

EBH-Press Fit

Endurance 4.000h at 105°C

Rated voltage range: 6,3V to 450V, Nominal capacitance range: 47µF to 120.000µF

Size range: Ø 36 x 58mm to Ø 36 x 83mm

RoHS compliant

Special types on request



Specifications

	Characteristics									
Temperature range	- 40°C to +105°C									
Rated voltage range	6,3V to 450V									
Capacitance tolerance	±20% (at 20°C, 100Hz)									
Leakage current I_{ra}	I _{ra} =0,006·C _R ·V _R + 4µA, (I _{ra} [µA], C _R : Rated capacitance [µF], V _R : Rated voltage [V]) (at 20°C, 5 minutes)									
Dissipation factor tan δ (D.F.)	Less than shown in Standard Ratings. (at 20°C, 100Hz)									
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 4.000 hours at 105°C.									
	Capacitance change	ΔC/C0 ≤ ±20%								
	D.F. (tan δ)	Δtan δ ≤ +200% of the initial specification value								
	Leakage current (I _{ra})	I _{ra} ≤ the initial specified value								
Shelf life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1.000 hours at 105°C without voltage applied.									
	Capacitance change	ΔC/C0 ≤ ±20%								
	D.F. (tan δ)	Δtan δ ≤ +200% of the initial specification value								
	Leakage current (I _{ra})	I _{ra} ≤ +200% of the initial specification value								
Surge voltage test	Rated voltage (V _R)	6,3V	10V	16V	25V	35V	50V	63V	80V	100V
	Surge voltage (V _S)	7,2V	11,5V	18,4V	28,8V	40,3V	57,5V	72,5V	92V	115V
	Rated voltage (V _R)	160V	200V	250V	350V	400V	450V			
	Surge voltage (V _S)	184V	230V	288V	385V	440V	495V			
	The capacitors shall be subjected to 1.000 cycles each consisting of charging with the specified surge voltage for 30±5 seconds through a protective resistor (R=0,1/C _R) and open-circuiting for 330 seconds at 105°C. The following specifications shall be satisfied when the capacitors are restored to 20°C.									
	Appearance	No significant damage								
	Capacitance change	ΔC/C0 ≤ ±10%								
	D.F. (tan δ)	Δtan δ ≤ the initial specified value								
	Leakage current (I _{ra})	I _{ra} ≤ the initial specified value								

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ISO 9001

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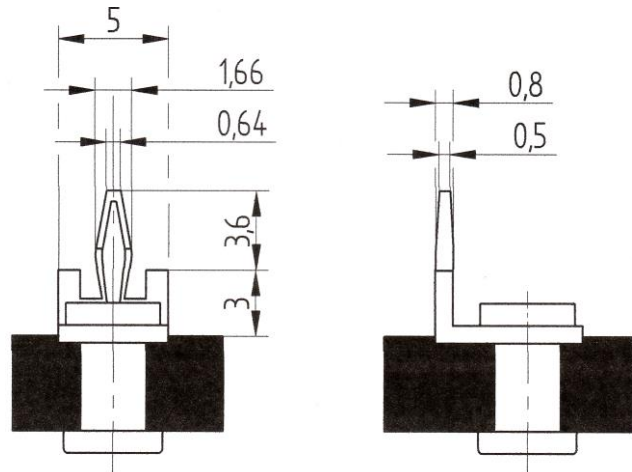
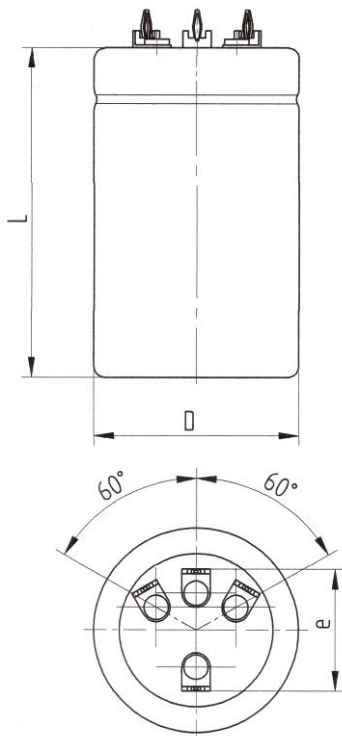
Adress: Dammstraße 46

Germany-09599 Freiberg/ Saxony

Large Capacitance- Press Fit- Aluminum Electrolytic Capacitor,
Insulated, Polarized, Pulse proof,
Endurance at least 4.000h at +105°C

EBH-Press Fit

variant G



Generic specification:
DIN EN 60384-1

Sectional specification:
DIN EN 60384-4
without quality assessment

Operating temperature range:
- 40°C to +105°C

Climatic category:
40/105/56

Capacitance tolerance:
±20%

Surge voltage V_S :
 $V_S = 1,15 \cdot V_R (\leq 315V)$
 $V_S = 1,10 \cdot V_R (> 315V)$

Leakage current I_{ra} :
Measured at V_R at +20°C
 $I_{ra} \leq 0,01 \cdot C_R \cdot V_R + 4\mu A$
(typical after 1 min.)

$I_{ra} \leq 0,006 \cdot C_R \cdot V_R + 4\mu A$
(after 5 min.)
 C_R : Rated capacitance [μF]
 V_R : Rated voltage [V]

D x L	D	L	e
	max	max	± 0,5
36 x 58	36,0	58,0	22,5
36 x 83	36,0	83,0	22,5

Endurance at least	
Ambient temperature	
≤ +40°C	400.000h
+85°C	16.000h
+105°C	4.000h

Dimensions Overview D x L															
Cap. C _R [µF]	Rated voltage V _R [V]														
	6,3	10	16	25	35	50	63	80	100	160	200	250	350	400	450
47															36 x 58
56															36 x 58
68														36 x 58	36 x 58
82														36 x 58	36 x 58
100													36 x 58	36 x 58	36 x 58
120													36 x 58	36 x 58	36 x 58
150												36 x 58	36 x 58	36 x 58	36 x 58
180												36 x 58	36 x 58	36 x 58	36 x 58
220											36 x 58	36 x 58	36 x 58	36 x 58	36 x 58
270											36 x 58	36 x 58	36 x 58	36 x 58	36 x 58
330										36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 83
390									36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 83	36 x 83
470									36 x 58	36 x 58	36 x 58	36 x 58	36 x 83	36 x 83	36 x 83
560								36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 83	36 x 83	
680								36 x 58	36 x 58	36 x 58	36 x 58	36 x 83	36 x 83	36 x 83	
820							36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 83			
1 000							36 x 58	36 x 58	36 x 58	36 x 58	36 x 83	36 x 83			
1 200						36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 83	36 x 83			
1 500						36 x 58	36 x 58	36 x 58	36 x 58	36 x 83	36 x 83				
1 800					36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 83	36 x 83				
2 200					36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 83					
2 700				36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 58						
3 300				36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 58						
3 900			36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 58						
4 700		36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 83						
5 600		36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 83						
6 800	36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 83	36 x 83						
8 200	36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 83							
10 000	36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 83	36 x 83						
12 000	36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 83							
15 000	36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 83									
18 000	36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 83									
22 000	36 x 58	36 x 58	36 x 58	36 x 58	36 x 58	36 x 83									
27 000	36 x 58	36 x 58	36 x 58	36 x 58	36 x 83										
33 000	36 x 58	36 x 58	36 x 58	36 x 58	36 x 83										
39 000	36 x 58	36 x 58	36 x 58	36 x 83	36 x 83										
47 000	36 x 58	36 x 58	36 x 58	36 x 83											
56 000	36 x 58	36 x 58	36 x 83	36 x 83											
68 000	36 x 83	36 x 83	36 x 83												
82 000	36 x 83	36 x 83	36 x 83												
100 000	36 x 83	36 x 83													
120 000	36 x 83														

Technical specifications

Rated capacitance C_R [μ F]	Rated voltage V_R [V]	Size D x L [mm]	$\tan \delta$ 100Hz +20°C (max)	Z [$m\Omega$] 10kHz +20°C (max)	I~ [A]* 100Hz +105°C (max)	Ordering information for FROLYT electrolytic capacitors
6 800	6,3	36 x 58	0,35	56,0	2,7	<ul style="list-style-type: none"> • Series • Rated capacitance / Rated voltage • Capacitance tolerance • Dimensions (Diameter x Length) • Additional requirements
8 200	6,3	36 x 58	0,36	56,0	2,9	
10 000	6,3	36 x 58	0,38	51,6	3,1	
12 000	6,3	36 x 58	0,41	49,3	3,3	
15 000	6,3	36 x 58	0,45	45,7	3,5	
18 000	6,3	36 x 58	0,47	43,3	3,7	
22 000	6,3	36 x 58	0,49	42,0	4,0	
27 000	6,3	36 x 58	0,50	41,2	4,4	
33 000	6,3	36 x 58	0,51	36,3	4,9	
39 000	6,3	36 x 58	0,56	35,0	5,0	
47 000	6,3	36 x 58	0,60	33,0	5,3	
56 000	6,3	36 x 58	0,66	30,5	5,6	
68 000	6,3	36 x 83	0,72	28,0	6,5	
82 000	6,3	36 x 83	0,79	23,0	6,8	
100 000	6,3	36 x 83	0,85	18,0	7,2	
120 000	6,3	36 x 83	0,90	17,0	7,7	
4 700	10	36 x 58	0,26	50,0	2,6	
5 600	10	36 x 58	0,29	48,0	2,7	
6 800	10	36 x 58	0,31	46,0	2,8	
8 200	10	36 x 58	0,31	46,0	3,1	
10 000	10	36 x 58	0,32	41,6	3,4	
12 000	10	36 x 58	0,35	39,3	3,5	
15 000	10	36 x 58	0,37	35,7	3,8	
18 000	10	36 x 58	0,39	33,3	4,1	
22 000	10	36 x 58	0,40	32,0	4,5	
27 000	10	36 x 58	0,41	31,2	4,9	
33 000	10	36 x 58	0,42	26,3	5,3	
39 000	10	36 x 58	0,43	25,0	5,7	
47 000	10	36 x 58	0,45	22,0	6,2	
56 000	10	36 x 58	0,50	20,0	6,4	
68 000	10	36 x 83	0,55	18,0	7,4	
82 000	10	36 x 83	0,60	15,0	7,8	
100 000	10	36 x 83	0,65	12,0	8,3	
3 900	16	36 x 58	0,20	47,0	2,7	
4 700	16	36 x 58	0,22	45,0	2,8	
5 600	16	36 x 58	0,25	43,0	2,9	
6 800	16	36 x 58	0,27	41,0	3,0	
8 200	16	36 x 58	0,27	41,0	3,3	
10 000	16	36 x 58	0,28	36,6	3,6	
12 000	16	36 x 58	0,31	34,3	3,8	
15 000	16	36 x 58	0,33	30,7	4,1	
18 000	16	36 x 58	0,35	28,3	4,3	
22 000	16	36 x 58	0,36	29,0	4,7	
27 000	16	36 x 58	0,37	26,2	5,2	
33 000	16	36 x 58	0,38	23,8	5,6	
39 000	16	36 x 58	0,40	20,5	6,0	
47 000	16	36 x 58	0,41	20,0	6,5	
56 000	16	36 x 83	0,43	16,2	7,6	
68 000	16	36 x 83	0,45	15,2	8,2	
82 000	16	36 x 83	0,50	12,4	8,5	

Ordering example: EBH-Press Fit 120.000 μ F 6,3V \pm 20%, 36 x 83mm

* I~ (Rated ripple current) refers to an increase in temperature of 3K, special requirements or special types on request

Technical specifications

Rated capacitance C_R [μ F]	Rated voltage V_R [V]	Size D x L [mm]	$\tan \delta$ 100Hz +20°C (max)	Z [$m\Omega$] 10kHz +20°C (max)	I~ [A]* 100Hz +105°C (max)	Ordering information for FROLYT electrolytic capacitors
2 700	25	36 x 58	0,13	45,0	2,8	<ul style="list-style-type: none"> • Series • Rated capacitance / Rated voltage • Capacitance tolerance • Dimensions (Diameter x Length) • Additional requirements
3 300	25	36 x 58	0,14	44,0	2,9	
3 900	25	36 x 58	0,16	42,0	3,0	
4 700	25	36 x 58	0,18	40,0	3,1	
5 600	25	36 x 58	0,21	38,0	3,1	
6 800	25	36 x 58	0,23	36,0	3,3	
8 200	25	36 x 58	0,23	36,0	3,6	
10 000	25	36 x 58	0,25	31,6	3,8	
12 000	25	36 x 58	0,28	29,3	4,0	
15 000	25	36 x 58	0,29	25,7	4,3	
18 000	25	36 x 58	0,31	23,3	4,6	
22 000	25	36 x 58	0,32	20,9	5,0	
27 000	25	36 x 58	0,33	18,1	5,5	
33 000	25	36 x 58	0,36	15,2	5,8	
39 000	25	36 x 83	0,39	13,4	6,7	
47 000	25	36 x 83	0,40	11,4	7,2	
56 000	25	36 x 83	0,41	11,0	7,8	
1 800	35	36 x 58	0,11	49,0	2,4	
2 200	35	36 x 58	0,12	41,0	2,6	
2 700	35	36 x 58	0,12	40,0	2,9	
3 300	35	36 x 58	0,13	39,0	3,0	
3 900	35	36 x 58	0,13	37,0	3,3	
4 700	35	36 x 58	0,14	35,0	3,5	
5 600	35	36 x 58	0,15	33,0	3,7	
6 800	35	36 x 58	0,16	31,0	3,9	
8 200	35	36 x 58	0,18	29,0	4,1	
10 000	35	36 x 58	0,20	26,6	4,3	
12 000	35	36 x 58	0,23	24,3	4,4	
15 000	35	36 x 58	0,25	21,9	4,7	
18 000	35	36 x 58	0,26	18,6	5,0	
22 000	35	36 x 58	0,27	16,0	5,4	
27 000	35	36 x 83	0,29	13,8	6,4	
33 000	35	36 x 83	0,30	12,4	7,0	
39 000	35	36 x 83	0,32	11,0	7,4	
1 200	50	36 x 58	0,15	48,0	1,7	
1 500	50	36 x 58	0,15	46,0	1,9	
1 800	50	36 x 58	0,15	46,0	2,1	
2 200	50	36 x 58	0,16	38,0	2,2	
2 700	50	36 x 58	0,16	37,0	2,5	
3 300	50	36 x 58	0,17	36,0	2,7	
3 900	50	36 x 58	0,18	34,0	2,8	
4 700	50	36 x 58	0,19	32,0	3,0	
5 600	50	36 x 58	0,20	30,0	3,2	
6 800	50	36 x 58	0,22	28,0	3,4	
8 200	50	36 x 58	0,23	27,0	3,6	
10 000	50	36 x 58	0,23	19,0	4,0	
12 000	50	36 x 58	0,23	19,0	4,4	
15 000	50	36 x 83	0,24	19,0	5,3	
18 000	50	36 x 83	0,26	16,7	5,6	
22 000	50	36 x 83	0,27	14,3	6,0	

Ordering example: EBH-Press Fit 120.000 μ F 6,3V \pm 20%, 36 x 83mm

* I~ (Rated ripple current) refers to an increase in temperature of 3K, special requirements or special types on request

Technical specifications

Rated capacitance C_R [μ F]	Rated voltage V_R [V]	Size D x L (mm)	$\tan \delta$ 100Hz +20°C (max)	Z [$m\Omega$] 10kHz +20°C (max)	I~ [A]* 100Hz +105°C (max)	Ordering information for FROLYT electrolytic capacitors
820	63	36 x 58	0,10	48,0	1,7	<ul style="list-style-type: none"> • Series • Rated capacitance / Rated voltage • Capacitance tolerance • Dimensions (Diameter x Length) • Additional requirements <p>Ordering example: EBH-Press Fit 120.000μF 6,3V \pm20%, 36 x 83mm</p>
1 000	63	36 x 58	0,11	47,0	1,8	
1 200	63	36 x 58	0,11	45,0	2,0	
1 500	63	36 x 58	0,11	43,0	2,2	
1 800	63	36 x 58	0,11	43,0	2,4	
2 200	63	36 x 58	0,12	40,0	2,6	
2 700	63	36 x 58	0,12	38,2	2,9	
3 300	63	36 x 58	0,13	36,1	3,0	
3 900	63	36 x 58	0,13	34,7	3,3	
4 700	63	36 x 58	0,14	33,3	3,5	
5 600	63	36 x 58	0,15	30,0	3,7	
6 800	63	36 x 58	0,16	28,0	3,9	
8 200	63	36 x 58	0,17	23,0	4,2	
10 000	63	36 x 83	0,18	17,0	5,0	
12 000	63	36 x 83	0,21	15,7	5,0	
15 000	63	36 x 83	0,21	14,3	5,6	
560	80	36 x 58	0,07	47,0	1,7	
680	80	36 x 58	0,07	45,0	1,9	
820	80	36 x 58	0,07	43,0	2,1	
1 000	80	36 x 58	0,08	42,0	2,1	
1 200	80	36 x 58	0,08	40,0	2,3	
1 500	80	36 x 58	0,08	38,0	2,6	
1 800	80	36 x 58	0,08	38,0	2,9	
2 200	80	36 x 58	0,09	33,0	3,0	
2 700	80	36 x 58	0,10	31,0	3,1	
3 300	80	36 x 58	0,10	29,0	3,5	
3 900	80	36 x 58	0,11	26,0	3,6	
4 700	80	36 x 58	0,11	22,0	3,9	
5 600	80	36 x 58	0,13	22,0	4,0	
6 800	80	36 x 83	0,14	22,0	4,7	
8 200	80	36 x 83	0,16	20,0	4,8	
10 000	80	36 x 83	0,17	18,0	5,1	
390	100	36 x 58	0,05	41,0	1,7	
470	100	36 x 58	0,05	40,0	1,9	
560	100	36 x 58	0,05	39,0	2,0	
680	100	36 x 58	0,05	37,0	2,2	
820	100	36 x 58	0,05	35,0	2,4	
1 000	100	36 x 58	0,06	34,0	2,5	
1 200	100	36 x 58	0,06	32,0	2,7	
1 500	100	36 x 58	0,06	30,0	3,0	
1 800	100	36 x 58	0,06	30,0	3,3	
2 200	100	36 x 58	0,07	25,0	3,4	
2 700	100	36 x 58	0,07	23,0	3,7	
3 300	100	36 x 58	0,08	21,0	3,9	
3 900	100	36 x 58	0,08	18,0	4,2	
4 700	100	36 x 83	0,08	14,0	5,1	
5 600	100	36 x 83	0,10	14,0	5,0	
6 800	100	36 x 83	0,12	14,0	5,0	

* I~ (Rated ripple current) refers to an increase in temperature of 3K, special requirements or special types on request

Technical specifications

Rated capacitance C_R [μ F]	Rated voltage V_R [V]	Size D x L (mm)	$\tan \delta$ 100Hz +20°C (max)	Z [$m\Omega$] 10kHz +20°C (max)	I~ [A]* 100Hz +105°C (max)	Ordering information for FROLYT electrolytic capacitors
330	160	36 x 58	0,08	84,0	1,2	<ul style="list-style-type: none"> • Series • Rated capacitance / Rated voltage • Capacitance tolerance • Dimensions (Diameter x Length) • Additional requirements Ordering example: EBH-Press Fit 120.000 μ F 6,3V \pm 20%, 36 x 83mm
390	160	36 x 58	0,08	82,0	1,3	
470	160	36 x 58	0,08	80,0	1,5	
560	160	36 x 58	0,08	80,0	1,6	
680	160	36 x 58	0,08	78,0	1,8	
820	160	36 x 58	0,08	76,0	1,9	
1 000	160	36 x 58	0,10	75,0	1,9	
1 200	160	36 x 58	0,10	70,0	2,1	
1 500	160	36 x 83	0,11	65,0	2,5	
1 800	160	36 x 83	0,11	59,0	2,7	
2 200	160	36 x 83	0,11	53,0	3,0	
220	200	36 x 58	0,09	210,0	0,9	
270	200	36 x 58	0,09	195,0	1,0	
330	200	36 x 58	0,09	179,0	1,2	
390	200	36 x 58	0,09	157,0	1,3	
470	200	36 x 58	0,09	148,0	1,4	
560	200	36 x 58	0,09	139,0	1,5	
680	200	36 x 58	0,09	128,0	1,7	
820	200	36 x 58	0,09	106,0	1,8	
1 000	200	36 x 83	0,09	97,0	2,2	
1 200	200	36 x 83	0,09	91,0	2,4	
1 500	200	36 x 83	0,09	85,0	2,7	
1 800	200	36 x 83	0,09	62,0	3,0	
150	250	36 x 58	0,09	431,0	0,8	
180	250	36 x 58	0,09	414,0	0,9	
220	250	36 x 58	0,09	397,0	0,9	
270	250	36 x 58	0,09	323,0	1,0	
330	250	36 x 58	0,09	265,0	1,2	
390	250	36 x 58	0,09	224,0	1,3	
470	250	36 x 58	0,09	186,0	1,4	
560	250	36 x 58	0,09	156,0	1,5	
680	250	36 x 83	0,09	128,0	1,8	
820	250	36 x 83	0,09	106,0	2,0	
1 000	250	36 x 83	0,09	87,4	2,2	
1 200	250	36 x 83	0,09	72,8	2,4	
100	350	36 x 58	0,09	465,0	0,6	
120	350	36 x 58	0,09	448,0	0,7	
150	350	36 x 58	0,09	431,0	0,8	
180	350	36 x 58	0,09	414,0	0,9	
220	350	36 x 58	0,09	397,0	0,9	
270	350	36 x 58	0,09	323,0	1,0	
330	350	36 x 58	0,09	264,0	1,2	
390	350	36 x 58	0,09	224,0	1,3	
470	350	36 x 83	0,09	186,0	1,5	
560	350	36 x 83	0,09	156,0	1,7	
680	350	36 x 83	0,09	128,0	1,8	

* I~ (Rated ripple current) refers to an increase in temperature of 3K, special requirements or special types on request

Technical specifications

Rated capacitance C_R [μ F]	Rated voltage V_R [V]	Size D x L (mm)	$\tan \delta$ 100Hz +20°C (max)	Z [$m\Omega$] 10kHz +20°C (max)	I~ [A]* 100Hz +105°C (max)	Ordering information for FROLYT electrolytic capacitors
68	400	36 x 58	0,09	500,0	0,5	Series • Rated capacitance / Rated voltage • Capacitance tolerance • Dimensions (Diameter x Length) • Additional requirements Ordering example: EBH-Press Fit 120.000 μ F 6,3V \pm 20%, 36 x 83mm
82	400	36 x 58	0,09	482,0	0,6	
100	400	36 x 58	0,09	465,0	0,6	
120	400	36 x 58	0,09	448,0	0,7	
150	400	36 x 58	0,09	431,0	0,8	
180	400	36 x 58	0,09	414,0	0,9	
220	400	36 x 58	0,09	397,0	0,9	
270	400	36 x 58	0,09	323,0	1,0	
330	400	36 x 58	0,09	264,0	1,2	
390	400	36 x 83	0,09	224,0	1,4	
470	400	36 x 83	0,09	186,0	1,5	
560	400	36 x 83	0,09	156,0	1,7	
680	400	36 x 83	0,09	128,0	1,8	
47	450	36 x 58	0,12	700,0	0,4	
56	450	36 x 58	0,12	680,0	0,4	
68	450	36 x 58	0,12	660,0	0,5	
82	450	36 x 58	0,12	640,0	0,5	
100	450	36 x 58	0,12	620,0	0,6	
120	450	36 x 58	0,12	590,0	0,6	
150	450	36 x 58	0,12	560,0	0,7	
180	450	36 x 58	0,12	530,0	0,7	
220	450	36 x 58	0,12	500,0	0,8	
270	450	36 x 58	0,12	380,0	0,9	
330	450	36 x 83	0,12	190,0	1,1	
390	450	36 x 83	0,12	180,0	1,2	
470	450	36 x 83	0,12	170,0	1,3	

* I~ (Rated ripple current) refers to an increase in temperature of 3K, special requirements or special types on request

Rated ripple current: Frequency multipliers

Frequency	Multipliers
100Hz	1,0
1kHz	1,3
10kHz to 100kHz	1,4

All information provided in printed form requires a written confirmation in order to be legally binding within the meaning of §§463 and 480 II BGB (German Civil Code). Hence, the given data imply exclusively a product description and are not to be understood as assured qualities.