

MAG V - (VRT)

AC/DC Converter for Electromagnet Loads



varixx

AC/DC converter (VRT)

The VRT AC/DC Converter is a piece of equipment designed to supply electricity to electromagnets in an appropriate and controlled way. It consists of two three-phase rectifier bridges, responsible for converting alternating current from the mains into direct current.

VRT AC/DC converters stand out for their ability to adjust the demagnetization time, allowing precise control of the electromagnet. Its robust construction guarantees reliable operation even in aggressive environments with a high concentration of dirt, while its simple and safe operation requires only one control contact.

In addition, the equipment offers flexibility in customizing output currents and voltages (from 50 to 300 A), making it the ideal choice for supplying stable and controlled power to electromagnets in a variety of industrial applications.

Demagnetization by reversing the polarity of the electric current

The operating principle is based on controlling the magnetization and demagnetization of the electromagnet. The first rectifier bridge has the function of magnetizing the electromagnet, while the second is responsible for demagnetizing it.

Demagnetization takes place by reversing the direction of the electric current with the help of discharge resistors.

The demagnetization time can be set between 0.4 and 10 seconds.

General Information

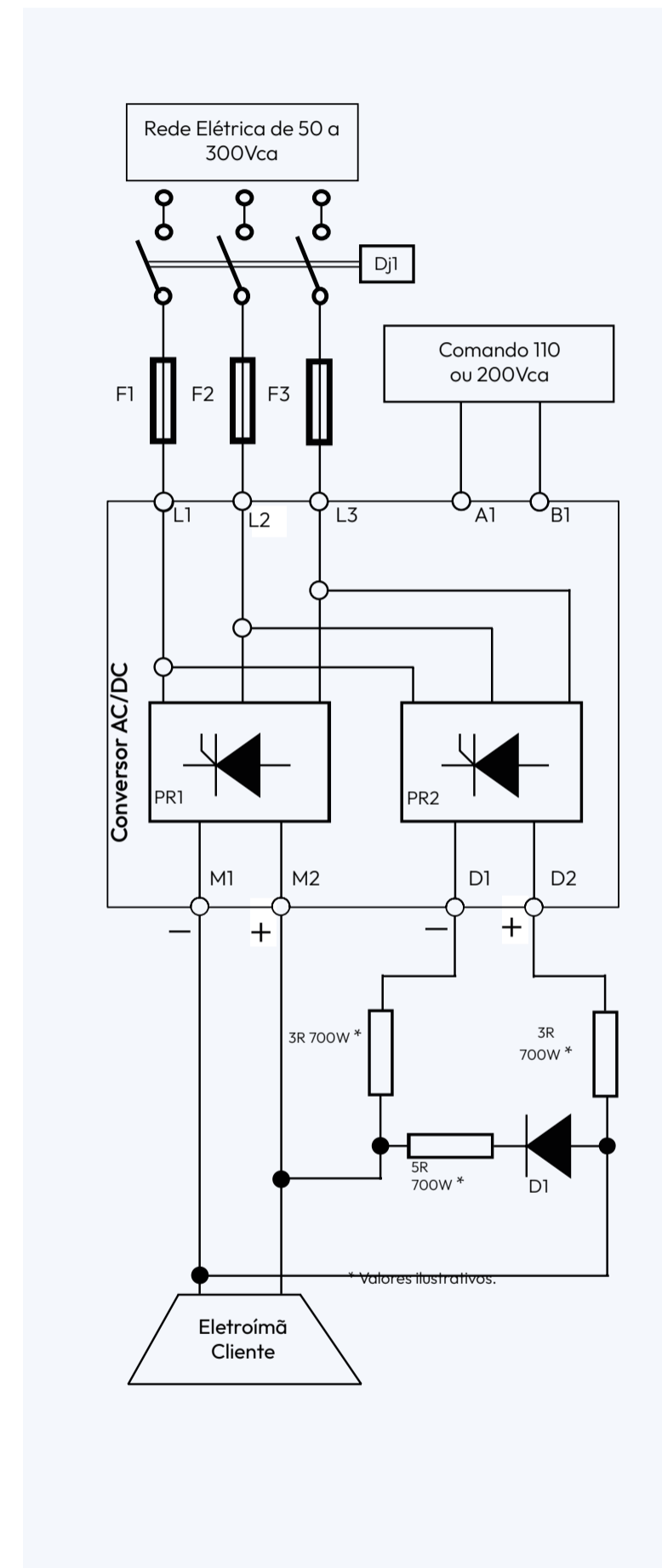
| | |
|------------------------------|-----------------------------------|
| Rated currents | 50A to 300A |
| Supply | Complete solution |
| Maximum input voltage | 300V AC |
| Control voltage | 110 or 220Vac |
| Fan voltage | 110 or 220Vac |
| Output VCC voltage | 35% higher than the input voltage |
| Service life | More than 200 mi. of maneuvers |
| Demagnetization time | 0.4 to 10 seconds |

> Main Advantages

- High number of maneuvers per hour.
- Very high durability.
- Does not require regular maintenance.
- No wear and tear.
- Does not generate noise for PLC or CP.
- Does not cause vibrations to other components in the panel.
- Does not generate overvoltages when switched off.
- Silent operation.
- Low consumption, compatible with PLC output (approximately 15mA).
- Small size and takes up little space in the panel.
- The control module is plug-in and is the same for the entire range of converter currents from 50 to 300A.
- The trigger modules are the same for the entire range of converter currents from 50 to 300A.

> Mechanical Characteristics

- Base and Side: Steel with highly resistant electrostatic paint.
- Terminal blocks: High-impact ABS plastic.
- Control module: High-impact ABS plastic.
- Trigger Module: High-impact ABS plastic.
- Power Connectors: Electrolytic copper busbar.



Installation Example

The converter can be supplied loose, i.e. just the unit, or mounted in a panel. When mounted in a panel, it is supplied with the circuit breaker, diode, fuses and resistors shown in the wiring diagram.

| Converter for Electromagnet Loads - Available Models | | |
|--|---|---------------------------|
| Complete with: B* Control voltage M** No. of Auxiliary Contacts D* Ventilator voltage | Complete the converter model with the information below: | |
| VRT-50-B*-M**-DO-D | Auxiliary Contacts | |
| VRT-75-B*-M**-D* | M00 = 0 NA+0 NF | M11 = 1 NA+1 NF |
| VRT-100-B*-M**-D* | 2 NA | 2 NF |
| VRT-125-B*-M**-D* | Command voltage | Ventilator voltage |
| VRT-150-B*-M**D* | B4 = 110Vca | D1 = 110Vca |
| VRT-200-B*-M**D* | B5 = 220Vca | D2 = 220Vca |
| VRT-250-B*-M**D* | MAXIMUM VOLTAGE = 300V AC | |
| VRT-300-B*-M**D* | | |

> Get to know the CM-VRT

Complete AC / DC Conversion System for Electromagnets

Equipment designed to supply electrical energy to electromagnets in an appropriate and controlled manner. It consists of two three-phase rectifier bridges that convert alternating current energy from the mains into direct current energy.



> Characteristics



Converter overload



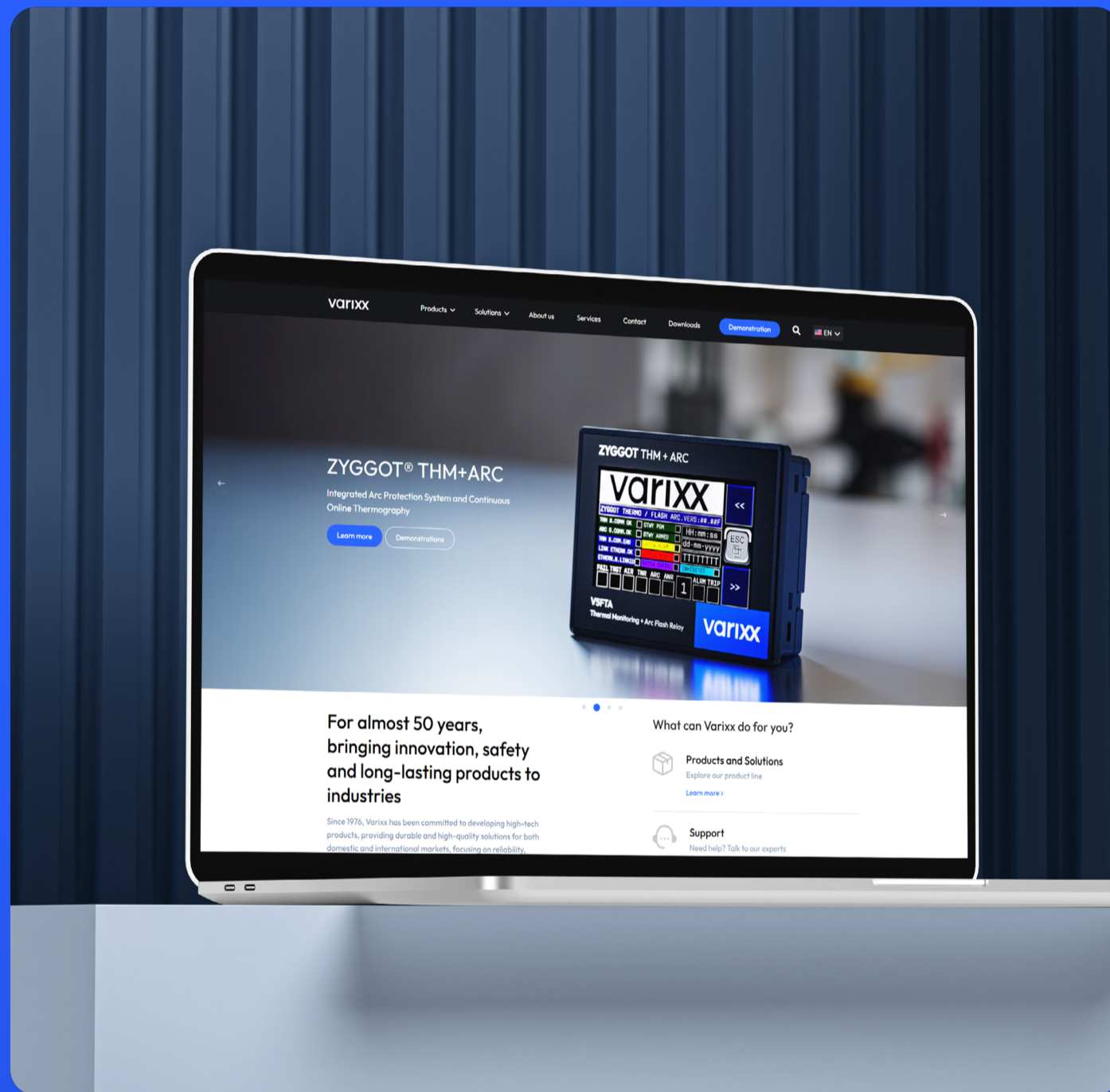
Short circuit in the converter



Fuse blow indication



Emergency Button



VISIT OUR WEBSITE AND FIND OUT MORE ABOUT OUR SOLUTIONS.

Explore the technical details of the VRT AC/DC Converter for Electromagnet loads, Mag V, our product specially developed for high-capacity industrial applications. Also, discover all our solutions for Electromagnet Drives and AC/DC Converters.

All these solutions have been designed to meet a wide variety of applications in a precise and controlled manner, guaranteeing durability and a long service life.