

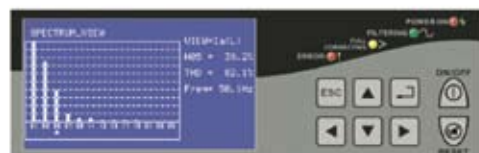
# // **Modular Active Power Filter** / Enersine ESD34 35~960A



- Modular design, easy to extend
- Up to 51st harmonic
- Up to 12 harmonic orders selective individually
- Close/Open Loop Control
- Programmable power factor correction
- Full-time DSP Control system
- Easy selection
- Shunt connection, easy for maintenance
- Flexible Up-grading/Redundancy
- Parallel operated in different capacity
- User-friendly control panel



▲ LED Panel



▲ LCD Panel Optional

## General Characteristics

Storage Temperature	-20°C ~ + 70°C/-4°F to 158°F
Operating Temperature	+0°C ~ + 40°C/32°F to 104°F
Relative Humidity	<95%
Operating Altitude	<1000m/3200ft
Reference Harmonic Standard	EN 61000-3-4, IEEE 519-1992
Reference Design Standard	EN60146
Standards and Certifications	EN50178 / UL508

## Control Module Specification

Model Number	ESD34-CX035-400E-X	ESD34-CX035-480B-X
Input Voltage	400V +15%,-20%	480V +10%,-20%
Phase/Wires	3 phase 4 wires/3wires	3 phase 3 wires
Frequency	50/60±3 Hz (Auto Sensing)	
Compensated Harmonic Orders	From 2nd to 51st order. Up to 12 orders actives simultaneously (2nd ~31st). Higher Order Compensation (32nd~51st) Disable/Enable operation.	
Power Factor Correction	Compensate both lagging and leading reactive power. Power factor can be programmed from 0.7 lagging to 0.7 leading	
CT Ratio	Can be set. Primary Current: 100A~1000A Secondary Current: 1A(Standard)/ 5A (Optional)	
CT Location	Source or Load side	
Response Time	< 20 msec	
Number of controllable Power Module	Up to 4 Power Modules.	
Parallel	Up to 8 Control Modules.	
Maximum Heat losses	50 Watt	
Color	RAL9011(PANTONE Process Black C)	
Protection Index	IP20	
Dimensions (WxHxD) mm/inch	440 × 710 × 86 mm / 17.3" × 28.0" × 3.4"	
Weight(kg)	14 Kg / 30.9 lbs	
Control Panel	LED / LCD Display	

## Power Module Specification

Model Number	ESD34-PX035-400E	ESD34-PX035-480B
Input Voltage	400V +15%,-20%	480V +10%,-20%
Phase/Wires	3 phase 4 wires/3wires	3 phase 3 wires
Frequency	50/60±3 Hz	
Maximum Compensation Current/Phase	35 Arms	
De-rating Compensation Current/Phase (1)	30 Arms	
Maximum Compensation Current for Natural	105 Arms	N/A
Inrush Current	Less than rated current	
Current Limitation	Yes, at full correcting	
Maximum Heat losses	650 Watt	
Color	RAL9011(PANTONE Process Black C)	
Protection Index	IP20	
Dimensions (WxHxD) mm/inch	440 × 131 × 710 mm / 17.3" × 5.2" × 28.0"	
Weight	31 Kg / 68.3lbs	

(1)When 2 and above Power Modules work in power scalable configuration, the power module will downgrade

## DC Equalizer Module Specification<sup>(1)</sup>

Number of controllable	Up to 4 Power Modules.
Power Modules	
Color	RAL9011(PANTONE Process Black C)
Protection Index	IP20
Dimensions (WxHxD)	440 × 42 × 332.5 mm/ 17.3" × 1.7" × 13.1"
Weight	4.5 Kg / 9.9lbs

(1) Only for the 480V model.

## Communication Interface

Dry Contact (Standard Configuration)	a. 5 Output Dry Contacts. b. 1 Input Dry Contact c. 1 EPO
Communication Interface	Standard : RS232/USB Optional: RS485/RS422 Ethernet Card
Programming	Configurable by using our computer service software—Enersine ESD34 Expert Service Program— via USB or RS-232 link, or by using the LCD control panel.
Monitoring Software (Optional)	ESD-Link34
Communication Protocol	J-Bus/MOD Bus Protocol