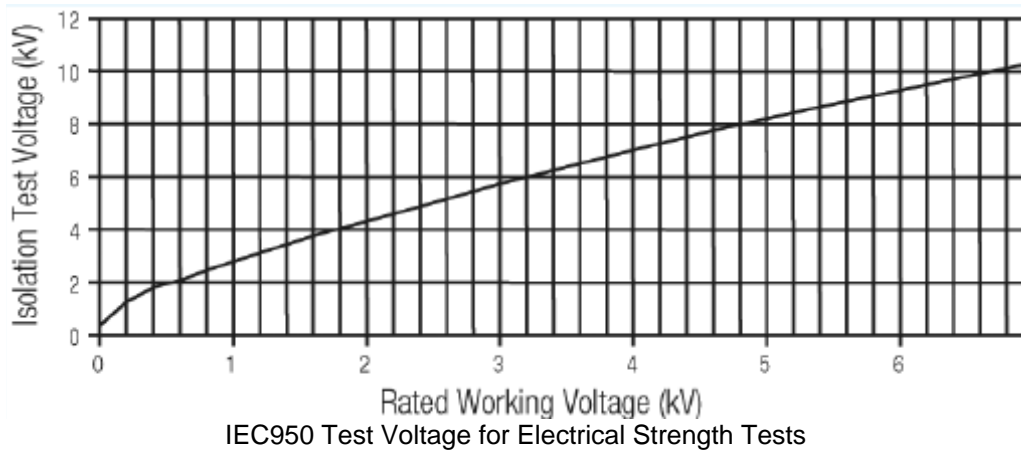


## Isolation Voltage vs. Rated Working Voltage

The isolation voltages given in Aimtec's datasheets are valid for flash testing only, typically tested for 3 sec.

If an isolation barrier is required for an infinite period of time, the Rated Working Voltage must be used.

According to safety standard IEC 950 the recommended conversion of Isolation Voltage to Rated Working Voltage can be done by using the graph below:



The following table has typical values for standard voltages:

Isolation Test Voltage (V)	Rated Working Voltage (V)
1000	130
1500	230
3000	1100
6000	3050

Typical Breakdown Voltage Ratings According to IEC950

Table 1 below gives the correlation between tested voltage for 1 second in VDC, the equivalent test voltage for 1 minute in VDC, and the equivalent test voltage for 1 minute in Vac.

**Table 1**

Isolation Test Voltage for 1 Second (VDC)	Isolation Test Voltage for 1 Minute(VDC)	Isolation Test Voltage for 1 Minute(Vac)
500	400	250
1000	800	500
1500	1200	750
2000	1600	1000
2500	2000	1250
3000	2400	1500
4000	3200	2000
5000	4000	2500
6000	4800	3000

Table 2 below gives the correlation between tested voltages for 1 second in Vac, the equivalent test voltage for 1 minute in Vac, and the equivalent test voltage for 1 minute in VDC.

**Table 2**

Isolation Test Voltage for 1 Second (VAC)	Isolation Test Voltage for 1 Minute(VAC)	Isolation Test Voltage for 1 Minute(VDC)
500	350	565
1000	700	1130
1500	1050	1695
2000	1400	2260
2500	1750	2825
3000	2100	3390
4000	2800	4520
5000	3500	5650
6000	4200	6780

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