Sealed lead-acid battery

EUROPOWER®

Model: EC 7 - 12

For cycle use!

EC Series

EC type batteries are made in AGM technology and are constructed by plates, separators, safety valves and a container. Since the electrolyte is held by a glass-mat separator and plates, the batteries can be used in any chosen position without the risk of leakage. EC type batteries have a pressure relief valves that allows safe dispersal of any excess pressure inside the cell (VRLA). EC type batteries have been designed for cycle use (repeated cycles of discharging/charging). They last for up to 80% more cycles thank EP type batteries. These batteries are perfect as a source of autonomous power supplies in all types of mobile and portable appliances.

TECHNICAL DATA

Nominal voltage		12 V
Nominal capacity		7 Ah / C_{20}
Cell per unit		6
Technology		AGM
Design life		6 ~ 9 years @ 20°C* 5 years @ 25°C
Dimensions	height	98,0 mm
	length	151,0 mm
	width	65,0 mm
Weight		~2,6 kg
Capacity @ 25°C	20h 350mA @1,75V/cell	7,00 Ah
	10h 665mA @1,75V/cell	6,65 Ah
	5h 1192mA @1,75V/cell	5,96 Ah
	1h 4361mA @1,55V/cell	4,36 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	≤25 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	0.7 A
	maximum	2.1 A
Maximum discharge current (for 5 sec)		105 A
Capacity retention during storage @ 20°C (self discharge)	after 1 month	97 %
	after 6 months	80 %
	after 12 months	63 %
Container material	standard	ABS UL 94-HB
	optional	ABS UL 94-V0**
Terminal	faston F1	T1
Terminal hardware initial torque		-

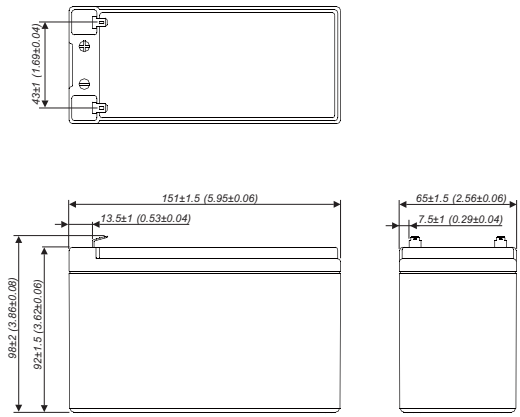
*) - According to Eurobat (General Purpose group) **) - Flame-retardant

APPLICATIONS

- uninterruptible power supplies (UPS)
- emergency lighting systems
- telecommunication PABX
- cash registers and fiscal printers
- fire and security systems
- wheelchairs, golf-carts
- electric vehicles
- solar powered systems
- lawn mowers
- electrical bicycle
- mobile and portable equipment – cycle use
- measuring devices
- fishing lights

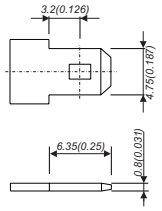
DIMENSIONS

mm(inch)



TERMINALS

• T1 mm(inch)



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])

Discharge time

F.V. V/cell	5 min	10 min	15 min	30 min	1 hr	2hr	3hr	5hr	8hr	10hr	20h
1,80	20,54	15,09	12,07	7,08	4,07	2,22	1,70	1,18	0,79	0,66	0,34
1,75	24,22	16,35	12,63	7,35	4,19	2,27	1,73	1,19	0,80	0,67	0,35
1,70	25,69	16,94	13,02	7,51	4,26	2,30	1,75	1,20	0,81	0,67	0,35
1,65	26,88	17,34	13,32	7,62	4,32	2,33	1,77	1,21	0,81	0,67	0,35
1,60	27,71	17,68	13,58	7,70	4,36	2,35	1,78	1,21	0,81	0,67	0,35

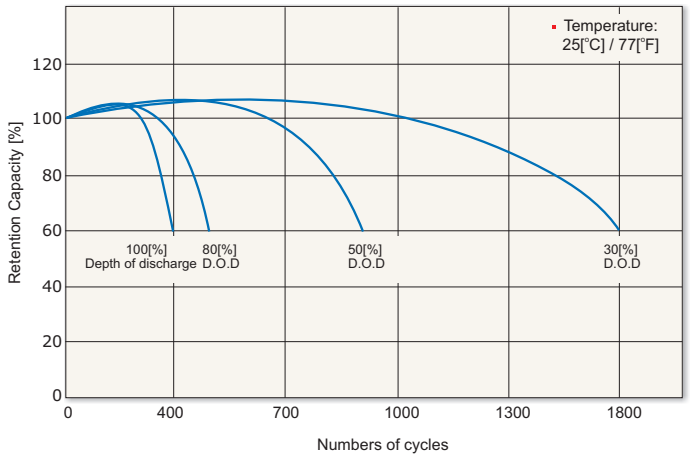
• Constant power (Power [W/cell], 25[°C] / 77[°F])

Discharge time

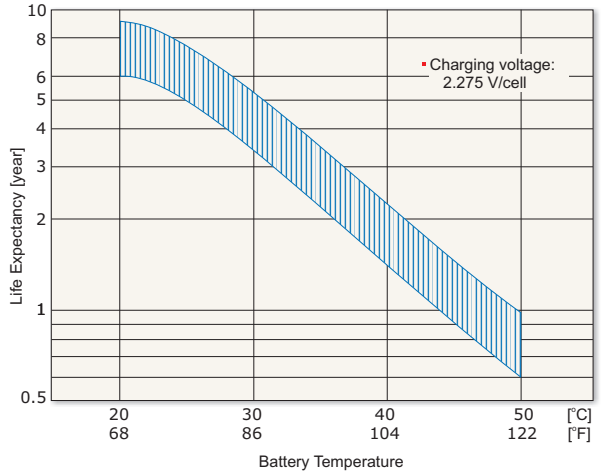
F.V. V/cell	5 min	10 min	15 min	30 min	1 hr	2hr	3hr	5hr	8hr	10hr	20h
1,80	38,00	28,57	23,13	13,92	8,07	4,44	3,40	2,35	1,58	1,31	0,69
1,75	44,00	30,95	24,22	14,45	8,30	4,54	3,47	2,38	1,61	1,33	0,70
1,70	46,67	32,07	24,95	14,77	8,45	4,61	3,50	2,40	1,62	1,34	0,70
1,65	48,83	32,83	25,53	14,98	8,57	4,66	3,53	2,42	1,63	1,34	0,71
1,60	50,33	33,48	26,03	15,13	8,65	4,69	3,55	2,42	1,63	1,34	0,71

F.V. - Final voltage

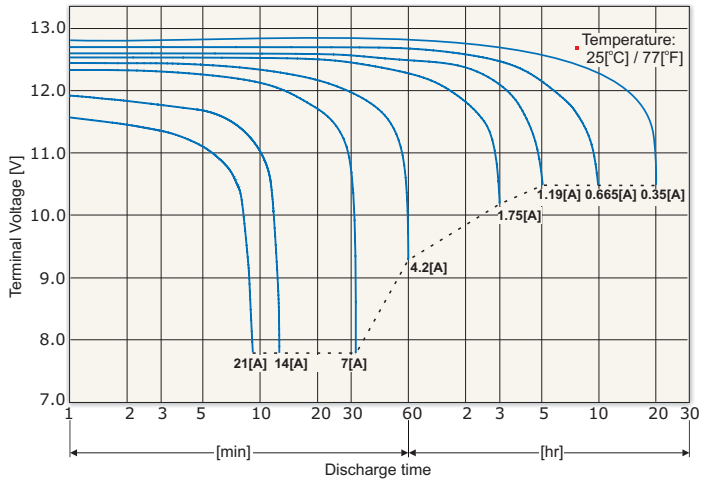
Battery life characteristics of cycle use



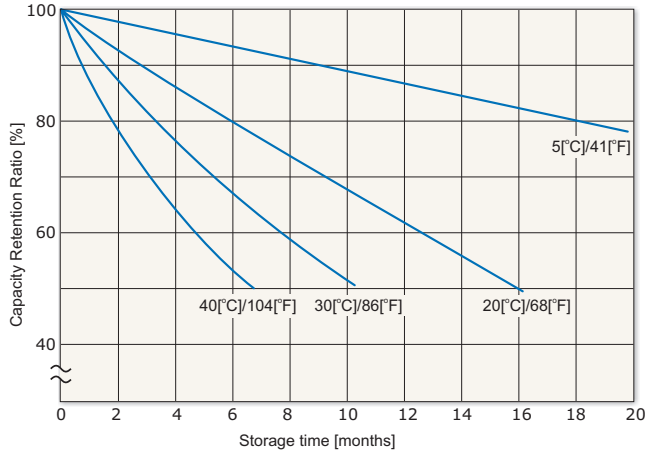
Battery life characteristics of standby use



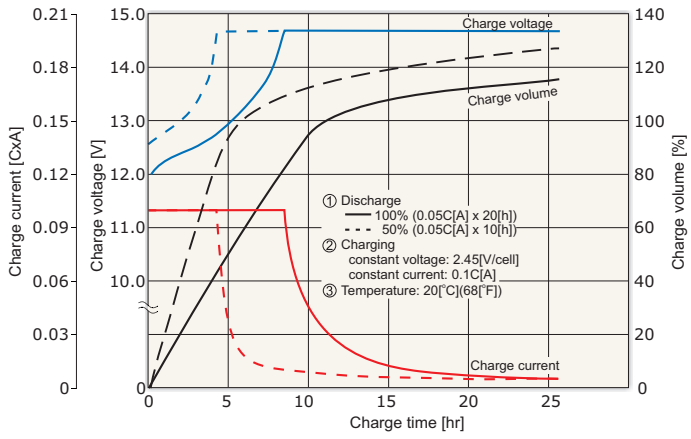
Battery discharge characteristics



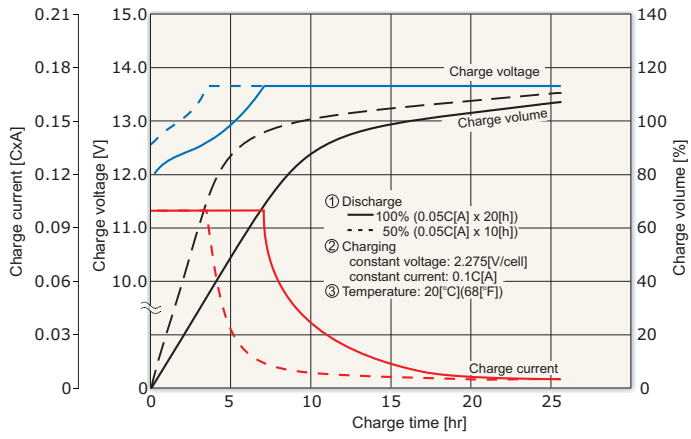
Battery self discharge characteristics



Battery charging characteristics for the cycle use



Battery charging characteristics for the standby use



Battery discharge current and final discharge voltage

Discharge current [A]	1.4 > I	1.4 ≤ I < 3.5	3.5 ≤ I < 7	7 ≤ I
Final discharge voltage [V/cell]	1.75	1.70	1.55	1.30

*) **C** - Capacity

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