



Model No. : AR-1K5C3K3-D14C380-HW-AR01

Product Name : 3.3KW OBC+1.5KW DCDC+PDU 3 in 1



★ Features for DC/DC

- 1 Output Power : 1.5KW
- 2 Input Voltage : 200~420VDC
- 3 Output Voltage : 14VDC
- 4 Dimensions :
359X318X188mm (estimated)
- 5 Cooling System : Water
- 6 Protection Level : IP67
- 7 Communication Method : CA
- 8 Enclosure: Aluminum alloy made
- 9 Software: Digital software desian

★ Features for OBC

- 1 Output Power : 3.3KW
- 2 Input Voltage : 90~264VAC
- 3 Output Voltage : 200~420VDC
- 4 Dimensions :
359X318X188mm (estimated)
- 5 Cooling System : Water
- 6 Protection Level : IP67
- 7 Communication Method : CAN
- 8 Enclosure: Aluminum alloy made
- 9 Software: Digital software design

Specification

Description		Technical specifications		Remark
		DCDC Parameters	OBC Parameters	
Output Power		1.5KW	3.3KW	
Input voltage range		200-400VDC	90~264VAC	
Output voltage range		13.8VDC	200-420 VDC	
Output voltage accuracy		±0.2VDC	±1%	
Output current		108A	10A(max)	
Current accuracy		/	±3%	Half load or more
Effectiveness		≥ 95%	≥ 95%	Rated voltage full load
Low voltage output		/	12VDC/200mAmax	
Auxiliary power VCC		6-18 VDC	/	
Output voltage ripple		≤ 500mV _{PK-PK}	/	
Other protection features		Input over-voltage, output over-voltage, output over-current and short-circuit protection (extension and snoring), over-temperature self-recovery	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	
Dielectric strength	Input to output	2500VDC/1min 1mA max	2000VDC /1min 10mA Max	
	Input to the outer casing	2500VDC/1min 1mA max	1500VAC /1min 10mA Max	
	Input to output	/	3000VAC /1min 10mA Max	
Insulation resistance	Input to output	≥ 20MΩ	≥ 20MΩ ;	
	Input to the outer casing	≥ 20MΩ	≥ 20MΩ ;	
Electromagnetic compatib	Radiation emission	GB/T 18655-2010 Class 3	GB/T18387 2008 EN55022 ClassB	
	Conducted	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 immunity	GB/T 17626.4-2008 1KV		

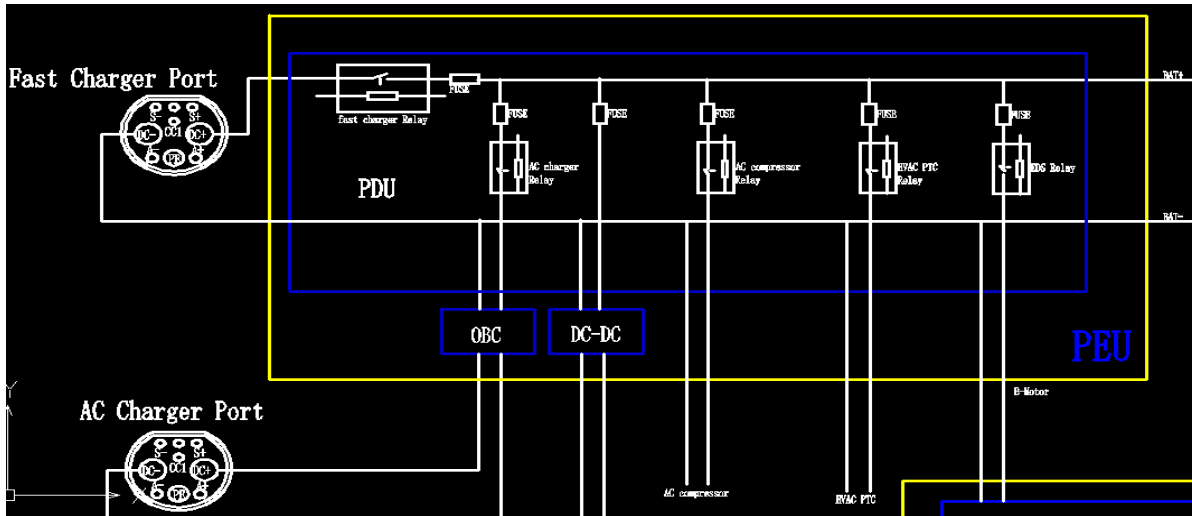


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High voltage distribution parameters

High-voltage power distribution electrical schematic (customized by customer)



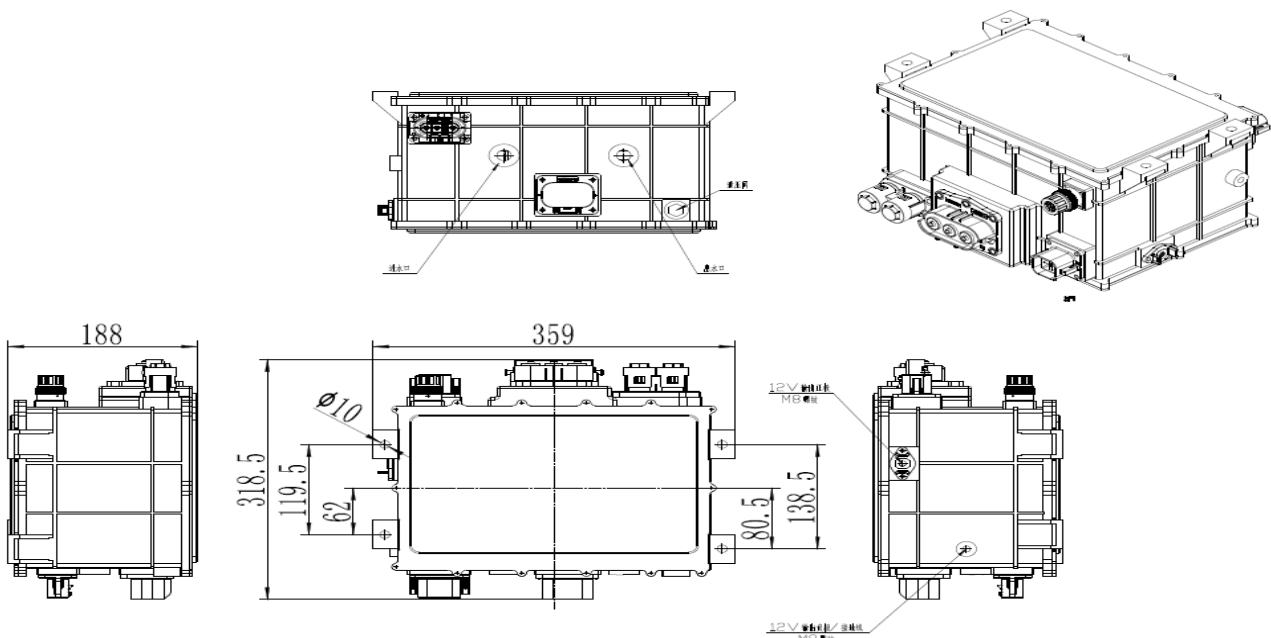
Fuse parameters (customized by customer)

Name	Specification requirements	Manufacturer model	Remarks
PTC fuse	20A 500V	HV150-20BP	
Air conditioner fuse	20A 500V	HV150-20BP	
DCDC Fuse	15A 550V	HV150-15BP	
AC charging fuse	32A 550V	HV150-35BP	
Fast charging fuse	200A 550V	EV3050-200	

Contactor parameters (customized by customer)

NameName	Specification requirements	Manufacturer model	Remarks
PTC relay	20A 550V	HFZ16-30-900-E	
Pre-charging relay	10A 550V	HFZ16-30-900-E	
HV component relay	50A 750V	HFZ16-30-900-E	

Structural parameters





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Electrical Interface

High voltage interface (customized by customer)

Item	Socket model	Plugin definition	Plug model	factory	Quantity	Plug note
1	YGC1127-EV-S(2+2)RD	Positive and negative battery	YGC1127-EV-S(2+2)PF	Yonggui	1	B positive A negative 35 square shielded wire
2	YGC1127-EV-S(2+2)RC	Motor controller positive and negative	YGC1127-EV-S(2+2)PE	Yonggui	1	A positive B minus 35 square shielded wire
3	YGC998-EV-S(2+2)R/I	Fast charge positive and negative	YGC998-EV-S(2+2)PW/I	Yonggui	1	2 positive 1 negative, 25 square shielded wire
4	YGC939-EV-P2RB	PTC	YGC939-EV-S2PB	Yonggui	1	1 positive 2 negative connected 2.5 square shielded wire
5	YGC939-EV-P2RC	air conditioner	YGC939-EV-S2PC	Yonggui	1	1 positive 2 negative connected 2.5 square shielded wire
6	YGC989-EV-P3RD	Slow charging three-phase input	YGC989-EV-S3PH	Yonggui	1	1 connected to L 2 to N 3 to PE
7	C-GH02-P250-1NNB-T01	12V output is positive	M8 screw column	Guoweitong	1	12VDC positive electrode

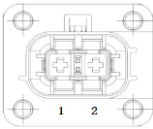
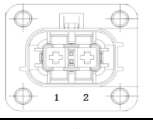
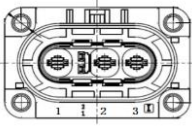

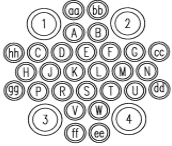
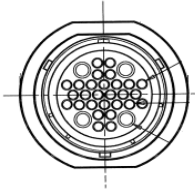
Interface definition

Socket definition	Pin number	Interface definition	Description	Connector picture
Battery	B	Power battery is positive		
	A	Power battery negative		
Motor Controller	A	Motor controller is positive		
	B	Motor controller negative		
Fast charging interface	1	Fast charge negative		
	2	Fast charge positive		



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PTC	1	positive		
	2	negative		
air conditioner	1	positive		
	2	negative		
Slow charging interface	1	L		
	2	N		
	3	PE		
DCDC output interface	1	Low voltage output is positive		
Control signal terminal	A	VCC+		 
	B	GND		
	C	Fast charge contactor feedback		
	D	Fast charge contactor coil negative		
	E	PTC contactor coil negative		
	F	DCDC EN enable		
	G	WAKE UP		
	H	CANH		
	L	CANL		
	M	CC		
	N	CP		
	P	High voltage interlock input		
	R	High voltage interlock output		
	K	AC charging electronic lock power supply positive		
	T	AC charging electronic lock feedback		
	S	AC charging socket temperature detection 2		
	J	NC		
U	AC charging electronic lock power supply negative			
W	AC charging socket temperature detection 1			
V	Car charging signal ground			