

BUS CONNECTORS

- Aluminum or Copper material
- Includes pre-applied anti-oxidant compound
- Standard & custom pad sizes & angles available

- Machined to exact specifications from 1"-6"
- External fittings work with 40, 60, 80 & 120 schedules
- Non-standard and metric sizes available

FASTER, MORE RELIABLE BUS INSTALLATIONS

If installation speed, quality, safety and total project cost is important on your jobsite, stop welding and start Swaging.

Extensive comparative testing shows the DMC Power Swaging system outperforms welded and bolted counterparts in all major tests. Each Swaged Bus connector results in a superior mechanical, thermal and electrical connection for your substation needs.

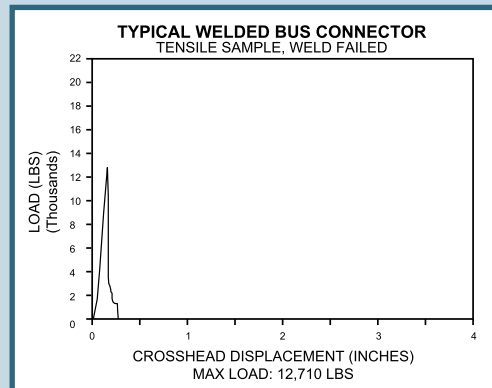
Qualified to meet or exceed all the nationally recognized standards, including ANSI C119.4 and NEMA CC1, the DMC Power system raises the quality, safety and productivity standard on your site, rendering conventional methods obsolete.

Putting DMC Power to the Test

(typical results for 2" bus fittings)

Corona/RIV	Qualified for up to 765kV substations*
Fault Current	45kA
Current Cycle	500 cycles air, 100 cycles water
Bending	13,000 lbs. load
Vibration	2hz to 125hz, over 1 million cycles
Tensile	Over 17,000 lbs.
Salt Fog	1,000 hours per ASTM B117-90

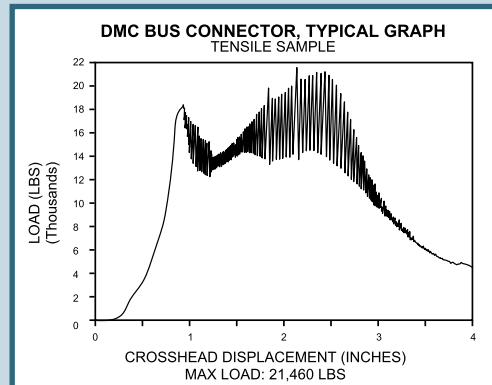
* Some parts may require additional shielding



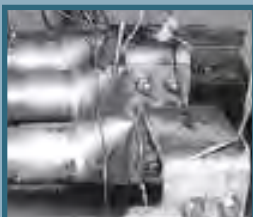
Typical Test Graph for Welded Connector Failure

THE PROOF IS IN THE TESTING

Swaged connections carry a greater tensile load for a longer amount of time versus welding.



Typical Test Graph for DMC Power Swaged Connector



Current Cycle Testing



Temperature Rise Testing



Bend Testing



Vibration Testing

PLK1000

SPLICE

1" - 2½"	3" - 4"	5" - 6"	3" Weight
230kV	500kV	765kV	~4 lbs
Cu CPL1000	PLK5000	EHV	



ORDERING EXAMPLE

PLK1000D16

1" Aluminum Splice

PLK1010

SPLICE REDUCER

1" - 2½"	3" - 4"	5" - 6"	3" Weight
230kV	500kV	765kV	~5 lbs
Cu CPL1010	EHV		



ORDERING EXAMPLE

PLK1010D 24 64

2-½" to 4" Aluminum Splice Reducer

Small Run
Large Run

PLK1160

GROUND STUD ASSEMBLY

1" - 6"	3" Weight
230kV	~4 lbs
Cu CPL1160	PLK5160 CAPPED



ORDERING EXAMPLE

PLK1160D48

3" Aluminum Splice with Ground Stud

PLK3160

EHV GROUND STUD WITH BALL

1" - 6"	3" Weight
500kV	~6 lbs
Cu CPL3160	PLK3166 CAPPED EHV
BALL SIZES	8=8"/345kV 12=12"/500kV



ORDERING EXAMPLE

PLK3160D64 - 12

4" Aluminum EHV Splice with 500kV, 12" Ball Ground Stud

Ball Diameter

PLK1161

GROUND STIRRUP

1" - 6"	3" Weight
230kV	~7 lbs
Cu CPL1161	PLK5161 CAPPED



ORDERING EXAMPLE

PLK1161D80

5" Aluminum Splice with Ground Stirrup

PLK1165

DUAL GROUND STUD ASSEMBLY

1" - 6"	3" Weight
230kV	~5 lbs
Cu CPL1165	PLK5165 CAPPED



ORDERING EXAMPLE

PLK1165D24

1-½" Aluminum Splice with Dual Ground Studs



SPLIT FITTINGS FOR EASY INSTALLATION

Many of our connectors can be made with a split main run, making it easy to tap onto existing Bus structures. Simply place one half of the fitting over the Bus bar and slide the other half into the interlocking grooves. The two halves are now surrounding the Bus bar and can be securely Swaged on each end in seconds.

Look for this icon  and the corresponding base part number on our most popular split fitting connectors, or just replace the first digit (PLK1###) with a 5 (PLK5###) for your new split fitting part number.

APPLICATION NOTES

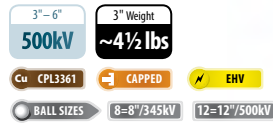


PLK1350**END CAP****ORDERING EXAMPLE****PLK1350D48**

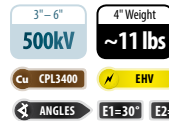
3" Aluminum End Cap

PLK1360**ROUNDED END CAP****ORDERING EXAMPLE****PLK1360D32**

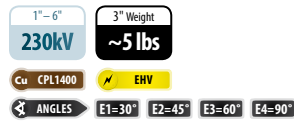
2" Aluminum Rounded End Cap

PLK3361**EHV BALL-STYLE END CAP****ORDERING EXAMPLE****PLK3361D64 - 12** Ball Diameter

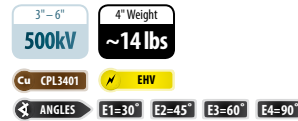
4" Aluminum EHV End Cap with 500kV, 12" Ball

PLK3400**EHV ELBOW WITH CORONA RING****ORDERING EXAMPLE****PLK3400D80 E3** Elbow Angle

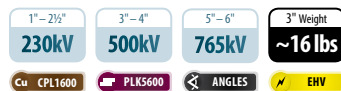
5" Aluminum EHV Elbow with Corona Ring at 60° Angle

PLK1400**ELBOW****ORDERING EXAMPLE****PLK1400D32 E1** Elbow Angle

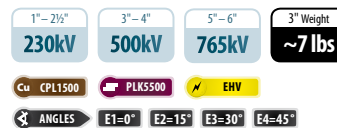
2" Aluminum Elbow at 30° Angle

PLK3401**EHV LARGE RADIUS ELBOW****ORDERING EXAMPLE****PLK3401D64 E4** Elbow Angle

4" Aluminum EHV Large Radius Elbow at 90° Angle

PLK1600**A-FRAME****ORDERING EXAMPLE****PLK1600D48 64**

4" Aluminum A-Frame with Two, 3" Taps at standard 30° Angle

Tap/Leg
Main Run**PLK1500****TEE****ORDERING EXAMPLE****PLK1500D 16 40 E2**

Aluminum Bus Tee connecting 1" Tap to 2-1/2" Run at 15° Angle

Tap/Leg
Main Run
Leg Angle

PLK1100

4-HOLE LONGITUDINAL PAD TEE

1"–3"	3½"–6"	Pads	3" Weight
230kV	500kV	3"/4"	~7 lbs
Cu CPL1100	PLK5100	CAPPED	EHV
PAD SIZE	E1=4"x5"	E2=4"x5.5"	E3=4"x7"
	E5=3"x5"	E6=3"x5.5"	E7=3"x7"
		E4=4"x8"	E8=3"x8"

ORDERING EXAMPLE

PLK1100D32E1 Pad Size
2" Aluminum Tee with 4"x5",
4-Hole Longitudinal Pad



PLK1120

DUAL 4-HOLE LONGITUDINAL PAD TEE

1"–3"	3½"–6"	Pads	3" Weight
230kV	500kV	3"/4"	~7 lbs
Cu CPL1120	PLK5120	CAPPED	EHV
PAD SIZE	E1=4"x5"	E2=4"x5.5"	E3=4"x7"
		E4=4"x8"	

ORDERING EXAMPLE

PLK1120D48E1 Pad Size
3" Aluminum Tee with Two,
4"x5", 4-Hole Longitudinal Pads



PLK1150

4-HOLE 90° TRANSVERSE PAD TEE

1"–3"	3½"–6"	Pads	3" Weight
230kV	345kV	3"/4"	~6 lbs
Cu CPL1150	PLK5150	CAPPED	EHV
PAD WIDTH	L1=3"	L2=4"	
PAD LENGTH	E1=4.5"	E2=5.5"	E3=7"
		E4=8"	

ORDERING EXAMPLE

PLK1150D L1 E3 Pad Width
Pad Length
2" Aluminum Tee with 3"x7",
4-Hole 90° Transverse Pad



PLK1170

DUAL 4-HOLE 90° TRANSVERSE PAD TEE

1"–3"	3½"–6"	Pads	3" Weight
230kV	345kV	3"/4"	~7 lbs
Cu CPL1170	PLK5170	CAPPED	EHV
PAD WIDTH	L1=3"	L2=4"	
PAD LENGTH	E1=4.5"	E2=5.5"	E3=7"
		E4=8"	

ORDERING EXAMPLE

PLK1170D80 L2 E3 Pad Width
Pad Length
5" Aluminum Tee with Two,
4"x7", 4-Hole 90° Transverse Pads



PLK1200

2-HOLE LONGITUDINAL PAD TEE

1"–6"	Pads	3" Weight
230kV	2"	~4 lbs
Cu CPL1200	PLK5200	CAPPED
PAD LENGTH	E1=5"	E2=5.5"
	E3=7"	E4=8"

ORDERING EXAMPLE

PLK1200D32E1 Pad Length
2" Aluminum Tee with 2"x5",
2-Hole Longitudinal Pad



PLK1250

2-HOLE 90° TRANSVERSE PAD TEE

1"–6"	Pads	3" Weight
230kV	2"	~4 lbs
Cu CPL1250	PLK5250	CAPPED
PAD LENGTH	E1=5"	E2=5.5"
	E3=7"	E4=8"

ORDERING EXAMPLE

PLK1250D48E1 Pad Length
3" Aluminum Tee with 2"x5",
2-Hole 90° Transverse Pad



PLK1106

6-HOLE LONGITUDINAL PAD TEE

1"–3"	3½"–6"	Pads	3" Weight
230kV	500kV	5"/6"	~7 lbs
Cu CPL1106	PLK5106	CAPPED	EHV
PAD SIZE	E1=5"x5"	E2=5"x6"	E3=5"x7"
	E5=6"x5"	E6=6"x6"	E7=6"x7"
		E4=5"x8"	E8=6"x8"

ORDERING EXAMPLE

PLK1106D48E1 Pad Size
3" Aluminum Tee with 5"x5",
6-Hole Longitudinal Pad



PLK1156

6-HOLE 90° TRANSVERSE PAD TEE

1"–3"	3½"–6"	Pads	3" Weight
230kV	345kV	5"/6"	~7 lbs
Cu CPL1156	PLK5156	CAPPED	EHV
PAD SIZE	E1=5"x5"	E5=6"x5"	

ORDERING EXAMPLE

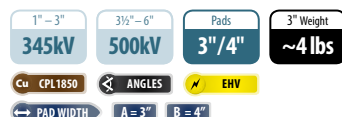
PLK1156D16E5 Pad Size
1" Aluminum Tee with 6"x5",
6-Hole 90° Transverse Pad



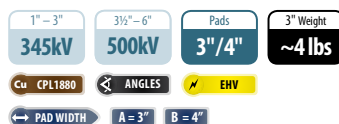
4-HOLE PAD TEE

2-HOLE PAD TEE

6-HOLE PAD TEE

PLK1850**4-HOLE CENTER FORMED PAD TERMINAL****ORDERING EXAMPLE**

PLK1850D80 B Pad Width
5" Aluminum Terminal with
4", 4-Hole Center Formed Pad

PLK1880**4-HOLE OFFSET PAD TERMINAL****ORDERING EXAMPLE**

PLK1880D24 A Pad Width
1-1/2" Aluminum Terminal
with 3", 4-Hole Offset Pad

**ANGLED PAD OPTIONS:**

Copper, 3" pad, EHV and custom angles are available. Visit the product page on DMCPower.com for details.

PLK1863**4-HOLE 30° ANGLED PAD****PLK1860****4-HOLE 45° ANGLED PAD****PLK1866****4-HOLE 60° ANGLED PAD****PLK1870****4-HOLE 90° ANGLED PAD****CUSTOM SOLUTIONS****ANY CONNECTOR. ANY ANGLE.**

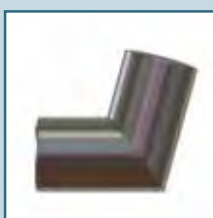
Of course we have standard 15°, 30°, 45°, 60°, 75° & 90° angled parts, but what happens when something doesn't match up exactly as designed, shifts over time or needs to be cut out and replaced?

Because we can custom make each individual connector to your exact specifications, any standard or custom angle combination is possible.

This icon  **ANGLES** indicates we have numerous options ready to be machined for the part listed, just call **888-SWAGE-NOW** with your specs and let DMC Power take care of the rest.



90° Angle



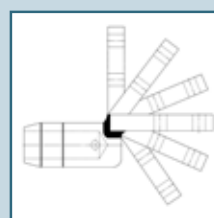
75° Angle



60° Angle



45° Angle



Custom Angles

PLK1855

2-HOLE CENTER FORMED PAD TERMINAL

1" - 6"	Pads	3" Weight
230kV	2"	~3 lbs
Cu CPL1855	ANGLES	



ORDERING EXAMPLE

PLK1855D64

4" Aluminum Terminal with 2", 2-Hole Center Formed Pad

PLK1885

2-HOLE OFFSET PAD TERMINAL

1" - 6"	Pads	3" Weight
230kV	2"	~3 lbs
Cu CPL1885	ANGLES	



ORDERING EXAMPLE

PLK1885D24

1-1/2" Aluminum Terminal with 2", 2-Hole Offset Pad

PLK1865

2-HOLE 45° PAD TERMINAL

1" - 6"	Pads	3" Weight
230kV	2"	~3 lbs
Cu CPL1865		



ORDERING EXAMPLE

PLK1865D32

2" Aluminum Terminal with 2", 2-Hole 45° Pad

PLK1875

2-HOLE 90° PAD TERMINAL

1" - 6"	Pads	3" Weight
230kV	2"	~3 lbs
Cu CPL1875		



ORDERING EXAMPLE

PLK1875D16

1" Aluminum Terminal with 2", 2-Hole 90° Pad

PLK1886

6-HOLE OFFSET PAD TERMINAL

1" - 3"	3 1/2" - 6"	Pads	3" Weight
230kV	500kV	5"/6"	~8 lbs
Cu CPL1886	ANGLES	EHV	
PAD WIDTH A = 5" B = 6"			



ORDERING EXAMPLE

PLK1886D80 B Pad Width

5" Aluminum Terminal with 6", 6-Hole Offset Pad

PLK1856

6-HOLE CENTER FORMED PAD TERMINAL

1" - 3"	3 1/2" - 6"	Pads	3" Weight
230kV	500kV	5"/6"	~7 lbs
Cu CPL1856	ANGLES	EHV	
PAD WIDTH A = 6" B = 5"			



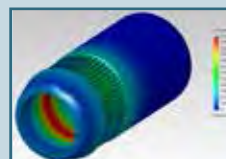
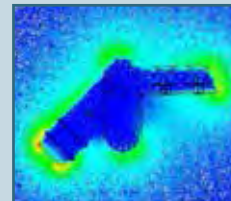
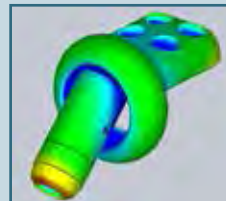
ORDERING EXAMPLE

PLK1856D96 A Pad Width

6" Aluminum Terminal with 6", 6-Hole Center Formed Pad

NEXT GENERATION ENGINEERING

From computer simulations and tensile testing to delivering the final AUTOCAD Drawing and Connectors, DMC Power's in-house engineering and R&D team can design, test and deliver any connector faster than anyone. Contact your local Territory Manager to get your custom project started today.



SUPERIOR DESIGN



PLK2210

SLIP/RIGID FIT SWAGED
BUS SUPPORT



ORDERING EXAMPLE

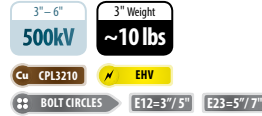
PLK2210D40 E12

2-1/2" Slip/Rigid Bus Support
with 3" & 5" Bolt Circles



PLK3210

EHV SLIP/RIGID FIT
SWAGED BUS SUPPORT



ORDERING EXAMPLE

PLK3210D80 E23

5" Slip/Rigid EHV Bus Support
with 5" & 7" Bolt Circles



PLK2200

SLIP FIT
BUS SUPPORT



ORDERING EXAMPLE

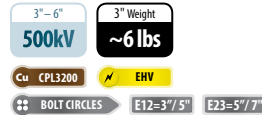
PLK2200D56 E3

2-1/2" Slip Fit Bus Support
with 7" Bolt Circle



PLK3200

EHV SLIP FIT
BUS SUPPORT



ORDERING EXAMPLE

PLK3200D48 E12

3" Slip Fit EHV Bus Support
with 3" & 5" Bolt Circles



PLK2230

SLIP/RIGID FIT
BUS SUPPORT



ORDERING EXAMPLE

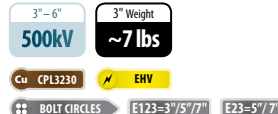
PLK2230D32 E12

2" Slip/Rigid Bus Support
with 3" & 5" Bolt Circles



PLK3230

EHV SLIP/RIGID FIT
BUS SUPPORT



ORDERING EXAMPLE

PLK3230D96 E23

6" Slip/Rigid EHV Bus Support
with 5" & 7" Bolt Circles



SUPERIOR DESIGN



PLK2230 / PLK3230 Bus Support Features



Slip Fit –

Loose fit that allows
the bus to slide and
expand.



Rigid Fit –

Tightly bolted connection
that completely eliminates
Bus movement.



Static Spring –

Used during Slip Fit
applications to prevent
arcing & reduce Bus chatter.



Recessed Bolts –

Allows for one handed,
Hex Wrench installation.

PLK2600

BUS TO PAD EXPANSION

1" - 6" **230kV** Pads **2" - 6"** 3" Weight **~17 lbs**

Cu CPL2600 ANGLES

PAD WIDTH E0=2" E1=4" E2=3" E3=5" E4=6"



ORDERING EXAMPLE

PLK2600D80 E3

5" Bus Expansion to
5", 4-Hole Pad

PLK3600

EHV BUS TO PAD EXPANSION

3" - 6" **500kV** Pads **3" - 6"** 3" Weight **~31 lbs**

Cu CPL3600 ANGLES EHV

PAD WIDTH E1=4" E2=3" E3=5" E4=6"



ORDERING EXAMPLE

PLK3600D56 E2

3-1/2" EHV Bus Expansion
to 3", 4-Hole Pad

PLK2810

BUS TO BUS EXPANSION

1" - 6" **230kV** 3" Weight **~18 lbs**

Cu CPL2810



ORDERING EXAMPLE

PLK2810D16

1" Bus to Bus Expansion

PLK3810

EHV BUS TO BUS EXPANSION

3" - 6" **500kV** 3" Weight **~36 lbs**

Cu CPL3810 EHV



ORDERING EXAMPLE

PLK3810D80

5" EHV Bus to Bus
Expansion



Bolt Shields, Mounting Hardware, custom designs and a wide range of Vertical Supports are also available



PLK2602

CONDENSED BUS TO PAD EXPANSION

1" - 6" **230kV** Pads **2" - 5"** 3" Weight **~13 lbs**

Cu CPL2602 ANGLES

PAD WIDTH E0=2" E1=4" E2=3" E3=5" E4=6"



ORDERING EXAMPLE

PLK2602D32 E2

2" Condensed Bus Expansion
to 3", 4-Hole Pad

PLK2700

EXPANSION SUPPORT

1" - 6" **230kV** 3" Weight **~23 lbs**

Cu CPL2700

BOLT CIRCLES E1=3" E3=7" E12=3"/5" E23=5"/7"



ORDERING EXAMPLE

PLK2700D64 E12

4" Bus to Bus Expansion
Support with 3" & 5" Bolt Circles

PLK3700

EHV EXPANSION SUPPORT

1" - 6" **500kV** 3" Weight **~34 lbs**

Cu CPL3700 EHV

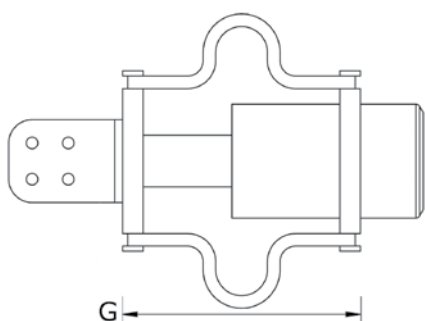
BOLT CIRCLES E1=3" E3=7" E12=3"/5" E23=5"/7"



ORDERING EXAMPLE

PLK3700D80 E23

5" EHV Bus to Bus Expansion
Support with 5" & 7" Bolt Circle



SETTING DIMENSIONS FOR EXPANSION JOINTS

DMC Power Bus Expansions are designed to expand/contract up to 4.42" through a 315°F temperature range.

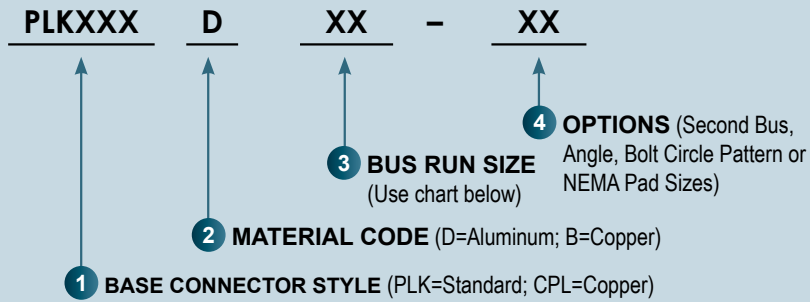
The "G" Dimension Movement in the chart below shows the movement range and installation point at a particular temperature. These are based on the assumption that the total length between rigid supports is 90 feet or less.

For more Bus Expansion information, call **888-SWAGE-NOW**.

Bus Temp. [°F]	Movement from Median	"G" Dimension Movement				
		Bus Expansion Supports			Bus Expansion	Condensed Expansion
		PLK2700DxxE12 PLK3700DxxE12	PLK2700D80E1 PLK2700DxxE3 PLK3700D80E1 PLK3700DxxE3	PLK2700D80E23 PLK3700D80E23	PLK2600, PLK2601, PLK2610, PLK2701, PLK2810, PLK3600, PLK3601, PLK3610, PLK3701, PLK3810	PLK2602
-65	-2.211	16.901	18.341	20.341	13.711	4.461
-60	-2.141	16.831	18.271	20.271	13.641	4.391
-50	-2.001	16.691	18.131	20.131	13.501	4.251
-40	-1.86	16.550	17.990	19.990	13.360	4.110
-30	-1.72	16.410	17.850	19.850	13.220	3.970
-20	-1.58	16.270	17.710	19.710	13.080	3.830
-10	-1.439	16.129	17.569	19.569	12.939	3.689
0	-1.299	15.989	17.429	19.429	12.799	3.549
10	-1.158	15.848	17.288	19.288	12.658	3.408
20	-1.018	15.708	17.148	19.148	12.518	3.268
30	-0.878	15.568	17.008	19.008	12.378	3.128
40	-0.737	15.427	16.867	18.867	12.237	2.987
50	-0.597	15.287	16.727	18.727	12.097	2.847
60	-0.456	15.146	16.586	18.586	11.956	2.706
70	-0.316	15.006	16.446	18.446	11.816	2.566
80	-0.176	14.866	16.306	18.306	11.676	2.426
90	-0.035	14.725	16.165	18.165	11.535	2.285
100	0.105	14.585	16.025	18.025	11.395	2.145
110	0.246	14.444	15.884	17.884	11.254	2.004
120	0.386	14.304	15.744	17.744	11.114	1.864
130	0.527	14.164	15.604	17.604	10.974	1.724
140	0.667	14.023	15.463	17.463	10.833	1.583
150	0.807	13.883	15.323	17.323	10.693	1.443
160	0.948	13.742	15.182	17.182	10.552	1.302
170	1.088	13.602	15.042	17.042	10.412	1.162
180	1.229	13.462	14.902	16.902	10.272	1.022
190	1.369	13.321	14.761	16.761	10.131	0.881
200	1.509	13.181	14.621	16.621	9.991	0.741
210	1.65	13.040	14.480	16.480	9.850	0.600
220	1.79	12.900	14.340	16.340	9.710	0.460
230	1.931	12.760	14.200	16.200	9.570	0.320
240	2.071	12.619	14.059	16.059	9.429	0.179
250	2.211	12.479	13.919	15.919	9.289	0.039
92.5	0	14.690	16.130	18.130	11.500	2.250

Median

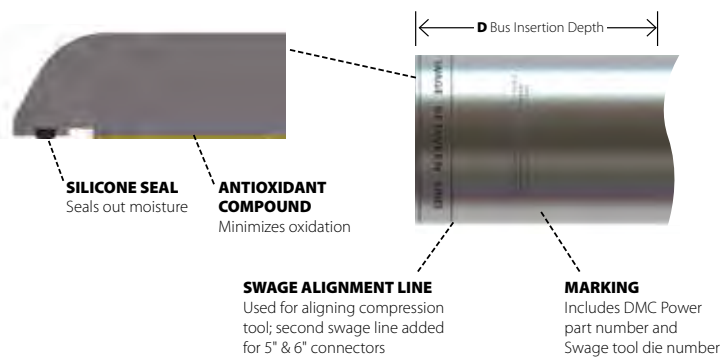
BUS CONNECTOR ORDERING NOMENCLATURE



STANDARD EXAMPLE:

PLK1000	D	16
↑	↑	↑
Bus Splice	Aluminum	1"

STANDARD BUS SIZES



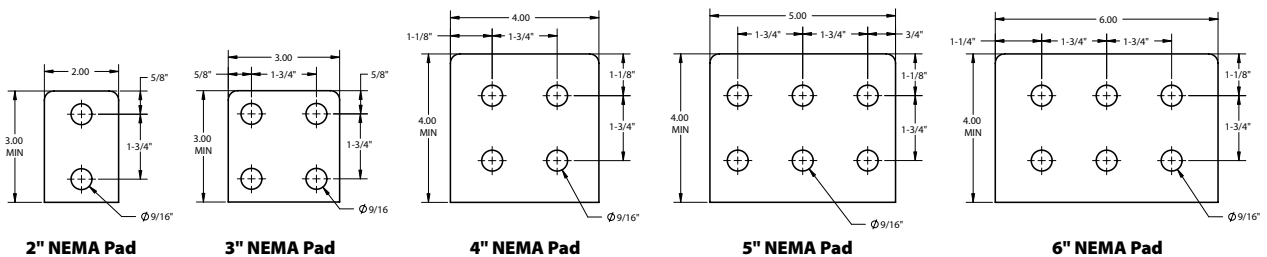
DMC Size	Bus Size	Fitting O.D.	D Min.	D Max
16	1"	2.00	1.50	2.00
24	1-1/2"	2.50	1.50	2.00
32	2"	3.00	2.00	2.50
40	2-1/2"	3.75	2.00	2.50
48	3"	4.37	3.00	3.50
56	3-1/2"	5.00	3.00	3.50
64	4"	5.50	3.00	3.50
80	5"	6.50	5.00	5.75
96	6"	8.00	6.00	6.75

Suffix	Circle Radius	Hole Size (8 holes/circle)	Plate Thickness
E1	3"	9/16" x 13/16"	1/2"
E2	5"	11/16" x 1-1/16"	1/2"
E3	7"	13/16" x 1-1/2"	1/2"
E12	3" 5"	9/16" x 13/16" 11/16" x 1-1/16"	3/4"
E23	5" 7"	11/16" x 1-1/16" 13/16" x 1-1/2"	3/4"
E123	3" 5" 7"	9/16" x 13/16" 11/16" x 1-1/16" 13/16" x 1-1/2"	3/4"

STANDARD BOLT CIRCLE DIMENSIONS



STANDARD NEMA PAD DIMENSIONS*



*Pad length, width and thickness varies with the part. Special sizes may be custom ordered.