



**AHF** is a power quality device that actively detects and eliminates unwanted **harmonic currents** from the electrical system. It uses IGBT-based high-speed switching technology to **inject equal and opposite harmonic currents**, thus protecting sensitive equipment and complying with **IEEE 519** standards.

### Key Features of AHF :

- Effectively eliminates 51st order harmonics, maintaining compliance with IEEE-519 and other standards
- Power Factor Correction up to 0.99 (lagging or leading)
- Real-Time Dynamic Compensation- Reacts in less than 1 millisecond ,ideal for fast-changing non-linear loads. Reduced Transformer & Cable Losses
- Prevents malfunction in VFDs, PLCs, UPS, and other electronic devices Compliant with IEEE 519 & IEC Standards
- Balances Unbalanced Loads
- Reduces Total Harmonic Distortion (THD) for smoother voltage and current waveforms
- Seamless Integration -Parallel connection with existing loads without major wiring changes
- Reduces Noise & Vibration-Helps avoid humming and buzzing in electrical equipment

## TDS For AHF

Electrical Specification	
Rated Voltage	400V(300~456V)
Rated Current	15/25/50/75/100/150A
Circuit Topology	Three Level IGBT
Network Configuration	3P3W/ 3P4W
Mains Frequency	50/60Hz±5%
Filter range	2nd~51st odd order harmonics
Filtering Performance	Typically, THDi≤ 5% at rated load
Target Power Factor	Adjustable from -1.0 to +1.0
3 Phase Load Balancing Effect	≤5%, Mitigate negative and zero sequence
Overall Response time	≤5ms
Multi devices in parallel	Up to 12 sets can be connected in parallel
Output current limit	Automatically limited within 100% of rated capacity to output
Control Technology	
Switching/control frequency	25.6kHz
Control algorithm	Intelligent FFT, Self-adaptive control algorithm
Communication protocols	communication interface adopts RS485 and CAN bus, supporting mobile phone APP operation
Physical Specification	
Human Machine Interface	7 inch touched LCD HMI
Installation method	Rack mounted, wall mounted
Level of protection	IP20
Environmental Specification	
Environment temperature	-20 ~ 55 °C (rated power output)
Storage temperature	-30~70°C
Relative humidity	95 % at a maximum, no condensation
Altitude	Below 1500 meters above sea level
Cooling requirements	Require well ventilation, and the air vent can be opened through the cabinet door, or a fan installed in the cabinet



## Mechanical Dimensions

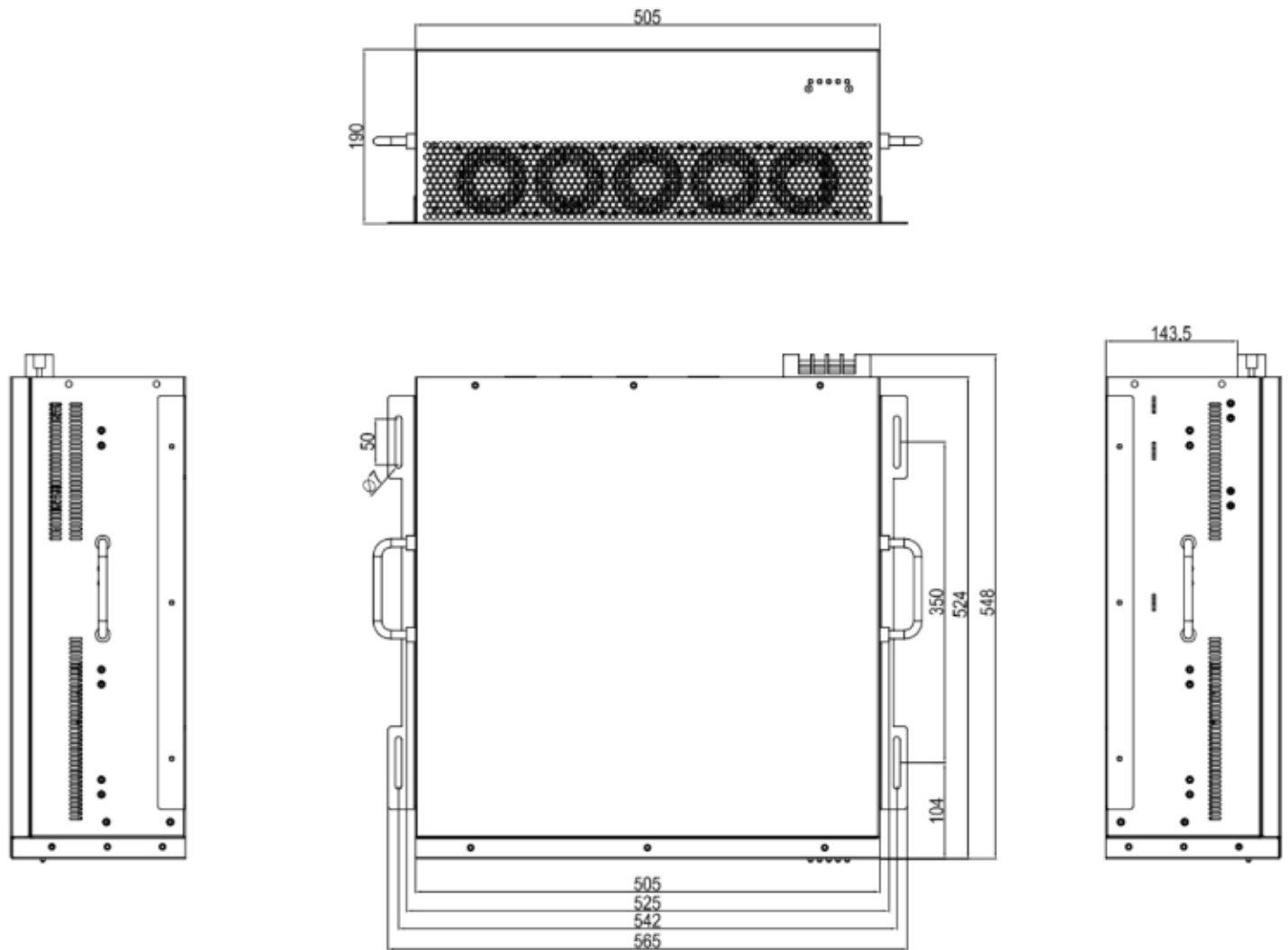


Figure 1-2 Overall Dimension Drawing (Unit: mm) of Rack Module (50A/75A)



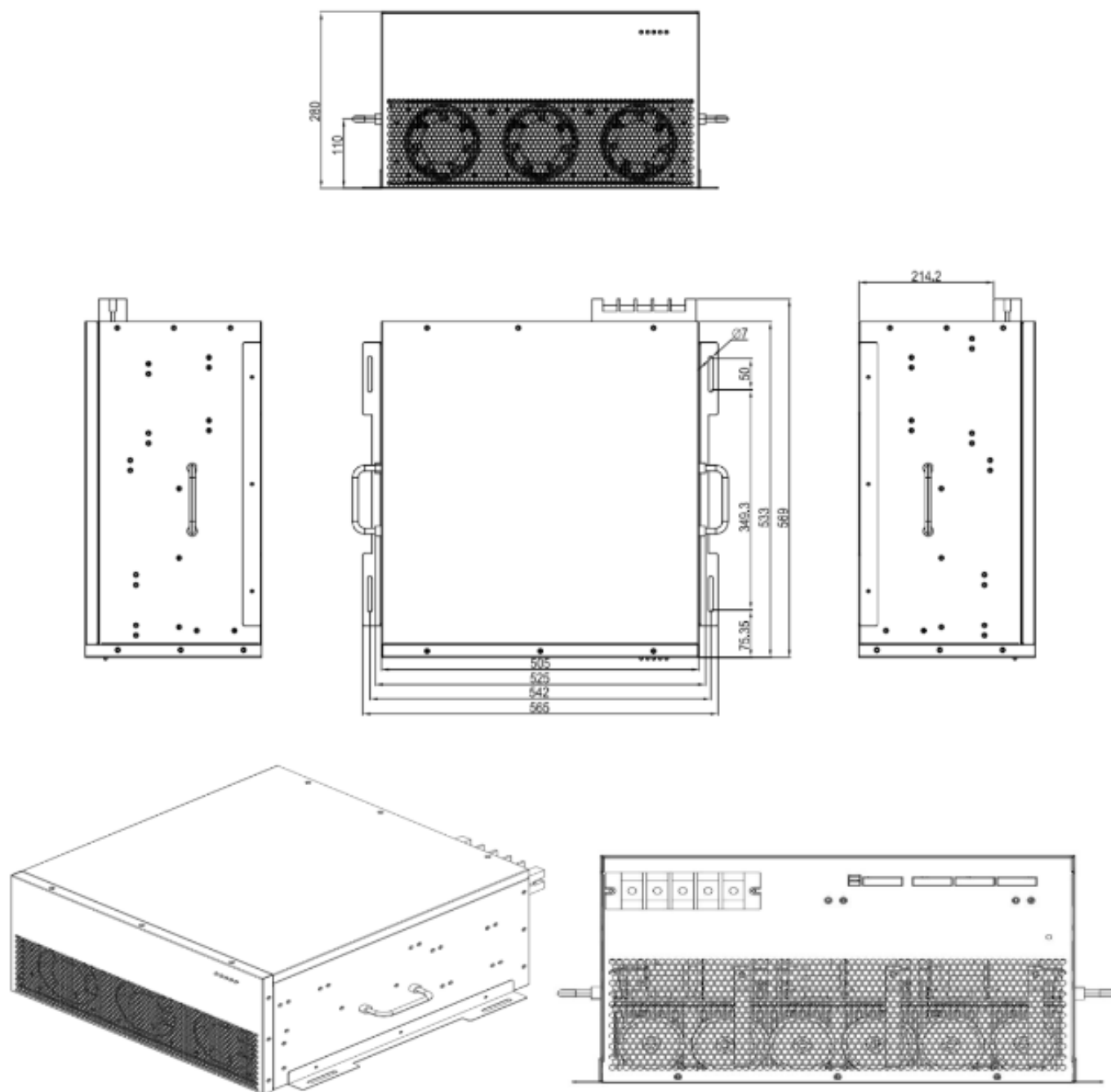


Figure 1 - 3 Overall Dimension Drawing (Unit: mm) of Rack Module (100A/150A)

