

## DPX<sup>3</sup>-I trip-free switches

160 to 1600 A



4 202 99

Dimensions [see e-catalogue](#)

Trip-free switches for on-load circuit breaking and isolation of low voltage electrical circuits

Can be associated to earth leakage modules or to corresponding DPX<sup>3</sup> residual current relays

Conform to IEC 60947-3

Category of use AC 23 A

Connection identical to corresponding DPX<sup>3</sup>

| Pack | Cat.Nos                                  | DPX <sup>3</sup> -I 160  |
|------|--|--|
| 1    | 3P<br>4 201 98   4P<br>4 201 99          | In (A)<br>160<br>Mounting on rail  with plate Cat.No 4 210 71 (p. 129) |
| 1    | 4P with earth leakage module<br>4 201 97 | 160<br>Mounting on rail  with plate Cat.No 4 210 73 (p. 129)           |
| 1    | 3P<br>4 202 99   4P<br>4 203 00          | In (A)<br>250<br>Mounting on rail  with plate Cat.No 4 210 72 (p. 133) |
| 1    | 4P with earth leakage module<br>4 202 98 | 250<br>Mounting on rail  with plate Cat.No 4 210 74 (p. 133)           |
| 1    | 3P<br>4 222 16   4P<br>4 222 18          | In (A)<br>400  |
| 1    | 4 222 17   4 222 19                      | 630  |
| 1    | 3P<br>4 224 90   4P<br>4 224 94          | In (A)<br>630  |
| 1    | 4 224 91   4 224 95                      | 800  |
| 1    | 4 224 92   4 224 96                      | 1250   |
| 1    | 4 224 93   4 224 97                      | 1600   |

## DPX<sup>3</sup>-I trip-free switches

160 to 1600 A

### Electrical characteristics

|  | DPX <sup>3</sup> -I 160 | DPX <sup>3</sup> -I 250 | DPX <sup>3</sup> -I 630 | DPX <sup>3</sup> -I 1600               |
|--|-------------------------|-------------------------|-------------------------|--|
| Rated operating voltage U <sub>e</sub> (V)                         | 50/60 Hz                | 690 <sup>(1)</sup>      | 690 <sup>(1)</sup>      | 690                                    |
|  | direct                  | 250                     | 250                     | 250                                    |
| Rated insulation voltage U <sub>i</sub> (V $\sim$ )                |                         | 800                     | 800                     | 690                                    |
| Rated impulse withstand voltage U <sub>imp</sub> (kV)              |                         | 8                       | 8                       | 8                                      |
| Rated closing capacity on 400 V short circuit I <sub>cm</sub> (kA) |                         | 3                       | 3                       | 6.5 <sup>(3)</sup> / 13 <sup>(4)</sup> |
| Short-time resistive current t = 1 s I <sub>cs</sub> (kA)          |                         | 1.7                     | 1.7                     | 4 <sup>(3)</sup> / 7.6 <sup>(4)</sup>  |
| Endurance (o.c. cycle)   | mechanical              | 25000                   | 25000                   | 15000                                  |
|  | electrical              | 8000                    | 8000                    | 5000                                   |
| Conventional thermal current (A)                                   |                         | 160                     | 250                     | 630                                    |
| Nominal current of use (A) AC 23 A (690 V $\sim$ )                 |                         | 160 (160 V)             | 250 (250 V)             | 630                                    |
| DC 23 A (250 V $\sim$ )  |                         | 160                     | 160                     | 630                                    |

1: 500 V for DPX<sup>3</sup>-I with earth leakage module

2: Up to 1250 A

3: I<sub>n</sub> = 400 A

4: I<sub>n</sub> = 630 A

5: I<sub>n</sub> = 800 A

6: I<sub>n</sub> = 1250 A

7: I<sub>n</sub> = 1600 A

### Dimensions

Dimensions of DPX<sup>3</sup>-I identical to corresponding DPX<sup>3</sup>

| DPX <sup>3</sup> -I      | Dimensions                              |
|--------------------------|---|
| DPX <sup>3</sup> -I 160  | DPX <sup>3</sup> 160 (see e-catalogue)  |
| DPX <sup>3</sup> -I 250  | DPX <sup>3</sup> 250 (see e-catalogue)  |
| DPX <sup>3</sup> -I 630  | DPX <sup>3</sup> 630 (see e-catalogue)  |
| DPX <sup>3</sup> -I 1600 | DPX <sup>3</sup> 1600 (see e-catalogue) |

### Choice of faceplates and distribution equipment

Equipment of DPX<sup>3</sup>-I identical to corresponding DPX<sup>3</sup>

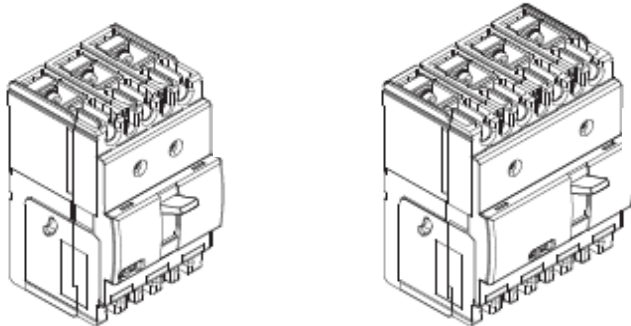
| Devices                                    | XL <sup>3</sup> 400 | XL <sup>3</sup> 800 | XL <sup>3</sup> 4000 |
|--|---------------------|---------------------|----------------------|
| DPX <sup>3</sup> /DPX <sup>3</sup> -I 160  | (p. 222)            | (p. 234)            | (p. 244)             |
| DPX <sup>3</sup> /DPX <sup>3</sup> -I 250  | (p. 222)            | (p. 234)            | (p. 244)             |
| DPX <sup>3</sup> /DPX <sup>3</sup> -I 630  | (p. 223)            | (p. 234)            | (p. 244)             |
| DPX <sup>3</sup> /DPX <sup>3</sup> -I 1600 | -                   | (p. 234)            | (p. 244)             |

# DPX<sup>3</sup> 160

## Thermal magnetic and trip-free switches

### DPX<sup>3</sup>-I 160

Reference(s) : 420 000/ 001/ 002/003/ 004/ 005/ 006/ 007/ 010/ 011/ 012/ 013/ 014/ 015/ 016/ 017/ 040/ 041/ 042/ 043/ 044/ 045/ 046/ 047/ 050/ 051/ 052/ 053/ 054/ 055/ 056/ 057/ 080/ 081/ 082/ 083/ 084/ 085/ 086/ 087/ 090/ 091/ 092/ 093/ 094/ 095/ 096/ 097/ 120/ 121/ 122/ 123/ 124/ 125/ 126/ 127/ 130/ 131/ 132/ 133/ 134/ 135/ 136/ 137/ 198/ 199



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### 1. USE

DPX<sup>3</sup> "moulded case" offers optimal solutions to answer protection requirements of tertiary and industrial installations.

### 2. RANGE

DPX<sup>3</sup>

| In (A) | 16 kA  |        | 25 kA  |        | 36 kA  |        | 50 kA  |        |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|        | 3P     | 4P     | 3P     | 4P     | 3P     | 4P     | 3P     | 4P     |
| 16     | 420000 | 420010 | 420040 | 420050 | 420080 | 420090 | 420120 | 420130 |
| 25     | 420001 | 420011 | 420041 | 420051 | 420081 | 420091 | 420121 | 420131 |
| 40     | 420002 | 420012 | 420042 | 420052 | 420082 | 420092 | 420122 | 420132 |
| 63     | 420003 | 420013 | 420043 | 420053 | 420083 | 420093 | 420123 | 420133 |
| 80     | 420004 | 420014 | 420044 | 420054 | 420084 | 420094 | 420124 | 420134 |
| 100    | 420005 | 420015 | 420045 | 420055 | 420085 | 420095 | 420125 | 420135 |
| 125    | 420006 | 420016 | 420046 | 420056 | 420086 | 420096 | 420126 | 420136 |
| 160    | 420007 | 420017 | 420047 | 420057 | 420087 | 420097 | 420127 | 420137 |

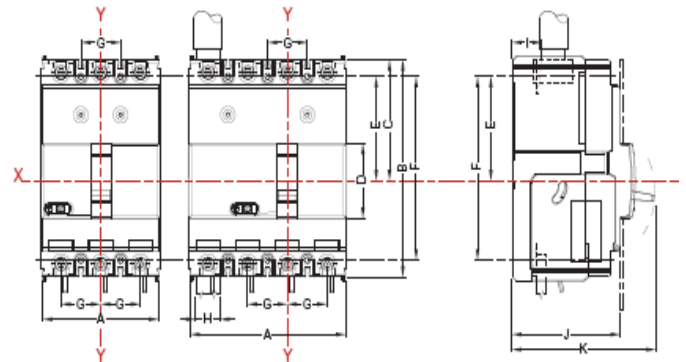
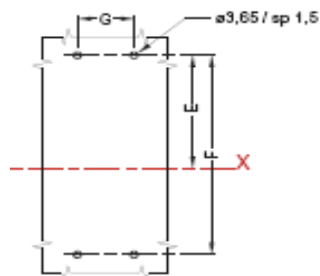
DPX<sup>3</sup>-I

|     | 3P      | 4P      |
|-----|---------|---------|
| 160 | 420 198 | 420 199 |

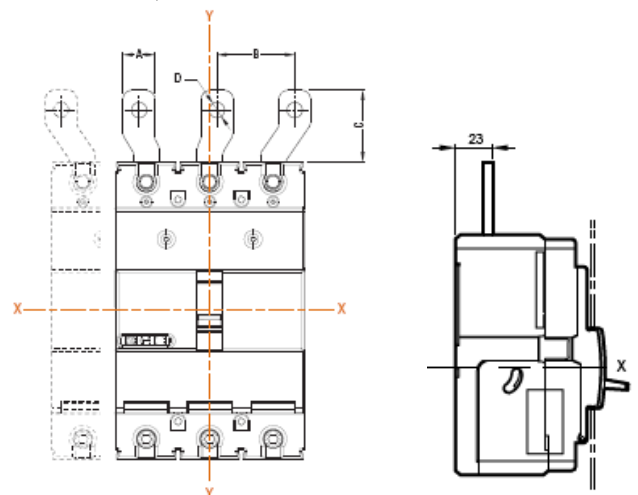
### 3. DIMENSIONS

#### 3.1 Fixed version

|        | A   | B   | C    | D  | E    | F   | G  | H  | I  | J  | K  |
|--------|-----|-----|------|----|------|-----|----|----|----|----|----|
| 160 3P | 81  | 130 | 72,5 | 45 | 62,5 | 110 | 27 | 19 | 18 | 74 | 97 |
| 160 4P | 108 | 130 | 72,5 | 45 | 62,5 | 110 | 27 | 19 | 18 | 74 | 97 |



#### 3.2 Fixed version, front terminals



|     | A    | B  | C  | D   |
|-----|------|----|----|-----|
| 160 | 17,5 | 35 | 41 | 8,5 |

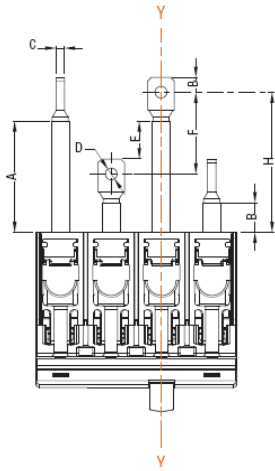
# DPX<sup>3</sup> 160

## Thermal magnetic and trip-free switches

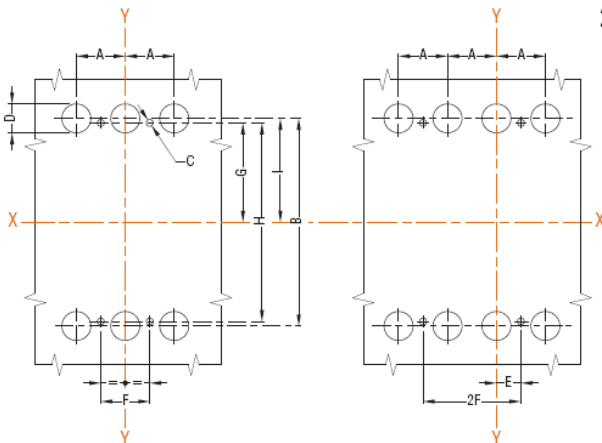
### DPX<sup>3</sup>-I 160

Reference(s) : 420 000/ 001/ 002/003/ 004/ 005/ 006/ 007/ 010/ 011/ 012/ 013/ 014/ 015/ 016/ 017/ 040/ 041/ 042/ 043/ 044/ 045/ 046/ 047/ 050/ 051/ 052/ 053/ 054/ 055/ 056/ 057/ 080/ 081/ 082/ 083/ 084/ 085/ 086/ 087/ 090/ 091/ 092/ 093/ 094/ 095/ 096/ 097/ 120/ 121/ 122/ 123/ 124/ 125/ 126/ 127/ 130/ 131/ 132/ 133/ 134/ 135/ 136/ 137/ 198/ 199

#### 3.3 Fixed version, rear terminals

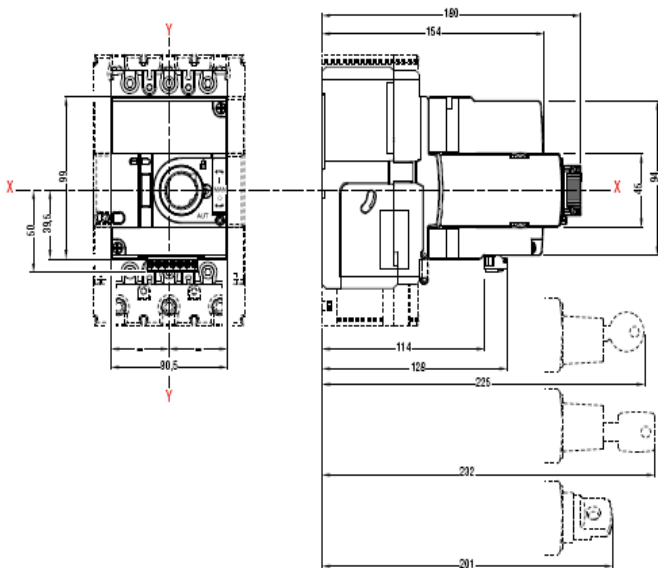


|     | A    | B    | C   | D   | E    | F  | G  | H  |
|-----|------|------|-----|-----|------|----|----|----|
| 160 | 65,5 | 21,5 | 4,5 | 6,3 | 19,5 | 44 | 11 | 79 |

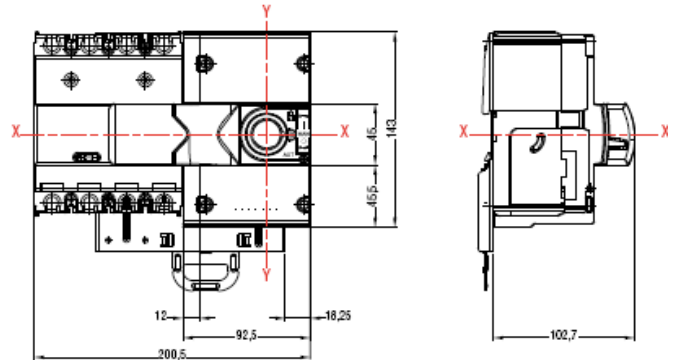


|     | A  | B   | C    | D  | E    | F  | G    | H   | I  |
|-----|----|-----|------|----|------|----|------|-----|----|
| 160 | 27 | 115 | 3,65 | 16 | 13,5 | 27 | 62,5 | 110 | 65 |

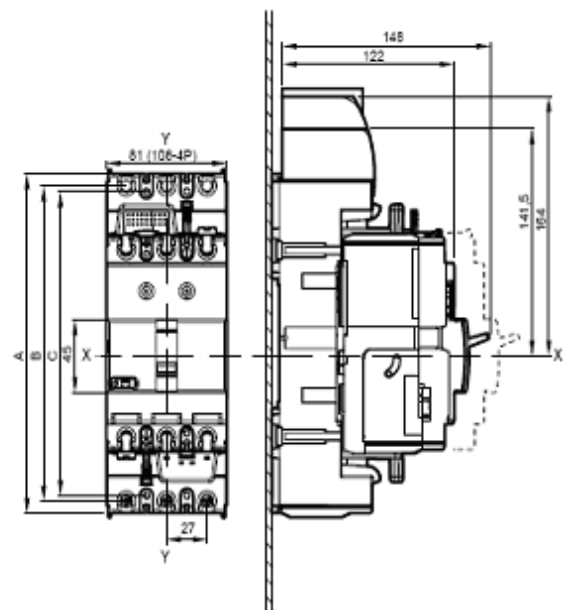
#### 3.4 Fixed version, front motor operator



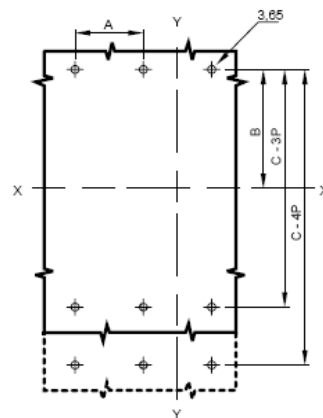
#### 3.5 Fixed version, side motor operator



#### 3.6 Plug-in version



|                           | A   | B   | C   |
|---------------------------|-----|-----|-----|
| DPX <sup>3</sup> 160 - 3P | 208 | 193 | 186 |
| DPX <sup>3</sup> 160 - 4P | 238 | 223 | 216 |



|                      | A  | B     | C   |
|----------------------|----|-------|-----|
| DPX <sup>3</sup> 160 | 27 | 100,5 | 186 |

# DPX<sup>3</sup> 160

## Thermal magnetic and trip-free switches

### DPX<sup>3</sup>-I 160

Reference(s) : 420 000/ 001/ 002/003/ 004/ 005/ 006/ 007/ 010/ 011/ 012/ 013/ 014/ 015/ 016/ 017/ 040/ 041/ 042/ 043/ 044/ 045/ 046/ 047/ 050/ 051/ 052/ 053/ 054/ 055/ 056/ 057/ 080/ 081/ 082/ 083/ 084/ 085/ 086/ 087/ 090/ 091/ 092/ 093/ 094/ 095/ 096/ 097/ 120/ 121/ 122/ 123/ 124/ 125/ 126/ 127/ 130/ 131/ 132/ 133/ 134/ 135/ 136/ 137/ 198/ 199

#### 4. ELECTRICAL AND MECHANICAL CHARACTERISTICS

##### 4.1 Breaker technical characteristics

| Circuit breaker   | DPX <sup>3</sup> 160     |
|---|--------------------------|
| Rated current I <sub>n</sub> (A)                          | 16-160                   |
| Rated insulation voltage U <sub>i</sub> (V)               | 800                      |
| Rated operational voltage U <sub>e</sub> (V)              | 690 V (ac)<br>500 V (dc) |
| Rated impulse withstand voltage U <sub>imp</sub> (kV)     | 8                        |
| Ambient temperature (°C)                                  | 40                       |
| Endurance electrical / mechanical                         | 8000/25000               |
| Utilization category                                      | A                        |
| Releases type   | thermal-mag              |
| Nominal frequency (Hz)                                    | 50-60                    |
| Thermal adjustment  | 0,8 ÷ 1 I <sub>n</sub>   |
| Magnetic threshold (for 16 and 25A I <sub>m</sub> = 400A) | 10 x I <sub>n</sub>      |

##### 4.2 Switches technical characteristics

| Switches  | DPX <sup>3</sup> -I 160  |
|---|--------------------------|
| Rated current I <sub>n</sub> (A)                              | 160                      |
| Rated insulation voltage U <sub>i</sub> (V)                   | 800                      |
| Rated operational voltage U <sub>e</sub> (V)                  | 690 V (ac)<br>500 V (dc) |
| Rated impulse withstand voltage U <sub>imp</sub> (kV)         | 8                        |
| Ambient temperature (°C)                                      | 40                       |
| Endurance electrical / mechanical                             | 8000/25000               |
| Nominal frequency (Hz)  | 50-60                    |
| Rated short-time withstand current I <sub>sw</sub> (1 s) (kA) | 1,7                      |
| Rated short-circuit making capacity I <sub>cm</sub> (kA)      | 2,4                      |
| AC 22, AC 23, DC 22, DC 23 (A)                                | 160                      |

##### 4.3 Breaking capacity (kA)

| Breaking capacity I <sub>cu</sub> and I <sub>cs</sub> in AC (KA) |                |       |       |       |       |
|--|----------------|-------|-------|-------|-------|
|  | U <sub>e</sub> | 16 kA | 25 kA | 36 kA | 50 kA |
| I <sub>cu</sub> (kA)   | 220/240V       | 25    | 36    | 50    | 65    |
|  | 380/415V       | 16    | 25    | 36    | 50    |
|  | 440V           | 10    | 18    | 25    | 30    |
|  | 460V           | 10    | 18    | 25    | 30    |
|  | 480/500V       | 8     | 10    | 12    | 15    |
| 690V   | 5              | 5     | 8     | 10    |       |
| I <sub>cs</sub> (%I <sub>cu</sub> )                              | -              | 100   | 100   | 100   | 100   |
| Rated short-circuit making capacity I <sub>cm</sub> (KA)         |                |       |       |       |       |
|  | U <sub>e</sub> | 16 kA | 25 kA | 36 kA | 50 kA |
| I <sub>cm</sub> (kA)   | 415 V          | 32    | 52.5  | 75.6  | 105   |

##### 4.4 Derating temperature Ta (°C)

| Influence of ambient temperature Ta(°C) |     |     |     |     |     |     |     |     |     |     |     |     |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| I <sub>n</sub> (A)                      | -25 | -20 | -10 | -5  | 0   | 10  | 20  | 30  | 40  | 50  | 60  | 70  |
| 16                                      | 23  | 22  | 21  | 21  | 20  | 19  | 18  | 17  | 16  | 15  | 15  | 14  |
| 25                                      | 37  | 35  | 34  | 33  | 32  | 30  | 28  | 26  | 25  | 23  | 22  | 21  |
| 40                                      | 55  | 54  | 52  | 51  | 50  | 47  | 43  | 42  | 40  | 38  | 36  | 34  |
| 63                                      | 88  | 87  | 84  | 83  | 81  | 76  | 69  | 66  | 63  | 60  | 57  | 55  |
| 80                                      | 115 | 113 | 111 | 109 | 107 | 97  | 87  | 84  | 80  | 78  | 75  | 72  |
| 100                                     | 135 | 133 | 130 | 123 | 115 | 108 | 104 | 102 | 100 | 95  | 90  | 85  |
| 125                                     | 160 | 158 | 155 | 153 | 150 | 138 | 130 | 127 | 125 | 118 | 112 | 105 |
| 160                                     | 224 | 221 | 214 | 210 | 205 | 192 | 176 | 168 | 160 | 152 | 145 | 139 |

##### 4.5 Power loss (W)

###### 4.5.1 Breaker power loss (W)

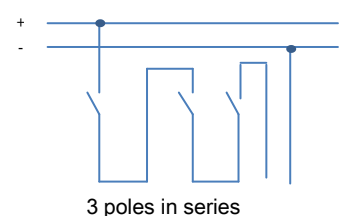
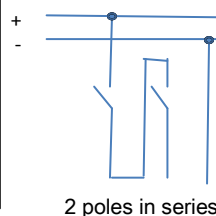
| Power loss DPX <sup>3</sup> 160 (W) |     |     |     |     |     |      |      |      |
|-------------------------------------|-----|-----|-----|-----|-----|------|------|------|
| I <sub>n</sub> (A) ---->            | 16  | 25  | 40  | 63  | 80  | 100  | 125  | 160  |
| Cage terminals                      | 2,8 | 5,0 | 5,1 | 6,7 | 7,0 | 11,0 | 12,5 | 15,4 |
| Lugs                                | 2,8 | 5,0 | 5,1 | 6,7 | 7,0 | 11,0 | 12,5 | 15,4 |
| External terminals                  | 2,8 | 5,0 | 5,1 | 6,7 | 7,0 | 11,0 | 12,5 | 15,4 |
| Spreaders                           | 2,8 | 5,0 | 5,1 | 6,7 | 7,0 | 11,0 | 12,5 | 15,4 |
| Rear terminals                      | 2,8 | 5,0 | 5,1 | 6,7 | 7,0 | 11,0 | 12,5 | 15,4 |
| Plugin version                      | 2,9 | 5,1 | 5,4 | 7,5 | 8,3 | 13,0 | 15,6 | 20,5 |

###### 4.5.2 Switches power loss (W)

| Power loss DPX <sup>3</sup> -I 160 (W) |      |
|--|------|
| I <sub>n</sub> (A) ---->               | 160  |
| Cage terminals                         | 9,2  |
| Lugs                                   | 9,2  |
| External terminals                     | 9,2  |
| Spreaders                              | 9,2  |
| Rear terminals                         | 9,2  |
| Plugin version                         | 14,3 |

##### 4.6 Short-circuit breaking capacity in D.C. current

| Short-circuit breaking capacity in D.C. current |              |              |              |              |
|---|--------------|--------------|--------------|--------------|
| Breaking capacity I <sub>cu</sub> (kA)          |              |              |              |              |
|   | 2 p. in ser. | 2 p. in ser. | 3 p. in ser. | 3 p. in ser. |
|   | 110-125V     | 250V         | 400V         | 500V         |
| 160 16 kA                                       | 32           | 16           | 16           | 10           |
| 160 25 kA                                       | 50           | 25           | 25           | 20           |
| 160 36 kA                                       | 60           | 30           | 30           | 25           |
| 160 50 kA                                       | 80           | 40           | 40           | 35           |



# DPX<sup>3</sup> 160

## Thermal magnetic and trip-free switches

### DPX<sup>3</sup>-I 160

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#### 4.7 Protection in DC

| Protection in D.C. current |         |           |
|----------------------------|---------|-----------|
|                            | thermal | magnetic  |
| 160 16 kA                  | like AC | 1,5 Im AC |
| 160 25 kA                  | like AC | 1,5 Im AC |
| 160 36 kA                  | like AC | 1,5 Im AC |
| 160 50 kA                  | like AC | 1,5 Im AC |

#### 4.8 Altitude

| Altitude (m)            |                   |        |           |           |
|-------------------------|-------------------|--------|-----------|-----------|
|                         | Altitude (m)      | ≤2000  | 3000      | 4000      |
| DPX <sup>3</sup> 160    | Rated current (A) | 1 x In | 0,96 x In | 0,93 x In |
|                         | Rated voltage (V) | 690    | 690       | 550       |
| DPX <sup>3</sup> -I 160 | Rated current (A) | 1 x In | 0,96 x In | 0,93 x In |
|                         | Rated voltage (V) | 500    | 500       | 400       |

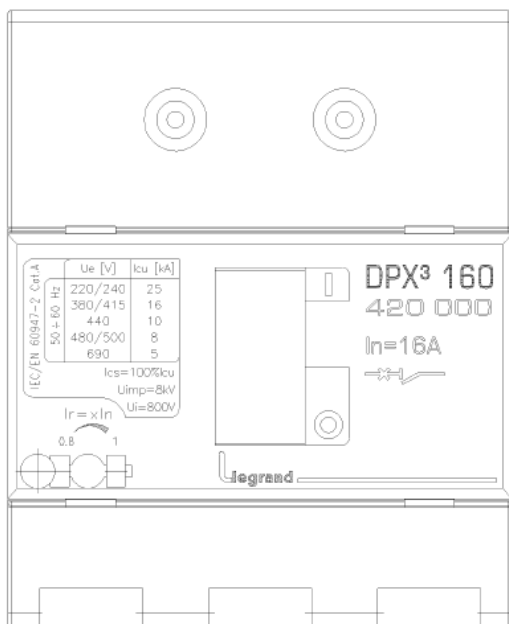
#### 4.9 Loads operation

| Loads operation   |        |
|-------------------|--------|
| Rated current (A) | In=160 |
| Opening (N)       | 45     |
| Closing (N)       | 78     |
| Reset (N)         | 75     |

#### 5. CONFORMITY

IEC 60947-2  
(for switches IEC 60947-3)  
EN 60947-2  
(for switches EN 60947-3)

#### 6. MARKING



#### 7. EQUIPMENTS AND ACCESSORIES

##### 7.1 Releases

- Shunt releases with voltage:
  - 12 Vac/dc ref. 421 012
  - 24 Vac/dc ref. 421 013
  - 48 Vac/dc ref. 421 014
  - 110-130 Vac ref. 421 015
  - 200-277 Vac ref. 421 016
  - 380-480 Vac ref. 421 017
- undervoltage releases with voltage:
  - 12 Vac/dc ref. 421 018
  - 24 Vac/dc ref. 421 019
  - 48 Vac/dc ref. 421 020
  - 110 Vac ref. 421 021
  - 200-240 Vac ref. 421 022
  - 277 Vac ref. 421 023
  - 380-415 Vac ref. 421 024
  - 440-480 Vac ref. 421 025
- auxiliary contact:
  - set of connectors for aux contacts ref. 421 044
  - aux contacts and fault signal ref. 421 011
  - aux contacts (1NC and 1 NO) for all rotary handles ref. 421 010
  - inserted device signal ref. 421 048

##### 7.2 Rotary handles :

- Direct:
- DPX<sup>3</sup> direct rotary handle ref. 421 000
  - DPX<sup>3</sup> emergency direct rotary handle ref. 421 002
- Vari-depth:
- DPX<sup>3</sup> vari depth rotary handle ref. 421 004
  - DPX<sup>3</sup> emergency vari depth rotary handle ref. 421 005

##### Locking accessories

- locking acc. for direct rotary handle - ronis ref. 421 006
- locking acc. for direct rotary handle - profalux ref. 421 007
- locking acc. for vari depth rotary handle - ronis ref. 421 008
- locking acc. for vari depth rotary handle - profalux ref. 421 009

##### 7.3 Mechanical accessories :

###### Insulated shields

- Set of 3 ref. 421 070

###### Sealable terminal shields

- sealable terminal shield for rear terminals 160 3P ref. 421 050
- sealable terminal shield for rear terminals 160 4P ref. 421 051
- sealable terminal shield for front spreaders 160 3P ref. 421 054
- sealable terminal shield for front spreaders 160 4P ref. 421 055

###### Padlocks

- DPX<sup>3</sup> padlock accessory for handle (off) ref. 421 049

###### Interlock:

- DPX<sup>3</sup> interlock mounting plate ref. 421 058
- DPX<sup>3</sup> interlock for plug-in / draw-out version ref. 421 059

##### 7.4 Connection's accessories :

###### Cage terminals

- high capacity terminals for al or cu cables kit (3) - flex 1x120mm<sup>2</sup>, rigid 1x150mm<sup>2</sup>, bar/cable lug 18mm ref. 421 026
- high capacity terminals for al or cu cables kit (4) - flex 1x120mm<sup>2</sup>, rigid 1x150mm<sup>2</sup>, bar/cable lug 18mm ref. 421 027
- rack screw and nut for cable lug (3) ref. 421 028
- rack screw and nut for cable lug (4) ref. 421 029

###### Front spreaders

- DPX<sup>3</sup> front spreaders for 3P DPX<sup>3</sup> 160 (3) ref. 421 032
- DPX<sup>3</sup> front spreaders for 4P DPX<sup>3</sup> 160 (4) ref. 421 033

# DPX<sup>3</sup> 160

## Thermal magnetic and trip-free switches

### DPX<sup>3</sup>-I 160

Reference(s) : 420 000/ 001/ 002/003/ 004/ 005/ 006/ 007/ 010/ 011/  
012/ 013/ 014/ 015/ 016/ 017/ 040/ 041/ 042/ 043/ 044/ 045/ 046/ 047/  
050/ 051/ 052/ 053/ 054/ 055/ 056/ 057/ 080/ 081/ 082/ 083/ 084/ 085/  
086/ 087/ 090/ 091/ 092/ 093/ 094/ 095/ 096/ 097/ 120/ 121/ 122/ 123/  
124/ 125/ 126/ 127/ 130/ 131/ 132/ 133/ 134/ 135/ 136/ 137/ 198/ 199

#### Rear terminals

- DPX<sup>3</sup> flat rear terminals for 3P DPX<sup>3</sup> 160 (3) ref. 421 036
- DPX<sup>3</sup> flat rear terminals for 4P DPX<sup>3</sup> 160 (4) ref. 421 037

#### 7.5 Plug-in version

##### Bases

- front/rear terminals plug-in base 3P DPX<sup>3</sup> 160 ref. 421 040
- front/rear terminals plug-in base 4P DPX<sup>3</sup> 160 ref. 421 041

##### Locking accessories

- locking accessory for plug-in base – ronis ref. 421 045
- locking accessory for plug-in base – profalux ref. 421 046
- padlock accessory for plug-in base ref. 421 047

#### 7.6 Motor operator

- side motor operator 24-230 Vac - 24-230 Vdc ref. 421 060
- front motor operator 24-230 Vac - 24-230 Vdc ref. 421 061

##### Locking accessories for front motor operator:

- locking acc. for front motor operator - ronis ref. 421 062
- locking acc. for front motor operator – profalux ref. 421 063
- padlock selector for front motor operator ref. 421 064

##### Locking accessories for side motor operator:

- locking acc. for side motor operator - ronis ref. 421 065
- locking acc. for side motor operator – profalux ref. 421 066
- padlock selector for side motor operator ref. 421 067

##### Din plate:

- DPX<sup>3</sup> din plate for motor operator DPX<sup>3</sup> 160 ref. 421 068

#### 7.7 Mounting on rail fixing plate

- DPX<sup>3</sup> din rail fixing plate DPX<sup>3</sup> 160 3P/4P ref. 421 071

# DPX<sup>3</sup> 160

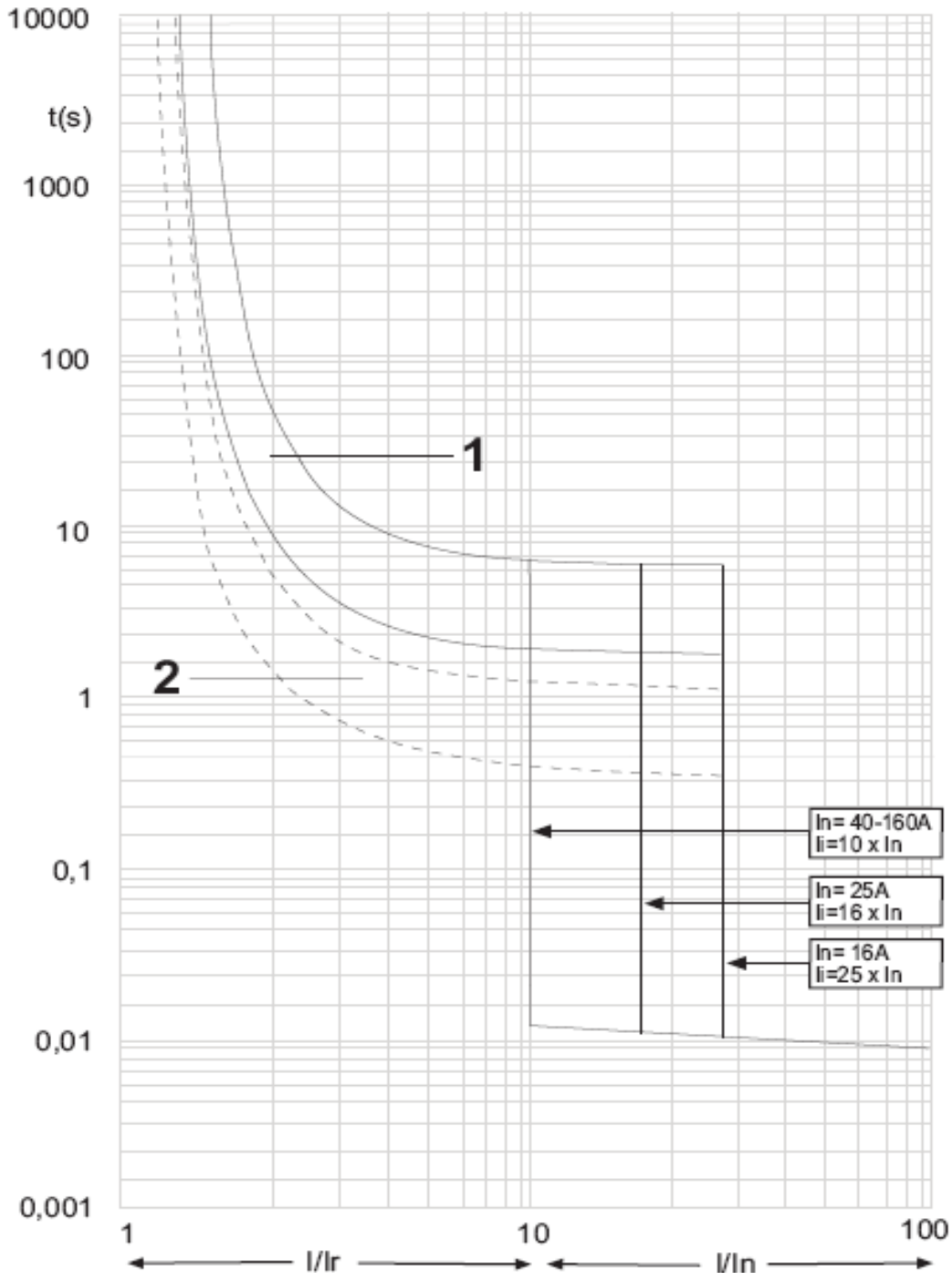
## Thermal magnetic and trip-free switches

### DPX<sup>3</sup>-I 160

Reference(s) : 420 000/ 001/ 002/003/ 004/ 005/ 006/ 007/ 010/ 011/  
 012/ 013/ 014/ 015/ 016/ 017/ 040/ 041/ 042/ 043/ 044/ 045/ 046/ 047/  
 050/ 051/ 052/ 053/ 054/ 055/ 056/ 057/ 080/ 081/ 082/ 083/ 084/ 085/  
 086/ 087/ 090/ 091/ 092/ 093/ 094/ 095/ 096/ 097/ 120/ 121/ 122/ 123/  
 124/ 125/ 126/ 127/ 130/ 131/ 132/ 133/ 134/ 135/ 136/ 137/ 198/ 199

#### 8. CURVES

##### 8.1 TRIPPING CURVE



$t$  = time  
 $I$  = rated current  $\square$   
 $I_r$  = setting current  
 curve number 1 = characteristic with cold start  
 curve number 2 = characteristic with hot start

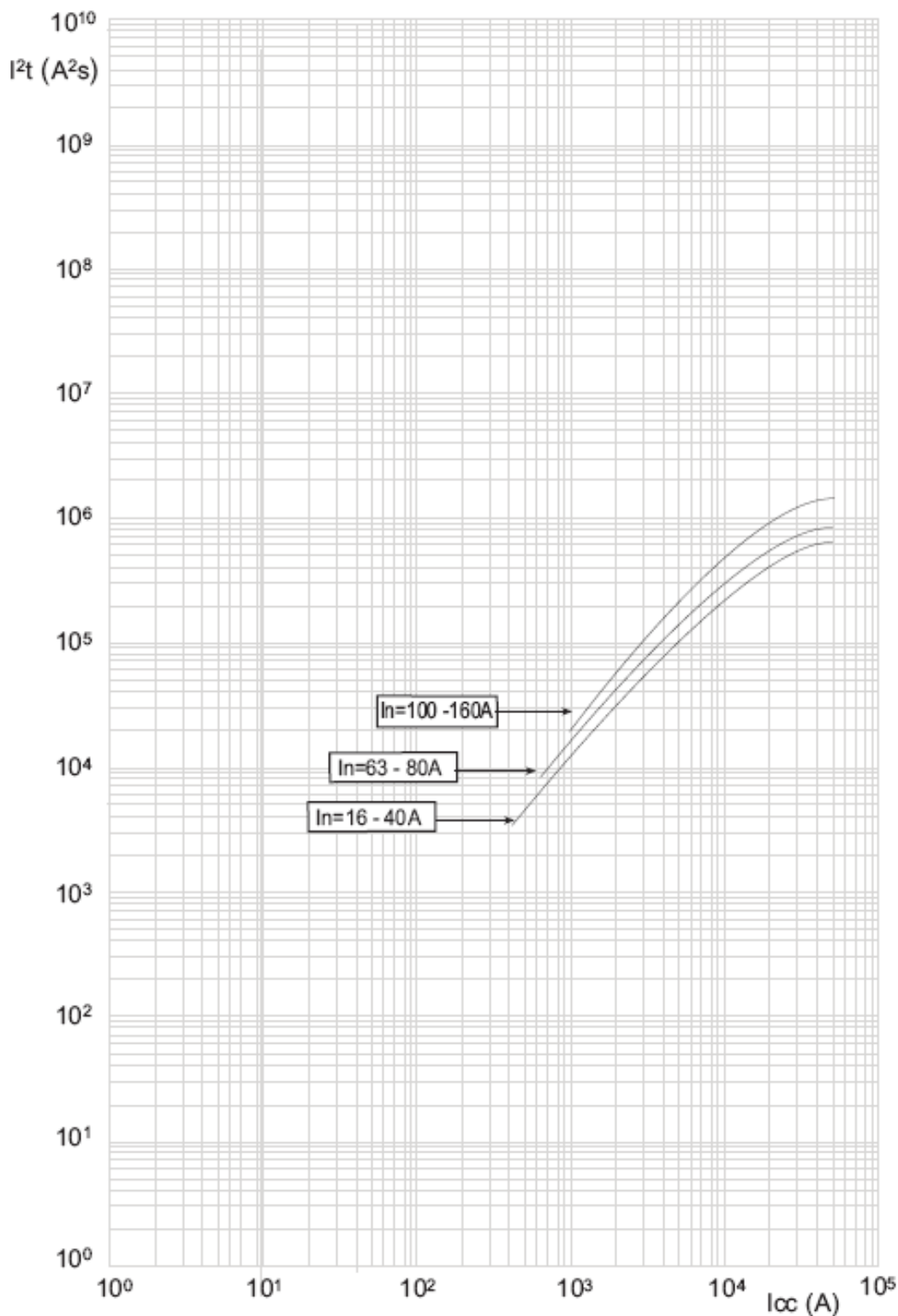
# DPX<sup>3</sup> 160

## Thermal magnetic and trip-free switches

### DPX<sup>3</sup>-I 160

Reference(s) : 420 000/ 001/ 002/003/ 004/ 005/ 006/ 007/ 010/ 011/  
 012/ 013/ 014/ 015/ 016/ 017/ 040/ 041/ 042/ 043/ 044/ 045/ 046/ 047/  
 050/ 051/ 052/ 053/ 054/ 055/ 056/ 057/ 080/ 081/ 082/ 083/ 084/ 085/  
 086/ 087/ 090/ 091/ 092/ 093/ 094/ 095/ 096/ 097/ 120/ 121/ 122/ 123/  
 124/ 125/ 126/ 127/ 130/ 131/ 132/ 133/ 134/ 135/ 136/ 137/ 198/ 199

#### 8.2 Energy curve



$I_{cc}$  = estimated short circuit symmetrical current (RMS value)  
 $I^2t$  (A<sup>2</sup>s) = pass-through specific energy



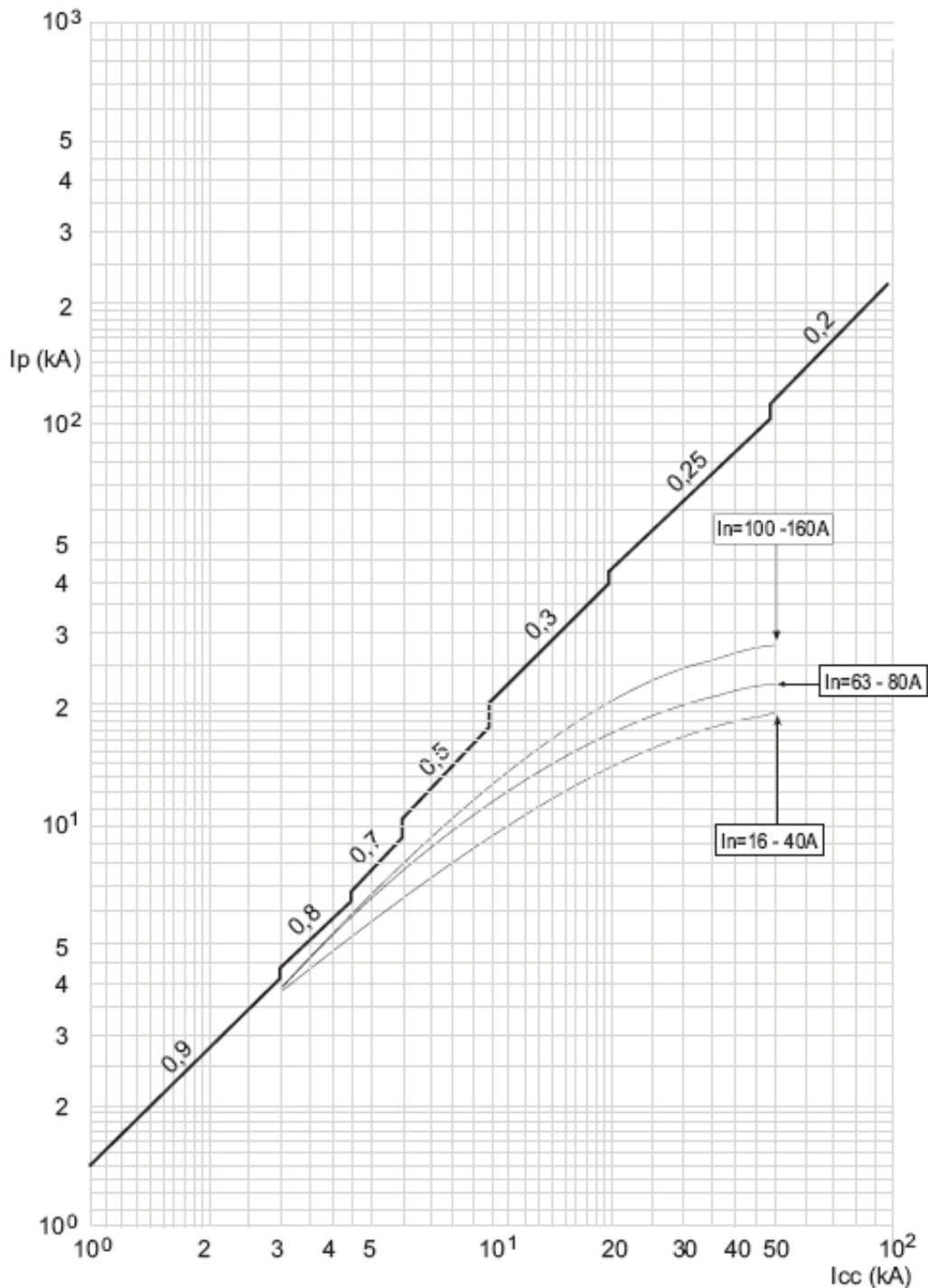
# DPX<sup>3</sup> 160

## Thermal magnetic and trip-free switches

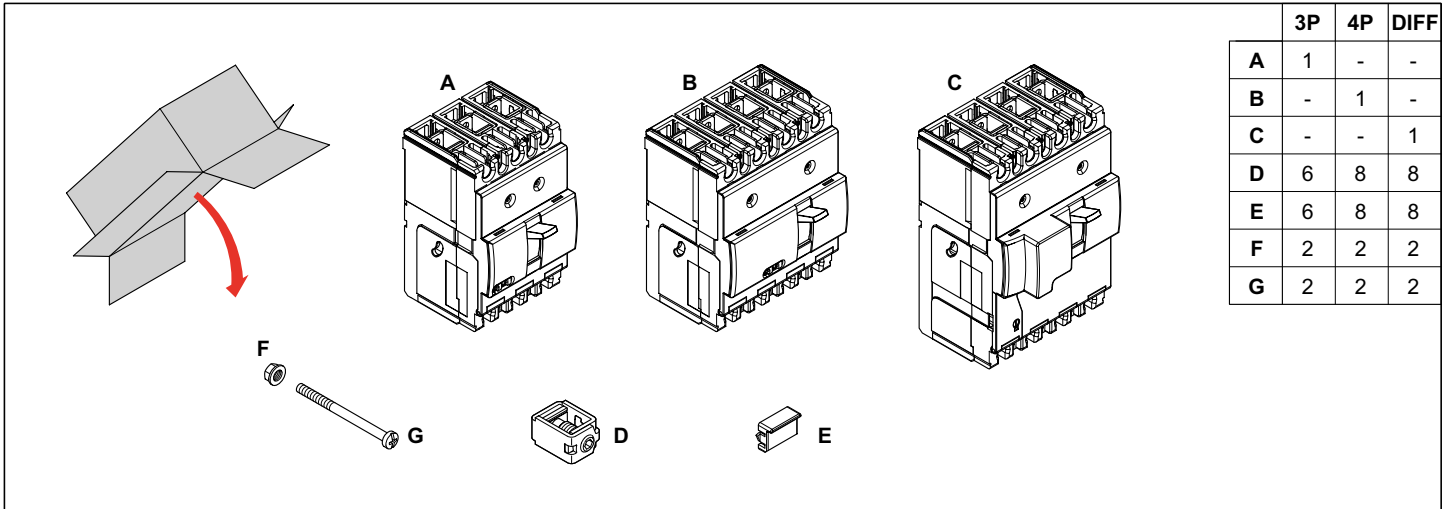
### DPX<sup>3</sup>-I 160

Reference(s) : 420 000/ 001/ 002/003/ 004/ 005/ 006/ 007/ 010/ 011/ 012/ 013/ 014/ 015/ 016/ 017/ 040/ 041/ 042/ 043/ 044/ 045/ 046/ 047/ 050/ 051/ 052/ 053/ 054/ 055/ 056/ 057/ 080/ 081/ 082/ 083/ 084/ 085/ 086/ 087/ 090/ 091/ 092/ 093/ 094/ 095/ 096/ 097/ 120/ 121/ 122/ 123/ 124/ 125/ 126/ 127/ 130/ 131/ 132/ 133/ 134/ 135/ 136/ 137/ 198/ 199

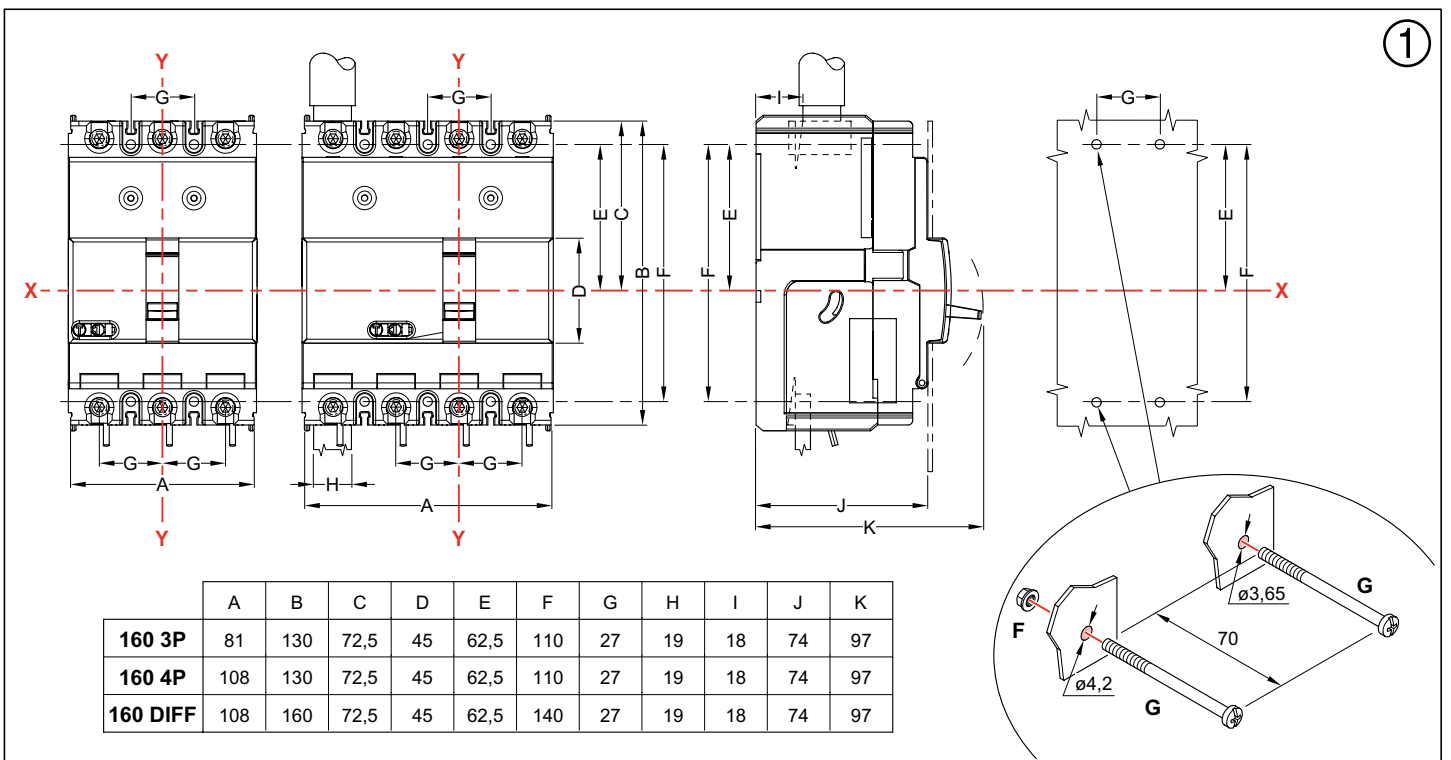
#### 8.3 Restricted current curve



$I_{cc}$  = estimated short circuit symmetrical current (RMS value)  
 $I_p$  = maximum short circuit peak current  
 ——— maximum prospective short circuit peak current corresponding at the power factor  
 ——— maximum real peak short circuit current



|   | 3P | 4P | DIFF |
|---|----|----|------|
| A | 1  | -  | -    |
| B | -  | 1  | -    |
| C | -  | -  | 1    |
| D | 6  | 8  | 8    |
| E | 6  | 8  | 8    |
| F | 2  | 2  | 2    |
| G | 2  | 2  | 2    |



|                 | A   | B   | C    | D  | E    | F   | G  | H  | I  | J  | K  |
|-----------------|-----|-----|------|----|------|-----|----|----|----|----|----|
| <b>160 3P</b>   | 81  | 130 | 72,5 | 45 | 62,5 | 110 | 27 | 19 | 18 | 74 | 97 |
| <b>160 4P</b>   | 108 | 130 | 72,5 | 45 | 62,5 | 110 | 27 | 19 | 18 | 74 | 97 |
| <b>160 DIFF</b> | 108 | 160 | 72,5 | 45 | 62,5 | 140 | 27 | 19 | 18 | 74 | 97 |

