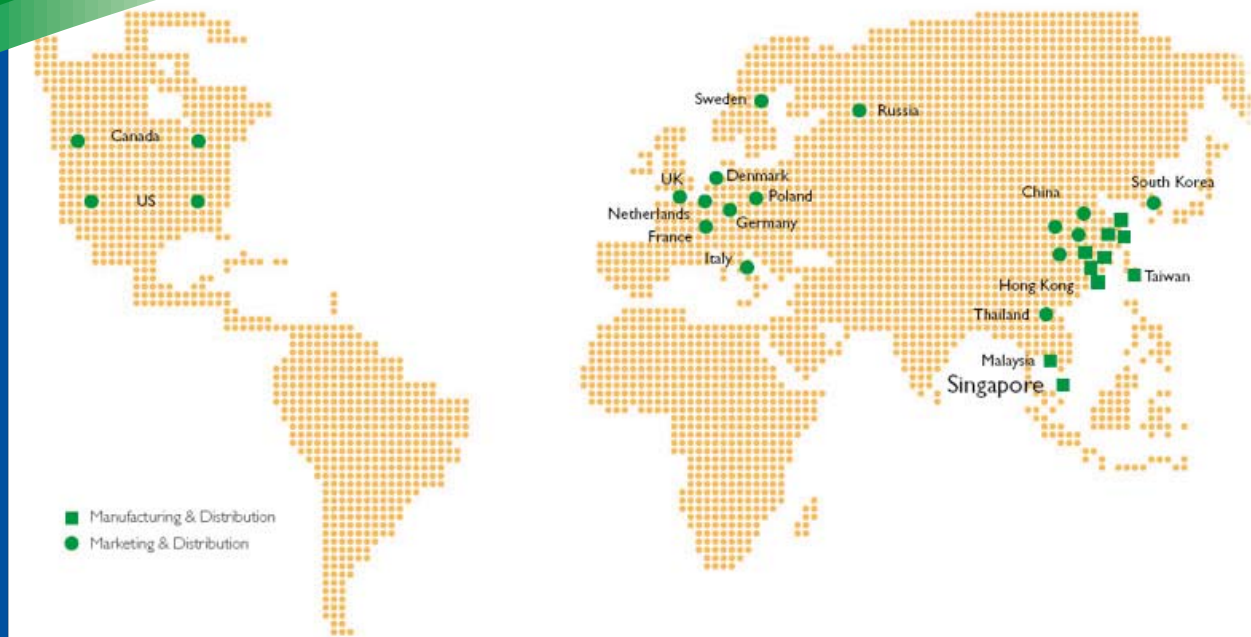


GP Batteries

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GP RECHARGEABLE

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GP Batteries

Powering a Greener Tomorrow

Primary Batteries



Cylindrical Type - Ultra Alkaline

Model No*	Dimension (mm.)		Voltage	Cross Reference			
	Diameter	Height	(V)	IEC	JIS	Eveready	Other
13AU	34.2	61.5	1.5	LR20	LR20	E95	D
14AU	26.2	50.0	1.5	LR14	LR14	E39	C
15AU	14.5	50.5	1.5	LR6	LR6	E91	AA
24AU	10.5	44.5	1.5	LR03	LR03	E92	AAA
908AU	66.0(L)x 66.0(W)x 111.0(H)		6.0	4LR25	4LR25X	-	-
1604AU	25.5(L)x 16.5(W)x 47.5(H)		9.0	6LF22	6LF22	522	-

Cylindrical Type - Super Alkaline

Model No*	Dimension (mm.)		Voltage	Cross Reference			
	Diameter	Height	(V)	IEC	JIS	Eveready	Other
13A	34.2	61.5	1.5	LR20	LR20	E95	D
14A	26.2	50.0	1.5	LR14	LR14	E93	C
15A	14.5	50.5	1.5	LR6	LR6	E91	AA
24A	10.5	44.5	1.5	LR03	LR03	E92	AAA
25A	8.3	42.5	1.5	LR8D425	-	E96	AAAA
312A	62.0(L)x 22.0(W)x 67.0(H)		4.5	3LR12	-	-	-
908A	66.0(L)x 66.0(W)x 111.0(H)		6.0	4LR25	4LR25	528	-
910A	12.0	30,2	1.5	LR1	LR1	-	N
1604A	25.5(L)x 16.5(W)x 47.5(H)		9.0	6LF22	6LF22	522	-
1412AP	35.5(L)x 92(W)x 48.4(H)		6.0	-	-	539	J

Cylindrical Type - Greencell Extra Heavy Duty

Model No*	Dimension (mm.)		Voltage	Cross Reference			
	Diameter	Height	(V)	IEC	JIS	Eveready	Other
13G	34.2	61.5	1.5	R20P	R20P	1250	D
14G	26.2	50.0	1.5	R14P	R14P	1235	C
15G	13.9	50.5	1.5	R6	R6P	1215	AA
24G	10.5	44.5	1.5	R03	R03	1212	AAA
312G	62.0(L)x 22.0(W)x 67.0(H)		4.5	3R12	-	-	-
908G	66.0(L)x 66.0(W)x 111.0(H)		6.0	4R25	4F	1209	-
918G	134.0(L)x 70.0(W)x 127.0(H)		6.0	4R25-2	4R25-2	981/1213	-
1604G	26.5(L)x 17.5(W)x 48.5(H)		9.0	6F22	6F22	1222	-

Button Type - Alkaline

● Major Application
Calculators, electronic toys, photos, remote controls and watches.

Model No*	Dimension (mm.)		Voltage	Nominal Capacity	Cross Reference				
	Diameter	Height	(V)	(mAh)	IEC	JIS	Eveready	Varta	Duracell
164	6.8	2.15	1.5	8	LR621	-	-	-	LR620
A76	11.6	5.4	1.5	110	LR44	LR44	A76	V13GA	LR44
A76P	11.6	5.4	1.5	140	LR44	LR44	A76	V13GA	-
186	11.6	4.2	1.5	70	LR1142	LR43	186	V12GA	LR43
489	11.6	3.05	1.5	44	LR54	LR54	189	V10GA	LR54
191	11.6	2.05	1.5	24	LR1120	LR1120	191	V8GA	-
192	7.9	3.6	1.5	24	LR41	LR41	192	V3GA	-
PX625A	15.6	5.95	1.5	190	LR9	LR9	-	V625U	PX625A

Cylindrical Type - High Voltage Alkaline

● Major Application
Electronic toys, electronic instruments, lighters, photos and remote controls.

Model No*	Dimension (mm.)		Voltage	Nominal Capacity	Cross Reference				
	Diameter	Height	(V)	(mAh)	IEC	JIS	Eveready	Varta	Duracell
10A	10	21.6	9.0	38	-	-	-	-	-
11A	10	16.0	6.0	38	-	-	-	-	MN11
23AE	10	28.0	12.0	55	-	-	A23	V23GA	MN21
26A	7.7	15.3	6.0	20	-	-	-	-	-
27A	7.7	28.0	12.0	20	-	-	-	-	-
29A	7.7	21.4	9.0	20	-	-	-	-	-

Button Type - Lithium Cell

Model No*	Dimension (mm.)		Voltage	Nominal Capacity	Cross Reference			
	Diameter	Height	(V)	(mAh)	IEC / JIS	Eveready	Varta	Duracell
CR1/3N	11.6	10.8	3.0	160	CR1/3N	-	-	DL1/3N
CR1025	10.0	2.5	3.0	30	CR1025	ECR1025	CR1025	-
CR1216	12.5	1.6	3.0	25	CR1216	ECR1216	CR1216	-
CR1220	12.5	2.0	3.0	36	CR1220	ECR1220	CR1220	-
CR1616	16.0	1.6	3.0	55	CR1616	ECR1616	CR1616	-
CR1620	16.0	2.0	3.0	78	CR1620	ECR1620	CR1620	-
CR2016	20.0	1.6	3.0	90	CR2016	ECR2016	CR2016	DL2016
CR2025	20.0	2.5	3.0	160	CR2025	ECR2025	CR2025	DL2025
CR2032	20.0	3.2	3.0	220	CR2025	ECR2032	CR2032	DL2032
CR2430	24.5	3.0	3.0	300	CR2430	ECR2032	CR2430	DL2430
CR2450	24.5	5.0	3.0	610	CR2450	ECR2450	CR2450	-

Cylindrical Type - Photo Litium

Model No*	Dimension (mm.)		Voltage	Cross Reference			
	Diameter	Height	(V)	IEC	JIS	Eveready	Duracell
CR2	15.6	27.0	3.0	-	-	-	DLCR2
CR123A	16.8	34.5	3.0	-	-	EL123AP	DL123A
CR-V3	29.0(L) x 14.5(W) x 52.0(H)		3.0	-	-	ELCRV3	CR-V3
CR-P2	34.8(L) x 19.5(W) x 35.8(H)		6.0	CR-P2	-	EL223AP	DL223A
2CR5	34.0(L) x 17.0(W) x 45.0(H)		6.0	2CR5	-	EL2CR5BP	DL245
CRV9	26,00(L) x 16,50(W) x 44,70(H)		9.0				

Button Type - Silver Oxide

Model No*	Dimension (mm.)		Voltage	Nominal Capacity	Cross Reference				
	Diameter	Height	(V)	(mAh)	IEC / Jis	Eveready	Varta	Duracell	Sony
301	11.6	4.2	1.55	120	SR43	301	V301	D301	SR43W
303	11.6	5.6	1.55	165	SR44	303	V303	D303	SR44W
315	7.9	1.65	1.55	21	SR67	315	V315	D315	SR716W
317	5.8	1.65	1.55	11.5	SR62	317	V317	D317	SR516SW
319	5.8	2.7	1.55	20	SR64	319	V319	-	SR527SW
321	6.8	1.65	1.55	16	SR65	321	V321	D321	SR616SW
329	7.9	3.1	1.55	37	-	329	V329	-	-
337	4.8	1.65	1.55	7.5	-	337	-	-	SR416SW
348	4.8	2.15	1.55	12	-	-	-	-	SR421SW
357	11.6	5.4	1.55	165	SR44	357	V357	D357	SR44SW
362	7.9	2.1	1.55	24	SR58	362	V362	D362	SR721SW
364	6.8	2.15	1.55	18	SR60	364	V364	D364	SR621SW
366	11.6	1.65	1.55	33	-	366	-	D366	SR1116SW
370	9.5	2.1	1.55	44	SR69	370	V370	-	SR920SW
371	9.5	2.1	1.55	44	SR69	371	V371	D371	SR920SW
373	9.5	1.65	1.55	26	SR68	373	V373	D373	SR916SW
S76E	11.6	5.4	1.55	130	SR44	S76E	V76PX	MS76	SR44SW
376	6.8	2.6	1.55	30	SR66	376	-	-	SR626W
377	6.8	2.6	1.55	25	SR66	377	V377	D377	SR626SW
379	5.8	2.15	1.55	14	SR63	379	V379	D379	SR521SW
381	11.6	2.1	1.55	40	SR55	381	V381	D381	SR1120SW
384	7.9	3.6	1.55	42	SR41	384	V384	D384	SR41SW
386	11.6	4.2	1.55	120	SR43	386	V386	D386	SR43SW
389	11.6	3.05	1.55	70	SR54	389	V389	-	SR1130SW
390	11.6	3.05	1.55	70	SR54	390	V390	D390	SR1130SW
391	11.6	2.1	1.55	40	SR55	391	V391	D391	SR1120SW
392	7.9	3.6	1.55	42	SR41	392	V392	D392	SR41SW
393	7.9	5.4	1.55	70	SR48	393	V393	D393	SR48W
394	9.5	3.6	1.55	60	-	394	V394	D394	SR936SW
395	9.5	2.7	1.55	55	SR57	395	V395	D395	SR927SW
396	7.9	2.65	1.55	30	SR59	396	V396	D396	SR726SW
397	7.9	2.65	1.55	30	SR59	397	V397	D397	SR726SW
399	9.5	2.7	1.55	55	SR57	399	V399	D399	SR927SW

Button Type - High Voltage Silver Oxide

Model No*	Dimension (mm.)		Voltage	Nominal Capacity	Cross Reference			
	Diameter	Height	(V)	(mAh)	IEC / Jis	Eveready	Varta	Duracell
476	13.0	25.2	6.0	165	4SR44	-	V28PX	PX28
476A	13.0	25.2	6.0	105	4LR44	A544	V4034PX	PX28A

Button Type - Hearing Aid Zinc Air

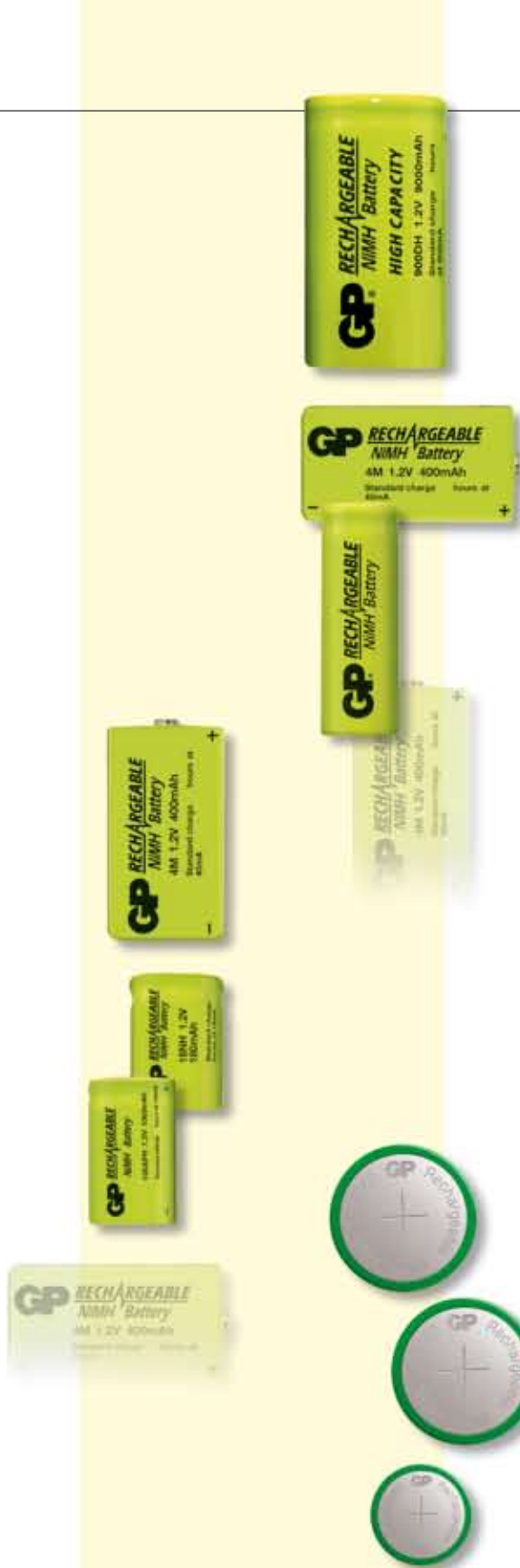
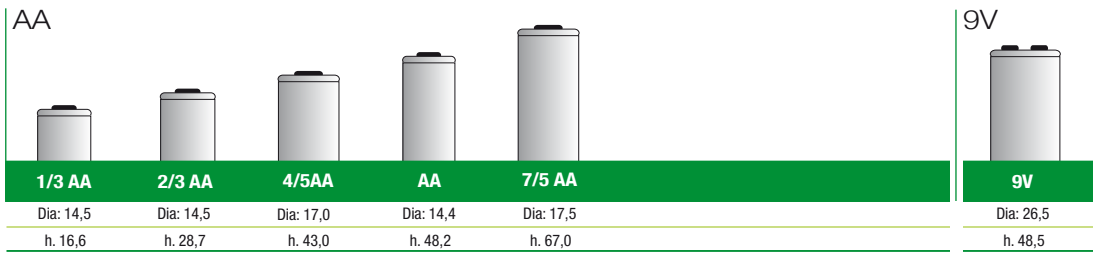
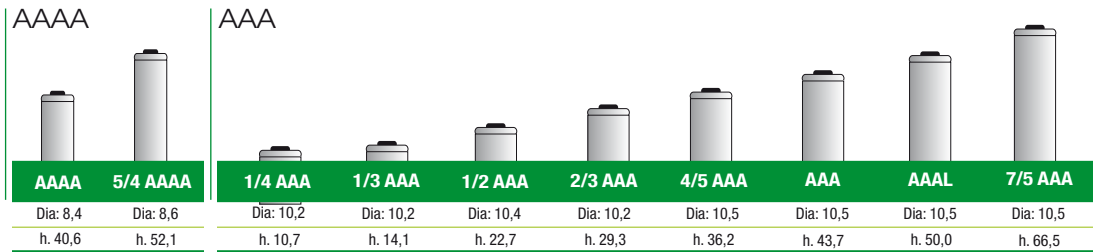
Model No*	Dimension (mm.)		Voltage	Nominal Capacity	Cross Reference			
	Diameter	Height	(V)	(mAh)	IEC / Jis	Eveready	Varta	Duracell
ZA10	5.8	3.6	1.4	90	PR536	AC10	-	DA230
ZA13	7.9	5.4	1.4	290	PR48	AC13	V13A	DA13
ZA312	7.9	3.6	1.4	160	PR41	AC312	V312A	DA312
ZA675	11.6	5.4	1.4	630	PR44	AC675	V675HPA	DA675

NiMH Rechargeable Batteries



► INDUSTRIAL SERIES - Cylindrical Type - Nickel Metal Hydride Series

	Model No*	Cell Size	Nominal voltage	Capacity (0.2C discharge)* (mAh)		Nominal Dimension (mm.)		Weight	Standard Charge Current	Standard Charge Time	1 Hr Charge Current
			(V)	Minimum	Typical	Diameter	Height	(g)	(mA)	(Hour)	(mA)#
High Capacity Series											
AAAA	10AAAAH	1/3AAAA	1.2	100	105	8,6	15,5	2.6	10	16	100
	18AAAAH	1/2AAAA	1.2	180	185	8,6	20,5	4.0	18	16	180
	20AAAAH	2/3AAAA	1.2	200	210	8,6	29,5	4.7	20	16	200
	30AAAAH	AAAA	1.2	300	320	8,4	40,6	6.5	30	16	300
	50AAAAALH	5/4AAAA	1.2	500	520	8,6	52,1	9.5	50	16	500
AAA	11AAAM	1/4AAA	1.2	110	115	10,2	10,7	2,8	11	16	110
	11AAAH	1/4AAA	1.2	110	115	10,2	10,7	2,8	11	16	110
	17AAAH	1/3AAA	1.2	170	180	10,2	14,1	3,8	17	16	170
	30AAAM	2/3AAA	1.2	300	315	10,2	29,3	7,5	30	16	300
	35AAAH	1/2AAA	1.2	345	350	10,4	22,7	9,3	34,5	16	345
	40AAAM	2/3AAA	1.2	400	420	10,4	29,3	8,0	40	16	400
	40AAAH	4/5AAA	1.2	400	420	10,5	36,2	9,3	40	16	400
	50AAASH	4/5AAA	1.2	500	515	10,5	36,2	9,3	50	16	500
	50AAAH	AAA	1.2	500	520	10,5	43,7	10,5	50	16	500
	55AAAH	AAA	1.2	550	578	10,5	43,7	13,0	55	16	550
	60AAAH	AAA	1.2	600	630	10,5	43,7	13,0	60	16	600
	65AAAH	AAA	1.2	650	680	10,5	43,7	13,0	65	16	650
	70AAAH	AAA	1.2	700	730	10,5	43,7	13,0	70	16	700
	75AAAH	AAA	1.2	750	780	10,5	43,7	13,0	75	16	750
	80AAAH	AAA	1.2	780	800	10,5	43,7	13,0	78	16	780
	91AAALH	AAAL	1.2	910	930	10,5	50,0	15,1	91	16	910
	100AAALH	7/5AAAL	1.2	1.000	1.050	10,5	66,5	19,5	100	16	1000
AA	25AAH	1/3AA	1.2	250	270	14,5	16,6	7,0	25	16	250
	75AAH	2/3AA	1.2	750	770	14,5	28,7	15,0	75	16	750
	60AAM	AA	1.2	600	660	14,4	48,2	13,0	60	16	600
	80AAM	AA	1.2	800	850	14,4	48,2	18,0	80	16	800
	130AAM	AA	1.2	1.300	1.340	14,4	48,2	25,0	130	16	1300
	130AAHE	AA	1.2	1.300	1.350	14,5	49,2	25,5	130	16	1300
	150AAM	AA	1.2	1.500	1.530	14,4	48,2	26,0	150	16	1500
	160AAH	AA	1.2	1.600	1.640	14,5	49,2	26,0	160	16	1600
	170AAH	AA	1.2	1.700	1.750	14,5	49,2	27,0	170	16	1700
	180AAH	AA	1.2	1.800	1.850	14,5	49,2	27,0	180	16	1800
	200AAH	AA	1.2	2.000	2.050	14,5	49,5	28,8	200	16	2000
	210AAH	AA	1.2	2.100	2.150	14,5	49,5	29,5	210	16	2100
	220AAH	AA	1.2	2.200	2.250	14,5	49,5	30,5	220	16	2200
	240AAH	AA	1.2	2.400	2.450	14,5	49,5	32,0	240	16	2400
AF	110AFH	2/3AF	1.2	1.100	1.133	17,0	28,5	21,0	110	16	1100
	181AFH	4/5AF	1.2	1.800	1.860	17,0	43,0	32,0	180	16	1800
	211AFH	4/5AF	1.2	2.100	2.600	17,0	43,0	32,0	210	16	2100
	230AFH	AF	1.2	2.300	2.350	17,0	50,2	36,0	230	16	2300
	250AFH	AF	1.2	2.500	2.550	17,0	50,2	39,0	250	16	2500
	270AFH	AF	1.2	2.600	2.700	17,0	50,2	39,5	260	16	2600
	380AFH	7/5AF	1.2	3.700	3.800	17,5	67,0	53,5	370	16	3700
N	50NH	N	1.2	500	520	11,65	29,4	9,8	50	16	500
18xxx	410LAH	18650	1.2	4.100	4.220	18,3	65,5	58,0	410	16	4100
	380LAHV	18670	1.2	3.800	3.990	18,3	66,5	60,0	380	16	3800
	450LAH	18670	1.2	4.300	4.500	18,3	67,0	60,0	430	16	4300
Sub C	130SCHE	Sub C	1.2	1.300	1.365	23,0	43,0	35,0	130	16	1300
	160SCHE	Sub C	1.2	1.600	1.680	23,0	43,0	50,0	160	16	1600
	220SCH	Sub C	1.2	2.200	2.420	23,0	43,0	55,0	220	16	2200
	260SCH	Sub C	1.2	2.400	2.600	23,0	43,0	56,0	240	16	2400
	260SCHD	Sub C	1.2	2.340	2.600	23,0	43,0	56,0	234	16	2340
	300SCH	Sub C	1.2	2.700	3.000	23,0	43,0	61,0	270	16	2700
	330SCH	Sub C	1.2	3.300	3.430	23,0	43,0	62,0	330	16	3300



► INDUSTRIAL SERIES - Cylindrical Type - Nickel Metal Hydride Series

	Model No*	Cell Size	Nominal voltage	Capacity (0.2C discharge)* (mAh)		Nominal Dimension (mm.)		Weight	Standard Charge Current	Standard Charge Time	1 Hr Charge Current
			(V)	Minimum	Typical	Diameter	Height	(g)	(mA)	(Hour)	(mA)#
High Capacity Series											
C	350CH	C	1,2	3.500	3.850	25,8	50,0	78,5	350	16	3500
	900CH	C	1,2	9.000	9.450	25,8	86,0	164,0	900	16	9000
D	700DH	D	1,2	7.000	7.350	33,0	60,0	155,0	700	16	7000
	900DH	D	1,2	9.000	9.225	33,0	60,0	170,0	900	16	9000
	1000DH	D	1,2	10.000	10.250	33,0	60,0	175,0	1000	16	10000
	1100DH	D	1,2	11.000	11.000	33,0	60,0	179,0	1100	16	11000
F	1300FH	F	1,2	13.000	13.650	33,0	90,0	247,0	1300	16	13000

● Typical Ambient Temperature : Standard Charge : 0°C to 40°C, Fast Charge : 10°C to 40°C, Discharge : -20°C to 50°C, Storage : -20°C to 35°C # One hour rate with charge termination control. * After charging at 0.1C for 16 hours. ** With UL approval.

► INDUSTRIAL SERIES - Button Type - Nickel Metal Hydride Series

	Model No*	Cell Size	Nominal voltage	Capacity (0.2C discharge)* (mAh)		Nominal Dimension (mm.)		Weight	Standard Charge Current	Standard Charge Time	1 Hr Charge Current
			(V)	Minimum	Typical	Diameter	Height	(g)	(mA)	(Hour)	(mA)#
High Capacity Series											
Button	40BVH	BVH	1.2	40,0	48,0	11,6	5,5	1,9	4	16	40
	60BVH	BVH	1.2	60,0	63,0	15,5	6,3	3,6	6	16	60
	80BVH	BVH	1.2	80,0	90,0	15,5	6,0	3,7	8	16	80
	250BVH	BVH	1.2	250,0	280,0	25,0	6,4	10,9	25	16	250
	280BVH	BVH	1.2	280,0	295,0	25,0	8,7	12,6	28	16	280
	320BVH	BVH	1.2	320,0	370,0	25,0	8,7	14,1	32	16	320

● Typical Ambient Temperature : Standard Charge, Discharge : 0°C to 45°C, Storage : -20°C to 45°C, Standard Charge : 0°C to 65°C, Discharge : -20°C to 65°C, Storage : -40°C to 65°C - ** With UL approval.

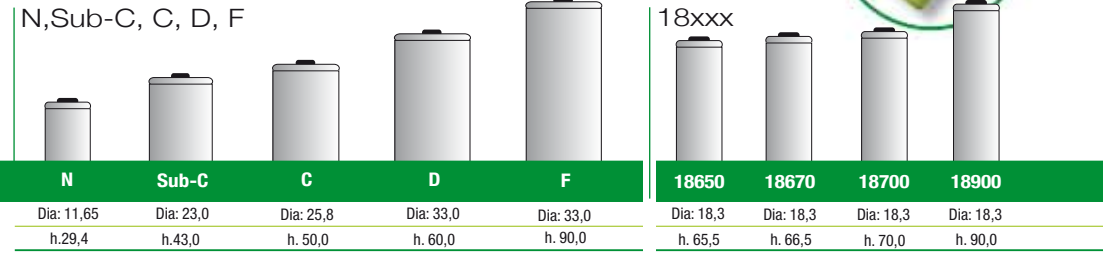
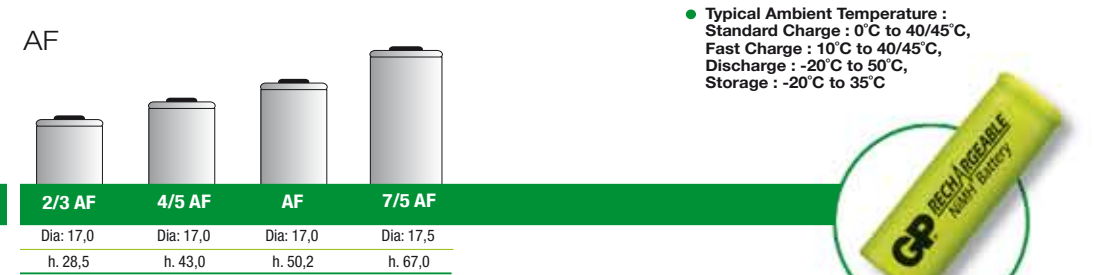
► INDUSTRIAL SERIES - Cylindrical Type - Nickel Metal Hydride Series HT

	Model No*	Cell Size	Nominal voltage	Capacity (0.2C discharge)* (mAh)		Nominal Dimension (mm.)		Weight	Standard Charge Current	Standard Charge Time	1 Hr Charge Current
			(V)	Minimum	Typical	Diameter	Height	(g)	(mA)	(Hour)	(mA)#
High Temperature Cylindrical											
AAA	60AAAHT	AAA	1.2	600	630	10,5	43,7	13,0	60	16	600
AA	110AAHT	AA	1.2	1.100	1.155	14,4	48,2	21,5	110	16	1100
	125AAMT	AA	1.2	1.250	1.280	14,4	48,2	26,0	125	16	1250
AF	160AFHT	4/5AF	1.2	1.600	1.680	17,0	43,0	33,0	160	16	1600
	210AFHT	AF	1.2	2.100	2.205	17,0	50,0	38,0	210	16	2100
Sub C	160SCHT	Sub C	1.2	1.600	1.680	23,0	43,0	37,0	160	16	1600
	220SCHT	Sub C	1.2	2.200	2.420	23,0	43,0	53,0	220	16	2200
	220SCHTD	Sub C	1.2	2.200	2.420	23,0	42,0	53,5	220	16	2200
D	450DHT	D	1.2	4.500	4.725	33,0	60,5	112,0	450	16	4500
	700DHT	D	1.2	7.000	7.350	33,0	60,5	146,0	700	16	7000
18xxx	400LAHT	18700	1.2	4.000	4.200	18,3	70,0	70,0	400	16	4000
	400LALHT	18900	1.2	4.000	4.200	18,3	90,0	76,0	400	16	4000

● Typical Ambient Temperature : Charge : 0°C to 70°C, Discharge : -20°C to 70°C, Storage : -20°C to 35°C # One hour rate with charge termination control. * After charging at 0.1C for 16 hours. ** With UL approval.

► INDUSTRIAL SERIES - 9 Volt Type - Nickel Metal Hydride Series

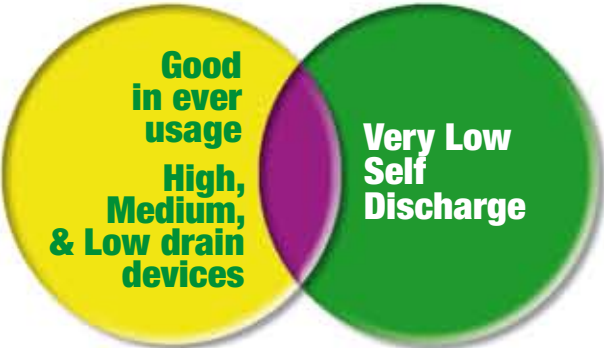
	Model No*	Nominal voltage	Capacity (0.2C discharge)* (mAh)		Nominal Dimension (mm.)			Weight	Standard Charge Current	Standard Charge Time	1 Hr Charge Current
		(V)	Minimum	Typical	Thickness	Width	Height	(g)	(mA)	(Hour)	(mA)#
High Temp Cylindrical											
9v	17R8H	8,4	170	175	15,7	26,5	48,5	32,0	17,5	16	175
	17R9H	9,6	170	175	15,7	26,5	48,5	36,0	17,5	16	175
	20R7H	7,2	200	210	15,7	26,5	48,5	36,5	21	16	210
	20R8H	8,4	200	210	15,7	26,5	48,5	42,5	21	16	210



NiMH Rechargeable Batteries

GP ReCyko - Nickel Metal Hydride Series

Cell Size	Model No*	Nominal voltage	Capacity (0.2C discharge)* (mAh)		Nominal Dimension (mm.)		Weight	Standard Charge		1 Hr Charge
Always ready ReCyko Series		(V)	Minimum	Typical	Diameter	Height	(g)	(mA)	(Hour)	(mA)#
AAA	85AAAHCB	1,2	800	820	10,5	44,5	14,0	80	16	800
AA	210AAHCB	1,2	2.000	2.050	14,5	50,5	30,0	200	16	2000
AAAA	30AAAAHCB	1,2	290	300	8,4	42,2	7,3	29	16	290
C	260CHB	1,2	2.500	2.600	26,2	50	62,0	250	16	2500
D	260DHB	1,2	2.500	2.600	34,2	61,5	72,0	250	16	2500
9v	15R8HB	8,4	150	155	15,7 x 26,5 x 48,5		32,0	15	16	150
Prismatic	5MB	1,2	550	560	6,1 x 17,0 x 35,3		11,4	55	16	550



CONSUMER SERIES - Nickel Metal Hydride Series

Cell Size	Model No*	Nominal voltage	Capacity (0.2C discharge)* (mAh)		Nominal Dimension (mm.)		Weight	Standard Charge		1 Hr Charge
High Capacity Series		(V)	Minimum	Typical	Diameter	Height	(g)	(mA)	(Hour)	(mA)#
AAA	60AAAHC	1,2	600	630	10,5	44,5	13,0	60	16	600
	65AAAHC	1,2	630	650	10,5	44,5	13,0	63	16	630
	70AAAHC	1,2	680	700	10,5	44,5	12,2	68	16	680
	75AAAHC	1,2	730	750	10,5	44,5	13,0	73	16	730
	80AAAHC	1,2	780	800	10,5	44,5	14,0	78	16	780
	85AAAHC	1,2	830	850	10,5	44,5	14,2	83	16	830
AA	100AAAHC	1,2	600	620	14,5	50,5	15,2	60	16	600
	130AAHC	1,2	1.250	1.300	14,5	50,5	26,0	125	16	1250
	160AAHC	1,2	1.550	1.600	14,5	50,5	26,0	155	16	1550
	180AAHC	1,2	1.750	1.800	14,5	50,5	26,0	175	16	1750
	210AAHC	1,2	2.000	2.050	14,5	50,5	28,0	200	16	2000
	230AAHC	1,2	2.200	2.250	14,5	50,5	29,5	220	16	2200
C	220CH	1,2	2.150	2.200	26,2	50,0	61,0	215	16	2150
	350CHC	1,2	3.480	3.500	26,2	50,0	78,5	348	16	3480
	220DH	1,2	2.150	2.200	34,2	61,5	71,0	215	16	2150
D	450DHC	1,2	4.400	4.500	34,2	61,5	130,0	440	16	4400
	700DHC	1,2	6.800	7.000	34,2	61,5	155,0	680	16	6800
	900DHC	1,2	8.750	9.000	34,2	61,5	173,0	875	16	8750



● Typical Ambient Temperature : Standard Charge : 0°C to 40/45°C, Fast Charge : 10°C to 40/45°C, Discharge : -20°C to 50°C, Storage : -20°C to 35°C
One hour rate with charge termination control.
* After charging at 0.1C for 16 hours.
** With UL approval.

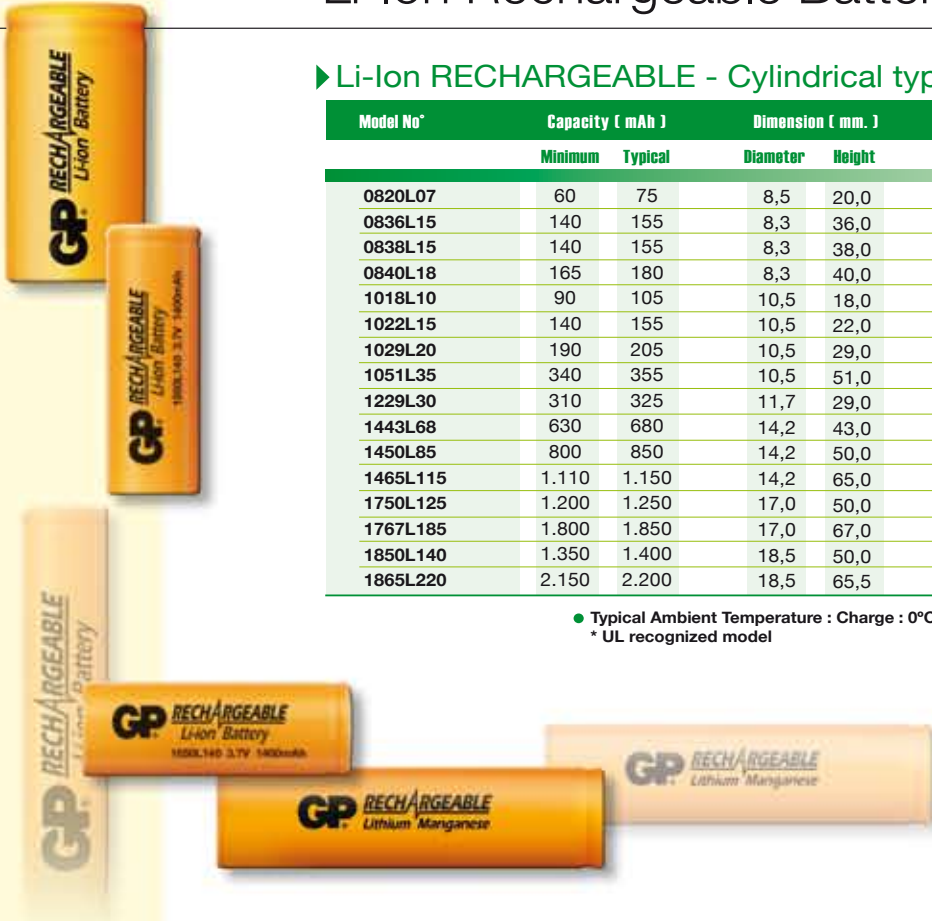
Li-Ion Rechargeable Batteries



Li-Ion RECHARGEABLE - Cylindrical type - Li-Ion

Model No*	Capacity (mAh)		Dimension (mm.)		Weight	Standard Charge		Discharge Max
	Minimum	Typical	Diameter	Height	(g)	(V)	Current (mA)	Current (mA)
0820L07	60	75	8,5	20,0	4,0	4,2	75	150
0836L15	140	155	8,3	36,0	4,5	4,2	155	310
0838L15	140	155	8,3	38,0	4,5	4,2	155	310
0840L18	165	180	8,3	40,0	4,8	4,2	180	360
1018L10	90	105	10,5	18,0	3,6	4,2	105	210
1022L15	140	155	10,5	22,0	4,2	4,2	155	310
1029L20	190	205	10,5	29,0	6,0	4,2	205	410
1051L35	340	355	10,5	51,0	9,9	4,2	355	710
1229L30	310	325	11,7	29,0	8,5	4,2	325	650
1443L68	630	680	14,2	43,0	18,0	4,2	680	1.360
1450L85	800	850	14,2	50,0	21,0	4,2	850	1.700
1465L115	1.110	1.150	14,2	65,0	28,0	4,2	1.150	2.300
1750L125	1.200	1.250	17,0	50,0	28,0	4,2	1.250	2.500
1767L185	1.800	1.850	17,0	67,0	39,0	4,2	1.850	3.700
1850L140	1.350	1.400	18,5	50,0	31,0	4,2	1.400	2.800
1865L220	2.150	2.200	18,5	65,5	44,0	4,2	2.200	4.400

● Typical Ambient Temperature : Charge : 0°C to 45°C / Discharge : -30°C to 60°C / Storage : -20°C to 45°C
* UL recognized model



Li-Ion RECHARGEABLE - Prismatic type - Sonata

Model No*	Nominal Voltage	Capacity	Dimension (mm.)			Weight	Standard Charge		Fast Charge	
	(V)	(mAh)	Thickness	Diameter	Height	(g)	Current (mA)	(V)	Current (mA)	(V)
SONATA 4400	3,7	4.400	18,5	37,1	65,2	92,0	3.100	4,2v	6.600	4,2v
SWING 4400	3,7	4.400	18,5	37,1	64,8	90,0	3.100	4,2v	8.800	4,2v

Li-Ion RECHARGEABLE - Prismatic type - Electric Vehicle Battery

Model No*	Nominal Voltage	Capacity	Dimension (mm.)#			Weight	Standard Charge		Service Life	Specific Energy
	(V)	(mAh)	Thickness	Diameter	Height	(g)	Min	Max		(Wh/Kg)
GP30EVH	12	30	96	107	388	8,6	15A	3,65v	>1500	53Wh/Kg
GP80EVS	12	78	192	107	388	20,0	39A	3,65v	>1500	52Wh/Kg
GP100EVH	12	98	192	107	388	21,0	50A	3,65v	>1500	60Wh/Kg

Li-Ion RECHARGEABLE - Prismatic type - Lithium Ferro Fosfato

Model No*	Nominal Voltage	Capacity	Dimension (mm.)#			Weight	Standard Charge		Service Life	Discharge Max
	(V)	(mAh)	Thickness	Diameter	Height	(g)	Current (mA)	(V)		Current (mA)
GP18EVLF	3,2	18	18	92	182	0,62	9A	3,65v	>1000	180A
GP30EVLF	3,2	30	30	95	175	1,1	15A	3,65v	>1000	300A
GP45EVLF	3,2	45	30	95	225	1,6	22,5A	3,65v	>1000	450A

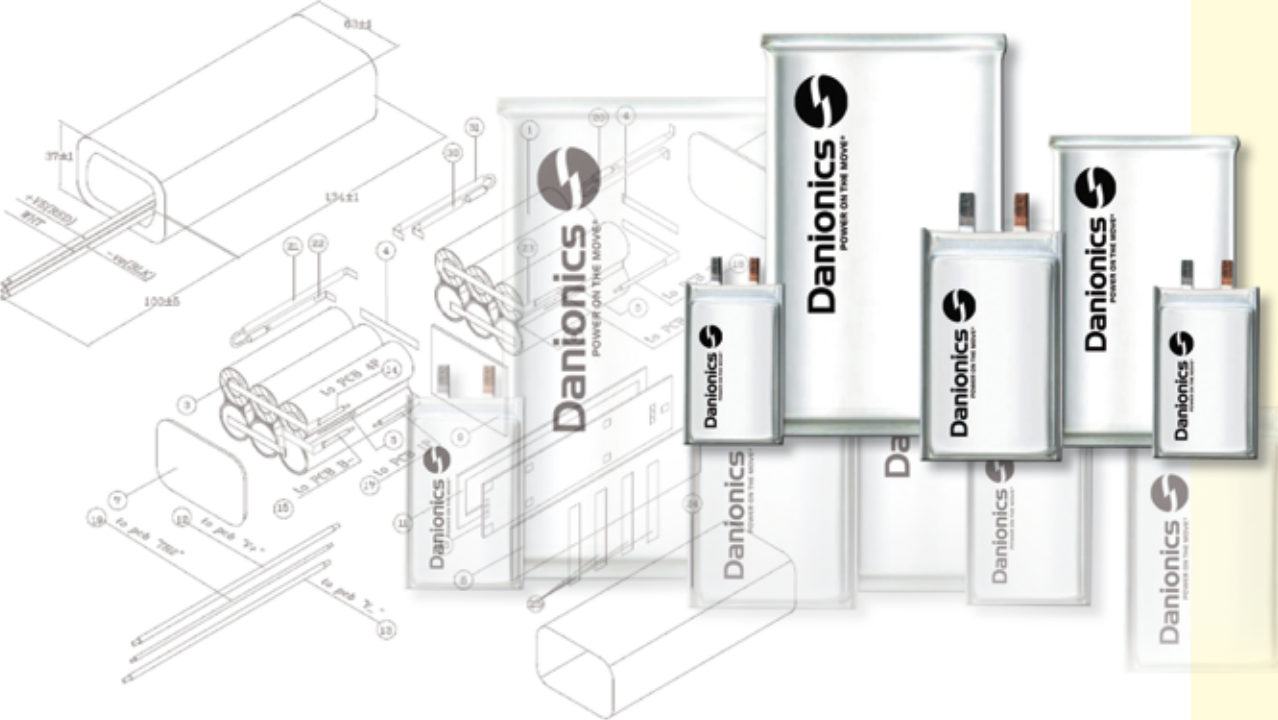
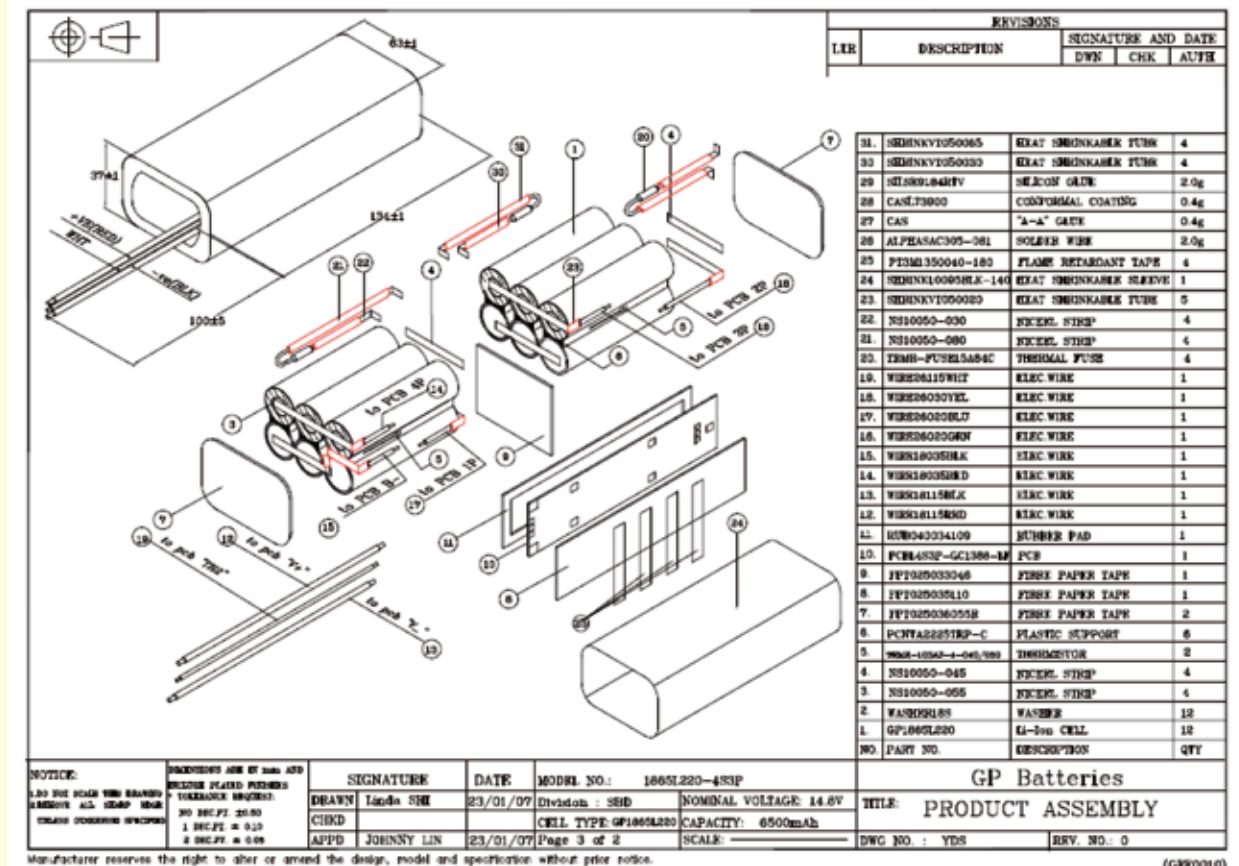
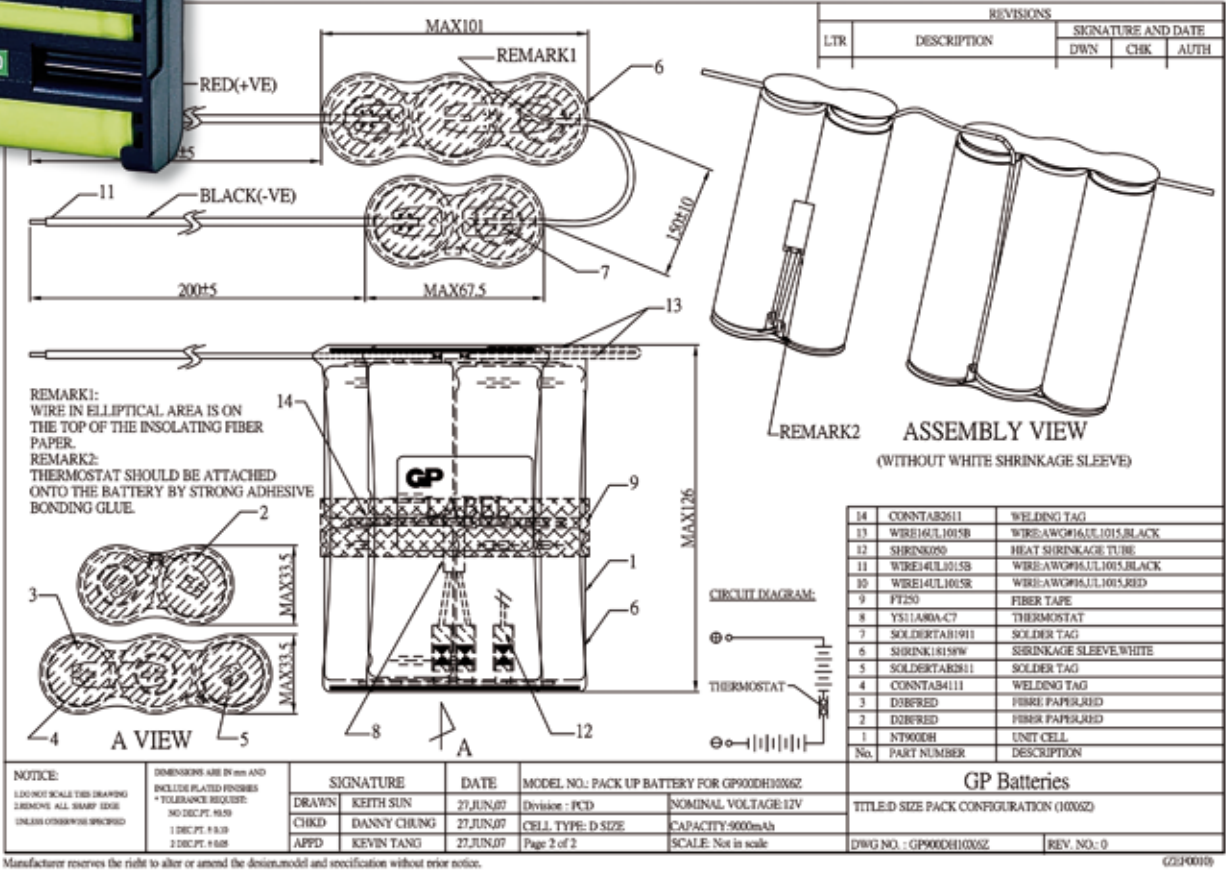
● Typical Ambient Temperature : Charge : 0°C to 45°C / Discharge : -30°C to 60°C / Storage : -30°C to 45°C
*UL recognized model
#Dimension of bare cell before charging and cycling.





Lithium Polymer

Model No*	Capacity (mAh)		Dimension (mm.)			Weight (g)	Standard Charge		Discharge Max
	Minimum	Typical	Thickness	Diameter	Height		(V)	Current (mA)	Current (mA)
151429P6H	20	18	1,5	14	29	1,2	4,2	18	36
421417P6H	50	48	4,2	14	17	1,4	4,2	48	96
401230P6H	100	90	4	12	30	2,5	4,2	90	180
402225P4H	150	140	4	22	25	3,5	4,2	140	280
601240P8H	200	190	6	12	40	4,5	4,2	190	380
502030P6H	250	230	5	20	30	5,5	4,2	230	460
402533P8H	300	280	4	25	33	6,5	4,2	280	560
403440P6H	500	480	4	34	40	10,5	4,2	480	960
503434P5H	500	480	5	34	34	10,5	4,2	480	960
602248P5H	600	550	6	22	48	12,0	4,2	550	1.100
602248P6H	600	550	6	22	48	12,5	4,2	550	1.100
383450P8H	800	750	3,8	34	50	15,0	4,2	750	1.500
453450P6H	800	750	4,5	34	50	16,0	4,2	750	1.500
354374P6H	1000	950	3,5	43	74	20,0	4,2	950	1.900
404261P6H	1000	950	4	42	61	20,0	4,2	950	1.900
603448P6H	1000	950	6	34	48	19,5	4,2	950	1.900
573759P6H	1300	1200	5,7	37	59	25,0	4,2	1.200	2.400
305597P6H	1500	1400	3	55	97	30,0	4,2	1.400	2.800
454965P6H	1500	1400	4,5	49	65	29,0	4,2	1.400	2.800
455560P6H	1500	1400	4,5	55	60	30,0	4,2	1.400	2.800
475067P8H	1800	1700	4,7	50	67	32,0	4,2	1.700	3.400
504080P8H	1800	1700	5	40	80	33,0	4,2	1.700	3.400
405385P8H	2000	1900	4	53	85	38,0	4,2	1.900	3.800
504388P5H	2000	1900	5	43	88	37,5	4,2	1.900	3.800
406081P8H	2100	2000	4	60	81	44,0	4,2	2.000	4.000
455085P6H	2100	2000	4,5	50	85	40,5	4,2	2.000	4.000
505085P5H	2200	2000	5	50	85	44,5	4,2	2.000	4.000
704374P4H	2200	2000	7	43	74	44,0	4,2	2.000	4.000
455590P6H	2300	2100	4,5	55	90	52,5	4,2	2.100	4.200
705464P6H	2500	2300	7	54	64	49,0	4,2	2.300	4.600
505385P6H	2500	2400	5	53	85	46,0	4,2	2.400	4.800
555597P6H	3000	2850	5,5	55	97	60,0	4,2	2.850	5.700
655886P8H	3500	3300	6,5	58	86	73,0	4,2	3.300	6.600
905776P6HE	4000	3800	9	57	76	73,0	4,2	3.800	7.600
6050145P6HE	4500	4200	6	50	145	85,0	4,2	4.200	8.400
7058110P6H	5000	4750	7	58	110	96,0	4,2	4.750	9.500
6559135P4HE	5300	5000	6,5	59	135	110,0	4,2	5.000	10.000
8545135P6HE	5300	5000	8,5	45	135	98,0	4,2	5.000	10.000
9051109P6H	5500	5200	9	51	109	102,0	4,2	5.200	10.400
8551119P6H	6000	5800	8,5	51	119	105,0	4,2	5.800	11.600
9551119P6H	6800	6500	9,5	51	119	125,0	4,2	6.500	13.000
656192P6HE	7600	7200	6,5	61	92	176,0	4,2	7.200	14.400
70103122P4HE	8700	8200	7	103	122	180,0	4,2	8.200	16.400
80103122P4HAE	10500	9700	8	103	122	200,0	4,2	9.700	19.400





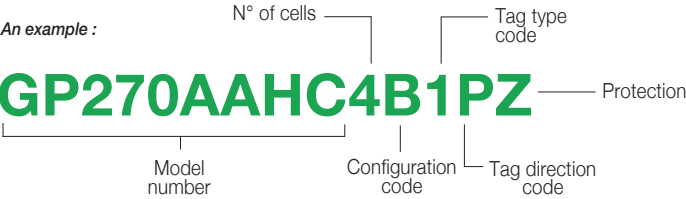
Lithium Polymer



Lithium Ion



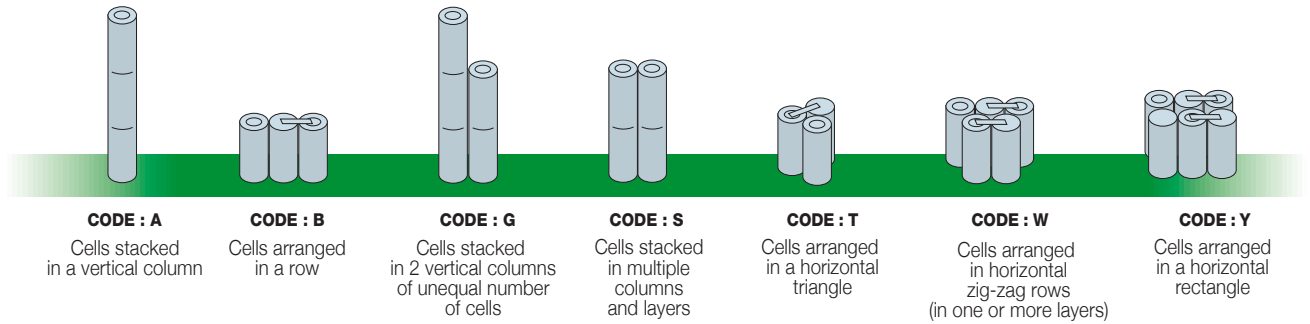
NiMH Rechargeable



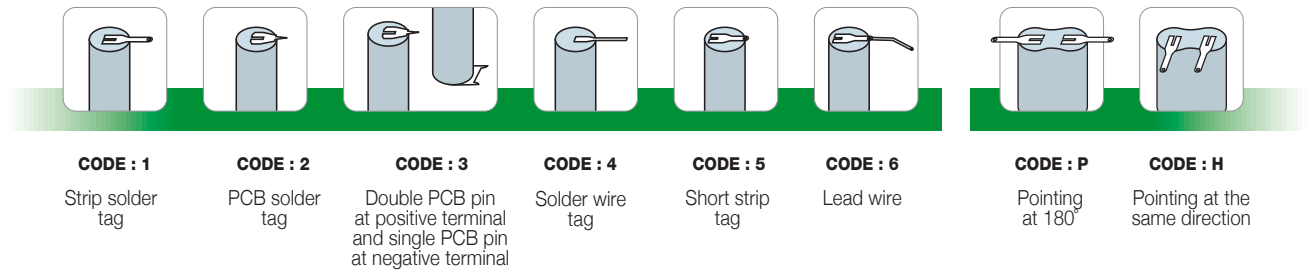
Configuration	Drawing (mm.)	Voltage (V)
1S1P		3.8V
2S1P		7.6V
3S1P		11.4V
4S1P		15.2V
5S1P		19.0V
6S1P		22.8V
7S1P		26.6V

Configuration Code	2D Drawing (mm.)	Voltage (V)
181P		3.8V
281P		7.6V
381P		11.4V
481P		15.2V
581P		19.0V
781P		26.6V
1081P-C		38.0V
1061P-D		38.0V

Standard configurations for Battery Packs



Tag Type Specifications



Tag Direction Codes

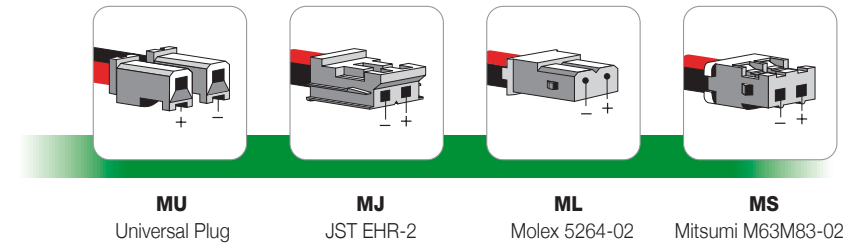
Connector Type Specifications

GP Universal Plug

- Exclusively from GP, offers distinctive features unparalleled in the market.
- U.S. patent no. 5,161,990.

Major Benefits

- Compatible with most cordless phone models (interchangeable with Mitsumi, JST, Molex plugs etc.)
- Minimise inventory items
- User friendly



Battery Handling and Precautions

Don't Dismantle

Do not disassemble or modify the battery pack.
The battery pack is equipped with built-in safety/protection features. Should these features be disabled, the battery pack can leak, emitting corrosive liquid, or it would overheat, burst or ignite.

Don't Short Circuit

Do not connect the positive (+) and negative (-) terminals with a metal object such as wire. Do not transport or store the battery pack together with metal objects such as necklaces, hair pins, etc. Otherwise, short-circuiting will occur, overcurrent will flow, causing the battery pack to leak electrolyte, overheat, emit smoke, burst and/or ignite, or the metal objects such as wire, necklaces or hair pin can generate heat.

Don't Put Into Fire

Do not discard the battery pack into fire or heat it. Otherwise, its insulation can melt down. Its gas release vent or safety features will be damaged and/or its electrolyte can ignite, possibly leading to acid leakage, overheating, smoke emission, bursting and/or ignition on it.

Don't Put Into Water

Do not immerse the battery pack in water or seawater, and do not allow it to get wet. Otherwise, the protective features in it can be damaged. It can be charged with extremely high current and voltage, abnormal chemical reactions may occur in it, possibly leading to acid leakage, overheating, smoke emission, bursting and/or ignition.

Don't Pierce

Do not pierce the battery pack with a nail or other sharp objects, strike it with a hammer, or step on it. Otherwise, the battery pack will become damaged and deformed, internal shortcircuiting can occur, possibly leading to acid leakage, overheating, smoke emission, bursting and/or ignition.

Don't Direct Soldering

Do not solder directly onto batteries. Always solder onto solder tag for connection. Otherwise, heat can melt down its insulation, damage its gas release vent or safety features, possibly leading to acid leakage, overheating, smoke emission, bursting and/or ignition on it.

Don't Strike Or Throw

Do not strike or throw the battery pack. Otherwise, the protective feature in it may become damaged, it can be charged with extremely high current and voltage, abnormal chemical reactions can occur in it, possibly leading to acid leakage, overheating, smoke emission, bursting and/or ignition.

GP Batteries is accredited by the ISO 9001,14001, QS 9000 and OHSAS 18001 for the outstanding product safety, reliability and environmental friendliness.

