



SECTION 12

ENCAPSULATED TRANSFORMERS FOR HARSH LOCATIONS

600 Volt Class, Encapsulated Single Phase and Three Phase

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TRANSFORMERS FOR HARSH LOCATIONS

Hammond encapsulated transformers are designed specifically for installation in harsh environments where dust, moisture and corrosive contaminants are present. In these applications, standard dry type distribution transformers would not be acceptable as the windings and connection joints are exposed to the undesirable environment.

Encapsulated transformers are standard dry type general purpose distribution transformers encased in an electrical grade silica and epoxy, and totally enclosed in a heavy duty NEMA 3R style enclosure. All leads are brought out to a separate, front accessible termination compartment. All units are copper wound.

Typical applications of Hammond Encapsulated Transformers are:

- Pulp and Paper Plants
- Steel Mills
- Food Processing Plants
- Breweries
- Mines
- Marine and Shipboard Installations

COPPER WOUND FEATURES

SINGLE PHASE
750 VA to 37.5 kVA



THREE PHASE
2 to 45 kVA



SINGLE PHASE

THREE PHASE

FEATURE	750 VA to 37.5 kVA	2 to 45 kVA
UL Listed	File: E50394	File: E50394
CSA Certified	File: LR3902	File: LR3902
Frequency	60 Hz	60 Hz
Insulation System	180°C (115°C rise)	180°C (115°C rise)
Enclosure Type	Heavy Duty Encapsulated NEMA Type 3R	Heavy Duty Encapsulated NEMA Type 3R
Enclosure Finish	ANSI 61 Grey	ANSI 61 Grey
Standard Primary Taps	Refer to wiring diagrams for details.	Refer to wiring diagrams for details.
Termination	Front accessible compartment with high and low voltage terminals; connectors suitable for copper and aluminum are provided for easy cable installation.	Front accessible separate high and low voltage terminals; connectors suitable for copper and aluminum are provided for easy cable installation.
Conduit Knock-Outs	Standard on all units.	Standard on all units.
Impedance	Typically 2 to 5%.	Typically 2 to 5%.
Mounting	Standard Wall Mounting	Standard Wall Mounting

Other voltages not listed in this section are available upon request for both aluminum and copper wound units. Please contact customer service for details, price and availability.

SECTION 12



COPPER WOUND, SINGLE PHASE, NEMA 3R STYLE ENCLOSURE

Products listed on this page are available as 'CE Mark' products. Please consult our sales office.

208 Primary Volts 120/240 Secondary Volts 60 Hz

kVA	Catalog Number	Case Style (Pages 254-257)	Approx. Dimensions (Inches)			Approx. Weight (Lbs.)	Mtg Type W - Wall	Wiring Diagram (Pages 258-269)
			Width	Depth	Height			
3	Q003BECF	L0	7.00	7.00	14.75	70	W	SCD 4
5	Q005BECF	F0	8.00	7.50	15.00	100	W	SCD 4
7.5	Q007BECF	L2	12.50	8.00	23.00	170	W	SCD 5
10	Q010BECF	L2	12.50	8.00	23.00	180	W	SCD 20

240 X 480 Primary Volts 120/240 Secondary Volts 60 Hz

kVA	Catalog Number	Case Style (Pages 254-257)	Approx. Dimensions (Inches)			Approx. Weight (Lbs.)	Mtg Type W - Wall	Wiring Diagram (Pages 258-269)
			Width	Depth	Height			
0.75	QC75LECF	L0	7.00	7.00	14.75	33	W	SCD 1
1	Q1C0LECF	L0	7.00	7.00	14.75	34	W	SCD 1
1.5	Q1C5LECF	L0	7.00	7.00	14.75	38	W	SCD 1
2	Q002LECF	L0	7.00	7.00	14.75	46	W	SCD 1
3	Q003LECF	L0	7.00	7.00	14.75	70	W	SCD 1
5	Q005LECF	F0	8.00	7.50	15.00	100	W	SCD 1
7.5	Q007LECF	L2	12.50	8.00	23.00	170	W	SCD 5
10	Q010LECF	L2	12.50	8.00	23.00	180	W	SCD 5

For shielded units, please replace the suffix "C" with a 'K' on the above part numbers.

277 Primary Volts 120/240 Secondary Volts 60 Hz

kVA	Catalog Number	Case Style (Pages 254-257)	Approx. Dimensions (Inches)			Approx. Weight (Lbs.)	Mtg Type W - Wall	Wiring Diagram (Pages 258-269)
			Width	Depth	Height			
3	Q003FECF	L0	7.00	7.00	14.75	70	W	SCD 4
5	Q005FECF	F0	8.00	7.50	15.00	100	W	SCD 4
7.5	Q007FECF	L2	12.50	8.00	23.00	170	W	SCD 20
10	Q010FECF	L2	12.50	8.00	23.00	180	W	SCD 20

For shielded units, please replace the suffix "C" with a 'K' on the above part numbers.

416 Primary Volts 120/240 Secondary Volts 60 Hz

kVA	Catalog Number	Case Style (Pages 254-257)	Approx. Dimensions (Inches)			Approx. Weight (Lbs.)	Mtg Type W - Wall	Wiring Diagram (Pages 258-269)
			Width	Depth	Height			
3	Q003HECF	L0	7.00	7.00	14.75	70	W	SCD 4
5	Q005HECF	F0	8.00	7.50	15.00	100	W	SCD 4
7.5	Q007HECF	L2	12.50	8.00	23.00	170	W	SCD 20
10	Q010HECF	L2	12.50	8.00	23.00	180	W	SCD 20

For shielded units, please replace the suffix "C" with a 'K' on the above part numbers.



COPPER WOUND, SINGLE PHASE, NEMA 3R STYLE ENCLOSURE

Products listed on this page are available as 'CE Mark' products. Please consult our sales office.

480 Primary Volts 120/240 Secondary Volts 60 Hz

kVA	Catalog Number	Case Style (Pages 254-257)	Approx. Dimensions (Inches)			Approx. Weight (Lbs.)	Mtg Type W - Wall	Wiring Diagram (Pages 258-269)
			Width	Depth	Height			
15	Q015KECF	F3	11.75	8.13	19.50	250	W	SCD 18
25	Q025KECF	F4	13.50	9.44	21.75	320	W	SCD 18
37.5	Q037KECF	G5	16.50	12.75	27.50	480	W	SCD 18

For shielded units, please replace the suffix "C" with a 'K' on the above part numbers.

600 Primary Volts 120/240 Secondary Volts 60 Hz

kVA	Catalog Number	Case Style (Pages 254-257)	Approx. Dimensions (Inches)			Approx. Weight (Lbs.)	Mtg Type W - Wall	Wiring Diagram (Pages 258-269)
			Width	Depth	Height			
0.75	QC75PECF	L0	7.00	7.00	14.75	33	W	SCD 4
1	Q1C0PECF	L0	7.00	7.00	14.75	34	W	SCD 4
1.5	Q1C5PECF	L0	7.00	7.00	14.75	38	W	SCD 4
2	Q002PECF	L0	7.00	7.00	14.75	46	W	SCD 4
3	Q003PECF	L0	7.00	7.00	14.75	70	W	SCD 4
5	Q005PECF	F0	8.00	7.50	15.00	100	W	SCD 4
7.5	Q007PECF	L2	12.50	8.00	23.00	170	W	SCD 20
10	Q010PECF	L2	12.50	8.00	23.00	180	W	SCD 20
15	Q015PECF	F3	11.75	8.13	19.50	250	W	SCD 20
25	Q025PECF	F4	13.50	9.44	21.75	320	W	SCD 18
37.5	Q037PECF	G5	16.50	12.75	27.50	480	W	SCD 18

For shielded units, please replace the suffix "C" with a 'K' on the above part numbers.

SINGLE PHASE, EXPORT MODEL

190/200/208/220/380/400/416/440 Primary Volts 120/240 Secondary Volts 50/60 Hz

kVA	Catalog Number	Case Style (Pages 254-257)	Approx. Dimensions (Inches)			Approx. Weight (Lbs.)	Mtg Type W - Wall F - Floor	Wiring Diagram (Pages 258-269)
			Width	Depth	Height			
1	Q1C0XECF	L0	7.00	7.00	14.75	42	W	SCD 45
1.5	Q1C5XECF	L0	7.00	7.00	14.75	45	W	SCD 45
2	Q002XECF	L0	7.00	7.00	14.75	50	W	SCD 45
3	Q003XECF	L0	7.00	7.00	14.75	75	W	SCD 45
5	Q005XECF	F0	8.00	7.50	15.00	120	W	SCD 45
7.5	Q007XECF	L2	12.50	8.00	23.00	180	W	SCD 45
10	Q010XECF	L2	12.50	8.00	23.00	200	W	SCD 45

For shielded units, please replace the suffix "C" with a 'K' on the above part numbers.

*OPTIONAL WALL MOUNTING KIT REQUIRED.

SECTION 12



COPPER WOUND, THREE PHASE, NEMA 3R STYLE ENCLOSURE

Products listed on this page are available as 'CE Mark' products. Please consult our sales office.

208 Delta Primary Volts 208Y/120 Secondary Volts 60 Hz

kVA	Catalog Number	Case Style (Pages 254-257)	Approx. Dimensions (Inches)			Approx. Weight (Lbs.)	Mtg Type W - Wall	Wiring Diagram (Pages 258-269)
			Width	Depth	Height			
2	P002BBCF	L3	12.5	6	16.5	80	W	SCD 7
3	P003BBCF	L3	12.5	6	16.5	100	W	SCD 7
6	P006BBCF	L4	16.5	6	19	190	W	SCD 7

For shielded units, please replace the suffix "C" with a 'K' on the above part numbers.

240 Delta Primary Volts 208Y/120 Secondary Volts 60 Hz

kVA	Catalog Number	Case Style (Pages 254-257)	Approx. Dimensions (Inches)			Approx. Weight (Lbs.)	Mtg Type W - Wall	Wiring Diagram (Pages 258-269)
			Width	Depth	Height			
2	P002DBCF	L3	12.5	6	16.5	80	W	SCD 7
3	P003DBCF	L3	12.5	6	16.5	100	W	SCD 7
6	P006DBCF	L4	16.5	6	19	190	W	SCD 7

For shielded units, please replace the suffix "C" with a 'K' on the above part numbers.

480 Delta Primary Volts 208Y/120 Secondary Volts 60 Hz

kVA	Catalog Number	Case Style (Pages 254-257)	Approx. Dimensions (Inches)			Approx. Weight (Lbs.)	Mtg Type W - Wall	Wiring Diagram (Pages 258-269)
			Width	Depth	Height			
2	P002KBCF	L3	12.5	6	16.5	80	W	SCD 7
3	P003KBCF	L3	12.5	6	16.5	100	W	SCD 7
6	P006KBCF	L4	16.5	6	19	190	W	SCD 7
9	P009KBCF	G1	17.44	7.00	21.50	275	W	SCD 32
15	P015KBCF	G2	17.44	8.50	21.50	300	W	SCD 32
30	P030KBCF	G3	19.44	9.50	26.50	575	W	SCD 21
45	P045KBCF	G4	22.94	10.25	30.00	750	W	SCD 21

For shielded units, please replace the suffix "C" with a 'K' on the above part numbers.



COPPER WOUND, THREE PHASE, NEMA 3R STYLE ENCLOSURE

Products listed on this page are available as 'CE Mark' products. Please consult our sales office.

480 Delta Primary Volts 240D Secondary Volts 60 Hz

kVA	Catalog Number	Case Style (Pages 254-257)	Approx. Dimensions (Inches)			Approx. Weight (Lbs.)	Mtg Type W - Wall	Wiring Diagram (Pages 258-269)
			Width	Depth	Height			
2	P002KDCF	L3	12.5	6	16.5	80	W	SCD 11
3	P003KDCF	L3	12.5	6	16.5	100	W	SCD 11
6	P006KDCF	L4	16.5	6	19	190	W	SCD 11

For shielded units, please replace the suffix "C" with a 'K' on the above part numbers.

480Y Delta Primary Volts 240D Secondary Volts 60 Hz

kVA	Catalog Number	Case Style (Pages 254-257)	Approx. Dimensions (Inches)			Approx. Weight (Lbs.)	Mtg Type W - Wall	Wiring Diagram (Pages 258-269)
			Width	Depth	Height			
9	QT97M	G1	17.44	7.00	21.50	275	W	SCD 16
15	QT157M	G2	17.44	8.50	21.50	300	W	SCD 17
30	QT307M	G3	19.44	9.50	26.50	575	W	SCD 17
45	QT457M	G4	22.94	10.25	30.00	750	W	SCD 17

For shielded units, please replace the suffix "C" with a 'K' on the above part numbers.

480 Delta Primary Volts 480Y/277 Secondary Volts 60 Hz

kVA	Catalog Number	Case Style (Pages 254-257)	Approx. Dimensions (Inches)			Approx. Weight (Lbs.)	Mtg Type W - Wall	Wiring Diagram (Pages 258-269)
			Width	Depth	Height			
2	P002KKCF	L3	12.5	6	16.5	80	W	SCD 7
3	P003KKCF	L3	12.5	6	16.5	100	W	SCD 7
6	P006KKCF	L4	16.5	6	19	190	W	SCD 7

For shielded units, please replace the suffix "C" with a 'K' on the above part numbers.

600 Delta Primary Volts 208Y/120 Secondary Volts 60 Hz

kVA	Catalog Number	Case Style (Pages 254-257)	Approx. Dimensions (Inches)			Approx. Weight (Lbs.)	Mtg Type W - Wall	Wiring Diagram (Pages 258-269)
			Width	Depth	Height			
2	P002PBCF	L3	12.5	6	16.5	80	W	SCD 7
3	P003PBCF	L3	12.5	6	16.5	100	W	SCD 7
6	P006PBCF	L4	16.5	6	19	190	W	SCD 7
9	P009PBCF	G1	17.44	7.00	21.50	275	W	SCD 9
15	P015PBCF	G2	17.44	8.50	21.50	300	W	SCD 9
30	P030PBCF	G3	19.44	9.50	26.50	575	W	SCD 9
45	P045PBCF	G4	22.94	10.25	30.00	750	W	SCD 9

For shielded units, please replace the suffix "C" with a 'K' on the above part numbers.

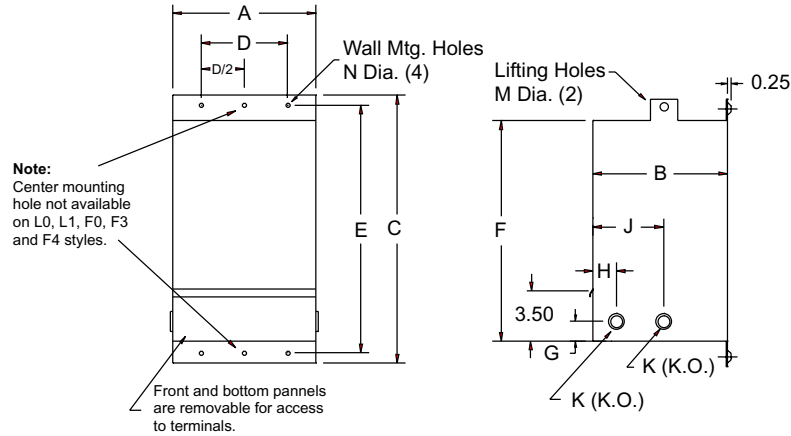
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GENERAL INFORMATION

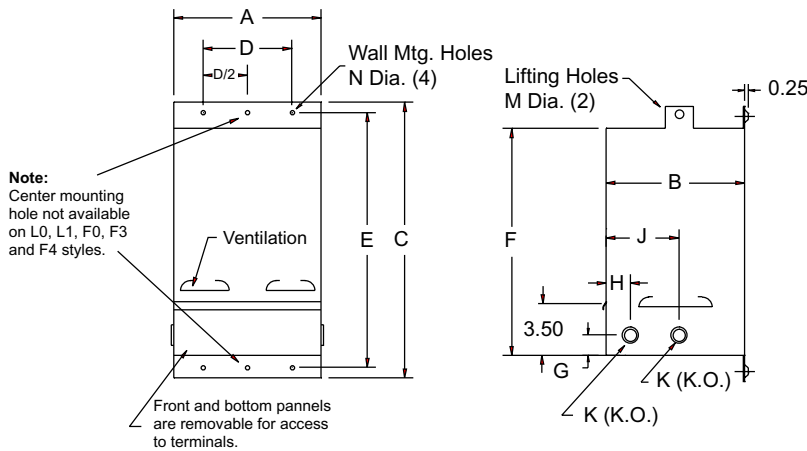
DIMENSIONAL DRAWINGS

'F' & 'L' SERIES ENCLOSURES



Case Style	Dimensions in Inches											
	A	B	C	D	E	F	G	H	J	K	M	N
L0	7.00	7.00	14.75	4.50	13.00	11.13	1.50	2.50	-	.50 X .75	0.75	0.265
L1	9.00	8.50	17.50	5.50	15.75	13.88	2.00	1.50	7.00	.75 X 1.0	0.75	0.265
L2	12.50	8.00	23.00	9.00	21.25	19.38	2.00	1.50	6.88	.75 X 1.0	0.75	0.265
L3	12.50	6.00	16.50	9.00	14.75	12.88	2.00	1.50	4.50	.75 X 1.0	0.75	0.265
L4	16.50	6.00	19.00	13.00	17.25	15.38	1.50	2.00	4.50	1.0 X 1.25	0.75	0.265
L5	7.50	7.75	15.94	5.50	14.20	12.80	1.50	2.50	-	0.5 X 0.75	0.75	0.265
F0	8.00	7.50	15.00	5.50	14.20	12.50	1.50	2.75	-	.75 X 1.0	0.75	0.312
F1	8.75	9.00	15.50	5.75	14.68	13.13	2.00	3.50	-	.75 X 1.0	0.75	0.312
F2	10.75	8.50	16.50	7.50	15.68	14.13	2.00	3.50	-	.75 X 1.0	0.75	0.312
F3	11.75	8.13	19.50	8.75	18.68	17.13	2.00	3.50	-	1.0 X 2.0	0.75	0.375
F4	13.50	9.44	21.75	10.50	21.00	19.38	2.00	4.00	-	1.0 X 2.0	0.75	0.437

'L6 to L13' SERIES ENCLOSURES



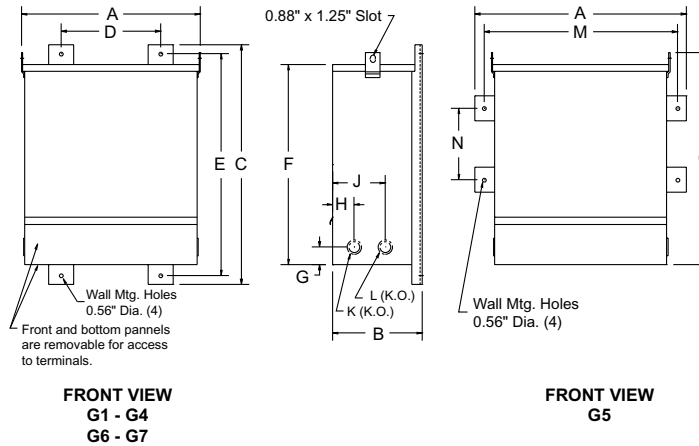
Case Style	Dimensions in Inches											
	A	B	C	D	E	F	G	H	J	K	M	N
L6	6.75	4.75	14.38	4.00	13.63	12.00	1.38	1.50	-	0.5 X 0.75	0.75	0.312
L7	6.75	6.25	14.38	4.00	13.63	12.00	1.38	1.50	-	0.5 X 0.75	0.75	0.312
L8	9.00	7.25	17.25	6.25	16.50	15.00	2.38	1.25	-	0.5 X 0.75	0.75	0.312
L9	9.00	8.50	18.25	6.25	17.50	16.00	2.75	2.25	-	0.5 X 0.75	0.75	0.312
L10	11.50	7.50	20.75	8.75	20.00	18.44	-	-	-	-	0.75	0.312
L11	11.50	9.00	20.75	8.75	20.00	18.44	-	-	-	-	0.75	0.312
L12	13.00	12.00	20.50	10.28	19.44	17.44	-	-	-	-	0.75	0.406
L13	15.00	12.00	25.00	12.50	23.94	21.92	-	-	-	-	0.75	0.406

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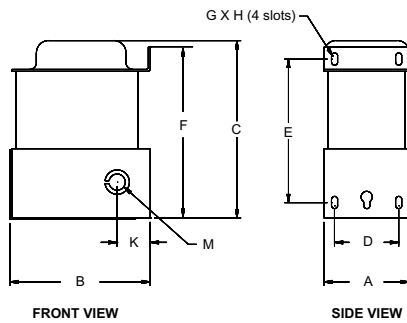
DIMENSIONAL DRAWINGS

'G' SERIES ENCLOSURES

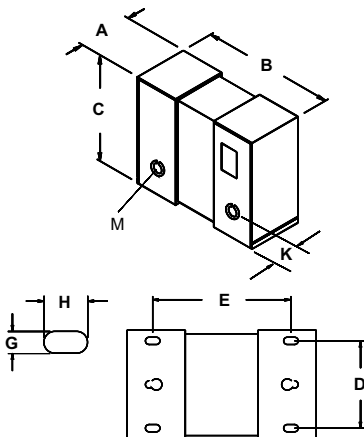


Case Style	Dimensions in Inches												
	A	B	C	D	E	F	G	H	J	K	L	M	N
G1	17.44	7.00	21.50	8.31	20.00	17.50	2.25	1.63	4.88	1.0 X 1.25	0.75 X 1.0	-	-
G2	17.44	8.50	21.50	8.50	20.00	17.50	2.25	1.88	5.63	1.0 X 1.25	0.75 X 1.0	-	-
G3	19.44	9.50	26.50	10.00	25.00	22.50	2.50	2.63	6.88	1.5 X 2.0	1.0 X 1.25	-	-
G4	22.94	10.25	30.00	13.81	28.50	25.00	2.75	2.63	7.38	1.5 X 2.0	1.0 X 1.25	-	-
G5	16.50	12.75	27.50	-	-	24.40	1.50	2.50	8.50	1.0 X 1.25	1.0 X 1.25	14.60	12.50
G6	18.00	14.00	35.00	10.00	32.50	30.00	2.75	3.25	9.25	1.5 X 2.0	1.0 X 1.25	-	-
G7	33.75	13.00	35.00	20.00	32.75	30.00	2.75	2.25	8.75	1.0 X 1.25	2.0 X 2.0	-	-

'M' SERIES ENCLOSURES



Case Style	Dimensions in Inches								Knockout	
	A	B	C	D	E	F	G X H	K	M	
M01	2.5	3.37	4.06	2.00	3.16	4.19"	.20 X .56	1.25	.50	
M02	2.5	3.37	4.56	2.00	3.66	4.69	.20 X .56	1.25	.50	
M11	3.13	4.00	4.63	2.25	3.88	4.50	.25 X .50	1.25	.50	
M12	3.13	4.00	4.88	2.25	4.13	4.50	.25 X .50	1.25	.50	
M13	3.13	4.00	5.38	2.25	4.63	5.25	.25 X .50	1.25	.50	
M21	3.75	4.75	4.56	2.75	3.56	4.28	.25 X .50	1.25	.50 X .75	
M22	3.75	4.75	4.81	2.75	3.81	4.28	.25 X .50	1.25	.50 X .75	
M23	3.75	4.75	5.56	2.75	4.56	5.28	.25 X .50	1.25	.50 X .75	
M24	3.75	4.75	6.06	2.75	4.81	5.28	.25 X .50	1.25	.50 X .75	
M31	4.31	5.50	7.41	3.25	5.58	6.75	.31 X .63	1.00	.50 X .75	
M32	4.31	5.50	7.91	3.25	6.08	7.25	.31 X .63	1.25	.50 X .75	



'E' SERIES ENCLOSURES

Case Style	Dimensions in Inches							Knockout	
	A	B	C	D	E	F	G X H	K	M
E01	5.31	9.50	6.75	4.25	7.50	-	.31 X .63	1.25	.50 X .75
E02	5.31	10.50	6.75	4.25	8.50	-	.31 X .63	1.25	.50 X .75
E11	6.25	10.50	8.00	5.00	9.00	-	.31 X .63	1.25	.50 X .75
E21	7.5	10.75	9.50	6.00	9.25	-	.38 X .75	1.25	.75 X 1.00

GENERAL INFORMATION



GENERAL INFORMATION

ELECTRICAL SCHEMATICS AND CONNECTION DIAGRAMS

SCD 1

SCHEMATIC	CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect
	480 416	H1, H4	H2-H3
	240 208	H1, H4	H1-H3, H2-H4
	Secondary Volts	Connect lines to	Inter-connect
	240	X1, X4	X2-X3
	120/240	X1, X2, X4	X2-X3
	120	X1, X4	X2-X4, X1-X3

SCD 2

SCHEMATIC	CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect
	480	H1, H2	1-2
	468	H1, H2	2-3
	456	H1, H2	3-4
	240	H1, H2	H1-2, H2-1
	228	H1, H2	H1-4, H2-3
	Secondary Volts	Connect lines to	Inter-connect
	240	X1, X4	X2-X3
	120/240	X1, X2, X4	X2-X3
	120	X1, X4	X2-X4, X1-X3

SCD 3

SCHEMATIC	CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect
	504	H1, H4	1-H2, 2-H3, H2-H3
	492	H1, H4	2-H3, 3-H2, H2-H3
	480	H1, H4	3-H2, 4-H3, H2-H3
	468	H1, H4	4-H3, 5-H2, H2-H3
	456	H1, H4	5-H2, 6-H3, H2-H3
	252	H1, H4	1-H2, 2-H3, H1-H3, H2-H4
	240	H1, H4	3-H2, 4-H3, H1-H3, H2-H4
	228	H1, H4	5-H2, 6-H3, H1-H3, H2-H4
		Secondary Volts	Connect lines to
240		X1, X4	X2-X3
120/240		X1, X2, X4	X2-X3
	120	X1, X4	X2-X4, X1-X3

SCD 4

SCHEMATIC	CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect
	208 277 347 380 416 600	H1, H2	---
	Secondary Volts	Connect lines to	Inter-connect
	240	X1, X4	X2-X3
	120/240	X1, X2, X4	X2-X3
	120	X1, X4	X2-X4, X1-X3

GENERAL INFORMATION

GENERAL INFORMATION

ELECTRICAL SCHEMATICS AND CONNECTION DIAGRAMS

SCD 5

SCHEMATIC		CONNECTIONS		
	Primary Volts		Connect lines to	Inter-connect
	208 240 277 416 480 600	H1, H2	1-2	
	198 228 263 395 456 570	H1, H2	2-3	
	187 216 249 374 432 540	H1, H2	3-4	
120 208 240	H1, H2	H1-2, H2-1		
108 187 216	H1, H2	H1-4, H2-3		
Secondary Volts		Connect lines to	Inter-connect	
240	X1, X4	X2-X3		
120/240	X1, X2, X4	X2-X3		
120	X1, X4	X2-X4, X1-X3		

SCD 6

SCHEMATIC		CONNECTIONS		
	Primary Volts		Connect lines to	Inter-connect
	218 291 437 504 630 2520 4368	H1, H2	1-2	
	213 284 426 492 615 2460 4264	H1, H2	2-3	
	208 277 416 480 600 2400 4160	H1, H2	3-4	
203 270 406 468 585 2340 4056	H1, H2	4-5		
198 263 395 456 570 2280 3952	H1, H2	5-6		
Secondary Volts		Connect lines to	Inter-connect	
240	X1, X4	X2-X3		
120/240	X1, X2, X4	X2-X3		
120	X1, X4	X2-X4, X1-X3		

SCD 7

SCHEMATIC		CONNECTIONS		
	Primary Volts		Connect lines to	Inter-connect
	218 252 437 483 504 630	H1, H2, H3	1	
	208 240 416 460 480 600	H1, H2, H3	2	
	198 228 395 437 456 570	H1, H2, H3	3	
Secondary Volts		Connect lines to		
208 230 240 380 416 460 480 600	X1, X2, X3			
120 133 139 220 240 265 277 347	X1, X0 X2, X0 X3, X0			

SCD 8

SCHEMATIC		CONNECTIONS		
	Primary Volts		Connect lines to	Inter-connect
	218 252 437 483 504 630 2520 4368	H1, H2, H3	1-2	
	208 240 416 460 480 600 2400 4160	H1, H2, H3	2-3	
	198 228 395 437 456 570 2280 3952	H1, H2, H3	3-4	
Secondary Volts		Connect lines to		
208 230 240 380 416 460 480 600	X1, X2, X3			
120 133 139 220 240 265 277 347	X1, X0 X2, X0 X3, X0			

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SCD 9

SCHEMATIC		CONNECTIONS			
		Primary Volts		Connect lines to	Inter-connect
		218 252 437 483 504 630 2520 4368	H1, H2, H3	1	
		213 246 426 574 492 615 2460 4264	H1, H2, H3	2	
		208 240 416 460 480 600 2400 4160	H1, H2, H3	3	
		203 234 406 449 468 585 2340 4056	H1, H2, H3	4	
		198 228 395 437 456 570 2280 3952	H1, H2, H3	5	
		Secondary Volts		Connect lines to	Inter-connect
208 380 416 480 600	X1, X2, X3	-			
120 220 240 277 347	X1, X0	-			
	X2, X0	-			
	X3, X0	-			

SCD 10

SCHEMATIC		CONNECTIONS			
		Primary Volts		Connect lines to	Inter-connect
		218 252 437 483 504 630 2520 4368	H1, H2, H3	1-2	
		213 246 426 574 492 615 2460 4264	H1, H2, H3	2-3	
		208 240 416 460 480 600 2400 4160	H1, H2, H3	3-4	
		203 234 406 449 468 585 2340 4056	H1, H2, H3	4-5	
		198 228 395 437 456 570 2280 3952	H1, H2, H3	5-6	
		Secondary Volts		Connect lines to	Inter-connect
208 380 416 480 600	X1, X2, X3	-			
120 220 240 277 347	X1, X0	-			
	X2, X0	-			
	X3, X0	-			

SCD 11

SCHEMATIC		CONNECTIONS		
		Primary Volts		Inter-connect
		252 504	H1, H2, H3	1
		240 480	H1, H2, H3	2
		228 456	H1, H2, H3	3
		Secondary Volts		Connect lines to
240	X1, X2, X3	-		

SCD 12

SCHEMATIC		CONNECTIONS		
		Primary Volts		Inter-connect
		480 600	H1, H2, H3	1-2
		456 570	H1, H2, H3	2-3
		432 540	H1, H2, H3	3-4
		Secondary Volts		Connect lines to
240	X1, X2, X3	-		

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SCD 13

SCHEMATIC		CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect	
	480 600	H1, H2, H3	1-2	
	456 570	H1, H2, H3	2-3	
432 540	H1, H2, H3	3-4		
Secondary Volts	Connect lines to	Inter-connect		
240	X1, X2, X3	-		
120	X1, X6	-		
	X3, X6	-		

SCD 14

SCHEMATIC		CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect	
	504	H1, H2, H3	1	
	492	H1, H2, H3	2	
480	H1, H2, H3	3		
468	H1, H2, H3	4		
456	H1, H2, H3	5		
Secondary Volts	Connect lines to	Inter-connect		
240	X1, X2, X3	-		
120	X1, X6	-		
	X3, X6	-		

SCD 15

SCHEMATIC		CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect	
	504	H1, H2, H3	1-2	
	492	H1, H2, H3	2-3	
480	H1, H2, H3	3-4		
468	H1, H2, H3	4-5		
456	H1, H2, H3	5-6		
Secondary Volts	Connect lines to	Inter-connect		
240	X1, X2, X3	-		
120	X1, X6	-		
	X3, X6	-		

SCD 16

SCHEMATIC		CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect	
	218 504 504 630	H1, H2, H3	1	
	208 480 480 600	H1, H2, H3	2	
198 456 456 570	H1, H2, H3	3		
Secondary Volts	Connect lines to	Inter-connect		
240	X1, X2, X3	-		

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SCD 17

SCHEMATIC		CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect	
	504 630	H1, H2, H3	1	
	492 615	H1, H2, H3	2	
	480 600	H1, H2, H3	3	
	468 585	H1, H2, H3	4	
	456 570	H1, H2, H3	5	
Secondary Volts	Connect lines to	Inter-connect		
240	X1, X2, X3			

SCD 18

SCHEMATIC		CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect	
	218 437 504 630	H1, H6	-	
	213 426 492 615	H1, H5	-	
	208 416 480 600	H1, H4	-	
	203 406 468 585	H1, H3	-	
	198 395 456 570	H1, H2	-	
Secondary Volts	Connect lines to	Inter-connect		
240	X1, X4	X2-X3		
120/240	X1, X2, X4	X2-X3		
120	X1, X4	X2-X4, X1-X3		

SCD 19

SCHEMATIC		CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect	
	504	H1, H4	1-H2, 2-H3, H2-H3	
	492	H1, H4	3-H2, 2-H3, H2-H3	
	480	H1, H4	3-H2, 4-H3, H2-H3	
	468	H1, H4	5-H2, 4-H3, H2-H3	
	456	H1, H4	5-H2, 6-H3, H2-H3	
	444	H1, H4	7-H2, 6-H3, H2-H3	
	432	H1, H4	7-H2, 8-H3, H2-H3	
	252	H1, H4	1-H2, 2-H3, H1-H3, H2-H4	
	240	H1, H4	3-H2, 4-H3, H1-H3, H2-H4	
	228	H1, H4	5-H2, 6-H3, H1-H3, H2-H4	
	216	H1, H4	7-H2, 8-H3, H1-H3, H2-H4	
	Secondary Volts	Connect lines to	Inter-connect	
	240	X1, X4	X2- X3	
120	X1, X2	X1-X3, X2-X4		
120/240	X1, X2, X4	X2-X3		

SCD 20

SCHEMATIC		CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect	
	218 252 291 437 504 630	H1, H4	-	
	208 240 277 416 480 600	H1, H3	-	
	198 228 263 395 456 570	H1, H2	-	
	188 216 249 374 432 540	H1, H2	-	
	Secondary Volts	Connect lines to	Inter-connect	
240	X1, X4	X2-X3		
120	X1, X2	X1-X3, X2-X4		
120/240	X1, X2, X4	X2-X3		

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SCD 21

SCHEMATIC	CONNECTIONS			
	Primary Volts	Connect lines to	Inter-connect	
	218	504 630	H1, H2, H3	1-H1, 1-H2, 1-H3
	213	492 615	H1, H2, H3	2-H1, 2-H2, 2-H3
	208	480 600	H1, H2, H3	3-H1, 3-H2, 3-H3
	203	468 585	H1, H2, H3	4-H1, 4-H2, 4-H3
	198	456 570	H1, H2, H3	5-H1, 5-H2, 5-H3
	193	444 556	H1, H2, H3	6-H1, 6-H2, 6-H3
	188	432 542	H1, H2, H3	7-H1, 7-H2, 7-H3
	Secondary Volts	Connect lines to	Inter-connect	
	208	480	X1, X2, X3	-
	120	277	X1, X0	-
		X2, X0	-	
		X3, X0	-	

SCD 22

SCHEMATIC	CONNECTIONS			
	Primary Volts	Connect lines to	Inter-connect	
	218	504	H1, H2, H3	1-2
	213	492	H1, H2, H3	2-3
	208	480	H1, H2, H3	3-4
	203	468	H1, H2, H3	4-5
	198	456	H1, H2, H3	5-6
	193	444	H1, H2, H3	6-7
	188	432	H1, H2, H3	7-8
	Secondary Volts	Connect lines to	Inter-connect	
208		X1, X2, X3	-	
120		X1, X0	-	
		X2, X0	-	
		X3, X0	-	

SCD 23

SCHEMATIC	CONNECTIONS			
	Primary Volts	Connect lines to	Inter-connect	
	504		H1, H2, H3	1-H1, 1-H2, 1-H3
	492		H1, H2, H3	2-H1, 2-H2, 2-H3
	480		H1, H2, H3	3-H1, 3-H2, 3-H3
	468		H1, H2, H3	4-H1, 4-H2, 4-H3
	456		H1, H2, H3	5-H1, 5-H2, 5-H3
	444		H1, H2, H3	6-H1, 6-H2, 6-H3
	432		H1, H2, H3	7-H1, 7-H2, 7-H3
	Secondary Volts	Connect lines to	Inter-connect	
240		X1, X2, X3	-	
120		X1, X6	-	
		X3, X6	-	

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SCD 24

SCHEMATIC	CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect
	504	H1, H2, H3	1-2
	492	H1, H2, H3	2-3
	480	H1, H2, H3	3-4
	468	H1, H2, H3	4-5
	456	H1, H2, H3	5-6
	444	H1, H2, H3	6-7
	432	H1, H2, H3	7-8
	Secondary Volts	Connect lines to	Inter-connect
	240	X1, X2, X3	-
	120	X1, X6 X3, X6	- -

SCD 25

SCHEMATIC	CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect
	208 230 240	X1, X2, X3	1-X1, 1-X2, 1-X3
	198 218 228	X1, X2, X3	2-X1, 2-X2, 2-X3
	188 207 216	X1, X2, X3	3-X1, 3-X2, 3-X3
	Secondary Volts	Connect lines to	
	230 260 460 480	H1, H2, H3	
	133 139 265 277	H1, H0 H2, H0 H3, H0	

SCD 26

SCHEMATIC	CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect
	208 240	X1, X2, X3	1-2
	198 228	X1, X2, X3	2-3
	188 216	X1, X2, X3	3-4
	Secondary Volts	Connect lines to	
	230 260 460 480	H1, H2, H3	
	133 139 265 277	H1, H0 H2, H0 H3, H0	

SCD 27

SCHEMATIC	CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect
	218	X1, X2, X3	1-X1, 1-X2, 1-X3
	213	X1, X2, X3	2-X1, 2-X2, 2-X3
	208	X1, X2, X3	3-X1, 3-X2, 3-X3
	203	X1, X2, X3	4-X1, 4-X2, 4-X3
	198	X1, X2, X3	5-X1, 5-X2, 5-X3
	193	X1, X2, X3	6-X1, 6-X2, 6-X3
	188	X1, X2, X3	7-X1, 7-X2, 7-X3
	Secondary Volts	Connect lines to	
	208 230 240 480	H1, H2, H3	
	120 133 133 277	H1, H0 H2, H0 H3, H0	

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SCD 28

SCHEMATIC	CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect
	218	X1, X2, X3	1-2
	213	X1, X2, X3	2-3
	208	X1, X2, X3	3-4
	203	X1, X2, X3	4-5
	198	X1, X2, X3	5-6
	193	X1, X2, X3	6-7
	188	X1, X2, X3	7-8
	Secondary Volts	Connect lines to	
	208 240 480	H1, H2, H3	
	120 133 277	H1, H0 H2, H0 H3, H0	

SCD 29

SCHEMATIC	CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect
	504	H1, H2, H3	1-H1, 1-H2, 1-H3
	492	H1, H2, H3	2-H1, 2-H2, 2-H3
	480	H1, H2, H3	3-H1, 3-H2, 3-H3
	468	H1, H2, H3	4-H1, 4-H2, 4-H3
	456	H1, H2, H3	5-H1, 5-H2, 5-H3
	444	H1, H2, H3	6-H1, 6-H2, 6-H3
	432	H1, H2, H3	7-H1, 7-H2, 7-H3
	Secondary Volts	Connect lines to	Inter-connect
240	X1, X2, X3	-	

SCD 30

SCHEMATIC	CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect
	504	H1, H2, H3	1-2
	492	H1, H2, H3	2-3
	480	H1, H2, H3	3-4
	468	H1, H2, H3	4-5
	456	H1, H2, H3	5-6
	444	H1, H2, H3	6-7
	432	H1, H2, H3	7-8
	Secondary Volts	Connect lines to	Inter-connect
240	X1, X2, X3	-	

SCD 31

SCHEMATIC	CONNECTIONS		
	Connect to	Step Down	Step Up
	Lines from Supply	H1, H2, H3	X1, X2, X3
	Lines to Load Neutral	X1, X2, X3 X0	H1, H2, H3 H0

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SCD 32

SCHEMATIC		CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect	
	208 240 416 480 600	H1, H2, H3	1	
	198 228 395 456 570	H1, H2, H3	2	
187 216 374 432 540	H1, H2, H3	3		
	Secondary Volts	Connect lines to		
208 230 240 380 416 460 480 600	X1, X2, X3			
120 133 139 220 240 265 277 347	X1, X0	X2, X0	X3, X0	

SCD 33

SCHEMATIC		CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect	
	208 240 416 480 600	H1, H2, H3	1-2	
	198 228 395 456 570	H1, H2, H3	2-3	
187 216 374 432 540	H1, H2, H3	3-4		
	Secondary Volts	Connect lines to		
208 380 416 480 600	X1, X2, X3			-
120 220 240 277 347	X1, X0	X2, X0	X3, X0	-

SCD 34

SCHEMATIC		CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect	
	218 252	H1, H2, H3	1	
	213 246	H1, H2, H3	2	
	208 240	H1, H2, H3	3	
	203 234	H1, H2, H3	4	
	198 228	H1, H2, H3	5	
	Secondary Volts	Connect lines to		
460 480 600	X1, X2, X3			-
265 277 347	X1, X0	X2, X0	X3, X0	-

SCD 35

SCHEMATIC		CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect	
	218 252	H1, H2, H3	1-2	
	213 246	H1, H2, H3	2-3	
	208 240	H1, H2, H3	3-4	
	203 234	H1, H2, H3	4-5	
	198 228	H1, H2, H3	5-6	
	Secondary Volts	Connect lines to		
460 480 600	X1, X2, X3			-
265 277 347	X1, X0	X2, X0	X3, X0	-



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SCD 36

SCHEMATIC		CONNECTIONS		
		Primary Volts	Connect lines to	Inter-connect
		218 252	X1, X2, X3	1-X1, 1-X2, 1-X3
		208 240	X1, X2, X3	2-X1, 2-X2, 2-X3
198 228	X1, X2, X3	3-X1, 3-X2, 3-X3		
		Secondary Volts	Connect lines to	Inter-connect
		480	H1, H2, H3	-
		277	H1, H0	-
			H2, H0	-
		H3, H0	-	

SCD 37

SCHEMATIC		CONNECTIONS		
		Primary Volts	Connect lines to	Inter-connect
		218 252	X1, X2, X3	1-2
		208 240	X1, X2, X3	2-3
198 228	X1, X2, X3	3-4		
		Secondary Volts	Connect lines to	Inter-connect
		480	H1, H2, H3	-
		277	H1, H0	-
			H2, H0	-
		H3, H0	-	

SCD 38

SCHEMATIC		CONNECTIONS		
		Connect to	Step Down	Step Up
		Lines from Supply	H1, H2, H3	X1, X2, X3
		Lines to Load	X1, X2, X3	H1, H2, H3
		Neutral	X0	H0

SCD 39

SCHEMATIC		CONNECTIONS		
		Primary Volts	Connect lines to	Inter-connect
		120	H1, H2	---
		Secondary Volts	Connect lines to	Inter-connect
		120	X1, X2	---

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SCD 40

SCHEMATIC	CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect
	208	H1, H2	---
	Secondary Volts	Connect lines to	Inter-connect
	120	X1, X2	---

SCD 41

SCHEMATIC	CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect
	240	H1, H2	---
	Secondary Volts	Connect lines to	Inter-connect
	120	X1, X2	---

SCD 42

SCHEMATIC	CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect
	630	H1, H2, H3	1-2
	600	H1, H2, H3	2-3
	570	H1, H2, H3	3-4
	Secondary Volts	Connect lines to	Inter-connect
240	X1, X2, X3	---	

SCD 43

SCHEMATIC	CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect
	480	H1, H2	---
	Secondary Volts	Connect lines to	Inter-connect
	120	X1, X2	---

SCD 44

SCHEMATIC	CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect
	600	H1, H2	---
	Secondary Volts	Connect lines to	Inter-connect
	120	X1, X2	---

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SCD 45

SCHEMATIC		CONNECTIONS		
		Primary Volts	Connect lines to	Inter-connect
		440 416 400 380 220 208 200 120	H1, H10 H1, H9 H1, H8 H1, H7 H1, H10 H1, H9 H1, H8 H1, H7	H5-H6 H4-H6 H3-H6 H2-H6 H1-H6, H5-H10 H1-H6, H4-H9 H1-H6, H3-H8 H1-H6, H2-H7
		Secondary Volts	Connect lines to	Inter-connect
		240 120/240 120	X1, X4 X1, X2, X4 X1, X4	X2-X3 X2-X3 X2-X4, X1-X3

SCD 46

SCHEMATIC		CONNECTIONS		
		Primary Volts	Connect lines to	Inter-connect
		440 416 400 380 220 208 200 190	H1, H4 H1, H4 H1, H4 H1, H4 H1, H4 H1, H4 H1, H4 H1, H4	1-H2, 2-H3, H2-H3 3-H2, 4-H3, H2-H3 5-H2, 6-H3, H2-H3 7-H2, 8-H3, H2-H3 1-H2, 2-H3, H1-H3, H2-H4 3-H2, 4-H3, H1-H3, H2-H4 5-H2, 6-H3, H1-H3, H2-H4 7-H2, 8-H3, H1-H3, H2-H4
		Secondary Volts	Connect lines to	Inter-connect
		240 120 120/240	X1, X4 X1, X2 X1, X2, X4	X2- X3 X1-X3, X2-X4 X2-X3

SCD 47

SCHEMATIC		CONNECTIONS		
		Primary Volts	Connect lines to	Inter-connect
		630 504 615 492 600 480 585 468 570 456	H1, H2, H3 H1, H2, H3 H1, H2, H3 H1, H2, H3 H1, H2, H3	1-2 2-3 3-4 4-5 5-6
		Secondary Volts	Connect lines to	Inter-connect
		240	X1, X2, X3	

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