

# CDE MXH, X2 Series, Across-the-Line EMI/RFI Suppression Capacitors for Harsh Environments



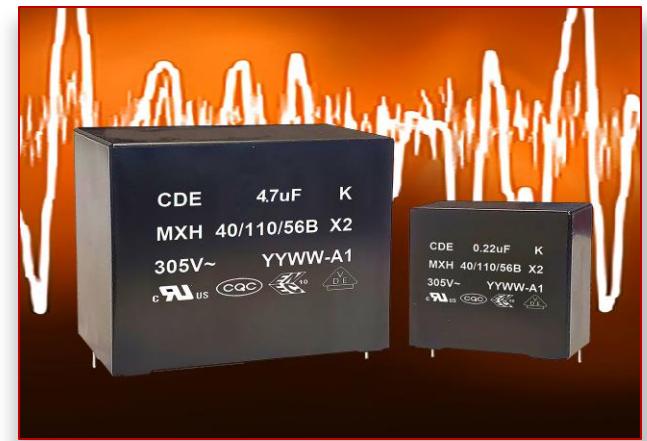
*2,000-hour, 85°C /85% RH @ Vr*  
AEC-Q200



# CDE MXH, X2 Series, 85/85 THB-Rated Metalized Polypropylene Film Capacitors

MXH Series provides up to two-times greater life than other 85/85 THB-rated, board-mount capacitors for interference suppression.

- 2,000-hour load life based on 85 °C at 85% relative humidity with voltage applied.
- For across-the-line requirements
- Harsh Environment applications
- AEC-Q200



# MXH, X2 Series

## Key Parameters

- Capacitance values range from 0.1 to 15  $\mu\text{F}$
- Voltage: 305 Vac @ 50/60Hz
- Meets IEC-60384
- UL Recognized
- AEC-Q200
- RoHS compliant
- Life expectancy: 100,000 hours  
@  $\leq 85^\circ\text{C}$  hot spot, at rated voltage



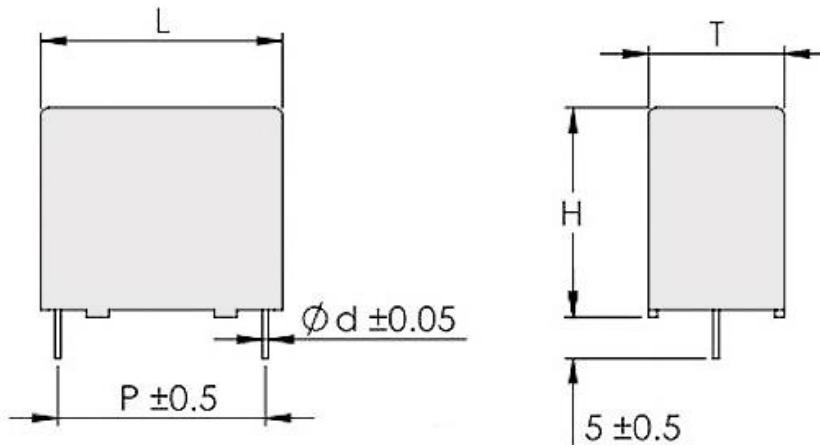
# Effective EMI/RFI Filtering for Many Power Electronics Applications



- Class X2, Across-the-Line filters for harsh environmental conditions
- Utility meters
- EV chargers, solar and other power inverters
- UPS, SMPS and portable power systems

# MXH Series Construction and Lead Configurations

- Lead Spacings of 15mm to 37.5mm
- Two-pin lead configurations
- Plastic case and dry resin both meet UL94V-0
- 5mm lead length



Dimensions Shown in mm

# CDE MXH Series Specifications Brief



Capacitance Range	0.1 $\mu$ F to 15 $\mu$ F
Capacitance Tolerance	$\pm 10\%$ ( $\pm 20\%$ optional)
Rated Voltage	305 Vac, 630 Vdc
Operating Temperature Range	-40 °C to +110 °C (+85 °C to 110 °C, voltage derating factor of 1.35% per Deg. C)
Life Expectancy	100,000h at rated voltage and hot spot temperature $\leq 85$ °C
Dissipation Factor	0.001 @ 1KHz @ 20 °C
IEC Climatic Category	40/110/56 IEC60068-1
THB Rating	+85°C / 85% RH @ rated voltage for 2,000hrs +24/-0 Capacitance Change Rate: ( $\Delta C/C$ ): $\leq \pm 10\%$ DF Change ( $\Delta \tg \delta$ ): $\leq 240 \times 10^{-4}$ at 10 KHz ( $C \leq 1\mu\text{F}$ ) DF Change ( $\Delta \tg \delta$ ): $\leq 150 \times 10^{-4}$ at 1 KHz ( $C > 1\mu\text{F}$ ) IR: $\geq 50\%$ of initial limit
Damp Heat, Steady State (Reference: IEC 60384-14; 2013/AMD1:2016)	+40°C / 93% RH @ rated voltage for 1,344 hrs +24/-0 Capacitance Change Rate: ( $\Delta C/C$ ): $\leq \pm 5\%$ DF Change ( $\Delta \tg \delta$ ): $\leq 80 \times 10^{-4}$ at 10 KHz ( $C \leq 1\mu\text{F}$ ) DF Change ( $\Delta \tg \delta$ ): $\leq 50 \times 10^{-4}$ at 1 KHz ( $C > 1\mu\text{F}$ ) IR: $\geq 50\%$ of initial limit

# CDE MXH, X2 Series, 85/85 THB Rated Film Capacitor Summary

- Two times greater life than other THB-rated EMI/RFI filter capacitors
- 2,000-hour load life based on 85 °C at 85% R.H @ rated voltage
- IEC-60384, AEC-Q200, RoHS
- Wide range of capacitance
- Used in across-the-line applications for EMI/RFI suppression
- Utility meters, line filters, UPS, and other power supply applications

