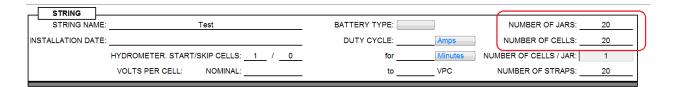
APPLICATION NOTE



Measuring Jars with Multiple Cells using PowerDB

A battery consists of a jar that can contain multiple cells. When performing battery testing, it is recommended to take measurement on the individual cell if possible. However, with most batteries it is only possible to take measurements on the jar. Since this is the smallest unit that can be replaced, this makes sense. Yet some batteries that have multiple cells also have multiple posts that allow for the measurements of the cells within the jar. For this reason we allow PowerDB to be configured for this application.

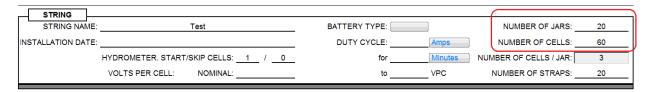
In the "String" section of the report, the number of jars and cells can be selected. When the smallest unit of measure is the jar then these numbers will be equal, as shown below.



This will produce a report that looks like the following:

	Table Summar	у	Total String	1	Display Impedance: Milli-Ohms			hms	Specific Gravity Table Style:			One Reading Per Jar		
Basel	line Impedance	Avg. Impedance				String Voltage from Charger		Min. Voltage			Max. Voltage		Avg. Temp	
	1.32694	1.34		133.79	100.0 %		%	6	6.62		6.79			
JAR DATA CELL DATA														
	NOTES		IMPEDANCE (milli-ohms)										Hydrometer	
#			VALUE	% DEVIATION (Baseline)	% VARIATION (String)	% CHANGE (Prev.)	V	OLTAGE (volts)	TIME		MODEL	#	SPECIFIC GRAVITY	°F to °C °C to °F TEMP:
1	1		1.316	-0.8	-1.5	-16.6		6.650	10:47			1		
2			1.328	0.1	-0.6	-0.1		6.650	10:47			2		
3			1.304	-1.7	-2.4	-0.9		6.670	10:48			3		
4			1.316	-0.8	-1.5	-26.5		6.670	10:48			4		
5			1.328	0.1	-0.6	-1		6.670	10:48			5		
6			1.339	0.9	0.2	-1		6.650	10:49			6		
7		•	1.363	2.7	2.0	-0.9		6.700	10:49		·	7	•	
8			1.339	0.9	0.2	-0.1		6.720	10:49			8		
9		•	1.339	0.9	0.2	-1		6.670	10:50		·	9	•	
10			1.351	1.8	1.1	-1		6.740	10:50		,	10		

If you have a jar with multiple cells and you can choose to measure the multiple cells then you can configure PowerDB for this application. In the example below, assume there are 20 single jars that contain three cells each, or 60 cells. Therefore, configure the "String" section of the report in this manner.







Measuring Jars with Multiple Cells using PowerDB

This will produce a report that looks like the following:

	Table Summar	у	Total Strir	ng Voltage Divisor	: 1	Display Impedance: Milli-Ohms			Specific Gravity Table Style:			One Reading Per Jar	
Baseline Impedance		Avg. Impedance				String Voltage from Charger Min. Vo		Voltage		Max. Voltage		Avg. Temp	
1.32694		1.3	34	133.79	100.0 %		(6.62		6.79			
				CELL DATA							JAR D	ATA	
				IMPEDANCE	(milli-ohms)							Hydrometer	
#	NOTE	:S	VALUE	% DEVIATION (Baseline)	% VARIATION (String)	% CHANGE (Prev.)	VOLTAGE (volts)	TIME	N	MODEL	#	SPECIFIC GRAVITY	°F to °C °C to °F TEMP:
1			1.316	-0.8	-1.5	-16.6	6.650	10:47					
				0.1	-0.6	-0.1	6.650	10:47			1		
			1.304	-1.7	-2.4	-0.9	6.670	10:48					
2			1.316	-0.8	-1.5	-26.5	6.670	10:48					
			1.328	0.1	-0.6	-1	6.670	10:48			2		
			1.339	0.9	0.2	-1	6.650	10:49					
3			1.363	2.7	2.0	-0.9	6.700	10:49				_	
		_	1.339	0.9	0.2	-0.1	6.720	10:49			3		
			1.339	0.9	0.2	-1	6,670	10:50					

This allows you to take the measurements of the individual cells within the jar.