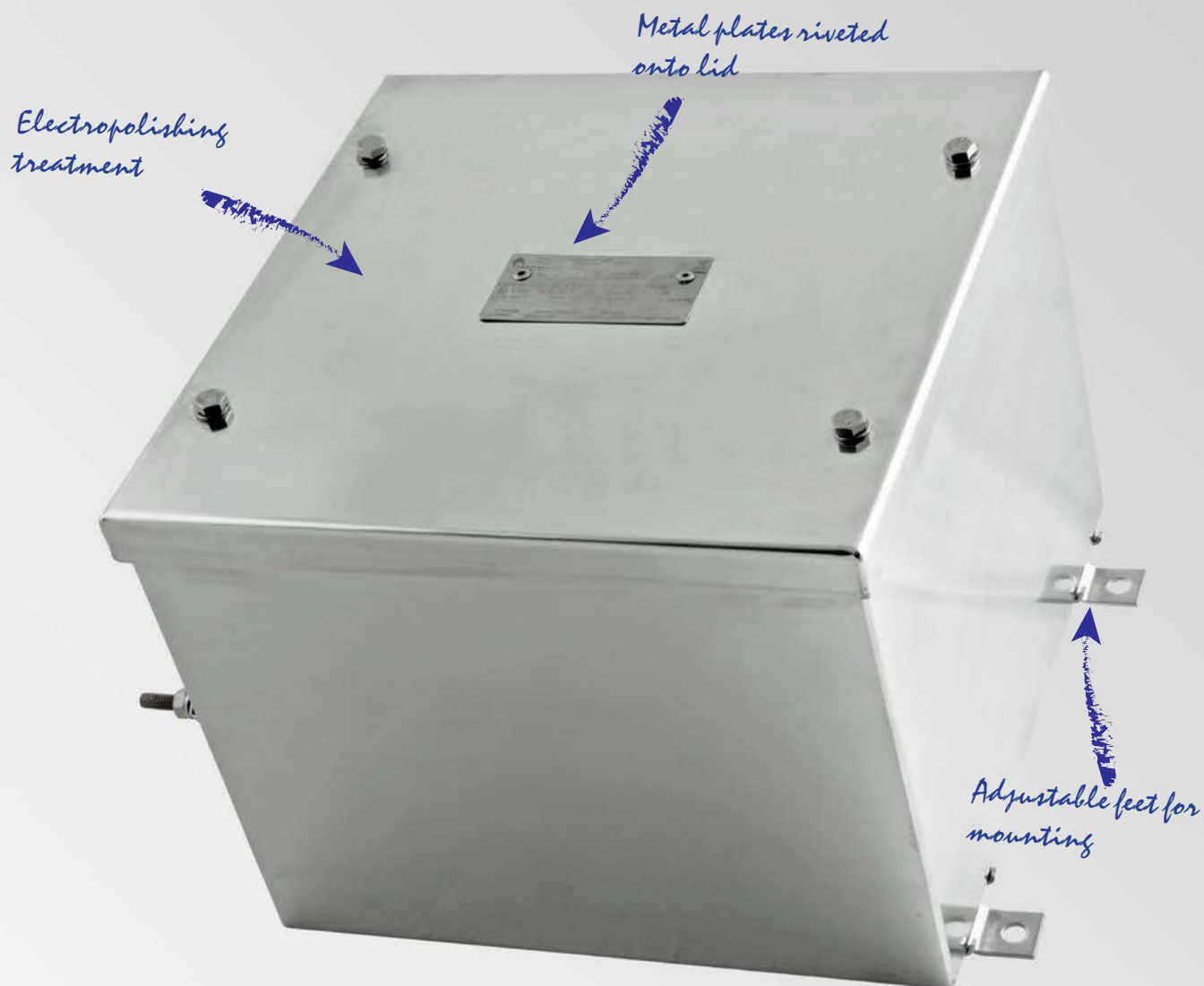


# CTBE

↑Quality / Price↓

- Zone 1, 2, 21, 22
- Electropolished 316 L stainless steel junction boxes
- 19 different sizes
- Gasket resistant to acids and high temperatures
- IP66



Fixing detail



Earth stud with cable anti-rotation bracket



Hinges detail

## CTBE... series (Ex e) and (Ex i) stainless steel junction boxes

Ex e

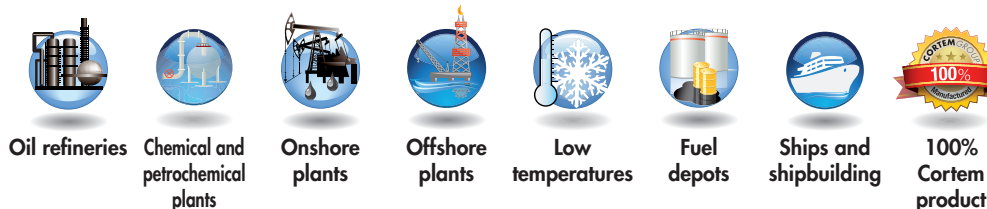
After carefully analysing the value of the existing CTB enclosure product line and taking into account the two cornerstones of any product: cost and innovation, the product manager at Cortem has re-examined the existing solution and come up with a new range of structurally simpler enclosures, made from stainless steel. The aim was to simplify and streamline installation of these increased-safety or intrinsically safe enclosures in an electrical system. Our ongoing commitment to improving cost efficiency, speed, reliability and quality gradually and simultaneously across the full production chain means that we are delivering new products which are increasingly competitive, innovative and in line with the most precise, targeted requests from the oil and gas market.

Our range of simplified CTBE enclosures are made from AISI 316L stainless steel sheet metal to ensure that they perform in the aggressive environments in which they are installed. These enclosures can be used in industrial plants where there is a risk of explosion and fire, classified as zone 1, 2, 21 or 22. They are mainly used as junction boxes or for routing cables for analogue or digital signals. The main purpose of these enclosures is to protect the components inside from external agents, such as moisture or dust, meaning they must have a suitable IP rating. Cortem tests its enclosures according to standard EN 60529 at its own accredited facilities to ensure that this requirement is met. Cortem is a reliable partner for its customers, configuring customised solutions tailored to individual requirements and offering an extensive range of products and components to produce cost-effective bespoke systems.

Cortem Group labels its products with a non-removable adhesive label featuring a hologram and an alphanumerical univocal code, as a safety measure against the illegal sale of fakes so that all the products are guaranteed as original. Non-compliance with the International standards entails serious risks for the environment, especially for those working daily on the plants.



### Application sectors:



### CERTIFICATION DATA FOR ENCLOSURES WITH TERMINALS

|                       |                                                                                                                                                                                                                               |                                       |                                                                                                                                      |  |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--|
| Classification:       | Group II                                                                                                                                                                                                                      | Category 2GD                          |                                                                                                                                      |  |
| Installation:         | EN 60079.14                                                                                                                                                                                                                   | zone 1 - zone 2 (Gas)                 | zone 21 - zone 22 (Dust)                                                                                                             |  |
| Marking:              | CE 0722 Ex II 2GD Ex eb IIC T6/T5/T4 Gb - Ex tb IIIC T75°C/T1 10°C Db IP66                                                                                                                                                    |                                       |                                                                                                                                      |  |
|                       | CE 0722 Ex II 2GD Ex e ia IIC T6/T5/T4 Gb - Ex ia IIIC T75°C/T1 10°C Db IP66                                                                                                                                                  |                                       |                                                                                                                                      |  |
|                       | CE 0722 Ex II 2GD Ex eb ia IIC T6/T5/T4 Gb - Ex tb ia IIIC T75°C/T1 10°C Db IP66                                                                                                                                              |                                       |                                                                                                                                      |  |
| Certification:        | ATEX                                                                                                                                                                                                                          | CESI 03 ATEX 333,                     |                                                                                                                                      |  |
|                       | IEC Ex                                                                                                                                                                                                                        | CES 13.0001                           | All IEC Ex, TR CU and INMETRO certification data can be downloaded from <a href="http://www.cortemgroup.com">www.cortemgroup.com</a> |  |
|                       | TR CU                                                                                                                                                                                                                         | DISPONIBLE                            |                                                                                                                                      |  |
| Standards:            | CENELEC EN 60079-0: 2012+A11:2013, EN 60079-7: 2015, EN 60079-11: 2012 ed alla DIRETTIVA EUROPEA 2014/34/UE and EUROPEAN DIRECTIVE 2014/34/UE<br>IEC 60079-0: 2011, IEC 60079-7: 2015, IEC 60079-11: 2011, IEC 60079-31: 2013 |                                       |                                                                                                                                      |  |
|                       | Ambient Temp.:                                                                                                                                                                                                                | See "ambient temperature range" table |                                                                                                                                      |  |
| Degree of protection: | IP66                                                                                                                                                                                                                          |                                       |                                                                                                                                      |  |

# CTBE... series (Ex e) and (Ex i) stainless steel junction boxes

Ex e

## AMBIENT TEMPERATURE RANGE

| AMBIENT TEMPERATURE | TEMPERATURE CLASS | MAXIMUM SURFACE TEMPERATURE | MAXIMUM TERMINAL OPERATING TEMPERATURE |
|---------------------|-------------------|-----------------------------|----------------------------------------|
| -40°C +40°C         | T6                | T75°C                       | +80°C                                  |
| -40°C +55°C         | T5                | T75°C                       | +95°C                                  |

## LOW AND HIGH TEMPERATURE RANGE (accordingly with the temperature allowed by the terminals)

| AMBIENT TEMPERATURE | TEMPERATURE CLASS | MAXIMUM SURFACE TEMPERATURE | MAXIMUM TERMINAL OPERATING TEMPERATURE |
|---------------------|-------------------|-----------------------------|----------------------------------------|
| -60°C +40°C         | T6                | T75°C                       | +80°C                                  |
| -60°C +55°C         | T5                | T75°C                       | +95°C                                  |
| -60°C +65°C**       | T5                | T75°C                       | +95°C                                  |

\*\* For this temperature range the maximum dissipated power shall be reduced by 25% and the nominal current by 15%

## TEMPERATURE RANGE FOR SIGNALING (max. 1 A for not Ex i circuits, max. 100 mA for 'Ex i' circuits)

| AMBIENT TEMPERATURE | TEMPERATURE CLASS | MAXIMUM SURFACE TEMPERATURE | MAXIMUM TERMINAL OPERATING TEMPERATURE |
|---------------------|-------------------|-----------------------------|----------------------------------------|
| -40°C +60°C         | T6                | T75°C                       | +80°C                                  |

## TEMPERATURE RANGE FOR SIGNALING (max. 10 A for not Ex i circuits, max. 100 mA for 'Ex i' circuits)

| AMBIENT TEMPERATURE | TEMPERATURE CLASS | MAXIMUM SURFACE TEMPERATURE | MAXIMUM TERMINAL OPERATING TEMPERATURE |
|---------------------|-------------------|-----------------------------|----------------------------------------|
| -60°C +85°C         | T4                | T110°C                      | +120°C                                 |

## CERTIFICATION DATA OF ENCLOSURES WITH EQUIPMENT (FIELD BUS, PROXIMITOR, HEATER...)

|                                                                                                    |                                                                                                                                                                                                      |                                                                                                                   |                                                                   |  |
|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|--|
| Classification:                                                                                    | Group II                                                                                                                                                                                             | Category 2GD                                                                                                      |                                                                   |  |
| Installation: EN 60079.14                                                                          | zone 1 - zone 2 (Gas)                                                                                                                                                                                | zone 21 - zone 22 (Dust)                                                                                          |                                                                   |  |
| Marking:                                                                                           | CE 0722  II2GD - Ex eb IIC T6/T5 Gb - Ex tb IIIC T85°C/T100°C Db - IP66                                           |                                                                                                                   |                                                                   |  |
|                                                                                                    | CE 0722  II2(1)GD - Ex eb ib mb [ia Ga] IIC T4 Gb - Ex tb [ia Da] IIIC T85°C Db IP66                              |                                                                                                                   |                                                                   |  |
| Certification:                                                                                     | ATEX CML 16 ATEX 3163X                                                                                                                                                                               |                                                                                                                   |                                                                   |  |
|                                                                                                    | IEC Ex CML 16.0074X                                                                                                                                                                                  | All IEC Ex certification data can be downloaded from <a href="http://www.cortemgroup.com">www.cortemgroup.com</a> |                                                                   |  |
| Standards:                                                                                         | CENELEC EN 60079-0: 2012, EN 60079-7: 2015, EN 60079-28: 2015, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE<br>IEC 60079-0: 2011-06, IEC 60079-7: 2015, IEC 60079-28: 2015, IEC 60079-31:2013 |                                                                                                                   |                                                                   |  |
|  Ambient Temp.: |  -40°C (-50°C) +40°C           |                                                                                                                   | With temperature class T6 and maximum surface temperature T85°C.  |  |
|                                                                                                    |  -40°C (-50°C) +55°C           |                                                                                                                   | With temperature class T5 and maximum surface temperature T100°C. |  |
| Degree of protection:                                                                              | IP66                                                                                                                                                                                                 |                                                                                                                   |                                                                   |  |

# CTBE... series (Ex e) and (Ex i) stainless steel junction boxes

Ex e

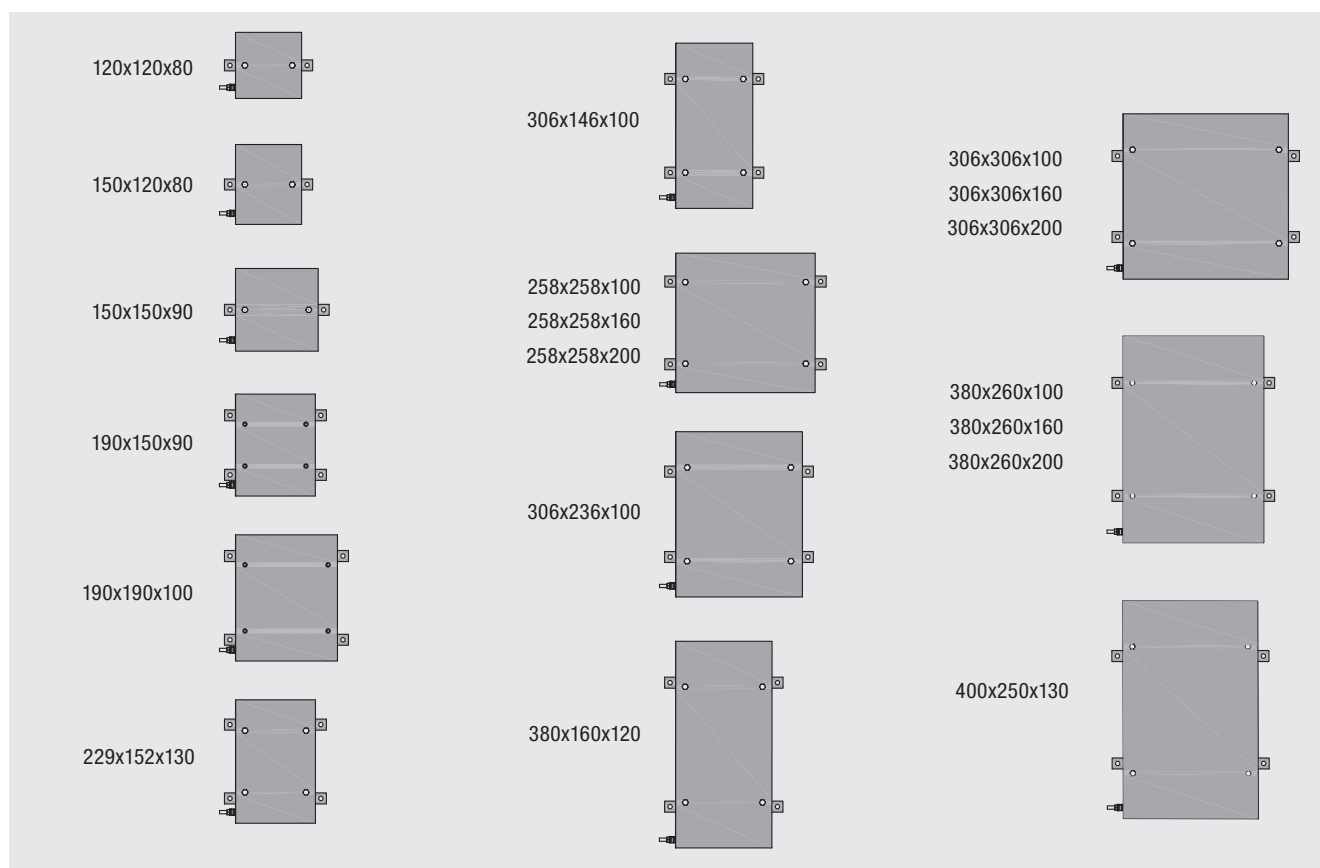
## MECHANICAL FEATURES

|                             |                                                                                                                                           |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Body and lid:</b>        | AISI 316L stainless steel                                                                                                                 |
| <b>Gasket:</b>              | Resistant to acids, hydrocarbons and high temperatures, located between body and lid.<br>Ensures consistent protection to IP66 during use |
| <b>Certification label:</b> | Stainless steel plate riveted onto lid                                                                                                    |
| <b>Bolts and screws:</b>    | Stainless steel                                                                                                                           |
| <b>Earth screws:</b>        | Stainless steel. On inside and outside of body complete with anti-rotation brackets                                                       |
| <b>Mounting:</b>            | AISI 316L stainless steel feet                                                                                                            |

## ACCESSORIES AVAILABLE ON REQUEST/ SPECIAL REQUESTS

Internal anti-condensation coating RAL 2004 (pure orange)  
 External epoxy coating in different colour (specify the RAL number)  
 Possible drilling of the enclosure bottom  
 Breather valve Code ECD-210S; Drain valve code ECD-210S  
 Internal mounting plate: stainless steel (code B...-484)  
 Earth screws in stainless steel  
 Terminal block mounting rails (code OBO2060/S)  
 ATEX-CERTIFIED TERMINALS: terminals must be chosen from the list of approved manufacturers: Cabur, Phoenix, ABB, Entrelec, Wago, Weidmuller. When supplied as an Ex i enclosure (for low-voltage instruments), it comes with suitably identified blue terminals.  
 Hole options: through holes with no threading  
**Only use cable glands that meet ATEX, IECEx directive requirements. Use gaskets and lock nuts on entries to ensure IP66 protection.**

## OVERVIEW OF SIZES

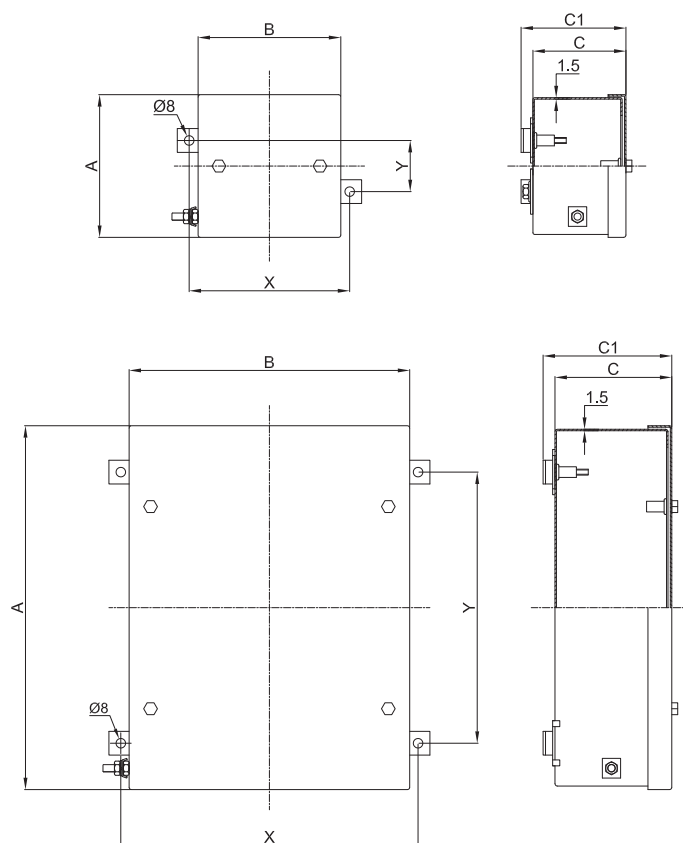


# CTBE... series (Ex e) and (Ex i) stainless steel junction boxes

## ENCLOSURE SELECTION CHART

| Code       | Outside dimensions |     |     |     | Mounting |     | N. of feet for the mounting | N. of screws on cover | Weight Kg |
|------------|--------------------|-----|-----|-----|----------|-----|-----------------------------|-----------------------|-----------|
|            | A                  | B   | C   | C1  | X        | Y   |                             |                       |           |
| CTBE121208 | 120                | 120 | 80  | 90  | 135      | 43  | 2                           | 2                     | 1,02      |
| CTBE151208 | 150                | 120 | 80  | 90  | 135      | 73  | 2                           | 2                     | 1,16      |
| CTBE151509 | 150                | 150 | 90  | 100 | 165      | 73  | 2                           | 2                     | 1,42      |
| CTBE191509 | 190                | 150 | 90  | 100 | 165      | 113 | 2                           | 4                     | 1,69      |
| CTBE191910 | 190                | 190 | 100 | 110 | 205      | 113 | 2                           | 4                     | 2,06      |
| CTBE221513 | 229                | 152 | 130 | 140 | 167      | 152 | 2                           | 4                     | 2,37      |
| CTBE262610 | 258                | 258 | 100 | 110 | 273      | 181 | 4                           | 4                     | 3,29      |
| CTBE262616 | 258                | 258 | 160 | 170 | 273      | 181 | 4                           | 4                     | 4,01      |
| CTBE262620 | 258                | 258 | 200 | 210 | 273      | 181 | 4                           | 4                     | 4,46      |
| CTBE301410 | 306                | 146 | 100 | 110 | 160      | 228 | 4                           | 4                     | 2,56      |
| CTBE302310 | 306                | 236 | 100 | 110 | 250      | 228 | 4                           | 4                     | 3,47      |
| CTBE303010 | 306                | 306 | 100 | 110 | 320      | 228 | 4                           | 4                     | 4,18      |
| CTBE303016 | 306                | 306 | 160 | 170 | 320      | 228 | 4                           | 4                     | 5,04      |
| CTBE303020 | 306                | 306 | 200 | 210 | 320      | 228 | 4                           | 4                     | 5,57      |
| CTBE381612 | 380                | 160 | 120 | 130 | 175      | 303 | 4                           | 4                     | 3,46      |
| CTBE382610 | 380                | 260 | 100 | 110 | 275      | 303 | 4                           | 4                     | 4,40      |
| CTBE382616 | 380                | 260 | 160 | 170 | 275      | 303 | 4                           | 4                     | 5,30      |
| CTBE382620 | 380                | 260 | 200 | 210 | 275      | 303 | 4                           | 4                     | 5,86      |
| CTBE402513 | 400                | 250 | 130 | 140 | 265      | 323 | 4                           | 4                     | 4,91      |

## DIMENSIONAL DRAWING



Dimensions in mm

# CTBE... series (Ex e) and (Ex i) stainless steel junction boxes

THREAD COMPARISON CHART

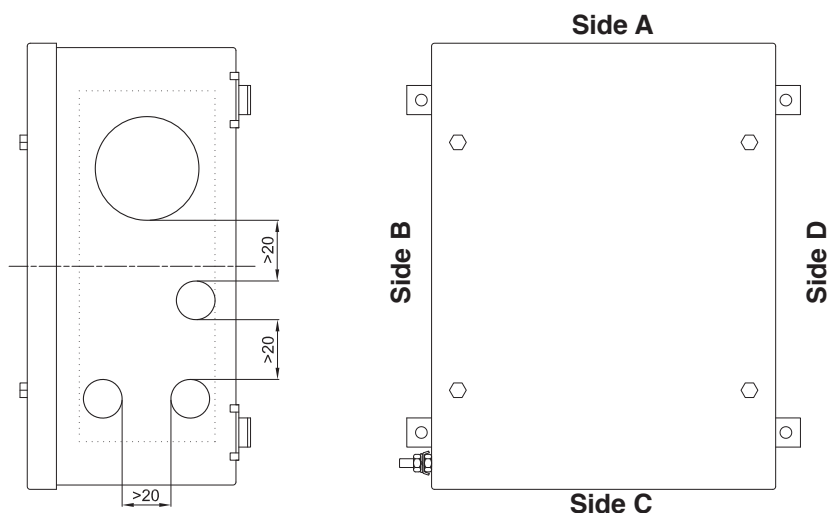
| D<br>Thread diameter | 01     | 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| ISO 261/965          | 16x1.5 | 20x1.5 | 25x1.5 | 32x1.5 | 40x1.5 | 50x1.5 | 63x1.5 | 75x1.5 | 90x1.5 |
| Through hole         | Ø17    | Ø20.5  | Ø25.5  | Ø32.5  | Ø40.5  | Ø50.5  | Ø63.5  | Ø75.5  | Ø90.5  |

As required by the current standard, holes can be drilled by Cortem or by authorized partners who hold a production notification in accordance with ATEX Directive .



Ex e

| TYPE OF ENCLOSURE | HOLE DRILLING IN BODY |                                |    |    |    |    |   |   |   |   |                  |                                |    |    |    |    |    |   |   |   |
|-------------------|-----------------------|--------------------------------|----|----|----|----|---|---|---|---|------------------|--------------------------------|----|----|----|----|----|---|---|---|
|                   | Sides A and C         |                                |    |    |    |    |   |   |   |   | Sides B and D    |                                |    |    |    |    |    |   |   |   |
|                   | Drilling area mm      | MAXIMUM QUANTITY PER HOLE TYPE |    |    |    |    |   |   |   |   | Drilling area mm | MAXIMUM QUANTITY PER HOLE TYPE |    |    |    |    |    |   |   |   |
|                   |                       | 01                             | 1  | 2  | 3  | 4  | 5 | 6 | 7 | 8 |                  | 01                             | 1  | 2  | 3  | 4  | 5  | 6 | 7 | 8 |
| CTBE121208        | 75x35                 | 2                              | 2  | 2  | -  | -  | - | - | - | - | 75x35            | 2                              | 2  | 2  | -  | -  | -  | - | - |   |
| CTBE151208        | 75x35                 | 2                              | 2  | 2  | 1  | -  | - | - | - | - | 105x35           | 3                              | 3  | 2  | 1  | -  | -  | - | - |   |
| CTBE151509        | 105x45                | 3                              | 3  | 2  | 2  | 1  | - | - | - | - | 105x45           | 3                              | 3  | 2  | 2  | 1  | -  | - | - |   |
| CTBE191509        | 105x45                | 3                              | 3  | 2  | 2  | 1  | - | - | - | - | 145x45           | 4                              | 4  | 3  | 3  | 2  | -  | - | - |   |
| CTBE191910        | 145x55                | 4                              | 4  | 3  | 3  | 2  | - | - | - | - | 145x55           | 4                              | 4  | 3  | 3  | 2  | -  | - | - |   |
| CTBE221513        | 107x85                | 6                              | 6  | 4  | 3  | 1  | - | - | - | - | 184x85           | 15                             | 10 | 8  | 6  | 1  | -  | - | - |   |
| CTBE262610        | 213x50                | 11                             | 9  | 5  | 4  | 3  | - | - | - | - | 213x50           | 11                             | 9  | 5  | 4  | 3  | -  | - | - |   |
| CTBE262616        | 213x110               | 18                             | 18 | 14 | 8  | 6  | 5 | 2 | 2 | 2 | 213x100          | 18                             | 18 | 14 | 8  | 6  | 5  | 2 | 2 |   |
| CTBE262620        | 213x150               | 28                             | 20 | 18 | 15 | 6  | 6 | 3 | 2 | 2 | 213x150          | 28                             | 20 | 18 | 15 | 6  | 6  | 3 | 2 |   |
| CTBE301410        | 100x50                | 5                              | 3  | 2  | 2  | 1  | - | - | - | - | 260x50           | 14                             | 6  | 6  | 5  | 4  | -  | - | - |   |
| CTBE302310        | 190x50                | 10                             | 5  | 4  | 4  | 3  | - | - | - | - | 260x50           | 14                             | 6  | 6  | 5  | 4  | -  | - | - |   |
| CTBE303010        | 260x50                | 14                             | 6  | 6  | 5  | 4  | - | - | - | - | 260x50           | 14                             | 6  | 6  | 5  | 4  | -  | - | - |   |
| CTBE303016        | 260x110               | 24                             | 18 | 17 | 10 | 8  | 4 | 3 | 2 | 2 | 260x110          | 24                             | 18 | 17 | 10 | 8  | 4  | 3 | 2 |   |
| CTBE303020        | 260x150               | 35                             | 25 | 22 | 15 | 11 | 6 | 6 | 2 | 2 | 260x150          | 35                             | 25 | 22 | 15 | 11 | 6  | 6 | 2 |   |
| CTBE381612        | 115x70                | 6                              | 6  | 3  | 2  | 2  | 1 | 1 | - | - | 335x70           | 18                             | 16 | 14 | 9  | 5  | 5  | 4 | - |   |
| CTBE382610        | 215x50                | 11                             | 9  | 5  | 4  | 3  | - | - | - | - | 335x50           | 16                             | 7  | 7  | 6  | 5  | -  | - | - |   |
| CTBE382616        | 215x110               | 18                             | 18 | 14 | 8  | 6  | 5 | 2 | 2 | 2 | 335x110          | 27                             | 24 | 21 | 12 | 10 | 5  | 4 | 3 |   |
| CTBE382620        | 215x150               | 28                             | 20 | 18 | 15 | 6  | 6 | 3 | 2 | 2 | 335x150          | 45                             | 32 | 28 | 18 | 15 | 10 | 8 | 3 |   |
| CTBE402513        | 205x80                | 12                             | 10 | 8  | 7  | 3  | 3 | 2 | 2 | - | 335x80           | 20                             | 18 | 16 | 13 | 6  | 5  | 4 | 3 |   |





These enclosures are customized based on size, on the number of terminals or cables they are due to accommodate, or taking into account the number of cable entries and cabling requirements inside a system. Hence we can produce tailor-made solutions as long as you provide us with the appropriate parameters required at the quote request stage, such as the number of cable glands, unions or sealing fittings to be installed, so that we can determine the most suitable size of enclosure. All terminals can be fitted with your requested accessories and mounted on special rails that are fastened to the enclosure's internal mounting plates. Terminal strips can be arranged in various ways, as specified by the customer and always within the limits allowed by the certificate. The options are vertical, horizontal, in a number of rows, or on different levels using suitable spacers.

## ELECTRICAL FEATURES

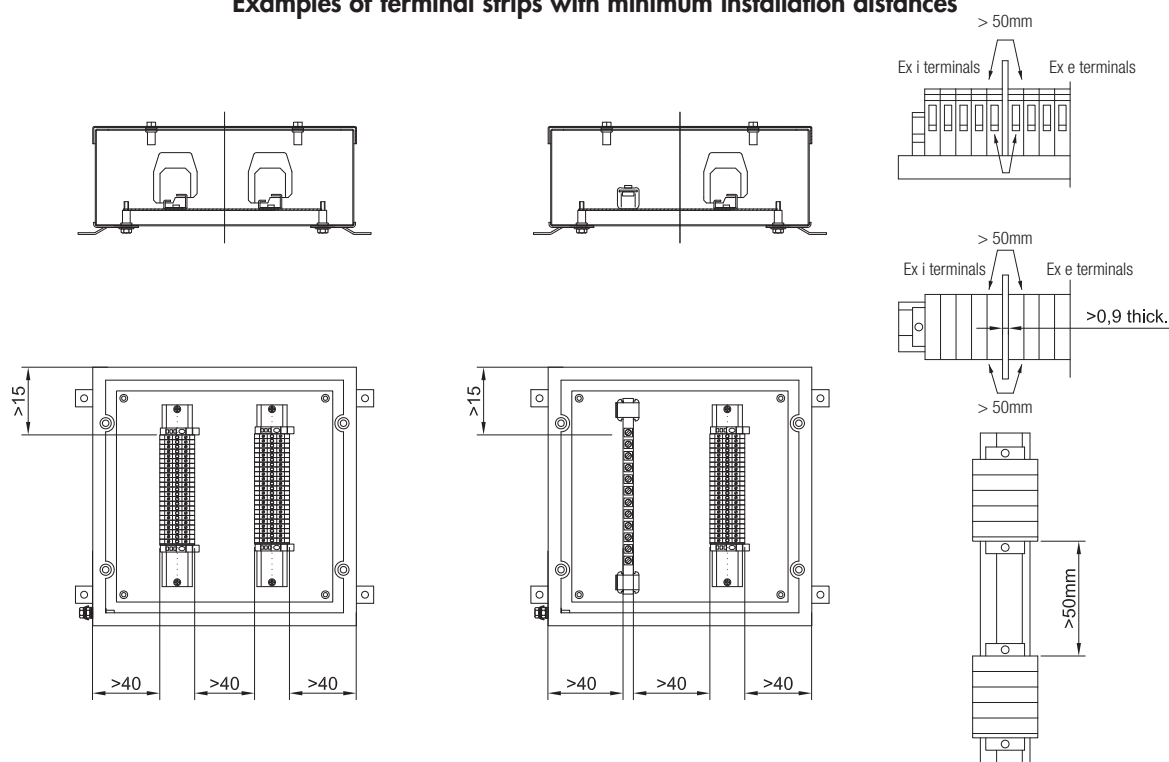
**Rated voltage:** 1000 V  
**Rated frequency:** 50 / 60 Hz

### Modular terminals

**Terminal cross-sectional area:** 1.5; 2.5; 4; 6; 10; 25; 35; 70; 95; 120; 185; 240; 300 [mm<sup>2</sup>]  
**Rated current:** 8 - 400 [A]

| Marking                                                    | Terminal type           | Description                                                                                                             |
|------------------------------------------------------------|-------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Ex II 2GD Ex e IIC T... Gb - Ex tb IIIC T... Db IP66       | Ex e terminals only     | Enclosures containing increased safety terminals to standard EN 60079-7                                                 |
| Ex II 2GD Ex e ia IIC T... Gb - Ex tb ia IIIC T... Db IP66 | Ex e and Ex i terminals | Enclosures containing increased safety terminals and intrinsic safety terminals to standards EN 60079-7 and EN 60079-11 |
| Ex II 2GD Ex ia IIC T... Gb - Ex ia IIIC T... Db IP66      | Ex i terminals only     | Enclosures containing intrinsic safety terminals to standard EN 60079-11; enclosures are still category 2               |

## Examples of terminal strips with minimum installation distances



### Notes:

Reference must be made to the minimum distances given, bearing in mind the space required for internal wiring.

Only ATEX-certified terminals are allowed inside the enclosures.

Ex i rated terminals must be suitably labelled or coloured differently so they are clearly identifiable.

Ex i cable entries must be suitably identified with either labelling or blue markings on cable glands or the enclosure's sides.

| TYPE OF ENCLOSURE | MAXIMUM NUMBER OF TERMINALS HOUSED |      |      |      |      |      |    |    |    |    |
|-------------------|------------------------------------|------|------|------|------|------|----|----|----|----|
|                   | TERMINAL CROSS-SECTIONAL AREA      |      |      |      |      |      |    |    |    |    |
|                   | 1.5                                | 2.5  | 4    | 6    | 10   | 16   | 25 | 35 | 50 | 70 |
| CTBE121208        | 8                                  | 5    | -    | -    | -    | -    | -  | -  | -  | -  |
| CTBE151208        | 14                                 | 10   | -    | -    | -    | -    | -  | -  | -  | -  |
| CTBE151509        | 20                                 | 14   | -    | -    | -    | -    | -  | -  | -  | -  |
| CTBE191509        | 29                                 | 20   | -    | -    | -    | -    | -  | -  | -  | -  |
| CTBE191910        | 36                                 | 25   | 21   | 15   | -    | -    | -  | -  | -  | -  |
| CTBE221513        | 38                                 | 26   | 22   | 16   | -    | -    | -  | -  | -  | -  |
| CTBE262610        | 2x42                               | 2x29 | 2x24 | 2x18 | -    | -    | -  | -  | -  | -  |
| CTBE262616        | 2x42                               | 2x29 | 2x24 | 2x18 | 2x14 | 2x12 | 8  | -  | -  | -  |
| CTBE262620        | 2x42                               | 2x29 | 2x24 | 2x18 | 2x14 | 2x12 | 8  | -  | -  | -  |
| CTBE301410        | 56                                 | 39   | 32   | 24   | -    | -    | -  | -  | -  | -  |
| CTBE302310        | 2x56                               | 2x39 | 2x32 | 2x24 | -    | -    | -  | -  | -  | -  |
| CTBE303010        | 2x56                               | 2x39 | 2x32 | 2x24 | -    | -    | -  | -  | -  | -  |
| CTBE303016        | 2x56                               | 2x39 | 2x32 | 2x24 | 2x19 | 2x16 | 11 | -  | -  | -  |
| CTBE381612        | 77                                 | 54   | 45   | 33   | 26   | 22   | 16 | -  | -  | -  |
| CTBE303020        | 2x56                               | 2x39 | 2x32 | 2x24 | 2x19 | 2x16 | 11 | 11 | 10 | 9  |
| CTBE382610        | 2x77                               | 2x54 | 2x45 | 2x33 | 2x26 | 2x22 | 16 | 16 | 14 | 12 |
| CTBE382616        | 2x77                               | 2x54 | 2x45 | 2x33 | 2x26 | 2x22 | 16 | 16 | 14 | 12 |
| CTBE382620        | 2x77                               | 2x54 | 2x45 | 2x33 | 2x26 | 2x22 | 16 | 16 | 14 | 12 |
| CTBE402513        | 2x83                               | 2x58 | 2x48 | 2x36 | 2x28 | 2x23 | 17 | 17 | -  | -  |

Eg. 2x22= 2 rows of 22 terminals (total 44 terminals). The maximum number of standard terminals refers to the mounting of CABUR and/or WEIDMULLER terminals. The data in the table are given as a rough guide only based solely on the size of the enclosures and the space taken up by the terminals.

The permissible maximum power dissipation, in order to retain a T6 temperature class with an ambient temperature up to 40°C or T5 class with an ambient temperature of 55°C, is not to exceed the values given in the tables below. For an ambient temperature of +60°C or +65°C, maximum power dissipation must be reduced by 25%, and rated current reduced by 15%.

The maximum current values for terminal strips used for low-voltage circuits (signalling units) with a T6 temperature class and maximum ambient temperature of +60°C are as follows:

- 1A for Ex e circuits;
- 100mA for Ex ia circuits.

The values given in the tables on the coming pages refer to the maximum number of conductors allowed for a conductor with a given cross-sectional area and a given maximum current. All incoming wires and active internal links (made by wires) count as wires. Earth connections (i.e. passive connections) do not count.

When DIN/Omega rails are installed on the internal mounting plate (instead of using the relevant mounting plate fastening holes), the number of terminals may be slightly less than the number given in the tables.

Other types of terminals can be used up to the space limit of the box. Whatever the case, all terminals used shall be ATEX and/or IEC Ex certified. Size 35mm<sup>2</sup> terminals can be used for conductors with a cross-sectional area of 25mm<sup>2</sup>.

The maximum number of terminals and maximum number of rows given in the tables is an indicative value: you must take into account the cable entries on the sides of the boxes. The internal overall dimensions of cable glands/lock nuts and the overall dimensions of conductors must be taken into consideration to allow for wiring.

In some cases, it may be necessary to reduce the number of terminals or the number of rows.

Example of how to calculate the maximum number of conductors.

Referring to table of the maximum number of conductors for CTB262620: 6 conductors with 6mm<sup>2</sup> cross-section with 26A continuous current is the limit of this box. Consequently, box CTB262620 is suitable for containing 3 x 6mm<sup>2</sup> terminals (2 conductors for each terminal) with a max. current of 26A.

There is space for 32 x 6mm<sup>2</sup> terminals in the box. The remaining 29 terminals (32-3) can be added and used for low-current circuits indicated in the "yellow-coloured" area of the table (in this case max. 8-10A).

Combined mounting for electrical circuits with different sized cables is possible provided the values given are used proportionally.

For example:

| Nominal X-sect. area (mm <sup>2</sup> ) | Current (A) | Quantity       | Capacity  |
|-----------------------------------------|-------------|----------------|-----------|
| 2.5                                     | 16          | 10 (out of 30) | 33%       |
| 16                                      | 50          | 12 (out of 48) | 25%       |
| 25                                      | 63          | 36 (out of 90) | 40%       |
| Total                                   |             |                | 98% <100% |

Table showing maximum power dissipation and current for ambient temperature +40°C and +55°C

| Enclosure  | P [W] | Maximum current [A] per conductor cross-sectional area in mm <sup>2</sup> |     |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
|------------|-------|---------------------------------------------------------------------------|-----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|
|            |       | 1.5                                                                       | 2.5 | 4  | 6  | 10 | 16 | 25 | 35 | 50 | 70  | 95  | 120 | 150 | 185 | 240 | 300 |
| CTBE121208 | 5,3   | 11                                                                        | 15  | 21 | 26 | 37 | 49 | 67 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE151208 | 5,3   | 11                                                                        | 15  | 21 | 26 | 37 | 49 | 67 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE151509 | 5,5   | 11                                                                        | 15  | 21 | 26 | 37 | 49 | 67 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE191509 | 6,2   | 11                                                                        | 15  | 21 | 26 | 37 | 49 | 67 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE191910 | 6,2   | 11                                                                        | 15  | 21 | 26 | 37 | 49 | 67 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE221513 | 6,2   | 11                                                                        | 15  | 21 | 26 | 37 | 49 | 67 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE262610 | 10,6  | 11                                                                        | 15  | 21 | 26 | 37 | 49 | 67 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE262616 | 10,6  | 11                                                                        | 15  | 21 | 26 | 37 | 49 | 67 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE262620 | 11,2  | 11                                                                        | 15  | 21 | 26 | 37 | 49 | 67 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE301410 | 10,6  | 11                                                                        | 15  | 21 | 26 | 37 | 49 | 67 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE302310 | 11,2  | 11                                                                        | 15  | 21 | 26 | 37 | 49 | 67 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE303010 | 11,2  | 11                                                                        | 15  | 21 | 26 | 37 | 49 | 67 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE303016 | 11,2  | 11                                                                        | 15  | 21 | 26 | 37 | 49 | 67 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE381612 | 11,2  | 11                                                                        | 15  | 21 | 26 | 37 | 49 | 67 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE303020 | 12,2  | 11                                                                        | 15  | 21 | 26 | 37 | 49 | 67 | 80 | 98 | 122 | 122 | 147 | 147 | 147 | 147 | 147 |
| CTBE382610 | 12,2  | 11                                                                        | 15  | 21 | 26 | 37 | 49 | 67 | 80 | 98 | 122 | 122 | 147 | 147 | 147 | 147 | 147 |
| CTBE382616 | 12,2  | 11                                                                        | 15  | 21 | 26 | 37 | 49 | 67 | 80 | 98 | 122 | 122 | 147 | 147 | 147 | 147 | 147 |
| CTBE382620 | 12,2  | 11                                                                        | 15  | 21 | 26 | 37 | 49 | 67 | 80 | 98 | 122 | 122 | 147 | 147 | 147 | 147 | 147 |
| CTBE402513 | 12,2  | 11                                                                        | 15  | 21 | 26 | 37 | 49 | 67 | 80 | 98 | 122 | 122 | 147 | 147 | 147 | 147 | 147 |

Table showing maximum power dissipation and current for ambient temperature +60°C and +65°C

| Enclosure  | P [W] | Maximum current [A] per conductor cross-sectional area in mm <sup>2</sup> |     |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
|------------|-------|---------------------------------------------------------------------------|-----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|
|            |       | 1.5                                                                       | 2.5 | 4  | 6  | 10 | 16 | 25 | 35 | 50 | 70  | 95  | 120 | 150 | 185 | 240 | 300 |
| CTBE121208 | 3,9   | 9                                                                         | 12  | 17 | 22 | 31 | 41 | 57 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE151208 | 3,9   | 9                                                                         | 12  | 17 | 22 | 31 | 41 | 57 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE151509 | 4,1   | 9                                                                         | 12  | 17 | 22 | 31 | 41 | 57 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE191509 | 4,6   | 9                                                                         | 12  | 17 | 22 | 31 | 41 | 57 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE191910 | 4,6   | 9                                                                         | 12  | 17 | 22 | 31 | 41 | 57 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE221513 | 4,6   | 9                                                                         | 12  | 17 | 22 | 31 | 41 | 57 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE262610 | 7,9   | 9                                                                         | 12  | 17 | 22 | 31 | 41 | 57 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE262616 | 7,9   | 9                                                                         | 12  | 17 | 22 | 31 | 41 | 57 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE262620 | 8,4   | 9                                                                         | 12  | 17 | 22 | 31 | 41 | 57 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE301410 | 7,9   | 9                                                                         | 12  | 17 | 22 | 31 | 41 | 57 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE302310 | 8,4   | 9                                                                         | 12  | 17 | 22 | 31 | 41 | 57 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE303010 | 8,4   | 9                                                                         | 12  | 17 | 22 | 31 | 41 | 57 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE303016 | 8,4   | 9                                                                         | 12  | 17 | 22 | 31 | 41 | 57 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE381612 | 8,4   | 9                                                                         | 12  | 17 | 22 | 31 | 41 | 57 | -  | -  | -   | -   | -   | -   | -   | -   | -   |
| CTBE303020 | 9,1   | 9                                                                         | 12  | 17 | 22 | 31 | 41 | 57 | 68 | 83 | 103 | 103 | 125 | 125 | 125 | 125 | 125 |
| CTBE382610 | 9,1   | 9                                                                         | 12  | 17 | 22 | 31 | 41 | 57 | 68 | 83 | 103 | 103 | 125 | 125 | 125 | 125 | 125 |
| CTBE382616 | 9,1   | 9                                                                         | 12  | 17 | 22 | 31 | 41 | 57 | 68 | 83 | 103 | 103 | 125 | 125 | 125 | 125 | 125 |
| CTBE382620 | 9,1   | 9                                                                         | 12  | 17 | 22 | 31 | 41 | 57 | 68 | 83 | 103 | 103 | 125 | 125 | 125 | 125 | 125 |
| CTBE402513 | 9,1   | 9                                                                         | 12  | 17 | 22 | 31 | 41 | 57 | 68 | 83 | 103 | 103 | 125 | 125 | 125 | 125 | 125 |

# CTBE... series Features of junction boxes with terminals

Instructions for determining which enclosure is best suited based on the planned number of conductors and terminals.

 : In this section of the table that has not been filled in, once you have followed the instructions and complied with the values given for the enclosure's internal wiring, you can add as many terminals as you want up to the space limit of the box.

 : Any wiring that falls within this section of the table that has not been filled in is not covered by the certificate.

"C. No." row: the values given refer to the maximum number of CABUR terminals physically allowed inside the relevant enclosure. These values are expressed as the product of the rows multiplied by the number of terminals.

"W. No." row: the same as above, but this time referring to Weidmuller terminals.

The terminal brands are mentioned just to give an idea of the quantity of terminals that can be housed inside the enclosure.

The other values given in the cells along the table's diagonal define the maximum number of conductors allowed, based on their cross-sectional area and maximum current.

## Tables showing maximum number of conductors

$$(N^{\circ} \text{ of terminals} = \frac{n^{\circ} \text{ of conductors}}{2})$$

CTBE121208

| Current (A) | 1,5 | 2,5 | 4  | 6  | 10 | 16 | 25 |
|-------------|-----|-----|----|----|----|----|----|
| 1           |     |     |    |    |    |    |    |
| 8           | 15  | 25  |    |    |    |    |    |
| 10          | 9   | 16  | 22 |    |    |    |    |
| 11          | 8   | 13  | 18 | 24 |    |    |    |
| 15          |     | 7   | 10 | 13 |    |    |    |
| 21          |     |     | 5  | 7  | 9  | 12 |    |
| 26          |     |     |    | 4  | 6  | 8  | 10 |
| 37          |     |     |    |    | 3  | 4  | 5  |
| 49          |     |     |    |    |    | 2  | 3  |
| 67          |     |     |    |    |    |    | 2  |
| C. No.      |     |     |    |    |    |    |    |
| W. No.      | 8   | 5   |    |    |    |    |    |

Maximum power dissipation with T6 temperature class must not exceed 5,3W

CTBE151208

| Current (A) | 1,5 | 2,5 | 4  | 6  | 10 | 16 | 25 |
|-------------|-----|-----|----|----|----|----|----|
| 1           |     |     |    |    |    |    |    |
| 8           | 15  | 25  |    |    |    |    |    |
| 10          | 9   | 16  | 22 |    |    |    |    |
| 11          | 7   | 13  | 18 | 24 |    |    |    |
| 15          |     | 7   | 10 | 13 |    |    |    |
| 21          |     |     | 5  | 7  | 9  | 12 |    |
| 26          |     |     |    | 4  | 6  | 8  | 10 |
| 37          |     |     |    |    | 3  | 4  | 5  |
| 49          |     |     |    |    |    | 2  | 3  |
| 67          |     |     |    |    |    |    | 2  |
| C. No.      |     |     |    |    |    |    |    |
| W. No.      | 14  | 10  |    |    |    |    |    |

Maximum power dissipation with T6 temperature class must not exceed 5,3W

CTBE151509

| Current (A) | 1,5 | 2,5 | 4  | 6  | 10 | 16 | 25 |
|-------------|-----|-----|----|----|----|----|----|
| 1           |     |     |    |    |    |    |    |
| 8           | 14  | 24  |    |    |    |    |    |
| 10          | 9   | 15  | 22 |    |    |    |    |
| 11          | 7   | 12  | 18 | 24 |    |    |    |
| 15          |     | 6   | 10 | 13 | 18 | 25 |    |
| 21          |     |     | 5  | 7  | 9  | 13 | 16 |
| 26          |     |     |    | 4  | 6  | 8  | 11 |
| 37          |     |     |    |    | 3  | 4  | 5  |
| 49          |     |     |    |    |    | 2  | 3  |
| 67          |     |     |    |    |    |    | 2  |
| C. No.      |     |     |    |    |    |    |    |
| W. No.      | 20  | 14  |    |    |    |    |    |

Maximum power dissipation with T6 temperature class must not exceed 5,5W

CTBE191509

| Current (A) | 1,5 | 2,5 | 4  | 6  | 10 | 16 | 25 |
|-------------|-----|-----|----|----|----|----|----|
| 1           |     |     |    |    |    |    |    |
| 8           | 16  | 27  | 38 |    |    |    |    |
| 10          | 10  | 17  | 24 | 33 |    |    |    |
| 11          | 8   | 14  | 20 | 27 | 39 |    |    |
| 15          |     | 7   | 11 | 14 | 21 | 28 |    |
| 21          |     |     | 6  | 7  | 11 | 14 | 19 |
| 26          |     |     |    | 5  | 7  | 9  | 12 |
| 37          |     |     |    |    | 3  | 5  | 6  |
| 49          |     |     |    |    |    | 3  | 3  |
| 67          |     |     |    |    |    |    | 2  |
| C. No.      |     |     |    |    |    |    |    |
| W. No.      | 29  | 20  |    |    |    |    |    |

Maximum power dissipation with T6 temperature class must not exceed 5,5W

CTBE191910

| Current (A) | 1,5 | 2,5 | 4  | 6  | 10 | 16 | 25 |
|-------------|-----|-----|----|----|----|----|----|
| 1           |     |     |    |    |    |    |    |
| 8           | 16  | 27  | 38 |    |    |    |    |
| 10          | 10  | 17  | 24 | 33 |    |    |    |
| 11          | 8   | 14  | 20 | 27 | 39 |    |    |
| 15          |     | 7   | 11 | 14 | 21 | 28 |    |
| 21          |     |     | 6  | 7  | 11 | 14 | 19 |
| 26          |     |     |    | 5  | 7  | 9  | 12 |
| 37          |     |     |    |    | 3  | 5  | 6  |
| 49          |     |     |    |    |    | 3  | 3  |
| 67          |     |     |    |    |    |    | 2  |
| C. No.      |     | 23  | 19 | 15 |    |    |    |
| W. No.      | 36  | 25  | 21 | 15 |    |    |    |

Maximum power dissipation with T6 temperature class must not exceed 6,2W

CTBE221513

| Current (A) | 1,5 | 2,5 | 4  | 6  | 10 | 16 | 25 |
|-------------|-----|-----|----|----|----|----|----|
| 1           |     |     |    |    |    |    |    |
| 8           | 16  | 27  | 38 |    |    |    |    |
| 10          | 10  | 17  | 24 | 33 |    |    |    |
| 11          | 8   | 14  | 20 | 27 | 39 |    |    |
| 15          |     | 7   | 11 | 14 | 21 | 28 |    |
| 21          |     |     | 6  | 7  | 11 | 14 | 19 |
| 26          |     |     |    | 5  | 7  | 9  | 12 |
| 37          |     |     |    |    | 3  | 5  | 6  |
| 49          |     |     |    |    |    | 3  | 3  |
| 67          |     |     |    |    |    |    | 2  |
| C. No.      |     | 24  | 20 | 16 |    |    |    |
| W. No.      | 38  | 26  | 22 | 16 |    |    |    |

Maximum power dissipation with T6 temperature class must not exceed 6,2W

CTBE262610

| Current (A) | 1,5 | 2,5  | 4    | 6    | 10   | 16 | 25  |
|-------------|-----|------|------|------|------|----|-----|
| 1           |     |      |      |      |      |    |     |
| 8           | 20  | 34   | 50   | 68   | 102  |    |     |
| 10          | 13  | 22   | 32   | 44   | 65   |    |     |
| 11          | 11  | 18   | 26   | 36   | 54   | 76 | 104 |
| 15          |     | 9    | 14   | 19   | 29   | 41 | 56  |
| 21          |     |      | 7    | 10   | 15   | 21 | 29  |
| 26          |     |      |      | 6    | 10   | 14 | 19  |
| 37          |     |      |      |      | 5    | 7  | 9   |
| 49          |     |      |      |      |      | 4  | 5   |
| 67          |     |      |      |      |      |    | 3   |
| C. No.      |     | 2x27 | 2x22 | 2x18 |      |    |     |
| W. No.      |     | 2x42 | 2x29 | 2x24 | 2x18 |    |     |

Maximum power dissipation with T6 temperature class must not exceed 10,6W

CTBE262616

| Current (A) | 1,5 | 2,5  | 4    | 6    | 10   | 16   | 25   |
|-------------|-----|------|------|------|------|------|------|
| 1           |     |      |      |      |      |      |      |
| 8           | 20  | 34   | 50   | 68   | 102  |      |      |
| 10          | 13  | 22   | 32   | 44   | 65   |      |      |
| 11          | 11  | 18   | 26   | 36   | 54   | 76   | 104  |
| 15          |     | 9    | 14   | 19   | 29   | 41   | 56   |
| 21          |     |      | 7    | 10   | 15   | 21   | 29   |
| 26          |     |      |      | 6    | 10   | 14   | 19   |
| 37          |     |      |      |      | 5    | 7    | 9    |
| 49          |     |      |      |      |      | 4    | 5    |
| 67          |     |      |      |      |      |      | 3    |
| C. No.      |     | 2x27 | 2x22 | 2x18 | 2x14 | 2x12 | 8    |
| W. No.      |     | 2x42 | 2x29 | 2x24 | 2x18 | 2x14 | 2x12 |

Maximum power dissipation with T6 temperature class must not exceed 10,6W

CTBE262620

| Current (A) | 1,5 | 2,5  | 4    | 6    | 10   | 16   | 25   |
|-------------|-----|------|------|------|------|------|------|
| 1           |     |      |      |      |      |      |      |
| 8           | 20  | 33   | 49   | 68   | 103  |      |      |
| 10          | 13  | 21   | 32   | 44   | 66   |      |      |
| 11          | 11  | 18   | 26   | 36   | 54   | 77   | 107  |
| 15          |     | 9    | 14   | 19   | 29   | 41   | 57   |
| 21          |     |      | 7    | 10   | 15   | 21   | 29   |
| 26          |     |      |      | 6    | 10   | 14   | 19   |
| 37          |     |      |      |      | 5    | 7    | 9    |
| 49          |     |      |      |      |      | 4    | 5    |
| 67          |     |      |      |      |      |      | 3    |
| C. No.      |     | 2x27 | 2x22 | 2x18 | 2x14 | 2x12 | 8    |
| W. No.      |     | 2x42 | 2x29 | 2x24 | 2x18 | 2x14 | 2x12 |

Maximum power dissipation with T6 temperature class must not exceed 11,2W

## Tabelle per il massimo numero di conduttori

CTBE301410

| Current (A) | Cross-sectional area in mm <sup>2</sup> |     |    |    |     |    |     |
|-------------|-----------------------------------------|-----|----|----|-----|----|-----|
|             | 1,5                                     | 2,5 | 4  | 6  | 10  | 16 | 25  |
| 1           |                                         |     |    |    |     |    |     |
| 8           | 20                                      | 34  | 50 | 68 | 102 |    |     |
| 10          | 13                                      | 22  | 32 | 44 | 65  |    |     |
| 11          | 11                                      | 18  | 26 | 36 | 54  | 76 | 104 |
| 15          |                                         | 9   | 14 | 19 | 29  | 41 | 56  |
| 21          |                                         |     | 7  | 10 | 15  | 21 | 29  |
| 26          |                                         |     |    | 6  | 10  | 14 | 19  |
| 37          |                                         |     |    |    | 5   | 7  | 9   |
| 49          |                                         |     |    |    |     | 4  | 5   |
| 67          |                                         |     |    |    |     |    | 3   |
| C. No.      |                                         | 35  | 30 | 24 |     |    |     |
| W. No.      | 56                                      | 39  | 32 | 24 |     |    |     |

Maximum power dissipation with T6 temperature class must not exceed 10,6W

CTBE302310

| Current (A) | Cross-sectional area in mm <sup>2</sup> |      |      |      |     |    |     |
|-------------|-----------------------------------------|------|------|------|-----|----|-----|
|             | 1,5                                     | 2,5  | 4    | 6    | 10  | 16 | 25  |
| 1           |                                         |      |      |      |     |    |     |
| 8           | 20                                      | 33   | 49   | 68   | 103 |    |     |
| 10          | 13                                      | 21   | 32   | 44   | 66  |    |     |
| 11          | 11                                      | 18   | 26   | 36   | 54  | 77 | 107 |
| 15          |                                         | 9    | 14   | 19   | 29  | 41 | 57  |
| 21          |                                         |      | 7    | 10   | 15  | 21 | 29  |
| 26          |                                         |      |      | 6    | 10  | 14 | 19  |
| 37          |                                         |      |      |      | 5   | 7  | 9   |
| 49          |                                         |      |      |      |     | 4  | 5   |
| 67          |                                         |      |      |      |     |    | 3   |
| C. No.      |                                         | 2x35 | 2x30 | 2x24 |     |    |     |
| W. No.      | 2x56                                    | 2x39 | 2x32 | 2x24 |     |    |     |

Maximum power dissipation with T6 temperature class must not exceed 11,2W

CTBE303010

| Current (A) | Cross-sectional area in mm <sup>2</sup> |      |      |      |     |    |     |
|-------------|-----------------------------------------|------|------|------|-----|----|-----|
|             | 1,5                                     | 2,5  | 4    | 6    | 10  | 16 | 25  |
| 1           |                                         |      |      |      |     |    |     |
| 8           | 20                                      | 33   | 49   | 68   | 103 |    |     |
| 10          | 13                                      | 21   | 32   | 44   | 66  |    |     |
| 11          | 11                                      | 18   | 26   | 36   | 54  | 77 | 107 |
| 15          |                                         | 9    | 14   | 19   | 29  | 41 | 57  |
| 21          |                                         |      | 7    | 10   | 15  | 21 | 29  |
| 26          |                                         |      |      | 6    | 10  | 14 | 19  |
| 37          |                                         |      |      |      | 5   | 7  | 9   |
| 49          |                                         |      |      |      |     | 4  | 5   |
| 67          |                                         |      |      |      |     |    | 3   |
| C. No.      |                                         | 2x35 | 2x30 | 2x24 |     |    |     |
| W. No.      | 2x56                                    | 2x39 | 2x32 | 2x24 |     |    |     |

Maximum power dissipation with T6 temperature class must not exceed 11,2W

CTBE303016

| Current (A) | Cross-sectional area in mm <sup>2</sup> |      |      |      |      |      |     |
|-------------|-----------------------------------------|------|------|------|------|------|-----|
|             | 1,5                                     | 2,5  | 4    | 6    | 10   | 16   | 25  |
| 1           |                                         |      |      |      |      |      |     |
| 8           | 20                                      | 33   | 49   | 68   | 103  |      |     |
| 10          | 13                                      | 21   | 32   | 44   | 66   |      |     |
| 11          | 11                                      | 18   | 26   | 36   | 54   | 77   | 107 |
| 15          |                                         | 9    | 14   | 19   | 29   | 41   | 57  |
| 21          |                                         |      | 7    | 10   | 15   | 21   | 29  |
| 26          |                                         |      |      | 6    | 10   | 14   | 19  |
| 37          |                                         |      |      |      | 5    | 7    | 9   |
| 49          |                                         |      |      |      |      | 4    | 5   |
| 67          |                                         |      |      |      |      |      | 3   |
| C. No.      |                                         | 2x35 | 2x30 | 2x24 | 2x19 | 2x16 | 11  |
| W. No.      | 2x56                                    | 2x39 | 2x32 | 2x24 | 2x19 | 2x16 | 11  |

Maximum power dissipation with T6 temperature class must not exceed 6,2W

CTBE381612

| Current (A) | Cross-sectional area in mm <sup>2</sup> |     |    |    |     |    |     |
|-------------|-----------------------------------------|-----|----|----|-----|----|-----|
|             | 1,5                                     | 2,5 | 4  | 6  | 10  | 16 | 25  |
| 1           |                                         |     |    |    |     |    |     |
| 8           | 20                                      | 33  | 49 | 68 | 103 |    |     |
| 10          | 13                                      | 21  | 32 | 44 | 66  |    |     |
| 11          | 11                                      | 18  | 26 | 36 | 54  | 77 | 107 |
| 15          |                                         | 9   | 14 | 19 | 29  | 41 | 57  |
| 21          |                                         |     | 7  | 10 | 15  | 21 | 29  |
| 26          |                                         |     |    | 6  | 10  | 14 | 19  |
| 37          |                                         |     |    |    | 5   | 7  | 9   |
| 49          |                                         |     |    |    |     | 4  | 5   |
| 67          |                                         |     |    |    |     |    | 3   |
| C. No.      |                                         | 49  | 41 | 33 | 26  | 22 | 16  |
| W. No.      | 77                                      | 54  | 45 | 33 | 26  | 22 | 16  |

Maximum power dissipation with T6 temperature class must not exceed 11,2W

CTBE303020

| Current (A) | Cross-sectional area in mm <sup>2</sup> |      |      |      |      |      |     |     |    |    |
|-------------|-----------------------------------------|------|------|------|------|------|-----|-----|----|----|
|             | 1,5                                     | 2,5  | 4    | 6    | 10   | 16   | 25  | 35  | 50 | 70 |
| 1           |                                         |      |      |      |      |      |     |     |    |    |
| 8           | 21                                      | 34   | 51   | 71   | 107  | 153  |     |     |    |    |
| 10          | 13                                      | 22   | 33   | 45   | 69   | 98   | 136 |     |    |    |
| 11          | 11                                      | 18   | 27   | 38   | 57   | 81   | 113 | 141 |    |    |
| 15          |                                         | 9    | 15   | 20   | 31   | 43   | 61  | 76  | 92 |    |
| 21          |                                         |      | 7    | 10   | 16   | 22   | 31  | 39  | 47 | 59 |
| 26          |                                         |      |      | 7    | 10   | 14   | 20  | 25  | 31 | 38 |
| 37          |                                         |      |      |      | 5    | 7    | 10  | 12  | 15 | 19 |
| 49          |                                         |      |      |      |      | 4    | 6   | 7   | 9  | 11 |
| 67          |                                         |      |      |      |      |      | 3   | 4   | 5  | 6  |
| 80          |                                         |      |      |      |      |      |     | 3   | 3  | 4  |
| 98          |                                         |      |      |      |      |      |     |     | 2  | 3  |
| 122         |                                         |      |      |      |      |      |     |     |    | 2  |
| C. No.      |                                         | 2x35 | 2x30 | 2x24 | 2x19 | 2x16 | 11  | 11  | 10 | 9  |
| W. No.      | 2x56                                    | 2x39 | 2x32 | 2x24 | 2x19 | 2x16 | 11  | 11  | 10 | 9  |

Maximum power dissipation with T6 temperature class must not exceed 12,2W

CTBE382610, CTBE382616, CTBE382620

| Current (A) | Cross-sectional area in mm <sup>2</sup> |      |      |      |      |      |     |     |    |    |
|-------------|-----------------------------------------|------|------|------|------|------|-----|-----|----|----|
|             | 1,5                                     | 2,5  | 4    | 6    | 10   | 16   | 25  | 35  | 50 | 70 |
| 1           |                                         |      |      |      |      |      |     |     |    |    |
| 8           | 21                                      | 34   | 51   | 71   | 107  | 153  |     |     |    |    |
| 10          | 13                                      | 22   | 33   | 45   | 69   | 98   | 136 |     |    |    |
| 11          | 11                                      | 18   | 27   | 38   | 57   | 81   | 113 | 141 |    |    |
| 15          |                                         | 9    | 15   | 20   | 31   | 43   | 61  | 76  | 92 |    |
| 21          |                                         |      | 7    | 10   | 16   | 22   | 31  | 39  | 47 | 59 |
| 26          |                                         |      |      | 7    | 10   | 14   | 20  | 25  | 31 | 38 |
| 37          |                                         |      |      |      | 5    | 7    | 10  | 12  | 15 | 19 |
| 49          |                                         |      |      |      |      | 4    | 6   | 7   | 9  | 11 |
| 67          |                                         |      |      |      |      |      | 3   | 4   | 5  | 6  |
| 80          |                                         |      |      |      |      |      |     | 3   | 3  | 4  |
| 98          |                                         |      |      |      |      |      |     |     | 2  | 3  |
| 122         |                                         |      |      |      |      |      |     |     |    | 2  |
| C. No.      |                                         | 2x49 | 2x41 | 2x33 | 2x26 | 2x22 | 16  | 16  | 14 | 12 |
| W. No.      | 2x77                                    | 2x54 | 2x45 | 2x33 | 2x26 | 2x22 | 16  | 16  | 14 | 12 |

Maximum power dissipation with T6 temperature class must not exceed 12,2W

CTBE402513

| Current (A) | Cross-sectional area in mm <sup>2</sup> |      |      |      |      |      |     |
|-------------|-----------------------------------------|------|------|------|------|------|-----|
|             | 1,5                                     | 2,5  | 4    | 6    | 10   | 16   | 25  |
| 1           |                                         |      |      |      |      |      |     |
| 8           | 21                                      | 34   | 51   | 71   | 107  | 153  |     |
| 10          | 13                                      | 22   | 33   | 45   | 69   | 98   | 136 |
| 11          | 11                                      | 18   | 27   | 38   | 57   | 81   | 113 |
| 15          |                                         | 9    | 15   | 20   | 31   | 43   | 61  |
| 21          |                                         |      | 7    | 10   | 16   | 22   | 31  |
| 26          |                                         |      |      | 7    | 10   | 14   | 20  |
| 37          |                                         |      |      |      | 5    | 7    | 10  |
| 49          |                                         |      |      |      |      | 4    | 6   |
| 67          |                                         |      |      |      |      |      | 3   |
| 80          |                                         |      |      |      |      |      |     |
| 98          |                                         |      |      |      |      |      |     |
| 122         |                                         |      |      |      |      |      |     |
| C. No.      |                                         | 2x52 | 2x44 | 2x36 | 2x28 | 2x23 | 17  |
| W. No.      | 2x83                                    | 2x58 | 2x48 | 2x36 | 2x28 | 2x23 | 17  |

Maximum power dissipation with T6 temperature class must not exceed 12,2W

# CTBE... series Features of junction boxes with terminals

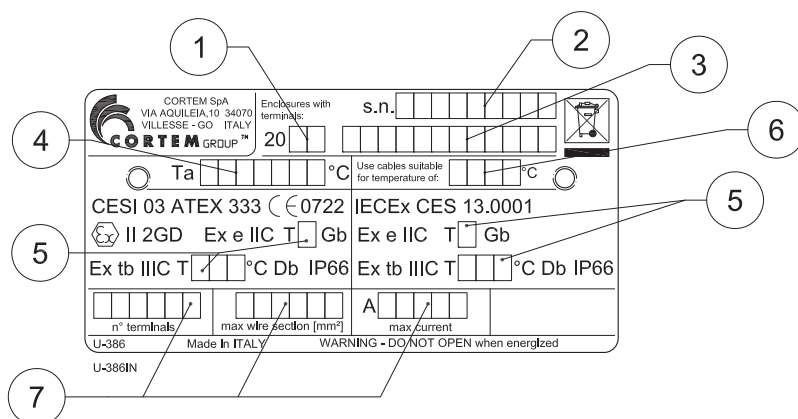
## Codes of terminals used to determine maximum number of terminals

The other values given in the cells along the table's diagonal define the maximum number of conductors allowed, based on their cross-sectional area and maximum current.

| mm <sup>2</sup>   | 1.5     | 2.5     | 4     | 6     | 10     | 16     | 25     | 35 |
|-------------------|---------|---------|-------|-------|--------|--------|--------|----|
| <b>Cabur</b>      |         | CBD 2   | CBD 4 | CBD 6 | CBD 10 | CBD 16 | CBD 35 |    |
| <b>Weidmuller</b> | WDU 1.5 | WDU 2.5 | WDU 4 | WDU 6 | WDU 10 | WDU 16 | WDU 35 |    |

| mm <sup>2</sup>   | 50     | 70     | 95        | 120         | 150 | 185       | 240 | 300 |
|-------------------|--------|--------|-----------|-------------|-----|-----------|-----|-----|
| <b>Cabur</b>      | CBD 50 | CBD 70 | GPM95/CC  | GPM150/CC   |     | GPM240/CC |     |     |
| <b>Weidmuller</b> | WDU 50 | WDU 70 | WDU 70/95 | WDU 120/150 |     | WDU 240   |     |     |

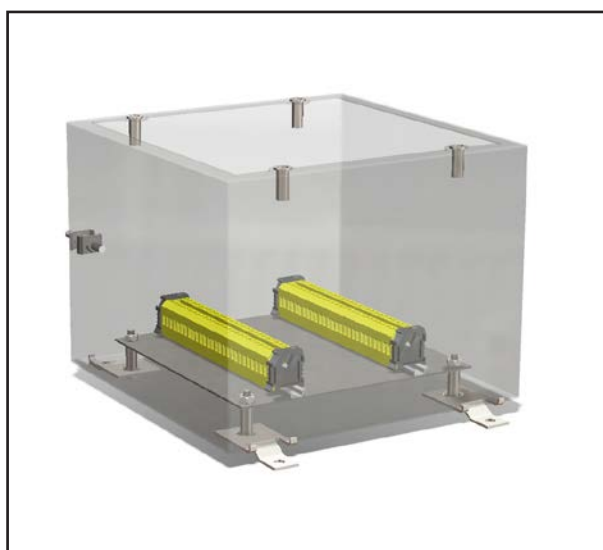
## ATEX - IECEx label for terminal enclosures



### Data filled in:

1. year of manufacture
2. serial number
3. product code
4. ambient temperature
5. temperature class and maximum surface
6. temperature of cables
7. electrical specs per certificate

## TYPICAL EXAMPLES OF TERMINAL BLOCK INSTALLATION



Example of feed-through terminal installation on top hat rail fastened to stainless steel internal mounting plate.



Example of feed-through terminal installation on top hat rail fastened on two pre-drilled mounting rails.

## DON'T FORGET TO ORDER THE ACCESSORIES

Example: Enclosure type CTB484820 + Internal frame B26-484 + Cable glands, unions + other...see key



| ILLUSTRATION                                                                        | DESCRIPTION                                         | MODEL                                              | DIMENSIONS<br>A                  B                        |     | CODE                 | KEY                                                                                                                                                                         |
|-------------------------------------------------------------------------------------|-----------------------------------------------------|----------------------------------------------------|-----------------------------------------------------------|-----|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | Internal mounting plates<br><br>Stainless steel     | CTBE121208                                         | 60                                                        | 60  | B12-484              |       |
|                                                                                     |                                                     | CTBE151208                                         | 90                                                        | 60  | B151-484             |                                                                                                                                                                             |
|                                                                                     |                                                     | CTBE151509                                         | 90                                                        | 90  | B15-484              |                                                                                                                                                                             |
|                                                                                     |                                                     | CTBE191509                                         | 130                                                       | 90  | B191-484             |                                                                                                                                                                             |
|                                                                                     |                                                     | CTBE191910                                         | 130                                                       | 130 | B19-484              |                                                                                                                                                                             |
|                                                                                     |                                                     | CTBE221513                                         | 170                                                       | 90  | B22-484              |                                                                                                                                                                             |
|                                                                                     |                                                     | CTBE262610                                         | 200                                                       | 200 | B26-484              |                                                                                                                                                                             |
|                                                                                     |                                                     | CTBE262616                                         |                                                           |     |                      |                                                                                                                                                                             |
|                                                                                     |                                                     | CTBE262620                                         |                                                           |     |                      |                                                                                                                                                                             |
|                                                                                     |                                                     | CTBE301410                                         | 245                                                       | 85  | B303-484             |                                                                                                                                                                             |
|                                                                                     |                                                     | CTBE302310                                         | 245                                                       | 175 | B302-484             |                                                                                                                                                                             |
|                                                                                     |                                                     | CTBE303010                                         | 245                                                       | 245 | B30-484              |                                                                                                                                                                             |
|                                                                                     |                                                     | CTBE381612                                         |                                                           |     |                      |                                                                                                                                                                             |
|                                                                                     |                                                     | CTBE303020                                         |                                                           |     |                      |                                                                                                                                                                             |
|                                                                                     |                                                     | CTBE381612                                         | 320                                                       | 100 | B383-484             |                                                                                                                                                                             |
|                                                                                     |                                                     | CTBE382610                                         | 320                                                       | 200 | B38-484              |                                                                                                                                                                             |
|                                                                                     |                                                     | CTBE382616                                         |                                                           |     |                      |                                                                                                                                                                             |
|                                                                                     |                                                     | CTBE382620                                         |                                                           |     |                      |                                                                                                                                                                             |
|                                                                                     |                                                     | CTBE402513                                         | 340                                                       | 190 | B40-484              |                                                                                                                                                                             |
| ILLUSTRATION                                                                        | DESCRIPTION                                         | MODEL                                              | FEATURES                                                  |     | CODE                 | KEY                                                                                                                                                                         |
|  | Terminal block mounting rails                       |                                                    | Steel rails cut to size                                   |     | OB02060/S            |   |
|  | Universal clip for grouping cables in single bundle | For 6-13mm cable                                   | Material:<br>polyamide<br>Hole for M6 screw for fastening |     | OB02037/6-13         |   |
|                                                                                     |                                                     | For 12-20mm cable                                  |                                                           |     | OB02037/12-20        |                                                                                                                                                                             |
|                                                                                     |                                                     | For 16-24mm cable                                  |                                                           |     | OB02037/16-24        |                                                                                                                                                                             |
|                                                                                     |                                                     | For 18-30mm cable                                  |                                                           |     | OB02037/18-30        |                                                                                                                                                                             |
|                                                                                     |                                                     | For 27-43mm cable                                  |                                                           |     | OB02037/27-43        |                                                                                                                                                                             |
|  | Breather and drain valve                            | Thread diameter<br>ISO 7-R 3/8"                    | Material:<br>stainless steel                              |     | ECD-210S<br>ECDE-... |   |
|  | Entry blanking plugs and cable glands               | For models and codes, visit<br>www.cortemgroup.com |                                                           |     |                      |   |