

# Insulated Braided Conductor (IBSB & IBSBR)



**Insulated braided conductors suitable for all the main molded case circuit breakers worldwide.**



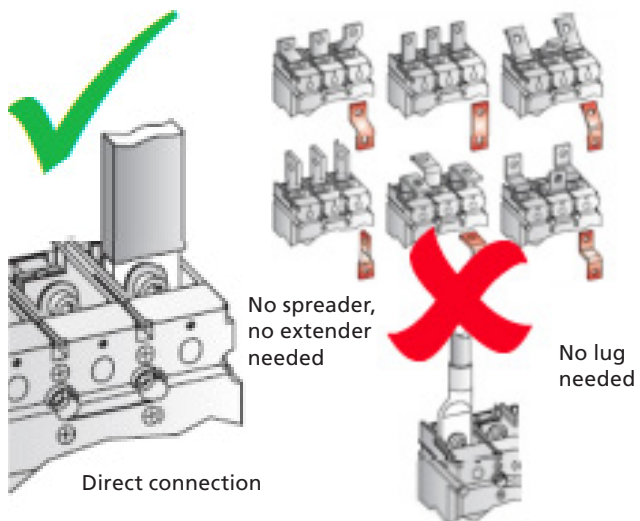
## Ideal connection for molded case circuit breakers

The IBSB and IBSBR range can be used as an alternative to cable for all low-voltage applications. It is suitable and connectable for molded case circuit breaker ranges, including most compact breakers on the market. From 80 A up to 630 A circuit breakers, you can directly connect the IBSB/IBSBR on the front access terminals breaker without additional accessories, such as angular connectors, spreaders, ring terminal connectors or extenders. No lugs and no cutting, stripping, or crimping are necessary.

**Very simple! Very quick! Ready to use!**

## Insulated Braided Conductor Technical Characteristics

- IBSB and IBSBR are specially designed and developed to be suitable and connectable for molded case circuit breaker ranges, including most compact breakers on the market
- IBSB and IBSBR are formed with high-quality electrolytic copper wire (diameter 0,15 mm for maximum flexibility)
- Material savings: Integral palm without lugs or terminals
- Quick and easy to install: Ready to use. No cutting, stripping, crimping or punching. Less labor time for installation
- Weight savings: A flat braid weighs less than a cable (with insulation) and lugs. Offers better copper usage (Skin Effect)
- The insulation is a high-resistance self-extinguishing PVC – 105°C working temperature maximum
- Full application range: 80 A to 630 A (section 25, 50, 70, 100, 120, 185 and 240 mm<sup>2</sup>), with 230 up to 1030 mm length
- Reliability – No extra contact due to the lugs being crimped at the extremities of the cables. Integral palm without tin addition or crimped lug for an excellent electrical contact.
- Resistant to vibration - ideal alternative to cable



## Insulated Braided Conductor (IBSB & IBSBR)



### The optimised alternative to cable - Ready to use.

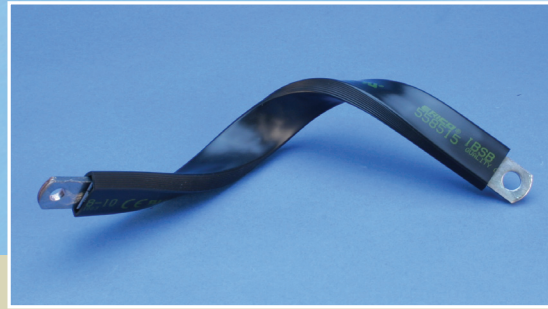
ERICO has developed a unique, state-of-the-art manufacturing line to massivate directly the palms of IBSB and IBSBR braids.

The innovative manufacturing process provides an effective electrical contact, due to the integral palms, without the addition of tin or crimped lugs. This process welds the flexible braid and brings back a solid tinned or red copper block as a palm. Unlike the traditional press-welded palms process, ERICO's process is suitable for red copper, but also for tinned plated copper. The electrical contact between each wire is optimized.

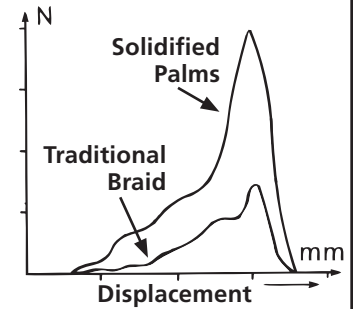
This ERICO process also helps eliminate moisture issues in the palms. By using crimped lugs in a severe environment, moisture can enter in the lug (often by capillarity) and create corrosion between each wire. After several years, the electrical contact between each wire can deteriorate and alter the electrical conductivity of the equipment. The corrosion in the palm is impossible to remove without changing the element.

This process produces RoHS products; no additional substances are added to the tinned-plated wires during the manufacturing process.

# Insulated Braided Conductor (IBSB & IBSBR)



## Comparison of tensile strength



## Nominal clamping force



## Technical data

- Excellent electrical contact with integral palm construction
- Good tensile strength

### Insulation

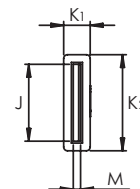
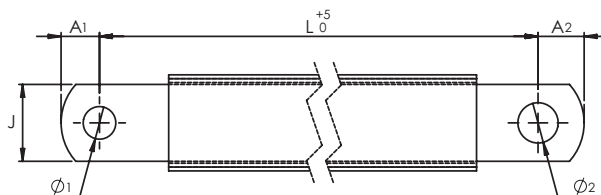
- High resistance: vinyl compound
- Maximum working temperature: 105° C
- Self-extinguishable: UL 94 V0
- Dielectric strength: 20 kV/mm
- Max. working voltage: 1000 V AC-1500 V DC-IEC & UL 758
- Max. working voltage: 600V AC/DC – UL 67
- Class II Conductors (IEC 61439-1, Chapter 8.4.4 Protection by total insulation)

### Braid



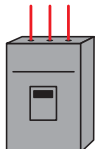
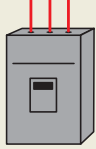
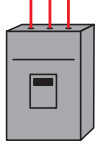

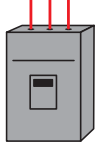


- Tinned (IBSB 25-50-70-100) or red (IBSBR 120-185-240) electrolytic copper
- Wire diameter: 0.15 mm for maximum flexibility - According to EN 13602
- Very good resistance to vibration

### Certification & Approvals

- IEC 60439.1 & IEC 61439.1
- cRUus per UL67 & CAN/CSA C22.2 No. 29 (File E125470)
- RU per UL758 (File E316390)
- CE conformity
- RoHS compliance
- American Bureau of Shipping (ABS®) Certificate No. 13-HS1070074-PDA Marine & Offshore Applications



# Insulated Braided Conductor (IBSB & IBSBR)

Use with circuit breaker	Part Number	Description	S mm <sup>2</sup>	L mm	Ø1 mm	Ø2 mm	A1 mm	A2 mm	J mm	M mm	K1 mm	K2 mm		 Kg
<b>IBSB - Tinned Copper</b>														
<b>125/160A</b>  <b>IBSB 25</b>	558500	IBSB 25-230-6	25	230	6.5	6.5	7.5	7.5	12	2.8	9	18	10	0.08
	558501	IBSB 25-330-6	25	330	6.5	6.5	7.5	7.5	12	2.8	9	18	10	0.11
	558502	IBSB 25-430-6	25	430	6.5	6.5	7.5	7.5	12	2.8	9	18	10	0.15
	558503	IBSB 25-530-6	25	530	6.5	6.5	7.5	7.5	12	2.8	9	18	10	0.18
	558504	IBSB 25-630-6	25	630	6.5	6.5	7.5	7.5	12	2.8	9	18	10	0.22
	558505	IBSB 25-830-6	25	830	6.5	6.5	7.5	7.5	12	2.8	9	18	10	0.28
	558506	IBSB 25-1030-6	25	1030	6.5	6.5	7.5	7.5	12	2.8	9	18	10	0.35
<b>250A</b>  <b>IBSB 50</b>	558507	IBSB 50-230-8-10	50	230	8.5	10.5	9	11	20	3	9	27	10	0.15
	558508	IBSB 50-330-8-10	50	330	8.5	10.5	9	11	20	3	9	27	10	0.21
	558509	IBSB 50-430-8-10	50	430	8.5	10.5	9	11	20	3	9	27	10	0.27
	558510	IBSB 50-530-8-10	50	530	8.5	10.5	9	11	20	3	9	27	10	0.33
	558511	IBSB 50-630-8-10	50	630	8.5	10.5	9	11	20	3	9	27	10	0.39
	558512	IBSB 50-830-8-10	50	830	8.5	10.5	9	11	20	3	9	27	10	0.52
	558513	IBSB 50-1030-8-10	50	1030	8.5	10.5	9	11	20	3	9	27	10	0.64
<b>300A</b>  <b>IBSB 70</b>	558514	IBSB 70-230-8-10	70	230	8.5	10.5	9	11	20	4.3	11	27	10	0.197
	558515	IBSB 70-330-8-10	70	330	8.5	10.5	9	11	20	4.3	11	27	10	0.28
	558516	IBSB 70-430-8-10	70	430	8.5	10.5	9	11	20	4.3	11	27	10	0.362
	558517	IBSB 70-530-8-10	70	530	8.5	10.5	9	11	20	4.3	11	27	10	0.444
	558518	IBSB 70-630-8-10	70	630	8.5	10.5	9	11	20	4.3	11	27	10	0.527
	558519	IBSB 70-830-8-10	70	830	8.5	10.5	9	11	20	4.3	11	27	10	0.692
	558520	IBSB 70-1030-8-10	70	1030	8.5	10.5	9	11	20	4.3	11	27	10	0.857
<b>350A</b>  <b>IBSB 100</b>	558521	IBSB 100-230-8-10	100	230	8.5	10.5	9	11	24	5	13	31	10	0.27
	558522	IBSB 100-330-8-10	100	330	8.5	10.5	9	11	24	5	13	31	10	0.39
	558523	IBSB 100-430-8-10	100	430	8.5	10.5	9	11	24	5	13	31	10	0.50
	558524	IBSB 100-530-8-10	100	530	8.5	10.5	9	11	24	5	13	31	10	0.62
	558525	IBSB 100-630-8-10	100	630	8.5	10.5	9	11	24	5	13	31	10	0.73
	558526	IBSB 100-830-8-10	100	830	8.5	10.5	9	11	24	5	13	31	10	0.96
	558527	IBSB 100-1030-8-10	100	1030	8.5	10.5	9	11	24	5	13	31	10	1.19
<b>IBSBR - Red Copper</b>														
<b>400A</b>  <b>IBSBR 120</b>	558528	IBSBR 120-230-10	120	230	10.5	10.5	11	11	32	4.4	12	39	2	0.33
	558529	IBSBR 120-330-10	120	330	10.5	10.5	11	11	32	4.4	12	39	2	0.47
	558530	IBSBR 120-430-10	120	430	10.5	10.5	11	11	32	4.4	12	39	2	0.6
	558531	IBSBR 120-530-10	120	530	10.5	10.5	11	11	32	4.4	12	39	2	0.74
	558532	IBSBR 120-630-10	120	630	10.5	10.5	11	11	32	4.4	12	39	2	0.88
	558533	IBSBR 120-830-10	120	830	10.5	10.5	11	11	32	4.4	12	39	2	1.15
	558534	IBSBR 120-1030-10	120	1030	10.5	10.5	11	11	32	4.4	12	39	2	1.43
<b>500A</b>  <b>IBSBR 185</b>	558535	IBSBR 185-330-10-12	185	330	10.5	12.5	12	14	32	7.1	16	39	2	0.7
	558536	IBSBR 185-430-10-12	185	430	10.5	12.5	12	14	32	7.1	16	39	2	0.9
	558537	IBSBR 185-530-10-12	185	530	10.5	12.5	12	14	32	7.1	16	39	2	1.1
	558538	IBSBR 185-630-10-12	185	630	10.5	12.5	12	14	32	7.1	16	39	2	1.3
	558539	IBSBR 185-830-10-12	185	830	10.5	12.5	12	14	32	7.1	16	39	2	1.7
	558540	IBSBR 185-1030-10-12	185	1030	10.5	12.5	12	14	32	7.1	16	39	2	2.1
<b>630A</b>  <b>IBSBR 240</b>	558541	IBSBR 240-330-10-12	240	330	10.5	12.5	12	14	32	9.2	18.5	39	2	0.89
	558542	IBSBR 240-430-10-12	240	430	10.5	12.5	12	14	32	9.2	18.5	39	2	1.14
	558543	IBSBR 240-530-10-12	240	530	10.5	12.5	12	14	32	9.2	18.5	39	2	1.4
	558544	IBSBR 240-630-10-12	240	630	10.5	12.5	12	14	32	9.2	18.5	39	2	1.65
	558545	IBSBR 240-830-10-12	240	830	10.5	12.5	12	14	32	9.2	18.5	39	2	2.16
	558546	IBSBR 240-1030-10-12	240	1030	10.5	12.5	12	14	32	9.2	18.5	39	2	2.67