

## LOAD LIFE – TEMPERATURE TABLES

### PRODUCTS: LIQUID ELECTROLYTE ALUMINUM ELECTROLYTIC CAPACITORS

WHEN OPERATING AT TEMPERATURES LESS THAN THE RATED MAXIMUM, USE THE BELOW TABLE IN ESTIMATION OF LOAD LIFE - ENDURANCE PERFORMANCE (HOURS) OF LIQUID ELECTROLYTE ALUM ELECTROLYTIC CAPACITORS

					RATING (hours)
+35C	+45C	+55C	+65C	+75C	+85C
32,000	16,000	8,000	4,000	2,000	1,000
64,000	32,000	16,000	8,000	4,000	2,000
96,000	48,000	24,000	12,000	6,000	3,000
128,000	64,000	32,000	16,000	8,000	4,000
> 15 yrs	80,000	40,000	20,000	10,000	5,000

							RATING (hours)
+35C	+45C	+55C	+65C	+75C	+85C	+95C	+105C
128,000	64,000	32,000	16,000	8,000	4,000	2,000	1,000
> 15 yrs	128,000	64,000	32,000	16,000	8,000	4,000	2,000
> 15 yrs	> 15 yrs	96,000	48,000	24,000	12,000	6,000	3,000
> 15 yrs	> 15 yrs	128,000	64,000	32,000	16,000	8,000	4,000
> 15 yrs	> 15 yrs	> 15 yrs	80,000	40,000	20,000	10,000	5,000

									RATING (hours)
+35C	+45C	+55C	+65C	+75C	+85C	+95C	+105C	+115C	+125C
> 15 yrs	> 15 yrs	128,000	64,000	32,000	16,000	8,000	4,000	2,000	1,000
> 15 yrs	> 15 yrs	> 15 yrs	96,000	48,000	24,000	12,000	6,000	3,000	1,500
> 15 yrs	> 15 yrs	> 15 yrs	128,000	64,000	32,000	16,000	8,000	4,000	2,000

Hours	24 -7 Years	8hr day Years	Hours	24 -7 Years	8hr day Years
16,000 hours	1.83 years	5.48 years	64,000 hours	7.31 years	> 15 years
24,000 hours	2.74 years	8.22 years	96,000 hours	11.0 years	> 15 years
32,000 hours	3.65 years	10.96 years	128,000 hours	14.6 years	> 15 years
48,000 hours	5.48 years	> 15 years	>132,000 hours	> 15 yrs	> 15 years

15 years is EIAJ-RCR-2367A maximum limit in view of the deterioration of capacitor seal materials

**:: Wear-Out Accelerators**

Electrical Overstress | Corrosive Agents | Reduced Pressure

**:: Load Life Rating Follows Arrhenius Rate Law**

Temperature increase of 10°C approximately doubles the rate of the reaction

- + End-seal and electrolyte directly relates to component load life rating
- + In-circuit wear out rate is chiefly dependent upon operating temperature