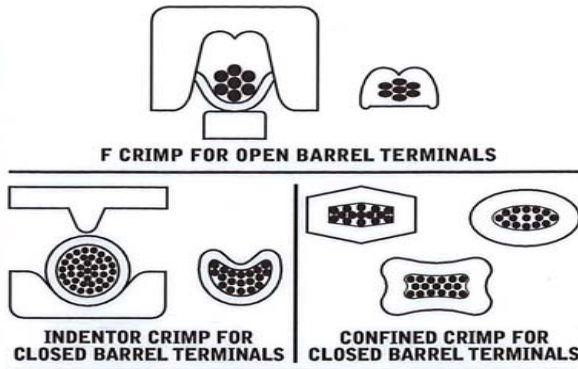


VISUAL INSPECTION OF CRIMPED TERMINALS INDUSTRIAL

Open Barrel Terminals

ACCEPT Proper Insulation Crimp	REJECT Insulation Pierced or Crushed
ACCEPT Metal Insulation Tabs Formed and Wire is Held Snugly	REJECT Insulation Tab Bent
ACCEPT Contact Area	REJECT Wire in Contact Area
ACCEPT Slight Scratch or Scrape but No Visual Dents	REJECT Contact Area Damaged
ACCEPT Slight Bell Mouth Wire Crimp	REJECT No Bell Mouth
ACCEPT Contact Area	REJECT Wire in Contact Area

Crimp Types



Tensile Strength in Pounds

Wire Size	UL-486A	UL-486C	UL-310	Military Class 2
26	3	N/A	N/A	7
24	5	N/A	N/A	10
22	8	8	8	15
20	13	10	13	19
18	20	10	20	28
16	30	15	30	50
14	50	25	50	70
12	70	35	70	110
10	80	40	80	150
8	90	45	N/A	225
6	100	50	N/A	300
4	140	N/A	N/A	400
2	180	N/A	N/A	550
1	200	N/A	N/A	650
1/0	250	N/A	N/A	700
2/0	300	N/A	N/A	750
3/0	350	N/A	N/A	825
4/0	450	N/A	N/A	875
250 MCM	500	N/A	N/A	1000
300 MCM	550	N/A	N/A	1120
350 MCM	600	N/A	N/A	1125

AWG-CMA Table

Terminal Size	CMA Range
26-22	250 - 810
20	320 - 1,000
22-18	509 - 2,600
22-16	509 - 3,260
18-14	2,050 - 5,180
14-12	3,260 - 8,213
12-10	5,180 - 13,100
8	13,100 - 20,000
6	20,000 - 33,100
4	33,100 - 52,600
2	52,600 - 83,700
1/0	83,700 - 115,500
2/0	115,500 - 190,000
3/0	190,000 - 291,000
4/0	291,000 - 400,000

Technical Wire Information
CMA - Circular Mil Area is a unit of area equal to that of a circle whose diameter is one Mil.
MIL - One mil equals .001 inches.
.001 = 1 mil
.030 = 30 mils
.125 = 125 mils

Closed Barrel Terminals

ACCEPT Bell Mouth	REJECT No Bell Mouth
ACCEPT Centered	REJECT Not Centered Too Far Forward
ACCEPT Wire Flush or Greater (Brush)	REJECT Wire Not Visible
ACCEPT Contact Area	REJECT Wire in Contact Area
ACCEPT No Insulation Crimp	REJECT Wire Flush or Greater (Brush) Wire Not Visible
Wire sizes of 8 AWG and larger do not require an insulation crimp. Wire sizes of 18 through 10 AWG require an insulation crimp and the wire can be held securely in the insulation crimp.	
ACCEPT Insulation Crimp	REJECT Wire Stop
ACCEPT Wire Crimp	REJECT Wire Brush is Visible
ACCEPT Wire Brush Not Visible	
ACCEPT Metal Sleeve Snug	REJECT Metal Sleeve Not Snug
METAL INSULATION CRIMP	
ACCEPT Insulation Indent Formed-Wire Secure In Insulation Crimp	REJECT Insulation Indent Not Formed-Wire Moves In Insulation Crimp
BUTT SPLICES 10 to 18 AWG	
ACCEPT Insulation Crimp	REJECT Wire Stop
ACCEPT Wire Crimp	REJECT Wire Brush is Visible
ACCEPT Wire Brush Not Visible	

Changing Inches to Mils

- Multiply inches by 1000 or:
- Move decimal point 3 places to right or:
- Change terminology, i.e. .032 in. = 32 thousandths or 32 mils.

Computation of CMA
D = Diameter in mils
Round Solid Conductor: Change diameter from inches to mils, then multiply the diameter in mils by itself.
CMA = D mils x D mils
Stranded Conductor: Find CMA of a single strand and multiply the result by the total number of strands.
CMA = (D of one strand x D of one strand) x Number of Strands

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