

The Simpler Solution



New etaSMART Series
Automatic Power Factor Controllers

Power factor correction – now easier than ever.

New etaSMART Series



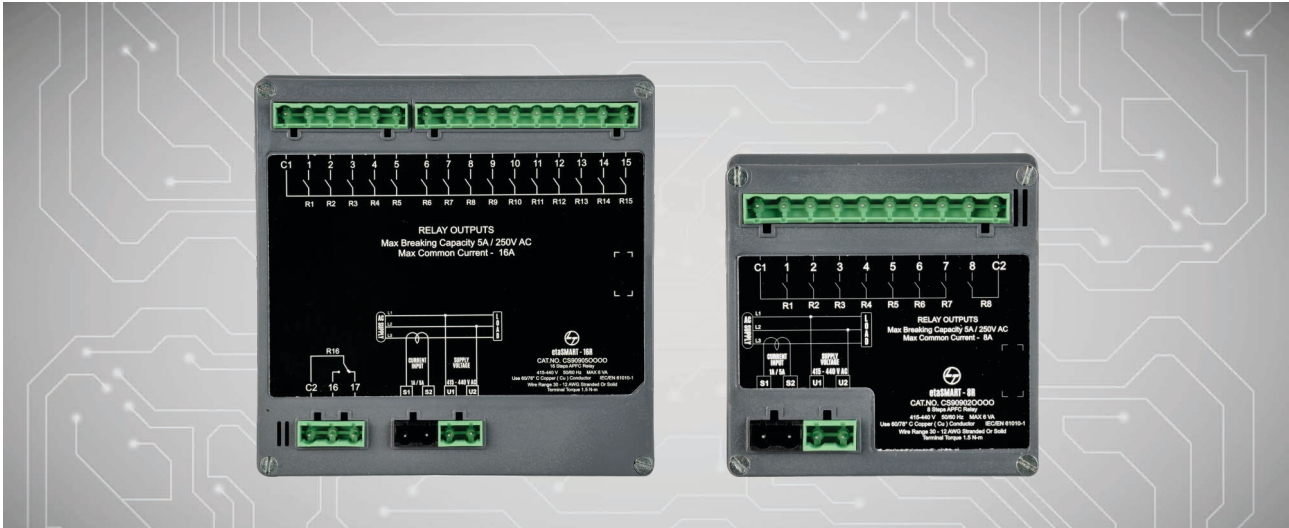
Brought to you by Larsen & Toubro – India's largest manufacturer of LT switchgear – the etaSMART Series automatically corrects the power factor, with the help of contactors for the connection and disconnection of capacitor banks.

Packed with a specially formulated optimisation program, the controller ensures accurate power factor control at the set point and hunt free operation.

Now, configuring etaSMART is even easier. There are two ways to do so. You can either follow a few simple steps and manually configure the controller, or you can just initiate AUTO PROGRAM and the controller will configure itself.

The L&T Advantage

- Avoid cascading of multiple controllers. Available up to 16 steps
- Space-saving. Compact size of 96x96 mm for controller up to 8 steps
- CT Secondary 1A/5A. Wiring is now even easier as CT input terminals are common for either of the CT variants.
- Automatic detection of CT polarity saves time and effort. etaSMART detects the CT reversal and automatically corrects it.
- Manual & Automatic operation
 - In Auto Mode, etaSMART automatically regulates the power factor
 - While in Manual Mode, etaSMART can help in testing the power factor correction system
- Option of LIFO, FIFO, and Intelligent control mode. Choose any of these control modes. By default, it is set as Intelligent; this mode selects the best combination of capacitor bank for compensation with minimum switching to achieve the desired power factor
- Instant information on the quality of your power system. etaSMART measures current THD and voltage THD, and alerts you if levels go beyond set limits.
- Capacitor health check monitoring function ensures that capacitor is declared faulty if its power falls beyond a certain limit.
- You can schedule the maintenance of your installation by reading the record of the number of switching of each step
- Last relay output contact can be configured as Step or Alarm. Second-last relay output can be configured as Step or Fan control
- Ambient temperature monitoring via internal sensor

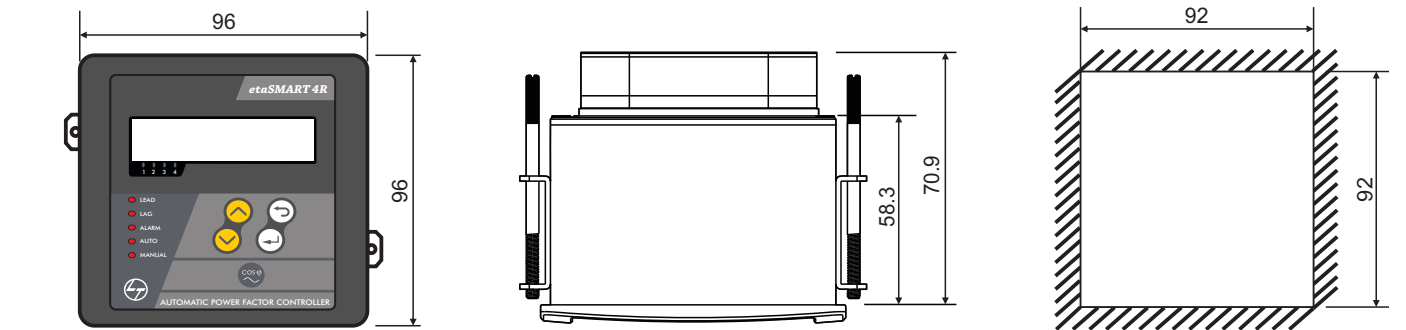


Technical Specifications

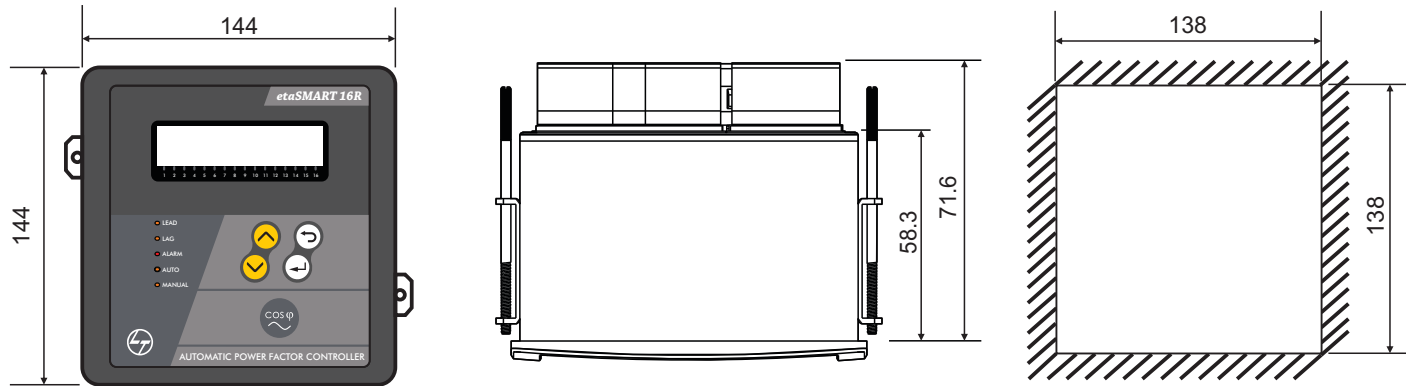
Parameters	etaSMART Series Automatic Power Factor Controller
No. of steps	4, 6, 8, 12, 14, 16
Current input	1A / 5A
Voltage input	415 - 440 VAC
Rated Frequency	50-60 Hz
Display parameters	PF, V, I, Required KVA _r , KVA, KW, KVA _r , V-THD, I-THD, Hz, Temperature
Record parameters	Min/Max V, Max A, Max KVA/KW/KVA _r , Max V-THD, Max I-THD, Max Temperature
Control Range	Power factor range - 0.3 Lag to 0.3 Lead
Control Mode	Intelligent mode, LIFO, FIFO
Operation Mode	Automatic, Manual
Alarms	Over / Under compensation, Over / Under voltage, Over / Under Current, High V-THD, High I-THD, Over / Under frequency, Over temperature, No-volt release
Power consumption	6.5 VA
Operating temperature	-20 to +60 °C
Relative humidity	< 90 %
Mounting	Flush
Degree of protection	IP20 (Front IP54)
Compliances	EN 61010 - 1, IEC/EN 61000-6-2, IEC/EN 61000-6-4, EN 61326

Product Dimensions

etaSMART 4R, etaSMART 6R and etaSMART 8R



etaSMART 12R, etaSMART 14R & etaSMART 16R



NOTE: All dimensions are in mm

4.2 WIRING DIAGRAM



etaSMART 4R

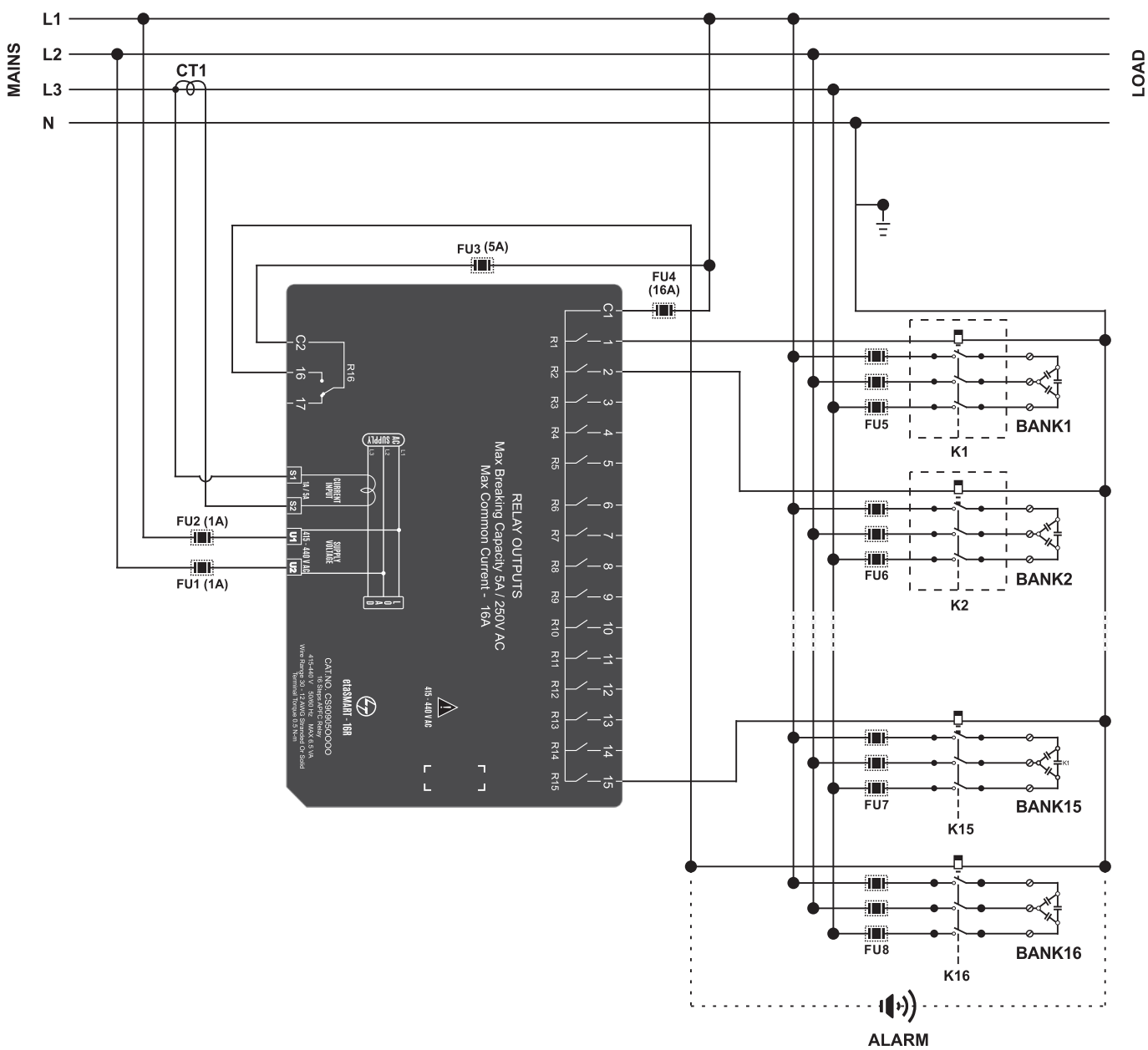
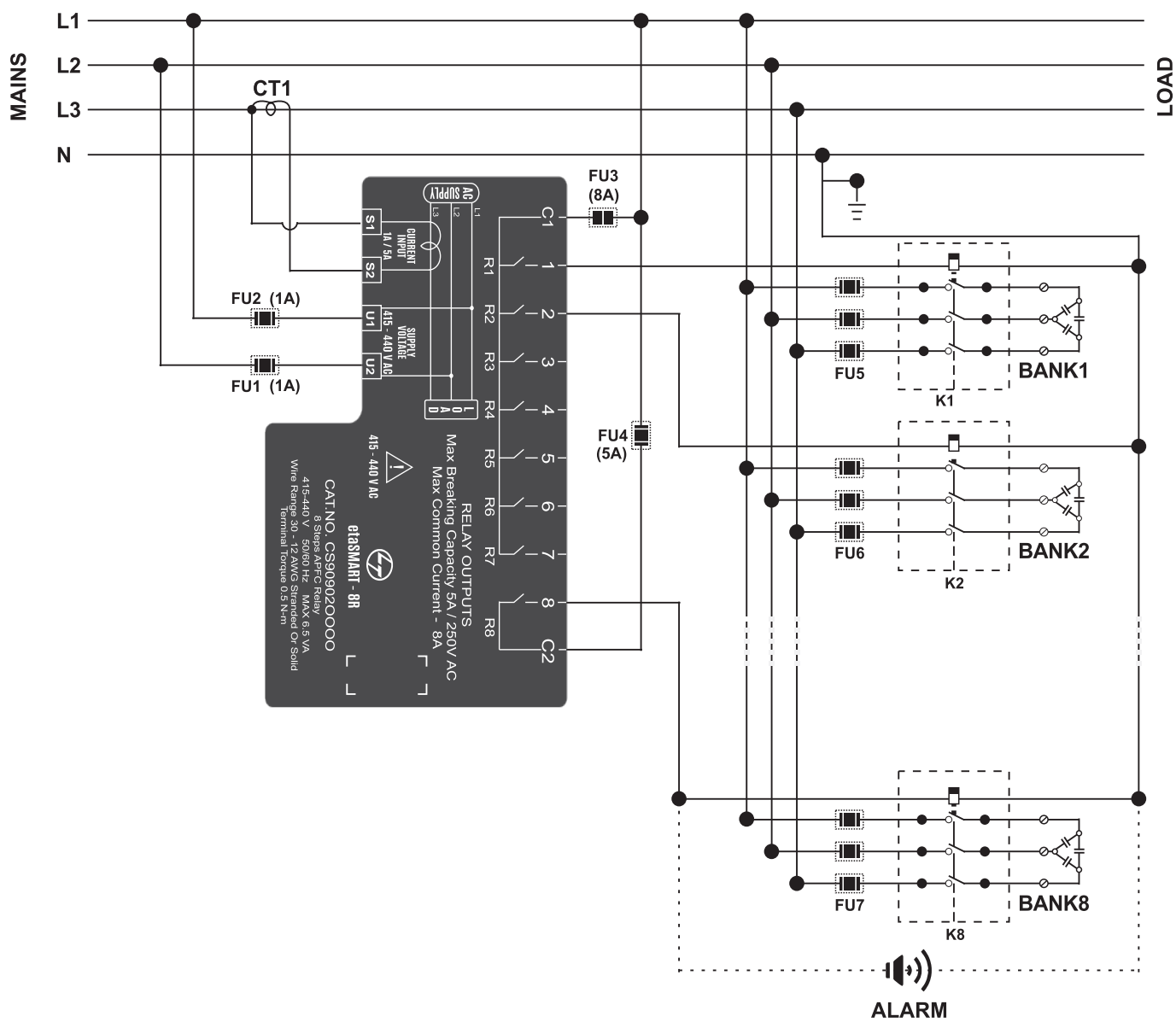
etaSMART 6R

etaSMART 8R

etaSMART 12R

etaSMART 14R

etaSMART 16R



Power Quality Solutions



Reactive Power Management Solutions



Harmonic Filtering Solutions

Optimise Reactive Power Solutions with etaPRO v3.0

Save time: Instantly select the right capacitor-reactor and switchgear combo

Save money: Calculate monthly payback

Save effort: Directly export bills of materials to MS Excel

Discover more: Learn improved techniques on RPM



Download from www.LNTEBG.com/etaPRO

(For Windows-based Laptop / desktop)



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Customer Interaction Center (CIC)**

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