

## WAC-Series Capacitors



NWL's WAC-Series DC voltage capacitors offer a superior performance in a high capacitance welded case package. By utilizing water cooling as the heat management system, this product is ideally suited for the most demanding applications requiring high RMS ripple current ratings, warm cabinet environments, and large capacitance values.

NWL's WAC-Series DC water cooled capacitors provide solutions in a few critical applications including:

- DC filtering
- DC blocking

Over 100 electrical configurations are currently available in a welded package, with the following features and options available upon request:

- Pressure switches
- Internal discharge resistors
- Live or dead case construction
- Single to multiple fine-tuning values per capacitor
- Choice of bracket style and location
- Choice of terminal connections

Unique features of the WAC-Series capacitor include:

- **Terminal Options** – By designing capacitor with a variety of terminal layout, WAC-Series capacitors can achieve maximum RMS ripple currents and keep inductance low.
- **Large welded metal package** – Utilizing well established and proven high K oil filling process, these welded aluminum cans house large capacitance values in excess of 250 lbs per unit.
- **Welded package** – By taking advantage of an already provided welded metal can, NWL can provide additional brackets for accessory components required near the bulk capacitance value and avoid additional structures in assembly.

## WAC-Series Capacitors Product Information and Specifications

### General Specifications

Capacitance Tolerance	+/- 10% typical, +/- 5% available
Power Losses	0.5 – 2.5 watts / in
Voltages	DC continuous, +10% typical surge DC repetitive peak Test Voltage 2 x rated DC for 60 seconds
Ripple Currents	Typically up to 2400 amps RMS
Temperature Ratings	+55 °C max ambient temperature
Operating Temperature	-40 D°C to +85 °C
Water Temperature	45 °C maximum output
Encapsulation	low loss oil impregnant

### Electrical Ratings Overview

uF	VDC	Current RMS	Frequency (Hz)	Case	Sections	Width (in)	Length (in)	Height (in)	Weight (kg)
250	700	700	25000	dead	2	5.75	15.50	7.00	21
250	700	350	100000	dead	2	5.75	15.50	7.00	21
300	700	400	10000	dead	2	3.38	13.50	6.75	10
600	700	750	10000	dead	4	5.25	13.50	18.00	36
850	700	2000	3000	dead	8	7.00	13.50	19.10	52



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uF	VDC	Current RMS	Frequency (Hz)	Case	Sections	Width (in)	Length (in)	Height (in)	Weight (kg)
780	900	1200	3000	dead	4	4.88	13.50	16.50	31
1620	900	1140	3000	dead	4	4.88	13.50	17.75	34
3000	900	1500	10000	dead	8	4.63	13.50	21.00	39
3300	900	2600	3000	dead	8	4.50	16.50	26.50	56
5000	900	2500	3000	dead	10	5.00	22.00	22.00	69
5000	900	2500	3000	dead	1	5.00	22.00	22.00	69
6800	900	2000	3000	dead	2	5.75	22.00	18.00	65
7500	900	2300	1500	dead	8	5.00	22.00	20.00	63
10000	900	1800	1000	dead	8	5.38	22.00	22.00	75
20000	900	2500	1000	dead	2	6.38	22.00	31.00	125
500	1000	800	10000	live	4	4.88	13.50	11.00	21
1000	1000	1100	300	dead	6	4.25	13.50	18.50	31
1500	1000	1200	3000	dead	8	5.00	22.00	10.00	32
1500	1000	1500	25000	dead	6	4.25	13.50	17.00	28
2800	1000	1500	25000	dead	6	4.88	13.50	17.00	32
3000	1000	1400	2400	dead	10	5.00	22.00	15.00	47
3300	1000	2500	10000	dead	2	4.63	22.00	23.00	67
5000	1000	2500	1000	dead	2	5.75	22.00	27.00	98
7500	1000	1000	300	dead	8	5.38	22.00	16.25	55
8500	1000	2500	1000	dead	10	5.25	22.00	23.25	77
15000	1000	2800	100	dead	8	7.00	22.00	25.00	111



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uF	VDC	Current RMS	Frequency (Hz)	Case	Sections	Width (in)	Length (in)	Height (in)	Weight (kg)
750	1200	1100	10000	dead	8	5.00	22.00	10.00	32
1500	1200	900	3000	dead	6	4.38	13.50	14.50	25
3300	1200	2000	3000	dead	8	4.63	16.50	26.50	58
5000	1200	1250	10000	dead	8	6.38	22.00	14.00	56
10000	1200	2800	3000	dead	8	7.00	22.00	25.00	110
10000	1200	3400	3000	dead	10	7.00	26.00	25.00	130
18400	1200	2500	1000	dead	2	7.75	22.00	29.00	140
4500	1600	800	3000	dead	6	6.25	13.50	23.00	56
10000	1600	2200	3000	dead	2	6.25	22.00	30.00	118
3000	2000	900	10000	dead	6	5.75	13.50	28.00	61
5000	2000	2500	10000	dead	10	5.75	22.00	28.00	99
3000	2400	700	3000	dead	6	7.75	13.50	28.00	84
5000	2400	1150	3000	dead	10	7.75	22.00	28.00	135
1800	3600	450	3000	dead	6	7.75	13.50	28.00	84
3000	3600	750	3000	dead	10	7.75	22.00	28.00	135
1000	5000	350	3000	dead	6	7.75	13.50	28.00	84
1600	5000	500	3000	dead	10	7.75	22.00	28.00	135