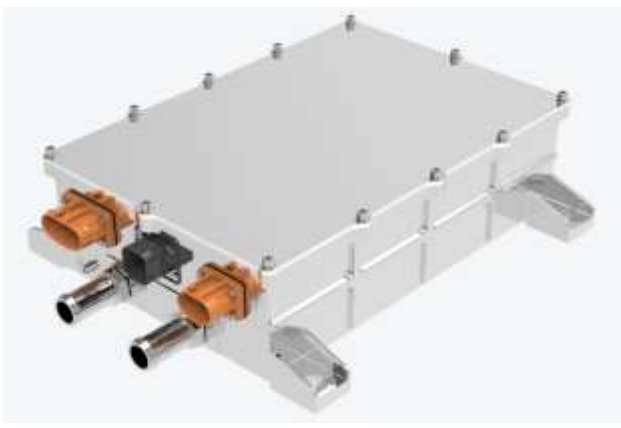


## 10-120V 15KW DC/DC Converter Bidirectional liquid Model No. ATRDB15K-90S350W

|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <b>Features</b> <ol style="list-style-type: none"> <li>Output Power(KW): 15</li> <li>Voltage a Range(VDC): 10-120</li> <li>Nominal a Voltage(VDC): 90</li> <li>Current Range(A): 0-120</li> <li>Voltage b Range(VDC): 0-450</li> <li>Nominal b Voltage(VDC): 350</li> <li>Current b Range(A): 0-120</li> <li>Dimensions(mm): 305x206x92</li> <li>Weight(KG): 8±0.5</li> <li>Cooling System: Liquid</li> <li>IP Rating: IP67</li> <li>Communication: CAN2.0 B SAE J1939, BOOTLOADER SUPPORTED</li> <li>Enclosure: Aluminum alloy</li> <li>Isolated: NON-Supported</li> <li>Software: Digital software design</li> <li>Online Upgrade &amp; Fault Diagnosis: Supported</li> </ol> |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Specification

| Description             |      | Remark                          |
|-------------------------|------|---------------------------------|
| Efficiency              | ≥97% | Rated input voltage, load > 30% |
| Output Voltage Accuracy | ±1%  |                                 |

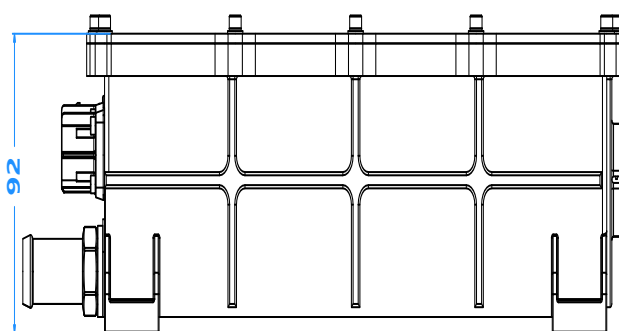
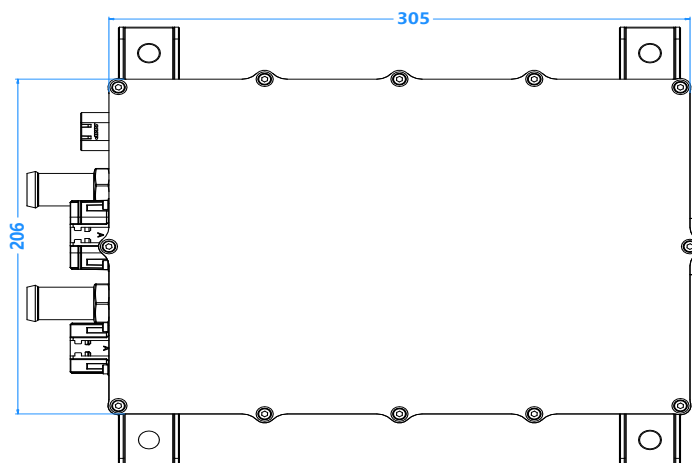
### Operating Environment

The operating environment conditions of this assembly are as follows:

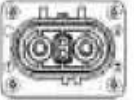
| Items | Descriptions              |                      | Remark                                                                                                                |
|-------|---------------------------|----------------------|-----------------------------------------------------------------------------------------------------------------------|
| 1.    | Operating Temperature(°C) | -40~85               | The power will be derated when the temperature exceeds 65°C                                                           |
| 2.    | Storage Temperature(°C)   | -40~95               |                                                                                                                       |
| 3.    | relative humidity(%RH)    | 5~95                 | No condensation, no frost                                                                                             |
| 4.    | Protection level          | IP67                 |                                                                                                                       |
| 5.    | 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 |
| 6.    | Noise level(dB)           | < 60                 |                                                                                                                       |
| 7.    | Salt spray level          | GB/T 2423.17         |                                                                                                                       |
| 8.    | Altitude(M)Max            | 3000                 | GB/T16935.1-2008                                                                                                      |



|     |                             |                                                                                                           |                                                  |
|-----|-----------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| 9.  | Fall                        | Wiring harness according to QC/T417.1-2001<br>Housing according to GB/T 2423.8-1995                       | Appearance, structure and performance are normal |
| 10. | Protection Characteristics  | Input OVP/UVLP, output OVP/UVLP, input anti-reverse connection, output short circuit protection, OCP, OTP |                                                  |
| 11. | Electromagnetic immunity    | GB/T17619-1998 chap4                                                                                      |                                                  |
| 12. | Electromagnetic disturbance | GB18655-2002chap 12 chap14                                                                                |                                                  |



**Connector Model: Adjustable as per requirement**

| 《Connector Selection Table》 |               |                   |                     |                |                                  |                                                                                     |           |                    |           |         |
|-----------------------------|---------------|-------------------|---------------------|----------------|----------------------------------|-------------------------------------------------------------------------------------|-----------|--------------------|-----------|---------|
| Interface Definition        | serial number | Connector Name    | Pin Sequence Number | Pin Definition | Wire Diameter (mm <sup>2</sup> ) | Connector Schematic Diagram                                                         | Trademark | mateable connector | Trademark | Remarks |
| Input                       | 1             | RED-T2PAH-2.5-A   | 1                   | IN+            | 2.5mm <sup>2</sup>               |    | Recodeal  | RED-Z2PAH-2.5-A    | Recodeal  |         |
|                             |               |                   | 2                   | IN-            | 2.5mm <sup>2</sup>               |                                                                                     |           |                    |           |         |
|                             |               |                   | A                   | HVIL           | 0.75mm <sup>2</sup>              |                                                                                     |           |                    |           |         |
|                             |               |                   | B                   | HVIL           | 0.75mm <sup>2</sup>              |                                                                                     |           |                    |           |         |
| Signal                      | 2             | FPT20N21208PN     | A                   | CANL           | 0.75mm <sup>2</sup>              |   | Huzheng   | FPT60N21208SN      | Huzheng   |         |
|                             |               |                   | B                   | CANH           | 0.75mm <sup>2</sup>              |                                                                                     |           |                    |           |         |
|                             |               |                   | C                   | Enable         | 0.75mm <sup>2</sup>              |                                                                                     |           |                    |           |         |
|                             |               |                   | D                   | 12V-OUT        | 0.75mm <sup>2</sup>              |                                                                                     |           |                    |           |         |
|                             |               |                   | E                   | HVIL           | 0.75mm <sup>2</sup>              |                                                                                     |           |                    |           |         |
|                             |               |                   | F                   | HVIL           | 0.75mm <sup>2</sup>              |                                                                                     |           |                    |           |         |
|                             |               |                   | G-H                 | TBD            |                                  |                                                                                     |           |                    |           |         |
| Output                      | 3             | FHV221268CX-UM61J | 1                   | output+        | 35mm <sup>2</sup>                |  | Huzheng   | FHV601268CX-35U02J | Huzheng   |         |
|                             |               |                   | 2                   | output-        | 35mm <sup>2</sup>                |                                                                                     |           |                    |           |         |
|                             |               |                   | 3                   | HVIL           | 0.75mm <sup>2</sup>              |                                                                                     |           |                    |           |         |
|                             |               |                   | 4                   | HVIL           | 0.75mm <sup>2</sup>              |                                                                                     |           |                    |           |         |