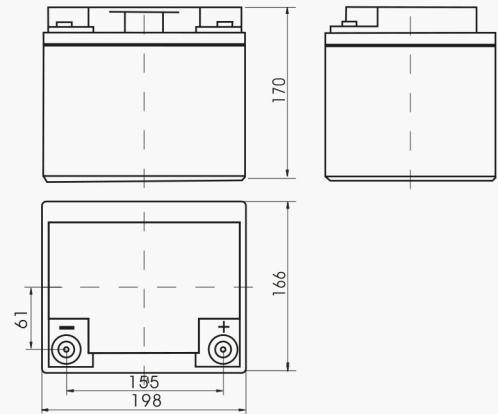


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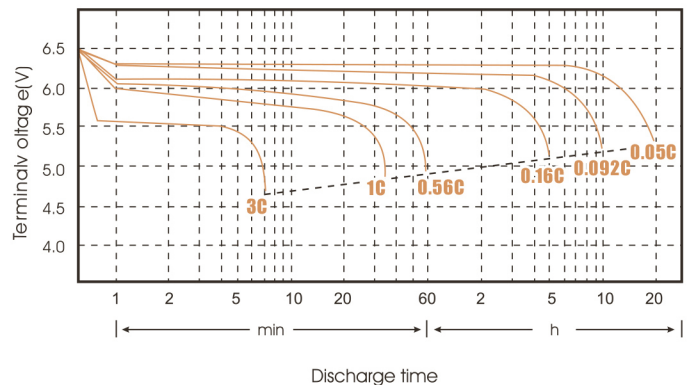
MAKELSAN®
Uninterruptible Power Supplies



Specifications

Nominal Voltage		12V
Rated Capacity(20 hour rate)		38Ah
Dimensions	Total Height (with terminals)	6.70inches (170mm)
	Height	6.70inches (170mm)
	Length	7.80inches (198mm)
	Width	6.54inches (166mm)
Weight		Approx. 26.62 pound(12.1kg)

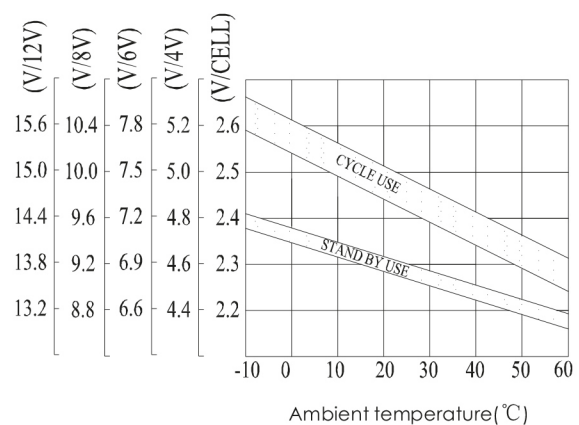
Discharge Curves 77°F(25°C)



Characteristics

Capacity 77°F(25°C)	20 hour rate (1.90A)	38.0Ah
	10 hour rate (3.42A)	34.2Ah
	5 hour rate (6.08A)	30.4Ah
	1 hour rate (22.8A)	22.8Ah
	15 minute Rate (62.7A)	15.7Ah
Internal Resistance	Full charged Battery 77°F(25°C)	8mΩ
Capacity affected by Temperature (20 hour rate)	104°F(40°C)	102%
	77°F(25°C)	100%
	32°F(0°C)	85%
	5°F(-15°C)	65%
Self-Discharge 77°F(20°C)	Capacity after 3 month storage	91%
	Capacity after 6 month storage	81%
	Capacity after 12 month storage	60%
Max. Discharge Current 77°F(25°C)	380A(5S)	
Terminal	M1	
Charge (Constant Voltage)	Cycle	Initial Charging Current less than 11.4A Voltage 14.4~14.7V/77°F(25°C)
	Float	Voltage 13.5~13.8V/77°F(25°C)

Relationship between charge voltage and temperature



Constant Power Discharge (WATTS @25°C)

Cut off voltage v/cell	1M	5M	10M	15M	30M	45M	1h	2h	3h	5h	8h	10h	12h	24h
1.60V	226	198	143	113	70.2	52.7	44.6	25.3	18.0	12.1	8.00	6.76	5.79	2.92
1.65V	220	189	139	110	69.7	52.3	43.2	24.5	17.8	11.9	7.94	6.70	5.70	2.90
1.67V	218	186	137	108	68.8	51.3	42.6	24.4	17.7	11.8	7.86	6.62	5.64	2.87
1.70V	216	184	135	106	67.6	50.4	41.9	24.2	17.5	11.6	7.75	6.56	5.57	2.81
1.75V	196	171	127	102	67.4	49.6	41.6	24.0	17.4	11.5	7.68	6.50	5.42	2.76
1.80V	179	151	117	94.1	64.1	47.8	40.9	23.6	17.0	11.3	7.42	6.28	5.32	2.68
1.85V	143	121	96.9	82.7	58.3	45.4	38.0	22.7	16.5	10.7	7.21	6.00	5.12	2.60