

Applications

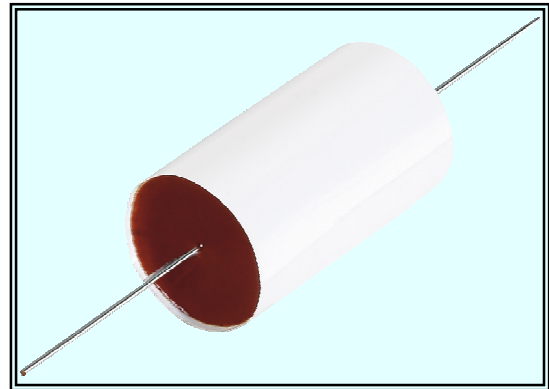
- Protection and commutation
- Electronic Power
- Impulsional fields needing intensive du/dt
- High Current
- Switching power supplies

Main Characteristics

- Dry film-foil technology
- Nominal Voltage: 630 VDC - 2000 VDC
- Climatic category: 40/085/56
- Tolerances  $\pm 10\%$ ,  $\pm 5\%$ ,  $\pm 2\%$
- Low ESR

Design

- Metallized Polypropylene film
- Polyester protective wrap
- Tinned copper wire leads
- Insulated wire leads on request
- Epoxy-resin end-seal (UL-V0)



1.0 Nominal Usage Values

DC	Nominal Voltage $U_N$	$\leq 70^\circ\text{C}$	630	1000	1200	1500	2000
	Category Voltage $U_C$	85 °C	500	800	960	1200	1600
	Test Voltage $U_T$	1 min / 23°C	1000	1600	1920	2400	3200
AC	Nominal Voltage $U_{N-}$	$\leq 70^\circ\text{C}$	300	400	450	500	500
	Category Voltage $U_C$	85 °C	240	320	360	400	400
	Max Transitory Voltage $U_{max-}$	70 °C	360	480	540	600	600

2.0 Capacitance Range

$C_n \Rightarrow$	100 pF	1.0 nF	3.3 nF	4.7 nF	10.0 nF	0.180 $\mu\text{F}$	0.470 $\mu\text{F}$	0.680 $\mu\text{F}$	1.0 $\mu\text{F}$	2.2 $\mu\text{F}$
630 VDC										
1000 VDC										
1200 VDC										
1500 VDC										
2000 VDC										

### 3.0 Characteristics

			Min	Typ.	Min
Dissipation Factor	tg δ	1 kHz, U < 5% U <sub>N</sub>		2.0	5.0 x 10 <sup>-4</sup>
		10 kHz, U < 5% U <sub>N</sub>		3.0	5.0 x 10 <sup>-4</sup>
Insulation Resistance	R <sub>i</sub> [MOhms]	500 V, 1 min, 23°C, C ≤ 033 μF	1.0 x 10 <sup>-5</sup>		
Time Constant	R <sub>i</sub> C [s]	500 V, 1 min, 23°C	33000		
Temperature Coefficient	α <sub>c</sub>	ppm / °C		-200 ±125	
Long term stability	ΔC / C [%]	23°C, 50% HR			± 0.5

### 4.0 Usage Limits

#### 4.1 Limits of standard current

The value of the superior limits of RMS is determined by the following :

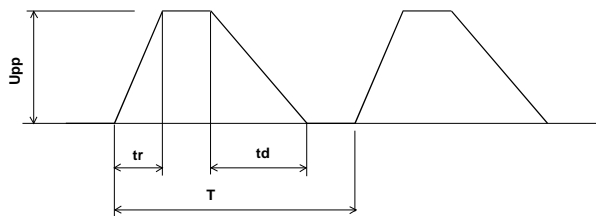
$$I_{rms} = \sqrt{\frac{1}{T} \int_0^T i^2(t) dt} \quad \text{and} \quad I_{rms} \leq I_{eff} \max(f)$$

$$\text{With } I_{eff} \max(f) = I_{eff} \max(10\text{kHz}) \times \left(1 + \frac{f-10}{20}\right) \text{ for } 10 \text{ kHz} < f \leq 30 \text{ kHz}$$

$$\text{and} \quad = 2 \times I_{eff} \max(10\text{kHz}) \text{ for } f > 30\text{kHz}$$

Conditions:  $I_{eff} \max \leq 12.5 \text{ A}_{eff}$ ,  $U(f) \leq U_N(50\text{Hz})$ , internal heat  $\Delta\theta \leq 15^\circ\text{C}$ ,  $T_{amb} \leq 70^\circ\text{C}$

#### 4.2 Impulsion use



where tr, td are, respectively, time needed for charging and discharging. T equals the cycle time.

with  $\left(\frac{du}{dt}\right)_N$  defines at  $U_N$  and  $T_{amb} \leq 70^\circ\text{C}$  (see data sheets)

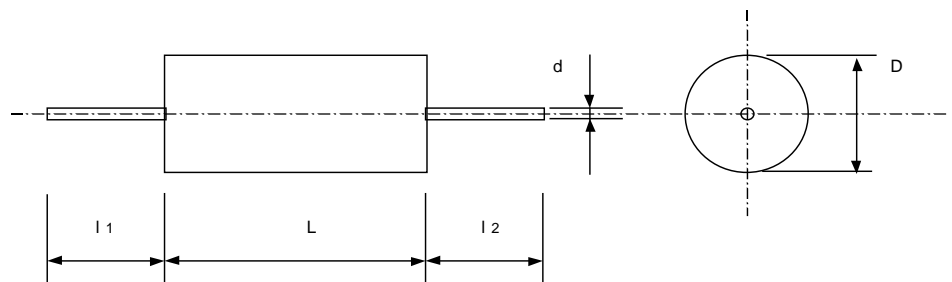
Peak current is limited to 
$$\hat{I}_{cr} [A] = C_N [\mu F] \times \left(\frac{du}{dt}\right)_N$$

and

maximum rise in voltage variation

$$\left(\frac{du}{dt}\right)_{\max} = \frac{U_N}{U_{pp}} \times \left(\frac{du}{dt}\right)_N$$

Maximum recurrence of frequency is determined by:



$$fp \max [\text{p.p.s}] = \frac{1}{T} = \frac{I_{\text{eff max}}^2(f)}{I_{1cr}^2 \times t_r + I_{2cr}^2 \times t_s} \quad \text{with} \quad \hat{I}_{cr1} [\text{A}] = C_N [\mu\text{F}] \times \frac{U_{pp}}{t_r}$$

and

$$\hat{I}_{cr2} [\text{A}] = C_N [\mu\text{F}] \times \frac{U_{pp}}{td}$$

$$\text{as long as } \frac{U_{pp}}{t_r}; \frac{U_{pp}}{td} \leq \left(\frac{du}{dt}\right)_{\max}$$

## 5.0 Dimensions, Shape:

Capacitors are axial. The variant KPS ... da offers alternative dimensions/characteristics with respect to the KPS ... d series.

D max [mm]	7 ... 12	> 12	$l_1, l_2$
d [mm]	0.8	1.0	min 30 mm

Capacitors delivered in bulk. On special request we can deliver tape-mounted.

B4F 1	Type	Cn	Dimension			dU / dt max	$\hat{I}$	ESR	Irms
		[nF]	$\varnothing$ [mm]	L [mm]	$\varnothing$ fil [mm]	[V / $\mu$ s]	[A]	[Ohm]	[A]
1	KPS 63-110 d K	10	7.0	20.0	0.8	750	8	0.796	0.57
2	KPS 63-112 d K	12	7.0	20.0	0.8	750	9	0.663	0.63
3	KPS 63-115 d K	15	7.0	20.0	0.8	750	11	0.531	0.70
4	KPS 63-118 d K	18	7.5	20.0	0.8	750	14	0.442	0.80
5	KPS 63-122 d K	22	8.1	20.0	0.8	750	17	0.362	0.92
6	KPS 63-127 d K	27	9.0	20.0	0.8	750	20	0.295	1.09
7	KPS 63-133 d K	33	10.0	20.0	0.8	750	25	0.241	1.28
8	KPS 63-139 d K	39	11.0	20.0	0.8	750	29	0.204	1.47
9	KPS 63-147 d K	47	11.5	20.0	0.8	750	35	0.169	1.66
10	KPS 63-156 d K	56	10.5	27.0	0.8	450	25	0.142	1.94
11	KPS 63-168 d K	68	11.5	27.0	0.8	450	31	0.117	2.25
12	KPS 63-182 d K	82	12.5	27.0	1.0	450	37	0.097	2.60
13	KPS 63-010 d K	100	13.5	27.0	1.0	450	45	0.080	3.00
14	KPS 63-012 d K	120	14.5	27.0	1.0	450	54	0.066	3.43
15	KPS 63-015 d K	150	15.5	27.0	1.0	450	68	0.053	4.00
16	KPS 63-018 d K	180	15.0	33.0	1.0	350	63	0.044	4.65
17	KPS 63-022 d K	220	16.5	33.0	1.0	350	77	0.036	5.44
18	KPS 63-027 d K	270	18.5	33.0	1.0	350	95	0.029	6.46
19	KPS 63-033 d K	330	20.0	33.0	1.0	350	116	0.024	7.49
20	KPS 63-039 d K	390	22.5	33.0	1.0	350	137	0.020	8.76
21	KPS 63-047 d K	470	24.5	33.0	1.0	350	165	0.017	10.15
22	KPS 63-056 d K	560	26.5	33.0	1.0	350	196	0.014	11.64
23	KPS 63-068 d K	680	28.5	33.0	1.0	350	238	0.012	12.50
24	KPS 63-082 d K	820	28.0	45.0	1.0	200	164	0.010	12.50
25	KPS 63-1.0 d K	1'000	26.5	45.0	1.0	200	200	0.008	12.50
26	KPS 63-1.2 d K	1'200	29.5	45.0	1.0	200	240	0.007	12.50
27	KPS 63-1.5 d K	1'500	32.0	45.0	1.0	200	300	0.005	12.50
28	KPS 63-1.8 d K	1'800	36.0	45.0	1.0	200	360	0.004	12.50
29	KPS 63-2.2 d K	2'200	38.0	45.0	1.0	200	440	0.004	12.50

B4F1	Type	Cn	Dimension			dU / dt max	$\hat{I}$ s	ESR	Irms
		[nF]	$\varnothing$ [mm]	L [mm]	$\varnothing$ fil [mm]	[V / $\mu$ s]	[A]	[Ohm]	[A]
1	KPS 100-247 d K	4.7	7.0	20.0	0.8	1'200	6	1.693	0.40
2	KPS 100-256 d K	5.6	7.0	20.0	0.8	1'200	7	1.421	0.43
3	KPS 100-268 d K	6.8	7.1	20.0	0.8	1'200	8	1.170	0.48
4	KPS 100-282 d K	8.2	8.0	20.0	0.8	1'200	10	0.970	0.56
5	KPS 100-110 d K	10	8.5	20.0	0.8	1'200	12	0.796	0.64
6	KPS 100-112 d K	12	9.5	20.0	0.8	1'200	14	0.663	0.75
7	KPS 100-115 d K	15	10.0	20.0	0.8	1'200	18	0.531	0.87
8	KPS 100-118 d K	18	11.0	20.0	0.8	1'200	22	0.442	1.00
9	KPS 100-122 d K	22	12.0	20.0	0.8	1'200	26	0.362	1.17
10	KPS 100-127 d K	27	10.0	27.0	0.8	750	20	0.295	1.31
11	KPS 100-133 d K	33	11.0	27.0	0.8	750	25	0.241	1.53
12	KPS 100-139 d K	39	12.0	27.0	0.8	750	29	0.204	1.75
13	KPS 100-147 d K	47	13.0	27.0	1.0	750	35	0.169	2.02
14	KPS 100-156 d K	56	14.5	27.0	1.0	750	42	0.142	2.35
15	KPS 100-168 d K	68	15.5	27.0	1.0	750	51	0.117	2.69
16	KPS 100-182 d K	82	15.0	33.0	1.0	550	45	0.097	3.14
17	KPS 100-010 d K	100	16.0	33.0	1.0	550	55	0.080	3.60
18	KPS 100-012 d K	120	18.0	33.0	1.0	550	66	0.066	4.24
19	KPS 100-015 d K	150	19.5	33.0	1.0	550	83	0.053	4.97
20	KPS 100-018 d K	180	22.0	33.0	1.0	550	99	0.044	5.87
21	KPS 100-022 d K	220	23.5	33.0	1.0	550	121	0.036	6.76
22	KPS 100-027 d K	270	21.5	45.0	1.0	350	95	0.029	8.00
23	KPS 100-033 d K	330	22.5	45.0	1.0	350	116	0.024	9.08
24	KPS 100-039 d K	390	24.5	45.0	1.0	350	137	0.020	10.40
25	KPS 100-047 d K	470	26.5	45.0	1.0	350	165	0.017	11.97
26	KPS 100-056 d K	560	29.0	45.0	1.0	350	196	0.014	12.50
27	KPS 100-068 d K	680	31.5	45.0	1.0	350	238	0.012	12.50
28	KPS 100-082 d K	820	35.0	45.0	1.0	350	287	0.010	12.50
29	KPS 100-1.0 d K	1'000	38.0	45.0	1.0	350	350	0.008	12.50

B4F1	Type	Cn	Dimension			dU / dt max	$\hat{I}$ s	ESR	Irms
		[nF]	$\varnothing$ [mm]	L [mm]	$\varnothing$ fil [mm]	[V / $\mu$ s]	[A]	[Ohm]	[A]
1	KPS 120-233 d K	3.3	7.0	20.0	0.8	1'500	5.0	2.411	0.33
2	KPS 120-239 d K	3.9	7.2	20.0	0.8	1'500	5.9	2.040	0.37
3	KPS 120-247 d K	4.7	7.4	20.0	0.8	1'500	7.1	1.693	0.41
4	KPS 120-256 d K	5.6	8.4	20.0	0.8	1'500	8.4	1.421	0.48
5	KPS 120-268 d K	6.8	9.1	20.0	0.8	1'500	10.2	1.170	0.55
6	KPS 120-282 d K	8.2	9.9	20.0	0.8	1'500	12.3	0.970	0.64
7	KPS 120-110 d K	10	10.8	20.0	0.8	1'500	15.0	0.796	0.74
8	KPS 120-112 d K	12	11.7	20.0	0.8	1'500	18.0	0.663	0.85
9	KPS 120-115 d K	15	13.0	20.0	1.0	1'500	22.5	0.531	1.01
10	KPS 120-118 d K	18	10.4	27.0	0.8	900	16.2	0.442	1.10
11	KPS 120-122 d K	22	11.4	27.0	0.8	900	19.8	0.362	1.28
12	KPS 120-127 d K	27	12.3	27.0	1.0	900	24.3	0.295	1.48
13	KPS 120-133 d K	33	13.7	27.0	1.0	900	29.7	0.241	1.74
14	KPS 120-139 d K	39	14.8	27.0	1.0	900	35.1	0.204	1.99
15	KPS 120-147 d K	47	16.2	27.0	1.0	900	42.3	0.169	2.30
16	KPS 120-156 d K	56	14.1	33.0	1.0	650	36.4	0.142	2.51
17	KPS 120-168 d K	68	15.4	33.0	1.0	650	44.2	0.117	2.91
18	KPS 120-182 d K	82	16.9	33.0	1.0	650	53.3	0.097	3.37
19	KPS 120-010 d K	100	18.5	33.0	1.0	650	65.0	0.080	3.93
20	KPS 120-012 d K	120	20.2	33.0	1.0	650	78.0	0.066	4.54
21	KPS 120-015 d K	150	22.4	33.0	1.0	650	97.5	0.053	5.43
22	KPS 120-018 d K	180	19.5	45.0	1.0	450	81.0	0.044	6.16
23	KPS 120-022 d K	220	21.4	45.0	1.0	450	99.0	0.036	7.20
24	KPS 120-027 d K	270	23.6	45.0	1.0	450	121.5	0.029	8.46
25	KPS 120-033 d K	330	26.0	45.0	1.0	450	148.5	0.024	9.92
26	KPS 120-039 d K	390	28.2	45.0	1.0	450	175.5	0.020	11.33
27	KPS 120-047 d K	470	30.9	45.0	1.0	450	211.5	0.017	12.50
28	KPS 120-056 d K	560	33.6	45.0	1.0	450	252.0	0.014	12.50
29	KPS 120-068 d K	680	36.9	45.0	1.0	450	306.0	0.012	12.50

B4F1	Type	Cn	Dimension			dU / dt max	î s	ESR	I <sub>rms</sub>
			[nF]	ø [mm]	L [mm]				
Pos.						[V / µs]	[A]	[Ohm]	[A]
1	KPS 150-210 d K	1.0	7.0	20.0	0.8	1'800	1.8	7.958	0.19
2	KPS 150-212 d K	1.2	7.0	20.0	0.8	1'800	2.2	6.631	0.20
3	KPS 150-215 d K	1.5	7.0	20.0	0.8	1'800	2.7	5.305	0.23
4	KPS 150-218 d K	1.8	7.0	20.0	0.8	1'800	3.2	4.421	0.25
5	KPS 150-222 d K	2.2	7.0	20.0	0.8	1'800	4.0	3.617	0.27
6	KPS 150-227 d K	2.7	7.5	20.0	0.8	1'800	4.9	2.947	0.31
7	KPS 150-233 d K	3.3	8.0	20.0	0.8	1'800	5.9	2.411	0.36
8	KPS 150-239 d K	3.9	8.5	20.0	0.8	1'800	7.0	2.040	0.40
9	KPS 150-247 d K	4.7	9.2	20.0	0.8	1'800	8.5	1.693	0.46
10	KPS 150-256 d K	5.6	10.4	20.0	0.8	1'800	10.1	1.421	0.54
11	KPS 150-268 d K	6.8	10.9	20.0	0.8	1'800	12.2	1.170	0.61
12	KPS 150-282 d K	8.2	11.8	20.0	0.8	1'800	14.8	0.970	0.71
13	KPS 150-110 d K	10	9.8	27.0	0.8	1'100	11.0	0.796	0.79
14	KPS 150-112 d K	12	10.7	27.0	0.8	1'100	13.2	0.663	0.91
15	KPS 150-115 d K	15	11.8	27.0	0.8	1'100	16.5	0.531	1.08
16	KPS 150-118 d K	18	12.8	27.0	1.0	1'100	19.8	0.442	1.24
17	KPS 150-122 d K	22	13.7	27.0	1.0	1'100	24.2	0.362	1.43
18	KPS 150-127 d K	27	15.1	27.0	1.0	1'100	29.7	0.295	1.67
19	KPS 150-133 d K	33	14.0	33.0	1.0	800	26.4	0.241	1.91
20	KPS 150-139 d K	39	15.1	33.0	1.0	800	31.2	0.204	2.17
21	KPS 150-147 d K	47	16.5	33.0	1.0	800	37.6	0.169	2.51
22	KPS 150-156 d K	56	17.9	33.0	1.0	800	44.8	0.142	2.88
23	KPS 150-168 d K	68	19.6	33.0	1.0	800	54.4	0.117	3.36
24	KPS 150-182 d K	82	21.4	33.0	1.0	800	65.6	0.097	3.90
25	KPS 150-010 d K	100	23.5	33.0	1.0	800	80.0	0.080	4.57
26	KPS 150-012 d K	120	19.7	45.0	1.0	500	60.0	0.066	5.06
27	KPS 150-015 d K	150	21.9	45.0	1.0	500	75.0	0.053	6.03
28	KPS 150-018 d K	180	23.9	45.0	1.0	500	90.0	0.044	6.96
29	KPS 150-022 d K	220	26.3	45.0	1.0	500	110.0	0.036	8.16
30	KPS 150-027 d K	270	29.1	45.0	1.0	500	135.0	0.029	9.61
31	KPS 150-033 d K	330	32.0	45.0	1.0	500	165.0	0.024	11.29
32	KPS 150-039 d K	390	34.7	45.0	1.0	500	195.0	0.020	12.50
33	KPS 150-047 d K	470	38.1	45.0	1.0	500	235.0	0.017	12.50

B4F1 Pos.	Type	Cn	Dimension			dU / dt max	î s	ESR	Irms
		[nF]	ø [mm]	L [mm]	ø fil [mm]	[V / µs]	[A]	[Ohm]	[A]
1	KPS 200-210 d K	1.0	7.0	27.0	0.8	1'800	1.8	7.958	0.21
2	KPS 200-212 d K	1.2	7.0	27.0	0.8	1'800	2.2	6.631	0.23
3	KPS 200-215 d K	1.5	7.0	27.0	0.8	1'800	2.7	5.305	0.26
4	KPS 200-218 d K	1.8	7.3	27.0	0.8	1'800	3.2	4.421	0.29
5	KPS 200-222 d K	2.2	7.9	27.0	0.8	1'800	4.0	3.617	0.33
6	KPS 200-227 d K	2.7	8.6	27.0	0.8	1'800	4.9	2.947	0.38
7	KPS 200-233 d K	3.3	9.3	27.0	0.8	1'800	5.9	2.411	0.44
8	KPS 200-239 d K	3.9	8.3	33.0	0.8	1'300	5.1	2.040	0.49
9	KPS 200-247 d K	4.7	9.5	33.0	0.8	1'300	6.1	1.693	0.58
10	KPS 200-256 d K	5.6	10.5	33.0	0.8	1'300	7.3	1.421	0.67
11	KPS 200-268 d K	6.8	11.0	33.0	0.8	1'300	8.8	1.170	0.76
12	KPS 200-282 d K	8.2	12.0	33.0	0.8	1'300	10.7	0.970	0.88
13	KPS 200-110 d K	10	13.0	33.0	1.0	1'300	13.0	0.796	1.01
14	KPS 200-112 d K	12	14.5	33.0	1.0	1'300	15.6	0.663	1.18
15	KPS 200-115 d K	15	15.5	33.0	1.0	1'300	19.5	0.531	1.37
16	KPS 200-118 d K	18	18.0	33.0	1.0	1'300	23.4	0.442	1.64
17	KPS 200-122 d K	22	14.5	45.0	1.0	800	17.6	0.362	1.82
18	KPS 200-127 d K	27	16.5	45.0	1.0	800	21.6	0.295	2.17
19	KPS 200-133 d K	33	17.5	45.0	1.0	800	26.4	0.241	2.48
20	KPS 200-139 d K	39	19.5	45.0	1.0	800	31.2	0.204	2.87
21	KPS 200-147 d K	47	20.5	45.0	1.0	800	37.6	0.169	3.25
22	KPS 200-156 d K	56	22.5	45.0	1.0	800	44.8	0.142	3.75
23	KPS 200-168 d K	68	24.5	45.0	1.0	800	54.4	0.117	4.34
24	KPS 200-182 d K	82	27.0	45.0	1.0	800	65.6	0.097	5.06
25	KPS 200-010 d K	100	29.5	45.0	1.0	800	80.0	0.080	5.90
26	KPS 200-012 d K	120	33.0	45.0	1.0	800	96.0	0.066	6.94
27	KPS 200-015 d K	150	36.0	45.0	1.0	800	120.0	0.053	8.20
28	KPS 200-018 d K	180	39.5	45.0	1.0	800	144.0	0.044	9.54



**KPS ... da 2000 VDC**

B4F1 Pos.	Type	Cn	Dimension			dU / dt max	Î s	ESR	Irms
		[nF]	ø [mm]	L [mm]	ø fil [mm]	[V / µs]	[A]	[Ohm]	[A]
1	KPS 200-310 da K	0.10	7.5	20.0	0.8	3'000	0.3	79.577	0.06
2	KPS 200-312 da K	0.12	7.5	20.0	0.8	3'000	0.4	66.315	0.07
3	KPS 200-315 da K	0.15	7.5	20.0	0.8	3'000	0.5	53.052	0.08
4	KPS 200-318 da K	0.18	7.5	20.0	0.8	3'000	0.5	44.210	0.08
5	KPS 200-322 da K	0.22	7.5	20.0	0.8	3'000	0.7	36.172	0.09
6	KPS 200-327 da K	0.27	7.5	20.0	0.8	3'000	0.8	29.473	0.10
7	KPS 200-333 da K	0.33	7.5	20.0	0.8	3'000	1.0	24.114	0.11
8	KPS 200-339 da K	0.39	7.5	20.0	0.8	3'000	1.2	20.404	0.12
9	KPS 200-347 da K	0.47	7.5	20.0	0.8	3'000	1.4	16.931	0.13
10	KPS 200-356 da K	0.56	7.5	20.0	0.8	3'000	1.7	14.210	0.15
11	KPS 200-368 da K	0.68	8.0	20.0	0.8	3'000	2.0	11.703	0.17
12	KPS 200-382 da K	0.82	8.5	20.0	0.8	3'000	2.5	9.705	0.19
13	KPS 200-210 da K	1.0	9.0	20.0	0.8	3'000	3.0	7.958	0.21
14	KPS 200-212 da K	1.2	10.0	20.0	0.8	3'000	3.6	6.631	0.25
15	KPS 200-215 da K	1.5	11.0	20.0	0.8	3'000	4.5	5.305	0.29
16	KPS 200-218 da K	1.8	12.0	20.0	0.8	3'000	5.4	4.421	0.34
17	KPS 200-222 da K	2.2	12.5	20.0	1.0	3'000	6.6	3.617	0.38
18	KPS 200-227 da K	2.7	13.0	20.0	1.0	3'000	8.1	2.947	0.43
19	KPS 200-233 da K	3.3	13.5	20.0	1.0	3'000	9.9	2.411	0.49
20	KPS 200-239 da K	3.9	11.0	27.0	0.8	1'800	7.0	2.040	0.53
21	KPS 200-247 da K	4.7	11.5	27.0	0.8	1'800	8.5	1.693	0.60
22	KPS 200-256 da K	5.6	12.5	27.0	1.0	1'800	10.1	1.421	0.68
23	KPS 200-268 da K	6.8	13.5	27.0	1.0	1'800	12.2	1.170	0.79
24	KPS 200-282 da K	8.2	15.0	27.0	1.0	1'800	14.8	0.970	0.92
25	KPS 200-110 da K	10	16.0	27.0	1.0	1'800	18.0	0.796	1.06
26	KPS 200-112 da K	12	18.0	27.0	1.0	1'800	21.6	0.663	1.24
27	KPS 200-115 da K	15	19.5	27.0	1.0	1'800	27.0	0.531	1.46
28	KPS 200-118 da K	18	22.0	27.0	1.0	1'800	32.4	0.442	1.73
29	KPS 200-122 da K	22	18.5	33.0	1.0	1'300	28.6	0.362	1.85
30	KPS 200-127 da K	27	21.0	33.0	1.0	1'300	35.1	0.295	2.21
31	KPS 200-133 da K	33	22.5	33.0	1.0	1'300	42.9	0.241	2.55
32	KPS 200-139 da K	39	24.5	33.0	1.0	1'300	50.7	0.204	2.93
33	KPS 200-147 da K	47	26.5	33.0	1.0	1'300	61.1	0.169	3.38