SUBJECT:

208-240V Single Phase Electrical

APPLIES TO:

Endura XE models EXE-2500, EXE-3000

INTRODUCTION:

In North America, 240V single-phase (split-phase) or 208V three-phase "wye" (208Y/120V) electrical services are commonly available in virtually every commercial building. Either service is utilized to provide 120V for lighting and receptacles.

Fulton Endura XE boilers models EXE-2500 and EXE-3000 designed to operate on 240V single-phase may also be installed on 208V single-phase using two legs from a 208V three-phase wye service. Crucially, these boilers require Hot Leg 1 (L1), Hot Leg 2 (L2), Neutral, and Ground connections for either service type to power the combustion blower and internal controls.

Always refer to the Name Plate (Data Plate) at the rear of the boiler cabinet for service requirements prior to installation.

TYPICAL INSTALLATION ON 240V SINGLE-PHASE:

For field wiring to the boiler, the installer will utilize a 2 pole circuit breaker or a fused disconnect (not provided). The boiler requires two legs, a neutral and ground. Refer to the electrical schematic provided with the boiler for connection locations.

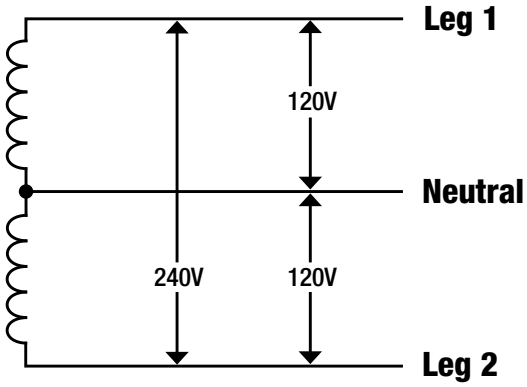

Figure 1 - 240V Single-Phase

TYPICAL INSTALLATION ON 208V THREE-PHASE WYE:

For field wiring to the boiler, the installer will utilize a 2 pole circuit breaker or a fused disconnect (not provided). The boiler requires two legs, a neutral and ground. One leg of the 208V wye service will go unused. Ensure the building supply transformer will remain within load balance specifications. Refer to the electrical schematic provided with the boiler for connection locations.

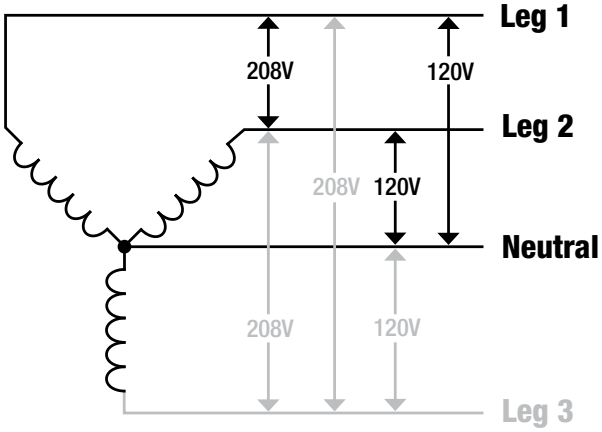

Figure 2 - 208V Three-Phase Wye

Fulton practices continuous product improvement and reserves the right to change specifications and/or dimensions without notice. Always refer to the current documentation available for download on Fulton.com

ELECTRICAL RATINGS:

Refer to the Technical Data Sheet and Installation, Operation and Maintenance Manual for further detail on equipment voltage and frequency tolerances as well as compliance with ampacity ratings and limits. The installing contractor and authorized technician must ensure all equipment requirements are successfully met and documented when commissioning new boilers and performing maintenance services.

ALTERNATE ELECTRICAL SERVICES:

To install a boiler designed for 240V single-phase on alternate electrical services such as 480V or 575V three-phase, it is necessary to utilize a step-down transformer (not provided).

The transformer secondary output must be rated to comply with the boiler 240V single-phase requirements (L1, L2, Neutral, Ground) and provide adequate amperage. Consult your Fulton Representative, Engineer of Record or Installing Contractor for specific transformer selections and sizing.

To ensure necessary access to inspection locations, safety devices and maintenance items, do not place the transformer inside the boiler cabinet or directly onto the boiler cabinet panels. The installer will mount and wire the transformer in accordance with local codes and manufacturer's guidance.