

## KCAP High Endurance Capacitors

For Use in Electrical Environments High in Harmonics



### PRODUCT SPECIFICATIONS

- UL-C VDE Listed
- Standard Voltages: 208/240/480/575V
- Standard Frequencies: 50/60Hz
- Standard KVAR: 2.5-20
- Standard open can, with panel mounting brackets optional. (1X, 2X and 4X)
- Over-pressure tear-off fuse, self-healing
- >100,000 operating hours.
- Polypropylene film, zinc metallized.
- Natural oil impregnant, non PCB, biodegradable

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### Applications

TCI High Endurance Capacitors are intended for use in electrical environments that are rich in harmonic content due to non-linear loads. Some applications include factories and plants with a large numbers of variable frequency drives and/or DC drives, waste water treatment plants, pumping stations, facilities that co-generate power, and power consumers that are incurring penalties for poor power factor.

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### Before High Endurance Caps

The reactive power demanded by motors, transformers and higher KVA<sup>RMS</sup> demanded by harmonic currents contribute to poor power factor in industrial and commercial buildings. Simply put, poor power factor means that energy is not being efficiently delivered or consumed. Power factor correction capacitors relieve the reactive power burden on supply generators, transformers and facility wiring. However, capacitors cannot be safely applied in buildings with a high content of harmonically-rich non-linear load, as their addition may induce plant resonance, a dangerous and costly situation. Force tuning (or de-tuning) capacitor banks may correct for the potential for resonance. However, standard capacitor cells, with service factor ratings designed for linear loads, still may not be suitable in non-linear environments. Testing shows that capacitors will need to tolerate at least 150% over-current and higher than intended temperatures in those environments.

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### After High Endurance Caps

TCI High Endurance capacitors are designed, built and tested specifically for use in harmonically rich environments. They are suitable for use in de-tuned central power factor correction banks, and in drive-applied and load-applied harmonic filters. They are capable of handling 190% of rated current continuously in a 65 degree C ambient temperature. Properly applied, they offer a robust and cost effective solution to inefficient power delivery and consumption.



## Application Notes and Codes

TCI High Endurance Capacitors are metallized polypropylene film, with self-healing properties. Three winding elements are encapsulated and connected to form a 3-phase capacitor element. Overpressure tear-off fuses prevent failure at the end of service life. The impregnant is natural oil (fire point >300 degree C).

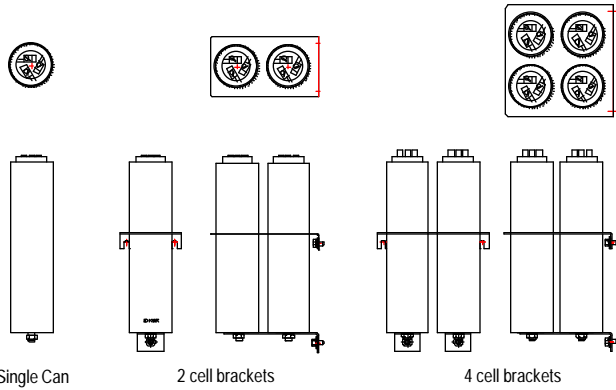
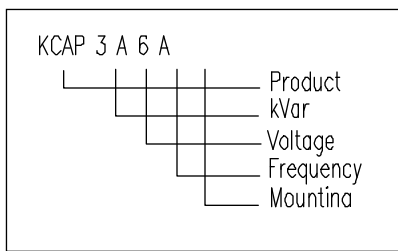
Capacitors are delivered with discharge resistors. One, two or four can mounting brackets are available. Brackets are pre-drilled to accept capacitors 12m mounting/grounding stud.

Products listed in the following tables are suitable for 208/240/480/575V 60Hz installations. For other frequencies, consult TCI.

KMP Warrantee: 5 years from date of purchase.

The information contained in this brochure is subject to change without notice.

### Part Number Code



## Tables

60Hz, Open Units	Voltage	Part Number	Bracket Size	kVar	IRMS (60Hz)	uF	Dimensions		
							Diameter	Height	Weight
208V/60Hz		KCAP2D6A	A	2.5	6.8	3*50.1	2.5	7.5	1.5
		KCAP5D6A	A	5	13.6	3*100.3	2.4	13.4	2.4
		KCAP10D6A	B	10	27.2	3*200.6	2.5	13.4	5.1
240V/60Hz		KCAP3B6A	A	3	6.9	3*44.2	2.4	10.7	2.4
		KCAP5B6A	A	5	12	3*77	2.4	13.4	3.1
		KCAP10B6A	B	10	24.1	3*154	3.3	13.4	4.8
480V/60Hz		KCAP3A6A	A	3	3.6	3*11.55	2.4	7.5	1.8
		KCAP5A6A	A	5	6	3*19.2	2.5	7.5	1.8
		KCAP10A6A	A	10	12.1	3*38.5	2.5	13.4	5.1
		KCAP15A6A	B	15	18.1	3*57.7	3.3	10.7	4.4
		KCAP20A6A	B	20	24.2	3*77.0	3.3	13.4	4.8
600V/60Hz		KCAP5C6A	A	5	4.8	3*36.5	2.5	7.1	2.2
		KCAP10C6A	B	10	9.6	3*73.1	3.3	10.7	4.4
		KCAP15C6A	B	15	14.4	3*109.5	3.3	10.7	4.4
		KCAP20C6A	B	20	19.25	3*146.1	3.3	13.4	4.8
		<b>Bracket Part</b>	<b>Number of</b>						
<b>Bracket Size</b>		<b>Number</b>	<b>Cells</b>						
A		KCAPBKT1A	1						
B		KCAPBKT1B	1						
A		KCAPBKT2A	2						
B		KCAPBKT2B	2						
B		KCAPBKT4B	4						

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