
POTENZA®
BATTERIES
ULTIMATE
ENERGY
Japanese Technology & Standards

TECHNICAL SPECIFICATIONS

Ultimate Performance in Every Condition
Powered by Japanese Technology
Built to Japanese Standards

12V

MAINTENANCE FREE

PUSH FIT SEALED MF (JIS)

BATTERY TYPE 0 L-POLARITY	BATTERY TYPE 1 R-POLARITY	GROUP SIZE	POLE	PLATE	CCA	CAPACITY 20 HRS (AH)	DIMENSIONS (MM) LENGTH	WIDTH	HEIGHT	WEIGHT/BTY KGS (±5%) (INCLUDING ACID)
0 PM-0301L	1 PM-0301	NS40 (B20)		9	300	30	197	129	203	9.9
0 PM-0381L	1 PM-0381	NS40 (B20)		11	350	38	197	129	203	11.0
0 PM-0451L	1 PM-0451	N40 (B24)	THIN POLE	12	380	45	238	129	203	12.8
0 PM-0452L	1 PM-0452	N40 (B24)		13	400	45	238	129	203	13.1
0 PM-0702L	1 PM-0702	N70 (D31)		13	500	70	306	173	204	21.2
0 PM-0801L	1 PM-0801	N70 (D31)		15	650	80	306	173	204	23.2

COMPLETELY SEALED MF (JIS)

0 PX-0381L	1 PX-0381	NS40 (B20)		11	360	38	197	129	203	11.0
0 PX-0451L	1 PX-0451	N40 (B24)	THIN POLE	13	410	45	238	129	203	13.0
0 PX-0452L	1 PX-0452	N40 (B24)		13	410	45	238	129	203	13.0
0 PX-0501L	1 PX-0501	N50 (D26)		9	440	50	260	173	204	16.8
0 PX-0601L	1 PX-0601	N50 (D26)		11	470	60	260	173	204	18.5
0 PX-0701L	1 PX-0701	N50 (D26)		13	600	70	260	173	204	20.4
0 PX-0801L	1 PX-0801	N70 (D31)		15	670	80	306	173	204	23.2

SMF (DIN)

0 PE-0453L	1 PE-0453	DIN44 (L1)		10	410	45	206	174	189	13.3
0 PE-0603L	1 PE-0603	DIN60 (L2)		14	500	60	241	175	189	17.2
0 PE-0721L	-	DIN72 (L3)		-	620	72	278	175	190	17.2

HYBRID BATTERIES

BATTERY TYPE	GROUP SIZE	PLATE	CCA	CAPACITY 20 HRS (AH)	DIMENSIONS (MM) LENGTH	WIDTH	HEIGHT	WEIGHT/BTY KGS (±5%) (INCLUDING ACID)
PY-0301	B20	9	260	30	197	129	203	9.5
PY-0381	B20	11	265	38	197	129	203	10.5
PY-0452	B24	13	295	45	238	129	203	13.2
PY-0801	D31	15	565	80	306	173	204	23.1

TERMINAL & POLARITY GUIDE



THICK POLE
Code A · Thick Pole



THIN POLE
Code B · Thin Pole

0 L-POLARITY
Code 0 · Left side

1 R-POLARITY
Code 1 · Right side

12V

DRY CHARGED

AVAILABLE IN ALL TERMINAL LAYOUT & POLARITY OPTIONS

A-0 Thick Pole · L-Polarity | A-1 Thick Pole · R-Polarity | B-0 Thin Pole · L-Polarity | B-1 Thin Pole · R-Polarity

BATTERY TYPE	PLATE	CCA	TERMINAL LAYOUT & POLARITY		CAPACITY 20 HRS (AH)	DIMENSIONS (MM) LENGTH	WIDTH	HEIGHT	TOTAL HEIGHT	WEIGHT/BTY KGS (±5%) (INCLUDING ACID)
B20 GROUP SIZE										
PS-0201	5	-	A-0 L A-1 R	B-0 L B-1 R	20	197	129	203	227	5.0
PS-0241	7	185	A-0 L A-1 R	B-0 L B-1 R	24	197	129	203	227	6.0
PS-0301	9	260	A-0 L A-1 R	B-0 L B-1 R	30	197	129	203	227	7.0
PS-0351	9	265	A-0 L A-1 R	B-0 L B-1 R	35	197	129	203	227	7.8
PS-0381	11	265	A-0 L A-1 R	B-0 L B-1 R	38	197	129	203	227	8.0
B24 GROUP SIZE										
PS-0401	11	265	A-0 L A-1 R	B-0 L B-1 R	40	238	129	203	227	8.1
PS-0451	11	295	A-0 L A-1 R	B-0 L B-1 R	45	238	129	203	227	9.5
PS-0452	13	295	A-0 L A-1 R	B-0 L B-1 R	45	238	129	203	227	9.5
N50 / D26 GROUP SIZE										
PS-0501	9	250	A-0 L A-1 R	B-0 L B-1 R	50	260	173	204	225	10.1
PS-0601	11	290	A-0 L A-1 R	B-0 L B-1 R	60	260	173	204	225	12.0
PS-0701	13	490	A-0 L A-1 R	B-0 L B-1 R	70	260	173	204	225	13.5
N70 / D31 GROUP SIZE										
PS-0502	9	250	A-0 L A-1 R	B-0 L B-1 R	50	306	173	204	225	10.1
PS-0602	11	340	A-0 L A-1 R	B-0 L B-1 R	60	306	173	204	225	12.0
PS-0751	13	380	A-0 L A-1 R	B-0 L B-1 R	75	306	173	204	225	14.0
PS-0801	15	565	A-0 L A-1 R	B-0 L B-1 R	80	306	173	204	225	16.0
6FT GROUP SIZE										
PC-0851	15	565	A-0 L A-1 R	B-0 L B-1 R	85	363	170	202	227	16.5
PC-1001	17	475	A-0 L A-1 R	B-0 L B-1 R	100	363	170	202	227	18.5
N100 / E41 GROUP SIZE										
PC-0852	15	565	A-0 L A-1 R	B-0 L B-1 R	85	410	176	213	234	16.5
PC-1002	17	475	A-0 L A-1 R	B-0 L B-1 R	100	410	176	213	234	18.5
PC-1051	19	610	A-0 L A-1 R	B-0 L B-1 R	105	410	176	213	234	20.0
N120 / F51 GROUP SIZE										
PH-1052	19	610	A-0 L A-1 R	B-0 L B-1 R	105	505	182	213	257	21.0
PH-1201	21	575	A-0 L A-1 R	B-0 L B-1 R	120	505	182	213	257	23.0
PH-1401	23	735	A-0 L A-1 R	B-0 L B-1 R	140	505	182	213	257	25.0
N150 / G51 GROUP SIZE										
PH-1351	21	685	A-0 L A-1 R	B-0 L B-1 R	135	508	222	213	257	26.0
PH-1501	23	685	A-0 L A-1 R	B-0 L B-1 R	150	508	222	213	257	28.5
PH-1751	27	930	A-0 L A-1 R	B-0 L B-1 R	175	508	222	213	257	33.0
N200 / H52 GROUP SIZE										
PH-2001	31	910	A-0 L A-1 R	B-0 L B-1 R	200	521	278	220	270	38.0
PH-2201	33	1170	A-0 L A-1 R	B-0 L B-1 R	220	521	278	220	270	40.5

12V

DEEP CYCLE (TUBULAR)

TUBULAR

BATTERY TYPE	PLATE	CAPACITY 20 HRS (AH)	DIMENSIONS (MM) LENGTH	WIDTH	HEIGHT	WEIGHT/BTY KGS (±5%) (INCLUDING ACID)
PV-1852	5	185	505	192	393	56
PV-2301	7	230	505	192	393	62
PV-2801	9	280	505	192	393	72

FLAT PLATE

PD-0901	5	90	505	192	393	50
PD-1402	7	140	505	192	393	55
PD-1801	9	180	505	192	393	60
PD-2101	11	210	505	192	393	66
PD-0702	9	70	306	173	204	22.5
PD-0852	11	85	410	176	213	28.3
PD-1151	15	115	505	182	213	38.1
PD-1501	17	150	508	222	213	45.4
PD-1651	19	165	508	222	213	47.8
PD-1851	23	185	521	278	220	59.1

MAINTENANCE FREE

BATTERY TYPE	TYPE	CAPACITY (AH)	DIMENSIONS (MM) LENGTH	WIDTH	HEIGHT	TERMINAL	WEIGHT/BTY KGS (±5%) (INCLUDING ACID)
EPZ-7.0	VRLA	7 (20 Hrs)	151	65	93.5	T1/T2	2.0
EPZ-100	VRLA	100 (10 Hrs)	330	173	213	T11 (M8)	28.5

51.2V

LITHIUM-ION

BATTERY TYPE	CELL TYPE	CAPACITY	DIMENSIONS (MM) LENGTH	WIDTH	HEIGHT	WEIGHT/BTY KGS (±5%) (INCLUDING ACID)	APPLICATION
LI - ION	Prismatic	100	500	442	130.5	42	Energy storage for household

12V

BATTERY TYPE	PLATE	TYPE	CAPACITY (AH)	DIMENSIONS (MM)			WEIGHT/BTY KGS (±5%) (INCLUDING ACID)
				LENGTH	WIDTH	HEIGHT	
MOTORCYCLE							
DRY CHARGED							
Max Force	3	DC	2.5	81	81.7	106	1.0
Max Force	7	DC	5	130	60	130	2.0
Max Force	9	DC	7	160	60	130	2.5
MAINTENANCE FREE							
Apex 4		VRLA	2.5 (10 Hrs)	80	70	105	1.0

VRLA DEEP CYCLE SERIES

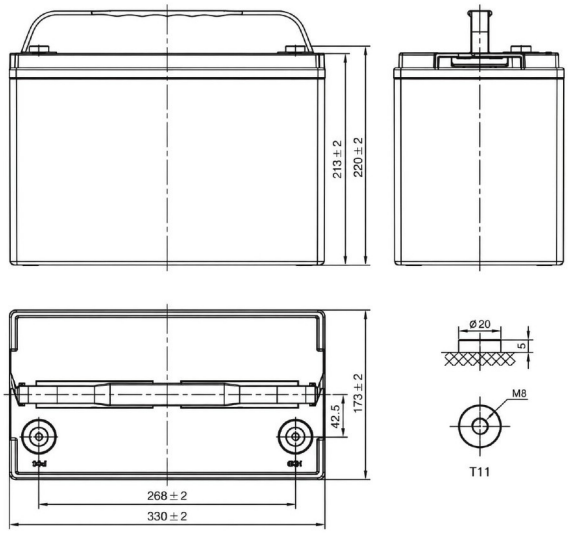
EPZ-100

12V 100Ah (10HR) Maintenance Free



ITEM	SPECIFICATIONS
Rated voltage	**12V**
Nominal capacity (25°C)	**C10, 1.80V/cell — 100Ah**
Length	**330mm (13.0 in)**
Width	**173mm (6.8 in)**
Container height	**213mm (8.39 in)**
Total height	**220mm (8.66 in)**
Approx weight	**28.5kg (62.8 lbs)**
Terminal	**T11 (M8)**
Container material	**ABS (UL94 HB or V-0 optional)**
Short-circuit current	**2000A**
Internal resistance (25°C)	**Approx 4.9 mOhm (fully charged)**

DIMENSIONS (mm)



SAFETY INSTRUCTIONS

- Avoid shorting terminals
- Do not store or use the battery upside down
- Do not charge in a gas tight space
- Keep sparks and flames away

DISCHARGE TABLE

Constant current discharge (Amperes) at 25°C / 77°F

F.V/Time	5m	10m	15m	20m	30m	45m	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	195.7	139.2	125.7	98.9	88.4	64.6	54.7	39.7	33.4	24.5	19.2	16.7	14.7	11.3	9.36	4.96
1.80V/cell	222.6	158.0	142.4	111.8	96.2	68.5	56.7	41.0	34.4	26.6	20.5	17.5	15.8	11.9	10.0	5.15
1.75V/cell	241.8	171.3	154.2	120.7	98.2	71.0	59.5	43.1	36.3	27.1	20.9	17.8	15.9	11.9	10.1	5.20
1.70V/cell	258.5	182.7	163.8	127.9	100.2	72.4	60.7	44.0	37.0	27.6	21.2	18.1	16.0	12.1	10.2	5.25
1.67V/cell	267.5	188.5	168.6	131.4	101.6	73.4	61.6	44.6	37.5	27.9	21.6	18.5	16.1	12.3	10.3	5.31
1.60V/cell	277.0	194.9	173.8	134.8	103.1	74.5	62.5	45.3	38.1	28.1	21.8	18.8	16.2	12.5	10.4	5.38

Constant power discharge (Watts/cell) at 25°C / 77°F

F.V/Time	5m	10m	15m	20m	30m	45m	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	365.6	261.8	238.0	188.0	168.9	124.3	105.9	77.0	64.9	47.8	37.7	32.8	29.0	22.4	18.6	9.89
1.80V/cell	408.9	292.9	266.2	210.3	182.4	130.8	109.1	79.2	66.7	51.7	40.1	34.4	31.1	23.5	19.5	10.2
1.75V/cell	436.5	312.6	284.1	224.5	184.7	134.7	114.0	82.9	69.9	52.5	40.7	34.9	31.2	23.6	19.6	10.3
1.70V/cell	458.8	328.6	298.7	236.0	186.8	136.5	115.6	84.1	71.0	53.3	41.2	35.3	31.3	23.9	19.8	10.4
1.67V/cell	466.3	334.0	303.6	239.8	188.2	137.7	116.7	84.9	71.8	53.6	41.7	35.9	31.4	24.2	20.0	10.5
1.60V/cell	472.8	338.7	307.8	243.2	189.0	138.4	117.5	85.6	72.3	53.8	42.0	36.3	31.5	24.5	20.2	10.6

VRLA DEEP CYCLE SERIES

EPZ-100

12V 100Ah (10HR) Maintenance Free

APPLICATIONS

- All purpose
- Uninterruptable Power Supply (UPS)
- Electric Power System (EPS)
- Emergency backup power supply
- Alarm and security system
- Communication power supply
- DC power supply
- Auto control system

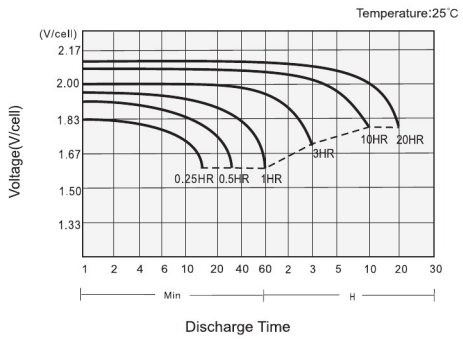
GENERAL FEATURES

- 10 years design life (25°C)
- Lead calcium alloy, sealed design, no watering required
- Puncture resistant micro-porous glass mat separators extend life
- Unique technology optimizes power capacity, cell consistency, and long-term reliability
- Designed for a wide range of applications

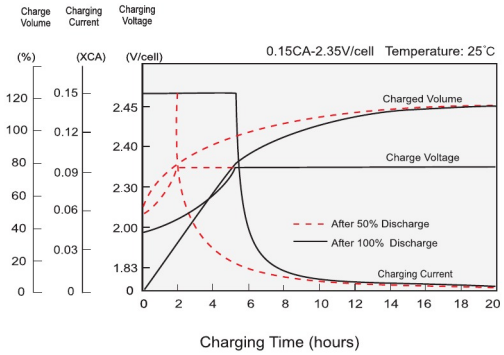
STANDARDS

- Compliance with IEC 60896 standards, EU Battery Directive
- UL,CE Approved
- IATF 16949, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

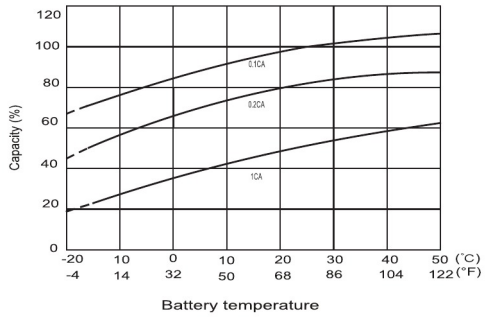
Discharge Characteristics



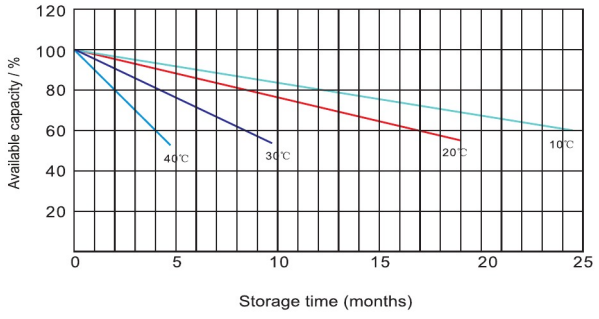
Charging Characteristics



Effects of Temperature on Capacity



Self Discharge Characteristics



VRLA DEEP CYCLE SERIES

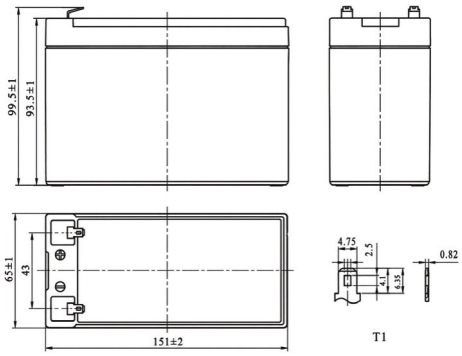
EPZ-7.0

12V 7Ah (20HR) Maintenance Free



ITEM	SPECIFICATIONS
Rated voltage	**12V**
Nominal capacity (25°C)	**C20, 1.75V/cell — 7.0Ah**
Length	**151mm (5.94 in)**
Width	**65mm (2.56 in)**
Container height	**93.5mm (3.68 in)**
Total height	**99.5mm (3.92 in)**
Approx weight	**1.97kg (4.34 lbs)**
Terminal	**T1/T2**
Container material	**ABS (UL94 HB or V-0 optional)**
Short-circuit current	**196A**
Internal resistance (25°C)	**Approx 33 mΩ (fully charged)**

DIMENSIONS (mm)



SAFETY INSTRUCTIONS

- Avoid shorting terminals
- Do not store or use the battery upside down
- Do not charge in a gas tight terminal
- Keep sparks and flames away

DISCHARGE TABLE

Constant current discharge (Amperes) at 25°C / 77°F

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	17.0	12.5	9.90	8.10	6.12	4.64	3.91	2.90	2.38	1.72	1.36	1.16	0.990	0.780	0.637	0.343
1.80V/cell	18.5	13.2	10.3	8.35	6.28	4.73	3.99	2.95	2.41	1.74	1.38	1.18	1.01	0.790	0.644	0.347
1.75V/cell	19.9	13.8	10.7	8.60	6.43	4.83	4.06	3.00	2.45	1.77	1.40	1.19	1.02	0.800	0.653	0.350
1.70V/cell	21.4	14.4	11.1	8.86	6.57	4.92	4.13	3.05	2.49	1.79	1.42	1.21	1.03	0.809	0.660	0.354
1.67V/cell	22.3	14.8	11.3	9.01	6.67	4.98	4.17	3.08	2.51	1.81	1.43	1.22	1.24	0.816	0.665	0.356
1.60V/cell	24.3	15.7	11.8	9.40	6.87	5.11	4.27	3.14	2.56	1.84	1.46	1.24	1.06	0.829	0.675	0.361

Constant power discharge (Watts/cell) at 25°C / 77°F

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	32.3	23.9	19.1	15.6	11.8	9.01	7.61	5.67	4.65	3.37	2.69	2.29	1.96	1.55	1.27	0.686
1.80V/cell	34.8	25.0	19.7	16.0	12.1	9.15	7.73	5.74	4.71	3.42	2.72	2.32	1.99	1.57	1.28	0.693
1.75V/cell	37.4	26.1	20.3	16.4	12.3	9.30	7.84	5.82	4.77	3.46	2.76	2.35	2.01	1.58	1.29	0.700
1.70V/cell	39.9	27.2	20.9	16.8	12.5	9.40	7.95	5.90	4.84	3.50	2.79	2.37	2.03	1.60	1.31	0.707
1.67V/cell	41.4	27.8	21.3	17.1	12.7	9.50	8.02	5.95	4.87	3.53	2.81	2.39	2.05	1.61	1.32	0.712
1.60V/cell	44.7	29.2	22.1	17.6	13.0	9.70	8.17	6.05	4.95	3.59	2.85	2.43	2.08	1.64	1.34	0.722

EPZ-7

12V 7Ah (20HR) Maintenance Free

APPLICATIONS

- All purpose
- Uninterruptable Power Supply (UPS)
- Electric Power System (EPS)
- Emergency backup power supply
- Alarm and security system
- Communication power supply
- DC power supply
- Auto control system

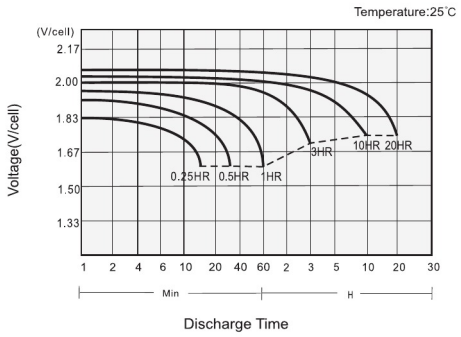
GENERAL FEATURES

- 5 years design life (25°C)
- Lead calcium alloy, sealed design, no watering required
- Puncture resistant micro-porous glass mat separators extend life
- Unique technology optimizes power capacity, cell consistency, and long-term reliability
- Designed for a wide range of applications

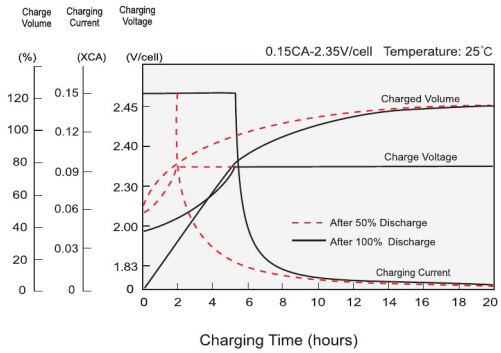
STANDARDS

- Compliance with IEC 60896 standards, EU Battery Directive
- UL,CE Approved
- IATF 16949, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

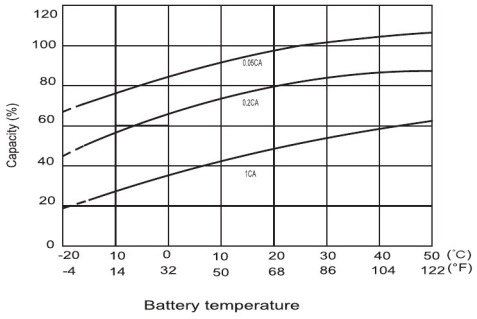
Discharge Characteristics



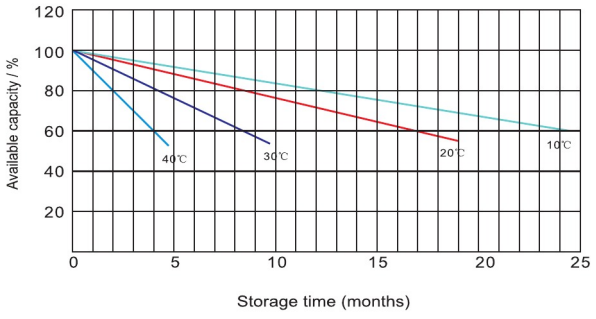
Charging Characteristics



Effects of Temperature on Capacity



Self Discharge Characteristics



VRLA-MF MOTORCYCLE BATTERY

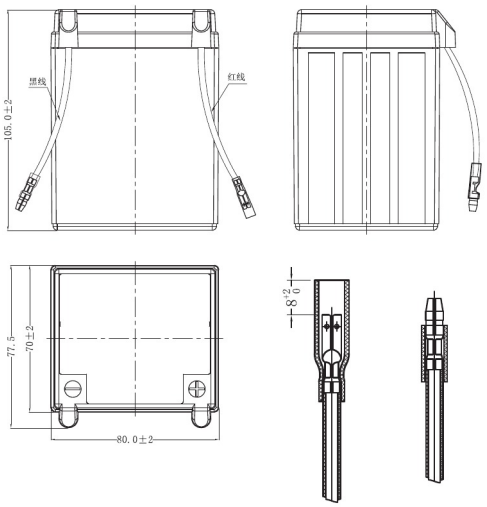
APEX 4

12V 2.5Ah (10HR) Maintenance Free



ITEM	SPECIFICATIONS
Nominal voltage	**12V**
Nominal capacity (10HR)	**2.5 Ah**
Length	**80mm (3.1 in)**
Width	**70mm (2.76 in)**
Container height	**105mm (4.13 in)**
Total height	**105mm (4.13 in)**
Battery (With Acid) Approx weight	**1.04kg (2.29 lbs)**
Terminal Type	**/**

DIMENSIONS (mm)



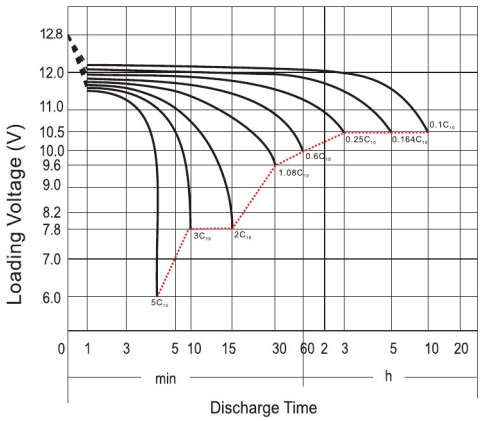
SAFETY INSTRUCTIONS

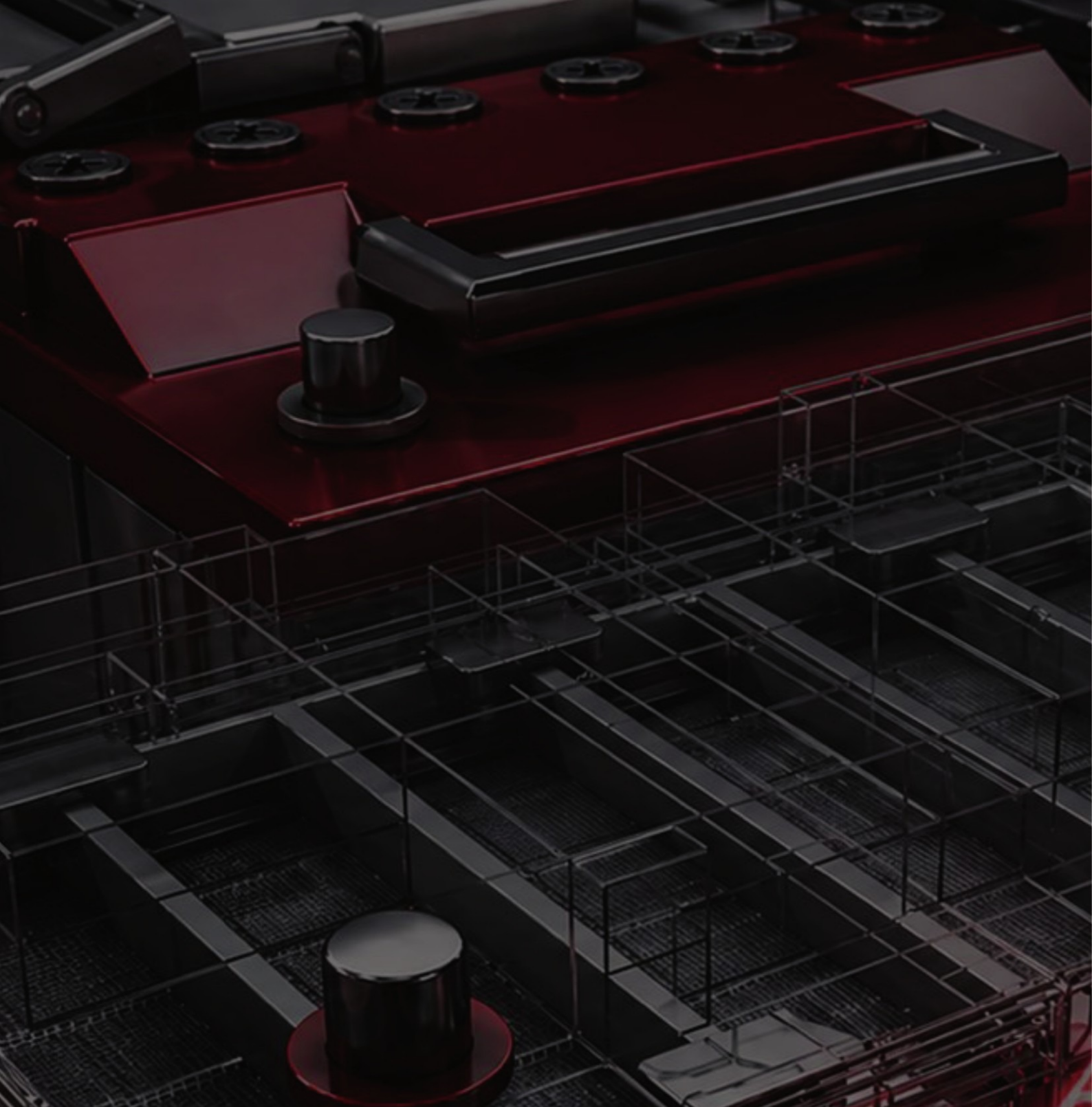
- Avoid shorting terminals
- Do not charge in a gas tight terminal
- Keep sparks and flames away

GENERAL FEATURES

- Maintenance-Free
- Sealed and non-spillable AGM battery
- Shipped pre-charged and ready to install

Discharge Characteristics (25°C, 77°F)





EXCEEDING EXPECTATIONS

Superior quality batteries manufactured under Japanese Standards,
we provide dependable technology thanks to decades of innovation.

POTENZA BATTERIES

MANUFACTURED IN PAKISTAN

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