

# Meeting the most important demands — yours.

**Our Enhanced Safety Certified Surface Mount MLCC product line is tested to meet international safety standards:**

IEC/EN 60384-14:2013 + A1:2016 class Y2/X1 and UL/CAN/CSA60384-14:2014. Range qualified to AEC-Q200.

Knowles Safety Certified capacitors comply with international UL and IEC/EN specifications, with certification by UL, cUL and TUV, and offer the benefits of a lower profile and less board space. They are available in case sizes 1808, 1812, 2211, 2215 and 2220, and all are available with the option of FlexiCap™ termination to reduce the risk of mechanical cracking. All parts have a CTI ≥ 600, allowing us to offer the SYS range with an even smaller platform suitable for use in equipment within the scope of IEC 62368.

Whether it's AEC-Q200 standards, modems, AC-DC power supplies or applications where lightning strike or other voltage transients represent a threat to electronic equipment, our Safety Certified capacitors allow us to meet a variety of demands. Talk to us today to find out how we can meet yours.

## SYX/UYX FAMILY — Y2 (250VAC)/X1 (305VAC) 5KV IMPULSE



Applications	<ul style="list-style-type: none"> <li>• High voltage battery systems within electric vehicles</li> <li>• Three-phase systems requiring 305Vac line to line</li> <li>• Industrial and domestic equipment where safety is critical</li> <li>• Plug-in power supplies</li> </ul>
Benefits	<ul style="list-style-type: none"> <li>• Class Y2/X1 safety capacitors, including Humidity Robustness Grade III</li> <li>• Guaranteed 4mm creepage, mandatory for 250Vac Class Y2 and 305Vac Class X1 full certification</li> <li>• Humidity Robustness Grade III as per EN 60384-14 fully certified</li> <li>• 5kV impulse</li> <li>• 1kVDC qualified</li> <li>• Components are 100% DWV tested to 4kV</li> <li>• AQL tested to 4kVDC and 3000Vac 60s — ideal for high voltage battery systems</li> <li>• Unmarked (UYX) components available with additional 2500VDC rating</li> <li>• Case sizes: 1808, 1812, 2211, 2215 and 2220</li> </ul>

## SYS FAMILY – Y2 (250VAC)/X1 (305VAC) 5KV IMPULSE



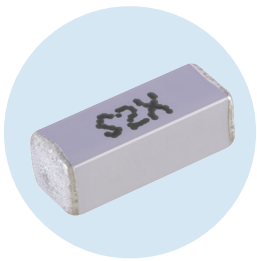
Applications	<ul style="list-style-type: none"> <li>• Applications within the scope of IEC 62368. Ref: EN 60384-14, clause 4.8.1.3</li> <li>• Ideal for use within ICT and AV equipment</li> </ul>
Benefits	<ul style="list-style-type: none"> <li>• SYS family offers class X1/Y2 safety capacitors, including Humidity Robustness Grade III</li> <li>• 1kVDC certified</li> <li>• Unmarked components can be offered with an additional 2500VDC rating with suffix UYS</li> <li>• Components are 100% DWV tested at 3000VDC</li> <li>• CTI <math>\geq</math> 600</li> <li>• AQL tested to 3225VDC and 2110Vac 60s</li> <li>• Reduced size compared to SYX</li> <li>• Case sizes: 1808 and 1812</li> </ul>

## S3X FAMILY – X2 (305VAC) 2500V IMPULSE



Applications	<ul style="list-style-type: none"> <li>• Industrial Switchgear and control systems</li> <li>• 3-phase systems requiring higher voltage ratings</li> <li>• Domestic circuit breakers</li> </ul>
Benefits	<ul style="list-style-type: none"> <li>• S3X family offers class 305Vac X2 safety capacitors</li> <li>• 2.5kV impulse and a 1kVDC rating</li> <li>• Unmarked components can be offered with an additional 1500VDC rating with suffix U3X</li> <li>• 56nF with a 2500V impulse</li> <li>• 1kVDC qualified</li> <li>• Components are 100% DWV tested at 3000VDC</li> <li>• CTI <math>\geq</math> 600</li> <li>• AQL tested to 3225VDC and 1500Vac 60s</li> <li>• Case size: 2220</li> </ul>

## S2X FAMILY – X2 (250VAC) 2500V IMPULSE



Applications	<ul style="list-style-type: none"> <li>• Industrial Switchgear and control systems</li> <li>• Domestic circuit breakers</li> </ul>
Benefits	<ul style="list-style-type: none"> <li>• S2X family offers class 250Vac X2 safety capacitors, including Humidity Robustness Grade III</li> <li>• 2.5kV impulse and a 1kVDC rating</li> <li>• 1kVDC qualified</li> <li>• Components are 100% DWV tested at 3000VDC</li> <li>• CTI <math>\geq</math> 600</li> <li>• AQL tested to 3225VDC and 1500Vac 60s</li> <li>• Case size: 1808</li> </ul>