

# Type UNL ElectroFilm Metallized Polypropylene Capacitors

## Specifically Designed For DC High Ripple Current Applications



Constructed with low loss ElectroFilm construction, the UNL series offers high ripple current capabilities and high capacitance values making them ideal for aluminum electrolytic replacement or applications requiring high ripple current capacitors.

### Highlights/Applications

- Advantages over Aluminum Electrolytic
  - Exceptionally low ESR
  - Up to 10 times the ripple current
  - 1.25 times rated surge voltage
  - Non-polar
  - Higher voltage ratings
  - Dry construction - no electrolyte
  - Improved reliability
- Applications include:
  - High Voltage Inverters
  - DC Bus Link
  - DC Filtering

### Specifications

### RoHS Compliant

<b>Capacitance Range:</b>	4.7 $\mu$ F to 35 $\mu$ F
<b>Voltage Range:</b>	400 Vdc to 1500 Vdc
<b>Capacitance Tolerance:</b>	$\pm$ 10%
<b>Operating Temperature Range:</b>	-55 $^{\circ}$ C to +85 $^{\circ}$ C
<b>Insulation Resistance:</b>	$\geq$ 10,000M $\Omega$
<b>Ripple Current Capability:</b>	25 $^{\circ}$ C 16.3 Arms to 22.6 Arms 50 $^{\circ}$ C 13.0 Arms to 18.0 Arms 75 $^{\circ}$ C 7.0 Arms to 12.0 Arms

### Part Numbering System

<b>UNL</b>	<b>12</b>	<b>W7P5</b>	<b>K</b>	<b>S</b>	<b>-F</b>
Type	Voltage	Capacitance	Tolerance	Leads	RoHS
UNL	4 = 400 Vdc 5 = 500 Vdc 6 = 600 Vdc 7 = 750 Vdc 8 = 800 Vdc 9 = 900 Vdc 10 = 1000 Vdc 12 = 1200 Vdc	W4P7 = 4.7 $\mu$ F W7P5 = 7.5 $\mu$ F W10 = 10 $\mu$ F W35 = 35 $\mu$ F	K = $\pm$ 10% J = $\pm$ 5%	S = Short leads Blank = Long leads	Compliant

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**Ratings**

**RoHS Compliant**

Catalog Part Number	Cap (μF)	Voltage (Vdc)	ESR @ 100 kHz (mΩ)	Joules (J)	dV/dt (V/μs)	Peak Current (A)	ESL (nH)	SRF (kHz)	Ripple Current @ 100 kHz		
									25 °C (Arms)	50 °C (Arms)	75 °C (Arms)
UNL4W30K-F UNL4W30KS-F	30.0	400	6.0	2.4	30.0	900	35	155	24.2	19.4	14.6
UNL5W35K-F UNL5W35KS-F	35.0	500	8.0	4.4	26.0	910	35	144	22.0	18.2	13.0
UNL6W30K-F UNL6W30KS-F	30.0	600	9.0	5.4	30.0	900	35	155	20.7	17.0	12.0
UNL7W20K-F UNL7W20KS-F	20.0	750	10.0	5.6	37.0	740	35	190	19.0	16.0	9.9
UNL8W15K-F UNL8W15KS-F	15.0	800	10.0	4.8	42.0	630	35	219	18.8	15.0	9.8
UNL9W13P5K-F UNL9W13P5KS-F	13.5	900	10.5	5.5	43.0	580	35	231	18.0	14.5	9.6
UNL10W10K-F UNL10W10KS-F	10.0	1000	12.0	5.0	50.0	500	35	269	17.5	13.7	9.0
UNL12W7P5K-F UNL12W7P5KS-F	7.5	1200	13.5	5.4	60.0	450	35	310	16.0	12.0	8.4
UNL15W4P7K-F UNL15W4P7KS-F	4.7	1500	15.0	5.3	72.0	338	35	392	15.0	11.5	7.8

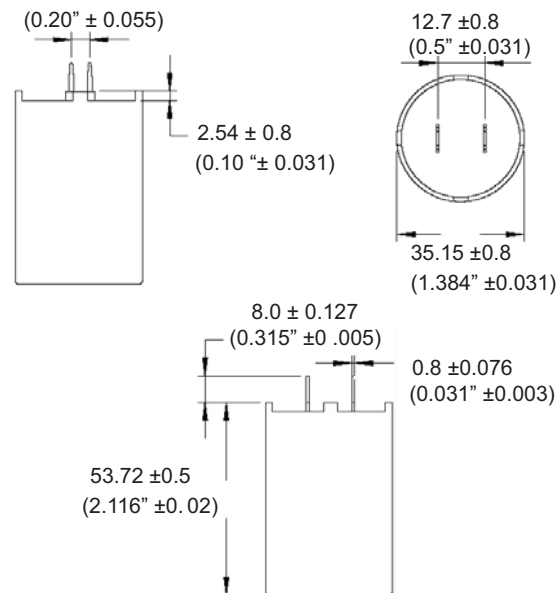
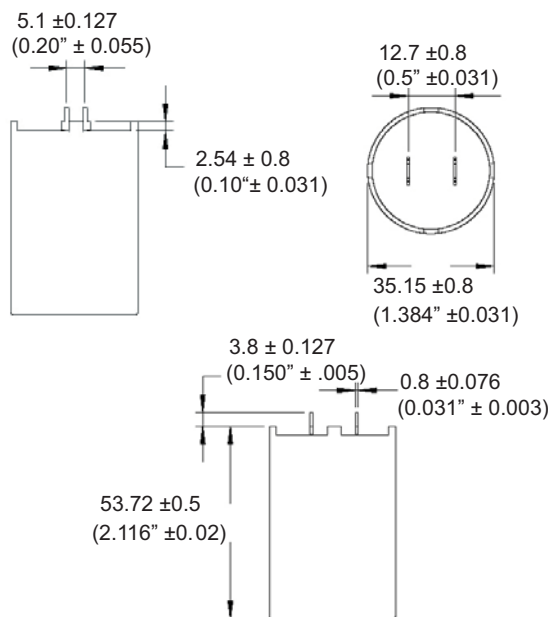
## Outline Drawing

### “S” Style (Short Terminal Pins) Optional

Pins are tinned plated brass tapered:  
1.27 mm (0.05”) - 1.14 mm (0.045”)

### Standard (Long Terminal Pins)

Pins are tinned plated brass tapered:  
1.27 mm (0.05”) - 1.14 mm (0.045”)



Dimensions: Millimeters (Inches)