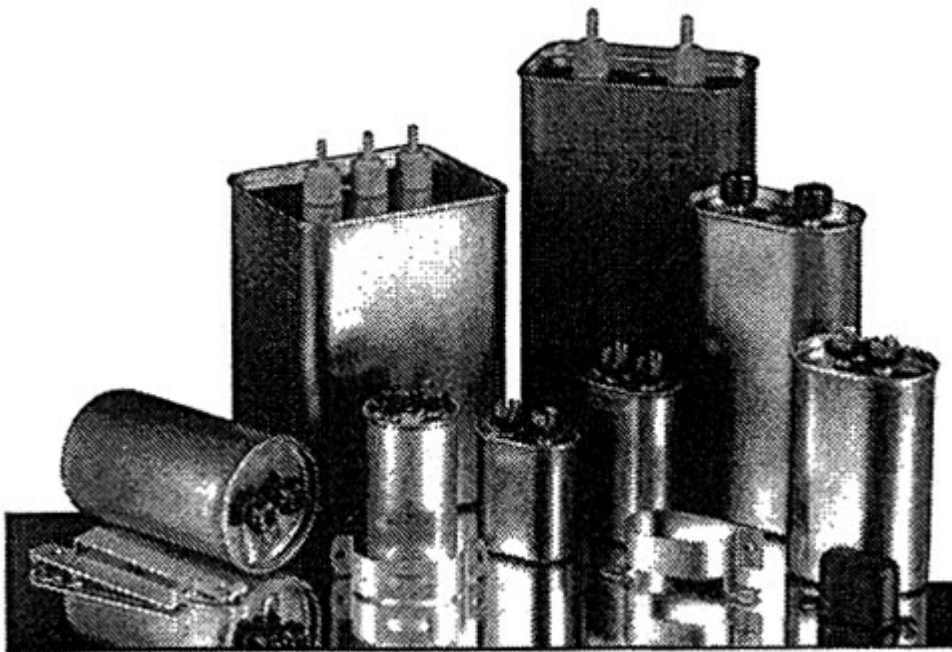




# METALIZED POLYPROPYLENE CAPACITORS



220 – 600 AC APPLICATIONS

CATALOG CAP – 91

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

## APPLICATIONS

SCA 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 biodegradable, 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 impregnate 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

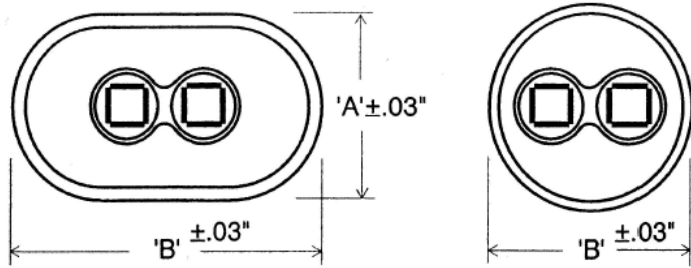
The dissipation factor shall not exceed 0.05% when measured at the 60 Hz rated voltage and any case temperature between 25°C and 90°C.

## TEMPERATURE

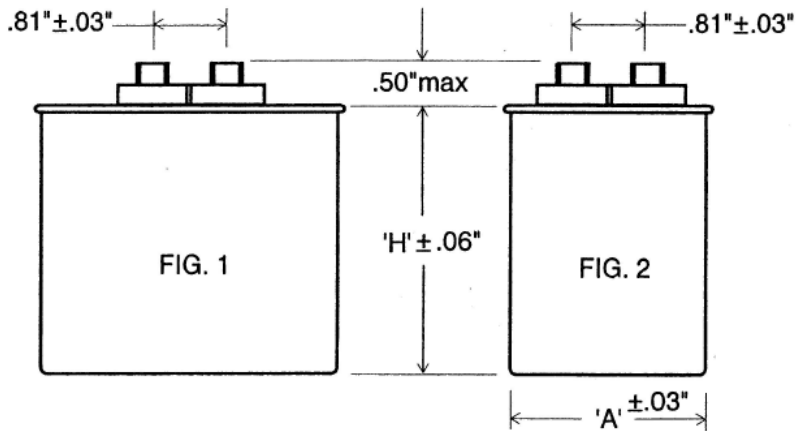
The operating case temperature range is -40°C to +80°C.

## LIFE

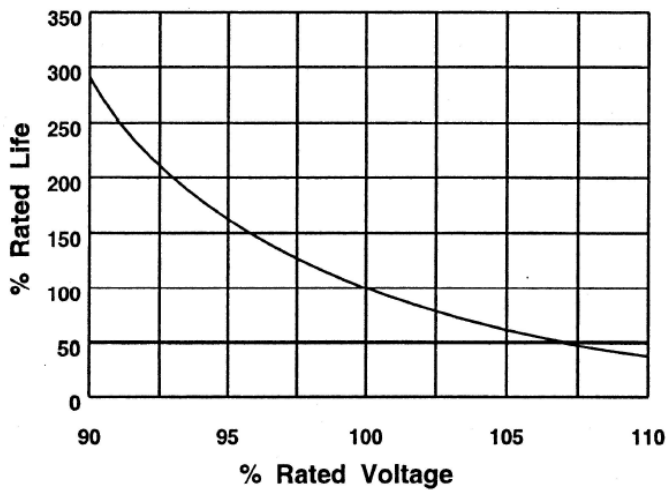
The capacitors are designed to provide a minimum of 40,000 hours life with a 95% survival when operated at rated voltage, current, case temperature, and volt-amperes. Exceeding the capacitor ratings without proper derating will result in a reduction of full rated life.



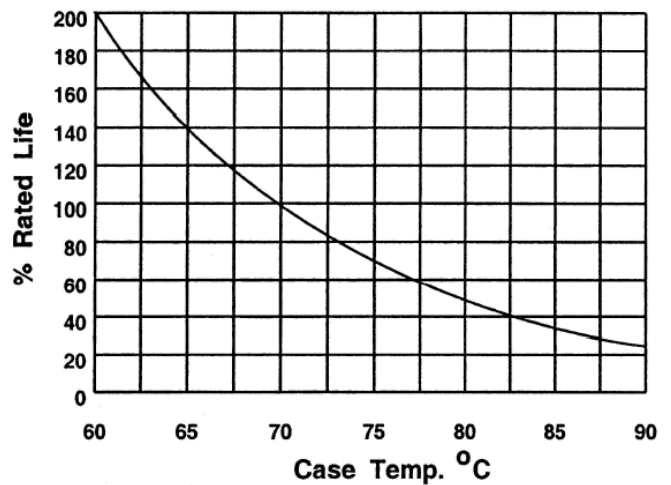
CASE STYLE	FIG. NO.	'A'	'B'
A	1	1.31	2.16
B	1	1.56	2.69
C	1	1.91	2.91
D	1	1.97	3.66
P	2	1.75	1.88
S	2	2.00	2.13
T	2	2.50	2.63



Life vs Voltage



Life vs Case Temperature



## RONKEN STANDARD CAPACITOR

Tinplated steel case and cover  
 Terminals have four ¼" wide quick-connect blades  
 --with webbed cups for 660V  
 --with single deep cups for 1000V – 4000V  
 Internal discharge resistor for 1000V – 4000V

Also available with:  
 Aluminum case and tinplated steel cover  
 Color coded for capacitance ranges  
 Terminals with two ¼" wide quick connect  
 Blades and one fork solder-lug for 660V

MF ± 10%	220 VAC			240 VAC		
	CATALOG NO.	CASE STYLE	CASE HT.	CATALOG NO.	CASE STYLE	CASE HT.
	OVAL CASE			OVAL CASE		
15.0	P91A07156K05	A	2.88	P91A09156K05	A	2.88
20.0	P91A07206K05	A	2.88	P91A09206K05	A	3.88
25.0	P91A07256K05	A	3.88	P91A09256K05	A	4.75
30.0	P91A07306K05	A	3.88	P91A09306K05	A	4.75
30.0				P91B09306K05	B	3.88
35.0	P91A07356K05	A	4.75	P91B09356K05	B	4.75
35.0	P91B07356K05	B	2.88	P91C09256K05	C	2.88
40.0	P91A07406K05	A	4.75	P91B09406K05	B	4.75
40.0	P91B07406K05	B	3.88	P91C09406K05	C	3.88
45.0	P91B07456K05	B	3.88	P91C09456K05	C	3.88
45.0	P91C07456K05	C	2.88			
50.0	P91B07506K05	B	4.75	P91C09506K05	C	3.88
50.0	P91C07506K05	C	2.88			
60.0	P91B07606K05	B	4.75	P91C09606K05	C	4.75
60.0	P91C07606K05	C	3.88			
70.0	P91C07706K05	C	3.88	P91D09706K08	D	2.88
80.0	P91C07806K05	C	4.75	P91D07806K08	D	3.88
90.0	P91C07906K05	C	4.75	P91D09906K05	D	3.88
100.0	P91C07107K05	C	4.75	P91D09107K05	D	3.88
125.0	P91D07137K50	D	3.88	P91D09137K50	D	4.75
ROUND CASE			ROUND CASE			
15.0	P91P07156K05	P	2.13	P91P09156K05	P	2.13
17.5	P91P07186K05	P	2.13	P91P09186K05	P	2.13
20.0	P91P07206K05	P	2.13	P91P09206K05	P	2.13
25.0	P91P07256K05	P	2.13	P91P09256K05	P	2.88
30.0	P91P07306K05	P	2.88	P91P09306K05	P	2.88
35.0	P91P07356K05	P	2.88	P91P09356K05	P	3.88
40.0	P91P07406K05	P	2.88	P91P09406K05	P	3.88
40.0				P91S09406K05	S	2.88
45.0	P91P074456K05	P	2.88	P91P09456K05	P	4.75
45.0				P91S09456K05	S	3.88
50.0	P91P07506K05	P	3.88	P91P09506K05	P	4.75
50.0				P91S09506K05	S	3.88
60.0	P91P07606K05	P	3.88	P91P09606K05	P	4.75
60.0	P91S07606K05	S	2.88	P91S09606K05	S	4.75
70.0	P91P07706K05	P	4.75	P91S09706K05	S	4.75
70.0	P91S07706K05	S	3.88	P91T09406K05	T	3.88
80.0	P91S07806K05	S	3.88	P91T09806K05	T	3.88
90.0	P91S07906K05	S	4.75	P91T09906K05	T	3.88
100.0	P91S07107K05	S	4.75	P91T09107K05	T	4.75
125.0	P91T07137K50	T	3.88	P91T09137K50	T	4.75

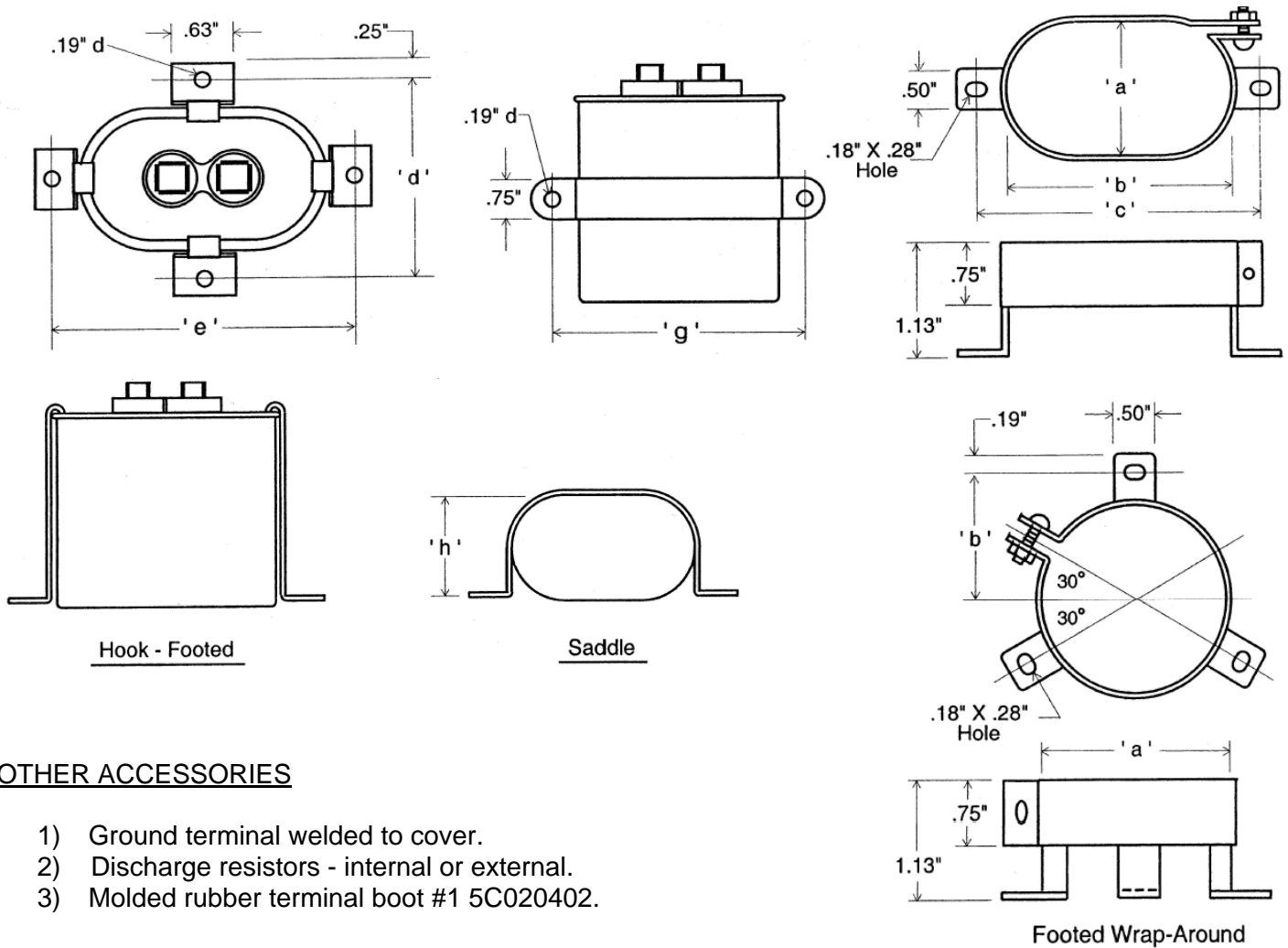
Consult factory for rating and sizes not listed.

MF ± 10%	370VAC			440 VAC		
	CATALOG NO.	CASE STYLE	CASE HT.	CATALOG NO.	CASE STYLE	CASE HT.
	OVAL CASE			OVAL CASE		
4.0	P91A12405K05	A	2.88	P91A15405K05	A	2.13
5.0	P91A12505K05	A	2.88	P91A15505H05	A	2.13
7.5	P91A12755K05	A	3.88	P91A15755K05	A	2.88
10.0	P91A12106K05	A	3.88	P91A15106K05	A	3.88
12.5	P91A12136K05	A		P91A15136K05	A	3.88
15.0	P91A12156K05	A	4.75	P91A15156K05	A	4.75
15.0				P91B15156K05	B	3.88
17.5	P91A12186K05	A	4.75	P91B15186K05	B	3.88
17.5	P91B12186K05	B	3.88	P91C15186K05	C	2.88
20.0	P91A12206K05	A	3.88	P91B15206K05	B	4.75
20.0	P91B12206K05	B	2.88	P91C15206K05	C	2.88
25.0	P91B12256K05	B	4.75	P91B15256K05	B	4.75
25.0	P91C12256K05	C	2.88	P91C15256K05	C	3.88
30.0	P91C12306K05	C	4.75	P91C15306K05	C	3.88
35.0	P91C12356K05	C	3.88	P91C15356K05	C	4.75
40.0	P91C12406K05	C	3.88	P91C15406K05	C	4.75
45.0	P91C12456K05	C	4.75	P91D15456K05	D	3.88
50.0	P91C12506K05	C	4.75	P91D15506K05	D	3.88
60.0	P91D12606K05	D	4.75	P91D15606K05	D	4.75
70.0	P91D12706K05	D	3.88	P91D15706K05	D	4.75
ROUND CASE			ROUND CASE			
5.0	USE 440AC			P91P15505K05	P	2.13
6.0	USE 440AC			P91P15605K05	P	2.13
7.5	P91P12755K05	P	2.13	P91P15755K05	P	2.13
10.0	P91P12106K05	P	2.13	P91P15106K05	P	2.13
12.5	P91P12136K05	P	2.88	P91P15136K05	P	2.88
15.0	P91P12156K05	P	2.88	P91P15156K05	P	2.88
17.5	P91P12186K05	P	2.88	P91P15186K05	P	3.88
20.0	P91P12206K05	P		P91P15206K05	S	3.88
20.0				P91S15206K05	S	2.88
25.0	P91P12256K05	P		P91P15256K05	P	3.88
25.0	P91S12256K05	S	3.88	P91S15256K05	S	3.88
30.0	P91P12306K05	P		P91P15306K05	P	4.75
30.0	P91S12306K05	S	3.88	P91S15306K05	S	3.88
35.0	P91P12356K05	P	2.88	P91S15356K05	S	4.75
35.0	P91S12356K05	S	4.75	P91T15356K05	T	2.88
40.0	P91S12406K05	S	3.88	P91S15406K05	S	4.75
45.0	P91S12456K05	S	3.88	P91T15456K05	T	3.88
50.0	P91S12506K05	S	4.75	P91T15506K05	T	3.88
60.0	P91T12606K05	T	4.75	P91T15606K05	T	4.75
70.0	P91T12706K05	T	3.88	P91T15706K05	T	4.75

Consult factory for rating and sizes not listed.

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.
1.0	USE 660AC			USE 660AC			P91A24105H05	A	2.13
2.0	USE 660AC			P91A22205H05	A	2.13	P91A23205H05	A	2.13
3.0	P91A19305H05	A	2.13	P91A22305H05	A	2.13	P91A23305H05	A	2.88
4.0	P91A19405H05	A	2.13	P91A22405H05	A	2.88	P91A23405H05	A	2.88
5.0	P91A19505H05	A	2.88	P91A22505H05	A	2.88	P91A23505H05	A	3.88
6.0	P91A19605H05	A	2.88	P91A22605H05	A	3.88	P91A23605H05	A	3.88
7.0	P91A19705H05	A	3.88	P91A22708H05	A	3.88	P91A23705H05	A	4.75
8.0	P91A19805H05	A	3.88	P91A22805H05	A	4.75	P91A23805H05	A	4.75
10.0	P91A19105H05	A	4.75	P91B22106H05	B	3.88	P91B23106H05	B	3.88
10.0	P91B19106H05	B	2.88	P91C22106H05	C	2.88	P91C23106H05	C	2.88
12.0	P91A19126H05	A	4.75	P91B22126H05	B	3.88	P91B23126H05	B	4.75
12.0	P91B19126H05	B	3.88	P91C22126H05	C	4.75	P91C23126H05	C	3.88
15.0	P91B19156H05	B	3.88	P91B22156H05	B	3.88	P91B23156H05	B	5.75
15.0	P91C19156H05	C	2.88	P91C22156H05	C	3.88	P91C23156H05	C	3.88
18.0	P91C19186H05	C	3.88	P91C22186H05	C	3.88	P91C23186H05	C	4.75
20.0	P91C19206H05	C	3.88	P91C22206H05	C	45.75	P91C23206H05	C	4.75
25.0	P91C19256H05	C	4.75	P91C22256H05	C	4.75	P91C23256H05	C	5.75
30.0	P91C19306H05	C	4.75	P91D22306H05	D	3.88	P91D23306H05	D	3.88
35.0	P91D19356H05	D	3.88	P91D22356H05	D	3.88	P91D23356H05	D	4.75
40.0	P91D19406H05	D	3.88	P91D22406H05	D	4.75	P91D23405H05	D	4.75
	<b>ROUND CASE</b>			<b>ROUND CASE</b>			<b>ROUND CASE</b>		
6.0	P91P19306H05	P	2.13	P91P22605H05	P	2.13	P91P23605H05	P	2.88
7.0	P91P19705H05	P	2.13	P91P22705H05	P	2.13	P91P23705H05	P	2.88
8.0	P91P19805H05	P	2.13	P91P22805H05	P	2.88	P91P23805H05	P	2.88
10.0	P91P19106H05	P	2.88	P91P22106H05	P	2.88	P91P23105H05	P	3.88
10.0							P91S23105H05	S	2.88
12.0	P91P19126H05	P	2.88	P91P22126H05	P	3.88	P91P23126H05	P	3.88
12.0							P91S23126H05	S	2.88
15.0	P91P19156H05	P	3.88	P91P22156H05	P	3.88	P91P23156H05	P	4.75
15.0							P91S23156H05	S	3.88
18.0	P91P19186H05	P	3.88	P91P22186H05	P	4.75	P91P23186H05	P	4.75
18.0	P91D19186H05	S	2.88	P91S22186H05	S	3.88	P91T23186H05	T	2.88
20.0	P91P19206H05	P	4.75	P91P22206H05	P	4.75	P91S23206H05	S	4.75
20.0	P91S19206H05	S	3.88	P91S22206H05	S	4.75	P91T23206H05	T	2.88
25.0	P91P19256H05	P	4.75	P91D22256H05	S	4.75	P91S23256H05	S	5.75
25.0	P91S19256H05	S	3.88	P91T222546H05	T	3.88	P91T23256H05	T	3.88
30.0	P91S19306H05	S	4.75	P91T22306H05	T	3.88	P91T23306H05	T	4.75
35.0	P91S19356H05	S	4.75	P91T22356H05	T	4.75	P91T23356H05	T	4.75
40.0	P91T19406H05	T	3.88	P91T22406H05	T	4.75	P91T23406H05	T	5.75
45.0	P91T19456H05	T	4.75	P91T22456H05	T	4.75	P91T23456H05	T	5.75
50.0	P91T19506H05	T	4.75	P91T22506H05	T	5.75	P91T23506H05	T	7.62

Consult factory for rating and sizes not listed.



**OTHER ACCESSORIES**

- 1) Ground terminal welded to cover.
- 2) Discharge resistors - internal or external.
- 3) Molded rubber terminal boot #1 5C020402.

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	c
A	25Q0210	1.75	2.63	25A011201	2.56	1.19	25A041202	1.23	2.06	2.69
B	25Q0210	2.00	3.13	25B011201	3.13	1.44	25B041202	1.48	2.61	3.27
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
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 Film Capacitors
CAP-61	WETMET	480 - 725 VAC (film/metalized 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 (metalized polypropylene) Capacitors