



## Features :

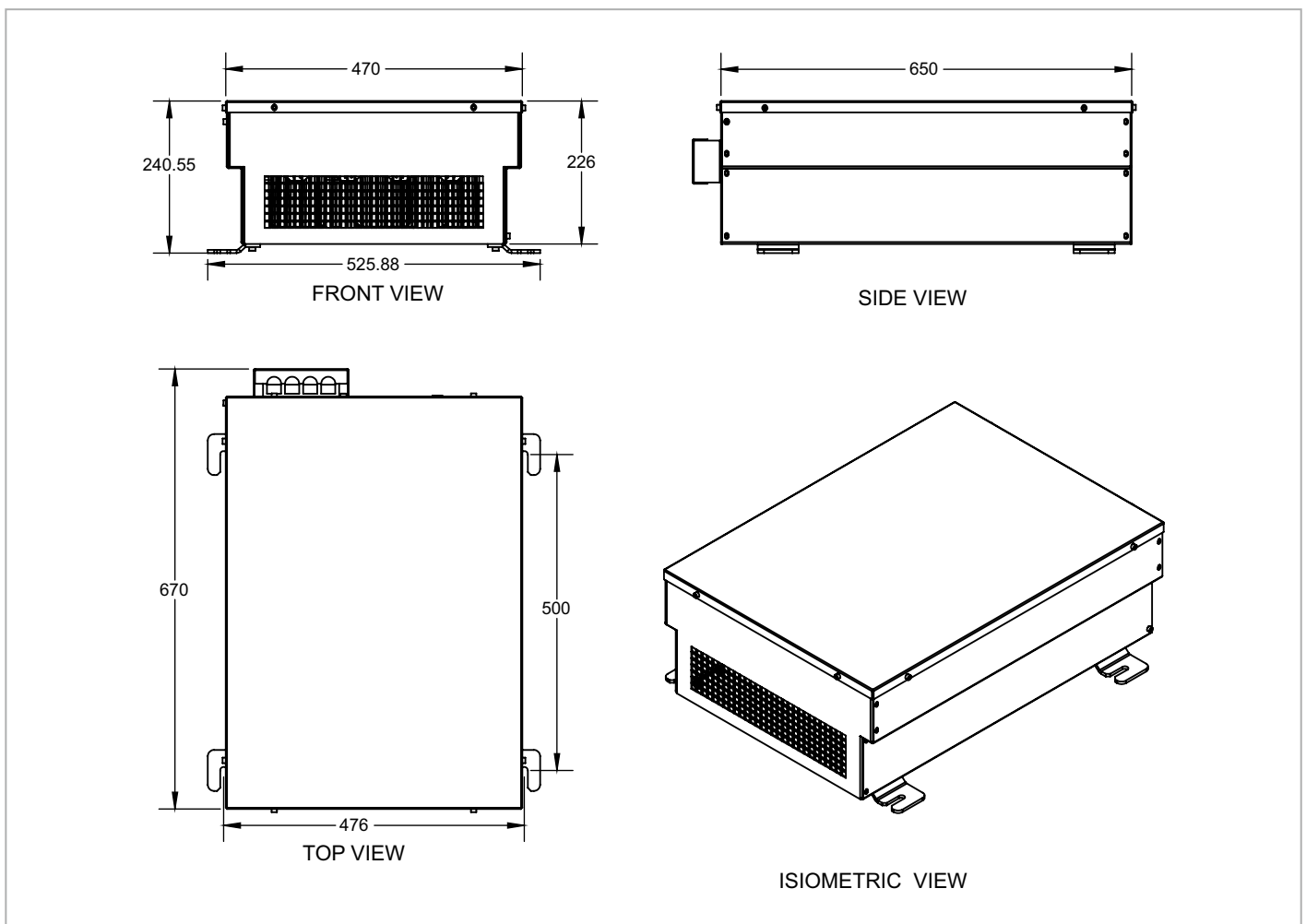
- ▶ Real time, dynamic step-less compensation
- ▶ Instant response time of 50  $\mu$ sec & full response in less than 1 cycle
- ▶ Capacitive (Leading) & Inductive (Lagging) reactive power mitigation
- ▶ Harmonic correction up to 51<sup>th</sup> order
- ▶ RS485, Optional Wi-Fi / Ethernet modular arrangement-parallel operation up to 8 module
- ▶ Can be installed with conventional capacitor banks

## Technical specifications

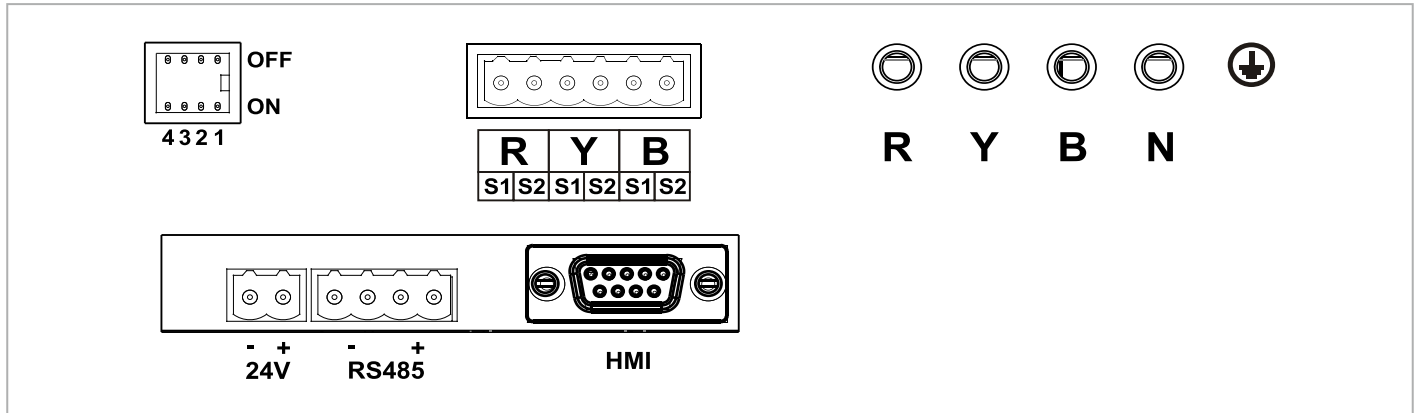
| Main                         |  |
|------------------------------|--|
| Product name                 | AHF  |
| Product or component type    | Active harmonic filter   |
| Complementary                |  |
| Network type                 | 3P   |
| Network configuration        | 3P-3W / 3P-4W  |
| Network rated voltage        | 308V to 460V   |
| Network frequency            | 50/60HZ (2.5Hz)  |
| Nominal voltage              | 415  |
| Maximum permissible voltage  | 1.1 x Un   |
| Neutral connection           | Provided   |
| RMS Output current rating    | 50A  |
| Current transformer          | Settable through HMI up to 10000 / 5A  |
| CT Location                  | Grid side / Load side  |
| Topology                     | Three level topology   |
| Reactive power rating        | 36kVAr at 415V   |
| Advance functions            |  |
| Harmonic mitigation          | Upto 51 <sup>th</sup> order for max current rating of 50A  |
| Operating modes              | Harmonic cancellation, Load Balancing, Power factor correction   |
| Mechanicals and installation |  |
| Installation location        | Indoor   |
| Enclosure mounting           | Wall mounted / Rack mounted / Floor mounted  |
| Protection type              | Over-voltage protection, Under-voltage protection, Inverter bridge inverse protection, Over compensation protection, over-current protection |
| Heat dissipation             | Rear plenum with forced ventilation for high heat flow   |
| Cooling                      | 151L / Sec   |
| Dimensions (W x D x H) mm    | 470*240*670  |
| Colour                       | RAL7035  |
| Performance                  |  |
| Parallel operations          | Upto 8 units   |
| Efficiency                   | $\geq 97\%$  |
| Losses                       | $< 3\%$  |
| Response time                | $< 50\mu$ s  |
| Overall response time        | $< 5$ ms   |
| Target PF                    | -1~1 Adjustment  |

| Communication                        |  |
|--------------------------------------|--|
| Communication port                   | RS485, Ethernet & WiFi (Optional)  |
| Communication protocol               | MODBUS-RTU (Default), MODBUS TCP-IP (Optional)   |
| Display interface                    | 4.3 inch HMI (Optional)  |
| Accessibility for operation          | Through HMI & Remote   |
| Certification                        |  |
| Electromagnetic compatibility        | Conducted EMC, Class A conforming to EN 61000-6-4                                      |
| Environment                          |  |
| Enclosure degree of protection       | IP 20  |
| Environmental characteristic         | Operating: 3C2 conforming to IEC 60721-3-3<br>Storage: 3C3 conforming to IEC 60721-3-3 |
| Operating altitude                   | <2000m   |
| Ambient air temperature or operation | -10 to 45°C  |
| Relative humidity                    | 0...95 %   |
| PCBA Protection                      | Conformal coated   |
| Standards                            | EN 61000-6-4   |
| Ambient air temperature for storage  | -----  |
| Contractual warranty                 |  |
| Warranty                             | 12 months  |

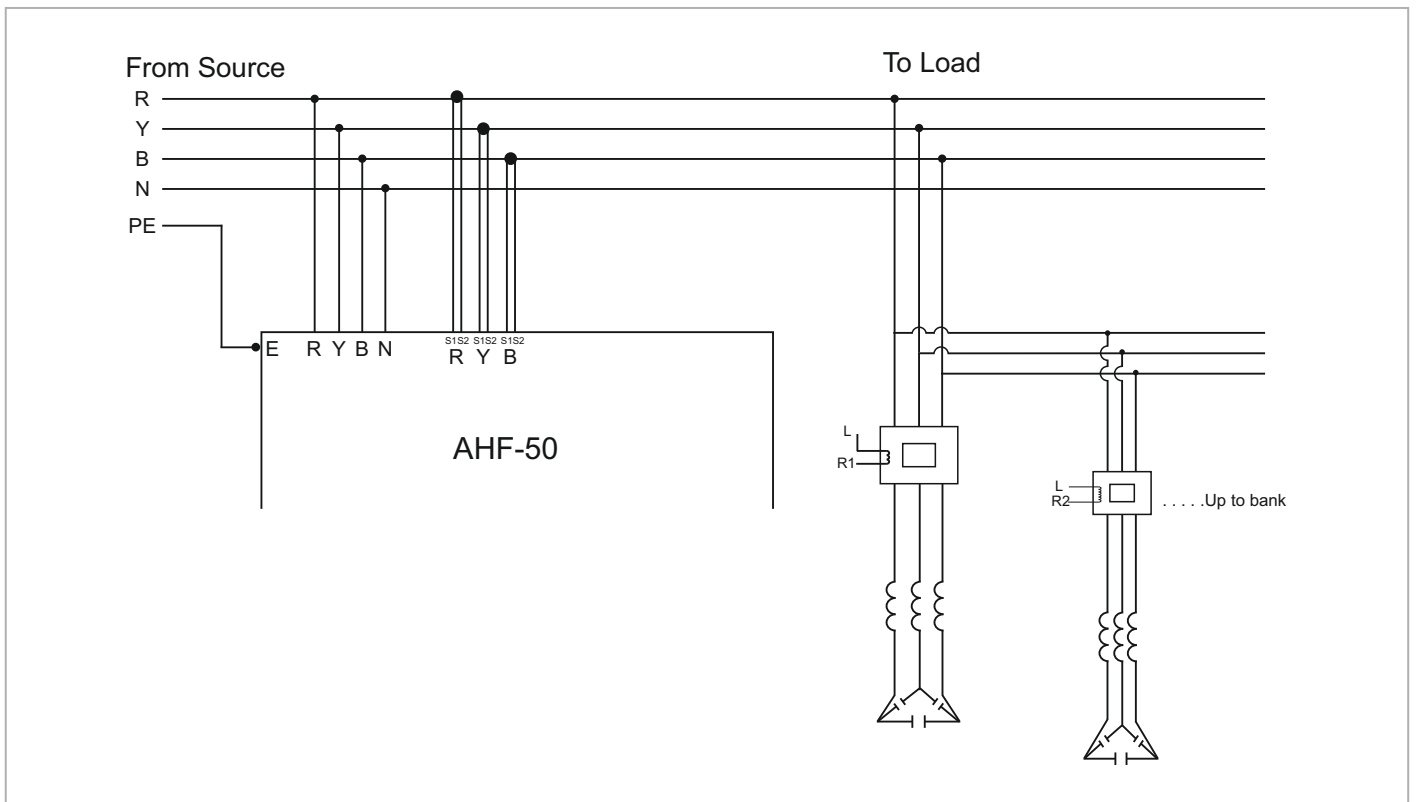
## Mechanical dimensions



## Terminal diagram



## Terminal connection



## Ordering information

| Product code      | Description   |
|-------------------|---|
| AHF-050-RCK-4P-04 | Active harmonic filter 50A, Rack mounted, 3P-4W with 4.3 inch HMI |
| AHF-050-WLL-4P-04 | Active harmonic filter 50A, Wall mounted, 3P-4W with 4.3 inch HMI |
| AHF-050-WLL-4P-XX | Active harmonic filter 50A, Wall mounted, 3P-4W without display   |

**Note :** For XX Model separate common controller is mandatory