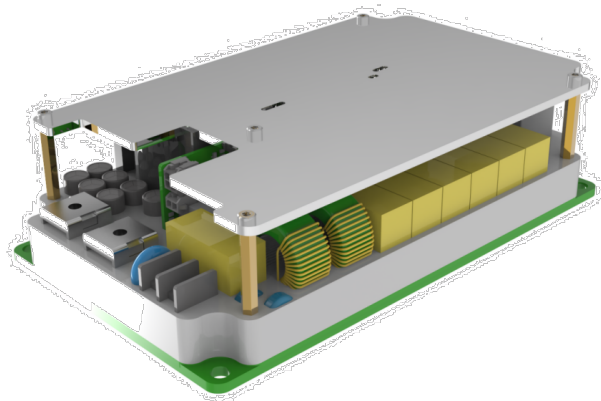




1.5KW isolated DC/DC converter module MODEL NO.: ATRD1K5-48S14.5M



Features

- 1 Output Power: 1.5KW
- 2 Input Voltage Range(VDC): 35-60
- 3 Output Voltage Range(VDC): 0~16V
- 4 Rated Output Voltage(VDC): 14
- 5 Output Current Range(A): 0-110A
- 6 Dimensions(mm): 180 x 120 x 50
- 7 Weight(KG): $\leq 1.8\text{Kg} \pm 0.3\text{Kg}$
- 8 Cooling System: Modular design, water cooling or air cooling housing/substrate required
- 9 CAN compatibility: CAN
- 10 Precharge & Isolated: Supported
- 11 Software: Digital software design
- 12 Online Upgrade & Fault Diagnosis: Supported

Specification

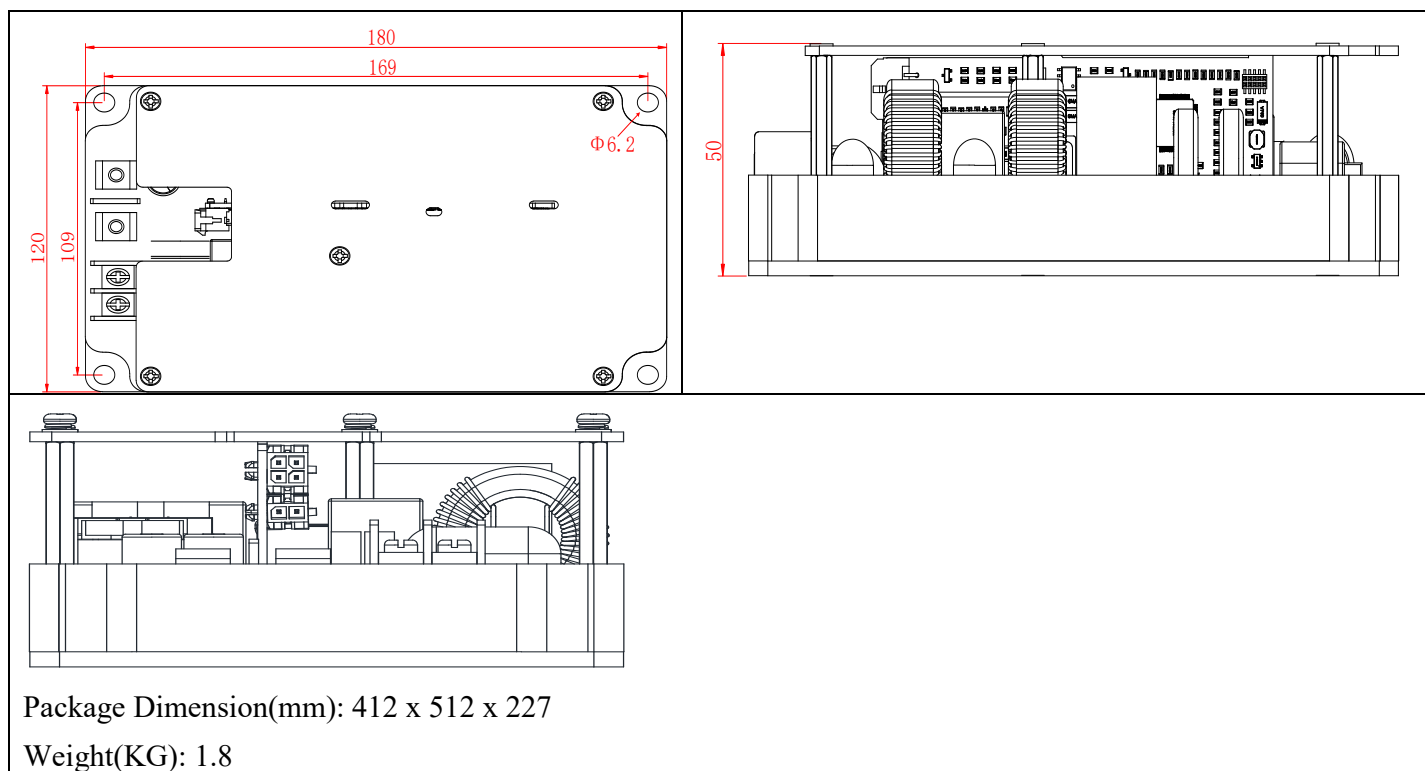
Model	Rated Input voltage (VDC)	Input voltage Range (VDC)	Rated output voltage (VDC)	Output voltage / current range
ATRD1K5-48S14.5M	48V	35-60	14	0-16VDC 0-110A

Descript ion	Technical Specification	Remark
Operating Temperature(°C)	-40~85	Internal temperature of the integrated system cavity; cooling water temperature $\leq 65^{\circ}\text{C}$.
Storage Temperature(°C)	-40~95	
Efficiency	$\geq 90\%$	
Output Voltage Ripple	-	
Voltage regulation accuracy	$\pm 0.2\text{V}$	
Wakeup Method	KL15(hardwire)	
Communication Method	CAN-BUS	
Operating noise	$\geq 60\text{dB}$	
Protection Characteristics	Input OVP/UVLP, output OVP/UVLP, input anti-reverse connection, output short circuit protection, OCP, OTP	
EMC	GB/T 18655-2002	
Pre charge	Built in	

Operating Environment

The operating environment conditions of this assembly are as follows:

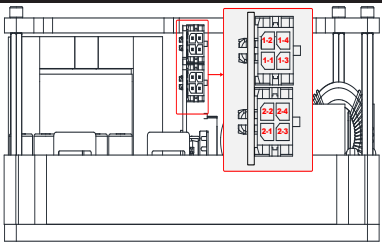
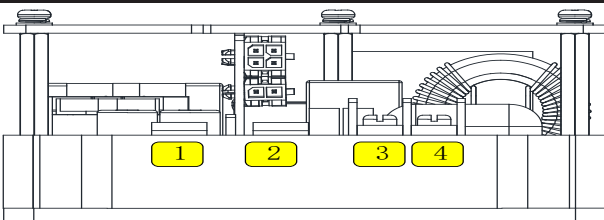
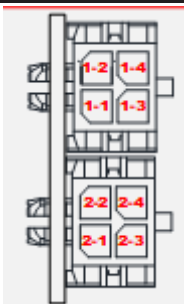
Items	Descriptions	Remark
1.	Operating Temperature(°C)	40-85
2.	Storage Temperature(°C)	40-95
3.	relative humidity(%RH)	-
4.	Protection level	-
5.	Cooling method	Modular design, water cooling or air cooling housing/substrate required
6.	Vibration level	-
7.	Noise level(dB)	60
8.	Salt spray level	Meets GB/T 2423.17
9.	Altitude(M)Max	-
10.	Fall	-



Connector Model

Position	Function	Brand	Socket Model	Plug Model
1	Signal control	MOLEX	4-core => 0430450400 2-core => 0430450200	4-core => 0430250400 2-core => 0430250200
2	input	OT/BUS	Center Space : 11mm Screw Type : M8 Screw Torque : 8N·m	
3	Output	BUS	Center Space : 5.00mm Screw Type : M4 Screw Torque : 18 Kgf/cm ²	

Interface Definition

					
Signal Control(1)		Input(2)		Output(3)	
					
1-1	CAN-L	3	Input+	1	Output+
1-3	CAN-H	4	Input-	2	Output-
1-2	12V LVDC GND				
1-4	12V LVDC output				
2-1	Enable signal input GND (Note 1)				
2-3	Enable signal input				
2-2	FAN- 12V0.3A				
2-4	FAN+ 12V0.3A				
Note 1: The ground of the external hardwired enable signal is not shared with the output negative by default. To use the hardwired enable function, pins 2-1 and 1-2 need to be connected, or the signal can be directly connected to the power output negative. Alternatively, forced common ground can be selected via the DIP switch (see Section 5.5).					