



RUN CAPACITORS

Run capacitors are capacitors designed for continuous connection to alternating current (AC) motors. These capacitors are used to improve the $\cos(\phi)$ during normal operation. For single phase motors, capacitors are used to maintain the magnetic field. For single-phase motors connected to three-phase motors, the capacitor creates the motor's third phase.

We stock high quality capacitors made by Comar in standard versions in the range 1 – 100 UF. You are welcome to contact us for further information or quotations.

- Compliant with norm EN60252-1
- Manufactured for 50 and 60 Hz
- Standard version type MKA 450VAC with 250mm cable and M8 mounting bolt is held in stock
- Run capacitors are manufactured in various versions: MKA and MK in plastic casings and MKM in aluminium casings
- Connection with cable or flat pin
- Some types can be ordered in UL-approved versions
- Some types are manufactured with overpressure protection Class P2

PRODUCT INFORMATION

Run capacitors are capacitors designed for continuous connection to alternating current (AC) motors. Run capacitors are used for single-phase motors and three-phase motors connected to single-phase supply. Carbex sells high quality capacitors from Comar, one of the few manufacturers that can still label its capacitors as "Manufactured in Italy".

Typical applications

• Run capacitors are used for single-phase AC motors for many applications. Examples of typical applications are fan systems, radon gas vacuums, dehumidifiers, smaller pumps, heat pumps, floor grinders, concrete mixers, etc.

Properties

• Run capacitors are used to improve the $\cos(\phi)$ during normal operation and should be continuously connected. Standard types are in plastic casings. For single phase motors, capacitors are used to maintain the magnetic field. For single-phase motors connected to three-phase motors, capacitors create the motor's third phase. A capacitor of the type MKM in aluminium casing has an in-built safety against overpressure type "P2". In the event of overheating, the capacitor expands in height thereby breaking the internal connectors and the capacitor disconnects automatically. See technical data below.

Composition

• Made of self-healing, metalized polypropylene film that is wound up to the desired capacitance. Coated with metal at both ends, the coil is connected to the capacitor's mounting cable or flat pin depending on the version. The coil is then moulded into the casing and insulated with a mounting bolt whilst the coil is securely fixed into position. Capacitors are dry and have no actual expiration date. Casings are in plastic of the self extinguishing material type 2. Casings in aluminium have rubber-sealed, moulded-plastic covers with flat pin connections. The metal casing is designed with an expansion chamber as an overpressure fuse type P2.

Product information for which Carbex bears no responsibility is provided by the manufacturer.





RUN CAPACITORS

Version/Capacitance/Dimensions

- For specific item stocked capacitors see "Item list Run Capacitors" below.

For other capacitances and/or versions other than those listed, please contact Carbex for further information or a quotation.

We offer run capacitors in the range 1 – 100 UF. For some applications, capacitors with high values are connected. Capacitors can be parallel connected to attain the correct capacitance. The total capacitance is calculated by adding the value of the parallel connected capacitors. When capacitors are parallel connected, their values should be as similar as possible to attain the best performance. Manufacturer's recommendations should always be followed when sizing capacitors. As a guide to the approximate overall dimensions, the attached document "Rules of thumb for the dimensioning of run/start capacitors" can serve as a guide to the approximate overall dimensions.

Packaging

- Version type MKA 450 VAC with 250 mm long double insulated connecting cable with mounting bolt (M8) are sold individually from our picking stock. These capacitors are manufactured from 1 UF up to 100 UF. Other versions are usually made to order. Contact us for further information or a quotation and to find out about a possible MOQ. Capacitors are delivered ex works in corrugated cardboard boxes. The quantity of capacitors per box depends on the dimensions of the particular capacitor.

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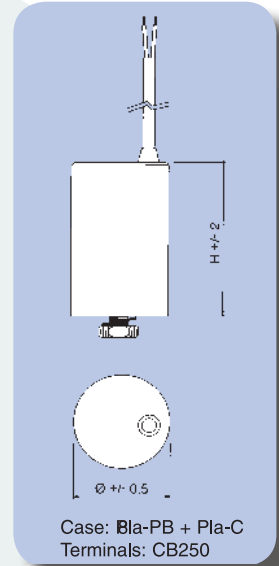
MKA / MK



MKM 450 FD 6,3 + M8



MKA / MK K-250mm + M8



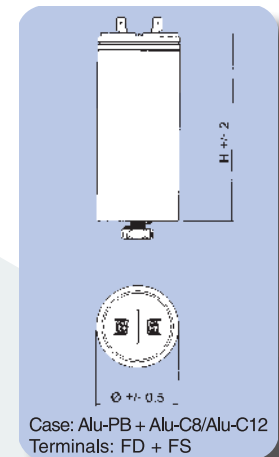
Item list Run Capacitors

Item number	Voltage type (V)	Capacitance (µF)	Execution (K, FD)* + mounting bolt	Dimensions øxH (mm)
100100001	MKA-450V	1	K-250mm + M8	25 x 57
100100015	MKA-450V	1.5	K-250mm + M8	25 x 57
100100020	MKA-450V	2	K-250mm + M8	25 x 57
100100025	MKA-450V	2.5	K-250mm + M8	25 x 57
100100030A0	MKA-450V	3	K-250mm + M8	25 x 57
100100031	MKA-450V	3.15	K-250mm + M8	25 x 57
100100040	MKA-450V	4	K-250mm + M8	25 x 57
100100050	MKA-450V	5	K-250mm + M8	30 x 57
100100060	MKA-450V	6	K-250mm + M8	30 x 57
100100063	MKA-450V	6.3	K-250mm + M8	30 x 57
100100080	MKA-450V	8	K-250mm + M8	30 x 70
100100100	MKA-450V	10	K-250mm + M8	30 x 70
100100120	MKA-450V	12	K-250mm + M8	35 x 70
100100120D0	MKA-450V	12	FD 6,3mm + Flat bottom	35 x 70
100100125	MKA-450V	12.5	K-250mm + M8	35 x 70
100100140	MKA-450V	14	K-250mm + M8	35 x 70
100100150	MKA-450V	15	K-250mm + M8	40 x 70
100100160	MKA-450V	16	K-250mm + M8	40 x 70
100100180	MKA-450V	18	K-250mm + M8	40 x 70
100100200	MKA-450V	20	K-250mm + M8	40 x 70
100100250	MKA-450V	25	K-250mm + M8	40 x 94
100100300	MKA-450V	30	K-250mm + M8	40 x 94
100100350	MKA-450V	35	K-250mm + M8	45 x 94
100100350A0	MKA-450V	35	K-250mm + Flat bottom	45 x 94
100100400	MKA-450V	40	K-250mm + M8	45 x 94
100100450	MKA-450V	45	K-250mm + M8	50 x 94
100100500	MKA-450V	50	K-250mm + M8	50 x 94
100100500C0	MKA-450V	50	FD 6,3mm + M8	50 x 94
100100600	MKA-450V	60	K-250mm + M8	50 x 120
100100700	MKA-450V	70	K-250mm + M8	50 x 120
100100800	MKA-450V	80	K-250mm + M8	50 x 120
100101000	MKA-450V	100	K-250mm + M8	55 x 120
100160010C0	MK-450V	1	FD 6,3mm + M8	30 x 57
100160020A0	MK-450V	2	K-250mm + M8	30 x 57
100160030A0	MK-450V	3	K-250mm + M8	30 x 57
100160040A0	MK-450V	4	K-250mm + M8	30 x 57
100160050A0	MK-450V	5	K-250mm + M8	30 x 57
100160063A0	MK-450V	6.3	K-250mm + M8	30 x 70
100160080A0	MK-450V	8	K-250mm + M8	30 x 70
100160100	MK-450V	10	K-250mm + M8	35 x 70
100160125A0	MK-450V	12	K-250mm + M8	40 x 70
100160200A0	MK-450V	20	K-250mm + M8	40 x 94
100160250A0	MK-450V	25	K-250mm	45 x 94
100160300A0	MK-450V	30	K-250mm + M8	45 x 94
100160400A1	MK-450V	40	K-250mm + M8	50 x 94
100160400C0	MK-450V	40	FD 6,3mm + M8	50 x 94
100160500A1	MK-450V	50	K-250mm + M8	50 x 120
100120200C0	MKM-450V	20	FD 6,3mm + M8	45 x 80
100120400D0	MKM-450V	40	FD 6,3mm + M8	50 x 103
100120600C0	MKM-450V	60	FD 6,3mm + M12	55 x 128
100120800C1	MKM-450V	80	FD 6,3mm + M12	55 x 140
100121000C0	MKM-250V	100	FD 6,3mm x M12	60 x 128
100100070	MKA-450V	7	K-250mm + M8	30 x 57

* Execution : K=double insulated cable, FD= Double flat pin

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MKM 450 FD 6,3 + M8





RUN CAPACITORS

Tekniska data

Run/Motor Capacitors

Type Designation	Voltage/ Frequency (V/Hz)	Capacitance (µF)	Casing	Safety Class	Function Class (h)
MKA*	450/50-60Hz	1 - 100 +/-5%	Plastic Self exting. V2		400V-B 10000h 450V-C 3000h
MKA-UL	450/50-60Hz	1 - 100 +/-5%	Self exting. V2 Plastic		400V-B 10000h 450V-C 3000h
MKA	450/50-60Hz	1 - 100 +/-5%	Self exting. V2 Plastic		400V-B 10000h 450V-C 3000h
MK	450/50-60Hz	1 - 80 +/-5%	Self exting. V2		450V-B 10000h
MKM	250/50-60Hz	1 - 100 +/-5%	Aluminium	Class P2 (overpressure protec.)	250V-B 10000h 400V-B 10000h
MKM	450/50-60Hz	1 - 100 +/-5%	Aluminium	Class P2 (overpressure protec.)	450V-D 1000h

Type Designation	Max.temp. (°C)	Connection	Mounting	Approval/s	MOQ
MKA*	85	250mm double insul. cable	M8	VDE, EN60252d 1 (for 1 - 45UF)	1
MKA-UL	85	Diff. cable.con/ Flat pin	M8/ Flat bottom	UL	Yes
MKA	85	Diff. cable.con/ Flat pin	M8/ Flat bottom	VDE, EN60252ä 1 (for 1 -45UF)	Yes
MK	85	Diff. cable.con/ Flat pin	M8/ Flat bottom	VDE, EN60252ä 1 (for 1 -45UF)	Yes
MKM	85	Flat pin 6,3mm option 2,86mm	M8/ Flat bottom	EN 60252-1, UL810 (6-100UF)	Yes
MKM	85	Flat pin 6,3mm option 2,86mm	M8/ Flat bottom	EN 60252-1, VDE560- 8	Yes

* **Bold text refers to standard capacitors in stock, others usually order items**

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