

Ultra Kondensator

ETC-UC-650F

FEATURES AND BENEFITS

- » Shock and Vibration Technology
- » Up to 1,000,000 duty cycles
- » Up to 10 year DC life
- » Highest power and energy

TYPICAL APPLICATIONS

- » High shock and vibration environments
- » Automotive subsystems
- » Wind turbine pitch control
- » Hybrid vehicles
- » Rail
- » Heavy industrial equipment
- » UPS & telecom systems



Electrical	Rated Capacitance ¹	650 F
	Minimum Capacitance, initial ¹	650 F
	Typical Capacitance, initial ¹	690 F
	Maximum Capacitance, initial ¹	780 F
	Typical ESR _{DC} , initial ^{1,2}	1.0 mΩ
	Maximum ESR _{DC} , initial, ¹ rated value	1.5 mΩ
	Test Current for Capacitance and ESR _{DC}	50 A
	Rated Voltage	2.70 V
	Absolute Maximum Voltage ³	2.85 V
	Absolute Maximum Current ¹⁰	440 A
Power & Energy	Leakage Current at 25°C, maximum ^{2,4}	5 mA
	Self-discharge ⁵	≥2.16V
	Minimum Usable Specific Power, P_d^6	4.5 kW/kg
	Typical Usable Specific Power, $P_d^{2,6}$	6.7 kW/kg
	Minimum Impedance Match Specific Power, P_{max}^7	9.3 kW/kg
	Typical Impedance Match Specific Power, $P_{max}^{2,7}$	14.0 kW/kg
	Minimum Specific Energy, E_{max}^8	5.1 Wh/kg
	Typical Specific Energy, $E_{max}^{2,8}$	5.4 Wh/kg
	Minimum Stored Energy, E_{store}^9	0.65 Wh
	Typical Stored Energy, $E_{stor}^{2,9}$	0.70 Wh
Thermal	Thermal Resistance(R_{CA} , Case to Ambient), typic cycles	7.2 °C/W
	Thermal Capacitance (C_{th}), typical	206 J/°C
	Maximum Continuous Current ($\Delta T = 15^\circ C$) ¹¹	40 ARMS
Physical	Maximum Continuous Current ($\Delta T = 40^\circ C$) ¹¹	66 ARMS
	Vibration Specification	QC/T 741-2014
	Shock Specification	ISO 8568-2007
	Mass, typical	≤130g
Terminals	Threaded or Weldable	

Temperature	Operating temperature range (Cell case temperature)	
	Minimum	-40 °C
	Maximum	65 °C
	Stored temperature range (Stored uncharged)	
Life	Minimum	-40 °C
	Maximum	70 °C
	DC Life at High Temperature ¹ (held continuously at Rated Voltage & 65°C)	1500 h
	Capacitance Change (% decrease from rated value)	20%
	ESR Change (% increase from rated value)	100%
	Projected DC Life at 25°C ¹ (25°C, held continuously at Rated Voltage)	10years
	Capacitance Change (% decrease from rated value)	20%
	ESR Change (% increase from rated value)	100%
	Projected Cycle Life at 25°C ^{1,12,13}	1,000,000
	Capacitance Change (% decrease from rated value)	20%
ESR Change (% increase from rated value)	100%	
Test Current	100A	
Shelf Life ¹⁴ Stored uncharged at 25°C	4years	

