

# GENERAL INFORMATION

## ELECTRICAL SCHEMATICS AND CONNECTION DIAGRAMS

### SCD 1

| SCHEMATIC |  |  |  | CONNECTIONS            |       |                         |                      |              |              |
|-----------|--|--|--|------------------------|-------|-------------------------|----------------------|--------------|--------------|
|           |  |  |  | <b>Primary Volts</b>   |       | <b>Connect lines to</b> | <b>Inter-connect</b> |              |              |
|           |  |  |  | 240                    | 480   | 416                     | H1, H4               | H2-H3        |              |
|           |  |  |  | 120                    | 240   | 208                     | H1, H4               | H1-H3, H2-H4 |              |
|           |  |  |  | <b>Secondary Volts</b> |       | <b>Connect lines to</b> | <b>Inter-connect</b> |              |              |
|           |  |  |  | 24                     | 32    | 48                      | 240                  | X1, X4       | X2-X3        |
|           |  |  |  | 12/24                  | 16/32 | 24/48                   | 120/240              | X1, X2, X4   | X2-X3        |
|           |  |  |  | 12                     | 16    | 24                      | 120                  | X1, X2       | X2-X4, X1-X3 |

### SCD 2

| SCHEMATIC |  |  |  | CONNECTIONS            |     |                         |                      |                      |     |        |        |            |
|-----------|--|--|--|------------------------|-----|-------------------------|----------------------|----------------------|-----|--------|--------|------------|
|           |  |  |  | <b>Primary Volts</b>   |     | <b>Connect lines to</b> | <b>Inter-connect</b> |                      |     |        |        |            |
|           |  |  |  | 504                    | 440 | 437                     | 218                  | 291                  | 277 | 440    | H1, H2 | 1-2        |
|           |  |  |  | 492                    |     | 426                     | 213                  | 284                  |     | H1, H2 | 2-3    |            |
|           |  |  |  | 480                    | 416 | 416                     | 208                  | 277                  | 240 | 416    | H1, H2 | 3-4        |
|           |  |  |  | 468                    |     | 406                     | 203                  | 270                  |     |        | H1, H2 | 4-5        |
|           |  |  |  | 456                    | 400 | 395                     | 198                  | 263                  | 208 | 400    | H1, H2 | 5-6        |
|           |  |  |  | 444                    |     | 385                     | 192                  | 256                  |     |        | H1, H2 | 6-7        |
|           |  |  |  | 432                    | 380 | 374                     | 187                  | 249                  | 120 | 380    | H1, H2 | 7-8        |
|           |  |  |  |                        |     | 220                     |                      |                      |     |        | H1, H2 | H1-2, H2-1 |
|           |  |  |  |                        | 240 | 208                     |                      |                      |     |        | H1, H2 | H1-4, H2-3 |
|           |  |  |  |                        | 228 | 200                     | 198                  |                      |     |        | H1, H2 | H1-6, H2-5 |
|           |  |  |  |                        | 216 | 190                     | 187                  |                      |     |        | H1, H2 | H1-8, H2-7 |
|           |  |  |  | <b>Secondary Volts</b> |     | <b>Connect lines to</b> |                      | <b>Inter-connect</b> |     |        |        |            |
|           |  |  |  | 240                    |     | X1, X4                  |                      | X2- X3               |     |        |        |            |
|           |  |  |  | 120                    |     | X1, X2                  |                      | X2-X4, X1-X3         |     |        |        |            |
|           |  |  |  | 120/240                |     | X1, X2, X4              |                      | X2-X3                |     |        |        |            |

### SCD 3

| SCHEMATIC |  | CONNECTIONS            |     |                      |                  |
|-----------|--|------------------------|-----|----------------------|------------------|
|           |  | <b>Primary Volts</b>   |     | <b>Inter-connect</b> |                  |
|           |  | 630                    |     | H1, H2, H3           | 1-H1, 1-H2, 1-H3 |
|           |  | 615                    |     | H1, H2, H3           | 2-H1, 2-H2, 2-H3 |
|           |  | 600                    |     | H1, H2, H3           | 3-H1, 3-H2, 3-H3 |
|           |  | 585                    |     | H1, H2, H3           | 4-H1, 4-H2, 4-H3 |
|           |  | 570                    |     | H1, H2, H3           | 5-H1, 5-H2, 5-H3 |
|           |  | 480                    |     | H1, H2, H3           | 6-H1, 6-H2, 6-H3 |
|           |  | 456                    |     | H1, H2, H3           | 7-H1, 7-H2, 7-H3 |
|           |  | 432                    |     | H1, H2, H3           | 8-H1, 8-H2, 8-H3 |
|           |  | <b>Secondary Volts</b> |     | <b>Inter-connect</b> |                  |
|           |  | 208                    | 480 | X1, X2, X3           | -                |
|           |  | 120                    | 120 | X1, X0               | -                |
|           |  |                        |     | X2, X0               | -                |
|           |  |                        |     | X3, X0               | -                |

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### SCD 4

| SCHEMATIC | CONNECTIONS   |                   |                                |
|-----------|---|-------------------|--------------------------------|
|           | Primary Volts   | Connect lines to  | Inter-connect                  |
|           | 208 277 347 380 416 600 2400 3300 4160 4800 6600 7200 | H1, H2            | ---                            |
|           | Secondary Volts                                       | Connect lines to  | Inter-connect                  |
|           | 240<br>120/240<br>120                                 | 24<br>12/24<br>12 | X1, X4<br>X1, X2, X4<br>X1, X2 |

### SCD 5

| SCHEMATIC | CONNECTIONS   |                                |                                |
|-----------|---|--------------------------------|--------------------------------|
|           | Primary Volts   | Connect lines to               | Inter-connect                  |
|           | 120 208 240 277 380 416 480 600<br>114 198 228 263 361 395 456 570<br>108 188 216 249 347 374 432 540 | H1, H2<br>H1, H2<br>H1, H2     | 1-2<br>2-3<br>3-4              |
|           | Secondary Volts   | Connect lines to               | Inter-connect                  |
|           | 240<br>120/240<br>120   | X1, X4<br>X1, X2, X4<br>X1, X2 | X2-X3<br>X2-X3<br>X2-X4, X1-X3 |

### SCD 6

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

### SCD 7

| SCHEMATIC | CONNECTIONS   |  |               |
|-----------|---|--|---------------|
|           | Primary Volts   | Connect lines to                       | Inter-connect |
|           | 208 218 242 252 437 480 483 504 604 630<br>198 208 230 240 416 456 460 480 575 600<br>187 198 219 228 395 432 437 456 546 570 | H1, H2, H3<br>H1, H2, H3<br>H1, H2, H3 | 1<br>2<br>3   |
|           | Secondary Volts   | Connect lines to                       | Inter-connect |
|           | 208 230 240 380 416 460 480 600<br>120 133 139 220 240 265 277 347  | X1, X2, X3<br>X1, X0 X2, X0 X3, X0     |               |

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## ELECTRICAL SCHEMATICS AND CONNECTION DIAGRAMS

### SCD 8

| SCHEMATIC                                 | CONNECTIONS                               |                  |                  |               |
|---|---|------------------|------------------|---------------|
|   | Primary Volts                             |                  | Connect lines to | Inter-connect |
|   | 218 242 252 437 483 504 604 630 2520 4368 | H1, H2, H3       | 1-2              |               |
|   | 208 230 240 416 460 480 575 600 2400 4160 | H1, H2, H3       | 2-3              |               |
| 198 219 228 395 437 456 546 570 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           |               |

### SCD 9

| SCHEMATIC                       | CONNECTIONS                     |                  |                  |               |
|---------------------------------|---------------------------------|------------------|------------------|---------------|
|                                 | Primary Volts                   |                  | Connect lines to | Inter-connect |
|                                 | 218 242 252 437 483 504 604 630 | H1, H2, H3       | 1                |               |
|                                 | 213 236 246 426 472 492 589 615 | H1, H2, H3       | 2                |               |
| 208 230 240 416 460 480 575 600 | H1, H2, H3                      | 3                |                  |               |
| 203 224 234 406 449 468 561 585 | H1, H2, H3                      | 4                |                  |               |
| 198 219 228 395 437 456 546 570 | 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 |
|   | 218 242 252 437 483 504 604 630 2520 4368 | H1, H2, H3       | 1-2              |               |
|   | 213 236 246 426 472 492 589 615 2460 4264 | H1, H2, H3       | 2-3              |               |
| 208 230 240 416 460 480 575 600 2400 4160 | H1, H2, H3                                | 3-4              |                  |               |
| 203 224 234 406 449 468 561 585 2340 4056 | H1, H2, H3                                | 4-5              |                  |               |
| 198 219 228 395 437 456 546 570 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                                    | -                |                  |               |

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### SCD 11

| SCHEMATIC | CONNECTIONS     |                  |                     |
|-----------|-----------------|------------------|---------------------|
|           | Primary Volts   | Connect lines to | Inter-connect       |
|           | 630             | H1, H2, H3       | 1-H1, 1-H2, 1-H3    |
|           | 615             | H1, H2, H3       | 2-H1, 2-H2, 2-H3    |
|           | 600             | H1, H2, H3       | 3-H1, 3-H2, 3-H3    |
|           | 585             | H1, H2, H3       | 4-H1, 4-H2, 4-H3    |
|           | 570             | H1, H2, H3       | 5-H1, 5-H2, 5-H3    |
|           | 504             | H1, H2, H3       | 6-H1, 6-H2, 6-H3    |
|           | 492             | H1, H2, H3       | 7-H1, 7-H2, 7-H3    |
|           | 480             | H1, H2, H3       | 8-H1, 8-H2, 8-H3    |
|           | 468             | H1, H2, H3       | 9-H1, 9-H2, 9-H3    |
|           | 456             | H1, H2, H3       | 10-H1, 10-H2, 10-H3 |
|           | Secondary Volts | Connect lines to | Inter-connect       |
|           | 208 480         | X1, X2, X3       | -                   |
|           | 120 277         | X1, X0           | -                   |
|           |                 | X2, X0           | -                   |
|           |                 | X3, X0           | -                   |

### SCD 12

| 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       | -             |

### 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       |            |            |
|-----------|-------------------|------------|------------|
|           | Connect to        | Step Down  | Step Up    |
|           | Lines from Supply | H1, H2, H3 | X1, X2, X3 |
|           | Lines to Load     | X1, X2, X3 | H1, H2, H3 |

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### SCD 15

| 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 |

### SCD 16

| 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 17

| 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         |
|           | 240           | X1, X4           | X2- X3                   |
|           | 120           | X1, X2           | X2-X4, X1-X3             |
|           | 120/240       | X1, X2, X4       | X2-X3                    |

### SCD 18

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

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### SCD 19

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

### SCD 20

| SCHEMATIC |  | CONNECTIONS   |  |   |
|-----------|--|---|--|---|
|           |  | <b>Primary Volts</b>  | <b>Connect lines to</b>  | <b>Inter-connect</b>                          |
|           |  | 218 504 630<br>213 492 600<br>208 480 570<br>203 468 570<br>198 456 504<br>193 444 480<br>188 432 456 | H1, H2, H3<br>H1, H2, H3<br>H1, H2, H3<br>H1, H2, H3<br>H1, H2, H3<br>H1, H2, H3<br>H1, H2, H3 | 1-2<br>2-3<br>3-4<br>4-5<br>5-6<br>6-7<br>7-8 |
|           |  | <b>Secondary Volts</b>  | <b>Connect lines to</b>  | <b>Inter-connect</b>                          |
|           |  | 208<br>120  | X1, X2, X3<br>X1,X0   X2,X0   X3,X0  | -<br>-  |

### SCD 21

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

### SCD 22

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

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### SCD 23

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

### SCD 24

| SCHEMATIC |  | CONNECTIONS       |                  |                |
|-----------|--|-------------------|------------------|----------------|
|           |  | <b>Connect to</b> | <b>Step Down</b> | <b>Step Up</b> |
|           |  | Lines from Supply | H1, H2, H3       | X1, X2, X3     |
|           |  | Lines to Load     | X1, X2, X3       | H1, H2, H3     |

### SCD 25

| SCHEMATIC |  | CONNECTIONS            |                         |                      |
|-----------|--|------------------------|-------------------------|----------------------|
|           |  | <b>Primary Volts</b>   | <b>Connect lines to</b> | <b>Inter-connect</b> |
|           |  | 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                  |
|           |  | <b>Secondary Volts</b> | <b>Connect lines to</b> | <b>Inter-connect</b> |
|           |  | 208 380 416 480 600    | X1, X2, X3              | -                    |
|           |  | 120 220 240 277 347    | X1, X0 X2, X0 X3, X0    | -                    |

### SCD 26

| SCHEMATIC |  | CONNECTIONS            |                         |                      |
|-----------|--|------------------------|-------------------------|----------------------|
|           |  | <b>Primary Volts</b>   | <b>Connect lines to</b> | <b>Inter-connect</b> |
|           |  | 218 252                | X1, X2, X3              | 1                    |
|           |  | 213 246                | X1, X2, X3              | 2                    |
|           |  | 208 240                | X1, X2, X3              | 3                    |
|           |  | 203 234                | X1, X2, X3              | 4                    |
|           |  | 198 228                | X1, X2, X3              | 5                    |
|           |  | <b>Secondary Volts</b> | <b>Connect lines to</b> | <b>Inter-connect</b> |
|           |  | 460 480 600            | H1, H2, H3              | -                    |
|           |  | 265 277 347            | H1, H0 H2, H0 H3, H0    | -                    |

### SCD 27

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

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## ELECTRICAL SCHEMATICS AND CONNECTION DIAGRAMS

### SCD 28

| SCHEMATIC | CONNECTIONS     |                  |               |
|-----------|-----------------|------------------|---------------|
|           | Primary Volts   | Connect lines to | Inter-connect |
|           | 480 (60Hz)      | H1, H10          | H5-H6         |
|           | 440             | H1, H10          | H5-H6         |
|           | 416             | H1, H9           | H4-H6         |
|           | 400             | H1, H8           | H3-H6         |
|           | 380             | H1, H7           | H2-H6         |
|           | 240 (60 Hz)     | H1, H10          | H1-H6, H5-H10 |
|           | 220             | H1, H10          | H1-H6, H5-H10 |
|           | 208             | H1, H9           | H1-H6, H4-H9  |
|           | 200             | H1, H8           | H1-H6, H3-H8  |
|           | 190             | H1, H7           | H1-H6, H2-H7  |
|           | 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 29

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

### SCD 30

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



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### SCD 31

| SCHEMATIC |     | CONNECTIONS     |     |                  |               |     |
|-----------|-----|-----------------|-----|------------------|---------------|-----|
|           |     | Primary Volts   |     | Connect lines to | Inter-connect |     |
|           |     | 218             | 291 | 437              | 504           | 630 |
| 213       | 284 | 426             | 492 | 615              | H1, H5        | -   |
| 208       | 277 | 416             | 480 | 600              | H2, H5        | -   |
| 203       | 270 | 406             | 468 | 585              | H2, H4        | -   |
| 198       | 263 | 395             | 456 | 570              | H3, H4        | -   |
|           |     | Secondary Volts |     | Connect lines to | Inter-connect |     |
|           |     | 240             |     | X1, X4           | X2-X3         |     |
|           |     | 120/240         |     | X1, X2, X4       | X2-X3         |     |
|           |     | 120             |     | X1, X2           | X2-X4, X1-X3  |     |

### SCD 32

| SCHEMATIC |     | CONNECTIONS     |     |                  |               |     |
|-----------|-----|-----------------|-----|------------------|---------------|-----|
|           |     | Primary Volts   |     | Connect lines to | Inter-connect |     |
|           |     | 208             | 277 | 416              | 480           | 600 |
| 198       | 263 | 395             | 456 | 570              | H1, H3        | -   |
| 188       | 249 | 374             | 432 | 540              | H2, H3        | -   |
|           |     | Secondary Volts |     | Connect lines to | Inter-connect |     |
|           |     | 240             |     | X1, X4           | X2-X3         |     |
|           |     | 120/240         |     | X1, X2, X4       | X2-X3         |     |
|           |     | 120             |     | X1, X2           | X2-X4, X1-X3  |     |

### SCD 33

| SCHEMATIC |  | CONNECTIONS     |        |               |
|-----------|--|-----------------|--------|---------------|
|           |  | Primary Volts   |        | Inter-connect |
|           |  | 380             |        |               |
| 347       |  |                 | H1, H2 | -             |
|           |  | Secondary Volts |        | Inter-connect |
|           |  | 240             |        | X2-X3         |
|           |  | 120/240         |        | X2-X3         |
|           |  | 120             |        | X2-X4, X1-X3  |

### SCD 34

| SCHEMATIC |  | CONNECTIONS     |        |                          |
|-----------|--|-----------------|--------|--------------------------|
|           |  | Primary Volts   |        | Inter-connect            |
|           |  | 480             |        |                          |
| 456       |  |                 | H1, H4 | 2-H3, 3-H2, H2-H3        |
| 432       |  |                 | H1, H4 | 3-H2, 4-H3, H2-H3        |
| 240       |  |                 | H1, H4 | 1-H2, 2-H3, H1-H3, H2-H4 |
| 216       |  |                 | H1, H4 | 3-H2, 4-H3, H1-H3, H2-H4 |
|           |  | Secondary Volts |        | Inter-connect            |
|           |  | 240             |        | X2-X3                    |
|           |  | 120/240         |        | X2-X3                    |
|           |  | 120             |        | X2-X4, X1-X3             |

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### SCD 35

| SCHEMATIC   | CONNECTIONS           |                  |               |                  |
|---|-----------------------|------------------|---------------|------------------|
|   | Primary Volts         | Connect lines to | Inter-connect |                  |
| <p><b>CENTURION</b><br/>Angular Displacement<br/>0° or -30°</p> | 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 |
|   | Secondary Volts       | Connect lines to | Inter-connect |                  |
| 208 480 600   | X1, X2, X3            | -                |               |                  |
| 120 277 347   | X1,X0   X2,X0   X3,X0 | -                |               |                  |

\* Standard 2-2.5% FCAN and 2-2.5% FCBN primary taps for 208V H2EM units only available up to 75 kVA. Please consult factory for standard taps on 208V primary units over 75 kVA.

### SCD 36

| SCHEMATIC   | CONNECTIONS     |                  |               |     |
|---|-----------------|------------------|---------------|-----|
|   | Primary Volts   | Connect lines to | Inter-connect |     |
| <p><b>CENTURION 2</b><br/>Angular Displacement<br/>0°, -30°<br/>or<br/>-15°, -45°</p> | 218*            | 504 630          | H1, H2, H3    | 1-2 |
|   | 213*            | 492 615          | H1, H2, H3    | 2-3 |
|   | 208*            | 480 600          | H1, H2, H3    | 3-4 |
|   | 203*            | 468 585          | H1, H2, H3    | 4-5 |
|   | 198*            | 456 570          | H1, H2, H3    | 5-6 |
|   | Secondary Volts | Connect lines to | Inter-connect |     |
| 208 480 600   | X1, X2, X3      | -                |               |     |
| 120 277 347   | Y1, Y2, Y3      | -                |               |     |
|   | X1, X0/Y0       | -                |               |     |
|   | X2, X0/Y0       | -                |               |     |
|   | X3, X0/Y0       | -                |               |     |
|   | Y1, X0/Y0       | -                |               |     |
|   | Y2, X0/Y0       | -                |               |     |
|   | Y3, X0/Y0       | -                |               |     |

\* Standard 2-2.5% FCAN and 2-2.5% FCBN primary taps for 208V H2EM units only available up to 75 kVA. Please consult factory for standard taps on 208V primary units over 75 kVA.

### SCD 37

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

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## ELECTRICAL SCHEMATICS AND CONNECTION DIAGRAMS

### SCD 38

| 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             |
|           | 444             | H1, H2, H3       | 6             |
|           | 432             | H1, H2, H3       | 7             |
|           | Secondary Volts | Connect lines to | Inter-connect |
|           | 240             | X1, X2, X3       | -             |

### SCD 39

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

### SCD 40

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

### SCD 41

| SCHEMATIC | CONNECTIONS     |                  |               |
|-----------|-----------------|------------------|---------------|
|           | Primary Volts   | Connect lines to | Inter-connect |
|           | 277             | H1, H5           | -             |
|           | 240             | H1, H4           | -             |
|           | 208             | H1, H3           | -             |
|           | 120             | H1, H2           | -             |
|           | Secondary Volts | Connect lines to | Inter-connect |
|           | 240             | X1, X4           | X2-X3         |
|           | 120/240         | X1, X2, X4       | X2-X3         |
|           | 120             | X1, X2           | X2-X4, X1-X3  |

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## ELECTRICAL SCHEMATICS AND CONNECTION DIAGRAMS

### SCD 42

| SCHEMATIC | CONNECTIONS            |                         |                      |
|-----------|------------------------|-------------------------|----------------------|
|           | <b>Primary Volts</b>   | <b>Connect lines to</b> | <b>Inter-connect</b> |
|           | 480                    | H1, H3                  | -                    |
|           | 277                    | H1, H2                  | -                    |
|           | <b>Secondary Volts</b> | <b>Connect lines to</b> | <b>Inter-connect</b> |
| 277       | X1, X3                 | -                       |                      |
| 208       | X1, X2                 | -                       |                      |

### SCD 43

| SCHEMATIC | CONNECTIONS            |                         |                      |
|-----------|------------------------|-------------------------|----------------------|
|           | <b>Primary Volts</b>   | <b>Connect lines to</b> | <b>Inter-connect</b> |
|           | 480                    | H1, H2                  | 1-2                  |
|           | 277                    | H1, H2                  | 3-4                  |
|           | <b>Secondary Volts</b> | <b>Connect lines to</b> | <b>Inter-connect</b> |
| 277       | X1, X2                 | X5-X6                   |                      |
| 208       | X1, X2                 | X3-X4                   |                      |

### SCD 44

| SCHEMATIC | CONNECTIONS            |                         |                      |
|-----------|------------------------|-------------------------|----------------------|
|           | <b>Primary Volts</b>   | <b>Connect lines to</b> | <b>Inter-connect</b> |
|           | 380                    | H1, H2                  | 1-2                  |
|           | 347                    | H1, H2                  | 3-4                  |
|           | <b>Secondary Volts</b> | <b>Connect lines to</b> | <b>Inter-connect</b> |
|           | 240                    | X1, X4                  | X2-X3                |
|           | 120/240                | X1, X2, X4              | X2-X3                |
| 120       | X1, X2                 | X2-X4, X1-X3            |                      |

### SCD 45

| SCHEMATIC | CONNECTIONS            |                         |                      |
|-----------|------------------------|-------------------------|----------------------|
|           | <b>Primary Volts</b>   | <b>Connect lines to</b> | <b>Inter-connect</b> |
|           | 630                    | H1, H2, H3              | 1                    |
|           | 615                    | H1, H2, H3              | 2                    |
|           | 600                    | H1, H2, H3              | 3                    |
|           | 585                    | H1, H2, H3              | 4                    |
|           | 570                    | H1, H2, H3              | 5                    |
|           | <b>Secondary Volts</b> | <b>Connect lines to</b> | <b>Inter-connect</b> |
| 240       | X1, X2, X3             | -                       |                      |

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## ELECTRICAL SCHEMATICS AND CONNECTION DIAGRAMS

### SCD 46

| SCHEMATIC | CONNECTIONS   |                  |                  |               |
|-----------|---------------|------------------|------------------|---------------|
|           | Primary Volts | Connect lines to | Inter-connect    |               |
|           | 480 (60Hz)    | H1, H2           | 1-2              |               |
|           | 440           | H1, H2           | 1-2              |               |
|           | 416           | H1, H2           | 3-4              |               |
|           | 400           | H1, H2           | 5-6              |               |
|           | 380           | H1, H2           | 7-8              |               |
|           | 240 (60Hz)    | H1, H2           | H1-2, H2-1       |               |
|           | 220           | H1, H2           | H1-2, H2-1       |               |
|           | 208           | H1, H2           | H1-4, H2-3       |               |
|           | 200           | H1, H2           | H1-6, H2-5       |               |
|           | 190           | H1, H2           | H1-8, H2-7       |               |
|           |               | Secondary Volts  | Connect lines to | Inter-connect |
|           |               | 240              | X1, X4           | X2- X3        |
|           | 120           | X1, X2           | X2-X4, X1-X3     |               |
|           | 120/240       | X1, X2, X4       | X2-X3            |               |

### SCD 47

| SCHEMATIC | CONNECTIONS   |                       |                  |               |
|-----------|---------------|-----------------------|------------------|---------------|
|           | Primary Volts | Connect lines to      | Inter-connect    |               |
|           | 630           | H1, H2, H3            | 1-H1, 1-H2, 1-H3 |               |
|           | 615           | H1, H2, H3            | 2-H1, 2-H2, 2-H3 |               |
|           | 600           | H1, H2, H3            | 3-H1, 3-H2, 3-H3 |               |
|           | 585           | H1, H2, H3            | 4-H1, 4-H2, 4-H3 |               |
|           | 570           | H1, H2, H3            | 5-H1, 5-H2, 5-H3 |               |
|           | 480           | H1, H2, H3            | 6-H1, 6-H2, 6-H3 |               |
|           | 456           | H1, H2, H3            | 7-H1, 7-H2, 7-H3 |               |
|           | 432           | H1, H2, H3            | 8-H1, 8-H2, 8-H3 |               |
|           |               | Secondary Volts       | Connect lines to | Inter-connect |
|           |               | 480                   | X1, X2, X3       | -             |
|           | 277           | X1,X0   X2,X0   X3,X0 | -                |               |

### SCD 48

| SCHEMATIC | CONNECTIONS   |                  |                  |               |
|-----------|---------------|------------------|------------------|---------------|
|           | Primary Volts | Connect lines to | Inter-connect    |               |
|           | 347           | H1, H2           | H2-3 & 4         |               |
|           | 380           | H1, H2           | H2-1 & 2         |               |
|           |               | Secondary Volts  | Connect lines to | Inter-connect |
|           |               | 240              | X1, X4           | X2-X3         |
|           |               | 120              | X1, X2           | X1-X3, X2-X3  |
|           |               | 120/240          | X1, X2, X4       | X2-X3         |

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