



# Functional lighting for a hypermarket

Optimize energy consumption by installing LED lighting & zero voltage contactors



## Customer case

The Maintenance Department of a hypermarket want to replace the T12 fluorescent tubes of the functional lighting system with far more efficient LED luminaires.

Also they don't wish to change the distribution architecture or the type of protection (long cable length), or increase the number of feeders in the electrical switchboard.

For a given illumination level, the installed capacity with LEDs is far smaller, but the current peaks generated at power up could possibly cause unwanted tripping of the B-curve protective circuit breakers.

## Benefits

- Reduction of current peaks within a ratio of 4 to 5 at power up, thanks to the use of Acti9 iCT+ contactors, which will make it possible to:
  - keep the former protection system,
  - minimize the risk of nuisance tripping,
  - limit the level of overvoltage generated at power up and reduce "stress" for the LED drivers (Soft Start concept).

## Our recommendation

Replace the standard contactors with a zero voltage crossing contactors Acti9 iCT+.  
Keep the protective circuit breakers with the same characteristics (ratings, curves).

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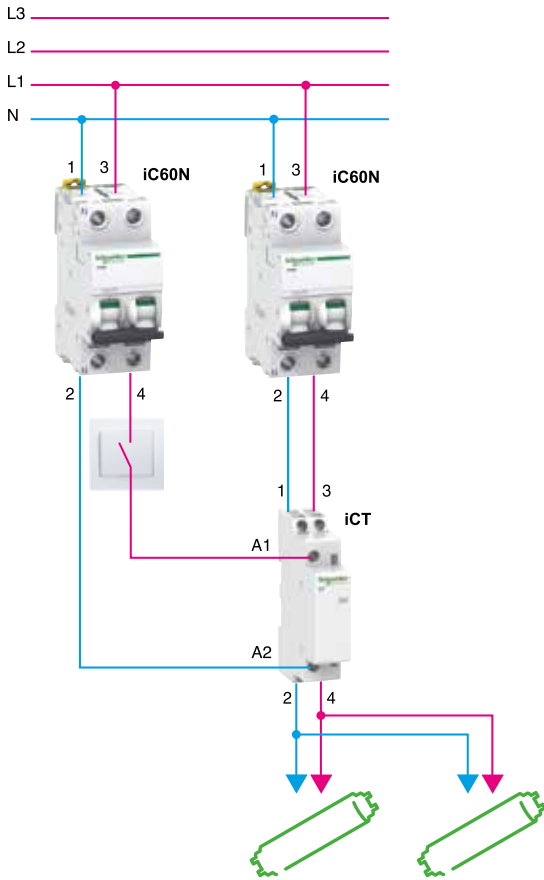
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# Solution Diagram

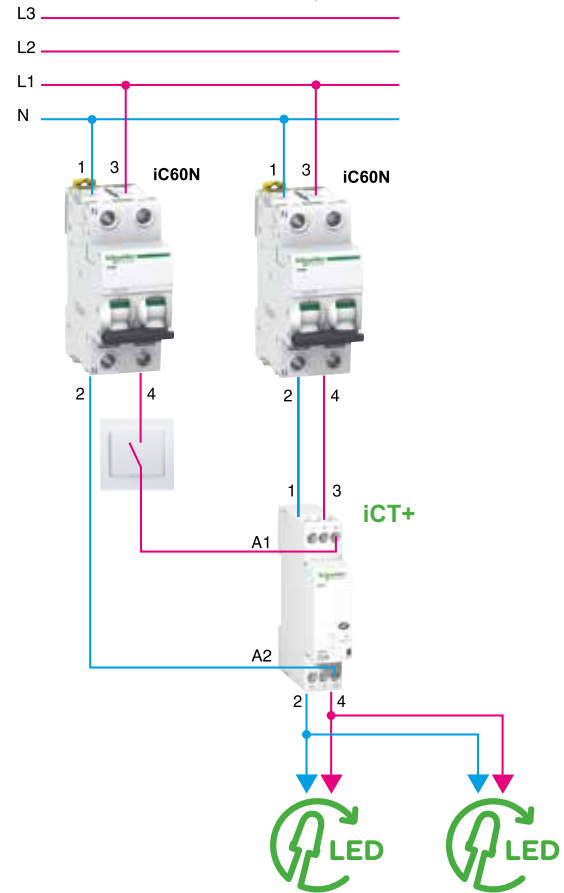
## Before

Old installation with iCT and fluorescent tubes



## After

New installation with iCT+ and LED lamps



## Specifications

- The replacement of the T12 fluorescent tube lighting system must not require:
  - a change of architecture,
  - a change in the characteristics of protective devices.

### Products used

Product	Function	Quantity	Reference
Acti9 iCT+	Silent contactor	1	A9C15030
Acti9 iC60N	1P+N MCB	1	Depend on rating
Acti9 iC60N	1P+N MCB	1	Depend on rating

More about  
Acti9 iCT+



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