

# IBSB avancerad isolerad flätad ledare, 300 A, 70 mm<sup>2</sup>, 430 mm

## Data Solutions

### KATALOGNUMMER

### IBSBADV70-430

IBS/IBSB Advanced Insulated Braided Conductor, Halogen Free is the ideal ready-to-install flexible wire replacement solution that is specifically designed for connections to all molded case circuit breakers, including the most compact breakers on the market. IBS/IBSB Advanced connects to the front access terminals of the breakers without any additional accessories, such as angular connectors, spreaders, ring terminal connectors or extenders. IBS/IBSB Advanced is available in cross sections of 25 to 240 mm<sup>2</sup> (49.34 to 273.65 kcmil), lengths from 230 to 1,030 mm (9.06" to 40.55"), and 80 to 700 A.

Manufactured in an ISO 9001 2015 certified automated facility, IBS/IBSB Advanced is formed by weaving high-quality electrolytic copper wire to form a durable low voltage connector with maximum flexibility which allows for more compact power connections to circuit breakers. The IBS/IBSB Advanced allows users to reduce the total size and weight of the installation, improving both design flexibility and assembly aesthetics.

The unique manufacturing process of integral pre-punched palms make IBS/IBSB Advanced ready to connect out of the box. There are no lugs to purchase or install, making connections simpler and faster and eliminates faulty connections due to vibration or fatigue.

IBS/IBSB Advanced is compatible with all major brand molded case circuit breakers.

The advanced technology insulation is a high-resistance low smoke, halogen-free and flame retardant thermoplastic.

IBS/IBSB Advanced does not generate corrosive gases and produces a relatively low smoke opacity in accordance with IEC 61034-2 and UL 2885. The low smoke characteristic improves visibility conditions for people to be able to easily locate the emergency exit and also allows rescue workers to better assess an emergency situation. IBS/IBSB



Advanced means greater safety for individuals, less damage for your electrical equipment and less environmental impact.

The halogen-free feature enables a reduction in the quantity of toxic smoke. IBS/IBSB Advanced does not contain any halogens, according to IEC 60754-1 and UL 2885, minimizing toxicity and making it the ideal product for use in enclosed spaces such as data centers, rail, and public facilities such as hospitals and schools. This also facilitates the use of IBS/IBSB Advanced in specific applications such as submarines, switchboards and other enclosed environments that require a low emissions solution.

In addition to the above features, IBS/IBSB Advanced is compliant with the UL 94-V0 testing standard and glow wire test 960 °C. The flame retardant portion of the test illustrates the self-extinguish feature. This superior feature of IBS/IBSB Advanced is also shown by the Limiting Oxygen Index (LOI) at 30%. In case of fire, IBS/IBSB Advanced generates a limited quantity of smoke that is less damaging to your electrical equipment.

## CERTIFIERINGAR



## DESIGN

Snabb och enkel montering

Uppfyller RoHS

Suitable for all main molded case circuit breakers

Resistant to vibration, improving reliability and performance

Insulated by high-resistance, halogen free, flame retardant and low smoke material

Tinned copper provides superior corrosion resistance

Improves assembly flexibility and aesthetics

No additional cutting, stripping, crimping and punching needed

Integral palm without lugs or terminals reduces material and assembly weight

Conforms to NF EN 45545 obtaining an HL3 classification for chapters R22 and R23

DNV GL® and Bureau Veritas certified for marine and offshore applications

Small wire diameter provides maximum flexibility

Dramatically smaller and more flexible than comparable cable based on ampacity

Better power density than cable with lower skin effect ratio

Reduces total installation cost

Tinned copper allows for copper or aluminum conductor connections

On request, can be manufactured with other colors (typically with Orange sleeve for battery connection)

## PRODUKTATTRIBUT

Artikelnummer: 534416

Typisk märkström för tillämpning: 300A

Kortslutningsström (IPK): 30kA

Slutför: Konserverad

Material: Koppar; Termoplastisk elastomer

Dielektrisk styrka: 20

Brandklass: UL® 94V-0

Halogenfri klassificering: UL® 2885; IEC® 60754-1; IEC® 62821-1

Låg rökklassning: IEC® 61034-2; ISO 5659-2; UL® 2885

UV-resistansvärde: UL® 2556; UL® 854

Förlängning av isoleringen: 500%

Isoleringstjocklek: 1.8mm

Max. arbetsspänning, UL 67: 600

Arbetstemperatur: -50 to 115°C

Max. arbetsspänning, IEC/UL 758: 1000; 1500

Max. arbetsspänning, en 50264-3-1: 6000V

Kabeldiameter: 0.15mm

Certifieringsdetaljer: UL® 67; UL® 758

Överensstämmer med.: IEC® 60439,1; IEC® 60695-2-11-(glödtrådens test vid 960 grader C); IEC® 61439,1; IEC® 61439,1 Class II

Tvärsnitt: 70mm²

Ledarebredd: 20mm

Ledartjocklek: 4.3mm

Längd (L): 430mm

A.: 9mm

B.: 11mm

C.: 27mm

D.: 11mm

Hålstorlek 1 (HS1): 8.5mm

Hålstorlek 2 (HS2): 10.5mm

Enhetens vikt: 0.36kg

## YTTERLIGARE PRODUKTINFORMATION

$\Delta T$  = Temperature of conductors – Internal temperature of panel.

This table indicates the temperature rise produced by chosen current in the given section. This calculation does not take into account the heat dissipation from the switch gear.

IBSB Advanced Insulated Braided Conductor with a cross section of 240 mm<sup>2</sup> (473.65 kcmil) is constructed of red copper strands with tinned palms.

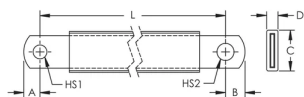
Distance between supports must not exceed 630 mm (17.8") according to IEC 61439-1.

| Maximum Ampacity Ratings                  |                         |                         |                         |                         |                         |                         |                         |                              |                              |
|-------------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|------------------------------|------------------------------|
| Cross Section<br>(mm <sup>2</sup> /kcmil) | $\Delta T$ 30° C<br>(A) | $\Delta T$ 40° C<br>(A) | $\Delta T$ 45° C<br>(A) | $\Delta T$ 50° C<br>(A) | $\Delta T$ 55° C<br>(A) | $\Delta T$ 60° C<br>(A) | $\Delta T$ 70° C<br>(A) | 2 Bar Current<br>Coefficient | 3 Bar Current<br>Coefficient |
| 25/49.34                                  | 116                     | 134                     | 142                     | 150                     | 157                     | 164                     | 177                     | 1.6                          | 2                            |
| 50/98.68                                  | 213                     | 246                     | 260                     | 274                     | 288                     | 301                     | 325                     | 1.6                          | 2                            |
| 70/138.15                                 | 226                     | 261                     | 277                     | 291                     | 306                     | 319                     | 345                     | 1.6                          | 2                            |
| 100/197.35                                | 298                     | 344                     | 365                     | 385                     | 404                     | 422                     | 456                     | 1.6                          | 2                            |
| 120/236.82                                | 363                     | 419                     | 444                     | 468                     | 491                     | 513                     | 554                     | 1.6                          | 2                            |
| 185/365.1                                 | 416                     | 480                     | 509                     | 537                     | 563                     | 588                     | 635                     | 1.6                          | 2                            |
| 240/473.65                                | 556                     | 642                     | 681                     | 718                     | 753                     | 786                     | 849                     | 1.6                          | 2                            |

| Maximum Ampacity Ratings                  |                         |                         |                         |                         |                         |                         |                         |                              |                              |
|-------------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|------------------------------|------------------------------|
| Cross Section<br>(mm <sup>2</sup> /kcmil) | $\Delta T$ 30° C<br>(A) | $\Delta T$ 40° C<br>(A) | $\Delta T$ 45° C<br>(A) | $\Delta T$ 50° C<br>(A) | $\Delta T$ 55° C<br>(A) | $\Delta T$ 60° C<br>(A) | $\Delta T$ 70° C<br>(A) | 2 Bar Current<br>Coefficient | 3 Bar Current<br>Coefficient |
| 25/49.34 (IBSB)                           | 116                     | 134                     | 142                     | 150                     | 157                     | 164                     | 177                     | 1.6                          | 2                            |
| 25/49.34 (IBS)                            | 137                     | 158                     | 167                     | 177                     | 185                     | 193                     | 209                     | 1.6                          | 2                            |
| 50/98.68                                  | 213                     | 246                     | 260                     | 274                     | 288                     | 301                     | 325                     | 1.6                          | 2                            |
| 70/138.15                                 | 226                     | 261                     | 277                     | 291                     | 306                     | 319                     | 345                     | 1.6                          | 2                            |
| 100/197.35                                | 298                     | 344                     | 365                     | 385                     | 404                     | 422                     | 456                     | 1.6                          | 2                            |
| 120/236.82                                | 363                     | 419                     | 444                     | 468                     | 491                     | 513                     | 554                     | 1.6                          | 2                            |
| 185/365.1                                 | 416                     | 480                     | 509                     | 537                     | 563                     | 588                     | 635                     | 1.6                          | 2                            |
| 240/473.65                                | 556                     | 642                     | 681                     | 718                     | 753                     | 786                     | 849                     | 1.6                          | 2                            |

| Circuit Breaker Compatibility      |                              |                                    |                     |                     |                     |                  |                  |                  |                  |
|------------------------------------|------------------------------|------------------------------------|---------------------|---------------------|---------------------|------------------|------------------|------------------|------------------|
| Circuit Breaker Current Rating     | 125/160 A                    |                                    | 250 A               |                     | 300 A               | 350 A            | 400 A            | 500 A            | 630 A            |
| Part Number                        | IBSBADV25x                   | IBSADV25x                          | IBSBADV50x          | IBSADV50x           | IBSBADV70x          | IBSBADV100x      | IBSBADV120x      | IBSBADV185x      | IBSBADV240x      |
| Schneider Electric® Compact® (IEC) | NSA NG 125                   | NSX 100<br>NSX 160                 | NSX 250             | NSX 250             | NSX 400             | NSX 400          | NSX 400          | NSX 630          | NSX 630          |
| Square D® PowerPact® (UL)          | H-Frame                      | J-Frame                            | J-Frame             | J-Frame             | L-Frame             | L-Frame          | L-Frame          | -                | -                |
| ABB® Tmax® (IEC)                   | T1 T2 XT1<br>XT2             | -                                  | T3 XT3 XT4          | T3 XT3 XT4          | T4                  | T4               | T5               | T5               | T5               |
| ABB® Tmax® (UL)                    | T1 T2 XT1<br>XT2             | T3                                 | T4 XT3 XT4          | T4                  | T5                  | T5               | T5               | -                | -                |
| GE® Record Plus® (IEC/UL)          | FD 160                       | FD 160                             | FE 250              | FE 250              | FG 400              | FG 400           | FG 400           | FG 630           | FG 630           |
| Siemens® Sentron® (IEC/UL)         | VL160X<br>3VL1 VL160<br>3VL2 | -                                  | VL250 3VL3          | VL250 3VL3          | VL400 3VL4          | VL400 3VL4       | VL400 3VL4       | -                | -                |
| Moeller® xEnergy® (IEC)            | NZM1                         | -                                  | NZM2                | NZM2                | NZM3                | NZM3             | NZM3             | NZM3             | NZM3             |
| Cutler Hammer® Series G (UL)       | EG Frame                     | JG Frame                           | JG Frame            | JG Frame            | LG Frame            | LG Frame         | LG Frame         | LG Frame         | LG Frame         |
| Legrand® (IEC)                     | DPX 160<br>DPX3 160          | -                                  | DPX 250<br>DPX3 250 | DPX 250<br>DPX3 250 | DPX 630             | DPX 630          | DPX 630          | DPX 630          | DPX 630          |
| Hager® (IEC)                       | h3 160                       | -                                  | h3 250              | h3 250              | h3 630              | h3 630           | -                | -                | -                |
| Rockwell/Allen Bradley (UL)        | G-Frame H-<br>Frame          | -                                  | I-Frame J-<br>Frame | I-Frame J-<br>Frame | I-Frame J-<br>Frame | -                | K-Frame          | K-Frame          | -                |
| Mitsubishi Electric (IEC)          | -                            | NF125<br>NF160<br>DSN125<br>DSN160 | NF250<br>DSN250     | NF250<br>DSN250     | -                   | NF400<br>DSN400  | -                | -                | -                |
| OEZ (IEC)                          | BC160N                       | -                                  | BD250N<br>BD250S    | -                   | BH630B<br>BH630S    | BH630B<br>BH630S | BH630B<br>BH630S | BH630B<br>BH630S | BH630B<br>BH630S |

## DIAGRAMS



## VARNING

nVent produkter ska installeras och användas endast så som anges i nVents bruksanvisning och utbildningsmaterial. Bruksanvisningar är tillgängliga på [www.nvent.com](http://www.nvent.com) och från din nVent kundtjänstrepresentant. Felaktig installation,

missbruk, felapplicering eller annan brist i att helt följa nVents instruktioner och varningar kan orsaka att produkten brister, egendomsskador, allvarliga kroppsskador och dödsfall och/eller ogiltigförklara din garanti.



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