ALLBRO

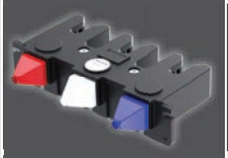
6 BUSPLUGS AND BUSBAR SUPPORTS

CATALOGUE
EDITION 6





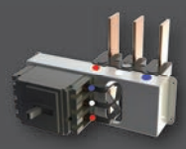
Busplugs
Pg.216



Busplug cones
Pg.220



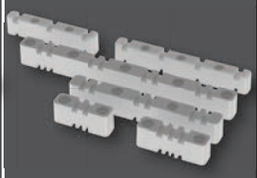
Busplug adaptor
Pg.223



Plug-in chassis
Pg.224



AB busbar supports
Pg.227



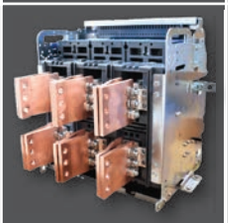
ABD busbar supports
Pg.229



Joint covers
Pg.233



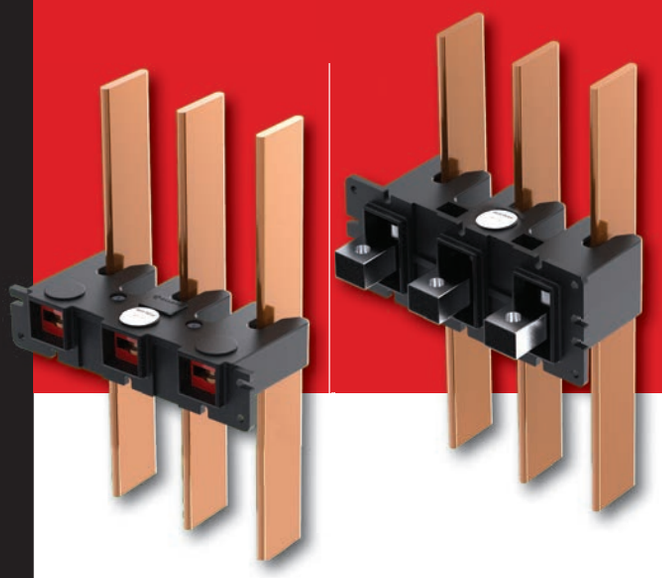
Nut insulator
Pg.234



ACB retrofit kit
Pg.235

BUSPLUGS

Busplugs enable offloading and quick replacement of switchgear in distribution boards.



Material Construction:

- Contacts are made from high conductivity copper, that is press formed into an integral one piece design which allows for a consistent point of contact onto the Busbars.
- Copper contacts are silver plated.
- Housings are made from 25% glass filled flame retardant Nylon. Glow wire test reports are available.
- Each phase is fully segregated due to the innovative design.

Advantages of Busplugs:

- Busplugs provide a positive means of isolating, allowing for maintenance and repairs to be safely carried out on a withdrawn unit, even with the power still on.
- Completely withdrawable units provide for visible confirmation that the circuit has been isolated.
- Streamlines the changes made to drives and feeders while the switchboard is being constructed.
- Less labour intensive compared to making solid bolt on connections.
- Withdrawable units can be assembled and tested separately from the switchboard and then fitted at a later stage.
- Less labour intensive when changes are required on site, ensuring quick removal and replacement.

Material Properties:

The Busplug housings are injection moulded from Glass Filled Nylon.

Properties	Units	Method	Results
Density	g./cm³	ISO 1183	1,36
Water Absorption (23°C-50% RH 24 hrs saturation)	%	ISO 62	1,00
Mold Shrinkage	%	ISO 2577	0,3-0,5
Tensile Strength	MPa	ISO 527	160
Elongation at Break	%	ISO 527	3
Flexural Strength	MPa	ISO 178	230
Flexural Modulus	MPa	ISO 178	8800
IZOD (Notched 23°C)	J/m	ISO 180/1A	140
HDT A (1.82 MPa)	°C	ISO 75	210
VICAT B50 (49 N)	°C	ISO 306	220
UL94 Flammability (1.5mm)	Rating	UL94	V0
Limit Temperature (20.000H)	°C	IEC216	105
Glow Wire Test (2mm)	°C	IEC 695-2-1	960
CTI	V	IEC 112	500
Dielectric Strength	kV/mm	IEC 243-1	20

Standards and Type Tests

AS/NZ61439.1:2016 (IEC 61439-1) Low Voltage Switchgear and Control gear Assemblies.

The standards require various type tests which include:

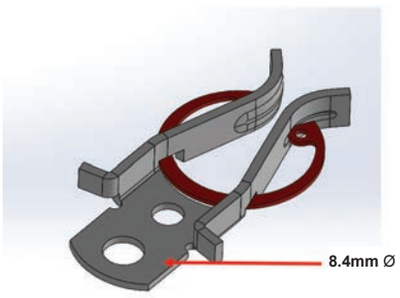
- Glow wire test to 960°C
- Short circuit (ICC)
- Mechanical endurance
- Temperature rise
- Dielectric tests
- Clearance and creepage distances

* Tests Reports are available on request.

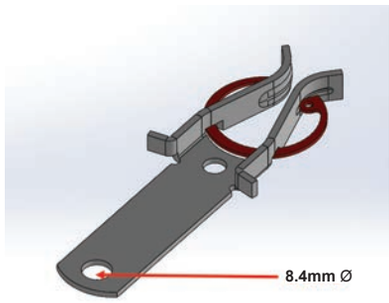
Ref	Material Tests - 960° Glow wire							
	Busplug Part Number	**Ir**		**Test Report Number**	**Test Date**	**Test Authority**	**Accreditation**	
1.1	BP3 - Busplug Housing	N/A		MTEx 1146/20.0352	19 October 2020	MTex	SANAS	
	Resistance to Corrosion (Clause 10.2.2)							
2.1	BP3-400e	400A		ORYREP 2072	07 September 2023	ORYTEK	TUV	
	Mechanical & Temperature Rise Tests (Clause10.10 & 10.13)							
3.1	BP3-250i	250A		MTEx 2216/23.0228	15 August 2023	Mtex	SANAS	
	BP3-400i	400A		MTEx 1296/21.0091	03 March 2021	Mtex	SANAS	
	BP3-800i	800A		MTEx 2216/23.0229	15 August 2023	Mtex	SANAS	
Ref	**Short Circuit Withstand (Clause 10.11)**							
	Chassis Part Number	**Busplug Part Number**	**Ir**	**kA Tested**	**Test Report Number**	**Test Date**	**Test Authority**	**Accreditation**
4.1	SBC3R-125-250	BP3-250-10i	250A	65kA	NSC-201126-0005A	20 November 2020	SABS/NETFA	SANAS
	SBC3R-400	BP3-400-10i	400A	65kA				
	SBC3R-NS800	BP3-800et-10	800A	65kA				
4.2	Other Chassis	BP3-250-10i	250A	50kA	103957	12 January 2021	PLUS ES	NATA
	Other Chassis	BP3-400-10i	400A	50kA				
	Other Chassis	BP3-800et-10	800A	50kA				
4.3	Other Chassis	BP3-250-10i	250A	50kA	104005	01 March 2021	PLUS ES	NATA
	Other Chassis	BP3-400-10i	400A	50kA				
	Other Chassis	BP3-800et-10i	800A	50kA				
4.4	SBC3R-125-250	BP3-250-10i	250A	80kA	NSC-220824-00002	24 August 2022	SABS / NETFA	SANAS
	SBC3R-400	BP3-400-10i	400A	80kA				
4.5	SBC3R-NS800	BP3-800et-10i	800A	80kA	NSC-220824-00002A-R	30 March 2023	SABS / NETFA	SANAS
Ref	**Impulse & Power Frequency (Clause 10.9)**							
	Busplug Part Number	**Ir**	**Impulse kV (1000V)**	**PF kV (1000V)**	**Test Report Number**	**Test Date**	**Test Authority**	**Accreditation**
5.1	BP3-400-10i	400A	12kV	2.2kV	NHV-230831-00003	31 August 2023	SABS / NETFA	SANAS

BUSPLUG CONNECTIONS

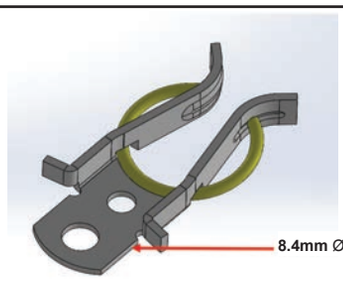
63/250i



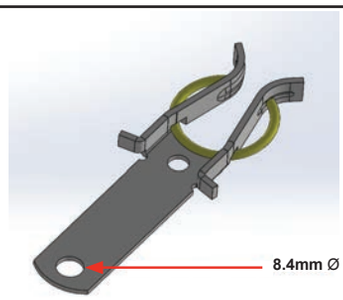
63/250e



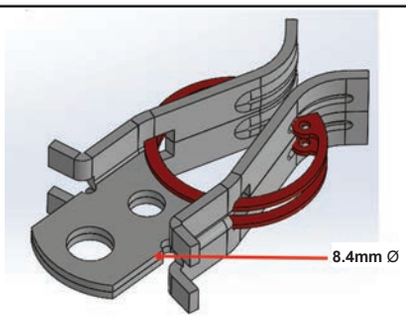
63/250i-10



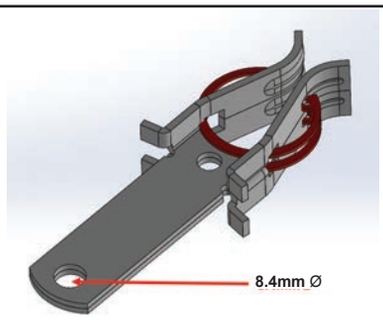
63/250e-10



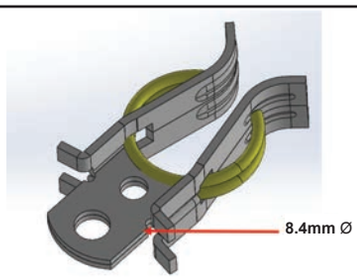
400i



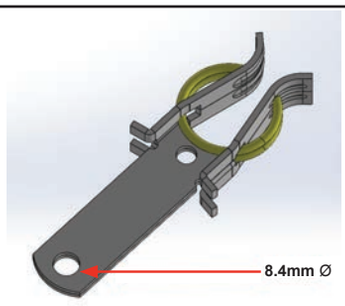
400e



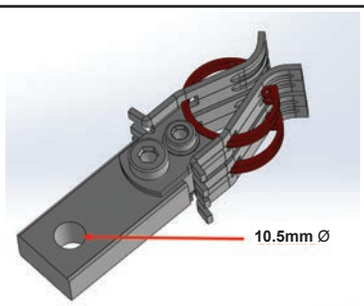
400i-10



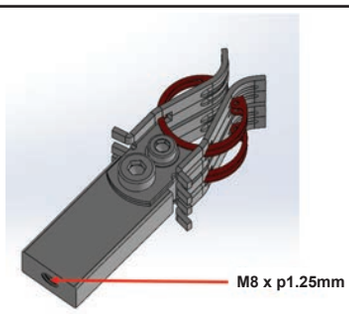
400e-10



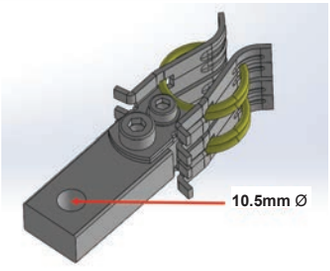
800e



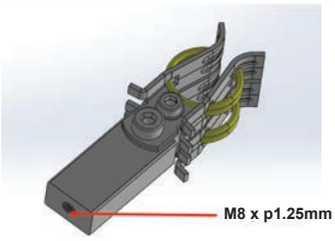
800et

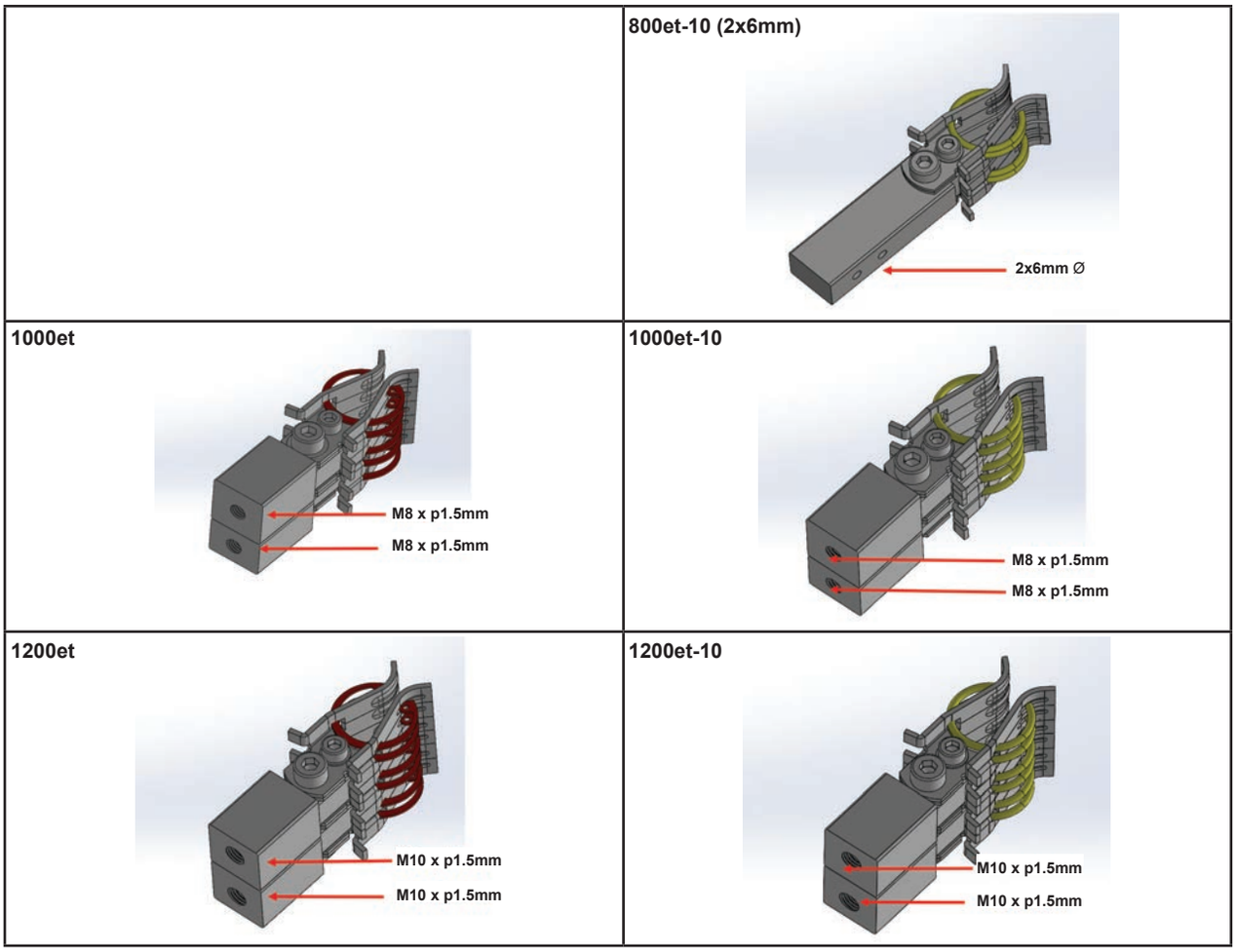


800e-10



800et-10





Busplugs for 6.35mm Busbars

Part Number	Description	Rating	Poles	Connection Type
BP3-63i	BusPlug Connector 3PH 63A Internal	63A	3P	Internal
BP3-63e	BusPlug Connector 3PH 63A External			External
BP4-63i	BusPlug Connector 4PH 63A Internal		4P	Internal
BP4-63e	BusPlug Connector 4PH 63A External			External
BP1-250e	BusPlug Connector 1PH 250A External	250A	1P	External
BP3-250i	BusPlug Connector 3PH 250A Internal		3P	Internal
BP3-250e	BusPlug Connector 3PH 250A External			External
BP4-250i	BusPlug Connector 4PH 250A Internal		4P	Internal
BP4-250e	BusPlug Connector 4PH 250A External			External
BP1-400e	BusPlug Connector 1PH 400A External	400A	1P	External
BP3-400i	BusPlug Connector 3PH 400A Internal		3P	Internal
BP3-400e	BusPlug Connector 3PH 400A External			External
BP4-400i	BusPlug Connector 4PH 400A Internal		4P	Internal
BP4-400e	BusPlug Connector 4PH 400A External			External
BP1-800e	BusPlug Connector 1PH 800A External	800A	1P	External
BP3-800e	BusPlug Connector 3PH 800A External		3P	
BP4-800e	BusPlug Connector 4PH 800A External		4P	
BP3-800et	BusPlug Connector 3PH 800A External Threaded		3P	External Threaded
BP4-800et	BusPlug Connector 4PH 800A External Threaded		4P	
BP3-1000et	BusPlug Connector 3PH 1000A External Threaded	1000A	3P	
BP4-1000et	BusPlug Connector 4PH 1000A External Threaded		4P	
BP3-1200et	BusPlug Connector 3PH 1200A External Threaded	1200A	3P	
BP4-1200et	BusPlug Connector 4PH 1200A External Threaded		4P	

Busplugs for 10mm Busbars

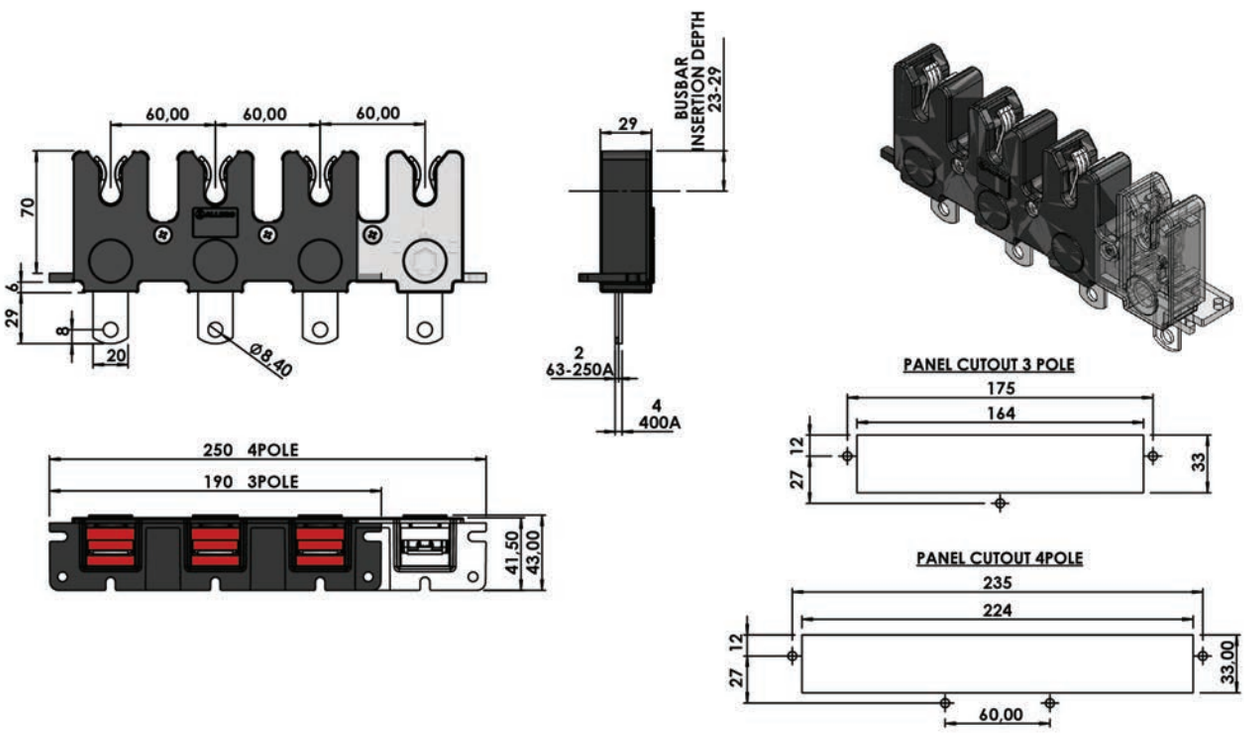
Part Number	Description	Rating	Poles	Connection Type
BP3-63i-10	BusPlug Connector 3PH 63A-10 Internal	63A	3P	Internal
BP3-63e-10	BusPlug Connector 3PH 63A - 10 External			External
BP4-63i-10	BusPlug Connector 4PH 63A - 10 Internal		4P	Internal
BP4-63e-10	BusPlug Connector 4PH 63A - 10 External			External
BP1-250e-10	BusPlug Connector 1PH 250A - 10 External	250A	1P	External
BP3-250i-10	BusPlug Connector 3PH 250A - 10 Internal		3P	Internal
BP3-250e-10	BusPlug Connector 3PH 250A - 10 External			External
BP4-250i-10	BusPlug Connector 4PH 250A - 10 Internal		4P	Internal
BP4-250e-10	BusPlug Connector 4PH 250A - 10 External			External
BP1-400e10	BusPlug Connector 1PH 400A -10 External	400A	1P	External
BP3-400i-10	BusPlug Connector 3PH 400A - 10 Internal		3P	Internal
BP3-400e-10	BusPlug Connector 3PH 400A - 10 External			External
BP4-400i-10	BusPlug Connector 4PH 400A - 10 Internal		4P	Internal
BP4-400e-10	BusPlug Connector 4PH 400A - 10 External			External
BP1-800e-10	BusPlug Connector 1PH 800A - 10 External	800A	1P	External
BP3-800e-10	BusPlug Connector 3PH 800A - 10 External		3P	
BP4-800e-10	BusPlug Connector 4PH 800A - 10 External		4P	
BP3-800et-10	BusPlug Connector 3PH 800A - 10 External Threaded		3P	External Threaded
BP4-800et-10	BusPlug Connector 4PH 800A - 10 External Threaded		4P	
BP3-1000et-10	BusPlug Connector 3PH 1000A - 10 External Threaded	1000A	3P	
BP4-1000et-10	BusPlug Connector 4PH 1000A - 10 External Threaded		4P	
BP3-1200et-10	BusPlug Connector 3PH 1200A - 10 External Threaded	1200A	3P	
BP4-1200et-10	BusPlug Connector 4PH 1200A - 10 External Threaded		4P	



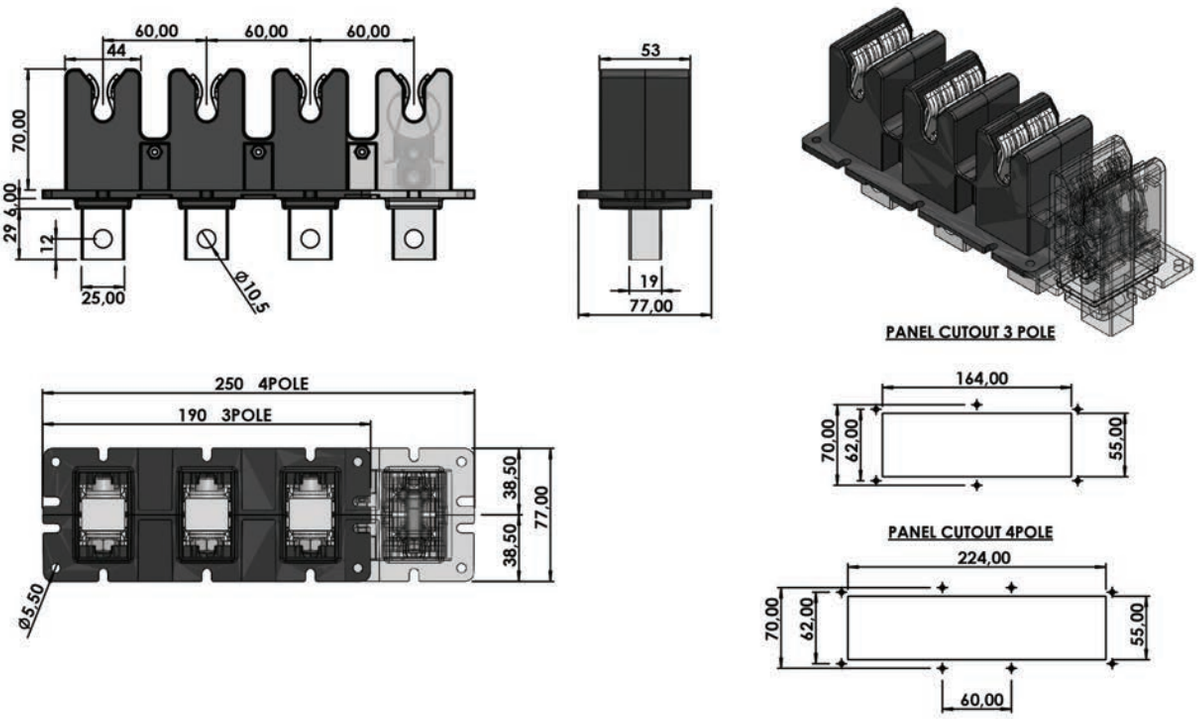
Busplug Cones

Part Number	Description	Material	Max Cable Size	Max BB Size
BP-CONE/Red	Busplug Cone Red	PVC Flame Retardant (V0)	50mm²	20 x 6
BP-CONE/White	Busplug Cone White			
BP-CONE/Blue	Busplug Cone Blue			
BP-CONE/Black	Busplug Cone Black			

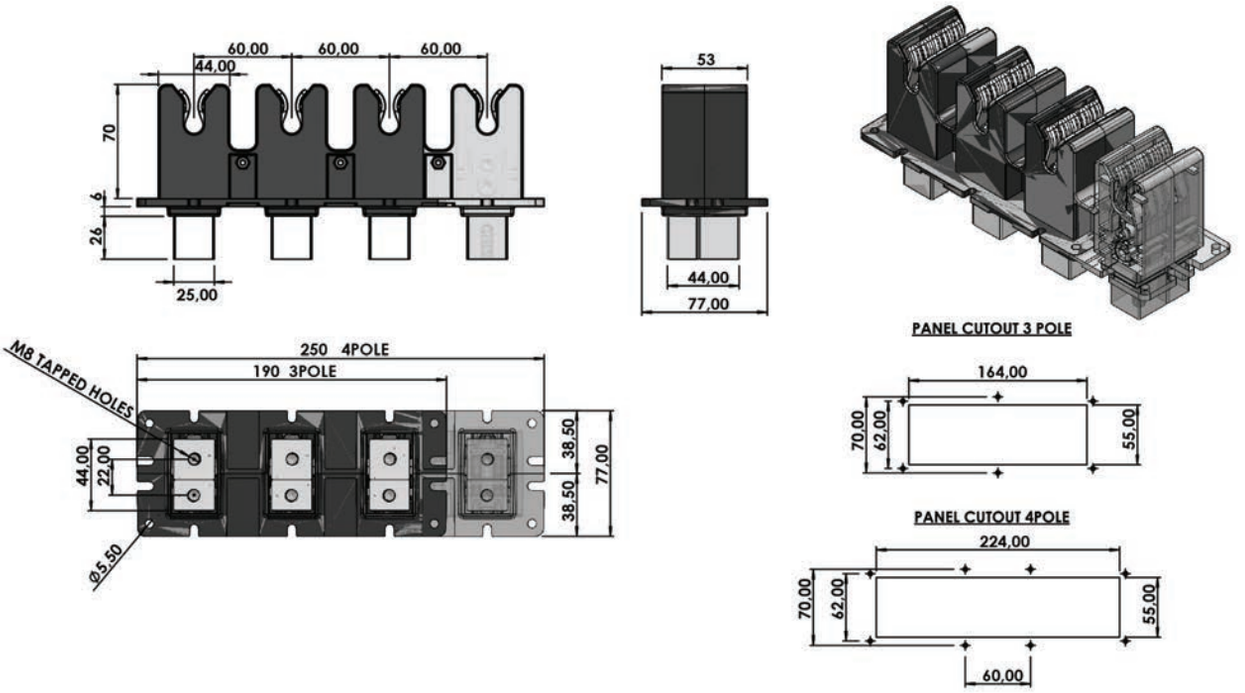
3/4 Pole - 63A - 400A



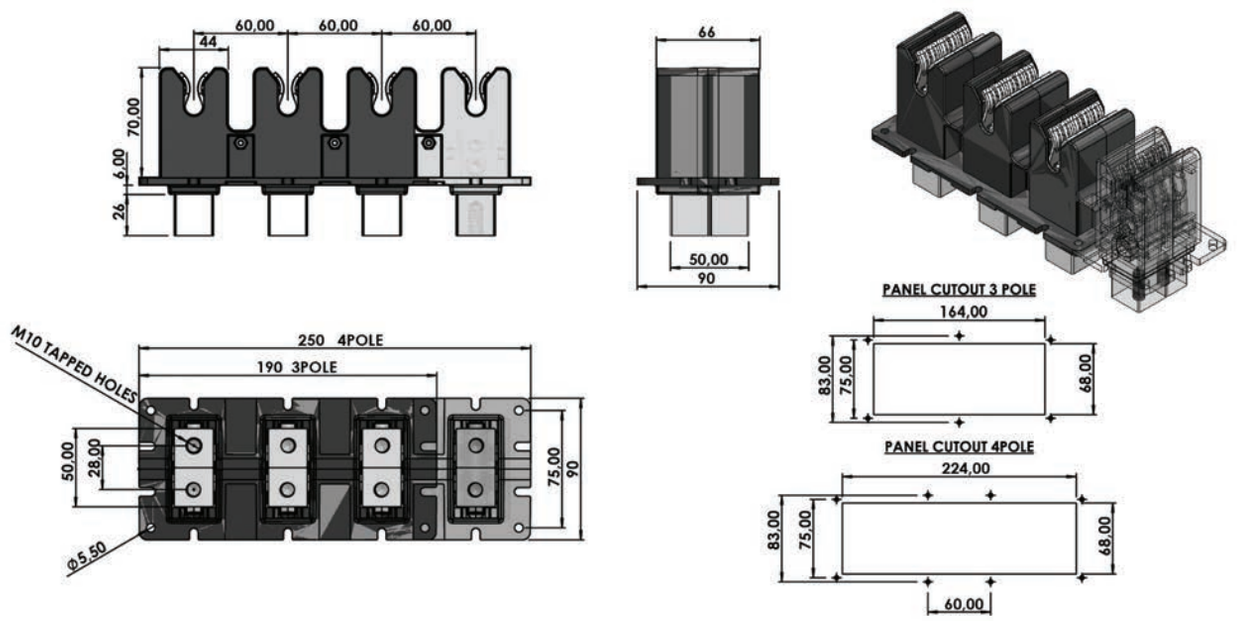
3/4 Pole - 800A



3/4 Pole - 1000A



3/4 Pole - 1200A



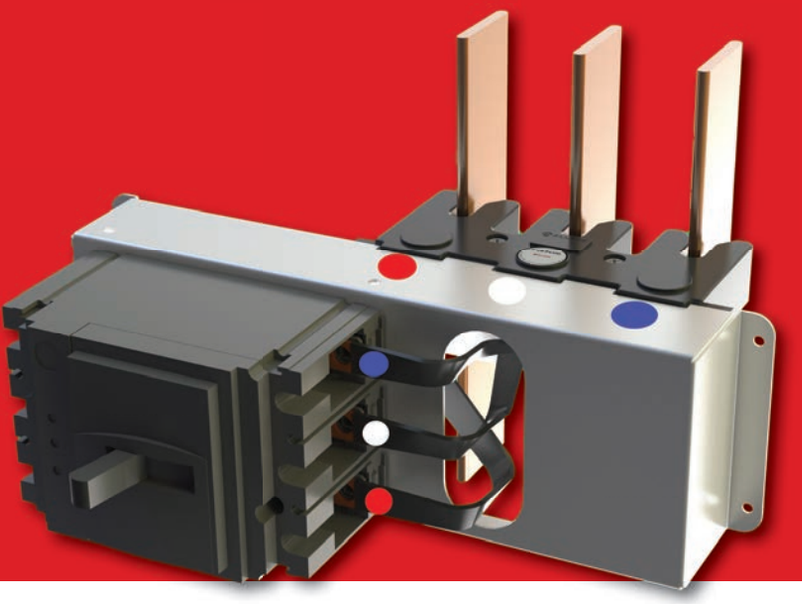
PDF & 3D drawings are available on request.



Part Number 6mm	Part Number 10mm	Description	Breaker Brand
BPA3-160-S	BPA3-160-10-S	Busplug Adaptor 3 Phase 160A SCH	
BPA3-250-S	BPA3-250-10-S	Busplug Adaptor 3 Phase 250A SCH	
BPA3-400-S	BPA3-400-10-S	Busplug Adaptor 3 Phase 400A SCH	
BPA3-630-S	BPA3-630-10-S	Busplug Adaptor 3 Phase 630A SCH	Schneider
BPA3-800-S	BPA3-800-10-S	Busplug Adaptor 3 Phase 800A SCH	
BPA3-1000-S	BPA3-1000-10-S	Busplug Adaptor 3 Phase 1000A SCH	
BPA3-1200-S	BPA3-1200-10-S	Busplug Adaptor 3 Phase 1200A SCH	
BPA3-160-T	BPA3-160-10-T	Busplug Adaptor 3 Phase 160A TER	
BPA3-250-T	BPA3-250-10-T	Busplug Adaptor 3 Phase 250A TER	
BPA3-400-T	BPA3-400-10-T	Busplug Adaptor 3 Phase 400A TER	
BPA3-630-T	BPA3-630-10-T	Busplug Adaptor 3 Phase 630A TER	Terasaki
BPA3-800-T	BPA3-800-10-T	Busplug Adaptor 3 Phase 800A TER	
BPA3-1000-T	BPA3-1000-10-T	Busplug Adaptor 3 Phase 1000A TER	
BPA3-1200-T	BPA3-1200-10-T	Busplug Adaptor 3 Phase 1200A TER	
BPA4-160-S	BPA4-160-10-S	Busplug Adaptor 4 Phase 160A SCH	
BPA4-250-S	BPA4-250-10-S	Busplug Adaptor 4 Phase 250A SCH	
BPA4-400-S	BPA4-400-10-S	Busplug Adaptor 4 Phase 400A SCH	
BPA4-630-S	BPA4-630-10-S	Busplug Adaptor 4 Phase 630A SCH	Schneider
BPA4-800-S	BPA4-800-10-S	Busplug Adaptor 4 Phase 800A SCH	
BPA4-1000-S	BPA4-1000-10-S	Busplug Adaptor 4 Phase 1000A SCH	
BPA4-1200-S	BPA4-1200-10-S	Busplug Adaptor 4 Phase 1200A SCH	
BPA4-160-T	BPA4-160-10-T	Busplug Adaptor 4 Phase 160A TER	
BPA4-250-T	BPA4-250-10-T	Busplug Adaptor 4 Phase 250A TER	
BPA4-400-T	BPA4-400-10-T	Busplug Adaptor 4 Phase 400A TER	
BPA4-630-T	BPA4-630-10-T	Busplug Adaptor 4 Phase 630A TER	Terasaki
BPA4-800-T	BPA4-800-10-T	Busplug Adaptor 4 Phase 800A TER	
BPA4-1000-T	BPA4-1000-10-T	Busplug Adaptor 4 Phase 1000A TER	
BPA4-1200-T	BPA4-1200-10-T	Busplug Adaptor 4 Phase 1200A TER	

Other breaker brands available upon request (Siemens,ABB,Susol)

PLUG-IN CHASSIS



Part Number 3 Pole	Part Number 4 Pole	Description	Flexibar/Copper used
		Standard Chassis	
SBC3-125/250	SBC4-125/250	Standard Breaker Chassis 125/250A	15.5x0.8x2
SBC3-250	SBC4-250	Standard Breaker Chassis 250A	20x1x3
SBC3-NS250	SBC4-NS250	Standard Breaker Chassis Non-Standard 250	20x1x3
SBC3-400	SBC4-400	Standard Breaker Chassis 400A	24x1x5
SBC3-630	SBC4-630	Standard Breaker Chassis 630A	32x1x8
SBC3-800	SBC4-800	Standard Breaker Chassis 800A	50x10 Flat Bar
SBC3-NS800	SBC4-NS800	Standard Breaker Chassis Non-Standard 800A	50x10 Flat Bar
SBC3-1000	SBC4-1000	Standard Breaker Chassis 1000A	50x10 Flat Bar
SBC3-NS1000	SBC4-NS1000	Standard Breaker Chassis Non-Standard 1000A	50x10 Flat Bar
SBC3-1200	SBC4-1200	Standard Breaker Chassis 1200A	50x12 Flat Bar
SBC3-NS1200	SBC4-NS1200	Standard Breaker Chassis Non-Standard 1200A	50x12 Flat Bar
		Offset Chassis	
OBC3-125/250	OBC4-125/250	Offset Breaker Chassis 125/250A	15.5x0.8x2
OBC3-NS125/250	OBC4-NS125/250	Offset Breaker Chassis Non-Standard 125/250A	15.5x0.8x2
OBC3-250	OBC4-250	Offset Breaker Chassis 250A	20x1x3
OBC3-NS250	OBC4-NS250	Offset Breaker Chassis Non-Standard 250A	20x1x3
OBC3-400	OBC4-400	Offset Breaker Chassis 400A	24x1x5
OBC3-630	OBC4-630	Offset Breaker Chassis 630A	32x1x8

Breaker Brand:

Breaker Brand	
Schneider	S
Terasaki	T
ABB	A
Susol / LS	LS
Siemens	SM

**Other breaker brands are available on request*

Add to the end of the part number.
Example:

3 Pole 10mm Busbars for Schneider:
SBC3-250-10-S

NOTE: Please nominate breaker type and handing when ordering

BREAKER TYPE CODES:

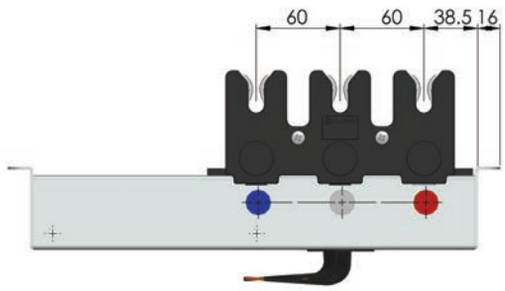
- S = SCHNEIDER
- T = TERASAKI
- SM = SIEMENS
- AB = ABB

*4 Pole is available = add 4P to the code
10mm busbars = add the number “10”

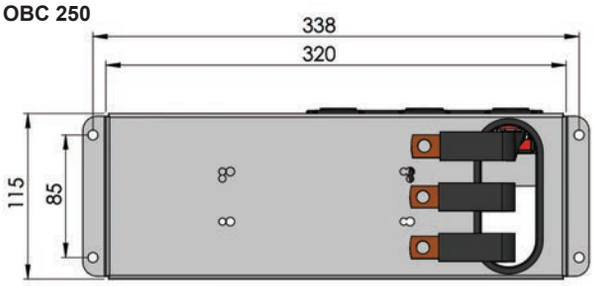
BREAKER TYPE CODES:

- LH = LEFT HAND
- RH = RIGHT HAND

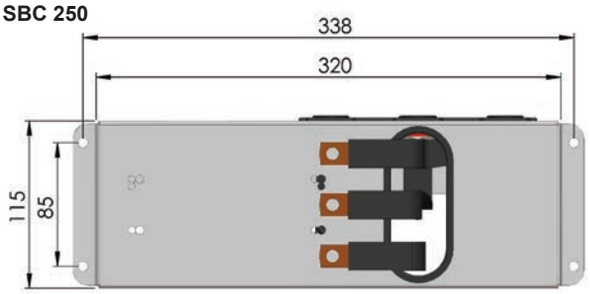
Typical Layout:



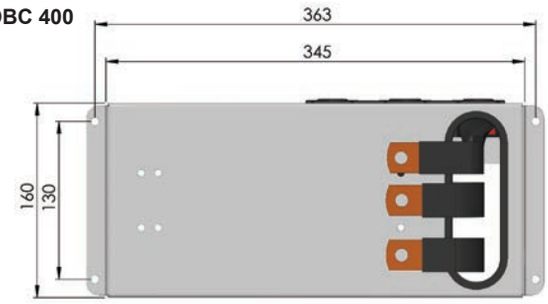
OBC 250



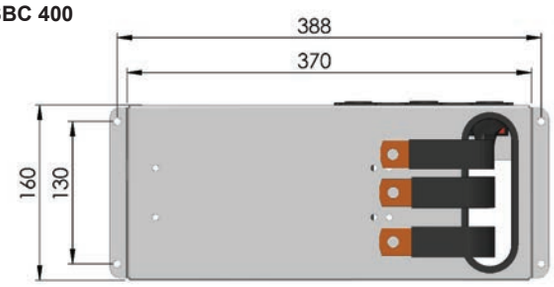
SBC 250



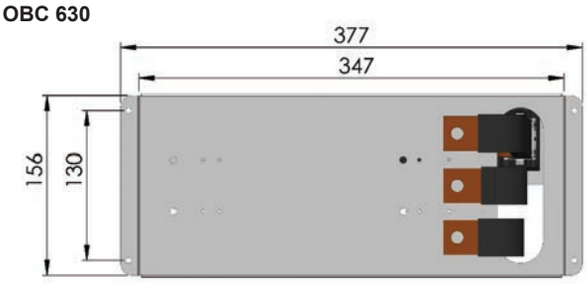
OBC 400



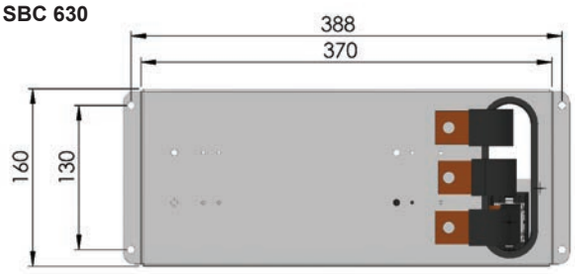
SBC 400



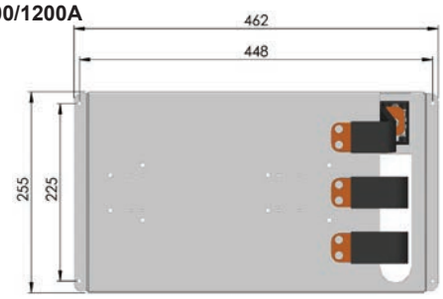
OBC 630



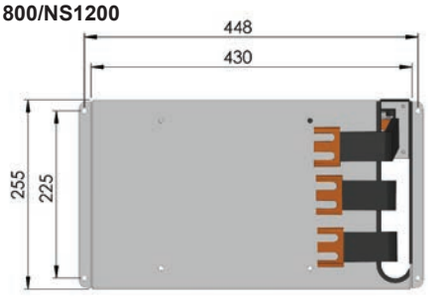
SBC 630



SBC 800/1200A



SBC NS 800/NS1200



- The mounting bracket is made from 1.6mm sheet steel.
- Finish is powder coated in white.
- Busplugs are fixed to the rear of the bracket.
- Connections between the plug and the Breaker are made by Flexibar.
- Mounting holes are provided on the Plug in Chassis bracket to suit the brand/rating of Breaker as specified by the customer.
- Allbro's selection of Plug in Chassis - Standard arrangement - Offset version – Special Order to suit customer's request.

Flexible Copper Busbar (Flexibar) and Custom Busbars

Flexibar

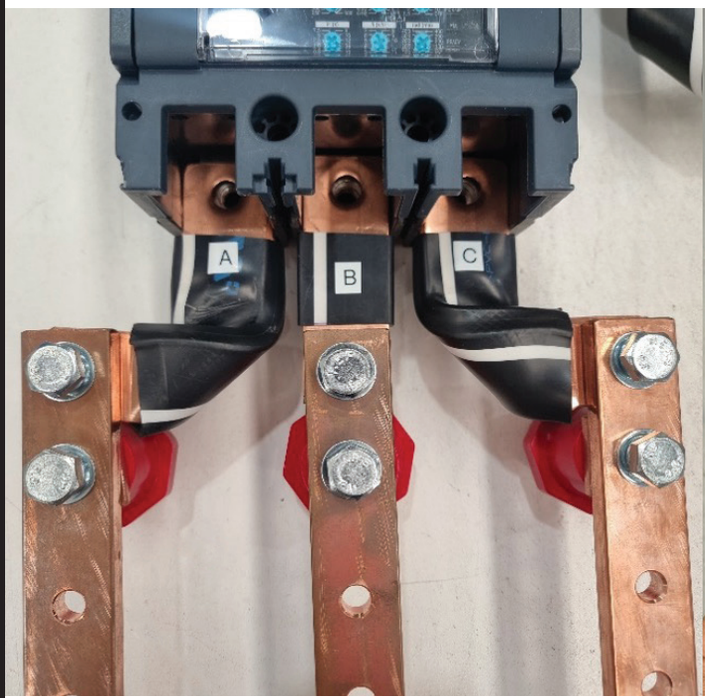
*Available in 2m lengths

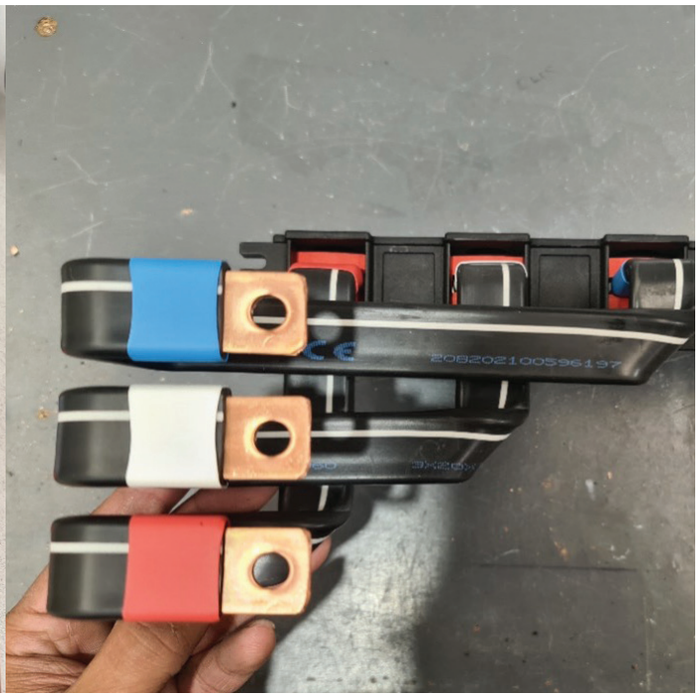
Part Number	Width / Thickness / Qty of Laminations
001-160	15.5W x 0.8 x 2L
001-164	20W x 1 x 3L
001-162	24W x 1 x 5L
001-163	32W x 1 x 8L

Custom Flexibars

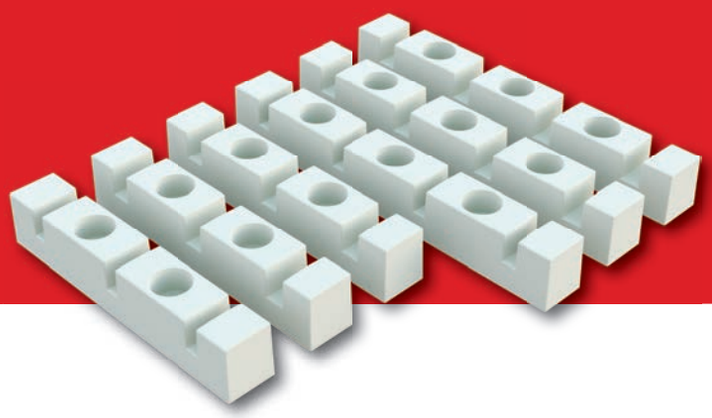
Part Number	Description	Flexibar size	Breaker Brand
LHS125	Left Hand Flexibar 125A to suit Schneider	15.5x0.8x2	Schneider
LHS250	Left Hand Flexibar 250A to suit Schneider	20x1x3	
LHS400	Left Hand Flexibar 400A to suit Schneider	24x1x5	
LHS630	Left Hand Flexibar 630A to suit Schneider	32x1x8	
RHS125	Right Hand Flexibar 125A to suit Schneider	15.5x0.8x2	
RHS250	Right Hand Flexibar 250A to suit Schneider	20x1x3	
RHS400	Right Hand Flexibar 400A to suit Schneider	24x1x5	
RHS630	Right Hand Flexibar 630A to suit Schneider	32x1x8	
LHT125	Left Hand Flexibar 125A to suit Terasaki	15.5x0.8x2	Terasaki
LHT250	Left Hand Flexibar 250A to suit Terasaki	20x1x3	
LHT400	Left Hand Flexibar 400A to suit Terasaki	24x1x5	
LHT630	Left Hand Flexibar 630A to suit Terasaki	32x1x8	
RHT125	Right Hand Flexibar 125A to suit Terasaki	15.5x0.8x2	
RHT250	Right Hand Flexibar 250A to suit Terasaki	20x1x3	
RHT400	Right Hand Flexibar 400A to suit Terasaki	24x1x5	
RHT630	Right Hand Flexibar 630A to suit Terasaki	32x1x8	

- Flexibar configuration available in 3/4 pole and left/right hand configuration.
- Custom high quality flexibar to suit customer's hardware.
- Flexibar to suit other MCCBs available upon request.





AB BUSBAR SUPPORTS

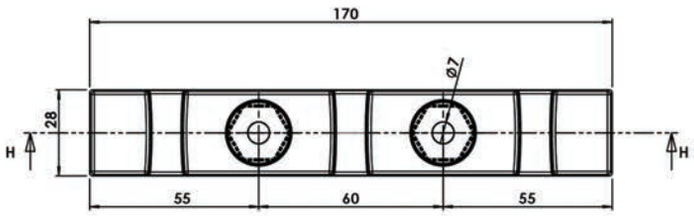


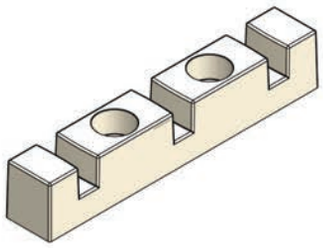
Part Number	Description	Number of Poles	Slot Width (mm)	Fixing Bolt Size (mm)
AB3-6.35	AB Busbar support 3W-6.3mm slots	3	6.35	2 x M6
AB3-8	AB Busbar support 3W-8mm slots	3	8	2 x M6
AB3-10	AB Busbar support 3W-10mm slots	3	10	2 x M6
AB3-12	AB Busbar support 3W-12mm slots	3	12	2 x M6
AB4-6.35	AB Busbar support 4W-6.3mm slots	4	6.35	4 x M6
AB4-8	AB Busbar support 4W-8mm slots	4	8	4 x M6
AB4-10	AB Busbar support 4W-10mm slots	4	10	4 x M6
AB4-12	AB Busbar support 4W-12mm slots	4	12	4 x M6

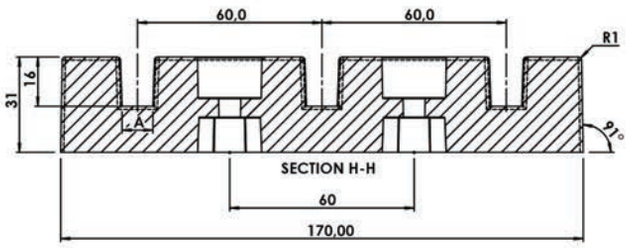
Support Spacings

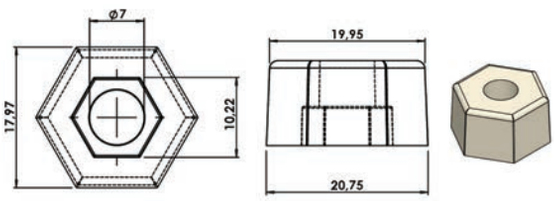
Fault Current (kA)	Ipk			
	66	105	143	176
	Irms			
	30	50	65	80
Busbar size (mm)				
6.35mm Busbars				
40 x 6.35	600	-	-	-
50 x 6.35	650	240	-	-
63 x 6.35	700	250	200	
80 x 6.35	750	260	210	140
100 x 6.35	800	280	260	150
125 x 6.35	800	300	300	150
10mm Busbars				
40 x 10	550	320	230	-
50 x 10	600	340	240	-
60 x 10	700	360	250	130
80 x 10	800	380	260	140
100 x 10	800	400	280	150
120 x 10	800	400	290	150

3 Way Range

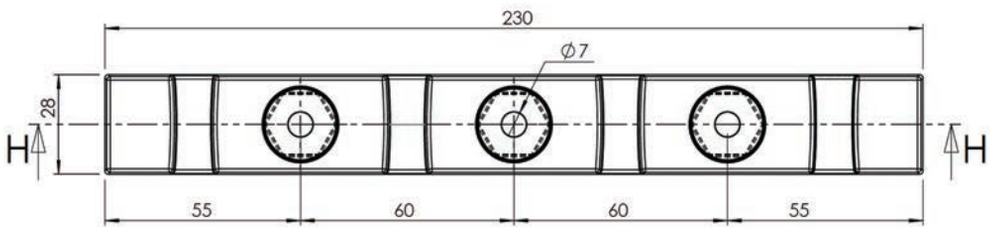


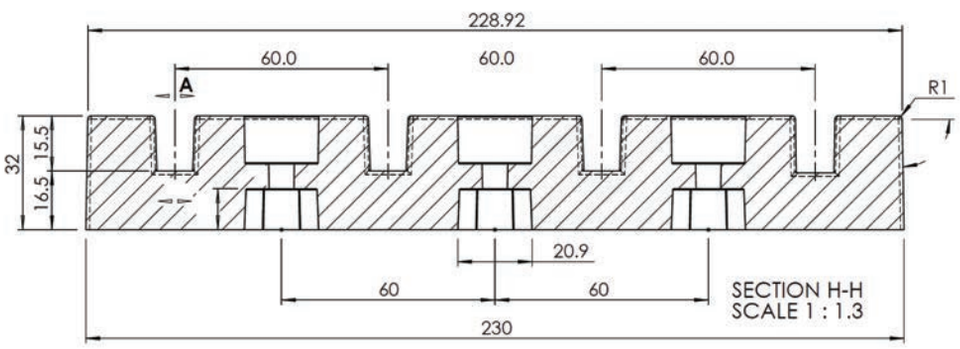






4 Way Range

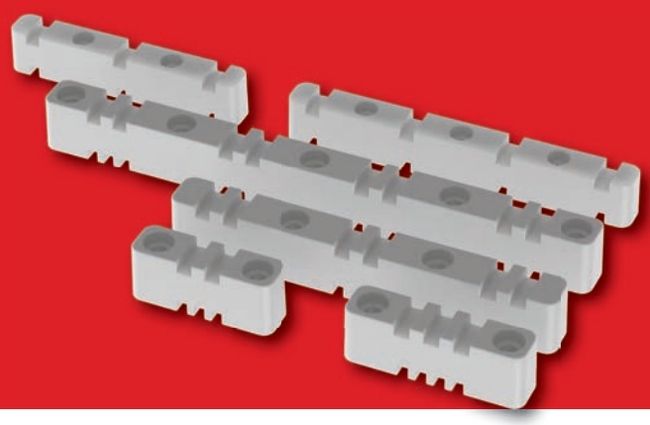




PDF & 3D drawings are available on request.

- Tests are in accordance with AS/NZS 61439.1:2016 / IEC61439-1
- Test voltage: 415V 50Hz for a duration of 1 sec

ABD BUSBAR SUPPORTS



Part Number	Description	Number of Poles	Side A		Side B		Fixing
			Number of Slots	Size of Slots (mm)	Number of Slots	Size of Slots (mm)	Bolt Size
ABD-1/210/306	ABD 1W-2x10/3x6 Slots	1	2	10	3	6	2 x M8
ABD-1/310/406	ABD 1W-3x10/4x6 Slots	1	3	10	4	6	2 x M8
ABD-1/312/310	ABD 1W-3x12/3x10 Slots	1	3	12	3	10	2 x M8
ABD-3/110/106	ABD 3W-1x10/1x6 Slots	3	1	10	1	6	2 x M6
ABD-4/110/106	ABD 4W-1x10/1x6 Slots	4	1	10	1	6	3 x M6
ABD-3/210/306	ABD 3W-2x10/3x6 Slots	3	2	10	3	6	2 x M8
ABD-4/210/206	ABD 4W-2x10/2x6 Slots	4	2	10	2	6	5 x M8

Support Spacings - 6.35mm

***Larger spans are possible as the phase centers are increased. Support intervals are based on 100mm phase centers.**

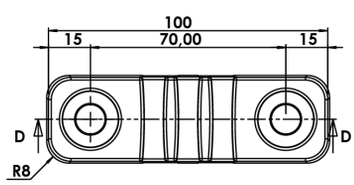
Fault Current (kA)	1 Bar			2 > Bars		
	105	143	176	105	143	176
	50	65	80	50	65	80
Busbar size (mm)						
ABD-1/210/306 / ABD-1/310/406 / ABD-1/312/310						
50 x 6.35	330	-	-	360	340	-
63 x 6.35	350	320	-	400	360	-
80 x 6.35	400	350	190	420	380	200
100 x 6.35	420	360	190	450	380	200
125 x 6.35	420	360	200	450	380	220
160 x 6.35	420	360	220	450	380	240
ABD-3/110/106 / ABD-4/110/106						
40 x 6.35	-	-				
50 x 6.35	280	-				
63 x 6.35	290	230				
80 x 6.35	300	250				
100 x 6.35	320	280				
ABD-3/210/306 / ABD-4/210/306						
50 x 6.35	330	-	-	360	340	-
63 x 6.35	350	320	-	400	360	-
80 x 6.35	400	350	170	420	380	200
100 x 6.35	420	360	190	450	380	200
125 x 6.35	420	360	200	450	380	220
160 x 6.35	420	360	220	450	380	240

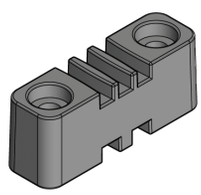
Support Spacings - 10mm

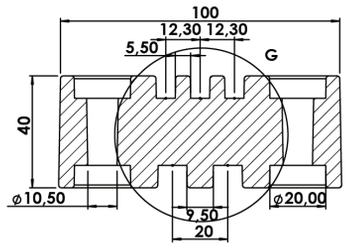
***Larger spans are possible as the phase centres are increased. Support intervals are based on 100mm phase centres.**

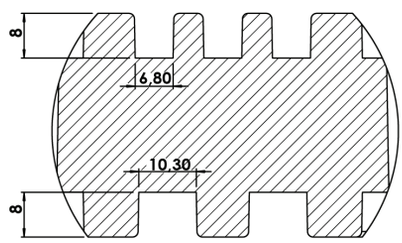
Fault Current (kA)	1 Bar			2 > Bars		
	105	143	176	105	143	176
	50	65	80	50	65	80
Busbar size (mm)						
ABD-1/210/306 / ABD-1/310/406 / ABD-1/312/310						
50 x 10	430	360	-	450	-	-
60 x 10	430	380	220	450	400	240
80 x 10	440	400	230	460	400	250
100 x 10	450	420	250	460	420	260
120 x 10	450	420	250	460	430	260
160 x 10	450	420	260	460	430	270
ABD-3/110/106 / ABD-4/110/106						
30 x 10	300	-				
40 x 10	320	-				
50 x 10	350	250				
60 x 10	350	270				
80 x 10	360	280				
100 x 10	380	300				
ABD-3/210/306 / ABD-4/210/306						
40 x 10	400	-	-	-	-	-
50 x 10	420	380	-	450	-	-
60 x 10	430	380	220	450	400	240
80 x 10	440	390	230	460	400	250
100 x 10	450	400	250	460	420	260
125 x 10	450	430	250	460	430	260
160 x 10	450	430	260	460	430	270

ABD1.210.306



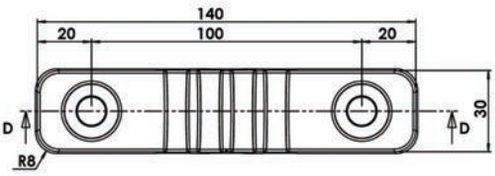


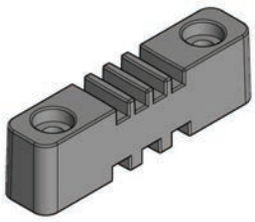


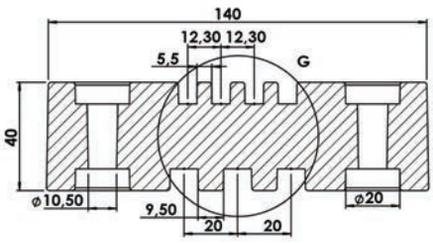


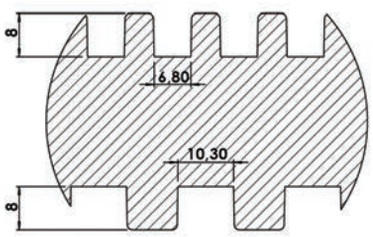
SLOTS DETAIL G

ABD1.310.406



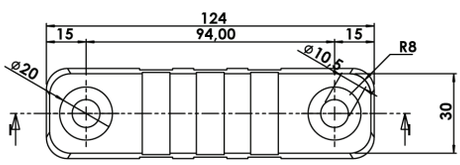


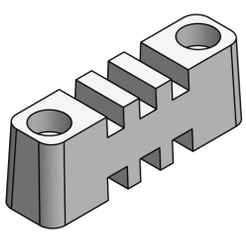


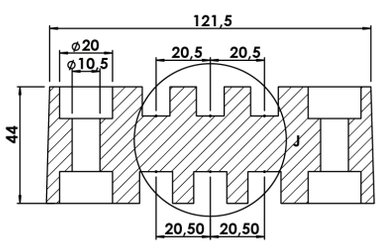


SLOTS DETAIL G

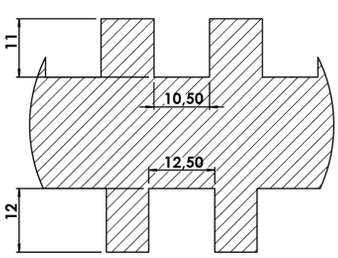
ABD1.312.310





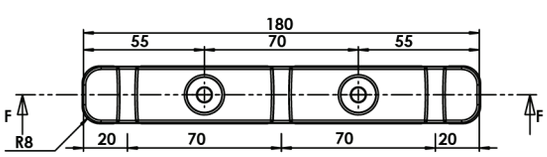


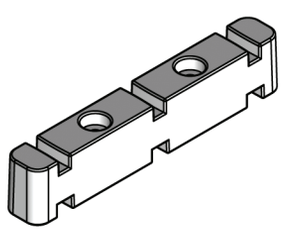
SECTION I-I

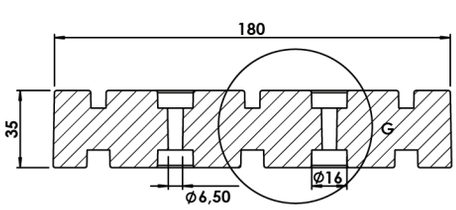


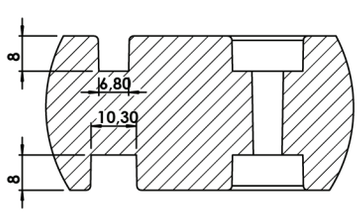
DETAIL J

ABD3.110.106







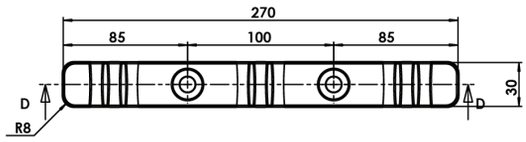


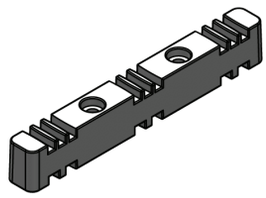
DETAIL G

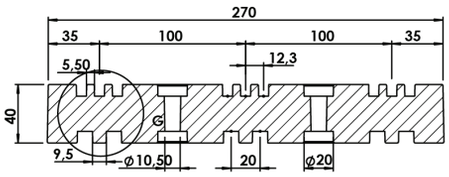
PDF & 3D drawings are available on request.

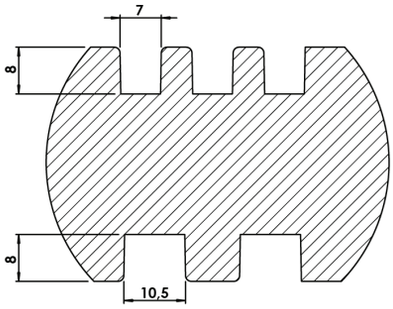
The standard material for these busbar supports is SMC. Glass Filled Nylon is available on request.*

ABD3.210.306



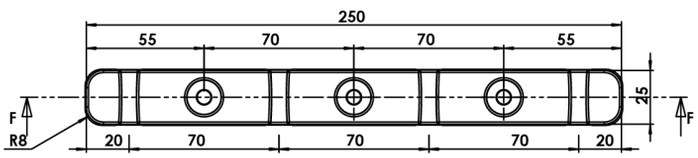


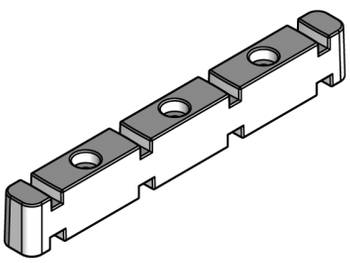


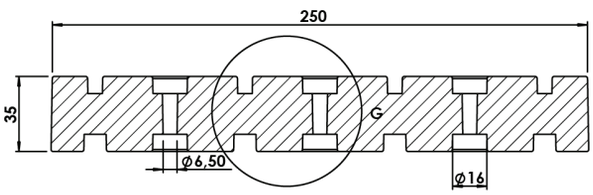


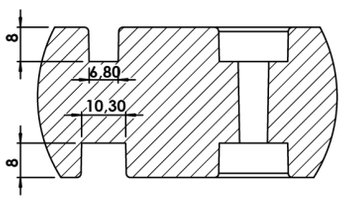
SLOTS DETAIL G

ABD4.110.106



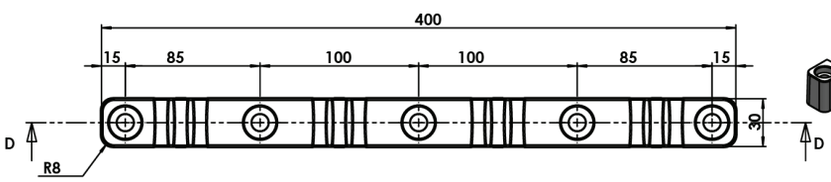


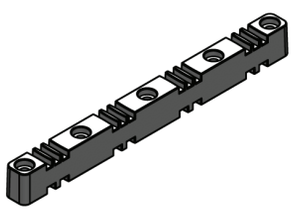


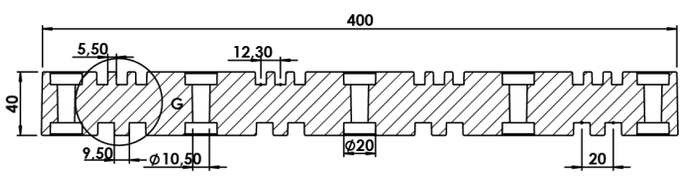


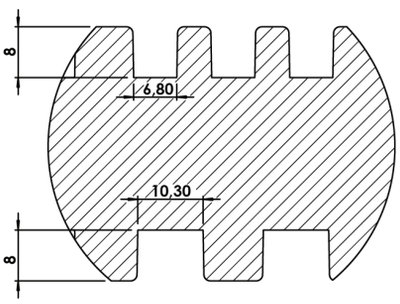
DETAIL G

ABD4.210.306









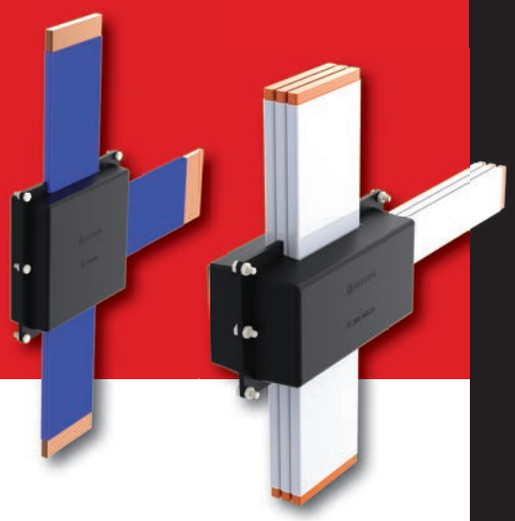
SLOTS DETAIL G

PDF & 3D drawings are available on request.

****The standard material for these busbar supports is SMC. Glass Filled Nylon is available on request.***

JOINT COVERS & NUT INSULATOR

Our Joint covers not only protect and insulate your busbar connections, they also make phase identificcation easy with colour-coded options.



Specification for Insulated Busbar Covers:

1) Scope: Insulating shrouds suitable to cover various types of joints between two conductors for application in low & medium voltage switchgear.

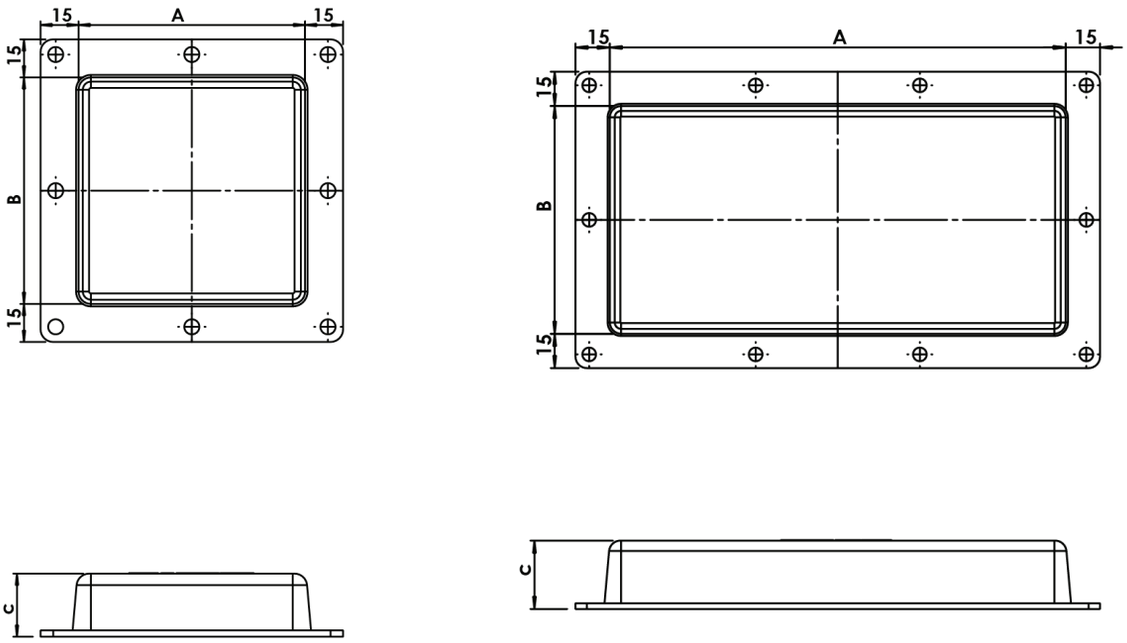
2) Colour: Red/Black/Blue/White

3) Raw Material: PVC

4) Properties:

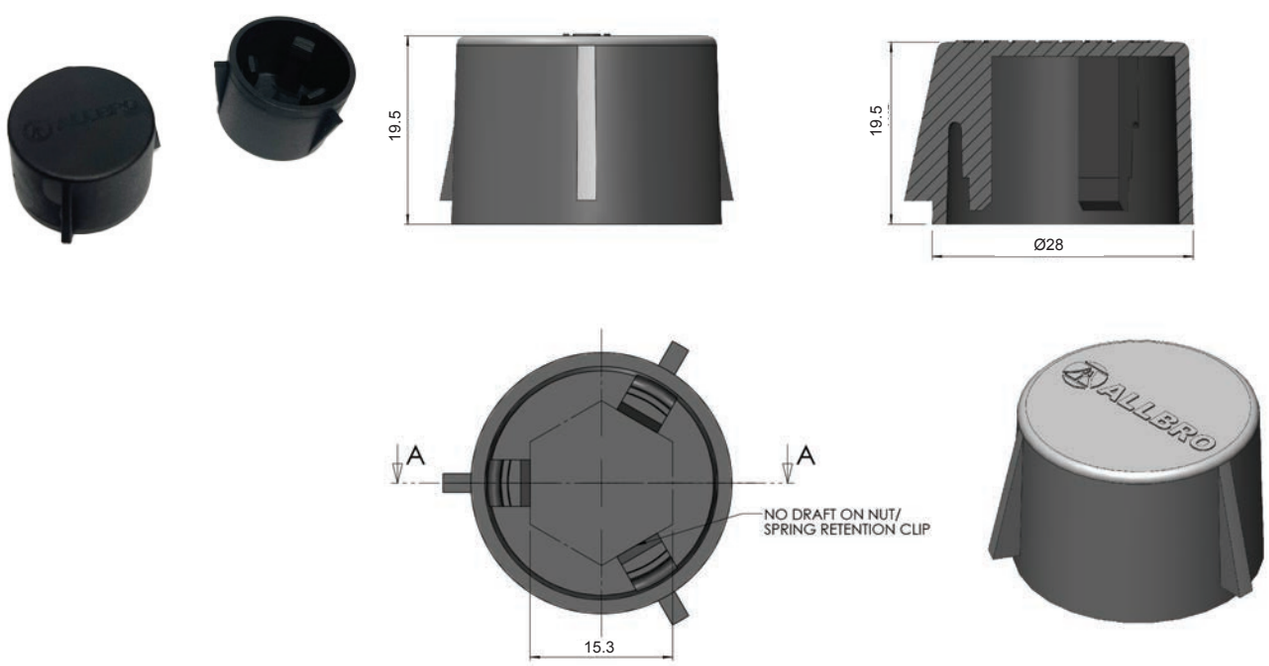
No.	Property	Test Method	Required Value	Observed Value
1	Flammability	UL 94-2013	Self Extinguishing (UL94-V0 Compliant)	Conforms
2	Comparative Tracking Index (CTI), Volts	IEC 60112-2003	>600	>600
3	Dielectric strength in air at 25°C kV/mm	IEC 60243-1-2013	Should withstand 36kv for 1 min. >8 kV/mm	Withstood 36kv for 1 min without puncture 9.4kV/mm
4	Volume resistivity in air at 25°C, Ohms-cm	ASTM D257-2014	$1x10^{9}$ - $1x10^{11}$	$1.9x10^{11}$
5	Tensile strength at break, MPa	ASTM D638-2010	>10 MPa	12.5 MPa
6	Elongation at break %	ASTM D638-2010	300%	396%
7	Water absorption after 24hrs immersion in water at 24°C, %	ASTM D570-1998	0,8% (Max)	0,50%

Part Number	Description	Dimensions (mm)		
		A	B	C
SQUARE TYPE				
JC-90x25-BK	Joint Cover 90x25 Black	90	90	25
JC-90x45-BK	Joint Cover 90x45 Black	90	90	45
JC-135x30-BK	Joint Cover 135x30 Black	135	135	30
JC-135x50-BK	Joint Cover 135x50 Black	135	135	50
JC-170x30-BK	Joint Cover 170x30 Black	170	170	30
JC-170x50-BK	Joint Cover 170x50 Black	170	170	50
RECTANGULAR TYPE				
JC-200x100x30-BK	Joint Cover 200x100x30 Black	200	100	30
JC-200x100x50-BK	Joint Cover 200x100x50 Black	200	100	50



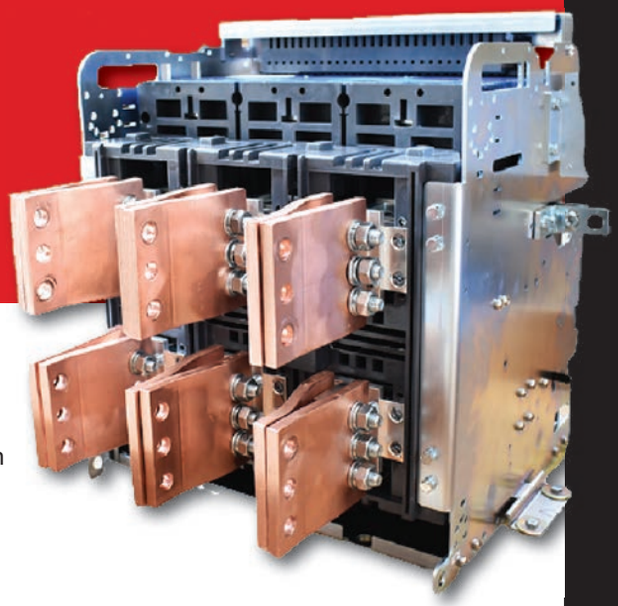
PDF & 3D drawings are available on request.

NI-M10 Nut Insulator



Part Number	Description
NI-M10	NI-M10 Nut Insulator

RETROFITTING SERVICES OF AIR CIRCUIT BREAKERS



ACB retrofitting refers to updating older Air Circuit Breakers with contemporary ones. Automation and control technology is developing faster than primary switchgear technology.

Retrofitting with new ACB allows you to modernize the instrumentation and control of your switchgear at a relatively low cost. Allbro has state of the art design production facilities based in Australia and South Africa and are able to design and produce all parts in-house.

The expected useful life period for Circuit Breakers is 15-20 years. After 10 years, 50% of ACBs don't function properly. By year 20, 90% ACBs don't function properly per specifications. It is different for Switchboards. Their expected useful life period 30-40 years. Retrofitting ACBs after 15-20 years of service allows prolong the life of the Switchboard and postpone major switchboard upgrades for the next 15-20 years. To help you to complete this job quickly and efficiently we offer retrofit kits to suit every possible combination of old ACB and New ACB.

Benefits of Retrofitting with us:

- ✔ Increased cost savings.
- ✔ Reduced down time.
- ✔ Reduced investment costs.
- ✔ No need to replace existing copper work and steelwork and comply with SANS IEC61439.
- ✔ Use of Allbro Retrofit Kits may be classified as a "Repair job" that may be performed to old SANS IEC3439 standard.
- ✔ Installation of a new ACB in an old switchboard without retrofit kit would require drilling and cutting existing copper bars and metalwork that in turn would require to comply with new SANS IEC61439 standard, which is hard to achieve without complete switchboard replacement.









We can supply any brand, model. Some of our brands:

ABB EATON SIEMENS GE TERASAKI Schneider Electric