



Input 50-700V 3.6KW DC-DC Converter FAN cooled Model No. ATRD3K6 SERIES

Product Portfolio

Items	Model No.	Input Voltage Range(Vdc) / Norminal	Rated Output (Vdc/A)	Output Voltage Range(Vdc)	Output Current Range(A)
1	ATRD3K6-72S48F	50-100 / 48	48/63	0-68	0-63
2	ATRD3K6-144S14F	80-200 / 14	14/258	0-16	0-258
3	ATRD3K6-360S14F	200-450 / 360	14/258	0-16	0-258
4	ATRD3K6-540S14F	400-700 / 540	14/258	0-16	0-258
5	ATRD3K6-144S275F	80-200 / 27.5	27.5/132	0-32	0-132
6	ATRD3K6-144S48F	80-200 / 48	48/75	0-68	0-75
7	ATRD3K6-360S275F	200-450 / 360	27.5/132	0-32	0-132
8	ATRD3K6-540S275F	400-700 / 540	27.5/132	0-32	0-132

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



Features

1. Output Power(KW): 3.6
2. Dimensions(mm): 370 x 273 x 113
3. Weight(KG): $\leq 13.5\text{Kg} \pm 0.5\text{Kg}$
4. Cooling System: Fan
5. IP Rating: IP67
6. CAN compatibility: CAN2.0B SAE J1939
7. Enclosure: Aluminum alloy
8. Pre-charge & isolated: Supported
9. Software: Digital software design
10. Online Upgrade & Fault Diagnosis: Supported

1. Electrical Characteristics

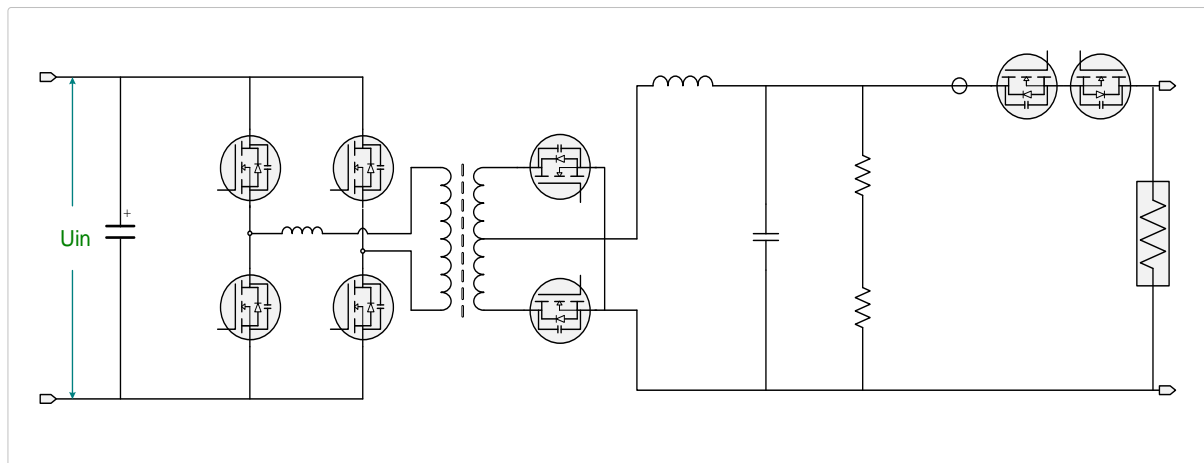
1.1. Electrical Characteristics

On-board power supply type	Self-cooled automotive DC-DC converter		
Enter the properties			
Rated input voltage	540V	360V	144V
Input voltage range	400-700V	200-500V	80-200V
Enter the pre-charge path	Built		
the pre-charge resistor	120R	120R	30R
Start the inrush current	$\leq 7.5\text{A}$	$\leq 11\text{A}$	$\leq 24\text{A}$
Bus capacitors	12uF	22uF	42UF
Voltage regulation accuracy	$\pm 0.2\text{V}$ (引线根部测试 lead root test)	$\pm 0.4\text{V}$ (引线根部测试 lead root test)	
Output response time	$\leq 200\text{mS}$		
Typical efficiency	$\geq 92\%$		
Operating noise	$\leq 60\text{dB}$		



Protection characteristics		
Over- and under-voltage protection	The input over- and under-voltage shutdown can be self-recovering, and the output over-voltage and under voltage shutdown can be self-recovering °	
Output reverse polarity and short-circuit protection	The output is powered off when it is short-circuited or reversed, and it can be self-recovering	
Over-temperature protection	When the heat sink temperature is higher than 75°C, the output power is reduced, when the temperature is higher than 95°C, the circuit is disconnected, and the charger resumes output when the charging temperature returns to below 85°C	
Environmental conditions		
Operating ambient temperature	-40°C~+85°C	
Storage temperature	-40~95°C	
Humidity	5%~95% no condensation, no condensation	
IP rating	IP67	
Cooling function	Self-cooling	
Communication features	CAN bus control	
Charging function	Receiving the charging command can charge normally; The no-command charger is in standby	
Safety & Reliability		
Safety & Reliability	Primary edge — secondary edge 2000VAC	Primary Side—Chassis 1500VAC
Insulation resistance	Primary-secondary $\geq 50M\Omega$	
Vibration resistance	After the X, Y, Z three directions sweep vibration test, the parts are not damaged, and the fasteners are not loose	
Impact resistance	See the requirements of 6.5 in GB/T15139-1994	
Resistance to industrial solvents	Metal parts have a good anti-corrosion layer	
Anti-salt spray Performance	See GB/T 2423.17	
Durability	In accordance with the relevant provisions of not less than GB/T 24347-2009	
EMC features		
Electromagnetic immunity	Meet the provisions of Chapter 4 of GB/T17619-1998	
Electromagnetic harassment	See the limits set forth in Chapters 12 and 14 of GB18655-2002	

2.2 Electrical topology diagrams

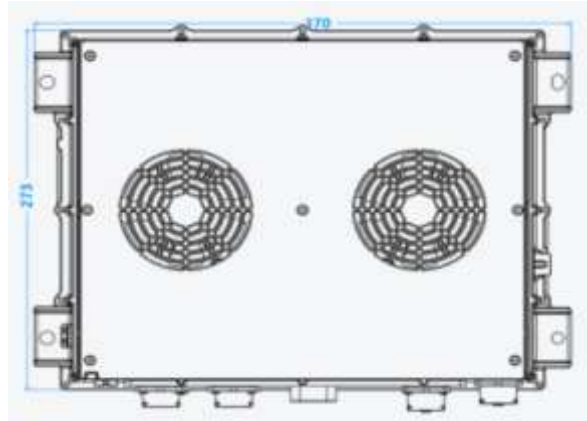




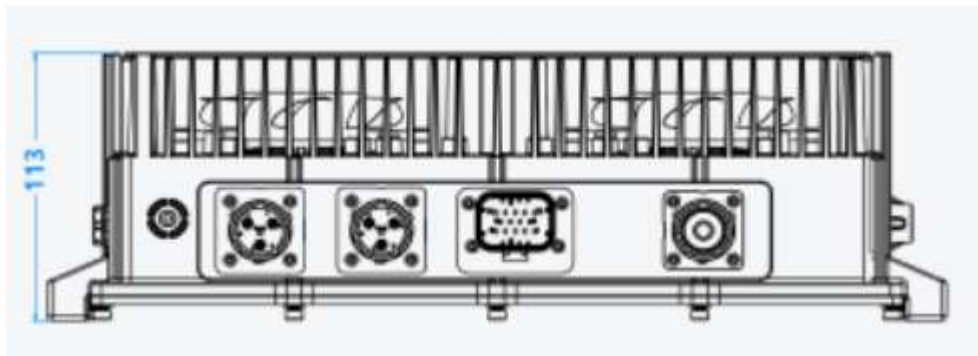
2. Dimensions and weight

3.1 Product Dimensions

Top view



Side view



The connectors will be modified after the parameters have been confirmed.

3.2 Product Weight: 13.5Kg±0.5Kg