

K-LINE Power Capacitors

- Fully comply with IEC 60831-1:2002 and IEC 60831-2:1995
- Dry type, self-healing and fitted with internal overpressure disconnecter
- Designed for a rated voltage of 440V, offering an extra safety factor when used on 380V network



Cylindrical
Capacitor Unit



Open Type Capacitor Assembly
and Enclosed Capacitor Unit

Technical Data	
Rated Voltage	$U_n = 440V (50Hz)$
Permissible Voltage	1.1 U_n (8 hours in every 24 hours) 1.3 U_n (1 minute)
Permissible Current	1.3 I_n (continuously) where I_n is the rated current at rated sinusoidal voltage and rated frequency
Discharge Resistor	Discharging the capacitor in 1 minute to 50V or less
Capacitance Tolerance	-5% to +15%
Loss	$\leq 0.5 \text{ Watt/Kvar}$
Working Temperature	-25°C to + 50°C

K-Line capacitors are renowned for the following features:

Safe and Environment-friendly

Dry type, all materials used are non-toxic and do not contain liquid impregnants.

Self-healing

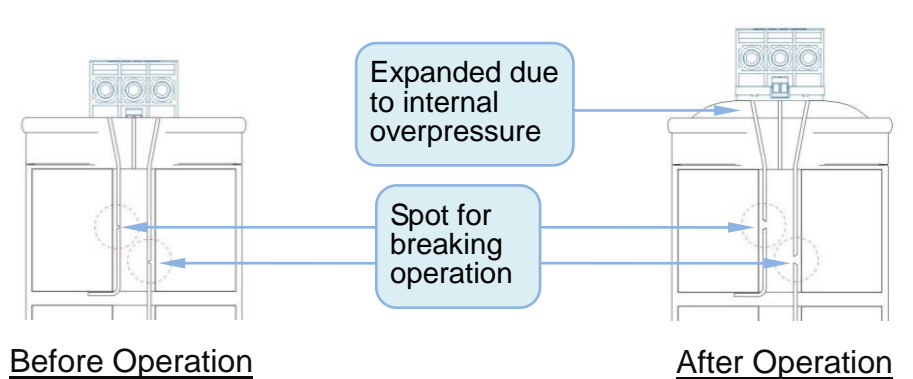
The metallized polypropylene film possesses an inherent self-healing property. Any breakdown on weak spot of dielectric vaporizes the adjacent metal layer thereby regenerating the initial insulation conditions. The capacitor then continues to its normal operation without any noticeable changes in characteristics of the capacitor.

Low losses:

The low loss polypropylene film provides an extremely low dissipation factor and high dielectric strength thus bringing the losses to a very low level.

Overpressure Disconnection:

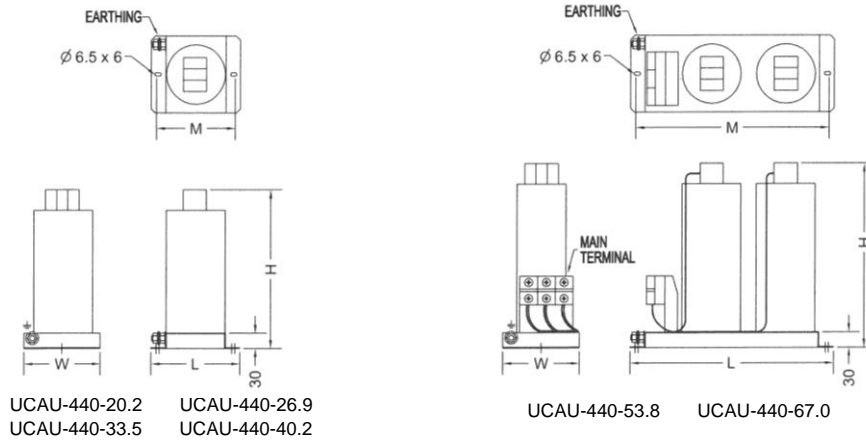
Each capacitor is equipped with an overpressure disconnector, giving the ultimate protection against any possible electrical fault. In case of fault, dangerous overload or at the end of the lifetime of the capacitor, the increase in pressure as a result of gas produced inside will force the can to lengthen upwards and to break the internal electrical connections. The principle of the overpressure disconnector is shown in the figure below.



Cylindrical Capacitor Units

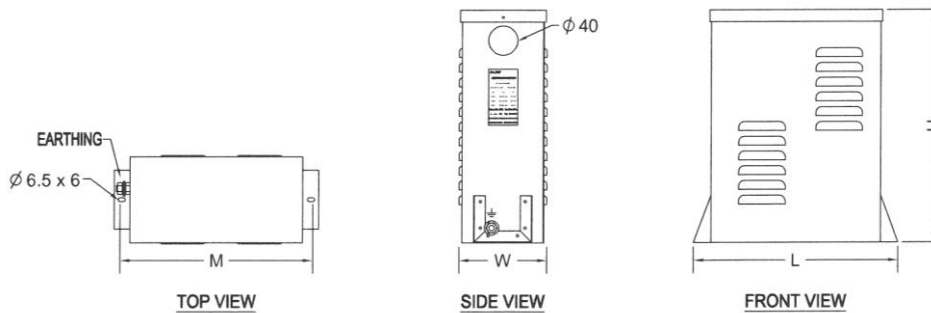
Model	Capacitance Delta Connected	Rated Power and Current						Weight	Dimensions (Excluding Terminal)
		380V		400V		440V			
	μF	Kvar	Amp	Kvar	Amp	Kvar	Amp	kg	mm
DACC-440-13.5	3 x 74.0	10.0	15.3	11.2	16.1	13.5	17.7	1.3	$\Phi 86 \times 240 - M12 \times 16$
DACC-440-16.8	3 x 92.1	12.5	19.0	13.9	20.1	16.8	22.0	1.4	
DACC-440-20.2	3 x 110.7	15.0	22.9	16.7	24.1	20.2	26.5	1.7	$\Phi 96 \times 240 - M16 \times 25$
DACC-440-26.9	3 x 147.4	20.0	30.5	22.2	32.1	26.9	35.3	2.2	$\Phi 116 \times 240 - M16 \times 25$
DACC-440-33.5	3 x 183.7	25.0	38.0	27.7	40.0	33.5	44.0	2.5	$\Phi 116 \times 285 - M16 \times 25$
DACC-440-40.2	3 x 220.5	30.0	45.6	33.2	48.0	40.2	52.8	2.9	

Open Type Capacitor Assemblies



Model	Consisting of Cylindrical Capacitor Units	Capacitance μF	Rated Power and Current						Dimensions mm			
			380V		400V		440V		W	L	M	H
			Kvar	Amp	Kvar	Amp	Kvar	Amp				
UCAU-440-20.2	1 x DACC-440-20.2	3 x 110.7	15	22.9	16.7	24.1	20.2	26.5	150	175	155	310
UCAU-440-26.9	1 x DACC-440-26.9	3 x 147.4	20	30.5	22.2	32.1	26.9	35.3				
UCAU-440-33.5	1 x DACC-440-33.5	3 x 183.7	25	38.0	27.7	40.0	33.5	44.0	150	175	155	360
UCAU-440-40.2	1 x DACC-440-40.2	3 x 220.5	30	45.6	33.2	48.0	40.2	52.8				
UCAU-440-53.8	2 x DACC-440-26.9	3 x 294.8	40	61.0	44.4	64.2	53.8	70.6	150	400	380	310
UCAU-440-67.0	2 x DACC-440-33.5	3 x 367.4	50	76.0	55.4	80.0	67.0	88.0	150	400	380	360

Enclosed Capacitor Units



Model	Consisting of Cylindrical Capacitor Units	Capacitance μF	Rated Power and Current						Dimensions mm			
			380V		400V		440V		W	L	M	H
			Kvar	Amp	Kvar	Amp	Kvar	Amp				
ECAU-440-20.2	1 x DACC-440-20.2	3 x 110.7	15	22.9	16.7	24.1	20.2	26.5	150	200	180	395
ECAU-440-26.9	1 x DACC-440-26.9	3 x 147.4	20	30.5	22.2	32.1	26.9	35.3				
ECAU-440-33.5	1 x DACC-440-33.5	3 x 183.7	25	38.0	27.7	40.0	33.5	44.0	150	200	180	435
ECAU-440-40.2	1 x DACC-440-40.2	3 x 220.5	30	45.6	33.2	48.0	40.2	52.8				
ECAU-440-53.8	2 x DACC-440-26.9	3 x 294.8	40	61.0	44.4	64.2	53.8	70.6	150	350	330	395
ECAU-440-67.0	2 x DACC-440-33.5	3 x 367.4	50	76.0	55.4	80.0	67.0	88.0	150	350	330	435

Reactors for Detuned Capacitor Banks

Rated Voltage : 380V

Rated Frequency : 50Hz

Detuning Factor : P=7%

Resonance Frequency : 189Hz

Reactor Data

Standard : IEC 60076-6:2007

Design : Dry Type

Winding Material : Copper

Class of Insulation : H

Protection Degree : IP 00

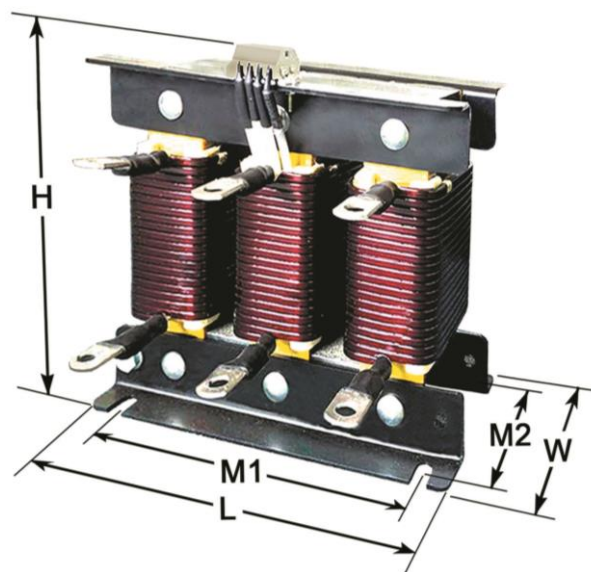
Loss : 5W per Kvar of the connected capacitor

Power Frequency Withstand Voltage : 3 Kv for 1 min

Overload Allowed : 35% of rated current continuously

Built-in Temperature Sensor : 1 x N/O operating at 65°C for fan control

1 x N/C operating at 130°C for overheat protection



4x9mm Dia. mounting holes

Rated Power and Current of the Combination at 380V		Capacitors			Reactor								
		Model	Capacitance	Rated Power Kvar at 380V	Model	Inductance	Rated Power	Dimensions mm					
			μF					mH	Kvar	L	W	H	M1
Kvar	A												
21.57	32.8	1 x DACC-440-26.9	3 x 147.4	20	HFR-20-P7	1.604	1.62	240	175	230	200	95	
26.88	40.8	1 x DACC-440-33.5	3 x 183.7	25	HFR-25-P7	1.287	2.02	240	175	230	200	95	
32.27	49.0	1 x DACC-440-40.2	3 x 220.5	30	HFR-30-P7	1.072	2.43	240	175	230	200	95	
43.14	65.5	2 x DACC-440-26.9	3 x 294.8	40	HFR-40-P7	0.802	3.25	240	200	270	200	115	
53.76	81.7	2 x DACC-440-33.5	3 x 367.4	50	HFR-50-P7	0.644	4.05	240	200	270	200	115	

Reactors for other detuning factors are available upon request.

Rickson Engineering Ltd.
21/F, Sun Hing Ind. Building,
46 Wong Chuk Hang Road, Hong Kong.

Tel: (852) 3120 7500

利信機電有限公司
香港黃竹坑道 46 號
新興工業大廈 21 字樓

Fax: (852) 3120 7511

Email: general@rickson.com.hk

Website: <http://www.rickson.com.hk>