MYKRON

Power Controller

varixx

What is a Power Controller?

These are electronic devices that control and limit the electrical power delivered to a load:

The power controller receives an analog input signal. Based on this signal, it modulates the conduction time of the thyristors, supplying a power to the load proportional to the value of the analog signal.

Resistive | Inductive | Single-phase | Two-phase | Thee-phase

Some of the processes that need this control:

Thermal processes in general

Lighting

Plastic injection molding machines

Extruders

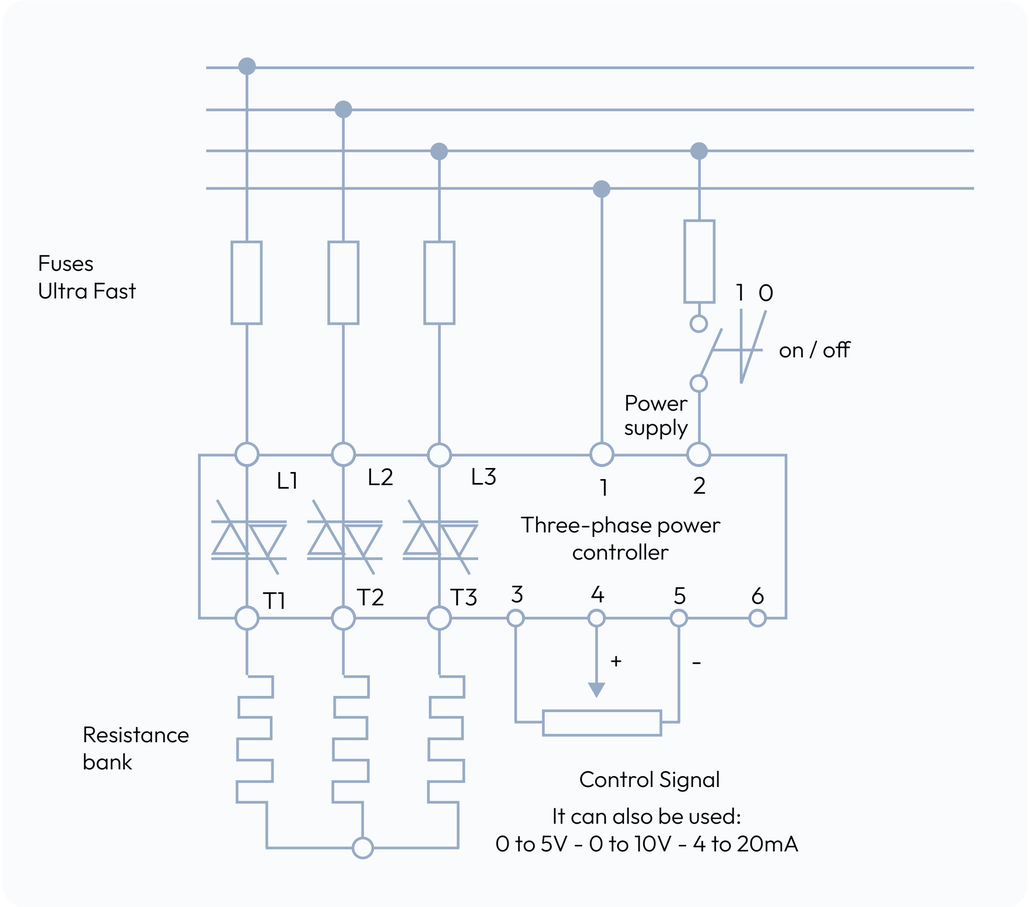
Primario Transformadores

Hornos industriales

Three-phase power controller without protections (normal) potentiometer-controlled

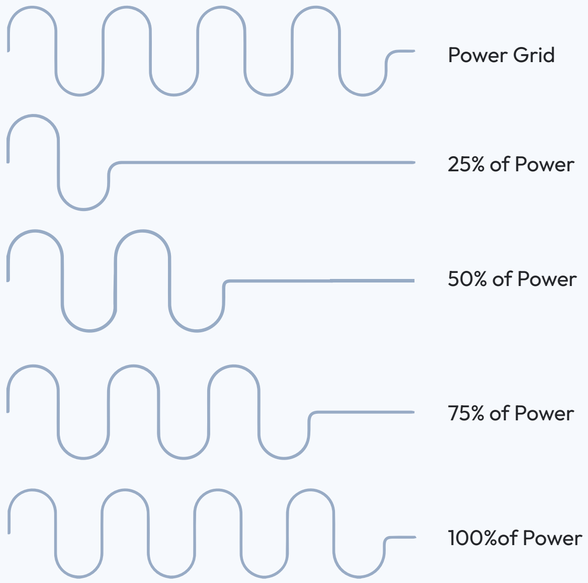
In this example, the load is a bank of star-connected resistors;

- In this application example, the control signal connection is configured for a potentiometer.
- The potentiometer value can be varied from 2k Ohms to 10k Ohms.



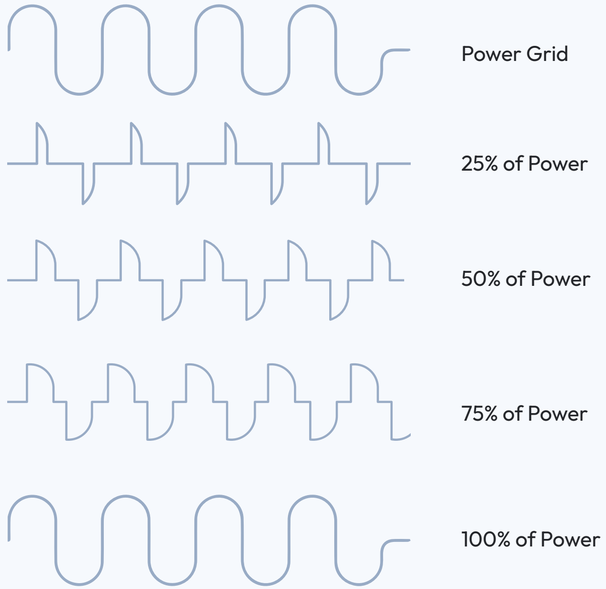
Pulse Width Modulation Type

- The “PWM” control system modulates the pulse width in proportion to the input signal;
- Switching is always done at zero voltage for switch-on and zero current for switch-off;
- Does not cause noise or harmonic generation in the grid;
- Used to control the power of resistive loads;
- Should not be used in lighting systems as the controller supplies packets of energy to the load over a period of time.



Phase Angle Type

- In this type of operation, the switching is done cycle by cycle of the grid, modulating the firing angle of the thyristors;
- Switching on occurs at the firing angle set by the control signal and switching off always occurs at zero current, minimizing transientes.
- Can be used for any type of load.



With IP and FP protections

Protections

- Signals (LEDs)
- Input and output phase failure/load resistance failure detection
- Short circuit in the load
- Overtemperature in the controller
- Control signal failure
- Adjustable current limit.

Signals (LEDs)

- Control on
- Power on
- Current limit/ Constant current
- Phase failure
- Short circuit
- Control signal failure
- Over-temperature

General Codes

Models

SVMM - SINGLE - PHASE MODEL
SVMB - TWO - PHASE MODEL
SVMT - THREE - PHASE MODEL

Current

10 TO 2000A - WITHOUT PROTECTION
30 TO 2000A - WITH PROTECTION

Nominal voltage

220V | 380V | 440V

Controls

107 POWER SUPPLY 110 VAC | CONT. 0 TO 5V/ 0 TO 20 MA | POTENTIOMETER
207 POWER SUPPLY 220 VAC | CONT. 0 TO 5V/ 0 TO 20 MA | POTENTIOMETER
147 POWER SUPPLY 110 VAC | CONT. 1 TO 5V/ 0 TO 20 MA | POTENTIOMETER
247 POWER SUPPLY 220 VAC | CONT. 1 TO 5V/ 0 TO 20 MA | POTENTIOMETER
117 POWER SUPPLY 11 0 10V | POTENTIOMETER
217 POWER SUPPLY | CONT. 0 TO 10V | POTENTIOMETER

GET TO KNOW HYAMP

Complete Power Control System

Learn more about this and other solutions.

Technical Specification

Complete Power Control System

Our system integrates one or more power controllers, along with all the necessary accessories, in a customizable way that simplifies both installation and operation. This system, which is ready for immediate use, requires only the connection of the power supply and the loads.

It adapts effectively to resistive and inductive loads of up to 1200 A, whether single-phase, two-phase or three-phase.

Advantages

- For resistive and inductive loads up to 1200 A, single-phase, two-phase or three-phase
- Optionally incorporates digital temperature controllers
- Optionally incorporates graphic HMI, Touch Screen, color, with trending capability
- Incorporates one or more Mykron power controllers
- Graphic and colorful HMI with real-time graphics
- Incorporates input contactor for each controller

Explore the technical details of Mykron, our product dedicated to power control for various types of loads.

Also, discover all our solutions for driving loads, covering motors, resistive loads, inductive loads, electromagnets and capacitor banks. All these solutions have been designed to meet a wide range of applications in a planned and controlled manner, offering durability and a long service life.

Visit our Website

+55 (19) 330 6900

+55 (19) 98124 6974

sales@varixx.com.br

https://www.linkedin.com/varixx

varixx.com

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