

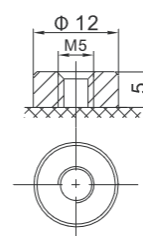
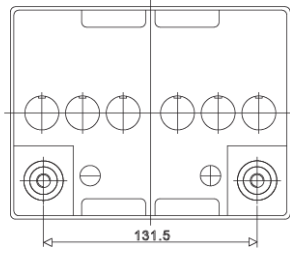
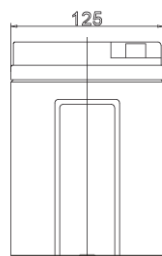
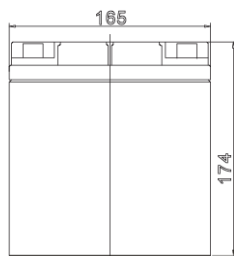


# SBL 28-12i(sh)



Nominal voltage	12 V
Nominal capacity	28 Ah @ C20 to 1,75 V/cell
Technology	AGM (Absorbent Glass Mat)
	VRLA (Valve Regulated Lead Acid)
Weight	~ 9,3 kg
Design life time	10-12 years (standby use)
	Long Life acc. Eurobat
Internal resistance	~ 11 mΩ (full charged)

Operating temperature range	Discharge -20°C ~ +60°C
	Charge 0°C ~ +50°C
	Storage -20°C ~ +60°C
Max. discharge current	310 A (5 sec)
Short circuit current	1400 A
Max. charging current	8,4 A
Charging voltage	Standby use 13,7 ~ 13,9 VDC
	Cycle use 14,6 ~ 14,8 VDC
Self discharge	Monthly is less than 3% at 25°C
Container material	ABS UL94HB (optional UL94-V0)



Length	165 ±2 mm
Width	125 ±2 mm
Height	175 ±2 mm
Total height	175 ±2 mm
Internal thread M5 (breaking torque 6-7Nm)	

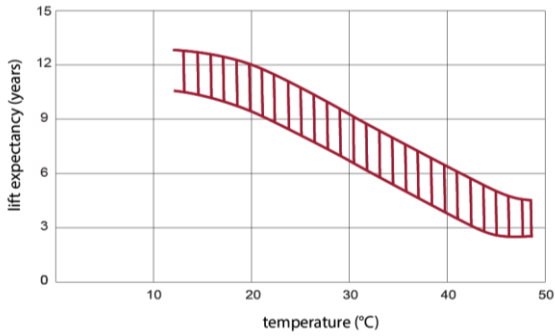
## CONSTANT CURRENT DISCHARGE CHARACTERISTICS (A at 25°C)

Voltage / Time	5 MIN	10 MIN	15 MIN	30 MIN	60 MIN	2 H	3 H	4 H	5 H	8 H	10 H	20 H
1.60 V	112,0	73,0	55,0	32,0	19,6	10,9	8,0	6,7	5,20	3,64	2,81	1,45
1.65 V	106,0	69,5	52,6	30,7	18,9	10,6	7,8	6,5	5,08	3,56	2,77	1,44
1.70 V	100,0	65,9	50,1	29,4	18,1	10,2	7,5	6,3	4,95	3,47	2,71	1,42
1.75 V	93,9	62,2	47,5	28,0	17,3	9,8	7,2	6,0	4,80	3,36	2,65	1,40
1.80 V	87,6	58,5	44,8	26,5	16,5	9,4	6,9	5,7	4,63	3,24	2,58	1,38
1.85 V	81,3	54,7	43,0	25,4	15,8	9,0	6,6	5,5	4,44	3,11	2,48	1,32

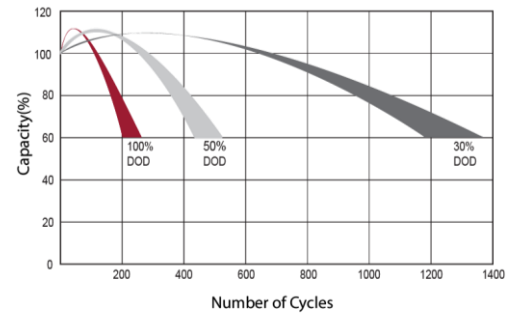
## CONSTANT POWER DISCHARGE CHARACTERISTICS (W/cell at 25°C)

Voltage / Time	5 MIN	10 MIN	15 MIN	30 MIN	60 MIN	2 H	3 H	4 H	5 H	8 H	10 H	20 H
1.60 V	208,0	135,0	105,0	61,7	36,7	24,0	16,0	13,3	10,40	7,28	5,51	2,81
1.65 V	195,0	127,0	99,3	58,6	35,1	23,3	15,6	13,0	10,20	7,14	5,41	2,75
1.70 V	183,0	119,0	93,6	55,4	33,5	22,5	15,2	12,7	10,00	7,00	5,30	2,70
1.75 V	170,0	111,0	87,8	52,2	31,8	21,6	14,4	12,0	9,90	6,93	5,25	2,67
1.80 V	157,0	104,0	82,0	49,0	30,1	20,7	13,8	11,5	9,80	6,86	5,19	2,65
1.85 V	144,0	96,0	78,7	47,0	28,9	19,6	13,2	11,0	9,41	6,59	4,99	2,54

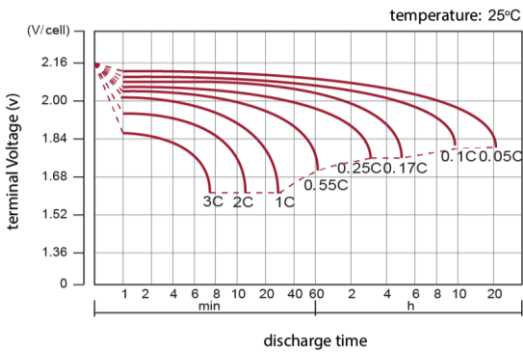
EFFECT OF TEMPERATURE ON LONG TERM LIFE



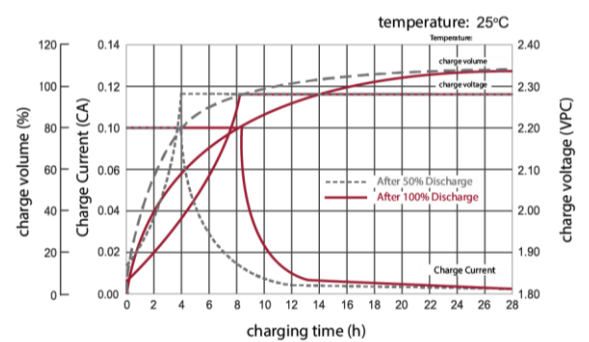
CYCLE LIFE IN RELATION TO DEPTH OF DISCHARGE



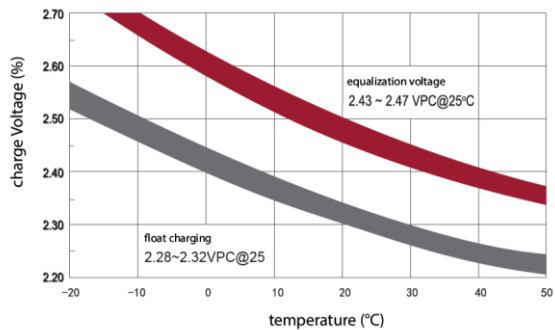
DISCHARGE CHARACTERISTICS CURVE



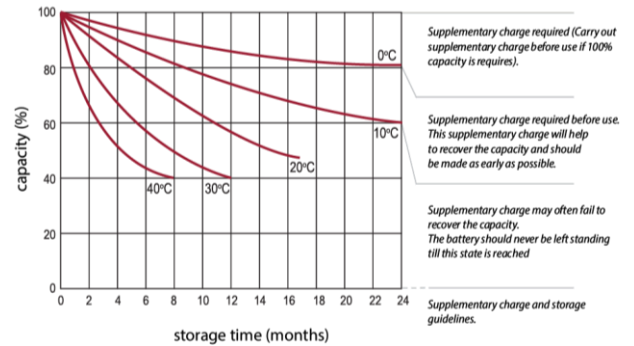
CHARGE CHARACTERISTIC CURVE FOR CYCLE USE



RELATIONSHIP BETWEEN CHARGING VOLTAGE AND TEMPERATURE



STORAGE CHARACTERISTICS



**Standards met:**

PN-EN 60896-21:2007 • PN-EN 60896-22:2007 • PN-EN 61056-1:2013 • PN-EN 61056-2:2013 • PN-E-83016:1999

**Batteries manufactured in compliance with: ISO 9001 • ISO 14001**

AGM Technology	VRLA Maintenance Free	Standard Type	-20st°C - 60st°C	Recyclable	10-12 Years Life Expect. EUROBAT
UPS	Emergency Lighting	Fire Alarm Systems	Security Systems	Energy Utilities	DC Power Supply

All data contained in this document, are subject to change. Wamtechnik Sp. z o.o. reserves the right to change them without prior notice.