69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

in Underground Duct Bank - Single Circuit

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF | delta Td for .0033 pf & Rho 60 | delta Td for .0033 pf & Rho 90 | delta Td for .0033 pf & Rho 120 |
|---|---|---|---|---|---|---|---|---|---|
| | 85°C - Copper Conductor - Compact Round Strand | | | | | | | | |
| 1/0 | 195 | 189 | 189 | 180 | 183 | 172 | 1.5 | 1.6 | 1.8 |
| 2/0 | 222 | 214 | 215 | 204 | 208 | 195 | 1.5 | 1.7 | 1.9 |
| 3/0 | 254 | 244 | 245 | 232 | 237 | 221 | 1.6 | 1.8 | 2.0 |
| 4/0 | 289 | 278 | 279 | 263 | 269 | 251 | 1.7 | 1.9 | 2.1 |
| 250 | 317 | 305 | 306 | 289 | 295 | 274 | 1.8 | 2.0 | 2.2 |
| 350 | 383 | 367 | 368 | 346 | 355 | 329 | 1.9 | 2.1 | 2.4 |
| 500 | 466 | 445 | 446 | 418 | 429 | 395 | 2.0 | 2.3 | 2.6 |
| 600 | 513 | 489 | 491 | 458 | 470 | 432 | 2.1 | 2.4 | 2.7 |
| 750 | 575 | 546 | 548 | 511 | 524 | 481 | 2.2 | 2.6 | 2.9 |
| 1000 | 659 | 624 | 626 | 580 | 597 | 544 | 2.4 | 2.8 | 3.1 |

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2736

69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

in Underground Duct Bank - Single Circuit

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF |
|---|---|---|---|---|---|---|
| | Total Watts/ft | | | | | |
| 85°C - Copper Conductor - Compact Round Strand | | | | | | |
| 1/0 | 14.9 | 14.0 | 14.0 | 12.7 | 13.1 | 11.7 |
| 2/0 | 15.4 | 14.3 | 14.4 | 13.0 | 13.5 | 11.9 |
| 3/0 | 16.0 | 14.8 | 14.9 | 13.4 | 14.0 | 12.2 |
| 4/0 | 16.6 | 15.4 | 15.5 | 13.8 | 14.4 | 12.6 |
| 250 | 17.0 | 15.8 | 15.9 | 14.2 | 14.8 | 12.8 |
| 350 | 18.1 | 16.7 | 16.7 | 14.9 | 15.6 | 13.5 |
| 500 | 19.4 | 17.8 | 17.9 | 15.8 | 16.6 | 14.2 |
| 600 | 20.3 | 18.5 | 18.6 | 16.3 | 17.1 | 14.6 |
| 750 | 21.3 | 19.3 | 19.4 | 17.0 | 17.8 | 15.1 |
| 1000 | 22.9 | 20.6 | 20.7 | 17.9 | 18.9 | 15.9 |

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# 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

## in Underground Duct Bank - Single Circuit

## 25°C Earth Ambient

| Condr Size | OD | Duct ID | Wd | Rac | Qs | Ri | Rj | Rsd | Rd | Re @ 90 Rho & loss factor 75% | 100% |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 85°C - Copper Conductor - Compact Round Strand | | | | | | |
| 1/0 | 2.530 | 5.06 | 0.13 | 125.96 | 1.008 | 3.55 | 0.71 | 4.98 | 0.71 | 2.93 | 4.40 |
| 2/0 | 2.616 | 5.06 | 0.14 | 99.88 | 1.011 | 3.38 | 0.69 | 4.82 | 0.71 | 2.93 | 4.40 |
| 3/0 | 2.727 | 5.06 | 0.15 | 79.28 | 1.014 | 3.20 | 0.66 | 4.63 | 0.71 | 2.93 | 4.40 |
| 4/0 | 2.850 | 5.06 | 0.16 | 62.99 | 1.020 | 3.03 | 0.63 | 4.43 | 0.71 | 2.93 | 4.40 |
| 250 | 2.947 | 5.06 | 0.17 | 53.41 | 1.024 | 2.88 | 0.61 | 4.28 | 0.71 | 2.93 | 4.40 |
| 350 | 3.163 | 5.06 | 0.19 | 38.36 | 1.037 | 2.62 | 0.56 | 3.99 | 0.71 | 2.93 | 4.40 |
| 500 | 3.472 | 5.06 | 0.22 | 27.17 | 1.061 | 2.34 | 0.59 | 3.63 | 0.71 | 2.93 | 4.40 |
| 600 | 3.648 | 5.06 | 0.24 | 22.87 | 1.082 | 2.18 | 0.56 | 3.45 | 0.71 | 2.93 | 4.40 |
| 750 | 3.863 | 5.06 | 0.26 | 18.65 | 1.109 | 2.01 | 0.52 | 3.26 | 0.71 | 2.93 | 4.40 |
| 1000 | 4.210 | 5.06 | 0.29 | 14.57 | 1.160 | 1.78 | 0.48 | 2.98 | 0.71 | 2.93 | 4.40 |

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2738

## 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable in Underground Duct Bank - Three Circuits

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF | delta Td for .0033 pf & Rho 60 | delta Td for .0033 pf & Rho 90 | delta Td for .0033 pf & Rho 120 |
|---|---|---|---|---|---|---|---|---|---|
| | 85°C - Copper Conductor - Compact Round Strand | | | | | | | | |
| 1/0 | 177 | 164 | 165 | 149 | 155 | 137 | 2.0 | 2.5 | 2.9 |
| 2/0 | 201 | 185 | 187 | 168 | 175 | 155 | 2.1 | 2.6 | 3.1 |
| 3/0 | 228 | 209 | 212 | 190 | 198 | 175 | 2.2 | 2.8 | 3.3 |
| 4/0 | 259 | 237 | 240 | 214 | 224 | 197 | 2.4 | 2.9 | 3.5 |
| 250 | 284 | 259 | 262 | 234 | 244 | 214 | 2.5 | 3.1 | 3.6 |
| 350 | 340 | 310 | 313 | 278 | 291 | 254 | 2.7 | 3.3 | 4.0 |
| 500 | 409 | 371 | 374 | 331 | 347 | 302 | 3.0 | 3.7 | 4.5 |
| 600 | 448 | 405 | 409 | 361 | 378 | 328 | 3.1 | 3.9 | 4.7 |
| 750 | 499 | 449 | 454 | 398 | 418 | 361 | 3.3 | 4.2 | 5.1 |
| 1000 | 566 | 507 | 511 | 447 | 469 | 403 | 3.6 | 4.6 | 5.6 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

in Underground Duct Bank - Three Circuits

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF |
|---|---|---|---|---|---|---|
| | Total Watts/ft | | | | | |
| 85°C - Copper Conductor - Compact Round Strand | | | | | | |
| 1/0 | 37.0 | 31.9 | 32.3 | 26.5 | 28.6 | 22.6 |
| 2/0 | 38.0 | 32.4 | 33.0 | 26.9 | 29.1 | 23.1 |
| 3/0 | 39.0 | 33.0 | 33.9 | 27.5 | 29.7 | 23.5 |
| 4/0 | 40.3 | 33.9 | 34.8 | 27.9 | 30.5 | 23.9 |
| 250 | 41.3 | 34.6 | 35.3 | 28.5 | 30.9 | 24.1 |
| 350 | 43.1 | 36.2 | 36.8 | 29.4 | 32.1 | 24.8 |
| 500 | 45.4 | 37.7 | 38.3 | 30.4 | 33.2 | 25.6 |
| 600 | 46.8 | 38.7 | 39.4 | 31.2 | 34.0 | 26.1 |
| 750 | 48.7 | 39.9 | 40.7 | 31.8 | 34.9 | 26.6 |
| 1000 | 51.4 | 41.7 | 42.3 | 33.0 | 36.1 | 27.3 |

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## 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable in Underground Duct Bank - Three Circuits

### 25°C Earth Ambient

| Condr Size | OD | Duct ID | Wd | Rac | Qs | Ri | Rj | Rsd | Rd | Re @ 90 loss 75% | Rho & factor 100% |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 85°C - Copper Conductor - Compact Round Strand | | | | | | |
| 1/0 | 2.530 | 5.06 | 0.13 | 125.96 | 1.008 | 3.55 | 0.71 | 4.75 | 0.71 | 4.19 | 6.43 |
| 2/0 | 2.616 | 5.06 | 0.14 | 99.88 | 1.011 | 3.38 | 0.69 | 4.60 | 0.71 | 4.19 | 6.43 |
| 3/0 | 2.727 | 5.06 | 0.15 | 79.28 | 1.014 | 3.20 | 0.66 | 4.41 | 0.71 | 4.19 | 6.43 |
| 4/0 | 2.850 | 5.06 | 0.16 | 62.99 | 1.020 | 3.03 | 0.63 | 4.22 | 0.71 | 4.19 | 6.43 |
| 250 | 2.947 | 5.06 | 0.17 | 53.41 | 1.024 | 2.88 | 0.61 | 4.09 | 0.71 | 4.19 | 6.43 |
| 350 | 3.163 | 5.06 | 0.19 | 38.36 | 1.037 | 2.62 | 0.56 | 3.81 | 0.71 | 4.19 | 6.43 |
| 500 | 3.472 | 5.06 | 0.22 | 27.17 | 1.061 | 2.34 | 0.59 | 3.48 | 0.71 | 4.19 | 6.43 |
| 600 | 3.648 | 5.06 | 0.24 | 22.87 | 1.082 | 2.18 | 0.56 | 3.31 | 0.71 | 4.19 | 6.43 |
| 750 | 3.863 | 5.06 | 0.26 | 18.65 | 1.109 | 2.01 | 0.52 | 3.11 | 0.71 | 4.19 | 6.43 |
| 1000 | 4.210 | 5.06 | 0.29 | 14.57 | 1.160 | 1.78 | 0.48 | 2.86 | 0.71 | 4.19 | 6.43 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

in Underground Duct Bank - Six Circuits

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF | delta Td for .0033 pf & Rho 60 | delta Td for .0033 pf & Rho 90 | delta Td for .0033 pf & Rho 120 |
|---|---|---|---|---|---|---|---|---|---|
| | 85°C - Copper Conductor - Compact Round Strand | | | | | | | | |
| 1/0 | 156 | 138 | 139 | 120 | 127 | 108 | 2.9 | 3.8 | 4.7 |
| 2/0 | 176 | 156 | 157 | 135 | 143 | 121 | 3.0 | 4.0 | 5.0 |
| 3/0 | 199 | 176 | 177 | 152 | 160 | 136 | 3.2 | 4.3 | 5.3 |
| 4/0 | 225 | 198 | 200 | 171 | 180 | 153 | 3.4 | 4.6 | 5.7 |
| 250 | 245 | 216 | 217 | 186 | 196 | 166 | 3.6 | 4.8 | 6.0 |
| 350 | 292 | 255 | 257 | 220 | 231 | 195 | 4.0 | 5.3 | 6.7 |
| 500 | 349 | 303 | 305 | 259 | 273 | 229 | 4.4 | 5.9 | 7.5 |
| 600 | 380 | 330 | 331 | 281 | 295 | 247 | 4.7 | 6.3 | 8.0 |
| 750 | 420 | 363 | 365 | 308 | 324 | 270 | 5.0 | 6.8 | 8.6 |
| 1000 | 471 | 405 | 406 | 342 | 359 | 298 | 5.5 | 7.6 | 9.6 |

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2742

69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

in Underground Duct Bank - Six Circuits

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF |
|---|---|---|---|---|---|---|
| | Total Watts/ft | | | | | |
| 85°C - Copper Conductor - Compact Round Strand | | | | | | |
| 1/0 | 58.0 | 45.9 | 46.5 | 35.3 | 39.2 | 29.0 |
| 2/0 | 58.8 | 46.8 | 47.3 | 35.6 | 39.7 | 29.1 |
| 3/0 | 60.0 | 47.5 | 48.1 | 36.2 | 39.8 | 29.5 |
| 4/0 | 61.5 | 48.3 | 49.2 | 36.8 | 40.4 | 30.0 |
| 250 | 62.2 | 49.0 | 49.5 | 37.2 | 40.9 | 30.2 |
| 350 | 64.5 | 50.1 | 50.8 | 38.1 | 41.7 | 30.7 |
| 500 | 67.2 | 51.6 | 52.2 | 38.8 | 42.6 | 31.2 |
| 600 | 68.6 | 52.8 | 53.1 | 39.5 | 43.1 | 31.5 |
| 750 | 70.3 | 53.7 | 54.3 | 40.0 | 43.7 | 31.8 |
| 1000 | 72.7 | 55.2 | 55.4 | 40.8 | 44.5 | 32.3 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

in Underground Duct Bank - Six Circuits

25°C Earth Ambient

| Condr Size | OD | Duct ID | Wd | Rac | Qs | Ri | Rj | Rsd | Rd | Re @ 90 Rho & loss factor 75% | Re @ 90 Rho & loss factor 100% |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 85°C - Copper Conductor - Compact Round Strand | | | | | | | |
| 1/0 | 2.530 | 5.06 | 0.13 | 125.96 | 1.008 | 3.55 | 0.71 | 4.60 | 0.71 | 6.38 | 9.96 |
| 2/0 | 2.616 | 5.06 | 0.14 | 99.88 | 1.011 | 3.38 | 0.69 | 4.46 | 0.71 | 6.38 | 9.96 |
| 3/0 | 2.727 | 5.06 | 0.15 | 79.28 | 1.014 | 3.20 | 0.66 | 4.28 | 0.71 | 6.38 | 9.96 |
| 4/0 | 2.850 | 5.06 | 0.16 | 62.99 | 1.020 | 3.03 | 0.63 | 4.10 | 0.71 | 6.38 | 9.96 |
| 250 | 2.947 | 5.06 | 0.17 | 53.41 | 1.024 | 2.88 | 0.61 | 3.96 | 0.71 | 6.38 | 9.96 |
| 350 | 3.163 | 5.06 | 0.19 | 38.36 | 1.037 | 2.62 | 0.56 | 3.69 | 0.71 | 6.38 | 9.96 |
| 500 | 3.472 | 5.06 | 0.22 | 27.17 | 1.061 | 2.34 | 0.59 | 3.37 | 0.71 | 6.38 | 9.96 |
| 600 | 3.648 | 5.06 | 0.24 | 22.87 | 1.082 | 2.18 | 0.56 | 3.20 | 0.71 | 6.38 | 9.96 |
| 750 | 3.863 | 5.06 | 0.26 | 18.65 | 1.109 | 2.01 | 0.52 | 3.03 | 0.71 | 6.38 | 9.96 |
| 1000 | 4.210 | 5.06 | 0.29 | 14.57 | 1.160 | 1.78 | 0.48 | 2.78 | 0.71 | 6.38 | 9.96 |

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2744

69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

in Underground Duct Bank - Nine Circuits

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF | delta Td for .0033 pf & Rho 60 | delta Td for .0033 pf & Rho 90 | delta Td for .0033 pf & Rho 120 |
|---|---|---|---|---|---|---|---|---|---|
| | 85°C - Copper Conductor - Compact Round Strand | | | | | | | | |
| 1/0 | 141 | 122 | 124 | 105 | 112 | 94 | 3.7 | 4.9 | 6.1 |
| 2/0 | 159 | 137 | 140 | 118 | 126 | 105 | 3.9 | 5.2 | 6.5 |
| 3/0 | 179 | 155 | 157 | 133 | 141 | 118 | 4.2 | 5.6 | 7.0 |
| 4/0 | 202 | 174 | 177 | 149 | 158 | 132 | 4.4 | 5.9 | 7.5 |
| 250 | 220 | 189 | 192 | 161 | 172 | 143 | 4.7 | 6.3 | 7.9 |
| 350 | 260 | 223 | 226 | 189 | 201 | 166 | 5.2 | 7.0 | 8.8 |
| 500 | 311 | 263 | 267 | 223 | 236 | 195 | 5.8 | 7.8 | 9.9 |
| 600 | 336 | 285 | 289 | 241 | 254 | 210 | 6.2 | 8.4 | 10.6 |
| 750 | 369 | 315 | 316 | 263 | 277 | 228 | 6.6 | 9.0 | 11.4 |
| 1000 | 412 | 347 | 350 | 290 | 306 | 251 | 7.4 | 10.1 | 12.8 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

in Underground Duct Bank - Nine Circuits

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF |
|---|---|---|---|---|---|---|
| | Total Watts/ft | | | | | |
| 85°C - Copper Conductor - Compact Round Strand | | | | | | |
| 1/0 | 71.7 | 54.6 | 56.2 | 41.3 | 46.5 | 33.8 |
| 2/0 | 72.7 | 55.0 | 57.2 | 41.7 | 47.1 | 33.8 |
| 3/0 | 73.6 | 56.2 | 57.6 | 42.5 | 47.2 | 34.3 |
| 4/0 | 75.2 | 56.9 | 58.8 | 42.9 | 47.7 | 34.6 |
| 250 | 76.1 | 57.4 | 59.1 | 42.9 | 48.4 | 34.9 |
| 350 | 77.8 | 58.6 | 60.1 | 43.6 | 48.6 | 34.8 |
| 500 | 81.2 | 59.8 | 61.4 | 44.7 | 49.3 | 35.6 |
| 600 | 81.9 | 60.7 | 62.2 | 45.2 | 49.5 | 35.9 |
| 750 | 83.0 | 62.4 | 62.8 | 45.6 | 49.8 | 36.0 |
| 1000 | 85.3 | 62.8 | 63.8 | 46.3 | 50.6 | 36.6 |

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2746

69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

in Underground Duct Bank - Nine Circuits

25°C Earth Ambient

| Condr Size | OD | Duct ID | Wd | Rac | Qs | Ri | Rj | Rsd | Rd | Re @ 90 loss 75% | Rho & factor 100% |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 85°C - Copper Conductor - Compact Round Strand | | | | | | |
| 1/0 | 2.530 | 5.06 | 0.13 | 125.96 | 1.008 | 3.55 | 0.71 | 4.53 | 0.71 | 8.11 | 12.75 |
| 2/0 | 2.616 | 5.06 | 0.14 | 99.88 | 1.011 | 3.38 | 0.69 | 4.38 | 0.71 | 8.11 | 12.75 |
| 3/0 | 2.727 | 5.06 | 0.15 | 79.28 | 1.014 | 3.20 | 0.66 | 4.21 | 0.71 | 8.11 | 12.75 |
| 4/0 | 2.850 | 5.06 | 0.16 | 62.99 | 1.020 | 3.03 | 0.63 | 4.03 | 0.71 | 8.11 | 12.75 |
| 250 | 2.947 | 5.06 | 0.17 | 53.41 | 1.024 | 2.88 | 0.61 | 3.90 | 0.71 | 8.11 | 12.75 |
| 350 | 3.163 | 5.06 | 0.19 | 38.36 | 1.037 | 2.62 | 0.56 | 3.64 | 0.71 | 8.11 | 12.75 |
| 500 | 3.472 | 5.06 | 0.22 | 27.17 | 1.061 | 2.34 | 0.59 | 3.32 | 0.71 | 8.11 | 12.75 |
| 600 | 3.648 | 5.06 | 0.24 | 22.87 | 1.082 | 2.18 | 0.56 | 3.16 | 0.71 | 8.11 | 12.75 |
| 750 | 3.863 | 5.06 | 0.26 | 18.65 | 1.109 | 2.01 | 0.52 | 2.99 | 0.71 | 8.11 | 12.75 |
| 1000 | 4.210 | 5.06 | 0.29 | 14.57 | 1.160 | 1.78 | 0.48 | 2.74 | 0.71 | 8.11 | 12.75 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Single Circuit

25°C Earth Ambient

| Condr Size | ---- 60 Rho--- Interface Temp Flux Amps | °C | w/ft² | ---- 90 Rho--- Interface Temp Flux Amps | °C | w/ft² | ----120 Rho--- Interface Temp Flux Amps | °C | w/ft² | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 75% LF | | | | | | | |
| | | | | | 85°C - Copper Conductor - Compact Round Strand | | | | | | | |
| 1/0 | 265 | 47 | 25.9 | 245 | 53 | 22.1 | 229 | 57 | 19.4 | 0.8 | 1.0 | 1.2 |
| 2/0 | 303 | 48 | 25.9 | 279 | 53 | 22.1 | 260 | 57 | 19.3 | 0.8 | 1.0 | 1.3 |
| 3/0 | 346 | 48 | 25.9 | 318 | 54 | 22.0 | 297 | 58 | 19.2 | 0.8 | 1.1 | 1.3 |
| 4/0 | 396 | 49 | 25.8 | 363 | 55 | 21.9 | 338 | 59 | 19.0 | 0.9 | 1.1 | 1.4 |
| 250 | 436 | 49 | 25.9 | 400 | 55 | 21.9 | 372 | 59 | 18.9 | 0.9 | 1.2 | 1.5 |
| 350 | 530 | 51 | 25.9 | 485 | 56 | 21.8 | 449 | 60 | 18.8 | 1.0 | 1.3 | 1.6 |
| 500 | 647 | 51 | 25.5 | 589 | 57 | 21.3 | 545 | 61 | 18.3 | 1.1 | 1.4 | 1.7 |
| 600 | 717 | 52 | 25.7 | 651 | 58 | 21.2 | 602 | 62 | 18.2 | 1.1 | 1.5 | 1.8 |
| 750 | 809 | 53 | 25.8 | 733 | 59 | 21.2 | 676 | 63 | 18.1 | 1.2 | 1.5 | 1.9 |
| 1000 | 939 | 55 | 26.1 | 847 | 61 | 21.3 | 778 | 64 | 18.1 | 1.2 | 1.7 | 2.1 |

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2748

69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Single Circuit

25°C Earth Ambient

| Condr Size | 60 Rho Interface Temp | 60 Rho Flux | 60 Rho Amps | 90 Rho Interface Temp | 90 Rho Flux | 90 Rho Amps | 120 Rho Interface Temp | 120 Rho Flux | 120 Rho Amps | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | °C | w/ft² | Amps | °C | w/ft² | Amps | °C | w/ft² | Amps | | | |
| 100% LF | | | | | | | | | | | | |
| 85°C - Copper Conductor - Compact Round Strand | | | | | | | | | | | | |
| 1/0 | 248 | 52 | 22.6 | 224 | 58 | 18.6 | 206 | 62 | 15.7 | 0.8 | 1.0 | 1.2 |
| 2/0 | 282 | 53 | 22.5 | 254 | 59 | 18.4 | 233 | 63 | 15.5 | 0.8 | 1.0 | 1.3 |
| 3/0 | 322 | 53 | 22.4 | 289 | 59 | 18.2 | 265 | 64 | 15.4 | 0.8 | 1.1 | 1.3 |
| 4/0 | 367 | 54 | 22.3 | 329 | 60 | 18.0 | 301 | 64 | 15.1 | 0.9 | 1.1 | 1.4 |
| 250 | 403 | 55 | 22.2 | 361 | 61 | 17.9 | 329 | 65 | 14.9 | 0.9 | 1.2 | 1.5 |
| 350 | 488 | 56 | 22.1 | 435 | 62 | 17.6 | 395 | 66 | 14.6 | 1.0 | 1.3 | 1.6 |
| 500 | 591 | 57 | 21.4 | 525 | 63 | 17.0 | 476 | 67 | 14.1 | 1.1 | 1.4 | 1.7 |
| 600 | 652 | 58 | 21.3 | 577 | 64 | 16.8 | 522 | 68 | 13.9 | 1.1 | 1.5 | 1.8 |
| 750 | 732 | 59 | 21.2 | 645 | 65 | 16.6 | 582 | 69 | 13.6 | 1.2 | 1.5 | 1.9 |
| 1000 | 842 | 61 | 21.0 | 737 | 67 | 16.3 | 663 | 70 | 13.3 | 1.2 | 1.7 | 2.1 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Single Circuit

25°C Earth Ambient

| Condr Size | 60 Rho Amps | 60 Rho Interface Temp °C | 60 Rho Flux w/ft² | 90 Rho Amps | 90 Rho Interface Temp °C | 90 Rho Flux w/ft² | 120 Rho Amps | 120 Rho Interface Temp °C | 120 Rho Flux w/ft² | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 75% LF | | | | | | | |
| | | | | | 75°C - Copper Conductor - Compact Round Strand | | | | | | | |
| 1/0 | 246 | 44 | 21.6 | 227 | 48 | 18.5 | 212 | 52 | 16.2 | 0.8 | 1.0 | 1.2 |
| 2/0 | 280 | 44 | 21.6 | 258 | 49 | 18.4 | 241 | 52 | 16.1 | 0.8 | 1.0 | 1.3 |
| 3/0 | 320 | 45 | 21.6 | 295 | 49 | 18.4 | 274 | 53 | 16.0 | 0.8 | 1.1 | 1.3 |
| 4/0 | 366 | 45 | 21.5 | 336 | 50 | 18.2 | 313 | 53 | 15.9 | 0.9 | 1.1 | 1.4 |
| 250 | 404 | 45 | 21.6 | 370 | 50 | 18.2 | 344 | 54 | 15.8 | 0.9 | 1.2 | 1.5 |
| 350 | 490 | 46 | 21.7 | 448 | 51 | 18.2 | 415 | 55 | 15.7 | 1.0 | 1.3 | 1.6 |
| 500 | 597 | 47 | 21.4 | 544 | 52 | 17.7 | 503 | 55 | 15.3 | 1.1 | 1.4 | 1.7 |
| 600 | 662 | 48 | 21.4 | 601 | 53 | 17.7 | 555 | 56 | 15.2 | 1.1 | 1.5 | 1.8 |
| 750 | 746 | 49 | 21.6 | 676 | 54 | 17.8 | 622 | 57 | 15.1 | 1.2 | 1.5 | 1.9 |
| 1000 | 865 | 50 | 21.8 | 779 | 55 | 17.8 | 715 | 58 | 15.0 | 1.2 | 1.7 | 2.1 |

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2750

69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Single Circuit

25°C Earth Ambient

| Condr Size | 60 Rho Amps | 60 Rho Interface Temp °C | 60 Rho Flux w/ft² | 90 Rho Amps | 90 Rho Interface Temp °C | 90 Rho Flux w/ft² | 120 Rho Amps | 120 Rho Interface Temp °C | 120 Rho Flux w/ft² | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 100% LF | | | | | | | |
| | | | | | 75°C - Copper Conductor - Compact Round Strand | | | | | | | |
| 1/0 | 229 | 48 | 18.8 | 207 | 53 | 15.4 | 190 | 56 | 13.1 | 0.8 | 1.0 | 1.2 |
| 2/0 | 261 | 48 | 18.9 | 235 | 53 | 15.4 | 216 | 57 | 13.0 | 0.8 | 1.0 | 1.3 |
| 3/0 | 298 | 49 | 18.7 | 268 | 54 | 15.2 | 245 | 57 | 12.8 | 0.8 | 1.1 | 1.3 |
| 4/0 | 339 | 49 | 18.6 | 304 | 54 | 15.0 | 278 | 58 | 12.6 | 0.9 | 1.1 | 1.4 |
| 250 | 373 | 50 | 18.5 | 334 | 55 | 14.9 | 305 | 58 | 12.5 | 0.9 | 1.2 | 1.5 |
| 350 | 451 | 51 | 18.4 | 402 | 56 | 14.7 | 365 | 59 | 12.3 | 1.0 | 1.3 | 1.6 |
| 500 | 546 | 52 | 17.9 | 484 | 57 | 14.1 | 439 | 60 | 11.7 | 1.1 | 1.4 | 1.7 |
| 600 | 602 | 53 | 17.8 | 532 | 58 | 14.0 | 482 | 61 | 11.5 | 1.1 | 1.5 | 1.8 |
| 750 | 675 | 54 | 17.8 | 594 | 58 | 13.8 | 536 | 62 | 11.3 | 1.2 | 1.5 | 1.9 |
| 1000 | 775 | 55 | 17.6 | 678 | 60 | 13.6 | 609 | 63 | 11.1 | 1.2 | 1.7 | 2.1 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Single Circuit

25°C Earth Ambient

| Condr Size | ---- 60 Rho--- Interface Temp Amps | Flux °C w/ft² | | ---- 90 Rho--- Interface Temp Amps | Flux °C w/ft² | | ----120 Rho--- Interface Temp Amps | Flux °C w/ft² | | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 75% LF | | | | | | | |
| | | | | | 65°C - Copper Conductor - Compact Round Strand | | | | | | | |
| 1/0 | 223 | 40 | 17.2 | 206 | 44 | 14.7 | 192 | 46 | 12.9 | 0.8 | 1.0 | 1.2 |
| 2/0 | 254 | 40 | 17.3 | 234 | 44 | 14.7 | 218 | 47 | 12.9 | 0.8 | 1.0 | 1.3 |
| 3/0 | 290 | 41 | 17.3 | 267 | 45 | 14.7 | 249 | 47 | 12.8 | 0.8 | 1.1 | 1.3 |
| 4/0 | 332 | 41 | 17.3 | 305 | 45 | 14.6 | 283 | 48 | 12.7 | 0.9 | 1.1 | 1.4 |
| 250 | 366 | 42 | 17.3 | 335 | 45 | 14.6 | 311 | 48 | 12.7 | 0.9 | 1.2 | 1.5 |
| 350 | 444 | 42 | 17.3 | 405 | 46 | 14.5 | 376 | 49 | 12.6 | 1.0 | 1.3 | 1.6 |
| 500 | 540 | 43 | 17.1 | 492 | 47 | 14.2 | 454 | 49 | 12.2 | 1.1 | 1.4 | 1.7 |
| 600 | 599 | 44 | 17.2 | 543 | 47 | 14.2 | 501 | 50 | 12.1 | 1.1 | 1.5 | 1.8 |
| 750 | 674 | 44 | 17.3 | 609 | 48 | 14.2 | 561 | 51 | 12.1 | 1.2 | 1.5 | 1.9 |
| 1000 | 779 | 45 | 17.5 | 701 | 49 | 14.2 | 642 | 52 | 12.1 | 1.2 | 1.7 | 2.1 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Single Circuit

25°C Earth Ambient

| Condr Size | 60 Rho Amps | 60 Rho Interface Temp °C | 60 Rho Flux w/ft² | 90 Rho Amps | 90 Rho Interface Temp °C | 90 Rho Flux w/ft² | 120 Rho Amps | 120 Rho Interface Temp °C | 120 Rho Flux w/ft² | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 100% LF | | | | | | | |
| | | | | | 65°C - Copper Conductor - Compact Round Strand | | | | | | | |
| 1/0 | 208 | 43 | 15.1 | 188 | 47 | 12.4 | 172 | 50 | 10.5 | 0.8 | 1.0 | 1.2 |
| 2/0 | 237 | 44 | 15.1 | 213 | 48 | 12.3 | 195 | 50 | 10.4 | 0.8 | 1.0 | 1.3 |
| 3/0 | 270 | 44 | 15.0 | 243 | 48 | 12.2 | 222 | 51 | 10.2 | 0.8 | 1.1 | 1.3 |
| 4/0 | 308 | 45 | 14.9 | 276 | 49 | 12.1 | 252 | 51 | 10.1 | 0.9 | 1.1 | 1.4 |
| 250 | 338 | 45 | 14.9 | 302 | 49 | 11.9 | 276 | 52 | 10.0 | 0.9 | 1.2 | 1.5 |
| 350 | 409 | 46 | 14.8 | 364 | 50 | 11.8 | 330 | 52 | 9.8 | 1.0 | 1.3 | 1.6 |
| 500 | 494 | 47 | 14.3 | 437 | 51 | 11.4 | 396 | 53 | 9.4 | 1.1 | 1.4 | 1.7 |
| 600 | 545 | 47 | 14.3 | 481 | 51 | 11.2 | 434 | 54 | 9.2 | 1.1 | 1.5 | 1.8 |
| 750 | 610 | 48 | 14.2 | 536 | 52 | 11.1 | 483 | 54 | 9.1 | 1.2 | 1.5 | 1.9 |
| 1000 | 698 | 49 | 14.1 | 610 | 53 | 10.9 | 547 | 55 | 8.9 | 1.2 | 1.7 | 2.1 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Single Circuit

25°C Earth Ambient

| Condr Size | 60 Rho Amps | 60 Rho Interface Temp °C | 60 Rho Flux w/ft² | 90 Rho Amps | 90 Rho Interface Temp °C | 90 Rho Flux w/ft² | 120 Rho Amps | 120 Rho Interface Temp °C | 120 Rho Flux w/ft² | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 75% LF | | | | | | | |
| | | | | | 50°C - Copper Conductor - Compact Round Strand | | | | | | | |
| 1/0 | 180 | 35 | 10.8 | 165 | 37 | 9.2 | 154 | 39 | 8.1 | 0.8 | 1.0 | 1.2 |
| 2/0 | 205 | 35 | 10.9 | 188 | 37 | 9.2 | 175 | 39 | 8.0 | 0.8 | 1.0 | 1.3 |
| 3/0 | 234 | 35 | 10.9 | 215 | 37 | 9.2 | 199 | 39 | 7.9 | 0.8 | 1.1 | 1.3 |
| 4/0 | 267 | 35 | 10.8 | 245 | 38 | 9.1 | 227 | 39 | 7.9 | 0.9 | 1.1 | 1.4 |
| 250 | 294 | 36 | 10.9 | 269 | 38 | 9.1 | 249 | 40 | 7.9 | 0.9 | 1.2 | 1.5 |
| 350 | 357 | 36 | 10.9 | 325 | 38 | 9.1 | 300 | 40 | 7.8 | 1.0 | 1.3 | 1.6 |
| 500 | 433 | 36 | 10.7 | 393 | 39 | 8.9 | 362 | 41 | 7.6 | 1.1 | 1.4 | 1.7 |
| 600 | 479 | 37 | 10.8 | 433 | 39 | 8.9 | 398 | 41 | 7.6 | 1.1 | 1.5 | 1.8 |
| 750 | 539 | 37 | 10.8 | 485 | 40 | 8.9 | 445 | 41 | 7.5 | 1.2 | 1.5 | 1.9 |
| 1000 | 620 | 38 | 11.0 | 555 | 40 | 8.9 | 507 | 42 | 7.5 | 1.2 | 1.7 | 2.1 |

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## 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

### Direct Buried - Single Circuit

### 25°C Earth Ambient

| Condr Size | 60 Rho Amps | 60 Rho Interface Temp °C | 60 Rho Flux w/ft² | 90 Rho Amps | 90 Rho Interface Temp °C | 90 Rho Flux w/ft² | 120 Rho Amps | 120 Rho Interface Temp °C | 120 Rho Flux w/ft² | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **100% LF** | | | | | | | | | | | | |
| **50°C - Copper Conductor - Compact Round Strand** | | | | | | | | | | | | |
| 1/0 | 168 | 37 | 9.5 | 151 | 39 | 7.8 | 138 | 41 | 6.6 | 0.8 | 1.0 | 1.2 |
| 2/0 | 191 | 37 | 9.5 | 172 | 39 | 7.7 | 157 | 41 | 6.5 | 0.8 | 1.0 | 1.3 |
| 3/0 | 217 | 37 | 9.4 | 195 | 40 | 7.7 | 178 | 41 | 6.4 | 0.8 | 1.1 | 1.3 |
| 4/0 | 248 | 37 | 9.4 | 221 | 40 | 7.6 | 202 | 42 | 6.3 | 0.9 | 1.1 | 1.4 |
| 250 | 272 | 38 | 9.3 | 243 | 40 | 7.5 | 221 | 42 | 6.3 | 0.9 | 1.2 | 1.5 |
| 350 | 328 | 38 | 9.3 | 291 | 41 | 7.4 | 264 | 42 | 6.2 | 1.0 | 1.3 | 1.6 |
| 500 | 396 | 39 | 9.0 | 350 | 41 | 7.1 | 316 | 43 | 5.9 | 1.1 | 1.4 | 1.7 |
| 600 | 436 | 39 | 9.0 | 384 | 42 | 7.1 | 345 | 43 | 5.8 | 1.1 | 1.5 | 1.8 |
| 750 | 487 | 40 | 9.0 | 427 | 42 | 7.0 | 383 | 44 | 5.7 | 1.2 | 1.5 | 1.9 |
| 1000 | 555 | 40 | 8.9 | 483 | 43 | 6.9 | 432 | 44 | 5.6 | 1.2 | 1.7 | 2.1 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Single Circuit

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF |
|---|---|---|---|---|---|---|
| | Total Watts/ft | | | | | |
| 85°C - Copper Conductor - Compact Round Strand | | | | | | |
| 1/0 | 27.1 | 23.8 | 23.3 | 19.5 | 20.4 | 16.6 |
| 2/0 | 28.2 | 24.5 | 24.0 | 20.0 | 20.9 | 16.9 |
| 3/0 | 29.3 | 25.5 | 24.8 | 20.6 | 21.7 | 17.4 |
| 4/0 | 30.7 | 26.5 | 25.9 | 21.4 | 22.5 | 18.0 |
| 250 | 31.7 | 27.2 | 26.8 | 21.9 | 23.2 | 18.3 |
| 350 | 34.1 | 29.0 | 28.7 | 23.2 | 24.6 | 19.2 |
| 500 | 36.9 | 30.9 | 30.7 | 24.5 | 26.3 | 20.3 |
| 600 | 38.9 | 32.3 | 32.2 | 25.4 | 27.6 | 20.9 |
| 750 | 41.4 | 34.0 | 34.1 | 26.6 | 29.1 | 21.8 |
| 1000 | 45.6 | 36.8 | 37.3 | 28.4 | 31.6 | 23.2 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Single Circuit

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF |
|---|---|---|---|---|---|---|
| | Total Watts/ft | | | | | |
| 75°C - Copper Conductor - Compact Round Strand | | | | | | |
| 1/0 | 22.7 | 19.8 | 19.4 | 16.2 | 17.0 | 13.7 |
| 2/0 | 23.4 | 20.4 | 20.0 | 16.6 | 17.5 | 14.1 |
| 3/0 | 24.4 | 21.2 | 20.8 | 17.3 | 18.0 | 14.5 |
| 4/0 | 25.5 | 22.0 | 21.6 | 17.8 | 18.8 | 14.9 |
| 250 | 26.5 | 22.7 | 22.3 | 18.3 | 19.4 | 15.3 |
| 350 | 28.4 | 24.2 | 23.9 | 19.3 | 20.6 | 16.0 |
| 500 | 30.8 | 25.8 | 25.7 | 20.5 | 22.0 | 16.9 |
| 600 | 32.5 | 27.0 | 26.9 | 21.2 | 23.0 | 17.5 |
| 750 | 34.6 | 28.4 | 28.5 | 22.2 | 24.3 | 18.2 |
| 1000 | 38.2 | 30.8 | 31.1 | 23.8 | 26.4 | 19.4 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Single Circuit

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF |
|---|---|---|---|---|---|---|
| | Total Watts/ft | | | | | |
| 65°C - Copper Conductor - Compact Round Strand | | | | | | |
| 1/0 | 18.2 | 15.9 | 15.6 | 13.0 | 13.6 | 11.0 |
| 2/0 | 18.8 | 16.4 | 16.0 | 13.3 | 13.9 | 11.2 |
| 3/0 | 19.5 | 17.0 | 16.6 | 13.9 | 14.5 | 11.6 |
| 4/0 | 20.5 | 17.7 | 17.3 | 14.3 | 15.0 | 12.0 |
| 250 | 21.2 | 18.2 | 17.9 | 14.6 | 15.5 | 12.3 |
| 350 | 22.8 | 19.4 | 19.1 | 15.5 | 16.5 | 12.9 |
| 500 | 24.6 | 20.7 | 20.5 | 16.3 | 17.6 | 13.5 |
| 600 | 26.1 | 21.7 | 21.5 | 17.1 | 18.4 | 14.0 |
| 750 | 27.7 | 22.8 | 22.8 | 17.8 | 19.4 | 14.6 |
| 1000 | 30.6 | 24.7 | 24.9 | 19.1 | 21.0 | 15.5 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Single Circuit

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF |
|---|---|---|---|---|---|---|
| | Total Watts/ft | | | | | |
| 50°C - Copper Conductor - Compact Round Strand | | | | | | |
| 1/0 | 11.4 | 10.0 | 9.6 | 8.1 | 8.5 | 6.9 |
| 2/0 | 11.8 | 10.3 | 10.0 | 8.4 | 8.7 | 7.1 |
| 3/0 | 12.3 | 10.6 | 10.4 | 8.7 | 9.0 | 7.3 |
| 4/0 | 12.8 | 11.1 | 10.9 | 8.9 | 9.4 | 7.5 |
| 250 | 13.2 | 11.4 | 11.2 | 9.2 | 9.6 | 7.7 |
| 350 | 14.3 | 12.1 | 11.9 | 9.7 | 10.3 | 8.1 |
| 500 | 15.4 | 13.0 | 12.8 | 10.3 | 11.0 | 8.5 |
| 600 | 16.3 | 13.6 | 13.5 | 10.7 | 11.5 | 8.8 |
| 750 | 17.4 | 14.4 | 14.3 | 11.2 | 12.1 | 9.2 |
| 1000 | 19.2 | 15.5 | 15.5 | 12.0 | 13.1 | 9.8 |

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# 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

## Direct Buried - Single Circuit

## 25°C Earth Ambient

| Condr Size | OD | Wd | Rac | Qs | Ri | Rj | Re @ 90 Rho & loss 75% | Re @ 90 Rho & factor 100% |
|---|---|---|---|---|---|---|---|---|
| | | | 85°C - Copper Conductor - Compact Round Strand | | | | | |
| 1/0 | 2.530 | 0.13 | 125.96 | 1.008 | 3.55 | 0.71 | 3.51 | 5.05 |
| 2/0 | 2.616 | 0.14 | 99.88 | 1.011 | 3.38 | 0.69 | 3.47 | 5.00 |
| 3/0 | 2.727 | 0.15 | 79.28 | 1.014 | 3.20 | 0.66 | 3.41 | 4.94 |
| 4/0 | 2.850 | 0.16 | 62.99 | 1.020 | 3.03 | 0.63 | 3.35 | 4.88 |
| 250 | 2.947 | 0.17 | 53.41 | 1.024 | 2.88 | 0.61 | 3.30 | 4.83 |
| 350 | 3.163 | 0.19 | 38.36 | 1.037 | 2.62 | 0.56 | 3.20 | 4.73 |
| 500 | 3.472 | 0.22 | 27.17 | 1.061 | 2.34 | 0.59 | 3.07 | 4.60 |
| 600 | 3.648 | 0.24 | 22.87 | 1.082 | 2.18 | 0.56 | 3.00 | 4.53 |
| 750 | 3.863 | 0.26 | 18.65 | 1.109 | 2.01 | 0.52 | 2.92 | 4.45 |
| 1000 | 4.210 | 0.29 | 14.57 | 1.160 | 1.78 | 0.48 | 2.80 | 4.33 |

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# 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

## Direct Buried - Single Circuit

## 25°C Earth Ambient

| Condr Size | OD | Wd | Rac | Qs | Ri | Rj | Re @ 90 Rho & loss factor 75% | 100% |
|---|---|---|---|---|---|---|---|---|
| 75°C - Copper Conductor - Compact Round Strand | | | | | | | | |
| 1/0 | 2.530 | 0.13 | 125.96 | 1.008 | 3.55 | 0.71 | 3.51 | 5.05 |
| 2/0 | 2.616 | 0.14 | 99.88 | 1.011 | 3.38 | 0.69 | 3.47 | 5.00 |
| 3/0 | 2.727 | 0.15 | 79.28 | 1.014 | 3.20 | 0.66 | 3.41 | 4.94 |
| 4/0 | 2.850 | 0.16 | 62.99 | 1.020 | 3.03 | 0.63 | 3.35 | 4.88 |
| 250 | 2.947 | 0.17 | 53.41 | 1.024 | 2.88 | 0.61 | 3.30 | 4.83 |
| 350 | 3.163 | 0.19 | 38.36 | 1.037 | 2.62 | 0.56 | 3.20 | 4.73 |
| 500 | 3.472 | 0.22 | 27.17 | 1.061 | 2.34 | 0.59 | 3.07 | 4.60 |
| 600 | 3.648 | 0.24 | 22.87 | 1.082 | 2.18 | 0.56 | 3.00 | 4.53 |
| 750 | 3.863 | 0.26 | 18.65 | 1.109 | 2.01 | 0.52 | 2.92 | 4.45 |
| 1000 | 4.210 | 0.29 | 14.57 | 1.160 | 1.78 | 0.48 | 2.80 | 4.33 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Single Circuit

25°C Earth Ambient

| Condr Size | OD | Wd | Rac | Qs | Ri | Rj | Re @ 90 Rho & loss factor 75% | 100% |
|---|---|---|---|---|---|---|---|---|
| | | | 65°C - Copper Conductor - Compact Round Strand | | | | | |
| 1/0 | 2.530 | 0.13 | 125.96 | 1.008 | 3.55 | 0.71 | 3.51 | 5.05 |
| 2/0 | 2.616 | 0.14 | 99.88 | 1.011 | 3.38 | 0.69 | 3.47 | 5.00 |
| 3/0 | 2.727 | 0.15 | 79.28 | 1.014 | 3.20 | 0.66 | 3.41 | 4.94 |
| 4/0 | 2.850 | 0.16 | 62.99 | 1.020 | 3.03 | 0.63 | 3.35 | 4.88 |
| 250 | 2.947 | 0.17 | 53.41 | 1.024 | 2.88 | 0.61 | 3.30 | 4.83 |
| 350 | 3.163 | 0.19 | 38.36 | 1.037 | 2.62 | 0.56 | 3.20 | 4.73 |
| 500 | 3.472 | 0.22 | 27.17 | 1.061 | 2.34 | 0.59 | 3.07 | 4.60 |
| 600 | 3.648 | 0.24 | 22.87 | 1.082 | 2.18 | 0.56 | 3.00 | 4.53 |
| 750 | 3.863 | 0.26 | 18.65 | 1.109 | 2.01 | 0.52 | 2.92 | 4.45 |
| 1000 | 4.210 | 0.29 | 14.57 | 1.160 | 1.78 | 0.48 | 2.80 | 4.33 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Single Circuit

25°C Earth Ambient

| Condr Size | OD | Wd | Rac | Qs | Ri | Rj | Re @ 90 Rho & loss 75% | factor 100% |
|---|---|---|---|---|---|---|---|---|
| | | | 50°C - Copper Conductor - Compact Round Strand | | | | | |
| 1/0 | 2.530 | 0.13 | 125.96 | 1.008 | 3.55 | 0.71 | 3.51 | 5.05 |
| 2/0 | 2.616 | 0.14 | 99.88 | 1.011 | 3.38 | 0.69 | 3.47 | 5.00 |
| 3/0 | 2.727 | 0.15 | 79.28 | 1.014 | 3.20 | 0.66 | 3.41 | 4.94 |
| 4/0 | 2.850 | 0.16 | 62.99 | 1.020 | 3.03 | 0.63 | 3.35 | 4.88 |
| 250 | 2.947 | 0.17 | 53.41 | 1.024 | 2.88 | 0.61 | 3.30 | 4.83 |
| 350 | 3.163 | 0.19 | 38.36 | 1.037 | 2.62 | 0.56 | 3.20 | 4.73 |
| 500 | 3.472 | 0.22 | 27.17 | 1.061 | 2.34 | 0.59 | 3.07 | 4.60 |
| 600 | 3.648 | 0.24 | 22.87 | 1.082 | 2.18 | 0.56 | 3.00 | 4.53 |
| 750 | 3.863 | 0.26 | 18.65 | 1.109 | 2.01 | 0.52 | 2.92 | 4.45 |
| 1000 | 4.210 | 0.29 | 14.57 | 1.160 | 1.78 | 0.48 | 2.80 | 4.33 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Double Circuit

25°C Earth Ambient

| Condr Size | 60 Rho Amps | 60 Rho Interface Temp °C | 60 Rho Flux w/ft² | 90 Rho Amps | 90 Rho Interface Temp °C | 90 Rho Flux w/ft² | 120 Rho Amps | 120 Rho Interface Temp °C | 120 Rho Flux w/ft² | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 75% LF | | | | | | | |
| | | | | | 85°C - Copper Conductor - Compact Round Strand | | | | | | | |
| 1/0 | 242 | 54 | 21.5 | 218 | 60 | 17.6 | 200 | 64 | 14.8 | 1.0 | 1.4 | 1.8 |
| 2/0 | 275 | 54 | 21.4 | 247 | 60 | 17.4 | 227 | 64 | 14.7 | 1.1 | 1.5 | 1.9 |
| 3/0 | 313 | 55 | 21.3 | 281 | 61 | 17.2 | 257 | 65 | 14.5 | 1.2 | 1.6 | 2.0 |
| 4/0 | 356 | 56 | 21.1 | 319 | 62 | 17.0 | 291 | 65 | 14.3 | 1.2 | 1.7 | 2.1 |
| 250 | 392 | 56 | 21.0 | 350 | 62 | 16.8 | 319 | 66 | 14.0 | 1.3 | 1.7 | 2.2 |
| 350 | 473 | 58 | 20.7 | 420 | 63 | 16.5 | 382 | 67 | 13.7 | 1.4 | 1.9 | 2.4 |
| 500 | 571 | 59 | 20.0 | 506 | 64 | 15.8 | 459 | 68 | 13.1 | 1.5 | 2.1 | 2.7 |
| 600 | 630 | 60 | 19.9 | 556 | 65 | 15.6 | 503 | 69 | 12.9 | 1.6 | 2.2 | 2.8 |
| 750 | 705 | 61 | 19.8 | 620 | 66 | 15.4 | 560 | 70 | 12.6 | 1.7 | 2.4 | 3.0 |
| 1000 | 809 | 63 | 19.4 | 707 | 68 | 15.0 | 635 | 71 | 12.2 | 1.9 | 2.6 | 3.3 |

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2764

69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Double Circuit

25°C Earth Ambient

| Condr Size | 60 Rho Interface Temp Amps | 60 Rho Interface Temp °C | 60 Rho Interface Flux w/ft² | 90 Rho Interface Temp Amps | 90 Rho Interface Temp °C | 90 Rho Interface Flux w/ft² | 120 Rho Interface Temp Amps | 120 Rho Interface Temp °C | 120 Rho Interface Flux w/ft² | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 100% LF | | | | | | | |
| | | | | | 85°C - Copper Conductor - Compact Round Strand | | | | | | | |
| 1/0 | 218 | 59 | 17.7 | 192 | 65 | 13.8 | 174 | 69 | 11.3 | 1.0 | 1.4 | 1.8 |
| 2/0 | 248 | 60 | 17.5 | 218 | 66 | 13.6 | 196 | 69 | 11.1 | 1.1 | 1.5 | 1.9 |
| 3/0 | 281 | 61 | 17.3 | 246 | 66 | 13.3 | 222 | 70 | 10.9 | 1.2 | 1.6 | 2.0 |
| 4/0 | 319 | 62 | 17.0 | 279 | 67 | 13.1 | 251 | 71 | 10.6 | 1.2 | 1.7 | 2.1 |
| 250 | 350 | 62 | 16.8 | 305 | 68 | 12.9 | 274 | 71 | 10.5 | 1.3 | 1.7 | 2.2 |
| 350 | 420 | 63 | 16.4 | 364 | 69 | 12.5 | 325 | 72 | 10.0 | 1.4 | 1.9 | 2.4 |
| 500 | 504 | 65 | 15.7 | 436 | 70 | 11.9 | 388 | 73 | 9.5 | 1.5 | 2.1 | 2.7 |
| 600 | 553 | 66 | 15.4 | 476 | 71 | 11.5 | 423 | 74 | 9.2 | 1.6 | 2.2 | 2.8 |
| 750 | 615 | 67 | 15.1 | 528 | 72 | 11.3 | 469 | 74 | 9.0 | 1.7 | 2.4 | 3.0 |
| 1000 | 699 | 68 | 14.7 | 596 | 73 | 10.8 | 527 | 76 | 8.6 | 1.9 | 2.6 | 3.3 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Double Circuit

25°C Earth Ambient

| Condr Size | 60 Rho Interface Temp | 60 Rho Flux | 60 Rho Amps | 90 Rho Interface Temp | 90 Rho Flux | 90 Rho Amps | 120 Rho Interface Temp | 120 Rho Flux | 120 Rho Amps | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | °C | w/ft² | | °C | w/ft² | | °C | w/ft² | | | | |
| | | | | | 75% LF | | | | | | | |
| | | | | | 75°C - Copper Conductor - Compact Round Strand | | | | | | | |
| 1/0 | 49 | 18.0 | 224 | 54 | 14.7 | 201 | 57 | 12.4 | 185 | 1.0 | 1.4 | 1.8 |
| 2/0 | 50 | 17.8 | 254 | 54 | 14.5 | 229 | 58 | 12.2 | 209 | 1.1 | 1.5 | 1.9 |
| 3/0 | 50 | 17.7 | 290 | 55 | 14.3 | 260 | 58 | 12.0 | 237 | 1.2 | 1.6 | 2.0 |
| 4/0 | 51 | 17.6 | 330 | 56 | 14.1 | 295 | 59 | 11.8 | 269 | 1.2 | 1.7 | 2.1 |
| 250 | 51 | 17.5 | 362 | 56 | 14.0 | 323 | 59 | 11.7 | 295 | 1.3 | 1.7 | 2.2 |
| 350 | 52 | 17.3 | 437 | 57 | 13.8 | 388 | 60 | 11.4 | 353 | 1.4 | 1.9 | 2.4 |
| 500 | 53 | 16.7 | 527 | 58 | 13.2 | 466 | 61 | 10.9 | 422 | 1.5 | 2.1 | 2.7 |
| 600 | 54 | 16.6 | 581 | 59 | 13.0 | 512 | 62 | 10.7 | 463 | 1.6 | 2.2 | 2.8 |
| 750 | 55 | 16.4 | 650 | 60 | 12.8 | 571 | 63 | 10.5 | 514 | 1.7 | 2.4 | 3.0 |
| 1000 | 57 | 16.2 | 743 | 61 | 12.5 | 649 | 64 | 10.2 | 582 | 1.9 | 2.6 | 3.3 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Double Circuit

25°C Earth Ambient

| Condr Size | 60 Rho Amps | 60 Rho Interface Temp °C | 60 Rho Flux w/ft² | 90 Rho Amps | 90 Rho Interface Temp °C | 90 Rho Flux w/ft² | 120 Rho Amps | 120 Rho Interface Temp °C | 120 Rho Flux w/ft² | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 100% LF | | | | | | | |
| | | | | | 75°C - Copper Conductor - Compact Round Strand | | | | | | | |
| 1/0 | 202 | 54 | 14.7 | 178 | 59 | 11.5 | 160 | 62 | 9.4 | 1.0 | 1.4 | 1.8 |
| 2/0 | 229 | 54 | 14.6 | 201 | 59 | 11.3 | 181 | 62 | 9.3 | 1.1 | 1.5 | 1.9 |
| 3/0 | 260 | 55 | 14.4 | 228 | 60 | 11.1 | 205 | 63 | 9.1 | 1.2 | 1.6 | 2.0 |
| 4/0 | 295 | 56 | 14.2 | 258 | 60 | 10.9 | 231 | 63 | 8.9 | 1.2 | 1.7 | 2.1 |
| 250 | 324 | 56 | 14.0 | 282 | 61 | 10.8 | 253 | 63 | 8.7 | 1.3 | 1.7 | 2.2 |
| 350 | 388 | 57 | 13.7 | 336 | 62 | 10.4 | 300 | 64 | 8.4 | 1.4 | 1.9 | 2.4 |
| 500 | 465 | 58 | 13.1 | 401 | 62 | 9.9 | 357 | 65 | 7.9 | 1.5 | 2.1 | 2.7 |
| 600 | 510 | 59 | 12.9 | 439 | 63 | 9.6 | 390 | 66 | 7.7 | 1.6 | 2.2 | 2.8 |
| 750 | 567 | 60 | 12.6 | 486 | 64 | 9.4 | 431 | 66 | 7.5 | 1.7 | 2.4 | 3.0 |
| 1000 | 643 | 61 | 12.3 | 547 | 65 | 9.0 | 483 | 67 | 7.1 | 1.9 | 2.6 | 3.3 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Double Circuit

25°C Earth Ambient

| Condr Size | ---- 60 Rho--- Interface Temp Amps | Flux °C | Flux w/ft² | ---- 90 Rho--- Interface Temp Amps | Flux °C | Flux w/ft² | ----120 Rho--- Interface Temp Amps | Flux °C | Flux w/ft² | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 75% LF | | | | | | | |
| | | | | | 65°C - Copper Conductor - Compact Round Strand | | | | | | | |
| 1/0 | 203 | 44 | 14.4 | 182 | 48 | 11.7 | 167 | 51 | 9.9 | 1.0 | 1.4 | 1.8 |
| 2/0 | 231 | 45 | 14.3 | 207 | 49 | 11.6 | 189 | 51 | 9.8 | 1.1 | 1.5 | 1.9 |
| 3/0 | 262 | 45 | 14.2 | 235 | 49 | 11.5 | 215 | 52 | 9.6 | 1.2 | 1.6 | 2.0 |
| 4/0 | 299 | 46 | 14.1 | 267 | 50 | 11.3 | 243 | 52 | 9.5 | 1.2 | 1.7 | 2.1 |
| 250 | 328 | 46 | 14.0 | 292 | 50 | 11.2 | 266 | 53 | 9.4 | 1.3 | 1.7 | 2.2 |
| 350 | 395 | 47 | 13.8 | 351 | 51 | 11.0 | 318 | 53 | 9.1 | 1.4 | 1.9 | 2.4 |
| 500 | 476 | 48 | 13.4 | 421 | 52 | 10.5 | 380 | 54 | 8.7 | 1.5 | 2.1 | 2.7 |
| 600 | 524 | 49 | 13.3 | 462 | 52 | 10.4 | 416 | 55 | 8.6 | 1.6 | 2.2 | 2.8 |
| 750 | 586 | 49 | 13.1 | 513 | 53 | 10.2 | 462 | 55 | 8.3 | 1.7 | 2.4 | 3.0 |
| 1000 | 668 | 51 | 13.0 | 582 | 54 | 10.0 | 521 | 56 | 8.1 | 1.9 | 2.6 | 3.3 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Double Circuit

25°C Earth Ambient

| Condr Size | 60 Rho Amps | 60 Rho Interface Temp °C | 60 Rho Flux w/ft² | 90 Rho Amps | 90 Rho Interface Temp °C | 90 Rho Flux w/ft² | 120 Rho Amps | 120 Rho Interface Temp °C | 120 Rho Flux w/ft² | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 100% LF | | | | | | | |
| | | | | | 65°C - Copper Conductor - Compact Round Strand | | | | | | | |
| 1/0 | 183 | 48 | 11.8 | 161 | 52 | 9.2 | 145 | 54 | 7.5 | 1.0 | 1.4 | 1.8 |
| 2/0 | 208 | 49 | 11.7 | 182 | 52 | 9.1 | 164 | 55 | 7.5 | 1.1 | 1.5 | 1.9 |
| 3/0 | 236 | 49 | 11.6 | 206 | 53 | 8.9 | 185 | 55 | 7.2 | 1.2 | 1.6 | 2.0 |
| 4/0 | 268 | 50 | 11.4 | 233 | 53 | 8.8 | 209 | 56 | 7.1 | 1.2 | 1.7 | 2.1 |
| 250 | 293 | 50 | 11.3 | 255 | 54 | 8.7 | 228 | 56 | 7.0 | 1.3 | 1.7 | 2.2 |
| 350 | 351 | 51 | 11.0 | 304 | 54 | 8.4 | 271 | 57 | 6.7 | 1.4 | 1.9 | 2.4 |
| 500 | 420 | 52 | 10.5 | 362 | 55 | 7.9 | 322 | 57 | 6.4 | 1.5 | 2.1 | 2.7 |
| 600 | 460 | 52 | 10.4 | 395 | 56 | 7.7 | 351 | 58 | 6.2 | 1.6 | 2.2 | 2.8 |
| 750 | 511 | 53 | 10.2 | 437 | 56 | 7.5 | 387 | 58 | 6.0 | 1.7 | 2.4 | 3.0 |
| 1000 | 578 | 54 | 9.8 | 491 | 57 | 7.3 | 433 | 59 | 5.7 | 1.9 | 2.6 | 3.3 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Double Circuit

25°C Earth Ambient

| Condr Size | 60 Rho Interface Temp Amps | 60 Rho Interface Temp °C | 60 Rho Flux w/ft² | 90 Rho Interface Temp Amps | 90 Rho Interface Temp °C | 90 Rho Flux w/ft² | 120 Rho Interface Temp Amps | 120 Rho Interface Temp °C | 120 Rho Flux w/ft² | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 75% LF | | | | | | | |
| | | | | | 50°C - Copper Conductor - Compact Round Strand | | | | | | | |
| 1/0 | 163 | 37 | 8.9 | 146 | 40 | 7.3 | 134 | 41 | 6.2 | 1.0 | 1.4 | 1.8 |
| 2/0 | 185 | 38 | 8.9 | 166 | 40 | 7.3 | 151 | 42 | 6.1 | 1.1 | 1.5 | 1.9 |
| 3/0 | 211 | 38 | 8.8 | 188 | 40 | 7.1 | 171 | 42 | 6.0 | 1.2 | 1.6 | 2.0 |
| 4/0 | 240 | 38 | 8.8 | 213 | 41 | 7.0 | 194 | 42 | 5.9 | 1.2 | 1.7 | 2.1 |
| 250 | 263 | 38 | 8.7 | 234 | 41 | 7.0 | 212 | 43 | 5.8 | 1.3 | 1.7 | 2.2 |
| 350 | 316 | 39 | 8.7 | 280 | 41 | 6.8 | 252 | 43 | 5.6 | 1.4 | 1.9 | 2.4 |
| 500 | 380 | 40 | 8.4 | 334 | 42 | 6.6 | 301 | 44 | 5.4 | 1.5 | 2.1 | 2.7 |
| 600 | 418 | 40 | 8.3 | 366 | 42 | 6.5 | 328 | 44 | 5.3 | 1.6 | 2.2 | 2.8 |
| 750 | 466 | 41 | 8.2 | 406 | 43 | 6.4 | 363 | 44 | 5.2 | 1.7 | 2.4 | 3.0 |
| 1000 | 529 | 41 | 8.1 | 457 | 44 | 6.2 | 407 | 45 | 5.0 | 1.9 | 2.6 | 3.3 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Double Circuit

25°C Earth Ambient

| Condr Size | 60 Rho Amps | 60 Rho Interface Temp °C | 60 Rho Flux w/ft² | 90 Rho Amps | 90 Rho Interface Temp °C | 90 Rho Flux w/ft² | 120 Rho Amps | 120 Rho Interface Temp °C | 120 Rho Flux w/ft² | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 100% LF | | | | | | | |
| | | | | | 50°C - Copper Conductor - Compact Round Strand | | | | | | | |
| 1/0 | 147 | 40 | 7.4 | 129 | 42 | 5.8 | 116 | 44 | 4.8 | 1.0 | 1.4 | 1.8 |
| 2/0 | 167 | 40 | 7.4 | 146 | 42 | 5.7 | 131 | 44 | 4.7 | 1.1 | 1.5 | 1.9 |
| 3/0 | 189 | 40 | 7.2 | 165 | 43 | 5.6 | 148 | 44 | 4.6 | 1.2 | 1.6 | 2.0 |
| 4/0 | 215 | 41 | 7.1 | 187 | 43 | 5.5 | 167 | 44 | 4.5 | 1.2 | 1.7 | 2.1 |
| 250 | 235 | 41 | 7.0 | 204 | 43 | 5.4 | 182 | 45 | 4.4 | 1.3 | 1.7 | 2.2 |
| 350 | 281 | 41 | 6.9 | 242 | 44 | 5.3 | 215 | 45 | 4.3 | 1.4 | 1.9 | 2.4 |
| 500 | 335 | 42 | 6.6 | 288 | 44 | 5.0 | 254 | 45 | 4.0 | 1.5 | 2.1 | 2.7 |
| 600 | 367 | 42 | 6.5 | 313 | 44 | 4.9 | 276 | 46 | 3.9 | 1.6 | 2.2 | 2.8 |
| 750 | 406 | 43 | 6.4 | 345 | 45 | 4.7 | 303 | 46 | 3.8 | 1.7 | 2.4 | 3.0 |
| 1000 | 457 | 44 | 6.2 | 386 | 45 | 4.6 | 337 | 46 | 3.6 | 1.9 | 2.6 | 3.3 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Double Circuit

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF |
|---|---|---|---|---|---|---|
| | Total Watts/ft | | | | | |
| 85°C - Copper Conductor - Compact Round Strand | | | | | | |
| 1/0 | 45.4 | 37.0 | 37.0 | 28.9 | 31.3 | 23.9 |
| 2/0 | 46.7 | 38.1 | 37.8 | 29.6 | 32.1 | 24.1 |
| 3/0 | 48.2 | 39.0 | 39.0 | 30.1 | 32.8 | 24.7 |
| 4/0 | 49.8 | 40.2 | 40.2 | 31.0 | 33.6 | 25.3 |
| 250 | 51.5 | 41.2 | 41.2 | 31.6 | 34.4 | 25.7 |
| 350 | 54.6 | 43.3 | 43.3 | 32.8 | 36.0 | 26.4 |
| 500 | 57.7 | 45.3 | 45.6 | 34.2 | 37.8 | 27.4 |
| 600 | 60.4 | 46.8 | 47.3 | 35.1 | 39.0 | 28.0 |
| 750 | 63.2 | 48.5 | 49.3 | 36.2 | 40.5 | 28.9 |
| 1000 | 68.1 | 51.3 | 52.4 | 37.8 | 42.6 | 29.9 |

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# 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

## Direct Buried - Double Circuit

### 25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF |
|---|---|---|---|---|---|---|
| | Total Watts/ft | | | | | |
| 75°C - Copper Conductor - Compact Round Strand | | | | | | |
| 1/0 | 37.8 | 30.9 | 30.6 | 24.2 | 26.1 | 19.7 |
| 2/0 | 38.7 | 31.6 | 31.6 | 24.6 | 26.5 | 20.1 |
| 3/0 | 40.3 | 32.5 | 32.5 | 25.2 | 27.2 | 20.6 |
| 4/0 | 41.7 | 33.5 | 33.5 | 25.9 | 28.0 | 20.9 |
| 250 | 42.8 | 34.5 | 34.3 | 26.4 | 28.8 | 21.4 |
| 350 | 45.5 | 36.1 | 36.1 | 27.4 | 30.1 | 22.0 |
| 500 | 48.2 | 37.9 | 38.0 | 28.5 | 31.4 | 22.9 |
| 600 | 50.3 | 39.1 | 39.4 | 29.4 | 32.5 | 23.5 |
| 750 | 52.9 | 40.6 | 41.2 | 30.2 | 33.6 | 24.1 |
| 1000 | 56.8 | 43.0 | 43.7 | 31.6 | 35.5 | 25.0 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Double Circuit

25°C Earth Ambient

| Condr Size | 60 Rho | | 90 Rho | | 120 Rho | |
|---|---|---|---|---|---|---|
| | 75 LF | 100 LF | 75 LF | 100 LF | 75 LF | 100 LF |
| | Total Watts/ft | | | | | |
| 65°C - Copper Conductor - Compact Round Strand | | | | | | |
| 1/0 | 30.3 | 24.7 | 24.5 | 19.3 | 20.7 | 15.8 |
| 2/0 | 31.2 | 25.5 | 25.2 | 19.7 | 21.2 | 16.1 |
| 3/0 | 32.1 | 26.2 | 26.0 | 20.2 | 21.9 | 16.4 |
| 4/0 | 33.4 | 27.0 | 26.8 | 20.6 | 22.4 | 16.8 |
| 250 | 34.3 | 27.6 | 27.4 | 21.1 | 22.9 | 17.1 |
| 350 | 36.3 | 28.9 | 28.9 | 22.0 | 24.0 | 17.7 |
| 500 | 38.5 | 30.3 | 30.4 | 22.8 | 25.0 | 18.4 |
| 600 | 40.2 | 31.3 | 31.6 | 23.5 | 25.9 | 18.8 |
| 750 | 42.3 | 32.5 | 32.8 | 24.2 | 26.9 | 19.3 |
| 1000 | 45.4 | 34.4 | 34.9 | 25.3 | 28.3 | 20.1 |

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# 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

## Direct Buried - Double Circuit

### 25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF |
|---|---|---|---|---|---|---|
| | Total Watts/ft | | | | | |
| 50°C - Copper Conductor - Compact Round Strand | | | | | | |
| 1/0 | 18.8 | 15.5 | 15.3 | 12.1 | 13.0 | 9.9 |
| 2/0 | 19.4 | 15.9 | 15.8 | 12.4 | 13.2 | 10.1 |
| 3/0 | 20.1 | 16.3 | 16.2 | 12.7 | 13.5 | 10.4 |
| 4/0 | 20.9 | 16.9 | 16.6 | 13.1 | 14.0 | 10.6 |
| 250 | 21.4 | 17.3 | 17.2 | 13.3 | 14.3 | 10.8 |
| 350 | 22.6 | 18.1 | 18.0 | 13.8 | 14.8 | 11.1 |
| 500 | 24.1 | 19.0 | 18.9 | 14.4 | 15.6 | 11.5 |
| 600 | 25.2 | 19.7 | 19.6 | 14.7 | 16.0 | 11.8 |
| 750 | 26.5 | 20.5 | 20.5 | 15.2 | 16.7 | 12.1 |
| 1000 | 28.4 | 21.6 | 21.6 | 15.9 | 17.5 | 12.6 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Double Circuit

25°C Earth Ambient

| Condr Size | OD | Wd | Rac | Qs | Ri | Rj | Re @ 90 Rho & loss 75% | factor 100% |
|---|---|---|---|---|---|---|---|---|
| | | | 85°C - Copper Conductor - Compact Round Strand | | | | | |
| 1/0 | 2.530 | 0.13 | 125.96 | 1.008 | 3.55 | 0.71 | 4.17 | 6.11 |
| 2/0 | 2.616 | 0.14 | 99.88 | 1.011 | 3.38 | 0.69 | 4.13 | 6.06 |
| 3/0 | 2.727 | 0.15 | 79.28 | 1.014 | 3.20 | 0.66 | 4.07 | 6.01 |
| 4/0 | 2.850 | 0.16 | 62.99 | 1.020 | 3.03 | 0.63 | 4.01 | 5.94 |
| 250 | 2.947 | 0.17 | 53.41 | 1.024 | 2.88 | 0.61 | 3.96 | 5.90 |
| 350 | 3.163 | 0.19 | 38.36 | 1.037 | 2.62 | 0.56 | 3.86 | 5.80 |
| 500 | 3.472 | 0.22 | 27.17 | 1.061 | 2.34 | 0.59 | 3.73 | 5.66 |
| 600 | 3.648 | 0.24 | 22.87 | 1.082 | 2.18 | 0.56 | 3.66 | 5.60 |
| 750 | 3.863 | 0.26 | 18.65 | 1.109 | 2.01 | 0.52 | 3.58 | 5.51 |
| 1000 | 4.210 | 0.29 | 14.57 | 1.160 | 1.78 | 0.48 | 3.46 | 5.39 |

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## 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

### Direct Buried - Double Circuit

### 25°C Earth Ambient

| Condr Size | OD | Wd | Rac | Qs | Ri | Rj | Re @ 90 Rho & loss 75% | Re @ 90 Rho & factor 100% |
|---|---|---|---|---|---|---|---|---|
| | | | 75°C - Copper Conductor - Compact Round Strand | | | | | |
| 1/0 | 2.530 | 0.13 | 125.96 | 1.008 | 3.55 | 0.71 | 4.17 | 6.11 |
| 2/0 | 2.616 | 0.14 | 99.88 | 1.011 | 3.38 | 0.69 | 4.13 | 6.06 |
| 3/0 | 2.727 | 0.15 | 79.28 | 1.014 | 3.20 | 0.66 | 4.07 | 6.01 |
| 4/0 | 2.850 | 0.16 | 62.99 | 1.020 | 3.03 | 0.63 | 4.01 | 5.94 |
| 250 | 2.947 | 0.17 | 53.41 | 1.024 | 2.88 | 0.61 | 3.96 | 5.90 |
| 350 | 3.163 | 0.19 | 38.36 | 1.037 | 2.62 | 0.56 | 3.86 | 5.80 |
| 500 | 3.472 | 0.22 | 27.17 | 1.061 | 2.34 | 0.59 | 3.73 | 5.66 |
| 600 | 3.648 | 0.24 | 22.87 | 1.082 | 2.18 | 0.56 | 3.66 | 5.60 |
| 750 | 3.863 | 0.26 | 18.65 | 1.109 | 2.01 | 0.52 | 3.58 | 5.51 |
| 1000 | 4.210 | 0.29 | 14.57 | 1.160 | 1.78 | 0.48 | 3.46 | 5.39 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Double Circuit

25°C Earth Ambient

| Condr Size | OD | Wd | Rac | Qs | Ri | Rj | Re @ 90 Rho & loss 75% | factor 100% |
|---|---|---|---|---|---|---|---|---|
| | | | 65°C - Copper Conductor - Compact Round Strand | | | | | |
| 1/0 | 2.530 | 0.13 | 125.96 | 1.008 | 3.55 | 0.71 | 4.17 | 6.11 |
| 2/0 | 2.616 | 0.14 | 99.88 | 1.011 | 3.38 | 0.69 | 4.13 | 6.06 |
| 3/0 | 2.727 | 0.15 | 79.28 | 1.014 | 3.20 | 0.66 | 4.07 | 6.01 |
| 4/0 | 2.850 | 0.16 | 62.99 | 1.020 | 3.03 | 0.63 | 4.01 | 5.94 |
| 250 | 2.947 | 0.17 | 53.41 | 1.024 | 2.88 | 0.61 | 3.96 | 5.90 |
| 350 | 3.163 | 0.19 | 38.36 | 1.037 | 2.62 | 0.56 | 3.86 | 5.80 |
| 500 | 3.472 | 0.22 | 27.17 | 1.061 | 2.34 | 0.59 | 3.73 | 5.66 |
| 600 | 3.648 | 0.24 | 22.87 | 1.082 | 2.18 | 0.56 | 3.66 | 5.60 |
| 750 | 3.863 | 0.26 | 18.65 | 1.109 | 2.01 | 0.52 | 3.58 | 5.51 |
| 1000 | 4.210 | 0.29 | 14.57 | 1.160 | 1.78 | 0.48 | 3.46 | 5.39 |

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# 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

## Direct Buried - Double Circuit

## 25°C Earth Ambient

| Condr Size | OD | Wd | Rac | Qs | Ri | Rj | Re @ 90 loss 75% | Rho & factor 100% |
|---|---|---|---|---|---|---|---|---|
| | | | 50°C - Copper Conductor - Compact Round Strand | | | | | |
| 1/0 | 2.530 | 0.13 | 125.96 | 1.008 | 3.55 | 0.71 | 4.17 | 6.11 |
| 2/0 | 2.616 | 0.14 | 99.88 | 1.011 | 3.38 | 0.69 | 4.13 | 6.06 |
| 3/0 | 2.727 | 0.15 | 79.28 | 1.014 | 3.20 | 0.66 | 4.07 | 6.01 |
| 4/0 | 2.850 | 0.16 | 62.99 | 1.020 | 3.03 | 0.63 | 4.01 | 5.94 |
| 250 | 2.947 | 0.17 | 53.41 | 1.024 | 2.88 | 0.61 | 3.96 | 5.90 |
| 350 | 3.163 | 0.19 | 38.36 | 1.037 | 2.62 | 0.56 | 3.86 | 5.80 |
| 500 | 3.472 | 0.22 | 27.17 | 1.061 | 2.34 | 0.59 | 3.73 | 5.66 |
| 600 | 3.648 | 0.24 | 22.87 | 1.082 | 2.18 | 0.56 | 3.66 | 5.60 |
| 750 | 3.863 | 0.26 | 18.65 | 1.109 | 2.01 | 0.52 | 3.58 | 5.51 |
| 1000 | 4.210 | 0.29 | 14.57 | 1.160 | 1.78 | 0.48 | 3.46 | 5.39 |

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# 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

## in Free Air

## 40°C Air Ambient

| Condr Size | No Sun 0 Ft/s | No Sun 2 Ft/s | Full Sun 0 Ft/s | Full Sun 2 Ft/s | delta Td for .0033 pf No Sun 0 Ft/s | delta Td for .0033 pf No Sun 2 Ft/s |
|---|---|---|---|---|---|---|
| **85°C - Copper Conductor - Compact Round Strand** | | | | | | |
| 1/0 | 206 | 223 | 144 | 175 | 0.8 | 0.7 |
| 2/0 | 235 | 255 | 164 | 199 | 0.9 | 0.7 |
| 3/0 | 270 | 292 | 188 | 228 | 0.9 | 0.7 |
| 4/0 | 310 | 335 | 215 | 261 | 0.9 | 0.8 |
| 250 | 342 | 371 | 237 | 287 | 0.9 | 0.8 |
| 350 | 418 | 453 | 288 | 349 | 1.0 | 0.8 |
| 500 | 515 | 555 | 353 | 425 | 1.0 | 0.9 |
| 600 | 573 | 618 | 392 | 471 | 1.1 | 0.9 |
| 750 | 650 | 701 | 443 | 532 | 1.1 | 0.9 |
| 1000 | 760 | 819 | 516 | 618 | 1.1 | 0.9 |

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## 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

### in Free Air

### 40°C Air Ambient

| Condr Size | No Sun 0 Ft/s | No Sun 2 Ft/s | Full Sun 0 Ft/s | Full Sun 2 Ft/s |
|---|---|---|---|---|
| | Total Watts/ft | | | |
| 85°C - Copper Conductor - Compact Round Strand | | | | |
| 1/0 | 16.6 | 19.3 | 8.3 | 12.1 |
| 2/0 | 17.2 | 20.1 | 8.6 | 12.4 |
| 3/0 | 18.1 | 21.0 | 9.0 | 13.0 |
| 4/0 | 19.0 | 22.1 | 9.4 | 13.6 |
| 250 | 19.7 | 23.1 | 9.7 | 14.0 |
| 350 | 21.5 | 25.1 | 10.5 | 15.1 |
| 500 | 23.6 | 27.4 | 11.4 | 16.3 |
| 600 | 25.1 | 29.1 | 12.1 | 17.2 |
| 750 | 27.0 | 31.4 | 13.0 | 18.4 |
| 1000 | 30.2 | 35.0 | 14.4 | 20.2 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

in Free Air

40°C Air Ambient

| Condr Size | OD | Duct ID | Wd | Rac | Qs | Ri | Rj | Rsd | Rd | Re No Sun 0 fps | Re Sun 2 fps |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 85°C - Copper Conductor - Compact Round Strand | | | | | | | | | | | |
| 1/0 | 2.530 | 9.99 | 0.13 | 125.96 | 1.008 | 3.55 | 0.71 | 0.00 | 0.00 | 3.98 | 2.77 |
| 2/0 | 2.616 | 9.99 | 0.14 | 99.88 | 1.011 | 3.38 | 0.69 | 0.00 | 0.00 | 3.86 | 2.70 |
| 3/0 | 2.727 | 9.99 | 0.15 | 79.28 | 1.015 | 3.20 | 0.66 | 0.00 | 0.00 | 3.71 | 2.62 |
| 4/0 | 2.850 | 9.99 | 0.16 | 62.99 | 1.020 | 3.03 | 0.63 | 0.00 | 0.00 | 3.56 | 2.53 |
| 250 | 2.947 | 9.99 | 0.17 | 53.41 | 1.025 | 2.88 | 0.61 | 0.00 | 0.00 | 3.45 | 2.46 |
| 350 | 3.163 | 9.99 | 0.19 | 38.36 | 1.038 | 2.62 | 0.56 | 0.00 | 0.00 | 3.23 | 2.33 |
| 500 | 3.472 | 9.99 | 0.22 | 27.17 | 1.062 | 2.34 | 0.59 | 0.00 | 0.00 | 2.96 | 2.17 |
| 600 | 3.648 | 9.99 | 0.24 | 22.87 | 1.083 | 2.18 | 0.56 | 0.00 | 0.00 | 2.83 | 2.08 |
| 750 | 3.863 | 9.99 | 0.26 | 18.65 | 1.111 | 2.01 | 0.52 | 0.00 | 0.00 | 2.68 | 1.99 |
| 1000 | 4.210 | 9.99 | 0.29 | 14.57 | 1.163 | 1.78 | 0.48 | 0.00 | 0.00 | 2.47 | 1.86 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

in Unventilated Riser

40°C Air Ambient

| Condr Size | No Sun 0 Ft/s | No Sun 2 Ft/s | Full Sun 0 Ft/s | Full Sun 2 Ft/s | delta Td for .0033 pf No Sun 0 Ft/s | delta Td for .0033 pf No Sun 2 Ft/s |
|---|---|---|---|---|---|---|
| 85°C - Copper Conductor - Compact Round Strand | | | | | | |
| 1/0 | 156 | 167 | 127 | 143 | 1.6 | 1.4 |
| 2/0 | 177 | 190 | 145 | 162 | 1.7 | 1.4 |
| 3/0 | 201 | 216 | 165 | 185 | 1.8 | 1.5 |
| 4/0 | 228 | 245 | 188 | 211 | 1.8 | 1.6 |
| 250 | 250 | 269 | 206 | 231 | 1.9 | 1.6 |
| 350 | 298 | 323 | 246 | 279 | 2.0 | 1.7 |
| 500 | 373 | 400 | 308 | 344 | 2.0 | 1.8 |
| 600 | 408 | 438 | 336 | 379 | 2.1 | 1.8 |
| 750 | 450 | 485 | 371 | 425 | 2.2 | 1.9 |
| 1000 | 504 | 546 | 415 | 479 | 2.4 | 2.0 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

in Unventilated Riser

40°C Air Ambient

| Condr Size | No Sun 0 Ft/s | No Sun 2 Ft/s | Full Sun 0 Ft/s | Full Sun 2 Ft/s |
|---|---|---|---|---|
| | Total Watts/ft | | | |
| 85°C - Copper Conductor - Compact Round Strand | | | | |
| 1/0 | 9.8 | 11.2 | 6.5 | 8.2 |
| 2/0 | 10.1 | 11.5 | 6.8 | 8.4 |
| 3/0 | 10.4 | 12.0 | 7.0 | 8.7 |
| 4/0 | 10.8 | 12.4 | 7.3 | 9.1 |
| 250 | 11.2 | 12.8 | 7.5 | 9.3 |
| 350 | 11.8 | 13.8 | 8.2 | 9.9 |
| 500 | 13.8 | 15.7 | 9.6 | 10.9 |
| 600 | 14.5 | 16.6 | 10.1 | 11.4 |
| 750 | 15.3 | 17.7 | 10.7 | 12.0 |
| 1000 | 16.6 | 19.4 | 11.6 | 15.1 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

in Unventilated Riser

40°C Air Ambient

| Condr Size | OD | Duct ID | Wd | Rac | Qs | Qe | Ri | Rj | Rsd | Rd | Re No Sun 0 fps | Re Sun 2 fps |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 85°C - Copper Conductor - Compact Round Strand | | | | | | | | | | | | |
| 1/0 | 2.530 | 4.03 | 0.13 | 126.09 | 1.012 | 1.020 | 3.55 | .71 | 5.80 | .00 | 3.93 | 2.27 |
| 2/0 | 2.616 | 4.03 | 0.14 | 99.98 | 1.016 | 1.027 | 3.38 | .69 | 5.65 | .00 | 3.91 | 2.27 |
| 3/0 | 2.727 | 4.03 | 0.15 | 79.44 | 1.022 | 1.036 | 3.20 | .66 | 5.46 | .00 | 3.90 | 2.27 |
| 4/0 | 2.850 | 4.03 | 0.16 | 63.12 | 1.029 | 1.048 | 3.03 | .63 | 5.28 | .00 | 3.87 | 2.27 |
| 250 | 2.947 | 4.03 | 0.17 | 53.52 | 1.036 | 1.060 | 2.88 | .61 | 5.14 | .00 | 3.86 | 2.27 |
| 350 | 3.163 | 4.03 | 0.19 | 38.55 | 1.056 | 1.093 | 2.62 | .56 | 4.86 | .00 | 3.82 | 2.27 |
| 500 | 3.472 | 5.05 | 0.22 | 27.47 | 1.090 | 1.144 | 2.34 | .59 | 4.29 | .00 | 3.12 | 1.94 |
| 600 | 3.648 | 5.05 | 0.24 | 23.24 | 1.120 | 1.189 | 2.18 | .56 | 4.12 | .00 | 3.10 | 1.94 |
| 750 | 3.863 | 5.05 | 0.26 | 19.14 | 1.159 | 1.250 | 2.01 | .52 | 3.94 | .00 | 3.07 | 1.94 |
| 1000 | 4.210 | 5.05 | 0.29 | 15.23 | 1.228 | 1.359 | 1.78 | .48 | 3.68 | .00 | 3.03 | 1.94 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

in Underground Duct Bank - Single Circuit

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF | delta Td for .0033 pf & Rho 60 | delta Td for .0033 pf & Rho 90 | delta Td for .0033 pf & Rho 120 |
|---|---|---|---|---|---|---|---|---|---|
| | 85°C - Aluminum Conductor - Compact Round Strand | | | | | | | | |
| 1/0 | 152 | 147 | 148 | 140 | 143 | 134 | 1.5 | 1.6 | 1.8 |
| 2/0 | 174 | 167 | 168 | 159 | 163 | 152 | 1.5 | 1.7 | 1.9 |
| 3/0 | 198 | 190 | 191 | 181 | 185 | 173 | 1.6 | 1.8 | 2.0 |
| 4/0 | 226 | 217 | 218 | 206 | 210 | 196 | 1.7 | 1.9 | 2.1 |
| 250 | 249 | 239 | 239 | 226 | 231 | 215 | 1.8 | 2.0 | 2.2 |
| 350 | 301 | 289 | 290 | 272 | 279 | 258 | 1.9 | 2.1 | 2.4 |
| 500 | 369 | 352 | 353 | 331 | 339 | 313 | 2.0 | 2.3 | 2.6 |
| 600 | 409 | 389 | 391 | 365 | 375 | 345 | 2.1 | 2.4 | 2.7 |
| 750 | 462 | 439 | 441 | 411 | 422 | 387 | 2.2 | 2.6 | 2.9 |
| 1000 | 540 | 511 | 513 | 476 | 489 | 446 | 2.4 | 2.8 | 3.1 |

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## 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable in Underground Duct Bank - Single Circuit

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF |
|---|---|---|---|---|---|---|
| | Total Watts/ft | | | | | |
| 85°C - Aluminum Conductor - Compact Round Strand | | | | | | |
| 1/0 | 14.8 | 13.9 | 14.1 | 12.7 | 13.2 | 11.6 |
| 2/0 | 15.5 | 14.3 | 14.4 | 13.0 | 13.6 | 11.9 |
| 3/0 | 15.9 | 14.7 | 14.9 | 13.4 | 14.0 | 12.3 |
| 4/0 | 16.5 | 15.3 | 15.4 | 13.8 | 14.4 | 12.6 |
| 250 | 17.1 | 15.8 | 15.8 | 14.2 | 14.8 | 12.9 |
| 350 | 18.0 | 16.7 | 16.8 | 14.8 | 15.6 | 13.4 |
| 500 | 19.4 | 17.7 | 17.8 | 15.7 | 16.4 | 14.1 |
| 600 | 20.2 | 18.3 | 18.5 | 16.2 | 17.1 | 14.6 |
| 750 | 21.1 | 19.1 | 19.3 | 16.9 | 17.7 | 15.0 |
| 1000 | 22.7 | 20.4 | 20.6 | 17.8 | 18.8 | 15.8 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

in Underground Duct Bank - Single Circuit

25°C Earth Ambient

| Condr Size | OD | Duct ID | Wd | Rac | Qs | Ri | Rj | Rsd | Rd | Re @ 90 Rho & loss 75% | Re @ 90 Rho & factor 100% |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 85°C - Aluminum Conductor - Compact Round Strand | | | | | | |
| 1/0 | 2.530 | 5.06 | 0.13 | 207.47 | 1.005 | 3.55 | 0.71 | 4.98 | 0.71 | 2.93 | 4.40 |
| 2/0 | 2.616 | 5.06 | 0.14 | 164.51 | 1.006 | 3.38 | 0.69 | 4.82 | 0.71 | 2.93 | 4.40 |
| 3/0 | 2.727 | 5.06 | 0.15 | 130.58 | 1.009 | 3.20 | 0.66 | 4.63 | 0.71 | 2.93 | 4.40 |
| 4/0 | 2.850 | 5.06 | 0.16 | 103.54 | 1.012 | 3.03 | 0.63 | 4.43 | 0.71 | 2.93 | 4.40 |
| 250 | 2.947 | 5.06 | 0.17 | 87.71 | 1.015 | 2.88 | 0.61 | 4.29 | 0.71 | 2.93 | 4.40 |
| 350 | 3.163 | 5.06 | 0.19 | 62.74 | 1.023 | 2.62 | 0.56 | 3.99 | 0.71 | 2.93 | 4.40 |
| 500 | 3.472 | 5.06 | 0.22 | 44.12 | 1.037 | 2.34 | 0.59 | 3.64 | 0.71 | 2.93 | 4.40 |
| 600 | 3.648 | 5.06 | 0.24 | 36.89 | 1.051 | 2.18 | 0.56 | 3.46 | 0.71 | 2.93 | 4.40 |
| 750 | 3.863 | 5.06 | 0.26 | 29.70 | 1.069 | 2.01 | 0.52 | 3.26 | 0.71 | 2.93 | 4.40 |
| 1000 | 4.210 | 5.06 | 0.29 | 22.60 | 1.103 | 1.78 | 0.48 | 2.98 | 0.71 | 2.93 | 4.40 |

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# 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable in Underground Duct Bank - Three Circuits

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|
| 85°C - Aluminum Conductor - Compact Round Strand | | | | | | | | | |
| 1/0 | 138 | 128 | 129 | 116 | 121 | 107 | 2.0 | 2.5 | 2.9 |
| 2/0 | 157 | 144 | 146 | 131 | 137 | 121 | 2.1 | 2.6 | 3.1 |
| 3/0 | 178 | 164 | 165 | 148 | 155 | 137 | 2.2 | 2.8 | 3.3 |
| 4/0 | 203 | 186 | 187 | 168 | 175 | 154 | 2.4 | 2.9 | 3.5 |
| 250 | 222 | 203 | 205 | 183 | 191 | 168 | 2.5 | 3.1 | 3.6 |
| 350 | 267 | 244 | 246 | 219 | 229 | 200 | 2.7 | 3.3 | 4.0 |
| 500 | 324 | 294 | 297 | 263 | 275 | 239 | 3.0 | 3.7 | 4.5 |
| 600 | 357 | 323 | 326 | 288 | 301 | 262 | 3.1 | 3.9 | 4.7 |
| 750 | 401 | 362 | 365 | 321 | 336 | 291 | 3.3 | 4.2 | 5.1 |
| 1000 | 464 | 416 | 420 | 367 | 385 | 331 | 3.6 | 4.6 | 5.6 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

in Underground Duct Bank - Three Circuits

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF |
|---|---|---|---|---|---|---|
| | Total Watts/ft | | | | | |
| 85°C - Aluminum Conductor - Compact Round Strand | | | | | | |
| 1/0 | 36.9 | 31.9 | 32.4 | 26.4 | 28.7 | 22.7 |
| 2/0 | 38.0 | 32.1 | 33.0 | 26.8 | 29.2 | 23.1 |
| 3/0 | 38.9 | 33.3 | 33.6 | 27.3 | 29.8 | 23.6 |
| 4/0 | 40.3 | 34.1 | 34.4 | 28.1 | 30.3 | 23.8 |
| 250 | 41.0 | 34.6 | 35.2 | 28.4 | 30.8 | 24.2 |
| 350 | 42.9 | 36.1 | 36.7 | 29.5 | 32.0 | 24.9 |
| 500 | 45.2 | 37.6 | 38.3 | 30.5 | 33.1 | 25.5 |
| 600 | 46.6 | 38.5 | 39.2 | 31.1 | 33.8 | 26.1 |
| 750 | 48.3 | 39.8 | 40.4 | 31.8 | 34.6 | 26.5 |
| 1000 | 50.9 | 41.5 | 42.2 | 32.8 | 35.9 | 27.2 |

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## 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

## in Underground Duct Bank - Three Circuits

## 25°C Earth Ambient

| Condr Size | OD | Duct ID | Wd | Rac | Qs | Ri | Rj | Rsd | Rd | Re @ 90 loss 75% | Rho & factor 100% |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 85°C - Aluminum Conductor - Compact Round Strand | | | | | | |
| 1/0 | 2.530 | 5.06 | 0.13 | 207.47 | 1.005 | 3.55 | 0.71 | 4.75 | 0.71 | 4.19 | 6.43 |
| 2/0 | 2.616 | 5.06 | 0.14 | 164.51 | 1.006 | 3.38 | 0.69 | 4.60 | 0.71 | 4.19 | 6.43 |
| 3/0 | 2.727 | 5.06 | 0.15 | 130.58 | 1.009 | 3.20 | 0.66 | 4.41 | 0.71 | 4.19 | 6.43 |
| 4/0 | 2.850 | 5.06 | 0.16 | 103.54 | 1.012 | 3.03 | 0.63 | 4.23 | 0.71 | 4.19 | 6.43 |
| 250 | 2.947 | 5.06 | 0.17 | 87.71 | 1.015 | 2.88 | 0.61 | 4.09 | 0.71 | 4.19 | 6.43 |
| 350 | 3.163 | 5.06 | 0.19 | 62.74 | 1.023 | 2.62 | 0.56 | 3.81 | 0.71 | 4.19 | 6.43 |
| 500 | 3.472 | 5.06 | 0.22 | 44.12 | 1.037 | 2.34 | 0.59 | 3.48 | 0.71 | 4.19 | 6.43 |
| 600 | 3.648 | 5.06 | 0.24 | 36.89 | 1.051 | 2.18 | 0.56 | 3.31 | 0.71 | 4.19 | 6.43 |
| 750 | 3.863 | 5.06 | 0.26 | 29.70 | 1.069 | 2.01 | 0.52 | 3.12 | 0.71 | 4.19 | 6.43 |
| 1000 | 4.210 | 5.06 | 0.29 | 22.60 | 1.103 | 1.78 | 0.48 | 2.86 | 0.71 | 4.19 | 6.43 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

in Underground Duct Bank - Six Circuits

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF | delta Td for .0033 pf & Rho 60 | delta Td for .0033 pf & Rho 90 | delta Td for .0033 pf & Rho 120 |
|---|---|---|---|---|---|---|---|---|---|
| | 85°C - Aluminum Conductor - Compact Round Strand | | | | | | | | |
| 1/0 | 121 | 108 | 109 | 94 | 99 | 84 | 2.9 | 3.8 | 4.7 |
| 2/0 | 137 | 121 | 123 | 106 | 111 | 95 | 3.0 | 4.0 | 5.0 |
| 3/0 | 155 | 137 | 138 | 119 | 125 | 106 | 3.2 | 4.3 | 5.3 |
| 4/0 | 176 | 155 | 156 | 134 | 141 | 119 | 3.4 | 4.6 | 5.7 |
| 250 | 192 | 169 | 170 | 146 | 154 | 130 | 3.6 | 4.8 | 6.0 |
| 350 | 230 | 201 | 202 | 173 | 182 | 153 | 4.0 | 5.3 | 6.7 |
| 500 | 276 | 240 | 242 | 206 | 216 | 182 | 4.4 | 5.9 | 7.5 |
| 600 | 303 | 263 | 264 | 224 | 236 | 197 | 4.7 | 6.3 | 8.0 |
| 750 | 338 | 293 | 294 | 248 | 261 | 218 | 5.0 | 6.8 | 8.6 |
| 1000 | 387 | 333 | 334 | 281 | 295 | 245 | 5.5 | 7.6 | 9.6 |

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## 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable in Underground Duct Bank - Six Circuits

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF |
|---|---|---|---|---|---|---|
| | Total Watts/ft | | | | | |
| 85°C - Aluminum Conductor - Compact Round Strand | | | | | | |
| 1/0 | 57.3 | 46.1 | 46.9 | 35.5 | 39.1 | 28.8 |
| 2/0 | 58.4 | 46.1 | 47.6 | 36.0 | 39.2 | 29.4 |
| 3/0 | 59.7 | 47.2 | 47.9 | 36.3 | 39.8 | 29.4 |
| 4/0 | 61.4 | 48.2 | 48.8 | 36.8 | 40.4 | 29.6 |
| 250 | 62.2 | 48.9 | 49.4 | 37.3 | 41.1 | 30.2 |
| 350 | 64.6 | 50.2 | 50.6 | 38.1 | 41.8 | 30.5 |
| 500 | 66.7 | 51.4 | 52.2 | 38.9 | 42.4 | 31.3 |
| 600 | 68.4 | 52.6 | 52.9 | 39.3 | 43.2 | 31.4 |
| 750 | 69.9 | 53.7 | 54.1 | 39.8 | 43.6 | 31.8 |
| 1000 | 72.5 | 55.0 | 55.3 | 40.7 | 44.3 | 32.2 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

in Underground Duct Bank - Six Circuits

25°C Earth Ambient

| Condr Size | OD | Duct ID | Wd | Rac | Qs | Ri | Rj | Rsd | Rd | Re @ 90 Rho & loss factor 75% | 100% |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 85°C - Aluminum Conductor - Compact Round Strand | | | | | | |
| 1/0 | 2.530 | 5.06 | 0.13 | 207.47 | 1.005 | 3.55 | 0.71 | 4.61 | 0.71 | 6.38 | 9.96 |
| 2/0 | 2.616 | 5.06 | 0.14 | 164.51 | 1.006 | 3.38 | 0.69 | 4.46 | 0.71 | 6.38 | 9.96 |
| 3/0 | 2.727 | 5.06 | 0.15 | 130.58 | 1.009 | 3.20 | 0.66 | 4.28 | 0.71 | 6.38 | 9.96 |
| 4/0 | 2.850 | 5.06 | 0.16 | 103.54 | 1.012 | 3.03 | 0.63 | 4.10 | 0.71 | 6.38 | 9.96 |
| 250 | 2.947 | 5.06 | 0.17 | 87.71 | 1.015 | 2.88 | 0.61 | 3.96 | 0.71 | 6.38 | 9.96 |
| 350 | 3.163 | 5.06 | 0.19 | 62.74 | 1.023 | 2.62 | 0.56 | 3.70 | 0.71 | 6.38 | 9.96 |
| 500 | 3.472 | 5.06 | 0.22 | 44.12 | 1.037 | 2.34 | 0.59 | 3.37 | 0.71 | 6.38 | 9.96 |
| 600 | 3.648 | 5.06 | 0.24 | 36.89 | 1.051 | 2.18 | 0.56 | 3.21 | 0.71 | 6.38 | 9.96 |
| 750 | 3.863 | 5.06 | 0.26 | 29.70 | 1.069 | 2.01 | 0.52 | 3.03 | 0.71 | 6.38 | 9.96 |
| 1000 | 4.210 | 5.06 | 0.29 | 22.60 | 1.103 | 1.78 | 0.48 | 2.78 | 0.71 | 6.38 | 9.96 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

in Underground Duct Bank - Nine Circuits

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|
| 85°C - Aluminum Conductor - Compact Round Strand | | | | | | | | | |
| 1/0 | 110 | 95 | 97 | 82 | 87 | 73 | 3.7 | 4.9 | 6.1 |
| 2/0 | 124 | 107 | 109 | 92 | 98 | 82 | 3.9 | 5.2 | 6.5 |
| 3/0 | 140 | 121 | 123 | 104 | 110 | 92 | 4.2 | 5.6 | 7.0 |
| 4/0 | 158 | 136 | 138 | 116 | 124 | 103 | 4.4 | 5.9 | 7.5 |
| 250 | 172 | 148 | 150 | 126 | 135 | 112 | 4.7 | 6.3 | 7.9 |
| 350 | 205 | 175 | 178 | 149 | 158 | 131 | 5.2 | 7.0 | 8.8 |
| 500 | 245 | 208 | 211 | 177 | 187 | 154 | 5.8 | 7.8 | 9.9 |
| 600 | 268 | 228 | 230 | 192 | 203 | 167 | 6.2 | 8.4 | 10.6 |
| 750 | 298 | 254 | 255 | 212 | 224 | 184 | 6.6 | 9.0 | 11.4 |
| 1000 | 339 | 285 | 288 | 238 | 251 | 206 | 7.4 | 10.1 | 12.8 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

in Underground Duct Bank - Nine Circuits

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF |
|---|---|---|---|---|---|---|
| | Total Watts/ft | | | | | |
| 85°C - Aluminum Conductor - Compact Round Strand | | | | | | |
| 1/0 | 71.7 | 54.3 | 56.5 | 41.4 | 46.1 | 33.5 |
| 2/0 | 72.5 | 54.9 | 56.9 | 41.6 | 46.7 | 33.8 |
| 3/0 | 73.8 | 56.2 | 57.9 | 42.6 | 47.1 | 34.2 |
| 4/0 | 75.0 | 56.7 | 58.3 | 42.5 | 47.9 | 34.4 |
| 250 | 75.8 | 57.3 | 58.8 | 42.8 | 48.5 | 34.8 |
| 350 | 78.1 | 58.3 | 60.1 | 43.7 | 48.5 | 35.0 |
| 500 | 80.1 | 59.4 | 61.0 | 44.7 | 49.2 | 35.3 |
| 600 | 81.6 | 60.8 | 61.8 | 45.0 | 49.6 | 35.6 |
| 750 | 83.1 | 62.3 | 62.7 | 45.5 | 50.0 | 36.0 |
| 1000 | 85.2 | 62.6 | 63.7 | 46.0 | 50.3 | 36.4 |

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## 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable in Underground Duct Bank - Nine Circuits

25°C Earth Ambient

| Condr Size | OD | Duct ID | Wd | Rac | Qs | Ri | Rj | Rsd | Rd | Re @ 90 loss 75% | Rho & factor 100% |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 85°C - Aluminum Conductor - Compact Round Strand | | | | | | | | | | | |
| 1/0 | 2.530 | 5.06 | 0.13 | 207.47 | 1.005 | 3.55 | 0.71 | 4.53 | 0.71 | 8.11 | 12.75 |
| 2/0 | 2.616 | 5.06 | 0.14 | 164.51 | 1.006 | 3.38 | 0.69 | 4.39 | 0.71 | 8.11 | 12.75 |
| 3/0 | 2.727 | 5.06 | 0.15 | 130.58 | 1.009 | 3.20 | 0.66 | 4.21 | 0.71 | 8.11 | 12.75 |
| 4/0 | 2.850 | 5.06 | 0.16 | 103.54 | 1.012 | 3.03 | 0.63 | 4.03 | 0.71 | 8.11 | 12.75 |
| 250 | 2.947 | 5.06 | 0.17 | 87.71 | 1.015 | 2.88 | 0.61 | 3.90 | 0.71 | 8.11 | 12.75 |
| 350 | 3.163 | 5.06 | 0.19 | 62.74 | 1.023 | 2.62 | 0.56 | 3.64 | 0.71 | 8.11 | 12.75 |
| 500 | 3.472 | 5.06 | 0.22 | 44.12 | 1.037 | 2.34 | 0.59 | 3.32 | 0.71 | 8.11 | 12.75 |
| 600 | 3.648 | 5.06 | 0.24 | 36.89 | 1.051 | 2.18 | 0.56 | 3.16 | 0.71 | 8.11 | 12.75 |
| 750 | 3.863 | 5.06 | 0.26 | 29.70 | 1.069 | 2.01 | 0.52 | 2.99 | 0.71 | 8.11 | 12.75 |
| 1000 | 4.210 | 5.06 | 0.29 | 22.60 | 1.103 | 1.78 | 0.48 | 2.75 | 0.71 | 8.11 | 12.75 |

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# 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

## Direct Buried - Single Circuit

### 25°C Earth Ambient

| Condr Size | 60 Rho Interface Temp | 60 Rho Flux | 90 Rho Interface Temp | 90 Rho Flux | 120 Rho Interface Temp | 120 Rho Flux | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|
| | Amps | °C w/ft² | Amps | °C w/ft² | Amps | °C w/ft² | | | |
| **75% LF** | | | | | | | | | |
| **85°C - Aluminum Conductor - Compact Round Strand** | | | | | | | | | |
| 1/0 | 207 | 47 25.8 | 191 | 53 22.1 | 179 | 57 19.3 | 0.8 | 1.0 | 1.2 |
| 2/0 | 236 | 48 25.9 | 218 | 53 22.1 | 203 | 57 19.2 | 0.8 | 1.0 | 1.3 |
| 3/0 | 270 | 48 25.8 | 249 | 54 22.0 | 232 | 58 19.2 | 0.8 | 1.1 | 1.3 |
| 4/0 | 309 | 49 25.8 | 284 | 54 21.8 | 264 | 59 19.0 | 0.9 | 1.1 | 1.4 |
| 250 | 341 | 49 25.8 | 313 | 55 21.8 | 291 | 59 18.9 | 0.9 | 1.2 | 1.5 |
| 350 | 416 | 50 25.8 | 380 | 56 21.6 | 353 | 60 18.7 | 1.0 | 1.3 | 1.6 |
| 500 | 511 | 51 25.2 | 466 | 57 21.1 | 431 | 61 18.2 | 1.1 | 1.4 | 1.7 |
| 600 | 569 | 52 25.3 | 518 | 58 21.0 | 479 | 62 18.1 | 1.1 | 1.5 | 1.8 |
| 750 | 648 | 53 25.4 | 588 | 59 21.0 | 542 | 63 17.9 | 1.2 | 1.5 | 1.9 |
| 1000 | 766 | 54 25.6 | 691 | 60 20.9 | 636 | 64 17.8 | 1.2 | 1.7 | 2.1 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Single Circuit

25°C Earth Ambient

| Condr Size | 60 Rho Interface Temp | 60 Rho Flux | 60 Rho Amps | 90 Rho Interface Temp | 90 Rho Flux | 90 Rho Amps | 120 Rho Interface Temp | 120 Rho Flux | 120 Rho Amps | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | °C | w/ft² | | °C | w/ft² | | °C | w/ft² | | | | |
| 100% LF | | | | | | | | | | | | |
| 85°C - Aluminum Conductor - Compact Round Strand | | | | | | | | | | | | |
| 1/0 | 52 | 22.6 | 193 | 58 | 18.6 | 175 | 62 | 15.7 | 160 | 0.8 | 1.0 | 1.2 |
| 2/0 | 53 | 22.5 | 220 | 59 | 18.4 | 198 | 63 | 15.5 | 182 | 0.8 | 1.0 | 1.3 |
| 3/0 | 53 | 22.4 | 251 | 59 | 18.2 | 226 | 63 | 15.3 | 207 | 0.8 | 1.1 | 1.3 |
| 4/0 | 54 | 22.2 | 287 | 60 | 18.0 | 257 | 64 | 15.1 | 235 | 0.9 | 1.1 | 1.4 |
| 250 | 54 | 22.1 | 316 | 61 | 17.8 | 283 | 65 | 14.9 | 258 | 0.9 | 1.2 | 1.5 |
| 350 | 56 | 21.9 | 383 | 62 | 17.5 | 341 | 66 | 14.6 | 311 | 1.0 | 1.3 | 1.6 |
| 500 | 57 | 21.2 | 467 | 63 | 16.8 | 415 | 67 | 13.9 | 377 | 1.1 | 1.4 | 1.7 |
| 600 | 58 | 21.1 | 518 | 64 | 16.6 | 459 | 67 | 13.7 | 416 | 1.1 | 1.5 | 1.8 |
| 750 | 59 | 20.9 | 587 | 65 | 16.4 | 518 | 68 | 13.5 | 468 | 1.2 | 1.5 | 1.9 |
| 1000 | 60 | 20.8 | 688 | 66 | 16.1 | 603 | 70 | 13.1 | 543 | 1.2 | 1.7 | 2.1 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Single Circuit

25°C Earth Ambient

| Condr Size | 60 Rho Interface Temp Amps | 60 Rho Interface Temp °C | 60 Rho Interface Flux w/ft² | 90 Rho Interface Temp Amps | 90 Rho Interface Temp °C | 90 Rho Interface Flux w/ft² | 120 Rho Interface Temp Amps | 120 Rho Interface Temp °C | 120 Rho Interface Flux w/ft² | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 75% LF | | | | | | | |
| | | | | | 75°C - Aluminum Conductor - Compact Round Strand | | | | | | | |
| 1/0 | 192 | 44 | 21.5 | 177 | 48 | 18.4 | 165 | 52 | 16.1 | 0.8 | 1.0 | 1.2 |
| 2/0 | 219 | 44 | 21.5 | 202 | 49 | 18.4 | 188 | 52 | 16.0 | 0.8 | 1.0 | 1.3 |
| 3/0 | 250 | 44 | 21.5 | 230 | 49 | 18.3 | 214 | 53 | 16.0 | 0.8 | 1.1 | 1.3 |
| 4/0 | 286 | 45 | 21.5 | 263 | 50 | 18.2 | 245 | 53 | 15.8 | 0.9 | 1.1 | 1.4 |
| 250 | 316 | 45 | 21.5 | 290 | 50 | 18.1 | 269 | 54 | 15.8 | 0.9 | 1.2 | 1.5 |
| 350 | 385 | 46 | 21.5 | 352 | 51 | 18.0 | 326 | 54 | 15.6 | 1.0 | 1.3 | 1.6 |
| 500 | 472 | 47 | 21.1 | 430 | 52 | 17.6 | 398 | 55 | 15.1 | 1.1 | 1.4 | 1.7 |
| 600 | 526 | 48 | 21.1 | 479 | 52 | 17.6 | 442 | 56 | 15.0 | 1.1 | 1.5 | 1.8 |
| 750 | 599 | 48 | 21.2 | 543 | 53 | 17.5 | 501 | 56 | 15.0 | 1.2 | 1.5 | 1.9 |
| 1000 | 707 | 50 | 21.4 | 638 | 54 | 17.5 | 586 | 58 | 14.8 | 1.2 | 1.7 | 2.1 |

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## 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

### Direct Buried - Single Circuit

### 25°C Earth Ambient

| Condr Size | 60 Rho Interface Amps | 60 Rho Interface Temp °C | 60 Rho Interface Flux w/ft² | 90 Rho Interface Amps | 90 Rho Interface Temp °C | 90 Rho Interface Flux w/ft² | 120 Rho Interface Amps | 120 Rho Interface Temp °C | 120 Rho Interface Flux w/ft² | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 100% LF | | | | | | | |
| | | | | | 75°C - Aluminum Conductor - Compact Round Strand | | | | | | | |
| 1/0 | 179 | 48 | 18.8 | 162 | 53 | 15.4 | 148 | 56 | 13.0 | 0.8 | 1.0 | 1.2 |
| 2/0 | 204 | 48 | 18.8 | 184 | 53 | 15.4 | 168 | 57 | 13.0 | 0.8 | 1.0 | 1.3 |
| 3/0 | 233 | 49 | 18.6 | 209 | 54 | 15.2 | 191 | 57 | 12.8 | 0.8 | 1.1 | 1.3 |
| 4/0 | 265 | 49 | 18.5 | 238 | 54 | 14.9 | 217 | 58 | 12.6 | 0.9 | 1.1 | 1.4 |
| 250 | 292 | 50 | 18.5 | 262 | 55 | 14.9 | 239 | 58 | 12.4 | 0.9 | 1.2 | 1.5 |
| 350 | 354 | 51 | 18.3 | 316 | 56 | 14.6 | 287 | 59 | 12.2 | 1.0 | 1.3 | 1.6 |
| 500 | 432 | 52 | 17.7 | 383 | 57 | 14.1 | 348 | 60 | 11.6 | 1.1 | 1.4 | 1.7 |
| 600 | 479 | 52 | 17.6 | 424 | 57 | 13.9 | 384 | 60 | 11.5 | 1.1 | 1.5 | 1.8 |
| 750 | 543 | 53 | 17.5 | 479 | 58 | 13.7 | 432 | 61 | 11.3 | 1.2 | 1.5 | 1.9 |
| 1000 | 635 | 55 | 17.3 | 556 | 59 | 13.4 | 501 | 62 | 11.0 | 1.2 | 1.7 | 2.1 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Single Circuit

25°C Earth Ambient

| Condr Size | 60 Rho Amps | 60 Rho Interface Temp °C | 60 Rho Flux w/ft² | 90 Rho Amps | 90 Rho Interface Temp °C | 90 Rho Flux w/ft² | 120 Rho Amps | 120 Rho Interface Temp °C | 120 Rho Flux w/ft² | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 75% LF | | | | | | | |
| | | | | | 65°C - Aluminum Conductor - Compact Round Strand | | | | | | | |
| 1/0 | 174 | 40 | 17.2 | 160 | 44 | 14.7 | 150 | 46 | 12.9 | 0.8 | 1.0 | 1.2 |
| 2/0 | 198 | 40 | 17.3 | 183 | 44 | 14.7 | 171 | 47 | 12.9 | 0.8 | 1.0 | 1.3 |
| 3/0 | 227 | 41 | 17.2 | 209 | 44 | 14.7 | 194 | 47 | 12.7 | 0.8 | 1.1 | 1.3 |
| 4/0 | 260 | 41 | 17.2 | 238 | 45 | 14.5 | 222 | 48 | 12.7 | 0.9 | 1.1 | 1.4 |
| 250 | 287 | 41 | 17.2 | 263 | 45 | 14.5 | 244 | 48 | 12.6 | 0.9 | 1.2 | 1.5 |
| 350 | 349 | 42 | 17.3 | 319 | 46 | 14.5 | 295 | 49 | 12.5 | 1.0 | 1.3 | 1.6 |
| 500 | 428 | 43 | 16.9 | 390 | 47 | 14.1 | 360 | 49 | 12.1 | 1.1 | 1.4 | 1.7 |
| 600 | 477 | 43 | 17.0 | 433 | 47 | 14.1 | 400 | 50 | 12.0 | 1.1 | 1.5 | 1.8 |
| 750 | 542 | 44 | 17.0 | 491 | 48 | 14.0 | 452 | 50 | 12.0 | 1.2 | 1.5 | 1.9 |
| 1000 | 639 | 45 | 17.2 | 576 | 49 | 14.0 | 528 | 51 | 11.9 | 1.2 | 1.7 | 2.1 |

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# 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

## Direct Buried - Single Circuit

### 25°C Earth Ambient

| Condr Size | 60 Rho Interface Temp Amps | 60 Rho Interface Temp °C | 60 Rho Flux w/ft² | 90 Rho Interface Temp Amps | 90 Rho Interface Temp °C | 90 Rho Flux w/ft² | 120 Rho Interface Temp Amps | 120 Rho Interface Temp °C | 120 Rho Flux w/ft² | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 100% LF | | | | | | | |
| | | | | | 65°C - Aluminum Conductor - Compact Round Strand | | | | | | | |
| 1/0 | 163 | 43 | 15.1 | 147 | 47 | 12.4 | 135 | 50 | 10.5 | 0.8 | 1.0 | 1.2 |
| 2/0 | 185 | 44 | 15.1 | 167 | 48 | 12.2 | 153 | 50 | 10.4 | 0.8 | 1.0 | 1.3 |
| 3/0 | 211 | 44 | 14.9 | 190 | 48 | 12.2 | 173 | 51 | 10.2 | 0.8 | 1.1 | 1.3 |
| 4/0 | 241 | 44 | 14.9 | 216 | 49 | 12.0 | 197 | 51 | 10.0 | 0.9 | 1.1 | 1.4 |
| 250 | 265 | 45 | 14.8 | 237 | 49 | 11.9 | 216 | 52 | 10.0 | 0.9 | 1.2 | 1.5 |
| 350 | 321 | 46 | 14.7 | 286 | 50 | 11.7 | 260 | 52 | 9.7 | 1.0 | 1.3 | 1.6 |
| 500 | 391 | 46 | 14.2 | 347 | 50 | 11.3 | 315 | 53 | 9.4 | 1.1 | 1.4 | 1.7 |
| 600 | 434 | 47 | 14.1 | 384 | 51 | 11.2 | 347 | 54 | 9.2 | 1.1 | 1.5 | 1.8 |
| 750 | 491 | 48 | 14.0 | 433 | 52 | 11.0 | 390 | 54 | 9.0 | 1.2 | 1.5 | 1.9 |
| 1000 | 574 | 49 | 13.9 | 502 | 53 | 10.7 | 451 | 55 | 8.8 | 1.2 | 1.7 | 2.1 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Single Circuit

25°C Earth Ambient

| Condr Size | 60 Rho Amps | 60 Rho Interface Temp °C | 60 Rho Flux w/ft² | 90 Rho Amps | 90 Rho Interface Temp °C | 90 Rho Flux w/ft² | 120 Rho Amps | 120 Rho Interface Temp °C | 120 Rho Flux w/ft² | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 75% LF | | | | | | | |
| | | | | | 50°C - Aluminum Conductor - Compact Round Strand | | | | | | | |
| 1/0 | 140 | 35 | 10.8 | 129 | 37 | 9.2 | 120 | 39 | 8.1 | 0.8 | 1.0 | 1.2 |
| 2/0 | 160 | 35 | 10.8 | 147 | 37 | 9.2 | 137 | 39 | 8.0 | 0.8 | 1.0 | 1.3 |
| 3/0 | 183 | 35 | 10.8 | 168 | 37 | 9.2 | 156 | 39 | 7.9 | 0.8 | 1.1 | 1.3 |
| 4/0 | 209 | 35 | 10.8 | 192 | 38 | 9.1 | 178 | 39 | 7.9 | 0.9 | 1.1 | 1.4 |
| 250 | 231 | 36 | 10.8 | 211 | 38 | 9.1 | 196 | 40 | 7.8 | 0.9 | 1.2 | 1.5 |
| 350 | 281 | 36 | 10.8 | 256 | 38 | 9.1 | 237 | 40 | 7.8 | 1.0 | 1.3 | 1.6 |
| 500 | 344 | 36 | 10.6 | 312 | 39 | 8.8 | 288 | 40 | 7.6 | 1.1 | 1.4 | 1.7 |
| 600 | 383 | 37 | 10.6 | 347 | 39 | 8.8 | 319 | 41 | 7.5 | 1.1 | 1.5 | 1.8 |
| 750 | 435 | 37 | 10.7 | 392 | 40 | 8.8 | 360 | 41 | 7.5 | 1.2 | 1.5 | 1.9 |
| 1000 | 511 | 38 | 10.7 | 459 | 40 | 8.7 | 419 | 42 | 7.4 | 1.2 | 1.7 | 2.1 |

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## 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

### Direct Buried - Single Circuit

### 25°C Earth Ambient

| Condr Size | 60 Rho Amps | 60 Rho Interface Temp °C | 60 Rho Flux w/ft² | 90 Rho Amps | 90 Rho Interface Temp °C | 90 Rho Flux w/ft² | 120 Rho Amps | 120 Rho Interface Temp °C | 120 Rho Flux w/ft² | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **100% LF** | | | | | | | | | | | | |
| **50°C - Aluminum Conductor - Compact Round Strand** | | | | | | | | | | | | |
| 1/0 | 131 | 37 | 9.5 | 118 | 39 | 7.8 | 108 | 41 | 6.6 | 0.8 | 1.0 | 1.2 |
| 2/0 | 149 | 37 | 9.5 | 134 | 39 | 7.7 | 123 | 41 | 6.5 | 0.8 | 1.0 | 1.3 |
| 3/0 | 170 | 37 | 9.4 | 153 | 40 | 7.6 | 139 | 41 | 6.4 | 0.8 | 1.1 | 1.3 |
| 4/0 | 194 | 37 | 9.3 | 173 | 40 | 7.5 | 158 | 42 | 6.3 | 0.9 | 1.1 | 1.4 |
| 250 | 213 | 38 | 9.3 | 190 | 40 | 7.5 | 173 | 42 | 6.3 | 0.9 | 1.2 | 1.5 |
| 350 | 259 | 38 | 9.2 | 230 | 41 | 7.4 | 208 | 42 | 6.1 | 1.0 | 1.3 | 1.6 |
| 500 | 314 | 39 | 8.9 | 278 | 41 | 7.1 | 251 | 43 | 5.9 | 1.1 | 1.4 | 1.7 |
| 600 | 349 | 39 | 8.9 | 307 | 41 | 7.0 | 277 | 43 | 5.8 | 1.1 | 1.5 | 1.8 |
| 750 | 394 | 39 | 8.8 | 345 | 42 | 6.9 | 311 | 43 | 5.7 | 1.2 | 1.5 | 1.9 |
| 1000 | 458 | 40 | 8.7 | 400 | 43 | 6.7 | 358 | 44 | 5.5 | 1.2 | 1.7 | 2.1 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Single Circuit

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF |
|---|---|---|---|---|---|---|
| | Total Watts/ft | | | | | |
| 85°C - Aluminum Conductor - Compact Round Strand | | | | | | |
| 1/0 | 27.2 | 23.7 | 23.2 | 19.5 | 20.4 | 16.4 |
| 2/0 | 28.1 | 24.5 | 24.0 | 19.9 | 20.9 | 16.9 |
| 3/0 | 29.3 | 25.4 | 25.0 | 20.6 | 21.7 | 17.4 |
| 4/0 | 30.5 | 26.4 | 25.8 | 21.3 | 22.4 | 17.8 |
| 250 | 31.6 | 27.2 | 26.7 | 21.9 | 23.1 | 18.3 |
| 350 | 33.9 | 28.8 | 28.4 | 23.0 | 24.6 | 19.2 |
| 500 | 36.5 | 30.6 | 30.5 | 24.3 | 26.2 | 20.2 |
| 600 | 38.4 | 31.9 | 31.9 | 25.2 | 27.4 | 20.8 |
| 750 | 40.8 | 33.6 | 33.7 | 26.3 | 28.8 | 21.6 |
| 1000 | 44.8 | 36.3 | 36.6 | 28.1 | 31.1 | 22.9 |

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## 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

### Direct Buried - Single Circuit

### 25°C Earth Ambient

| Condr Size | 60 Rho | | 90 Rho | | 120 Rho | |
|---|---|---|---|---|---|---|
| | 75 LF | 100 LF | 75 LF | 100 LF | 75 LF | 100 LF |
| | Total Watts/ft | | | | | |
| 75°C - Aluminum Conductor - Compact Round Strand | | | | | | |
| 1/0 | 22.7 | 19.8 | 19.4 | 16.3 | 16.9 | 13.7 |
| 2/0 | 23.5 | 20.5 | 20.1 | 16.7 | 17.4 | 14.0 |
| 3/0 | 24.4 | 21.2 | 20.7 | 17.2 | 18.0 | 14.4 |
| 4/0 | 25.4 | 21.9 | 21.6 | 17.8 | 18.8 | 14.8 |
| 250 | 26.4 | 22.6 | 22.3 | 18.3 | 19.3 | 15.3 |
| 350 | 28.3 | 24.0 | 23.7 | 19.2 | 20.4 | 16.0 |
| 500 | 30.4 | 25.6 | 25.4 | 20.3 | 21.8 | 16.8 |
| 600 | 32.0 | 26.6 | 26.6 | 21.0 | 22.8 | 17.4 |
| 750 | 34.0 | 28.1 | 28.1 | 22.0 | 24.0 | 18.1 |
| 1000 | 37.4 | 30.3 | 30.6 | 23.5 | 26.0 | 19.2 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Single Circuit

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF |
|---|---|---|---|---|---|---|
| | Total Watts/ft | | | | | |
| 65°C - Aluminum Conductor - Compact Round Strand | | | | | | |
| 1/0 | 18.1 | 16.0 | 15.4 | 13.1 | 13.6 | 11.1 |
| 2/0 | 18.7 | 16.3 | 16.0 | 13.4 | 14.0 | 11.3 |
| 3/0 | 19.5 | 16.9 | 16.6 | 13.8 | 14.4 | 11.5 |
| 4/0 | 20.4 | 17.6 | 17.2 | 14.2 | 15.0 | 11.9 |
| 250 | 21.2 | 18.1 | 17.8 | 14.6 | 15.4 | 12.2 |
| 350 | 22.6 | 19.2 | 19.0 | 15.4 | 16.3 | 12.8 |
| 500 | 24.4 | 20.5 | 20.4 | 16.3 | 17.5 | 13.5 |
| 600 | 25.7 | 21.4 | 21.3 | 16.9 | 18.3 | 13.9 |
| 750 | 27.3 | 22.5 | 22.5 | 17.7 | 19.2 | 14.5 |
| 1000 | 30.0 | 24.4 | 24.5 | 18.8 | 20.7 | 15.4 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Single Circuit

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF |
|---|---|---|---|---|---|---|
| | Total Watts/ft | | | | | |
| 50°C - Aluminum Conductor - Compact Round Strand | | | | | | |
| 1/0 | 11.3 | 9.9 | 9.7 | 8.1 | 8.4 | 6.9 |
| 2/0 | 11.7 | 10.2 | 10.0 | 8.4 | 8.7 | 7.1 |
| 3/0 | 12.2 | 10.6 | 10.4 | 8.7 | 9.0 | 7.2 |
| 4/0 | 12.7 | 11.0 | 10.8 | 8.9 | 9.4 | 7.5 |
| 250 | 13.2 | 11.3 | 11.1 | 9.1 | 9.7 | 7.7 |
| 350 | 14.2 | 12.1 | 11.9 | 9.7 | 10.3 | 8.0 |
| 500 | 15.3 | 12.8 | 12.7 | 10.2 | 10.9 | 8.4 |
| 600 | 16.1 | 13.5 | 13.3 | 10.6 | 11.4 | 8.8 |
| 750 | 17.1 | 14.2 | 14.0 | 11.1 | 12.0 | 9.1 |
| 1000 | 18.8 | 15.3 | 15.3 | 11.8 | 12.9 | 9.7 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Single Circuit

25°C Earth Ambient

| Condr Size | OD | Wd | Rac | Qs | Ri | Rj | Re @ 90 Rho & loss factor 75% | 100% |
|---|---|---|---|---|---|---|---|---|
| | | 85°C - Aluminum Conductor - Compact Round Strand | | | | | | |
| 1/0 | 2.530 | 0.13 | 207.47 | 1.005 | 3.55 | 0.71 | 3.51 | 5.05 |
| 2/0 | 2.616 | 0.14 | 164.51 | 1.006 | 3.38 | 0.69 | 3.47 | 5.00 |
| 3/0 | 2.727 | 0.15 | 130.58 | 1.009 | 3.20 | 0.66 | 3.41 | 4.94 |
| 4/0 | 2.850 | 0.16 | 103.54 | 1.012 | 3.03 | 0.63 | 3.35 | 4.88 |
| 250 | 2.947 | 0.17 | 87.71 | 1.015 | 2.88 | 0.61 | 3.30 | 4.83 |
| 350 | 3.163 | 0.19 | 62.74 | 1.023 | 2.62 | 0.56 | 3.20 | 4.73 |
| 500 | 3.472 | 0.22 | 44.12 | 1.037 | 2.34 | 0.59 | 3.07 | 4.60 |
| 600 | 3.648 | 0.24 | 36.89 | 1.051 | 2.18 | 0.56 | 3.00 | 4.53 |
| 750 | 3.863 | 0.26 | 29.70 | 1.069 | 2.01 | 0.52 | 2.92 | 4.45 |
| 1000 | 4.210 | 0.29 | 22.60 | 1.103 | 1.78 | 0.48 | 2.80 | 4.33 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Single Circuit

25°C Earth Ambient

| Condr Size | OD | Wd | Rac | Qs | Ri | Rj | Re @ 90 loss 75% | Rho & factor 100% |
|---|---|---|---|---|---|---|---|---|
| 75°C - Aluminum Conductor - Compact Round Strand | | | | | | | | |
| 1/0 | 2.530 | 0.13 | 207.47 | 1.005 | 3.55 | 0.71 | 3.51 | 5.05 |
| 2/0 | 2.616 | 0.14 | 164.51 | 1.006 | 3.38 | 0.69 | 3.47 | 5.00 |
| 3/0 | 2.727 | 0.15 | 130.58 | 1.009 | 3.20 | 0.66 | 3.41 | 4.94 |
| 4/0 | 2.850 | 0.16 | 103.54 | 1.012 | 3.03 | 0.63 | 3.35 | 4.88 |
| 250 | 2.947 | 0.17 | 87.71 | 1.015 | 2.88 | 0.61 | 3.30 | 4.83 |
| 350 | 3.163 | 0.19 | 62.74 | 1.023 | 2.62 | 0.56 | 3.20 | 4.73 |
| 500 | 3.472 | 0.22 | 44.12 | 1.037 | 2.34 | 0.59 | 3.07 | 4.60 |
| 600 | 3.648 | 0.24 | 36.89 | 1.051 | 2.18 | 0.56 | 3.00 | 4.53 |
| 750 | 3.863 | 0.26 | 29.70 | 1.069 | 2.01 | 0.52 | 2.92 | 4.45 |
| 1000 | 4.210 | 0.29 | 22.60 | 1.103 | 1.78 | 0.48 | 2.80 | 4.33 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Single Circuit

25°C Earth Ambient

| Condr Size | OD | Wd | Rac | Qs | Ri | Rj | Re @ 90 Rho & loss 75% | Re @ 90 Rho & factor 100% |
|---|---|---|---|---|---|---|---|---|
| | | | 65°C - Aluminum Conductor - Compact Round Strand | | | | | |
| 1/0 | 2.530 | 0.13 | 207.47 | 1.005 | 3.55 | 0.71 | 3.51 | 5.05 |
| 2/0 | 2.616 | 0.14 | 164.51 | 1.006 | 3.38 | 0.69 | 3.47 | 5.00 |
| 3/0 | 2.727 | 0.15 | 130.58 | 1.009 | 3.20 | 0.66 | 3.41 | 4.94 |
| 4/0 | 2.850 | 0.16 | 103.54 | 1.012 | 3.03 | 0.63 | 3.35 | 4.88 |
| 250 | 2.947 | 0.17 | 87.71 | 1.015 | 2.88 | 0.61 | 3.30 | 4.83 |
| 350 | 3.163 | 0.19 | 62.74 | 1.023 | 2.62 | 0.56 | 3.20 | 4.73 |
| 500 | 3.472 | 0.22 | 44.12 | 1.037 | 2.34 | 0.59 | 3.07 | 4.60 |
| 600 | 3.648 | 0.24 | 36.89 | 1.051 | 2.18 | 0.56 | 3.00 | 4.53 |
| 750 | 3.863 | 0.26 | 29.70 | 1.069 | 2.01 | 0.52 | 2.92 | 4.45 |
| 1000 | 4.210 | 0.29 | 22.60 | 1.103 | 1.78 | 0.48 | 2.80 | 4.33 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Single Circuit

25°C Earth Ambient

| Condr Size | OD | Wd | Rac | Qs | Ri | Rj | Re @ 90 loss 75% | Rho & factor 100% |
|---|---|---|---|---|---|---|---|---|
| 50°C - Aluminum Conductor - Compact Round Strand | | | | | | | | |
| 1/0 | 2.530 | 0.13 | 207.47 | 1.005 | 3.55 | 0.71 | 3.51 | 5.05 |
| 2/0 | 2.616 | 0.14 | 164.51 | 1.006 | 3.38 | 0.69 | 3.47 | 5.00 |
| 3/0 | 2.727 | 0.15 | 130.58 | 1.009 | 3.20 | 0.66 | 3.41 | 4.94 |
| 4/0 | 2.850 | 0.16 | 103.54 | 1.012 | 3.03 | 0.63 | 3.35 | 4.88 |
| 250 | 2.947 | 0.17 | 87.71 | 1.015 | 2.88 | 0.61 | 3.30 | 4.83 |
| 350 | 3.163 | 0.19 | 62.74 | 1.023 | 2.62 | 0.56 | 3.20 | 4.73 |
| 500 | 3.472 | 0.22 | 44.12 | 1.037 | 2.34 | 0.59 | 3.07 | 4.60 |
| 600 | 3.648 | 0.24 | 36.89 | 1.051 | 2.18 | 0.56 | 3.00 | 4.53 |
| 750 | 3.863 | 0.26 | 29.70 | 1.069 | 2.01 | 0.52 | 2.92 | 4.45 |
| 1000 | 4.210 | 0.29 | 22.60 | 1.103 | 1.78 | 0.48 | 2.80 | 4.33 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Double Circuit

25°C Earth Ambient

| Condr Size | 60 Rho Amps | 60 Rho Interface Temp °C | 60 Rho Flux w/ft² | 90 Rho Amps | 90 Rho Interface Temp °C | 90 Rho Flux w/ft² | 120 Rho Amps | 120 Rho Interface Temp °C | 120 Rho Flux w/ft² | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 75% LF | | | | | | | |
| | | | | | 85°C - Aluminum Conductor - Compact Round Strand | | | | | | | |
| 1/0 | 188 | 54 | 21.5 | 170 | 60 | 17.5 | 156 | 64 | 14.8 | 1.0 | 1.4 | 1.8 |
| 2/0 | 214 | 54 | 21.4 | 193 | 60 | 17.4 | 177 | 64 | 14.7 | 1.1 | 1.5 | 1.9 |
| 3/0 | 244 | 55 | 21.2 | 219 | 61 | 17.2 | 201 | 65 | 14.5 | 1.2 | 1.6 | 2.0 |
| 4/0 | 279 | 56 | 21.0 | 249 | 61 | 17.0 | 228 | 65 | 14.2 | 1.2 | 1.7 | 2.1 |
| 250 | 306 | 56 | 20.9 | 274 | 62 | 16.7 | 250 | 66 | 14.0 | 1.3 | 1.7 | 2.2 |
| 350 | 371 | 57 | 20.6 | 330 | 63 | 16.4 | 300 | 67 | 13.7 | 1.4 | 1.9 | 2.4 |
| 500 | 452 | 59 | 19.9 | 401 | 64 | 15.7 | 363 | 68 | 13.0 | 1.5 | 2.1 | 2.7 |
| 600 | 501 | 59 | 19.7 | 443 | 65 | 15.5 | 401 | 69 | 12.8 | 1.6 | 2.2 | 2.8 |
| 750 | 566 | 61 | 19.5 | 498 | 66 | 15.2 | 450 | 70 | 12.5 | 1.7 | 2.4 | 3.0 |
| 1000 | 661 | 62 | 19.2 | 579 | 68 | 14.8 | 521 | 71 | 12.1 | 1.9 | 2.6 | 3.3 |

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# 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

## Direct Buried - Double Circuit

### 25°C Earth Ambient

| Condr Size | 60 Rho Amps | 60 Rho Interface Temp °C | 60 Rho Flux w/ft² | 90 Rho Amps | 90 Rho Interface Temp °C | 90 Rho Flux w/ft² | 120 Rho Amps | 120 Rho Interface Temp °C | 120 Rho Flux w/ft² | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 100% LF | | | | | | | |
| | | | | | 85°C - Aluminum Conductor - Compact Round Strand | | | | | | | |
| 1/0 | 170 | 59 | 17.7 | 150 | 65 | 13.8 | 135 | 69 | 11.3 | 1.0 | 1.4 | 1.8 |
| 2/0 | 193 | 60 | 17.5 | 170 | 66 | 13.6 | 153 | 69 | 11.1 | 1.1 | 1.5 | 1.9 |
| 3/0 | 220 | 61 | 17.2 | 193 | 66 | 13.3 | 173 | 70 | 10.9 | 1.2 | 1.6 | 2.0 |
| 4/0 | 250 | 61 | 17.0 | 218 | 67 | 13.1 | 196 | 70 | 10.6 | 1.2 | 1.7 | 2.1 |
| 250 | 274 | 62 | 16.7 | 239 | 68 | 12.9 | 214 | 71 | 10.5 | 1.3 | 1.7 | 2.2 |
| 350 | 330 | 63 | 16.4 | 286 | 69 | 12.5 | 256 | 72 | 10.0 | 1.4 | 1.9 | 2.4 |
| 500 | 399 | 64 | 15.6 | 345 | 70 | 11.8 | 308 | 73 | 9.5 | 1.5 | 2.1 | 2.7 |
| 600 | 440 | 65 | 15.3 | 379 | 70 | 11.5 | 338 | 73 | 9.2 | 1.6 | 2.2 | 2.8 |
| 750 | 495 | 66 | 15.0 | 425 | 71 | 11.2 | 377 | 74 | 8.9 | 1.7 | 2.4 | 3.0 |
| 1000 | 572 | 68 | 14.5 | 489 | 73 | 10.7 | 433 | 75 | 8.5 | 1.9 | 2.6 | 3.3 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Double Circuit

25°C Earth Ambient

| Condr Size | 60 Rho Amps | 60 Rho Interface Temp °C | 60 Rho Flux w/ft² | 90 Rho Amps | 90 Rho Interface Temp °C | 90 Rho Flux w/ft² | 120 Rho Amps | 120 Rho Interface Temp °C | 120 Rho Flux w/ft² | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 75% LF | | | | | | | |
| | | | | | 75°C - Aluminum Conductor - Compact Round Strand | | | | | | | |
| 1/0 | 174 | 49 | 17.9 | 157 | 54 | 14.7 | 144 | 57 | 12.4 | 1.0 | 1.4 | 1.8 |
| 2/0 | 199 | 49 | 17.8 | 179 | 54 | 14.5 | 164 | 58 | 12.2 | 1.1 | 1.5 | 1.9 |
| 3/0 | 226 | 50 | 17.7 | 203 | 55 | 14.3 | 186 | 58 | 12.0 | 1.2 | 1.6 | 2.0 |
| 4/0 | 258 | 51 | 17.5 | 231 | 56 | 14.1 | 211 | 59 | 11.8 | 1.2 | 1.7 | 2.1 |
| 250 | 284 | 51 | 17.4 | 253 | 56 | 14.0 | 231 | 59 | 11.7 | 1.3 | 1.7 | 2.2 |
| 350 | 343 | 52 | 17.2 | 305 | 57 | 13.7 | 277 | 60 | 11.3 | 1.4 | 1.9 | 2.4 |
| 500 | 417 | 53 | 16.6 | 370 | 58 | 13.1 | 335 | 61 | 10.8 | 1.5 | 2.1 | 2.7 |
| 600 | 463 | 54 | 16.4 | 408 | 59 | 12.9 | 369 | 62 | 10.6 | 1.6 | 2.2 | 2.8 |
| 750 | 523 | 55 | 16.3 | 460 | 59 | 12.7 | 414 | 62 | 10.4 | 1.7 | 2.4 | 3.0 |
| 1000 | 609 | 56 | 16.0 | 533 | 61 | 12.3 | 479 | 63 | 10.1 | 1.9 | 2.6 | 3.3 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Double Circuit

25°C Earth Ambient

| Condr Size | 60 Rho Interface Temp Amps | 60 Rho Interface Temp °C | 60 Rho Interface Flux w/ft² | 90 Rho Interface Temp Amps | 90 Rho Interface Temp °C | 90 Rho Interface Flux w/ft² | 120 Rho Interface Temp Amps | 120 Rho Interface Temp °C | 120 Rho Interface Flux w/ft² | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 100% LF | | | | | | | |
| | | | | | 75°C - Aluminum Conductor - Compact Round Strand | | | | | | | |
| 1/0 | 158 | 54 | 14.7 | 139 | 59 | 11.5 | 125 | 62 | 9.4 | 1.0 | 1.4 | 1.8 |
| 2/0 | 179 | 54 | 14.5 | 157 | 59 | 11.3 | 142 | 62 | 9.3 | 1.1 | 1.5 | 1.9 |
| 3/0 | 203 | 55 | 14.4 | 178 | 60 | 11.1 | 160 | 63 | 9.1 | 1.2 | 1.6 | 2.0 |
| 4/0 | 231 | 55 | 14.2 | 202 | 60 | 10.9 | 181 | 63 | 8.9 | 1.2 | 1.7 | 2.1 |
| 250 | 253 | 56 | 14.0 | 221 | 61 | 10.7 | 198 | 63 | 8.7 | 1.3 | 1.7 | 2.2 |
| 350 | 305 | 57 | 13.6 | 265 | 61 | 10.3 | 236 | 64 | 8.4 | 1.4 | 1.9 | 2.4 |
| 500 | 368 | 58 | 13.0 | 318 | 62 | 9.8 | 284 | 65 | 7.9 | 1.5 | 2.1 | 2.7 |
| 600 | 406 | 59 | 12.8 | 350 | 63 | 9.6 | 311 | 65 | 7.7 | 1.6 | 2.2 | 2.8 |
| 750 | 457 | 60 | 12.5 | 392 | 64 | 9.3 | 347 | 66 | 7.5 | 1.7 | 2.4 | 3.0 |
| 1000 | 528 | 61 | 12.1 | 450 | 65 | 9.0 | 398 | 67 | 7.1 | 1.9 | 2.6 | 3.3 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Double Circuit

25°C Earth Ambient

| Condr Size | 60 Rho Interface Temp | 60 Rho Flux | 60 Rho Amps | 90 Rho Interface Temp | 90 Rho Flux | 90 Rho Amps | 120 Rho Interface Temp | 120 Rho Flux | 120 Rho Amps | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | °C | w/ft² | Amps | °C | w/ft² | Amps | °C | w/ft² | Amps | | | |
| 75% LF | | | | | | | | | | | | |
| 65°C - Aluminum Conductor - Compact Round Strand | | | | | | | | | | | | |
| 1/0 | 158 | 44 | 14.4 | 142 | 48 | 11.7 | 131 | 51 | 9.9 | 1.0 | 1.4 | 1.8 |
| 2/0 | 180 | 45 | 14.3 | 162 | 49 | 11.6 | 148 | 51 | 9.8 | 1.1 | 1.5 | 1.9 |
| 3/0 | 205 | 45 | 14.1 | 184 | 49 | 11.5 | 168 | 52 | 9.6 | 1.2 | 1.6 | 2.0 |
| 4/0 | 234 | 46 | 14.0 | 209 | 50 | 11.3 | 190 | 52 | 9.5 | 1.2 | 1.7 | 2.1 |
| 250 | 257 | 46 | 14.0 | 229 | 50 | 11.2 | 209 | 53 | 9.3 | 1.3 | 1.7 | 2.2 |
| 350 | 311 | 47 | 13.8 | 276 | 51 | 11.0 | 250 | 53 | 9.1 | 1.4 | 1.9 | 2.4 |
| 500 | 378 | 48 | 13.2 | 334 | 51 | 10.5 | 302 | 54 | 8.7 | 1.5 | 2.1 | 2.7 |
| 600 | 418 | 48 | 13.1 | 369 | 52 | 10.3 | 333 | 54 | 8.5 | 1.6 | 2.2 | 2.8 |
| 750 | 472 | 49 | 13.0 | 414 | 53 | 10.2 | 373 | 55 | 8.3 | 1.7 | 2.4 | 3.0 |
| 1000 | 550 | 50 | 12.8 | 479 | 54 | 9.8 | 430 | 56 | 8.0 | 1.9 | 2.6 | 3.3 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Double Circuit

25°C Earth Ambient

| Condr Size | 60 Rho Interface Temp Amps | 60 Rho Interface Temp °C | 60 Rho Flux w/ft² | 90 Rho Interface Temp Amps | 90 Rho Interface Temp °C | 90 Rho Flux w/ft² | 120 Rho Interface Temp Amps | 120 Rho Interface Temp °C | 120 Rho Flux w/ft² | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 100% LF | | | | | | | |
| | | | | | 65°C - Aluminum Conductor - Compact Round Strand | | | | | | | |
| 1/0 | 143 | 48 | 11.8 | 126 | 52 | 9.2 | 113 | 54 | 7.5 | 1.0 | 1.4 | 1.8 |
| 2/0 | 162 | 48 | 11.7 | 142 | 52 | 9.1 | 128 | 55 | 7.5 | 1.1 | 1.5 | 1.9 |
| 3/0 | 184 | 49 | 11.5 | 161 | 53 | 8.9 | 145 | 55 | 7.2 | 1.2 | 1.6 | 2.0 |
| 4/0 | 209 | 49 | 11.3 | 183 | 53 | 8.7 | 164 | 56 | 7.1 | 1.2 | 1.7 | 2.1 |
| 250 | 230 | 50 | 11.2 | 200 | 54 | 8.6 | 179 | 56 | 6.9 | 1.3 | 1.7 | 2.2 |
| 350 | 276 | 51 | 11.0 | 239 | 54 | 8.3 | 213 | 56 | 6.7 | 1.4 | 1.9 | 2.4 |
| 500 | 333 | 52 | 10.5 | 288 | 55 | 7.9 | 256 | 57 | 6.3 | 1.5 | 2.1 | 2.7 |
| 600 | 368 | 52 | 10.2 | 316 | 55 | 7.7 | 280 | 58 | 6.1 | 1.6 | 2.2 | 2.8 |
| 750 | 413 | 53 | 10.0 | 353 | 56 | 7.5 | 313 | 58 | 6.0 | 1.7 | 2.4 | 3.0 |
| 1000 | 476 | 54 | 9.7 | 405 | 57 | 7.2 | 357 | 59 | 5.7 | 1.9 | 2.6 | 3.3 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Double Circuit

25°C Earth Ambient

| Condr Size | 60 Rho Amps | 60 Rho Interface Temp °C | 60 Rho Flux w/ft² | 90 Rho Amps | 90 Rho Interface Temp °C | 90 Rho Flux w/ft² | 120 Rho Amps | 120 Rho Interface Temp °C | 120 Rho Flux w/ft² | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 75% LF | | | | | | | |
| | | | | | 50°C - Aluminum Conductor - Compact Round Strand | | | | | | | |
| 1/0 | 127 | 37 | 8.9 | 114 | 40 | 7.3 | 104 | 41 | 6.2 | 1.0 | 1.4 | 1.8 |
| 2/0 | 145 | 38 | 8.9 | 130 | 40 | 7.3 | 118 | 42 | 6.1 | 1.1 | 1.5 | 1.9 |
| 3/0 | 165 | 38 | 8.8 | 147 | 40 | 7.1 | 134 | 42 | 6.0 | 1.2 | 1.6 | 2.0 |
| 4/0 | 188 | 38 | 8.8 | 167 | 41 | 7.0 | 152 | 42 | 5.9 | 1.2 | 1.7 | 2.1 |
| 250 | 206 | 38 | 8.7 | 183 | 41 | 6.9 | 166 | 43 | 5.8 | 1.3 | 1.7 | 2.2 |
| 350 | 249 | 39 | 8.6 | 220 | 41 | 6.8 | 199 | 43 | 5.6 | 1.4 | 1.9 | 2.4 |
| 500 | 302 | 39 | 8.3 | 266 | 42 | 6.5 | 239 | 43 | 5.3 | 1.5 | 2.1 | 2.7 |
| 600 | 334 | 40 | 8.2 | 293 | 42 | 6.4 | 263 | 44 | 5.3 | 1.6 | 2.2 | 2.8 |
| 750 | 377 | 40 | 8.1 | 329 | 43 | 6.3 | 294 | 44 | 5.1 | 1.7 | 2.4 | 3.0 |
| 1000 | 437 | 41 | 8.0 | 379 | 43 | 6.1 | 337 | 45 | 5.0 | 1.9 | 2.6 | 3.3 |

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## 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

### Direct Buried - Double Circuit

### 25°C Earth Ambient

| Condr Size | 60 Rho Amps | 60 Rho Interface Temp °C | 60 Rho Flux w/ft² | 90 Rho Amps | 90 Rho Interface Temp °C | 90 Rho Flux w/ft² | 120 Rho Amps | 120 Rho Interface Temp °C | 120 Rho Flux w/ft² | delta Td for .0033 pf & Rho 60 | 90 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **100% LF** | | | | | | | | | | | | |
| **50°C - Aluminum Conductor - Compact Round Strand** | | | | | | | | | | | | |
| 1/0 | 115 | 40 | 7.4 | 101 | 42 | 5.8 | 91 | 44 | 4.8 | 1.0 | 1.4 | 1.8 |
| 2/0 | 131 | 40 | 7.4 | 114 | 42 | 5.7 | 102 | 44 | 4.7 | 1.1 | 1.5 | 1.9 |
| 3/0 | 148 | 40 | 7.2 | 129 | 43 | 5.6 | 116 | 44 | 4.6 | 1.2 | 1.6 | 2.0 |
| 4/0 | 168 | 41 | 7.1 | 146 | 43 | 5.5 | 131 | 44 | 4.5 | 1.2 | 1.7 | 2.1 |
| 250 | 184 | 41 | 7.0 | 160 | 43 | 5.4 | 143 | 45 | 4.4 | 1.3 | 1.7 | 2.2 |
| 350 | 221 | 41 | 6.8 | 191 | 44 | 5.3 | 170 | 45 | 4.2 | 1.4 | 1.9 | 2.4 |
| 500 | 267 | 42 | 6.6 | 229 | 44 | 4.9 | 203 | 45 | 4.0 | 1.5 | 2.1 | 2.7 |
| 600 | 294 | 42 | 6.5 | 251 | 44 | 4.8 | 222 | 46 | 3.9 | 1.6 | 2.2 | 2.8 |
| 750 | 329 | 43 | 6.3 | 280 | 45 | 4.7 | 246 | 46 | 3.7 | 1.7 | 2.4 | 3.0 |
| 1000 | 378 | 43 | 6.1 | 320 | 45 | 4.5 | 280 | 46 | 3.6 | 1.9 | 2.6 | 3.3 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Double Circuit

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF |
|---|---|---|---|---|---|---|
| | Total Watts/ft | | | | | |
| 85°C - Aluminum Conductor - Compact Round Strand | | | | | | |
| 1/0 | 45.0 | 36.9 | 36.9 | 28.9 | 31.2 | 23.6 |
| 2/0 | 46.3 | 37.8 | 37.8 | 29.5 | 32.0 | 24.1 |
| 3/0 | 48.0 | 39.2 | 38.8 | 30.4 | 32.8 | 24.6 |
| 4/0 | 49.9 | 40.3 | 40.0 | 30.9 | 33.7 | 25.1 |
| 250 | 51.1 | 41.1 | 41.1 | 31.5 | 34.4 | 25.5 |
| 350 | 54.2 | 43.1 | 43.1 | 32.7 | 35.8 | 26.4 |
| 500 | 57.4 | 45.0 | 45.5 | 34.0 | 37.5 | 27.4 |
| 600 | 59.8 | 46.5 | 47.1 | 34.8 | 38.8 | 28.0 |
| 750 | 62.6 | 48.2 | 48.8 | 36.0 | 40.1 | 28.6 |
| 1000 | 67.1 | 50.7 | 51.9 | 37.5 | 42.4 | 29.8 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Double Circuit

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF |
|---|---|---|---|---|---|---|
| | Total Watts/ft | | | | | |
| 75°C - Aluminum Conductor - Compact Round Strand | | | | | | |
| 1/0 | 37.5 | 31.0 | 30.7 | 24.2 | 25.9 | 19.7 |
| 2/0 | 39.0 | 31.7 | 31.7 | 24.6 | 26.7 | 20.3 |
| 3/0 | 40.0 | 32.4 | 32.4 | 25.1 | 27.4 | 20.5 |
| 4/0 | 41.6 | 33.5 | 33.5 | 25.8 | 28.1 | 20.9 |
| 250 | 42.8 | 34.2 | 34.2 | 26.3 | 28.7 | 21.3 |
| 350 | 45.1 | 35.9 | 35.9 | 27.4 | 29.8 | 22.0 |
| 500 | 47.8 | 37.5 | 37.9 | 28.3 | 31.3 | 22.9 |
| 600 | 49.9 | 38.7 | 39.0 | 29.1 | 32.2 | 23.3 |
| 750 | 52.3 | 40.3 | 40.8 | 30.0 | 33.3 | 23.9 |
| 1000 | 55.9 | 42.5 | 43.3 | 31.3 | 35.3 | 24.9 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Double Circuit

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF |
|---|---|---|---|---|---|---|
| | Total Watts/ft | | | | | |
| 65°C - Aluminum Conductor - Compact Round Strand | | | | | | |
| 1/0 | 30.1 | 24.8 | 24.4 | 19.4 | 20.9 | 15.8 |
| 2/0 | 31.0 | 25.3 | 25.3 | 19.6 | 21.2 | 16.1 |
| 3/0 | 32.0 | 26.0 | 26.0 | 20.1 | 21.8 | 16.5 |
| 4/0 | 33.3 | 26.7 | 26.7 | 20.7 | 22.3 | 16.8 |
| 250 | 34.1 | 27.5 | 27.3 | 21.1 | 22.9 | 17.1 |
| 350 | 36.2 | 28.7 | 28.7 | 21.8 | 23.8 | 17.6 |
| 500 | 38.4 | 30.1 | 30.2 | 22.8 | 25.0 | 18.3 |
| 600 | 39.8 | 31.1 | 31.3 | 23.3 | 25.8 | 18.6 |
| 750 | 41.7 | 32.3 | 32.5 | 24.0 | 26.6 | 19.2 |
| 1000 | 44.9 | 34.0 | 34.4 | 25.1 | 28.1 | 19.9 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Double Circuit

25°C Earth Ambient

| Condr Size | 60 Rho 75 LF | 60 Rho 100 LF | 90 Rho 75 LF | 90 Rho 100 LF | 120 Rho 75 LF | 120 Rho 100 LF |
|---|---|---|---|---|---|---|
| | Total Watts/ft | | | | | |
| 50°C - Aluminum Conductor - Compact Round Strand | | | | | | |
| 1/0 | 18.7 | 15.5 | 15.2 | 12.1 | 12.8 | 10.0 |
| 2/0 | 19.4 | 16.0 | 15.8 | 12.3 | 13.2 | 10.0 |
| 3/0 | 20.1 | 16.3 | 16.1 | 12.6 | 13.5 | 10.4 |
| 4/0 | 20.8 | 16.8 | 16.6 | 12.9 | 13.9 | 10.6 |
| 250 | 21.3 | 17.2 | 17.0 | 13.2 | 14.2 | 10.8 |
| 350 | 22.5 | 18.0 | 17.8 | 13.7 | 14.8 | 11.1 |
| 500 | 23.9 | 18.9 | 18.8 | 14.3 | 15.4 | 11.5 |
| 600 | 24.8 | 19.6 | 19.4 | 14.6 | 15.9 | 11.8 |
| 750 | 26.1 | 20.2 | 20.2 | 15.1 | 16.5 | 12.0 |
| 1000 | 27.9 | 21.3 | 21.5 | 15.8 | 17.3 | 12.5 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Double Circuit

25°C Earth Ambient

| Condr Size | OD | Wd | Rac | Qs | Ri | Rj | Re @ 90 Rho & loss 75% | factor 100% |
|---|---|---|---|---|---|---|---|---|
| | | | 85°C - Aluminum Conductor - Compact Round Strand | | | | | |
| 1/0 | 2.530 | 0.13 | 207.47 | 1.005 | 3.55 | 0.71 | 4.17 | 6.11 |
| 2/0 | 2.616 | 0.14 | 164.51 | 1.006 | 3.38 | 0.69 | 4.13 | 6.06 |
| 3/0 | 2.727 | 0.15 | 130.58 | 1.009 | 3.20 | 0.66 | 4.07 | 6.01 |
| 4/0 | 2.850 | 0.16 | 103.54 | 1.012 | 3.03 | 0.63 | 4.01 | 5.94 |
| 250 | 2.947 | 0.17 | 87.71 | 1.015 | 2.88 | 0.61 | 3.96 | 5.90 |
| 350 | 3.163 | 0.19 | 62.74 | 1.023 | 2.62 | 0.56 | 3.86 | 5.80 |
| 500 | 3.472 | 0.22 | 44.12 | 1.037 | 2.34 | 0.59 | 3.73 | 5.66 |
| 600 | 3.648 | 0.24 | 36.89 | 1.051 | 2.18 | 0.56 | 3.66 | 5.60 |
| 750 | 3.863 | 0.26 | 29.70 | 1.069 | 2.01 | 0.52 | 3.58 | 5.51 |
| 1000 | 4.210 | 0.29 | 22.60 | 1.103 | 1.78 | 0.48 | 3.46 | 5.39 |

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## 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

### Direct Buried - Double Circuit

### 25°C Earth Ambient

| Condr Size | OD | Wd | Rac | Qs | Ri | Rj | Re @ 90 Rho & loss factor 75% | 100% |
|---|---|---|---|---|---|---|---|---|
| | | | 75°C - Aluminum Conductor - Compact Round Strand | | | | | |
| 1/0 | 2.530 | 0.13 | 207.47 | 1.005 | 3.55 | 0.71 | 4.17 | 6.11 |
| 2/0 | 2.616 | 0.14 | 164.51 | 1.006 | 3.38 | 0.69 | 4.13 | 6.06 |
| 3/0 | 2.727 | 0.15 | 130.58 | 1.009 | 3.20 | 0.66 | 4.07 | 6.01 |
| 4/0 | 2.850 | 0.16 | 103.54 | 1.012 | 3.03 | 0.63 | 4.01 | 5.94 |
| 250 | 2.947 | 0.17 | 87.71 | 1.015 | 2.88 | 0.61 | 3.96 | 5.90 |
| 350 | 3.163 | 0.19 | 62.74 | 1.023 | 2.62 | 0.56 | 3.86 | 5.80 |
| 500 | 3.472 | 0.22 | 44.12 | 1.037 | 2.34 | 0.59 | 3.73 | 5.66 |
| 600 | 3.648 | 0.24 | 36.89 | 1.051 | 2.18 | 0.56 | 3.66 | 5.60 |
| 750 | 3.863 | 0.26 | 29.70 | 1.069 | 2.01 | 0.52 | 3.58 | 5.51 |
| 1000 | 4.210 | 0.29 | 22.60 | 1.103 | 1.78 | 0.48 | 3.46 | 5.39 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - Double Circuit

25°C Earth Ambient

| Condr Size | OD | Wd | Rac | Qs | Ri | Rj | Re @ 90 Rho & loss 75% | Re @ 90 Rho & factor 100% |
|---|---|---|---|---|---|---|---|---|
| | | | 65°C - Aluminum Conductor - Compact Round Strand | | | | | |
| 1/0 | 2.530 | 0.13 | 207.47 | 1.005 | 3.55 | 0.71 | 4.17 | 6.11 |
| 2/0 | 2.616 | 0.14 | 164.51 | 1.006 | 3.38 | 0.69 | 4.13 | 6.06 |
| 3/0 | 2.727 | 0.15 | 130.58 | 1.009 | 3.20 | 0.66 | 4.07 | 6.01 |
| 4/0 | 2.850 | 0.16 | 103.54 | 1.012 | 3.03 | 0.63 | 4.01 | 5.94 |
| 250 | 2.947 | 0.17 | 87.71 | 1.015 | 2.88 | 0.61 | 3.96 | 5.90 |
| 350 | 3.163 | 0.19 | 62.74 | 1.023 | 2.62 | 0.56 | 3.86 | 5.80 |
| 500 | 3.472 | 0.22 | 44.12 | 1.037 | 2.34 | 0.59 | 3.73 | 5.66 |
| 600 | 3.648 | 0.24 | 36.89 | 1.051 | 2.18 | 0.56 | 3.66 | 5.60 |
| 750 | 3.863 | 0.26 | 29.70 | 1.069 | 2.01 | 0.52 | 3.58 | 5.51 |
| 1000 | 4.210 | 0.29 | 22.60 | 1.103 | 1.78 | 0.48 | 3.46 | 5.39 |

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## 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

### Direct Buried - Double Circuit

### 25°C Earth Ambient

| Condr Size | OD | Wd | Rac | Qs | Ri | Rj | Re @ 90 loss 75% | Rho & factor 100% |
|---|---|---|---|---|---|---|---|---|
| 50°C - Aluminum Conductor - Compact Round Strand | | | | | | | | |
| 1/0 | 2.530 | 0.13 | 207.47 | 1.005 | 3.55 | 0.71 | 4.17 | 6.11 |
| 2/0 | 2.616 | 0.14 | 164.51 | 1.006 | 3.38 | 0.69 | 4.13 | 6.06 |
| 3/0 | 2.727 | 0.15 | 130.58 | 1.009 | 3.20 | 0.66 | 4.07 | 6.01 |
| 4/0 | 2.850 | 0.16 | 103.54 | 1.012 | 3.03 | 0.63 | 4.01 | 5.94 |
| 250 | 2.947 | 0.17 | 87.71 | 1.015 | 2.88 | 0.61 | 3.96 | 5.90 |
| 350 | 3.163 | 0.19 | 62.74 | 1.023 | 2.62 | 0.56 | 3.86 | 5.80 |
| 500 | 3.472 | 0.22 | 44.12 | 1.037 | 2.34 | 0.59 | 3.73 | 5.66 |
| 600 | 3.648 | 0.24 | 36.89 | 1.051 | 2.18 | 0.56 | 3.66 | 5.60 |
| 750 | 3.863 | 0.26 | 29.70 | 1.069 | 2.01 | 0.52 | 3.58 | 5.51 |
| 1000 | 4.210 | 0.29 | 22.60 | 1.103 | 1.78 | 0.48 | 3.46 | 5.39 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

in Free Air

40°C Air Ambient

| Condr Size | No Sun 0 Ft/s | No Sun 2 Ft/s | Full Sun 0 Ft/s | Full Sun 2 Ft/s | delta Td for .0033 pf No Sun 0 Ft/s | delta Td for .0033 pf No Sun 2 Ft/s |
|---|---|---|---|---|---|---|
| 85°C - Aluminum Conductor - Compact Round Strand | | | | | | |
| 1/0 | 160 | 174 | 112 | 136 | 0.8 | 0.7 |
| 2/0 | 184 | 199 | 128 | 156 | 0.9 | 0.7 |
| 3/0 | 211 | 228 | 146 | 178 | 0.9 | 0.7 |
| 4/0 | 242 | 262 | 168 | 204 | 0.9 | 0.8 |
| 250 | 268 | 290 | 185 | 225 | 1.0 | 0.8 |
| 350 | 328 | 355 | 226 | 274 | 1.0 | 0.8 |
| 500 | 407 | 439 | 279 | 336 | 1.0 | 0.9 |
| 600 | 455 | 491 | 311 | 374 | 1.1 | 0.9 |
| 750 | 521 | 562 | 355 | 426 | 1.1 | 0.9 |
| 1000 | 620 | 668 | 421 | 504 | 1.1 | 0.9 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

in Free Air

40°C Air Ambient

| Condr Size | No Sun 0 Ft/s | No Sun 2 Ft/s | Full Sun 0 Ft/s | Full Sun 2 Ft/s |
|---|---|---|---|---|
| | Total Watts/ft | | | |
| 85°C - Aluminum Conductor - Compact Round Strand | | | | |
| 1/0 | 16.4 | 19.3 | 8.2 | 12.0 |
| 2/0 | 17.2 | 20.1 | 8.6 | 12.5 |
| 3/0 | 18.1 | 21.0 | 8.9 | 13.0 |
| 4/0 | 18.9 | 22.1 | 9.4 | 13.6 |
| 250 | 19.7 | 23.0 | 9.7 | 14.0 |
| 350 | 21.3 | 24.9 | 10.4 | 15.0 |
| 500 | 23.4 | 27.2 | 11.3 | 16.2 |
| 600 | 24.8 | 28.8 | 12.0 | 17.0 |
| 750 | 26.7 | 30.9 | 12.8 | 18.1 |
| 1000 | 29.7 | 34.3 | 14.1 | 19.9 |

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# 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

## in Free Air

## 40°C Air Ambient

| Condr Size | OD | Duct ID | Wd | Rac | Qs | Ri | Rj | Rsd | Rd | Re No Sun 0 fps | Re Sun 2 fps |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 85°C - Aluminum Conductor - Compact Round Strand | | | | | | | | | | | |
| 1/0 | 2.530 | 9.99 | 0.13 | 207.47 | 1.005 | 3.55 | 0.71 | 0.00 | 0.00 | 3.98 | 2.77 |
| 2/0 | 2.616 | 9.99 | 0.14 | 164.51 | 1.007 | 3.38 | 0.69 | 0.00 | 0.00 | 3.86 | 2.70 |
| 3/0 | 2.727 | 9.99 | 0.15 | 130.58 | 1.009 | 3.20 | 0.66 | 0.00 | 0.00 | 3.71 | 2.62 |
| 4/0 | 2.850 | 9.99 | 0.16 | 103.54 | 1.012 | 3.03 | 0.63 | 0.00 | 0.00 | 3.56 | 2.53 |
| 250 | 2.947 | 9.99 | 0.17 | 87.71 | 1.015 | 2.88 | 0.61 | 0.00 | 0.00 | 3.45 | 2.46 |
| 350 | 3.163 | 9.99 | 0.19 | 62.74 | 1.023 | 2.62 | 0.56 | 0.00 | 0.00 | 3.23 | 2.33 |
| 500 | 3.472 | 9.99 | 0.22 | 44.12 | 1.038 | 2.34 | 0.59 | 0.00 | 0.00 | 2.97 | 2.17 |
| 600 | 3.648 | 9.99 | 0.24 | 36.89 | 1.052 | 2.18 | 0.56 | 0.00 | 0.00 | 2.83 | 2.09 |
| 750 | 3.863 | 9.99 | 0.26 | 29.70 | 1.070 | 2.01 | 0.52 | 0.00 | 0.00 | 2.68 | 1.99 |
| 1000 | 4.210 | 9.99 | 0.29 | 22.60 | 1.105 | 1.78 | 0.48 | 0.00 | 0.00 | 2.47 | 1.86 |

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# 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable in Unventilated Riser

## 40°C Air Ambient

| Condr Size | No Sun 0 Ft/s | No Sun 2 Ft/s | Full Sun 0 Ft/s | Full Sun 2 Ft/s | delta Td for .0033 pf No Sun 0 Ft/s | delta Td for .0033 pf No Sun 2 Ft/s |
|---|---|---|---|---|---|---|
| 85°C - Aluminum Conductor - Compact Round Strand | | | | | | |
| 1/0 | 129 | 134 | 99 | 111 | 1.4 | 1.3 |
| 2/0 | 138 | 148 | 113 | 127 | 1.7 | 1.4 |
| 3/0 | 157 | 169 | 129 | 144 | 1.8 | 1.5 |
| 4/0 | 179 | 192 | 147 | 165 | 1.8 | 1.6 |
| 250 | 196 | 211 | 161 | 181 | 1.9 | 1.6 |
| 350 | 236 | 255 | 194 | 219 | 2.1 | 1.7 |
| 500 | 299 | 320 | 246 | 272 | 2.0 | 1.8 |
| 600 | 329 | 353 | 271 | 302 | 2.1 | 1.8 |
| 750 | 369 | 397 | 303 | 342 | 2.2 | 1.9 |
| 1000 | 423 | 458 | 349 | 399 | 2.4 | 2.0 |

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69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable

in Unventilated Riser

40°C Air Ambient

| Condr Size | No Sun 0 Ft/s | No Sun 2 Ft/s | Full Sun 0 Ft/s | Full Sun 2 Ft/s |
|---|---|---|---|---|
| | Total Watts/ft | | | |
| 85°C - Aluminum Conductor - Compact Round Strand | | | | |
| 1/0 | 10.8 | 11.6 | 6.5 | 8.1 |
| 2/0 | 10.0 | 11.4 | 6.8 | 8.4 |
| 3/0 | 10.3 | 11.9 | 7.0 | 8.6 |
| 4/0 | 10.8 | 12.3 | 7.3 | 9.0 |
| 250 | 11.0 | 12.7 | 7.4 | 9.3 |
| 350 | 11.7 | 13.5 | 8.1 | 9.8 |
| 500 | 13.6 | 15.5 | 9.0 | 10.8 |
| 600 | 14.2 | 16.2 | 9.8 | 11.3 |
| 750 | 15.0 | 17.2 | 10.3 | 11.9 |
| 1000 | 16.1 | 18.8 | 11.3 | 12.8 |

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# 69 kV 3/c Self Contained Liquid Filled Lead Sheathed Power Cable in Unventilated Riser

40°C Air Ambient

| Condr Size | OD | Duct ID | Wd | Rac | Qs | Qe | Ri | Rj | Rsd | Rd | Re No Sun 0 fps | Re 2 fps |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 85°C - Aluminum Conductor - Compact Round Strand | | | | | | | | | | | | |
| 1/0 | 2.530 | 4.03 | 0.13 | 207.47 | 1.005 | 1.005 | 3.55 | .71 | 4.55 | %1.05 | 2.71 | 1.82 |
| 2/0 | 2.616 | 4.03 | 0.14 | 164.51 | 1.010 | 1.016 | 3.38 | .69 | 5.65 | .00 | 3.92 | 2.27 |
| 3/0 | 2.727 | 4.03 | 0.15 | 130.58 | 1.013 | 1.022 | 3.20 | .66 | 5.47 | .00 | 3.90 | 2.27 |
| 4/0 | 2.850 | 4.03 | 0.16 | 103.65 | 1.018 | 1.030 | 3.03 | .63 | 5.28 | .00 | 3.88 | 2.27 |
| 250 | 2.947 | 4.03 | 0.17 | 87.79 | 1.022 | 1.037 | 2.88 | .61 | 5.14 | .00 | 3.86 | 2.27 |
| 350 | 3.163 | 4.03 | 0.19 | 62.87 | 1.034 | 1.057 | 2.62 | .56 | 4.86 | .00 | 3.83 | 2.27 |
| 500 | 3.472 | 5.05 | 0.22 | 44.26 | 1.056 | 1.089 | 2.34 | .59 | 4.29 | .00 | 3.13 | 1.94 |
| 600 | 3.648 | 5.05 | 0.24 | 37.08 | 1.075 | 1.119 | 2.18 | .56 | 4.13 | .00 | 3.11 | 1.94 |
| 750 | 3.863 | 5.05 | 0.26 | 29.96 | 1.102 | 1.160 | 2.01 | .52 | 3.94 | .00 | 3.08 | 1.94 |
| 1000 | 4.210 | 5.05 | 0.29 | 22.97 | 1.151 | 1.238 | 1.78 | .48 | 3.69 | .00 | 3.05 | 1.94 |

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