

Combo 2.5KW DCDC Converter 6.6KW OBC Bidirectional Model No. ATCDB66662252

Q & A

Items	Questions	Answer
1.	逆變器 (Inverter) 和充電 (Charging) 功能是	它們是互斥的 (Mutually Exclusive),無法同時運作。
	否可以同時執行,還是它們是互斥的?	They are mutually exclusive. Cannot run at the same time.
	Can the inverter and charging functionalities	
	be performed simultaneously, or are they	
	mutually exclusive?	
2.	關於紅、綠、藍三色指示燈,它們是如何	指示燈的邏輯(例如:綠燈=喚醒,紅燈=充電中)通常由
	啟動的,又依賴哪些參數或訊號?	OBC 韌體預先定義。
	[Pin 腳: 1B (紅燈), 2F (藍燈), 3F (綠燈), 4H	但本模組 預設韌體並未啟用這些燈號邏輯。如果客戶需要
	(指示燈地線)]	啟用或自定義燈號邏輯,這將需要額外的韌體客製化,我
	Regarding the green, red, and blue indicators,	們會視情況調整報價。
	how are they activated, and what parameters	The indicator light logic (e.g., green = wake-up, red =
	or signals do they depend on?	charging) is usually predefined by the OBC firmware."
	[Pin details: 1B (Indicator Red), 2F	But the default V0 firmware for this module does not have this
	(Indicator Blue), 3F (Indicator Green), 4H (Indicator Ground)]	indicator logic enabled. If custom logic or activation is
	(indicator Ground)]	required, it would necessitate a firmware customization, and we would adjust the quotation accordingly.
3.	關於 E-Lock (電子鎖) 功能,是否有我們	OBC 將會透過 CAN 總線發送狀態訊息給 VCU,顯示「上
٥.	應注意的軟體依賴性?以及它有哪些潛在	鎖完成」、「解鎖完成」或「上鎖/解鎖失敗」(後者即為
		頭元以」· 胖頭元以」以 上頭/胖頭大蚁」(後有印為 故障模式)。
	的故障模式? Are there any software dependencies related	
	to the E-Lock feature that we should be	The OBC will send a status message to the VCU via the CAN bus, indicating either 'Lock completed,' 'Unlock completed,' or
	aware of and are there any potential failure	'Lock/Unlock failed' (the latter representing the failure mode).
	modes for the same?	Zeels emeet tuned (the tuner representing the tunere mede).
4.	可否分享關於 CP 和 PP 訊號的詳細資訊,	建議將 CP/PP 訊號交由 VCU 處理。
	例如觸發點或閾值?	如果 CP/PP 訊號是交由 OBC 處理,那麼 6V 是閾值並開始
	Could you please share the following details	充電。
	regarding the CP (Control Pilot) and PP	We recommend processing the CP/PP signals via the VCU.
	(Proximity Pilot) signals - setpoints or	If the CP/PP signals are processed by the OBC, then 6V is the
	thresholds?	threshold and charging will start.
5.	請確認 PP 訊號值與電流的對應關係是否	建議將 PP 訊號交由 VCU 處理。
	遵循 IEC 61851 標準?	如果是交由 OBC 處理(OBC-centric 架構),那麼是的,
	Please confirm if these PP values and current	它會遵循 IEC 61851-1 標準。
	mappings follow IEC 61851 standards?	We recommend processing the PP signal via the VCU.
		If processed by the OBC (OBC-centric architecture), then yes,
		it follows the IEC 61851-1 standard.
6.	我們的 VCU 會自己處理 CP/PP,所以	是的,可以。
	OBC 上的 CP/PP 腳位 (3A/3B) 是否可以不	(3A/3B)可定義為NC (No Connect)。
	連接 (unconnected)?	CP/PP 訊號可由VCU來處理
	We have a separate controller (VCU)	Yes, this is acceptable.
	handling the CP and PP lines — would it be	Pins (3A/3B) can be defined as NC (No Connect).
	acceptable to leave the corresponding pins	The CP/PP signals can be handled by the VCU
	(3A/3B) unconnected?	

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2. 対域 高域 (Inverter Mode) 的對内及對外 的關出 各 多少? What are the internal and external output ratings for the Inverter Mode? What are the internal and external output ratings for the Inverter Mode? Learnings for the Inverter Mode? Learnin			No. 196-19, Zhonghua Rd., Yongkang Dist., Tainan City 71069, Taiwan
Laph Rule (Pin 1 & 2)	7.		
2. 車外放電 (27A): 指的是高功率 V2L 輸出,透過主要的 AC 充電 pin 間 (Pin 3 & 4) 傳遞 - These two values correspond to two different V2L (Vehicle-to-Load) output paths on the AC input connector: 1. Discharge inside vehicle (10A Max): Refers to the auxiliary AC output (Pins I & 2), designed to power low-power AC outlets inside the car. 2. Discharge outside the vehicle (27A): Refers to the auxiliary AC output (Pins I & 2), designed to power low-power AC outlets inside the car. 2. Discharge outside the vehicle (27A): Refers to the auxiliary AC output (Vehicle-to-Load) output via the main AC charging pins (Pins 3 & 4). 本程紀 (OBC & DCDC) 內建丁多重体證機制,包含:輸入過電影/交電壓所證機制: Bort circuit protection 過熱不速 (自動格質減到時) 連結與常營金 新出 short circuit protection 過熱不速 (自動格質減到時) 連結與常營金 評細的決壓衝發影與恢復點可參考規格書。DTC 碼清單將於下訂單後建间通訊證據一併提供。 This module (OBC & DCDC) has multiple built-in protection Output Over Curder Voltage Protection Output Over Curder Protection		What are the internal and external output	1. 車內放電 (10A Max): 指的是輔助 AC 輸出 (Pin 1 & 2),
AC 充電 Pin M (Pin 3 & 4) 博媛・ These two values correspond to two different V2L (Vehicle-to-Load) output paths on the AC imput connector: 1. Discharge inside vehicle (10A Max): Refers to the auxiliary AC output (Pins 1 & 2), designed to power low-power AC outlets inside the car. 2. Discharge outside the vehicle (27A): Refers to the high-power V2L output via the main AC charging pins (Pins 3 & 4). 本模組 (OBC & DCDC) 內建了多重係建機制,包含:輸入透電販子電腦系统 (B 動料療政・電腦系統 輸出通電販/文電販所護 輸出通可工作 Ober AD CDC) has multiple built-in protection 過熱保護 (B 動料療政・同じ中では Ober AD CDC) has multiple built-in protection Output Over/Under Voltage Protection Over Temperature Protection (Derating or Shutdown) Communication Failure Waming Detailed trigger/recovery points are in the product spee sheet. The detailed DTC list will be provided with the CAN protocol after an order is placed. 9. 安装時是否需要連續任何特定的安裝設明 表示		ratings for the inverter wrode?	
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Load) output paths on the AC input connector: 1. Discharge inside vehicle (10A Max): Refers to the auxiliary AC output (Pins 1 & 2), designed to power low-power AC outlets inside the car. 2. Discharge outside the vehicle (27A): Refers to the high-power V2L output via the main AC charging pins (Pins 3 & 4). 本模组(ORC & DCDC)内建了多重保護機制,包含:输入通電壓/欠電壓保護输出场電電保護输出场電電保護输出场電電保護输出场电電保限等。输出场电电流保管(自動阵器或隙槽)加速保護(自動阵器或隙槽)加速保護(自動阵器或隙槽)加速保護(自動阵器或隙槽)加速保護(自動阵器或隙槽)加速保護(自動阵器或隙槽)加速保護(自动阵器或隙槽)加速保護(自动阵器或解槽)加速保護(自动阵器或隙槽)加速保護(自动阵器或隙槽)加速保護(自动阵器或解槽)加速保護(自动阵器或解槽)加速保護(Pingulary Over/Under Voltage Protection Output Over/Under Voltage Protection Output Over/Under Voltage Protection Output Over/Under Voltage Protection Output Over/Under Voltage Protection Over/Under Voltage Prot			
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December 2			
 基、模組(OBC & DCDC)內建了多重保護機制,包含:輸出過電影/氧電壓保護輸出的電影/有電壓保護輸出場電影/有電壓保護輸出場電影/有電壓保護輸出場面電影/有電壓保護輸出場面電影/有電壓保護輸出場面電影/有電壓保護輸出場所では可以表表表表表表表表表表表表表表表表表表表表表表表表表表表表表表表表表表表表			
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輸出通電壓/欠電壓保護 輸出場で流深護 輸出的ではircuit protection 過熱保護 (自動降類或欄斷) 通訊異常警告 詳細的保護欄發點與恢復點可參考規格書。DTC 碼清單將 於下訂單後連同通訊協議一件提供。 This module (OBC & DCDC) has multiple built-in protection mechanisms, including: Input Over/Under Voltage Protection Output Over/Under Voltage Protection Output Over/Under Voltage Protection Output Over Current Protection Over Temperature Protection (Derating or Shutdown) Communication Failure Warning Detailed Triget/recovery points are in the product spec sheet. The detailed DTC list will be provided with the CAN protocol after an order is placed. 9. 安裝時是否需要遵循任何特定的安裝設明 或指南? Are there any specific mounting instructions or guidelines that need to be followed for installation? 第2 大學 表 14-18 N·m。 方演意:產品防護等級為 IP67。安裝時清確保所有連接器均 已正確密封。 Cooling: This module requires liquid cooling. Mechanical Drawings: Drawings with detailed mounting hole positions will be provided after purchase. Torque: For the LV DC output (LV Output +) M8 bolts, the required installation torque is 14-18 N·m. Protection: The product's protection rating is IP67. Ensure all connectors are properly sealed during installation. 世間を調明に対する UK型 表 UK型 N·m。 Protection: The product's protection rating is IP67. Ensure all connectors are properly sealed during installation. 世間を調明を表現している UK型 を表現 が開的系統使用 IkΩ PTC 温度感測器。 セ 大使用。 This temperature sensing protection function is controlled by the VCU, and the corresponding pin on the OBC is not used.	8.		, , , , , , , , , , , , , , , , , , , ,
輸出過電流保護 輸出 short circuit protection 過熱保護 (自動降額或關斷) 通訊異常警告 詳細的保護屬發點與恢復點可參考規格書。DTC 碼清單將 於下訂單後連同短訊協議。併提供。 This module (OBC & DCDC) has multiple built-in protection mechanisms, including: Input Over/Under Voltage Protection Output Over Current Protection Output Over Current Protection Output Over Current Protection Output Over Current Protection Output Short Circuit Protection Over Temperature Protection (Derating or Shutdown) Communication Failure Warning Detailed trigger/recovery points are in the product spee sheet. The detailed DTC list will be provided with the CAN protocol after an order is placed. 今卻:本模組需要水冷 (Liquid cooling)。機械圖:購買產 品後,將提供應示詳細安裝孔位的圖紙。 品方:低壓 DC 輸出 (LV Output +) 的 M8 螺栓,安裝扭力 要求為 14-18 N·m。 防護:產品防護等級為 IP67。安裝時講確保所有連接器均 已正確密封。 Cooling: This module requires liquid cooling. Mechanical Drawings: Drawings with detailed mounting hole positions will be provided after purchase. Torque: For the LV DC output (LV Output +) M8 bolts, the required installation torque is 14-18 N·m. Protection: The product's protection rating is IP67. Ensure all connectors are properly scaled during installation. 世際医療測保護功能由 VCU 控制・OBC 上的對應腳位並 未使用。 This temperature sensing protection function is controlled by the VCU, and the corresponding pin on the OBC is not used.			
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通訊與常警告。詳細的保護廳與發點與恢復點可參考規格書。DTC 碼清單將於下訂單後連同通訊協議一併提供。 This module (OBC & DCDC) has multiple built-in protection mechanisms, including: Input Over/Under Voltage Protection Output Over Current Protection Over Temperature Protection (Derating or Shutdown) Communication Failure Warning Detailed trigger/recovery points are in the product spec sheet. The detailed DTC list will be provided with the CAN protocol after an order is placed. 9. 安裝時是否需要遵循任何特定的安裝說明 或指南? Are there any specific mounting instructions or guidelines that need to be followed for installation? 9. 按提供標示詳細安裝孔位的圖纸。 出步,後提供素示詳細安裝孔位的圖纸。 出步,後提及D下 輸出 (LV Output +) 的 M8 螺栓,安裝扭力要求為 14–18 N·m。 防護:產品防護等級為 IP67。安裝時請確保所有連接器均已正確確計。 Cooling: This module requires liquid cooling. Mechanical Drawings: Drawings with detailed mounting hole positions will be provided after purchase. Torque: For the LV DC output (LV Output +) M8 bolts, the required installation torque is 14–18 N·m。 Protection: The product's protection rating is IP67. Ensure all connectors are properly sealed during installation. 10. 我們的系統使用 IkΩ PTC 溫度威測器,但你們的系統似乎是 10kΩ NTC。是否相容? Our application uses a IkΩ PTC sensor, but your system seems configured for a 10kΩ			_
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your system seems configured for a $10k\Omega$		_	
111 of the may computate.		NTC. Are they compatible?	

ANNREN TECHNOLOGIES CO., LTD.

		No.196-19, Zhonghua Rd., Yongkang Dist., Tainan City 71069, Taiwan
11.	DC-DC 轉換器的電壓輸出為 9-16V,但	一般預設出廠值為 14V,如有非 14V 的要求,下訂單的承
	CAN MATRIX 似乎只提供了啟用 DC-DC	認書必須書寫清楚系統需求的參數,我們會依據此承認書
	的控制參數。我們需要 DC-DC 輸出電壓	調整。
	為 13.5V,請問這是否可行?	The default factory setting is 14 V.
	The DC-DC Converter output is 9-16V, but	If a value other than 14 V is required, the system parameter
	the CAN MATRIX only seems to show an	specifications must be clearly stated in the order approval sheet, and we will make adjustments accordingly based on that
	ON/OFF control. We need our DC-DC output voltage at 13.5V. Is this possible?	document.
12.	我們能否將高壓電纜(逆變器與充電輸入	根據我們的規格 (如 Q6 所述),模組上有兩組獨立的 V2L
12.	AC 電纜)直接短接到充電口?因為我們	輸出電路: Pin 1 & 2 (輔助輸出): 專為車內低功率 (10A)
	需要在充電口具備逆變器功能,而不需要	類面電路・1 m 1 & 2 (輔助輸出)・ 等為華内國功率 (10A)
	而安任九电口兵俑是复品功能,川不而安 在車艙內使用。	Q載設計
	Can we short the HV cables Inverter and	出 (Pin 1&2) 與 (Pin 3&4) 並聯或短接在一起。這樣做會導
	Charge input AC cables to the charge port as	致模組內部電路損壞。 正確的接線方式是: 如果您不需
	we need the inverter functionality at the	要車內放電功能,請將 Pin 1 和 Pin 2 保持未連接 (NC)。
	charge port and not required inside the cabin	您只需要將 Pin 3 和 Pin 4 連接到您的充電口,即可實現您
	of the vehicle.	需要的 (27A) V2L 功能。
		According to our specifications (as stated in Q6), the module
		provides two independent V2L output circuits:
		Pin 1 & 2 (Auxiliary Output): Designed for in-cabin low-power
		loads (10A).
		Pin 3 & 4 (Main Output): Designed for external high-power V2L
		loads (27A), also used for AC charging.
		It is strictly prohibited to connect or short Pin 1 & 2 with Pin 3 &
		4 in parallel. Doing so will cause damage to the internal circuitry
		of the module.
		Correct wiring method: If in-cabin discharge functionality is not
		required, leave Pin 1 and Pin 2 unconnected (NC). You only need
		to connect Pin 3 and Pin 4 to your charge port to achieve the
		required (27A) V2L functionality.
	冷卻方式為何	為了確保 OBC 的最佳性能與使用壽命,冷卻系統應
	What the cooling method is?	滿足以下要求:
		冷卻方式: 液冷 (Liquid cooling),但由OEM自行決
		定。
		建議水和乙二醇混合比例50%:50%。但由OEM自行
		決定
		入□溫度: 60°C
		To ensure the optimal performance and lifespan of the
		OBC, the cooling system must meet the following
		requirements:
		Cooling method: Liquid cooling
		Coolant type: recommended to use Ethylene glycol and
		water 1:1. However, the final determination shall be made
		by the OEM.
		•
		Nozzle Inlet temperature: 60°C



