

Dr. Soileau - 3634 Coliseum Street

Dammon Engineering

### Available Fault Current Calculation

Utility Fault Current

amperes    kVA =   
E =   
trans. FLA =

$$I = \frac{kVA \times 1000}{E \times 1.732} = \text{trans. FLA}$$

$$I_{sca} = \frac{\text{trans. FLA} \times 100 \times PF}{\text{transformer Z}} =$$

$I_{sca}$  = ampere short-circuit current RMS symmetrical.     $I_{sca}$  =  amperes

Point to Point Method

$$f' \text{ factor} = \frac{1.732 \times L \times I}{N \times C \times E \text{ L-N}}$$

Length (distance)  (ASC)    L =   
 $I_{sca}$  =

# conductors per phase    N =

Phase conductor constant    C =   
Volt Line to Line    E L-L =  Volt

Phase Conductor

Neutral conductor constant    C =   
Volt Line to Neutral    E L-N =  Volt

Neutral Conductor

Multiplier

$$M = \frac{1}{1 + f}$$

Line to Line    M =   
Line to Neutral    M =

Fault Current at Service Equipment

$I_{sca} \times M$  = fault current at terminals of main disconnect L-L =  amperes  
 $I_{sca} \times M$  = fault current at terminals of main disconnect L-N =  amperes

Fault Current from

Length (distance)    L =   
(ASC)     $I_{sca}$  =  Phase     Neutral

$$f' \text{ factor} = \frac{1.732 \times L \times I}{N \times C \times E \text{ L-N}}$$

# conductors per phase    N =

Phase conductor constant    C =   
Volt Line to Line    E L-L =  Volt

Phase Conductor

Neutral conductor constant    C =   
Volt Line to Neutral    E L-N =  Volt

Neutral Conductor

Multiplier

$$M = \frac{1}{1 + f}$$

Line to Line    M =   
Line to Neutral    M =

$I_{sca} \times M$  = fault current at terminal of the panel L-L =  amperes  
 $I_{sca} \times M$  = fault current at terminal of the panel L-N =  amperes