NOT THE SAME. MUCH BETTER!

MKPg™:

- No liquids! Filled with harmless neutral gas.
- Stacked windings with optimized geometry.
- SINE***CUT***™ technology for maximum current.
- Original CAPA***GRIP***™ terminal for reliable connection.
- High safety by advanced self-healing and BAM™.

In MKPg™, we have concentrated the best of long years of know how and first-class production facilities, combined with eco-friendliness and operational safety. The MKPg™ is well-suited for all conventional applications in power factor correction and can - if required - be adapted to your most critical and toughest requirements. It is protected by enhanced self-healing dielectric and an irreversible overpressure disconnector (break-action mechanism, „BAM").
Technical layout, testing and application accord to IEC 60831, UL810, CSA 22.2 and GOST1282-88, as well as Indian Standards IS 13340 and 13341. Approved by CSA (C/US) and GOST.

Special Features:

The winding elements are immersed in neutral insulation gas instead of liquids which would cause trouble in case of leakage. Thanks to the use of special metallizing patterns,developed in our own state of the art metallizing facilities, our ***SINE***CUT™ slitting technology and optimized winding geometries, our MKPg™ capacitors distinguish themselves not only by high AC-voltage load capacity, but also by outstanding suitability for high rms and surge currents. Unlike some of our competitors who proudly quote fantasy ratings, we have severely tested our capacitors beyond their rated values, allowing for sufficient margin and guaranteeing flawless operation within the specifications.

Safe and reliable connection is guaranteed by our original CAPA***GRIP***™ terminal. Having been copied by numerous competitors all over the world, it has become a kind of standard for PFC capacitors. Be warned, however, of cheap copies which may be appearing identical, but lack the reliable grip of the original CAPA***GRIP***™.

What makes our stacked short winding design such a far better technical solution for standard and special PFC than the concentric or slim tall windings offered by other manufacturers?

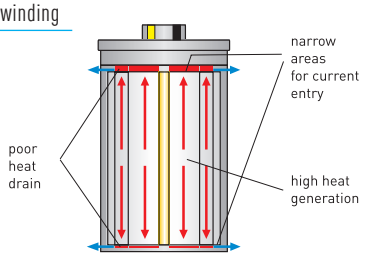
1. The big diameter offers a very large area for charging currents to cross over into the winding, in other words: reduced current stress at the capacitor's most critical spot (i.e. the sensitive bond between contacting zinc spray and film at both ends of the winding). On average, the corresponding area of concentric windings is three times, of slim/tall stacked windings 1.3 to 1.5 times smaller.

2. Thanks to short height and enhanced metal coating structures, MKPg™ windings have substantially less series resistance, and produce less losses.

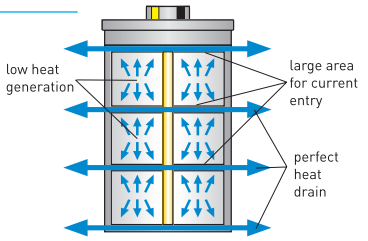
3. The six large and strong zinc layers of MKPg™ (where the zinc particle size is optimised for excellent connection with the metallised film) serve for multiple and uninterrupted drain of the dissipated heat from the capacitors' hotspot to the surface, while the (just) two zinc layers on the long concentric windings are even sectioned by the PET insulation between their phases. On stacked, but tall windings, the zinc layers are rather distant from the windings' hotspots, and offer only small area for heat drain.

4. The entire construction of stacked windings is more robust, electrical connection as well as insulation is far more reliable and stable than in the complicated structure of concentric windings with their sensitive PET separations.

capacitor with concentric winding



MKPg™



All the above features help to dramatically reduce the risk of field problems and premature capacitor failures. The MKPg is - by its principal design, superior know-how and matching dimensions, as well as by its careful workmanship (100% Made in Germany) - the ideal capacitor not only for your new projects, but also as retrofit for existing installations.

MKPg™ power capacitors - much more than just a substitute

standards		IEC 60831 (2003), VDE 0560-46/47, IS 13340 and IS 13341, CSA C22.2 No. 190-M1985, UL Standard No. 810, GOST 1282-88
approval marks		
tolerance of capacitance		- 5 ... + 10%
Terminals		CAPA*GRIP*™ three phase screw terminal, IP20
safety device		BAM™ (overpressure break action mechanism)
dielectric material		low-loss polypropylene, dry
impregnant (filling material)		neutral gas (N_2)
mounting position		any position
permitted overvoltages		8h/d: 485 V, 30min/d: 510 V, 5min (200x): 530 V 1min (200x): 575 V, max. peak rating: 1350 V
test voltage btw. terminals		950V AC/2s
test voltage terminals to case		3600V AC/2s
maximum permissible current		1.5...1.9 I_N (for details see data chart, higher values on request)
max. inrush current		300 x I_N
dissipation losses (capacitor)		approx. 0.25W/kvar
max. relative humidity		95%
ambient temperature class	≦ 20kvar	- 40°/60 (max. 60°C, average 24h: 50°C)
	> 20kvar	- 40°/D (max. 55°C, average 24h: 45°C)
statistical life expectancy		> 150 000 h

Q_C (kvar@U_N, 50Hz)		C_N (delta) (µF)	I_N @440V (A)	I_{max} (A)	D_1 x L_1 (mm)	m (kg)	order no.	pcs./ box	resistor module (<50V in **s from 440V)
U_N 440V	U_N 400V								
5	4	3 × 27	3 x 7	3 x 11	75 x 164	0.7	275.145-502700	5	275.100-10300 (24)
10	8	3 × 55	3 × 13	3 × 22	85 × 164	0.8	275.155-505500	5	275.100-10300 (45)
12.5	10	3 × 68	3 × 16	3 × 30	95 × 164	1.1	275.165-506800	3	275.100-10300 (55)
15	12.5	3 × 82	3 × 20	3 × 35	100 × 164	1.3	275.175-508200	3	275.100-10180 (40)
20	16.5	3 × 110	3 × 26	3 × 45	116 × 164	1.6	275.185-511000	3	275.100-10180 (55)
25	20	3 × 137	3 × 33	3 × 56	116 × 196	1.9	275.183-513700	3	275.100-10120 (41)
30	25	3 × 166	3 × 39	3 × 56	136 × 196	2.3	275.193-516600	2	275.100-10120 (55)

Rated Voltage U_N
Root mean square of the max. permissible value of sinusoidal AC voltage in continuous operation.
The rated voltage must not be exceeded even in cases of malfunction. Bear in mind that capacitors in detuned equipment are exposed to a higher voltage than that of the rated mains voltage; this is caused by the connection of detuning reactor and capacitor in series. Consequently, capacitors used with reactors must have a voltage rating higher than that of the regular mains voltage.

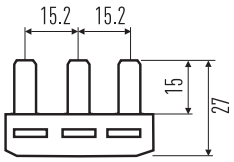
Rated Power Q_C
Reactive power resulting from the ratings of capacitance, frequency, and voltage.

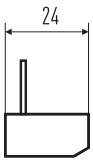
Current Rating I_N
RMS value of the current at rated voltage and frequency, excluding harmonic distortion, switching transients, and capacitance tolerance.

Maximum RMS Current Rating I_{max}
Maximum rms value of permissible current in continuous operation. In accordance with EN 60831 all ELECTRONICON capacitors are rated at least 1.3xI_N, allowing for the current rise from permissible voltage and capacitance tolerances as well as harmonic distortion. Continuous currents that exceed these values will lead to a build-up of heat in the capacitor and - as a result - reduced lifetime or premature failure. Permanent excess current may even result in failure of the capacitor's safety mechanisms, i. e. bursting or fire.

CAPA*GRIP*™ L with matching discharge module with IP20 protection

resistance (kΩ)	order code
3 x 120	275.100-10120
3 x 180	275.100-10180
3 x 300	275.100-10300





Extruded aluminium can, aluminium lid