## HOW TO CALCULATE THE REQUIRED KVA SIZE NEEDED FOR A D-M-E 3 PHASE POWER TRANSFORMER

- 1. What is worst case phase wattage? \_\_\_\_\_ (see example below)
- Multiply worst case phase wattage x 3 phases. The resultant is the total wattage.
- Sizing the fuse for the transformer is: Amps = Total Wattage / (1.73 X Voltage)
   \_\_\_\_\_ Amp Fuses

MAINFRAME PHASING	
PHASES	ТО
<u>APPLIED</u>	<u>ZONES</u>
L1 - L2	1,4,7,10
L2 - L3	2,5,8,11
L3 - L1	3,6,9,12



Add all "A" zones wattages to give total watts "A". Repeat for "B" and "C".

The worst case phase wattage is the largest total wattage "A", "B" or "C".

## Example:

Total watts "A" = 1200 + 600 + 340 = 2140 W Total watts "B" = 750 + 240 + 340 = 1330 W Total watts "C" = 2000 + 600 + 800 = **3400 W** Worst case phase wattage = **3400 W** ("C") Total Wattage = 3400 X 3 = 10,200 W Requires min. of 10.2KVA transformer. Rounding to next available = 15 KVA

Fuse for transformer legs = 10,200 W / (1.73 X 240 V) = 24.5 Amp fuseRounding to next available = 25 Amp \*

\*Note: 50 Amps max. for 50 Amp circuit breakers, 70 Amps max. for 70 Amp circuit breakers. 6 KVA, 9 KVA & 15 KVA transformers are standard sizes available. Other transformer sizes available on special request.

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