



## 1.5KW DC/DC Converter Fan Cooled System

### Product Portfolio

Items	Model No.	Input Voltage Range(Vdc) / Norminal	Rated Output (Vdc/A)	Output Voltage Range(Vdc)	Output Current Range(A)
1	ATRD1K5-96S14F	80-200 / 96	14/129	0-16	0-129
2	ATRD1K5-360S14F	200-450 / 360	14/129	0-16	0-129
3	ATRD1K5-360S54F	200-450 / 360	54/33	0-16	0-129
4	ATRD1K5-640S14F	400-700 / 640	14/129	0-68	0-33

The nominal voltage including input and output can be adjusted as per requirement.



3D file no. ATRD1K5-F\_902.26610202.00

### Features

1. Weight(KG):  $\leq 3.5$
2. Cooling System: Fan
3. IP Rating: IP67
4. CAN compatibility: CAN2.0 B SAE J1939
5. Enclosure: Aluminum alloy
6. Isolated: Supported
7. Software: Digital software design
8. Online Upgrade & Fault Diagnosis: Supported

### Specification

Description		Remark
Efficiency	$\geq 95\%$	Rated input voltage, load $> 30\%$
Output Voltage Ripple	$\leq 200\text{mVp-p}$	
Output Voltage Accuracy	$\pm 1\%$	
Communication Method	CAN 2.0 BUS	
CAN Baud Rate(Kbps)	500	
Can frame format(ID)	Extended	
Can byte order	Intel	
Quiescent Current	$< 100\mu\text{A}$	Battery current will be consumed in sleep/standby mode

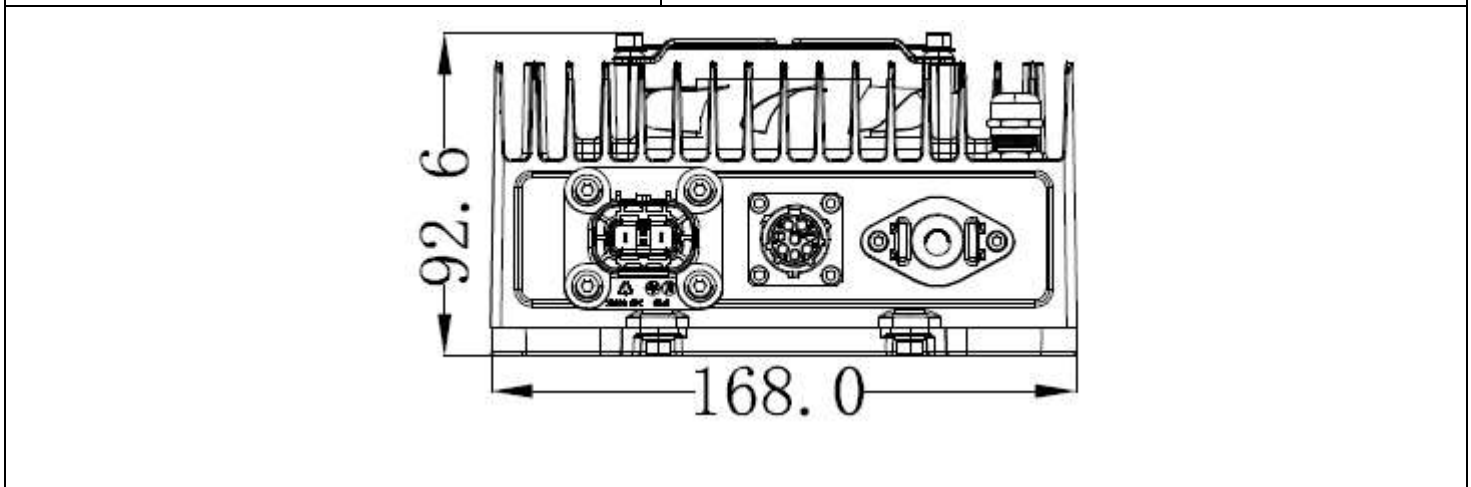
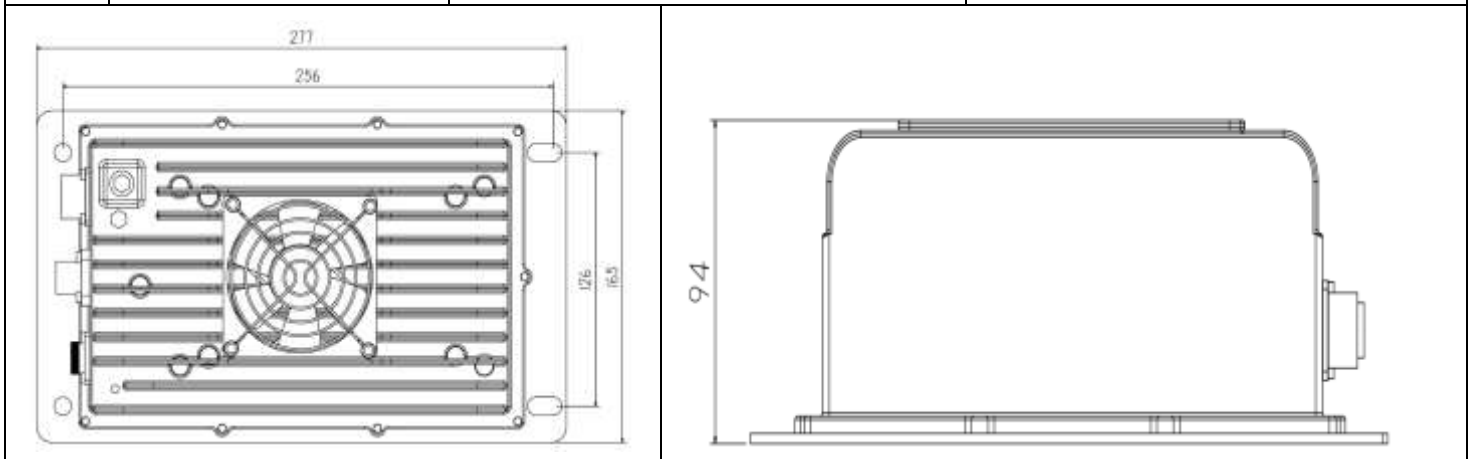
### Operating Environment

The operating environment conditions of this assembly are as follows:

Items	Descriptions		Remark
1.	Operating Temperature( $^{\circ}\text{C}$ )	-40~85	The power will be derated when the temperature exceeds $65^{\circ}\text{C}$
2.	Storage Temperature( $^{\circ}\text{C}$ )	-40~105	
3.	relative	5~95	No condensation, no frost



	humidity(%RH)		
4.	Protection level	IP67	
5.	Cooling method	Fan	
6.	Vibration level	ISO 16750-3,2012 (E)	After X,Y,Z three directions of sweep frequency vibration testing, no damage for parts , no loose for fastening piece
7.	Noise level(dB)	<60	
8.	Salt spray level	GB/T 2423.17	
9.	Altitude(M)Max	3000	GB/T16935.1-2008
10.	Fall	Wiring harness according to QC/T417.1-2001 Housing according to GB/T 2423.8-1995	Appearance, structure and performance are normal
11.	Protection Characteristics	Input OVP/UVP, output OVP/UVP, input anti-reverse connection, output short circuit protection, OCP, OTP	
12.	Electromagnetic immunity	GB/T17619-1998 chap4	
13.	Electromagnetic disturbance	GB18655-2002chap 12 chap14	

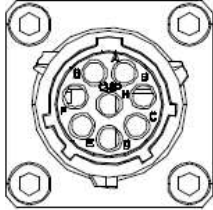





Connector Model

Position	Function	Brand	Socket Model	Plug Model
1	HV DC input	RECODEAL	RED- ZM2PAH-2.5-A	RED- TM2PAH-2.5-A
2	Signal control	Amphenol	RT00128PN03	RT06128SNHEC03
3	Output +	GUWEITONG	GH01-F200-1NNB-T21	M8 BOLT

Interface Definition

HV DC Input(1)		Signal Control(2)		Output Positive(3)	
					
1	Input + 2.5MM2	A	CAN H	1	Output +
2	Input -2.5MM2	B	CAN L		
A	HVIL +	C	KL15		
B	HVIL -	D	KL30		
Cable Size: 1/2: 2.5mm2 A/B: 0.75mm2		E	KL31		
		F	HVIL +		
		G	HVIL -		
		H	N/C		
		CABLE SIZE: 0.75MM2		110A 25MM2	

**Cable Current Rating Table for reference only.** The actual current-carrying capacity shall be based on the cable manufacturer's specifications

CURRENT (A)	CABLE SIZE (MM2)	CURRENT (A)	CABLE SIZE (MM2)	CURRENT (A)	CABLE SIZE (MM2)
7	0.75	60	10	250	70
22	2.5	80	16	300	95
25	3	125	25	350	120
30	4	150	35		
40	6	200	50		