



# NEO+<sup>V2</sup>

600kW/750kWh to MW/MWh  
Battery Energy Storage Systems



enel x | Vicinity Shopping Centre VIC

- ≡ Turnkey AC Coupled Battery System
- ≡ Liquid Cooled with Fire Suppression
- ≡ Outdoor Freestanding Solution
- ≡ Advanced Power Control Software

Power your way

## SYSTEM COMPONENTS

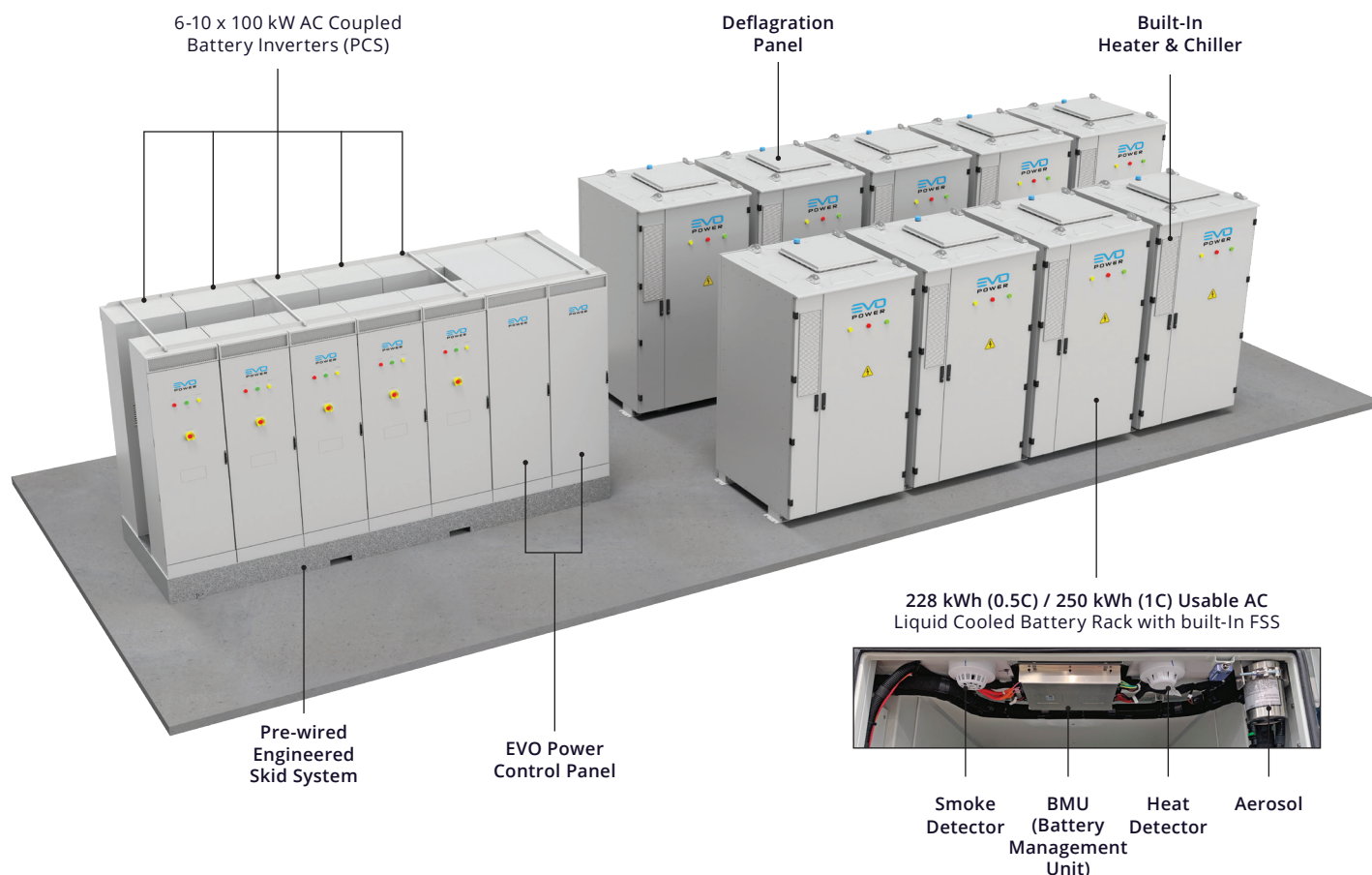


Image: NEO+ V2.0 SERIES 1,000 kW / 2,051 kWh USABLE AC BESS

## HARDWARE FEATURES



- o Improved LFP Chemistry
- o UL 9540A Certified Battery Racks
- o Liquid Cooling/Heating Battery Modules
- o Fire Suppression System Built-In
- o Deflagration Panel (NFPA855 compliant)



- o Very Fast FCAS Market Compliant
- o Scalable Inverter Station
- o High Voltage / High Efficiency
- o 400 VAC 3 Phase Output (4 wire)
- o Backup Power (Optional)

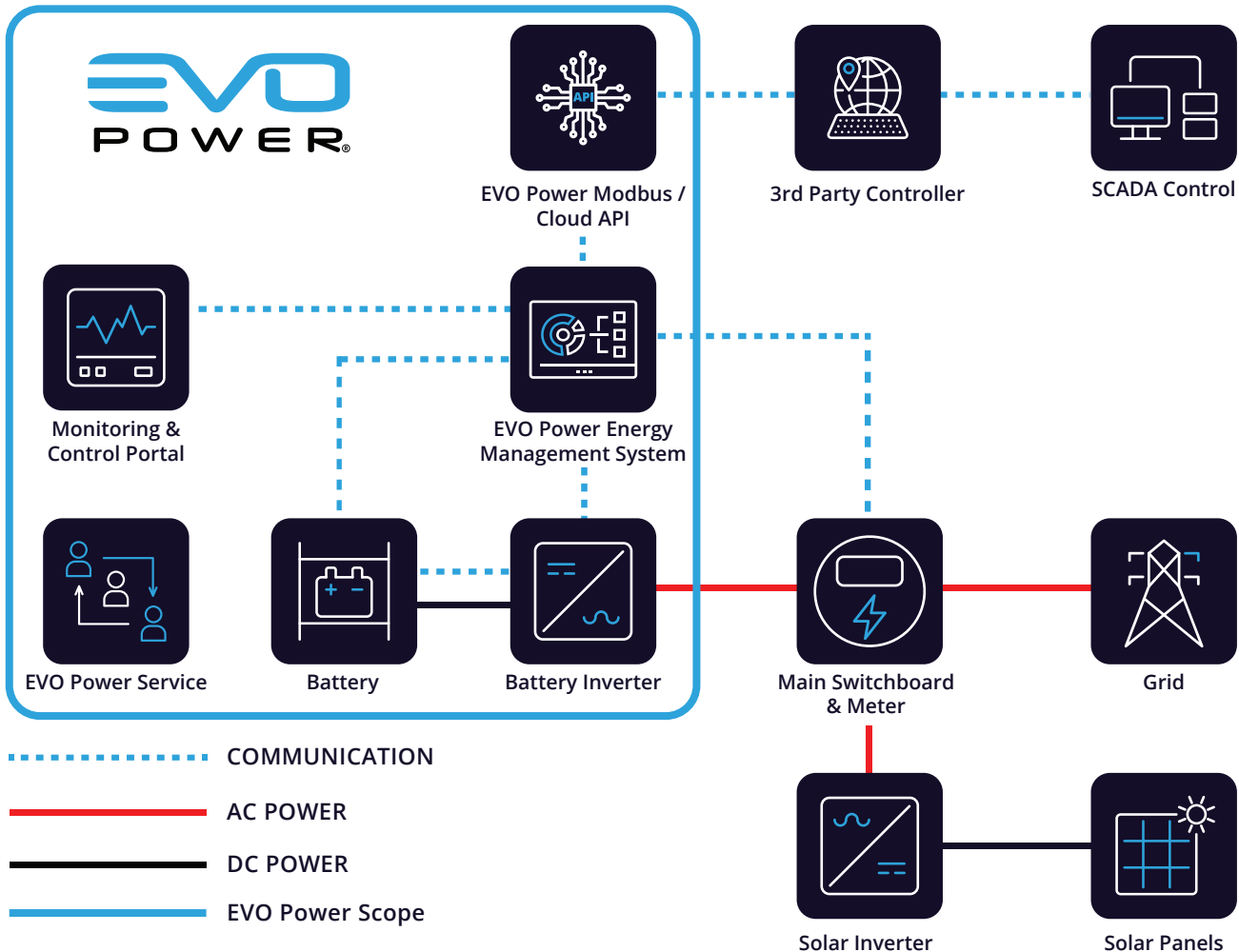


- o EVO Advanced Power Control Software
- o EVO API for 3rd Party VPP Aggregators
- o EVO Advanced Monitoring Platform
- o Optional Monitoring of PV Systems
- o Cyber Security (Secure VPN)



- o Outdoor Mounted Pod-Style Solution
- o Scalable & Flexible Layout Options
- o In-built Aux. Power Supply reducing BOS
- o Pre-configured AC & DC Protection Devices
- o Full-Turnkey World Class BESS Solution

## SYSTEM SCHEMATICS



## POWER CONTROL APPLICATIONS



- ≡ Solar Self-Consumption
- ≡ Peak Shaving
- ≡ Retail Time-of-Use

- ≡ Utility Meter Reading Capability
- ≡ Optional Solar Inverter Control
- ≡ Backup Power (Optional)

### ≡ EVO Power Modbus / Cloud API for 3rd Party System Control for Orchestration of Grid Services

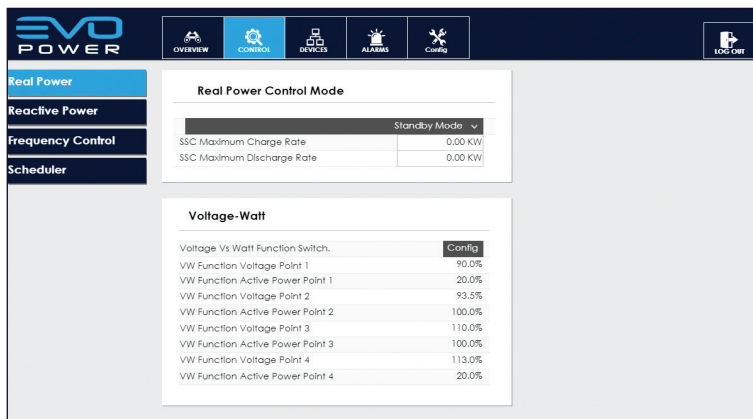
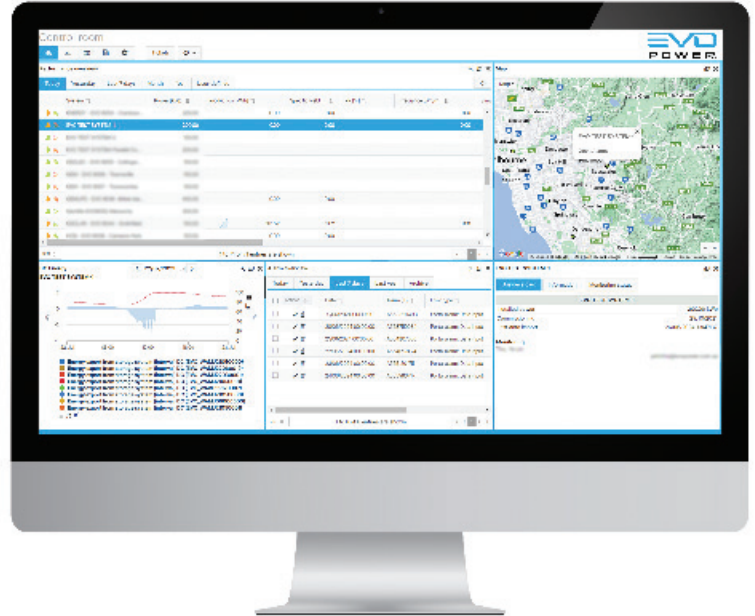


- FCAS / Grid Services
- Energy Arbitrage
- Virtual Power Plant
- Integration with other platforms

# EVO EMS (Energy Management System)

## EVO MONITORING PLATFORM

- Dashboard for a System-Specific Overview
- Individual Configuration of Alarm Criteria
- Mobile Monitoring with iOS and Android App.
- Calendar for Coordinating Service Deployments
- Individual Reporting, CSV Export of all Measurement Data
- Fleet Review - Tabular Display of the Key Performance Indicators for all Systems

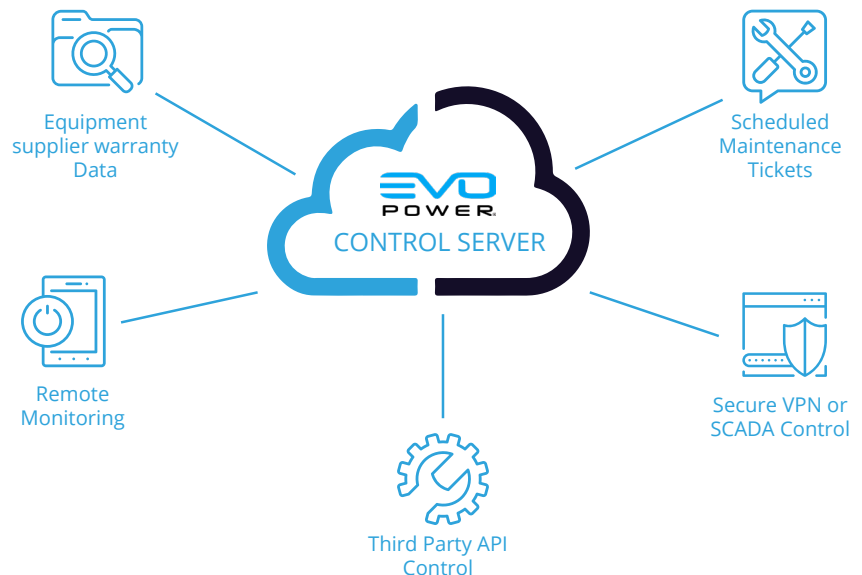


## EVO REMOTE CONTROL PLATFORM

- Graphical User Interface for Configuration
- Programmable Peak Shaving Fixed Value and Characteristic Curve Control
- Active Power and Reactive Power Control
- FCAS Response Control

## EVO CONTROL SERVER PLATFORM

- Optional Control via Third Party Optimisation / VPP Aggregator
- Agnostic API Control Commands
- Open Platform
- Optional SCADA Control
- Single Asset or Fleet Management



## NEO+ V2.0 SCALABILITY

NEO+ V2.0 600 kW / 1,000 kWh - Power\*



NEO+ V2.0 800 kW / 1,823 kWh\*

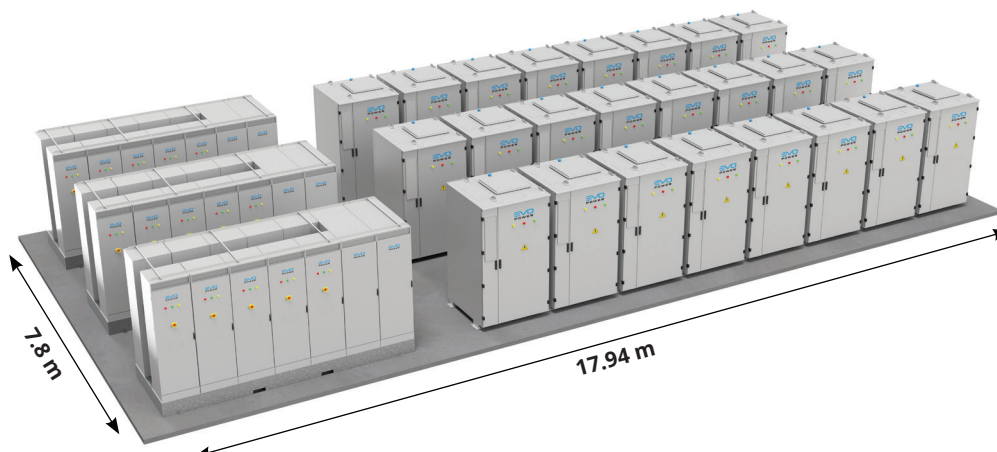


NEO+ V2.0 1,000 kW / 2,051 kWh\*



## NEO+ V2.0 MW CONFIGURATION

3 MW / 6.153 MWh (3 x NEO+ V2.0 1,000 kW / 2,051 kWh)\*



\* Usable Energy AC

Note: Dimensions may vary, excludes product maintenance clearances. Client needs to follow regulatory installation guidelines.

## SYSTEM SPECIFICATIONS

| INVERTER SPECIFICATIONS                                     | NEO+ <sup>V2</sup><br>600 kW                                                                                                                                                                                                                                                                                                                                                          | NEO+ <sup>V2</sup><br>700 kW | NEO+ <sup>V2</sup><br>800 kW | NEO+ <sup>V2</sup><br>900 kW      | NEO+ <sup>V2</sup><br>1000 kW |
|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------------------|-----------------------------------|-------------------------------|
| Rated AC Power                                              | 600 kVA / kW                                                                                                                                                                                                                                                                                                                                                                          | 700 kVA / kW                 | 800 kVA / kW                 | 900 kVA / kW                      | 1,000 kVA / kW                |
| Rated Grid Voltage                                          | 400 VAC                                                                                                                                                                                                                                                                                                                                                                               |                              |                              |                                   |                               |
| Rated AC Current                                            | 870 A                                                                                                                                                                                                                                                                                                                                                                                 | 1,015 A                      | 1,160 A                      | 1,305 A                           | 1,450 A                       |
| Total Harmonic Distortion                                   | <3%                                                                                                                                                                                                                                                                                                                                                                                   |                              |                              |                                   |                               |
| Rated Grid Frequency (Range)                                | 50 Hz (45 ~ 55 Hz)                                                                                                                                                                                                                                                                                                                                                                    |                              |                              |                                   |                               |
| Peak Efficiency                                             | 98%                                                                                                                                                                                                                                                                                                                                                                                   |                              |                              |                                   |                               |
| Power Factor                                                | -1 to 1, continuously adjustable                                                                                                                                                                                                                                                                                                                                                      |                              |                              |                                   |                               |
| ENERGY STORAGE (Parallel up to 6x battery racks per system) |                                                                                                                                                                                                                                                                                                                                                                                       |                              |                              |                                   |                               |
| Nominal Energy DC<br>(Max. useable energy DC) <sup>1</sup>  | 255 kWh<br>(238 kWh) for 0.5C Cells                                                                                                                                                                                                                                                                                                                                                   |                              |                              | 285 kWh<br>(263 kWh) for 1C Cells |                               |
| Max. useable energy AC (BOL) <sup>1</sup>                   | 228 kWh for 0.5C Cells                                                                                                                                                                                                                                                                                                                                                                |                              |                              | 250 kWh for 1C Cells              |                               |
| Voltage Range (Nominal Voltage)                             | 650 ~ 949 VDC<br>(832 VDC)                                                                                                                                                                                                                                                                                                                                                            |                              |                              | 780 ~ 1,138 VDC<br>(998.4 VDC)    |                               |
| Chemistry                                                   | Lithium Iron Phosphate (LFP)                                                                                                                                                                                                                                                                                                                                                          |                              |                              |                                   |                               |
| ENVIRONMENTAL                                               |                                                                                                                                                                                                                                                                                                                                                                                       |                              |                              |                                   |                               |
| Operating Temperature Range /<br>Humidity Range             | -30~55 °C (Inverter derating at 45 to 55 °C) / 0 to 95% RH non condensing                                                                                                                                                                                                                                                                                                             |                              |                              |                                   |                               |
| IP Ratings                                                  | Energy Storage IP66, EVO Control Panel IP54, Inverter IP55                                                                                                                                                                                                                                                                                                                            |                              |                              |                                   |                               |
| FEATURES                                                    |                                                                                                                                                                                                                                                                                                                                                                                       |                              |                              |                                   |                               |
| VPP & Grid services platform                                | YES – Capable through EVO Power API & 3 <sup>rd</sup> Party Aggregator                                                                                                                                                                                                                                                                                                                |                              |                              |                                   |                               |
| AC & DC Isolation Devices                                   | Internal AC & DC Isolation prewired and included as standard                                                                                                                                                                                                                                                                                                                          |                              |                              |                                   |                               |
| Fire Suppression System                                     | Fire Suppression system with smoke and heat detectors plus aerosols.<br>Deflagration panel                                                                                                                                                                                                                                                                                            |                              |                              |                                   |                               |
| COMPLIANCE                                                  |                                                                                                                                                                                                                                                                                                                                                                                       |                              |                              |                                   |                               |
| Inverter Related Standards                                  | AS/NZS 4777.2, VDE-AR N4105, IEC/EN 62477.1, IEC 62109-1/-2,<br>IEC/EN 61000.6.2, IEC/EN 61000.6.4, IEC 60068.2.64                                                                                                                                                                                                                                                                    |                              |                              |                                   |                               |
| Battery Related Standards                                   | UN 38.3, UL 1973, UL 9540A, IEC 62619, IEC 61000.6.2/.4, NFPA855                                                                                                                                                                                                                                                                                                                      |                              |                              |                                   |                               |
| DIMENSIONS & WEIGHTS                                        |                                                                                                                                                                                                                                                                                                                                                                                       |                              |                              |                                   |                               |
| System dimensions (L x W x H)                               | • NEO+ V2.0 Series 600 PCS Station - 3,000 x 1,410 x 2,250 mm<br>• NEO+ V2.0 Series 700 & 800 PCS Station - 3,600 x 1,410 x 2,250 mm<br>• NEO+ V2.0 Series 900 & 1,000 PCS Station - 4,200 x 1,410 x 2,250 mm<br>• 1,390 x 1,344 x 2,344 mm for each Battery Rack                                                                                                                     |                              |                              |                                   |                               |
| Weight of key components (kg)                               | • NEO+ V2.0 Series 600 PCS Station - 2,072 kg<br>• NEO+ V2.0 Series 700 PCS Station - 2,322 kg<br>• NEO+ V2.0 Series 800 PCS Station - 2,572 kg<br>• NEO+ V2.0 Series 900 PCS Station - 2,822 kg<br>• NEO+ V2.0 Series 1,000 PCS Station - 3,072 kg<br>NEO V2.0 Series 250 kWh 1C Battery Rack - 2,955 kg per rack<br>• NEO V2.0 Series 228 kWh 0.5C Battery Rack - 2,760 kg per rack |                              |                              |                                   |                               |

| SYSTEM DESCRIPTION                     | EVO PART NO. | CHARGE / DISCHARGE POWER [AC kW] | USEABLE ENERGY (BOL, AC kWh) <sup>2</sup> | NOMINAL ENERGY (BOL, DC kWh) <sup>2</sup> |
|----------------------------------------|--------------|----------------------------------|-------------------------------------------|-------------------------------------------|
| NEO+ V2.0 600 kW / 750 kWh - Power     | 1234         | 600                              | 750                                       | 854                                       |
| NEO+ V2.0 600 kW / 1,000 kWh - Power   | 1235         | 600                              | 1,000                                     | 1,138                                     |
| NEO+ V2.0 600 kW / 1,139 kWh           | 1260         | 600                              | 1,139                                     | 1,273                                     |
| NEO+ V2.0 600 kW / 1,367 kWh           | 1261         | 600                              | 1,367                                     | 1,528                                     |
| NEO+ V2.0 600 kW / 1,595 kWh           | 1262         | 600                              | 1,595                                     | 1,782                                     |
| NEO+ V2.0 600 kW / 1,823 kWh           | 1263         | 600                              | 1,823                                     | 2,037                                     |
| NEO+ V2.0 700 kW / 750 kWh - Power     | 1236         | 700                              | 750                                       | 854                                       |
| NEO+ V2.0 700 kW / 1,000 kWh - Power   | 1237         | 700                              | 1,000                                     | 1,138                                     |
| NEO+ V2.0 700 kW / 1,367 kWh           | 1264         | 700                              | 1,367                                     | 1,528                                     |
| NEO+ V2.0 700 kW / 1,595 kWh           | 1265         | 700                              | 1,595                                     | 1,782                                     |
| NEO+ V2.0 700 kW / 1,823 kWh           | 1266         | 700                              | 1,823                                     | 2,037                                     |
| NEO+ V2.0 800 kW / 1,000 kWh - Power   | 1238         | 800                              | 1,000                                     | 1,138                                     |
| NEO+ V2.0 800 kW / 1,250 kWh - Power   | 1239         | 800                              | 1,250                                     | 1,423                                     |
| NEO+ V2.0 800 kW / 1,595 kWh           | 1267         | 800                              | 1,595                                     | 1,782                                     |
| NEO+ V2.0 800 kW / 1,823 kWh           | 1268         | 800                              | 1,823                                     | 2,037                                     |
| NEO+ V2.0 900 kW / 1,000 kWh - Power   | 1240         | 900                              | 1,000                                     | 1,138                                     |
| NEO+ V2.0 900 kW / 1,250 kWh - Power   | 1241         | 900                              | 1,250                                     | 1,423                                     |
| NEO+ V2.0 900 kW / 1,500 kWh - Power   | 1242         | 900                              | 1,500                                     | 1,707                                     |
| NEO+ V2.0 900 kW / 1,823 kWh           | 1269         | 900                              | 1,823                                     | 2,037                                     |
| NEO+ V2.0 1,000 kW / 1,000 kWh - Power | 1243         | 1000                             | 1,000                                     | 1,138                                     |
| NEO+ V2.0 1,000 kW / 1,250 kWh - Power | 1244         | 1000                             | 1,250                                     | 1,423                                     |
| NEO+ V2.0 1,000 kW / 1,500 kWh - Power | 1245         | 1000                             | 1,500                                     | 1,707                                     |
| NEO+ V2.0 1,000 kW / 1,750 kWh - Power | 1246         | 1000                             | 1,750                                     | 1,992                                     |
| NEO+ V2.0 1,000 kW / 2,051 kWh         | 1270         | 1000                             | 2,051                                     | 2,291                                     |

Combinations of the same systems above can be controlled in parallel.

<sup>1</sup>. Useable energy & Nominal Energy is based on beginning of battery life at 25 °C and at peak efficiency charge/discharge rate.

<sup>2</sup>. All AC power ratings excludes auxiliary power consumption. All auxiliary circuits are powered by the PCS when in backup mode.

For back-up applications - additional kit and battery capacity is required. Contact your EVO Power Account Manager for further details.

All specifications are at 25 °C and rated DC input voltage unless otherwise stated, values may be different at higher or lower temperatures.

Please contact EVO Power for the detailed Warranty Statement.

Specifications may be updated without notice, please refer to the EVO Power website for the current information.



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