

# Aluminium Electrolytic Capacitors with Radial Connections



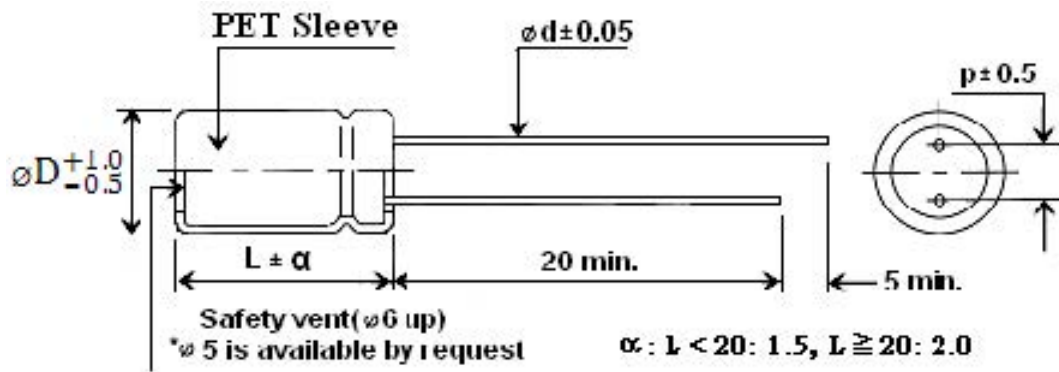
Non-polar capacitors designed for circuits with reversing polarity

## SPECIFICATION:

Capacitance tolerance	±20%
Construction	Radial

## Characteristics

<b>Voltage Range</b>	6.3 to 100 VDC				160 to 450 VDC				
<b>Capacitance Range</b>	0.47 to 10000uF				0.47 to 470uF				
<b>Temperature Range</b>	-40 to +85°C				-25 to +85°C				
<b>Capacitance Tolerance</b>	±20% at 120Hz, 20°C ( 10% Tol. is available upon request)								
<b>Leakage Current</b>	I ≤ 0.01CV or 3uA, whichever is greater 2 minutes after Rated Voltage applied				I ≤ 0.03CV or 3uA, whichever is greater 3 minutes after Rated Voltage applied				
<b>Dissipation Factor ( tanδ)</b>	Rated Voltage (V)	6.3	10	<b>16</b>			50	63	
	Dissipation Factor( tanδ)max	0.22	0.19	0.16	0.14	0.12	<b>0.10</b>		
	Rated Voltage (V)	100	160	200	250	350	400	450	
	Dissipation Factor( tanδ)max	0.08	0.16	0.18	0.18	0.20	0.20	0.20	
<b>Stability at Low Temperature</b> (For Cap. > 1000uF, add 0.5 per 1000uF(-25°C/+20°C) add 1.0 per 1000uF(-40°C/+20°C)	Impedance ration at 120Hz								
	Rated Voltage (V)	6.3	10	16	<b>25</b>		<b>50</b>		100
	Z-25°C/Z 20°C	<b>4</b>		2	2	2	2	2	
	Z-40°C/Z 20°C	<b>8</b>		4	4	3	3	3	3
	Rated Voltage (V)	160	<b>200</b>		350	400	450		
Z-25°C/Z 20°C	2	2	3	5	15	15			
<b>Load Life</b>	After the rated voltage has been applied for 2000 hours at 85°C	Capacitance change			Within ±20% of initial value				
		D.F. tanδ			200% or less of initial specified value				
		Leakage current			Less than Initial specified value				
<b>Shelf Life</b>	After storage for 1000 hours at 85°C with no voltage applied, the capacitor shall meet the specified limit in load life. Pre-treatment for measurement shall be conducted after application of DC working voltage for 30 minutes.								



### Drawing

D $\phi$	5	6.3	8	10	13	16	18	22
p	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10
d $\phi$	0.5	0.5	0.5	0.6	0.6	0.8	0.8	0.8

### Ripple Current Coefficients

Frequency (Hz)	50(60)	120	400	1K	10K	100K
Cap.(uF) / Hz	Multiplier					
Cap. $\leq 10$	0.8	1	1.30	1.45	1.65	1.70
10 < Cap. $\leq 100$	0.8	1	1.23	1.36	1.48	1.53
	0.8	1	1.16	1.25	1.35	1.38
1000 < Cap.	0.8	1	1.11	1.17	1.25	1.28

### PRODUCT RANGE:

Art. Nr.	Capacitance	Rated voltage	Dimensions $\varnothing \times L$	Pitch
RND 150ENR220M35B	22 $\mu$ F	35 V	6.3 x 11 mm	3.5 mm
RND 150ENR330M35B	33 $\mu$ F	35 V	8 x 12 mm	3.5 mm
RND 150ENR3R3M2AB	3.3 $\mu$ F	100 V	6.3 x 11 mm	2.5 mm
RND 150ENR3R3M63B	3.3 $\mu$ F	63 V	5 x 11 mm	2 mm
RND 150ENR470M16B	47 $\mu$ F	16 V	6.3 x 11 mm	3.5 mm
RND 150ENR470M35B	47 $\mu$ F	35 V	8 x 12 mm	3.5 mm
RND 150ENR470M63B	47 $\mu$ F	63 V	10 x 16 mm	5 mm
RND 150ENR4R7M2AB	4.7 $\mu$ F	100 V	8 x 12 mm	3.5 mm
RND 150ENR100M16B	10 $\mu$ F	16 V	5 x 11 mm	2 mm
RND 150ENR100M2AB	10 $\mu$ F	100 V	8 x 12 mm	3.5 mm
RND 150ENR100M35B	10 $\mu$ F	35 V	5 x 11 mm	2.5 mm
RND 150ENR100M63B	10 $\mu$ F	63 V	6.3 x 11 mm	2.5 mm
RND 150ENR101M16B	100 $\mu$ F	16 V	6.3 x 11 mm	3.5 mm
RND 150ENR220M16B	22 $\mu$ F	16 V	5 x 11 mm	2.5 mm
RND 150ENR220M63B	22 $\mu$ F	63 V	8 x 12 mm	3.5 mm
RND 150ENR221M16B	220 $\mu$ F	16 V	10 x 13 mm	5 mm
RND 150ENR2R2M2AB	2.2 $\mu$ F	100 V	6.3 x 11 mm	2.5 mm
RND 150ENR2R2M63B	2.2 $\mu$ F	63 V	5 x 11 mm	2 mm
RND 150ENR470M2AB	47 $\mu$ F	100 V	13 x 21 mm	5 mm
RND 150ENR4R7M35B	4.7 $\mu$ F	35 V	5 x 11 mm	2 mm
RND 150ENR4R7M63B	4.7 $\mu$ F	63 V	5 x 11 mm	2 mm
RND 150ELR220M25B	22 $\mu$ F	25 V	5 x 11 mm	2 mm