



3 in 1 PDU+2KW DCDC Converter 6.6KW OBC Bidirectional Model No. AT3HD2KCB6K6B-D14C380-W



Features

- 1 Nominal Output Power:
DC/DC: 2KW OBC: 6.6KW
- 2 Input Voltage Range:
DC/DC: 250-450VDC OBC: 85-265VAC
- 3 Output Voltage Range:
DC/DC: 9-16V Nominal: 14V OBC: 250-450VDC
- 4 Dimensions: 329x211x 180 mm
- 5 Weight: $\leq 18\text{KG}$
- 6 Cooling System: Liquid, flow rate $\geq 8\text{L/min}$
- 7 IP Rating: IP67
- 8 V2L (Vehicle to Vehicle & Vehicle to Load):
Supported
- 9 With pre-charge & galvanically isolated
- 10 Enclosure: Aluminum alloy
- 11 Software: Digital software design
- 12 Inverter Function: Supported
- 13 Online Upgrade & Fault Diagnosis: Supported

Specification

Description	Technical Specification	Remark
OBC Charging Mode		
Rated Output Power	6.6KW	
Input Voltage Range	85~265VAC	
Input Current	32A Max	
Power Factor	≥ 0.99 (@220VAC full load)	
Output Voltage Range	250~450VDC	
Max Output Current	20A	
Efficiency	$\geq 94\%$	Rated voltage
Voltage Accuracy	$\pm 1\%$	
Current Accuracy	$\pm 1\%$	
Inverter Mode		
Input Voltage Range	250~450VDC	
Output Voltage	220VAC($\pm 5\%$)/50Hz	



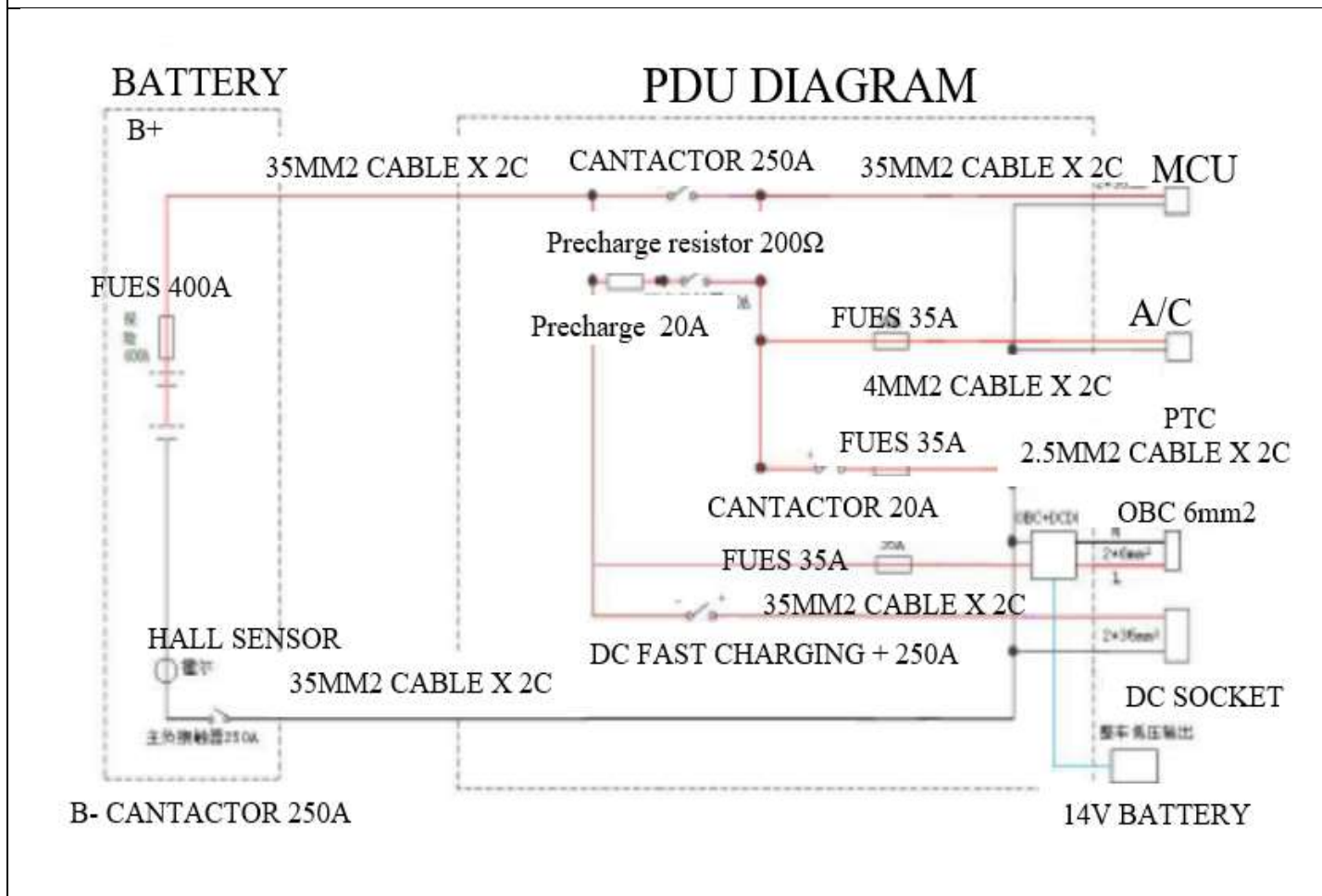
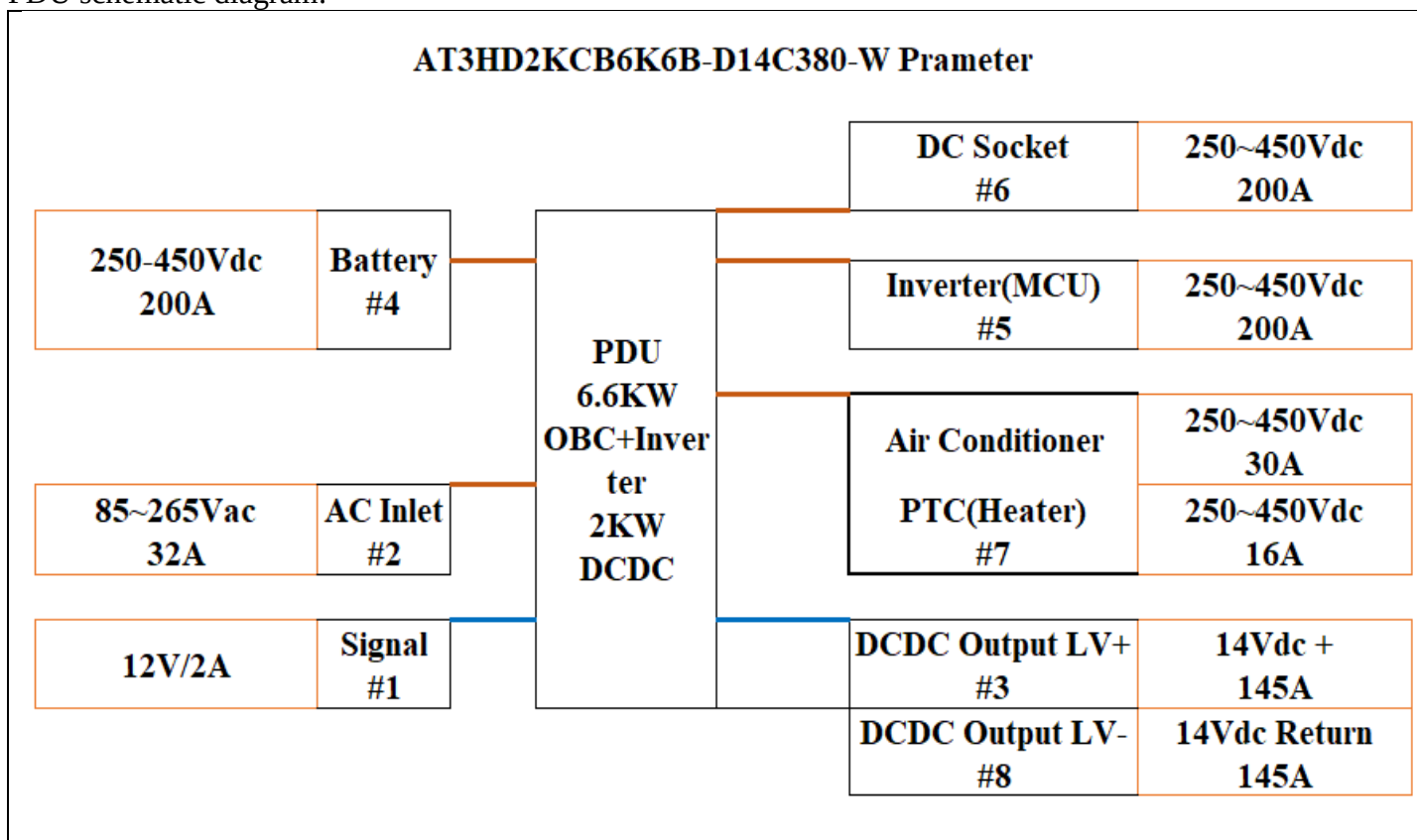
Power(VA)	6 K	
Efficiency	≥94%	
Output Harmonic Distortion (THDv)	<3%(linear load)	
Dynamic Response	60ms(linear load)	
Leakage Current Protection Threshold	≤30mA	
DC/DC Mode		
Input Voltage Range	250~450VDC	
Input Current Range	<16A @240Vdc full load	
Efficiency	≥94%	
Output Voltage Range	9 ~16V	
Rated Output Voltage	14V	
Rated Output Current	180A	
Rated Power	2KW	
Peak Power	2.4KW	
Voltage Ripple	300mV Max	
Others		
Operating Temperature	-40~85°C	Coolant inlet temperature
Low Voltage Wakeup	12VDC&200mA max (Wakeup signal)	Wakeup BMS/VCU
Wakeup Method	CAN, AC, HVDC, PP/CP, EN(Hardwire)	Pre-charge: supported
CAN Communication	CAN-BUS J1939	
Quiescent Current	≤1mA	Battery current consumed in sleep/standby mode
Protection	Input OVP, UVP, output OVP, UVP, OTP, OCP, output short circuit protection, communication fault protection	
EMC / EMI characteristics	GB/T 18387-2008 EN55022	

PDU parameters

Name	Fuse Specifications	Contactor (with 12V Coil)
A/C COMPRESSOR	35A	N/A
MCU	N/A	250A
BATTERY+	400A	N/A
BATTERY-	N/A	250A
PRE-CHARGE	N/A	20A
DC fast charger	N/A	250A
AC charger(OBC)	35A	N/A
PTC	35A	20A

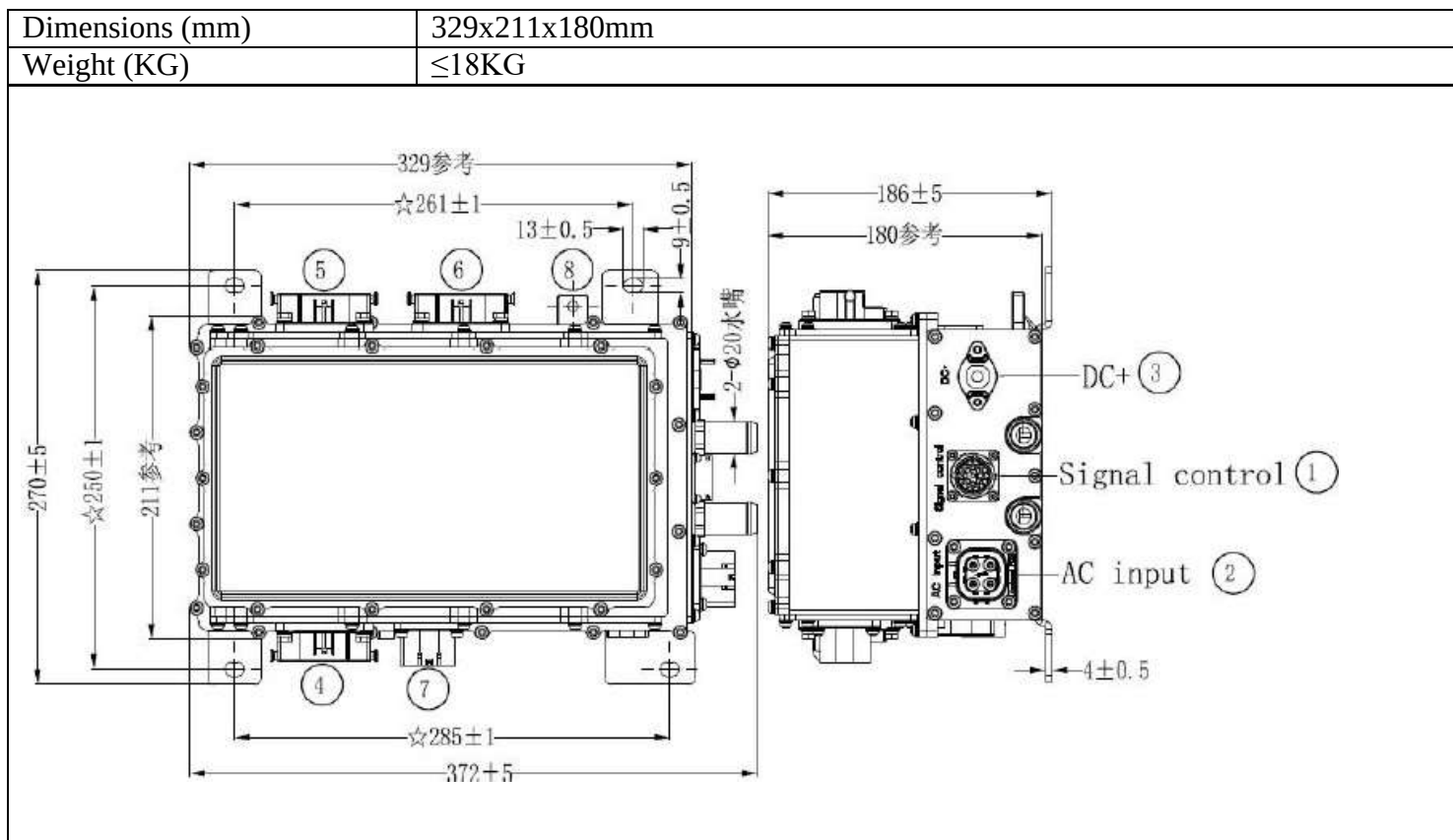


PDU schematic diagram:





Structure Parameter

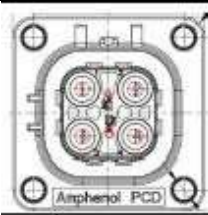
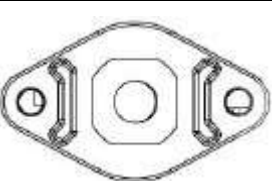
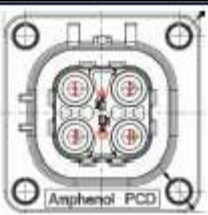
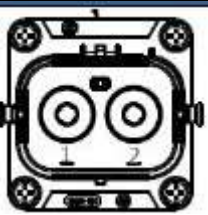
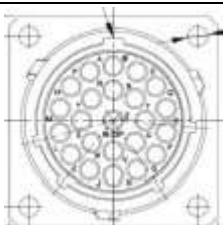


Connector Information

Item	Pinout definition	Maker	Receptacle model no.	Plug model no.
1	AC input	Amphenol	HVSL364024A106I	HVSL364064A106I
2	Battery	Yonggui	YGC1079-EV-P(2+2)RC/I	YGC1079-EV-S(2+2)PW/I
3	Fast charge	Yonggui	YGC1079-EV-P(2+2)RC/I	YGC1079-EV-S(2+2)PW/I
4	Motor	Yonggui	YGC1079-EV-P(2+2)RC/II	YGC1079-EV-S(2+2)PW/II
5	Signal control	Amphenol	RT001823PN03	RT061823SNHEC03
6	Low voltage output	Guoweitong	GH01-F200-1NNB-T21	M8 size copper lugs
7	Air conditioner	Amphenol	HVSL364024B104I	HVSL364064B104I
8	PTC			



Connector pin definition (component side)

AC input		DC output		Low voltage output		AC/PTC		Battery/Fast charge	
									
1	FireWire	A	output negative	+	Low voltage positive (35mm ²)	1	Air conditioner negative	A	output positive
2	NC	B	output positive			2	Air conditioner positive	B	output negative
3	Ground wire					3	PTC Negative		
4	Zero line					4	PTC positive		
Signal control									
									
A	CAN1-L	G	GND_LDC_CON	N	Precharge relay negative	V	EN_DC		
B	VCC+	H	NTC1+	P	fast charge relay negative	W	Main positive relay negative		
C	EN_OBC	J	GND_LDC_CON	R	CC_OUT (low impedance)	X	NC		
D	CC	K	NTC2+	S	Interlock_IN	Y	NC		
E	CP	L	CAN1-H	T	NC	Z	NC		
F	WAKE_UP	M	PTC relay negative	U	Interlock_Out				