

## LOW VOLTAGE POWER FACTOR CORRECTION CAPACITORS KNK






- BETTER THERMAL CONDUCTIVITY
- LOWER TEMPERATURE OF HOTSPOT, LOWER  $T_g(d)$  AND ESR
- LONGER EXPECTED LIFE TIME
- TYPE TEST RESULTS (DESTRUCTION TEST, ENDURANCE)

# LOW VOLTAGE POWER FACTOR CORRECTION CAPACITORS

## USE

THE KNK CAPACITORS ARE USED FOR POWER FACTOR CORRECTION OF INDUCTIVE CONSUMERS (TRANSFORMERS, ELECTRIC MOTORS, RECTIFIERS) IN INDUSTRIAL NETWORKS FOR VOLTAGES UP TO 690 V.

## TECHNICAL DATA

| TYPE                    | KNK5015  | KNK5065  | KNK1053   | KNK9053   | KNK3053  | KNK4053  |
|-------------------------|--|--|---|---|--|--|
|                         |   |   |  |   |   |   |
| STANDARD                | <br>UL 810 APPROVAL (E163120)<br>IEC/EN 60831-1/2 | <br>UL 810 APPROVAL (E163120)<br>IEC/EN 60831-1/2 | IEC/EN 60831-1/2  | <br>UL 810 APPROVAL (E163120)<br>IEC/EN 60831-1/2 | <br>UL 810 APPROVAL (E163120)<br>IEC/EN 60831-1/2 | <br>UL 810 APPROVAL (E163120)<br>IEC/EN 60831-1/2 |
| CONNECTION              | SINGLE PHASE   | DELTA (THREE PHASE)  | DELTA (THREE PHASE)   | DELTA (THREE PHASE)   | DELTA (THREE PHASE)  | DELTA (THREE PHASE)  |
| RATED AC VOLTAGE        | 230 - 525 V  | 230 - 525 V  | 230 - 690 V   | 230 - 690 V   | 230 - 800 V  | 230 - 800 V  |
| RATED REACTIVE POWER    | 1 - 5 kvar   | 1 - 7.5 kvar   | 1 - 30 kvar   | 1 - 40 kvar   | 1 - 40 kvar  | 1 - 40 kvar  |
| RATED FREQUENCY         | 50 - 60 Hz   | 50 - 60 Hz   | 50 - 60 Hz  | 50 - 60 Hz  | 50 - 60 Hz   | 50 - 60 Hz   |
| CAPACITANCE TOLERANCE   | -5 / +10 %<br>(OTHER ON REQUEST)   | -5 / +10 %<br>(OTHER ON REQUEST)   | -5 / +10 %<br>(OTHER ON REQUEST)  | -5 / +10 %<br>(OTHER ON REQUEST)  | -5 / +10 %<br>(OTHER ON REQUEST)   | -5 / +10 %<br>(OTHER ON REQUEST)   |
| CLIMATIC CATEGORY       | -25 / D  | -25 / D  | -25 / D   | -25 / D   | -40 / D  | -40 / D  |
| MAXIMUM HUMIDITY        | 95 %   | 95 %   | 95 %  | 95 %  | 95 %   | 95 %   |
| TOTAL LOSSES            | ≤ 0.45 W/kvar  | ≤ 0.45 W/kvar  | ≤ 0.45 W/kvar   | ≤ 0.45 W/kvar   | ≤ 0.45 W/kvar  | ≤ 0.45 W/kvar  |
| MAXIMUM OVERVOLTAGE     | 1.1 x U <sub>n</sub> (8 h / DAY)   | 1.1 x U <sub>n</sub> (8 h / DAY)   | 1.1 x U <sub>n</sub> (8 h / DAY)  | 1.1 x U <sub>n</sub> (8 h / DAY)  | 1.1 x U <sub>n</sub> (8 h / DAY)   | 1.1 x U <sub>n</sub> (8 h / DAY)   |
| MAXIMUM OVERCURRENT     | 1.3 x I <sub>n</sub>   | 1.3 x I <sub>n</sub>   | 1.7 x I <sub>n</sub>  | 1.7 x I <sub>n</sub>  | 2 x I <sub>n</sub>   | 2 x I <sub>n</sub>   |
| EXPECTED LIFE TIME      | > 100.000 h<br>@ TEMP. CATEGORY D  | > 100.000 h<br>@ TEMP. CATEGORY D  | > 130.000 h<br>@ TEMP. CATEGORY D   | > 130.000 h<br>@ TEMP. CATEGORY D   | > 150.000 h<br>@ TEMP. CATEGORY D  | > 150.000 h<br>@ TEMP. CATEGORY D  |
| SAFETY DEVICE           | OVERPRESSURE<br>DISCONNECTOR   | OVERPRESSURE<br>DISCONNECTOR   | OVERPRESSURE<br>DISCONNECTOR  | OVERPRESSURE<br>DISCONNECTOR  | OVERPRESSURE<br>DISCONNECTOR   | OVERPRESSURE<br>DISCONNECTOR   |
| DIELECTRIC - ELECTRODES | SELF-HEALING METALLIZED<br>POLYPROPYLENE FILM  | SELF-HEALING METALLIZED<br>POLYPROPYLENE FILM  | SELF-HEALING METALLIZED<br>POLYPROPYLENE FILM                                     | SELF-HEALING METALLIZED<br>POLYPROPYLENE FILM   | SELF-HEALING METALLIZED<br>POLYPROPYLENE FILM  | SELF-HEALING METALLIZED<br>POLYPROPYLENE FILM  |
| FILLING                 | NON PCB BIODEGRADABLE<br>VEGETABLE OIL   | NON PCB BIODEGRADABLE<br>VEGETABLE OIL   | DRY   | NON PCB BIODEGRADABLE<br>VEGETABLE OIL  | DRY (FILLET WITH NON PCB<br>POLYURETHANE RESIN)  | NON PCB BIODEGRADABLE<br>VEGETABLE OIL   |
| CASE                    | ALUMINIUM  | ALUMINIUM  | ALUMINIUM   | ALUMINIUM   | ALUMINIUM  | ALUMINIUM  |