

Unlytic[®] Series

The first film dielectric capacitor replacement for electrolytic capacitors. Its availability establishes a new standard and the ongoing search for better answers creates a void that UNLYTIC[®] is best able to fill!



FEATURES

- 10X greater current density
- 3X greater over voltage protection
- Higher voltage ratings
- Superior performance over temperature range -55°C to 105°C
- 10 year shelf life
- Dry construction (no harmful electrolytes)
- Non-polar

STANDARD CONFIGURATION

- UL30: Flat Mount
- UL33: Optional Stud Mount

Specification Summary

Capacitance Range
50.0 μ F to 1600.0 μ F

Capacitance Tolerance
Standard capacitance tolerance is $\pm 10\%$.

Operating Temperature Range
-55° TO +105°C

Enclosure/ Construction
Aluminum case with high-current terminals. Non-inductive wound dry film.

Voltage Rating
300VDC to 1000VDC

Quality Control
Capacitors are tested 100% for:

- o Capacitance
- o Tolerance
- o Dissipation Factor
- o Dielectric withstanding voltage
- o Insulation Resistance
- o Equivalent Series Resistance (ESR)

Process and inspection data are maintained on file and available on special request.

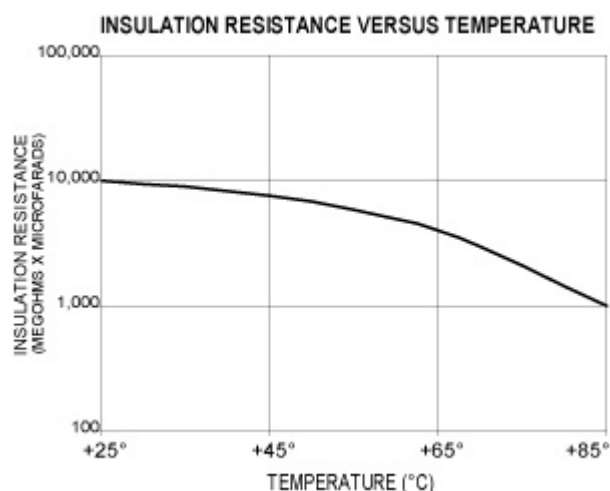
Environmental

Parameter	Method	Condition
Vibration	204	D
Immersion	104	C
Shock	213	I
Humidity	106	-
Thermal Shock	107	B
Life	108	F
Reference MIL-STD-202		

Characteristics

Insulation Resistance

Temperature(°C)	25	85	105	
Megaohmsx Microfarads	10,000	1,000		
Insulation Resistance				

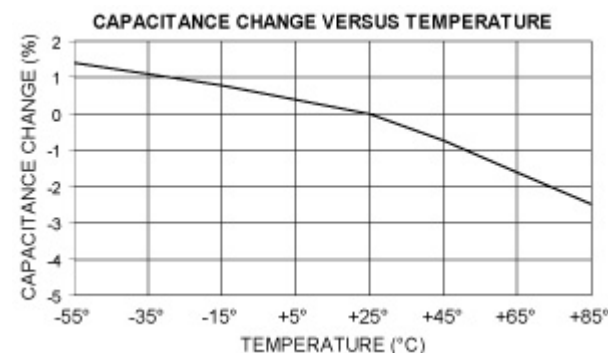


Dielectric Strength

Capacitors withstand a DC potential of 130% rated voltage for two (2) minutes without damage or breakdown. Test voltage is applied and discharged through a resistance of 1 ohm per volt minimum, and at 25°C.

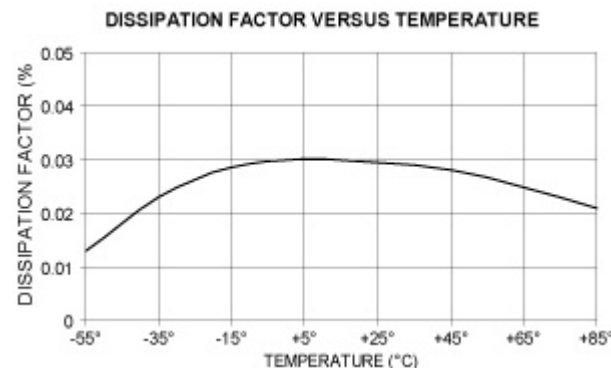
Capacitance Change

Temperature(°C)	-55	25	65	85
PercentageChange (typical)	1.4	0	-1.5	-3.5
CapacitanceChange				



Dissipation Factor

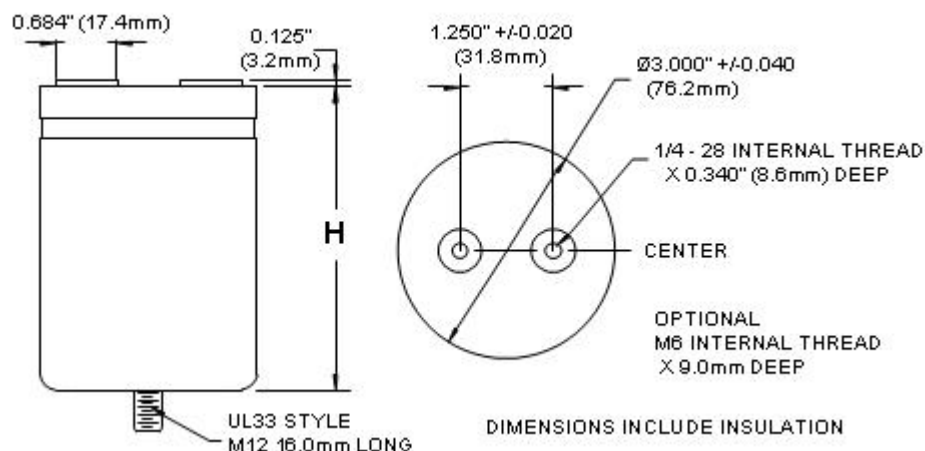
When measured at the frequency specified for capacitance measurement, the dissipation factor will not exceed 0.1%.



ELECTRICAL DATA

EC PART NUMBER	CAP μF	VDC	HEIGHT		ESR (ohms@Fres)	TEMPERATURE			JOULES	I Peak (Amps)	dv/dt (V/μs)	ESL (nH)	Fres (kHz)
						(Arms)							
			(in)	(mm)		25°C	50°C	75°C					
UL30AT0600	600	300	3.125	79.4	0.0031	58.1	44.7	25.0	27	6218	10	30	38
UL30AT0900	900	300	4.125	104.8	0.0042	56.1	43.2	24.2	41	5954	7	48	24
UL30AT1250	1250	300	5.125	130.2	0.0052	56.2	43.3	24.2	56	6008	5	68	17
UL30AT1600	1600	300	6.125	155.6	0.0062	56.6	43.6	24.4	72	6090	4	87	13
UL30AX0400	400	400	3.125	79.4	0.0037	52.9	40.7	22.5	32	4974	12	30	46
UL30AX0650	650	400	4.125	104.8	0.0047	53.7	41.4	23.2	52	5160	8	48	29
UL30AX0900	900	400	5.125	130.2	0.0059	53.5	41.2	23.1	72	5191	6	68	20
UL30AX1100	1100	400	6.125	155.6	0.0073	52.0	40.0	22.4	88	5024	5	87	16
UL30BA0230	230	500	3.125	79.4	0.0045	48.0	37.0	20.7	29	3813	17	30	61
UL30BA0360	360	500	4.125	104.8	0.0061	47.2	36.3	20.3	45	3810	11	48	38
UL30BA0500	500	500	5.125	130.2	0.0077	46.9	36.1	20.2	63	3845	8	68	27
UL30BA0650	650	500	6.125	155.6	0.0090	47.5	36.6	20.5	81	3959	6	87	21
UL30BC0165	165	600	3.125	79.4	0.0044	48.7	40.5	30.2	30	3800	23	30	72
UL30BC0260	260	600	4.125	104.8	0.0060	47.6	39.6	29.5	47	3822	15	48	45
UL30BC0360	360	600	5.125	130.2	0.0076	47.1	39.2	29.2	65	3845	11	68	32
UL30BC0450	450	600	6.125	155.6	0.0093	46.2	38.5	28.7	81	3806	8	87	25
UL30BF0100	100	750	3.125	79.4	0.0054	42.8	35.6	26.5	28	2879	29	30	92
UL30BF0170	170	750	4.125	104.8	0.0071	44.0	36.6	27.3	48	3124	18	48	56
UL30BF0230	230	750	5.125	130.2	0.0092	42.6	35.5	26.4	65	3071	13	68	40
UL30BF0290	290	750	6.125	155.6	0.0113	42.0	35.0	26.1	82	3066	11	87	32
UL30BJ0075	75	900	3.125	79.4	0.0059	42.1	35.0	26.1	30	2591	35	30	106
UL30BJ0120	120	900	4.125	104.8	0.0082	41.2	34.3	25.5	49	2646	22	48	66
UL30BJ0160	160	900	5.125	130.2	0.0109	39.3	32.7	24.4	65	2563	16	68	48
UL30BJ0200	200	900	6.125	155.6	0.0134	38.5	32.0	23.8	81	2538	13	87	38
UL30BL0050	50	1000	3.125	79.4	0.0073	36.6	30.5	22.7	25	2015	40	30	130
UL30BL0085	85	1000	4.125	104.8	0.0097	37.4	31.2	23.2	43	2187	26	48	79
UL30BL0120	120	1000	5.125	130.2	0.0123	37.2	31.0	23.1	60	2243	19	68	56
UL30BL0150	150	1000	6.125	155.6	0.0152	36.4	30.3	22.6	75	2220	15	87	44

STYLE



ADDITIONAL INFORMATION

With our patented advances in dry film technology...the impossible is now practical! Now for the first time, all of the superior performance characteristics of film capacitors are available in values and sizes previously achieved only by electrolytics! This will improve how high power systems are designed - by improving reliability, extending service life, allowing for miniaturization, lowering production costs and maximizing performance.

In addition, the packaging dimensions of the UNLYTIC[®] are identical to electrolytics for a direct replacement. Therefore, conceptual changes in system design are not required.

HOW TO ORDER

TYPE Metallized Polypropylene	→	UL3
STYLE / VOLTAGE 0: Flat mount, 3: Optional stud mount / DC Voltage Rating: AT=300VDC, AX=400VDC, etc.	→	3 AT
CAPACITANCE IN MICROFARADS Last 4 characters represent capacitance. 1600 = 1600uF	→	1600
TOLERANCE K=±10%	→	K

Marking And Date Code

All capacitors are marked with company initials "EC", corporate logo or EC trademark—in addition to type UL30, capacitance, tolerance, rated DC working voltage and date code. The first two digits of the date code represent the year, the second two digits the week, i.e., 0952 is the 52nd week of 2009, 0902 is the second week of 2009.

Quality Assurance

Major emphasis is placed on quality assurance. EC is an ISO 9001-2000 and AS9100:2004 Certified Company. Raw material inspection and the use of SPC manufacturing procedures assure the highest quality standards. Procedures are fully described in the EC Quality Control Manual. Electronic Concepts will continue to advance the state-of-the-art by utilizing leading edge technology, compact capacitor designs and establishing reliability procedures.

Sales Offices

United States

Eastern:

Headquarters

P.O. Box 1278
Eatontown, NJ 07724
Tel: 732-542-7880
Fax: 732-542-0524

Central:

Illinois 630-668-8747

email: sales@ecicaps.com
website: www.ecicaps.com

Europe

Ireland

Electronic Concepts Europe LTD
IDA Estate, Oughterad
Co. Galway, Ireland
tel: +353-91-552385, 552432
fax: +353-91-552387
email: sales@ecicaps.ie
website: www.electronicconcepts.ie

