

#### **ENERSINE APF**



Ablerex Enersine active filters can correct any type of harmonic contamination to protect the system from faults (e.g. burnt-out transformers, damaged capacitors, etc.), while also improving the power factor.

# ENERSINE APF wall-mounting 30-100 A

## ENERSINE APF modular 60-2400 A

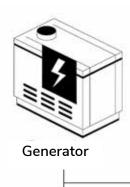




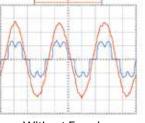
#### **Applications**

- Broadcasting
- · Shopping centres
- Energy suppliers

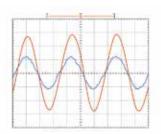
- Transport infrastructure and control rooms
- Oil&Gas
- Healthcare sector



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Without Enersine TDHi%=30% • PF=0.81



With Enersine TDHi%=4.3% • PF=1.0

**Power Utility** 









Non-Linear Load

## **NAblerex**

#### **ENERSINE APF**

- Enersine active wall-mount filters offer the most economical and effective solution, while the scalability of the modular ones protects your investment over time.
- The power modules of the modular version are easy to install and are hot swappable: they can be replaced while the filter is operating.
- Versatile thanks to the modularity, high nominal current and possibility of parallel connection up to 400 A for the wall version, and up to 2400 A for the modular version.
- Enersine is available in two versions, 4 or 6 modules for 60 A, 80 A or 100 A, which can also be used in a mixed configuration within the same system.
- 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 51st (up to the 25th for 30 A) 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.
- A single control module manages up to 8 power modules.
- All parameters are under control via the 7" colour (2.7" LCD for 30 A model) touch screen display that shows: voltage and current waveforms, frequency spectrum, parameters and events.
- Events and parameters can be downloaded to a removable SD card.
- Advanced communication: dry contacts (3 in and 1 out), USB, RS485 Modbus, RJ45 Ethernet, programmable email alarm.

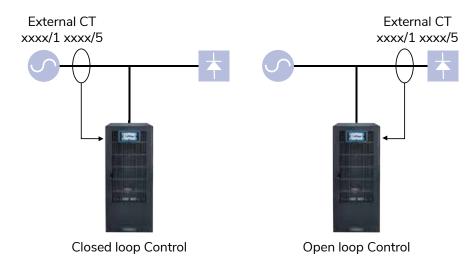
#### User-friendly user interface

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 (for 60 A, 80 A, 100 A wall-mounting model and all modular models).

It can also show the voltage and current waveforms, before and after enabling the Enersine, along with a frequency spectrum bar graph.



#### Open/closed loop control

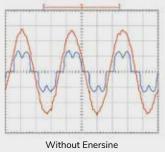


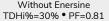


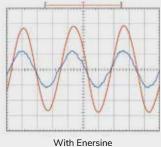


#### Harmonic and PF correction that can be verified on the display

Ablerex Enersine 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.







TDHi%=4.3% • PF=1.0

#### **ENERSINE MONOLITHIC TECHNICAL DATA SHEET**

MODEL		ENERSINE 30	ENERSINE 60	ENERSINE 80	ENERSINE 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 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			
	Dimensions (WxDxH) mm	348x164x598	500x286x775			
	Weight (kg)	16	51	58	60	
	Protection class	IP30/IP31				
GENERAL	Connections	4-wire/3-wire				
	Installation	Wall mounting				
	Туре	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, RS-485 ModBus RTU, EPO and Dry contact board (1 input – 3 output)	USB, RS-485 ModBus RTU, EPO, Ethernet and Dry contact board (1 input – 3 out-put)			
	User interface	Colour 2,7" LCD screen display	Colour 7" 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				

<sup>\*</sup> Enersine 30 model:  $-10^{\circ}$ C to  $+25^{\circ}$ C without derating, above  $+25^{\circ}$ C automatic derating to 20A



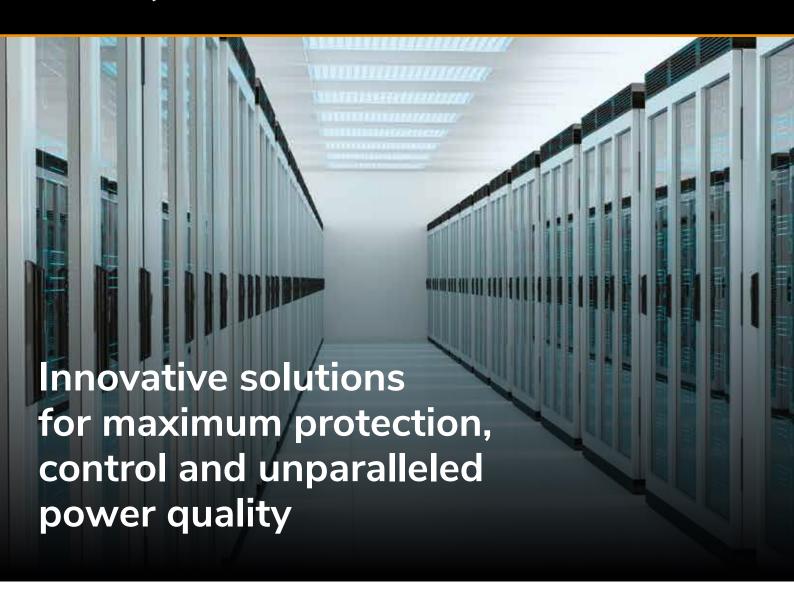
### **ENERSINE APF**

#### **ENERSINE MODULAR TECHNICAL DATA SHEET**

MODEL		ENERSINE 400	ENERSINE 600	
SIZE (A)		400	600	
POWER MODULE (A)		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 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.	<63 dBA		
GENERAL	Dimensions (WxDxH) mm	600x900x1500	600x900x1950	
	Weight (kg)*	150	196	
	Protection class	IP21		
	Connections	4-wire/3-wire		
	Installation	Floor standing		
	Туре	Modular		
	Parallel connection up to (A)	2400		
	Max no. of modules per system (60 or 80 A in a mixed configuration)	Up to 4	Up to 6	
	Max parallel systems	6	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 Ethernet port and dry relay contacts (1 in/3 out)		
	User interface	7" colour LCD touch screen display		
	Software	Data monitoring and storage software		
REGULATIONS	Standards	EN61000-3-4, IEEE 519-1992, EN60146, EN50178; UL508, 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 62477-1, IEC 61000-4-5, IEC 61000-4-6, EN 61000-4-8, EN61000-4-34		
	Marking	CE, UKCA		

<sup>\*</sup> Weight without the control module and power modules







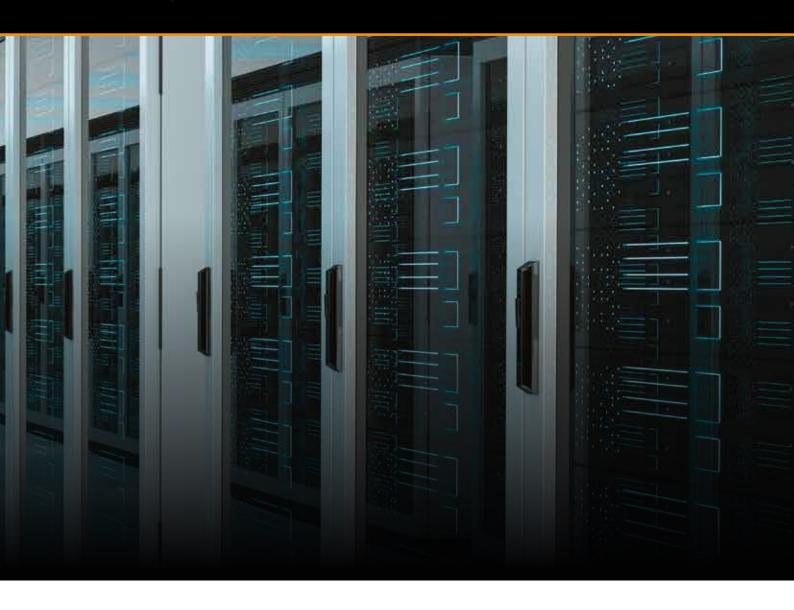




**Enersine APF** 

## **POWER QUALITY DEVICE**









Ermes Enerbatt 3G



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