



700Vdc 27A 19.8KW On Board Charger Liquid

MODEL NO.: ATRC19K8-70027W

	Charging standard: SAE Features 1. Output Power(KW): 19.8 2. Rated Input Voltage(Vac): 220 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
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Specification :

Model number	Input Voltage Range	Rated Output Power	Rated Output Voltage	Output Voltage/Current Range	3D data model
ATRC19K8-70027W	90~265VAC	19.8KW	700VDC	400-850VDC/0-27A	902.1912C0000.00

1. Electrical Characteristics

1.1. Electrical Characteristics

Model Number	
Charger Type	Liquid-cooled isolation on board charger
Input Characteristic	
Rated Input Voltage (VAC)	220
Input Voltage Range(VAC)	90 ~ 265
Rated AC frequency(Hz)	50
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	$\pm 1\%$
Current regulation accuracy	$\pm 0.5\text{A}$ ($I_o \leq 10\text{A}$) & $\leq \pm 5\%$ ($I_o > 10\text{A}$)
ripple coefficient of voltage	$\leq 1\%$

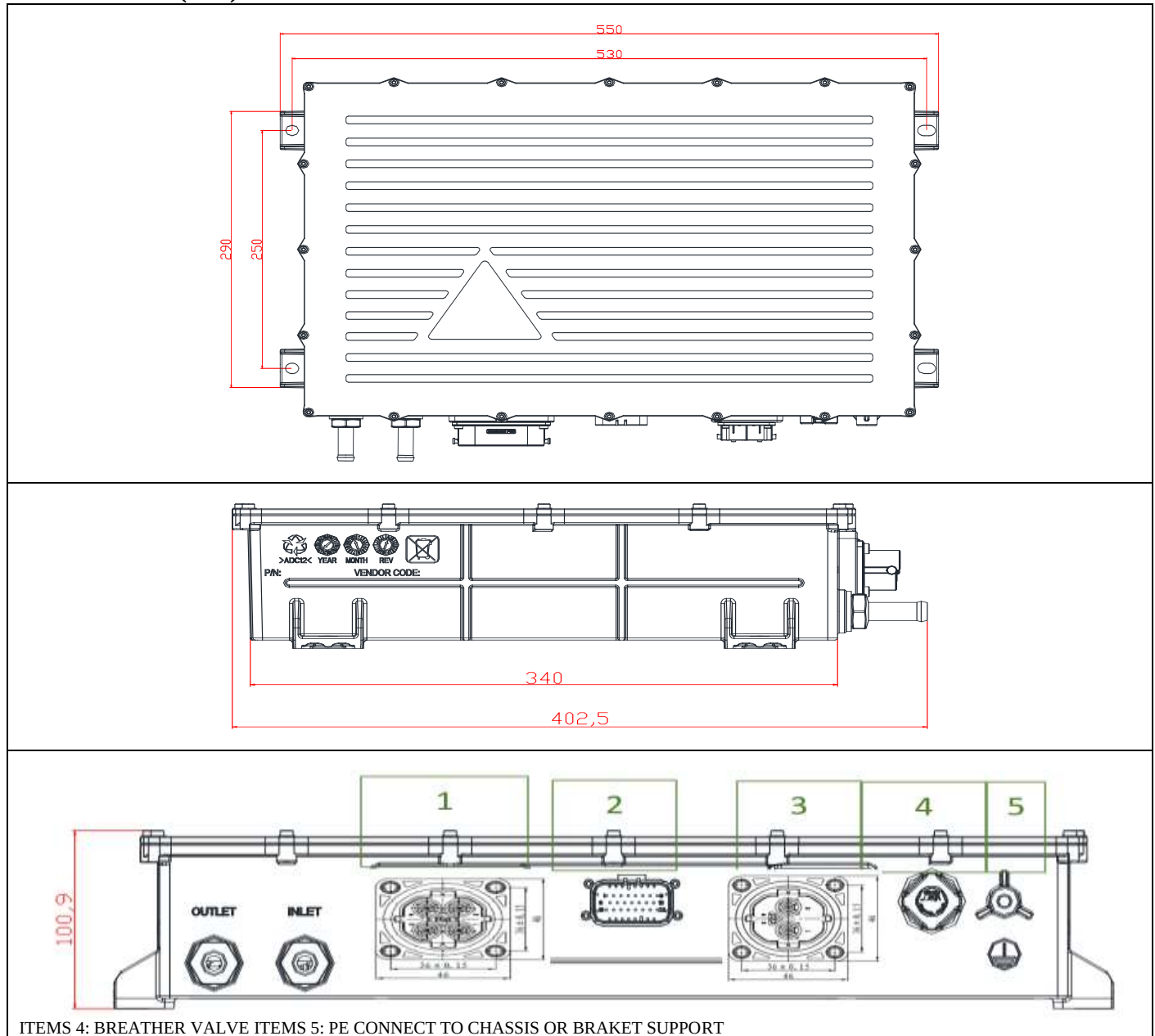


Output Response Time	$\leq 200\text{ms}$
Typical Efficiency	$\geq 94\%$

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℃	
Storage temperature	-40～95℃	
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	



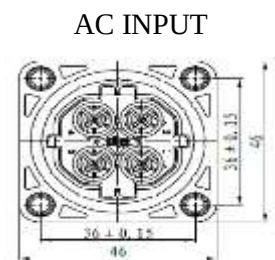
2. Dimensions (MM)



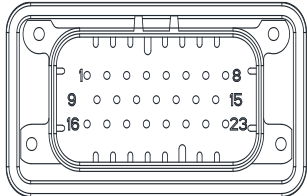
ITEMS 4: BREATHER VALVE ITEMS 5: PE CONNECT TO CHASSIS OR BRACKET SUPPORT

1. Connector Table

No.	Model NO.	Definition	
1	REL-Z4PAH-6-A 40A 6MM2 CABLE KEY A HVIL: WITH	1	Mains Phase L1_3 WIRES
		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-6-A 40A 6MM2 CABLE KEY A HVIL: WITH	1	DC Output +	
		2	DC Output -	
		3	INTERLOCK+	
		4	INTERLOCK-	
		Brand or Maker		Recodeal
		PLUG Model No.		REL-T2PAH-6-A