

K01 TYPE

- Surge-proof capacitor in aluminium can with insulation sleeve.
- Poles brought out to heavy duty screw terminals.
- To be mounted with ring clips or with threaded stud.

Very high CV for unit volume with low ESR.
High ripple current.
Excellent electricals data in small dimensions case size.



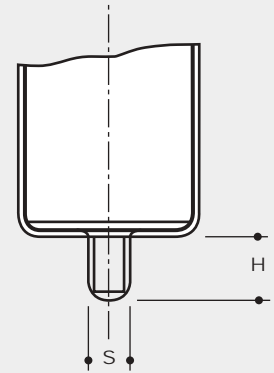
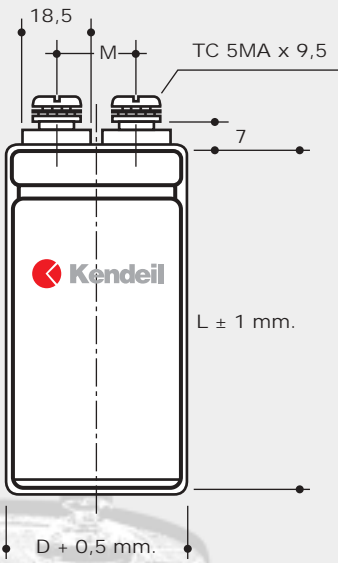
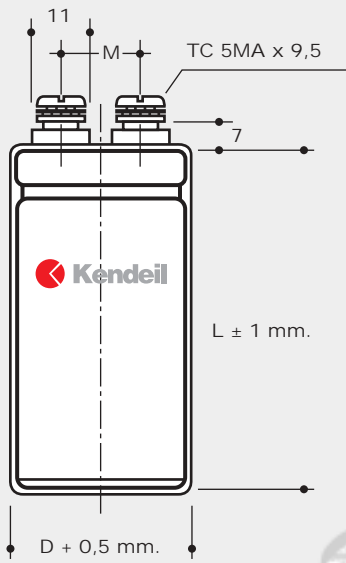
APPLICATIONS

Designed for professional power electronics. Switch mode power supplies, converters, filtering devices.

SPECIFICATIONS

GENERAL CHARACTERISTICS

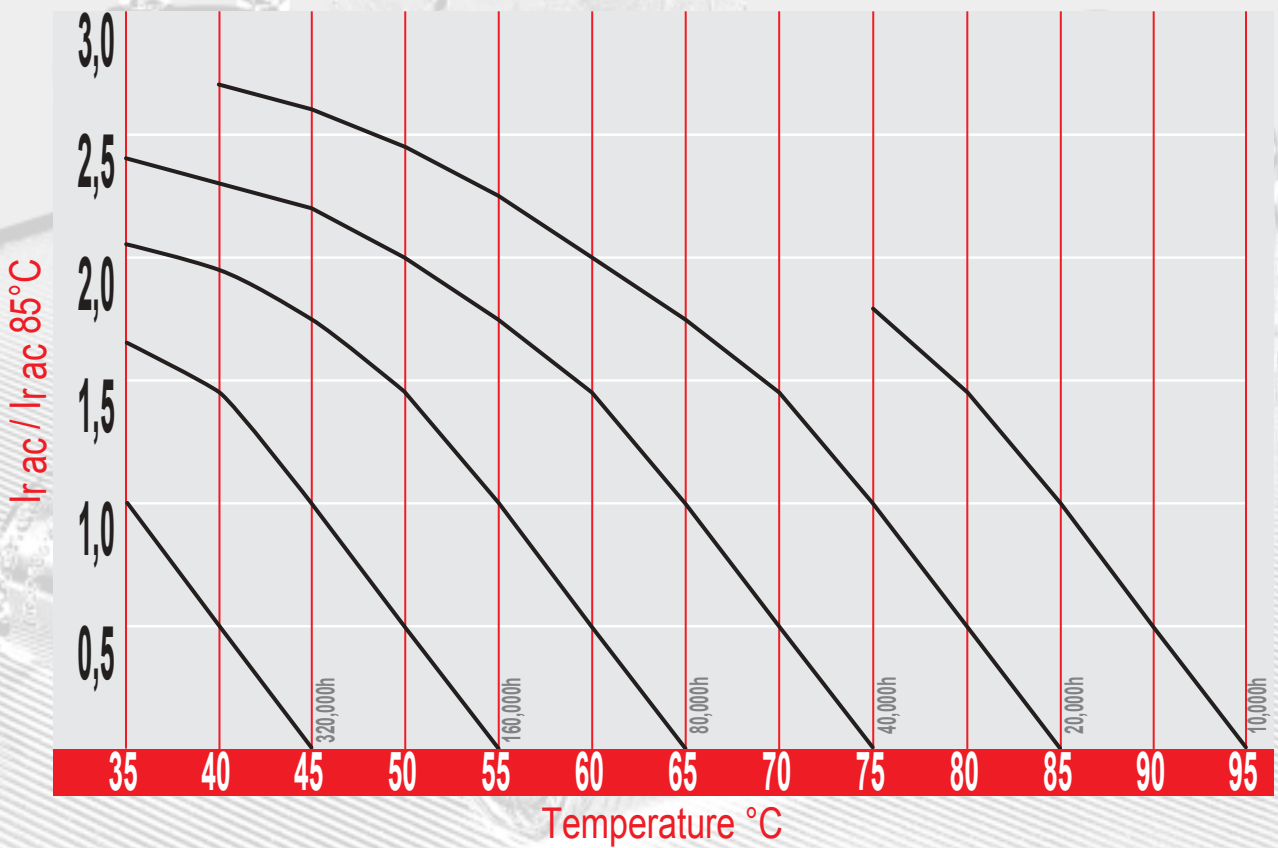
Temperature Range	Operating: -40°C +85°C Storage : -60°C +85°C	[Environmental classification 40/85/56 IEC-68]
Rated Voltage Range (V_r)	from 16V to 500V DC	
Surge Voltage (V_p)	V _p = 1.15 V _r (V _r ≤ 250V DC) V _p = 1.10 V _r (V _r > 250V DC)	
Rated Capacitance Range	from 220 μF to 1,500,000 μF	
Capacitance Tolerance	±20% at 100 Hz, 20°C [M class IEC-62]	on request: -10% +30% at 100 Hz, 20°C [Q class IEC-62]
Leakage Current (I_L) (5 min, 20°C)	max I _L = 0.006 C _r V _r + 4 μA At 85°C max I _L = 0.04 C _r V _r μA	Kendeil product limit : I _L = 0.003 C _r V _r
Ripple current (I_r)	Refer to table at 85°C and 100Hz. For different temperature and frequency multiplier must be used as follows:	
	FREQUENCY MULTIPLIER	50Hz 100Hz 500 Hz 1000Hz >10kHz
		0.8 1.0 1.2 1.3 1.5
	AMBIENT TEMP. MULTIPLIER	35°C 45°C 55°C 65°C 75°C 85°C 95°C
		2.2 2.1 1.8 1.6 1.4 1.0 0.5
	Maximum internal temperature	98°C
	Due to the current load capability of the contact elements, the following limits must not be exceeded:	
	CAPACITOR DIAMETER	35mm 51mm 63mm 76mm 90mm
	Maximum current	20A 30A 40A 50A 70A
Insulation Resistance	At 100V DC for 1 min is >100 MΩ across insulating sleeve and terminals.	
Vibration Resistance	Frequency range: 10 Hz to 55 Hz, amplitude 0.75 mm Capacitor length ≤ 143 : max acceleration 10g for 3x2 h Capacitor length > 143 : max acceleration 5g for 3x0.5 h	
Life test	After 2,000 hours application of rated voltage at 85°C capacitors meet characteristics aside	Cap change ≤ 30% tan δ ≤ 100% Leakage current (I _L) < initial limit Impedance (Z) ≤ 200%
Shelf life	After leaving capacitors under no load for 500 hours at 85°C, when restored at 20°C meet specifications aside	Cap change ≤ ±15% tan δ ≤ 150% Leakage current (I _L) < initial limit
Useful life	> 200,000 h at 40°C > 10,000 h at 85°C	
Failure percentage Failure rate	≤ 1% (during useful life) ≤ 40 fit (40 10 ⁻⁹ /h (V _r ≤ 160V DC) ≤ 70 fit (70 10 ⁻⁹ /h (V _r > 160V DC)	
Self inductance	Approx. 20 nH	
Reference standards	CECC 30.300 IEC 60384-4 LONG LIFE GRADE	



DIMENSIONS (mm)

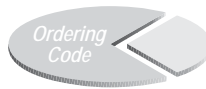
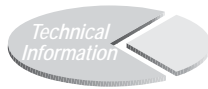
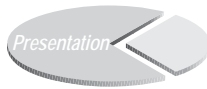
D	L	M	S	H
35	51	12,7	M 8	12
35	60	12,7	M 8	12
35	79	12,7	M 8	12
35	105	12,7	M 8	12
51	60	22,2	M12	16
51	79	22,2	M12	16
51	105	22,2	M12	16
63	105	28,6	M12	16
76	105	31,8	M12	16
76	143	31,8	M12	16
76	220	31,8	M12	16
90	220	31,8	M12	16

USEFUL LIFE K01



K01 TYPE STANDARD RATINGS

RATED VOLTAGE V DC	CAPACITANCE μ F	$\varnothing \times L$ mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z m Ω 10 kHz 20°C	I _{r a.c.} A 100 Hz 85°C	PART NUMBER
							stud and insert style excluded
16V	22000	35x60	0.35	15	17	6.6	K01016223_M0EH
	33000	35x60	0.40	13	13	9.2	K01016333_M0EH
	33000	35x79	0.40	13	13	10.2	K01016333_M0EJ
	47000	35x79	0.55	12	13	10.8	K01016473_M0EJ
	47000	51x79	0.55	12	11	12.5	K01016473_M0GJ
	68000	51x79	0.60	12	11	15.7	K01016683_M0GJ
	100000	51x79	0.80	10	11	16.5	K01016104_M0GJ
	100000	51x105	0.80	10	10	18.7	K01016104_M0GL
	150000	51x105	1.10	10	9	19.5	K01016154_M0GL
	150000	63x105	1.10	10	9	21.5	K01016154_M0HL
	220000	63x105	1.50	8	8	22.4	K01016224_M0HL
	330000	63x105	1.90	8	8	23.3	K01016334_M0HL
	330000	76x105	1.90	8	8	25.0	K01016334_M0JL
	470000	76x105	1.90	5	5	28.5	K01016474_M0JL
	470000	76x143	1.90	5	5	32.0	K01016474_M0JP
	680000	76x143	2.50	4	4	32.5	K01016684_M0JP
	1000000	76x143	2.50	3	3	34.5	K01016105_M0JP
1500000	90x220	3.00	3	3	48.7	K01016155_M0LS	
25V	10000	35x60	0.25	27	21	5.9	K01025103_M0EH
	15000	35x60	0.28	16	12	9.3	K01025153_M0EH
	22000	35x79	0.35	12	10	11.8	K01025223_M0EJ
	33000	35x79	0.40	12	10	12.1	K01025333_M0EJ
	33000	51x79	0.40	12	10	13.3	K01025333_M0GJ
	47000	51x79	0.50	12	10	15.7	K01025473_M0GJ
	68000	51x79	0.60	10	9	16.4	K01025683_M0GJ
	68000	51x105	0.60	10	9	18.7	K01025683_M0GL
	100000	63x105	0.70	10	9	21.5	K01025104_M0HL
	150000	63x105	1.00	9	9	22.0	K01025154_M0HL
	150000	76x105	1.00	9	9	23.5	K01025154_M0JL
	220000	76x105	1.50	9	9	24.2	K01025224_M0JL
	220000	76x143	1.50	9	9	28.5	K01025224_M0JP
	330000	76x143	2.00	6	6	30.5	K01025334_M0JP
	470000	76x220	2.00	5	5	35.6	K01025474_M0JS
40V	10000	35x60	0.20	18	12	6.5	K01040103_M0EH
	15000	35x60	0.25	13	10	7.4	K01040153_M0EH
	15000	35x79	0.25	13	10	8.6	K01040153_M0EJ
	22000	35x79	0.30	13	10	8.9	K01040223_M0EJ
	22000	51x79	0.30	13	10	10.4	K01040223_M0GJ
	33000	51x79	0.35	12	10	13.5	K01040333_M0GJ
	47000	51x79	0.40	10	9	14.2	K01040473_M0GJ
	47000	51x105	0.40	10	9	15.1	K01040473_M0GL
	47000	63x105	0.40	10	9	17.6	K01040473_M0HL
	68000	51x105	0.50	10	8	18.2	K01040683_M0GL
	68000	63x105	0.50	10	8	19.5	K01040683_M0HL
	100000	63x105	0.60	9	8	21.2	K01040104_M0HL
	150000	76x105	0.90	9	8	25.7	K01040154_M0JL
	220000	76x143	1.00	6	6	31.5	K01040224_M0JP
	330000	76x220	1.20	5	5	38.5	K01040334_M0JS



K01 TYPE STANDARD RATINGS

RATED VOLTAGE V DC	CAPACITANCE μ F	$\varnothing \times L$ mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z m Ω 10 kHz 20°C	I _{r a.c.} A 100 Hz 85°C	PART NUMBER <i>stud and insert style excluded</i>
50V	4700	35x60	0.20	33	30	5.6	K01050472_M0EH
	6800	35x60	0.20	25	24	7.0	K01050682_M0EH
	10000	35x60	0.20	21	20	10.0	K01050103_M0EH
	15000	35x79	0.25	17	15	11.3	K01050153_M0EJ
	22000	51x79	0.30	16	13	13.1	K01050223_M0GJ
	33000	51x105	0.35	15	13	16.0	K01050333_M0GL
	33000	63x105	0.35	15	13	17.5	K01050333_M0HL
	47000	51x105	0.40	12	10	16.2	K01050473_M0GL
	47000	63x105	0.40	12	10	18.3	K01050473_M0HL
	68000	51x105	0.60	12	9	18.0	K01050683_M0GL
	68000	76x105	0.60	12	9	22.1	K01050683_M0JL
	100000	76x105	0.90	8	8	23.8	K01050104_M0JL
	100000	76x143	0.90	8	8	25.8	K01050104_M0JP
	150000	76x143	1.00	6	6	31.5	K01050154_M0JP
	63V	4700	35x60	0.15	29	25	6.2
6800		35x60	0.18	21	20	7.0	K01063682_M0EH
6800		35x79	0.18	21	20	8.2	K01063682_M0EJ
10000		35x79	0.20	21	20	8.7	K01063103_M0EJ
10000		51x79	0.20	18	16	10.1	K01063103_M0GJ
15000		51x79	0.25	15	13	11.1	K01063153_M0GJ
22000		51x79	0.30	13	11	12.4	K01063223_M0GJ
22000		51x105	0.30	13	11	14.6	K01063223_M0GL
33000		51x105	0.35	11	10	15.6	K01063333_M0GL
33000		63x105	0.35	11	10	17.9	K01063333_M0HL
47000		51x105	0.45	10	9	15.8	K01063473_M0GL
47000		63x105	0.45	11	10	18.8	K01063473_M0HL
68000		76x105	0.70	11	10	25.7	K01063683_M0JL
100000		76x105	0.70	8	8	31.5	K01063104_M0JL
100000		76x143	0.70	8	8	34.5	K01063104_M0JP
150000	76x143	0.95	6	6	36.1	K01063154_M0JP	
75V	4700	35x60	0.15	29	25	5.4	K01075472_M0EH
	6800	35x79	0.18	20	20	8.5	K01075682_M0EJ
	10000	51x79	0.20	18	16	11.0	K01075103_M0GJ
	15000	51x105	0.25	15	13	12.7	K01075153_M0GL
	22000	51x105	0.30	12	11	15.2	K01075223_M0GL
	22000	63x105	0.30	12	11	15.2	K01075223_M0HL
	33000	63x105	0.35	11	10	18.5	K01075333_M0HL
	33000	76x105	0.35	11	10	18.5	K01075333_M0JL
	47000	76x105	0.45	10	10	22.1	K01075473_M0JL
	47000	76x143	0.45	10	10	22.1	K01075473_M0JP
	68000	76x143	0.80	10	10	26.0	K01075683_M0JP
	100000	76x143	0.95	8	8	34.9	K01075104_M0JP

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RATED VOLTAGE V DC	CAPACITANCE μ F	$\varnothing \times L$ mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z m Ω 10 kHz 20°C	I _{r a.c.} A 100 Hz 85°C	PART NUMBER stud and insert style excluded
100V	1500	35x60	0.15	84	65	4.0	K01100152__M0EH
	2200	35x60	0.15	57	47	5.0	K01100222__M0EH
	3300	35x60	0.15	48	39	5.3	K01100332__M0EH
	3300	35x79	0.15	48	39	6.8	K01100332__M0EJ
	4700	35x79	0.15	30	26	7.5	K01100472__M0EJ
	4700	51x79	0.15	30	26	10.0	K01100472__M0GJ
	6800	51x79	0.20	23	20	11.1	K01100682__M0GJ
	10000	51x79	0.20	16	14	11.9	K01100103__M0GJ
	10000	51x105	0.20	16	14	13.9	K01100103__M0GL
	10000	63x105	0.20	16	14	14.5	K01100103__M0HL
	15000	51x105	0.25	13	12	14.8	K01100153__M0GL
	15000	63x105	0.25	13	12	17.5	K01100153__M0HL
	22000	63x105	0.25	12	12	18.2	K01100223__M0HL
	33000	76x105	0.25	10	10	23.1	K01100333__M0JL
	47000	76x143	0.30	10	9	30.2	K01100473__M0JP
	68000	76x220	0.30	8	8	36.5	K01100683__M0JS
	160V	1000	35x79	0.10	98	90	4.0
1500		51x79	0.10	62	71	5.3	K01160152__M0GJ
2200		51x79	0.10	50	43	7.0	K01160222__M0GJ
3300		51x105	0.12	35	30	8.6	K01160332__M0GL
4700		51x105	0.12	25	25	10.9	K01160472__M0GL
4700		63x105	0.12	25	25	10.9	K01160472__M0HL
6800		63x105	0.12	20	22	13.0	K01160682__M0HL
10000		76x105	0.15	13	12	17.4	K01160103__M0JL
10000		76x143	0.15	13	12	17.4	K01160103__M0JP
15000		76x143	0.15	13	12	20.9	K01160153__M0JP
22000		76x143	0.20	10	10	26.4	K01160223__M0JP
33000		76x220	0.20	8	8	34.1	K01160333__M0JS
200V	680	35X60	0.10	124	119	3.4	K01200681__M0EH
	1000	51x79	0.10	86	88	4.2	K01200102__M0GJ
	1500	51x79	0.10	60	63	5.8	K01200152__M0GJ
	2200	51x105	0.10	47	44	7.2	K01200222__M0GL
	3300	51x105	0.12	35	33	9.0	K01200332__M0GL
	3300	63x105	0.12	35	33	9.0	K01200332__M0HL
	4700	51x105	0.12	30	28	11.1	K01200472__M0GL
	4700	63x105	0.12	30	28	11.1	K01200472__M0HL
	6800	63x105	0.12	25	20	13.9	K01200682__M0HL
	6800	76x105	0.12	25	20	13.9	K01200682__M0JL
	10000	76x105	0.15	13	12	15.8	K01200103__M0JL
	10000	76x143	0.15	13	12	18.6	K01200103__M0JP
	15000	76x143	0.18	12	12	21.4	K01200153__M0JP
	22000	76x143	0.18	10	10	28.9	K01200223__M0JP
	33000	76x220	0.22	8	8	36.1	K01200333__M0JS

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RATED VOLTAGE V DC	CAPACITANCE μF	$\varnothing \times L$ mm	Tan δ MAX 100 Hz 20°C	ESR TYP $m\Omega$ 100 Hz 20°C	Z $m\Omega$ 10 kHz 20°C	I _{r a.c.} A 100 Hz 85°C	PART NUMBER <i>stud and insert style excluded</i>	
250V	470	35x60	0.10	211	200	2.8	K01250471__M0EH	
	680	35x79	0.10	157	150	3.5	K01250681__M0EJ	
	1000	51x79	0.10	110	95	4.6	K01500102__M0GJ	
	1500	51x105	0.10	74	65	6.1	K01250152__M0GL	
	2200	51x105	0.10	40	36	7.5	K01250222__M0GL	
	3300	51x105	0.12	35	29	9.8	K01250332__M0GL	
	3300	63x105	0.12	35	29	9.8	K01250332__M0HL	
	4700	63x105	0.12	28	25	11.8	K01250472__M0HL	
	4700	76x105	0.12	28	25	13.2	K01250472__M0JL	
	6800	76x105	0.12	25	21	14.1	K01250682__M0JL	
	10000	76x143	0.15	20	19	19.7	K01250103__M0JP	
	15000	76x143	0.15	18	18	21.9	K01250153__M0JP	
	22000	76x220	0.20	12	11	34.2	K01250223__M0JS	
	350V	470	35X60	0.10	170	136	3.3	K01350471__M0EH
		680	35X79	0.10	108	95	4.0	K01350681__M0EJ
1000		51x79	0.10	79	62	5.0	K01350102__M0GJ	
1000		51x105	0.10	79	62	5.5	K01350102__M0GL	
1500		51x105	0.10	60	52	7.4	K01350152__M0GL	
2200		51x105	0.10	44	40	9.0	K01350222__M0GL	
2200		63x105	0.10	44	40	9.5	K01350222__M0HL	
3300		63x105	0.12	35	30	10.1	K01350332__M0HL	
3300		76x105	0.12	35	30	12.8	K01350332__M0JL	
4700		76x105	0.12	32	25	14.5	K01350472__M0JL	
4700		76x143	0.12	32	25	17.5	K01350472__M0JP	
5600		76x143	0.15	25	23	18.5	K01350562__M0JP	
6800		76x143	0.15	23	21	19.2	K01350682__M0JP	
10000		76x143	0.15	18	18	23.0	K01350103__M0JP	
10000		76x220	0.15	16	15	26.6	K01350103__M0JS	
15000		76x220	0.20	12	12	31.7	K01350153__M0JS	
22000		90x220	0.25	8	8	35.4	K01350223__M0LS	

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RATED VOLTAGE V DC	CAPACITANCE μF	$\varnothing \times L$ mm	$\text{Tan } \delta$	ESR	Z	I _r a.c.	PART NUMBER <i>stud and insert style excluded</i>	
			MAX 100 Hz 20°C	TYP $m\Omega$ 100 Hz 20°C	$m\Omega$ 10 kHz 20°C	A 100 Hz 85°C		
400V	220	35x60	0.10	455	375	2.1	K01400221__MOEH	
	330	35x60	0.10	290	273	2.8	K01400331__MOEH	
	470	35x60	0.10	160	149	3.0	K01400471__MOEH	
	470	35x79	0.10	165	155	3.5	K01400471__MOEJ	
	680	51x79	0.10	120	115	4.7	K01400681__MOGJ	
	680	51x105	0.10	124	120	5.1	K01400681__MOGL	
	1000	51x79	0.10	105	95	5.8	K01400102__MOGJ	
	1000	51x105	0.10	110	85	6.3	K01400102__MOGL	
	1500	51x105	0.10	65	55	7.0	K01400152__MOGL	
	1500	63x105	0.10	65	55	7.9	K01400152__MOHL	
	2200	51x105	0.10	50	47	8.3	K01400222__MOGL	
	2200	63x105	0.10	50	47	9.0	K01400222__MOHL	
	2200	76x105	0.10	50	47	10.7	K01400222__MOJL	
	3300	63x105	0.12	35	30	11.0	K01400332__MOHL	
	3300	76x105	0.12	35	30	13.1	K01400332__MOJL	
	3300	76x143	0.12	35	30	14.2	K01400332__MOJP	
	4700	76x105	0.15	30	29	14.9	K01400472__MOJL	
	4700	76x143	0.15	30	29	18.8	K01400472__MOJP	
	6800	76x143	0.15	23	22	19.5	K01400682__MOJP	
	10000	76x220	0.15	20	19	26.0	K01400103__MOJS	
15000	90x220	0.20	15	12	33.5	K01400153__MOLS		
450V	220	35X60	0.10	360	300	2.0	K01450221__MOEH	
	330	35X60	0.10	240	210	2.8	K01450331__MOEH	
	470	51x79	0.10	200	179	4.0	K01450471__MOGJ	
	680	51X79	0.10	140	128	4.4	K01450681__MOGJ	
	680	51x105	0.10	140	128	5.0	K01450681__MOGL	
	1000	51x79	0.10	100	88	4.8	K01450102__MOGJ	
	1000	51x105	0.10	100	88	6.4	K01450102__MOGL	
	1500	51X105	0.10	67	55	7.1	K01450152__MOGL	
	1500	63x105	0.10	67	55	8.0	K01450152__MOHL	
	2200	63x105	0.10	60	55	9.0	K01450222__MOHL	
	2200	76x105	0.10	60	47	11.2	K01450222__MOJL	
	2200	76x143	0.10	60	47	12.5	K01450222__MOJP	
	3300	76x105	0.12	35	30	11.2	K01450332__MOJL	
	3300	76x143	0.12	35	30	12.9	K01450332__MOJP	
	4700	76x143	0.15	32	30	15.0	K01450472__MOJP	
	6800	76x143	0.15	25	22	19.2	K01450682__MOJP	
	10000	76x220	0.20	20	19	23.1	K01450103__MOJS	
	12000	76x220	0.25	15	12	29.8	K01450123__MOJS	
	500V	1000	51x105	0.15	159	145	4.0	K01500102__MOGL
		1500	63x105	0.15	122	115	5.2	K01500152__MOHL
2200		76x105	0.15	90	85	7.4	K01500222__MOJL	
2200		76x143	0.15	90	85	8.2	K01500222__MOJP	
3300		76x143	0.20	60	58	10.3	K01500332__MOJP	
4700		76x143	0.20	40	37	11.6	K01500472__MOJP	