

# Power

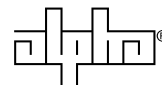
## NiCad Translucent Case

Nickel Cadmium Alkaline Battery



- High performance nickel cadmium storage battery
- Three battery ranges designed for different discharge ranges:
  - KH/P Range (High) 1sec to 90min
  - KM/P Range (Medium) 5min to 5hrs
  - KL/P Range (Long) 1 to 10hrs
- 20 year design life
- 2 year full warranty

Alpha's Nickel Cadmium Translucent Pocket Plate Batteries are designed and manufactured in three different discharge ranges to provide battery power to support various applications. The KL/P (long discharge rate) batteries are designed for photovoltaic and energy storage applications. The KM/P (medium discharge rate) batteries provide up to 5 hours of power for switchgear and other industrial applications. The KH/P (high discharge rate) batteries are designed for start up and UPS applications. Each battery is delivered in charged condition filled with electrolyte. Built in accordance with IEC 60 623, EN60 623, and DIN 40 771.



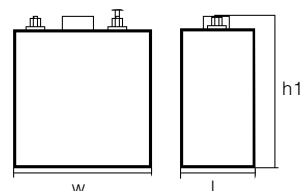
## Nickel Cadmium Translucent Battery

### General Specifications

Model:	KH/P high rate	KM/P medium rate	KL/P long rate
Standard Warranty:	2 yr full plus 18 yr prorated	2 yr full plus 18 yr prorated	2 yr full plus 18 yr prorated
Service Life:	20 yr	20 yr	20 yr
Range of Capacity:	10 to 2Ah	11 to 1250Ah	11 to 1500Ah
Time of Discharge:	1sec to 90min	5min to 5hrs	1 to 10rs
Operating Range:	-30 to 45°C (-22 to 113°F)	-30 to 45°C (-22 to 113°F)	-30 to 45°C (-22 to 113°F)
Terminal Temperature:	Threaded Nickel Plated Posts	Threaded Nickel Plated Posts	Threaded Nickel Plated Posts

### Range KH/P (Plastic Case Cells) Mechanical Specifications

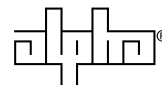
Type	L (in/mm)	W (in/mm)	H (in/mm)	Weight (lb/kg)
KH 10 P:	1.8 / 46	3.3 / 85	9.5 / 257	3.6 / 1.62
KH 20 P:	1.8 / 46	3.3 / 85	9.5 / 257	4.2 / 1.90
KH 30 P:	3.3 / 85	3.3 / 85	9.5 / 257	6.7 / 3.05
KH 40 P:	3.3 / 85	3.3 / 85	9.5 / 257	7.9 / 3.59
KH 50 P*:	2.1 / 53	5.3 / 134	14.2 / 360	9.1 / 4.15
KH 50 P*:	2.7 / 69	5.3 / 134	14.2 / 360	12.9 / 4.93
KH 65 P:	2.7 / 69	5.3 / 134	14.2 / 360	14.8 / 5.83
KH 80 P:	2.7 / 69	5.3 / 134	14.2 / 360	14.8 / 6.72
KH 100 P:	4.1 / 105	5.4 / 137	14.2 / 360	19.8 / 9.00
KH 125 P:	4.1 / 105	5.4 / 137	14.2 / 360	21.6 / 9.81
KH 150 P:	4.3 / 108	6.5 / 164	15.8 / 400	30.9 / 14.00
KH 185 P:	6.5 / 164	6.2 / 158	15.9 / 405	38.8 / 17.60
KH 200 P:	6.5 / 164	6.2 / 158	15.9 / 405	40.3 / 18.30
KH 235 P	6.5 / 164	6.2 / 158	15.9 / 405	42.7 / 19.35



\* Customer must indicate dimension when ordering

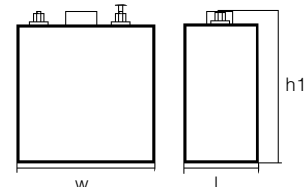
### KH/P Discharge Current (A) to End Voltage 1.00VPC at 25°C(77°F Fully Charged)

Cell Type	Seconds				Minutes						
	1	5	10	30	1	5	10	15	30	60	90
KH 10 P:	93	79	71	61	55	40	31	28	19	10	7
KH 20 P:	185	158	143	123	110	80	63	55	37	19	13
KH 30 P:	278	236	214	184	165	120	94	83	56	29	18
KH 40 P:	370	315	285	245	220	160	125	110	74	38	26
KH 50 P*:	409	363	334	291	269	197	159	134	88	50	34
KH 65 P:	532	471	435	378	349	256	207	175	114	65	44
KH 80 P:	665	580	535	465	430	315	255	215	140	80	54
KH 100 P:	704	604	560	496	452	344	300	256	176	100	67
KH 125 P:	880	755	700	620	565	430	375	320	220	125	84
KH 150 P:	1038	892	835	714	641	454	381	336	258	138	92
KH 185 P:	1280	1100	1030	880	790	560	470	415	318	170	114
KH 200 P:	1288	1120	1040	910	840	648	560	500	344	184	123
KH 235 P	1513	1316	1222	1070	987	761	658	588	404	216	145



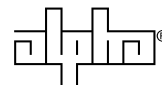
## KM/P Mechanical Specifications (Plastic Case Cells)

Type	L (in/mm)	W (in/mm)	H (in/mm)	Weight (lb/kg)
KM 11 P:	1.8/46	3.3/85	7.4/187	2.3/1.03
KM 18 P:	1.8/46	3.3/85	10.1/257	3.1/1.48
KM 24 P:	1.8/46	3.3/85	10.1/257	3.3/1.51
KM 30 P:	1.8/46	3.3/85	10.1/257	3.6/1.64
KM 40 P:	3.3/85	3.3/85	10.1/257	5.9/2.68
KM 48 P:	3.3/85	3.3/85	10.1/257	6.2/2.82
KM 55 P:	3.3/85	3.3/85	10.1/257	6.5/2.97
KM 65 P:	2.1/53	3.3/85	15.8/400	11.1/5.01
KM 75 P:	2.1/53	3.3/85	15.8/400	11.4/5.16
KM 90 P:	2.7/69	5.3/134	15.8/400	14.0/6.34
KM 110 P:	2.7/69	5.3/134	15.8/400	14.7/6.67
KM 125 P:	2.8/70	5.3/134	15.8/400	17.26/7.83
KM 140 P:	2.8/70	5.3/134	15.8/400	17.6/8.00
KM 160 P:	4.3/108	6.5/164	15.8/400	23.7/10.77
KM 185 P:	4.3/108	6.5/165	15.8/400	34.4/11.07
KM 205 P:	4.3/108	6.5/165	15.8/400	25/11.33
KM 225 P:	4.3/108	6.5/165	15.8/400	26/11.78
KM 250 P:	4.3/108	6.5/165	15.8/400	27.3/12.38
KM 270 P:	6.5/164	6.5/165	15.8/402	36.2/16.40
KM 300 P:	6.5/164	6.5/165	15.8/402	39/17.70
KM 320 P:	6.5/164	6.5/165	15.8/402	40.1/18.20
KM 340 P:	6.5/164	6.5/165	15.8/402	41.2/18.70
KM 355 P:	6.5/164	6.5/165	15.8/402	42.3/19.20
KM 380 P:	6.5/164	6.5/165	15.8 / 402	43.4/19.70
KM 400 P:	6.5/164	8.6/219	15.8/402	44.3/20.10
KM 450 P:	8.3/210	8.6/219	15.3/388	57.3/26.00
KM 520 P:	8.3/210	8.6/219	16.9/430	64.4/29.20
KM 600 P:	8.6/218	14.5/368	17.1/435	102.3/46.40
KM 675 P:	8.6/218	14.5/368	17.1/435	106.3/48.20
KM 750 P:	8.6/218	14.5/368	17.1/435	110.2/50.00
KM 1000 P:	6.9/176	17.6/448	16.6/421	126.5/57.40
KM 1250 P:	6.9/176	21.6/548	16.1/408	155.6/70.60



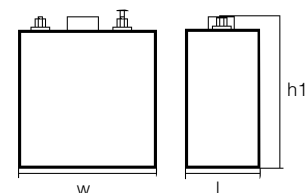
## KM/P Discharge Current (A) to End Voltage 1.00 VPC at 25°C (77°F Fully Charged)

Type	Minutes				Hours				
	5	10	20	30	1	1.5	2	3	5
KM 11 P:	17	16	14	12	9	7	5	4	2
KM 18 P:	28	26	22	20	15	11	9	6	4
KM 24 P:	37	35	30	27	19	15	12	8	5
KM 30 P:	46	43	37	33	24	18	15	10	7
KM 40 P:	55	51	43	44	32	24	19	13	9
KM 48 P:	72	66	55	52	38	30	24	16	11
KM 55 P:	90	82	67	61	44	36	28	19	12
KM 65 P:	98	91	80	74	54	41	32	22	14
KM 75 P:	113	105	93	85	62	47	37	25	17
KM 90 P:	135	126	111	102	74	56	44	30	20
KM 110 P:	165	154	136	125	91	69	54	37	24
KM 125 P:	182	168	151	139	101	79	61	42	28
KM 140 P:	215	198	178	164	120	89	68	47	31
KM 160 P:	246	226	203	187	137	101	78	54	35
KM 185 P:	284	262	235	217	158	117	90	62	41
KM 205 P:	315	290	260	240	175	130	100	69	45
KM 225 P:	332	306	274	253	186	143	110	76	50
KM 250 P:	369	340	304	281	205	159	122	84	55
KM 270 P:	398	367	329	303	223	171	132	90	60
KM 300 P:	460	415	370	335	250	187	144	98	66
KM 320 P:	491	443	395	358	267	199	153	105	70
KM 340 P:	521	471	419	380	283	212	163	111	75
KM 355 P:	544	492	438	397	296	221	170	116	78
KM 380 P:	583	526	469	425	317	237	182	124	84
KM 400 P:	598	540	481	436	325	243	187	131	88
KM 450 P:	664	612	547	495	365	297	229	158	100
KM 520 P:	767	707	632	572	422	338	254	183	115
KM 600 P:	885	816	729	660	487	396	305	211	133
KM 675 P:	996	918	821	743	548	446	344	237	150
KM 750 P:	1107	1020	912	825	608	495	382	263	167
KM 1000 P:	1476	1360	1216	1100	811	660	509	351	222
KM 1250 P:	1844	1700	1519	1375	1014	825	636	439	278



## KL/P Mechanical Specifications (Plastic Case Cells)

Type	L (in/mm)	W (in/mm)	H (in/mm)	Weight (lb/kg)
KL 11 P:	1.8/46	3.3/85	7.4/187	2.3/1.03
KL 18 P:	1.8/46	3.3/85	10.1/257	3.1/1.41
KL 24 P:	1.8/46	3.3/85	10.1/257	3.3/1.51
KL 30 P:	1.8/46	3.3/85	10.1/257	3.6/1.64
KL 40 P:	3.3/85	3.3/85	10.1/257	5.9/2.68
KL 45 P:	3.3/85	3.3/85	10.1/257	5.9/2.68
KL 55 P:	3.3/85	3.3/85	10.1/257	6.2/2.82
KL 65 P:	3.3/85	3.3/85	10.1/257	6.5/2.97
KL 80 P:	2.7/69	3.3/85	15.5/394	11.7/5.32
KL 100 P:	2.7/69	5.3/134	15.5/394	12.4/5.61
KL 120 P:	2.7/69	5.3/134	15.5/394	12.7/5.74
KL 140 P:	2.7/69	5.3/134	15.5/394	13.4/6.07
KL 150 P:	2.8/70	5.3/134	15.5/394	15.7/7.10
KL 160 P:	4.3/108	6.5/164	15.5/394	21.6/9.80
KL 185 P:	4.3/108	6.5/165	15.5/394	22.0/9.99
KL 200 P:	4.3/108	6.5/165	15.5/394	22.8/10.35
KL 230 P:	4.3/108	6.5/165	15.5/394	23.8/10.80
KL 270 P:	4.3/108	6.5/165	15.5/394	24.8/11.26
KL 315 P:	6.2/158	6.5/165	15.5/394	25.8/11.72
KL 340 P:	6.2/158	6.5/165	15.8/402	38.4/17.40
KL 370 P:	6.2/158	6.5/165	15.8/402	39.6/17.95
KL 400 P:	6.2/158	6.5/165	15.8/402	40.8/18.50
KL 435 P:	6.2/158	6.5/165	15.8/402	24.0/19.05
KL 380 P:	8.3/210	6.5/165	15.8/402	43.2/19.60
KL 470 P:	8.3/210	8.6/219	15.3/388	56.0/25.40
KL 520 P:	8.3/210	8.6/219	16.9/430	64.6/29.30
KL 600 P:	8.6/218	14.5/368	17.1/435	100.1/45.40
KL 740 P:	8.6/218	14.5/368	16.6/421	103.6/47.00
KL 840 P:	6.9/176	17.6/448	16.1/408	120.2/54.50
KL 1000 P:	6.9/176	21.6/548	16.1/408	129.2/58.60



## KL/P Discharge Current (A) to End Voltage 1.00 VPC at 25°C (77°F Fully Charged)

Type	Minutes		Hours								
	30	1	2	3	4	5	6	7	8	9	10
KL 11 P:	12	9	5	4	3	2	2	2	2	2	1
KL 18 P:	19	14	9	6	5	4	3	3	2	2	2
KL 24 P:	25	19	11	8	9	5	4	4	3	3	3
KL 30 P:	31	23	14	10	8	6	5	5	4	3	3
KL 40 P:	37	28	18	13	10	8	7	6	5	5	4
KL 45 P:	42	32	20	14	11	9	8	7	6	5	5
KL 55 P:	51	39	24	17	13	11	9	8	7	6	6
KL 65 P:	61	46	29	21	16	13	11	10	8	8	7
KL 80 P:	75	59	38	26	20	16	13	12	10	9	8
KL 100 P:	94	74	47	32	25	20	17	15	13	11	10
KL 120 P:	112	89	56	39	30	24	20	17	15	14	12
KL 140 P:	131	104	66	46	35	28	24	20	18	16	14
KL 160 P:	142	112	73	52	40	32	27	23	20	18	16
KL 185 P:	136	109	78	60	46	37	31	27	24	21	19
KL 200 P:	146	118	84	65	50	40	33	29	25	23	20
KL 230 P:	168	135	100	75	57	46	39	33	29	26	23
KL 270 P:	198	159	113	88	67	54	45	39	34	30	27
KL 315 P:	231	185	132	103	78	63	53	46	40	36	32
KL 340 P:	260	217	152	106	83	68	57	49	43	39	35
KL 370 P:	283	236	165	115	91	74	62	54	47	42	38
KL 400 P:	306	255	179	124	98	80	67	58	51	46	41
KL 435 P:	333	278	194	135	106	87	73	63	55	50	45
KL 470 P:	360	300	210	146	115	94	79	68	60	54	49
KL 520 P:	398	331	232	161	127	104	87	75	66	59	54
KL 600 P:	459	382	268	186	147	120	100	87	76	68	62
KL 740 P:	566	471	330	229	181	148	124	107	94	84	77
KL 840 P:	643	535	375	260	205	168	141	121	107	95	87
KL 1000 P:	765	637	447	310	245	200	167	144	127	114	103
KL 1250 P:	956	796	559	388	306	250	209	180	159	143	129

For more information visit [www.alpha.com](http://www.alpha.com)

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