

Snap-In Capacitors
GP Grade

B41840
B43840

Standard series

Construction

- Charge discharge proof, polar
- Aluminum case with insulating sleeve
- Snap-in solder pins to hold component on PC-board
- Minus pole marking on case surface
- Minus pole not insulated from case
- All welded construction
- Standard 10 mm lead spacing



Features

- Low equivalent series resistance ESR
- High ripple current capability
- High CV product, i. e. extremely compact

Applications

- Switched-mode power supplies in industrial and entertainment electronics

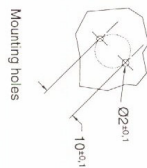
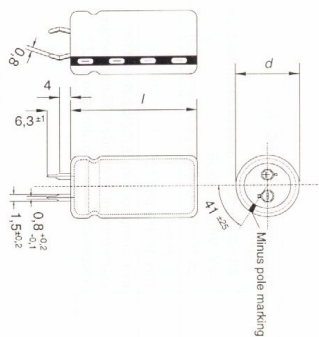
Specifications and characteristics in brief

	B41 840	B43 840
Rated voltage V_R	25 ... 100 Vdc	160 ... 450 Vdc
Surge voltage V_S	1,15 · V_R	1,15 · V_R (for $V_R \leq 250$ Vdc) 1,1 · V_R (for $V_R \geq 385$ Vdc)
Rated capacitance C_R	680 ... 15 000 μ F	47 ... 1000 μ F
Capacitance tolerance	$\pm 20\%$ (M)	$\pm 20\%$ (M)
Service life		
40 °C, V_S	$> 100\,000$ h (1,1 · $I_{ACR, 85^\circ C}$)	$> 100\,000$ h (1,1 · $I_{ACR, 85^\circ C}$)
85 °C, V_R ; I_{ACR}	$> 2\,000$ h	$> 2\,000$ h
Fraction failure	$\leq 1\%$ (during the service life)	$\leq 1\%$ (during the service life)
Failure rate	≤ 100 fit ($\leq 100 \cdot 10^9$ h)	≤ 100 fit ($\leq 100 \cdot 10^9$ h)
Voltage endurance test	10000 h, 85 °C (at V_R)	10000 h, 85 °C (at V_R)
Self-inductance ESL	approx. 20 nH	

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IEC climatic category	In accordance with IEC 68-1 ≤ 400 Vdc; 40/85/56 (-40 °C/+85 °C, 56 days of damp heat, steady state test) > 450 Vdc; 25/85/56 (-25 °C/+85 °C, 56 days of damp heat, steady state test)
Sectional specifications	IEC 384-4 DIN 45 910 part 12
Vibration resistance	In accordance with IEC 68-2-6, test Fc: displacement amplitude 0,35 mm, frequency range 10 ... 4 acceleration max. 5 g, duration 3 x 2 h

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Dimensions (mm) $d \pm 1$	Approx. weight (g)	Packing units (pieces)	Dimensions (mm) $d \pm 1$	Approx. weight (g)	Packing units (pieces)
22	9	200	30	17	200
22	30	200	30	30	200
22	40	200	30	40	200
22	45	200	30	45	200
22	50	200	30	50	200
25	25	200	35	30	100
25	30	200	35	40	100
25	40	200	35	45	100
25	45	200	35	50	100
25	50	200			

Snap-in capacitors with diameter 35 mm are also available in 4 terminals construction. For further information refer to page 198

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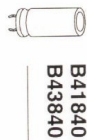
Type B 41 840

V_R (Vdc)	25	50	63	70	100
C_R (µF)	Case dimensions $d \times l$ (mm)				
680					22 x 25
1 000				30 x 30	22 x 30
1 500					22 x 45
2 200		22 x 25			22 x 50
2 500				35 x 40	
3 300		25 x 25	22 x 40		30 x 40
4 700	25 x 25	30 x 25	25 x 40		35 x 45
5 000				35 x 50	
6 800	22 x 30	25 x 45			35 x 50
10 000		30 x 45			
15 000	25 x 45	35 x 45			

Type B 43 840

V_R (Vdc)	160	200	250	385	400	450
C_R (µF)	Case dimensions $d \times l$ (mm)					
47					22 x 25	
100					22 x 40	22 x 45
150					22 x 45	25 x 45
220	22 x 25		22 x 30	22 x 45	25 x 40	
			30 x 30	30 x 30	30 x 30	
270					25 x 50	
330	22 x 45	22 x 45	22 x 40		25 x 50	25 x 50
470		30 x 30	25 x 45		30 x 50	
			35 x 30		35 x 50	
560			25 x 45			
680			30 x 40			
1 000			35 x 45		35 x 55	

The capacitance and voltage ratings listed above are available in smaller cases upon request.
Other voltage and capacitance ratings are also available upon request



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Technical data and ordering codes

V_R	C_R	Case Dimensions $d \times l$ mm	I_{Lmax} 5 min 25 °C μA	$\tan \delta_{max}$ 120 Hz 25 °C	ESR_{max} 120 Hz 25 °C m Ω	IaC_{max} 120 Hz 40 °C A	IaC_R 120 Hz 85 °C A	Ordering code Short Code
B41840-								
25	4 700	25 x 25	685	0,35	123	3,2	1,8	-A5478-M
	6 800	22 x 30	824	0,35	85	4,1	2,3	-A5688-M
	15 000	25 x 45	1225	0,40	44	7,0	3,9	-A5159-M
50	2 200	22 x 25	660	0,25	188	2,9	1,6	-A6228-M
	3 300	25 x 25	810	0,30	150	3,6	2,0	-A6338-M
	4 700	22 x 40	970	0,30	105	4,0	2,2	-A6478-M
	6 800	30 x 25	970	0,30	105	3,7	2,1	-F6478-M
	10 000	25 x 45	1166	0,30	73	5,8	3,2	-A6688-M
	15 000	30 x 45	1414	0,35	58	6,8	3,8	-A6109-M
		35 x 45	1732	0,35	39	8,1	4,5	-A6159-M
63	3 300	22 x 40	912	0,30	150	4,1	2,3	-A6338-M
	4 700	25 x 40	1088	0,30	105	5,3	2,9	-A6478-M
70	1 000	30 x 30	2120	0,20	294	1,8	1,0	-A8108-M
	2 500	35 x 40	3000	0,25	147	3,1	1,7	-A8258-M
	5 000	35 x 50	3000	0,30	88	5,4	3,0	-A8508-M
100	680	22 x 25	521	0,20	487	2,0	1,1	-A9687-M
	1 000	22 x 30	632	0,20	331	2,5	1,4	-A9108-M
	1 500	22 x 45	774	0,20	221	3,3	1,9	-A9158-M
	2 200	22 x 50	938	0,20	150	4,0	2,2	-A9228-M
	3 300	30 x 40	1149	0,30	150	4,9	2,7	-A9338-M
	4 700	35 x 45	1371	0,30	105	6,3	3,5	-A9478-M
	6 800	35 x 50	1649	0,30	73	8,5	4,7	-A9688-M
B43840-								
160	220	22 x 25	375	0,15	1130	1,4	0,75	-A1227-M
	330	22 x 45	1060	0,10	502	2,0	1,1	-A1337-M
200	330	22 x 45	1320	0,15	754	2,0	1,1	-A2337-M
	470	30 x 30	610	0,10	352	2,2	1,8	-A2477-M
250	220	22 x 30	470	0,10	753	2,5	1,4	-A2227-M
	330	22 x 40	574	0,10	502	2,5	1,4	-F2337-M
	470	35 x 30	680	0,10	352	3,3	1,9	-F2477-M
	680	25 x 45	685	0,10	352	3,4	1,9	-K2477-M
	560	25 x 45	2800	0,08	236	4,0	2,2	-A2567-M
	680	30 x 40	824	0,10	243	4,6	2,5	-A2687-M
	1 000	35 x 45	1000	0,10	165	5,0	2,8	-A2108-M
385	220	22 x 45	870	0,20	1508	2,0	1,1	-A3227-M
	220	30 x 30	873	0,20	1507	2,6	1,5	-F3227-M

For instructions on how to determine the ordering codes, refer to page 161.



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V_R	C_R	Case Dimensions $d \times l$ mm	I_{Lmax} 5 min 25 °C μA	$\tan \delta_{max}$ 120 Hz 25 °C	ESR_{max} 120 Hz 25 °C m Ω	IaC_{max} 120 Hz 40 °C A	IaC_R 120 Hz 85 °C A	Ordering code Short Code
400	47	22 x 25	274	0,25	8818	0,72	0,40	-A9478-M
	100	22 x 40	400	0,25	4144	1,4	0,80	-A9107-M
	150	22 x 45	490	0,25	2763	1,7	0,95	-A9157-M
	220	25 x 40	590	0,25	1883	2,0	1,1	-A9227-M
	220	30 x 30	1760	0,20	1510	2,7	1,5	-F9227-M
	330	25 x 50	593	0,25	1883	2,2	1,2	-K9227-M
	330	25 x 50	727	0,25	1255	3,1	1,7	-A9337-M
	330	30 x 50	727	0,25	1255	3,1	1,7	-F9337-M
	470	35 x 50	867	0,25	882	3,2	1,8	-A9477-M
	680	35 x 55	1043	0,25	609	3,4	1,9	-A9687-M
450	100	22 x 45	424	0,25	4144	0,90	0,50	-A5107-M
	150	25 x 45	520	0,25	2762	1,3	0,70	-A5157-M
	270	25 x 50	2000	0,20	1228	2,1	1,2	-A5277-M

How to determine the ordering code

To obtain the required ordering code, prefix the type number to the short code.

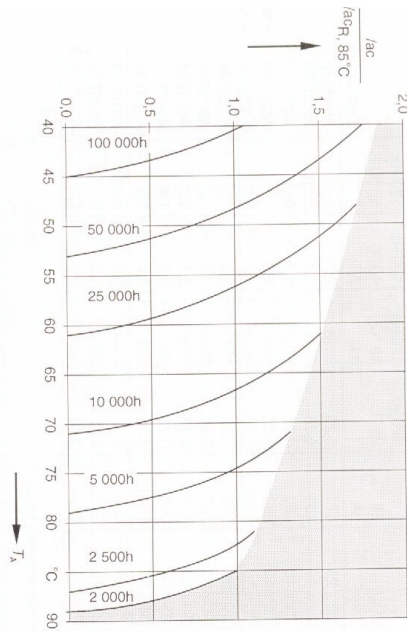
E.g.: B43840-A5107-M

Type number	$V_R = 25 \dots 100$ Vdc	$V_R = 160 \dots 450$ Vdc
	B41840-...	B43840-...

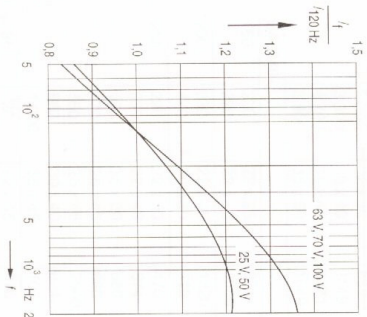


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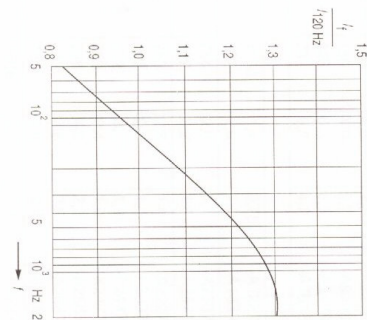
Service life
versus temperature T_A under ripple operating conditions ¹⁾



Permissible ripple current I_{ac}
versus frequency f
 $V_R \leq 100$ Vdc



Permissible ripple current I_{ac}
versus frequency f
 $V_R \geq 160$ Vdc

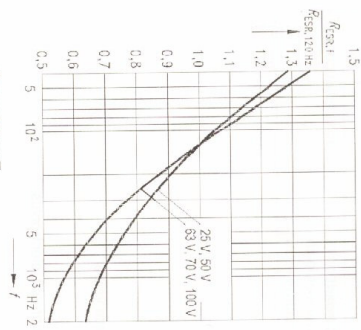


¹⁾ Refer to page 31 for an explanation on how to interpret the service life graphs.

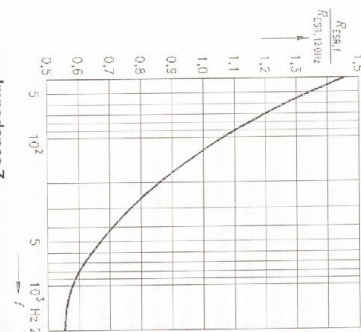


B4184U
B4384U

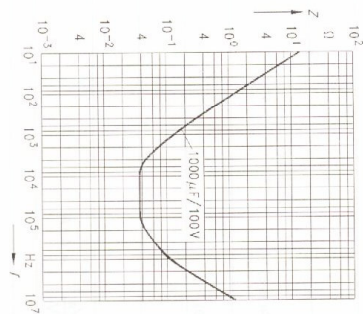
Equivalent series resistance ESR
versus frequency f
Typical behavior
 $V_R \leq 100$ Vdc



Equivalent series resistance ESR
versus frequency f
Typical behavior
 $V_R \geq 160$ Vdc



Impedance Z
versus frequency f
Typical behavior
 $V_R \leq 100$ Vdc



Impedance Z
versus frequency f
Typical behavior
 $V_R \geq 160$ Vdc

