

Bimetallic Lug Connector for Aluminum to Copper Transition

These bimetallic lugs facilitate reliable transition connections between aluminum or aluminum alloy cables and copper terminations. They are suited for medium voltage electrical equipment, ensuring effective conductivity.



Overview

High-Performance Bimetallic Transition Lugs

The CAL-BS series bimetallic lugs are engineered for reliable transition connections between aluminum or aluminum alloy cables and copper electrical equipment in medium voltage applications. Featuring a friction-welded construction, these lugs effectively prevent galvanic corrosion between dissimilar metals while ensuring optimal electrical conductivity. Each unit comes pre-filled with jointing compound and features clear barrel markings to guide precise crimping for a secure, long-lasting installation.

Technical Standards

Compliance Standard
IEC61238-1:2003

Material Specifications

Aluminum Purity

99.5 %

Min. Al Content

Copper Purity

99.9 %

Min. Cu Content

Design Features

Key Features

- Friction welded bimetallic interface
- Oil blocking structure
- Prefilled with jointing compound
- Clear barrel markings for crimping alignment

Application

Application Environment

Transition connection of aluminum/aluminum alloy cables to copper terminals in medium voltage systems.

Product Range

CAL-630BS	630	-	32.5	47	60x60	-	4x4	ML500~630	MLKA500~630
CAL-630BS-12		163	32.5	47	60x60	M12			
CAL-630BS-16		163	32.5	47	60x60	M16			
CAL-630BS-20		163	32.5	47	60x60	M20			
CAL-800BS	800	-	37.8	60	80x80	-	2x4	ML800~1000	-
CAL-800BS-16		220	37.8	60	80x80	M16			
CAL-800BS-20		220	37.8	60	80x80	M20			
CAL-1000BS-16	1000	220	42	60	80x80	M16	2x4	ML800~1000	-
CAL-1000BS-20		220	42	60	80x80	M20			

Conductor Size Range

10mm² to 1000mm²

Available Stud Sizes

M8, M10, M12, M14, M16, M18, M20

Dimensional Data

Type	Conductor Size (mm ²)	Dimensions				Stud Size	Pack (pcs)	Cramping Die	
		L(mm)	d1(mm)	D1(mm)	B(mm)			Hex	Indent
CAL-10BS-8	10	69	4.5	16	20	M8	60x8	ML10-35	MLKA10-35
CAL-10BS-10	10	69	4.5	16	20	M10	60x8	ML10-35	MLKA10-35
CAL-16BS-8	16	69	5.6	16	20	M8	60x8	ML10-35	MLKA10-35
CAL-16BS-10	16	69	5.6	16	20	M10	60x8	ML10-35	MLKA10-35
CAL-35BS-8	35	69	6.4	16	20	M8	60x8	ML10-35	MLKA10-35
CAL-35BS-10	35	69	6.4	16	20	M10	60x8	ML10-35	MLKA10-35
CAL-35BS-16	35	69	8.0	16	20	M8	60x8	ML10-35	MLKA10-35
CAL-35BS-10	35	69	8.0	16	20	M10	60x8	ML10-35	MLKA10-35
CAL-50BS-10	50	76	9.0	20	24	M10	35x8	ML50-95	MLKA50-95
CAL-50BS-12	50	76	9.0	20	24	M12	35x8	ML50-95	MLKA50-95
CAL-50BS-16	50	76	9.0	20	24	M16	35x8	ML50-95	MLKA50-95
CAL-70BS-12	70	76	10.9	20	24	M10	35x8	ML50-95	MLKA50-95
CAL-70BS-16	70	76	10.9	20	24	M12	35x8	ML50-95	MLKA50-95
CAL-95BS-8	95	76	12.4	20	24	M8	35x8	ML50-95	MLKA50-95
CAL-95BS-10	95	76	12.4	20	24	M10	35x8	ML50-95	MLKA50-95
CAL-95BS-12	95	76	12.4	20	24	M12	35x8	ML50-95	MLKA50-95
CAL-95BS-16	95	76	12.4	20	24	M16	35x8	ML50-95	MLKA50-95

CAL-120BS-10	95	137	25	30	M10	40x4	ML120-150	MLKA120-150	
CAL-120BS-12	120	95	137	25	30	M12	40x4	ML120-150	MLKA120-150
CAL-120BS-16	120	95	137	25	30	M16	40x4	ML120-150	MLKA120-150
CAL-150BS-10	95	155	25	30	M10	40x4	ML120-150	MLKA120-150	
CAL-150BS-12	150	95	155	25	30	M12	40x4	ML120-150	MLKA120-150
CAL-150BS-14	150	95	155	25	30	M14	40x4	ML120-150	MLKA120-150
CAL-150BS-16	150	95	155	25	30	M16	40x4	ML120-150	MLKA120-150
CAL-150BS-18	150	95	155	25	30	M18	40x4	ML120-150	MLKA120-150

Type	Conductor Size (mm ²)	Dimensions				Stud Size	Pack (pcs)	Cramping Die	
		L(mm)	d1(mm)	D1(mm)	B(mm)			Hex	Indent
CAL-185BS-12	185	99.5	17	32	35	M12	25x4	ML185-240	MLKA185-240
CAL-185BS-14	185	99.5	17	32	35	M14	25x4	ML185-240	MLKA185-240
CAL-185BS-16	185	99.5	17	32	35	M16	25x4	ML185-240	MLKA185-240
CAL-240BS-10	240	99.5	19.5	32	35	M10	25x4	ML185-240	MLKA185-240
CAL-240BS-12	240	99.5	19.5	32	35	M12	25x4	ML185-240	MLKA185-240
CAL-240BS-14	240	99.5	19.5	32	35	M14	25x4	ML185-240	MLKA185-240
CAL-240BS-16	240	99.5	19.5	32	35	M16	25x4	ML185-240	MLKA185-240
CAL-240BS-20	240	99.5	19.5	32	35	M20	25x4	ML185-240	MLKA185-240
CAL-300BS-10	300	137.5	23.2	40	36	M10	12x4	ML300-400	MLKA300-400
CAL-300BS-12	300	137.5	23.2	40	36	M12	12x4	ML300-400	MLKA300-400
CAL-300BS-14	300	137.5	23.2	40	36	M14	12x4	ML300-400	MLKA300-400
CAL-300BS-16	300	137.5	23.2	40	36	M16	12x4	ML300-400	MLKA300-400
CAL-400BS-12	400	137.5	26	40	36	M12	12x4	ML300-400	MLKA300-400
CAL-400BS-14	400	137.5	26	40	36	M14	12x4	ML300-400	MLKA300-400
CAL-400BS-16	400	137.5	26	40	36	M16	12x4	ML300-400	MLKA300-400
CAL-500BS-12	500	163	29.1	47	60x60	M12	4x4	ML500-630	MLKA500-630
CAL-500BS-16	500	163	29.1	47	60x60	M16	4x4	ML500-630	MLKA500-630
CAL-500BS-20	500	163	29.1	47	60x60	M20	4x4	ML500-630	MLKA500-630

Small to Medium Range (10-95mm²)

Type	Size (mm ²)	Length (mm)	ID (mm)	OD (mm)
CAL-10BS	10	69	4.5	16
CAL-16BS	16	69	5.6	16
CAL-35BS	35	69	8	16
CAL-50BS	50	76	9	20
CAL-70BS	70	76	10.9	20
CAL-95BS	95	76	12.4	20

Large Range (120-500mm²)

Type	Size (mm ²)	Length (mm)	ID (mm)	Palm Width (mm)
CAL-120BS	120	95	13.7	30
CAL-185BS	185	99.5	17	35
CAL-240BS	240	99.5	19.5	35
CAL-300BS	300	137.5	23.2	36
CAL-500BS	500	163	29.1	60x60

Installation

Crimping Die Compatibility

Conductor Size	Hex Die	Indent Die
10~35mm ²	ML10~35	MLKA10~35
50~95mm ²	ML50~95	MLKA50~95
120~150mm ²	ML120~150	MLKA120~150
185~240mm ²	ML185~240	MLKA185~240
300~400mm ²	ML300~400	MLKA300~400
500~630mm ²	ML500~630	MLKA500~630