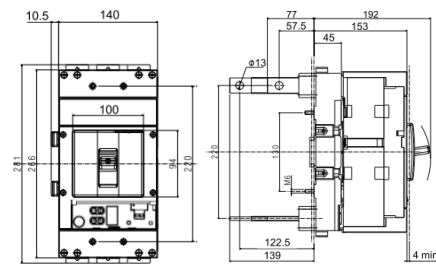
Implantation



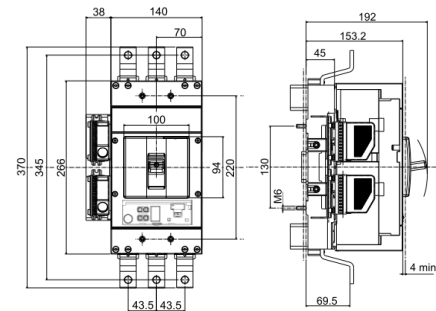
Front terminals



Plug-in version, rear terminals



Draw-out version (front terminals) with automatic auxiliary contacts



DPX³ 630 Magnetic only

Electronic release

Reference(s) : 422 608 / 609 / 610 / 611

4. OVERVIEW

4.1 Supplied

Supplied with

- fixing screws
- connection plates for bars (width 32mm max)
- phase insulators

4.2 Mounting possibilities

On plate:

- Vertical
- Horizontal
- Supply inverter type

5. ELECTRICAL AND MECHANICAL CHARACTERISTICS

Circuit breaker	DPX ³ 630 F/H
Uninterrupted nominal current I_n (A)	320 - 400
Short time admissible current I_{cw} (kA) (for 0.5s)	5
Isolated voltage U_i (V AC)	800
Maximum rated operating voltage U_e (V AC)	690
Rated impulse withstand voltage U_{imp} (kV)	8
Nominal frequency (Hz)	50 - 60
Functioning temperature (°C)	up to 50
Operating temperature (°C)	-25 ÷ 70
Mechanical endurance (cycles)	20000
Electrical endurance (cycles)	5000
Mechanical endurance with motor control (cycles)	10000
Category of use	B
Type of trip	electronic
Magnetic adjustment (I_{sa})	$(1.5 \div 10) \times I_n$
Dimensions (W x H x D) (mm)	140 x 260 x 105
Weight (kg)	4.5

5.1 Breaking capacity (kA) up to 50°C

Breaking capacity (kA) and I_{cs}		
U_e/I_{cu}	F	H
220/240 V AC	70	120
380/415 V AC	36	60
440/460 V AC	30	60
480/500 V AC	25	40
600 V AC	20	25
690 V AC	14	20
I_{cs} (% I_{cu})	100	100
Rated making capacity under short circuit I_{cm}		
I_{cm} (kA) at 415V	75.6	154

5.2 Power losses per pole under I_n

	Power losses (W)	
	I_n (A)	
	320	400
Cage terminals	12.3	19.2
Lugs	12.3	19.2
External lugs	13.5	21.1
Spreaders	14.7	22.9
Rear terminals	14.2	22.3
Plugin version	24.7	38.5
Circuit breaker + RCD	17.4	27.2

Total power losses has calculated as the sum of losses of every accessory installed

5.3 Functioning in particular conditions

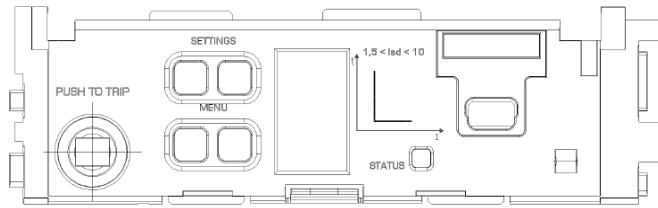
5.3.1 Altitude

Altitude (m)	2000	3000	4000	5000
U_e (V)	690	590	520	460
I_n (A) ($T_a = 40^\circ\text{C}/50^\circ\text{C}$)	I_n	$0.98 \times I_n$	$0.93 \times I_n$	$0.9 \times I_n$

5.3.2 Use at 400Hz or in DC

Not possible with electronic release.

5.4 ELECTRONIC RELEASE



LCD display with adjustment's buttons, battery case and USB port

Short delay protection against short-circuits with an adjustable I_{sd} threshold:

- $I_{sd} = 1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 \times I_r$ (11 steps)
- $T_{sd} = 0 - 100 - 200 - 300 - 400 - 500$ ms ($I = K$)
- $T_{sd} = 0 - 100 - 200 - 300 - 400 - 500$ ms ($I^2t = K$)

Instantaneous protection I_f with fixed threshold: $I_i = 5kA$

6. CONFORMITY

DPX³ range of product concerning circuit-breakers are in full compliance with the EN/IEC standard 60947-2.

The certificate are issued by LOVAG and/or by IECEE CB-scheme certification scheme.

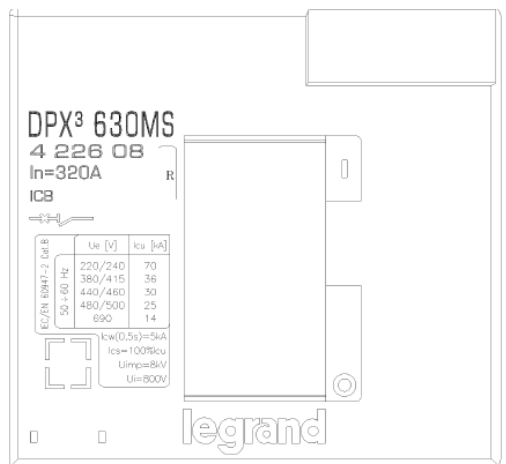
All the product range are CE, CCC, EAC, ANCE marked.

DMX³ are full in compliance with the Shipping Register of Lloyds, RINA, Bureau Veritas, Germanische Lloyds, Norske Veritas and ABS.

" Tropical climate " :

- execution II (all climates) according to guide UTE C63100

6.1 MARKING



7. EQUIPMENTS AND ACCESSORIES

7.1 Earth leakage module

Earth leakage characteristics for DPX ³ 630	
	Standard
Type	A - S
Uninterrupted nominal current I_u (A)	400
Rated isolated voltage U_i (V AC)	500
Rated operating voltage U_e (V AC) (50-60Hz)	500
Operating voltage (V AC) (50-60Hz)	230 ÷ 500
Nominal frequency (Hz)	50 - 60
Operating temperature (°C)	-25 ÷ 70
Trip	electronic
Earth leakage time adjustments (s)	0 - 0.3 - 1 - 3
Earth leakage breaking capacity I_{dm} (% I_{cu})	60
Earth leakage protection adjustments I_{dn} (A)	0.03 ÷ 3
Mounted side-by-side	no
Montage underneath	yes
50% Earth fault detection contact I_{dn}	no
Clip on rail DIN 35	no
Dimensions (W x H x D) (mm) for 4P	183 x 152 x 105

For derating temperature with other configuration, see table A.

Standard		
400A	3P	ref. 0 260 60

7.2 Releases

- shunt releases (Power consumption= 300 VA) with voltage
 - 24 V AC and DC ref. 4 222 39
 - 48 V AC and DC ref. 4 222 40
 - 110 V AC and DC ref. 4 222 41
 - 230 V AC and DC ref. 4 222 42
 - 400 V AC and DC ref. 4 222 43
- undervoltage releases (Power consumption = 5 VA) with voltage
 - 24 V DC ref. 4 222 44
 - 24 V AC ref. 4 222 45
 - 48 V DC ref. 4 222 46
 - 110 V AC ref. 4 222 47
 - 230 V AC ref. 4 222 48
 - 400 V AC ref. 4 222 49
- time-lag undervoltage releases (800 ms)
 - Time-lag modules with voltage
 - 24 V AC and DC ref. 0 261 92
 - 230 V AC ref. 0 261 90
 - 400 V AC ref. 0 261 91
 - Universal Release ref. 4 226 23

DPX³ 630 Magnetic only

Electronic release

Reference(s) : 422 608 / 609 / 610 / 611

7.3 Auxiliary contact

Changeover switch 3 A – 250 V AC ref. 4 210 11

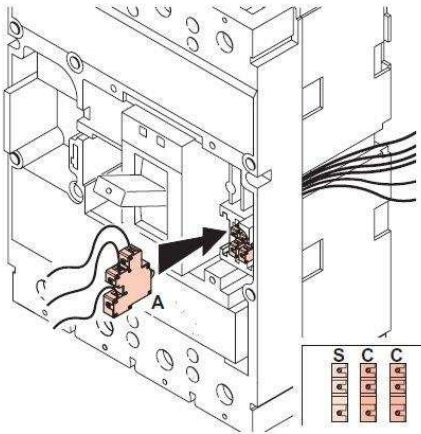
To show the state of the contacts or opening of the DPX³ on a fault:

Auxiliary contact (standard) **C**
 Fault signal **S**

Auxiliary contact		
Nominal voltage (V _n)	V (AC or DC)	24 to 250
Intensity (A)	24 V DC	5
	48 V DC	1.7
	110 V DC	0.5
	230 V DC	0.25
	110 V AC	4
	230/250 V AC	3

Configurations:

DPX³ 630 → 2 auxiliary contact + 1 fault signal + 1 release



7.4 Rotary handles

Direct on DPX³

- Standard (black) ref. 0 262 41
- For emergency use (red / yellow) adapting on standard handle ref. 4 222 38

Vari-depth handle IP55

- Standard (black) ref. 0 262 81
- For emergency use (red / yellow) adapting on standard handle ref. 0 262 82

Locking accessories

- Proflux type star key (cod.HBA90GPS6149) for vari-depth handle ref. 0 262 93
- Ronis type flat key (cod.ABA90GEL6149) for vari-depth handle ref. 0 262 94

7.5 Motor-driven handles

Front operated

- Voltage 24 V AC and DC ref. 0 261 40
- Voltage 48 V AC and DC ref. 0 261 41
- Voltage 230 V AC ref. 0 261 44

Locking accessories

- Ronis type flat key (cod.ABA90GEL6149) ref. 0 261 59
- Proflux type star key (cod.HBA90GPS6149) ref. 0 261 58

7.6 Mechanical accessories

Phase insulators

- Set of 3 ref. 0 262 30

Sealable terminal shields

- Set of 2 3P ref. 0 262 44

Terminal covers to guarantee IP20

- Set of 2 3P ref. 4 222 34

Padlocks

- Accessories to lock in open position ref. 0 262 40

7.7 Connection accessories

Cage terminals

- Set of 4 terminals for cables 300mm² max (rigid) or 240mm² max (flexible) Cu/Al ref. 0 262 50
- Set of 4 terminals for cables 2x240mm² max (rigid) or 2x180mm² max (flexible) Cu/Al ref. 0 262 51

Extended front terminals

- Set of 4 ref. 0 262 47

Spreaders

- Set of 3 (incoming or outgoing) ref. 0 262 48

Rear terminals

(use to connect fixed version with front terminals into fixed version with rear terminal)

- Set of swivel terminals, incoming or outgoing ref. 0 263 50
- Set of flat rear terminals, incoming or outgoing ref. 0 263 52

7.8 Plug-in version

(A plug-in is a DPX³ fitted with tulip contacts mounted on a base)

Terminals for plug-in & draw-out base

- Set of 6 terminals ref. 4 222 20

Tulip contact

- Set of tulip contact (supplied with an incoming/outgoing protective cover) ref. 0 265 50

Bases

- front terminal mounting base ref. 4 222 22
- flat rear terminal mounting base ref. 4 222 24

Bases with earth leakage underneath mounting

- front terminal mounting base ref. 4 222 26
- Flat rear terminal mounting base ref. 4 222 27

Accessories

- Set of 2 extractor handle ref. 4 222 28
- Set of connectors (8-pin) ref. 0 263 99
- Set of connectors (24 pin – 3x8 or 2x12) ref. 4 222 29
- Signal contact (plugged-in / draw-out) ref. 0 265 74
- Support plate for plug-in version ref. 4 222 37

DPX³ 630 Magnetic only

Electronic release

Reference(s) : 422 608 / 609 / 610 / 611

7.9 Draw-out version

(A DPX³ draw-out version is a plug-in DPX³ fitted with a "Débro-lift" mechanism which can be used to withdraw the DPX³ while keeping it on its base)

"Débro-lift" mechanism

- For DPX³ base only ref. 4 222 31
- For DPX³ base with earth leakage module ref. 4 222 33

Key lock for "Débro-lift" mechanism

- For DPX³ only
 - Ronis type flat key(cod.ABA90GEL6149)
ref. 0 265 76
 - Profalux type star key (cod.HBA90GPS6149)
ref. 0 263 48
- For motorized DPX³ or with rotarv handle
 - Ronis type flat key(cod.ABA90GEL6149)
ref. 0 265 78
 - Profalux type star key (cod.HBA90GPS6149)
ref. 0 265 77

Accessories for Débro-lift" mechanism

- Isolated handle for drawing-out ref 0 265 75
- Signal contact (plugged-in / drawn-out) ref 0 265 74
- Support plate for draw-out version ref. 4 222 36
- Automatic auxiliary contacts (6 pin) for D/O version (2 pieces installable max.) ref.4 222 30

7.10 Supply inverter type

(one plate with interlock for two devices)

- Fixed version ref. 0 264 09
- Plug-in/draw out version ref. 0 264 04

7.11 Supply

- Auxiliary supply (input 24 V AC/DC) ref. 4 210 83

7.12 RS485 ModBus communication interface

- To connect electronic DPX³ to an RS485 ModBus communication network ref. 4 210 75

7.13 Web server

- For remote viewing of values collected on electricity meters and multi-function measuring units
 - Up to 32 metering points ref. 0 261 78
 - Up to 255 metering points ref. 0 261 79

7.14 Software

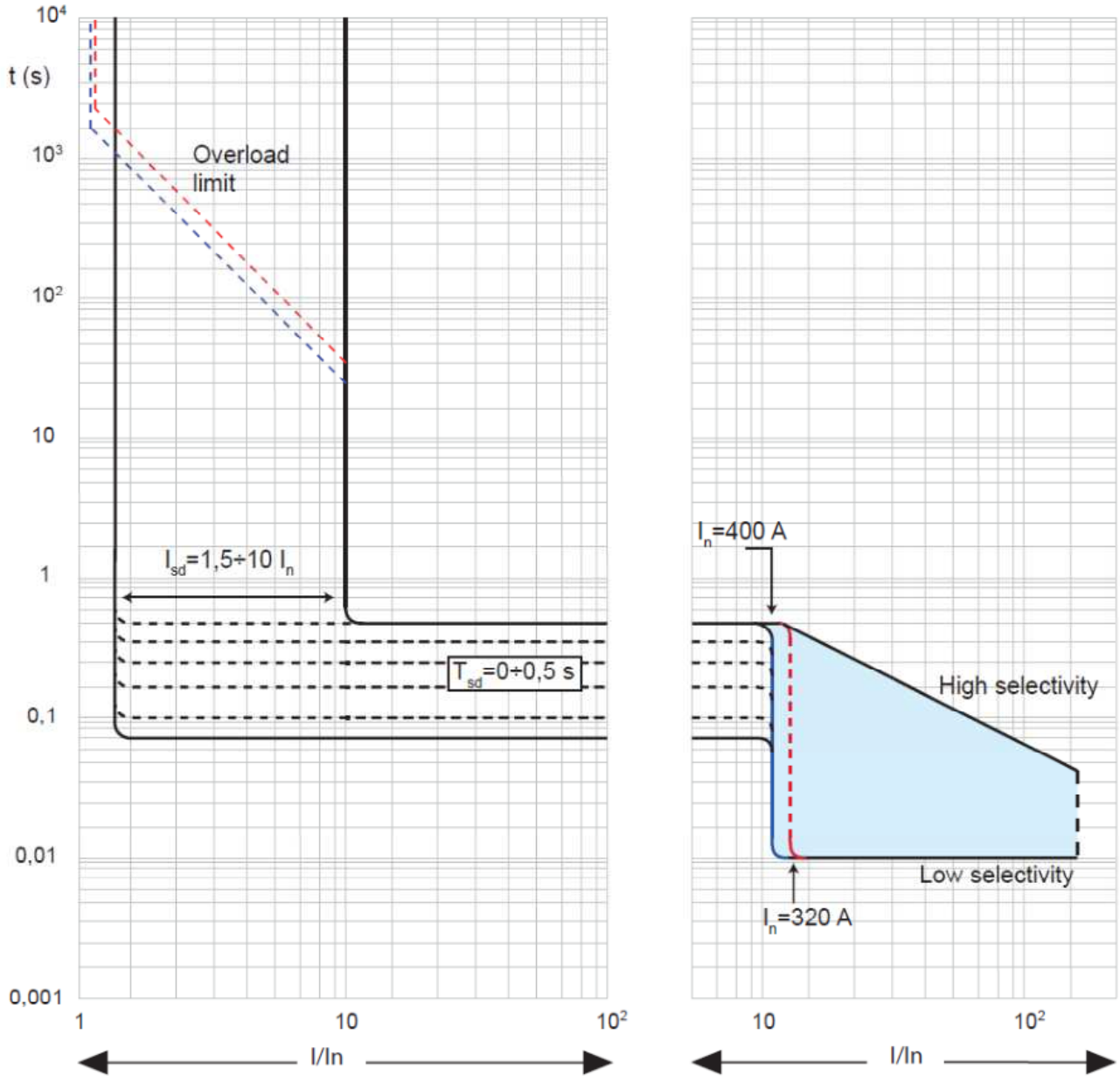
- To display values collected on electricity meters and multi-function measuring units on a PC connected to the network
 - Up to 32 metering points ref. 0 261 88
 - Up to 255 metering points ref. 0 261 89

7.15 Touch screen

- To show data collected by DX³, DPX³, DMX³, EMDX³. It can manage up to 8 devices ref. 0 261 56

8. CURVES

8.1 TRIPPING CURVE

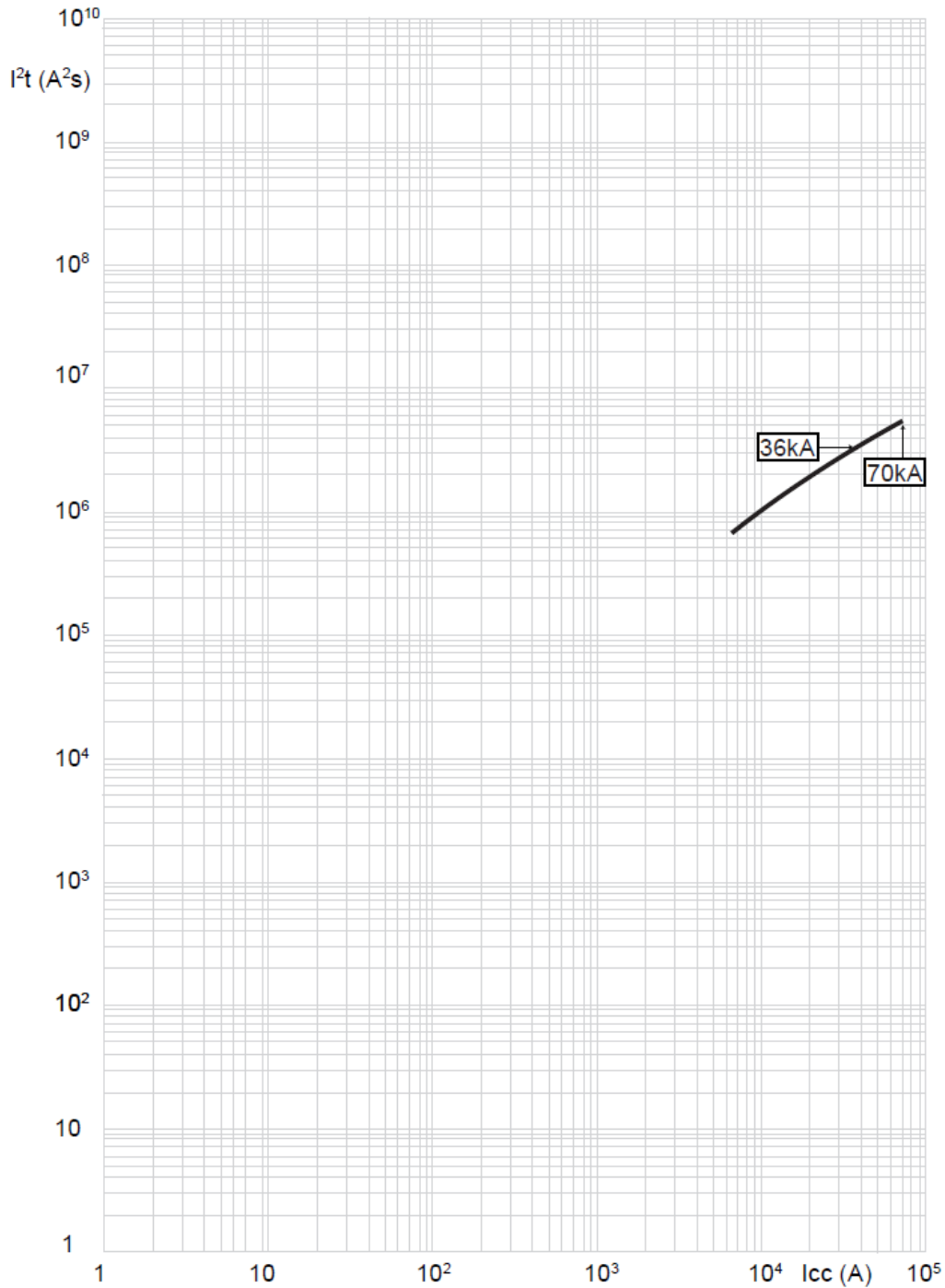


$I_{cu} = 36-70$ kA $I_{max} = 400$ A 3 P $U_e = 415$ Vac

Value	Description
t	time
I	current
I_n	rated current
I_r	long time setting current
t_r	long time delay
I_{sd}	short time setting current
t_{sd}	short time delay

(*) please, for magnetic current value I_i consider a normative tolerance of $\pm 10\%$

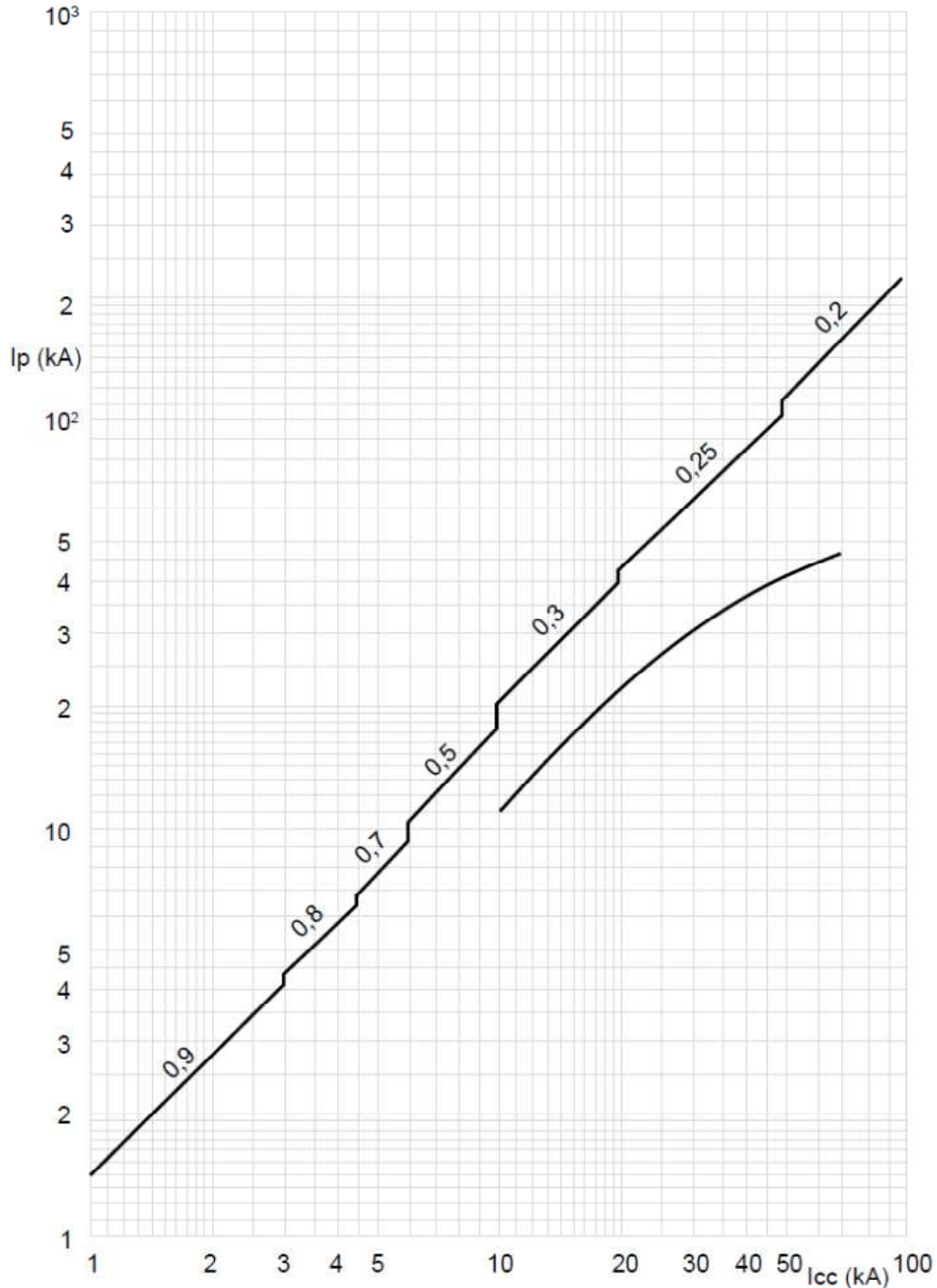
8.2 RESTRICTED CURVE IN THERMAL CONSTRAINT



$I_{cu} = 36-70$ kA $I_{max} = 400$ A 3 P $U_e = 415$ Vac

Value	Description
I_{cc}	short circuit current
I^2t	pass-through specific energy

8.3 RESTRICTED CURRENT CURVE



I_{cu} = 36-70 kA I_{max} = 400A 3 P U_e = 415Vac

Value	Description
I _{cc}	short circuit current
I _p	peak current

DPX³ 630 Magnetic only

Electronic release

Reference(s) : 422 608 / 609 / 610 / 611

A) Derating Temperature and configurations

		30°C		40°C		50°C		60°C		70°C	
		I _{max} (A)	I _r / I _n	I _{max} (A)	I _r / I _n	I _{max} (A)	I _r / I _n	I _{max} (A)	I _r / I _n	I _{max} (A)	I _r / I _n
DPX ³ 630 OMELE fixed	Cage terminals, flexible cable	400	1	400	1	400	1	380	0.95	360	0.9
	Lugs, flexible cable	400	1	400	1	400	1	360	0.9	340	0.85
	Lugs, rigid cable	400	1	400	1	400	1	380	0.95	360	0.9
	Spreaders, flexible cable	400	1	400	1	400	1	340	0.85	320	0.8
	Rear flat staggered terminals, flexible cable	400	1	400	1	400	1	360	0.9	340	0.85
	Rear tang terminals, flexible cable	400	1	380	0.95	380	0.95	320	0.8	300	0.75
DPX ³ 630 OMELE fixed + RCD	Cage terminals, flexible cable + RCD	400	1	400	1	340	0.85	320	0.8	300	0.75
	Lugs, flexible cable + RCD	380	0.95	380	0.95	340	0.85	320	0.8	300	0.75
	Lugs, rigid cable + RCD	400	1	380	0.95	340	0.85	320	0.8	300	0.75
	Spreaders, flexible cable + RCD	400	1	400	1	340	0.85	320	0.8	300	0.75
	Rear flat staggered terminals, flexible cable + RCD	400	1	400	1	340	0.85	320	0.8	300	0.75
	Rear tang terminals, flexible cable + RCD	380	0.95	380	0.95	360	0.9	340	0.85	320	0.8