Overview
Special lugs – Angled, shaped and trimmed

ABB can help solve difficult wire bending and terminating problems in confined power distribution panels, switchgear and motor control enclosures.

Our broad design and production capabilities enable us to deliver virtually any lug you need:
- Straight, 15°, 30°, 45°, 60° and 90° angle
- Stacking or non-stacking
- Narrow tongue or standard
- Tin, silver, lead, nickel

ABB offers an extensive line of copper Color-Keyed lugs for #8 AWG through 1000 kcmil flex and code cables. The lug tongues are modified in several different configurations, customizable to meet your needs: 45° and 90° bend angles, narrow tongues to fit into circuit breakers, offset tongues to stack two cables and special stud hole drilling.

These special configurations let you:
1) Run cable directly to the bus bar with no bending.
2) Terminate into very narrow spaces.
3) Utilize minimal bus bar space.

Customized connectors for copper cables
- Standard and special tongue angles, stacking and nonstacking, bolt holes sizes and centers, protective platings.
- Specially modified one- and two-hole copper compression lugs, Series 54100, 54200, 54850BE and 54930BE for flex and code copper stranded cables. Material: High conductivity wrought copper.
- Minimum order quantity: Standard package quantity by cable size. Consult factory for price and delivery. All customized lugs are made to order. A.R.O. Non-cancelable.

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01 Special lugs – Angled, shaped & trimmed
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02 Examples of customized connectors for copper cables

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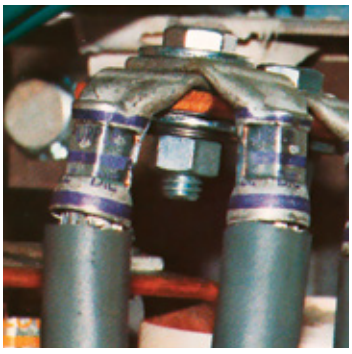
01



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02

Overview
Order form

Order form (For 54100, 54200, 54800 & 54900 Series copper lugs only):

Catalog number: **Quantity:**

Notes:

Cable:

Code: **Weld:**

#8 **#6** **#4** **#2** **#1** **1/0** **2/0** **3/0** **4/0**

250 kcmil & up (code only)

Notes:
1) Lacking of any of the extra features noted on the "MADE-UP" catalog number, the standard cat. no. features will be followed.

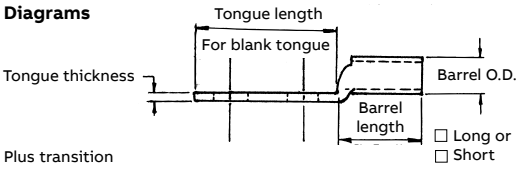
2) If either bolt hole size or distance between bolt holes needs to be changed from standard cat.no., both code numbers will appear on the "MADE-UP" cat. no. (See example below)

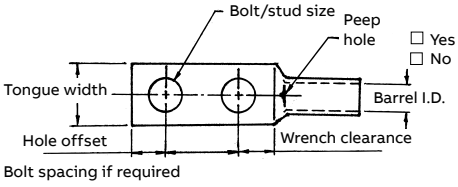
All "made-up" catalog numbers start with a standard or basic catalog number and are followed by the customer-required extra features: tongue shape, bolt hole size, distance between bolt holes, stacking, plating and inspection hole (peep hole). A code letter or a number has been assigned to each extra feature. See code table.

Code table

Tongue shape		Bolt holes			Bolt hole centers		Stacking		Finish (plating)		Inspection hole (long barrel)		Inspection hole (short barrel)	
Type	Code	Size 0.020 (in.)		Code	Distance 0.015 (in.)	Code	Type	Code	Type 1	Code	I.D.	Code	I.D.	Code
15°	UI	#8	0.173	02	½	08	Top	T**	Silver plate	SP	Peep hole	PH	Blind end	BE
30°	UT	#10	0.204	03	⅝	10	Bottom	B	Lead plate	LP				
45°	UF	¼	0.281	04	¾	12			Nickel plate	NP				
60°	US	5/16	0.344	05	⅞	14			Plain finish	PF				
90°	UB	⅜	0.406	06	1	16			No marking	NM				
Blank	BT	½	0.531	08	1⅛	18			Not QTP if suffix other than -pf or standard tin plate					
(No bolt hole)		⅝	0.656	10	1¼	20								
		¾	0.812	12	1⅜	22								
		⅞	0.937	14	1½	24								
		1	1.062	16	1⅝	26								
					1¾	28								
					1⅞*	30								
					2*	32								

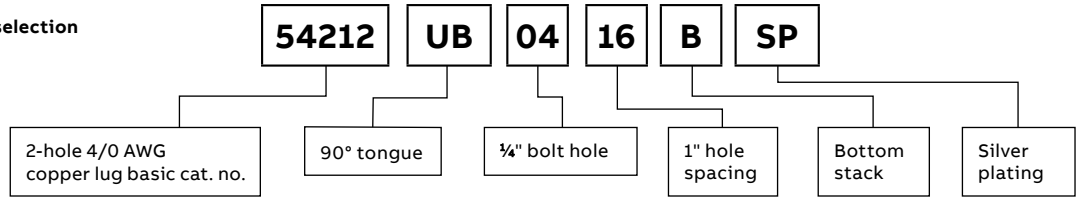
Diagrams





* These bolt centers not available for bolt holes larger than 13/16".
** Not required for 45° & 90° top stacking.

Catalog number selection



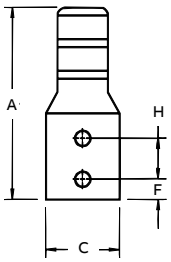
Copper compression lugs – Two-hole long barrel

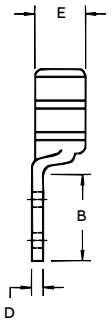
Two-hole lugs – Long barrel 600 V to 35 kV

Two-hole lugs – Long barrel 600 V to 35 kV

Peep holes available – Add suffix PH
Material – High-conductivity wrought copper
Finish – Electro tin plate

Diagrams	Cat. no.	Wire size: Code (AWG or kcmil)	Wire size: Flex class G, H, I, K, M†	Bolt size (in.)	A	B	C	D	E	F	H	Die code	Die color
	54801BE	#14–10	–	1/4	1.86	1.19	0.50	0.05	0.20	1/4	5/8	ERG4002, ERG4005	"C" nest
	256-31426-3			#10	2.00	1.25	0.37	0.07	0.20	1/4	5/8		
	256-31426-3SPH			#10	2.00	1.25	0.37	0.07	0.20	7/32	5/8–3/4		
	256-30695-1298			1/4	1.89	1.22	0.50	0.05	0.20	1/4	5/8		
	256-30695-1730			1/4	1.98	1.31	0.50	0.05	0.20	1/4	5/8–3/4		
	54850BE*	#8	37/24 = 14.9 kcmil	1/4	2.19	1.89	0.42	0.07	0.26	1/4	5/8	21	Red
	54851BE*		#8 Weld	1/4	2.31	1.29	0.47	0.06	0.26	1/4	3/4	21	
	256-30695-1157		23 Navy	3/8	3.00	2.10	0.56	0.06	0.26	3/8	1	21	
	54852BE*	#6	30 Navy	1/4	2.28	1.28	0.44	0.08	0.30	1/4	5/8	24	Blue
	256-30695-1014		61/24 = 24.6 kcmil	1/4	2.63	1.63	0.43	0.08	0.30	1/4	1	24	
	256-30695-1225*		#6 Weld	1/4	2.43	1.43	0.43	0.08	0.30	1/4	3/4	24	
	256-30695-1158*		#5 Weld	3/8	2.93	1.93	0.59	0.06	0.30	3/8	1	24	
	256-30695-868*			1/2	4.18	3.00	0.88	0.11	0.30	1/2	1 3/4	24	
	54854BE*	#4	40–50 Navy	1/4	2.31	1.19	0.52	0.10	0.37	1/4	5/8	29	Gray
	256-30695-1246*		#5, 91/24 = 36.7 kcmil	1/4	2.31	1.31	0.56	0.09	0.37	1/4	3/4	29	
	256-30695-1015		#4 Weld	1/4	2.88	1.88	0.58	0.09	0.37	3/8	1	29	
	256-30695-1337			5/16	2.75	1.75	0.56	0.10	0.37	11/32	1	29	
	256-30695-1159*			3/8	3.13	1.98	0.59	0.09	0.37	3/8	1	29	
	256-30695-733*			1/2	4.18	3.00	0.88	0.09	0.37	1/2	1 3/4	29	
	256-30695-1016	#2–3	60 Navy	1/4	3.06	1.88	0.67	0.09	0.41	3/8	1	33	Brown
	54855BE*		#3 Weld	1/4	2.43	1.28	0.59	0.11	0.41	1/4	5/8	33	
	256-30695-1300*		125/24 = 50.4 kcmil	1/4	2.63	1.35	0.68	0.11	0.41	1/4	3/4	33	
	54856BE*			5/16	2.78	1.63	0.59	0.11	0.41	3/8	3/4	33	
	54810BE			3/8	3.80	2.57	0.59	0.11	0.41	3/8	1 3/4	33	
	256-30695-1160*			3/8	3.08	1.94	0.59	0.11	0.41	3/8	1	33	
	256-30695-869			1/2	4.02	2.88	0.75	0.09	0.41	5/8	1 3/4	33	
	54811BE*			1/2	4.28	3.00	0.88	0.11	0.41	1/2	1 3/4	33	
	54809BE	#1	75 Navy	1/4	2.88	1.19	0.67	0.11	0.47	1/4	5/8	37	Green
	54812BE		150/24 = 60.5 kcmil	1/4	2.75	1.40	0.67	0.11	0.47	1/4	3/4	37	
	54858BE		175/24 = 70.6 kcmil,	5/16	2.97	1.63	0.67	0.11	0.47	3/8	7/8	37	
	256-30695-1161		#2 Weld	3/8	3.30	1.98	0.67	0.11	0.47	3/8	1	37	
	54857BE			1/2	4.43	3.00	0.88	0.11	0.47	1/2	1 3/4	37	
	256-30695-1018	1/0	100 Navy	1/4	3.63	1.88	0.75	0.13	0.52	3/8	1	42	Pink
	256-30695-1018P		#1 Weld	1/4	3.63	1.88	0.75	0.13	0.52	3/8	1	42	
	54859BE		225/24 = 90.8 kcmil	1/4	2.63	1.19	0.75	0.13	0.52	1/4	5/8	42	
	54813BE			1/4	2.71	1.38	0.75	0.13	0.52	1/4	3/4	42	
	54860BE			5/16	2.97	1.63	0.75	0.13	0.52	3/8	7/8	42	
	256-30695-1162P			3/8	3.25	1.98	0.75	0.13	0.52	3/8	1	42	
	256-30695-1162			3/8	3.23	1.93	0.75	0.13	0.52	3/8	1	42	
	256-30695-593*			1/2	4.33	3.00	0.75	0.13	0.52	5/8	1 3/4	42	





† Contact technical services for specific stranding listings. * UL® listed for direct-burial applications.
Tooling – see pages 91-115. Die selector chart – see pages 116-121.