

## Power Factor Correction Capacitors Dry Type CAPU in Rectangular Steel Casing

**Application** RICKSON capacitors allow power factor correction installations to be constructed for any requirement and meet the regulations of EN 60831 -1 and -2, IEC 831 -1 and -2, VDE 0560 part 41.

**Mechanical The Construction & Design** RICKSON capacitor in rectangular steel casing consists of a number of 'Frako' 3-phase cylindrical can type capacitors. individual aluminium cans are wired together and vertically mounted onto an earthed steel frame inside the casing. The supply cable is to be connected at the terminals, on top of the capacitor. Earthing terminal is also provided externally at the lower side of the container. Mounting hole is suitable for M6 screws at each end of the capacitor. Dielectric of each individual cylindrical capacitor unit consisting of metallized polypropylene foil. **Dry type, filled with a flame inhibiting, stabilized mineral filler.**

The dielectric is self-healing. In case of a breakdown caused, for example, by voltage overload, the self-healing effect takes place.

If the self-healing process does not operate (e.g. because of voltage, current or thermal overload) the cover plate, which is designed as an overload valve, is raised and ruptures the internal connecting wires to the coils, so that the capacitor is separated from the mains.

**Capacitance and Rating Tolerance** +/- 5 %

**Power Loss** Approximately 0.05 % (0.5 Watt/kVAr) measured at the connecting terminal including discharge resistors. Approximately 0.02 % (0.2 Watt/kVAr) measured at the capacitor coils.

**Temperature Class** - 10 °C to + 60 °C

**Current Overload Capacity** 1.7 times the rated current at 400 V permanently  
140 times the rated current during short time peak currents

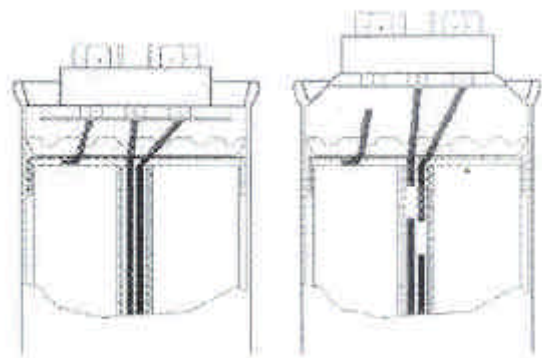
Voltage Overload Capacity	440 V	480 V	570 V	620 V
8 hours daily	484 V	528 V	627 V	682 V
30 mins. daily	506 V	552 V	656 V	713 V
5 mins. daily	528 V	576 V	684 V	744 V
1 min. daily	572 V	624 V	741 V	806 V



**Discharging** According to IEC 831, every power capacitor must have a discharge device which guarantees a discharge to 75 VAC within three minutes. RICKSON capacitors type CAPU have integrated discharge resistors in each individual cylindrical can type capacitor which guarantee a discharge 50 Volts within one minute.

**Life expectancy** Extreme purity of the material used prevents a deterioration of the loss factor and thereby a reduction of the dielectric strength and the current load capacity. We therefore specify the life expectancy of our capacitors as being at least 50,000 hours and 3% maximum failure rate (at an average service length of 4,380 hrs. per year = at least 12 years). The very low number of failures in the field points to a much higher life expectancy.

**Safety features** RICKSON power capacitors offer the highest safety with an overload disconnecter, which activates at internal overpressure, disconnects the capacitor from the mains network and thereby prevents capacitor destruction. RICKSON carries out type tests and regular random tests to monitor the production safety of this function. The test conditions comply to IEC 831 standards. RICKSON power capacitors offer, therefore, the highest possible standard of safety at overload and at the end of their life expectancy.



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Types	Rickson Part No.	Frequency Hz	Operating voltage			Current at max. voltage A	Rated capacitance $\mu$ F	Dimension L x W x H(in mm)	Distance of Mounting Hole (in mm)
			400 V kVAr	415 V kVAr	440 V kVAr				
CAPU-20-400		50	20	21.6	24.2	31.8	3 x 132.6	251 x 115 x 395	225
CAPU-25-400		50	25	26.8	30.2	39.6	3 x 165.8	251 x 115 x 435	225
CAPU-30-400		50	30	32.4	36.3	47.7	3 x 198.9	350 x 115 x 395	324
CAPU-40-400		50	40	43.2	48.4	63.6	3 x 265.2	425 x 115 x 395	399
CAPU-50-400		50	50	53.6	60.4	79.2	3 x 331.6	425 x 115 x 435	399



For any further information, please contact our sales department.

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