

# FUTURE OF ENERGY STORAGE

Cygni Energy is a Next-Generation Energy Storage Company and Defines the Future of Energy Storage Across Key Verticals

cygn



www.cygni.com

## PRODUCTS





#### Save Nature & Save Money With Cygni **LI-ION BATTERY FOR EV-2 WHEELER**

S.No	Segment	Battery Pack Voltage (V)	Battery Pack Current(Ah)	Battery Pack Capacity (Wh)	Chemistry	Cell Level Voltage (V)	Cell Level Current (A)	Dimension (mm) (LxWxH)	Approx Weight (Kg)
1	Q Cycle	51.2	12	614.4	LFP	3.2	6	416x174x95	6.5
2	2W	48	28	1344	NMC	3.65	2.6	222x168x148	9
3	2W	60	28	1680	NMC	3.65	2.6	370x180x155	14
4	2W	60	29	1740	NMC	3.7	2.9	370x180x155	14
5	2W	51.1	39	1993	NMC	3.65	2.6	210x160x320	18
6	2W	51.8	40.6	2103	NMC	3.7	2.9	210x160x270	16
7	2W	51.8	43.5	2253	NMC	3.7	3.2	210x160x280	17
8	2W	51.8	44.8	2321	NMC	3.7	3.2	210x160x280	17
9	2W	60	39	2340	NMC	3.65	2.6	370x180x161	16
10	2W	51.2	60	3072	LFP	3.2	6	723x304x273	34

#### **Product Range For Two Wheelers**



614.4 Wh Nominal Voltage : 51.2V Weight : 6.5 Kg Capacity : 12Ah Dimension(mm) : 416X174X95



2 kWh Nominal Voltage : 51.1V Weight : 18 Kg Capacity : 39Ah Dimension(mm) : 210X160X320

2.32 kWh Nominal Voltage : 51.8V Weight : 17 Kg Capacity : 44.8Ah

#### **Batteries That Last Longer**

- Normal Battery capacity: Up to 75Ah
- Nominal voltage: 24V, 48V, 51V, 60V
- Efficiency: >97%
- Max charging current: 0.5C / 1C
- Max discharging current: 1C / 2C
- Software BMS



#### 2.10 kWh Nominal Voltage : 51.8V Weight : 16 Kg Capacity : 40.6Ah Dimension(mm) : 210X160X270



# Dimension(mm) : 210X160X280

# 115

## **LI-ION BATTERY FOR EV-3 WHEELER**

S.No	Segment	Battery Pack Voltage (V)	Battery Pack Current(Ah)	Battery Pack Capacity (Wh)		Cell Level Voltage (V)	Cell Level Current (A)	Dimension (mm) (LxWxH)	Approx Weight (Kg)
1	3W	48	163	7824	LFP	3.2	163	630x230x310	64
2	3W	51.2	163	8346	LFP	3.2	163	630x230x310	64
3	3W	48	203	9744	LFP	3.2	14.5	640x330x220	75
4	3W	51.2	203	10394	LFP	3.2	14.5	640x330x220	75

#### **Product Range For Three Wheelers**



7.82 kWh Nominal Voltage : 48V Weight : 64 Kg Capacity : 163Ah



Dimension(mm): 630X230X310





#### 10.39 kWh

Nominal Voltage : 51.2V Weight : 75 Kg Capacity : 203Ah Dimension(mm) : 640X330X220

#### **Batteries That Last Longer**

- 3-W Li-Ion Battery Packs for E-Rickshaws, L3/L5 Loader Vehicles
- Battery capacity: 65/70/78/84/91/ 98/104/112 upto 200 Ah
- Nominal voltage: 48V, 51V
- Efficiency: >97%
- Max charging current: 0.5C / 1C
- Max discharging current: 1C / 2C

#### Li-ion Battery For Energy Storage Systems ESS (BATTERY ENERGY STORAGE SYSTEM SOLUTIONS) Cygni Presents Li- Ion Battery For Energy Storage Systems Used In

Data Centers, Telecom, Offices, Industrial Uses, Residential Uses



Complete Powering Solutions And Customizable As Per The Demand

#### **Product Range For ESS**



#### 3.12 kWh

Nominal Voltage : 48V Weight : 29 Kg Capacity : 65Ah Dimension(mm) : 542X275X193



3.84 kWh Nominal Voltage : 48V Weight : 35 Kg Capacity : 80Ah Dimension(mm) : 542X275X200

#### 5.12 kWh

Nominal Voltage : 51.2V Weight : 45 Kg Capacity : 100Ah Dimension(mm) : 400X300X200

#### Features

- Excellent high temperature performance:
- High cycle life and deep cycle
- Battery managementi
- Paralleling use
- Intelligent monitoring

#### We Just Do It Right

The first company to be a part of India's Startup Campaign. We have received National and International recognitions. Our products are fully compliant and approved under various standardization bodies. You can be rest assured that the product you receive will be the best-in-class.

#### **CUSTOMERS**



## THINK ,DREAM & BELIEVE BIG



Cygni envisions a future where the energy to power our lives is produced closer to homes and offices. Our battery packs are custom-tailored, technologically superior and differentiated to suit the diverse and complicated transportation and energy storage requirements.



We believe that the 2023s will be the decade of electric vehicles. Cygni envisions a future where the energy to power our lives is produced closer to homes and offices. Our battery packs are custom-tailored, technologically superior and differentiated to suit the diverse and complicated transportation requirements of India.



Dedicated to providing high quality products & services. Continually striving for the best, through innovation.



## **ABOUT US**

Cygni Energy is new age energy generation, energy storage and energy processing company based out of Hyderabad.

#### At Cygni, we are rethinking energy with game-changing battery technologies.

- A battery technology and engineering company, a pioneer in developing customized battery packs for EVs and other energy storage applications.
- Chemistry Agnostic Solutions: Irrespective of underlying cell chemistry, Cygni can incorporate them into their battery packs and modify the hardware/firmware of the Battery Management System (BMS) for effective pack level engineering.
- Strong Focus on R&D and Technology: Strong focus on innovating at the pack-level including BMS and thermal management, cell testing and battery pack architecture
- Manufacturing: Currently operating a 250 MWh plant (capability to produce 10,000 Li-ion battery packs per month).

#### **Greenfield Project**



Cygni is building a Greenfield Manufacturing facility in Hyderabad, Telangana with 1.2GWh capacity and a production capacity of 40,000 batteries per month. With state-of-art battery manufacturing equipment and Industry 4.0 system which are scalable and compatible with open protocols. Expected to becommissioned by Mar '24.

#### PARTNERS & CERTIFICATIONS

Cygni R&D is recognised by DSIR, Department of Science and Technology



#### **National & International Recognition**



**EV STATE SUMMIT AWARDS 2022** Business Leadership – Manufacturing Winner



**GREATER GOOD AWARD** for a Remote Microgrid



**ASSOCHAM** Award for Most Innovative SME Company



for contribution towards Indian Engineering and Technology







## MANUFACTURING

#### **EV Line Features**

- Four Semi-Automated Battery Assembly Line for Two Wheeler, Three Wheeler and Energy Storage applications.
- QR code reading at cell, module and pack level for tracking Batch code, Voltage, Impedance for end-to-end traceability.
- Automatic battery pack loading arrangement with positioning based on vision camera feedback
- Vision system based cell orientation measurement
- Sorting and Grouping of cells on the basis of Voltage and Internal Resistance
- IP67 Leak Testing
- End-of-Line (EOL) testing using advanced data loggers
- Cell polarity checking



### **Cygni Energy Private Limited**

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