

## 1 STATIC SWITCHING UNIT

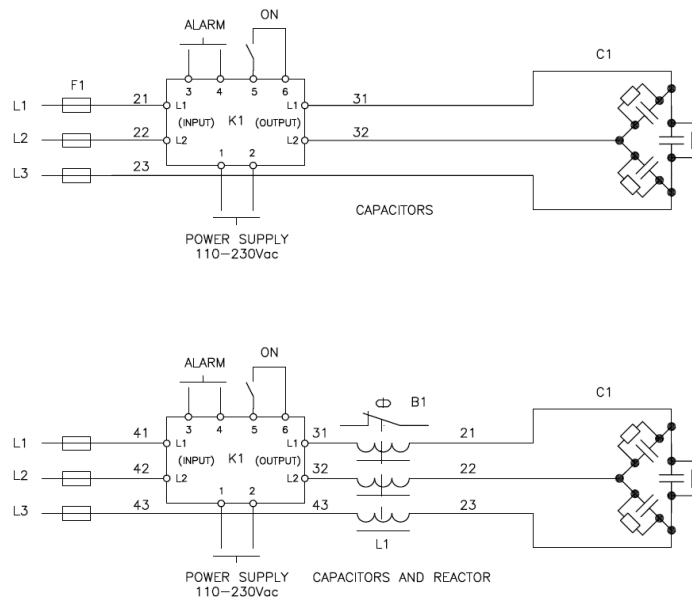
Static compensation is very often the only way to afford networks with relatively high fluctuating loads (milliseconds). The main advantages of this compensation system are:

- immediate answer to the compensation request;
- no electromagnetic contactors: the total absence of mobile mechanical parts increases the number of switching operations and reduces maintenance;
- the lack of transients in the capacitor switching connections minimizes disturbance such as flicker, noise, voltage drop;

Field application where the use of a static unit is effective are, for example, steel plants, lifts, welding units.









## 2 FUNCTIONAL DIAGRAM



## 3 TECHNICAL DATA

PART NUMBER	IS050K0IE050K	IS100K0IE100K
<b>POWER SECTION</b>		
Type	EFS50	EFS100
Rated voltage Urms	400-415 V	400-415 V
Max. current Imax	86 A	160 A
Frequency	50 Hz	50 Hz
THDV% max. value	≤ 6%	≤ 6%
Cable cross section	25 mm <sup>2</sup>	50 mm <sup>2</sup>
Dissipation loss power	120 W	320 W
Max power (kvar)	50 kvar	100 kvar
<b>CONTROL SECTION</b>		
Rated voltage Un	110-230 Vac	
Power	15 W	30 W
Cable cross section	1,5 mm <sup>2</sup>	
Activation	Using external contact voltage free (type SSR Bi-directional opto-mos recommended); 24Vdc not necessary	
<b>SWITCHING TIME</b>		
Duty cycle max speed	20 ms ON – 20 ms OFF	
<b>CLIMATE CATEGORY</b>		
Operating ambient temperature	-5/+45 °C	
<b>MECHANICAL CHARACTERISTICS</b>		
Weight	~3 kg	~3,5 kg
Dimensions W x H x D	Fig.1	Fig.2
Power cables tightening torque	5 Nm	

<b>ALARM</b>	
Description	
Over temperature	 OFF   OFF   ON   OFF
Over current	 OFF   ON   OFF   OFF
Low aux. supply voltage or SCR in short-circuit or Thyristor fails to start	 OFF   ON   ON   OFF
<b>LED CONDITIONS</b>	
Description	
Starting phase	 BLINKING ON   OFF   OFF   OFF
Ready to insert	 ON   OFF   OFF   OFF
Inserted	 ON   OFF   OFF   ON
<b>REFERENCE STANDARDS</b>	
EN 61921 EN 50178	

**4 DIMENSIONS**

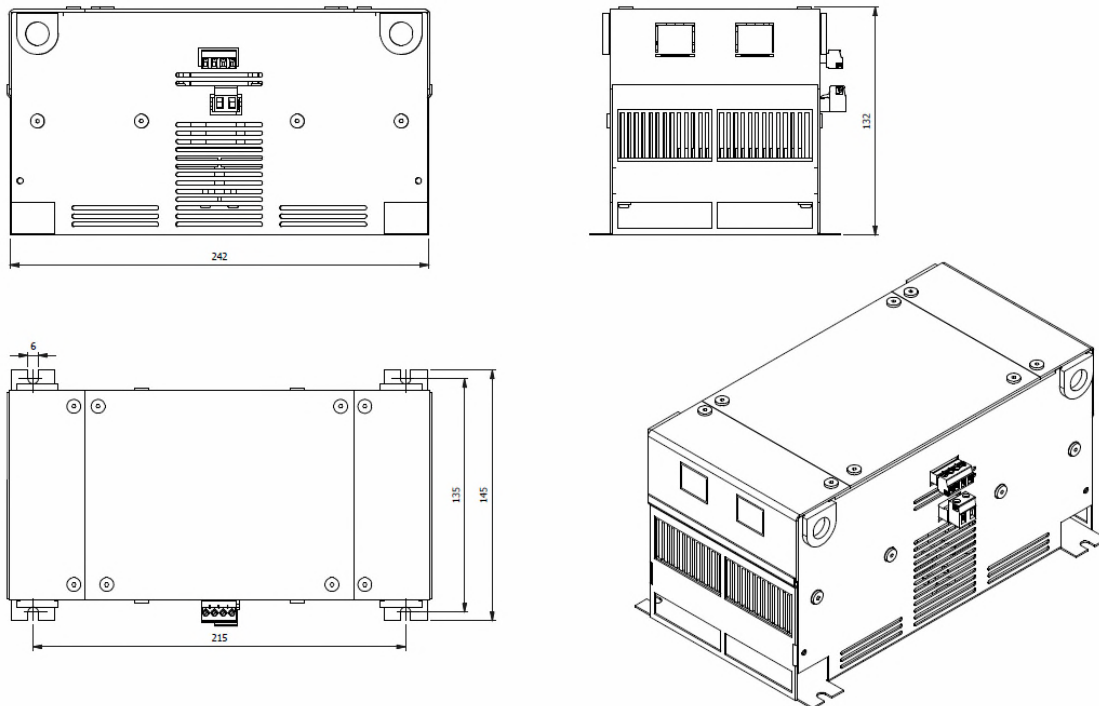


Fig.1

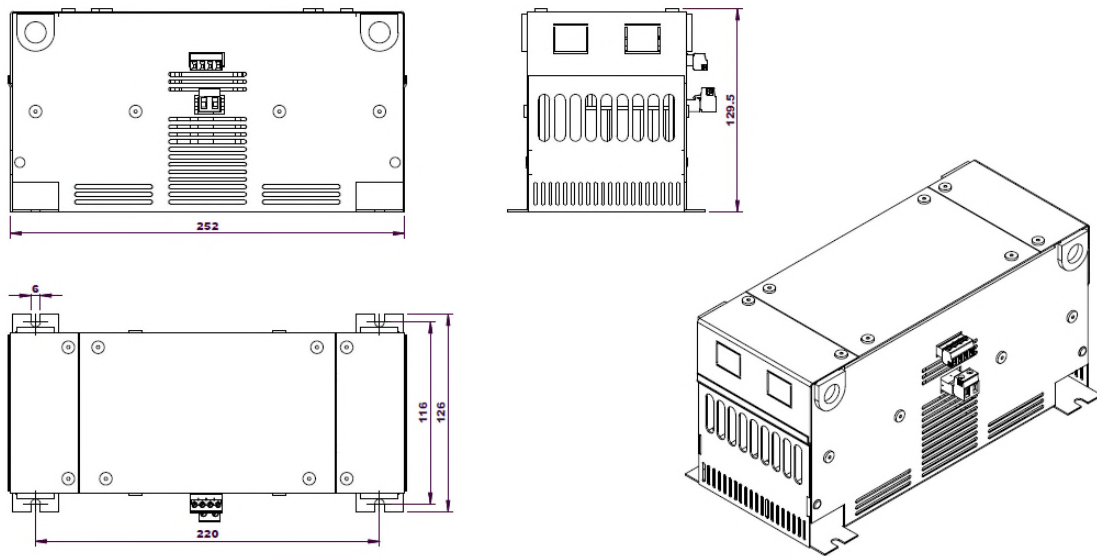


Fig.2

## 5 WARNING

- For safety reason (IEC 831-1 par. 22) install a discharge device on the bank using high voltage resistor (example: main supply 400V, resistor voltage  $\geq 1000V$ ).
- In de-tuned systems with 400V main supply, capacitors with rating voltage  $\geq 460V$  are required.
- **Live parts in the systems must not be touched.**



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