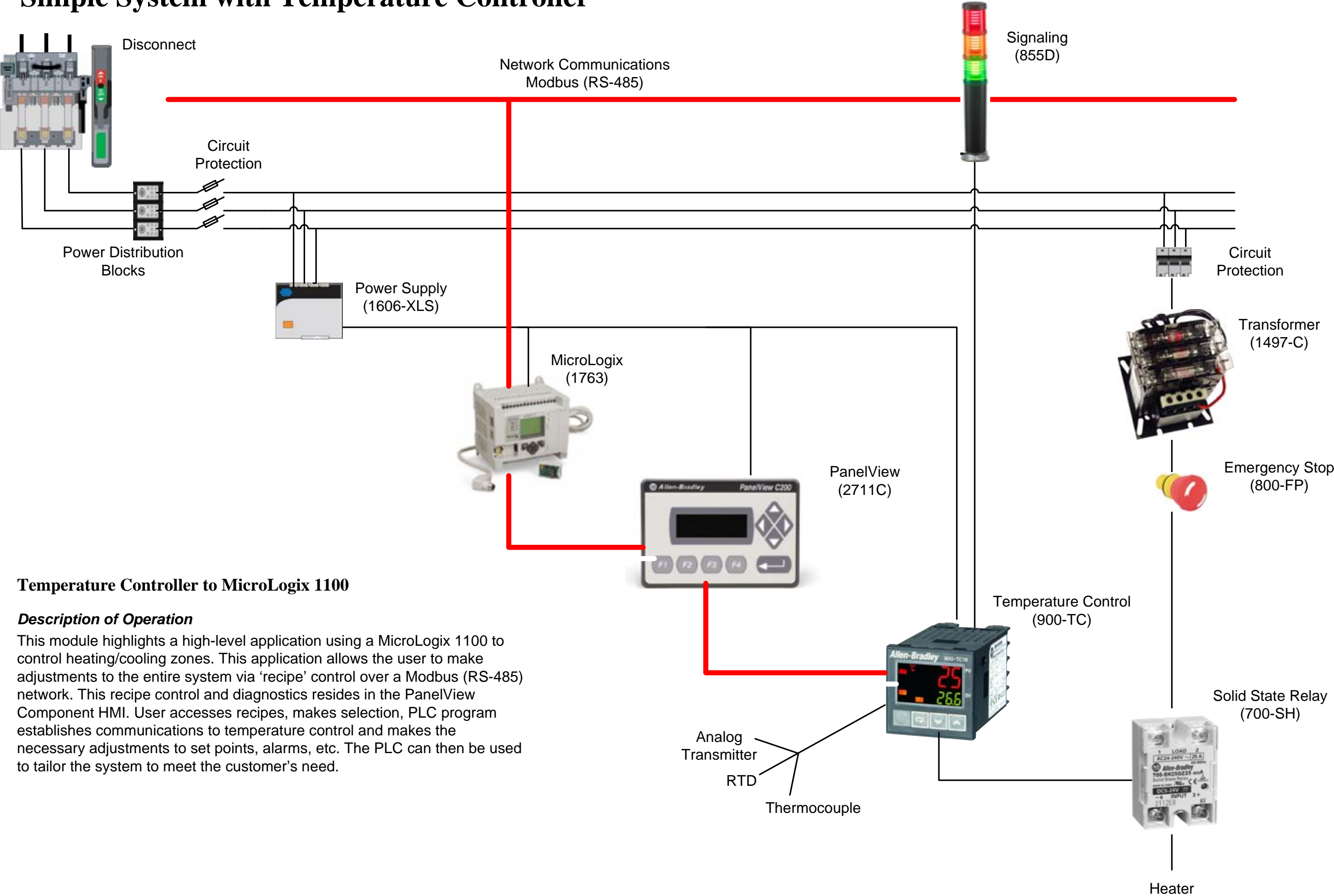


Simple System with Temperature Controller

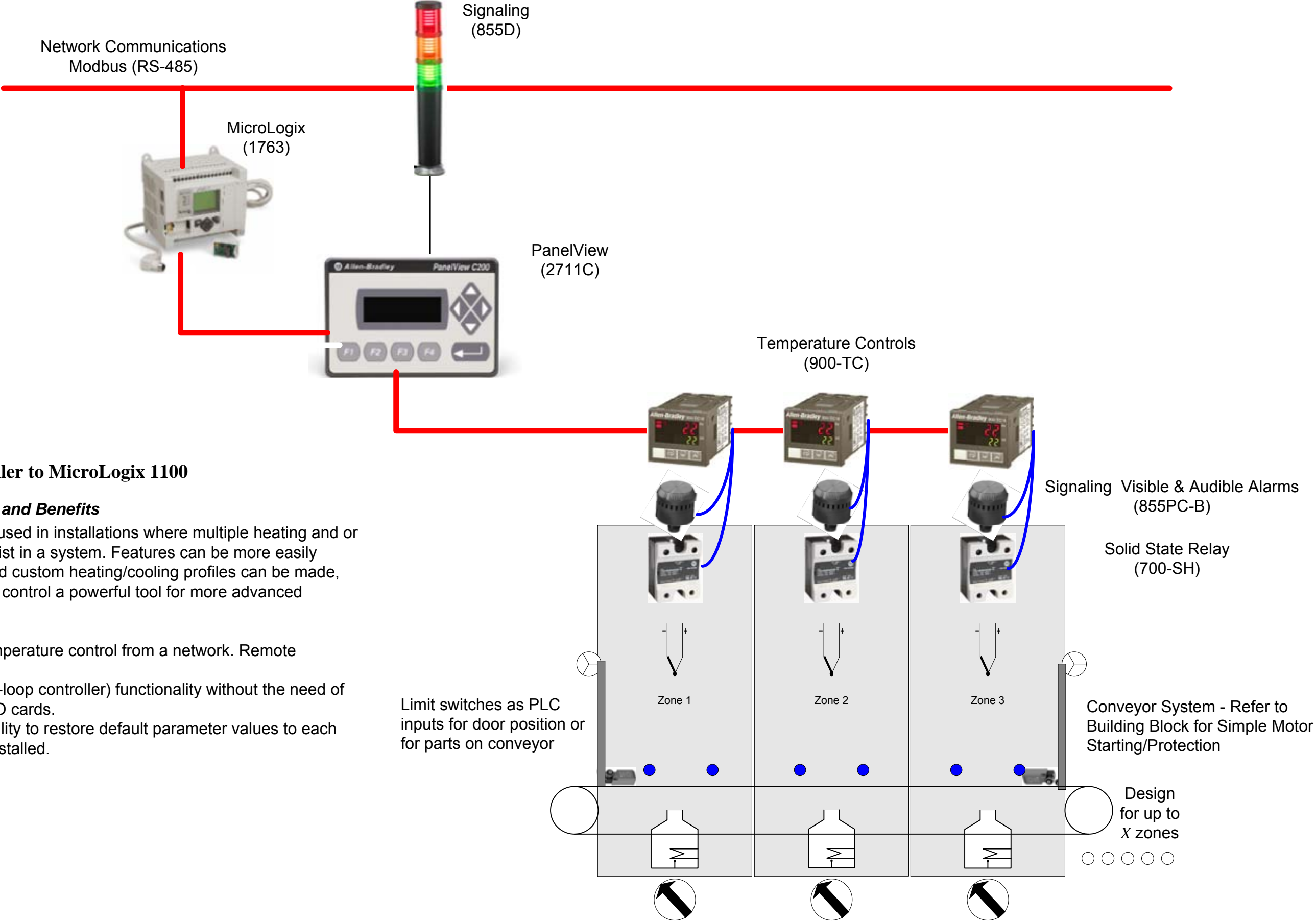


Temperature Controller to MicroLogix 1100

Description of Operation

This module highlights a high-level application using a MicroLogix 1100 to control heating/cooling zones. This application allows the user to make adjustments to the entire system via 'recipe' control over a Modbus (RS-485) network. This recipe control and diagnostics resides in the PanelView Component HMI. User accesses recipes, makes selection, PLC program establishes communications to temperature control and makes the necessary adjustments to set points, alarms, etc. The PLC can then be used to tailor the system to meet the customer's need.

Advanced Temperature Controller System



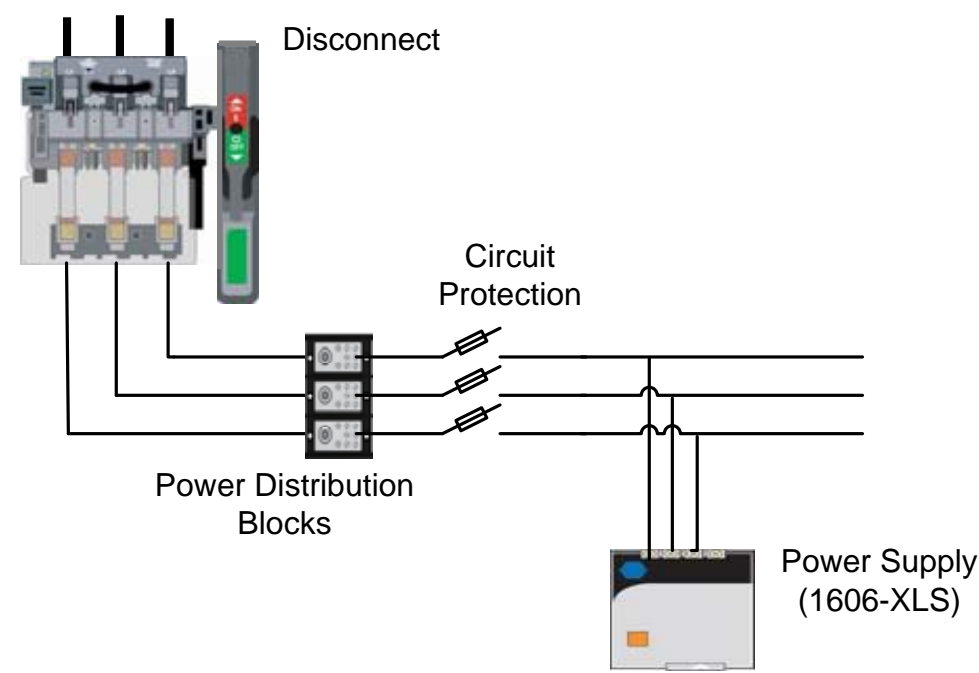
Temperature Controller to MicroLogix 1100

Potential Applications and Benefits

This application can be used in installations where multiple heating and or cooling requirements exist in a system. Features can be more easily monitored (remotely) and custom heating/cooling profiles can be made, making the temperature control a powerful tool for more advanced applications.

- PLC (master) temperature control from a network. Remote programmability.
- Local PID (single-loop controller) functionality without the need of additional PLC I/O cards.
- PLC logic has ability to restore default parameter values to each controller once installed.

Simple Power Supply System



Power Supply

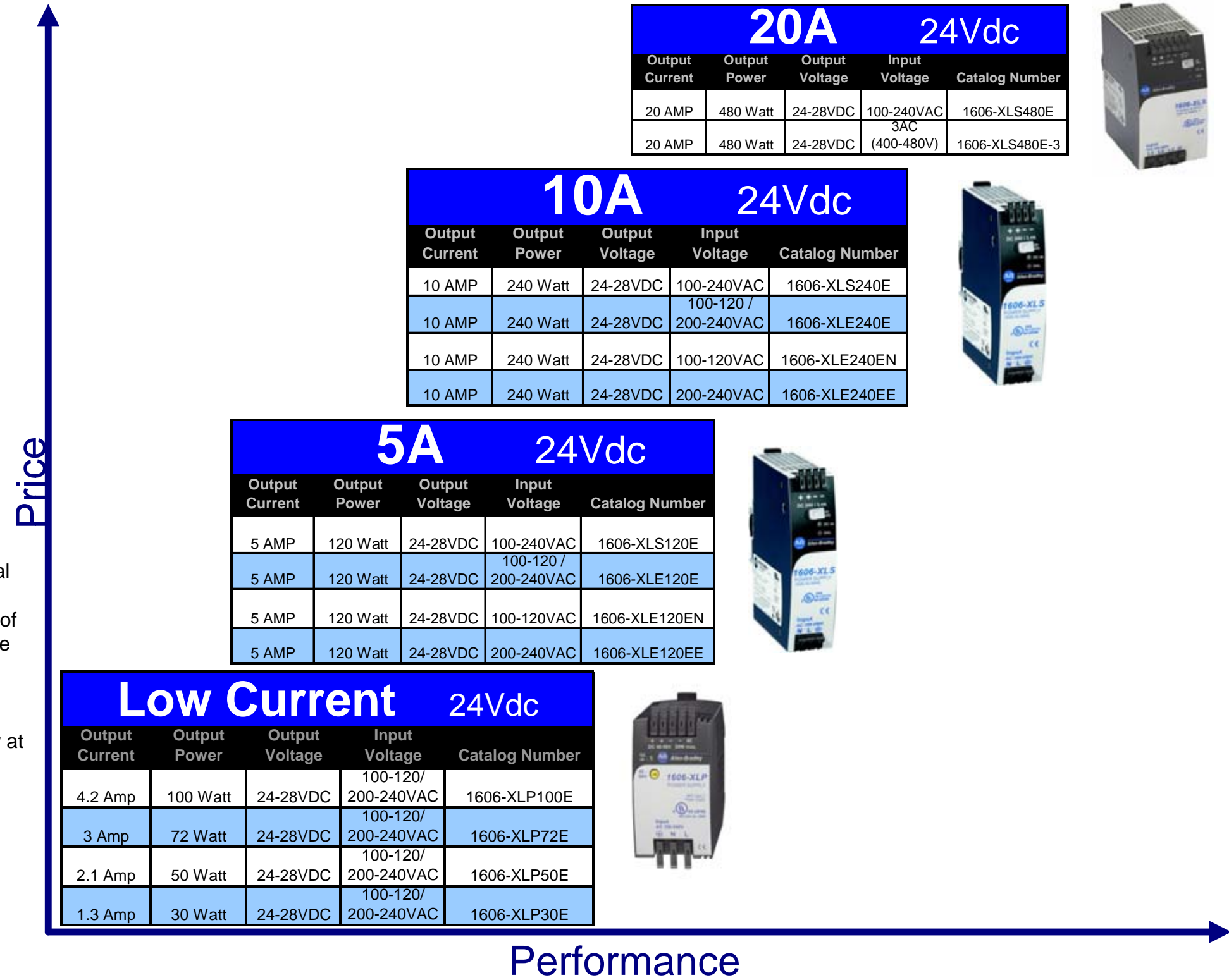
Steps to size a Power Supply

1. Determine the "Average" continuous current of the load and the typical inrush current.
2. Select a power supply where the rated load is at/or below the current of the device and the Peak Current is less than the short-circuit rating of the power supply.

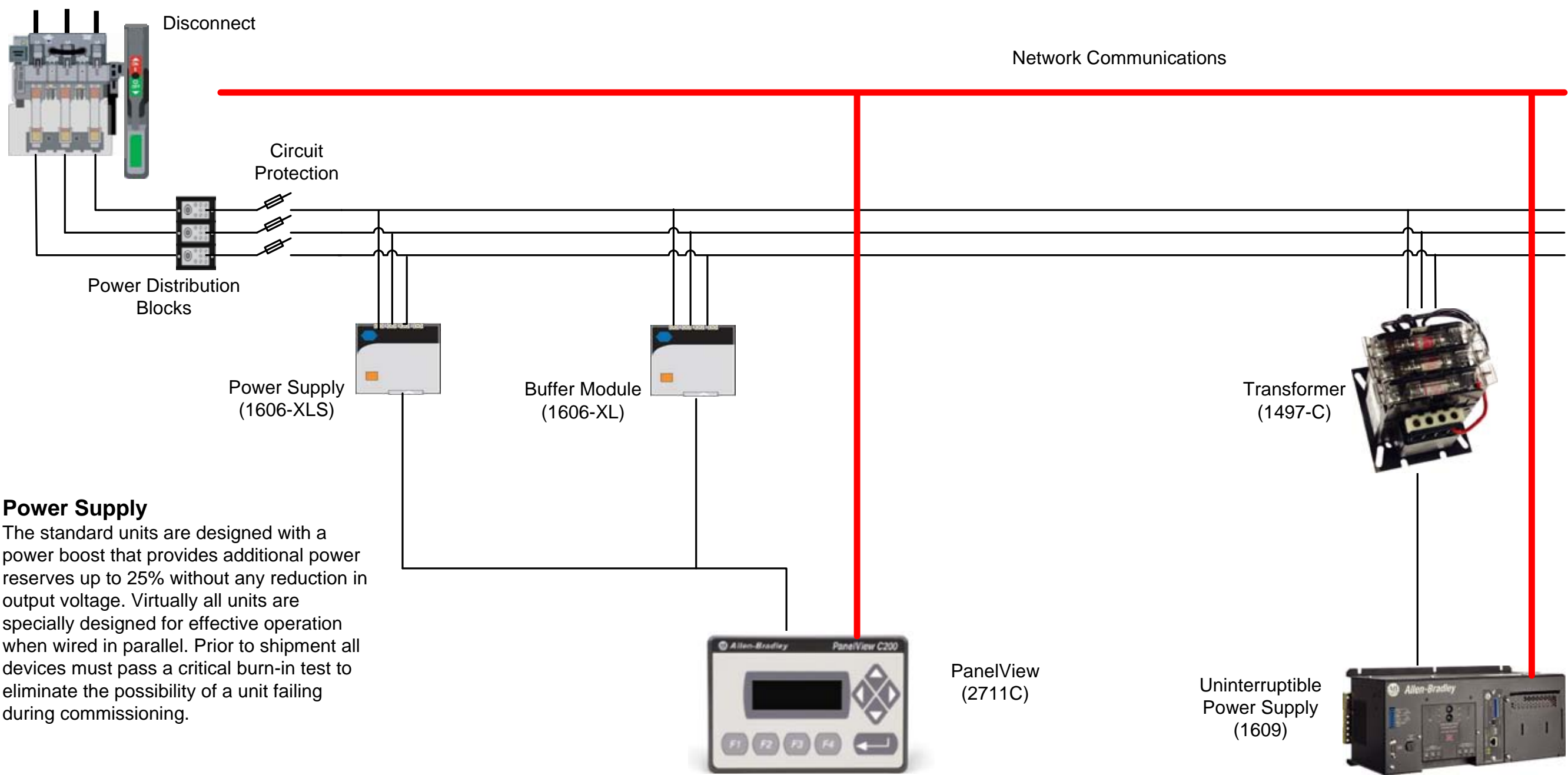
Notes:

PowerBoost will deliver up to 25% additional current continuously at 40 deg C or less.

Reserve Power will deliver 150% of rated current for up to 4 sec.



Advanced Power Supply System



Power Supply

The standard units are designed with a power boost that provides additional power reserves up to 25% without any reduction in output voltage. Virtually all units are specially designed for effective operation when wired in parallel. Prior to shipment all devices must pass a critical burn-in test to eliminate the possibility of a unit failing during commissioning.

Buffer Module

The buffer module is a supplementary device for regulated DC 24V power supplies. It buffers load currents during typical mains faults and switching events or load peaks. In times when the power supply provides sufficient voltage, the buffer unit stores energy in integrated electrolytic capacitors. In case of a mains voltage fault, this energy is released again in a regulated process. Statistics show that 80 percent of all mains faults last less than 0.2s. These mains faults are completely bridged by the buffer unit and will have no influence on the DC power.

Transformer

The Global Control Circuit Transformers are designed to reduce supply voltages to machine tool control circuits, providing greater safety to operators. IP2X finger-safe terminal covers are provided on all units and fuse covers for added workplace safety are available. They are especially designed to accommodate the momentary current inrush caused when electromagnetic components are energized, without sacrificing secondary voltage stability.

Uninterruptible Power Supply (UPS)

The 1609 family of Industrial DIN Rail-Mounted Uninterruptible Power Supplies (UPS) is uniquely designed for the industrial market to provide back-up power to the control cabinet. The 1609 will provide back-up power to bridge dips, sags, or brief losses of power. If necessary, the 1609 will facilitate a safe shut-down of your industrial PC, PLC, data logging HMI, or any other critical device in the control scheme.