



19.8KW On Board Charger Liquid

Product Portfolio

Model number	Rated Input Voltage(VDC)	Output Voltage Range(VDC)	Output Current Range(A)
ATRC19K8-080240W	80	0-105	0-240
ATRC19K8-108180W	108	0-140	0-180
ATRC19K8-144132W	144	0-200	0-132
ATRC19K8-360054W	360	0-500	0-54
ATRC19K8-540036W	540	0-720	0-36
ATRC19K8-720027W	720	0-1000	0-27



3D data model : 902.1912C0000.00

Features

1. Rated Output Power(KW): 19.8
2. Rated Input Voltage(Vac): 220/380 (Single Phase/3 Phase)
3. Dimensions(mm): 550 x 402.5 x 100.9
4. Weight(KG): $\leq 25 \pm 0.5$
5. Cooling System: Liquid flow rate $\geq 12\text{L/min}$
6. IP Rating: IP67
7. CAN compatibility: CAN2.0 SAE J1939
8. Enclosure: Aluminum alloy
9. Pre-charge & isolated: Supported
10. Software: Digital software design

Specification :

1. Electrical Characteristics

1.1. Electrical Characteristics

Model Number	
Charger Type	Liquid-cooled isolation on board charger SAE
Input Characteristic	
Rated Input Voltage (VAC)	220/PHASE Overvoltage Protection: 380
Input Voltage Range(VAC)	90 ~ 265 (Single Phase) 152~456 (3 Phase 5 wires)
Rated AC frequency(Hz)	50 / 60
Input frequency range y(Hz)	45~65



Starting Impulse Current(A)	≤80
Input power factor	≥0.99 (@220Vin,Pomax)
Output Characteristic	
Rated Output Power(KW)	19.8
Voltage regulation accuracy	±1%
Current regulation accuracy	±0.5A (Io≤10A) & ≤±5% (Io>10A)
ripple coefficient of voltage	≤1%
Output Response Time	≤200mS
Typical Efficiency	≥94%

Protective Characteristic	
Over and Under Voltage Protection	Input over and under voltage shutdown can be self-recovery, output over and under voltage shutdown can be self-recovery.
Output Reverse Connection and Short Circuit Protection	Output short circuit and reverse connection shutdown can be self-recovery
Over Temperature Protection	When the heat sink temperature is higher than 75 °C, it will reduce the output power. And it will disconnect the circuit when the temperature is higher than 95 °C. It will restore the output when the charging temperature is lower than 85 °C.

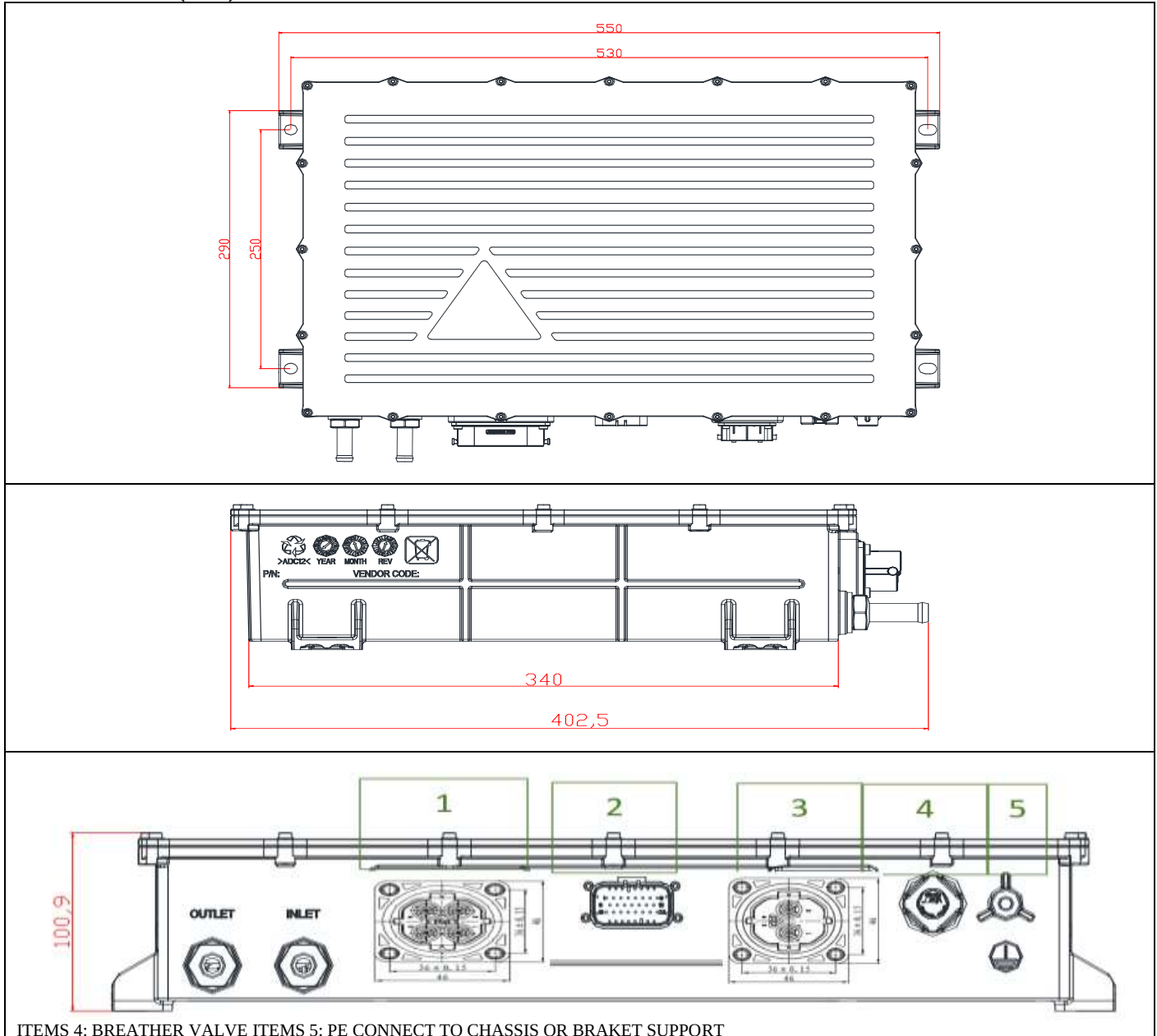
Environmental Condition	
Operating Ambient Temperature	Liquid temperature of the liquid-cooled system≤65°C
Storage temperature	-40~95°C
Humidity	5%~95%
IP Grade	IP67
Cooling Function	liquid-cooled
Communication Function	CAN
Charging Function	Receive charging instructions to charge normally; No command charger is in standby state

Safety Characteristic		
Dielectric strength	Primary side - secondary side 2000VAC	Original side - Housing 1500VAC
Insulation resistance	Primary side - secondary side ≥50MΩ	
Harmonic current	Meet the requirements of 6.7.3.1 in GB17625.1-2003	
Vibration Resistance	After X,Y,Z three directions of sweep frequency vibration testing, no damage for parts , no loose for fastening piece	
Impact Resistance	See Requirements 6.5 in GB/T15139-1994	
Resistance to Industrial solvents	Metal parts have a good corrosion protection layer	
Salt Spray Resistance	See GB/T 2423.17	



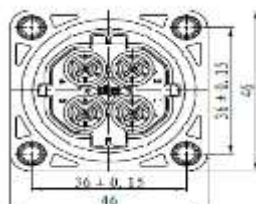
Durability	Not less than GB/T 24347-2009
EMC characteristics	
Electromagnetic	Meet the requirements of 11.3.1 in GB/T 18487.3
Electromagnetic disturbance	Meet the requirements of 11.3.2 in GB/T 18487.3

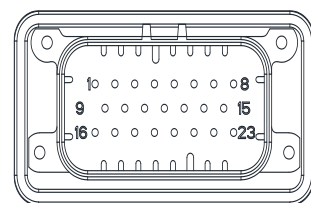
2. Dimensions (MM)



ITEMS 4: BREATHER VALVE ITEMS 5: PE CONNECT TO CHASSIS OR BRACKET SUPPORT

**3. Connector Table**

Index of Table				
No.	Model NO.	Definition		
1	REL-Z4PAH-6-A 40A 6MM2 CABLE KEY A HVIL: WITH	1	Mains Phase L1_3 WIRES	AC INPUT 
		2	Mains EARTH	
		3	Mains Phase L2 or NEUTRAL	
		4	N/C	
		A	INTERLOCK+	
		B	INTERLOCK-	
		Brand or Maker		Recodeal
		PLUG Model No.		REL-T4PAH-6-A

2	1-776228-1	1	K31-Batt Neg	
		2	K30-Batt Pos	
		3	CAN L	
		4	CAN H	
		5	CAN Shield	
		6	N/A	
		7	HVIL+	
		8	HVIL-	
		9	N/A	
		10	CAN2L(inside can for debug)	
		9-15	N/A	
		16	K15- Ignition	
		17	CAN2H(inside can for debug)	
		18-23	N/A	
		Factory		TE
Cable side		770680-1		

3	REL-Z2PAH-10-A 60A 10MM2 CABLE KEY A HVIL: WITH	1	DC Output +	
		2	DC Output -	
		3	INTERLOCK+	
		4	INTERLOCK-	
		Brand or Maker		Recodeal
		PLUG Model No.		REL-T2PAH-10-A