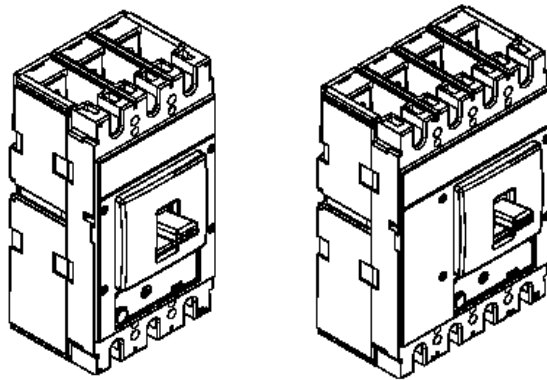


DPX³ 630 Magnetic only

Reference(s) : 422 598 / 599 / 600 / 601 / 602 / 603 / 616 / 617 / 618 / 619



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1. USE

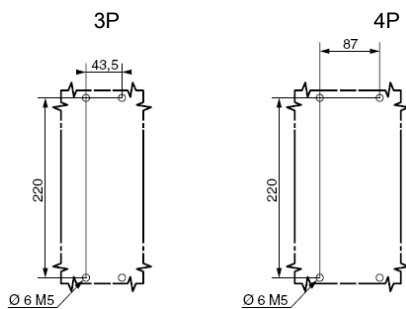
DPX³ "moulded case" circuit breaker offers optimal solutions to answer to protection requirements of tertiary and industrial installations.

2. RANGE

I _n	36 kA		70 kA	
	3P	4P	3P	4P
400 A	4 225 98	-	4 226 01	-
500 A	4 225 99	4 226 16	4 226 02	4 226 18
630 A	6 226 00	4 226 17	4 226 03	4 226 19

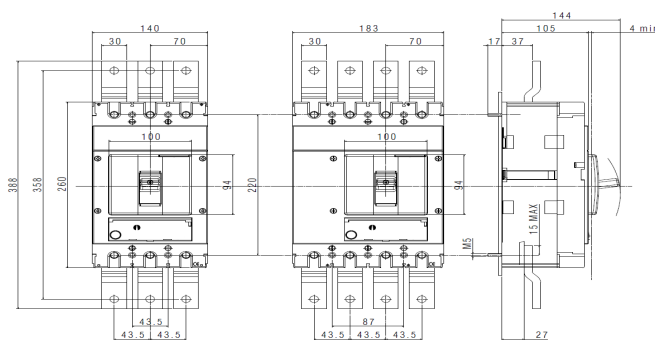
3. DIMENSIONS

Implantation

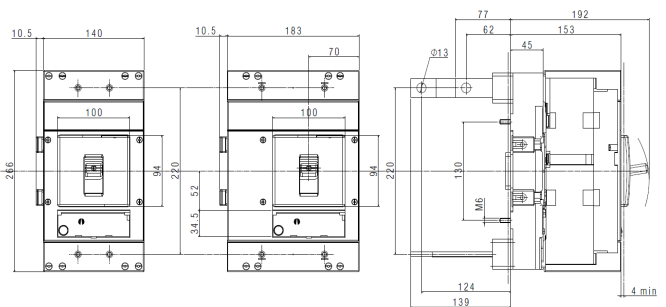


3. DIMENSIONS

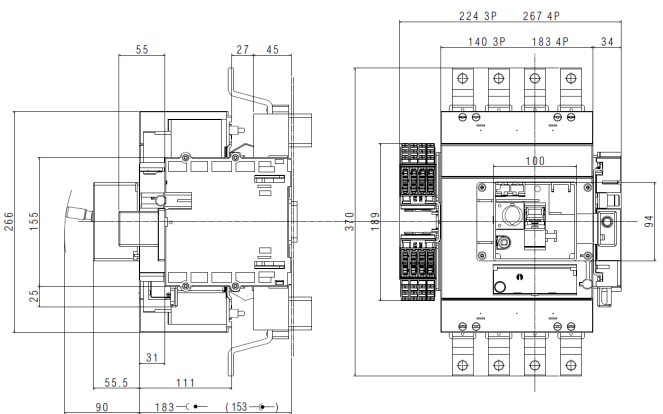
Front terminals, fixed version



Plug-in version, front terminals



Rear terminals with threaded rod



4. OVERVIEW

4.1 Supplied

Connection plates for bars:

- Width 32mm max

Seals for adjustment (supplied)

4.2 Mounting possibility

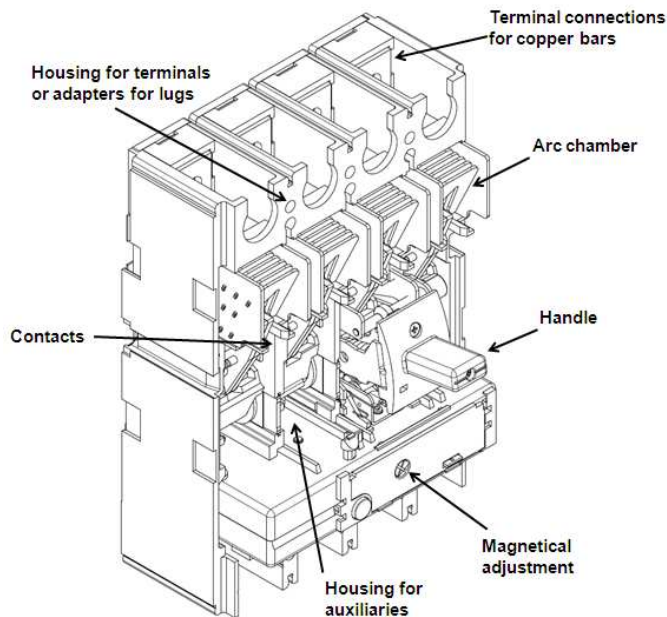
On plate :

- Vertical
- Horizontal
- Supply inverter type

5. ELECTRICAL AND MECHANICAL CHARACTERISTICS

Circuit Breaker	DPX ³ 630 (from 36 to 70kA)
Nominal current	400-500-630
Poles	3-4
Rated insulation voltage U_i	800
Rated operating voltage (50/60 Hz) U_o (V)	690
Rated impulse withstand current U_{imp} (kV)	8
Nominal frequency (Hz)	50-60
Functioning Temperature (°C)	40-50 °C
Operating temperature (°C)	-25 - 70 °C
Mechanical endurance (cycles)	20000
Mechanica endurance with motor control (cycles)	10000
Electrical endurance at I_n (cycles)	4000
Electrical endurance at 0.5 I_n (cycles)	8000
Utilization category	A
Suitable for isolation	Yes
Type of protection	Magnetic
Magnetic adjustable	$(5 \pm 10) \times I_n$
Dimensions (W x H x D) (mm)	(140-3P) (183-4P) x 266 x 108
Neutral Protection for 4P version (% I_n)	100

5.1 Main parts constituting the circuit breaker



5.2 Breaking capacity (kA)

Breaking capacity (kA) & I_{cs}		
	3P - 4P	3P - 4P
U_o/I_{cu}	F	H
220/240 V AC	70	120
380/415 V AC	36	70
440/480 V AC	30	60
480/550 V AC	25	40
600 V AC	20	25
690 V AC	14	20
I_{cs} (% I_{cu})	100	100

5.3 Nominal current (I_n) at 40 °C / 50 °C

I_n (A)	Assigned current trip	
	Magnetic	
	L1-L2-L3	N
400	2000-4000	-
500	2500-5000	2500-5000
630	3150-6300	3150-6300

5.4 Power losses per pole under I_n

Power losses per pole (W) DPX ³ 630 MS			
Rated Current (A)	400	500	630
Pole	Phase	Phase	Phase
Cage terminals	25.6	23.5	37.3

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

5.5 FUNCTIONING IN PARTICULAR CONDITIONS

5.5.1 Temperature

Influence of ambient temperature								
Ambient temperature	°C	10	20	30	40	50	60	70
DPX ³ 630	I_n (A)							
	400	475	460	425	400	400	360	320
	500	600	550	525	500	500	455	410
	630	700	683	650	630	630	580	530

For derating temperature with other configuration, see table A.

5.5.2 Altitude

DPX ³	Altitude (m)			
	2000	3000	4000	5000
Rated current (A)	$1 \times I_n$	$0,98 \times I_n$	$0,93 \times I_n$	$0,9 \times I_n$
Rated voltage (V)	690	590	520	460

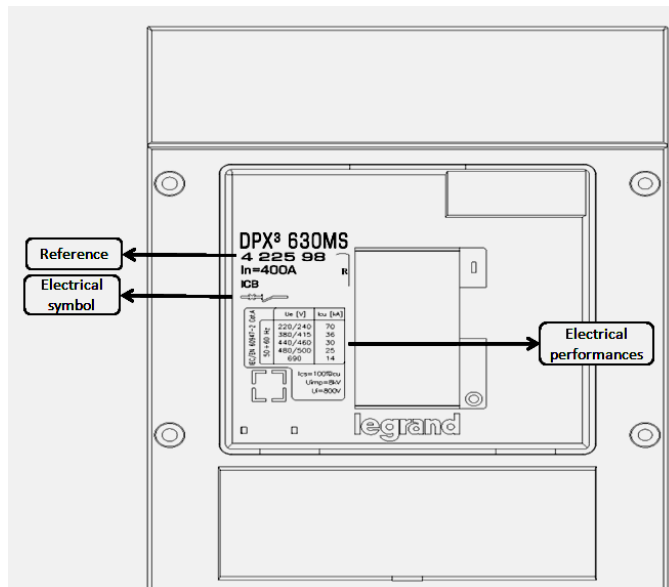
5.5.3 Use at 400 Hz

See table B.

6. CONFORMITY

IEC/EN 60 947-2

6.1 MARKING



" Tropical climate" :

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

7. EQUIPMENTS AND ACCESSORIES

7.1 Earth leakage modules:

Earth leakage characteristics for DPX ³ 630		
	Standard	with Led
Type	A-S	A-S
Uninterrupted nominal current I _n (A)	630	630
Rated earth leakage current I _{dn} (A)	0.03÷3	0.03÷3
Rated isolated voltage U _i (V AC)	500	500
Rated operating voltage U _e (V AC) (50-60Hz)	500	500
Operating voltage (V AC) (50-60Hz)	230÷500	110÷500
Nominal frequency (Hz)	50-60	50-60
Operating temperature (°C)	from -25 to 70	from -25 to 70
Trip	electronic	electronic
Earth leakage protection adjustments I _{dn} (A)	0.03÷3	0.03÷3
Earth leakage time adjustments (s)	0-0.3-1-3	0-0.3-1-3
Earth leakage breaking capacity I _{dm} (% I _{cu})	60	60
Side-by-side mounting	no	no
Underneath mounting	yes	yes
50% Earth fault detection contact I _{dn}	no	yes
Clip on rail DIN 35	no	no
Dimensions moulded case (WxHxD) (mm) 4P	183x152x105	183x152x106

(Power losses, see table 5.4)

Standard		
400A	3P	ref. 0 260 60
630A	3P	ref. 0 260 64
	4P	ref. 0 260 65
LED version		
630A	4P	ref. 0 260 67

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	
230V AC	ref. 0 261 90
400V AC	ref. 0 261 91
Universal Release	ref. 4 226 23

7.3 Auxiliary contact

Changeover switch 3 A – 240 V AC ref. 4 210 11

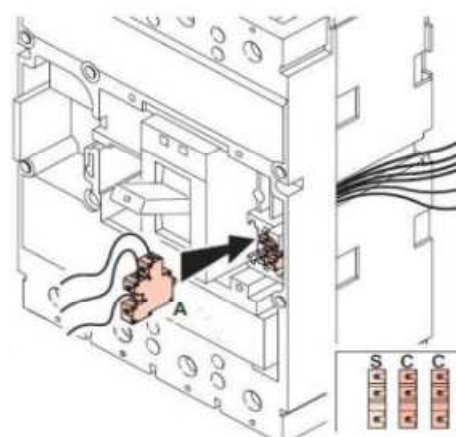
To signal the state of the contacts or opening of the DPX³ on a fault:

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

- Profalux type for vari-depth handle ref. 0 262 93
- Ronis type 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 110 V AC ref. 0 261 42
- Voltage 230 V AC ref. 0 261 44

Locking accessories

- Ronis type ref. 0 261 59
- Profalux type ref. 0 261 58

7.6 Mechanical accessories

Insulated shields

- Set of 3 ref. 0 262 30

Sealable terminal shields

- Set of 2 3P ref. 0 262 44
- Set of 2 4P ref. 0 262 45

Terminal covers to guarantee IP20

- Set of 2 3P ref. 4 222 34
- Set of 2 4P ref. 4 222 35

Padlocks

- Accessories for locking 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 240mm² max (rigid) or 180mm² 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 3P) ref. 0 262 48
- Set of 4 (incoming or outgoing 4P) ref. 0 262 49

Rear terminals

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

- Set of swivel terminals, incoming or outgoing
 - 3P ref. 0 263 50
 - 4P ref. 0 263 51
- Set of flat rear terminals, incoming or outgoing
 - 3P ref. 0 263 52
 - 4P ref. 0 263 53

Terminals for plug-in and draw-out base

- Set of 6 terminals (3P) ref. 4 222 20
- Set of 8 terminals (4P) ref. 4 222 21

7.8 Plug-in version

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

Tulip contact

- Set of tulip contact (supplied with an incoming/outgoing protective cover)
 - 3P ref. 0 265 50
 - 4P ref. 0 265 51

Bases

- front terminal mounting base
 - 3P ref. 4 222 22
 - 4P ref. 4 222 23
- flat rear terminal mounting base
 - 3P ref. 4 222 24
 - 4P ref. 4 222 25

Bases with earth leakage underneath mounting (4P)

- 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 / drawn-out) ref. 0 265 74
- Support plate for plug-in version ref. 4 222 37

7.9 Draw-out version

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

"Debro-lift" mechanism

- For DPX³ base only
 - 3P ref. 0 265 66
 - 4P ref. 0 265 67
- For DPX³ base with earth leakage module ref. 0 265 68

Key lock for "Debro-lift" mechanism

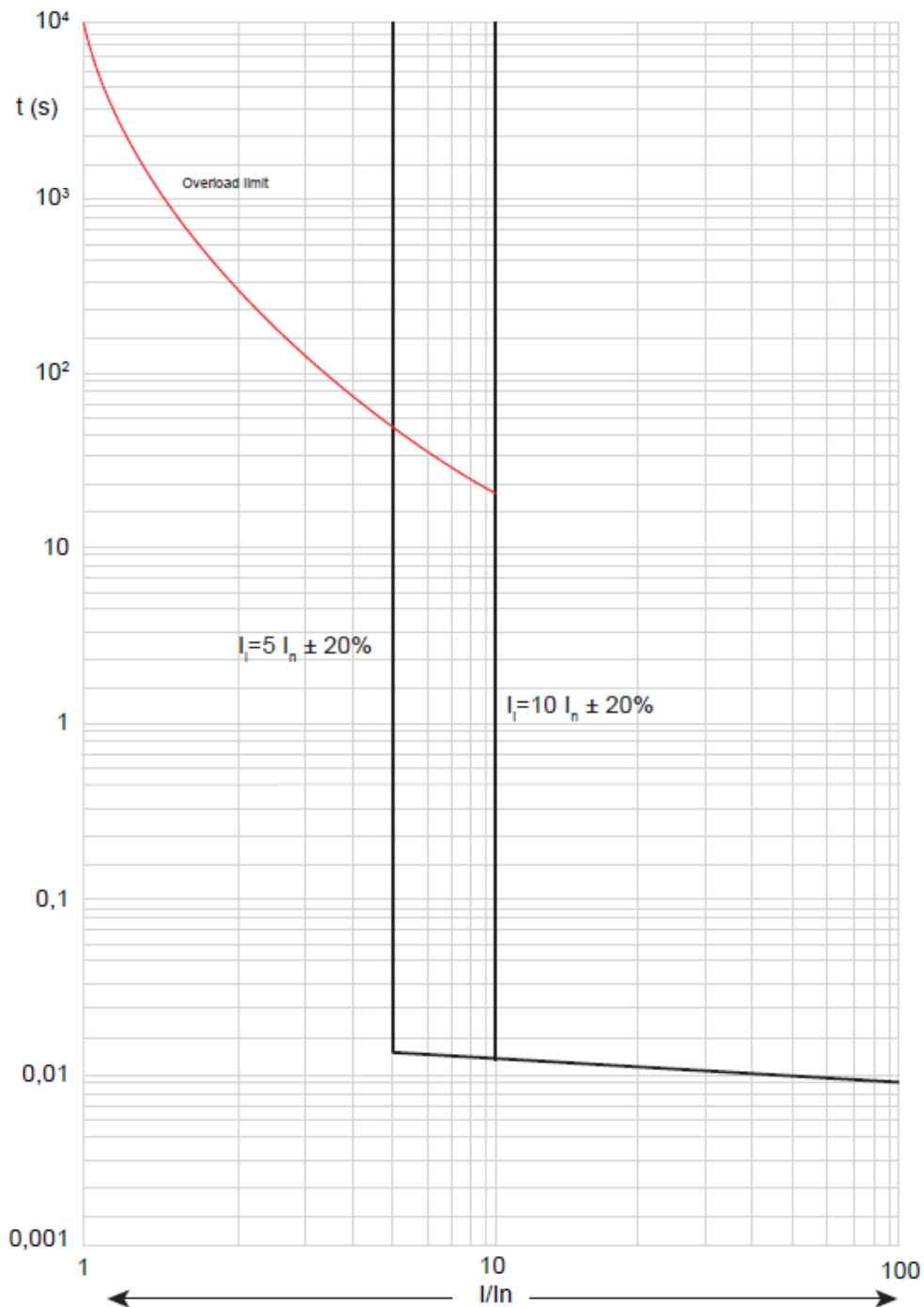
- For DPX³ only
 - Ronis ref. 0 265 76
 - Profalux ref. 0 263 48
- For motorized DPX³ or with rotary handle
 - Ronis ref. 0 265 78
 - Profalux ref. 0 265 77

Accessories for "Debro-lift" mechanism

- Isolated handle to draw-out ref. 0 265 75
- Signal contact (plugged-in / drawn-out) ref. 0 265 74
- Supporting 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

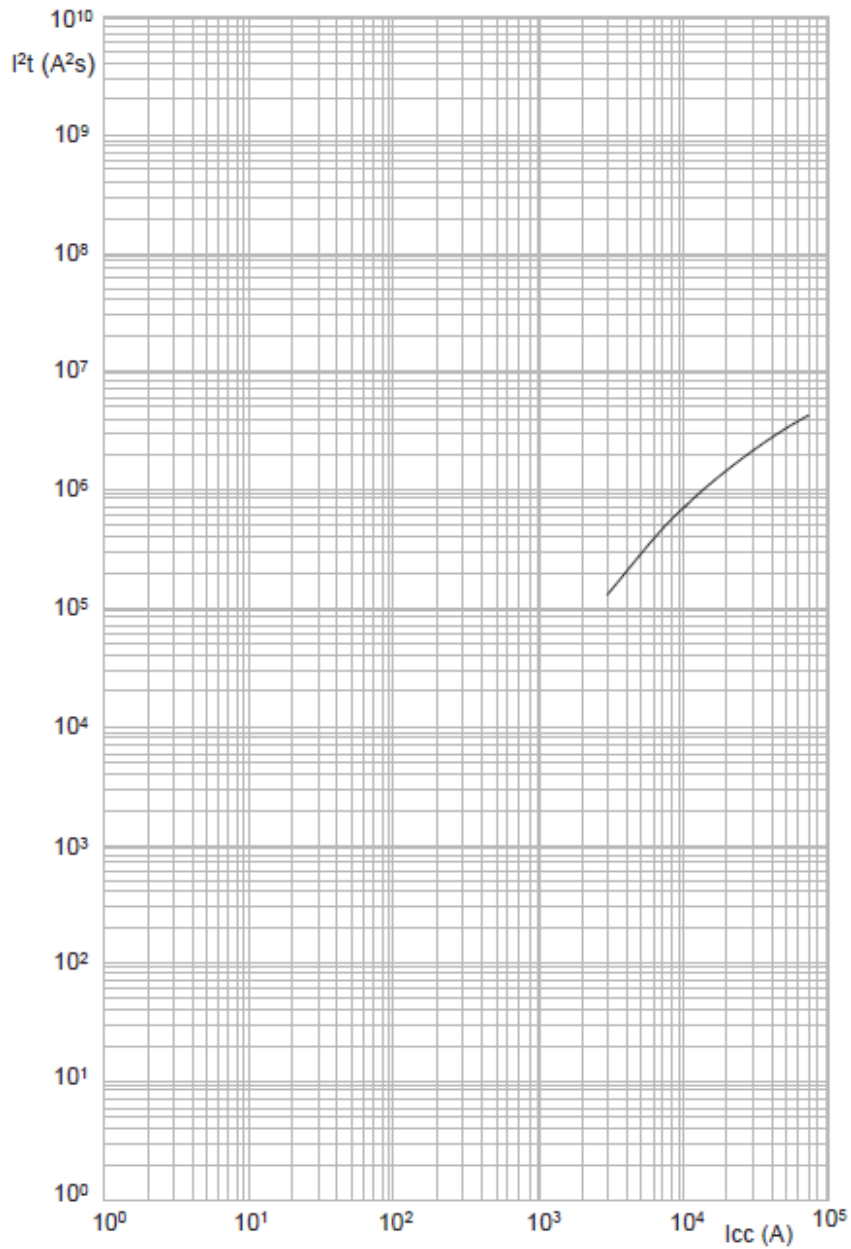
9. CURVES

9.1 TRIPPING CURVE



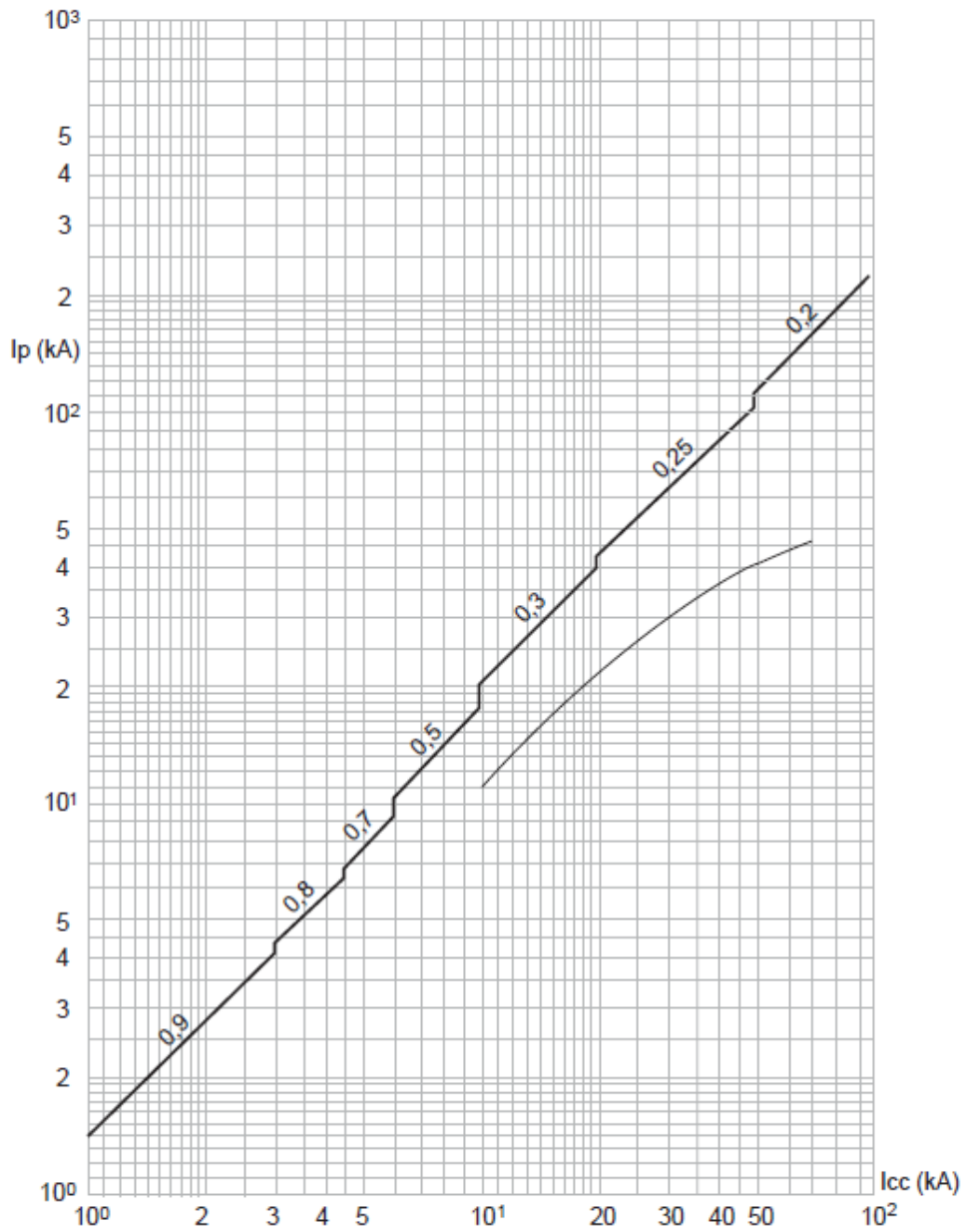
Value	Description
t	time
I	current
I _n	rated current

9.2 PASS-THROUGH SPECIFIC ENERGY CHARACTERISTIC



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

9.3 CUT-OFF PEAK CURRENT CHARACTERISTIC



Value	Description
I_{cc}	short circuit current
I_p	peak current

1

A) Derating Temperature and configurations

		30°C		40°C		50°C		60°C		65°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	I _{max} (A)	I _r / I _n
DPX ³ 630 fixed	Cage terminals, flexible cable	630	1	630	1	630	1	599	0.95	567	0.9	536	0.85
	Lugs, flexible cable	630	1	630	1	630	1	599	0.95	567	0.9	536	0.85
	Lugs, rigid cable	630	1	630	1	630	1	599	0.95	567	0.9	536	0.85
	Spreaders, flexible cable	630	1	630	1	630	1	599	0.95	504	0.8	473	0.75
	Spreaders, Cu bars	630	1	630	1	630	1	567	0.9	536	0.85	504	0.8
	Rear flat staggered terminals, flexible cable	630	1	630	1	630	1	599	0.95	504	0.8	473	0.75
	Rear flat staggered terminals, Cu bars, vertical	630	1	630	1	630	1	567	0.9	536	0.85	504	0.8
	Rear tang terminals, flexible cable	630	1	630	1	630	1	567	0.9	504	0.8	473	0.75
DPX ³ 630 fixed + RCD	Cage terminals, flexible cable + RCD	599	0.95	567	0.9	567	0.9	504	0.8	473	0.75	441	0.7
	Lugs, flexible cable + RCD	599	0.95	567	0.9	567	0.9	504	0.8	473	0.75	441	0.7
	Lugs, rigid cable + RCD	599	0.95	567	0.9	567	0.9	504	0.8	473	0.75	441	0.7
	Staggered spreaders, flexible cable + RCD	536	0.85	536	0.85	536	0.85	473	0.75	410	0.65	378	0.6
	Staggered spreaders, Cu bars + RCD	567	0.9	536	0.85	536	0.85	504	0.8	441	0.7	378	0.6
	Rear flat staggered terminals, flexible cable + RCD	567	0.9	567	0.9	567	0.9	473	0.75	410	0.65	378	0.6
	Rear flat staggered terminals, Cu bars, vertical + RCD	567	0.9	567	0.9	567	0.9	504	0.8	441	0.7	378	0.6
	Rear tang terminals, flexible cable + RCD	504	0.8	504	0.8	504	0.8	473	0.75	410	0.65	378	0.6
DPX ³ 630 draw out	Cage terminals, flexible cable	599	0.95	567	0.9	536	0.85	504	0.8	473	0.75	441	0.7
	Rear flat terminals, flexible cable	599	0.95	567	0.9	536	0.85	504	0.8	473	0.75	441	0.7
	Rear flat terminals, Cu bars, vertical	599	0.95	567	0.9	536	0.85	504	0.8	473	0.75	441	0.7
DPX ³ 630 draw out + RCD	Cage terminals, flexible cable + RCD	536	0.85	504	0.8	473	0.75	441	0.7	410	0.65	378	0.6
	Cage terminals, Cu bars + RCD	536	0.85	504	0.8	473	0.75	441	0.7	410	0.65	378	0.6
	Rear flat terminals, flexible cable + RCD	536	0.85	504	0.8	473	0.75	441	0.7	410	0.65	378	0.6
	Rear flat terminals, Cu bars, vertical + RCD	536	0.85	504	0.8	473	0.75	441	0.7	410	0.65	378	0.6

B) Correct factor for adjustment for use at 400 Hz

I _n (A) at 50Hz	I _m (A) at 50Hz	Magnetic Adjustment	
		Correction factor	I _m (A) at 400Hz
400	2000-4000	1	2000-4000
500	2500-5000	1	2500-5000
630	3150-6300	1	3150-6300

C) Breaking capacity in DC

	I _n (A)	1 pole			2 poles in series			3 poles in series			4 poles in series			Protection	
		≤55-60V	≤110-125V	250V	≤110-125V	250V	400V	≤110-125V	250V	400V	500V	Magnetic	Earth leakage		
DPX ³ 630 OM (I _{cu} = 36kA)	400-500-630	40	40	36	N/A	N/A	40	N/A	N/A	N/A	40	1.5 li AC	not available		
DPX ³ 630 OM (I _{cu} = 70kA)	400-500-630	45	45	40	N/A	N/A	45	N/A	N/A	N/A	45	1.5 li AC	not available		