

# EXIDE NXT+

## WHEN A SPLIT SECOND MATTERS

Presenting the unmatched Exide NXT+  
that ensures seamless power for your critical needs



Unique Crystal Network



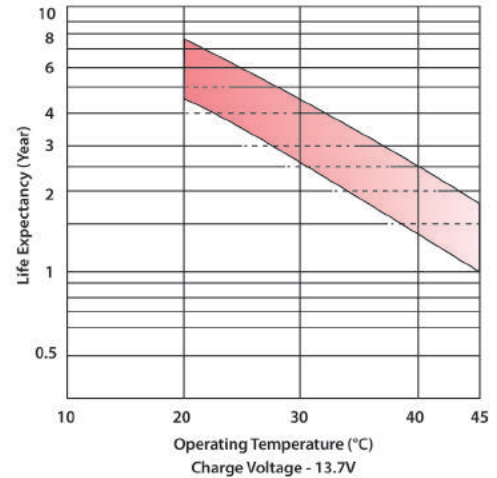
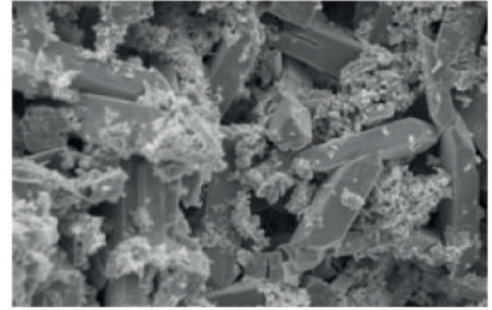
Zero Disruption



Fire Retardant

## PREMIUM TECHNOLOGY FOR UPS APPLICATION

- Proprietary Pb-Ca-Sn alloy composition & state-of-the-art manufacturing process guarantee optimized grain structure for long float service life
- Unique Crystal Network enhances active material integrity
- 'Best-in-class' service life with 20% extended service life for long-lasting reliability
- Special additive to prevent corrosion of passive lead component in the battery thereby ensuring unfettered operation for its entire life
- Exclusive product range with UL 94 V0 class complied fire retardant plastic material for battery container and cover



### GENERAL INFORMATION

Construction	
<b>Plates</b>	Proprietary Pb-Ca-Sn alloy for positive & negative current collectors & flat pasted plates
<b>Separator</b>	Absorbent glass mat separator immobilizing the electrolyte
<b>Plastic</b>	Fire retardant V0 class (UL94) plastic material
<b>Terminal</b>	Terminals with large surface area provide maximum conductivity
<b>Valves</b>	Self-regulating pressure relief safety rubber valve
Operation	
<b>Operating Temperature Range</b>	0°C - 45°C
<b>Recommended Operating Temperature</b>	5°C - 35°C
<b>Shelf-life</b>	6 months at 20°C, 3 months at 30°C
<b>Design Float life</b>	10 years
<b>Self-discharge per month</b>	<3% of rated capacity at 25°C
<b>Cycle Life at 30% DoD</b>	1200-1300 cycles at 25°C
<b>Recommended Cable Rating</b>	2.8A / mm <sup>2</sup> @ maximum discharge load

### CHARGING PARAMETERS- STANDBY OPERATION

Recharge voltages: Batteries to be charged in CC-CV mode only		
Recharge Voltages Type	Voltages settings per 12V unit for ambient temperature 20°C-30°C	Current setting
<b>Float</b>	13.7 ± 0.1V	Maximum: 30% of rated Ah Minimum: 10% of rated Ah
<b>Boost</b>	14.1 ± 0.1V	
<b>Temperature Compensation (reference 25°C)</b>		-18mV /°C /12V unit

## PRODUCT RANGE

Battery Type	NXT+26	NXT+42	NXT+65	NXT+75	NXT+100	NXT+120	NXT+150	NXT+200
Nominal Voltage (V)	12	12	12	12	12	12	12	12
Rated Capacity @25°C 20 hour (up to 10.5V)	26	42	65	75	100	120	150	200
Length (mm) ± 3	178	201	350	391	407	452	536	536
Width (mm) ± 3	124	165	166	166	173	172	186	250
Height (mm) ± 3	179	181	181	183	235	239	250	250
Weight (kg) ± 5%	9	14	20	23	33	38	47	65
Internal Resistance (mΩ) @25°C Fully Charged Condition	10.0	8.0	5.5	5.3	5.0	4.5	3.9	3.3
Max. Discharge Current (A) (5 sec)	390	420	500	500	600	720	900	1200
Short Circuit Current (A)	696	922	1425	1767	2151	2619	3432	4431
Plastic Material	ABS-FRVO	PPCP-FRVO						
Terminal Torque (N-m)	2.5	2.5	4.9	4.9	12.3	12.3	12.3	12.3
Terminal Type	M5-Flag		M6-Flag		M8-Flag	M8-Bolt		

## PRODUCT FEATURES

- Non-spillable Sealed Maintenance-free VRLA Battery • Absorptive Glass Mat Technology
- Internal Oxygen Recombination • Long Service Life • Low Self-Discharge • Excellent Charge Retention
- Superior High-rate Discharge • Flame Retardant V0 Plastic for Safety

## GAS EVOLUTION

- Hydrogen gas evolved per hour =  $2.7 \times 10^{-3} \times n \times I$  m<sup>3</sup> at NTP
  - n = Number of 12V batteries
- I = float current under worst case application scenario = 2mA/Ah

## AIR FLOW CIRCULATION

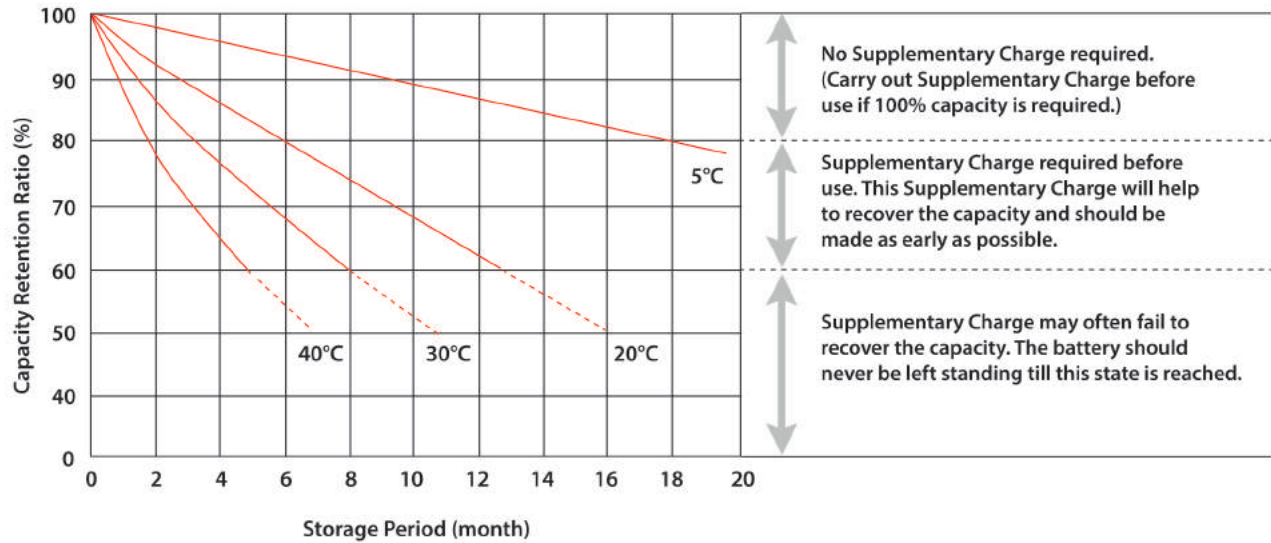
- Required Air Flow =  $d \times s \times (\text{hydrogen gas evolved per hour from battery bank})$  m<sup>3</sup>/hrb
  - D = dilution ratio = (100-4)/ 4 = 24
- Lower explosive limit for Hydrogen = 4% below which the air mixture will be too lean to burn
  - S = factor of safety, e.g., s = 5

## HEAT GENERATION

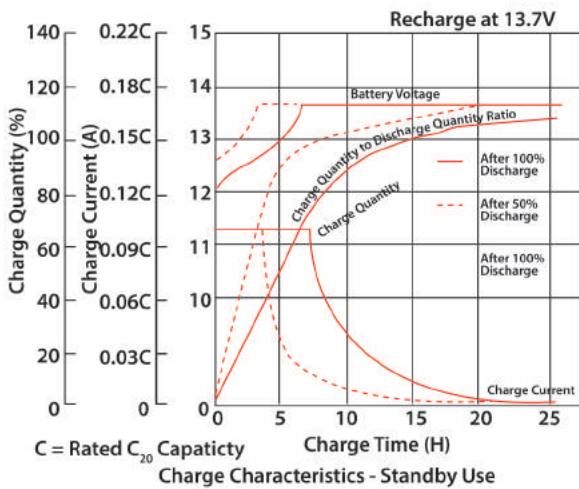
- Heat Generation = 2.7W/100Ah C20 Capacity/12V battery



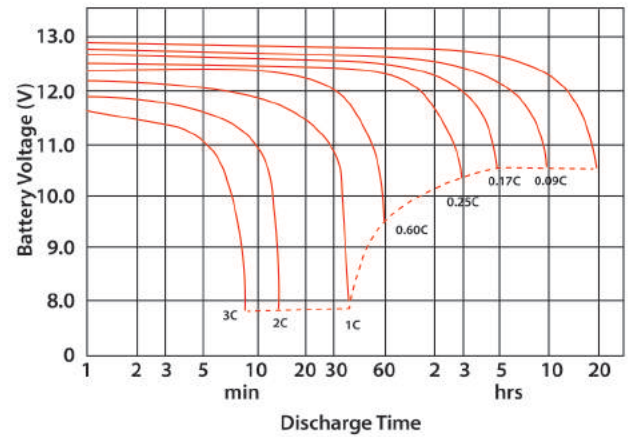
# CAPACITY RETENTION & SUPPLEMENTARY CHARGE



## CHARGE CHARACTERISTICS



## DISCHARGE CHARACTERISTICS



## CONSTANT CURRENT DISCHARGE RATING (A) at 25°C

EMV	10 min	15 min	20 min	30 min	60 min	90 min	120 min	180 min	240 min	300 min	360 min	480 min	600 min
10.2V	2.3C	1.8C	1.5C	1.15C	0.67C	0.48C	0.40C	0.290C	0.230C	0.190C	0.165C	0.130C	0.108C
10.5V	2.15C	1.72C	1.45C	1.12C	0.65C	0.45C	0.38C	0.28C	0.22C	0.18C	0.150C	0.120C	0.098C
10.8V	2.0C	1.65C	1.4C	1.1C	0.64C	0.42C	0.36C	0.270C	0.210C	0.170C	0.145C	0.110C	0.090C

C stands for C20 rated capacity

## CONSTANT POWER DISCHARGE RATING (W) at 25°C

	EMV	10 min	15 min	20 min	30 min	60 min	120 min	180 min	240 min	300 min	360 min	480 min	600 min
	<b>NXT+ 26Ah</b>	10.2V	705	536	436	313	193	117	83	67	55	48	37
	10.5V	671	517	422	303	189	116	80	65	53	47	37	30
	10.8V	637	497	408	293	185	114	76	62	52	45	36	30
<b>NXT+ 42Ah</b>	10.2V	1022	825	671	507	305	185	134	108	88	78	61	50
	10.5V	1001	794	650	491	299	183	129	105	86	76	59	49
	10.8V	980	763	629	475	293	180	124	101	84	73	58	48
<b>NXT+ 65Ah</b>	10.2V	1660	1340	1090	823	496	300	207	168	137	121	94	78
	10.5V	1625	1290	1056	798	483	296	199	162	133	117	92	76
	10.8V	1590	1240	1022	772	470	292	191	156	130	113	90	74
<b>NXT+ 75Ah</b>	10.2V	1867	1500	1220	921	555	337	239	194	158	140	108	90
	10.5V	1828	1445	1185	893	541	333	227	186	154	135	106	87
	10.8V	1788	1389	1150	864	526	328	216	178	150	131	104	84
<b>NXT+ 100Ah</b>	10.2V	2416	1948	1583	1200	724	438	318	258	210	186	144	120
	10.5V	2370	1879	1537	1163	703	431	306	249	205	180	141	117
	10.8V	2323	1810	1491	1125	682	423	294	240	200	174	138	114
<b>NXT+ 120Ah</b>	10.2V	2899	2338	1899	1440	869	526	382	310	252	223	173	144
	10.5V	2844	2255	1844	1395	844	517	367	299	246	216	169	140
	10.8V	2788	2172	1789	1350	818	508	353	288	240	209	166	137
<b>NXT+ 150Ah</b>	10.2V	3624	2922	2375	1800	1086	657	477	387	315	279	216	180
	10.5V	3555	2819	2306	1744	1055	646	459	374	308	270	212	176
	10.8V	3485	2715	2237	1688	1023	635	441	360	300	261	207	171
<b>NXT+ 200Ah</b>	10.2V	4832	3896	3166	2400	1448	876	636	516	420	372	288	240
	10.5V	4739	3758	3074	2325	1406	861	612	498	410	360	282	234
	10.8V	4646	3620	2982	2250	1364	846	588	480	400	348	276	228

# EXIDE NXT+

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