

120/240V, 1PHASE FAULT CURRENT TABLES TO LIMIT FAULT CURRENT TO 10,000A AT THE UNFUSED AC DISCO

| TX | SES | PV BRKR | WIRE | LENGTH |
|-----|-----|---------|------|--------|
| 75 | 200 | 15 - 30 | #10 | 4' |
| | | 35 - 45 | #8 | 6' |
| | | 50 - 60 | #6 | 9' |
| | | 70 - 80 | #4 | 14' |
| | | 90 | #3 | 17' |
| | | 100 | #2 | 22' |
| 100 | 200 | 15 - 30 | #10 | 4' |
| | | 35 - 45 | #8 | 9' |
| | | 50 - 60 | #6 | 13' |
| | | 70 - 80 | #4 | 20' |
| | | 90 | #3 | 24' |
| 167 | 200 | 15 - 30 | #10 | 7' |
| | | 35 - 45 | #8 | 11' |
| | | 50 - 60 | #6 | 17' |
| | | 70 - 80 | #4 | 26' |
| | | 90 | #3 | 31' |
| | | 100 | #2 | 40' |

| TX | SES | PV BRKR | WIRE | LENGTH |
|-----|-----|---------|------|--------|
| 100 | 400 | 15 - 30 | #10 | 7' |
| | | 35 - 45 | #8 | 10' |
| | | 50 - 60 | #6 | 16' |
| | | 70 - 80 | #4 | 24' |
| | | 90 | #3 | 30' |
| | | 100 | #2 | 38' |
| | | 110 | #1 | 46' |
| | | 125 | 1/0 | 56' |
| 167 | 400 | 15 - 30 | #10 | 8' |
| | | 35 - 45 | #8 | 13' |
| | | 50 - 60 | #6 | 19' |
| | | 70 - 80 | #4 | 30' |
| | | 90 | #3 | 37' |
| | | 100 | #2 | 46' |
| | | 110 | #1 | 57' |
| | | 125 | 1/0 | 70' |

| TX | SES | PV BRKR | WIRE | LENGTH |
|-----|-----|---------|------|--------|
| 167 | 600 | 15 - 30 | #10 | 9' |
| | | 35 - 45 | #8 | 13' |
| | | 50 - 60 | #6 | 21' |
| | | 70 - 80 | #4 | 32' |
| | | 90 | #3 | 39' |
| | | 100 | #2 | 50' |
| | | 110 | #1 | 61' |
| | | 125 | 1/0 | 75' |
| | | 150 | 2/0 | 90' |
| | | 175 | 3/0 | 108' |
| 167 | 800 | 15 - 30 | #10 | 9' |
| | | 35 - 45 | #8 | 14' |
| | | 50 - 60 | #6 | 22' |
| | | 70 - 80 | #4 | 34' |
| | | 90 | #3 | 41' |
| | | 100 | #2 | 52' |
| | | 110 | #1 | 64' |
| | | 125 | 1/0 | 78' |
| | | 150 | 2/0 | 94' |
| | | 175 | 3/0 | 112' |
| | | 200-225 | 4/0 | 132' |
| | | 250 | 250 | 144' |
| | | 300 | 350 | 172' |

NOTE: Footages over 50' noted in RED. Extending over 50' may be unrealistic based on home access/footprint.

200A Services limited to 12kW
 400A Services limited to 24kW
 600A Services limited to 37kW
 800A Services limited to 49kW

Example 75kVA XFMR single #6 AWG

$$d = \frac{\left(1 - \frac{10000}{14915}\right)(2425 \times 1 \times 240)}{2 \times 10000} = 8.8ft$$

Single Phase

$$d = \frac{\left(1 - \frac{I_{SC}}{I_{LL}}\right)(C \times m \times V_{LL})}{2 \times I_{SC}}$$

3 Phase

$$d = \frac{\left(1 - \frac{I_{SC}}{I_{LL}}\right)(C \times m \times V_{LL})}{\sqrt{3} \times I_{SC}}$$

Recommended transformer sizing per SES for A.F.C. conductor length calculations based on typical worst case scenario.