

IBS ADVANCED ROUND INSULATED BRAIDED CONDUCTOR, HALOGEN FREE

IBS Advanced Round Insulated Braided Conductor, Halogen Free are the ideal ready-to-install flexible wire replacement solution. Round IBS Advanced connect to the terminals of an electrical device without the need for additional accessories, such as angular connectors, spreaders, ring terminal connectors or extenders. Round IBS Advanced are available in cross sections of 120, 185 and 240 mm² (236.82, 365.10, and 473.65 kcmil), lengths from 330 to 1,030 mm (9.06" to 40.55"), and amperages ranging from 420 to 630 A.

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

The round IBS Advanced features pre-punched palms that are ready to connect out of the box. There are no lugs to purchase or install, making connections simpler and faster and eliminating faulty connections due to vibration or fatigue.

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

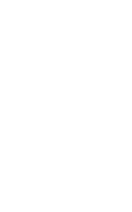
Round IBS Advanced does not generate corrosive gases and produces a relatively low smoke opacity in accordance with IEC 61034-2 and UL 2885. The low smoke characteristic improves the visibility conditions for people to be able to easily locate the emergency exit and also allows rescue workers to better assess an emergency situation. Round IBS 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. Round IBS 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 round IBS Advanced in specific applications such as submarines, switchboards and other enclosed environments that require a low emissions solution.

In addition to the above features, round IBS Advanced is also 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 round IBS Advanced is also shown by the Limiting Oxygen Index (LOI) at 30%. In case of fire, round IBS Advanced generates a limited quantity of smoke that is less damaging to your electrical equipment.



CERTIFICATIONS



FEATURES

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

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

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

SPECIFICATIONS

Wire Diameter:	0.15 mm
Insulation Thickness:	1.8 mm
Dielectric Strength:	20 kV/mm
Insulation Elongation:	500 %
Max Working Voltage, UL 67:	600 VAC/DC
Max Working Voltage, IEC/UL 758:	1,000 VAC;1,500 VDC
Material:	Copper;Thermoplastic Elastomer
Complies With:	IEC® 60439.1;IEC® 60695-2-11 (Glow Wire Test 960 °C);IEC® 61439.1;IEC® 61439.1 Class II
Halogen Free Rating:	UL® 2885;IEC® 60754-1;IEC® 62821-1

Low Smoke Rating:

IEC® 61034-2;ISO 5659-2;UL® 2885

Finish:

Tinned

UV Resistance Rating:

UL® 854;UL® 2556

Certification Details:

UL® 67;UL® 758

Flammability Rating:

UL® 94V-0

Working Temperature:

-50 to 115 °C

Catalog Number	Item Name	Typical Application Current Rating	Cross Section	Conductor Width	Conductor Thickness	Length(L)	A	Diameter (Ø)	Hole Size(HS)	Unit Weight
IBSADV1 20-1030	534519	400 A	120 mm ²	24 mm	10 mm	1,030 mm	12 mm	27 mm	10.50 mm	1.600 kg
IBSADV1 20-330	534514	400 A	120 mm ²	24 mm	10 mm	330 mm	12 mm	27 mm	10.50 mm	0.520 kg
IBSADV1 20-430	534515	400 A	120 mm ²	24 mm	10 mm	430 mm	12 mm	27 mm	10.50 mm	0.660 kg
IBSADV1 20-530	534516	400 A	120 mm ²	24 mm	10 mm	530 mm	12 mm	27 mm	10.50 mm	0.800 kg
IBSADV1 20-630	534517	400 A	120 mm ²	24 mm	10 mm	630 mm	12 mm	27 mm	10.50 mm	0.940 kg
IBSADV1 20-830	534518	400 A	120 mm ²	24 mm	10 mm	830 mm	12 mm	27 mm	10.50 mm	1.220 kg
IBSADV1 85-1030	534525	500 A	185 mm ²	24 mm	15 mm	1,030 mm	12 mm	31 mm	10.50 mm	2.300 kg
IBSADV1 85-330	534520	500 A	185 mm ²	24 mm	15 mm	330 mm	12 mm	31 mm	10.50 mm	0.820 kg
IBSADV1 85-430	534521	500 A	185 mm ²	24 mm	15 mm	430 mm	12 mm	31 mm	10.50 mm	1.070 kg
IBSADV1 85-530	534522	500 A	185 mm ²	24 mm	15 mm	530 mm	12 mm	31 mm	10.50 mm	1.260 kg
IBSADV1 85-630	534523	500 A	185 mm ²	24 mm	15 mm	630 mm	12 mm	31 mm	10.50 mm	1.480 kg
IBSADV1 85-830	534524	500 A	185 mm ²	24 mm	15 mm	830 mm	12 mm	31 mm	10.50 mm	1.900 kg
IBSADV2 40-1030	534531	630 A	240 mm ²	32 mm	15 mm	1,030 mm	13 mm	36 mm	12.50 mm	3.200 kg
IBSADV2 40-330	534526	630 A	240 mm ²	32 mm	15 mm	330 mm	13 mm	36 mm	12.50 mm	1.070 kg
IBSADV2 40-430	534527	630 A	240 mm ²	32 mm	15 mm	430 mm	13 mm	36 mm	12.50 mm	1.390 kg
IBSADV2 40-530	534528	630 A	240 mm ²	32 mm	15 mm	530 mm	13 mm	36 mm	12.50 mm	1.640 kg
IBSADV2 40-630	534529	630 A	240 mm ²	32 mm	15 mm	630 mm	13 mm	36 mm	12.50 mm	1.930 kg
IBSADV2 40-830	534530	630 A	240 mm ²	32 mm	15 mm	830 mm	13 mm	36 mm	12.50 mm	2.460 kg

ADDITIONAL PRODUCT DETAILS

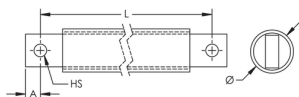
ΔT = Temperature of conductors – Internal temperature of panel.

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.

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

Maximum Ampacity Ratings								
Cross Section (mm ² /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
120/236.82	325	376	398	420	441	460	497	1.6
185/365.10	407	470	499	526	552	576	622	1.6
240/473.65	488	563	598	630	661	690	745	1.6

DIAGRAMS



WARNING

nVent products shall be installed and used only as indicated in nVent's product instruction sheets and training materials. Instruction sheets are available at www.nvent.com and from your nVent customer service representative. Improper installation, misuse, misapplication or other failure to completely follow nVent's instructions and warnings may cause product malfunction, property damage, serious bodily injury and death and/or void your warranty.

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