

High dielectric strength
High peak-current capability
For damping and commutating in
the upper frequency range

Construction

- Self-healing
- Plastic dielectric
- Oil-impregnated tubular windings (no PCB)
- Metal-sprayed end faces ensure reliable contacting
- Cylindrical aluminum case
- Ceramic lead-throughs
- Mounting bolts M8 or M12

Terminals

- Screw terminals M10
- Tab connectors 6,3 mm
- Dual tab connectors 6,3 mm

Mounting parts

- If the vibration stress is $\leq 5 g$ and the capacitors are ≤ 60 mm in diameter and ≤ 160 mm in height the bolt is used for mounting.
- In case of a vibration stress $> 5 g$ as well as for larger-sized capacitors refer to chapter "Mounting parts".

Grounding

- Mounting bolt for grounding in accordance with VDE 0100
- Grounding identification in accordance with DIN 40 011

Overpressure disconnecter (mechanical)

When the overpressure disconnecter responds, the capacitor extends by up to 8 mm.

So leave sufficient space above the terminals when mounting the capacitor.

Individual data sheets

Individual capacitors of this series are specified in detail (incl. thermal data) [on pages 192 ... 205](#).

Upon request, these data sheets are available for each capacitor type.



Technical data

Standards		IEC 1071-1/2 EN 61071-1/2 VDE 0560 part 120 and 121
Dielectric dissipation factor	$\tan \delta_0$	$2 \cdot 10^{-4}$
Max. repetitive rate of voltage rise	$(du/dt)_{\max}$	$\frac{\hat{i}}{C}$
Max. non-repetitive rate of voltage rise	$(du/dt)_s$	$\frac{I_s}{C}$
Climatic data:		
Min. operating temperature	Θ_{\min}	- 25 °C
Max. operating temperature	Θ_{\max}	+ 85 °C
Average relative humidity		≤ 95 %
Failure quota	$\alpha_{FQ(\text{co})}$	300 failures per 10 ⁹ component hours
Load duration	$t_{LD(\text{co})}$	100 000 h
Storage temperature limit	Θ_{stg}	- 55/+ 85 °C
IEC climatic category (IEC 68-1 and 2)		25/085/56
Test A, cold		- 25 °C
Test B, dry heat		+ 85 °C
Test Ca, damp heat, steady state		56 days/40 °C/93 % rel. humidity
Values after test Ca:		
Capacitance change	$\Delta C/C$	≤ 1 %
Insulation resistance	R_{is}	$C_N \leq 1 \mu\text{F}: \geq 10\,000 \text{ M}\Omega$
Self-discharge time constant $\tau =$	$R_{is} \cdot C$	$C_N > 1 \mu\text{F}: \geq 10\,000 \text{ s}$
Dissipation factor change	$\Delta \tan \delta$	≤ 1 · 10 ⁻⁴
Test data:		
AC test voltage		
between terminals	U_{TT}	1,25 · U_N , 50 Hz, 10 s (or DC 1,75 · U_N , 10 s)
between terminals and case	U_{TC}	2 · U_i + 1000 V, 50 Hz, 10 s
Insulation resistance	R_{is}	$C_N \leq 1 \mu\text{F}: \geq 10\,000 \text{ M}\Omega$
Self-discharge time constant $\tau =$	$R_{is} \cdot C$	$C_N > 1 \mu\text{F}: \geq 10\,000 \text{ s}$
Dissipation factor (50 Hz)	$\tan \delta$	≤ 3 · 10 ⁻⁴

B 25 838

Damping, Commutating

Available ratings

U_N (V)	AC	600	900	1100		
C_R (μ F)						
0,15						
0,22						
0,33						
0,47						
0,68						
1,0						
2,2						
4,7						
6,8						
10						
12						
15						
18						
22						
33						
47						
50						

 Data book range

 Upon request

Characteristics and ordering codes

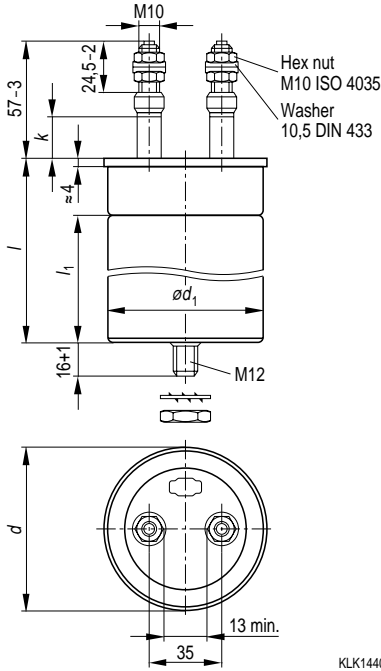
$C_N^{1)}$	I_{max}	\hat{i}	I_s	R_S 20 °C	L_{self}	Dimensions $d \times l$	Fig.	Appr. weight	Ordering code	Pg.	
μF	A	A	A	m Ω	nH	mm		g			
$U_N = AC 600 V$			$U_i = AC 530 V$			$\hat{u} = 750 V$		$U_{TT} = AC 750 V, 10 s$			
						$u_s = 1000 V$		$U_{TC} = AC 2100 V, 10 s$			
2,2	20	350	880	8,0	60	40,0 × 57	3	90	B25838-K4225-K001	192	
4,7	40	750	1900	4,5	70	40,0 × 95	2	140	B25838-K4475-K009		
10	80	1600	4000	2,4	90	64,2 × 115	1	450	B25838-L4106-K004	194	
15	80	2400	6000	2,2	140	79,2 × 194	1	1100	B25838-L4156-K004		
22	80	3500	8800	1,7	140	79,2 × 194	1	1100	B25838-L4226-K004		
33	80	5300	13000	1,4	140	79,2 × 194	1	1100	B25838-L4336-K004		
47	80	7500	19000	1,1	140	79,2 × 194	1	1100	B25838-L4476-K004		
$U_N = AC 900 V$			$U_i = AC 780 V$			$\hat{u} = 1100 V$		$U_{TT} = AC 1150 V, 10 s$			
						$u_s = 1500 V$		$U_{TC} = AC 2600 V, 10 s$			
1,0	20	280	700	9,6	60	40,0 × 57	3	90	B25838-K6105-K001		
2,2	20	620	1500	4,9	60	50,0 × 57	3	130	B25838-K6225-K001		
4,7	40	1300	3300	3,1	70	50,0 × 95	2	220	B25838-K6475-K009	196	
6,8	80	1900	4800	2,0	90	64,2 × 115	1	450	B25838-L6685-K004		
10	80	2800	7000	1,9	140	79,2 × 194	1	1100	B25838-L6106-K004		
12	80	3400	8400	1,7	140	79,2 × 194	1	1100	B25838-L6126-K004		
15	80	4200	10500	1,5	140	79,2 × 194	1	1100	B25838-L6156-K004		
22	80	6200	15000	1,2	140	79,2 × 194	1	1100	B25838-L6226-K004	198	
33	80	9200	23000	1,1	140	89,3 × 194	1	1500	B25838-L6336-K004		
$U_N = AC 1100 V$			$U_i = AC 990 V$			$\hat{u} = 1400 V$		$U_{TT} = AC 1400 V, 10 s$			
						$u_s = 1900 V$		$U_{TC} = AC 3000 V, 10 s$			
1,0	20	600	1500	13,0	90	40,0 × 95	3	140	B25838-K8105-K001	200	
2,2	20	1300	3300	6,5	70	50,0 × 95	3	220	B25838-K8225-K001		
4,7	80	2800	7000	3,5	170	64,2 × 194	1	750	B25838-L8475-K004	202	
10	80	6000	15000	2,1	170	79,2 × 194	1	1100	B25838-L8106-K004		
12	80	7200	18000	2,0	170	89,3 × 194	1	1500	B25838-L8126-K004		
15	80	9000	23000	1,7	170	89,3 × 194	1	1500	B25838-L8156-K004	204	
18	80	11000	27000	1,5	170	89,3 × 194	1	1500	B25838-L8186-K004		
22	80	13000	33000	1,4	170	89,3 × 194	1	1500	B25838-L8226-K004		

1) Capacitance tolerance $\pm 10\%$

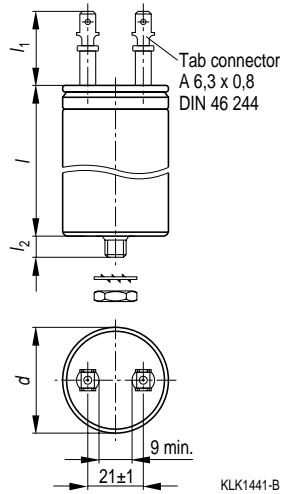
B 25 838

Damping, Commutating

Dimensional drawing 1
Screw terminals M10



Dimensional drawing 2
Dual tab connectors 6,3 mm



Dimensions in mm

$d-1,2$	$l-4$	$\varnothing d_1 -0,4$	l_1 min	Creepage distance k	Clearance
64,2	115	60,2	78	20	13
64,2	194	60,2	150	20	13
79,2	194	75,2	150	20	13
89,3	194	85,2	150	20	13
Max. torque terminals*)				7 Nm	

Dimensions in mm

$d_{-0,2}^{+0,5}$	l_{-2}^{+1}	l_1 max	$l_2 +1^{**}$	Creepage distance	Clearance
40	95	28	8	10	9
50	95	32	12	14	9

**) 8 mm = threaded bolt M8
12 mm = threaded bolt M12

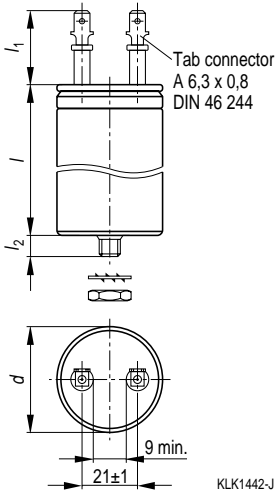
*) The terminal torque must not act upon the ceramic. So the lead should be locked between two nuts.

Mounting parts (included in delivery)

Threaded bolt	Max. torque	Toothed washer	Hex nut
M8	4 Nm	J 8,2 DIN 6797	M 8 ISO 4035
M12	10 Nm	J 12,5 DIN 6797	M12 ISO 4035

Dimensional drawing 3

Tab connectors 6,3 mm



Dimensions in mm

$d^{+0,5}_{-0,2}$	l^{+1}_{-2}	$l_1 \text{ max}$	$l_2 + 1^*)$	Creepage distance	Clearance
40	57	28	8	10 ^{**})	9
40	57	32	8	14	9
40	95	32	8	14	9
50	57	32	12	14	9
50	95	32	12	14	9

*) 8 mm = threaded bolt M8
 12 mm = threaded bolt M12

**) Type B25838-K4225-K001

Mounting parts (included in delivery)

Threaded bolt	Max. torque	Toothed washer	Hex nut
M8	4 Nm	J 8,2 DIN 6797	M 8 ISO 4035
M12	10 Nm	J 12,5 DIN 6797	M 12 ISO 4035

B 25 838

Damping, Commutating

2,2 μ F / 600 Vac

Ordering code: B25838-K4225-K001

Characteristics

C_N , tol.	2,2 μ F \pm 10 %
U_N	AC 600 V
U_i	AC 530 V
I_{max}	20 A
L_{self}	60 nH
$\tan \delta_0$	$2 \cdot 10^{-4}$
R_S	8 m Ω

Maximum ratings

\hat{u}	750 V
u_s	1000 V
\hat{i}	350 A
I_s	880 A
$(du/dt)_{max}$	160 V/ μ s
$(du/dt)_s$	400 V/ μ s

Test data

U_{TT}	AC 750 V, 10 s
U_{TC}	AC 2100 V, 10 s
$R_{is} \cdot C$	≥ 10000 s
$\tan \delta$ (50 Hz)	$\leq 3 \cdot 10^{-4}$

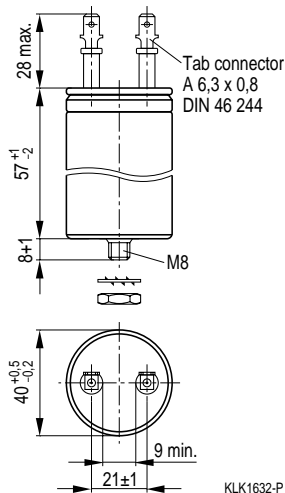
Climatic data

Θ_{min}	- 25 °C
Θ_{max}	+ 85 °C
Humidity	Average relative humidity \leq 95 %
$\alpha_{FQ(co)}$	300/10 ⁹ h
$t_{LD(co)}$	100000 h
Θ_{stg}	- 55 to + 85 °C

IEC climatic category: 25/085/56

(IEC 68-1 and 2)

Θ_{test}	+ 40 °C
Rel. humidity	93 %
t_{test}	56 days
$\Delta C/C$	≤ 1 %
$\Delta \tan \delta$	$\leq 1 \cdot 10^{-4}$
$R_{is} \cdot C$	≥ 10000 s



Design data

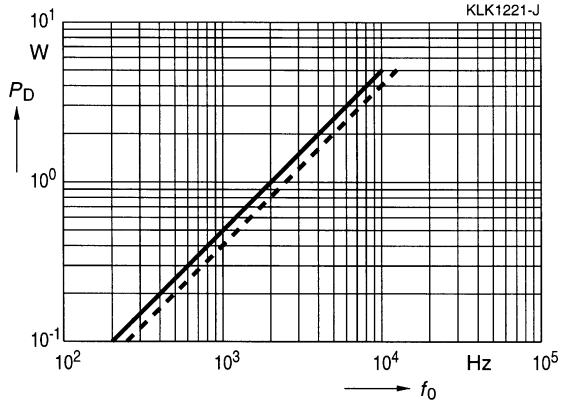
Dimensions $\varnothing \times l$	40 mm \times 57 mm
Approx. weight	90 g
Impregnation	Oil
Fixing	Threaded bolt M8
Mounting hole	9,5 mm
Max. torque	4 Nm
Terminals	Tab connector 6,3 mm
Terminal cross section	4 mm ²
Creepage distance	10 mm
Clearance	9 mm
Overpressure disconnector	

Thermal data

B25838-K4225-K001

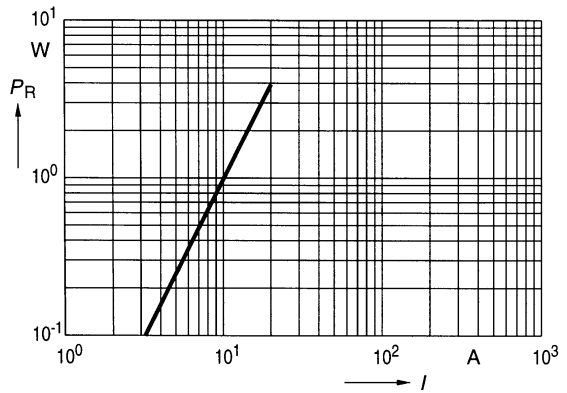
Dielectric power dissipation P_D
 versus repetition frequency f_0

$\hat{u}_{ac} = 600 \text{ V}$ —————
 $\hat{u}_{ac} = 540 \text{ V}$ - - - - -



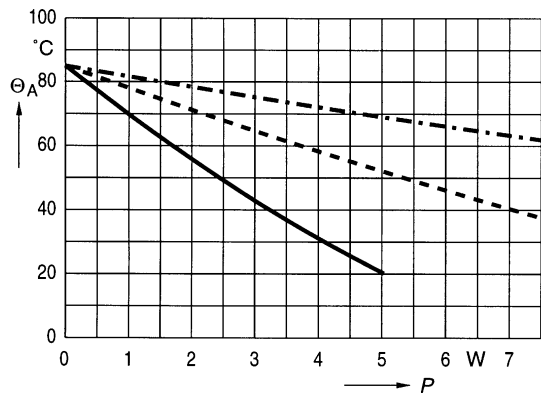
Ohmic power dissipation P_R
 versus rms current value I

$R_S (85^\circ\text{C}) = 9,8 \text{ m}\Omega$



Permissible ambient temperature Θ_A
 versus total power dissipation P
 (Upright mounting position)

Natural cooling —————
 Forced cooling 2 m/s - - - - -
 Permissible capacitor
 temperature - - - - -



B 25 838

Damping, Commutating

10 μF / 600 Vac

Ordering code: B25838-L4106-K004

Characteristics

C_N , tol.	10 $\mu\text{F} \pm 10\%$
U_N	AC 600 V
U_i	AC 530 V
I_{max}	80 A
L_{self}	90 nH
$\tan \delta_0$	$2 \cdot 10^{-4}$
R_S	2,4 m Ω

Maximum ratings

\hat{u}	750 V
u_s	1000 V
\hat{i}	1,6 kA
I_s	4,0 kA
$(du/dt)_{\text{max}}$	160 V/ μs
$(du/dt)_s$	400 V/ μs

Test data

U_{TT}	AC 750 V, 10 s
U_{TC}	AC 2100 V, 10 s
$R_{is} \cdot C$	≥ 10000 s
$\tan \delta$ (50 Hz)	$\leq 3 \cdot 10^{-4}$

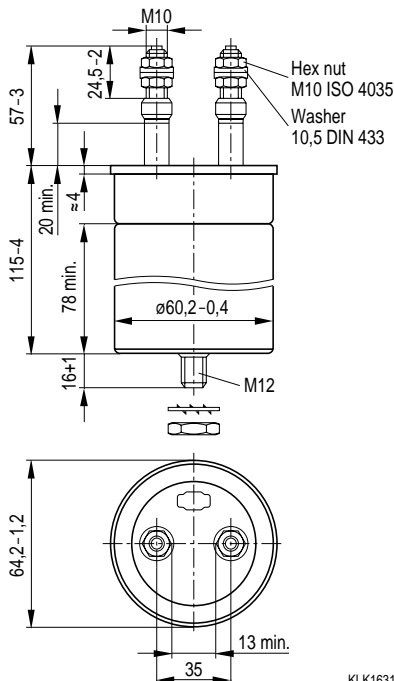
Climatic data

Θ_{min}	- 25 °C
Θ_{max}	+ 85 °C
Humidity	Average relative humidity $\leq 95\%$
$\alpha FQ(\text{co})$	300/10 ⁹ h
$t_{LD(\text{co})}$	100000 h
Θ_{stg}	- 55 to + 85 °C

IEC climatic category: 25/085/56

(IEC 68-1 and 2)

Θ_{test}	+ 40 °C
Rel. humidity	93 %
t_{test}	56 days
$\Delta C/C$	$\leq 1\%$
$\Delta \tan \delta$	$\leq 1 \cdot 10^{-4}$
$R_{is} \cdot C$	≥ 10000 s



KLK1631-G

Design data

Dimensions $\varnothing \times l$	64,2 mm \times 115 mm
Approx. weight	450 g
Impregnation	Oil
Fixing	Threaded bolt M12
Mounting hole	14 mm
Max. torque	10 Nm
Terminals	Screw terminals M10
Max. torque	7 Nm
Terminal cross section	16 mm ²
Creepage distance	20 mm
Clearance	13 mm

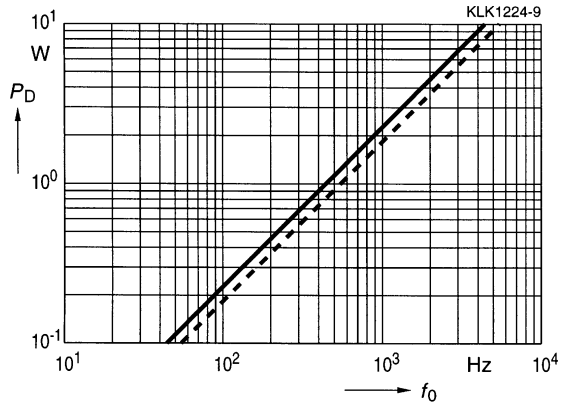
Overpressure disconnecter

Thermal data

B25838-L4106-K004

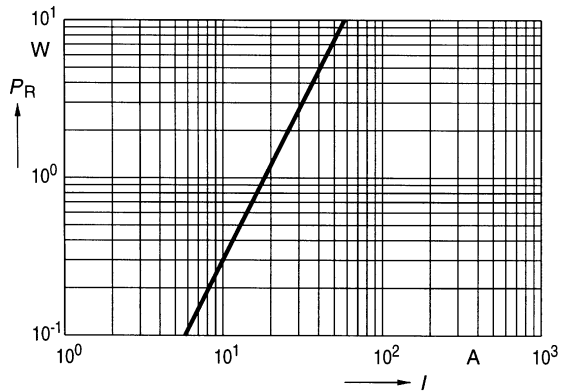
Dielectric power dissipation P_D
versus repetition frequency f_0

$\hat{u}_{ac} = 600 \text{ V}$ —————
 $\hat{u}_{ac} = 540 \text{ V}$ - - - - -



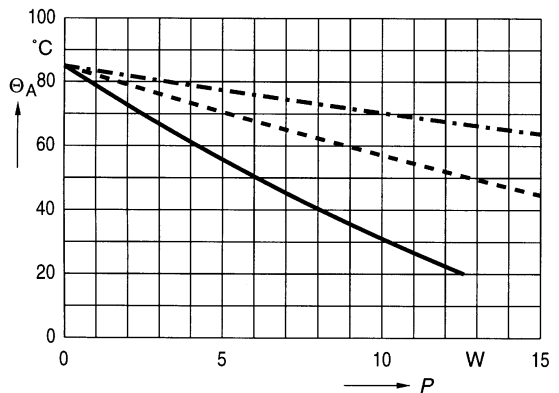
Ohmic power dissipation P_R
versus rms current value I

$R_S (85^\circ\text{C}) = 3 \text{ m}\Omega$



Permissible ambient temperature Θ_A
versus total power dissipation P
(Upright mounting position)

Natural cooling —————
Forced cooling 2 m/s - - - - -
Permissible capacitor
temperature - - - - -



B 25 838

Damping, Commutating

4,7 μF / 900 Vac

Ordering code: B25838-K6475-K009

Characteristics

C_N , tol.	4,7 μF \pm 10 %
U_N	AC 900 V
U_i	AC 780 V
I_{max}	40 A
L_{self}	70 nH
$\tan \delta_0$	$2 \cdot 10^{-4}$
R_S	3,1 m Ω

Maximum ratings

\hat{u}	1100 V
u_s	1500 V
\hat{i}	1,3 kA
I_s	3,3 kA
$(du/dt)_{\text{max}}$	280 V/ μs
$(du/dt)_s$	700 V/ μs

Test data

U_{TT}	AC 1150 V, 10 s
U_{TC}	AC 2600 V, 10 s
$R_{is} \cdot C$	≥ 10000 s
$\tan \delta$ (50 Hz)	$\leq 3 \cdot 10^{-4}$

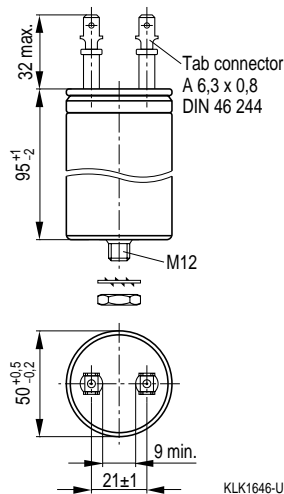
Climatic data

Θ_{min}	- 25 °C
Θ_{max}	+ 85 °C
Humidity	Average relative humidity \leq 95 %
$\alpha_{\text{FQ}}(\text{co})$	300/10 ⁹ h
$t_{\text{LD}}(\text{co})$	100000 h
Θ_{stg}	- 55 to + 85 °C

IEC climatic category: 25/085/56

(IEC 68-1 and 2)

Θ_{test}	+ 40 °C
Rel. humidity	93 %
t_{test}	56 days
$\Delta C/C$	\leq 1 %
$\Delta \tan \delta$	\leq $1 \cdot 10^{-4}$
$R_{is} \cdot C$	\geq 10000 s



Design data

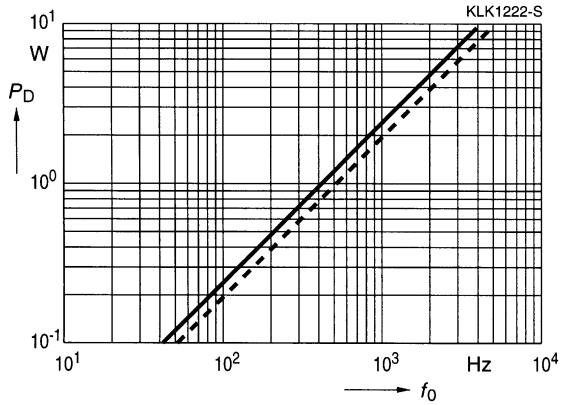
Dimensions $\varnothing \times l$	50 mm \times 95 mm
Approx. weight	220 g
Impregnation	Oil
Fixing	Threaded bolt M12
Mounting hole	14 mm
Max. torque	10 Nm
Terminals	Dual tab connector 6,3 mm
Terminal cross section	6 mm ²
Creepage distance	14 mm
Clearance	9 mm
Overpressure disconnector	

Thermal data

B25838-K6475-K009

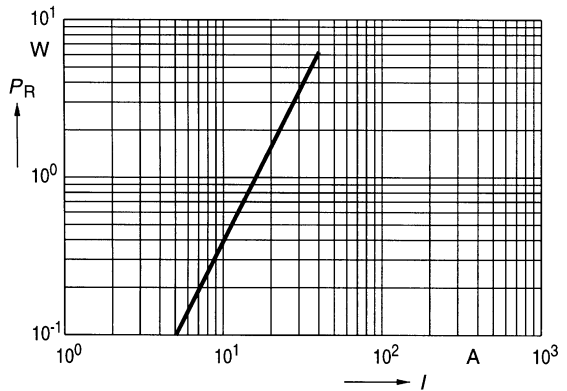
Dielectric power dissipation P_D
 versus repetition frequency f_0

$\hat{u}_{ac} = 900 \text{ V}$ —————
 $\hat{u}_{ac} = 810 \text{ V}$ - - - - -



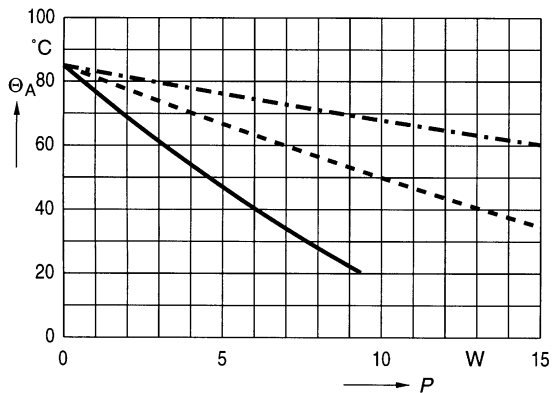
Ohmic power dissipation P_R
 versus rms current value I

$R_S (85^\circ\text{C}) = 3,9 \text{ m}\Omega$



Permissible ambient temperature Θ_A
 versus total power dissipation P
 (Upright mounting position)

Natural cooling —————
 Forced cooling 2 m/s - - - - -
 Permissible capacitor
 temperature - - - - -



B 25 838

Damping, Commutating

22 μF / 900 Vac

Ordering code: B25838-L6226-K004

Characteristics

C_N , tol.	22 $\mu\text{F} \pm 10\%$
U_N	AC 900 V
U_i	AC 780 V
I_{max}	80 A
L_{self}	140 nH
$\tan \delta_0$	$2 \cdot 10^{-4}$
R_S	1,2 m Ω

Maximum ratings

\hat{u}	1100 V
u_s	1500 V
\hat{i}	6,2 kA
I_s	15,0 kA
$(du/dt)_{\text{max}}$	280 V/ μs
$(du/dt)_s$	700 V/ μs

Test data

U_{TT}	AC 1150 V, 10 s
U_{TC}	AC 2600 V, 10 s
$R_{is} \cdot C$	≥ 10000 s
$\tan \delta$ (50 Hz)	$\leq 3 \cdot 10^{-4}$

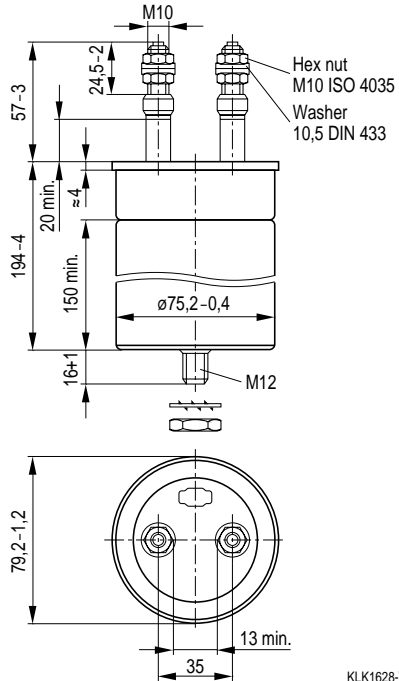
Climatic data

Θ_{min}	- 25 °C
Θ_{max}	+ 85 °C
Humidity	Average relative humidity $\leq 95\%$
$\alpha_{\text{FQ}}(\text{co})$	300/10 ⁹ h
$t_{\text{LD}}(\text{co})$	100000 h
Θ_{stg}	- 55 to + 85 °C

IEC climatic category: 25/085/56

(IEC 68-1 and 2)

Θ_{test}	+ 40 °C
Rel. humidity	93 %
t_{test}	56 days
$\Delta C/C$	$\leq 1\%$
$\Delta \tan \delta$	$\leq 1 \cdot 10^{-4}$
$R_{is} \cdot C$	≥ 10000 s



Design data

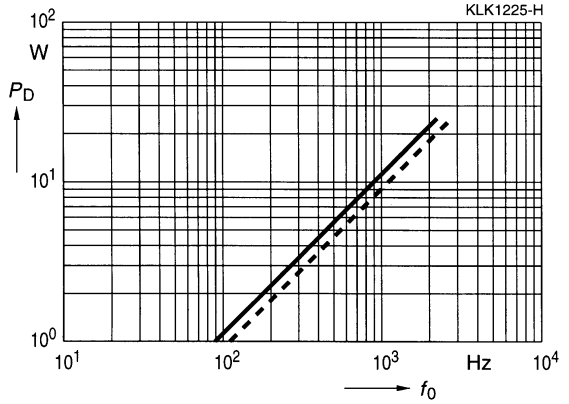
Dimensions $\varnothing \times l$	79,2 mm \times 194 mm
Approx. weight	1100 g
Impregnation	Oil
Fixing	Threaded bolt M12
Mounting hole	14 mm
Max. torque	10 Nm
Terminals	Screw terminals M10
Max. torque	7 Nm
Terminal cross section	16 mm ²
Creepage distance	20 mm
Clearance	13 mm
Overpressure disconnecter	

Thermal data

B25838-L6226-K004

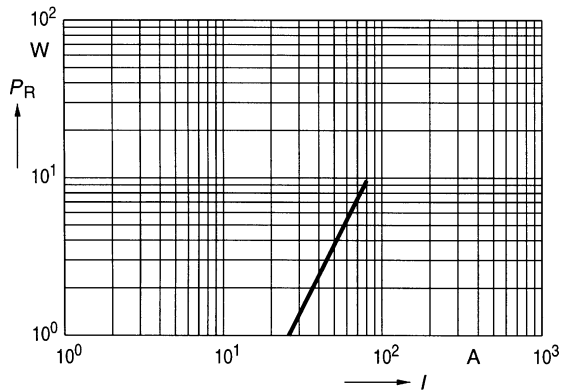
Dielectric power dissipation P_D
 versus repetition frequency f_0

$\hat{u}_{ac} = 900 \text{ V}$ —————
 $\hat{u}_{ac} = 810 \text{ V}$ - - - - -



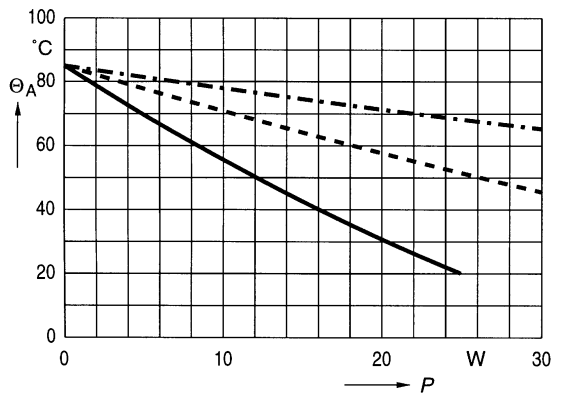
Ohmic power dissipation P_R
 versus rms current value I

$R_S (85^\circ\text{C}) = 1,5 \text{ m}\Omega$



Permissible ambient temperature Θ_A
 versus total power dissipation P
 (Upright mounting position)

Natural cooling —————
 Forced cooling 2 m/s - - - - -
 Permissible capacitor
 temperature - - - - -



B 25 838

Damping, Commutating

1 μF / 1100 Vac

Ordering code: B25838-K8105-K001

Characteristics

C_N , tol.	1 $\mu\text{F} \pm 10\%$
U_N	AC 1100 V
U_i	AC 990 V
I_{max}	20 A
L_{self}	90 nH
$\tan \delta_0$	$2 \cdot 10^{-4}$
R_S	13 m Ω

Maximum ratings

\hat{u}	1400 V
u_s	1900 V
\hat{i}	600 A
I_s	1500 A
$(du/dt)_{\text{max}}$	600 V/ μs
$(du/dt)_s$	1500 V/ μs

Test data

U_{TT}	AC 1400 V, 10 s
U_{TC}	AC 3000 V, 10 s
R_{is}	$\geq 10000 \text{ M}\Omega$
$\tan \delta$ (50 Hz)	$\leq 3 \cdot 10^{-4}$

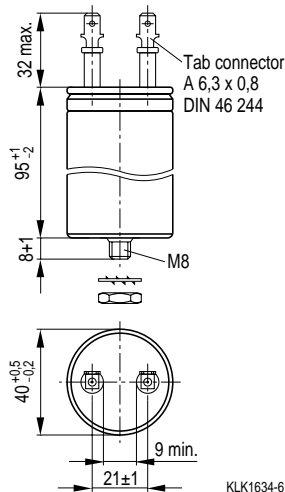
Climatic data

Θ_{min}	- 25 °C
Θ_{max}	+ 85 °C
Humidity	Average relative humidity $\leq 95\%$
$\alpha_{FQ(\text{co})}$	300/10 ⁹ h
$t_{LD(\text{co})}$	100000 h
Θ_{stg}	- 55 to + 85 °C

IEC climatic category: 25/085/56

(IEC 68-1 and 2)

Θ_{test}	+ 40 °C
Rel. humidity	93 %
t_{test}	56 days
$\Delta C/C$	$\leq 1\%$
$\Delta \tan \delta$	$\leq 1 \cdot 10^{-4}$
R_{is}	$\geq 10000 \text{ M}\Omega$



Design data

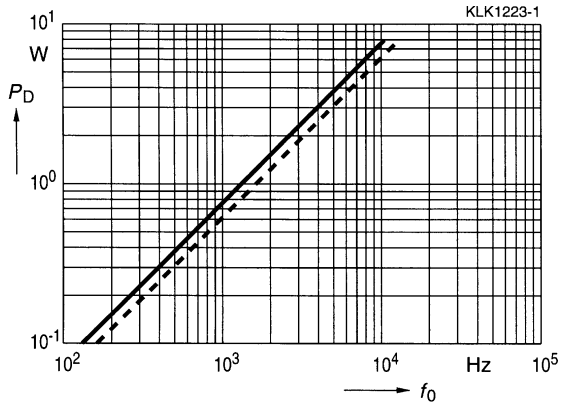
Dimensions $\varnothing \times l$	40 mm \times 95 mm
Approx. weight	140 g
Impregnation	Oil
Fixing	Threaded bolt M8
Mounting hole	9,5 mm
Max. torque	4 Nm
Terminals	Tab connector 6,3 mm
Terminal cross section	4 mm ²
Creepage distance	14 mm
Clearance	9 mm
Overpressure disconnector	

Thermal data

B25838-K8105-K001

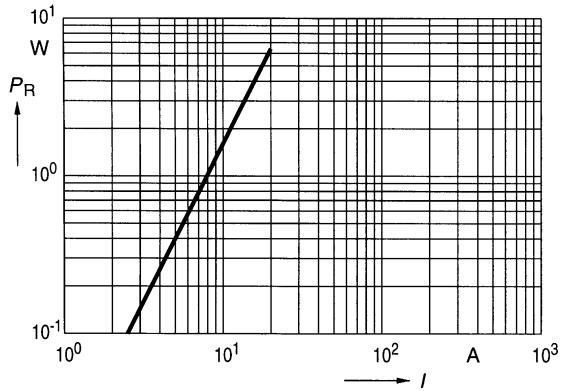
Dielectric power dissipation P_D
 versus repetition frequency f_0

$\hat{u}_{ac} = 1100 \text{ V}$ —————
 $\hat{u}_{ac} = 990 \text{ V}$ - - - - -



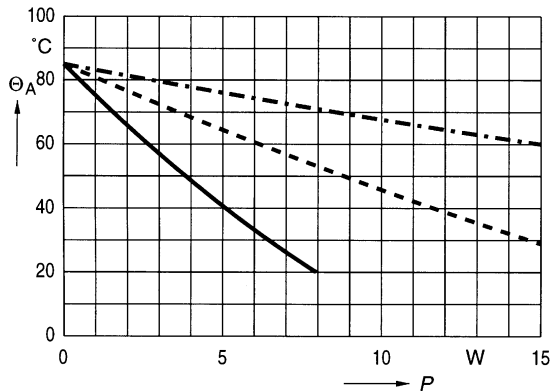
Ohmic power dissipation P_R
 versus rms current value I

$R_S (85^\circ\text{C}) = 16 \text{ m}\Omega$



Permissible ambient temperature Θ_A
 versus total power dissipation P
 (Upright mounting position)

Natural cooling —————
 Forced cooling 2 m/s - - - - -
 Permissible capacitor
 temperature - - - - -



B 25 838

Damping, Commutating

4,7 μF / 1100 Vac

Ordering code: B25838-L8475-K004

Characteristics

C_N , tol.	4,7 μF \pm 10 %
U_N	AC 1100 V
U_i	AC 990 V
I_{max}	80 A
L_{self}	170 nH
$\tan \delta_0$	$2 \cdot 10^{-4}$
R_S	3,5 m Ω

Maximum ratings

\hat{u}	1400 V
u_s	1900 V
\hat{i}	2,8 kA
I_s	7,0 kA
$(du/dt)_{\text{max}}$	600 V/ μs
$(du/dt)_s$	1500 V/ μs

Test data

U_{TT}	AC 1400 V, 10 s
U_{TC}	AC 3000 V, 10 s
$R_{is} \cdot C$	≥ 10000 s
$\tan \delta$ (50 Hz)	$\leq 3 \cdot 10^{-4}$

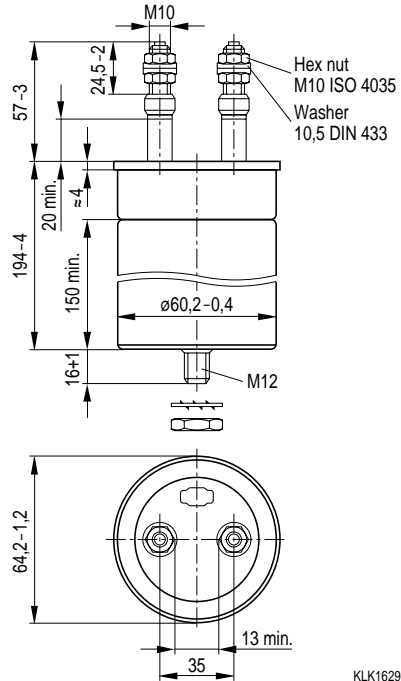
Climatic data

Θ_{min}	- 25 °C
Θ_{max}	+ 85 °C
Humidity	Average relative humidity \leq 95 %
$\alpha_{\text{FQ}}(\text{co})$	300/10 ⁹ h
$t_{\text{LD}}(\text{co})$	100000 h
Θ_{stg}	- 55 to + 85 °C

IEC climatic category: 25/085/56

(IEC 68-1 and 2)

Θ_{test}	+ 40 °C
Rel. humidity	93 %
t_{test}	56 days
$\Delta C/C$	\leq 1 %
$\Delta \tan \delta$	$\leq 1 \cdot 10^{-4}$
$R_{is} \cdot C$	≥ 10000 s



KLK1629-5

Design data

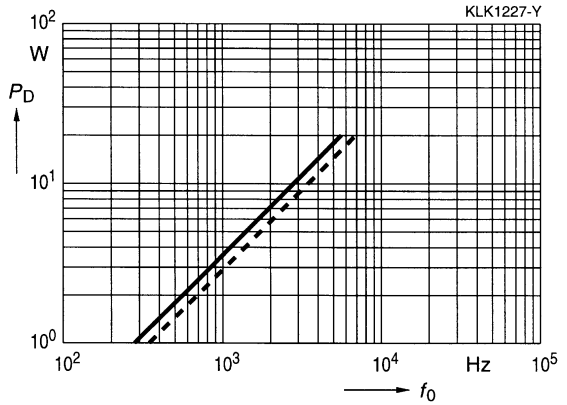
Dimensions $\varnothing \times l$	64,2 mm \times 194 mm
Approx. weight	750 g
Impregnation	Oil
Fixing	Threaded bolt M12
Mounting hole	14 mm
Max. torque	10 Nm
Terminals	Screw terminals M10
Max. torque	7 Nm
Terminal cross section	16 mm ²
Creepage distance	20 mm
Clearance	13 mm
Overpressure disconnecter	

Thermal data

B25838-L8475-K004

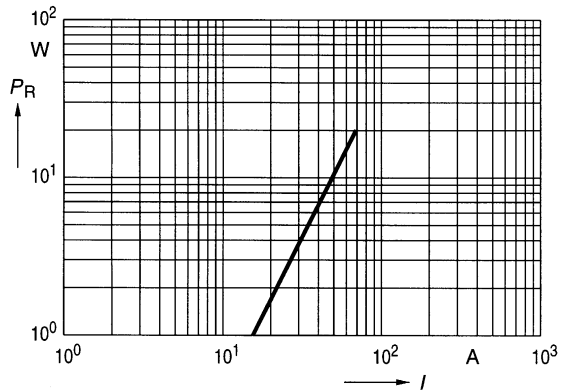
Dielectric power dissipation P_D
 versus repetition frequency f_0

$\hat{u}_{ac} = 1100 \text{ V}$ —————
 $\hat{u}_{ac} = 990 \text{ V}$ - - - - -



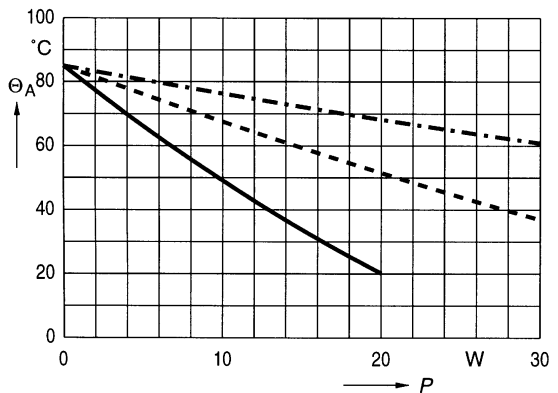
Ohmic power dissipation P_R
 versus rms current value I

$R_S (85^\circ\text{C}) = 4,2 \text{ m}\Omega$



Permissible ambient temperature Θ_A
 versus total power dissipation P
 (Upright mounting position)

Natural cooling —————
 Forced cooling 2 m/s - - - - -
 Permissible capacitor
 temperature - - - - -



B 25 838

Damping, Commutating

15 μ F / 1100 Vac

Ordering code: B25838-L8156-K004

Characteristics

C_N , tol.	15 μ F \pm 10 %
U_N	AC 1100 V
U_i	AC 990 V
I_{max}	80 A
L_{self}	170 nH
$\tan \delta_0$	$2 \cdot 10^{-4}$
R_S	1,7 m Ω

Maximum ratings

\hat{u}	1400 V
u_s	1900 V
\hat{i}	9 kA
I_s	23 kA
$(du/dt)_{max}$	600 V/ μ s
$(du/dt)_s$	1500 V/ μ s

Test data

U_{TT}	AC 1400 V, 10 s
U_{TC}	AC 3000 V, 10 s
$R_{is} \cdot C$	≥ 10000 s
$\tan \delta$ (50 Hz)	$\leq 3 \cdot 10^{-4}$

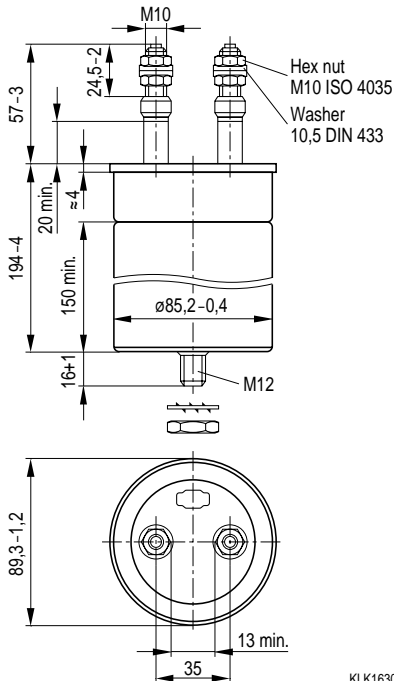
Climatic data

Θ_{min}	- 25 °C
Θ_{max}	+ 85 °C
Humidity	Average relative humidity \leq 95 %
$\alpha_{FQ}(co)$	300/10 ⁹ h
$t_{LD}(co)$	100000 h
Θ_{stg}	- 55 to + 85 °C

IEC climatic category: 25/085/56

(IEC 68-1 and 2)

Θ_{test}	+ 40 °C
Rel. humidity	93 %
t_{test}	56 days
$\Delta C/C$	\leq 1 %
$\Delta \tan \delta$	$\leq 1 \cdot 10^{-4}$
$R_{is} \cdot C$	≥ 10000 s



KLK1630-8

Design data

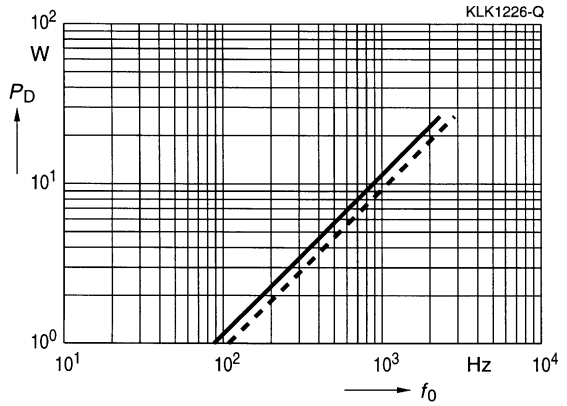
Dimensions $\varnothing \times l$	89,3 mm \times 194 mm
Approx. weight	1500 g
Impregnation	Oil
Fixing	Threaded bolt M12
Mounting hole	14 mm
Max. torque	10 Nm
Terminals	Screw terminals M10
Max. torque	7 Nm
Terminal cross section	16 mm ²
Creepage distance	20 mm
Clearance	13 mm
Overpressure disconnecter	

Thermal data

B25838-L8156-K004

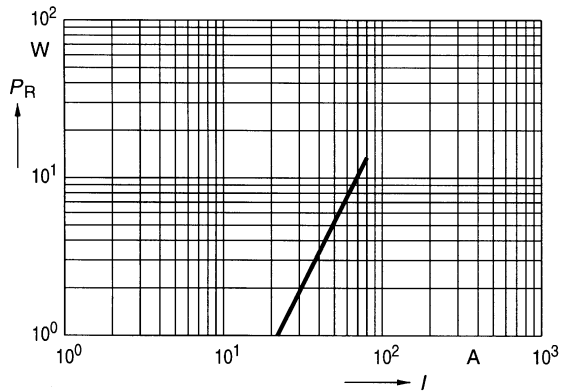
Dielectric power dissipation P_D
versus repetition frequency f_0

$\hat{u}_{ac} = 1100 \text{ V}$ —————
 $\hat{u}_{ac} = 990 \text{ V}$ - - - - -



Ohmic power dissipation P_R
versus rms current value I

$R_S (85^\circ\text{C}) = 2,1 \text{ m}\Omega$



Permissible ambient temperature Θ_A
versus total power dissipation P
(Upright mounting position)

Natural cooling —————
Forced cooling 2 m/s - - - - -
Permissible capacitor
temperature - - - - -

