

# Type DLPX Radial Snap-In Capacitors



- 85°C - High Voltage General Purpose
- High Capacitance
- 22 to 35 mm Diameters  
10 mm Lead Spacing
- Ideal For Input Filter in SMPS

## GENERAL SPECIFICATIONS

Operating Temperature:  
-40°C to +85°C

Voltage Range:  
160 WVDC to 450 WVDC

Capacitance Range:  
56  $\mu$ F to 2,700  $\mu$ F

Capacitance Tolerance:  
 $\pm$  20%

DC Leakage Current:  
 $I = 3\sqrt{CV}$   
C = Capacitance in  $\mu$ F  
V = Rated Voltage  
I = Leakage Current in  $\mu$ A

QA Stability Test:  
Load Life: Apply WVDC for  
1,000 hrs at 85°C

- Capacitance change  $\pm$ 20% from initial limits
- DC leakage current meets initial limits
- ESR  $\leq$  200% of initial measured value

Shelf Life: 500 hrs, No Voltage Applied @ 85°C

- Capacitance change  $\pm$ 20% from initial limits
- DC leakage current  $\leq$  200% of initial measured value
- ESR  $\leq$  200% of initial measured value

See Type DLPW for 85°C - Low Voltage (10 to 100WVDC) General Purpose Snap Mount Capacitors

The maximum ripple current at 85°C and 120 Hz for DLPX capacitors is shown in the Standard Rating Table. Maximum ripple current may be adjusted by the multipliers in the following tables.

Rated WVDC	Ripple Multipliers		
	120 Hz	1000 Hz	10 to 50 KHz
160 to 250	1.0	1.15	1.20
315 to 450	1.0	1.10	1.15

Ambient Temperature	Ripple Multiplier
+75°C	1.6
+65°C	2.2
+55°C	2.6
+45°C	3.0

Dissipation Factor @ 120Hz, 25°C		
WV	160 - 250	400 - 450
DF(%)	15	20

For capacitors whose capacitance value exceeds 1000 $\mu$ F, the value of DF(%) is increased 2% for every additional 1000 $\mu$ F.

Cap $\mu$ F	Max ESR Ohms @ 120Hz 25°C	Max Ripple Amps @ 120Hz 85°C	Size (inches)		Size (millimeters)		Catalog Number
			D	L	D	L	
<b>160 WVDC; 200 VDC Surge</b>							
390	.510	1.3	.866	.984	22	25	DLPX391M160A1P3
470	.423	1.6	.984	.984	25	25	DLPX471M160C1P3
470	.423	1.6	.866	1.181	22	30	DLPX471M160A3P3
560	.355	1.8	.984	1.181	25	30	DLPX561M160C3P3
560	.355	1.8	.866	1.378	22	35	DLPX561M160A5P3
680	.293	2.0	1.181	.984	30	25	DLPX681M160E1P3
680	.293	2.1	.866	1.575	22	40	DLPX681M160A7P3
680	.293	2.0	.984	1.181	25	30	DLPX681M160C3P3
820	.243	2.0	.984	1.378	25	35	DLPX821M160C5P3
820	.243	2.3	1.181	1.181	30	30	DLPX821M160E3P3
820	.243	2.4	.866	1.772	22	45	DLPX821M160A4P3
1,000	.199	2.6	.984	1.575	25	40	DLPX102M160C7P3
1,000	.199	2.3	1.378	.984	35	25	DLPX102M160H1P3
1,000	.199	2.5	1.181	1.181	30	30	DLPX102M160E3P3
1,200	.166	3.0	.984	1.772	25	45	DLPX122M160C4P3
1,200	.166	2.6	1.378	1.181	35	30	DLPX122M160H3P3
1,200	.166	2.9	1.181	1.378	30	35	DLPX122M160E5P3
1,500	.133	3.3	1.378	1.378	35	35	DLPX152M160H5P3
1,500	.133	3.3	1.181	1.575	30	40	DLPX152M160E7P3
1,800	.111	4.0	1.181	1.969	30	50	DLPX182M160E9P3
1,800	.111	3.7	1.378	1.575	35	40	DLPX182M160H7P3
2,200	.090	4.2	1.378	1.772	35	45	DLPX222M160H4P3
2,700	.074	4.6	1.378	1.969	35	50	DLPX272M160H9P3

<b>200 WVDC; 250 VDC Surge</b>							
270	.737	1.2	.866	.984	22	25	DLPX271M200A1P3
390	.510	1.6	.984	.984	25	25	DLPX391M200C1P3
390	.510	1.6	.866	1.181	22	30	DLPX391M200A3P3
470	.423	1.8	.984	1.181	25	30	DLPX471M200C3P3
470	.423	1.8	.866	1.378	22	35	DLPX471M200A5P3
560	.355	2.1	.866	1.575	22	40	DLPX561M200A7P3
560	.355	2.1	.984	1.378	25	35	DLPX561M200C5P3
560	.355	1.9	1.181	.984	30	25	DLPX561M200E1P3

Cap $\mu$ F	Max ESR Ohms @ 120Hz 25°C	Max Ripple Amps @ 120Hz 85°C	Size (inches)		Size (millimeters)		Catalog Number
			D	L	D	L	
<b>200 WVDC; 250 VDC Surge</b>							
680	.293	2.5	.984	1.575	25	40	DLPX681M200C7P3
680	.293	2.4	.866	1.772	22	45	DLPX681M200A4P3
680	.293	2.3	1.181	1.181	30	30	DLPX681M200E3P3
820	.243	2.7	1.181	1.378	30	35	DLPX821M200E5P3
820	.243	2.7	1.378	1.181	35	30	DLPX821M200H3P3
820	.243	2.8	.984	1.772	25	45	DLPX821M200C4P3
1,000	.199	2.7	1.378	1.181	35	30	DLPX102M200H3P3
1,000	.199	3.1	1.181	1.575	30	40	DLPX102M200E7P3
1,200	.166	3.1	1.378	1.378	35	35	DLPX122M200H5P3
1,200	.166	3.5	1.181	1.772	30	45	DLPX122M200E4P3
1,500	.133	4.0	1.181	1.969	30	50	DLPX152M200E9P3
1,500	.133	3.6	1.378	1.575	35	40	DLPX152M200H7P3
1,800	.111	4.0	1.378	1.772	35	45	DLPX182M200H4P3
2,200	.090	4.5	1.378	1.969	35	50	DLPX222M200H9P3

<b>250 WVDC; 300 VDC Surge</b>							
270	.737	1.4	.866	1.181	22	30	DLPX271M250A3P3
270	.737	1.4	.984	.984	25	25	DLPX271M250C1P3
330	.603	1.7	.984	1.181	25	30	DLPX331M250C3P3
330	.603	1.7	.866	1.378	22	35	DLPX331M250A5P3
390	.510	1.8	1.181	.984	30	25	DLPX391M250E1P3
390	.510	1.9	.866	1.575	22	40	DLPX391M250A7P3
390	.510	1.8	.984	1.181	25	30	DLPX391M250C3P3
470	.423	2.2	.866	1.772	22	45	DLPX471M250A4P3
470	.423	2.1	.984	1.378	25	35	DLPX471M250C5P3
470	.423	2.1	1.181	1.181	30	30	DLPX471M250E3P3
560	.355	2.5	.866	1.969	22	50	DLPX561M250A9P3
560	.355	2.1	1.378	.984	35	25	DLPX561M250H1P3
560	.355	2.2	1.181	1.181	30	30	DLPX561M250E3P3
560	.355	2.4	.984	1.575	25	40	DLPX561M250C7P3
680	.293	2.5	1.378	1.181	35	30	DLPX681M250H3P3
680	.293	2.7	.984	1.772	25	45	DLPX681M250C4P3
680	.293	2.6	1.181	1.378	30	35	DLPX681M250E5P3

# Type DLPX Radial Snap-In Capacitors

Cap µF	Max ESR Ohms @120Hz 25°C	Max Ripple Amps @120Hz 85°C	Size (inches)		Size (millimeters)		Catalog Number
			D	L	D	L	
<b>250 WVDC; 300 VDC Surge</b>							
820	.243	3.0	1.378	1.378	35	35	DLPX821M250H5P3
820	.243	3.0	1.181	1.575	30	40	DLPX821M250E7P3
1,000	.199	3.4	1.378	1.575	35	40	DLPX102M250H7P3
1,000	.199	3.4	1.181	1.772	30	45	DLPX102M250E4P3
1,200	.166	3.8	1.378	1.772	35	45	DLPX122M250H4P3
1,500	.133	4.2	1.378	1.969	35	50	DLPX152M250H9P3

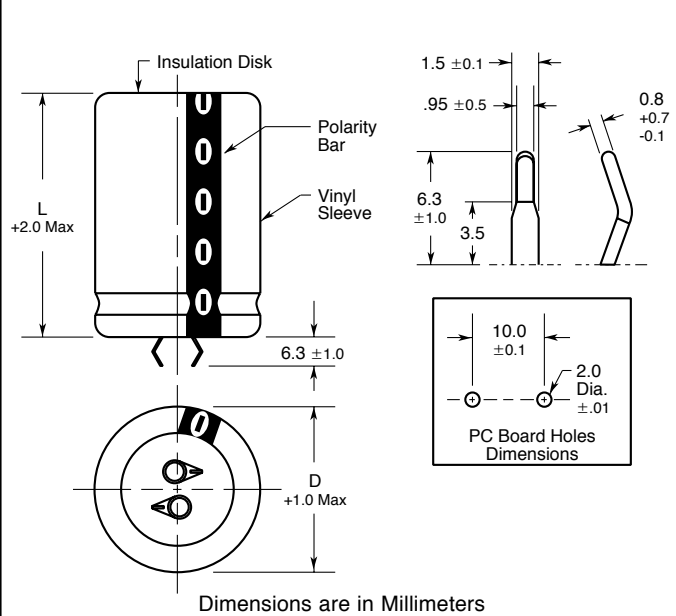
Cap µF	Max ESR Ohms @120Hz 25°C	Max Ripple Amps @120Hz 85°C	Size (inches)		Size (millimeters)		Catalog Number
			D	L	D	L	
<b>350 WVDC; 400 VDC Surge</b>							
100	1.989	.6	.866	.984	22	25	DLPX101M350A1P3
120	1.658	.7	.984	.984	25	25	DLPX121M350C1P3
120	1.658	.7	.866	1.181	22	30	DLPX121M350A3P3
150	1.326	.8	.984	1.181	25	30	DLPX151M350C3P3
150	1.326	.8	.866	1.378	22	35	DLPX151M350A5P3
180	1.105	.9	.866	1.575	22	40	DLPX181M350A7P3
180	1.105	.9	.984	1.181	25	30	DLPX181M350C3P3
180	1.105	1.0	1.181	.984	30	25	DLPX181M350E1P3
220	.904	1.1	.866	1.772	22	45	DLPX221M350A4P3
220	.904	1.1	1.181	1.181	30	30	DLPX221M350E3P3
220	.904	1.1	.984	1.378	25	35	DLPX221M350C5P3
270	.737	1.2	1.181	1.181	30	30	DLPX271M350E3P3
270	.737	1.2	.984	1.575	25	40	DLPX271M350C7P3
270	.737	1.3	.866	1.969	22	50	DLPX271M350A9P3
270	.737	1.3	1.378	.984	35	25	DLPX271M350H1P3
330	.603	1.4	.984	1.772	25	45	DLPX331M350C4P3
330	.603	1.4	1.378	1.181	35	30	DLPX331M350H3P3
330	.603	1.4	1.181	1.378	30	35	DLPX331M350E5P3
390	.510	1.6	1.378	1.181	35	30	DLPX391M350H3P3
390	.510	1.8	1.181	1.575	30	40	DLPX391M350E7P3
470	.423	1.8	1.378	1.378	35	35	DLPX471M350H5P3
470	.423	1.9	1.181	1.772	30	45	DLPX471M350E4P3
560	.355	2.1	1.378	1.575	35	40	DLPX561M350H7P3
680	.293	2.4	1.378	1.772	35	45	DLPX681M350H4P3

Cap µF	Max ESR Ohms @120Hz 25°C	Max Ripple Amps @120Hz 85°C	Size (inches)		Size (millimeters)		Catalog Number
			D	L	D	L	
<b>400 WVDC; 450 VDC Surge</b>							
82	2.426	.6	.866	.984	22	25	DLPX820M400A1P3
100	1.989	.7	.866	1.181	22	30	DLPX101M400A3P3
120	1.658	.7	.866	1.181	22	30	DLPX121M400A3P3
120	1.658	.7	.984	.984	25	25	DLPX121M400C1P3
150	1.326	.9	.984	1.181	25	30	DLPX151M400C3P3
180	1.105	1.0	.866	1.575	22	40	DLPX181M400A7P3

Cap µF	Max ESR Ohms @120Hz 25°C	Max Ripple Amps @120Hz 85°C	Size (inches)		Size (millimeters)		Catalog Number
			D	L	D	L	
<b>400 WVDC; 450 VDC Surge</b>							
180	1.105	1.0	.984	1.378	25	35	DLPX181M400C5P3
220	.904	1.2	1.181	1.181	30	30	DLPX221M400E3P3
220	.904	1.2	1.378	.984	35	25	DLPX221M400H1P3
220	.904	1.2	.984	1.575	25	40	DLPX221M400C7P3
270	.737	1.4	.984	1.772	25	45	DLPX271M400C4P3
270	.737	1.4	1.181	1.378	30	35	DLPX271M400E5P3
270	.737	1.4	1.378	1.181	35	30	DLPX271M400H3P3
330	.603	1.6	1.181	1.575	30	40	DLPX331M400E7P3
330	.603	1.5	1.378	1.181	35	30	DLPX331M400H3P3
390	.510	1.8	1.378	1.378	35	35	DLPX391M400H5P3
390	.510	1.8	1.181	1.772	30	45	DLPX391M400E4P3
470	.423	2.0	1.378	1.575	35	40	DLPX471M400H7P3
470	.423	2.0	1.181	1.969	30	50	DLPX471M400E9P3
560	.355	2.3	1.378	1.772	35	45	DLPX561M400H4P3
680	.293	2.6	1.378	1.969	35	50	DLPX681M400H9P3

Cap µF	Max ESR Ohms @120Hz 25°C	Max Ripple Amps @120Hz 85°C	Size (inches)		Size (millimeters)		Catalog Number
			D	L	D	L	
<b>450 WVDC; 500 VDC Surge</b>							
56	3.553	.5	.866	.984	22	25	DLPX560M450A1P3
68	2.926	.6	.866	1.181	22	30	DLPX680M450A3P3
82	2.426	.7	.984	.984	25	25	DLPX820M450C1P3
82	2.426	.7	.866	1.181	22	30	DLPX820M450A3P3
100	1.989	.8	.984	1.181	25	30	DLPX101M450C3P3
100	1.989	.8	.866	1.378	22	35	DLPX101M450A5P3
120	1.658	.9	1.181	.984	30	25	DLPX121M450E1P3
120	1.658	1.0	.984	1.378	25	35	DLPX121M450C5P3
120	1.658	.9	.866	1.575	22	40	DLPX121M450A7P3
150	1.326	1.1	.866	1.969	22	50	DLPX151M450A9P3
150	1.326	1.1	1.181	1.181	30	30	DLPX151M450E3P3
150	1.326	1.1	.984	1.575	25	40	DLPX151M450C7P3
180	1.105	1.3	.984	1.772	25	45	DLPX181M450C4P3
180	1.105	1.2	1.378	.984	35	25	DLPX181M450H1P3
180	1.105	1.4	1.181	1.575	30	40	DLPX181M450E7P3
220	.904	1.5	1.378	1.181	35	30	DLPX221M450H3P3
220	.904	1.5	.984	1.969	25	50	DLPX221M450C9P3
220	.904	1.6	1.181	1.575	30	40	DLPX221M450E7P3
270	.737	1.7	1.181	1.772	30	45	DLPX271M450E4P3
270	.737	1.7	1.378	1.378	35	35	DLPX271M450H5P3
330	.603	2.0	1.378	1.575	35	40	DLPX331M450H7P3
330	.603	2.0	1.181	1.969	30	50	DLPX331M450E9P3
390	.510	2.2	1.378	1.772	35	45	DLPX391M450H4P3
470	.423	2.5	1.378	1.969	35	50	DLPX471M450H9P3

## Outline Dimensions



## Part Number Format

DuraCap Catalog Number: **DLPX 471 M 160 C1 P 3**

TYPE NUMBER: \_\_\_\_\_  
Identifies the basic type

CAPACITANCE: \_\_\_\_\_  
Expressed in microfarads  
The first two digits are significant figures  
The third digit is the number of zeros

CAPACITANCE TOLERANCE: \_\_\_\_\_  
M = ± 20%

DC VOLTAGE RATING: \_\_\_\_\_  
Zeros are used to precede the voltage rating where necessary to complete the three digit block  
The letter 'R' indicates a decimal point

CASE CODE: \_\_\_\_\_  
See chart

POLARITY: \_\_\_\_\_

INSULATING SLEEVE: \_\_\_\_\_  
3 = PVC Sleeve

## Case Code Chart

Diameter mm (Inches)	Millimeters (Inches)					
	25 (1.00)	30 (1.18)	35 (1.38)	40 (1.57)	45 (1.77)	50 (2.00)
22 (.87)	A1	A3	A5	A7	A4	A9
25 (1.00)	C1	C3	C5	C7	C4	C9
30 (1.18)	E1	E3	E5	E7	E4	E9
35 (1.38)	H1	H3	H5	H7	H4	H9