# Certificate of Compliance

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| **Certificate:** | 80251262 | **Master Contract:** | 261002 |
| **Project:** | 80251262 | **Date Issued:** | 2025-04-29 |

**Issued To:** **Hoymiles Power Electronics Inc.**
**No.18 Kangjing Road,**
**Hangzhou, Zhejiang 310015**
**China**
**Attention: Qingman Yang**

***The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.***

**Issued by:** **Ky Huang**
*Ky Huang*

**PRODUCTS**

CLASS - C3701 08 - BATTERIES - Electrical Energy Storage System
CLASS - C3701 88 - BATTERIES - Electrical Energy Storage System - Certified to US Standard

AC Li-ion Battery Energy Storage System (AC ESS), Models HYDEYE10.2-@-xP, HADEYE10.2-@-xP ("@" in the model name could be 3.8k, 4.8k, 6.0k, 7.6k, 9.6k, 11.5k indicating the power of the PCS; "x" could be 1-2 indicating the quantity of the battery system in parallel.)

Refer to following table for component of Pre-Engineered of Matched Component ESS.

| | Model/Component | |
|---|---|---|
| **ESS Model:** | **Power Conversion Equipment (PCS) Model:** | **Battery System Model:** |
| HYDEYE10.2-3.8k-xP | HYS-3.8LV-USG1 | RW-F10.2-B<br><br>Note: "x" in the ESS model name could be 1-2 indicating the quantity of the battery system in parallel. |
| HYDEYE10.2-4.8k-xP | HYS-4.8LV-USG1 | |
| HYDEYE10.2-6.0k-xP | HYS-6.0LV-USG1 | |
| HYDEYE10.2-7.6k-xP | HYS-7.6LV-USG1 | |
| HYDEYE10.2-9.6k-xP | HYS-9.6LV-USG1 | |
| HYDEYE10.2-11.5k-xP | HYS-11.5LV-USG1 | |
| HADEYE10.2-3.8k-xP | HAS-3.8LV-USG1 | |
| HADEYE10.2-4.8k-xP | HAS-4.8LV-USG1 | |
| HADEYE10.2-6.0k-xP | HAS-6.0LV-USG1 | |
| HADEYE10.2-7.6k-xP | HAS-7.6LV-USG1 | |
| HADEYE10.2-9.6k-xP | HAS-9.6LV-USG1 | |
| HADEYE10.2-11.5k-xP | HAS-11.5LV-USG1 | |

Electrical Ratings:

Refer to the table below for the ratings of the Battery Energy Storage System:

| **Rating/Model** | | **ESS Model: HYDEYE10.2-3.8k-xP** | **ESS Model: HYDEYE10.2-4.8k-xP** | **ESS Model: HYDEYE10.2-6.0k-xP** | **ESS Model: HYDEYE10.2-7.6k-xP** | **ESS Model: HYDEYE10.2-9.6k-xP** | **ESS Model: HYDEYE10.2-11.5k-xP** |
|---|---|---|---|---|---|---|---|
| **Main ESS Rating** | | | | | | | |
| Output current (maximum continuous) for each power port | AC Grid port: | 16Aac | 20Aac | 25Aac | 32Aac | 40Aac | 48Aac |
| | EPS / AC Backup port: | 16Aac | 20Aac | 20Aac | 32Aac | 40Aac | 40Aac |
| Input current (maximum continuous) for each power port | AC Grid port: | 32Aac | 40Aac | 40Aac | 64Aac | 80Aac | 80Aac |
| | PV Port: | 16Adc per MPPT (Two) | | | 32Adc per MPPT (Two) | | |
| | GEN Port: | 16Aac | 20Aac | 20Aac | 32Aac | 40Aac | 40Aac |
| Output voltage (minimum and maximum) for each power port | AC Grid port: | 120Vac/240Vac, Split phase | | | | | |
| | EPS / AC Backup port: | 120Vac/240Vac, Split phase | | | | | |
| Input voltage (minimum and maximum) for each power port | AC Grid port: | 120Vac/240Vac, Split phase | | | | | |
| | PV Port: | 125-500Vdc | | | | | |
| | GEN Port: | 120Vac/240Vac, Split phase | | | | | |
| Power input (maximum continuous) for | AC Grid port: | 7.68kW | 9.6kW | 9.6kW | 15.36kW | 19.2kW | 19.2kW |
| | PV Port: | 5.76kW | 7.2kW | 9kW | 11.52kW | 14.4kW | 14.4kW |

  

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| each power port | Gen Port: | 3.84kW | 4.8kW | 4.8kW | 7.68kW | 9.6kW | 9.6kW |
| Power output (maximum continuous) for each power port | AC Grid port: | 3.84kW | 4.8kW | 6kW | 7.68kW | 9.6kW | 11.52kW |
| | EPS / AC Backup port: | 3.84kW | 4.8kW | 4.8kW | 7.68kW | 9.6kW | 9.6kW |
| Energy storage capacity (maximum) | | 10.24 * x kWh (Note: "x" in the ESS model name could be 1-2 indicating the quantity of the battery system in parallel.) | | | | | |
| Frequency | AC Grid port: | 60Hz | | | | | |
| | PV port: | DC | | | | | |
| Number of phases for each power port | AC Grid port: | Split phase with neutral | | | | | |
| | EPS / AC Backup port: | Split phase with neutral | | | | | |
| | GEN Port: | Split phase with neutral | | | | | |
| | PV Port: | DC | | | | | |
| Input short-circuits current rating (SCCR) | PV Port: | 20Adc per MPPT(Two) | | | 40Adc per MPPT(Two) | | |
| | AC Grid port: | 50A | 50A | 50A | 100A | 100A | 100A |
| | GEN port: | 25A | 25A | 25A | 50A | 50A | 50A |
| Maximum overcurrent protective device rating | AC Grid port: | 40A | 50A | 50A | 80A | 100A | 100A |
| | EPS / AC Backup port: | 20A | 25A | 25A | 40A | 50A | 50A |
| | GEN port: | 20A | 25A | 25A | 40A | 50A | 50A |
| | PV Port: | 20 A | 20A | 20A | 40 A | 40 A | 40 A |
| Output available fault current and time duration | AC Grid port: | 560Apk, 17.4ms | | | | | |

| **Other Rating** | | |
|---|---|---|
| ESS Identification | AC ESS | |
| ESS Type | Multipart ESS (Main Label is on the PCS left side surface) | |
| Operating ambient temperature | Inverter: -25°C ~ 65°C<br>Battery System: 1°C ~ 55°C (Charge), -20°C ~ 55°C (Discharge) | |
| Weight of system | Inverter: 31 kg | Inverter: 41 kg |
| | Battery System: 107 * x kg (Note: "x" in the ESS model name could be 1-2 indicating the quantity of the battery system in parallel.) | |
| Overall dimension of the system | Inverter: 502mm(W) × 615mm(H) × 202mm(T) | Inverter: 502mm(W) × 740mm(H) × 202mm(T) |
| | Single Battery System: 600±5mm(W) × 830±5mm(H) × 200±5mm(D) | |
| Environmental rating of Enclosure | Inverter: Type 4X;<br>Battery System: IP65 | |
| Maximum altitude | 2000m | |
| Pollution degree | 2 | |

  

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| Overvoltage Category | | AC Grid Port: III;<br>PV Port: II |
| Technology utilized in system | | Li-ion (LFP) |
| Minimum separation distances | For Power Conversion Equipment (PCS) | From other PCS/ESS/Battery system (Left/Right): 200mm;<br>From other PCS/ESS/Battery system (front): 300mm;<br>From ceiling: 300mm;<br>From side wall(Left/Right): 200mm;<br>From front wall: 300mm;<br>From the ground: 500mm |
| | For Battery System | From other PCS/ESS/Battery System (Left/Right): 300mm;<br>From other PCS/ESS/Battery System (Front/Back): 1000mm;<br>From ceiling: 300mm;<br>From back wall: 20mm;<br>From front wall: 1000mm;<br>From side wall (Left/Right): 300mm |

| **Rating/Model** | | **ESS Model: HADEYE1 0.2-3.8k-xP** | **ESS Model: HADEYE1 0.2-4.8k-xP** | **ESS Model: HADEYE1 0.2-6.0k-xP** | **ESS Model: HADEYE1 0.2-7.6k-xP** | **ESS Model: HADEYE1 0.2-9.6k-xP** | **ESS Model: HADEYE1 0.2-11.5k-xP** |
|---|---|---|---|---|---|---|---|
| **Main ESS Rating** | | | | | | | |
| Output current (maximum continuous) for each power port | AC Grid port: | 16Aac | 20Aac | 25Aac | 32Aac | 40Aac | 48Aac |
| | EPS / AC Backup port: | 16Aac | 20Aac | 20Aac | 32Aac | 40Aac | 40Aac |
| Input current (maximum continuous) for each power port | AC Grid port: | 32Aac | 40Aac | 40Aac | 64Aac | 80Aac | 80Aac |
| | GEN Port: | 16Aac | 20Aac | 20Aac | 32Aac | 40Aac | 40Aac |
| Output voltage (minimum and maximum) for each power port | AC Grid port: | 120Vac/240Vac, Split phase | | | | | |
| | EPS / AC Backup port: | 120Vac/240Vac, Split phase | | | | | |
| Input voltage (minimum and maximum) for each power port | AC Grid port: | 120Vac/240Vac, Split phase | | | | | |
| | GEN Port: | 120Vac/240Vac, Split phase | | | | | |
| Power input (maximum continuous) for each power port | AC Grid port: | 7.68kW | 9.6kW | 9.6kW | 15.36kW | 19.2kW | 19.2kW |
| | Gen Port: | 3.84kW | 4.8kW | 4.8kW | 7.68kW | 9.6kW | 9.6kW |
| Power output (maximum | AC Grid port: | 3.84kW | 4.8kW | 6kW | 7.68kW | 9.6kW | 11.52kW |

  

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| continuous) for each power port | EPS / AC Backup port: | 3.84kW | 4.8kW | 4.8kW | 7.68kW | 9.6kW | 9.6kW |
| Energy storage capacity (maximum) | | 10.24 * x kWh (Note: "x" in the ESS model name could be 1-2 indicating the quantity of the battery system in parallel.) | | | | | |
| Frequency | AC Grid port: | 60Hz | | | | | |
| Number of phases for each power port | AC Grid port: | Split phase with neutral | | | | | |
| | EPS / AC Backup port: | Split phase with neutral | | | | | |
| | GEN Port: | Split phase with neutral | | | | | |
| Input short-circuits current rating (SCCR) | AC Grid port: | 50A | 50A | 50A | 100A | 100A | 100A |
| | GEN port: | 25A | 25A | 25A | 50A | 50A | 50A |
| Maximum overcurrent protective device rating | AC Grid port: | 40A | 50A | 50A | 80A | 100A | 100A |
| | EPS / AC Backup port: | 20A | 25A | 25A | 40A | 50A | 50A |
| | GEN port: | 20A | 25A | 25A | 40A | 50A | 50A |
| Output available fault current and time duration | AC Grid port: | 560Apk, 17.4ms | | | | | |
| **Other Rating** | | | | | | | |
| ESS Identification | | AC ESS | | | | | |
| ESS Type | | Multipart ESS (Main Label is on the PCS left side surface) | | | | | |
| Operating ambient temperature | | Inverter: -25°C ~ 65°C<br>Battery System: 1°C ~ 55°C (Charge), -20°C ~ 55°C (Discharge) | | | | | |
| Weight of system | | Inverter: 28 kg | | | Inverter: 37 kg | | |
| | | Battery System: 107 * x kg (Note: "x" in the ESS model name could be 1-2 indicating the quantity of the battery system in parallel.) | | | | | |
| Overall dimension of the system | | Inverter: 502mm(W) × 615mm(H) × 202mm(T) | | | Inverter: 502mm(W) × 740mm(H) × 202mm(T) | | |
| | | Single Battery System: 600±5mm(W) × 830±5mm(H) × 200±5mm(D) | | | | | |
| Environmental rating of Enclosure | | Inverter: Type 4X;<br>Battery System: IP65 | | | | | |
| Maximum altitude | | 2000m | | | | | |
| Pollution degree | | 2 | | | | | |
| Overvoltage Category | | AC Grid Port: III;<br>PV Port: II | | | | | |
| Technology utilized in system | | Li-ion (LFP) | | | | | |
| Minimum separation distances | For Power Conversion Equipment (PCS) | From other PCS/ESS/Battery system (Left/Right): 200mm;<br>From other PCS/ESS/Battery system (front): 300mm;<br>From ceiling: 300mm;<br>From side wall(Left/Right): 200mm;<br>From front wall: 300mm; | | | | | |

  

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| | | From the ground: 500mm |
| | For Battery System | From other PCS/ESS/Battery System (Left/Right): 300mm;<br>From other PCS/ESS/Battery System (Front/Back): 1000mm;<br>From ceiling: 300mm;<br>From back wall: 20mm;<br>From front wall: 1000mm;<br>From side wall (Left/Right): 300mm |

**Note:**

1. The ESS will be installed on site using inverter (PCS), battery system and the components specified in this report. Inverter rating details refer to CSA report 80150649. And Battery system ratings details refer to Certificate no. CU 72406708 0001, Test report no. CN24CL37 001, issued by TÜV Rheinland of North America, Inc.
2. The operating parameter such as voltage, current, temperature, environmental conditions etc. of ESS are not determined during this investigation. Battery System and PCS integrated into the ESS need to be used within the operating parameter of individual component rating. Installation of ESS shall maintain all components operating within the range in the certification of PCS and Battery system.
3. For Li-ion Battery Energy Storage System, the output ratings at stand-alone mode with charge controller are different from utility interactive mode.
4. The AC circuit breaker connected in the grid port will be considered by the end product user when installation.
5. Remote update function for safety related software has not been evaluated to UL 5500, further evaluation needs to be considered if remote updated function needed.

**Conditions of Acceptability:**

1. The acceptability of grid support utility interactive inverters shall be determined by the local electric utility.
2. The installation was not evaluated. The ESS shall be installed in accordance with applicable local installation code.
3. The system was not walk-in system without arc flash risk considered.
4. ESS installed in seismic and coastal region were not evaluated, further evaluation shall be considered when ESS used in these environments.
5. Based on the result and test condition/method in the UL 9540A report, the acceptability shall be determined by the local AHJ according to the real installation.

  

**Certificate:** 80251262 **Master Contract:** 261002

**Project:** 80251262 **Date Issued:** 2025-04-29

## APPLICABLE REQUIREMENTS

ANSI/CAN/UL 9540 Third Edition, with Rev. through March 7, 2025 - Energy Storage Systems and Equipment

## MARKINGS

See CSA Report.

Notes:

Products certified under Class C370108, C370188 have been certified under CSA's ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). www.scc.ca

# *Supplement to Certificate of Compliance*

**Certificate:** 80251262 **Master Contract:** 261002

***The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.***

## Product Certification History

| Project | Date | Description |
|---|---|---|
| 80251262 | 2025-04-29 | Original certification for AC Li-ion Battery Energy Storage System (AC ESS), Models HYDEYE10.2-@-xP, HADEYE10.2-@-xP (“@” in the model name could be 3.8k, 4.8k, 6.0k, 7.6k, 9.6k, 11.5k indicating the power of the PCS; “x” could be 1-2 indicating the quantity of the battery system in parallel.) in accordance with ANSI/CAN/UL 9540 Third Edition, with Rev. through March 7, 2025 - Energy Storage Systems and Equipment under CSA WMTC program. |