

CAPACITOR SWITCHING CONTACTORS MC-K TYPE K3...-A, K3...-K

- **12.5kVAr up to 100kVAr**
- **For use with reactive or non-reactive capacitor banks**
- **DIN rail mounting to 100kVAr**
- **Early make contacts and damping resistors used to reduce the value of make current $<70 \times I_e$**
- **Designed to EN60947-4-1, EN60947-5-1**
- **Compact design for panel space saving, only 45mm wide up to 25kVAr, 60mm up to 75kVAr, 90mm wide to 100kVAr**

Capacitor Contactors for Unchoked Power Factor Correction Systems

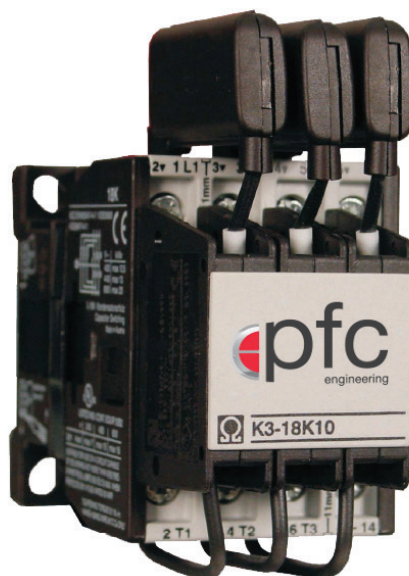
During the switching of unchoked power factor correction capacitors a peak-switching current of 200 times of the nominal current can occur. This load is stressing the capacitors and the switching contacts of the contactors immensely. This can lead to welded main contacts of contactors. Therefore modern power factor correction systems are currently equipped with special capacitor contactors.

Therefore modern power factor correction systems are currently equipped with special capacitor contactors switching the capacitors first with leading contacts and additionally with resistance wires. The in rush current will be damped strongly by the resistors. After approximately 5 ms the main contacts of the contactor are switching in and taking over the current supply to the capacitors.

Further to this the leading contacts open up and no current can flow during permanent operation. This is also to avoid an additional power loss.

Capacitor contactors with leading transition contact and additional resistance wires offer the following advantages to power factor correction system applications:

- **Significant damping of in-rush current**
- **Improvement of the voltage quality during the switching process**
- **Long life of the contactors**
- **High operational reliability of the power factor correction system**
- **Extension of the maintenance periods of the power factor correction systems**
- **Suitable for choked and unchoked power factor correction systems due to leading transition contacts opening during permanent operation.**



The Energy
Solution
Specialists.

PFC Engineering
Station Road
Great Chesterford
Essex CB10 1NY

t: 01799 530728
f: 01799 530235
e: info@pfc-engineering.com
w: pfc-engineering.com

Capacitor Contactors For Choked Power Factor Correction Systems

When choked power factor correction systems are switched, the peak-switching current is essentially lower because of the high inductivity of the harmonic systems.

By using special wear-resistant contact material for these applications it is possible to use capacitor contactors without series resistors

These special capacitor contactors offer the following advantages for choked power factor correction systems:

- **Safe switching on and off of choked capacitor steps**
- **Improved voltage quality through chatter-proofed switching operations**
- **Long-life of the contactors (> 100,000 switching operations)**
- **High operational reliability of the power factor correction system**



Options and Ordering Codes

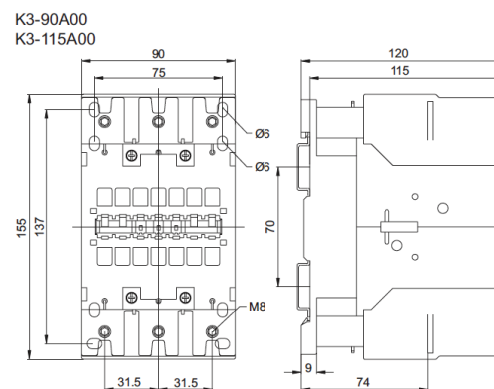
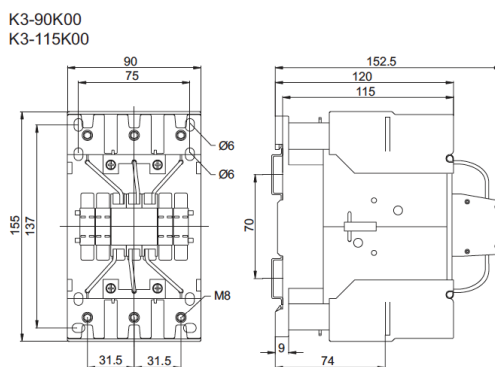
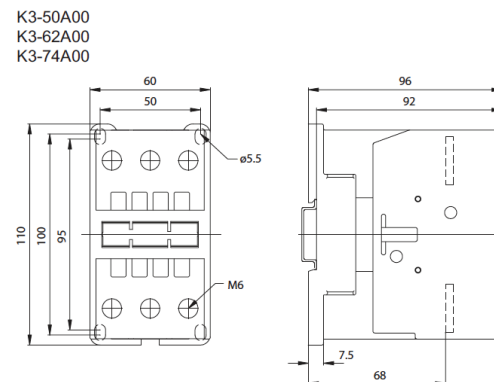
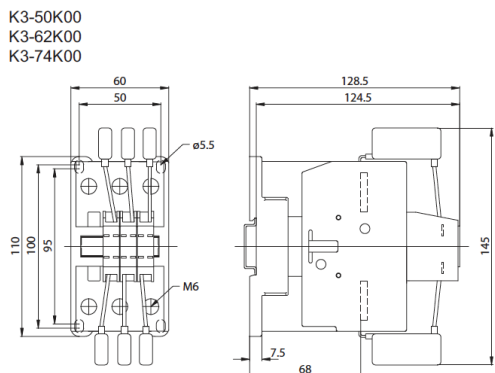
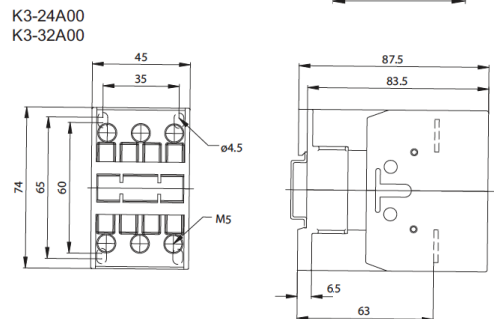
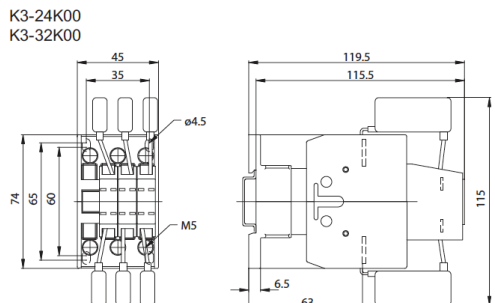
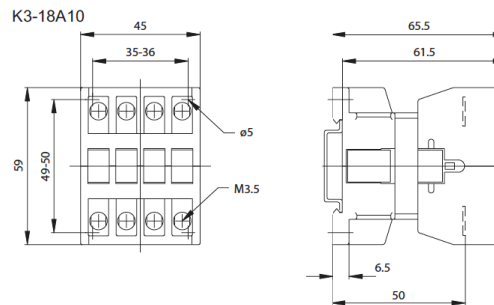
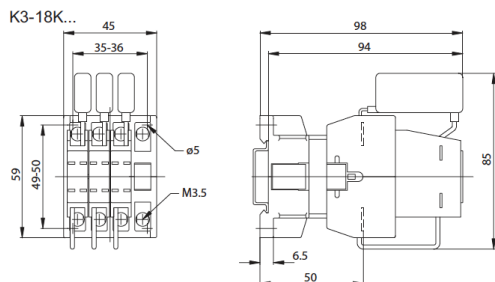
Rated operational power at 50/60Hz @ 50 °C						
380/400V	415/440V	660/690V	Auxiliary contact Built in		Additional	Part No
kVar	kVar	kVar	NO	NC	pcs.	
12.5	13	20	1	–	1 ¹⁾	MC18-K-10...
12.5	13	20	–	1	1 ¹⁾	MC18-K-01...
25	27	41	–	–	3 ²⁾	MC32-K-00...
33.3	36	55	–	–	3 ²⁾	MC50-K-00...
50	53	82	–	–	3 ²⁾	MC62-K-00...
75 ³⁾	75 ³⁾	120 ³⁾	–	–	3 ²⁾	MC74-K-00...
80	82	120	–	–	6 ⁴⁾	MC90-K-00...
100 ³⁾	103 ³⁾	148 ³⁾	–	–	6 ⁴⁾	MC115-K-00...

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w: pfc-engineering.com

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Great Chesterford
Essex CB10 1NY

t: 01799 530728
f: 01799 530235
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