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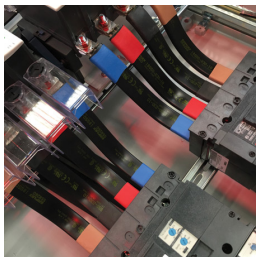
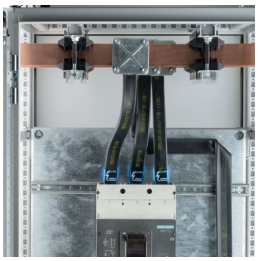
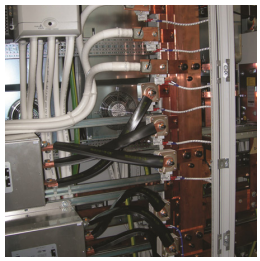
# IBS/IBSB Advanced Insulated Braided Conductor, Halogen Free – IBSBADV120-430 (534430)



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 mm² (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 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.



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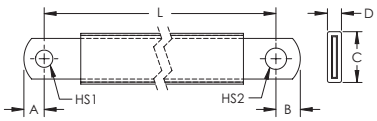
- Suitable for all main molded case circuit breakers
- Resistant to vibration, improving reliability and performance
- Insulated by high-resistance, halogen free, flame retardant and low smoke material
- Tinned copper provides superior corrosion resistance
- Improves assembly flexibility and aesthetics
- Quick and easy installation
- 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 HL2 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
- RoHS compliant
- Tinned copper allows for copper or aluminum conductor connections
- On request, can be manufactured with other colors (typically with Orange sleeve for battery connection)




| | |
|---|---|
| Part Number | IBSBADV120-430 |
| Article Number | 534430 |
| Typical Application Current Rating | 400 A |
| Peak Short Circuit Current (Ipk) | 70 kA |
| Finish | Tinned |
| Material | Copper<br>Thermoplastic Elastomer |
| Dielectric Strength | 20 kV/mm |
| Flammability Rating | UL® 94V-0 |
| Halogen Free Rating | UL® 2885<br>IEC® 60754-1<br>IEC® 62821-1 |
| Low Smoke Rating | IEC® 61034-2<br>ISO 5659-2<br>UL® 2885 |
| UV Resistance Rating | UL® 854<br>UL® 2556 |
| Insulation Elongation | 500 % |
| Insulation Thickness | 1.8 mm |
| Max Working Voltage, IEC/UL 758 | 1,000 VAC<br>1,500 VDC |
| Max Working Voltage, UL 67 | 600 VAC/DC |
| Working Temperature | -50 to 115 °C |
| Wire Diameter | 0.15 mm |
| Certification Details | UL® 67<br>UL® 758 |
| Complies With | IEC® 60439.1<br>IEC® 60695-2-11 (Glow Wire Test 960 °C)<br>IEC® 61439.1<br>IEC® 61439.1 Class II |
| Cross Section | 120 mm² |

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| | |
|---|---|
| Part Number | IBSBADV120-430 |
| Conductor Width | 32 mm |
| Conductor Thickness | 4.4 mm |
| Length (L) | 430 mm |
| A | 11 mm |
| B | 11 mm |
| C | 39 mm |
| D | 12 mm |
| Hole Size 1 (HS1) | 10.5 mm |
| Hole Size 2 (HS2) | 10.5 mm |
| Certifications | ABS INSULATED BRAIDS<br>Bureau Veritas 41939 BV<br>CE<br>CSA 70173298<br>CSA 90005<br>cURus<br>DNV GL IBS/IBSB Advanced, TAE00003B8<br>EAC 0254922 (Russian Federation)<br>EN 45545-2 IBS/IBSB Advanced<br>IEC 60695-2-12 CC11418_FADV<br>IEC 61439-1 Class II IBSB_ADV<br>IEC 61439-1 IBSB_ADV<br>ISO 5659-2 CC11518_FADV<br>RoHS<br>UL<br>UL (IEC) AVLV2.E316390 |
| Standard Packaging Quantity | 2 pc |
| UPC | 78285696101 |
| EAN-13 | 0782856961017 |

| Maximum Ampacity Ratings | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Cross Section (mm²/kcmil) | ΔT 30° C (A) | ΔT 40° C (A) | ΔT 45° C (A) | ΔT 50° C (A) | ΔT 55° C (A) | ΔT 60° C (A) | ΔT 70° C (A) | 2 Bar Current Coefficient | 3 Bar Current 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<br>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<br>T2<br>XT1<br>XT2 | - | T3<br>XT3<br>XT4 | T3<br>XT3<br>XT4 | T4 | T4 | T5 | T5 | T5 |
| ABB® Tmax® (UL) | T1<br>T2 | T3 | T4<br>XT3 | T4 | T5 | T5 | T5 | - | - |

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| Part Number | IBSBADV25x | IBSADV25x | IBSBADV50x | IBSADV50x | IBSBADV70x | IBSBADV100x | IBSBADV120x | IBSBADV185x | IBSBADV240x |
| | XT1<br>XT2 | | XT4 | | | | | | |
| 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<br>VL160<br>3VL2 | - | VL250<br>3VL3 | VL250<br>3VL3 | VL400<br>3VL4 | VL400<br>3VL4 | VL400<br>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<br>H-Frame | - | I-Frame<br>J-Frame | I-Frame<br>J-Frame | I-Frame<br>J-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 |

ΔT = 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 mm² (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.

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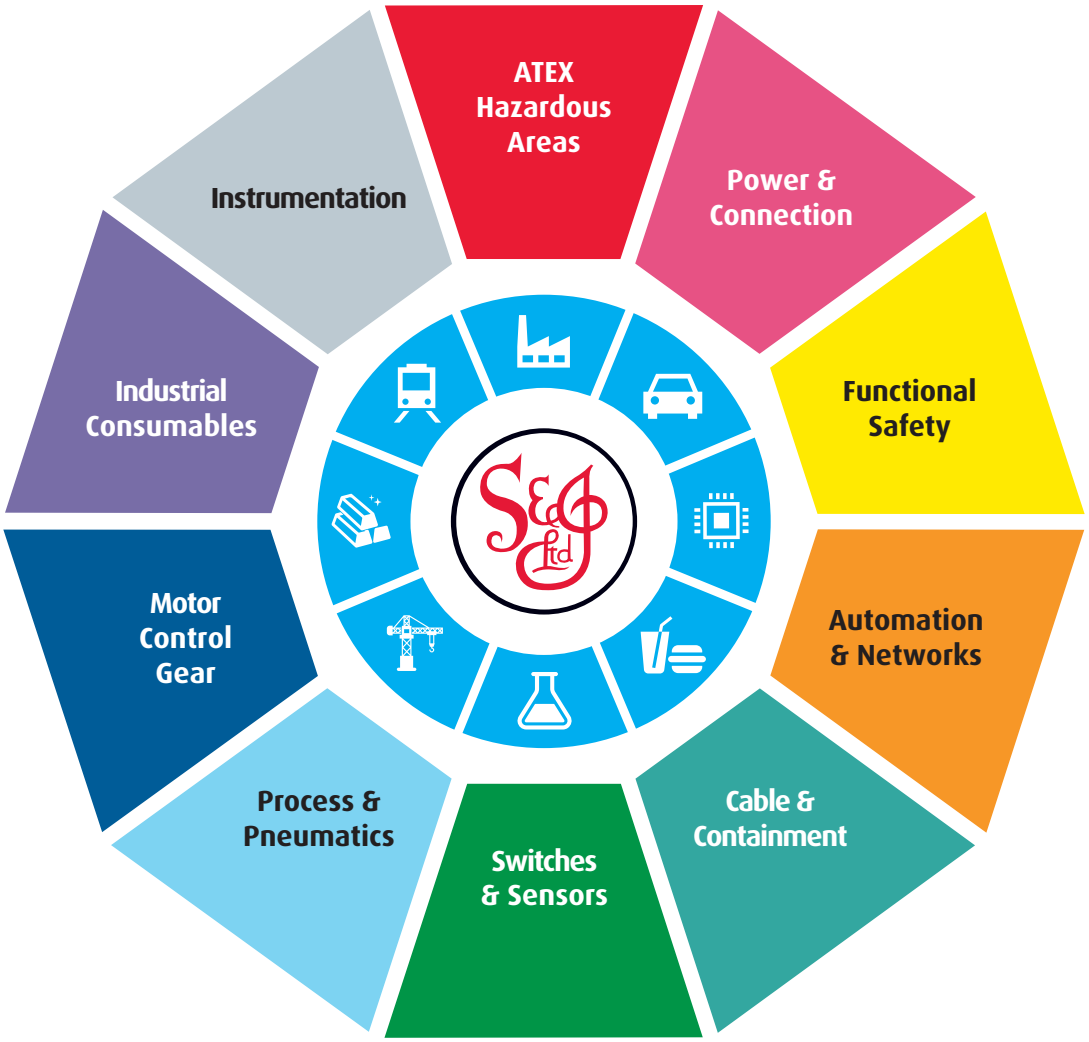


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