

 特色

提供國內電池組產業充電系統/電池組(Pack)等電源系統之性能驗證技術能量，符合電動車電池組相關之國際標準規範，例如ISO、IEC、SAE、QC...等驗證標準，亦能夠提供電動車電池組產業界更完備的測試驗證能量，協助電池組產業開發初期產品可靠度驗證與評估，以期降低因開發、設計階段所產生之失效成本與期程延誤。

 技術

1. EV、HEV、PHEV等車輛電池組性能驗證評估
2. 無載充電狀態損失、放電率之能量及容量、儲存之充電狀態損失、能源效率、循環壽命...等測試驗證程序
3. 電池組電壓、電流、溫度、影像...等參數監控，狀態同步顯示與紀錄

 規格

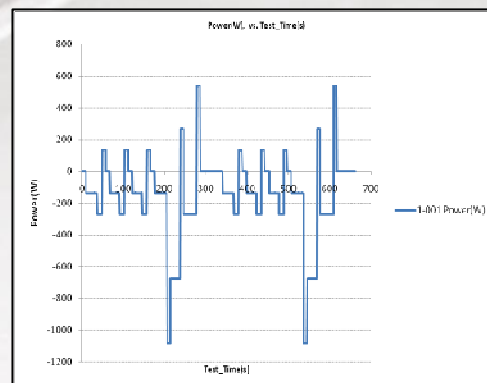
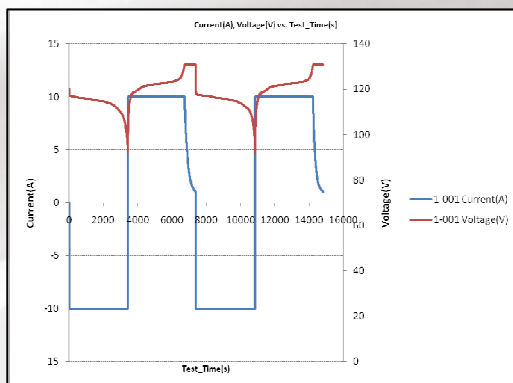
1. 適用範圍：電動車電池(Module/Pack) 測試
2. 充/放電電壓範圍：DC 15V~500V
3. 充/放電電流範圍：DC 5A~500A
4. 電壓解析度/精度：0.1V / $\pm 5\%$
5. 電流解析度/精度：0.1A / $\pm 5\%$
6. J Type熱電偶溫度監控量測通道：6個
7. 高阻抗單體電池電壓監控(DC 0~20V)通道：6個



1. 充/放電主機
2. 控制系統
3. 單體電壓/溫度量測模組



電池性能測試系統架構



性能曲線

Step Label	Number Of Limits	Control Type	Control Value	Extra Control Value 1	Extra Control Value 2	C
1 Step_A	2	Current(A)	10			
Log Limit	Step Limit	Goto Step	Type1	Sign1	Value1	Medium
1		Next Step	PV_CHAN_Voltage	>=	131	
2		Next Step	DV_Time	>=	00:00:01	
2 Step_B	1	Voltage(V)	131			
Log Limit	Step Limit	Goto Step	Type1	Sign1	Value1	Medium
1		Next Step	PV_CHAN_Current	<=	1	
3 Step_C	1	Current(A)	-10			
Log Limit	Step Limit	Goto Step	Type1	Sign1	Value1	Medium
1		Next Step	PV_CHAN_Voltage	<=	92	
4 Step_D	1	Current Simulation	Simu_01d			
Log Limit	Step Limit	Goto Step	Type1	Sign1	Value1	Medium
1		Next Step	PV_CHAN_Voltage	<=	92	
5 Step_E	2	Set Variable(s)	Reset	Increment	Decrement	
Log Limit	Step Limit	Goto Step	Type1	Sign1	Value1	
1		Next Step	PV_CHAN_Cycle_Index	<=	9999	
2		End Test	PV_CHAN_Cycle_Index	>=	10000	

參數設定畫面

Monitor & Control Window - ArbinSys.bth

File Edit Print View Control Graph Settings Help

(0)	Cycle Index	Step Time (s)	Test Time (s)	Voltage	Current	Charge Capacity	Discharge Capacity	Charge Energy	Discharge Energy	dV
001	1	00:30:06.912	02:18:51.136	119.6133 (V)	0.0000 (uA)	8.6987 (Ah)	8.5444 (Ah)	1062.1634 (Wh)	962.7134 (Wh)	0.0000

Monitor & Control Window - ArbinSys.bth

File Edit Print View Control Graph Settings Help

(0)	Channel Index	Exit Condition	Limit 1: (PV_CHAN_Seq_Time =>	Voltage	115.6383 (V)	Discharge Energy	962.7134 (Wh)	AC Impedance	0.0000 (uOhm)
	Smart Battery	False	Step Index: 5; Step_E_Rest	Current	0.0000 (uA)	dV dR	0.0000 (uV/s)	ACI Phase Angle	0.0000 (deg)
	Test Name	ISO12485-1-5 TANDARD-CY	Cycle Index 1	Charge Capacity	8.6987 (Ah)	dR/dt	0.0000 (uA/s)		
	Schedule Name	ISO12485-1-5 TANDARD-CY CLEARDIS	Step Time (s)	00:30:06.912	Charge Capacity	8.5444 (Ah)	Vmax On Cycle	130.8122 (V)	
	Status	Finished	Test Time (s)	02:18:51.136	Charge Energy	1062.1634 (Wh)	Internal Resistance	0.0000 (uOhm)	

Total View Brief View Graph Channel View

[2010-12-08, 13:00:55] Succeeded to reload ba
[2010-12-08, 13:01:46] Prepare results file for s
[2010-12-08, 13:01:46] Succeeded to start test

All channel(s) and Background(s) are idle

Total View Brief View Graph Channel View

[2010-12-08, 13:00:55] Succeeded to reload batch to control module 1.
[2010-12-08, 13:01:46] Prepare results file for starting channel(s) successfully.
[2010-12-08, 13:01:46] Succeeded to start test ISO12485-1-STANDARD-CYCLE on the following channels: Channel 1

Total View Brief View Graph Channel View

2010-12-08 15:26:27

參數量測/監控