POLYLUX®

Technology and Quality

MORE THAN 50 YEARS' EXPERIENCE

# Single-phase and three-phase VOLTAGE STABILISERS

polylux.com

# POLYLUX®

## Technology and Quality

MORE THAN 50 YEARS' EXPERIENCE

We at POLYLUX help our customers improve their premises by providing them with high quality, reliable, safe products and solutions that can be adapted to all their needs for diverse industrial applications.

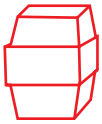
POLYLUX has extensive experience in the electrical sector, providing tailored solutions and implementing improvements to its products in order to adapt to market demands.

Our premises of over 20,000 $m^2$ include a production area of 12,000 $m^2$, an office area of 2,000 $m^2$ and the rest is used for services.

### What makes our products different from others? Continuous improvement and quality.

**Dip varnishing.** + **Drying in a high compactation furnace**

These two processes prevent noise and vibrations in the operation of our products. This achieves increased isolation and additional protection against damp.



**Flame retardant resin encapsulation.**

This process gives our products high resistance to thermal contrasts and complies with the UL94 V0 plastics flammability standard.

**Magnetic cores.**

We use magnetic cores with different properties and construction formats to achieve high efficiency.

**Flexibility in the final product construction.**

We adapt to all installation needs and design enclosures with different IP grades. Certified IP23 and IP65 enclosures.

**Product testing.**

Automatic checks and tests on ALL the products, in accordance with the standards.

**Customer focus.**

Technical support team that offers advice on product installation and maintenance.

# Single-phase and three-phase phase control **voltage stabilisers VK and VTF**

POLYLUX presents the new version of single-phase and three-phase voltage stabilisers VK and VTF, designed to protect electronic equipment from voltage fluctuations that may occur in the input network of our home or industry.

The evolution in the electrification of homes, industries, transport, etc., causes the increase in consumption of each user, therefore, their power demand increases and as we can all understand, the increase in current on the line causes the consequent voltage drop in the same. In order to correct these inefficiencies, the stabilizer is designed to correct these voltage variations within its working range.

At POLYLUX, we focus on the correction of both voltage rises and falls caused by the different currents that may circulate in the power line. Although this effect can occur at any time and in any location, it is more common in those installations that are furthest away from the transformer station because they are the last installations on the line.

These installations are the most affected when all the users are consuming simultaneously, suffering a voltage drop of the line and an overvoltage when these users disconnect.

We are constantly evolving and improving our product range to adapt to new demands in the market and remain at the forefront in our field. This is why we have evolved our VK and VTF voltage stabilizers by improving their input voltage ranges and their response speed.

# VK SERIES

**Single-phase** · Input **230 V ± 20%** - Output **230 V ± 1%**


## Definition and applications

With the single-phase automatic voltage stabilizer, a stable output voltage is achieved with a variable input voltage (power company supply or other generator.
The goal is to power industrial equipment that requires a stable voltage input.
Valid for installations where line tension experiences fluctuations throughout the day.
Not valid for sudden changes in tension such as company maneuvers.

## Technical features - standard model

| | |
|---|---|
| Power | **5 kVA to 50 kVA** |
| Standard voltage | **Input: 230 V ± 20 % // Output: 230 V ± 1 %** |
| Standard frequency | **50-60 Hz** |
| Response speed | **10 V/s** |
| Enclosure colour | **RAL 7035** |
| IP rating | **IP20** |
| Paint class (ISO 12944) | **C3** |
| Operating temperature | **From -10 ºC to 60 ºC** |
| Relative humidity | **< 90 %** |
| Performance | **> 98 %** |
| Standards | **IEC/EN/UNE-EN 61439, CE** |
| Operation | **Continuous** |
| Cooling | **ANAN** |

## Manufacturing characteristics

All the VK models have:
- Built-in BY-PASS
- Automatic control of the regulating motor
- Digital current and voltage indicators
- Maximum overload 200% 2 seconds.
- Visual and audible alarms
- Protections:
  - Against over temperatures.
  - Against short circuits.
  - Against over currents and overloads.
  - Phase failure and loss of protection per phase.
  - MCB input.
  - Outside stabilization margins.

- All the stabilisers are checked automatically one by one and the compliance report is created based on the respective standard.

In case of galvanic separation consult special isolating transformers TT and TK models:
- Independent installation in front of the stabilizer in IP23 grade.
- These transformers will be prepared to withstand an overvoltage of the +20% or the selected special margin.
- Possibility of incorporating electrostatic screen
- Possibility of incorporating overvoltage arresters.

# VK SERIES

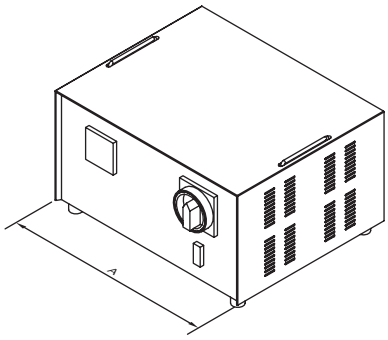
Single-phase · Input **230 V ± 20%** - Output **230 V ± 1%**

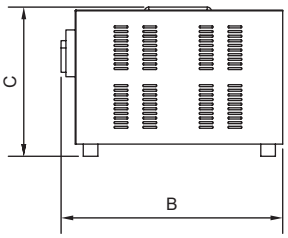
## Theoretical data - standard model

| Power kVA | Reference | Current A |
|---|---|---|
| **VK** | | |
| 5 | **VK5** | 21.7 |
| 6,3 | **VK6.3** | 27.4 |
| 8 | **VK8** | 34.8 |
| 10 | **VK10** | 43.5 |
| 16 | **VK16** | 69.6 |
| 20 | **VK20** | 87 |
| 25 | **VK25** | 108.7 |
| 30 | **VK30** | 130.4 |
| 40 | **VK40** | 173.9 |
| 50 | **VK50** | 217.4 |

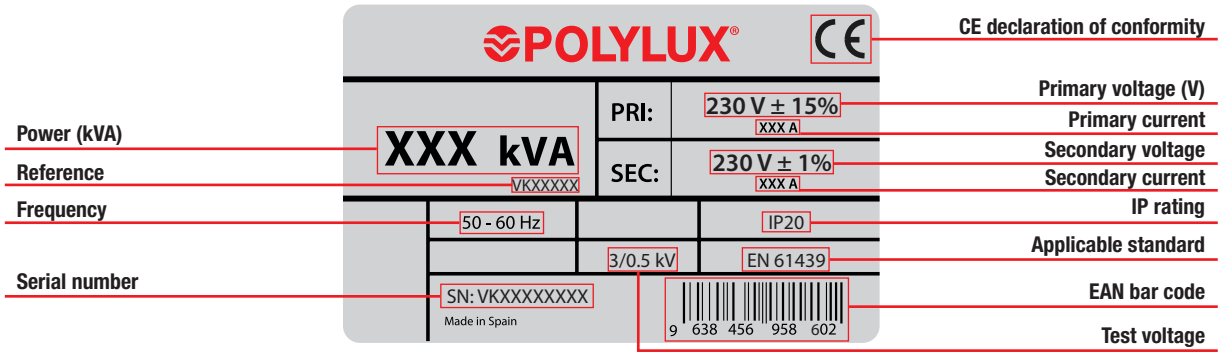
## Measurements

| Power kVA | Reference | External dimensions mm | | | Weight kg |
|---|---|---|---|---|---|
| | | A | B | C | |
| **VK** | | | | | |
| 5 | **VK5** | 480 | 360 | 270 | 30 |
| 6,3 | **VK6.3** | 530 | 430 | 300 | 46 |
| 8 | **VK8** | 530 | 430 | 300 | 46 |
| 10 | **VK10** | 530 | 430 | 300 | 46 |
| 16 | **VK16** | 570 | 470 | 320 | 72 |
| 20 | **VK20** | 570 | 470 | 320 | 72 |
| 25 | **VK25** | 570 | 570 | 880 | 130 |
| 30 | **VK30** | 570 | 570 | 880 | 130 |
| 40 | **VK40** | 570 | 670 | 930 | 200 |
| 50 | **VK50** | 570 | 670 | 930 | 200 |




## Feature plate structure




## On-request manufacturing options (please see prices)

| | |
|---|---|
| Power | **From 5 kVA to 50 kVA** |

# VTF SERIES

**Three-phase phase control** · Input **400 V ± 20%** - Output **400 V ± 1%**

## Definition and applications

With the three-phase automatic voltage stabilizer, a stable output voltage is achieved with a variable input voltage (power company supply or other generator.
The goal is to power industrial equipment that requires a stable voltage input.
Valid for installations where line tension experiences fluctuations throughout the day.
Not valid for sudden changes in tension such as company maneuvers.

## Manufacturing characteristics

All the VTF models have:
- Built-in BY-PASS
- Automatic control of the regulating motor.
- Digital current and voltage indicators
- Maximum overload 200% 2 seconds.
- Visual and audible alarms
- Protections:
  - Against over temperatures.
  - Against short circuits.
  - Against over currents and overloads.
  - Phase failure and loss of protection per phase.
  - MCB input.
  - Outside stabilization margins.
- All the stabilisers are checked automatically one by one and the compliance report is created based on the respective standard.

In case of galvanic separation consult special isolating transformers TT and TK models:
- Independent installation in front of the stabilizer in IP23 grade.
- These transformers will be prepared to withstand an overvoltage of the +20% or the selected special margin.
- Possibility of incorporating electrostatic screen
- Possibility of incorporating overvoltage arresters.

## Technical features - standard model

| | |
|---|---|
| Power | **5 kVA to 150 kVA** |
| Standard voltage | **Input: 400 V ± 15 % // Output: 400 V ± 1 %** |
| Standard frequency | **50-60 Hz** |
| Response speed | **10 V/s** |
| Enclosure colour | **RAL 7035** |
| IP rating | **IP20** |
| Paint class (ISO 12944) | **C3** |
| Operating temperature | **From -10 ºC to 60 ºC** |
| Relative humidity | **< 90 %** |
| Performance | **> 98 %** |
| Standards | **IEC/EN/UNE-EN 61439, CE** |
| Operation | **Continuous** |
| Cooling | **ANAN** |

# VTF SERIES

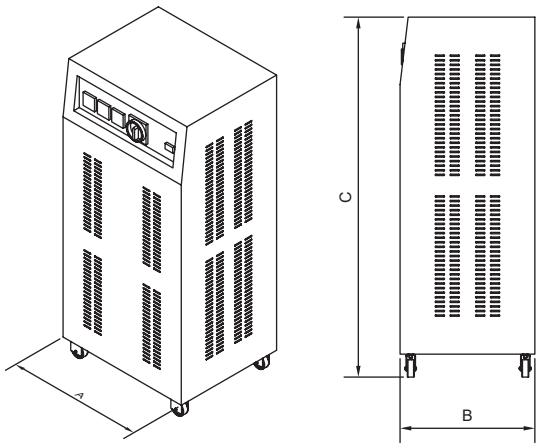
Three-phase phase control · Input **400 V ± 20%** - Output **400 V ± 1%**

## Theoretical data - standard model

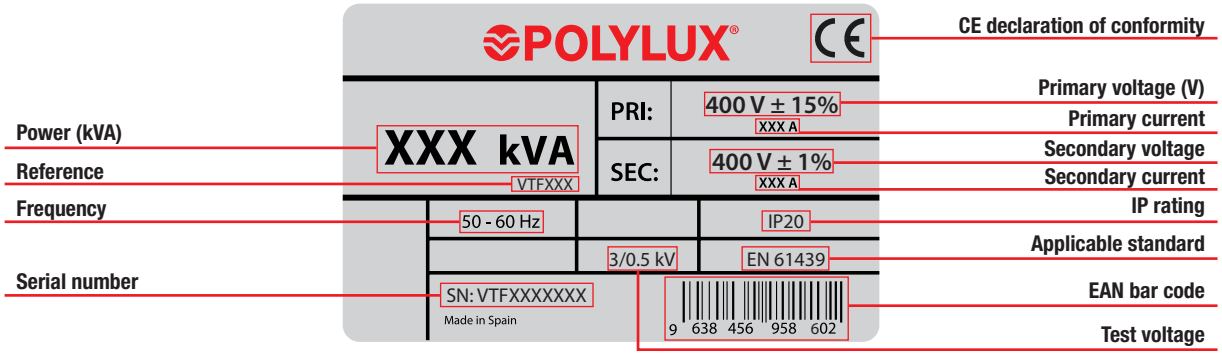
| Power kVA | Reference | Current A |
|---|---|---|
| | **VTF** | |
| 5 | **VTF5** | 7.2 |
| 8 | **VTF8** | 11.5 |
| 10 | **VTF10** | 14.4 |
| 16 | **VTF16** | 23.1 |
| 20 | **VTF20** | 28.9 |
| 25 | **VTF25** | 36.1 |
| 31,5 | **VTF31.5** | 45.5 |
| 40 | **VTF40** | 57.7 |
| 50 | **VTF50** | 72.2 |
| 63 | **VTF63** | 90.9 |
| 80 | **VTF80** | 115.5 |
| 100 | **VTF100** | 144.3 |
| 125 | **VTF125** | 180.4 |
| 150 | **VTF150** | 216.5 |

## Measurements

| Power kVA | Reference | External dimensions mm | | | Weight kg |
|---|---|---|---|---|---|
| | | A | B | C | |
| | **VTF** | | | | |
| 5 | **VTF5** | 520 | 500 | 1130 | 90 |
| 8 | **VTF8** | 520 | 500 | 1130 | 90 |
| 10 | **VTF10** | 520 | 500 | 1130 | 90 |
| 16 | **VTF16** | 520 | 500 | 1130 | 130 |
| 20 | **VTF20** | 520 | 500 | 1130 | 130 |
| 25 | **VTF25** | 620 | 500 | 1250 | 180 |
| 31,5 | **VTF31.5** | 620 | 500 | 1250 | 180 |
| 40 | **VTF40** | 620 | 500 | 1250 | 180 |
| 50 | **VTF50** | 770 | 660 | 1250 | 340 |
| 63 | **VTF63** | 770 | 660 | 1250 | 340 |
| 80 | **VTF80** | 770 | 660 | 1250 | 350 |
| 100 | **VTF100** | 770 | 660 | 1250 | 350 |
| 125 | **VTF125** | 980 | 800 | 1360 | 600 |
| 150 | **VTF150** | 980 | 800 | 1360 | 600 |




## Feature plate structure




## On-request manufacturing options (please see prices)

| | |
|---|---|
| Power | **To 600 kVA** |

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