**CMGT 235 – Electrical and Mechanical Systems**

**Homework #28** – Electrical Systems

Due: 12/1/2022

Points: 20 [Extra Credit]

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

SHOW ALL CALCULATIONS FOR FULL CREDIT

1. A 7,500 W electric garage heater is running on 240 VAC single phase.
2. Calculate the continuous full load amperage (FLA).
3. Determine the Over Current Protection (OCP) circuit breaker required.
4. Determine the size copper THHN 75° C conductor required.
5. If the maximum voltage drop for the unit is limited to 3%, determine the longest length the conductors can be.