

# **IBSHY Insulated Braided Conductor for Compact Circuit Breakers**

IBSHY is the ideal ready-to-install flexible wire replacement solution that is specifically designed for connections from compact molded case circuit breakers with typical current rating of 125/160 A to copper busbar . The IBSHY connects to the front access terminals of the breakers without any additional accessories, such as angular connectors, spreaders, ring terminal connectors or extenders. IBSHY is available in cross section of 32 mm² (63.15 kcmil), lengths from 230 to 830 mm (9.1" to 32.7").

Manufactured in an ISO 9001 2015 certified proprietary automated facility, IBSHY 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 circuit breakers. The IBSHY allows users to reduce the total size and weight of the installation, improving both design flexibility and assembly aesthetics.

The IBSHY features integral pre-punched palms at one end with a pre-punched crimped tube at the other end both of which 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.

These specific shapes give users the advantage to have the possibility to link a compact circuit breaker, or other apparatus, using connection by cage or bolt to a copper busbar with a larger bolt.

The insulation is a high-resistance, self-extinguishing, and halogen free glass fiber reinforced silicone providing possible high working temperature. IBSHY is compatible with all major brand compact molded case circuit breakers with 125/160 A nominal current. Contact your nVent ERIFLEX representative to determine the correct size for your application.

#### **CERTIFICATIONS**





### **FEATURES**

Suitable for all main 125/160 A electrical devices and specifically molded case circuit breakers

Resistant to vibration, improving reliability and performance

Improves assembly flexibility and aesthetics

Quick and easy installation

No additional cutting, stripping, crimping and punching needed

Small wire diameter provides maximum flexibility

Halogen free solution for applications requiring a low smoke solution

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

DNV GL® certified for marine and offshore applications

High working temperature

RoHS compliant

## **SPECIFICATIONS**

Wire Diameter: 0.15mm Peak Short Circuit Current (Ipk): 15kA **Typical Application Current Rating:** 160 A Max Working Voltage, IEC (Ui): 1000;1500

Material: Copper; Glass Fibre Reinforced Silicone

**Complies With:** IEC® 60439.1;IEC® 61439.1

Finish: Tinned

Flammability Rating: UL® 1441 VW-1 **Working Temperature:** -60 to 250 °C

Table 1/2									
Catalog Number	Article Number	Cross Section	Length (L)		В	С			
IBSHY32-230	558584	32mm²	230mm	11 mm	25 mm	3 mm			
IBSHY32-330	558586	32mm²	330mm	11 mm	25 mm	3 mm			
IBSHY32-365	558587	32mm²	365mm	11 mm	25 mm	3 mm			
IBSHY32-430	558588	32mm²	430mm	11 mm	25 mm	3 mm			
IBSHY32-500	558589	32mm²	500mm	11 mm	25 mm	3 mm			
IBSHY32-565	558591	32mm²	565mm	11 mm	25 mm	3 mm			

CatalogNumber	Article Number	Cross Section	Length (L)	Α	В	С
IBSHY32-630	558592	32mm²	630mm	11 mm	25 mm	3 mm
IBSHY32-700	558593	32mm²	700mm	11 mm	25 mm	3 mm
IBSHY32-765	558594	32mm²	765mm	11 mm	25 mm	3 mm
IBSHY32-830	558595	32mm²	830mm	11 mm	25 mm	3 mm

		Table 2/2		
<b>Catalog Number</b>	Article Number	D	Hole Size 1 (HS1)	Hole Size 2 (HS2)
IBSHY32-230	558584	5 mm	6.5 mm	10.5 mm
IBSHY32-330	558586	5 mm	6.5 mm	10.5 mm
IBSHY32-365	558587	5 mm	6.5 mm	10.5 mm
IBSHY32-430	558588	5 mm	6.5 mm	10.5 mm
IBSHY32-500	558589	5 mm	6.5 mm	10.5 mm
IBSHY32-565	558591	5 mm	6.5 mm	10.5 mm
IBSHY32-630	558592	5 mm	6.5 mm	10.5 mm
IBSHY32-700	558593	5 mm	6.5 mm	10.5 mm
IBSHY32-765	558594	5 mm	6.5 mm	10.5 mm
IBSHY32-830	558595	5 mm	6.5 mm	10.5 mm

## ADDITIONAL PRODUCT DETAILS

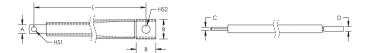
 $\Delta T$  = Temperature of conductors – Internal temperature of panel.

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.

Maximum Ampacity Ratings															
Cross Section (mm²/kcmil)	ΔT 30° C (A)	ΔT 35° C (A)	ΔT 40° C (A)	ΔT 45° C (A)	ΔT 50° C (A)	ΔT 55° C (A)	ΔT 60° C (A)	ΔT 65° C (A)	ΔT 70° C (A)	ΔT 75° C (A)	ΔT 80° C (A)	ΔT 100° C (A)	ΔT 120° C (A)	2 Bar Current Coefficient	3 Bar Current Coefficient
32/63.15	142	153	164	174	184	193	201	209	217	225	235	263	290	1.6	2

Circuit Breaker Compatibility							
Circuit Breaker Current Rating	125/160 A						
Part Number	IBSHY32x						
Schneider Electric® Compact® (IEC)	NSA NG 125						
Square D® PowerPact® (UL)	H-Frame						
ABB® Tmax® (IEC)	T1 T2 XT1 XT2						
ABB® Tmax® (UL)	T1 T2 XT1 XT2						
GE® Record Plus® (IEC/UL)	FD 160						
Siemens® Sentron® (IEC/UL)	VL160X 3VL1 VL160 3VL2						
Moeller® xEnergy® (IEC)	NZM1						
Cutler Hammer® Series G (UL)	EG Frame						
Legrand® (IEC)	DPX 160 DPX3 160						
Hager® (IEC)	h3 160						
Rockwell/Allen Bradley (UL)	G-Frame H-Frame						
OEZ (IEC)	BC160N						

## **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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