

## DPX<sup>3</sup> 160 thermal magnetic circuit breakers with earth leakage

## DPX<sup>3</sup>-I 160 trip-free switches with earth leakage

Cat.Nos:

4 200 30 - 4 200 31 - 4 200 32 - 4 200 33 - 4 200 34 - 4 200 35  
4 200 36 - 4 200 37 - 4 200 70 - 4 200 71 - 4 200 72 - 4 200 73  
4 200 74 - 4 200 75 - 4 200 76 - 4 200 77 - 4 201 10 - 4 201 11  
4 201 12 - 4 201 13 - 4 201 14 - 4 201 15 - 4 201 16 - 4 201 17  
4 201 50 - 4 201 51 - 4 201 52 - 4 201 53 - 4 201 54 - 4 201 55  
4 201 56 - 4 201 57 - 4 200 97



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### 1. USE

DPX<sup>3</sup> platform has been developed to give a new solution of protection devices for a more precise approach in flow installations in order to offer the correct answer for different project needs.

DPX<sup>3</sup> platform provides a complete project approach in premium market segment, offering a range completely suitable for medium power application with high performance breakers in compact dimensions and at a competitive costs.

### 2. RANGE

#### ■ 2.1 DPX<sup>3</sup> 160 thermal magnetic circuit breaker with earth leakage

| Icu    | 16 kA    | 25 kA    | 36 kA    | 50 kA    |
|--------|----------|----------|----------|----------|
| In (A) | 4P       |          |          |          |
| 16     | 4 200 30 | 4 200 70 | 4 201 10 | 4 201 50 |
| 25     | 4 200 31 | 4 200 71 | 4 201 11 | 4 201 51 |
| 40     | 4 200 32 | 4 200 72 | 4 201 12 | 4 201 52 |
| 63     | 4 200 33 | 4 200 73 | 4 201 13 | 4 201 53 |
| 80     | 4 200 34 | 4 200 74 | 4 201 14 | 4 201 54 |
| 100    | 4 200 35 | 4 200 75 | 4 201 15 | 4 201 55 |
| 125    | 4 200 36 | 4 200 76 | 4 201 16 | 4 201 56 |
| 160    | 4 200 37 | 4 200 77 | 4 201 17 | 4 201 57 |

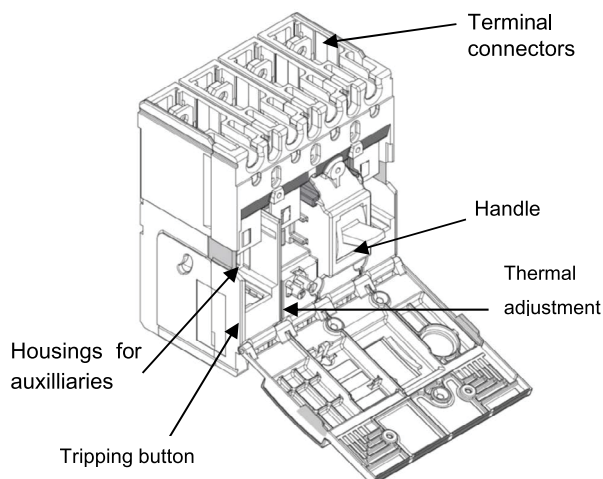
#### ■ 2.2 DPX<sup>3</sup>-I 160 trip-free switch with earth leakage

| In (A) | 4P       |
|--------|----------|
| 160    | 4 201 97 |

#### ■ 2.3 Composition

The circuit breaker is supplied with:

- fixing screws
- cage terminal (70 mm<sup>2</sup> max. for flexible cable, or 95 mm<sup>2</sup> max. for rigid cable)
- insulating shields (phase barriers)



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### 3. TECHNICAL CHARACTERISTICS

#### ■ 3.1 Electrical characteristics

| DPX <sup>3</sup> 160 thermal magnetic circuit breakers with earth leakage |                                                   |
|---------------------------------------------------------------------------|---------------------------------------------------|
| Rated current                                                             | 16 A, 25 A, 40 A, 63 A, 80 A, 100 A, 125 A, 160 A |
| Poles                                                                     | 4P                                                |
| Pole pitch                                                                | 27 mm                                             |
| Rated insulation voltage (50/60Hz) Ui                                     | 500 V                                             |
| Rated operating voltage (50/60Hz) Ue                                      | 500 V                                             |
| Rated impulse withstand current Uimp                                      | 6 kV                                              |
| Rated frequency                                                           | 50 Hz - 60 Hz                                     |
| Reference ambient temperature                                             | 40 °C - 50 °C                                     |
| Operating temperature                                                     | -25 °C to 70 °C                                   |
| Electrical endurance at In (cycles)                                       | 8000                                              |
| Electrical endurance at 0.5 x In (cycles)                                 | 10000                                             |
| Utilization category                                                      | A                                                 |
| Suitable for isolation                                                    | Yes                                               |
| Type of protection                                                        | Thermal-magnetic with earth leakage               |
| Thermal adjustment Ir                                                     | (0.8 ÷ 1) x In                                    |
| Magnetic adjustment Ii (A)                                                | 400 A (In up to 40 A); 10 x In (In > 40 A)        |
| Neutral protection for 4P (%Ith of phase pole)                            | 100                                               |
| Earth leakage type                                                        | A - integrated                                    |
| Adjustable sensitivity                                                    | 0.03 A - 0.3 A - 1 A - 3 A                        |
| Adjustable tripping                                                       | 0s - 0.3s - 1s - 3s (only 0s with 0.03 A)         |
| Reverse feed                                                              | Yes                                               |

| DPX <sup>3</sup> -I 160 trip-free switches with earth leakage |                 |
|---------------------------------------------------------------|-----------------|
| Uninterrupted nominal current Ie                              | 160 A           |
| Short-time resistive current Icw for 1s                       | 2 kA            |
| Rated short-circuit making capacity Icm                       | 3 kA            |
| Rated insulation voltage Ui                                   | 800 V~          |
| Maximum rated operating voltage Ue                            | 690 V~/=        |
| Rated impulse withstand voltage Uimp                          | 8 kV            |
| Utilisation category                                          | AC23A           |
| Suitable for isolation                                        | Yes             |
| Rated frequency (Hz)                                          | 50 Hz - 60 Hz   |
| Operating temperature                                         | -25 °C to 70 °C |
| Electrical endurance at In (cycles)                           | 8000            |
| Electrical endurance at 0.5 x In (cycles)                     | 10000           |
| Reverse feed                                                  | Yes             |

The maximum temperature allowed on power terminals is 125 °C (absolute). For details, see IEC 60947-1 and 60947-2.

#### Breaking capacity

| Breaking capacity (kA) & Ics |                                               |       |       |       |       |
|------------------------------|-----------------------------------------------|-------|-------|-------|-------|
| IEC 60947-2                  | Ue                                            | Icu   |       |       |       |
|                              |                                               | 16 kA | 25 kA | 36 kA | 50 kA |
|                              | 220/240 V~                                    | 25    | 35    | 50    | 65    |
|                              | 380/415 V~                                    | 16    | 25    | 36    | 50    |
|                              | 440/460 V~                                    | 10    | 18    | 25    | 30    |
|                              | 480/500 V~                                    | 8     | 10    | 12    | 15    |
|                              | Ics (% Icu)                                   | 100   |       |       |       |
|                              | Rated making capacity under short circuit Icm |       |       |       |       |
|                              | Icm (kA) at 415 V                             | 32    | 53    | 76    | 105   |

#### Rated current (In) at 40 °C / 50 °C

| Phases limit trip current |              |     |               |   |
|---------------------------|--------------|-----|---------------|---|
| Thermal (Ir)              |              |     | Magnetic (Ii) |   |
| In (A)                    | L1 - L2 - L3 | N   | L1 - L2 - L3  | N |
| 16                        | 16           | 16  | 400           |   |
| 25                        | 25           | 25  | 400           |   |
| 40                        | 40           | 40  | 400           |   |
| 63                        | 63           | 63  | 630           |   |
| 80                        | 80           | 63  | 800           |   |
| 100                       | 100          | 63  | 1000          |   |
| 125                       | 125          | 80  | 1250          |   |
| 160                       | 160          | 100 | 1600          |   |

#### ■ 3.2 Mechanical characteristics

Mechanical endurance (cycles): 25000

Mechanical endurance with motor control (cycles): 25000

#### Load operations

|                   | Force on handle (N) |
|-------------------|---------------------|
| Opening operation | 45                  |
| Closing operation | 78                  |
| Restore operation | 75                  |

#### ■ 3.3 Electrodynamic forces

The table below shows an indication of suggested distances to keep between the breaker and the first fixing point of the conductor and bars in order to reduce the effects of the electrodynamic stresses that may be created during a short circuit. In the realization of anchorage system it is recommend the use of isolators suitable for the type of conductor used and the operating voltage.

| Icc (kA) | Maximum distance (mm) |
|----------|-----------------------|
| 16       | 400                   |
| 25       | 400                   |
| 36       | 350                   |
| 50       | 300                   |

According to conductor type and bar system (except Legrand bar kits), the choice of the distance to keep is to be calibrated by the installer. Also, the installer must take into account the weight of the conductors so that it does not affect the electrical junction between the conductor itself and the connection point.

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### 3. TECHNICAL CHARACTERISTICS (continued)

#### ■ 3.4 Power losses per pole under In (W)

| Disjoncteurs                 |     |     |     |     |      |      |      |      |
|------------------------------|-----|-----|-----|-----|------|------|------|------|
| In (A)                       | 16  | 25  | 40  | 63  | 80   | 100  | 125  | 160  |
| Cage terminals               | 2.4 | 4.9 | 4.9 | 5.8 | 8.1  | 9.9  | 9.4  | 12.5 |
| High capacity cage terminals | 2.5 | 4.9 | 5.0 | 6.0 | 8.3  | 10.3 | 10.0 | 13.6 |
| Lugs                         | 2.5 | 4.9 | 5.0 | 6.0 | 8.4  | 10.4 | 10.1 | 13.7 |
| Spreaders                    | 2.5 | 4.9 | 5.0 | 6.0 | 8.4  | 10.4 | 10.1 | 13.7 |
| Rear terminals*              | 2.5 | 4.9 | 5.0 | 6.0 | 8.4  | 10.4 | 10.1 | 13.7 |
| Plug-in version*             | 2.6 | 5.2 | 5.7 | 7.9 | 11.3 | 15.0 | 17.3 | 25.5 |

Note: power losses in the table above are referred and measured as described in the standard IEC 60947-2 (Annex G) for circuit-breakers. Values in the table are referred to a single phase.

\* Products available only for maintenance of existing installations. For further information, please contact Legrand. If you need to integrate these accessories into a new installation, please refer to the DPX<sup>3</sup> HP range.

| Interrupteurs-sectionneurs   |      |
|------------------------------|------|
| In (A)                       | 160  |
| Cage terminals               | 8,2  |
| High capacity cage terminals | 9,0  |
| Lugs                         | 8,9  |
| Spreaders                    | 9,0  |
| Rear terminals*              | 9,0  |
| Plug-in version*             | 22,2 |

Note: power loss in the table above are referred and measured as described in the standard IEC 60947-3 for trip-free switches. Values in the table are referred to a single phase.

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### 4. INSTALLATION RULES

According to IEC/EN 60947-1.

#### Temperature deratings

Rated current and his adjustment has to be considered relating to a rise or fall of ambient temperature and to a different version or installation conditions. The table below indicates the maximum long-time (LT) protection setting depending on the ambient temperature.

| Temperature Ta (°C) |     |     |     |     |     |     |     |     |     |     |     |     |
|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| In (A)              | -25 | -20 | -10 | -5  | 0   | 10  | 20  | 30  | 40  | 50  | 60  | 70  |
| 16                  | 22  | 21  | 20  | 20  | 20  | 19  | 18  | 16  | 16  | 16  | 14  | 13  |
| 25                  | 34  | 33  | 32  | 31  | 31  | 30  | 28  | 25  | 25  | 25  | 22  | 21  |
| 40                  | 54  | 53  | 51  | 50  | 49  | 48  | 45  | 41  | 40  | 40  | 36  | 34  |
| 63                  | 85  | 83  | 81  | 79  | 78  | 76  | 71  | 65  | 63  | 63  | 58  | 55  |
| 80                  | 108 | 106 | 102 | 100 | 99  | 96  | 90  | 84  | 80  | 80  | 72  | 67  |
| 100                 | 135 | 132 | 128 | 126 | 123 | 120 | 112 | 102 | 100 | 100 | 94  | 90  |
| 125                 | 169 | 165 | 160 | 157 | 154 | 150 | 140 | 127 | 125 | 125 | 112 | 105 |
| 160                 | 216 | 211 | 205 | 201 | 197 | 192 | 179 | 168 | 160 | 160 | 145 | 139 |

For derating temperature with other configurations, see table below.

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### 4. INSTALLATION RULES (continued)

| Ambient temperature                                                      | 30 °C                |                                 | 40 °C                |                                 | 50 °C                |                                 | 60 °C                |                                 | 70 °C                |                                 |
|--------------------------------------------------------------------------|----------------------|---------------------------------|----------------------|---------------------------------|----------------------|---------------------------------|----------------------|---------------------------------|----------------------|---------------------------------|
|                                                                          | I <sub>max</sub> (A) | I <sub>r</sub> / I <sub>n</sub> | I <sub>max</sub> (A) | I <sub>r</sub> / I <sub>n</sub> | I <sub>max</sub> (A) | I <sub>r</sub> / I <sub>n</sub> | I <sub>max</sub> (A) | I <sub>r</sub> / I <sub>n</sub> | I <sub>max</sub> (A) | I <sub>r</sub> / I <sub>n</sub> |
| <b>Fixed version - vertical installation</b>                             |                      |                                 |                      |                                 |                      |                                 |                      |                                 |                      |                                 |
| Flexible/semirigid cable                                                 | 160                  | 1                               | 160                  | 1                               | 144                  | 0.90                            | 128                  | 0.80                            | 104                  | 0.65                            |
| Flexible/semirigid cable<br>+ sealable terminal shields                  | 160                  | 1                               | 160                  | 1                               | 144                  | 0.90                            | 120                  | 0.75                            | 96                   | 0.60                            |
| Clamps, flexible/semirigid cable                                         | 160                  | 1                               | 160                  | 1                               | 144                  | 0.90                            | 128                  | 0.80                            | 104                  | 0.65                            |
| Clamps, flexible/semirigid cable<br>+ sealable terminal shields          | 160                  | 1                               | 160                  | 1                               | 144                  | 0.90                            | 120                  | 0.75                            | 96                   | 0.60                            |
| Cage terminals, flexible/semirigid cable                                 | 160                  | 1                               | 152                  | 0.95                            | 128                  | 0.80                            | 120                  | 0.75                            | 96                   | 0.60                            |
| Spreaders, flexible/semirigid cable                                      | 160                  | 1                               | 160                  | 1                               | 136                  | 0.85                            | 120                  | 0.75                            | 96                   | 0.60                            |
| Rear terminals*, flexible/semirigid cable<br>+ sealable terminal shields | 160                  | 1                               | 160                  | 1                               | 136                  | 0.85                            | 112                  | 0.7                             | 88                   | 0.55                            |
| <b>Fixed version - horizontal installation</b>                           |                      |                                 |                      |                                 |                      |                                 |                      |                                 |                      |                                 |
| Flexible/semirigid cable                                                 | 152                  | 0.95                            | 152                  | 0.95                            | 128                  | 0.80                            | 112                  | 0.70                            | 96                   | 0.60                            |
| Flexible/semirigid cable<br>+ sealable terminal shields                  | 152                  | 0.95                            | 144                  | 0.90                            | 128                  | 0.80                            | 112                  | 0.70                            | 88                   | 0.55                            |
| Clamps, flexible/semirigid cable                                         | 152                  | 0.95                            | 152                  | 0.95                            | 128                  | 0.80                            | 112                  | 0.70                            | 96                   | 0.60                            |
| Clamps, flexible/semirigid cable<br>+ sealable terminal shields          | 152                  | 0.95                            | 144                  | 0.90                            | 128                  | 0.80                            | 112                  | 0.70                            | 88                   | 0.55                            |
| Cage terminals, flexible/semirigid cable                                 | 144                  | 0.90                            | 136                  | 0.85                            | 120                  | 0.75                            | 104                  | 0.65                            | 88                   | 0.55                            |
| Spreaders, flexible/semirigid cable                                      | 152                  | 0.95                            | 144                  | 0.90                            | 128                  | 0.80                            | 112                  | 0.70                            | 88                   | 0.55                            |
| Rear terminals*, flexible/semirigid cable<br>+ sealable terminal shields | 144                  | 0.9                             | 128                  | 0.8                             | 120                  | 0.75                            | 104                  | 0.65                            | 80                   | 0.5                             |

For further technical information, please contact Legrand technical support.

\* Products available only for maintenance of existing installations. For further information, please contact Legrand. If you need to integrate these accessories into a new installation, please refer to the DPX<sup>3</sup> HP range.

**Climatic conditions:** according to IEC/EN 60947-1 Annex Q, Cat. F subject to temperature, humidity, vibration, shock and salt mist.

**Electromagnetic disturbances (EMC):** for DPX<sup>3</sup> 160 circuit breakers, according to IEC/EN 60947-2 Annex B.

**Pollution degree:** for DPX<sup>3</sup> 160 circuit breakers with earth leakage, degree 3, according to IEC/EN 60947-2.

#### Altitude

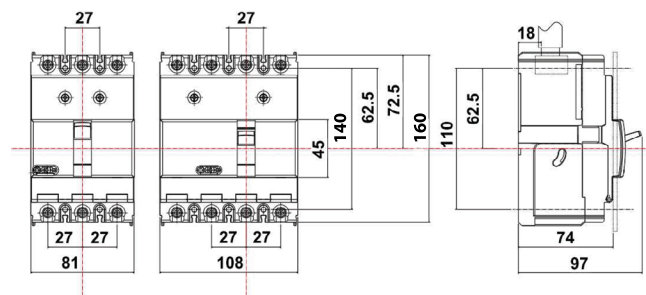
Altitude derating for DPX<sup>3</sup> and DPX<sup>3</sup>-I

| Altitude (m)                                        | 2000               | 3000                  | 4000                  | 5000                 |
|-----------------------------------------------------|--------------------|-----------------------|-----------------------|----------------------|
| U <sub>e</sub> (V)                                  | 690                | 590                   | 520                   | 460                  |
| I <sub>n</sub> (A) (T <sub>a</sub> = 40 °C / 50 °C) | 1 x I <sub>n</sub> | 0.98 x I <sub>n</sub> | 0.93 x I <sub>n</sub> | 0.9 x I <sub>n</sub> |

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4P (W x H x D): 110 x 160 x 97

**Device without accessories**

1000 Series Motor Mounting Dimensions

Technical drawing showing the motor mounting dimensions for the 1000 Series. The drawing includes a top view and a side view.

**Top View Dimensions:**

- Ø8.5 (Bore diameter)
- 17.75 (Distance between mounting holes)
- 35 (Total width of mounting plate)
- 43.5 (Total height of mounting plate)

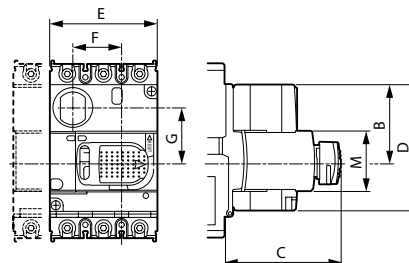
**Side View Dimensions:**

- 23 (Height of mounting plate)

[illegible]

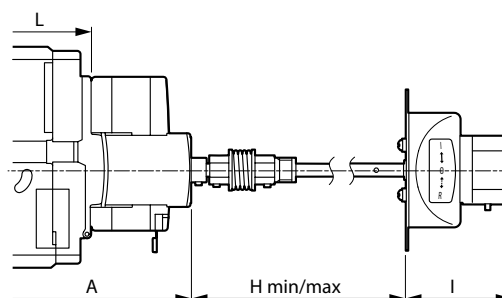
| A (mm) | B (mm) | C (mm) |
|--------|--------|--------|
| 108    | 160    | 72.5   |

### With direct rotary handle



| B (mm) | C (mm) | D (mm) | E (mm) | F (mm) | G (mm) | M (mm) |
|--------|--------|--------|--------|--------|--------|--------|
| 57     | 155    | 94     | 93     | 36.5   | 41.7   | 45     |

### With vari-depth rotary handle



| A (mm) | H (min.)<br>(mm) | H (max.)<br>(mm) | I (mm) | L (mm) |
|--------|------------------|------------------|--------|--------|
| 122    | 132              | 361              | 62     | 74     |

| Configuration                    | 4P   |
|----------------------------------|------|
| Circuit breaker/trip-free switch | 1.89 |
| Direct rotary handle*            | 0.35 |
| Vari depth rotary handle*        | 0.72 |
| Interlock*                       | 1.08 |
| Spreader*                        | 0.17 |

\* to add to device weight

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### 6. CONNECTIONS

Possible way of assembly on DIN rail:

- vertical
- horizontal

To ensure the circuit breaker's connection, it is possible to use:

- busbars;
- cables lugs;
- cables;
- extended front terminals;
- cage terminals;

|                        | Cage terminals capacity                            |
|------------------------|----------------------------------------------------|
| <b>Bars</b>            | 14 mm wide max.                                    |
| <b>Flexible cables</b> | 1.5 mm <sup>2</sup> min. / 70 mm <sup>2</sup> max. |
| <b>Rigid cables</b>    | 1.5 mm <sup>2</sup> min. / 95 mm <sup>2</sup> max. |

For detailed mounting procedures, see instruction sheet.

### 7. EQUIPMENTS AND ACCESSORIES

#### ■ 7.1 Releases

There are 3 types of releases (suitable for DPX<sup>3</sup> 125/160/250 HP and DPX<sup>3</sup> 160/250):

##### Shunt releases (ST)

|                            |                 |
|----------------------------|-----------------|
| 12 V~/=                    | Cat.No 4 210 12 |
| 24 V~/=                    | Cat.No 4 210 13 |
| 48 V~/=                    | Cat.No 4 210 14 |
| 110 to 130 V~              | Cat.No 4 210 15 |
| 220 to 277 V~              | Cat.No 4 210 16 |
| 380 to 480 V~              | Cat.No 4 210 17 |
| Maximum power = 400 VA / W |                 |

##### Undervoltage releases (UVR)

|                                      |                 |
|--------------------------------------|-----------------|
| 12 V~/=                              | Cat.No 4 210 18 |
| 24 V~/=                              | Cat.No 4 210 19 |
| 48 V~/=                              | Cat.No 4 210 20 |
| 110 to 130 V~/=                      | Cat.No 4 210 21 |
| 220 to 240 V~                        | Cat.No 4 210 22 |
| 277 V~                               | Cat.No 4 210 23 |
| 380 to 415 V~                        | Cat.No 4 210 24 |
| 440 to 480 V~                        | Cat.No 4 210 25 |
| Maximum power = 4 VA                 |                 |
| Circuit breaker opening time < 50 ms |                 |

##### Time-lag undervoltage releases (800 ms)

|                                        |                 |
|----------------------------------------|-----------------|
| - Release                              | Cat.No 4 210 98 |
| to be equipped with a time-lag module: |                 |
| - 230 V~                               | Cat.No 0 261 90 |
| - 400 V~                               | Cat.No 0 261 91 |

#### ■ 7.2 Auxiliary contacts

It is used to show the state of the contacts or opening of the DPX<sup>3</sup> / DPX<sup>3</sup>-I on a fault.

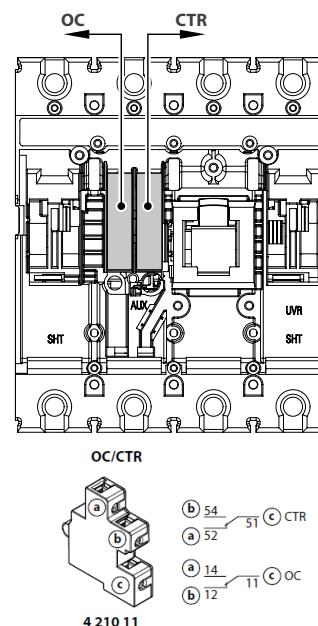
- Standard auxiliary contact (OC) / Fault signal (CTR) Cat.No 4 210 11

| Rated voltage (Vn) | Intensity (A) |
|--------------------|---------------|
| 24 V=              | 5             |
| 48 V=              | 1.7           |
| 110 V=             | 0.5           |
| 230 V=             | 0.25          |
| 110 V~             | 4             |
| 230/250 V~         | 3             |

- Set of connectors for auxiliary contacts Cat.No 4 210 44
- Auxiliary contacts (1NC and 1 NO) Cat.No 4 210 10
- Signalling contact plugged-in version\* Cat.No 4 210 48

\* Products available only for maintenance of existing installations. For further information, please contact Legrand. If you need to integrate these accessories into a new installation, please refer to the DPX<sup>3</sup> HP range.

Configurations



To get more information on auxiliary mounting procedures, please refer to product instruction sheet.

#### ■ 7.3 Rotary handles

There are 4 types of suited rotary handles (also compatible with DPX<sup>3</sup> 250):

##### Direct on DPX<sup>3</sup> (with auxiliary option and compatible with XL<sup>3</sup>)

- Standard (black) Cat.No 4 210 01
- For emergency use (red / yellow) Cat.No 4 210 03

##### Vari-depth handle IP55 (with auxiliary option and compatible with XL<sup>3</sup>)

- Standard (black) Cat.No 4 210 04
- For emergency use (red/yellow) Cat.No 4 210 05

##### Locking accessories (for rotary handle with auxiliary option)

For direct rotary handle:

- Key barrel and flat key N° ABA90GEL6149 Cat.No 4 210 06
- Key barrel and star key N° HBA90GPS6149 Cat.No 4 210 07

For vari-depth rotary handle:

- Key barrel and flat key N° ABA90GEL6149 Cat.No 4 210 08
- Key barrel and star key N° HBA90GPS6149 Cat.No 4 210 09

##### Direct on DPX<sup>3</sup> (general purpose)

- Standard (black) Cat.No 4 201 60
- For emergency use (red/yellow) Cat.No 4 201 73

##### Vari-depth handle IP55 (general purpose)

- Standard (black) Cat.No 4 201 61
- For emergency use (red/yellow) Cat.No 4 201 74

## DPX<sup>3</sup> 160 thermal magnetic circuit breakers with earth leakage

## DPX<sup>3</sup>-I 160 trip-free switches with earth leakage

Cat.Nos:

4 200 30 - 4 200 31 - 4 200 32 - 4 200 33 - 4 200 34 - 4 200 35  
4 200 36 - 4 200 37 - 4 200 70 - 4 200 71 - 4 200 72 - 4 200 73  
4 200 74 - 4 200 75 - 4 200 76 - 4 200 77 - 4 201 10 - 4 201 11  
4 201 12 - 4 201 13 - 4 201 14 - 4 201 15 - 4 201 16 - 4 201 17  
4 201 50 - 4 201 51 - 4 201 52 - 4 201 53 - 4 201 54 - 4 201 55  
4 201 56 - 4 201 57 - 4 200 97

### 7. EQUIPMENTS AND ACCESSORIES (continued)

#### ■ 7.3 Rotary handles (continued)

##### Locking accessories (for general purpose rotary handle)

Key barrel and flat key:

|                                              |                 |
|----------------------------------------------|-----------------|
| - For direct rotary handles (random marking) | Cat.No 4 201 64 |
| - For direct handles (EL43525 marking)       | Cat.No 4 201 65 |
| - For direct handles (EL43363 marking)       | Cat.No 4 201 66 |
| - For vari-depth handles (random marking)    | Cat.No 4 201 67 |
| - For vari-depth handles (EL43525 marking)   | Cat.No 4 201 68 |
| - For vari-depth handles (EL43363 marking)   | Cat.No 4 201 69 |

#### ■ 7.4 Motor operators

|                                     |                 |
|-------------------------------------|-----------------|
| Side motor operator 24 - 230 V~/... | Cat.No 4 210 60 |
|-------------------------------------|-----------------|

##### Locking accessories for side motor operator

|                                           |                 |
|-------------------------------------------|-----------------|
| - Key barrel and flat key N° ABA90GEL6149 | Cat.No 4 210 65 |
| - Key barrel and star key N° HBA90GPS6149 | Cat.No 4 210 66 |
| - Padlock                                 | Cat.No 4 210 67 |

#### ■ 7.5 Mechanical accessories

##### Padlocks (for locking in "open" position)

|                                                                                                  |                 |
|--------------------------------------------------------------------------------------------------|-----------------|
| DPX <sup>3</sup> padlock accessory for handle                                                    | Cat.No 4 210 49 |
| Cat.No 4 210 49 is compatible with DPX <sup>3</sup> 125/160/250 HP and DPX <sup>3</sup> 160/250. |                 |

##### Insulated shields (phase barriers)

|           |                 |
|-----------|-----------------|
| Set of 36 | Cat.No 4 210 70 |
|-----------|-----------------|

##### Sealable terminal shields

|                          |                 |
|--------------------------|-----------------|
| - for front terminals 4P | Cat.No 4 210 55 |
|--------------------------|-----------------|

##### Fixing plates for transfer switches

|                                                                                                                                                                                     |                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Plate for mounting and interlocking 2 DPX <sup>3</sup> .<br>It can be either 2 DPX <sup>3</sup> 160 ; 2 DPX <sup>3</sup> 250; or 1 DPX <sup>3</sup> 160 and 1 DPX <sup>3</sup> 250. |                 |
| For fixed version                                                                                                                                                                   | Cat.No 4 210 58 |

##### Fixing plates

|                                                     |                 |
|-----------------------------------------------------|-----------------|
| For fixing the circuit breaker on rail or on plate. |                 |
| For DPX <sup>3</sup> 4P with earth leakage module   | Cat.No 4 210 73 |

#### ■ 7.6 Connection accessories

##### Front spreaders

|                     |                 |
|---------------------|-----------------|
| - Set of 4 (for 4P) | Cat.No 4 210 33 |
|---------------------|-----------------|

##### Rack screw and nut

|                                                 |                 |
|-------------------------------------------------|-----------------|
| - Set of 4 rack screw and nut for cable lug kit | Cat.No 4 210 29 |
|-------------------------------------------------|-----------------|

##### Cage terminals

|                                                                                                                                                                                       |                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| - Set of 4 standard terminals for<br>1 x 95 mm <sup>2</sup> max. (rigid) or 1 x 70 mm <sup>2</sup> max. (flexible) Cu/Al cables and<br>14 mm bars (for Al cables In max 80 A)         | Cat.No 4 210 94 |
| - Set of 4 high capacity terminals for<br>1 x 150 mm <sup>2</sup> max. (rigid) or 1 x 120 mm <sup>2</sup> max. (flexible)<br>Cu/Al cables and 18 mm bars (for Al cables In max 125 A) | Cat.No 4 210 27 |

### Cage terminal use specifications

| Cable standard suggested cross-section (mm <sup>2</sup> )* |        |     |    |
|------------------------------------------------------------|--------|-----|----|
|                                                            | In (A) | Cu  | Al |
| Standard cage terminals Cat.Nos 4 210 94                   | 16     | 2.5 | 4  |
|                                                            | 20     | 2.5 | 4  |
|                                                            | 25     | 4   | 6  |
|                                                            | 32     | 6   | 10 |
|                                                            | 40     | 10  | 16 |
|                                                            | 50     | 10  | 16 |
|                                                            | 63     | 16  | 25 |
|                                                            | 80     | 25  | 35 |
|                                                            | 100    | 35  | -  |
|                                                            | 125    | 50  | -  |
| High capacity cage terminals Cat.Nos 4 210 27              | 160    | 70  | -  |
|                                                            | 80     | 25  | 35 |
|                                                            | 100    | 35  | 50 |
|                                                            | 125    | 50  | 70 |
|                                                            | 160    | 70  | -  |

\* The suggested cross-section are in compliance with standard IEC 60947-1 (ed.6 2020/04) and IEC 60947-2 (ed.5.1 2019/07)

| Dimensions limits of cable for cage terminals |                                       |       |                                       |       |
|-----------------------------------------------|---------------------------------------|-------|---------------------------------------|-------|
| Standard cage terminals Cat.Nos 4 210 94      | Min. cross-section (mm <sup>2</sup> ) |       | Max. cross-section (mm <sup>2</sup> ) |       |
|                                               | Flexible                              | Rigid | Flexible                              | Rigid |
|                                               | 2.5                                   | 4     | 70                                    | 95    |
| High capacity cage terminals Cat.Nos 4 210 27 | Min. cross-section (mm <sup>2</sup> ) |       | Max. cross-section (mm <sup>2</sup> ) |       |
|                                               | Flexible                              | Rigid | Flexible                              | Rigid |
|                                               | 35                                    |       | 95                                    | 120   |

Note: when the cross-section exceeds the maximum value specified for the material, the admissible current is limited to the value indicated in the previous table for the recommended standard cable cross-section.

## DPX<sup>3</sup> 160 thermal magnetic circuit breakers with earth leakage

## DPX<sup>3</sup>-I 160 trip-free switches with earth leakage

Cat.Nos:

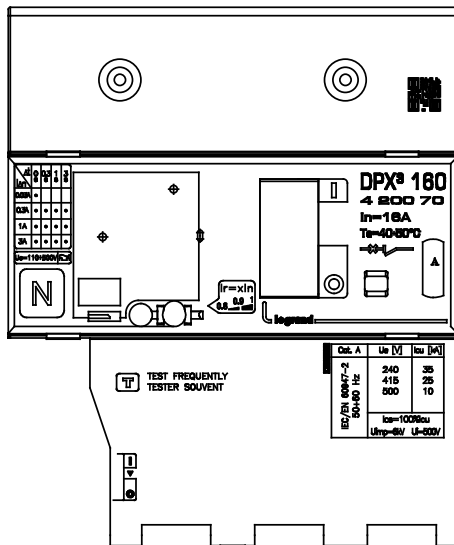
4 200 30 - 4 200 31 - 4 200 32 - 4 200 33 - 4 200 34 - 4 200 35  
4 200 36 - 4 200 37 - 4 200 70 - 4 200 71 - 4 200 72 - 4 200 73  
4 200 74 - 4 200 75 - 4 200 76 - 4 200 77 - 4 201 10 - 4 201 11  
4 201 12 - 4 201 13 - 4 201 14 - 4 201 15 - 4 201 16 - 4 201 17  
4 201 50 - 4 201 51 - 4 201 52 - 4 201 53 - 4 201 54 - 4 201 55  
4 201 56 - 4 201 57 - 4 200 97

### 8. MARKING

Products (both circuit breakers and trip-free switches) are provided with labelling in full conformity to the referred standard and directives requirements by laser or sticker labels (for illustrative purposes only):

#### Product laser label (front face)

- Manufacturer responsible
- Denomination, type product, code
- Standard conformity
- Standard characteristics declared
- Colored identification of Icu at 415 V



#### Product sticker label (on the side)

- Manufacturer responsible
- Denomination and type product
- Standard conformity
- Mark/Licence (if any)
- Directive requirements
- Bar code identification product
- Manufacturing Country

4 200 70

DPX3 160 4P  
In=16A  
Icu=25kA at 415V  
RCD



3245064200702579178

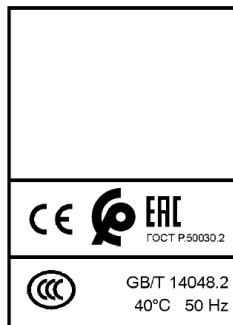
legrand®

LEGRAND - BP 30076  
87002 LIMOGES CEDEX FRANCE  
Made in Italy  
21W08 9 80

#### Mark sticker label (on the side)

- Product code
- Mark/Licence (if any)
- Country deviation, if any

4 200 70



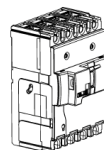
#### Packaging sticker label

- Manufacturer responsible
- Denomination and type product
- Mark/Licence (if any)
- Directive requirements
- Bar code identification product

1 DPX<sup>3</sup> 4 200 70



Made in Italy  
Design and Quality by LEGRAND (France)  
LEGRAND - Pro and Consumer Service - BP 30076  
87002 LIMOGES CEDEX FRANCE - www.legrand.com



- Disjoncteur + diff.
- MCCB + earth leakage
- Interruptores auto + diff.
- Дифференциальный авт.выкл
- 具有剩余电流保护的断路器
- قاطع الدارة + مضبط تفاوتي
- In=16A 4P Icu 25kA
- IEC/EN 60947-2



3245064200707

22W17

DPX<sup>3</sup> 160 thermal magnetic circuit breakers  
with earth leakage

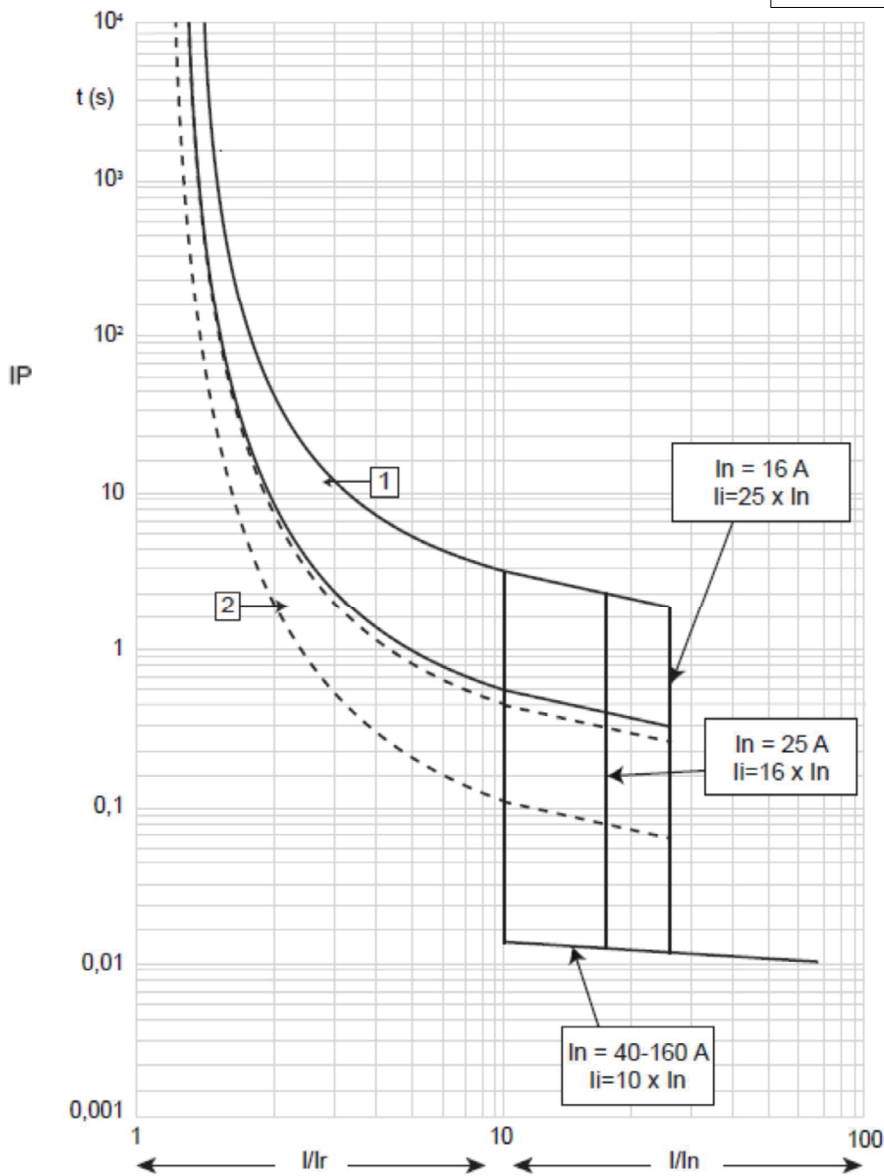
DPX<sup>3</sup>-I 160 trip-free switches  
with earth leakage

Cat.Nos:  
4 200 30 - 4 200 31 - 4 200 32 - 4 200 33 - 4 200 34 - 4 200 35  
4 200 36 - 4 200 37 - 4 200 70 - 4 200 71 - 4 200 72 - 4 200 73  
4 200 74 - 4 200 75 - 4 200 76 - 4 200 77 - 4 201 10 - 4 201 11  
4 201 12 - 4 201 13 - 4 201 14 - 4 201 15 - 4 201 16 - 4 201 17  
4 201 50 - 4 201 51 - 4 201 52 - 4 201 53 - 4 201 54 - 4 201 55  
4 201 56 - 4 201 57 - 4 200 97

9. CURVES

9.1 Thermal magnetic tripping curve

Update: 10/02//2017



$I_{cu} = 16-25-36-50\text{ kA}$      $I_{max} = 160\text{ A}$     3-4 P     $U_e = 415\text{ V}\sim$

| Value   | Description                    |
|---------|--------------------------------|
| t       | Time                           |
| I       | Current                        |
| $I_n$   | Rated current                  |
| $I_r$   | Long time setting current      |
| Curve 1 | Characteristic with cold start |
| Curve 2 | Characteristic with hot start  |

DPX<sup>3</sup> 160 thermal magnetic circuit breakers  
with earth leakage

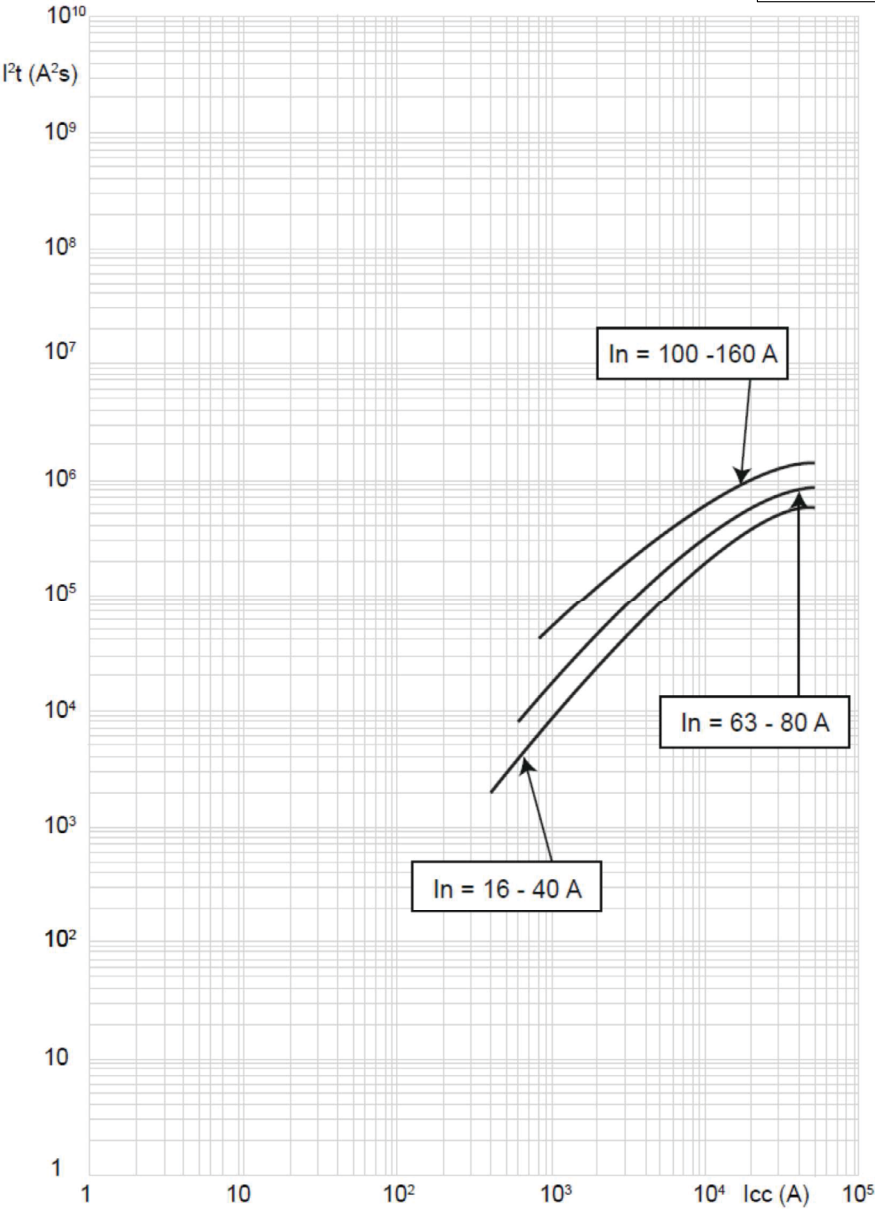
DPX<sup>3</sup>-I 160 trip-free switches  
with earth leakage

Cat.Nos:  
4 200 30 - 4 200 31 - 4 200 32 - 4 200 33 - 4 200 34 - 4 200 35  
4 200 36 - 4 200 37 - 4 200 70 - 4 200 71 - 4 200 72 - 4 200 73  
4 200 74 - 4 200 75 - 4 200 76 - 4 200 77 - 4 201 10 - 4 201 11  
4 201 12 - 4 201 13 - 4 201 14 - 4 201 15 - 4 201 16 - 4 201 17  
4 201 50 - 4 201 51 - 4 201 52 - 4 201 53 - 4 201 54 - 4 201 55  
4 201 56 - 4 201 57 - 4 200 97

9. CURVES (continued)

■ 9.2 Pass-through specific energy characteristic curve

Update: 10/02/2017



$I_{cu}$  = 16-25-36-50 kA       $I_{max}$  = 160 A      3-4 P       $U_e$  = 415 V~

| Value        | Description                  |
|--------------|------------------------------|
| $I_{cc}$     | Short circuit current        |
| $I^2t$ (A²s) | Pass-through specific energy |

DPX<sup>3</sup> 160 thermal magnetic circuit breakers  
with earth leakage

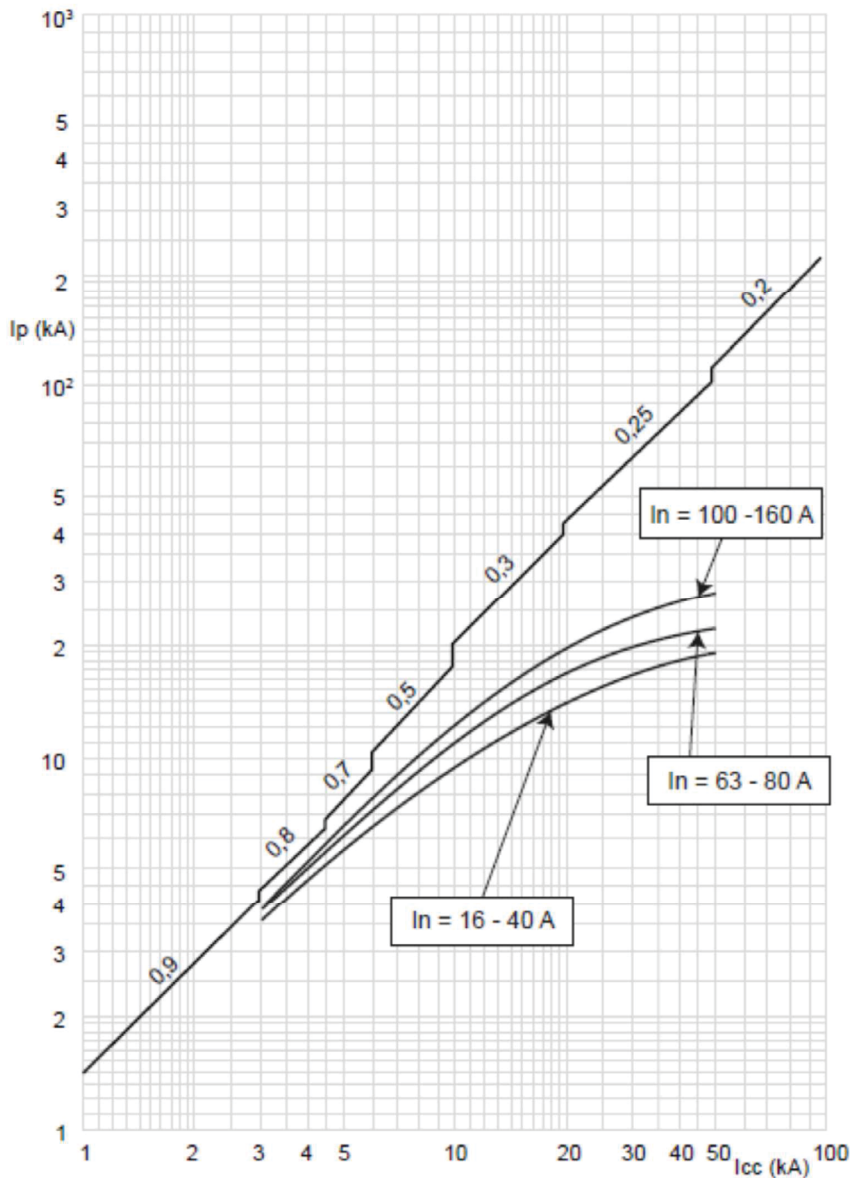
DPX<sup>3</sup>-I 160 trip-free switches  
with earth leakage

Cat.Nos:  
4 200 30 - 4 200 31 - 4 200 32 - 4 200 33 - 4 200 34 - 4 200 35  
4 200 36 - 4 200 37 - 4 200 70 - 4 200 71 - 4 200 72 - 4 200 73  
4 200 74 - 4 200 75 - 4 200 76 - 4 200 77 - 4 201 10 - 4 201 11  
4 201 12 - 4 201 13 - 4 201 14 - 4 201 15 - 4 201 16 - 4 201 17  
4 201 50 - 4 201 51 - 4 201 52 - 4 201 53 - 4 201 54 - 4 201 55  
4 201 56 - 4 201 57 - 4 200 97

9. CURVES (continued)

9.3 Cut-off peak current characteristic curve (kA)

Update: 10/02/2017



$I_{cu}$  = 16-25-36-50 kA       $I_{max}$  = 160 A      3-4 P       $U_e$  = 415 V~

| Value    | Description                                             |
|----------|---------------------------------------------------------|
| $I_{cc}$ | Estimated short circuit symmetrical current (RMS value) |
| $I_p$    | Maximum short circuit peak current                      |

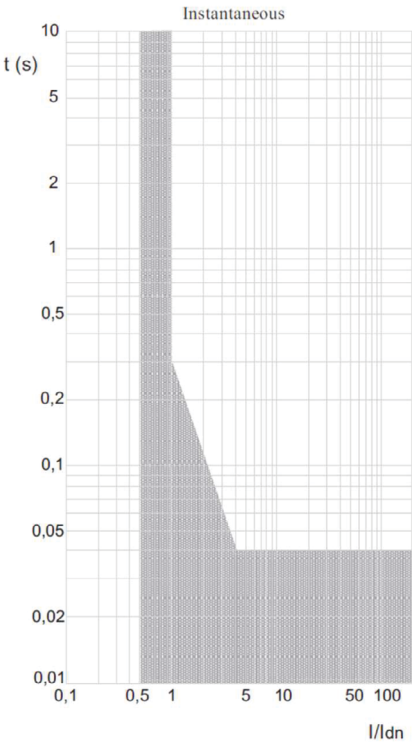
DPX<sup>3</sup> 160 thermal magnetic circuit breakers  
with earth leakage

DPX<sup>3</sup>-I 160 trip-free switches  
with earth leakage

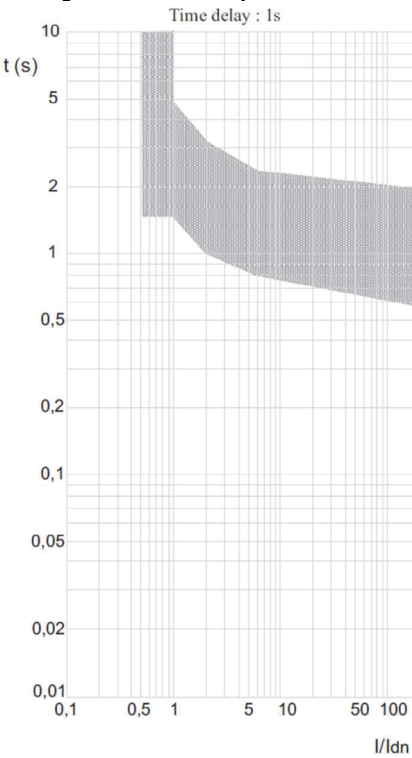
Cat.Nos:  
4 200 30 - 4 200 31 - 4 200 32 - 4 200 33 - 4 200 34 - 4 200 35  
4 200 36 - 4 200 37 - 4 200 70 - 4 200 71 - 4 200 72 - 4 200 73  
4 200 74 - 4 200 75 - 4 200 76 - 4 200 77 - 4 201 10 - 4 201 11  
4 201 12 - 4 201 13 - 4 201 14 - 4 201 15 - 4 201 16 - 4 201 17  
4 201 50 - 4 201 51 - 4 201 52 - 4 201 53 - 4 201 54 - 4 201 55  
4 201 56 - 4 201 57 - 4 200 97

9. CURVES (continued)

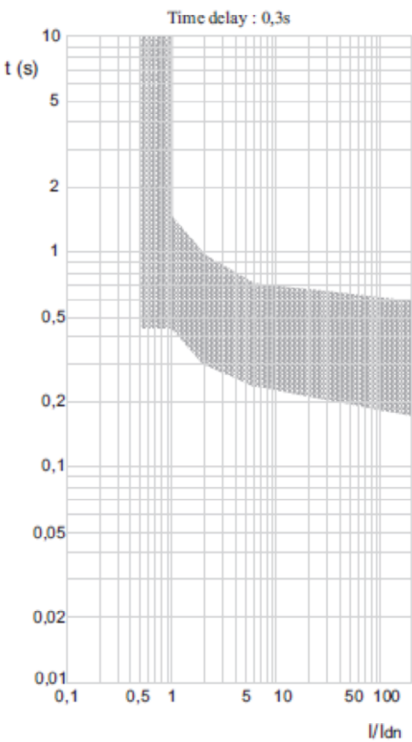
■ 9.4 Earth leakage curve, instantaneous



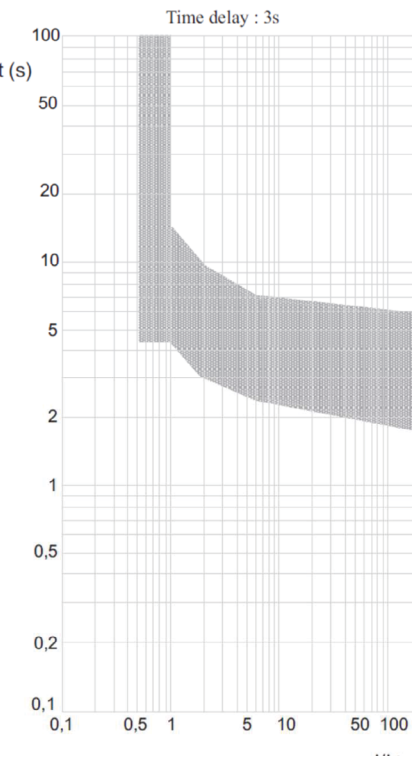
■ 9.6 Earth leakage curve, time delay = 1s



■ 9.5 Earth leakage curve, time delay = 0.3s



■ 9.7 Earth leakage curve, time delay = 3s



## DPX<sup>3</sup> 160 thermal magnetic circuit breakers with earth leakage

## DPX<sup>3</sup>-I 160 trip-free switches with earth leakage

Cat.Nos:

4 200 30 - 4 200 31 - 4 200 32 - 4 200 33 - 4 200 34 - 4 200 35  
4 200 36 - 4 200 37 - 4 200 70 - 4 200 71 - 4 200 72 - 4 200 73  
4 200 74 - 4 200 75 - 4 200 76 - 4 200 77 - 4 201 10 - 4 201 11  
4 201 12 - 4 201 13 - 4 201 14 - 4 201 15 - 4 201 16 - 4 201 17  
4 201 50 - 4 201 51 - 4 201 52 - 4 201 53 - 4 201 54 - 4 201 55  
4 201 56 - 4 201 57 - 4 200 97

### 10. STANDARDS AND REGULATIONS

DPX<sup>3</sup> range of product concerning circuit-breakers and trip-free switches exceed compliance with the IEC/EN standard 60947-2 and 60947-3 respectively. Certification available by IECEE CB-scheme or LOVAG Compliance scheme.

DPX<sup>3</sup> range respects the European Directives:

**RoHS:** Compliance with the 2011/65/EU Directive (RoHS), as modified by the 2015/863/EU Delegated Directive, on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

**REACH:** The substances identified as SVHC (Substances of Very High Concern) according to the REACH Regulation (1907/2006), if present in the products at a concentration above 0.1% weight by weight, are declared inside the European SCIP database. At the date of publication of this document none of the substance listed in the annex XIV is found in this product.

**WEEE:** WEEE Directive (2012/19/EU): the sale of this product includes a contribution to the appointed environmental bodies of each European country in charge of handling, at the end of their life, the products falling within the scope of the EU Directive on Electrical and Electronic Equipment Waste.

**Packaging :** Design and manufacture of packaging compliant with European Directive 94/62/CE

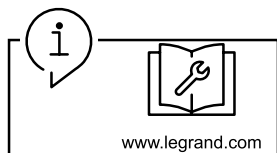
For specific information, please contact Legrand support.

### 11. OTHER INFORMATION

**XLPro Calcul:** Calculation notes creation software, addressed to installers, design office and maintenance operators. Definition of the electrical characteristics of a low voltage installation in compliance with the applicable standards

**XLPro<sup>3</sup> Tool Selectivity and backup / Legrand Selectivity and backup:** Software dedicated to installers, panelbuilders and design offices. Definition of the selectivity and backup values of an association of electrical devices and obtention of the tripping curves of the selected products.

**XLPro Panels:** Distribution panel design software, addressed to panelbuilders and electrical panel designers. Design of the electrical distribution of the panel, production of electrical diagrams, establishment of products and overall costing of the project.



**Workshop book:** mounting informations, equipments, accessories and spare parts available on e-catalog.

**Instruction sheet:** detailed mounting procedures, available on e-catalog.

**PEP:** available on e-catalog.

For further technical information, please contact Legrand technical support.

Unless otherwise indicated, data reported in this document refers exclusively to test conditions according to product standards.

For different conditions of use of the product, inside electrical equipment or in any different installation context, refer to the regulatory requirements of the equipment, local regulations and design specifications of the system.