

Battery made in **GEL technology** equipped with self-sealing valves which exclude excessive pressure in the cells. Due to large number of cycles and high resistance to deep discharge, EGR series batteries are perfect solution for cycle as well as standby use.



### TECHNICAL DATA

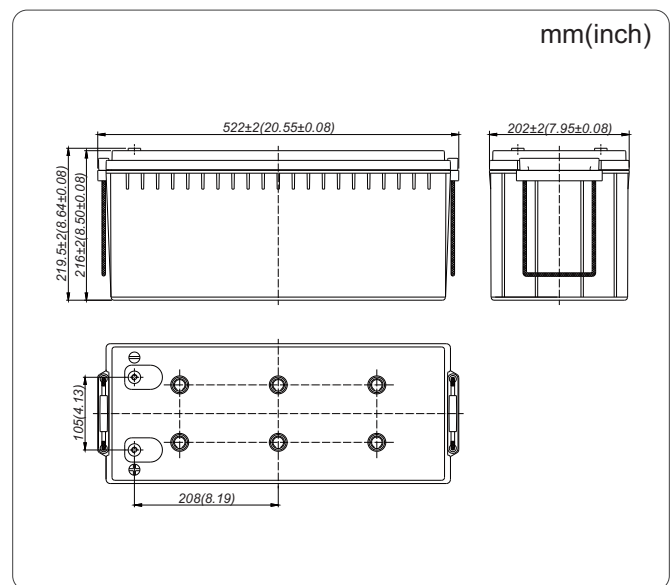
Nominal voltage	12 V	
Nominal capacity	160 Ah / C <sub>20</sub>	
Cell per unit	6	
Technology	GEL	
Design life	10~12 years @ 20°C*	
	8 years @ 25°C	
Dimensions	height	220,0 mm
	length	522,0 mm
	width	202,0 mm
Weight		~61,5 kg
Capacity @ 25°C	20h	8,00A @1,75V/cell. 160,0 Ah
	10h	15,3A @1,75V/cell. 153,0 Ah
	5h	27,1A @1,75V/cell. 135,5 Ah
	1h	97,4A @1,60V/cell. 97,4 Ah
Ambient nominal temperature range	charge	0°C ~ 40°C
	discharge	-20°C ~ 50°C
	storage	-20°C ~ 40°C
Internal resistance	@ fully charge battery	≤5,0 mΩ
Charging voltage @ 20°C	standby use	13,5V to 13,8V (-18 mV/°C)
	cycle use	14,4 V to 15,0V (-24 mV/°C)
Charging current	recommended	16 A
	maximum	32 A
Maximum discharge current (for 5 sec)		800 A
Capacity retention during storage @ 20°C (self discharge)	after 1 month	97 %
	after 6 months	79 %
	after 12 months	60 %
Container material	standard	ABS UL 94-HB
	optional	ABS UL 94-V0**
Terminal	insert terminal	I3
Terminal hardware initial torque		10,0 Nm

\*) - According to Eurobat (High Performance group) \*\*)- Flame-retardant

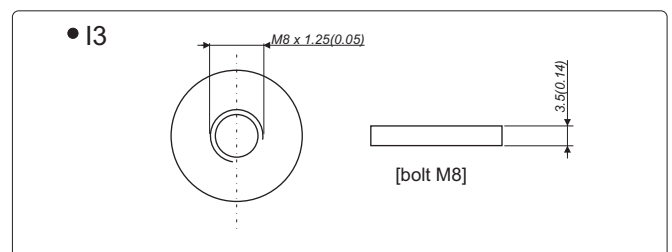
### APPLICATIONS

- Uninterruptible Power Supplies (UPS)
- emergency lighting systems
- street lights
- telecommunication power plants
- telecommunication PBAX
- cable television
- solar powered systems
- equipment driven by electric motors
- marine
- medical equipment

### DIMENSIONS



### TERMINALS



### NO TRANSPORT RESTRICTED

Not restricted for air, surface and water transport. Classified as non-hazardous material (IATA/ICAO Special Provision A67, DOT-CFR Title 49 parts 171-189, IMDG amendment 27)

### DISCHARGE CHARACTERISTICS

#### • Constant current (Current [A], 25°C / 77°F)

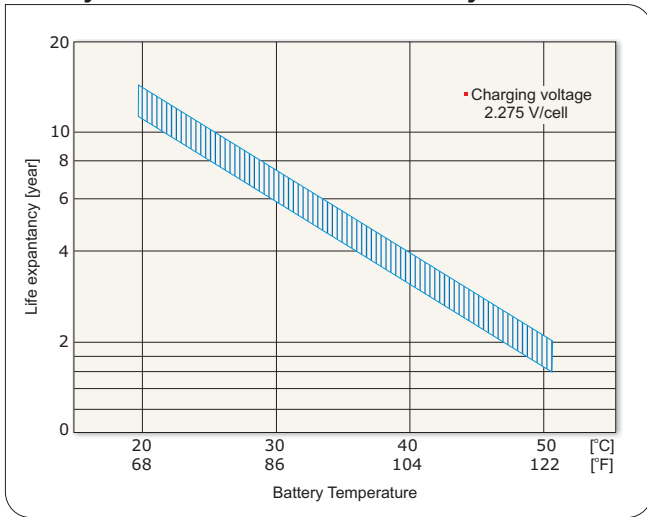
F.V. V/cell	Discharge time										
	30 min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h
1,80	149,7	90,5	50,5	38,8	31,1	26,67	23,00	18,38	15,24	12,50	7,77
1,75	152,0	93,3	52,0	39,6	32,0	27,12	23,39	18,42	15,27	12,87	8,00
1,70	153,1	95,3	52,3	40,1	32,2	27,35	23,59	18,46	15,30	12,95	8,05
1,65	153,6	96,5	52,5	40,4	32,3	27,43	23,66	18,48	15,32	13,00	8,08
1,60	153,6	97,4	52,7	40,6	32,4	27,51	23,73	18,50	15,34	13,04	8,11

#### • Constant power (Power [W/cell], 25°C / 77°F)

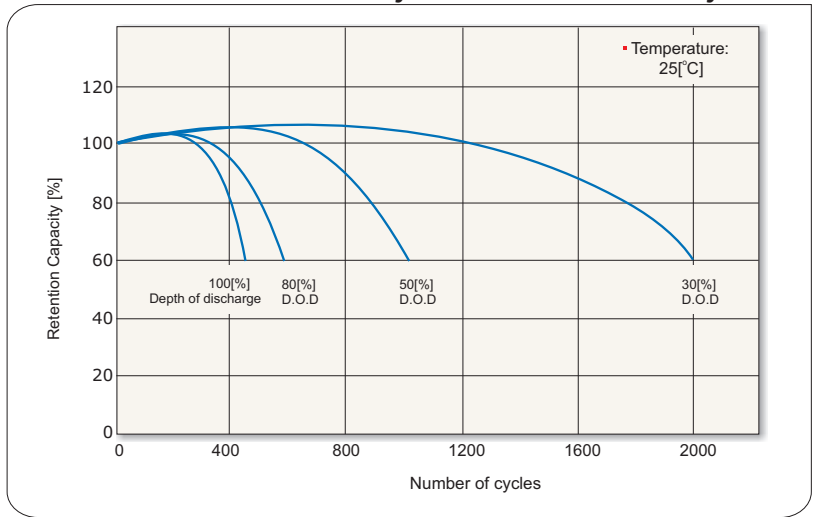
F.V. V/cell	Discharge time										
	30 min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h
1,80	299,5	177,2	101,1	77,3	62,2	53,3	46,0	36,77	30,48	25,55	15,55
1,75	304,0	182,5	104,0	78,9	64,0	54,2	46,8	36,83	30,53	25,73	16,00
1,70	306,3	186,3	104,7	79,9	64,4	54,6	47,1	36,91	30,60	25,89	16,10
1,65	306,7	188,5	105,1	80,5	64,7	54,9	47,3	36,95	30,63	26,00	16,17
1,60	307,2	190,5	105,5	80,9	64,9	55,0	47,4	37,03	30,70	26,11	16,23

F.V. - Final voltage

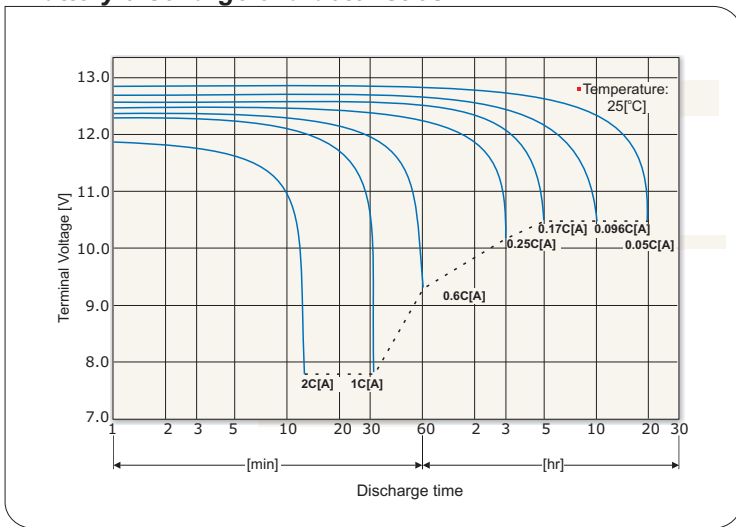
## Battery life characteristics of standby use



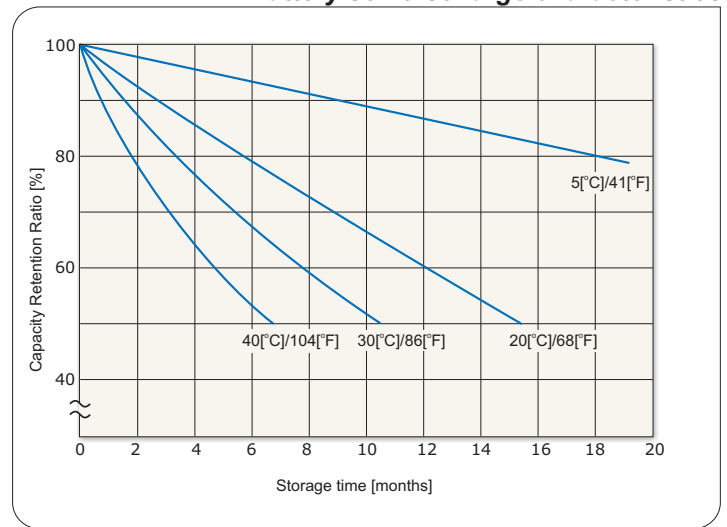
## Battery life characteristics of cycle use



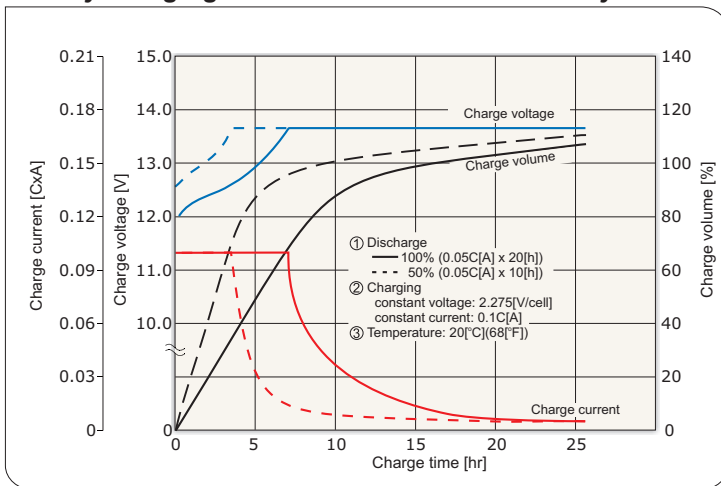
## Battery discharge characteristics



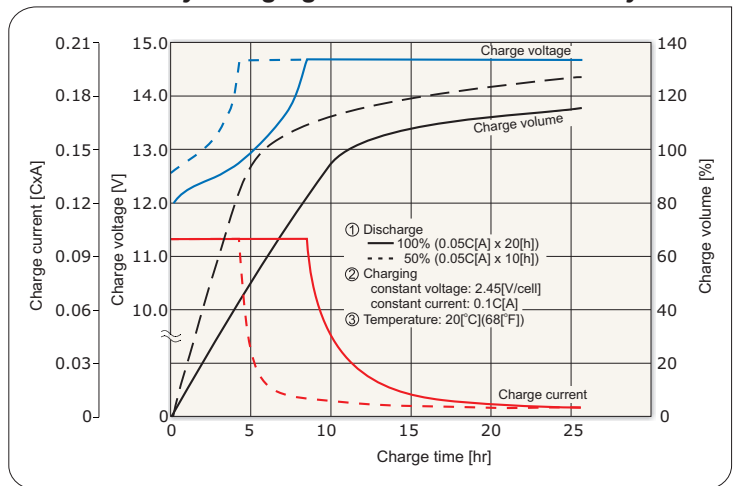
## Battery self discharge characteristics



## Battery charging characteristics for the standby use



## Battery charging characteristics for the cycle use



## Battery discharge current and final discharge voltage

Discharge current [A]	0.2C > I	0.2C ≤ I < 0.5C	0.5C ≤ I < 1.0C	1.0C ≤ I
Final discharge voltage [V/cell]	1.75	1.70	1.55	1.30

\*) C - Capacity

