

**Model No. : LWD2K5-540S14-W**  
**Product Name : 2.5KW DC/DC Converter system**

|      |                |         |     |        |                                                                     |
|------|----------------|---------|-----|--------|---------------------------------------------------------------------|
| Date | Jul.17th, 2020 | Version | V01 | Remark | Model No. changed to LWD2K5-540S14-W from AR-2.5K-380/540S14-W-AR01 |
|------|----------------|---------|-----|--------|---------------------------------------------------------------------|



**Features**

- 1 Output Power : 2.5KW
- 2 Input Voltage : 250-450VDC/400-750VDC
- 3 Output Voltage : 14VDC
- 4 Dimensions : 268x220x75mm
- 5 Cooling System : Liquid
- 6 Protection Level : IP67
- 7 Communication Method : CAN
- 8 Enclosure: Aluminum alloy made
- 9 Software: Digital software design

2.5KW DC/DC Converter Liquid cooling System

**Applications**



Electric Passenger Vehicles    Electric Passenger Vehicles

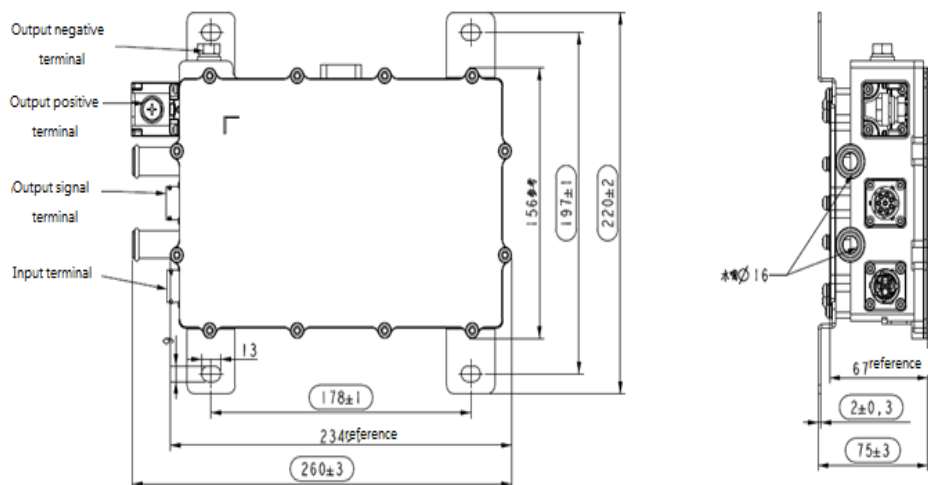
**Specification**

| Description                 |                           | Technical specifications                                                                                                                                                               | Remark                                       |
|-----------------------------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| Operating temperature       |                           | -40~85℃                                                                                                                                                                                | 85~100℃ · Can be derated to 40% of work      |
| Rated output power          |                           | 2.5KW                                                                                                                                                                                  |                                              |
| Input voltage range         |                           | 250-450VDC/400-750VDC                                                                                                                                                                  | Optional                                     |
| Output rated voltage        |                           | 14VDC                                                                                                                                                                                  | 9~16 Adjustable                              |
| Rated output current        |                           | 175A                                                                                                                                                                                   |                                              |
| Auxiliary power VCC         |                           | 6-18VDC                                                                                                                                                                                |                                              |
| Efficiency                  |                           | ≥ 95%                                                                                                                                                                                  | Rated voltage Full load                      |
| Output voltage ripple       |                           | ≤ 500mV <sub>PK-PK</sub>                                                                                                                                                               |                                              |
| Protection characteristics  |                           | Input over-voltage, output over-voltage, input anti-reverse connection, output over-current and short-circuit protection, over-temperature self-recovery                               |                                              |
| Over temperature protection |                           | The bottom plate temperature reaches 85 °C and starts derating output. The temperature exceeds 100 °C, shutting down; the temperature is lower than 95 °C, which can be self-recovery. |                                              |
| Dielectric strength         | Input to output           | 2500VDC/1min 1mA max                                                                                                                                                                   |                                              |
|                             | Input to the outer casing | 2500VDC/1min 1mA max                                                                                                                                                                   |                                              |
| Insulation resistance       | Input to output           | ≥ 20MΩ                                                                                                                                                                                 |                                              |
|                             | Input to the outer casing | ≥ 20MΩ                                                                                                                                                                                 |                                              |
| Battery compatibility       | Radiation emission        | GB/T 18655-2010 Class 3                                                                                                                                                                |                                              |
|                             | Conducted emission        | GB/T 18655-2010 Class 3                                                                                                                                                                |                                              |
|                             | Static immunity           | GB/T 19951-2005                                                                                                                                                                        | Air discharge : 15KV · Contact discharge 8KV |
|                             | Radiation immunity        | GB/T 18655-2010 Class 3                                                                                                                                                                |                                              |
|                             | High current injection    | GB/T 17619-1998                                                                                                                                                                        |                                              |
|                             | Fast burst immunity       | GB/T 17626.4-2008 1KV                                                                                                                                                                  |                                              |
| CAN byte speed              |                           | 250Kbps/500Kbps                                                                                                                                                                        |                                              |



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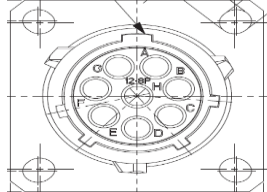
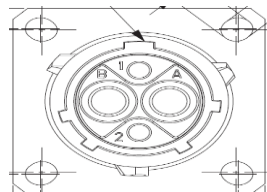
## Structural parameters



## Connector information ( customizable )

| Position | Socket model         | Function                 | Brand    | Plug model                  |
|----------|----------------------|--------------------------|----------|-----------------------------|
| A        | RT00128PN03          | Control terminal         | Amphenol | RT06128SNHEC03              |
| B        | RT00122PN03          | DC high voltage terminal | Amphenol | RT06122SNHEC03              |
| C        | ACTB117-C            | Output positive          | Connet   | M8 Specification copper ear |
| D        | M8 Bolt lock housing | Output negative          | \        | M8 Specification copper ear |

## Interface definition ( for reference )

| Vendor   | Model       | Description |                                   | Remark                                                                                |
|----------|-------------|-------------|-----------------------------------|---------------------------------------------------------------------------------------|
| Amphenol | RT00128PN03 | A           | CAN-H                             |  |
|          |             | B           | CAN-L                             |                                                                                       |
|          |             | C           | KEY ( Highly effective ) Reserved |                                                                                       |
|          |             | D           | VCC+                              |                                                                                       |
|          |             | E           | GND                               |                                                                                       |
|          |             | F           | NC                                |                                                                                       |
|          |             | G           | NC                                |                                                                                       |
|          |             | H           | NC                                |                                                                                       |
| Amphenol | RT00122PN03 | A           | Input positive                    |  |
|          |             | B           | Input negative                    |                                                                                       |
|          |             | 1           | Interlock 1 connection 2          |                                                                                       |
|          |             | 2           | Interlock 2 connection 1          |                                                                                       |

## Label

