



## Standard: IEC

### Feature

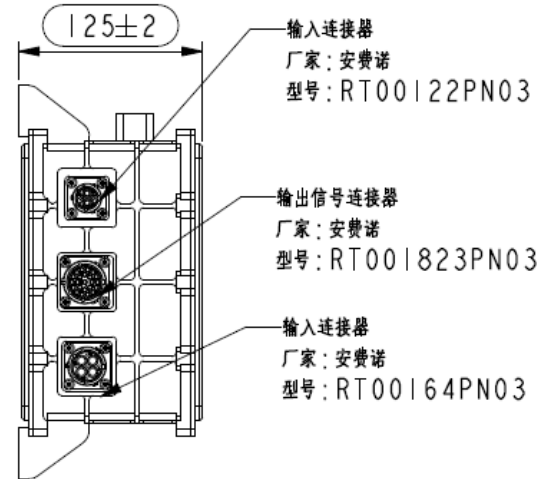
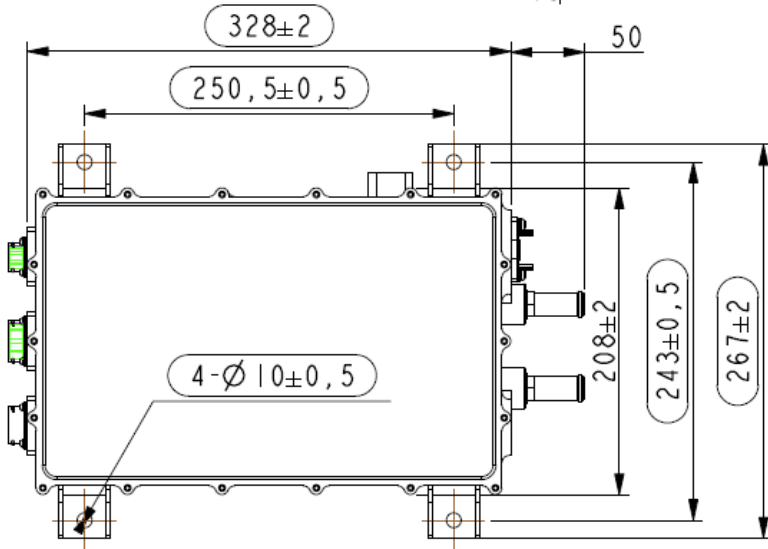
System	AC/DC Converter (On Board Charger)	DC/DC Converter
Product Name	2KW DC+6.6KW OBC 2 in 1	
Charging Standard	IEC	
Model No.	AR2K0C6K6I-D14C380W/540W	
Part Number	E25. AR2K0C6K6I-D14C380W/540W	
Power	OBC: 6.6KW DCDC: 2KW	
Input Voltage	OBC: 90~264V DCDC: 200~450/400~750VDC	
Output Voltage	OBC: 200~450/400~670VDC/ DCDC: 14VDC	
Output Current	OBC: 20A DCDC: 143A	
Efficiency	≥95%	
Low Voltage (VDC)	12/24VDC/200mAmax	
Low Current (A)		
Size (mm)	328*208*125	
Cooling System	Liquid Cool	
IP Rating	IP67	
Scope	Various new energy vehicles	
Hardware	Small size, light weight and stable performance	
Firmware	Full digital software design, redundant protection function design	
Output power	6.6KW	2KW
Input voltage:	90~264VAC	200~450/400~750VDC
Output voltage	200~450/400~670VDC	14VDC
Communication method	CAN	CAN

## Specification

NO	Parameters		Requirements
<b>A</b>	<b>On Board Charger and DC/DC converter</b>		
<b>I</b>	<b>On board Charger - OBC</b>		
1	<i>HV Max Output Power</i> <i>HV</i>		<b>6.6kW</b>
2	AC Input Voltage		90~264VAC
3	HV Output Voltage		200~450/400~670VDC
4	HV Output Voltage Accuracy		± 1%
5	HV Output Current		20A
6	HV Output Current Accuracy		± 3% (More than half load)
7	Efficiency		≥ 95%
8	Low Voltage (VDC)		12/24VDC/200mAmax
9	Auxiliary power VCC		\
10	Output voltage ripple		\
11	Other protection features		Input over and under voltage, output over and under voltage, over temperature protection, over current protection, output short circuit protection, reverse battery protection, communication fault protection, internal fault protection
12	Dielectric strength	Input to output	2000VDC /1min 10mA Max
		Input to casing	1500VAC /1min 10mA Max
		Input to output	3000VAC /1min 10mA Max
13	Insulation resistance	Input to output	≥20MΩ
		Input to casing	≥20MΩ
14	Electromagnetic compatibility	Radiation emission	GB/T18387 2008 EN55022 CClassB
<b>II</b>	<b>DCDC Converter</b>		
1	<i>HV Max Output Power</i> <i>HV</i>		<b>2KW</b>

NO	Parameters		Requirements
2	AC Input Voltage		200~450/400~750VDC
3	HV Output Voltage		14VDC
4	HV Output Voltage Accuracy		± 0.2VDC
5	HV Output Current		143A
6	HV Output Current Accuracy		\
7	Efficiency		≥ 95%
8	Low Voltage (VDC)		\
9	Auxiliary power VCC		6~18VDC
10	Output voltage ripple		≤500mV <sub>PK-PK</sub>
11	Other protection features		Input over- and under-voltage, output over- and under-voltage, output over-current and short-circuit protection (extension and hiccup), over-temperature self-recovery
12	Dielectric strength	Input to output	2500VDC/1min 1mA max
		Input to casing	2500VDC/1min 1mA max
		Input to output	\
13	Insulation resistance	Input to output	≥20MΩ
		Input to casing	≥20MΩ
14	Electromagnetic compatibility	Radiation emission	GB/T 18655-2010 Class 3
		Conducted emission	GB/T 18655-2010 Class 3
		Static immunity	GB/T 19951-2005
		Radiation immunity	GB/T 18655-2010 Class 3
		High current injection	GB/T 17619-1998
		Fast Burst Suppression	GB/T 17626.4-2008 1KV

## Structural parameters

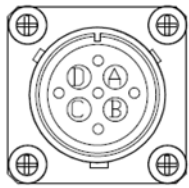
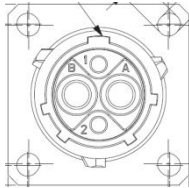
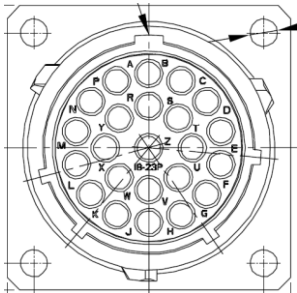


## Electrical Interface

### 一、Connector Table

Item	Position	Receptacle model no.	Pinout definition	Plug model no	Maker
1	A	RT001823PN03	Control terminal	RT061823PNH03	Amphenol
2	B	RT00164PN03	AC input	RT06164SNHEC03	Amphenol
3	C	RT00122PN03	DC high voltage	RT06122SNHEC03	Amphenol
4	D	GH01-F200-1NNB-T17	Output positive	M8 Screw bolt	Guoweitong
5	E	Screw bolt	Output negative	/	/

## 二、Pinout definition

System Load definition	Pin number	Pinout definition	Description	Connector picture
Input (RT00164PN03)	A	Fire wire	L	
	B	Zero line	N	
	C	Ground	PE	
	D	NC		
Output (RT00122PN03)	A	Positive	Output positive	
	B	Negative	Output negative	
	1	Interlock 1	Interlock signal 1	
	2	Interlock 2	Interlock signal 2	
	A	OBC~VCC+	OBC external input	
	B	DCDC~VCC+	DC / DC input auxiliary power is positive	
	C	CC	Charging connection signal	
	D	CP	Charge control signal	
	E	CC_OUT	CC_OUT	
	F	CAN-H	DC / DC and OBC communication high	
	G	CAN-L	Low DC / DC and OBC communication	
	H	CAN-GND	DC / DC and OBC communication ground	
J	OBC~WARE_UP	VCU / BMS wake-up signal (200mA) Galvanically isolated from input		

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	K	LOCK 反馈 2	Electronic lock unlock signal (reserved)
	L	LOCK+	OBC drive electronic lock lock / unlock
	M	LOCK-	OBC drive electronic lock lock / unlock
	N	LOC 反馈 1	Electronic lock feedback signal
	P	NTC1+	Slow charge socket temperature 1 positive
	R	NTC2+	Slow charge socket temperature 2 positive
	S	OBC~VCC-	OBC external input
	T	DCDC~VCC-	DC / DC input auxiliary power negative
	U	DCDC~EN 使能	DC / DC enable (control VCC)
	V	NTC1-	Slow charge socket temperature 1 negative
	W	NTC2-	Slow charge socket temperature 2 negative
	X	NC	
	Y	NC	
	Z	OBC~VCU_EN	VCU wakes up OBC (reserved)