

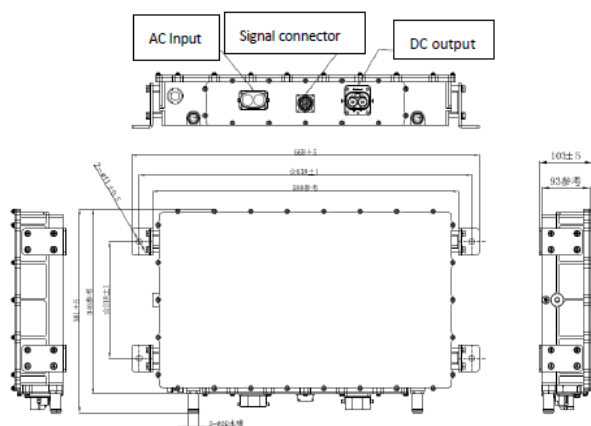
**Model No. : ATC20K-220S640-W**  
**Product Name : 20KW ON BOARD CHARGER LIQUID**

- ★ **Features**
- 1 Output Power : 20KW
  - 2 Input Voltage : 85~265VAC
  - 3 Output Voltage : 450~750VDC
  - 4 Dimensions : 588x346x103mm
  - 5 Cooling System : Liquid
  - 6 IP Rating : IP67
  - 7 Communication : CAN-BUS
  - 8 Enclosure: Aluminum alloy made
  - 9 Software: Digital software design

**Specification**

| Description            | Technical specifications                                                                                        | Remark                                            |
|------------------------|-----------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| Operating temperature  | -40~85°C                                                                                                        | Working for long time                             |
| Rated output power     | 20KW                                                                                                            |                                                   |
| Input voltage range    | 85~265VAC                                                                                                       |                                                   |
| Output voltage range   | 450~750VDC                                                                                                      |                                                   |
| Maximum output current | 33A                                                                                                             |                                                   |
| Auxiliary power supply | 9-32VDC                                                                                                         | VCC                                               |
| Efficiency             | ≥ 94%                                                                                                           | @nominal voltage                                  |
| Voltage accuracy       | ±1%                                                                                                             |                                                   |
| Current accuracy       | ±3%                                                                                                             |                                                   |
| Low voltage wake-up    | 12/24Vdc&200mAmax (WAKE_UP signal)                                                                              | Wake up BMS/VCU                                   |
| Wake-up mode           | AC/PP/CP/VCU_EN                                                                                                 | Support appointment charging                      |
| Communication mode     | CAN-BUS                                                                                                         |                                                   |
| Static Current         | ≤4mA                                                                                                            | Sleep mode/ consume batter current at stop status |
| EMC characteristics    | GB/T 18387-2008, EN 55022                                                                                       |                                                   |
| Dimensions             | 588x346x103mm                                                                                                   |                                                   |
| IP Rating              | IP67                                                                                                            |                                                   |
| Cooling System         | Liquid, flow rate≥ 10L/min                                                                                      |                                                   |
| Weight                 | ≤25KG                                                                                                           |                                                   |
| CAN byte speed         | 250Kbps/500Kbps                                                                                                 |                                                   |
| Protection             | Input OVP/UVP, output OVP/UVP,OTP, OCP, output short circuit protection, CAN communication breakdown protection |                                                   |

**Structural parameters**

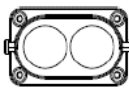
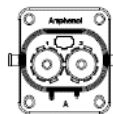
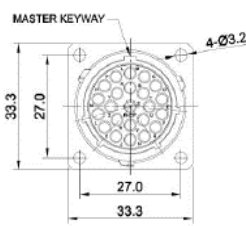


**Model No. : ATC20K-220S640-W**  
**Product Name : 20KW ON BOARD CHARGER LIGUID**

**Connector Table**

| Item | Position | Receptacle model no. | Pinout definition | Maker    | Plug model no.  |
|------|----------|----------------------|-------------------|----------|-----------------|
| 1    | A        | HVSL600022A1H6       | AC input          | Amphenol | HVSL600062A125  |
| 2    | B        | HVC2P60MV100         | DC output         | Amphenol | HVC2P60FS110    |
| 3    | C        | RT001823PN03         | Signal control    | Amphenol | RT061823SNHEC03 |

**Interface definition**

| Connector                        | Pin no. | Description   |                                                       | Picture                                                                               |
|----------------------------------|---------|---------------|-------------------------------------------------------|---------------------------------------------------------------------------------------|
| AC Input<br>HVSL600022A1H6       | 1       | L             | Hotline                                               |    |
|                                  | 2       | N             | Neutral Line                                          |                                                                                       |
|                                  | A       | Interlock 1   | Connect to interlock 6                                |                                                                                       |
|                                  | B       | Interlock 2   | Connect to interlock 3+                               |                                                                                       |
|                                  |         |               | Ground line connected to housing                      |                                                                                       |
| DC Output<br>HVC2P60MV100        | A       | Positive      | Output +                                              |    |
|                                  | B       | Negative      | Output -                                              |                                                                                       |
|                                  | 1       | Interlock 3   | Connect to interlock 2                                |                                                                                       |
|                                  | 2       | Interlock 4   | Connect to interlock 5                                |                                                                                       |
| Signal Connector<br>RT001823PN03 | A       | CAN-L         | CAN Low                                               |  |
|                                  | B       | VCC+          | VCC+ Input+                                           |                                                                                       |
|                                  | C       | VCU_EN        | KL15 wake up OBC, EN signal (EN high potential valid) |                                                                                       |
|                                  | D       | PP            | Proximity Detection                                   |                                                                                       |
|                                  | E       | CP            | Control pilot                                         |                                                                                       |
|                                  | F       | WAKE_UP       | VCU/BMS wake up signal (200mA) Isolatl from VCC       |                                                                                       |
|                                  | G       | NTC1-         | Temp. sensor1 -                                       |                                                                                       |
|                                  | H       | NTC1+         | Temp. sensor1 +                                       |                                                                                       |
|                                  | J       | NTC2-         | Temp. sensor2 -                                       |                                                                                       |
|                                  | K       | NTC2+         | Temp. sensor2 +                                       |                                                                                       |
|                                  | L       | CAN-H         | CAN High                                              |                                                                                       |
|                                  | M       | LOCK+         | Electronic lock                                       |                                                                                       |
|                                  | N       | LOCK-         | Electronic lock                                       |                                                                                       |
|                                  | P       | LOCK FEEDBACK | Electronic lock                                       |                                                                                       |
|                                  | R       | PP_OUT        | PP status output, Low potenial EN                     |                                                                                       |
|                                  | S       | Interlock 5   | Connect to interlock 4                                |                                                                                       |
|                                  | T       | Interlock 6   | Connect to interlock 1                                |                                                                                       |
|                                  | U       | GND           | GND                                                   |                                                                                       |
|                                  | V       | NC            | Reserved                                              |                                                                                       |
|                                  | W       | NC            | Reserved                                              |                                                                                       |
|                                  | X       | NC            | Reserved                                              |                                                                                       |
|                                  | Y       | NC            | Reserved                                              |                                                                                       |
|                                  | Z       | NC            | Reserved                                              |                                                                                       |

