Evans CAPACITOR Company www.evanscap.com	Product Specification HYBRID® CAPACITOR	NUMBER	HQ1
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1.0 Scope

This document contains specific electrical, mechanical, and environmental requirements and specifications for HQ1 series polymer case Hybrid® Capacitors. These specifications are subject to change without notice.

2.0 Construction

2.1 General

The capacitor shall utilize sintered tantalum anodes and ruthenium oxide coated cathodes operating in aqueous electrolyte. The components shall be sealed in a polymer case.

2.2 Package

The configuration and dimensions shall be as per Figure 1.

2.3 Mass

0-50 volt parts: 25± 3grams; 63-125 volt parts: 31 ± 3 grams.

2.4 Part Markings

The capacitor shall be permanently and legibly labeled on the case with the following information.

i. Manufacturer's name and cage code
ii. Manufacturer's part identification number
iii. Capacitance
iv. Working voltage
v. Date/lot code
vi. Polarity

2.5 Solderability

The terminations shall be solderable per ANSI J-STD-002.

2.6 Resistance To Soldering Heat

The capacitor must withstand solder dipping of the terminals at 260°C for 10 seconds per MIL-STD-202, Method 210, Condition B. The capacitor must not be visibly damaged and the electrical characteristics must not be affected.

3.0 Environmental Requirements

3.1 Operating Temperature

-40°C to +70°C.

3.2 Storage Temperature

-40°C to +80°C

4.0 Electrical Requirements

4.1 Capacitance

The capacitance is specified in Table 2 at 120 Hz and 25°C, ± 20%.

4.2 Working Voltage

The working voltage rating is from 0 to V as specified in Table 2.

4.4 Equivalent Series Resistance

The maximum equivalent series resistance (ESR) is specified in Table 2 at 1 kHz and 25°C.

4.5 DC Leakage Current

The maximum DC leakage current is specified in Table 2 following 5 minutes at working voltage and 25°C.

Table 2. Electrical Specifications

V (VDC)	Capacitance	Part Number	Surge Voltage	DCL (max)	ESR (max)
6.3 V	75 000 µF	HQ1006753	7.0 V	150 µA	0.050 Ω
8 V	60 000 µF	HQ1008603	8.8 V	150 µA	0.050 Ω
10 V	53 000 µF	HQ1010533	11 V	150 µA	0.050 Ω
16 V	36 000 µF	HQ1016363	18 V	150 µA	0.050 Ω
25 V	23 000 µF	HQ1025233	28 V	150 µA	0.050 Ω
35 V	12 000 µF	HQ1035123	39 V	150 µA	0.050 Ω
50 V	8000 µF	HQ1050802	55 V	170 µA	0.060 Ω
63 V	4000 µF	HQ1063402	69 V	170 µA	0.100 Ω
80 V	2800 µF	HQ1080282	88 V	200 µA	0.100 Ω
100 V	2100 µF	HQ1100212	110 V	200 µA	0.125 Ω
110 V	1500 µF	HQ1110152	127 V	200 µA	0.200 Ω
125 V	1100 µF	HQ1125112	138 V	200 µA	0.200 Ω

Figure 1. Part Sketch.