

Application Guide

Efficient Building

Passive Solutions for Energy Efficient Systems

TDK offers a wide range of components for many different applications from Industrial Drives and Power Quality to Building Safety and Security Systems for efficient buildings. When integrated together, these devices help to create the ultimate EeB (Energy Efficient Building) with intelligent monitoring and safety. The TDK and EPCOS brand components are organized according to product categories to assist in the search for the right device for your designs.

Capacitors

- Aluminum Snap-in
- Aluminum Screw Terminal
- Film for DC and EMI
- Motor Run Caps
- Power Film (DC and AC)

Ceramic Capacitors

- Disc Ceramic for EMI
- General Purpose MLCCs

Protection Devices

- Inrush Current Limiters
- Multilayer Varistors
- Surge Arrestors

Magnetics

- Transformers
- Power Inductors
- Filters and Reactors

Sensors

- NTC Sensors
- Pressure Sensors

UNINTERRUPTIBLE POWER SUPPLY (UPS)

- Server Power Supply
- Data Storage Power Supply

HEATING, VENTILATION AND AIR CONDITIONING

- VFD for Compressor, Blowers and Pump Motors
- AC Single Speed Motors
- Controls for HVAC

BUILDING AND OUTDOOR LIGHTING

- LED Lamps and Drivers
- Connectivity

BUILDING SAFETY AND SECURITY

- Fire and Smoke Detectors
- Security Alarms

POWER QUALITY

- Power Factor Correction
- Harmonics Mitigation

SOLAR POWER

- Micro Inverters
- String Inverters
- Central Inverters



| PRODUCT DETAILS | | TECHNICAL DATA | | FEATURES | | SERIES | | VFD AND MOTORS | AC MOTORS | HVAC CONTROLS | LED LIGHTING | SAFETY AND SECURITY | UPS | SOLAR INVERTERS | POWER QUALITY | |
|--|---|--|---|--|---|--------|---|----------------|-----------|---------------|--------------|---------------------|-----|-----------------|---------------|---|
| ALUMINUM CAPACITORS | | | | | | | | | | | | | | | | |
| Screw Terminal Snap-In |  | V_R : 160 ... 600 V DC C_R : 47 ... 220,000 μ F Useful life up to: +105 °C, 8000 h +85 °C, 15000 h | High Ripple Current Long useful life (>20 yrs possible) Compact can size | B4370x B4371x B4364x B4354x | • | | | | | | | | | | | |
| FILM CAPACITORS | | | | | | | | | | | | | | | | |
| DC Film and Snubbers EMI Suppression |  | V_R : 63 ... 1300 V DC C_R : 0.001 ... 30 μ F V_R : 305 ... 530 V AC C_R : 0.001 ... 480 μ F | Wide Capacitance/Voltage Range Low Profile for Solar Inverters High Humidity Capability State of the art X1, X2, Y1 and Y2 | B325xx, B326xx B3277x B3202x, B81123, B3291x, B3292x, B3293x | • | | | • | • | • | • | • | • | • | | |
| POWER FILM CAPACITORS AND POWER QUALITY PRODUCTS | | | | | | | | | | | | | | | | |
| DC Link AC Filtering, AC Motor Run Power Factor Correction Capacitors, Components and Accessories for Power Quality |  | V_R : 70 ... 4800 V DC C_R : 110 ... 16,000 μ F V_R : 250 ... 800 V AC C_R : 3 ... 600 μ F V_R : 250 ... 690 V AC C_R : 50 ... 900 μ F Up to 15 Stage PFC Controllers, 100 Kvar Contactors, 200 Kvar Thyristor Modules, etc. | Standard Round Can DC Link and AC Filter Caps Rectangular case MKK DC for Custom Applications Motor Run Capacitors, Single and Three Phase PFC Capacitors PFC Controllers, Contactors, fast switching Thyristor Modules and Accessories | B256xx B25640 B32326 | • | • | | | | | | | | | | • |
| CERAMIC CAPACITORS | | | | | | | | | | | | | | | | |
| Solution Specific MLCCs High Cap Series EMI Suppression Caps |  | V_R : 50 ... 3000 V DC C_R : 10pF ... 100 μ F V_R : 300 ... 440 V AC C_R : 10pF ... 10 nF | Wide Capacitance/Voltage Range High Cap for Special Applications Crack mitigation. Soft Termination X1, Y1 and Y2 EMI Caps | C CKG, C-soft CD, CS | • | | | • | • | • | • | • | • | • | | |
| PROTECTION DEVICES | | | | | | | | | | | | | | | | |
| Varistors Surge Arrestors Inrush Current Limiters |  | I_{Rmax} : 25 ... 100 kA (8/20 μ s) V_{Rms} : 75 ... 1100 V V_{Rms} : 255 V AC $I_{Rimpulse}$: 25..... 100 kA V_R : to 800 V, Cth: 2.3 J/K I_R : to 30 A, R_{25K} : 1...120 Ω | Block, Strap and Disc MOVs, Chasis or PCB Mount Gas Arrestors Plastic Case PTC, Disc NTC | B722xx B88069 B5910x, B57xxxS | • | | | | | | | | | | | • |
| INDUCTORS, MAGNETICS AND FILTERS | | | | | | | | | | | | | | | | |
| Power Inductors Transformers Chokes Filters and Reactors |  | L_R : 0.3 ... 1000 μ H I_R : 0.11 ... 71 A $V_{isolation}$: 1500 V DC ... 2500 V DC L_R : 0.19 ... 1000 μ H I_R : 0.25 ... 56 A V_R : 250 ... 760 V AC I_R : 0.5 ... 2500 A | Shielded and Unshielded SMD Power Inductors Gate Drive, Flyback Transformers Ring Core Chokes D, E and U Core Chokes 3 and 4 Line Filers for 3 Phase, Sine Filters and Reactors | B82559 B824xx, CFL, LTF, SLF, VLx B8280x ECO, SFW, SRX B8272x, B8273x Line Filters, Sine Filters and Reactors | • | | | • | • | • | • | • | • | • | | |
| SENSORS | | | | | | | | | | | | | | | | |
| NTC Temp Sensors Pressure Sensor Transducers and Transmitters |  | T_{OP} : -55 ... +200 °C/125°C $R_{25°C}$: 5 k Ω ... 100 k Ω /150 k Ω T_{OP} : -10 ... +100 °C, $R_{100°C}$: 3300 Ω 0.025 25.0 bar - Transducers 0.125.0 bar - Transmitters | NTC in Metal Tag or Aluminum tube, Epoxy Resin or Glass Encapsulated NTC Elements Piezo Resistive Memes Technology RoHS Compatible, Halogen-free | B57703, B57045 B575xx B58100 B586xx AK2, AT2, ASB, T CAU-T,ACT, ASB, T | • | • | • | • | • | • | • | • | • | • | | |