



## 80-900V 2.5KW DC/DC Converter -FAN

MODEL NO.:

ATRD2K5-144S14F-2600

ATRD2K5-360S14F-2601

ATRD2K5-640S14F-2602



### Features

- 1 Output Power: 2.5KW
- 2 Input Voltage Range(VDC): 80~200, 200-500, 400-900
- 3 Output Voltage Range(VDC): 0~16
- 4 Rated Output Voltage(VDC): 14
- 5 Output Current Range(A): 0-178
- 6 Dimensions(mm): 328 x 260 x 109
- 7 Weight(KG):  $\leq 9$
- 8 Cooling System: FAN
- 9 IP Rating: IP67
- 10 CAN compatibility: CAN2.0
- 11 Enclosure: Aluminum alloy
- 12 Pre-charge & isolated: Supported
- 13 Software: Digital software design
- 14 Online Upgrade & Fault Diagnosis: Supported

### Specification

| Model                | Rated Input voltage (VDC) | Input voltage Range (VDC) | Rated output voltage (VDC)                                      | Output voltage / current range |
|----------------------|---------------------------|---------------------------|-----------------------------------------------------------------|--------------------------------|
| ATRD2K5-144S14F-2600 | 144                       | 80~200                    | <b>14<br/>Adjustable based<br/>on customer<br/>requirements</b> | 0-16VDC<br>0-178A              |
| ATRD2K5-360S14F-2601 | 360                       | 200~500                   |                                                                 |                                |
| ATRD2K5-640S14F-2602 | 640                       | 400-900                   |                                                                 |                                |

| Descript ion               | Technical Specification                                                                                 | Remark                                                                  |
|----------------------------|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Operating Temperature(°C)  | -40~85                                                                                                  | Coolant inlet temperature<br>Power reduction when temperature $\geq 95$ |
| Storage Temperature(°C)    | -40~95                                                                                                  | Power supply does not turn                                              |
| Efficiency                 | $\geq 92\%$                                                                                             | Rated input voltage, load $> 30\%$                                      |
| Output Voltage Ripple      | $\leq 500\text{mV}_{\text{PK-PK}}$                                                                      |                                                                         |
| Output Voltage Accuracy    | $\pm 1\%$                                                                                               |                                                                         |
| Wakeup Method              | KL15(hardwire)                                                                                          |                                                                         |
| Communication Method       | CAN-BUS J1939                                                                                           |                                                                         |
| Quiescent Current          | $\leq 2\text{mA}$                                                                                       | Battery current will be consumed in sleep/standby mode                  |
| Protection Characteristics | Input OVP/UVF, output OVP/UVF, input anti-reverse connection, output short circuit protection, OCP, OTP |                                                                         |
| EMC                        | GB/T 18655-2010                                                                                         |                                                                         |
| Pre charge                 | Built in                                                                                                |                                                                         |



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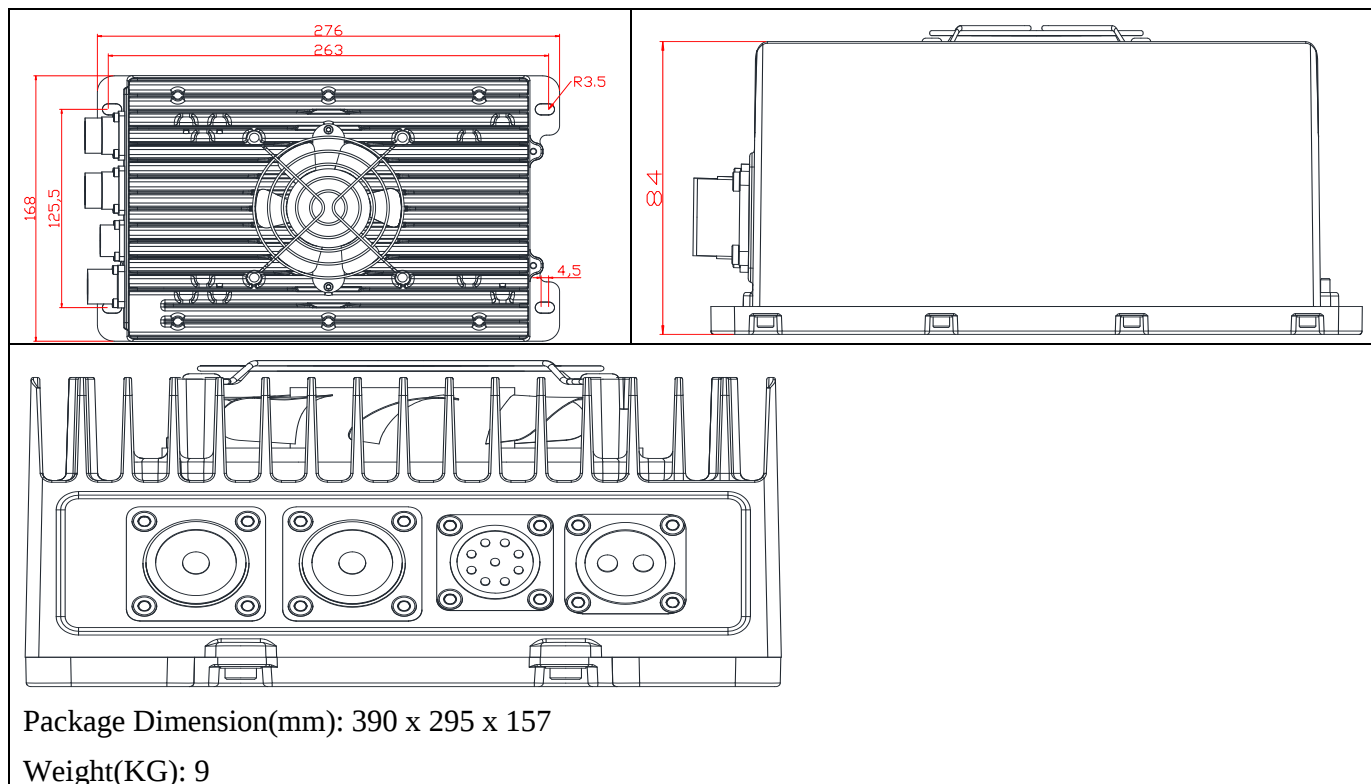
ATRD2K5-360S14F-2601

ATRD2K5-640S14F-2602

### Operating Environment

The operating environment conditions of this assembly are as follows:

| Items | Descriptions              |                                                                                     | Remark                                           |
|-------|---------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------|
| 1.    | Operating Temperature(°C) |                                                                                     | 40-65                                            |
| 2.    | Storage Temperature(°C)   |                                                                                     | 40-95                                            |
| 3.    | relative humidity(%RH)    | 5~95                                                                                | No condensation, no frost                        |
| 4.    | Protection level          | IP67                                                                                |                                                  |
| 5.    | Cooling method            | Liquid Cooling                                                                      |                                                  |
| 6.    | Vibration level           | Meet QC /T895-2011                                                                  |                                                  |
| 7.    | Noise level(dB)           | 65                                                                                  | Meet QC /T895-2011                               |
| 8.    | Salt spray level          | Meets QC/T2423.17-2011                                                              |                                                  |
| 9.    | Altitude(M)Max            | 3000                                                                                | GB/T16935.1-2008                                 |
| 10.   | Fall                      | Wiring harness according to QC/T417.1-2001<br>Housing according to GB/T 2423.8-1995 | Appearance, structure and performance are normal |



Package Dimension(mm): 390 x 295 x 157

Weight(KG): 9



| Position | Function       | Brand              | Socket Model      | Plug Model |
|----------|----------------|--------------------|-------------------|------------|
| 1        | Signal control | Sumitomo 6188-6277 | 6188-6277         |            |
| 2        | HV DC input    |                    | EVH2CC-N2ZJ-BA-01 |            |
| 3        | Output +       |                    | EVH2CC-N4ZJ-BA    |            |
| 4        | Output -       |                    |                   |            |

## Interface Definition

| Signal Control(1) |             | HV DC Input(2) |         | Output Positive(3) |                      |
|-------------------|-------------|----------------|---------|--------------------|----------------------|
|                   |             |                |         |                    |                      |
| 1                 | KL30        | A              | Input + | A                  | Output +             |
| 2                 | KL15        |                |         | B                  | PTC-(can be deleted) |
| 3-6               | NC(RESERVE) | B              | Input - | C                  | PTC+(can be deleted) |
| 7                 | CAN H       |                |         | D                  | Output -             |
| 8                 | CAN L       |                |         |                    |                      |