Sealed lead-acid battery

EUROPOWER®

Model: EPL 100-12 FTN — EPL FTN Series

Battery with over 12 years of the design life at 20°C - according to Eurobat (10 years at 25°C), made in the AGM technology. It has front terminal, and a special case construction that allows mounting in 19" and 23" cabinets. The EPL FTN series are equipped with Central Degassing System, which can lead the small amount of gas liberated during operation outside the sealed cabinet in whitch the batteries are installed. Battery has repeatable parameters and exellent discharge characteristics and this is why they are very often and readily used for the standby use in important telecommunication systems.

Technical Data

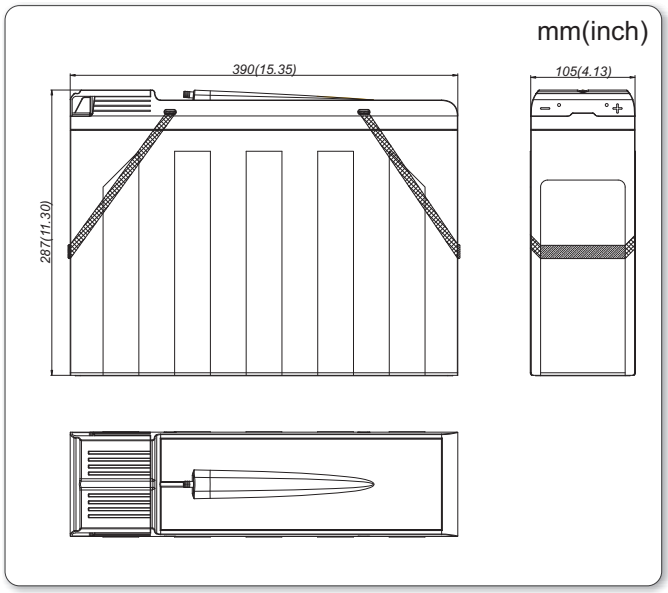
Nominal voltage			12 V
Nominal capacity			100 Ah / C_{10}
Cell per unit			6
Technology			AGM
Design life			over 12 years @ 20°C* 10 years @ 25°C
Dimensions		height	287,0 mm
		length	390,0 mm
		width	105,0 mm
Weight			~33 kg
Capacity @ 25°C	20h	5,31A @1,80V/cell.	106,2 Ah
	10h	10,0A @1,80V/cell.	100,0 Ah
	5h	18,5A @1,75V/cell.	92,5 Ah
	1h	68,9A @1,60V/cell.	68,9 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	≤6,31 mΩ
Charging voltage @ 20°C		standby use	13,4V to 13,6V (-18 mV/°C)
		cycle use	14,1 V to 14,4V (-24 mV/°C)
Charging current		recommended	10 A
		maximum	25 A
Capacity retention during storage @ 20°C (self discharge)		after 1 month	98 %
		after 6 months	86 %
		after 12 months	73 %
Container material		standard	ABS UL 94-HB
		optional	ABS UL 94-V0**
Terminal		insert terminal	I2
Terminal hardware initial torque			8,0 Nm

*) - According to Eurobat (Very Long Life group) **) - Flame-retardant

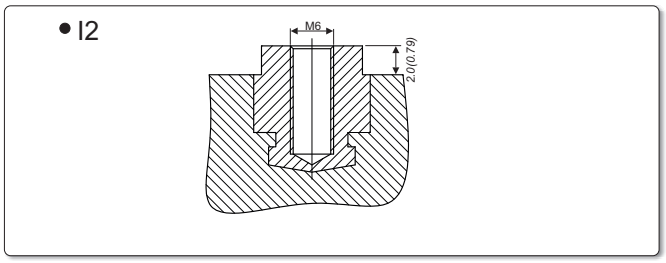
Applications

- uninterruptible power supplies (UPS)
- emergency lighting systems
- telecommunication power plants
- telecommunication PABX
- GSM base stations
- server rooms

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 5 min	15 min	30 min	45 min	1h	3h	5h	6h	8h	10h	20h
1,85	247	148	98,6	74,3	60,5	25,9	17,1	14,7	11,5	9,55	5,20
1,80	277	166	108	80,0	65,3	27,5	18,1	15,6	12,2	10,0	5,31
1,75	309	178	113	83,4	67,0	27,7	18,5	15,9	12,3	10,1	5,37
1,70	336	184	114	84,0	68,0	28,0	18,6	16,0	12,4	10,2	5,38
1,67	339	187	116	84,6	68,5	28,2	18,9	16,2	12,4	10,2	5,39
1,60	361	194	118	85,3	68,9	28,7	19,0	16,3	12,5	10,3	5,44

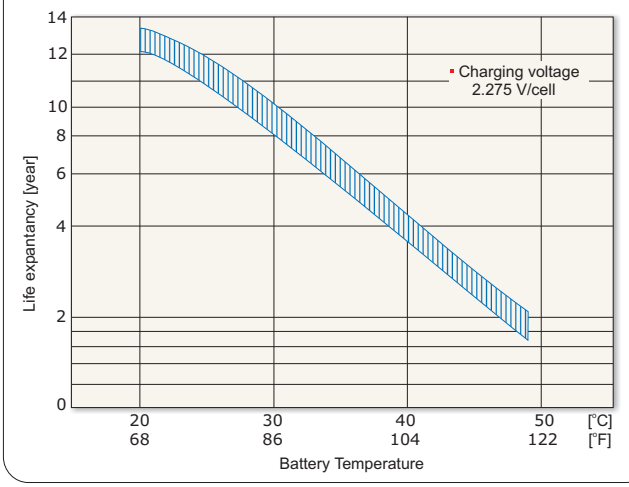
• Constant power (Power [W/cell], 25[°C] / 77[°F])

F.V. v/cell	Discharge time 5 min	15 min	30 min	45 min	1h	3h	5h	6h	8h	10h	20h
1,85	442	278	188	144	117	50,4	33,7	29,1	22,8	18,9	10,5
1,80	495	311	205	155	126	53,1	35,3	30,6	23,7	19,6	10,7
1,75	539	329	210	158	127	53,2	35,9	30,9	23,8	19,6	10,7
1,70	578	331	211	159	129	53,8	35,9	31,0	24,0	19,6	10,7
1,67	581	335	211	159	129	53,8	36,4	31,2	24,2	19,8	10,7
1,60	604	341	213	160	130	54,5	36,4	31,4	24,3	20,0	10,8

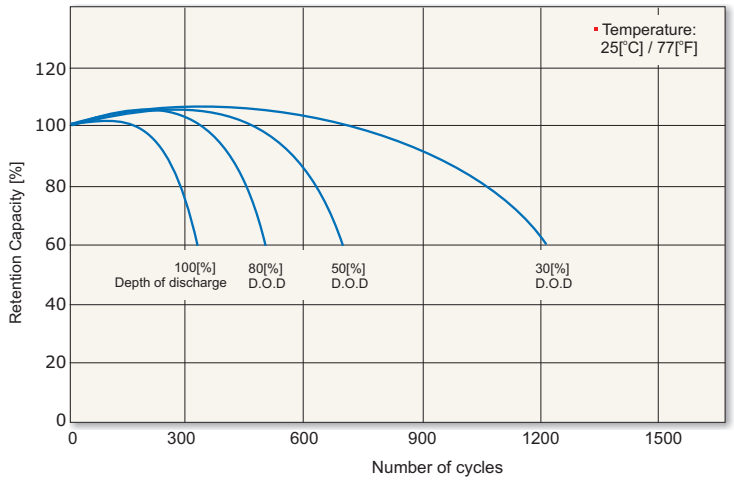
F.V. - Final voltage

EPL 100-12 FTN

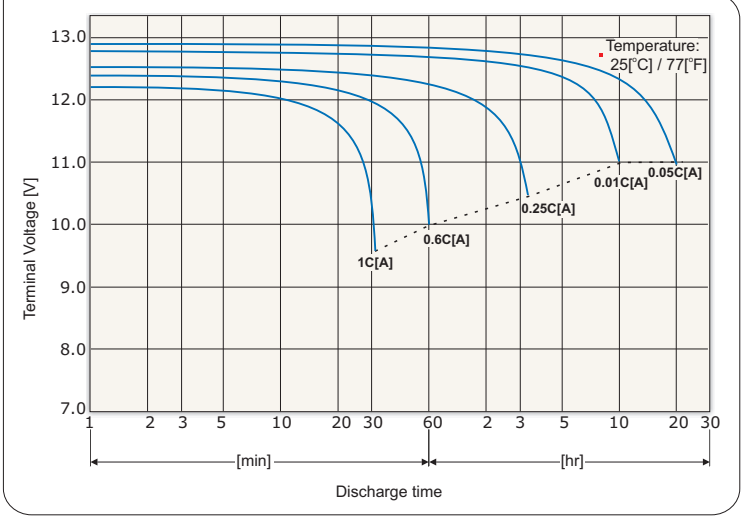
Battery life characteristics of standby use



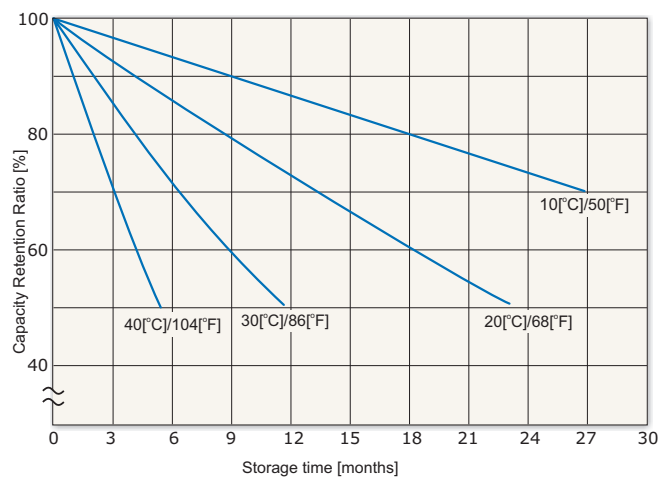
Battery life characteristics of cycle use



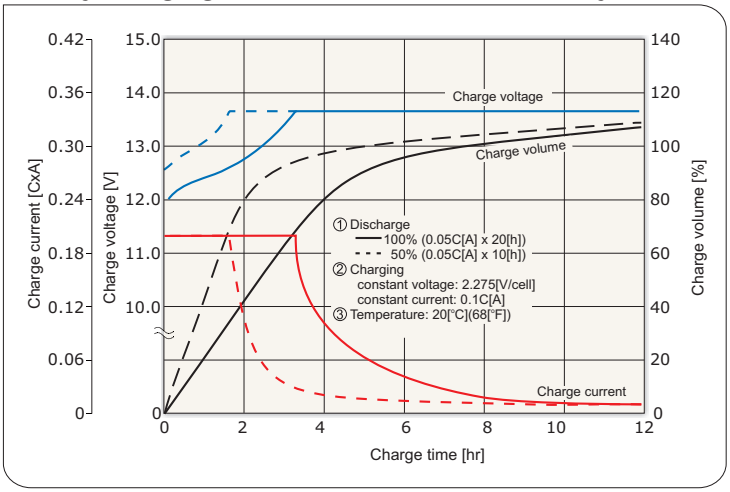
Battery discharge characteristics



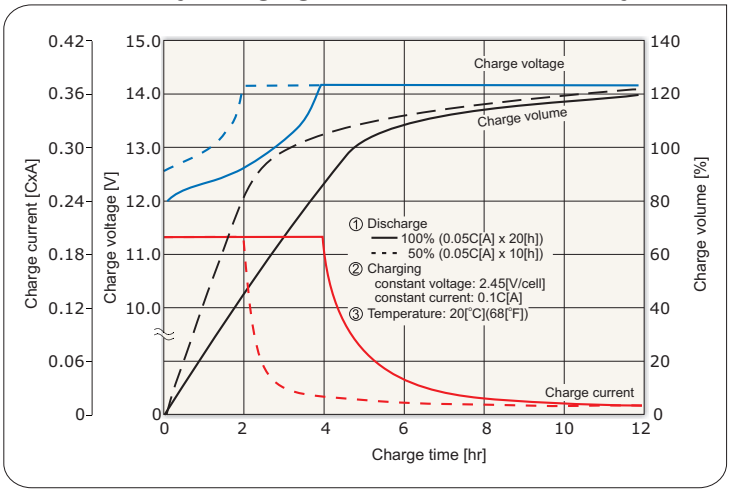
Battery self discharge characteristics



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	1.67	1.60

*) **C** - Capacity

Date of issue: 08.01.2009; change number: 2; date of change: 02.06.2016