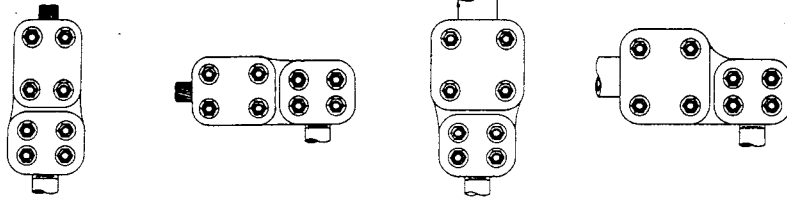


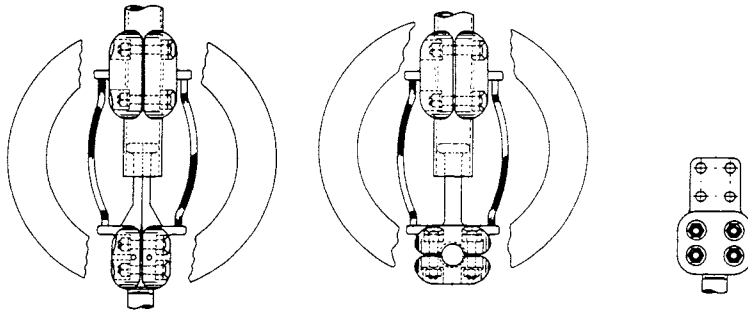
POWER CONNECTORS

STUD CONNECTORS PICTORIAL INDEX

SECTION Ee



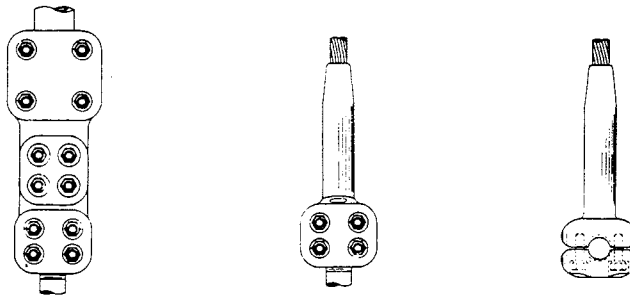
Type ESC — Page Ee-1 Type ESC-90 — Page Ee-2 Type EST — Page Ee-3 Type EST-90 — Page Ee-4



Type ETLS — Page Ee-5

Type ETLS-90 — Page Ee-6

Type ESTR-1 — Page Ee-7



Type ESTR — Page Ee-8

Type ESCC — Page Ee-9

Type ESCC-90 — Page Ee-10

Ee-Stud Conn

ROYAL SWITCHGEAR MANUFACTURING CO.

3995 Pine Lane SE • Bessemer, AL 35023 • (205) 426-4090 • FAX (205) 426-4095

POWER CONNECTORS Ee-1

STUD CONNECTOR

TYPE ESC

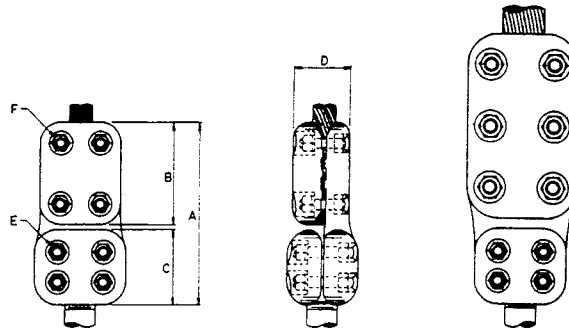


FIG 1

FIG 2

CAT. NO.	STUD TO CABLE		FIG. NO.	DIMENSIONS (INCHES)						BOLT SIZE	
	STUD SIZE	CABLE SIZE (MCM)		A	B	C	D	E	F		
		AL									ACSR
90440	1-1/2 - 12	715.5-1033.5	636 - 954	1	7-3/4	4	3-1/2	2-7/8	1/2	1/2	
90441	1-1/2 - 12	954-1431	795 -1272	1	8	4-1/4	3-1/2	3	1/2	1/2	
90442	1-1/2 - 12	1272-1750	1113 -1590	1	8-1/4	4-1/2	3-1/2	3-1/4	1/2	1/2	
90443	1-1/2 - 12	1590-2000	1.453"-1.630"	1	8-3/4	5	3-1/2	3-3/4	1/2	5/8	
90444	1-1/2 - 12	2000-2500	1.630"-1.823"	1	9	5-1/4	3-1/2	4	1/2	5/8	
90445	1-1/2 - 12	2500-3000	1.823"-1.998"	1	9-1/4	5-1/2	3-1/2	4-1/4	1/2	5/8	
90446	1-1/2 - 12	3000-3500	1.998"-2.158"	2	9-3/4	6	3-1/2	4-1/2	1/2	5/8	
90447	2 - 12	715.5-1033.5	636 - 954	1	7-3/4	4	3-1/2	2-7/8	1/2	1/2	
90448	2 - 12	954-1431	795 -1272	1	8	4-1/4	3-1/2	3	1/2	1/2	
90449	2 - 12	1272-1750	1113 -1590	1	8-1/4	4-1/2	3-1/2	3-1/4	1/2	1/2	
90450	2 - 12	1590-2000	1.453"-1.630"	1	8-3/4	5	3-1/2	3-3/4	1/2	5/8	
90451	2 - 12	2000-2500	1.630"-1.823"	1	9	5-1/4	3-1/2	4	1/2	5/8	
90452	2 - 12	2500-3000	1.823"-1.998"	1	9-1/4	5-1/2	3-1/2	4-1/4	1/2	5/8	
90453	2 - 12	3000-3500	1.998"-2.158"	2	9-3/4	6	3-1/2	4-1/2	1/2	5/8	
90454	2-1/2 - 12	715.5-1033.5	636 - 954	1	8-1/4	4	4	2-7/8	5/8	1/2	
90455	2-1/2 - 12	954-1431	795 -1272	1	8-1/2	4-1/4	4	3	5/8	1/2	
90456	2-1/2 - 12	1272-1750	1113 -1590	1	8-3/4	4-1/2	4	3-1/4	5/8	1/2	
90457	2-1/2 - 12	1590-2000	1.453"-1.630"	1	9-1/4	5	4	3-3/4	5/8	5/8	
90458	2-1/2 - 12	2000-2500	1.630"-1.823"	1	9-1/2	5-1/4	4	4	5/8	5/8	
90459	2-1/2 - 12	2500-3000	1.823"-1.998"	1	9-3/4	5-1/2	4	4-1/4	5/8	5/8	
90460	2-1/2 - 12	3000-3500	1.998"-2.158"	2	10-1/4	6	4	4-1/2	5/8	5/8	
90461	3 - 12	715.5-1033.5	636 - 954	1	8-1/4	4	4	2-7/8	5/8	1/2	
90462	3 - 12	954-1431	795 -1272	1	8-1/2	4-1/4	4	3	5/8	1/2	
90463	3 - 12	1272-1750	1113 -1590	1	8-3/4	4-1/2	4	3-1/4	5/8	1/2	
90464	3 - 12	1590-2000	1.453"-1.630"	1	9-1/4	5	4	3-3/4	5/8	5/8	
90465	3 - 12	2000-2500	1.630"-1.823"	1	9-1/2	5-1/4	4	4	5/8	5/8	
90466	3 - 12	2500-3000	1.823"-1.998"	1	9-3/4	5-1/2	4	4-1/4	5/8	5/8	
90467	3 - 12	3000-3500	1.998"-2.158"	2	10-1/4	6	4	4-1/2	5/8	5/8	

Example for Ordering: #90450 Royal Type ESC stud connector for 2"-12 threaded stud to 1590 - 2000 MCM aluminum.

CABLE DIA. EQUIVALENTS

MCM	Inches
715.5-1033.5	.974-1.196
954-1431	1.126-1.382
1272-1750	1.297-1.545

Ee Stud Conn

Ee-2 POWER CONNECTORS

STUD CONNECTOR

TYPE ESC-90

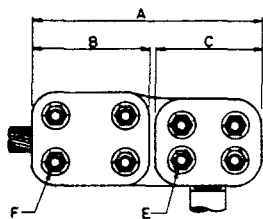
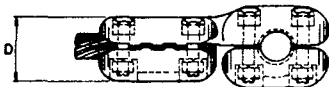


FIG. 1

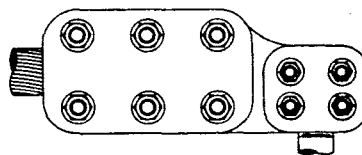


FIG. 2

CAT. NO.	STUD TO CABLE			FIG. NO.	DIMENSIONS (INCHES)					BOLT SIZE	
	STUD SIZE	CABLE SIZE (MCM)			A	B	C	D	E	F	
		AL	ACSR								
90468	1-1/2 - 12	715.5-1033.5	636 - 954	1	8-3/4	4	4-1/2	2-7/8	1/2	1/2	
90469	1-1/2 - 12	954-1431	795 -1272	1	9	4-1/4	4-1/2	3	1/2	1/2	
90470	1-1/2 - 12	1272-1750	1113 -1590	1	9-1/4	4-1/2	4-1/2	3-1/4	1/2	1/2	
90471	1-1/2 - 12	1590-2000	1.453"-1.630"	1	9-3/4	5	4-1/2	3-3/4	1/2	5/8	
90472	1-1/2 - 12	2000-2500	1.630"-1.823"	1	10	5-1/4	4-1/2	4	1/2	5/8	
90473	1-1/2 - 12	2500-3000	1.823"-1.998"	1	10-1/4	5-1/2	4-1/2	4-1/4	1/2	5/8	
90474	1-1/2 - 12	3000-3500	1.998"-2.158"	2	10-3/4	6	4-1/2	4-1/2	1/2	5/8	
90475	2 - 12	715.5-1033.5	636 - 954	1	9-1/8	4	4-7/8	2-7/8	1/2	1/2	
90476	2 - 12	954-1431	795 -1272	1	9-3/8	4-1/4	4-7/8	3	1/2	1/2	
90477	2 - 12	1272-1750	1113 -1590	1	9-5/8	4-1/2	4-7/8	3-1/4	1/2	1/2	
90478	2 - 12	1590-2000	1.453"-1.630"	1	10-1/8	5	4-7/8	3-3/4	1/2	5/8	
90479	2 - 12	2000-2500	1.630"-1.823"	1	10-3/8	5-1/4	4-7/8	4	1/2	5/8	
90480	2 - 12	2500-3000	1.823"-1.998"	1	10-5/8	5-1/2	4-7/8	4-1/4	1/2	5/8	
90481	2 - 12	3000-3500	1.998"-2.158"	2	11-1/8	6	4-7/8	4-1/2	1/2	5/8	
90482	2-1/2 - 12	715.5-1033.5	636 - 954	1	9-7/8	4	5-5/8	2-7/8	5/8	1/2	
90483	2-1/2 - 12	954-1431	795 -1272	1	10-1/8	4-1/4	5-5/8	3	5/8	1/2	
90484	2-1/2 - 12	1272-1750	1113 -1590	1	10-3/8	4-1/2	5-5/8	3-1/4	5/8	1/2	
90485	2-1/2 - 12	1590-2000	1.453"-1.630"	1	10-7/8	5	5-5/8	3-3/4	5/8	5/8	
90486	2-1/2 - 12	2000-2500	1.630"-1.823"	1	11-1/8	5-1/4	5-5/8	4	5/8	5/8	
90487	2-1/2 - 12	2500-3000	1.823"-1.998"	1	11-3/8	5-1/2	5-5/8	4-1/4	5/8	5/8	
90488	2-1/2 - 12	3000-3500	1.998"-2.158"	2	11-7/8	6	5-5/8	4-1/2	5/8	5/8	
90489	3 - 12	715.5-1033.5	636 - 954	1	10-3/8	4	6-1/8	2-7/8	5/8	1/2	
90490	3 - 12	954-1431	795 -1272	1	10-5/8	4-1/4	6-1/8	3	5/8	1/2	
90491	3 - 12	1272-1750	1113 -1590	1	10-7/8	4-1/2	6-1/8	3-1/4	5/8	1/2	
90492	3 - 12	1590-2000	1.453"-1.630"	1	11-3/8	5	6-1/8	3-3/4	5/8	5/8	
90493	3 - 12	2000-2500	1.630"-1.823"	1	11-5/8	5-1/4	6-1/8	4	5/8	5/8	
90494	3 - 12	2500-3000	1.823"-1.998"	1	11-7/8	5-1/2	6-1/8	4-1/4	5/8	5/8	
90495	3 - 12	3000-3500	1.998"-2.158"	2	12-3/8	6	6-1/8	4-1/2	5/8	5/8	

Example for Ordering: #90474 Royal Type ESC-90 stud connector for 1-1/2" - 12 threaded stud to 3000 - 3500 MCM aluminum.

CABLE DIA. EQUIVALENTS

MCM	Inches
715.5-1033.5	.974-1.196
954-1431	1.126-1.382
1272-1750	1.297-1.545

ROYAL SWITCHGEAR MANUFACTURING CO.

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POWER CONNECTORS **Ee-3**

STUD CONNECTOR TYPE EST

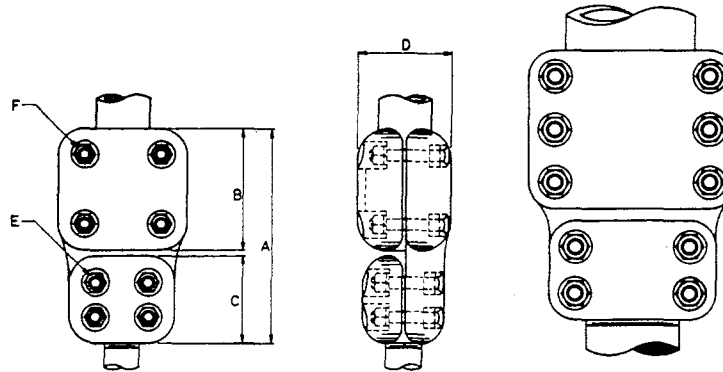


FIG. 1

FIG. 2

CAT. NO.	STUD TO TUBE		FIG. NO.	DIMENSIONS (INCHES)						BOLT SIZE	
	STUD SIZE	IPS		A	B	C	D	E	F		
90496	1-1/2 - 12	2	1	7-1/2	3-3/4	3-1/2	4	1/2	1/2		
90497	1-1/2 - 12	2-1/2	1	8	4-1/4	3-1/2	4-5/8	1/2	5/8		
90498	1-1/2 - 12	3	1	8	4-1/4	3-1/2	4-7/8	1/2	5/8		
90499	1-1/2 - 12	3-1/2	1	8-1/2	4-3/4	3-1/2	5-3/8	1/2	5/8		
90500	1-1/2 - 12	4	1	8-1/2	4-3/4	3-1/2	6	1/2	5/8		
90501	2 - 12	2	1	7-1/2	3-3/4	3-1/2	4	1/2	1/2		
90502	2 - 12	2-1/2	1	8	4-1/4	3-1/2	4-5/8	1/2	5/8		
90503	2 - 12	3	1	8	4-1/4	3-1/2	4-7/8	1/2	5/8		
90504	2 - 12	3-1/2	1	8-1/2	4-3/4	3-1/2	5-3/8	1/2	5/8		
90505	2 - 12	4	1	8-1/2	4-3/4	3-1/2	6	1/2	5/8		
90506	2 - 12	5	2	9-1/2	5-3/4	3-1/2	7-1/8	1/2	5/8		
90507	2 - 12	6	2	10	6-1/4	3-1/2	8-1/2	1/2	5/8		
90508	2-1/2 - 12	2	1	8	3-3/4	4	4	5/8	1/2		
90509	2-1/2 - 12	2-1/2	1	8-1/2	4-1/4	4	4-5/8	5/8	5/8		
90510	2-1/2 - 12	3	1	8-1/2	4-1/4	4	4-7/8	5/8	5/8		
90511	2-1/2 - 12	3-1/2	1	9	4-3/4	4	5-3/8	5/8	5/8		
90512	2-1/2 - 12	4	1	9	4-3/4	4	6	5/8	5/8		
90513	2-1/2 - 12	5	2	10	5-3/4	4	7-1/8	5/8	5/8		
90514	2-1/2 - 12	6	2	10-1/2	6-1/4	4	8-1/2	5/8	5/8		
90515	3 - 12	2	1	8	3-1/4	4	4	5/8	1/2		
90516	3 - 12	2-1/2	1	8-1/2	4-1/4	4	4-5/8	5/8	5/8		
90517	3 - 12	3	1	8-1/2	4-1/4	4	4-7/8	5/8	5/8		
90518	3 - 12	3-1/2	1	9	4-3/4	4	5-3/8	5/8	5/8		
90519	3 - 12	4	1	9	4-3/4	4	6	5/8	5/8		
90520	3 - 12	5	2	10	5-3/4	4	7-1/8	5/8	5/8		
90521	3 - 12	6	2	10-1/2	6-1/4	4	8-1/2	5/8	5/8		
90522	4 - 12	5	2	10	5-3/4	4	7-1/8	5/8	5/8		
90523	4 - 12	6	2	10-1/2	6-1/4	4	8-1/2	5/8	5/8		

Example for Ordering: #90498 Royal Type EST stud connector for 1-1/2" - 12 threaded stud to 3" IPS aluminum.

Ee-Stud Conn

ROYAL SWITCHGEAR MANUFACTURING CO.

3995 Pine Lane SE • Bessemer, AL 35023 • (205) 426-4090 • FAX (205) 426-4095

Ee-4 POWER CONNECTORS

STUD CONNECTOR

TYPE EST-90

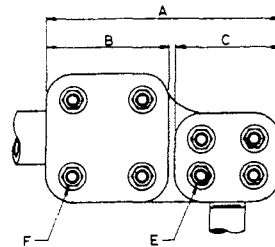
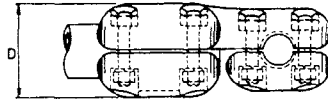


FIG. 1

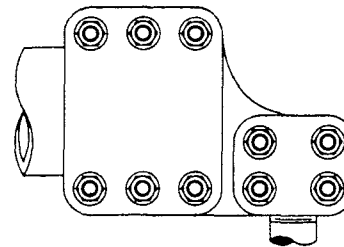


FIG. 2

CAT. NO.	STUD TO TUBE		FIG. NO.	DIMENSIONS (INCHES)				BOLT SIZE	
	STUD SIZE	IPS		A	B	C	D	E	F
90524	1-1/2 - 12	2	1	8-1/2	3-3/4	4-1/2	4	1/2	1/2
90525	1-1/2 - 12	2-1/2	1	9	4-1/4	4-1/2	4-5/8	1/2	5/8
90526	1-1/2 - 12	3	1	9	4-1/4	4-1/2	4-7/8	1/2	5/8
90527	1-1/2 - 12	3-1/2	1	9-1/2	4-3/4	4-1/2	5-3/8	1/2	5/8
90528	1-1/2 - 12	4	1	9-1/2	4-3/4	4-1/2	6	1/2	5/8
90529	2 - 12	2	1	8-7/8	3-3/4	4-7/8	4	1/2	1/2
90530	2 - 12	2-1/2	1	9-3/8	4-1/4	4-7/8	4-5/8	1/2	5/8
90531	2 - 12	3	1	9-3/8	4-1/4	4-7/8	4-7/8	1/2	5/8
90532	2 - 12	3-1/2	1	9-7/8	4-3/4	4-7/8	5-3/8	1/2	5/8
90533	2 - 12	4	1	9-7/8	4-3/4	4-7/8	6	1/2	5/8
90534	2 - 12	5	2	10-7/8	5-3/4	4-7/8	7-1/8	1/2	5/8
90535	2 - 12	6	2	11-3/8	6-1/4	4-7/8	8-1/2	1/2	5/8
90536	2-1/2 - 12	2	1	9-5/8	3-3/4	5-5/8	4	5/8	1/2
90537	2-1/2 - 12	2-1/2	1	10-1/8	4-1/4	5-5/8	4-5/8	5/8	5/8
90538	2-1/2 - 12	3	1	10-1/8	4-1/4	5-5/8	4-7/8	5/8	5/8
90539	2-1/2 - 12	3-1/2	1	10-5/8	4-3/4	5-5/8	5-3/8	5/8	5/8
90540	2-1/2 - 12	4	1	10-5/8	4-3/4	5-5/8	6	5/8	5/8
90541	2-1/2 - 12	5	2	11-5/8	5-3/4	5-5/8	7-1/8	5/8	5/8
90542	2-1/2 - 12	6	2	12-1/8	6-1/4	5-5/8	8-1/2	5/8	5/8
90543	3 - 12	2	1	10-1/8	3-3/4	6-1/8	4	5/8	1/2
90544	3 - 12	2-1/2	1	10-5/8	4-1/4	6-1/8	4-5/8	5/8	5/8
90545	3 - 12	3	1	10-5/8	4-1/4	6-1/8	4-7/8	5/8	5/8
90546	3 - 12	3-1/2	1	11-1/8	4-3/4	6-1/8	5-3/8	5/8	5/8
90547	3 - 12	4	1	11-1/8	4-3/4	6-1/8	6	5/8	5/8
90548	3 - 12	5	2	12-1/8	5-3/4	6-1/8	7-1/8	5/8	5/8
90549	3 - 12	6	2	12-5/8	6-1/4	6-1/8	8-1/2	5/8	5/8
90550	4 - 12	5	2	13-1/8	5-3/4	7-1/8	7-1/8	5/8	5/8
90551	4 - 12	6	2	13-5/8	6-1/4	7-1/8	8-1/2	5/8	5/8

Example for Ordering: #90529 Royal Type EST-90 stud connector for
2" - 12 threaded stud to 2" IPS aluminum.

ROYAL SWITCHGEAR MANUFACTURING CO.

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POWER CONNECTORS **Ee-5**

EXPANSION STUD CONNECTOR

TYPE ETLs

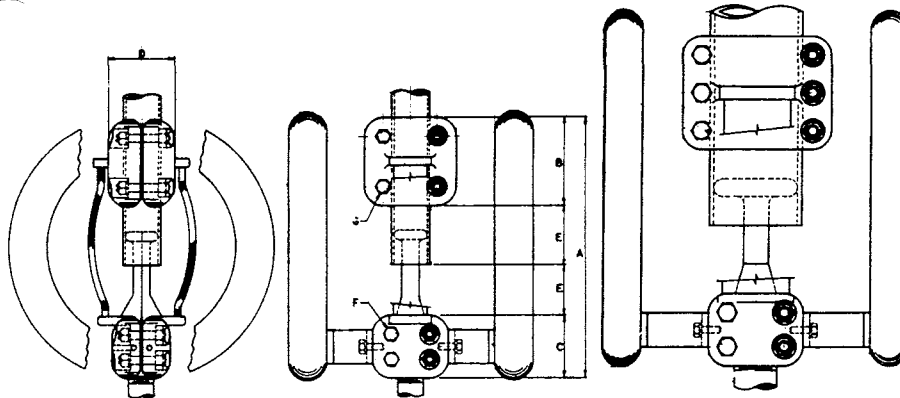


FIG. 1

FIG. 2

CATALOG NO.		CONDUCTOR SIZE		FIG. NO.	DIMENSIONS (INCHES)							BOLT SIZE	
W/ GUIDE	W/O GUIDE	STUD SIZE	IPS		A	B	C	D	E	F	G		
90552	90580	1-1/2 - 12	2	1	13-1/4	3-3/4	3-1/2	4	3	1/2	1/2		
90553	90581	1-1/2 - 12	2-1/2	1	13-3/4	4-1/4	3-1/2	4-5/8	3	1/2	5/8		
90554	90582	1-1/2 - 12	3	1	14-3/4	4-1/4	3-1/2	4-7/8	3-1/2	1/2	5/8		
90555	90583	1-1/2 - 12	3-1/2	1	15-1/4	4-3/4	3-1/2	5-3/8	3-1/2	1/2	5/8		
90556	90584	1-1/2 - 12	4	1	16-1/4	4-3/4	3-1/2	6	4	1/2	5/8		
90557	90585	2 - 12	2	1	13-1/4	3-3/4	3-1/2	4	3	1/2	1/2		
90558	90586	2 - 12	2-1/2	1	13-3/4	4-1/4	3-1/2	4-5/8	3	1/2	5/8		
90559	90587	2 - 12	3	1	14-3/4	4-1/4	3-1/2	4-7/8	3-1/2	1/2	5/8		
90560	90588	2 - 12	3-1/2	1	15-1/4	4-3/4	3-1/2	5-3/8	3-1/2	1/2	5/8		
90561	90589	2 - 12	4	1	16-1/4	4-3/4	3-1/2	6	4	1/2	5/8		
90562	90590	2 - 12	5	2	17-1/4	5-3/4	3-1/2	7-1/8	4	1/2	5/8		
90563	90591	2 - 12	6	2	17-3/4	6-1/4	3-1/2	8-1/2	4	1/2	5/8		
90564	90592	2-1/2 - 12	2	1	13-3/4	3-3/4	4	4	3	5/8	1/2		
90565	90593	2-1/2 - 12	2-1/2	1	14-1/4	4-1/4	4	4-5/8	3	5/8	5/8		
90566	90594	2-1/2 - 12	3	1	15-1/4	4-1/4	4	4-7/8	3-1/2	5/8	5/8		
90567	90595	2-1/2 - 12	3-1/2	1	15-3/4	4-3/4	4	5-3/8	3-1/2	5/8	5/8		
90568	90596	2-1/2 - 12	4	1	16-3/4	4-3/4	4	6	4	5/8	5/8		
90569	90597	2-1/2 - 12	5	2	17-3/4	5-3/4	4	7-1/8	4	5/8	5/8		
90570	90598	2-1/2 - 12	6	2	18-1/4	6-1/4	4	8-1/2	4	5/8	5/8		
90571	90599	3 - 12	2	1	13-3/4	3-3/4	4	4	3	5/8	1/2		
90572	90600	3 - 12	2-1/2	1	14-1/4	4-1/4	4	4-5/8	3	5/8	5/8		
90573	90601	3 - 12	3	1	15-1/4	4-1/4	4	4-7/8	3-1/2	5/8	5/8		
90574	90602	3 - 12	3-1/2	1	15-3/4	4-3/4	4	5-3/8	3-1/2	5/8	5/8		
90575	90603	3 - 12	4	1	16-3/4	4-3/4	4	6	4	5/8	5/8		
90576	90604	3 - 12	5	2	17-3/4	5-3/4	4	7-1/8	4	5/8	5/8		
90577	90605	3 - 12	6	2	18-1/4	6-1/4	4	8-1/2	4	5/8	5/8		
90578	90606	4 - 12	5	2	17-3/4	5-3/4	4	7-1/8	4	5/8	5/8		
90579	90607	4 - 12	6	2	18-1/4	6-1/4	4	8-1/2	4	5/8	5/8		

NOTES:

- For operation above 550 kv, special 4" IPS aluminum-tubing corona rings must be used. Add suffix -XV to catalog number.
- Dimensions A and E are mean dimensions for installation purposes.
- Add suffix -EH to catalog number for extra heavy pipe.

Example for Ordering: #90555 Royal Type ETLs expansion stud connector for 1-1/2" - 12 threaded stud to 3-1/2" IPS aluminum.

Ee Stud Conn

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Ee-6 POWER CONNECTORS

EXPANSION STUD CONNECTOR

TYPE ETLs-90

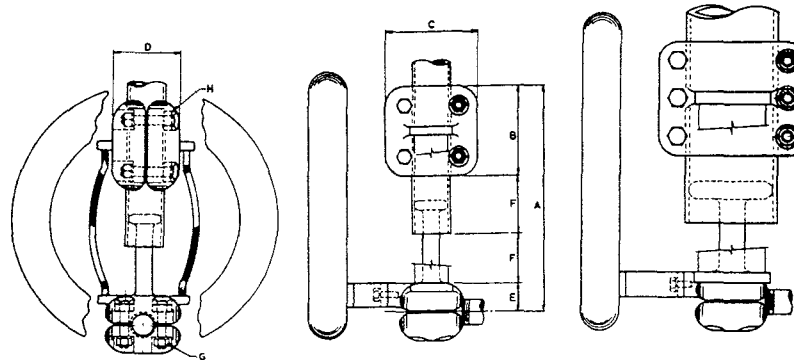


FIG. 1

FIG. 2

CATALOG NO.		CONDUCTOR SIZE		FIG. NO.	DIMENSIONS (INCHES)								BOLT SIZE	
W/ GUIDE	W/O GUIDE	STUD SIZE	IPS		A	B	C	D	E	F	G	H		
90608	90636	1-1/2 - 12	2	1	11-1/2	3-3/4	5-1/8	4	1-3/4	3	1/2	1/2		
90609	90637	1-1/2 - 12	2-1/2	1	12	4-1/4	6	4-5/8	1-3/4	3	1/2	5/8		
90610	90638	1-1/2 - 12	3	1	13	4-1/4	6-5/8	4-7/8	1-3/4	3-1/2	1/2	5/8		
90611	90639	1-1/2 - 12	3-1/2	1	13-1/2	4-3/4	7-1/8	5-3/8	1-3/4	3-1/2	1/2	5/8		
90612	90640	1-1/2 - 12	4	1	14-1/2	4-3/4	7-5/8	6	1-3/4	4	1/2	5/8		
90613	90641	2 - 12	2	1	11-3/4	3-3/4	5-1/8	4	2	3	1/2	1/2		
90614	90642	2 - 12	2-1/2	1	12-1/4	4-1/4	6	4-5/8	2	3	1/2	5/8		
90615	90643	2 - 12	3	1	13-1/4	4-1/4	6-5/8	4-7/8	2	3-1/2	1/2	5/8		
90616	90644	2 - 12	3-1/2	1	13-3/4	4-3/4	7-1/8	5-3/8	2	3-1/2	1/2	5/8		
90617	90645	2 - 12	4	1	14-3/4	4-3/4	7-5/8	6	2	4	1/2	5/8		
90618	90646	2 - 12	5	2	15-3/4	5-3/4	8-3/4	7-1/8	2	4	1/2	5/8		
90619	90647	2 - 12	6	2	16-1/4	6-1/4	9-3/4	8-1/2	2	4	1/2	5/8		
90620	90648	2-1/2 - 12	2	1	12-1/8	3-3/4	5-1/8	4	2-3/8	3	5/8	1/2		
90621	90649	2-1/2 - 12	2-1/2	1	12-5/8	4-1/4	6	4-5/8	2-3/8	3	5/8	5/8		
90622	90650	2-1/2 - 12	3	1	13-5/8	4-1/4	6-5/8	4-7/8	2-3/8	3-1/2	5/8	5/8		
90623	90651	2-1/2 - 12	3-1/2	1	14-1/8	4-3/4	7-1/8	5-3/8	2-3/8	3-1/2	5/8	5/8		
90624	90652	2-1/2 - 12	4	1	15-1/8	4-3/4	7-5/8	6	2-3/8	4	5/8	5/8		
90625	90653	2-1/2 - 12	5	2	16-1/8	5-3/4	8-3/4	7-1/8	2-3/8	4	5/8	5/8		
90626	90654	2-1/2 - 12	6	2	16-5/8	6-1/4	9-3/4	8-1/2	2-3/8	4	5/8	5/8		
90627	90655	3 - 12	2	1	12-3/8	3-3/4	5-1/8	4	2-5/8	3	5/8	1/2		
90628	90656	3 - 12	2-1/2	1	12-7/8	4-1/4	6	4-5/8	2-5/8	3	5/8	5/8		
90629	90657	3 - 12	3	1	13-7/8	4-1/4	6-5/8	4-7/8	2-5/8	3-1/2	5/8	5/8		
90630	90658	3 - 12	3-1/2	1	14-3/8	4-3/4	7-1/8	5-3/8	2-5/8	3-1/2	5/8	5/8		
90631	90659	3 - 12	4	1	15-3/8	4-3/4	7-5/8	6	2-5/8	4	5/8	5/8		
90632	90660	3 - 12	5	2	16-3/8	5-3/4	8-3/4	7-1/8	2-5/8	4	5/8	5/8		
90633	90661	3 - 12	6	2	16-7/8	6-1/4	9-3/4	8-1/2	2-5/8	4	5/8	5/8		
90634	90662	4 - 12	5	2	16-7/8	5-3/4	8-3/4	7-1/8	3-1/8	4	5/8	5/8		
90635	90663	4 - 12	6	2	17-3/8	6-1/4	9-3/4	8-1/2	3-1/8	4	5/8	5/8		

NOTES:

1. For operation above 550 kv, special 4" IPS aluminum-tubing corona rings must be used. Add suffix -XV to catalog number.
2. Dimensions A and F are mean dimensions for installation purposes.
3. Add suffix -EH to catalog number for extra heavy pipe.

Example for Ordering: #90614 Royal Type ETLs-90 expansion stud connector for 2" - 12 threaded stud to 2-1/2" IPS aluminum.

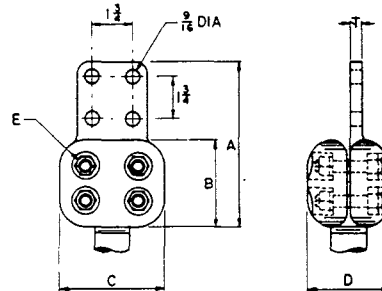
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POWER CONNECTORS **Ee-7**

STUD CONNECTOR

TYPE ESTR-1



CAT. NO.	STUD SIZE	PAD SIZE	DIMENSIONS (INCHES)					
			A	B	C	D	E	T
90664	1-1/2 - 12	3 x 3-1/4	7-1/4	3-1/2	4-1/2	3-1/2	1/2	3/4
90665	1-1/2 - 12	4 x 4-1/4	8-1/4	3-1/2	4-1/2	3-1/2	1/2	9/16
90666	2 - 12	3 x 3-1/4	7-1/4	3-1/2	4-7/8	4	1/2	1
90667	2 - 12	4 x 4-1/4	8-1/4	3-1/2	4-7/8	4	1/2	3/4
90668	2-1/2 - 12	3 x 3-1/4	7-3/4	4	5-5/8	4-3/4	5/8	1-1/4
90669	2-1/2 - 12	4 x 4-1/4	8-3/4	4	5-5/8	4-3/4	5/8	1
90670	3 - 12	3 x 3-1/4	7-3/4	4	6-1/8	5-1/4	5/8	1-1/2
90671	3 - 12	4 x 4-1/4	8-3/4	4	6-1/8	5-1/4	5/8	1-1/8

Example for Ordering: #90665 Royal Type EST-1 stud connector for 1-1/2" - 12 threaded stud to 4 x 4-1/4 NEMA pad.

Ee-Stud Conn

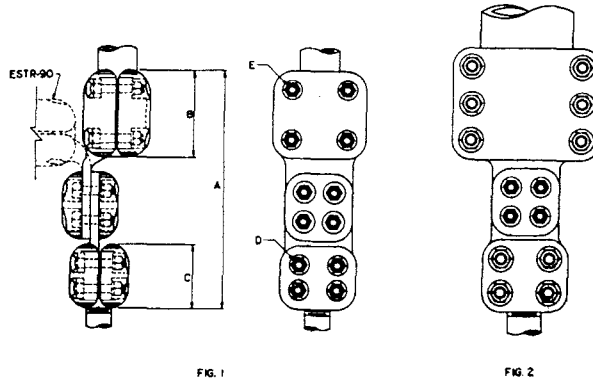
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Ee-8 POWER CONNECTORS

STUD CONNECTOR

TYPE ESTR



CAT. NO.	STUD SIZE	IPS	FIG. NO.	PAD SIZE	DIMENSIONS (INCHES)					BOLT SIZE	
					A	B	C	D	E		
90674	1-1/2 - 12	2	1	4 x 4-1/4	12-1/4	3-3/4	3-1/2	1/2	1/2		
90675	1-1/2 - 12	2-1/2	1	4 x 4-1/4	12-3/4	4-1/4	3-1/2	1/2	5/8		
90676	1-1/2 - 12	3	1	4 x 4-1/4	12-3/4	4-1/4	3-1/2	1/2	5/8		
90677	1-1/2 - 12	3-1/2	1	4 x 4-1/4	13-1/4	4-3/4	3-1/2	1/2	5/8		
90678	1-1/2 - 12	4	1	4 x 4-1/4	13-1/4	4-3/4	3-1/2	1/2	5/8		
90679	2 - 12	2	1	4 x 4-1/4	12-1/4	3-3/4	3-1/2	1/2	1/2		
90680	2 - 12	2-1/2	1	4 x 4-1/4	12-3/4	4-1/4	3-1/2	1/2	5/8		
90681	2 - 12	3	1	4 x 4-1/4	12-3/4	4-1/4	3-1/2	1/2	5/8		
90682	2 - 12	3-1/2	1	4 x 4-1/4	13-1/4	4-3/4	3-1/2	1/2	5/8		
90683	2 - 12	4	1	4 x 4-1/4	13-1/4	4-3/4	3-1/2	1/2	5/8		
90684	2 - 12	5	2	4 x 4-1/4	14-1/4	5-3/4	3-1/2	1/2	5/8		
90685	2 - 12	6	2	4 x 4-1/4	14-3/4	6-1/4	3-1/2	1/2	5/8		
90686	2-1/2 - 12	2	1	4 x 4-1/4	12-3/4	3-3/4	4	5/8	1/2		
90687	2-1/2 - 12	2-1/2	1	4 x 4-1/4	13-1/4	4-1/4	4	5/8	5/8		
90688	2-1/2 - 12	3	1	4 x 4-1/4	13-1/4	4-1/4	4	5/8	5/8		
90689	2-1/2 - 12	3-1/2	1	4 x 4-1/4	13-3/4	4-3/4	4	5/8	5/8		
90690	2-1/2 - 12	4	1	4 x 4-1/4	13-3/4	4-3/4	4	5/8	5/8		
90691	2-1/2 - 12	5	2	4 x 4-1/4	14-3/4	5-3/4	4	5/8	5/8		
90692	2-1/2 - 12	6	2	4 x 4-1/4	15-1/4	6-1/4	4	5/8	5/8		
90693	3 - 12	2	1	4 x 4-1/4	12-3/4	3-3/4	4	5/8	1/2		
90694	3 - 12	2-1/2	1	4 x 4-1/4	13-1/4	4-1/4	4	5/8	5/8		
90695	3 - 12	3	1	4 x 4-1/4	13-1/4	4-1/4	4	5/8	5/8		
90696	3 - 12	3-1/2	1	4 x 4-1/4	13-3/4	4-3/4	4	5/8	5/8		
90697	3 - 12	4	1	4 x 4-1/4	13-3/4	4-3/4	4	5/8	5/8		
90698	3 - 12	5	2	4 x 4-1/4	14-3/4	5-3/4	4	5/8	5/8		
90699	3 - 12	6	2	4 x 4-1/4	15-1/4	6-1/4	4	5/8	5/8		

Example for Ordering: #90679 Royal Type ESTR stud connector for 2" - 12 threaded stud to 2" IPS aluminum.

Add suffix -90° to catalog number for a 90° stud connector.

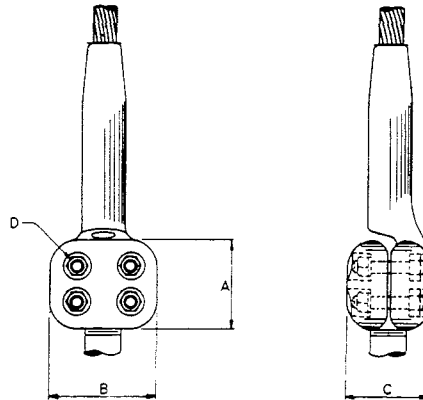
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POWER CONNECTORS **Ee-9**

COMPRESSION STUD CONNECTOR

TYPE ESCC



CATALOG NO.	DIE MFR.	STUD SIZE	DIMENSIONS (INCHES)			
			A	B	C	D
90702 - CABLE CODE		1-1/2 - 12	3-1/2	4-1/2	3-1/2	1/2
90703 - CABLE CODE	SEE	2 - 12	3-1/2	4-7/8	4	1/2
90704 - CABLE CODE	NOTE	2-1/2 - 12	4	5-5/8	4-3/4	5/8
90705 - CABLE CODE		3 - 12	4	6-1/8	5-1/4	5/8

Example for Ordering: No. 90703 - 1111 Royal Type ESCC stud connector for 2" - 12 threaded stud to 795 MCM 36/1 STR ACSR for ALOCA dies.

NOTE: For Cable Code and Die No. see chart in Sec. Be Page Be-5 under ECFC.

Ee-Stud Conn

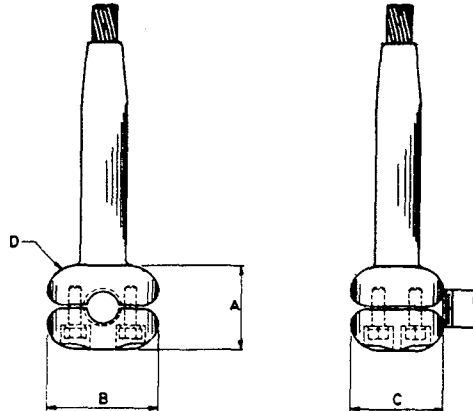
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Ee-10 POWER CONNECTORS

COMPRESSION STUD CONNECTOR

TYPE ESCC-90



CATALOG NO.	DIE MFR.	STUD SIZE	DIMENSIONS (INCHES)			
			A	B	C	D
90706 - CABLE CODE		1-1/2 - 12	3-1/2	4-1/2	3-1/2	1/2
90707 - CABLE CODE	SEE	2 - 12	4	4-7/8	3-1/2	1/2
90708 - CABLE CODE	NOTE	2-1/2 - 12	4-3/4	5-5/8	4	5/8
90709 - CABLE CODE		3 - 12	5-1/4	6-1/8	4	5/8

Example for Ordering: No. 90706 - 1111 Royal Type ESCC-90 stud connector for 1-1/2" - 12 threaded stud to 795 MCM 36/1 STR ACSR for ALCOA dies.

NOTE: For Cable Code and Die No. see chart in Sec. Bc Page Bc-5 under ECFC

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