



Input 380Vac Output 800Vdc 20KW On Board Charger Bidirectional liquid Model No. ATRCB20K-80024W



Features

- 1 Output Power(KW): 20
- 2 Input Voltage Range(VAC): 152~456 (3 Phase 5 wires)
Nominal Input Voltage(VAC): 380
- 3 Output Voltage Range(VDC): 0 ~ 950
- 4 Rated Output Voltage(VDC): 800
- 5 Output Current Range(A): 0~ 24
- 6 Output Current Max(A): 24
- 7 Dimensions(mm): 550x396x100
- 8 Weight(KG): ≤ 25
- 9 Cooling System: Liquid, flow rate ≥12L/min
- 10 IP Rating: IP67
- 11 Communication: CAN2.0 B SAE J1939
- 12 Enclosure: Aluminum alloy
- 13 Isolated: Supported
- 14 Software: Digital software design
- 15 Online Upgrade & Fault Diagnosis: Supported

Specification

Description		Remark
AC / DC Mode		
Input Voltage Range (VAC)	152-456 (3 Phase 5 WIRES)	1 Phase(VAC): 90~265
Rated Input Voltage (VAC)	380	Can be adjusted as per requirement
Output Voltage Range(VDC)	0~950	
Rated Output Voltage(VDC)	800	Adjusted as per requirement
Output current Range(A)	0 ~ 24	
Output current(A) (Max)	24	
Efficiency	≥94%	Rated input voltage, load > 30%
Output Voltage Accuracy	±1%	
Communication Method	CAN BUS 2.0 B SAE J1939	
Rated Input Voltage Frequency(Hz)	50/60	
Inverter mode		
Input Voltage Range (Vdc)	500 ~ 950	
Output voltage(Vac)	220VAC(±5%)	1 Phase(VAC): 90~265
Power(KVA)	6 (1-phase)	
Efficiency	≥ 94%	Rated voltage and specific load

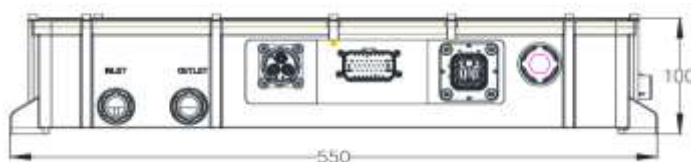
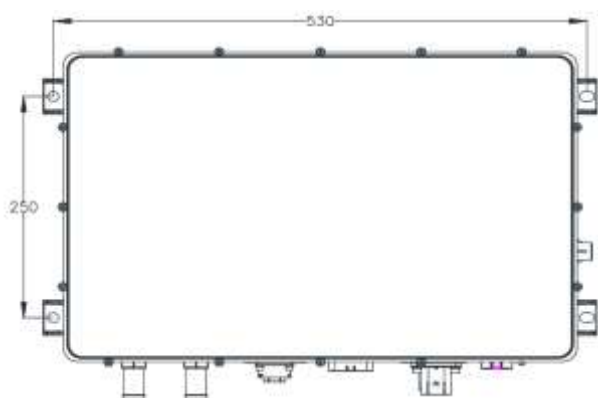
Operating Environment

The operating environment conditions of this assembly are as follows:

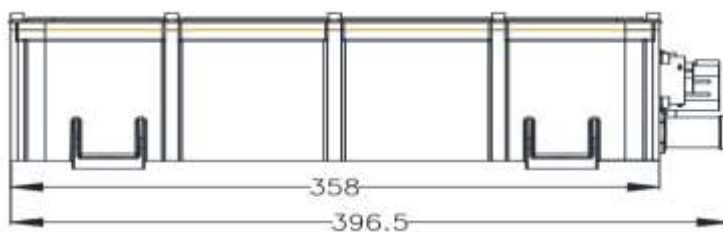
Items	Descriptions		Remark
1.	Operating	-40~85	The power will be derated when



	Temperature(°C)		the temperature exceeds 65°C
2.	Storage Temperature(°C)	-40~95	
3.	relative humidity(%RH)	5~95	No condensation, no frost
4.	Vibration level	ISO 16750-3,2012 (E)	After X,Y,Z three directions of sweep frequency vibration testing, no damage for parts , no loose for fastening piece
5.	Noise level(dB)	< 60	
6.	Salt spray level	GB/T 2423.17	
7.	Altitude(M)Max	3000	GB/T16935.1-2008
8.	Fall	Wiring harness according to QC/T417.1-2001 Housing according to GB/T 2423.8-1995	Appearance, structure and performance are normal
9.	Protection Characteristics	Input OVP/UVP, output OVP/UVP, input anti-reverse connection, output short circuit protection, OCP, OTP	
10.	Electromagnetic immunity	GB/T17619-1998 chap4	
11.	Electromagnetic disturbance	GB18655-2002chap 12 chap14	



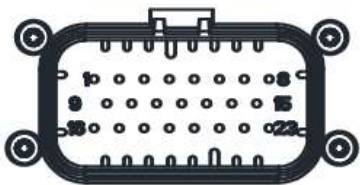
The connector section is for reference only
Type to be TBD.



**Connector Model: Adjustable as per requirement****Connector Model**

Position	Function	Brand	Socket Model	Plug Model
1	Signal control	TBD		
2	HV AC input	TBD		
3	Output +			
4	Output -			

Interface Definition

Signal Control(1)		HV AC Input(2)		Output Positive(3)	
					
21	CANH	1	L1	X	Output +
20	CANL	2	L2		
4	12V+ Enable(out)	3	L3	Y	Output -
15	GND	4	N		
6	CC	5	PE		
5	CP				
9	WAKEUP IN				
7	BAT+				
8	BAT-				