We connect and protect

IBSHY Insulated Braided Conductor for Compact Circuit Breakers

Data Solutions

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:	160A
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)	A	B	C
IBSHY32-230	558584	32mm²	230mm	11mm	25mm	3mm
IBSHY32-330	558586	32mm²	330mm	11mm	25mm	3mm
IBSHY32-365	558587	32mm²	365mm	11mm	25mm	3mm

CatalogNumber	Article Number	Cross Section	Length (L)	A	B	C
IBSHY32-430	558588	32mm²	430mm	11mm	25mm	3mm
IBSHY32-500	558589	32mm²	500mm	11mm	25mm	3mm
IBSHY32-565	558591	32mm²	565mm	11mm	25mm	3mm
IBSHY32-630	558592	32mm²	630mm	11mm	25mm	3mm
IBSHY32-700	558593	32mm²	700mm	11mm	25mm	3mm
IBSHY32-765	558594	32mm²	765mm	11mm	25mm	3mm
IBSHY32-830	558595	32mm²	830mm	11mm	25mm	3mm

Table 2/2

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

ADDITIONAL PRODUCT DETAILS

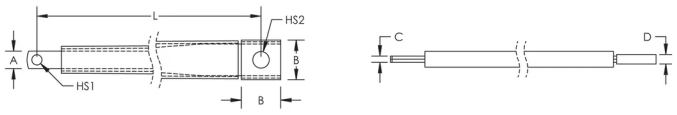
ΔT = Temperature of conductors – Internal temperature of panel.

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.

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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