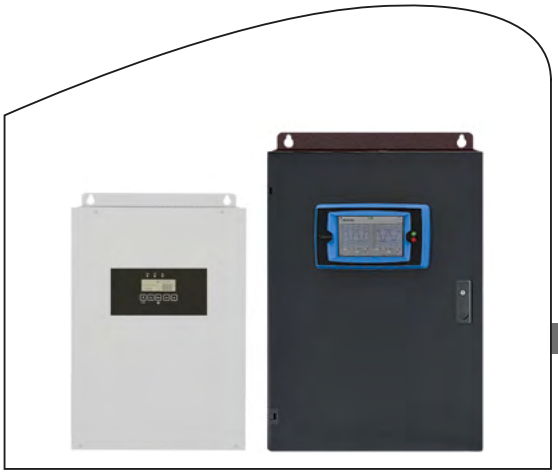
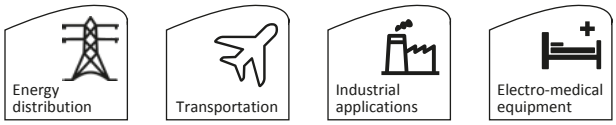
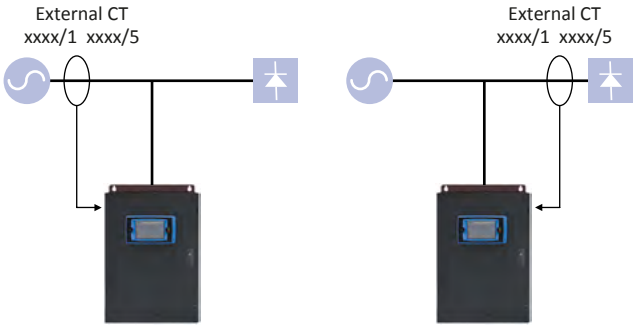




Features

- ESP active filters have a Wall mount structure and are the most economical and efficient solution for correcting power factor and harmonic distortion from loads.
- Their high current rating and the option of connecting them in parallel makes them versatile.
- Maximum performance with 3-level DSP technology.
- Their compact, high-power-density design optimises space.
- Multi-purpose: one model covers all three-phase systems (3-wire or 4-wire).
- Correction of all harmonics (up to the 25th for ESP 30 and up to the 51st for ESP 60/80/100) with a response time of less than 1 ms.
- No overload effect.
- Selective mode to select the harmonics to be corrected.
- Phase balancing of three-phase loads.
- Open loop or closed loop installation.
- All parameters are under control via the 7” colour touch screen display (only for ESP 60/80/100) that shows: voltage and current waveforms, frequency spectrum, parameters and events.
- Events and parameters can be downloaded to a removable SD card (only for ESP 60/80/100).
- Advanced communication: dry contacts (1 in and 3 out), USB, RS485 Modbus, RJ45 Ethernet, programmable email alarm.
- Multiple languages can be selected for ESP 60/80/100.

Open/closed loop control



Closed Loop Control

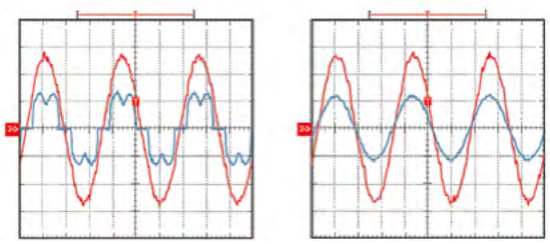
Open Loop Control

User-friendly user interface

The 7” colour touch screen display can be used to set all parameters, read the event log file and download data to a removable SD card (only for ESP 60/80/100).
It can also show the voltage and current waveforms, before and after enabling the ESP, along with a frequency spectrum bar graph.

Harmonic and PF correction that can be verified on the display

ESP not only actively corrects harmonic currents up to the 51st order, but also improves the inductive or capacitive power factor with a response time of less than 1 ms.
The benefits can be seen easily on the display.



Before
THDi%=30%, PF=0.81

After
THDi%=4.3%, PF=1.0

Ablerex

ESP (Active Power Filters) - Wall mount

MAXIMUM ACTIVE HARMONIC AND POWER FACTOR CORRECTION

ESP active filters can correct any type of harmonic contamination to protect the system from faults (e.g. on transformers, capacitors, etc.), while also improving the power factor.

MODEL		ESP 30	ESP 60	ESP 80	ESP 100
SIZE (A)		30	60	80	100
ELECTRICAL SPECIFICATIONS	Rated voltage	400 V +15%, -20%; 480V +10%, -20%			
	Phases	Three-phase			
	Frequency	50/60 ±3 Hz			
	Harmonic correction	From the 2nd to the 25th	From the 2nd to the 51st		
	Power factor correction	Capacitive and inductive (selectable)			
	Load balancing	Between two phases and between phase and neutral			
	Response time	25 µs			
ENVIRONMENTAL PARAMETERS	Operating temperature	-10°C to +40°C with no derating*			
	Relative humidity	<95%			
	Altitude (a.s.l.)	<1000 m with no derating, >1000 m with 1% derating for every 100 m			
	Audible noise at 1 m.	<55 dBA	<63 dBA		
GENERAL	Dimensions (WxDxH) mm	348x164x598	500x286x775		
	Weight (kg)	16	51	58	60
	Protection class	IP30/IP31			
	Connections	4-wire/3-wire			
	Installation	Wall mounting			
	Type	Monolithic			
	Parallel connection up to (A)	120	240	320	400
	Max. parallel modules	4			
	TA configuration	Source side TA: closed loop control - load side TA: open loop control			
CONNECTIVITY	Built-in communication ports	USB, RS485, Modbus RTU, EPO and dry contact relays (1 in/3 out)	USB, RS-485 ModBus RTU, EPO Ethernet port and dry contact relays (1 in/3 out)		
	User interface	2.7" LCD panel	7'' colour LCD touch screen display		
	Software	Data monitoring and storage software			
REGULATIONS	Standards	EN61000-6-4, EN55011, CISPR 11, IEC 61000-3-12, IEC 61000-3-11			
		IEC 61000-6-2, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4			
		IEC 61000-4-5, IEC 61000-4-6, IEC 62477-1, EN 61000-4-8, EN61000-4-34			
	Marking	CE, UKCA			

* -10°C to +25°C 30A without derating, >25°C will derating automatically 20A