



Model No. : AR12K-220D38014-A-XX

Product Name : 12KW On Board Charger Fan cooling system



12KW On Board Charger Fan cooling system

★ Features

- 1 Output Power : 12KW
- 2 Input Voltage : 90~264VAC
- 3 Output Voltage : 250~450VDC
- 4 Dimensions : 472x244x126mm  
(Two parallel machines)
- 5 Cooling System : Fan
- 6 Protection Level : IP67 (except fan)
- 7 Communication Method : CAN
- 8 Enclosure: Aluminum alloy made
- 9 Software: Digital software design

Applications



Electric Commercial Vihecles



Electric Commercial Vihecles

Specification

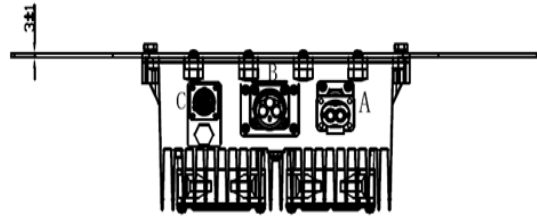
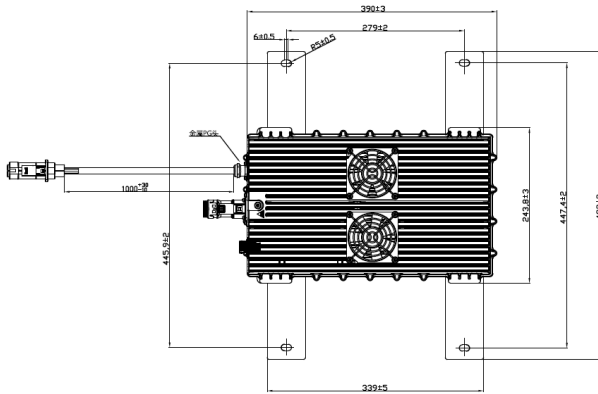
Description		Technical specifications	Remark
Environmental characteristics	Operating temperature	-40~65°C	Long-time working
	Vibration/noise	Meet the QC/T 895-2011 standard	
	Salt spray experiment	Meet the QB/T 2423.17-2008 standard	
Output Power		12KW max (two parallel implementations)	
Input voltage range		90~264VAC (recommended fire line is connected to L1/L2, zero line N is shared)	
Output voltage range		250-450VDC	
Voltage accuracy		±1%	
Output maximum current		40A	
Current accuracy		±3%	Half load or more
Efficiency		≥ 93%	Rated voltage Full load
Low voltage output		13.8VDC/7Amax (host output)	Customizable
Other protection features		Input over-voltage, output over-voltage, over-temperature protection, over-current protection, output short-circuit protection, reverse battery protection, communication fault protection, internal fault protection	
Over temperature protection		When the temperature reaches 85 °C, the output power is reduced by half. The temperature is <80 °C in 10 minutes, and the full load is automatically restored. After 10 minutes, the temperature is >80 °C, then it is turned off. When the temperature is >90 °C, it will be shut down directly.	
Dielectric strength	Output to the outer casing	2000VDC /60S 10mA Max	
	Input to the outer casing	1500VAC /60S 10mA Max	
	Input to output	3000VAC /60S 10mA Max	
Insulation resistance	Input to output	≥ 20MΩ	
	Input to the outer casing	≥ 20MΩ	



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## Structural parameters Connector information (can be customized)



A: DC Output  
B: AC Input  
C: Signal connector

## Connector information (can be customized)

Position	Socket model	Function	Brand	Plug model
A	PL083X-40-6	AC input	Amphenol	PL183X-40-6
B	PL082X-60-4	DC output	Amphenol	PL182X-60-4
C	RTOWO1210PN03	Signal socket	Amphenol	RTOW61210SNHEC03

## Interface definition

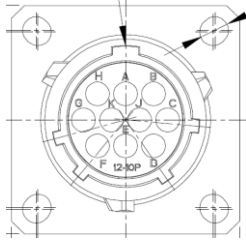
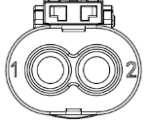
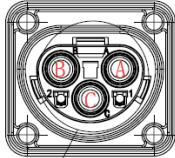
Vendor	Model	Description		Remark
Amphenol	RTOWO1210PN03	A	13.8V output - (low voltage module)	
		B	Proximity Detection ( CC )	
		C	Control pilot ( CP )	
		D	CAN-GND (shared with the slave)	
		E	CAN-L (shared with the slave)	
		F	CAN-H (shared with slave)	
		G	Constant battery power (12V input)	
		H	13.8V output + (low voltage module)	
Amphenol	PL182X-60-4	1	DC output positive	
		2	DC output negative	
Amphenol	PL083X-40-6	A	FireWire (L1)	
		B	Zero line (N)	
		C	Ground wire	
		1	NC	
		2	NC	



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### Slave interface definition

Vendor	Model	Description		Remark
Amphenol	RTOWO1210PN03	A	NC	
		B	NC	
		C	NC	
		D	CAN-GND (shared with the host)	
		E	CAN-L (shared with the host)	
		F	CAN-H (shared with the host)	
		G	NC	
		H	NC	
		J	NC	
		K	NC	
Amphenol	PL182X-60-4	1	DC output positive	
		2	DC output negative	
Amphenol	PL083X-40-6	A	FireWire (L2)	
		B	Zero line (N)	
		C	Ground wire	
		1	NC	
		2	NC	