

### Power Factor Correction Controllers



#### KEY BENEFITS

- 1...6 steps and 1...12 steps
- Supply voltage from 90 VAC to 300 VAC (model ESTAmat PFC-N)
- Measuring voltage from 90 VAC to 690 VAC, galvanic separation (model ESTAmat PFC-N)
- Operating voltage of 230 VAC  $\pm$  10 % (model ESTAmat MH-N)
- No need to differentiate between X/1 A or X/5 A current transformer
- High contrast backlit display for good reading even in poor lighting conditions
- Over-temperature switch-off (model ESTAmat PFC-N)
- Easy mounting with small flat springs
- Automatic self-setting (model ESTAmat PFC-N)
- 4-quadrant operation means trouble-free service in generator mode
- Optimized switching performance
- Constant display of actual power factor and energized steps
- Display of  $\cos \varphi$ , P, Q, and S
- Additional step data (model ESTAmat PFC-N)
- Alarm functions

#### APPLICATIONS

- Automatic and manual control of central PFC equipment

#### RESOURCES

- Manual: ESTAmat MH-N - <http://www.vishay.com/doc?13156>
- Manual: ESTAmat PFC-N - <http://www.vishay.com/doc?13157>
- For technical questions contact [esta@vishay.com](mailto:esta@vishay.com)

**VISHAY ESTA POWER CAPACITORS**

ESTAmat

**Power Factor Correction Controllers****HOW DO THEY COMPARE WITH EACH OTHER:**

<b>MATTER OF REFERENCE</b>	<b>ESTAmat PFC-N</b>	<b>ESTAmat MH-N</b>
Measuring and operating voltage	Galvanic separation	Galvanic separation
Connection of measuring voltage	Phase / Neutral or Phase / Phase	Phase / Neutral internally connected to the operating voltage
Measuring voltage	90 V <sub>AC</sub> to 690 V <sub>AC</sub>	230 V ± 10 %
Operating voltage	90 V <sub>AC</sub> to 300 V <sub>AC</sub>	
Initialization of C.T. location and output and number of the capacitor steps (switching program)	Optionally auto-initializing and manual setting	Manual
Identification of C.T. location	Yes	No
Defining fixed steps	Yes	No
Switching time	One time between 1 s to 6500 s asymmetrical switching	One time between 2 s to 1800 s for switching on and off
Re-switching blocking delay time	Stepless 500 ms to 1200 s	Adjustable together with switching time 2 s to 1800 s
Switching mode	Circular and series	Circular
Display of cos φ; P; Q; S; Urms; Irms	Yes	Yes
Display of the percentage amount of the harmonic voltage 3rd, 5th, 7th, 9th, 11th, 13th, 17th, and 19th (FFT) Temp.; Qc switching per step	Yes	No
Temperature control by means of an internal sensor Range: 0 up to + 70 °C (step size 1 °C)	Yes	No
External interface	Yes	No

**DIMENSIONS**

<b>ESTAmat</b>	
<b>Front panel</b>	144 mm x 144 mm
<b>Panel cut-out</b>	138 mm x 138 mm (± 0.5 mm)