



## KPM Series

Model	Rated Voltage V	Rated Capacity I <sub>c</sub> Ah	Max. External Dimension mm			Max. Weight kg	Electrolyte Volume L	Screw Thread of Terminal poles	Container Material
			Length	Width	Height				
KPM10	1.2	10	48	81	245	1.5	0.3	M10×1	MBS
KPM20	1.2	20	68	134	245	2.5	0.8	M10×1	MBS or PP
KPM30	1.2	30	68	134	245	3.0	0.7	M10×1	MBS or PP
KPM40	1.2	40	70	134	285	4.0	1.0	M16	MBS or PP
KPM50	1.2	50	70	134	285	4.2	1.0	M16	MBS or PP
KPM60	1.2	60	80	141	370	6.0	1.8	M16	MBS or PP
KPM70	1.2	70	80	141	370	6.4	1.5	M16	MBS or PP
KPM80	1.2	80	80	141	370	6.6	1.4	M16	MBS or PP
KPM100	1.2	100	106	164	345	9	2.1	M20	MBS or PP
KPM120	1.2	120	106	164	345	9.5	2.1	M20	MBS or PP
KPM150	1.2	150	164	167	345	13	3.7	M20	MBS or PP
KPM200	1.2	200	164	167	345	14.5	3.3	M20	MBS or PP
KPM250	1.2	250	152	170	385	16	3.3	M20	PP
KPM300	1.2	300	162	200	450	23	4.6	2×M16	PP
KPM350	1.2	350	162	200	450	24	4.6	2×M16	PP
KPM400	1.2	400	138	278	490	27	4.2	2×M16	PP
KPM500	1.2	500	176	291	510	40	9.1	2×M20	MBS
KPM600	1.2	600	176	291	510	42	8.3	2×M20	MBS
KPM700	1.2	700	186	398	570	58	16.7	3×M20	MBS
KPM800	1.2	800	186	398	570	60	16.0	3×M20	MBS
KPM900	1.2	900	186	398	570	64	14.7	3×M20	MBS
KPM1000	1.2	1000	186	398	570	65	13.0	3×M20	MBS



## Operating Curves of the Battery

Figure Charging Curves of KPM Series ( $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$ )

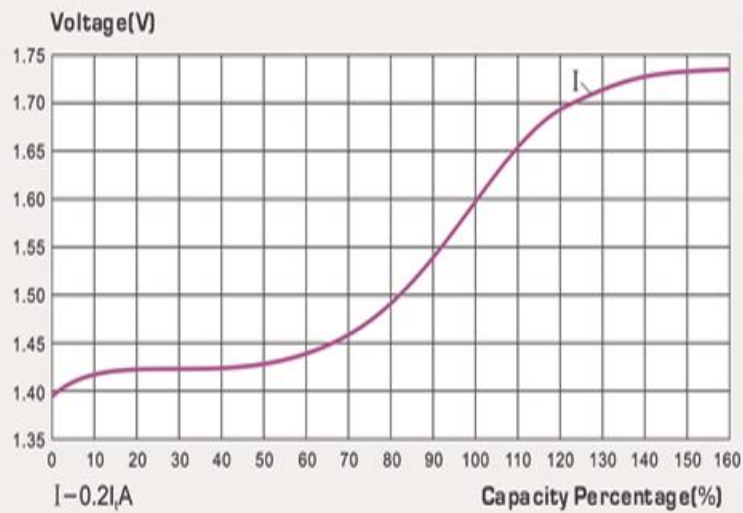
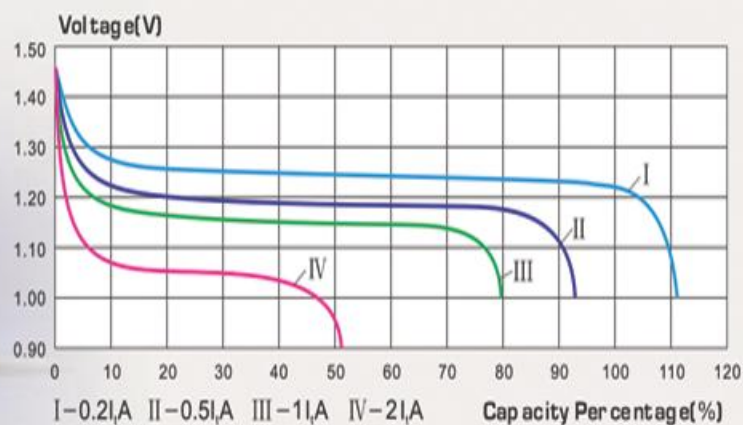


Figure Discharging Curves of KPM Series ( $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$ )





# Operating Curves of the Battery

Figure Discharging Curves of KPM Series ( $-18^{\circ}\text{C} \pm 2^{\circ}\text{C}$ )

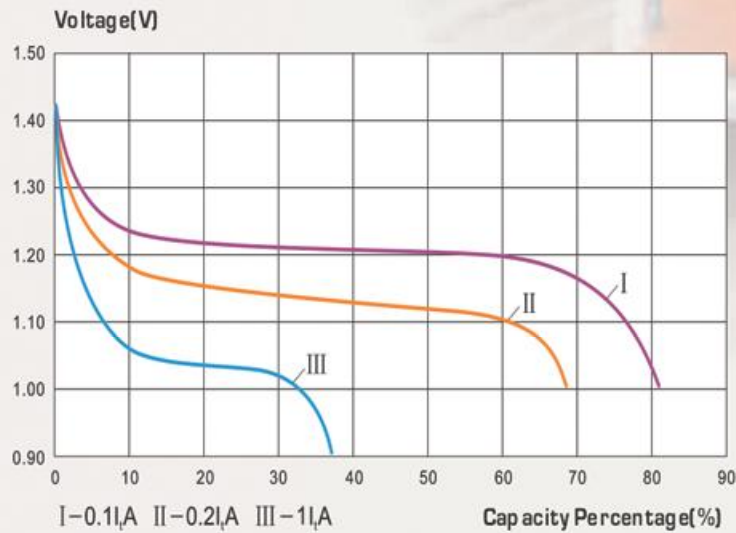
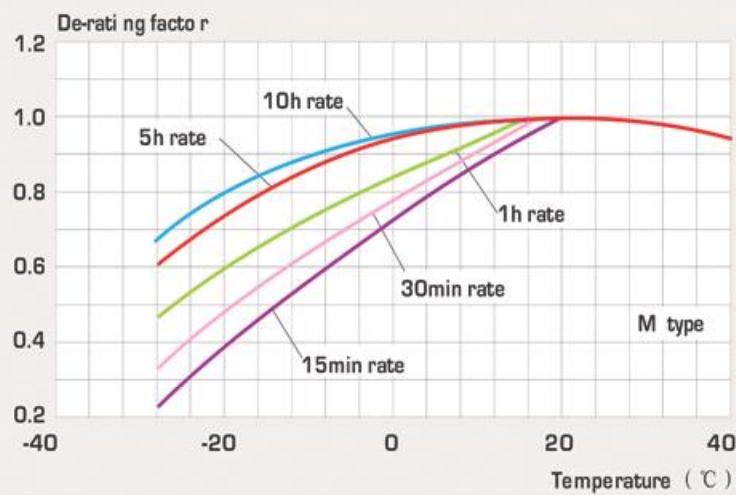


Figure Temperature Effect Curves of KPM Series





# Discharge Performance Data

KPM series Battery

Discharge performance data after fully charged by constant current according to IEC60623

Available current under 20°C ±5°C

Final voltage 1.14V/cell

Models	I <sub>c</sub> Ah	Hours							Minutes						Seconds		
		10	8	5	3	2	1.5	1	30	20	15	10	5	1	30	5	1
KPM10	10	1.02	1.23	1.92	2.9	4.1	5.0	6.1	8.3	9.6	10.7	12.2	14.6	20.5	22.8	26.3	27.1
KPM20	20	2.04	2.45	3.84	5.8	8.2	10	12.2	16.6	19.2	21.4	24.4	29.2	41.0	45.6	52.6	54.2
KPM30	30	3.06	3.68	5.76	8.7	12.3	15	18.3	24.9	28.8	32.1	36.6	43.8	61.5	68.4	78.9	81.3
KPM40	40	4.08	4.90	7.68	11.6	16.4	20	24.4	33.2	38.4	42.8	48.8	58.4	82	91.2	105.	108.
KPM50	50	5.10	6.13	9.60	14.5	20.5	25	30.5	41.5	48	53.5	61	73	102	114	131	135
KPM60	60	6.12	7.35	11.5	17.4	24.6	30	36.6	48.8	57.6	64.2	73.2	87.6	123	137	158	163
KPM70	70	7.14	8.58	13.4	20.3	28.7	35	42.7	58.1	67.2	74.9	85.4	102	144	160	186	191
KPM80	80	8.16	9.80	15.4	23.2	32.8	40	48.8	66.4	76.8	85.6	97.6	117	164	183	212	218
KPM100	100	10.2	12.3	19.2	29	41	50	61	83	96	107	122	146	205	228	263	271
KPM120	120	12.2	14.7	23.0	34.8	49.2	60	73.2	99.6	116	129	146	176	246	274	316	326
KPM150	150	15.3	18.4	28.8	43.5	61	75	92	124	144	161	183	219	307	342	395	407
KPM200	200	20.4	24.5	38.4	58	82	100	122	166	193	215	244	292	410	456	527	543
KPM250	250	25.5	30.6	48.0	72.5	102	125	153	207	240	268	305	365	512	570	658	679
KPM300	300	30.6	36.8	57.6	87	122	150	184	248	288	321	367	438	615	684	790	815
KPM350	350	35.7	42.9	67.2	101	143	175	215	290	336	374	428	511	718	798	922	948
KPM400	400	40.8	49.0	76.8	116	164	200	245	332	384	428	489	584	820	912	1052	1084
KPM500	500	51.0	61.3	96.0	145	204	250	306	414	480	535	610	730	1025	1140	1315	1355
KPM600	600	61.2	73.5	115	174	245	300	368	497	576	642	732	877	1230	1368	1578	1626
KPM700	700	71.4	85.8	134	203	286	350	429	580	672	749	854	1023	1435	1596	1841	1897
KPM800	800	81.6	98.0	154	232	327	400	490	663	768	856	976	1169	1640	1824	2104	2168
KPM900	900	91.8	110	173	261	368	450	552	746	864	963	1098	1314	1845	2052	2367	2439
KPM1000	1000	102	123	192	290	409	500	610	829	960	1070	1220	1460	2050	2280	2630	2710



**KPM series Battery**

Discharge performance data after fully charged by constant current according to IEC60623

Available current under 20°C ±5°C

Final voltage 1.10V/cell

Models	I <sub>c</sub> Ah	Hours							Minutes						Seconds		
		10	8	5	3	2	1.5	1	30	20	15	10	5	1	30	5	1
KPM10	10	1.05	1.23	1.94	3.05	4.40	5.50	7.10	9.70	11.4	12.5	14.4	17.3	24.7	26.0	31.7	35.0
KPM20	20	2.10	2.46	3.88	6.10	8.80	11.0	14.2	19.4	22.8	25.0	28.8	34.6	49.4	52.0	63.4	69.4
KPM30	30	3.15	3.69	5.82	9.18	13.2	16.5	21.3	29.1	34.2	37.5	43.2	51.9	74.1	78.0	95.0	104
KPM40	40	4.20	4.93	7.76	12.2	17.6	22.0	28.4	38.8	45.6	50.0	57.6	69.2	98.8	104	126	138
KPM50	50	5.25	6.16	9.70	15.3	22.0	27.5	35.5	48.5	57.0	62.5	72.0	86.5	123	130	157	173
KPM60	60	6.30	7.39	11.6	18.4	26.4	33.0	42.6	58.2	68.4	75.0	86.4	104	148	156	189	208
KPM70	70	7.35	8.62	13.6	21.4	30.8	38.5	49.7	67.9	79.8	87.5	100	121	173	182	221	242
KPM80	80	8.40	9.85	15.5	24.4	35.2	44.0	56.8	77.6	91.2	100	115	138	197	208	252	277
KPM100	100	10.5	12.3	19.4	30.5	44.0	55.0	71.0	97.0	114	125	144	173	246	260	315	346
KPM120	120	12.6	14.8	23.3	36.6	52.8	66.0	85.2	116	137	150	172	207	296	312	378	415
KPM150	150	15.8	18.5	29.1	45.8	66.0	82.5	107	145	171	188	216	255	369	390	470	519
KPM200	200	21.0	24.6	38.8	61.0	88.0	110	142	194	228	250	288	340	490	517	624	692
KPM250	250	26.3	30.8	48.5	76.3	110	137.5	178	242	285	312	355	425	613	645	785	850
KPM300	300	31.5	36.9	58.2	91.6	132	165	214	290	342	375	426	510	735	774	936	1038
KPM350	350	36.8	43.1	67.9	107	154	193	249	339	399	437	497	595	857	903	1092	1190
KPM400	400	42.0	49.3	77.6	122	176	220	284	388	456	500	568	680	980	1032	1248	1360
KPM500	500	52.5	61.6	97.0	153	220	275	356	482	570	624	710	850	1225	1290	1560	1700
KPM600	600	63.0	73.9	116	183	264	330	428	580	684	750	852	1020	1470	1548	1872	2040
KPM700	700	73.5	86.2	136	214	308	385	498	678	798	874	994	1290	1715	1806	2184	2380
KPM800	800	84.0	98.5	155	244	352	440	569	776	912	1000	1136	1360	1960	2064	2496	2720
KPM900	900	94.5	111	175	274	396	495	640	867	1026	1124	1278	1530	2205	2322	2808	3060
KPM1000	1000	105	123	194	304	440	550	712	964	1140	1248	1420	1700	2450	2580	3120	3400



# Operating Curves of the Battery

KPM series Battery

Discharge performance data after fully charged by constant current according to IEC60623

Available current under 20°C ± 5°C

Final voltage 1.05V/cell

Models	I <sub>c</sub> Ah	Hours							Minutes						Seconds		
		10	8	5	3	2	1.5	1	30	20	15	10	5	1	30	5	1
KPM10	10	1.08	1.25	1.98	3.15	4.65	5.90	8.0	11.4	13.5	14.5	16.8	19.9	27.8	31.0	36.8	38.1
KPM20	20	2.16	2.50	3.96	6.30	9.40	11.8	16.0	22.8	27.0	29.0	33.5	39.8	55.5	61.5	73.5	76.2
KPM30	30	3.24	3.74	5.94	9.66	14.1	18.1	24.0	34.2	40.0	44.0	50.7	59.5	83.0	92.0	110	114
KPM40	40	4.32	4.99	7.92	12.6	18.8	23.6	32.0	45.5	53.0	59.0	67.0	79.5	111	123	147	152
KPM50	50	5.40	6.24	9.9	16.0	23.3	29.9	40.0	57.2	67.0	74.0	84.2	100	138	154	183	191
KPM60	60	6.48	7.49	11.9	19.0	28.2	36.2	48.0	68.5	80.0	88.0	101	119	166	184	219	229
KPM70	70	7.56	8.73	13.9	22.4	32.9	41.6	56.0	79.8	93.5	103	118	140	194	215	257	273
KPM80	80	8.64	10.0	15.8	25.2	37.3	47.0	64.0	91.2	106	118	134	159	221	246	292	305
KPM100	100	10.8	12.5	19.8	32.0	46.6	59.7	80.0	114	133	147	168	199	276	307	365	381
KPM120	120	13.0	15.0	23.8	38.0	55.9	72.4	96.0	137	160	176	201	239	331	369	438	457
KPM150	150	16.2	18.7	29.7	48.0	70.0	89.5	120	170	198	218	253	298	413	462	550	575
KPM200	200	21.6	25.0	39.6	64.0	93.0	119	160	228	265	293	335	397	555	613	730	763
KPM250	250	27.0	31.2	49.5	80	117	149	203	284	328	363	418	495	688	763	913	950
KPM300	300	32.4	37.4	59.4	96.0	140	179	240	340	394	435	501	594	825	915	1095	1140
KPM350	350	37.8	43.7	69.3	112	163	209	280	398	460	508	585	695	963	1072	1280	1338
KPM400	400	43.2	49.9	79.2	128	186	238	320	450	530	585	670	793	1110	1225	1460	1525
KPM500	500	54.0	62.4	99	160	233	298	400	568	655	725	835	990	1375	1525	1825	1900
KPM600	600	64.8	74.9	119	192	279	356	480	681	786	870	1002	1188	1650	1830	2190	2280
KPM700	700	75.6	87.3	139	224	326	417	560	795	917	1015	1170	1390	1925	2143	2560	2675
KPM800	800	86.4	100	158	256	372	476	640	908	1048	1160	1340	1585	2220	2450	2920	3050
KPM900	900	97.2	112	178	288	419	536	720	1022	1179	1305	1505	1784	2480	2750	3285	3420
KPM1000	1000	108	125	198	320	465	590	800	1135	1310	1450	1670	1980	2750	3050	3650	3800



**KPM series Battery**

Discharge performance data after fully charged by constant current according to IEC60623

Available current under 20°C ± 5°C

Final voltage 1.00V/cell

Models	I <sub>c</sub> Ah	Hours							Minutes						Seconds		
		10	8	5	3	2	1.5	1	30	20	15	10	5	1	30	5	1
KPM10	10	1.10	1.31	2.00	3.30	4.78	6.20	8.58	13.0	15.2	16.6	18.8	22.8	31.8	35.5	42.3	43.8
KPM20	20	2.20	2.63	4.00	6.50	9.62	12.4	17.2	26.0	30.3	33.3	37.5	45.5	63.5	71.0	84.5	87.5
KPM30	30	3.30	3.94	6.00	9.80	14.4	18.6	25.8	39.0	45.5	49.5	56.5	68.5	95.5	107	127	132
KPM40	40	4.40	5.25	8.00	14.7	19.3	24.9	33.7	51.3	60.9	66.5	75.0	91.0	127	142	169	175
KPM50	50	5.50	6.56	10.0	16.3	24.1	31.1	42.5	64.5	76.0	83.0	94.0	114	159	178	212	219
KPM60	60	6.60	7.88	12.0	19.6	28.7	37.2	51.5	78.0	91.0	99.0	113	137	191	213	254	263
KPM70	70	7.70	9.19	14.0	22.8	33.7	43.5	59.5	90.3	107	116	132	160	223	249	302	306
KPM80	80	8.80	10.5	16.0	29.4	38.5	49.7	68.0	104	122	133	150	182	254	284	338	350
KPM100	100	11.0	13.1	20.0	32.6	48.1	62.1	85.0	129	152	166	188	228	318	355	423	438
KPM120	120	13.2	15.8	24.0	39.1	57.5	74.5	102	155	182	198	225	274	382	426	508	525
KPM150	150	16.5	19.7	30.0	48.8	72.0	92.6	128	194	227	248	282	342	477	533	634	657
KPM200	200	22.0	26.3	40.0	66.0	95.0	123	170	258	301	331	375	455	635	710	845	875
KPM250	250	27.5	32.8	50.0	81.5	119	154	213	322	376	413	469	569	794	888	1057	1094
KPM300	300	33.0	39.4	60.0	97.5	143	185	255	386	451	495	563	683	953	1065	1268	1313
KPM350	350	38.5	45.9	70.0	114	167	216	298	451	526	578	657	797	1112	1243	1479	1532
KPM400	400	44.0	52.5	80.0	130	190	246	340	515	601	660	750	910	1270	1420	1690	1750
KPM500	500	55.0	65.6	100	163	238	308	425	644	751	825	938	1138	1588	1775	2113	2188
KPM600	600	66.0	78.8	120	195	285	369	510	772	901	990	1125	1365	1905	2130	2535	2625
KPM700	700	77.0	91.9	140	228	333	431	595	901	1051	1155	1313	1593	2223	2485	2958	3063
KPM800	800	88.0	105	160	260	380	492	680	1030	1202	1320	1500	1820	2540	2840	3380	3500
KPM900	900	99.0	118	180	293	428	554	765	1158	1352	1485	1688	2048	2856	3195	3803	3938
KPM1000	1000	110	131	200	325	475	615	850	1287	1502	1650	1875	2275	3175	3550	4225	4375