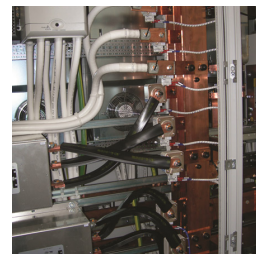
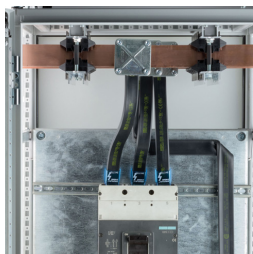
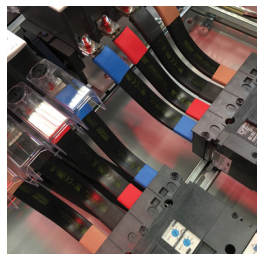


# IBS/IBSB Advanced Insulated Braided Conductor, Halogen Free



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 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.

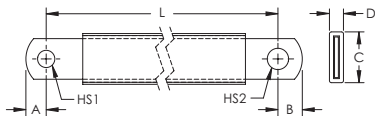
The advanced technology insulation is a high-resistance low smoke, halogen-free and flame retardant thermoplastic.

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.

- 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



Material: Copper, Thermoplastic Elastomer

Dielectric Strength: 20 kV/mm

Flammability Rating: UL® 94V-0

Halogen Free Rating: UL® 2885, IEC® 60754-1, IEC® 62821-1

Low Smoke Rating: IEC® 61034-2, ISO 5659-2, UL® 2885

UV Resistance Rating: UL® 854, UL® 2556

Insulation Elongation: 500 %

Insulation Thickness: 1.8 mm

Max Working Voltage, IEC/UL 758: 1,000 VAC, 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, UL® 758

Complies With: IEC® 60439.1,

IEC® 60695-2-11 (Glow Wire Test 960 °C), IEC® 61439.1,

IEC® 61439.1 Class II



Part Number	Article Number	Cross Section (mm²)	Conductor Width (mm)	Conductor Thickness (mm)	L (mm)	A (mm)	B (mm)	C (mm)	D (mm)	HS1 (mm)	HS2 (mm)
Typical Application Current Rating: 160 A – Peak Short Circuit Current (I <sub>pk</sub> ): 14 kA – Finish: Tinned											
IBSBADV25-230	534400	25	12	2.8	230	7.5	7.5	18	9.0	6.5	6.5
IBSBADV25-330	534401	25	12	2.8	330	7.5	7.5	18	9.0	6.5	6.5
IBSBADV25-430	534402	25	12	2.8	430	7.5	7.5	18	9.0	6.5	6.5
IBSBADV25-530	534403	25	12	2.8	530	7.5	7.5	18	9.0	6.5	6.5
IBSBADV25-630	534404	25	12	2.8	630	7.5	7.5	18	9.0	6.5	6.5
IBSBADV25-830	534405	25	12	2.8	830	7.5	7.5	18	9.0	6.5	6.5
IBSBADV25-1030	534406	25	12	2.8	1,030	7.5	7.5	18	9.0	6.5	6.5
IBSADV25-230	534500	25	20	1.9	230	10.0	12.0	25	6.0	8.5	10.5
IBSADV25-330	534501	25	20	1.9	330	10.0	12.0	25	6.0	8.5	10.5
IBSADV25-430	534502	25	20	1.9	430	10.0	12.0	25	6.0	8.5	10.5
IBSADV25-530	534503	25	20	1.9	530	10.0	12.0	25	6.0	8.5	10.5
IBSADV25-630	534504	25	20	1.9	630	10.0	12.0	25	6.0	8.5	10.5

Part Number	Article Number	Cross Section (mm <sup>2</sup> )	Conductor Width (mm)	Conductor Thickness (mm)	L (mm)	A (mm)	B (mm)	C (mm)	D (mm)	HS1 (mm)	HS2 (mm)
IBSADV25-830	534505	25	20	1.9	830	10.0	12.0	25	6.0	8.5	10.5
IBSADV25-1030	534506	25	20	1.9	1,030	10.0	12.0	25	6.0	8.5	10.5
Typical Application Current Rating: 250 A – Peak Short Circuit Current (I <sub>pk</sub> ): 30 kA – Finish: Tinned											
IBSBADV50-230	534407	50	20	3.0	230	9.0	11.0	27	9.0	8.5	10.5
IBSBADV50-330	534408	50	20	3.0	330	9.0	11.0	27	9.0	8.5	10.5
IBSBADV50-430	534409	50	20	3.0	430	9.0	11.0	27	9.0	8.5	10.5
IBSBADV50-530	534410	50	20	3.0	530	9.0	11.0	27	9.0	8.5	10.5
IBSBADV50-630	534411	50	20	3.0	630	9.0	11.0	27	9.0	8.5	10.5
IBSBADV50-830	534412	50	20	3.0	830	9.0	11.0	27	9.0	8.5	10.5
IBSBADV50-1030	534413	50	20	3.0	1,030	9.0	11.0	27	9.0	8.5	10.5
IBSADV50-230	534507	50	20	3.8	230	12.0	12.0	25	7.5	10.5	10.5
IBSADV50-330	534508	50	20	3.8	330	12.0	12.0	25	7.5	10.5	10.5
IBSADV50-430	534509	50	20	3.8	430	12.0	12.0	25	7.5	10.5	10.5
IBSADV50-530	534510	50	20	3.8	530	12.0	12.0	25	7.5	10.5	10.5
IBSADV50-630	534511	50	20	3.8	630	12.0	12.0	25	7.5	10.5	10.5
IBSADV50-830	534512	50	20	3.8	830	12.0	12.0	25	7.5	10.5	10.5
IBSADV50-1030	534513	50	20	3.8	1,030	12.0	12.0	25	7.5	10.5	10.5
Typical Application Current Rating: 300 A – Peak Short Circuit Current (I <sub>pk</sub> ): 30 kA – Finish: Tinned											
IBSBADV70-230	534414	70	20	4.3	230	9.0	11.0	27	11.0	8.5	10.5
IBSBADV70-330	534415	70	20	4.3	330	9.0	11.0	27	11.0	8.5	10.5
IBSBADV70-430	534416	70	20	4.3	430	9.0	11.0	27	11.0	8.5	10.5
IBSBADV70-530	534417	70	20	4.3	530	9.0	11.0	27	11.0	8.5	10.5
IBSBADV70-630	534418	70	20	4.3	630	9.0	11.0	27	11.0	8.5	10.5
IBSBADV70-830	534419	70	20	4.3	830	9.0	11.0	27	11.0	8.5	10.5
IBSBADV70-1030	534420	70	20	4.3	1,030	9.0	11.0	27	11.0	8.5	10.5
Typical Application Current Rating: 350 A – Peak Short Circuit Current (I <sub>pk</sub> ): 70 kA – Finish: Tinned											
IBSBADV100-230	534421	100	24	5.0	230	9.0	11.0	31	13.0	8.5	10.5
IBSBADV100-330	534422	100	24	5.0	330	9.0	11.0	31	13.0	8.5	10.5
IBSBADV100-430	534423	100	24	5.0	430	9.0	11.0	31	13.0	8.5	10.5
IBSBADV100-530	534424	100	24	5.0	530	9.0	11.0	31	13.0	8.5	10.5
IBSBADV100-630	534425	100	24	5.0	630	9.0	11.0	31	13.0	8.5	10.5
IBSBADV100-830	534426	100	24	5.0	830	9.0	11.0	31	13.0	8.5	10.5
IBSBADV100-1030	534427	100	24	5.0	1,030	9.0	11.0	31	13.0	8.5	10.5
Typical Application Current Rating: 400 A – Peak Short Circuit Current (I <sub>pk</sub> ): 70 kA – Finish: Tinned											
IBSBADV120-230	534428	120	32	4.4	230	11.0	11.0	39	12.0	10.5	10.5
IBSBADV120-330	534429	120	32	4.4	330	11.0	11.0	39	12.0	10.5	10.5
IBSBADV120-430	534430	120	32	4.4	430	11.0	11.0	39	12.0	10.5	10.5
IBSBADV120-530	534431	120	32	4.4	530	11.0	11.0	39	12.0	10.5	10.5
IBSBADV120-630	534432	120	32	4.4	630	11.0	11.0	39	12.0	10.5	10.5
IBSBADV120-830	534433	120	32	4.4	830	11.0	11.0	39	12.0	10.5	10.5
IBSBADV120-1030	534434	120	32	4.4	1,030	11.0	11.0	39	12.0	10.5	10.5
Typical Application Current Rating: 500 A – Peak Short Circuit Current (I <sub>pk</sub> ): 70 kA – Finish: Tinned											
IBSBADV185-330	534435	185	32	7.1	330	12.0	14.0	39	16.0	10.5	12.5
IBSBADV185-430	534436	185	32	7.1	430	12.0	14.0	39	16.0	10.5	12.5
IBSBADV185-530	534437	185	32	7.1	530	12.0	14.0	39	16.0	10.5	12.5
IBSBADV185-630	534438	185	32	7.1	630	12.0	14.0	39	16.0	10.5	12.5
IBSBADV185-830	534439	185	32	7.1	830	12.0	14.0	39	16.0	10.5	12.5
IBSBADV185-1030	534440	185	32	7.1	1,030	12.0	14.0	39	16.0	10.5	12.5

Part Number	Article Number	Cross Section (mm²)	Conductor Width (mm)	Conductor Thickness (mm)	L (mm)	A (mm)	B (mm)	C (mm)	D (mm)	HS1 (mm)	HS2 (mm)
Typical Application Current Rating: 630 A – Peak Short Circuit Current (I <sub>pk</sub> ): 80 kA – Finish: Bare, Tinned											
IBSBADV240-330	534441	240	32	9.2	330	12.0	14.0	39	18.5	10.5	12.5
IBSBADV240-430	534442	240	32	9.2	430	12.0	14.0	39	18.5	10.5	12.5
IBSBADV240-530	534443	240	32	9.2	530	12.0	14.0	39	18.5	10.5	12.5
IBSBADV240-630	534444	240	32	9.2	630	12.0	14.0	39	18.5	10.5	12.5
IBSBADV240-830	534445	240	32	9.2	830	12.0	14.0	39	18.5	10.5	12.5
IBSBADV240-1030	534446	240	32	9.2	1,030	12.0	14.0	39	18.5	10.5	12.5

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 NG 125	NSX 100 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 XT2	-	T3 XT3 XT4	T3 XT3 XT4	T4	T4	T5	T5	T5
ABB® Tmax® (UL)	T1 T2 XT1 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 3VL1 VL160 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 DPX3 160	-	DPX 250 DPX3 250	DPX 250 DPX3 250	DPX 630	DPX 630	DPX 630	DPX 630	DPX 630
Hager® (IEC)	h3 160	-	h3 250	h3 250	h3 630	h3 630	-	-	-

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
Rockwell/Allen Bradley (UL)	G-Frame H-Frame	-	I-Frame J-Frame	I-Frame J-Frame	I-Frame J-Frame	-	K-Frame	K-Frame	-
Mitsubishi Electric (IEC)	-	NF125 NF160 DSN125 DSN160	NF250 DSN250	NF250 DSN250	-	NF400 DSN400	-	-	-
OEZ (IEC)	BC160N	-	BD250N BD250S	-	BH630B BH630S	BH630B BH630S	BH630B BH630S	BH630B BH630S	BH630B BH630S

$\Delta T$  = 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.

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#### WARNING

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