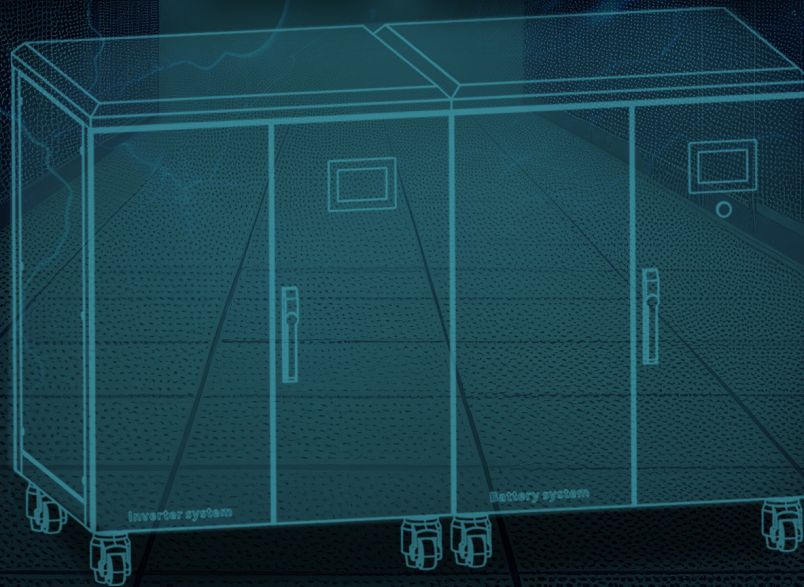




[www.appliedgraymatter.com](http://www.appliedgraymatter.com)

*Battery Emergency Backup System*

**BEBS**



2871E Via Martens, Anaheim, CA92806 • 13110 NE 177th Place, Suite 223, Woodinville, WA 98072  
[rock@appliedgraymatter.com](mailto:rock@appliedgraymatter.com) • (315) 878 23 72 • (425) 420 03 00

**Applied Gray Matter is excited to introduce the first-of-its-kind Battery Emergency Backup System (BEBS) to the market.**

**What distinguishes our product from regular diesel generators *is its low emissions and minimal noise.***

Our EPBS is designed for both industrial and commercial use, making it versatile for a wide range of applications, including:



**Industrial Equipment**



**Industrial Robots**



**Plant Lighting**



**Office Space Backup Power**

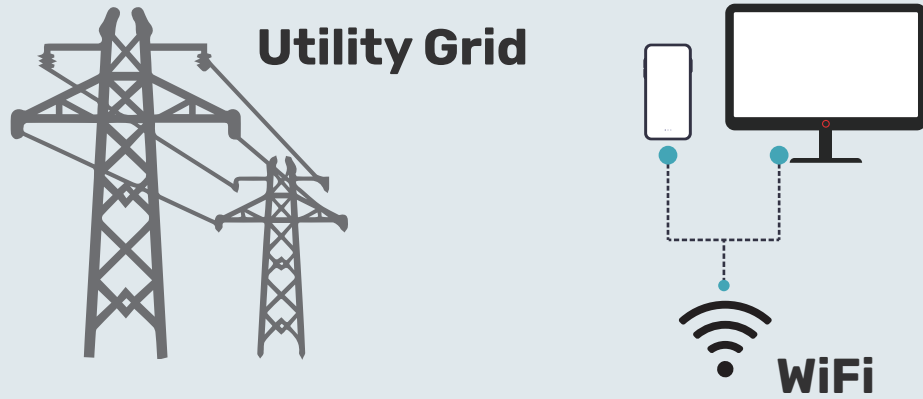


**Automated Parking System**



**Mobile Portable Operating Equipment**

# Industrial-Use Battery Emergency Backup System

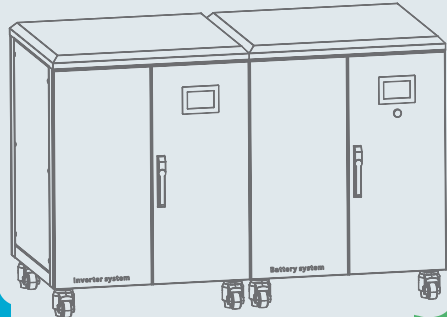


Support four different  
input voltage levels

**INPUT**

Three-phase 480VAC  
Three-phase 208/240VAC  
Single-phase 240VAC  
Single-phase 120VAC

**Battery System  
& Inverter System**



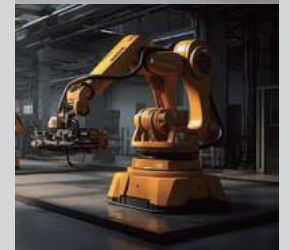
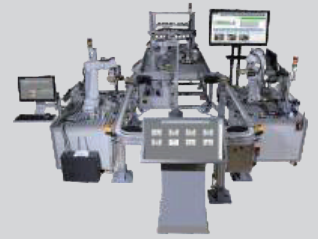
Support four different  
output voltage levels

**OUTPUT**

Three-phase 480VAC  
Three-phase 240VAC  
Single-phase 240VAC  
Single-phase 120VAC

The unit is upgradeable and can accept multiple battery packs to increase storage capacity. Each battery pack provides 40kWh, and the inverter is rated at 30kW.

With capability to add total of 10 battery packs, this unit can have total of 400kWh of storage. All components, including the inverter and battery pack, are UL listed/recognized.



# SYSTEM PARAMETERS

| Specification   Model                      | Backup Emergency Power Supply:<br>30KW Inverter System + 40KWH Battery Storage System  |
|--|--|
|  | <b>Inverter Parameters</b>   |
| <b>Input Voltage</b>                       | Three-phase 208/240/480VAC & Single-phase 120/208/240VAC   |
| <b>Input Frequency</b>                     | 60 Hz  |
| <b>Output Power</b>                        | 30 KW  |
| <b>Output Voltage</b>                      | Three-phase 240/480VAC & Single-phase 120/240VAC   |
| <b>Output Current</b>                      | MAX 36 A / 78 A / 83 A   |
| <b>Output Waveform</b>                     | 60 Hz / Sine Wave  |
| <b>Wireless Communication</b>              | WiFi   |
| <b>Data Viewing</b>                        | Mobile APP / Web Data Viewing  |
|  | <b>Lithium Battery Parameters</b>  |
| <b>Nominal Voltage</b>                     | 192 Vdc  |
| <b>Nominal Capacity</b>                    | 204 Ah   |
| <b>Max. Discharge Current</b>              | 200 A  |
| <b>Operation Voltage Range</b>             | 168 Vdc ~ 219 Vdc  |
| <b>Dc Low Voltage Alarm</b>                | 168 Vdc  |
| <b>Dc Low Voltage Off Breakpoint</b>       | 150 Vdc  |
| <b>Dc Low Voltage Alarm Recovery Point</b> | 174 Vdc  |
| <b>Protection</b>                          | Overcharge protection, Overdischarge Protection, Overcurrent Protection,<br>Short-circuit Protection, Overtemperature Protection |
|  | <b>Ambient</b>   |
| <b>Working Temperature</b>                 | -10°C ~ +50°C  |
| <b>Humidity</b>                            | 0 ~ 95%  |
| <b>Sea Level (m)</b>                       | ≤ 1500   |

What sets our system apart is the variety of input and output voltages it supports. Both input and output accept all voltage levels used in the US:

- **Three-phase 480VAC**
- **Three-phase 208/240VAC**
- **Single-phase 240VAC**
- **Single-phase 120VAC**

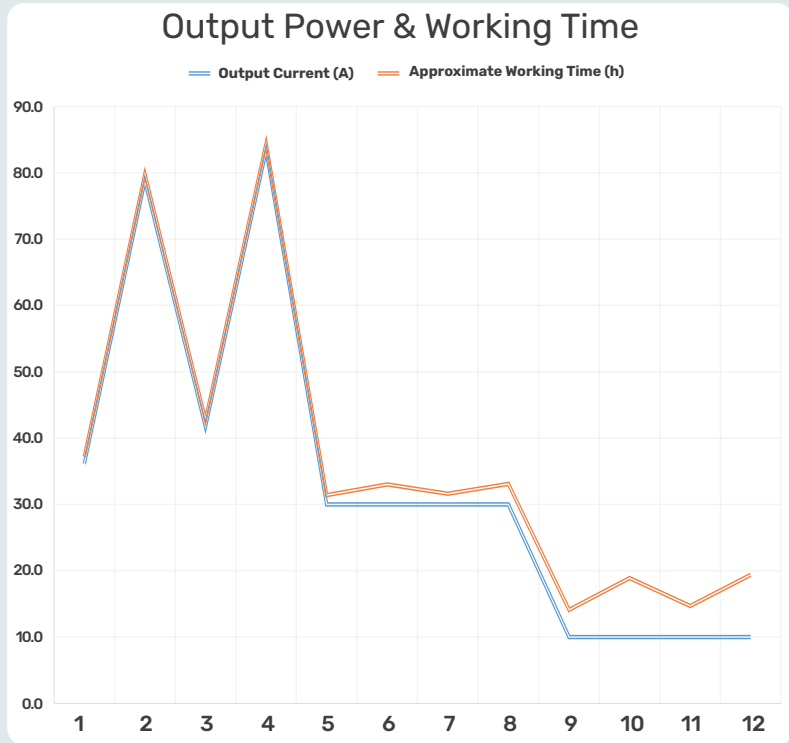
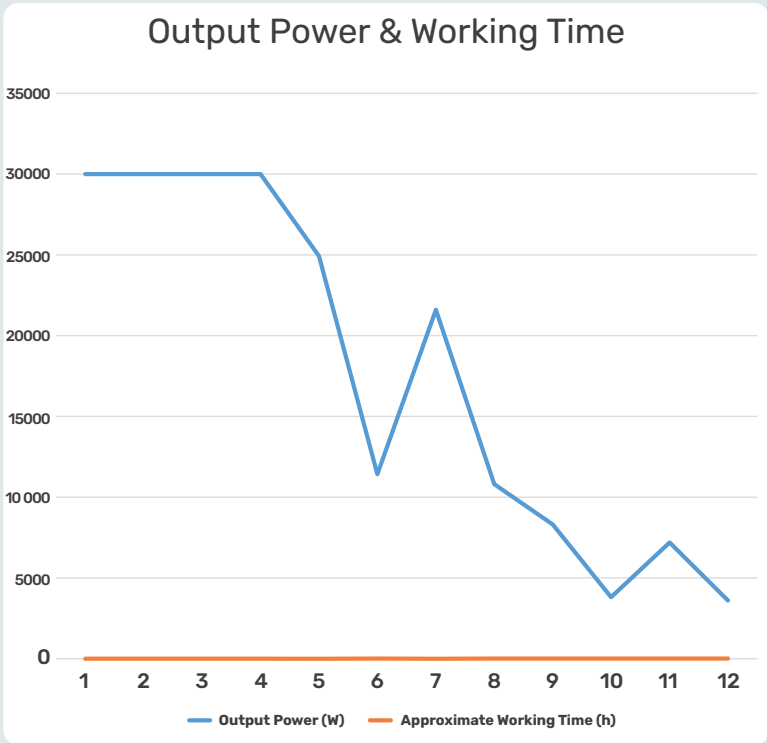
The unit can be charged with one voltage level at a time. However, what truly distinguishes the AGM EPBS system is its ability to output three-phase 480VAC and single-phase 240VAC simultaneously.



## Reference Working Time Table

|                                |       |       |       |       |       |       |       |       |       |       |       |       |
|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Battery capacity(WH)           | 40000 | 40000 | 40000 | 40000 | 40000 | 40000 | 40000 | 40000 | 40000 | 40000 | 40000 | 40000 |
| Average working efficiency     | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  |
| output power(W)                | 30000 | 30000 | 30000 | 30000 | 24930 | 11430 | 21600 | 10800 | 8310  | 3810  | 7200  | 3600  |
| Output three-phase voltage(V)  | 480   | 220   | /     | /     | 480   | 220   | /     | /     | 480   | 220   | /     | /     |
| Output single-phase voltage(V) | 277   | 127   | 240   | 120   | 277   | 127   | 240   | 120   | 277   | 127   | 240   | 120   |
| output current(A)              | 36.1  | 78.7  | 41.7  | 83.3  | 30.0  | 30.0  | 30.0  | 30.0  | 10.0  | 10.0  | 10.0  | 10.0  |
| Number of phases/circuits      | 3P*1C | 3P*1C | 2P*3C | 2P*3C | 3P*1C | 3P*1C | 2P*3C | 2P*3C | 3P*1C | 3P*1C | 2P*3C | 2P*3C |
| Approximate working time(h)    | 1.1   | 1.1   | 1.1   | 1.1   | 1.4   | 3     | 1.6   | 3.1   | 4.1   | 8.9   | 4.7   | 9.4   |
| Approximate working time(min)  | 68    | 68    | 68    | 68    | 81.8  | 178.5 | 94.4  | 188.9 | 245.5 | 535.4 | 283.3 | 566.7 |

Note: The above variables are calculated on average under certain test conditions for reference only and are slightly different in actual application



#### Estimated Charging Time for Industrial-Use Emergency Power System 40KWH

|  |             |             |             |             |
|--|-------------|-------------|-------------|-------------|
| <b>Input Voltage (V)</b>                   | <b>480</b>  | <b>220</b>  | <b>240</b>  | <b>120</b>  |
| <b>Battery Charging Current (A)</b>        | <b>20.0</b> | <b>20.0</b> | <b>20.0</b> | <b>10.0</b> |
| <b>Approximate Battery Charge Time (h)</b> | <b>10.2</b> | <b>10.2</b> | <b>10.2</b> | <b>20.4</b> |

