

PEH 200 85°C

- High CV-value
- Long Life
- Low ESR and ESL
- Compact size

APPLICATION

Typical applications for the new PEH 200 would be found in Uninterruptable Power Supplies (UPS), Ground Power Units (GPU), Welding Equipments and Drives where high current ratings and compact size are important.

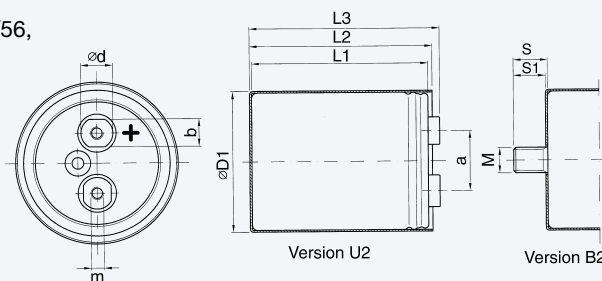
BASIC DESIGN

Dubbed the Elyt Long Life, the compact PEH 200 series has a polarized, all-welded design, heavy duty screw terminals, negative pole connected to the case, safety vent and plastic insulation. The sealing systems designed for electrolyte leakage free operation and a very low gas-diffusion rate of electrolyte.

Mechanical contact between the winding and the aluminium case allows excellent heat transfer from the winding hot spot to the ambient, which means cooler operation and very high current ratings.

SPECIFICATION

Standards	IEC 384-4 Long Life Grade 40/85/56, DIN 41240
Capacitance range	100–330000 µF
Capacitance tolerance	–20 to +20%
Rated voltage	25–550 VDC
Temperature range	–40 to +85°C
Shelf life	2000 h at 0V +85°C, or 4 years at 0V +40°C
Operational life time	60000 h at +85°C (Case Ø = 90 mm)
Diameter range	35–90 mm



Dimensions table PEH 200 (mm)

D x L	Case code	D1 ±1.0	L1 ±1.0	L2 ±1.0	L3 ±1.0	S	S1	M	a ±0.5	b	d	m*	Weight approx (g)
35 x 47	E	36.6	47.5	50.5	55.0	12	11.0	M8	13.0	—	8	M5	60
35 x 51	A	36.6	51.5	54.5	58.9	12	11.0	M8	13.0	—	8	M5	70
35 x 60	B	36.6	59.5	62.5	66.9	12	11.0	M8	13.0	—	8	M5	85
35 x 75	C	36.6	73.5	76.5	80.9	12	11.0	M8	13.0	—	8	M5	105
35 x 95	D	36.6	94.5	97.5	101.9	12	11.0	M8	13.0	—	8	M5	130
50 x 49	G	51.6	48.5	51.5	56.4	16	15.0	M12	22.0	13	15	M5	150
50 x 75	H	51.6	74.5	77.5	82.4	16	15.0	M12	22.0	13	15	M5	180
50 x 95	J	51.6	95.5	98.5	103.4	16	15.0	M12	22.0	13	15	M5	240
50 x 105	K	51.6	103.5	106.5	111.4	16	15.0	M12	22.0	13	15	M5	265
50 x 115	I**	51.6	115.5	118.5	123.4	16	15.0	M12	22.0	13	15	M5	300
65 x 105	O	66.6	106.0	109.2	113.0	16	14.8	M12	28.5	13	15	M5	415
65 x 115	Q**	66.6	118.0	121.2	125.0	16	14.8	M12	28.5	13	15	M5	460
65 x 130	S**	66.6	129.0	132.2	136.0	16	14.8	M12	28.5	13	15	M5	520
65 x 140	R**	66.6	141.0	144.2	148.0	16	14.8	M12	28.5	13	15	M5	650
75 x 78	L	76.6	77.0	80.2	84.0	16	14.8	M12	32.0	13	15	M5	430
75 x 98	P**	76.6	98.0	101.2	105.0	16	14.8	M12	32.0	13	15	M5	530
75 x 105	T	76.6	106.0	109.2	113.0	16	14.8	M12	32.0	13	15	M5	585
75 x 115	U	76.6	118.0	121.2	125.0	16	14.8	M12	32.0	13	15	M5	640
75 x 145	V	76.6	146.0	149.2	153.0	16	14.8	M12	32.0	13	15	M5	800
75 x 220	X	76.6	221.0	224.2	228.0	16	14.8	M12	32.0	13	15	M5	1400
90 x 78	M	91.6	76.5	79.7	83.4	16	14.8	M12	32.0	13	15	M5	750
90 x 98	N	91.6	97.5	100.7	104.4	16	14.8	M12	32.0	13	15	M5	950
90 x 145	Y	91.6	145.5	148.7	152.4	16	14.8	M12	32.0	13	15	M5	1400
90 x 220	Z	91.6	220.0	223.2	226.9	16	14.8	M12	32.0	13	15	M5	1500

* M6 and other threads on request. **on request

ARTICLE TABLE PEH 200 (85°C)

C_R	D x L	Case code	I_{RAC}^* 85°C	I_{RAC}^* 50°C **	I_{RAC}^* 40°C	ESR* 20°C	ESR* 20°C	L_{ESL} Approx.	Article code
μF	mm		100 Hz A	10 kHz A	10 kHz A	100 Hz m Ω	100 kHz m Ω	nH	
25 VDC (U_R)									
15000	35 x 51	A	11.9	28.7	19.0	25	21	12	PEH200HA5150M
22000	35 x 75	C	15.2	34.3	24.4	17	14	12	PEH200HC5220M
33000	35 x 95	D	17.8	38.0	28.1	12	10	12	PEH200HD5330M
47000	50 x 75	H	20.2	43.3	30.1	11	10	16	PEH200HH5470M
68000	50 x 95	J	23.4	47.4	34.6	8	7	16	PEH200HJ5680M
100000	50 x 105	K	23.9	46.1	34.7	7	7	16	PEH200HK6100M
150000	65 x 105	O	26.3	50.0	37.2	7	7	16	PEH200HO6150M
220000	75 x 105	T	35.0	63.6	49.5	5	5	17	PEH200HT6220M
330000	75 x 145	V	40.0	73.1	56.9	4	4	17	PEH200HV6330M
40 VDC (U_R)									
6800	35 x 51	A	9.9	27.2	18.1	33	25	12	PEH200KA4680M
10000	35 x 60	B	12.0	31.5	21.4	23	18	12	PEH200KB5100M
15000	35 x 75	C	14.6	36.1	25.5	16	12	12	PEH200KC5150M
22000	35 x 95	D	17.1	39.8	29.2	12	9	12	PEH200KD5220M
33000	50 x 75	H	18.9	41.1	28.8	11	9	16	PEH200KH5330M
47000	50 x 95	J	22.1	46.3	33.6	8	7	16	PEH200KJ5470M
68000	65 x 105	O	25.2	49.9	35.6	7	7	16	PEH200KO5680M
100000	65 x 105	O	24.9	46.3	36.9	8	8	16	PEH200KO6100M
150000	75 x 115	U	35.7	67.7	51.2	5	4	17	PEH200KU6150M
220000	75 x 145	V	34.4	62.3	48.9	5	5	17	PEH200KV6220M
63 VDC (U_R)									
4700	35 x 51	A	9.0	26.8	18.0	32	21	12	PEH200MA4470M
6800	35 x 75	C	11.5	32.7	23.5	21	14	12	PEH200MC4680M
10000	35 x 95	D	13.6	36.0	27.0	15	10	12	PEH200MD5100M
15000	50 x 75	H	16.1	37.3	26.5	14	11	16	PEH200MH5150M
22000	50 x 95	J	19.0	42.0	30.9	10	8	16	PEH200MJ5220M
33000	65 x 105	O	22.8	45.9	34.8	10	8	16	PEH200MO5330M
47000	65 x 105	O	21.8	42.7	32.0	10	9	16	PEH200MO5470M
68000	75 x 115	U	31.5	61.3	46.8	6	5	17	PEH200MU5680M
100000	75 x 145	V	34.3	62.2	50.3	5	5	17	PEH200MV6100M
100 VDC (U_R)									
1500	35 x 51	A	5.7	18.0	12.1	92	63	12	PEH200PA4150M
2200	35 x 60	B	7.0	21.3	14.7	63	44	12	PEH200PB4220M
3300	35 x 75	C	8.7	25.0	17.8	43	30	12	PEH200PC4330M
4700	35 x 95	D	10.3	28.9	21.1	31	21	12	PEH200PD4470M
6800	50 x 75	H	12.7	30.4	21.5	33	27	16	PEH200PH4680M
10000	50 x 95	J	15.3	34.7	25.6	23	19	16	PEH200PJ5100M
15000	50 x 105	K	17.3	37.6	27.9	17	14	16	PEH200PK5150M
22000	65 x 105	O	19.3	38.7	30.1	15	13	16	PEH200PO5220M
33000	75 x 105	T	26.3	53.0	39.8	10	8	17	PEH200PT5330M
47000	75 x 145	V	30.8	60.5	47.3	7	6	17	PEH200PV5470M
250 VDC (U_R)									
330	35 x 51	A	2.2	13.5	8.7	330	170	12	PEH200SA3330M
470	35 x 60	B	2.7	15.9	10.6	240	120	12	PEH200SB3470M
680	35 x 75	C	3.4	18.7	13.0	160	84	12	PEH200SC3680M
1000	35 x 95	D	4.1	21.2	15.6	110	58	12	PEH200SD4100M
1000	50 x 49	G	4.3	20.7	12.6	120	69	16	PEH200SG4100M
1500	50 x 75	H	5.9	28.7	19.5	78	42	16	PEH200SH4150M
2200	50 x 95	J	7.3	32.5	23.2	54	29	16	PEH200SJ4220M
3300	65 x 105	O	10.0	39.8	29.4	38	22	16	PEH200SO4330M
3300	75 x 78	L	10.5	43.8	29.6	38	22	17	PEH200SL4330M
4700	65 x 105	O	11.3	38.2	27.2	29	18	16	PEH200SO4470M

* Maximum values. ** 2 m/s forced air, studmounted on 3°C/W aluminium chassis.
Items marked in **bold**, are available on short lead-times

ARTICLE TABLE PEH 200 (85°C)

C _R	D x L	Case code	I _{RAC} *	I _{RAC} *	I _{RAC} *	ESR*	ESR*	L _{ESL} Approx.	Article code
			85°C	50°C **	40°C	20°C	20°C		
μF	mm		100 Hz A	10 kHz A	10 kHz A	100 Hz mΩ	100 kHz mΩ	nH	
250 VDC (U_R)									
4700	90 x 78	M	12.7	44.2	30.4	30	18	16	PEH200SM4470M
6800	75 x 105	T	14.7	51.5	36.5	20	12	17	PEH200ST4680M
6800	90 x 98	N	15.8	52.1	37.3	21	13	16	PEH200SN4680M
10000	75 x 145	V	18.0	59.0	44.0	14	9	17	PEH200SV5100M
12000	75 x 145	V	18.8	58.6	43.6	14	9	17	PEH200SV512AM
15000	75 x 220	X	20.6	61.6	49.2	10	6	17	PEH200SX5150M
15000	90 x 145	Y	21.8	60.1	45.5	12	8	16	PEH200SY5150M
350 VDC (U_R)									
220	35 x 51	A	2.0	13.7	8.8	360	170	12	PEH200UA3220M
330	35 x 60	B	2.6	16.6	11.0	240	110	12	PEH200UB3330M
470	35 x 75	C	3.2	19.3	13.4	170	79	12	PEH200UC3470M
680	35 x 95	D	3.8	21.9	16.0	120	55	12	PEH200UD3680M
680	50 x 49	G	4.0	20.7	12.6	130	66	16	PEH200UG3680M
1000	50 x 75	H	5.5	28.8	19.5	85	41	16	PEH200UH4100M
1500	50 x 95	J	6.8	32.9	23.4	57	28	16	PEH200UJ4150M
2200	65 x 105	O	9.4	39.8	29.2	41	21	16	PEH200UO4220M
2200	75 x 78	L	9.8	43.5	29.4	41	21	17	PEH200UL4220M
3300	65 x 105	O	10.9	38.6	27.5	31	17	16	PEH200UO4330M
3300	90 x 78	M	13.1	54.0	37.0	28	15	16	PEH200UM4330M
4700	75 x 115	U	14.5	54.7	39.5	20	11	17	PEH200UU4470M
4700	90 x 98	N	15.0	51.3	36.7	22	13	16	PEH200UN4470M
6800	75 x 145	V	16.8	57.0	42.3	15	8	17	PEH200UV4680M
10000	75 x 220	X	19.4	60.8	48.5	11	7	17	PEH200UX5100M
10000	90 x 145	Y	23.3	75.2	56.9	11	6	16	PEH200UY5100M
15000	90 x 220	Z	27.3	79.8	64.4	8	5	16	PEH200UZ515AM
385 VDC (U_R)									
220	35 x 51	A	2.1	14.6	9.3	330	150	12	PEH200XA3220M
330	35 x 75	C	2.7	17.0	12.0	220	97	12	PEH200XC3330M
470	35 x 95	D	3.3	19.1	14.2	150	69	12	PEH200XD3470M
470	50 x 49	G	3.6	20.9	12.8	160	78	16	PEH200XG3470M
680	50 x 75	H	4.7	26.8	18.4	110	51	16	PEH200XH3680M
1000	50 x 95	J	5.9	31.7	22.8	76	35	16	PEH200XJ4100M
1500	50 x 105	K	7.1	34.1	24.7	52	25	16	PEH200XK4150M
2200	65 x 105	O	9.6	36.7	26.1	38	20	16	PEH200XO4220M
2200	75 x 78	L	10.0	42.7	28.8	38	20	17	PEH200XL4220M
3300	75 x 105	T	12.8	52.5	37.4	25	13	17	PEH200XT4330M
3300	90 x 78	M	13.3	52.6	36.0	26	14	16	PEH200XM4330M
4700	75 x 145	V	15.2	57.6	43.9	19	11	17	PEH200XV4470M
4700	90 x 98	N	16.6	62.4	44.4	19	10	16	PEH200XN4470M
6800	90 x 145	Y	20.9	74.8	57.2	14	8	16	PEH200XY4680M
6800	75 x 220	X	17.4	58.9	47.0	14	8	17	PEH200XX4680M
400 VDC (U_R)									
220	35 x 51	A	2.2	11.4	9.6	310	130	12	PEH200VA3220M
330	35 x 75	C	2.8	14.3	12.6	210	90	12	PEH200VC3330M
470	35 x 95	D	3.4	16.5	14.8	140	63	12	PEH200VD3470M
470	50 x 49	G	3.7	15.0	12.7	150	73	16	PEH200VG3470M
680	50 x 75	H	4.9	21.2	18.3	110	55	16	PEH200VH3680M
1000	50 x 95	J	5.9	24.2	21.3	76	38	16	PEH200VJ4100M
1500	65 x 105	O	9.1	49.1	35.1	53	27	16	PEH200VO415AQ
1500	75 x 78	L	8.8	34.0	29.0	52	27	17	PEH200VL4150M
2200	65 x 105	O	9.6	29.1	25.6	39	21	16	PEH200VO4220M
2200	90 x 78	M	11.8	44.1	37.1	36	19	16	PEH200VM4220M
3300	65 x 105	O	11.0	30.5	26.7	29	16	16	PEH200VO433AM
3300	75 x 115	U	13.8	52.0	45.7	22	10	17	PEH200VU433AQ
3300	90 x 98	N	14.9	52.8	45.2	25	13	16	PEH200VN4330M

* Maximum values. ** 2 m/s forced air, studmounted on 3°C/W aluminium chassis. Items marked in **bold**, are available on short lead-times

ARTICLE TABLE PEH 200 (85°C)

C _R	D x L	Case code	I _{RAC} *	I _{RAC} *	I _{RAC} *	ESR*	ESR*	L _{ESL} Approx.	Article code
			85°C	50°C	40°C	20°C	20°C		
μF	mm		100 Hz A	10 kHz A	10 kHz A	100 Hz mΩ	100 kHz mΩ	nH	
400 VDC (U_R)									
3300	75 x 105	T	13.0	41.5	36.3	26	14	17	PEH200VT4330M
4700	75 x 145	V	15.6	57.0	42.5	18	10	17	PEH200VV447AM
6800	75 x 220	X	17.6	51.2	47.7	13	8	17	PEH200VX4680M
6800	90 x 145	Y	21.4	64.1	56.8	13	7	16	PEH200VY4680M
10000	90 x 220	Z	24.7	69.2	64.0	9	5	16	PEH200VZ5100M
420 VDC (U_R)									
150	35 x 51	A	1.8	12.1	7.8	400	170	12	PEH200OA3150M
220	35 x 75	C	2.3	14.3	10.3	270	110	12	PEH200OC3220M
330	35 x 95	D	2.9	16.3	12.3	180	76	12	PEH200OD3330M
330	50 x 49	G	3.2	20.4	12.6	190	80	16	PEH200OG3330M
470	50 x 75	H	4.2	24.8	17.0	140	62	16	PEH200OH3470M
680	50 x 95	J	5.1	28.1	20.4	96	44	16	PEH200OJ3680M
1000	50 x 105	K	6.3	32.0	23.2	67	31	16	PEH200OK4100M
1500	65 x 105	O	8.8	38.9	28.4	47	23	16	PEH200OO4150M
1500	75 x 78	L	9.1	42.3	28.5	47	23	17	PEH200OL4150M
2200	75 x 105	T	11.5	51.6	37.0	32	16	17	PEH200OT4220M
2200	90 x 78	M	12.2	52.7	36.0	33	17	16	PEH200OM4220M
2700	65 x 105	O	12.4	57.3	40.1	24	10	16	PEH200OO427AM
3300	75 x 145	V	14.0	57.5	43.7	22	11	17	PEH200OV4330M
3300	90 x 98	N	15.4	61.9	44.0	22	12	16	PEH200ON4330M
4700	75 x 220	X	15.7	57.6	46.8	16	8	17	PEH200OX4470M
4700	90 x 145	Y	18.2	62.2	47.5	17	9	16	PEH200OY4470M
8200	90 x 220	Z	23.8	77.3	63.1	10	5	16	PEH200OZ4820M
450 VDC (U_R)									
150	35 x 51	A	2.0	14.6	9.3	350	150	12	PEH200YA3150M
220	35 x 75	C	2.5	16.8	11.9	240	99	12	PEH200YC3220M
330	35 x 95	D	3.1	19.4	14.5	160	66	12	PEH200YD3330M
330	50 x 49	G	3.5	20.8	12.7	170	75	16	PEH200YG3330M
470	50 x 75	H	4.5	25.5	17.5	120	58	16	PEH200YH3470M
680	50 x 95	J	5.5	28.8	20.8	86	41	16	PEH200YJ3680M
1000	50 x 105	K	6.7	32.7	23.6	60	29	16	PEH200YK4100M
1500	65 x 105	O	9.3	39.2	28.2	43	22	16	PEH200YO4150M
1500	75 x 78	L	9.6	42.3	28.5	43	22	17	PEH200YL4150M
1800	65 x 105	O	10.6	47.8	34.0	43	22	17	PEH200YO418AM
2200	75 x 105	T	12.1	50.1	35.6	29	15	17	PEH200YT4220M
2200	90 x 78	M	12.7	52.4	35.8	30	16	16	PEH200YM4220M
3300	75 x 115	U	14.2	52.5	37.7	30	16	17	PEH200YU433CM
3300	75 x 145	V	14.7	57.3	43.7	20	10	17	PEH200YV4330M
3300	90 x 98	N	16.1	61.9	43.9	21	11	16	PEH200YN4330M
4700	75 x 145	V	17.9	68.3	50.4	14	7	17	PEH200YV447BM
4700	75 x 220	X	16.8	59.3	47.6	14	8	17	PEH200YX4470M
4700	90 x 145	Y	18.9	61.4	46.9	16	9	16	PEH200YY4470M
6000	75 x 220	X	18.5	60.5	47.8	12	7	17	PEH200YX460BQ
8200	90 x 220	Z	24.9	77.7	63.4	10	5	16	PEH200YZ4820M
500 VDC (U_R)									
100	35 x 51	A	1.5	6.1	3.9	1000	590	12	PEH200ZA3100M
150	35 x 60	B	1.9	7.5	4.9	670	390	12	PEH200ZB3150M
220	35 x 75	C	2.3	8.4	5.8	505	310	12	PEH200ZC3220M
220	50 x 49	G	2.5	10.1	6.1	520	320	12	PEH200ZG3220M
330	35 x 95	D	2.9	10.7	7.7	300	180	12	PEH200ZD3330M
470	50 x 75	H	4.2	15.8	10.5	220	130	16	PEH200ZH3470M
680	50 x 95	J	5.1	18.4	12.8	150	90	16	PEH200ZJ3680M
1000	65 x 105	O	6.8	21.4	15.5	130	79	16	PEH200ZO4100M
1500	75 x 105	T	9.2	29.8	21.0	82	52	17	PEH200ZT4150M
1800	65 x 105	O	10.6	40.9	28.2	44	29	16	PEH200ZO418HM
2200	75 x 145	V	11.1	33.7	25.1	58	38	17	PEH200ZV4220M
3300	75 x 220	X	12.8	36.5	29.0	38	25	17	PEH200ZX4330M

* Maximum values. ** 2 m/s forced air, studmounted on 3°C/W aluminium chassis. Items marked in **bold**, are available on short lead-times

ARTICLE TABLE PEH 200 (85°C)

C_R	D x L	Case code	I_{RAC}^*	I_{RAC}^*	I_{RAC}^*	ESR*	ESR*	L_{ESL} Approx.	Article code
			85°C	50°C **	40°C	20°C	20°C		
μF	mm		100 Hz A	10 kHz A	10 kHz A	100 Hz m Ω	100 kHz m Ω	nH	
500 VDC (U_R)									
3300	90 x 145	Y	15.7	46.9	35.4	38	24	16	PEH200ZY4330M
5600	90 x 220	Z	19.6	53.4	42.6	25	17	16	PEH200ZZ4560M
550 VDC (U_R)									
680	65 x 105	O	6.6	21.1	15.4	160	110	16	PEH200TO3680M
1000	65 x 105	O	8.0	25.2	17.9	120	76	16	PEH200TO4100M
1200	90 x 78	M	10.2	33.7	22.6	97	63	16	PEH200TM412AM
1200	75 x 105	T	9.5	30.5	21.6	96	62	17	PEH200TT4120M
1500	75 x 145	V	10.6	32.3	24.4	77	49	17	PEH200TV4150M
1800	75 x 145	V	11.6	35.3	26.3	66	42	17	PEH200TV4180M
2200	75 x 220	X	11.1	29.4	24.1	65	45	17	PEH200TX4220M
2700	75 x 220	X	13.4	37.8	30.1	45	29	17	PEH200TX4270M
2700	90 x 145	Y	15.7	44.4	33.7	47	30	16	PEH200TY4270M

ARTICLE TABLE PEH 200 (105°C)

C_R	D x L	Case code	I_{RAC}^*	I_{RAC}^*	I_{RAC}^*	ESR*	ESR*	L_{ESL} Approx.	Article code
			105°C	50°C **	40°C	20°C	20°C		
μF	mm		100 Hz A	10 kHz A	10 kHz A	100 Hz m Ω	100 kHz m Ω	nH	
500 VDC (U_R)									
100	35 x 51	A	1.0	7.2	4.5	1100	670	12	PEH200ZA310KM
150	35 x 75	C	1.3	7.7	5.4	740	460	12	PEH200ZC315KM
220	35 x 95	D	1.6	9.0	6.6	500	320	12	PEH200ZD322KM
330	50 x 75	H	2.3	14.0	9.3	340	220	16	PEH200ZH333KM
470	50 x 95	J	2.8	16.2	11.4	240	150	16	PEH200ZJ347KM
680	50 x 105	K	3.4	20.8	14.5	170	100	16	PEH200ZK368KM
1000	65 x 105	O	4.7	25.4	18.1	120	76	16	PEH200ZO410KM
1000	75 x 98	P	5.1	28.6	20.0	120	73	17	PEH200ZP410KM
1500	75 x 105	T	6.2	33.4	23.4	80	50	17	PEH200ZT415KM
1500	90 x 98	N	7.0	38.3	27.0	80	52	16	PEH200ZN415KM
2200	75 x 145	V	7.5	38.5	28.5	55	36	17	PEH200ZV422KM
3300	75 x 220	X	8.8	42.3	33.0	38	25	17	PEH200ZX433KM
3300	90 x 145	Y	10.5	52.0	39.0	38	25	16	PEH200ZY433KM

* Maximum values. ** 2 m/s forced air, studmounted on 3°C/W aluminium chassis.

PEH200 - Increased surge voltage (1,15xU_R) and transient capability

*** Transient measurements

PROCEDURE

The transient voltage has been determined in the following way. Before measurement, the capacitor is charged to the rated voltage at the maximum allowed ambient temperature for 12 hours. The capacitor is then placed in the test equipment and subjected to a transient corresponding to the surge voltage. Note that no operating voltage is applied over the capacitor. The voltage of the capacitor bank in the test equipment is increased 100 V between each pulse. Pulses are applied until the capacitor breaks. Data from the last pulse the capacitor withstand are evaluated. This procedure is repeated for 25 capacitors.

DATA EVALUATION

The average value, μ , and the standard deviation, σ , of the maximum voltage for the 25 measurements are calculated. The transient voltage U_T is then taken as: U_T = μ - 2 σ

ARTICLE TABLE PEH 200 (85°C)

C _R	D x L	Case code	I _{RAC} * 85°C 100 Hz	I _{RAC} * 50°C** 10 kHz	I _{RAC} * 40°C 10 kHz	ESR* 20°C 100 Hz	ESR* 20°C 100kHz	L _{ESL} Approx.	U _T ***	Article code
μF	mm		A	A	A	mΩ	mΩ	nH	V	
400 VDC (U_R), (U_{SURGE} = 460V)										
220	35 x 51	A	2.1	12.3	7.7	400	230	12	720	PEH200VA322TM
330	35 x 75	C	2.7	14.3	9.9	270	150	12	710	PEH200VC333TM
470	50 x 49	G	3.6	18.7	11.2	200	120	16	700	PEH200VG347TM
560	35 x 95	D	3.6	18.0	12.9	160	91	12	700	PEH200VD356TM
820	50 x 75	H	5.2	25.2	16.7	110	65	16	680	PEH200VH382TM
1500	50 x 105	K	7.2	31.0	22.0	63	37	16	660	PEH200VK415TM
2200	65 x 105	O	9.7	36.8	25.8	46	29	16	640	PEH200VO422TM
2200	75 x 78	L	10.0	41.1	27.2	45	28	17	640	PEH200VL422TM
2700	90 x 78	M	12.6	52.0	35.0	36	22	16	640	PEH200VM427TM
3300	75 x 105	T	12.7	48.4	33.6	31	19	17	630	PEH200VT433TM
4700	75 x 145	V	15.3	55.7	41.6	21	13	17	630	PEH200VV447TM
4700	90 x 98	N	16.7	60.9	42.5	22	14	16	630	PEH200VN447TM
8200	75 x 220	X	18.7	59.1	46.5	13	9	17	630	PEH200VX482TM
8200	90 x 145	Y	22.5	73.6	54.9	13	9	16	630	PEH200VY482TM
12000	90 x 220	Z	26.3	78.3	62.4	10	6	16	630	PEH200VZ512TM
420 VDC (U_R), (U_{SURGE} = 480V)										
150	35 x 51	A	1.8	10.6	6.7	490	260	12	740	PEH200OA315TM
270	35 x 75	C	2.6	13.6	9.4	280	140	12	730	PEH200OC327TM
330	50 x 49	G	3.2	18.5	11.1	230	120	16	720	PEH200OG333TM
390	35 x 95	D	3.1	15.4	11.2	190	100	12	720	PEH200OD339TM
680	50 x 75	H	5.0	26.0	17.2	110	60	16	700	PEH200OH368TM
1000	50 x 105	K	6.3	30.2	21.1	77	41	16	680	PEH200OK410TM
1500	75 x 78	L	9.0	41.1	27.2	53	29	17	660	PEH200OL415TM
1800	65 x 105	O	9.4	38.2	26.9	46	26	16	660	PEH200OO418TM
2200	90 x 78	M	12.0	51.5	34.6	37	21	16	650	PEH200OM422TM
2700	75 x 105	T	12.3	50.3	35.1	31	17	17	650	PEH200OT427TM
3300	90 x 98	N	15.3	61.1	42.7	25	14	16	650	PEH200ON433TM
3900	75 x 145	V	14.9	56.7	42.1	21	12	17	650	PEH200OV439TM
5600	75 x 220	X	17.0	59.1	46.2	15	9	17	650	PEH200OX456TM
5600	90 x 145	Y	18.8	60.9	45.6	19	12	16	650	PEH200OY456TM
8200	90 x 220	Z	23.9	77.9	62.2	11	7	16	650	PEH200OZ482TM
450 VDC (U_R), (U_{SURGE} = 515V)										
150	35 x 51	A	1.8	10.2	6.5	500	280	12	770	PEH200YA315TM
270	35 x 75	C	2.6	13.1	9.1	280	160	12	760	PEH200YC327TM
330	50 x 49	G	3.3	18.1	10.8	230	130	16	750	PEH200YG333TM
390	35 x 95	D	3.2	15.1	11.1	190	100	12	750	PEH200YD339TM
680	50 x 75	H	5.1	25.3	16.8	110	64	16	730	PEH200YH368TM
1000	50 x 105	K	6.4	29.3	20.7	78	45	16	710	PEH200YK410TM
1500	75 x 78	L	9.2	40.8	27.3	54	31	17	700	PEH200YL415TM

* Maximum specified values. ** 2 m/s forced air, stud mounted on 3 °C/W aluminium chassis.

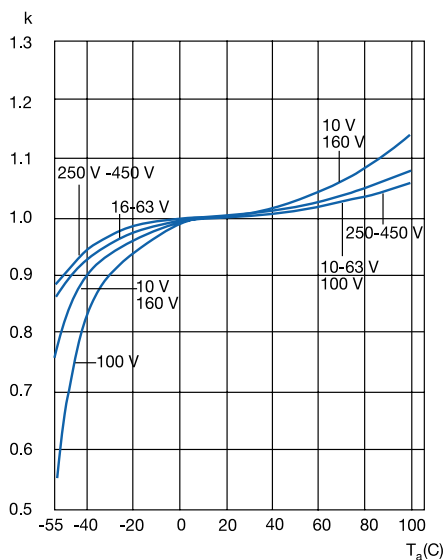
ARTICLE TABLE PEH 200 (85°C)

C_R	D x L	Case code	I_{RAC}^* 85°C 100 Hz	I_{RAC}^* 50°C ** 10 kHz	I_{RAC}^* 40°C 10 kHz	ESR* 20°C 100 Hz	ESR* 20°C 100kHz	L_{ESL} Approx.	U_T^{***}	Article code
μF	mm		A	A	A	m Ω	m Ω	nH	V	
450 VDC (U_R), ($U_{SURGE} = 515V$)										
1800	65 x 105	O	9.6	36.8	25.8	47	29	16	690	PEH200YO418TM
2200	90 x 78	M	12.4	52.0	34.9	37	22	16	690	PEH200YM422TM
2700	75 x 105	T	12.6	50.0	35.2	31	19	17	680	PEH200YT427TM
3300	90 x 98	N	15.6	61.2	42.9	25	15	16	680	PEH200YN433TM
3900	75 x 145	V	15.1	55.8	41.7	22	13	17	680	PEH200YV439TM
5600	90 x 145	Y	20.7	72.7	55.0	15	10	16	680	PEH200YY456TM
6800	75 x 220	X	18.6	59.9	46.7	14	9	17	680	PEH200YX468TM
10000	90 x 220	Z	25.9	78.0	62.5	9	6	16	680	PEH200YZ510TM

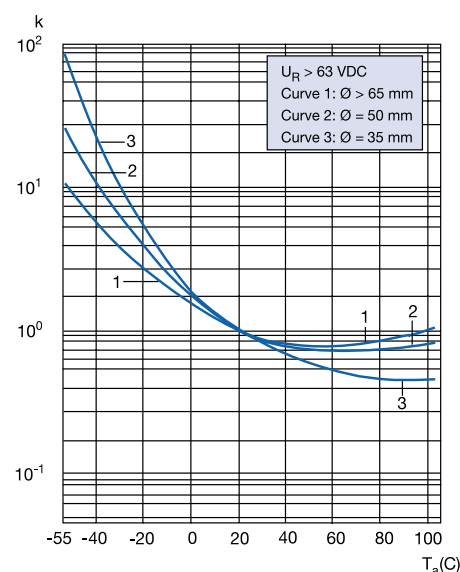
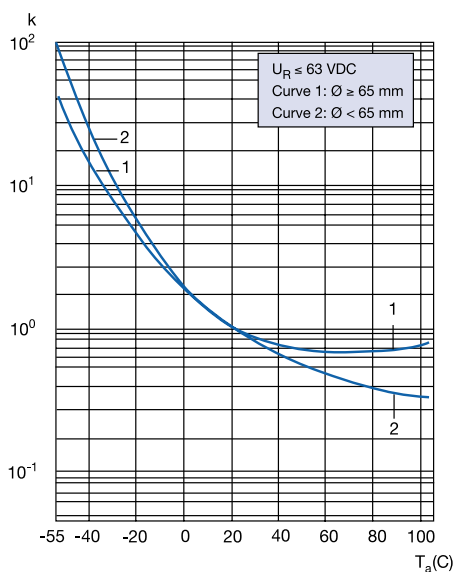
* Maximum specified values. ** 2 m/s forced air, studmounted on 3 °C/W aluminium chassis.

TECHNICAL DATA PEH 200 (85°C)

The capacitance vs ambient temperature (T_a) at f = 100 Hz



ESR as a function of ambient temperature (T_a) at f = 100 kHz. $k = R_{ESR}(T_a)/R_{ESR}(20^\circ C)$



LEAKAGE CURRENT

Rated leakage current, I_{RL} (μA)Rated voltage, U_R (V)Rated capacitance, C_R (μF) $I_{RL} = 0.003 \times C_R \times U_R + 4$ ($U_R \leq 500V$)

$$I_{RL} = 0.006 \times C_R \times U_R + 4$$

THERMAL RESISTANCE

 R_{th} – short form table versus chassis area and air speed

D x L	Case code	STUDMOUNTED				CLIPMOUNTED	
		$R_{thhs} = 3^{\circ}C/W$ (0.5 m/s)	$R_{thhs} = 2^{\circ}C/W$ (0.5 m/s)	$R_{thhs} = 3^{\circ}C/W$ (2.0 m/s)	$R_{thhs} = 2^{\circ}C/W$ (2.0 m/s)	(0.5 m/s)	(2.0 m/s)
35 x 47	E	5.6	5.3	4.5	4.4	11.9	8.3
35 x 51	A	5.6	5.3	4.5	4.4	10.6	7.4
35 x 60	B	5.4	5.1	4.4	4.3	9.8	7.0
35 x 75	C	5.3	5.1	4.4	4.3	9.2	6.7
35 x 95	D	5.3	5.1	4.4	4.3	8.9	6.7
50 x 49	G	3.3	2.9	2.8	2.5	6.7	4.5
50 x 75	H	3.6	3.3	2.8	2.7	6.3	4.4
50 x 95	J	3.4	3.2	2.7	2.6	5.8	4.2
50 x 105	K	3.4	3.2	2.7	2.6	5.8	4.2
50 x 115	I	3.4	3.2	2.7	2.6	5.8	4.2
65 x 105	O	2.6	2.4	2.1	2.0	4.2	3.1
65 x 115	Q	2.6	2.4	2.1	2.0	4.2	3.1
65 x 130	S	2.6	2.4	2.1	2.0	4.2	3.1
65 x 140	R	2.6	2.4	2.1	2.0	4.2	3.1
75 x 78	L	2.3	2.0	1.8	1.7	4.1	2.7
75 x 98	P	2.3	2.0	1.8	1.7	4.0	2.7
75 x 105	T	2.3	2.1	1.7	1.6	3.7	2.6
75 x 115	U	2.2	2.0	1.6	1.5	3.5	2.5
75 x 145	V	2.2	2.0	1.6	1.5	3.4	2.5
75 x 220	X	2.3	2.1	2.0	1.9	3.4	2.6
90 x 78	M	1.9	1.7	1.6	1.4	3.4	2.2
90 x 98	N	1.9	1.7	1.5	1.4	3.1	2.1
90 x 145	Y	1.8	1.6	1.5	1.4	2.7	1.9
90 x 220	Z	1.9	1.7	1.6	1.5	2.7	2.0

OPERATIONAL DATA

Please see operational lifetime section, page 85.

RELIABILITY

The failure rate is derived from our periodic test results. The failure rate (λ_{pr}) is therefore only given at test temperature for life tests. An estimation is also given at 60°C. The expected failure rate for this capacitor range is based on our periodic test results for capacitors with structural similarity.

T_a	Failure rate per hour
85°C	1×10^{-6}
60°C	1×10^{-7}

Failure rate per hour for catastrophic plus parametric failures.

