

## THE VISHAY ADVANTAGE AND WHY IT MATTERS... THB GRADE III RFI FILM CAPACITORS - F340 SERIES

## **EV / HEV Off-Board Battery Chargers**





F340 Series

THB GRADE IIIB 85 °C / 85 % RH 1000 h at UNAC RFI suppression film capacitors

| Product Family                                       | Advantage  | Why it Matters (Benefit to the Engineer)  | Where Should it Be Considered?   | Best Parameter / Example  |
|--|--|---|--|---|
| F340 X1 480VAC,<br>F340 X2 305VAC,<br>F340 Y2 305VAC | Approved with latest IEC 60384-14<br>ED. 4.0 2016/AMD1 to comply with<br>Grade IIIB High Robustness under<br>High Humidity | Extremely stable capacitance and dissipation factor over their lifetime under severe environmental conditions of heat and humidity; and compliance with the most demanding industry standards | Should be designed in the EMI filtering stage, on the DC bus between biased parts and ground | Complete RFI supression range is certified to withstand Grade (III) Test Condition B (85 °C / 85 % RH 1000 h at UNAC), validated by official and independent certification agencies |

| Other Customer Benefits   | How Is This Achieved?  | Comments  |
|---|--|---|
| F340 X1 480VAC offers maximum permissible AC voltage up to 530 $\rm V_{AC}$ | Being designed for line voltages up to 480 $V_{AC}$ , the F340X1 is also endurance-tested to withstand 530 $V_{AC}$ continuously. This is achieved by using an internal series construction, which enhances capacitance stability, even at higher voltages | The US configuration 480Y / 277 has a line to line voltage of 480 $V_{\rm AC}$ and allows a variation of +10 % over this value almost continuously. The F340X1 withstands this worst-case condition |
| F340 Y2 305VAC is qualified for automotive use                              | The F340Y2 is qualified in accordance with AEC-Q200, enabling its usage in automotive applications with harsh ambient conditions, such as EV / HEV   | Applicable to EV / HEV on-board chargers and on the DC bus, it has common mode noise filters  |