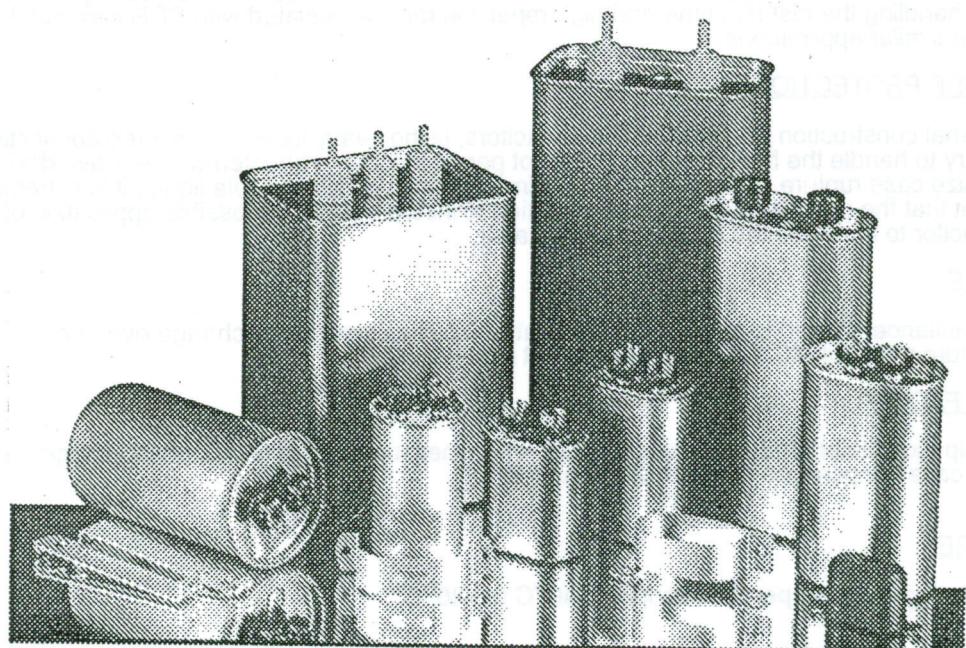


RONKEN INDUSTRIES Inc.

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ALL FILM SCR COMMUTATION CAPACITORS



600 - 1500 Vp APPLICATIONS

CATALOG CAP - 64

RONKEN capacitors are designed and manufactured to meet or exceed the requirements of Electronic Industries Association (E.I.A.) Standard RS-401.

APPLICATIONS

SCR Commutation ---- Snubber ---- Frequency Changers ---- Motor Speed Controls ----
Static Power Supplies ---- Harmonic Filters ---- and Others.

CONSTRUCTION

The capacitor is constructed by winding low loss rough surfaced polypropylene film between two high grade aluminum foil electrodes. The foil electrodes are extended out each end of the winding forming a low loss extended foil (non-inductive) capacitor. Tinned copper leads are securely soldered to each end of the winding and to the terminal stud. The cover is sealed to the case by a double-lock roll seam. The unit is completely impregnated in LEKTROL, a non-PCB fluid which is biodegradeable, low toxic, and environmentally compatible. The terminal assembly consists of a molded pillar insulator and a one piece copper stud capable of 120 amps rms. The terminal assembly is securely locked to the cover to withstand a 20 inch-lb max. torque on the non-ferrous covers.

CHARACTERISTICS

Polypropylene film is a low loss dielectric possessing high voltage stress capabilities. Combined with the extended foil construction, which minimizes series-resistance and series-inductance losses and allows for maximum heat transfer from within the winding, make these capacitors ideal for handling the fast rise time and high repetition rates associated with SCR commutation and other similar applications.

CASE RUPTURE PROTECTION

The internal construction of commutation capacitors, using heavy leads and secure connections necessary to handle the high currents, does not permit the use of an internal protective device to minimize case rupture. Since the non-PCB impregnant is a combustible liquid, it is extremely important that the capacitor user exercise caution to insure the safest possible application of the capacitor to minimize the case rupture hazards.

CAPACITANCE

The capacitance is rated in microfarads (MF) at 25°C. The capacitance change over the temperature range of -40°C to +90°C shall not exceed $\pm 5\%$.

DISSIPATION FACTOR

The dissipation factor shall not exceed 0.05% when measured at the 60 Hz rated voltage and any case temperature between 25°C and 90°C.

TEMPERATURE

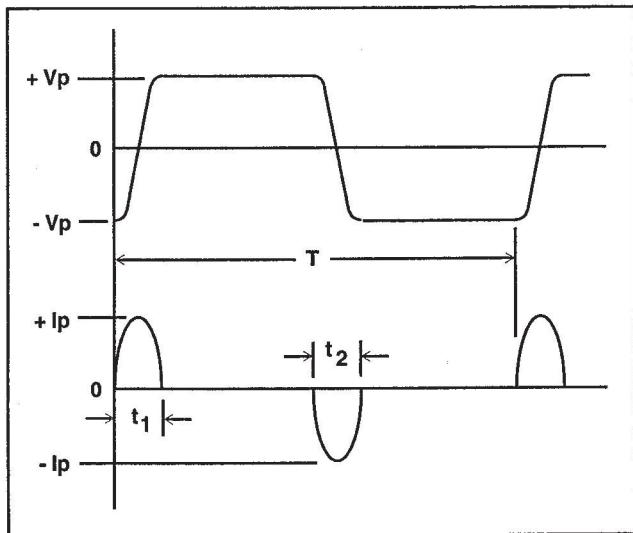
The operating case temperature range is -40°C to +80°C.

LIFE

The capacitors are designed to provide a minimum of 40,000 hours life with a 95% survival when operated at rated voltage, current, case temperature, and volt-amperes. Exceeding the capacitor ratings without proper derating will result in a reduction of full rated life.

VOLT-AMPERE LOADING

The volt-ampere rating for each capacitor listed in the table is the maximum VA loading that may be applied to the capacitor for full rated life provided the rated case temperature, rms current, and peak voltage is not exceeded. The volt-ampere rating is the product of the effective voltage and the effective current calculated only during the time current flows.



$$VA = V_{eff} \times I_{eff}$$

Where: $V_{eff} = .707 V_p \sqrt{\frac{t_1 + t_2}{T}}$

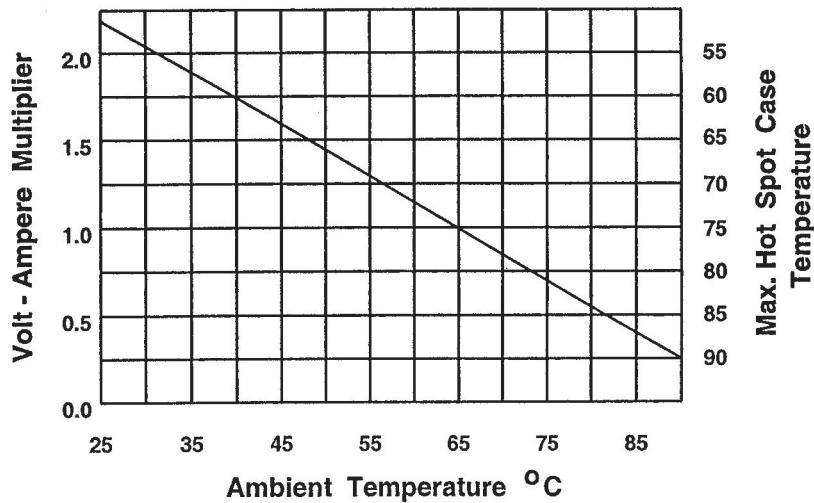
$$I_{eff} = .707 I_p \sqrt{\frac{t_1 + t_2}{T}}$$

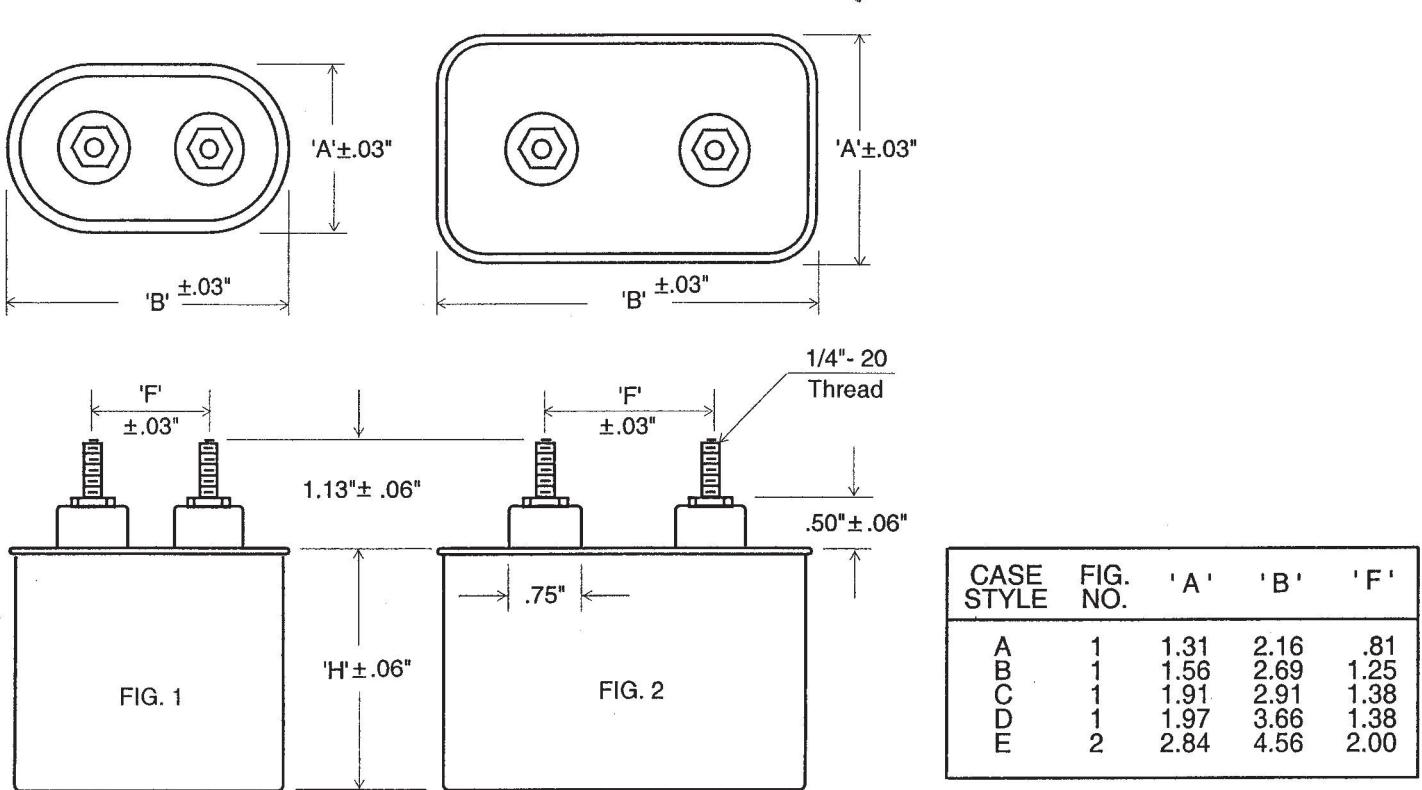
Then: $VA = .707 V_p \sqrt{\frac{t_1 + t_2}{T}} \times .707 I_p \sqrt{\frac{t_1 + t_2}{T}}$

$$VA = \frac{V_p I_p (t_1 + t_2)}{2T}$$

Capacitors may be operated at the ambient temperature shown with volt-ampere loading equal to or less than the rated volt-ampere times the multiplier. Maximum case temperatures must correspond to ambient temperatures shown on the graph with rms current and peak voltage not in excess of ratings. Under these conditions, capacitors will have a full service life as defined above.

**Volt - Ampere Multiplier
vs
Ambient and Max. Hot Spot Case Temperature**

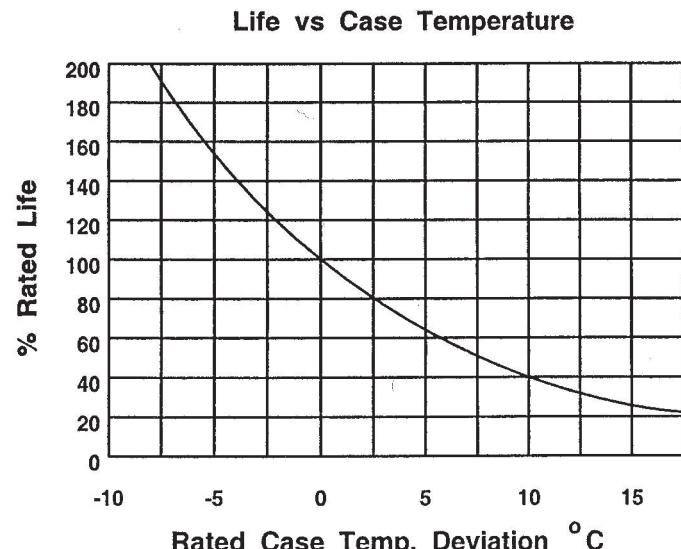
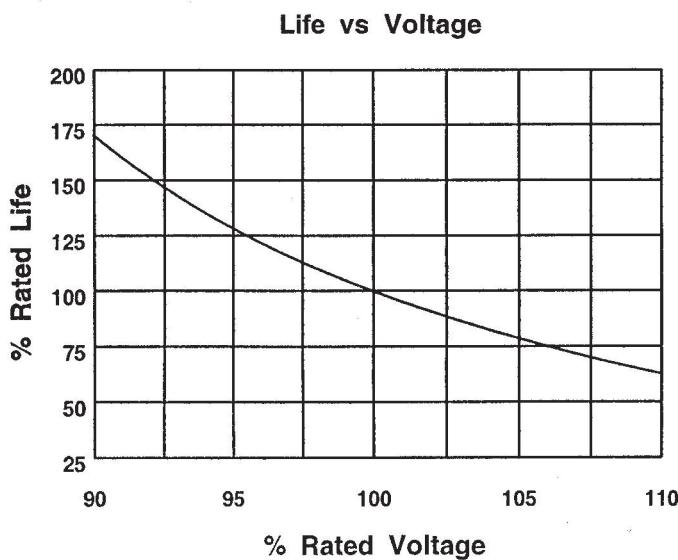


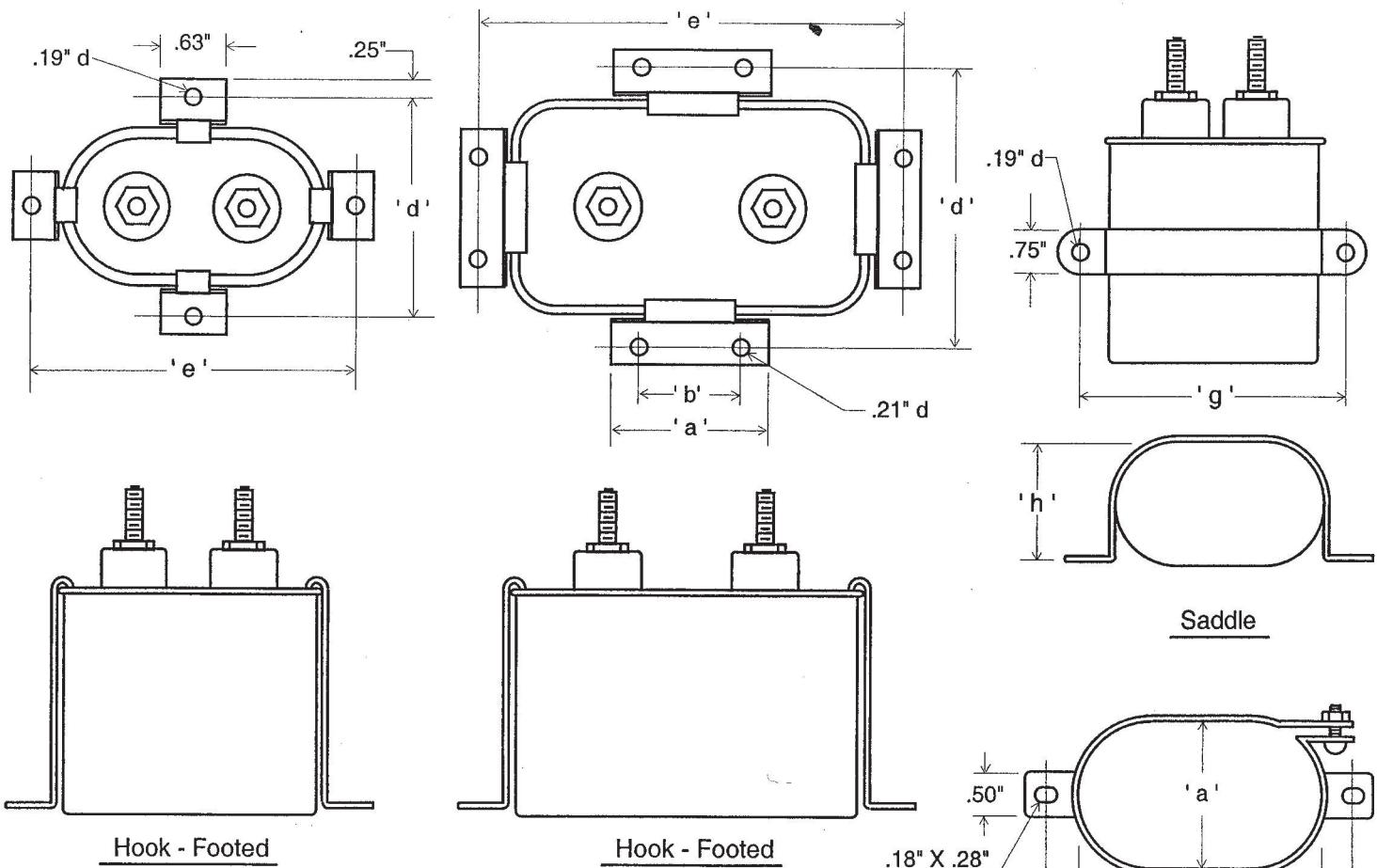


RONKEN STANDARD CAPACITOR

Terminal stud size 1/4"- 20 thread.
Non-ferrous case and cover for oval style (A,B,C, and D).
Steel case and non-ferrous cover for rectangular style (E).

Also available with-
Corrosion resistant gray painted case for greater heat dissipation.



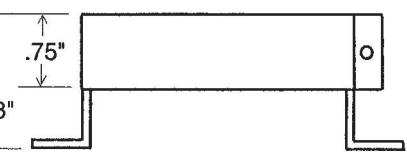


OTHER ACCESSORIES

- 1) Ground terminal welded to cover.
- 2) Discharge resistors - internal or external.
- 3) Molded rubber terminal boot #15C020402.

Consult factory for bracket configurations or accessories not listed.

Saddle



Footed Wrap-Around

CAPACITOR MOUNTING BRACKETS - Zinc Plated Steel

CASE STYLE	Hook-Footed					Saddle			Footed Wrap- Around			
	Part No.	a	b	d	e	Part No.	g	h	Part No.	a	b	c
A	25Q0210_			1.75	2.63	25A011201	2.56	1.19	25A041202	1.23	2.06	2.69
C	25Q0210_			2.38	3.38	25C011201	3.31	1.72	25C041202	1.80	2.80	3.44
D	25Q0210_			2.44	4.13	25D011201	4.06	1.78	25D041202	1.86	3.55	4.19
E	25Q0222_	1.38	.63	3.44	5.13							
E	25Q0230_	1.88	1.25	3.44	5.13							

OTHER RONKEN BULLETINS

- | | |
|---------|--|
| CAP- 50 | TAPEWRAPPED Dry Filmet Capacitors |
| CAP- 61 | WETMET 480 - 725 VAC (film / metallized paper) Capacitors |
| CAP- 64 | ALL- FILM SCR Commutation Capacitors |
| CAP- 71 | ALL- PAPER 165 - 440 VAC Capacitors |
| CAP- 81 | FILM-PAPER 660 - 4000 VAC Capacitors |
| CAP- 86 | FILM-PAPER SCR Commutation Capacitors |
| CAP- 91 | FILMET 220 - 660 VAC (metallized polypropylene) Capacitors |

MF ± 10%	CATALOG NO.	CASE STYLE	CASE HT.	MAX. RMS AMPS	MAX. VOLT- AMPS	CATALOG NO.	CASE STYLE	CASE HT.	MAX. RMS AMPS	MAX. VOLT- AMPS		
	600 Vp						800 Vp					
1	64A79105K82	A	2.13	60	11390	64A80105K82	A	2.63	60	13335		
2	64A79205K82	A	2.63	60	13335	64A80205K82	A	2.88	60	14310		
3	64A79305K82	A	3.88	60	17295	64A80305K82	A	3.88	60	18205		
5	64A79505K82	A	3.88	60	18205	64C80505K82	C	3.88	60	27760		
5	64C79505K82	C	2.88	60	22205	64C80106K82	C	5.75	60	39150		
10	64C79106K82	C	3.88	60	27760	64D80106K82	D	3.88	60	35635		
10	64D79106K82	D	3.88	60	35635							
15	64C79156K82	C	5.25	60	36300	64D80156K82	D	5.75	60	48685		
15	64D79156K82	D	3.88	60	35635	64D80206K82	D	6.75	60	55645		
20	64C79206K82	C	6.25	60	40950	64E80206K82	E	4.75	100	68670		
20	64D79206K82	D	5.25	60	45205							
25	64D79256K82	D	5.75	60	48685	64E80256K82	E	5.13	100	72600		
30	64D79306K82	D	7.25	60	59125	64E80306K82	E	5.88	100	76630		
40	64E79406K82	E	5.13	100	72600							
50	64E79506K82	E	6.25	100	84390							
	1000 Vp						1500 Vp					
.50	64A81504K82	A	2.13	60	11390	64A85504K82	A	2.63	60	13335		
1	64A81105K82	A	2.63	60	13335	64A85105K82	A	3.88	60	18205		
2	64A81205K82	A	3.88	60	18205	64C85205K82	C	3.88	60	27760		
3	64C81305K82	C	3.88	60	27760	64C85305K82	C	4.75	60	33455		
5	64C81505K82	C	4.75	60	33455	64C85505K82	C	6.25	60	42000		
5	64D81106K82	D	6.25	60	52165	64D85505K82	D	4.75	60	41725		
10	64E81106K82	E	3.88	100	56660	64E85106K82	E	5.13	100	72600		
15	64E81156K82	E	5.13	100	72600	64E85156K82	E	6.75	100	89635		
20	64E81206K82	E	5.88	100	79150							

Consult factory for rating and sizes not listed.

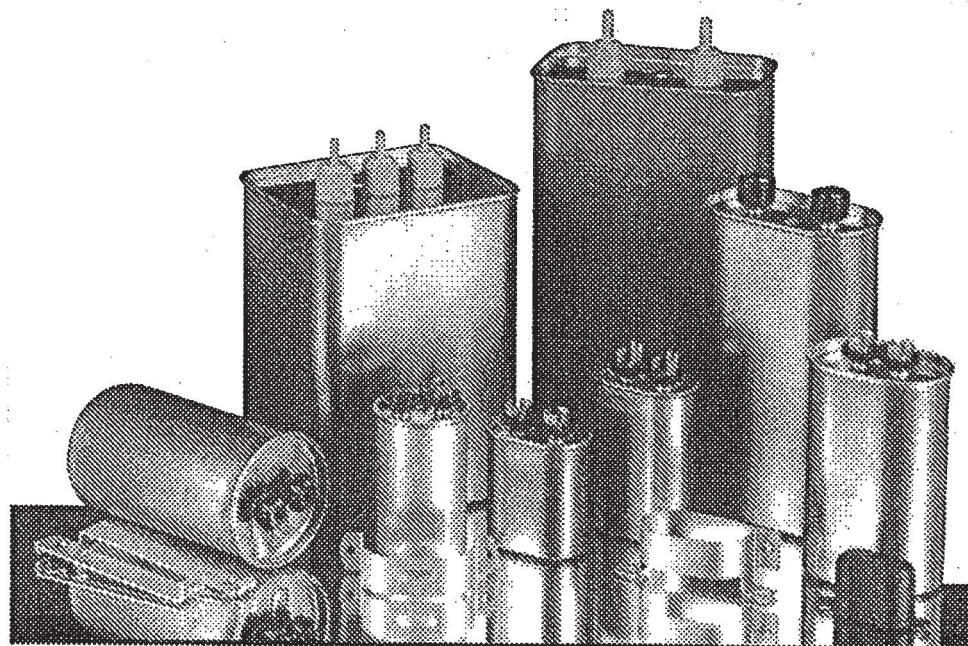
CAPACITOR DESIGNS

The standard capacitors listed on this page satisfy the majority of applications; however, other ratings than those listed are available. For a custom design, complete the APPLICATION DATA sheet on page 7, or contact RONKEN direct to discuss the application.

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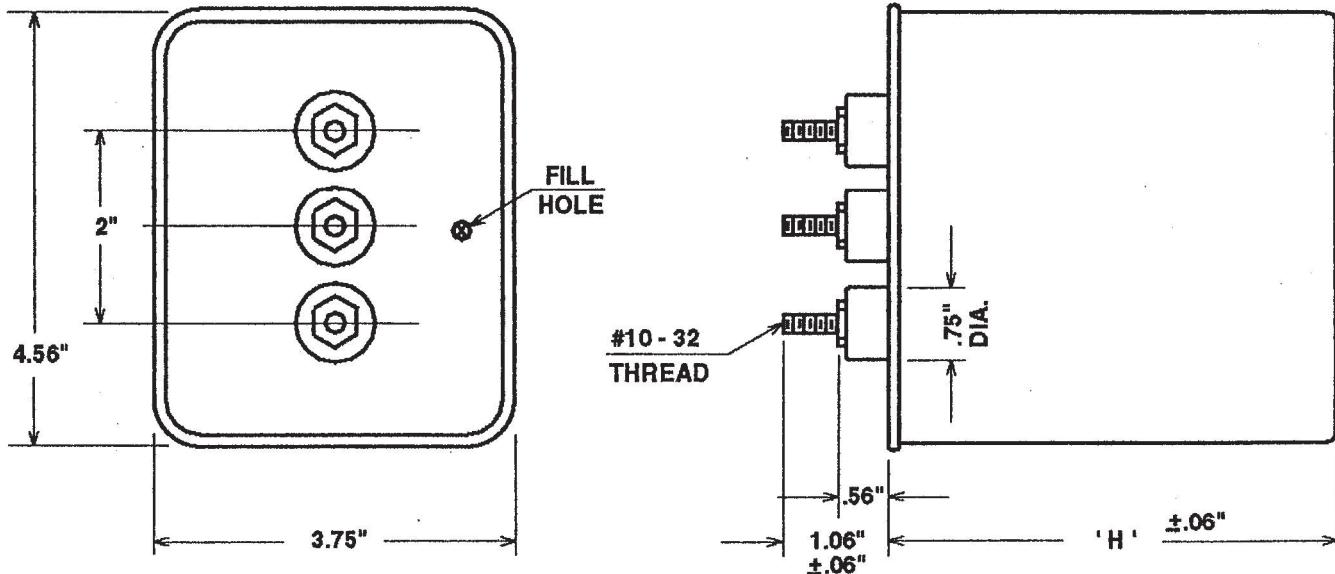
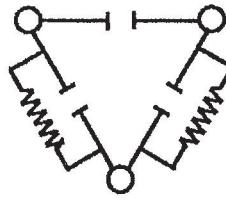
FILM - PAPER CAPACITORS



660 - 4000 AC APPLICATIONS

CATALOG CAP - 81

INK STAMP INTERNAL RESISTOR
 15 IN.-LB. MAX. TORQUE
 KVAR AC 60 HZ 3 PH.
 RONKEN
 PROTECTED 10000 AFC
 NO PCB'S CONTAINS
 FLAMMABLE FLUID
 MADE IN U.S.A. DATE
 CUST. P/N



KVAR +15% -0%	240 VAC 60 HZ 3 PH.		KVAR +15% -0%	480 VAC 60 HZ 3 PH.		600 VAC 60 HZ 3 PH.	
	PART NO.	'H'		PART NO.	'H'	PART NO.	'H'
2	P93F09205P89	3.88"	2	P93F17205P89	3.88"	P93F22205P89	3.88"
3	P93F09305P89	3.88"	3	P93F17305P89	3.88"	P93F22305P89	3.88"
4	P93F09405P89	4.25"	4	P93F17405P89	3.88"	P93F22405P89	3.88"
5	P93F09505P89	5.25"	5	P93F17505P89	3.88"	P93F22505P89	3.88"
6.25	P93F09635P89	6.25"	6	P93F17605P89	3.88"	P93F22605P89	3.88"
7.5	P93F09755P89	6.25"	7.5	P93F17755P89	3.88"	P93F22755P89	3.88"
8.3	P93F09835P89	6.25"	10	P93F17106P89	5.25"	P93F22106P89	5.25"
10	P93F09106P89	9.25"	12.5	P93F17136P89	5.25"	P93F22136P89	5.25"
12.5	P93F09136P89	9.25"	15	P93F17156P89	6.25"	P93F22156P89	6.25"
			16.7	P93F17176P89	6.25"	P93F22176P89	6.25"
			20	P93F17206P89	7"	P93F22206P89	7"
			22.5	P93F17236P89	9.25"	P93F22236P89	9.25"
			25	P93F17256P89	9.25"	P93F22256P89	9.25"

- 1 -- NON - INDUCTIVE , METALLIZED , NON - PCB DESIGN , 70° C MAX. CASE TEMPERATURE.
- 2 -- CAPACITOR CONTAINS AN INTERNAL PRESSURE SENSITIVE INTERRUPTER. U.L. RECOGNIZED FILE # E78260.
- 3 -- FINISH - TINPLATED STEEL.
- 4 -- ALLOW 1/2" MIN. CLEARANCE ABOVE TERMINALS FOR COVER TO BULGE & OPERATE THE INTERNAL INTERRUPTER. USE ONLY FLEXIBLE TERMINAL LEADS - NO BUSS BARS.
- 5 -- OTHER RATINGS AVAILABLE ON REQUEST , CONSULT FACTORY.

CONSTRUCTION

The "FILMET" capacitor is constructed using low loss polypropylene film dielectric on which a thin layer of metal has been deposited to one side to serve as the electrode. The two sheets are displaced forming a low loss non-inductive (extended foil) capacitor. Both ends of the winding are spray-metallized to provide a means to attach the copper tabs. The tabs are then spotwelded to the rivet on the underside of the cover and the cover is sealed to the case by a double-lock roll seam. The unit is completely filled with LEKTROL, a non-PCB fluid which is biodegradeable, low toxic, and environmentally compatible. The thin layer of metal which is deposited on the film dielectric not only replaces the conventional aluminum foil electrodes but is self-healing, resulting in higher operating voltages and longer life.

CHARACTERISTICS

Polypropylene film is a low loss dielectric possessing high voltage stress capabilities. These characteristics allow the polypropylene "FILMET" capacitor to consume less energy and result in smaller physical size per volt-ampere than the all paper or film-paper capacitor.

CASE RUPTURE PROTECTION

Since the non-PCB impregnant is a combustible liquid, RONKEN has incorporated into the capacitor cover assembly an internal pressure sensitive current interrupting device. This minimizes capacitor case rupture by reacting to the cover bulging. The cover bulges due to the pressure build-up caused by the gassing and excessive temperature associated with end of life capacitor failures. As the cover bulges, the pressure sensitive interrupter internally disconnects the capacitor terminals from the external power source. Therefore, it is necessary to allow a minimum of 1/2" clearance above the capacitor terminals for the cover to bulge.

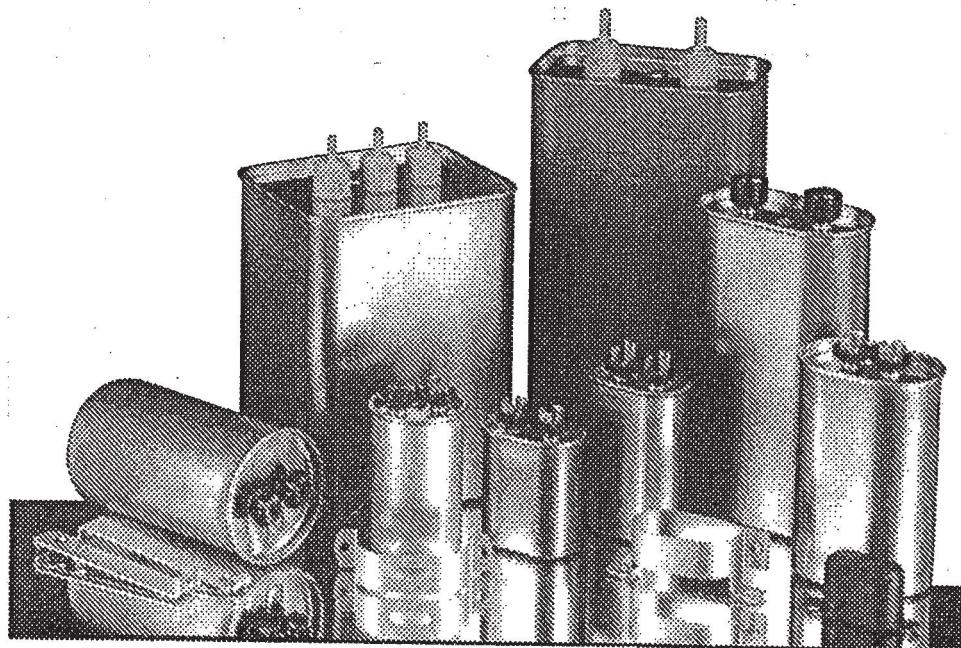
RONKEN capacitors incorporating the pressure sensitive interrupter are U.L. recognized under file #E78260.

RONKEN

INDUSTRIES Inc.

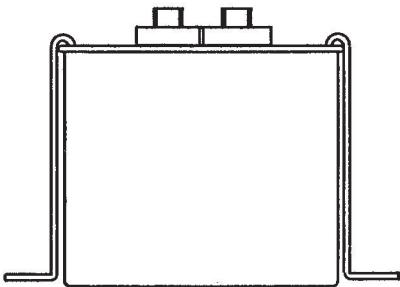
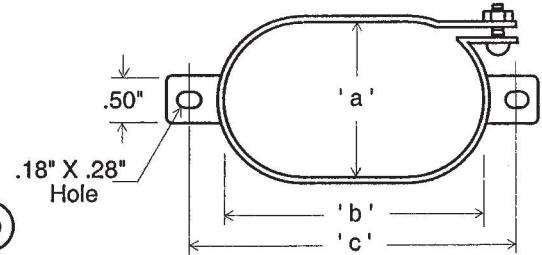
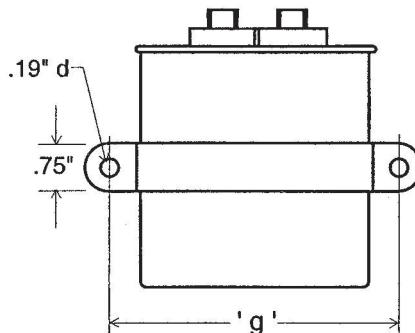
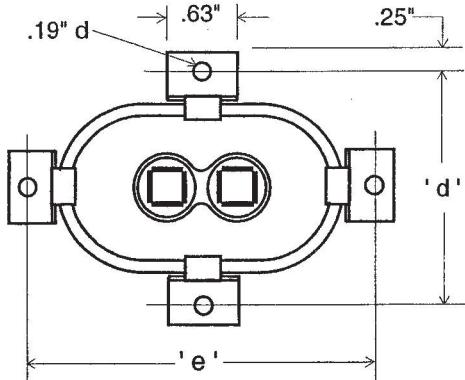
WOLFER INDUSTRIAL PARK
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PHONE 815-664-5306
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E-mail: ronken@ronkenind.com

METALLIZED POLYPROPYLENE POWER FACTOR CORRECTION CAPACITORS

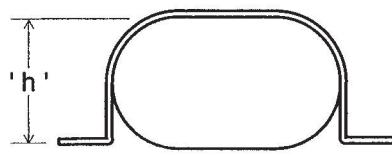


240 - 600 AC 60 HZ 3 PH APPLICATIONS

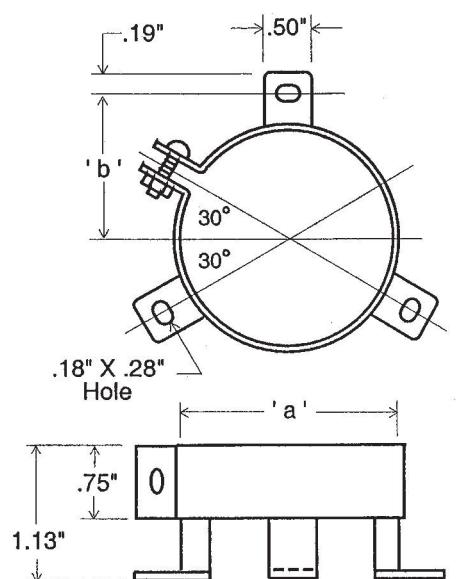
CATALOG CAP - 93



Hook - Footed



Saddle



Footed Wrap-Around

OTHER ACCESSORIES

- 1) Ground terminal welded to cover.
- 2) Discharge resistors - internal or external.
- 3) Molded rubber terminal boot #15C020402.

Consult factory for bracket configurations or accessories not listed.

CAPACITOR MOUNTING BRACKETS - Zinc Plated Steel									
CASE STYLE	Hook-Footed			Saddle			Footed Wrap- Around		
	Part No.	d	e	Part No.	g	h	Part No.	a	b
A	25Q0210--	1.75	2.63	25A011201	2.56	1.19	25A041202	1.23	2.06
B	25Q0210--	2.00	3.13	25B011201	3.13	1.44	25B041202	1.48	2.61
C	25Q0210--	2.38	3.38	25C011201	3.31	1.72	25C041202	1.80	2.80
D	25Q0210--	2.44	4.13	25D011201	4.06	1.78	25D041202	1.86	3.55
P	25Q0210--	2.31		25P011201	2.50	1.66	25P041203	1.75	1.13
S	25Q0210--	2.56		25S011201	2.75	1.91	25S041203	2.00	1.25
T	25Q0210--	3.06		25T011201	3.25	2.41	25T041203	2.50	1.50

OTHER RONKEN BULLETINS

- | | | |
|---------|-------------|---|
| CAP- 50 | TAPEWRAPPED | Dry Filmet Capacitors |
| CAP- 61 | WETMET | 480 - 725 VAC (film / metallized paper) Capacitors |
| CAP- 64 | ALL- FILM | SCR Commutation Capacitors |
| CAP- 71 | ALL- PAPER | 165 - 440 VAC Capacitors |
| CAP- 81 | FILM-PAPER | 660 - 4000 VAC Capacitors |
| CAP- 86 | FILM-PAPER | SCR Commutation Capacitors |
| CAP- 91 | FILMET | 220 - 660 VAC (metallized polypropylene) Capacitors |

MF ± 6%	525 VAC			600 VAC			660 VAC		
	CATALOG NO.	CASE STYLE	CASE HT.	CATALOG NO.	CASE STYLE	CASE HT.	CATALOG NO.	CASE STYLE	CASE HT.
	OVAL CASE			OVAL CASE			OVAL CASE		
1	USE 660AC			USE 660AC			P91A24105H05	A	2.13
2	USE 660AC			P91A22205H05	A	2.13	P91A23205H05	A	2.13
3	P91A19305H05	A	2.13	P91A22305H05	A	2.13	P91A23305H05	A	2.88
4	P91A19405H05	A	2.13	P91A22405H05	A	2.88	P91A23405H05	A	2.88
5	P91A19505H05	A	2.88	P91A22505H05	A	2.88	P91A23505H05	A	3.88
6	P91A19605H05	A	2.88	P91A22605H05	A	3.88	P91A23605H05	A	3.88
7	P91A19705H05	A	3.88	P91A22708H05	A	3.88	P91A23705H05	A	4.75
8	P91A19805H05	A	3.88	P91A22805H05	A	4.75	P91A23805H05	A	4.75
10	P91A19106H05	A	4.75	P91B22106H05	B	3.88	P91B23106H05	B	3.88
10	P91B19106H05	B	2.88	P91C22106H05	C	2.88	P91C23106H05	C	2.88
12	P91A19126H05	A	4.75	P91B22126H05	B	3.88	P91B23126H05	B	4.75
12	P91B19126H05	B	3.88	P91C22126H05	C	2.88	P91C23126H05	C	3.88
15	P91B19156H05	B	3.88	P91B22156H05	B	3.88	P91B23156H05	B	5.75
15	P91C19156H05	C	2.88	P91C22156H05	C	3.88	P91C23156H05	C	3.88
18	P91C19186H05	C	3.88	P91C22186H05	C	3.88	P91C23186H05	C	4.75
20	P91C19206H05	C	3.88	P91C22206H05	C	4.75	P91C23206H05	C	4.75
25	P91C19256H05	C	4.75	P91C22256H05	C	4.75	P91C23256H05	C	5.75
30	P91C19306H05	C	4.75	P91D22306H05	D	3.88	P91D23306H05	D	3.88
35	P91D19356H05	D	3.88	P91D22356H05	D	3.88	P91D23356H05	D	4.75
40	P91D19406H05	D	3.88	P91D22406H05	D	4.75	P91D23406H05	D	4.75
	ROUND CASE			ROUND CASE			ROUND CASE		
6	P91P19605H05	P	2.13	P91P22605H05	P	2.13	P91P23605H05	P	2.88
7	P91P19705H05	P	2.13	P91P22705H05	P	2.13	P91P23705H05	P	2.88
8	P91P19805H05	P	2.13	P91P22805H05	P	2.88	P91P23805H05	P	2.88
10	P91P19106H05	P	2.88	P91P22106H05	P	2.88	P91P23106H05	P	3.88
10	P91P19126H05	P	2.88	P91P22126H05	P	3.88	P91S23106H05	S	2.88
12	P91P19156H05	P	3.88	P91P22156H05	P	3.88	P91P23126H05	S	3.88
15	P91P19186H05	P	3.88	P91P22186H05	P	4.75	P91S23126H05	S	2.88
15	P91S19186H05	S	2.88	P91S22186H05	S	3.88	P91S23156H05	S	3.88
18	P91P19206H05	P	4.75	P91P22206H05	P	4.75	P91P23186H05	T	4.75
20	P91P19256H05	S	3.88	P91P22256H05	S	4.75	P91T23186H05	T	2.88
25	P91P19306H05	S	4.75	P91T22256H05	T	3.88	P91S23256H05	S	5.75
25	P91S19256H05	S	3.88	P91T22256H05	T	3.88	P91T23256H05	T	3.88
30	P91S19306H05	S	4.75	P91T22306H05	T	3.88	P91T23306H05	T	4.75
35	P91S19356H05	S	4.75	P91T22356H05	T	4.75	P91T23356H05	T	4.75
40	P91T19406H05	T	3.88	P91T22406H05	T	4.75	P91T23406H05	T	5.75
45	P91T19456H05	T	4.75	P91T22456H05	T	4.75	P91T23456H05	T	5.75
50	P91T19506H05	T	4.75	P91T22506H05	T	5.75	P91T23506H05	T	7.62

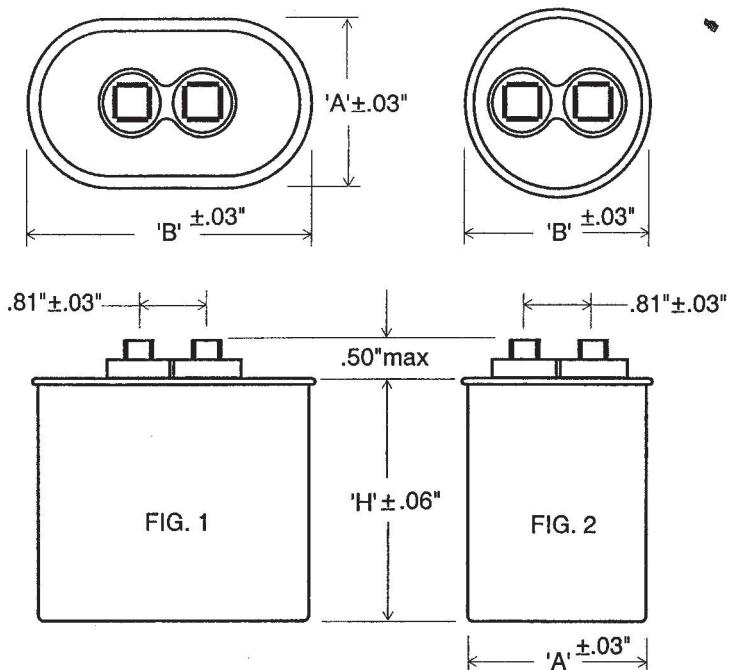
Consult factory for rating and sizes not listed.

MF ±10%	370 VAC			440 VAC		
	CATALOG NO.	CASE STYLE	CASE HT.	CATALOG NO.	CASE STYLE	CASE HT.
	OVAL	CASE		OVAL	CASE	
4	P91A12405K05	A	2.13	P91A15405K05	A	2.13
5	P91A12505K05	A	2.13	P91A15505H05	A	2.13
7.5	P91A12755K05	A	2.88	P91A15755K05	A	2.88
10	P91A12106K50	A	2.88	P91A15106K05	A	3.88
12.5	P91A12136K05	A	3.88	P91A15136K05	A	3.88
15	P91A12156K05	A	3.88	P91A15156K05	A	4.75
15				P91B15156K05	B	3.88
17.5	P91A12186K05	A	4.75	P91B15186K05	B	3.88
17.5	P91B12186K05	B	2.88	P91C15186K05	C	2.88
20	P91A12206K05	A	4.75	P91B15206K05	B	4.75
20	P91B12206K05	B	3.88	P91C15206K05	C	2.88
25	P91B12256K05	B	3.88	P91B15256K05	B	4.75
25	P91C12256K05	C	2.88	P91C15256K05	C	3.88
30	P91C12306K05	C	3.88	P91C15306K05	C	3.88
35	P91C12356K05	C	3.88	P91C15356K05	C	4.75
40	P91C12406K05	C	4.75	P91C15406K05	C	4.75
45	P91C12456K05	C	4.75	P91D15456K05	D	3.88
50	P91C12506K05	C	4.75	P91D15506K05	D	3.88
60	P91D12606K05	D	3.88	P91D15606K05	D	4.75
70	P91D12706K05	D	3.88	P91D15706K05	D	4.75
	ROUND CASE			ROUND CASE		
5	USE 440AC			P91P15505K05	P	2.13
6	USE 440AC			P91P15605K05	P	2.13
7.5	P91P12755K05	P	2.13	P91P15755K05	P	2.13
10	P91P12106K05	P	2.13	P91P15106K05	P	2.13
12.5	P91P12136K05	P	2.13	P91P15136K05	P	2.88
15	P91P12156K05	P	2.88	P91P15156K05	P	2.88
17.5	P91P12186K05	P	2.88	P91P15186K05	P	3.88
20	P91P12206K05	P	2.88	P91P15206K05	P	3.88
20				P91S15206K05	S	2.88
25	P91P12256K05	P	3.88	P91P15256K05	S	3.88
25	P91S12256K05	S	2.88	P91S15256K05	S	3.88
30	P91P12306K05	P	3.88	P91P15306K05	P	4.75
30	P91S12306K05	S	2.88	P91S15306K05	S	3.88
35	P91P12356K05	P	4.75	P91S15356K05	S	4.75
35	P91S12356K05	S	3.88	P91T15356K05	T	2.88
40	P91S12406K05	S	3.88	P91S15406K05	S	4.75
45	P91S12456K05	S	4.75	P91T15456K05	T	3.88
50	P91S12506K05	S	4.75	P91T15506K05	T	3.88
60	P91T12606K05	T	3.88	P91T15606K05	T	4.75
70	P91T12706K05	T	4.75	P91T15706K05	T	4.75

Consult factory for rating and sizes not listed.

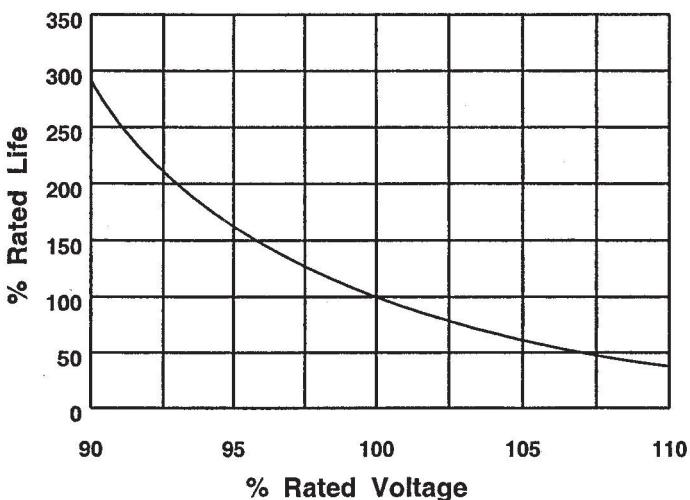
MF ±10%	220 VAC			240 VAC		
	CATALOG NO.	CASE STYLE	CASE HT.	CATALOG NO.	CASE STYLE	CASE HT.
	OVAL	CASE		OVAL	CASE	
15	P91A07156K05	A	2.88	P91A09156K05	A	2.88
20	P91A07206K05	A	2.88	P91A09206K05	A	3.88
25	P91A07256K05	A	3.88	P91A09256K05	A	4.75
30	P91A07306K05	A	3.88	P91A09306K05	A	4.75
30				P91B09306K05	B	3.88
35	P91A07356K05	A	4.75	P91B09356K05	B	4.75
35	P91B07356K05	B	2.88	P91C09356K05	C	2.88
40	P91A07406K05	A	4.75	P91B09406K05	B	4.75
40	P91B07406K05	B	3.88	P91C09406K05	C	3.88
45	P91B07456K05	B	3.88	P91C09456K05	C	3.88
45	P91C07456K05	C	2.88			
50	P91B07506K05	B	4.75	P91C09506K05	C	3.88
50	P91C07506K05	C	2.88			
60	P91B07606K05	B	4.75	P91C09606K05	C	4.75
60	P91C07606K05	C	3.88			
70	P91C07706K05	C	3.88	P91D09706K05	D	2.88
80	P91C07806K05	C	4.75	P91D09806K05	D	3.88
90	P91C07906K05	C	4.75	P91D09906K05	D	3.88
100	P91C07107K05	C	4.75	P91D09107K05	D	3.88
125	P91D07137K50	D	3.88	P91D09137K50	D	4.75
	ROUND	CASE		ROUND	CASE	
15	P91P07156K05	P	2.13	P91P09156K05	P	2.13
17.5	P91P07186K05	P	2.13	P91P09186K05	P	2.13
20	P91P07206K05	P	2.13	P91P09206K05	P	2.13
25	P91P07256K05	P	2.13	P91P09256K05	P	2.88
30	P91P07306K05	P	2.88	P91P09306K05	P	2.88
35	P91P07356K05	P	2.88	P91P09356K05	P	3.88
40	P91P07406K05	P	2.88	P91P09406K05	P	3.88
40				P91S09406K05	S	2.88
45	P91P07456K05	P	2.88	P91P09456K05	P	4.75
45				P91S09456K05	S	3.88
50	P91P07506K05	P	3.88	P91P09506K05	P	4.75
50				P91S09506K05	S	3.88
60	P91P07606K05	P	3.88	P91P09606K05	P	4.75
60	P91S07606K05	S	2.88	P91S09606K05	S	4.75
70	P91P07706K05	P	4.75	P91S09706K05	S	4.75
70	P91S07706K05	S	3.88	P91T09706K05	T	3.88
80	P91S07806K05	S	3.88	P91T09806K05	T	3.88
90	P91S07906K05	S	4.75	P91T09906K05	T	3.88
100	P91S07107K05	S	4.75	P91T09107K05	T	4.75
125	P91T07137K50	T	3.88	P91T09137K50	T	4.75

Consult factory for rating and sizes not listed.

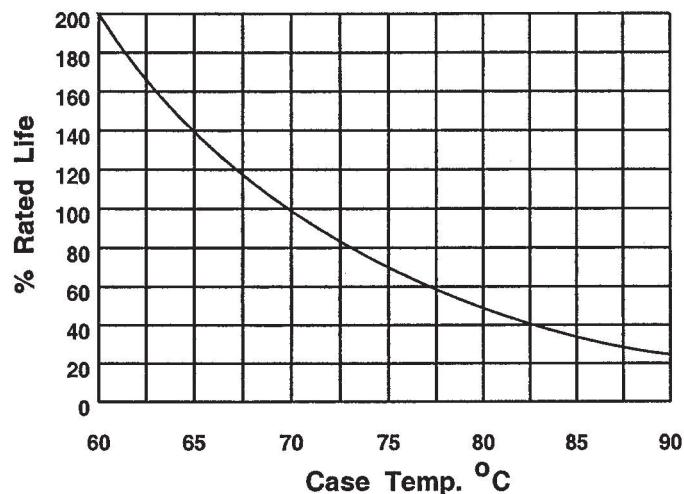


CASE STYLE	FIG. NO.	'A' '	'B' '
A	1	1.31	2.16
B	1	1.56	2.69
C	1	1.91	2.91
D	1	1.97	3.66
P	2	1.75	1.88
S	2	2.00	2.13
T	2	2.50	2.63

Life vs Voltage



Life vs Case Temperature



RONKEN STANDARD CAPACITOR

Tinplated steel case and cover.
Terminals have four 1/4" wide quick-connect blades with webbed cups.

Also available with-
Aluminum case and tinplated steel cover.
Terminals with two 1/4" wide quick-connect blades and one fork solder-lug.
Single cup insulators.
Color coded for capacitance ranges.
Corrosion resistant gray paint for outdoor use.

RONKEN capacitors are designed and manufactured to meet or exceed the requirements of Electronic Industries Association (E.I.A.) Standard RS-456.

APPLICATIONS

Motor Run ---- HID Lighting ---- Ferro-Resonant Power Supplies ---- Filters ----
Battery Chargers ---- Power Factor Correction ---- and Others.

CONSTRUCTION

The "FILMET" capacitor is constructed using low loss polypropylene film dielectric on which a thin layer of metal has been deposited to one side to serve as the electrode. The two sheets are displaced forming a low loss non-inductive (extended foil) capacitor. Both ends of the winding are spray-metallized to provide a means to attach the copper tabs. The tabs are then spotwelded to the rivet on the underside of the cover and the cover is sealed to the case by a double-lock roll seam. The unit is completely filled with LEKTROL, a non-PCB fluid which is biodegradeable, low toxic, and environmentally compatible. The thin layer of metal which is deposited on the film dielectric not only replaces the conventional aluminum foil electrodes but is self-healing, resulting in higher operating voltages and longer life.

CHARACTERISTICS

Polypropylene film is a low loss dielectric possessing high voltage stress capabilities. These characteristics allow the polypropylene "FILMET" capacitor to consume less energy and result in smaller physical size per volt-ampere than the all paper or film-paper capacitor.

CASE RUPTURE PROTECTION

Since the non-PCB impregnant is a combustible liquid, RONKEN has incorporated into the capacitor cover assembly an internal pressure sensitive current interrupting device. This minimizes capacitor case rupture by reacting to the cover bulging. The cover bulges due to the pressure build-up caused by the gassing and excessive temperature associated with end of life capacitor failures. As the cover bulges, the pressure sensitive interrupter internally disconnects the capacitor terminals from the external power source. Therefore, it is necessary to allow a minimum of 1/2" clearance above the capacitor terminals for the cover to bulge.

RONKEN capacitors incorporating the pressure sensitive interrupter are U.L. recognized under file #E78260.

CAPACITANCE

The capacitance is rated in microfarads (MF) at 25°C. The capacitance change over the operating temperature range of -40°C to +90°C shall not exceed $\pm 5\%$.

DISSIPATION FACTOR

The dissipation factor shall not exceed 0.1% when measured at the 60 HZ rated voltage and any case temperature between 25°C and 90°C.

TEMPERATURE

The operating case temperature range is -40°C to +70°C. However, the 70°C capacitors may be operated up to 90°C maximum hot spot case temperature with proper voltage derating.

FREQUENCY

The capacitor may be operated at any sinusoidal frequency up to 66 HZ.

LIFE

The capacitors are designed to provide a minimum of 60,000 hours life with a 94% survival when operated at rated voltage, frequency, and case temperature. Exceeding the capacitor ratings without proper derating will result in a reduction of full rated life.

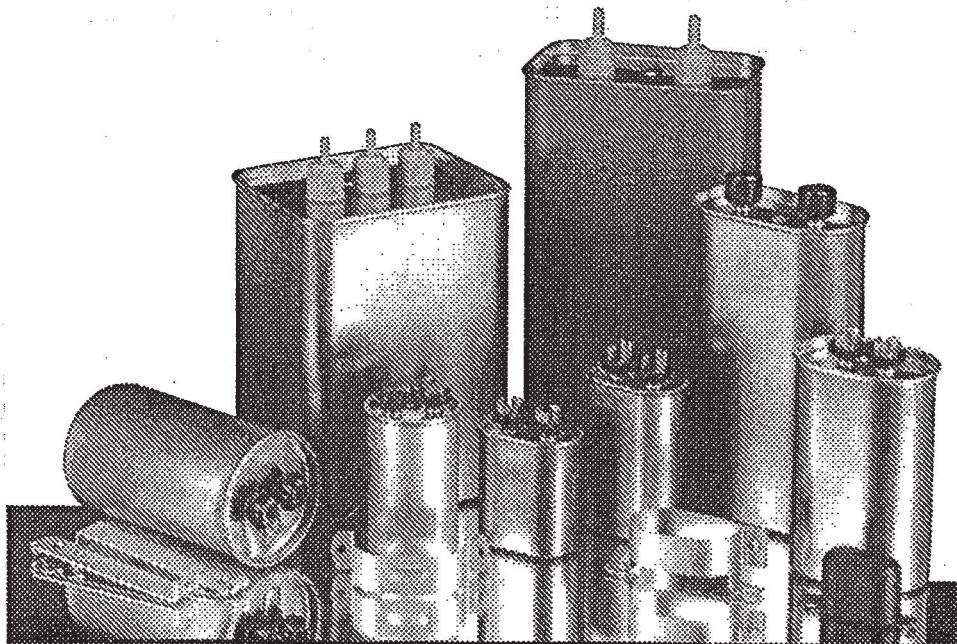
LEAKAGE CURRENT

The leakage current shall not exceed 30 microamps when measured with 115 VAC 60 HZ applied between the shorted capacitor terminals and case.

RONKEN *INDUSTRIES Inc.*

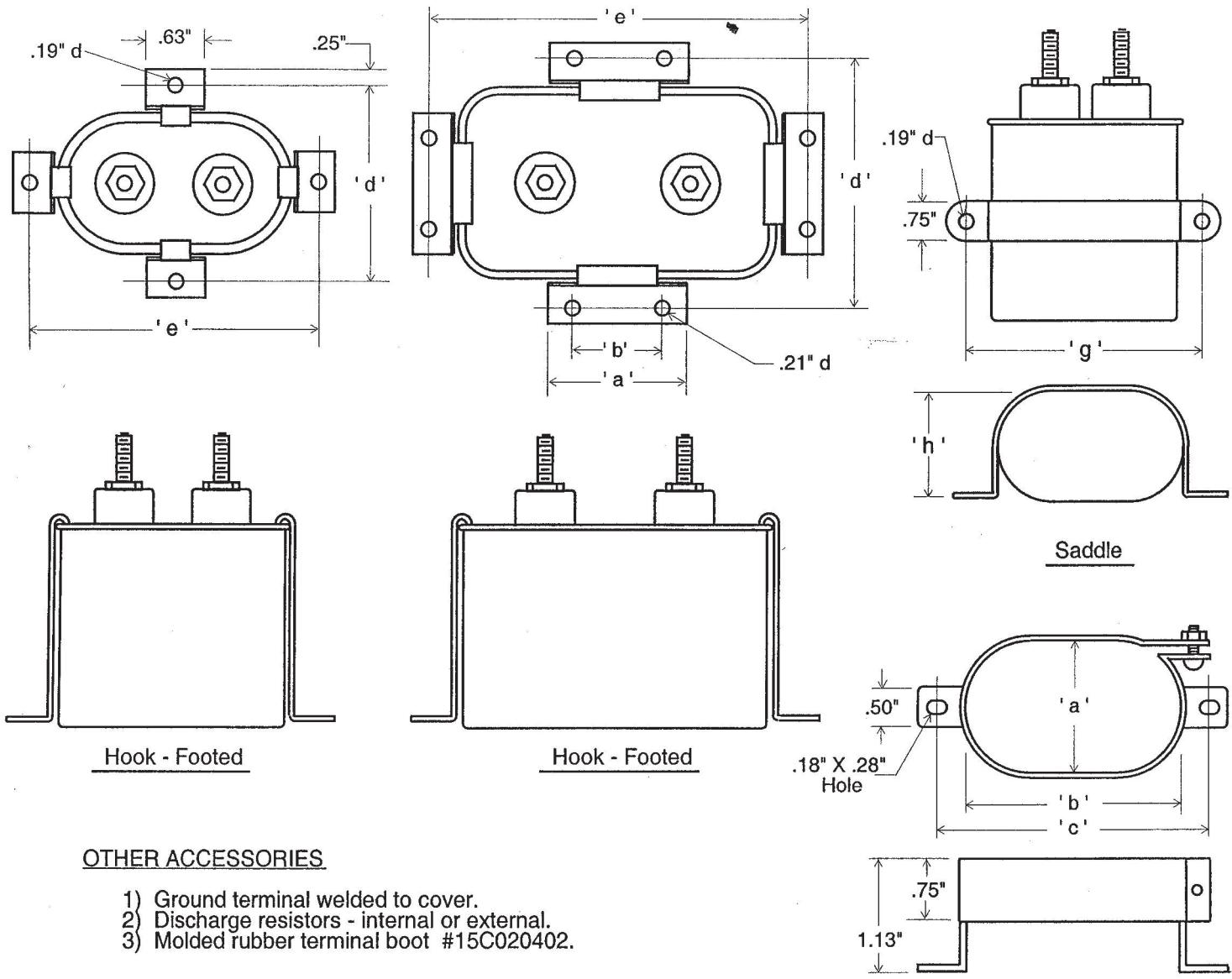
WOLFER INDUSTRIAL PARK
SPRING VALLEY, ILLINOIS 61362
PHONE 815-664-5306
FAX 815-664-5308
E-mail: ronken@ronkenind.com

METALLIZED POLYPROPYLENE CAPACITORS



220 - 660 AC APPLICATIONS

CATALOG CAP - 91



OTHER ACCESSORIES

- 1) Ground terminal welded to cover.
- 2) Discharge resistors - internal or external.
- 3) Molded rubber terminal boot #15C020402.

Consult factory for bracket configurations or accessories not listed.

Foothed Wrap-Around

CAPACITOR MOUNTING BRACKETS - Zinc Plated Steel												
CASE STYLE	Hook-Footed					Saddle			Foothed Wrap- Around			
	Part No.	a	b	d	e	Part No.	g	h	Part No.	a	b	c
A	25Q0210			1.75	2.63	25A011201	2.56	1.19	25A041202	1.23	2.06	2.69
C	25Q0210			2.38	3.38	25C011201	3.31	1.72	25C041202	1.80	2.80	3.44
D	25Q0210			2.44	4.13	25D011201	4.06	1.78	25D041202	1.86	3.55	4.19
E	25Q0222	1.38	.63	3.44	5.13							
E	25Q0230	1.88	1.25	3.44	5.13							

OTHER RONKEN BULLETINS

- | | |
|---------|--|
| CAP- 50 | TAPEWRAPPED Dry Filmet Capacitors |
| CAP- 61 | WETMET 480 - 725 VAC (film / metallized paper) Capacitors |
| CAP- 64 | ALL- FILM SCR Commutation Capacitors |
| CAP- 71 | ALL- PAPER 165 - 440 VAC Capacitors |
| CAP- 81 | FILM-PAPER 660 - 4000 VAC Capacitors |
| CAP- 86 | FILM-PAPER SCR Commutation Capacitors |
| CAP- 91 | FILMET 220 - 660 VAC (metallized polypropylene) Capacitors |

MF ± 10%	CATALOG NO.	CASE STYLE	CASE HT.	MAX. RMS AMPS	MAX. VOLT- AMPS	CATALOG NO.	CASE STYLE	CASE HT.	MAX. RMS AMPS	MAX. VOLT- AMPS
1500 Vp						2000 Vp				
.10	USE 2000 Vp					86A88104K80	A	2.13	60	1205
.25	USE 2000 Vp					86A86254K80	A	2.13	60	1220
.50	86A85504K80	A	2.13	60	1075	86A86504K80	A	2.63	60	1295
1	86A85105K80	A	3.13	60	1440	86A86105K80	A	3.13	60	1485
2	86B85205K80	B	3.13	60	1895	86B86205K80	B	4.25	60	2550
3	86C85305K80	C	3.88	60	2685	86C86305K80	C	4.25	60	3045
5	86C85505K80	C	4.75	60	3150	86C86505K80	C	5.75	60	3895
5	86D85505K80	D	3.88	60	3360	86D86505K80	D	5.25	60	4495
10	86D85106K80	D	6.75	60	5240	86D86106K80	D	9.00	60	7095
10	86E85106K80	E	3.88	100	5605	86E86106K80	E	5.13	100	7220
12	86D85126K80	D	7.25	60	5565	86E86126K80	E	5.88	100	7875
12	86E85126K80	E	5.13	100	6840					
15	86E85156K80	E	5.88	100	7580	86E86156K80	E	7.25	100	9440
20	86E85206K80	E	6.75	100	8440	86E86206K80	E	9.00	100	11260
25	86E85256K80	E	8.00	100	9670					
30	86E85306K80	E	9.00	100	10660					

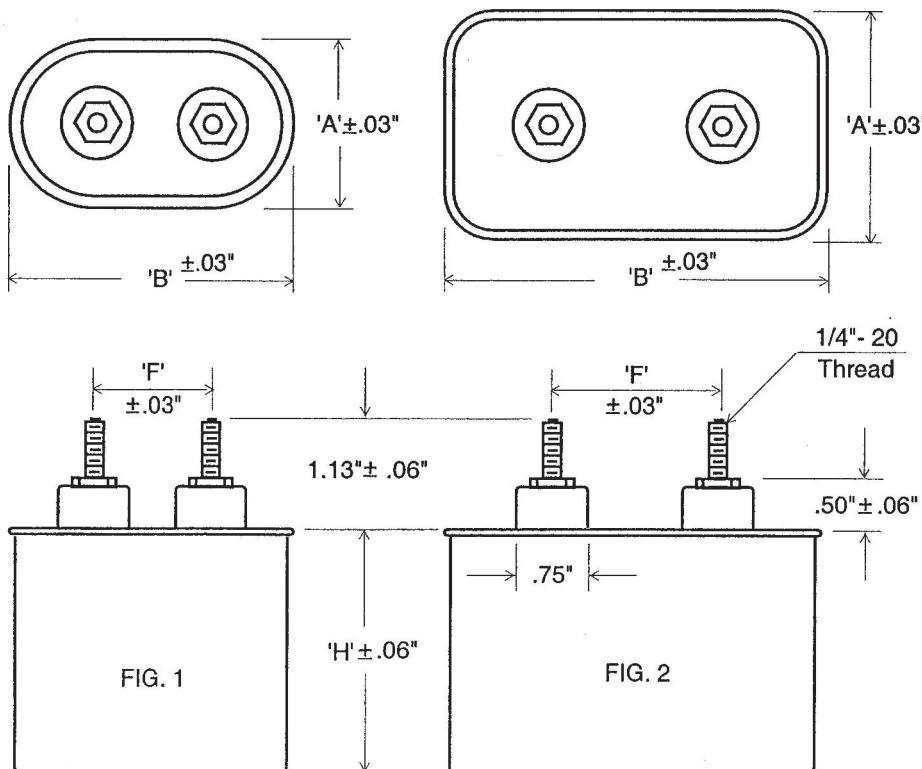
Consult factory for rating and sizes not listed.

RONKEN STANDARD CAPACITOR

Tinplated steel case and cover.
Terminal stud size 1/4"- 20 thread.

Also available with-

Non-ferrous case and cover for oval style (A,B,C, and D).
Steel case and non-ferrous cover for rectangular style (E).
Corrosion resistant gray painted case for greater heat dissipation.
Solder type terminals with webbed cups for "Snubber" applications.



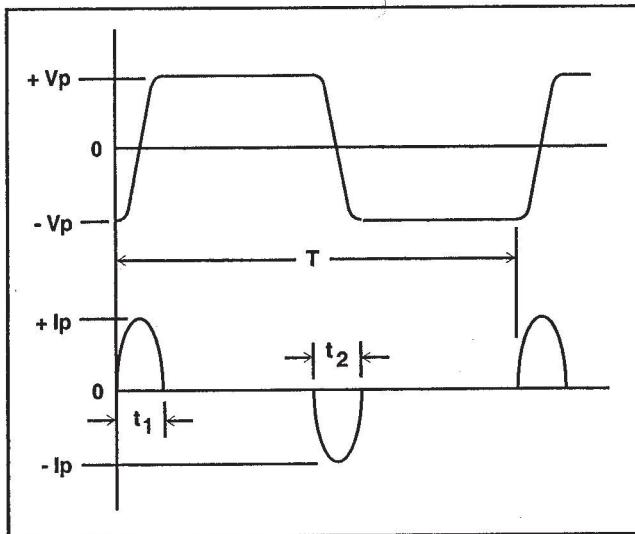
CASE STYLE	FIG. NO.	'A'	'B'	'F'
A	1	1.31	2.16	.81
B	1	1.56	2.69	1.25
C	1	1.91	2.91	1.38
D	1	1.97	3.66	1.38
E	2	2.84	4.56	2.00

MF ± 10%	CATALOG NO.	CASE STYLE	CASE HT.	MAX. RMS AMPS	MAX. VOLT- AMPS	CATALOG NO.	CASE STYLE	CASE HT.	MAX. RMS AMPS	MAX. VOLT- AMPS
400 Vp						600 Vp				
1 2 3 5	USE 1000 Vp USE 600 Vp 86A77305K80 86A77505K80	A A	3.13 3.88	60	1055 1255	USE 1000 Vp 86A79205K80 86A79305K80 86A79505K80	A A A	2.63 3.13 4.25	60	1015 1165 1500
10 10 12 12	86B77106K80 86C77106K80 86C77126K80 86D77126K80	B C C D	4.75 3.88 4.25 3.50	60	1930 1960 2105 2270	86C79106K80 86D79106K80 86C79126K80 86D79126K80	C D C D	4.25 3.50 5.25 4.25	60	2330 2515 2765 2910
15 15 20 20	86C77156K80 86D77156K80 86C77206K80 86D77206K80	C D C D	5.25 3.88 6.25 5.25	60	2500 2455 2890 3110	86C79156K80 86D79156K80 86C79206K80 86D79206K80	C D C D	5.75 4.75 7.25 5.75	60	2980 3175 3630 3705
25 25 30 30	86C77256K80 86D77256K80 86D77306K80 86E77306K80	C D D E	7.25 5.75 6.75 4.25	60	3280 3350 3830 4365	86D79256K80 86E79256K80 86D79306K80 86E79306K80	D E D E	6.75 5.13 8.00 5.13	60	4235 5390 4900 5530
35 40 45 50	86D77356K80 86E77406K80 86E77456K80 86E77506K80	D E E E	7.25 5.13 5.88 6.25	60	4070 5000 5540 5805	86E79356K80 86E79406K80 86E79456K80 86E79506K80	E E E E	5.88 6.25 6.75 7.25	100	6130 6425 6825 7225
800 Vp						1000 Vp				
1 2 3 5	USE 1000 Vp USE 1000 Vp 86A80305K80 86A80505K80	A A	3.50 4.75	60	1330 1715	86A81105K80 86A81205K80 86A81305K80 86B81505K80	A A A B	2.13 3.13 3.88 4.25	60	935 1255 1495 2100
10 10 12 12	86C80106K80 86D80106K80 86C80126K80 86D80126K80	C D C D	4.75 3.88 5.75 4.75	60	2655 2830 3105 3310	86C81106K80 86D81106K80 86C81126K80 86D81126K80	C D C D	5.75 4.25 6.25 5.25	60	3210 3135 3445 3705
15 15 20 20	86C80156K80 86D80156K80 86D80206K80 86E80206K80	C D D E	6.75 5.25 6.75 4.25	60	3560 3585 4415 5030	86C81156K80 86D81156K80 86D81206K80 86E81206K80	C D D E	7.25 5.75 7.25 5.13	60	3910 3990 4850 5810
25 25 30 30	86D80256K80 86E80256K80 86D80306K80 86E80306K80	D E D E	8.00 5.13 9.00 5.88	60	5105 5765 5655 6390	86D81256K80 86E81256K80 86E81306K80 86E81306K80	D E E E	9.00 5.13 6.25 5.13	60	5850 5960 6920 7350
35 40 45 50	86E80356K80 86E80406K80 86E80456K80 86E80506K80	E E E E	6.25 6.75 7.25 8.00	100	6695 7110 7525 8150	86E81356K80 86E81406K80 86E81456K80 86E81506K80	E E E E	6.75 7.25 9.00 9.00	100	7780 9055 9285

Consult factory for rating and sizes not listed.

VOLT-AMPERE LOADING

The volt-ampere rating for each capacitor listed in the table is the maximum VA loading that may be applied to the capacitor for full rated life provided the rated case temperature, rms current, and peak voltage is not exceeded. The volt-ampere rating is the product of the effective voltage and the effective current calculated only during the time current flows.



$$VA = V_{eff} \times I_{eff}$$

$$\text{Where: } V_{eff} = .707 V_p \sqrt{\frac{t_1 + t_2}{T}}$$

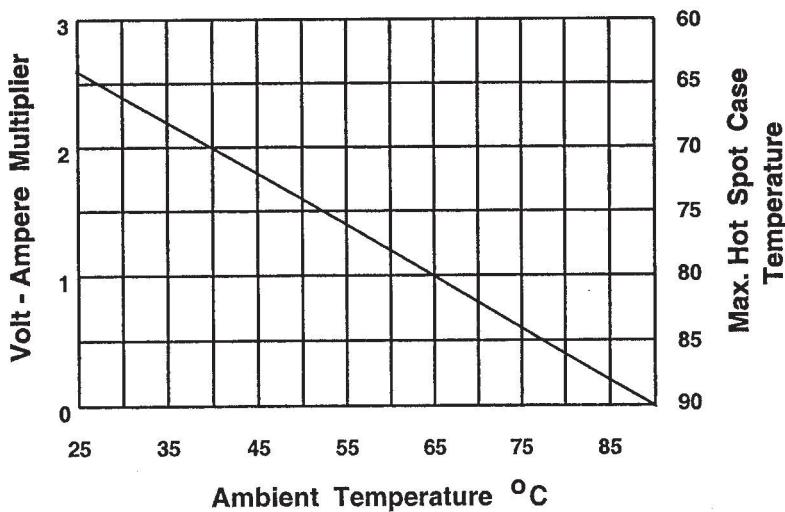
$$I_{eff} = .707 I_p \sqrt{\frac{t_1 + t_2}{T}}$$

$$\text{Then: } VA = .707 V_p \sqrt{\frac{t_1 + t_2}{T}} \times .707 I_p \sqrt{\frac{t_1 + t_2}{T}}$$

$$VA = \frac{V_p I_p (t_1 + t_2)}{2T}$$

Capacitors may be operated at the ambient temperature shown with volt-ampere loading equal to or less than the rated volt-ampere times the multiplier. Maximum case temperatures must correspond to ambient temperatures shown on the graph with rms current and peak voltage not in excess of ratings. Under these conditions, capacitors will have a full service life as defined above.

**Volt - Ampere Multiplier
vs
Ambient and Max. Hot Spot Case Temperature**



CAPACITOR DESIGNS

The standard capacitors listed on pages 4 & 5 satisfy the majority of applications; however, other ratings than those listed are available. For a custom design, complete the APPLICATION DATA sheet on page 7, or contact RONKEN direct to discuss the application.

RONKEN capacitors are designed and manufactured to meet or exceed the requirements of Electronic Industries Association (E.I.A.) Standard RS-401.

APPLICATIONS

SCR Commutation ---- Snubber ---- Frequency Changers ---- Motor Speed Controls ----
Static Power Supplies ---- Harmonic Filters ---- and Others.

CONSTRUCTION

The capacitor is constructed by winding alternate layers of low loss polypropylene film and kraft paper between two high grade aluminum foil electrodes. The foil electrodes are extended out each end of the winding forming a low loss extended foil (non-inductive) capacitor. Tinned copper leads are securely soldered to each end of the winding and to the terminal stud. The cover is sealed to the case by a double-lock roll seam. The unit is completely impregnated in LEKTROL, a non-PCB fluid which is biodegradeable, low toxic, and environmentally compatible. The terminal assembly consists of a molded pillar insulator and a one piece copper stud capable of 120 amps rms. The terminal assembly is securely locked to the cover to withstand a 30 inch-lb max. torque on steel covers and 20 inch-lb max. torque on non-ferrous covers.

CHARACTERISTICS

Polypropylene film is a low loss dielectric possessing high voltage stress capabilities. Combined with the extended foil construction, which minimizes series-resistance and series-inductance losses and allows for maximum heat transfer from within the winding, make these capacitors ideal for handling the fast rise time and high repetition rates associated with SCR commutation and other similar applications.

CASE RUPTURE PROTECTION

The internal construction of commutation capacitors, using heavy leads and secure connections necessary to handle the high currents, does not permit the use of an internal protective device to minimize case rupture. Since the non-PCB impregnant is a combustible liquid, it is extremely important that the capacitor user exercise caution to insure the safest possible application of the capacitor to minimize the case rupture hazards.

CAPACITANCE

The capacitance is rated in microfarads (MF) at 25°C. The capacitance change over the temperature range of -40°C to +90°C shall not exceed $\pm 5\%$.

DISSIPATION FACTOR

The dissipation factor shall not exceed 0.3% when measured at the 60 Hz rated voltage and any case temperature between 25°C and 90°C.

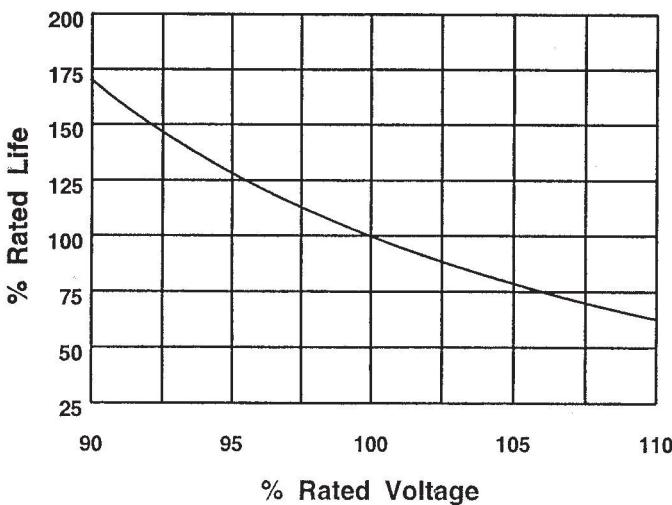
TEMPERATURE

The operating case temperature range is -40°C to +80°C.

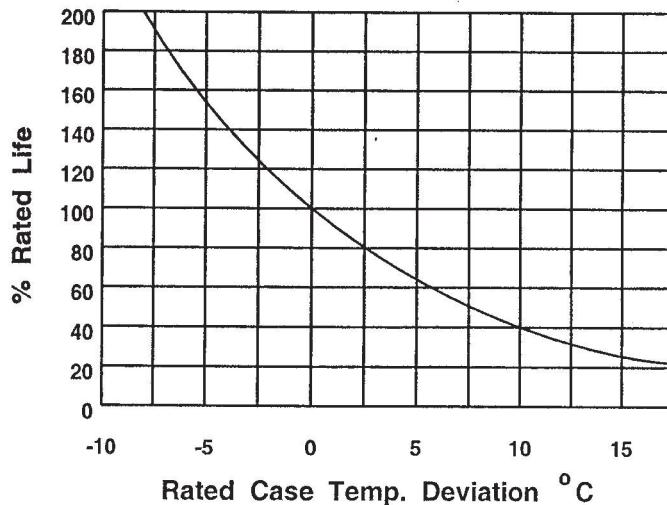
LIFE

The capacitors are designed to provide a minimum of 40,000 hours life with a 95% survival when operated at rated voltage, current, case temperature, and volt-amperes. Exceeding the capacitor ratings without proper derating will result in a reduction of full rated life.

Life vs Voltage



Life vs Case Temperature

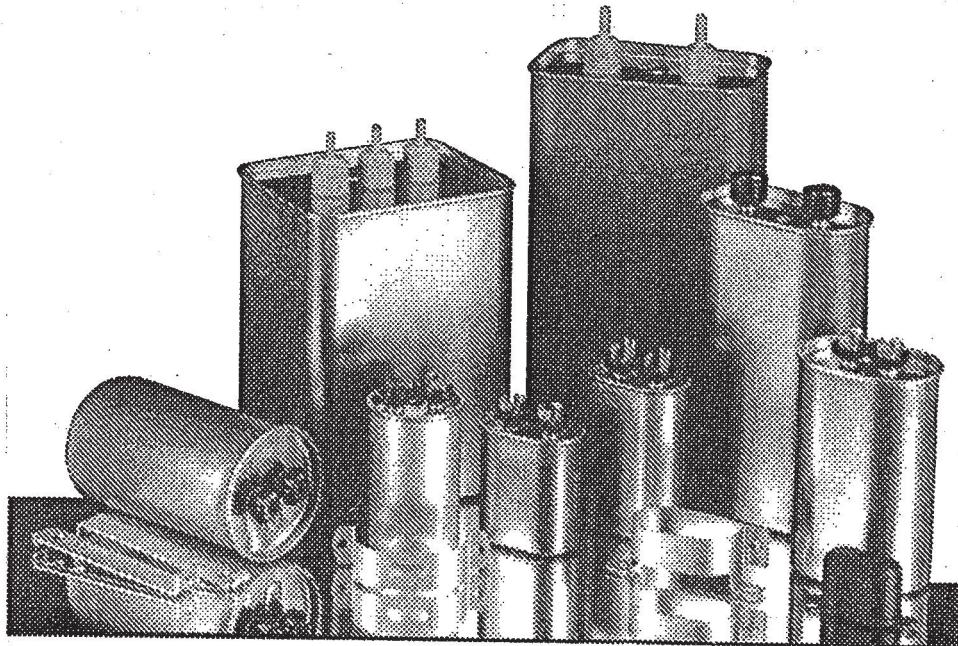


RONKEN

INDUSTRIES Inc.

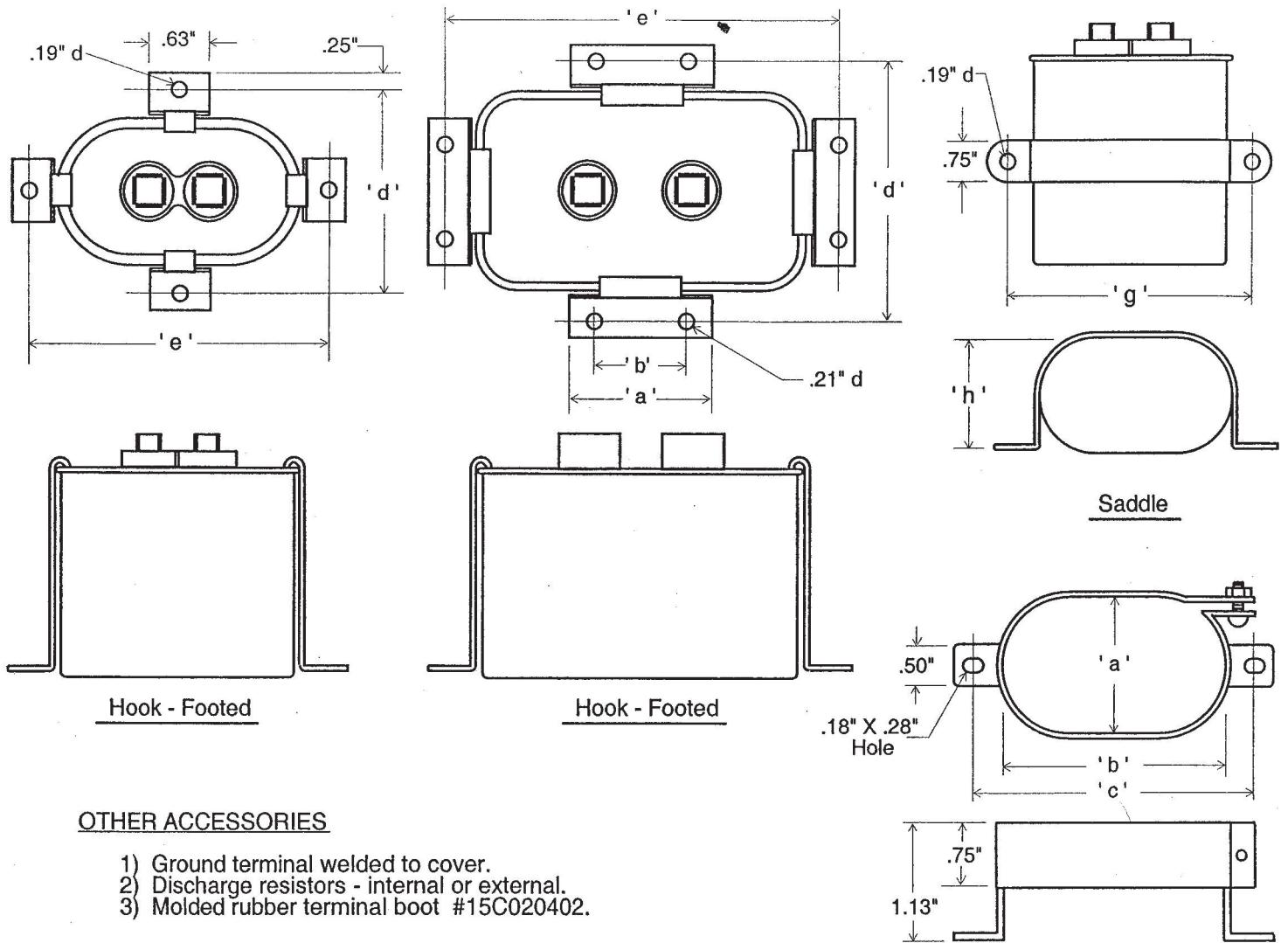
WOLFER INDUSTRIAL PARK
SPRING VALLEY, ILLINOIS 61362
PHONE 815-664-5306
FAX 815-664-5308
E-mail: ronken@ronkenind.com

FILM - PAPER SCR COMMUTATION CAPACITORS



400 - 2000 Vp APPLICATIONS

CATALOG CAP - 86



OTHER ACCESSORIES

- 1) Ground terminal welded to cover.
- 2) Discharge resistors - internal or external.
- 3) Molded rubber terminal boot #15C020402.

Consult factory for bracket configurations or accessories not listed.

Footed Wrap-Around

CAPACITOR MOUNTING BRACKETS - Zinc Plated Steel												
CASE STYLE	Hook-Footed					Saddle			Footed Wrap- Around			
	Part No.	a	b	d	e	Part No.	g	h	Part No.	a	b	c
A	25Q0210			1.75	2.63	25A011201	2.56	1.19	25A041202	1.23	2.06	2.69
C	25Q0210			2.38	3.38	25C011201	3.31	1.72	25C041202	1.80	2.80	3.44
D	25Q0210			2.44	4.13	25D011201	4.06	1.78	25D041202	1.86	3.55	4.19
E	25Q0222	1.38	.63	3.44	5.13							
	25Q0230	1.88	1.25	3.44	5.13							

OTHER RONKEN BULLETINS

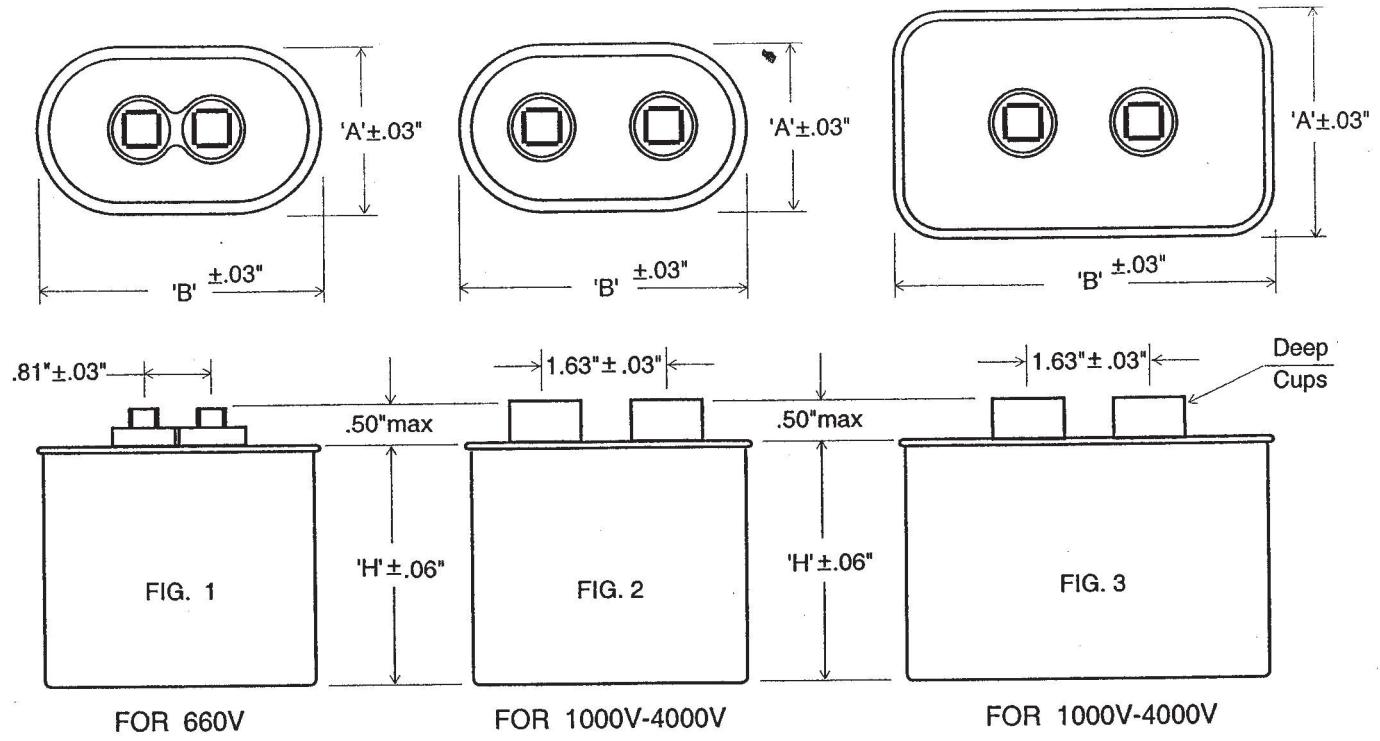
- | | |
|---------|--|
| CAP- 50 | TAPEWRAPPED Dry Filmet Capacitors |
| CAP- 61 | WETMET 480 - 725 VAC (film / metallized paper) Capacitors |
| CAP- 64 | ALL- FILM SCR Commutation Capacitors |
| CAP- 71 | ALL- PAPER 165 - 440 VAC Capacitors |
| CAP- 81 | FILM-PAPER 660 - 4000 VAC Capacitors |
| CAP- 86 | FILM-PAPER SCR Commutation Capacitors |
| CAP- 91 | FILMET 220 - 660 VAC (metallized polypropylene) Capacitors |

MF ± 6%	2000 VAC			2250 VAC			2500 VAC		
	CATALOG NO.	CASE STYLE	CASE HT.	CATALOG NO.	CASE STYLE	CASE HT.	CATALOG NO.	CASE STYLE	CASE HT.
.5	81A40504H14	A	4.25	81A41504H14	A	4.75	81C42504H14	C	3.13
.8	81C40804H14	C	3.50	81C41804H14	C	3.50	81D42804H14	D	3.88
1	81D40105H14	D	3.50	81D41105H14	D	3.50	81D42105H14	D	3.88
1.25	81D40135H50	D	3.50	81D41135H50	D	3.88	81D42135H50	D	4.75
1.5	81D40155H14	D	3.88	81D41155H14	D	4.25	81D42155H14	D	5.25
1.65	81D40175H50	D	4.25	81D41175H50	D	4.75	81D42175H50	D	6.25
1.75	81D40185H50	D	4.25	81D41185H50	D	4.75	81D42185H50	D	6.25
2	81D40205H14	D	4.75	81D41205H14	D	4.75	81D42205H14	D	6.25
2.25	81D40235H50	D	5.25	81D41235H50	D	5.75	81D42235H50	D	6.25
2.5	81D40255H14	D	5.75	81D41255H14	D	5.75	81D42255H14	D	7.25
2.75	81D40285H50	D	6.25	81D41285H50	D	6.75	81D42285H50	D	8.00
3	81D40305H14	D	6.25	81D41305H14	D	6.75	81D42305H14	D	9.00
3.25	81D40335H50	D	7.25	81D41335H50	D	7.25	81D42335H50	D	9.00
3.5	81D40355H14	D	7.25	81D41355H14	D	8.00	81D42355H14	D	9.88
4	81D40405H14	D	8.00	81D41405H14	D	9.00	81E42405H14	E	6.25
4.5	81D40455H14	D	9.00	81D41455H14	D	9.00	81E42455H14	E	7.25
5	81D40505H14	D	9.88	81E41505H14	E	6.25	81E42505H14	E	8.00
6	81E40605H14	E	7.25	81E41605H14	E	7.25	81E42605H14	E	9.00
7	81E40705H14	E	8.00	81E41705H14	E	8.00			
8	81E40805H14	E	9.00	81E41805H14	E	9.50			
	3000 VAC			3500 VAC			4000 VAC		
.5	81D44504H14	D	3.88	81D46504H14	D	3.88	81D48504H14	D	4.25
.8	81D44804H14	D	4.75	81D46804H14	D	4.75	81D48804H14	D	6.25
1	81D44105H14	D	5.25	81D46105H14	D	5.75	81D48105H14	D	7.25
1.25	81D44135H50	D	6.25	81D46135H50	D	7.25	81D48135H50	D	9.00
1.35	81D44145H50	D	6.25	81D46145H50	D	7.25	81D48145H50	D	9.88
1.5	81D44155H14	D	6.75	81D46155H14	D	8.00	81D48155H14	D	9.88
1.65	81D44175H50	D	6.75	81D46175H50	D	9.00	81E48175H50	E	7.25
1.75	81D44185H50	D	7.25	81D46185H50	D	9.00	81E48185H50	E	8.00
2	81D44205H14	D	8.00	81D46205H14	D	9.88	81E48205H14	E	8.00
2.25	81D44235H50	D	9.00	81E46235H50	E	7.25	81E48235H50	E	9.00
2.5	81D44255H14	D	9.00	81E46255H14	E	8.00			
2.75	81D44285H50	D	9.88	81E46285H50	E	8.00			
3	81D44305H14	D	9.88	81E46305H14	E	9.00			
3.5	81E44355H14	E	7.25						
4	81E44405H14	E	8.00						
4.5	81E44455H14	E	9.00						

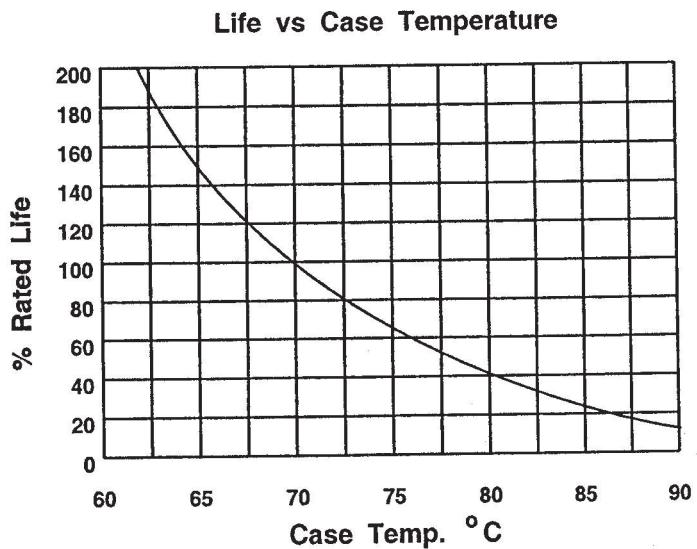
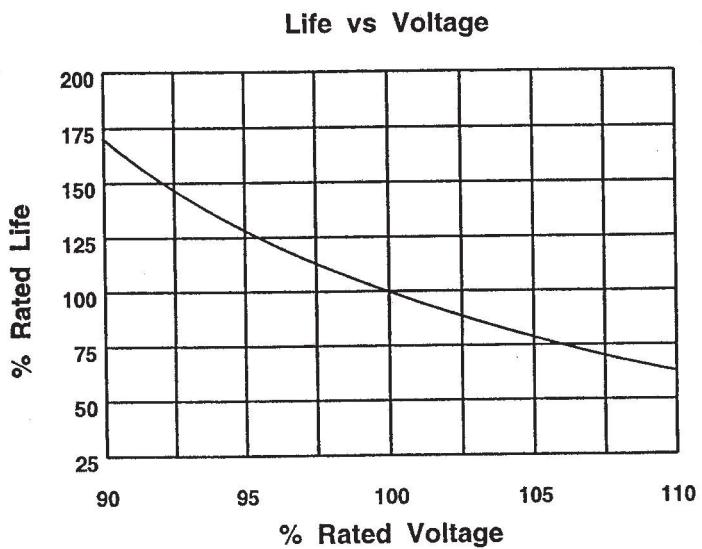
Consult factory for rating and sizes not listed.

MF ± 6%	660 VAC 70° CASE			660 VAC 90° CASE			1000 VAC		
	CATALOG NO.	CASE STYLE	CASE HT.	CATALOG NO.	CASE STYLE	CASE HT.	CATALOG NO.	CASE STYLE	CASE HT.
.5	USE 90° C			P81A29504H05	A	2.13	USE 1250 V		
1	USE 90° C			P81A29105H05	A	2.13	81A33105H14	A	2.63
1.5	USE 90° C			P81A26155H05	A	2.13	81A33155H14	A	3.13
2	P81A23205H05	A	2.13	P81A24205H05	A	2.13	81A33205H14	A	3.88
2.5	P81A23255H05	A	2.13	P81A24255H05	A	2.63	81A33255H14	A	4.25
3	P81A23305H05	A	2.63	P81A24305H05	A	3.13	81C33305H14	C	3.13
3.5	P81A23355H05	A	3.13	P81A24355H05	A	3.13	81C33355H14	C	3.50
4	P81A23405H05	A	3.13	P81A24405H05	A	3.50	81C33405H14	C	3.50
4.5							81D33455H14	D	3.50
5	P81A23505H05	A	3.50	P81A24505H05	A	4.25	81D33505H14	D	3.50
6	P81A23605H05	A	4.25	P81C24605H05	C	3.13	81D33605H14	D	4.25
7	P81A23705H05	A	4.75	P81C24705H05	C	3.13	81D33705H14	D	4.75
8	P81C23805H05	C	3.13	P81C24805H05	C	3.50	81D33805H14	D	4.75
9							81D33905H14	D	5.25
10	P81C23106H05	C	3.88	P81C24106H05	C	4.25	81D33106H14	D	5.75
11							81D33116H14	D	6.25
12	P81C23126H05	C	4.50	P81C24126H05	C	5.25	81D33126H14	D	6.75
13							81D33136H14	D	6.75
14							81D33146H14	D	7.25
15	P81C23156H05	C	5.75	P81D24156H05	D	4.50	81D33156H14	D	8.00
	1250 VAC			1500 VAC			1750 VAC		
.5	81A35504H14	A	2.63	81A37504H14	A	3.13	81A39504H14	A	3.88
1	81A35105H14	A	3.13	81A37105H14	A	3.50	81C39105H14	C	3.50
1.5	81A35155H14	A	3.88	81C37155H14	C	3.13	81D39155H14	D	3.88
2	81C35205H14	C	3.13	81C37205H14	C	3.50	81D39205H14	D	4.75
2.5	81C35255H14	C	3.50	81C37255H14	C	3.88	81D39255H14	D	5.25
3	81C35305H14	C	3.88	81D37305H14	D	3.88	81D39305H14	D	6.25
3.5	81D35355H14	D	3.50	81D37355H14	D	4.75	81D39355H14	D	6.75
4	81D35405H14	D	4.25	81D37405H14	D	4.75	81D39405H14	D	7.25
4.5	81D35455H14	D	4.25	81D37455H14	D	5.25	81D39455H14	D	8.00
5	81D35505H14	D	4.25	81D37505H14	D	6.25	81D39505H14	D	9.00
6	81D35605H14	D	5.25	81D37605H14	D	6.75	81D39605H14	D	9.88
7	81D35705H14	D	5.75	81D37705H14	D	7.25	81E39705H14	E	7.25
8	81D35805H14	D	5.75	81D37805H14	D	8.00	81E39805H14	E	8.00
9	81D35905H14	D	6.75	81D37905H14	D	9.00	81E39905H14	E	9.00
10	81D35106H14	D	7.25	81D37106H14	D	9.00	81E39106H14	E	9.50
11	81D35116H14	D	8.00	81D37116H14	D	9.88			
12	81D35126H14	D	9.00	81E37126H14	E	6.25			
13	81D35136H14	D	9.00	81E37136H14	E	6.75			
14	81D35145H14	D	9.88	81E37146H14	E	7.25			
15	81D35156H14	D	9.88	81E37156H14	E	8.00			

Consult factory for rating and sizes not listed.



CASE STYLE	'A'	'B'	FOR 660V FIG. NO.	FOR 1000V-4000V FIG. NO.
A	1.31	2.16	1	2
C	1.91	2.91	1	2
D	1.97	3.66	1	2
E	2.84	4.56		3



RONKEN STANDARD CAPACITOR

Tinplated steel case and cover.
 Terminals have four 1/4" wide quick-connect blades
 -- with webbed cups for 660 V.
 -- with single deep cups for 1000 V - 4000 V.
 Internal discharge resistor for 1000 V - 4000 V.

Also available with-
 Aluminum case and tinplated steel cover.
 Color coded for capacitance ranges.
 Corrosion resistant gray paint for outdoor use.
 Terminals with two 1/4" wide quick-connect
 blades and one fork solder-lug for 660 V.

APPLICATIONS

HID Lighting ---- Ferro-Resonant Power Supplies ---- Ultra Violet Light Curing ----
Reprographics ---- Microwave Oven ---- and Others.

CONSTRUCTION

The capacitor is constructed by winding alternate layers of capacitor grade kraft paper and low loss polypropylene film between high grade aluminum foil electrodes. Tinned copper tabs attached to aluminum foil flags are inserted at predetermined intervals during the winding process to make low loss electrical connections to the foil electrodes. The extended tabs are spotwelded to the terminal rivet on the underside of the cover and the cover is sealed to the case by a double-locked roll seam. The unit is completely impregnated with LEKTROL, a non-PCB fluid which is biodegradeable, low toxic, and environmentally compatible.

CHARACTERISTICS

Polypropylene film is a low loss dielectric possessing high voltage stress capabilities. These characteristics allow the polypropylene-paper capacitor to consume less energy and result in smaller physical size per volt-ampere than the all paper capacitor.

CASE RUPTURE PROTECTION

Since the non-PCB impregnant is a combustible liquid, RONKEN has incorporated into the capacitor cover assembly an internal pressure sensitive current interrupting device. This minimizes capacitor case rupture by reacting to the cover bulging. The cover bulges due to the pressure build-up caused by the gassing and excessive temperature associated with end of life capacitor failures. As the cover bulges, the pressure sensitive interrupter internally disconnects the capacitor terminals from the external power source. Therefore, it is necessary to allow a minimum of 1/2" clearance above the capacitor terminals for the cover to bulge.

The 660 V rated capacitors are U.L. Recognized under file #E78260.

CAPACITANCE

The capacitance is rated in microfarads (MF) at 25°C. The capacitance change over the operating temperature range of -40°C to +90°C shall not exceed $\pm 5\%$.

DISSIPATION FACTOR

The dissipation factor shall not exceed 0.3% when measured at the 60 HZ rated voltage and any case temperature between 25°C and 90°C.

TEMPERATURE

The operating case temperature range is -40°C to +70°C. However, the 70°C capacitors may be operated up to 90°C maximum hot spot case temperature with proper voltage derating.

FREQUENCY

The capacitor may be operated at any sinusoidal frequency up to 66 HZ.

LIFE

The capacitors are designed to provide a minimum of 60,000 hours life with a 90% survival when operated at rated voltage, frequency, and case temperature. Exceeding the capacitor ratings without proper derating will result in a reduction of full rated life.

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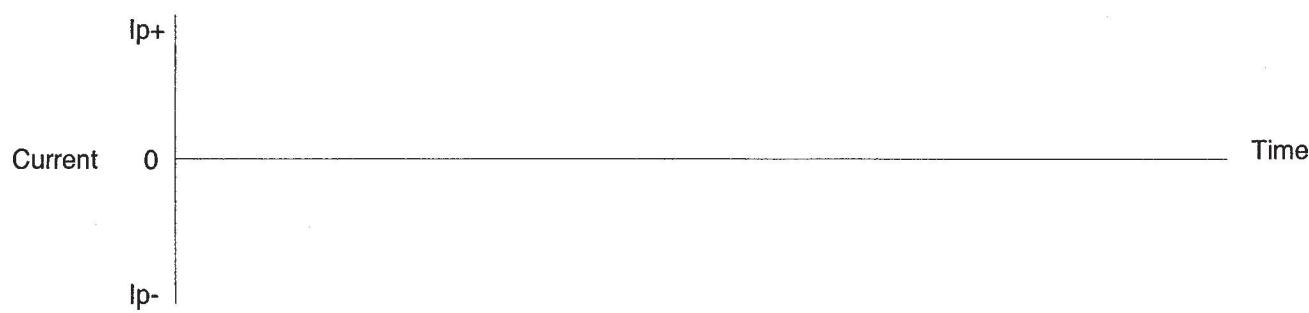
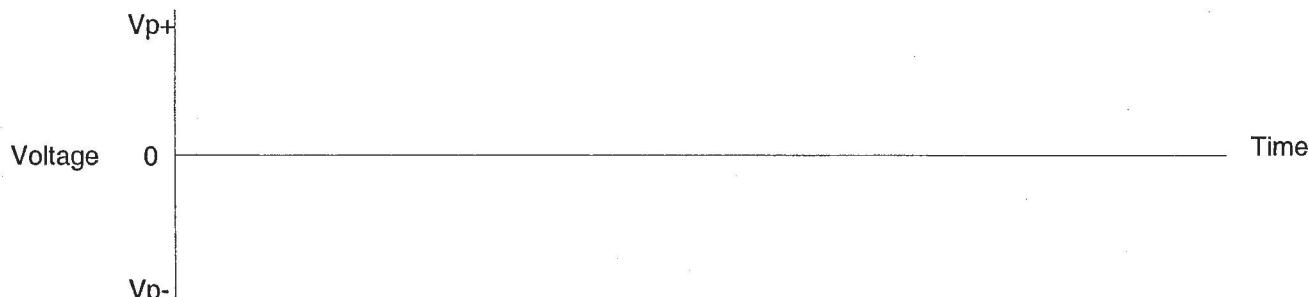
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FAX 815-664-5308

CAPACITOR APPLICATION DATA

To design the proper capacitor for your application , it is necessary that RONKEN be provided with the following application data. Of particular importance , is a sketch or photo of the voltage and current wave shapes including values and time for a complete cycle.

1. Application _____
2. Capacitance _____ MF Tolerance \pm _____ %
3. Peak Voltage _____ Effective Voltage _____
4. Peak Current _____ Effective Current _____
5. Repetition Rate _____ Duty Cycle _____
6. Capacitor Charge Time _____ Discharge Time _____
7. Capacitor Ambient _____ $^{\circ}$ C Max. _____ $^{\circ}$ C Normal _____ $^{\circ}$ C Min.
8. Waveshape Sketch --



9. Required Operating Life _____
10. Physical Size Limitations _____
11. Mounting Requirements _____
12. Cooling (heat sink, forced air, etc.) _____
13. Estimated Usage _____
14. Special Requirements _____