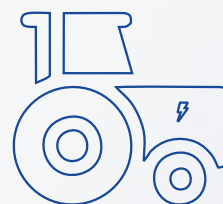
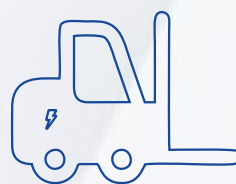
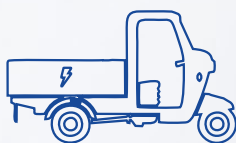




CHARGING SOLUTIONS



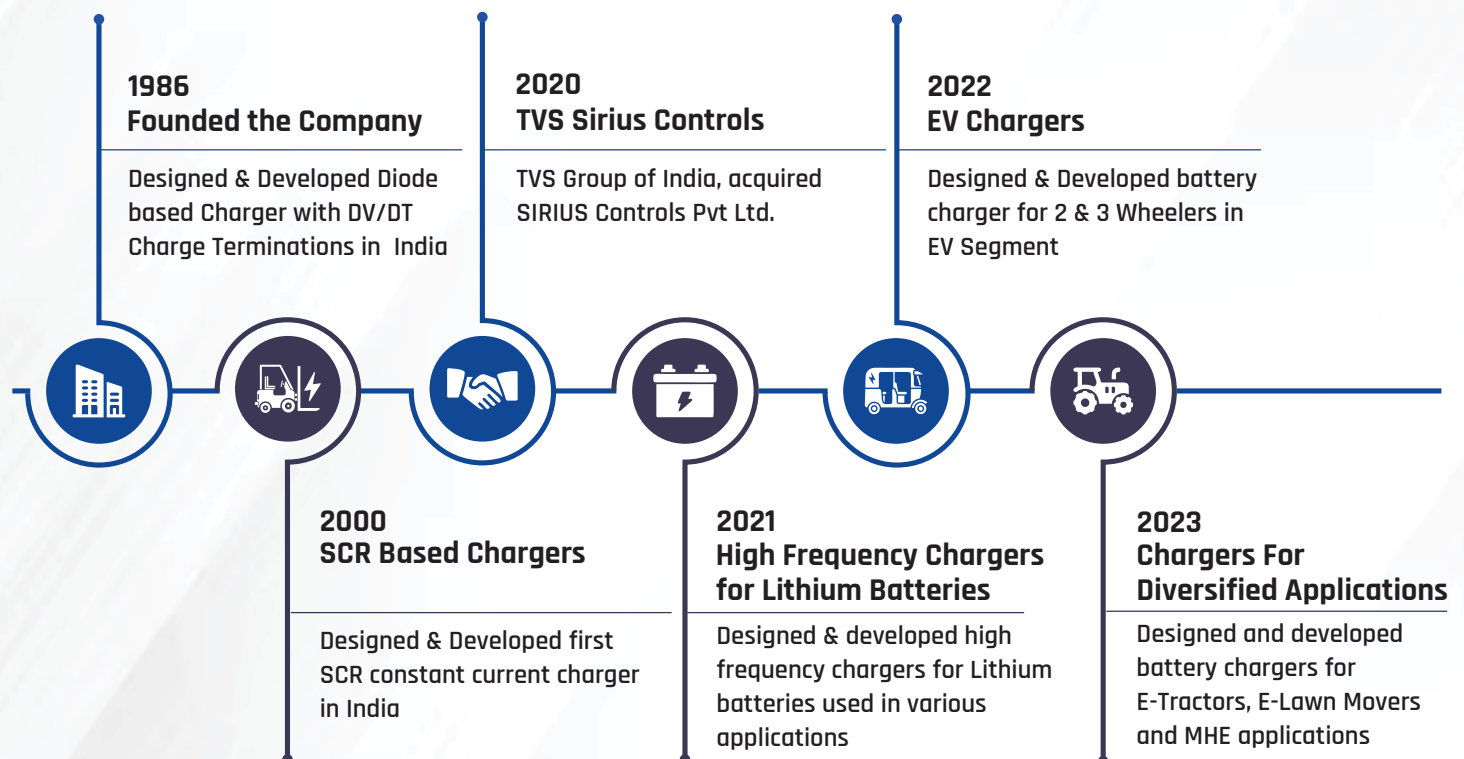
## About Us

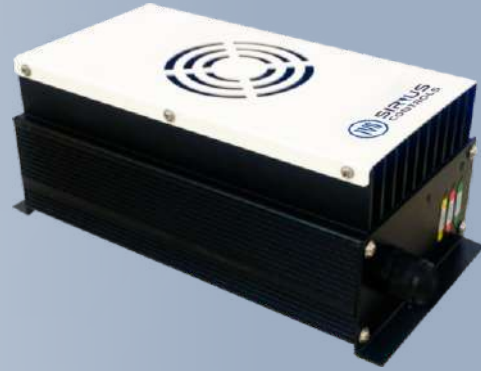
Sun Tyre & Wheel Systems, part of the 109-year, \$8 billion TVS Group of India, acquired SIRIUS Controls Pvt Ltd. In Mar-2020. SIRIUS Controls Pvt Ltd. was set up in 1986 to produce Chargers for Flooded Lead Acid, VRLA, and Lithium batteries used in Material Handling Equipment. We have over 95% market share of all major MHE OEMs in India.

Our core strength is in our Engineering Design Centre which continuously innovates, develops, expands and improves with a “can do” approach for all our global customers. As a result, we design solutions for all challenges and opportunities from a full range of battery chargers across complete spectrum of price points. Our unique business model, a passion for reliability, unrivalled customer service and an enduring loyalty to our clients make TVS Sirius a preferred partner for customers worldwide.

We indigenously develop, test and manufacture all our chargers in India. One of our other key strengths lies in the ability to optimize the supply chain, ensuring timely access to raw materials and efficient manufacturing and assembly processes. Implementing rigorous quality control measures, such as Total Quality Management, ensures that our products meet or exceed industry standards, reducing defects and enhancing reliability.

## Timeline





## 1000 WATTS (1kW) CHARGER

Model No - AS 1000

### Technical Specifications

Input Voltage Range	230VAC +/-15%, 45 to 65Hz full load
Battery Type	Lithium Ion, Lead Acid
Efficiency	>90%
Indication	LED
Power Factor	>0.99
CAN Bus	Isolated, CAN 2.0B
Charging Profile	CC-CV/ Customizable
Operating Temperature	5°C to 50°C
Place of installation	Off-board(IP20)/ On-board (IP66)
Certification	Available on request

### Customization

- Input cable length/ connector
- Output cable length/ connector
- Outer casing/enclosure and handle
- CAN communication
- Charging profile customization
- RCD

### Protection

- Reverse Battery protection
- Short circuit protection
- Over Current protection
- Earth Leakage protection
- Input under/over voltage protection
- Output under/ over voltage protection
- Over temperature protection
- CAN time out



Power

1kW



Ingress Protection

IP20/ IP 66



Product Variants

S No.	Voltage	Current
1	24V	15A
2	48V	15A
3	60V	10A
4	72V	8A



Dimensions

- IP 20- 280mm X 135mm X 110mm
- IP 66- 250mmX125mmX100mm



Weight

- IP 20- 3.5 kg
- IP 66- 3.0 kg



Applications



2-Wheelers



Battery Operated Pallet Trucks



Stackers



Floor Cleaners



Lawn Mower



## 1200 WATTS (1.2kW) CHARGER

Model No - AS 1200

### Technical Specifications

Input Voltage Range	230VAC +/-15%, 45 to 65Hz full load
Battery Type	Lithium Ion, Lead Acid
Efficiency	>90%
Indication	LED
Power Factor	>0.99
CAN Bus	Isolated, CAN 2.0B
Charging Profile	CC-CV/ Customizable
Operating Temperature	5°C to 50°C
Place of installation	Off-board
Certification	Available on request



Power

1.2kW



Ingress Protection

IP20



Product Variants

S No.	Voltage	Current
1	24V	20A to 40A
2	48V	20A
3	60V	15A
4	72V	10A



Dimensions

240mm X 140mm X 100mm



Weight

4.0 kg



Applications



2-Wheelers



3-Wheeler Passenger



3-Wheeler Cargo



Battery Operated Pallet Trucks



Stackers



Floor Cleaners



Lawn Mower

### Customization

- Input cable length/ connector
- Output cable length/ connector
- Outer casing/enclosure and handle
- Wake-up function
- CAN communication
- RCD
- Charging profile customization

### Protection

- Reverse Battery protection
- Short circuit protection
- Over Current protection
- Earth Leakage protection
- Input under/over voltage protection
- Output under/ over voltage protection
- Over temperature protection
- CAN time out



## 1600 WATTS (1.6kW) CHARGER

Model No - AS 1600

### Technical Specifications

Input Voltage Range	230VAC +/-15%, 45 to 65Hz full load
Battery Type	Lithium Ion, Lead Acid
Efficiency	>90%
Indication	LED
Power Factor	>0.99
CAN Bus	Isolated, CAN 2.0B
Charging Profile	CC-CV/ Customizable
Operating Temperature	5°C to 50°C
Place of installation	Off-board
Certification	Available on request

### Customization

- Input cable length/ connector
- Output cable length/ connector
- Outer casing/enclosure and handle
- Wake-up function
- CAN communication
- RCD
- Charging profile customization

### Protection

- Reverse Battery protection
- Short circuit protection
- Over Current protection
- Earth Leakage protection
- Input under/over voltage protection
- Output under/ over voltage protection
- Over temperature protection
- CAN time out



Power

1.6kW



Ingress Protection

IP20



### Product Variants

S No.	Voltage	Current
1	24V	20A to 45A
2	48V	20A, 25A
3	60V	20A
4	72V	15A



### Dimensions

- 290mm X 186mm X 115mm



### Weight

- 4.5 kg



### Applications

- 2-Wheelers
- 3-Wheeler Passenger
- 3-Wheeler Cargo
- Battery Operated Pallet Trucks
- Stackers
- Floor Cleaners
- Lawn Mower



## 2000 WATTS (2kW) CHARGER

Model No - AS 2000

### Technical Specifications

Input Voltage Range	230VAC +/-15%, 45 to 65Hz full load
Battery Type	Lithium Ion, Lead Acid
Efficiency	>90%
Indication	LED
Power Factor	>0.99
CAN Bus	Isolated, CAN 2.0B
Charging Profile	CC-CV/ Customizable
Operating Temperature	5°C to 50°C
Place of installation	Off-board
Certification	Available on request



**Power** 2kW



**Ingress Protection** IP20



### Product Variants

S No.	Voltage	Current
1	48V	30A
2	60V	25A
3	72V	20A



### Dimensions

270mm X 155mm X 100mm



### Weight

5 kg



### Applications



2-Wheelers



3-Wheeler Passenger



3-Wheeler Cargo



Battery Operated Pallet Trucks



Stackers



Floor Cleaners



Lawn Mower

### Customization

- Input cable length/ connector
- Output cable length/ connector
- Outer casing/enclosure and handle
- Wake-up function
- CAN communication
- RCD
- Charging profile customization

### Protection

- Reverse Battery protection
- Short circuit protection
- Over Current protection
- Earth Leakage protection
- Input under/over voltage protection
- Output under/ over voltage protection
- Over temperature protection
- CAN time out



## 2700 WATTS (2.7kW) CHARGER

Model No - AS 2700

### Technical Specifications

Input Voltage Range	230VAC +/-15%, 45 to 65Hz full load
Battery Type	Lithium Ion, Lead Acid
Efficiency	>90%
Indication	LED
Power Factor	>0.99
CAN Bus	Isolated, CAN 2.0B
Charging Profile	CC-CV/ Customizable
Operating Temperature	5°C to 50°C
Place of installation	Off-board
Certification	Available on request



**Power** 2.7kW



**Ingress Protection** IP20



### Product Variants

S No.	Voltage	Current
1	48V	40A
2	60V	35A
3	72V	25A



### Dimensions

400mm X 115mm X 150mm



### Weight

5 kg



### Applications



3-Wheeler Passenger



3-Wheeler Cargo

### Customization

- Input cable length/ connector
- Output cable length/ connector
- Outer casing/enclosure and handle
- Wake-up function
- CAN communication
- RCD
- Charging profile customization

### Protection

- Reverse Battery protection
- Short circuit protection
- Over Current protection
- Earth Leakage protection
- Input under/over voltage protection
- Output under/ over voltage protection
- Over temperature protection
- CAN time out





## 3300 WATTS (3.3kW) CHARGER

Model No - TS 3300

### Technical Specifications

Input Voltage Range	230VAC +/-15%, 45 to 65Hz full load
Battery Type	Lithium Ion, Lead Acid
Efficiency	>90%
Indication	LED
Power Factor	>0.99
CAN Bus	Isolated, CAN 2.0B
Charging Profile	CC-CV/ Customizable
Operating Temperature	5°C to 50°C
Place of installation	Off-board
Certification	Available on request

### Customization

⚙ Input cable length/ connector
⚙ Output cable length/ connector
⚙ Outer casing/enclosure and handle
⚙ Wake-up function
⚙ CAN communication
⚙ RCD
⚙ Charging profile customization

### Protection

⚙ Reverse Battery protection
⚙ Short circuit protection
⚙ Over Current protection
⚙ Earth Leakage protection
⚙ Input under/over voltage protection
⚙ Output under/ over voltage protection
⚙ Over temperature protection
⚙ CAN time out

⚡	Power	3.3kW
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🛡	Ingress Protection	IP20
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📦	Product Variants
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S No.	Voltage	Current
1	48V	50A
2	60V	45A
3	72V	35A
4	100V	30A

📏	Dimensions
---	------------

⚙ 380mm X 200mm X 120mm

🏋	Weight
---	--------

⚙ 8.5 kg

🔄	Applications
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🚗 3-Wheeler Passenger

🚚 3-Wheeler Cargo





## 7500 WATTS (7.5kW) CHARGER

Model No - AS 7500

### Technical Specifications

Input Voltage Range	400VAC +/-15%, 45 to 65Hz full load
Battery Type	Lithium Ion, Lead Acid
Efficiency	>90%
Indication	LED
Power Factor	>0.99
CAN Bus	Isolated, CAN 2.0B
Charging Profile	CC-CV/ Customizable
Operating Temperature	5°C to 50°C
Place of installation	Off-board
Certification	Available on request

### Customization

Input cable length/ connector
Output cable length/ connector
Outer casing/enclosure and handle
Wake-up function
CAN communication
RCD
Charging profile customization

### Protection

Reverse Battery protection
Short circuit protection
Over Current protection
Earth Leakage protection
Input under/over voltage protection
Output under/ over voltage protection
Over temperature protection
CAN time out



Power

7.5kW



Ingress Protection

IP20 / IP54



Product Variants

S No.	Voltage	Current
1	48V	75A to 120A
2	72V	75A
3	80V	75A
4	100V	60A



Dimensions

575mm X 435mm X 286mm



Weight

35 kg



Applications



E-Tractors



Forklifts



Reach Trucks



VNA (Very Narrow Aisle) Truck

## 10,000 WATTS (10kW) CHARGER

Model No - TS 10k

### Technical Specifications

Input Voltage Range	400VAC +/-10%, 45 to 65Hz full load
Battery Type	Lithium Ion, Lead Acid
Efficiency	>90%
Indication	LED/LCD
Power Factor	>0.99
CAN Bus	Isolated, CAN 2.0B
Charging Profile	CC-CV/ Customizable
Operating Temperature	5°C to 50°C
Place of installation	Off-board
Certification	Available on request

### Customization

- Input cable length/ connector
- Output cable length/ connector
- Outer casing/enclosure and handle
- Wake-up function
- CAN communication
- RCD
- Charging profile customization

### Protection

- Reverse Battery protection
- Short circuit protection
- Over Current protection
- Earth Leakage protection
- Input under/over voltage protection
- Output under/ over voltage protection
- Over temperature protection
- CAN time out



Power

10kW



Ingress Protection

IP20/IP54



Product Variants

S No.	Voltage	Current
1	48V	90A to 150A
2	72V	90A to 105A
3	80V	90A to 105A



Dimensions

- IP 20- 840mm X 500mm X 120mm
- IP 54- 1050mm X 550mm X 200mm



Weight

- IP 20- 35kg
- IP 54- 45 kg



Applications

- E-Tractors
- Forklifts
- Reach Trucks
- VNA (Very Narrow Aisle) Truck

## 20,000 WATTS (20kW) CHARGER

Model No - TS 20k

### Technical Specifications

Input Voltage Range	400VAC +/-10%, 45 to 65Hz full load
Battery Type	Lithium Ion, Lead Acid
Efficiency	>90%
Indication	LED/LCD
Power Factor	>0.99
CAN Bus	Isolated, CAN 2.0B
Charging Profile	CC-CV/ Customizable
Operating Temperature	5°C to 50°C
Place of installation	Off-board
Certification	Available on request

### Customization

- Input cable length/ connector
- Output cable length/ connector
- Outer casing/enclosure and handle
- Wake-up function
- CAN communication
- RCD
- Charging profile customization

### Protection

- Reverse Battery protection
- Short circuit protection
- Over Current protection
- Earth Leakage protection
- Input under/over voltage protection
- Output under/ over voltage protection
- Over temperature protection
- CAN time out



**Power** 20kW



**Ingress Protection** IP54



### Product Variants

S No.	Voltage	Current
1	48V	200A to 300A
2	72V	150A to 210A
3	80V	150A to 210A



### Dimensions

- IP 20- 475mm X 330mm X 920mm
- IP 54- 1100mm X 550mm X 380mm



### Weight

- IP 20- 80kg
- IP 54- 95kg



### Applications



E-Tractors



Forklifts



Reach Trucks



VNA (Very Narrow Aisle) Truck

## MP1

# Single Phase Traction Battery Charger



### Technical Specifications

Input Voltage Range	180-265VAC, 50/60Hz
Battery Type	Lead Acid
Recommended Battery Size	50Ah to 350Ah
Efficiency	Approximately 80%
Indication	LED/ LCD
Power Factor	0.80
Charging Profile	CC-CV/ Customizable
Operating Temperature	0°C to 45°C
Place of installation	Internal
Certification	Available on request



**Ingress Protection** IP20



### Product Variants

S No.	Voltage	Current
1	12V	08A to 65A
2	24V	05A to 70A
3	30V	15A to 70A
4	36V	15A to 70A
5	48V	10A to 50A



### Dimensions

S No.	Product Variant	Dimensions
1	12V, 08A to 25A 24V, 05A to 10A	375mm X 300mm X 250mm
2	12V, 30A to 65A 24V, 15A to 70A 30V, 15A to 50A 36V, 15A to 40A 48V, 10A to 40A	250mm X 450mm X 280mm
3	30V, 55A to 70A 36V, 45A to 70A 48V, 45A to 50A	300mm X 500mm X 310mm



### Applications



Battery Operated Pallet Trucks



Stackers



Floor Cleaners

### Customization

- Input cable length/ connector
- Output cable length/ connector
- Outer casing/enclosure and handle

### Protection

- Smart Charge' features to extend battery life
- AUTO-CUT-OFF when battery is 100 % Charged.
- LCD display to display charging voltage, charging current, charge time and Ampere-Hours put back
- No Overcharging/Undercharging.
- EQUALISE Facility, Temperature Compensation.
- Electronic protection against reverse battery, over current & short circuit.
- Accepts wide input voltage variation.
- Front panel LEDs for displaying charging and fault status.

## MP3

# Three Phase Traction Battery Charger



### Technical Specifications

Input Voltage Range	400VAC +/-10%, 50/60Hz
Battery Type	Lead Acid
Recommended Battery Size	222Ah to 1200Ah
Efficiency	Approximately 80%
Indication	LED/ LCD
Power Factor	0.70
Charging Profile	CC-CV/ Customizable
Operating Temperature	0°C to 45°C
Place of installation	Internal
Certification	Available on request

### Customization

- Input cable length/ connector
- Output cable length/ connector
- Outer casing/enclosure and handle

### Protection

- Smart Charge' features to extend battery life
- AUTO-CUT-OFF when battery is 100 % Charged.
- LCD display to display charging voltage, charging current, charge time and Ampere-Hours put back
- No Overcharging/Undercharging.
- EQUALISE Facility, Temperature Compensation.
- Electronic protection against reverse battery, over current & short circuit.
- Accepts wide input voltage variation.
- Front panel LEDs for displaying charging and fault status.



**Ingress Protection** IP20



### Product Variants

S No.	Voltage	Current
1	24V	40A to 160A
2	36V	40A to 200A
3	48V	40A to 220A
4	72V	40A to 150A
5	80V	50A to 150A
6	110V	50A to 110A



### Dimensions

S No.	Product Variant	Dimensions
1	24V, 40A to 130A 36V, 40A to 120A 48V, 40A to 120A 72V, 40A to 80 A 80V, 50A to 80A	550mm X 500mm X 675mm
2	24V, 140A to 160A 36V, 130A to 260A 48V, 130A to 220A 72V, 90A to 150A 80V, 85A to 150A 110V, 50A to 110A	625mm X 525mm X 800mm



### Applications



Forklifts



Reach Trucks



VNA (Very Narrow Aisle) Truck



## DFCB

# Dual Float Cum Boost Charger

### Technical Specifications

Input Voltage Range	400 VAC +/-10%, 3Phase, 50Hz/ 60Hz
Battery Type	Lead Acid Batteries, Nickel Cadmium Batteries
DC voltage regulation	+/- 1% at 100 % load and specified AC voltage tolerance(In Float Mode)
Current variation	5% to 100% of rated current (In Boost Mode )
Current limit	105% Rated current (In Float Mode )
DC current Regulation	±2%(In Boost Mode )
Rectifier Set	Half Controlled / Full Controlled Bridge with 3 Pulse /6 Pulse.
Output ripple	Less than or equal to 1% RMS Without battery Connected.
Efficiency	80 to 93% depending Nominal Voltage and power rating
Indication	LED/ LCD, Lamps (AC Main ON , DC ON)
Standard Instruments	Output :DC V , DC A, Battery : DC V , DC A , Ac I/P : ACV ,ACA
Protection	Protection Fuses, Soft Start Feature, Electronic Current Limit , Phase Sequence Reversal and phase Failure Protection
Alarms	Mains fail, Rectifier Fuse Blown, Filter Capacitor Fuse Blown, Dc Over voltage, Dc Under voltage, Earth Fault For Floating Dc system.
Operating Temperature	0°C to 50°C ≤95 % humidity (Non condensing) ≤ 1000m above M.S.L
Ventilation	Natural air cooled/ Forced air cooled
Certification	Available on request



### Product Variants

DC OUTPUT VOLTAGE		
BATTERY	FLOAT MODE	BOOST MODE
Flooded Lead Acid	2.15VPC to 2.2VPC	2.65VPC to 2.75VPC
VRLA	2.15VPC to 2.25VPC	2.3VPC to 2.35VPC
Nickel Cadmium	1.4VPC to 1.42VPC	1.65VPC to 1.7VPC

**DC OUTPUT CURRENT** 5A-250A (Customizable)



### Ingress Protection

IP20/ IP 31/ IP 42



### Applications

DC UPS in various industries where they need continuous uninterrupted DC Power Supply.

## FCB

# Float Cum Boost Charger



### Technical Specifications

Input Voltage Range	400 VAC +/-10%, 3Phase, 50Hz/ 60Hz
Battery Type	Lead Acid Batteries, Nickel Cadmium Batteries
DC voltage regulation	+/- 1% at 100 % load and specified AC voltage tolerance(In Float Mode)
Current variation	5% to 100% of rated current (In Boost Mode )
Current limit	105% Rated current (In Float Mode )
DC current Regulation	±2%(In Boost Mode )
Rectifier Set	Half Controlled / Full Controlled Bridge with 3 Pulse /6 Pulse.
Output ripple	Less than or equal to 1% RMS Without battery Connected.
Efficiency	80 to 93% depending Nominal Voltage and power rating
Indication	LED/ LCD, Lamps (AC Main ON , DC ON)
Standard Instruments	Output :DC V, DC A, Battery : DC V, DC A, Ac I/P : ACV ,ACA
Protection	Protection Fuses, Soft Start Feature, Electronic Current Limit, Phase Sequence Reversal and phase Failure Protection
Alarms	Mains fail, Rectifier Fuse Blown, Filter Capacitor Fuse Blown, Dc Over voltage, Dc Under voltage, Earth Fault For Floating Dc system.
Operating Temperature	0°C to 50°C ≤95 % humidity (Non condensing) ≤ 1000m above M.S.L
Ventilation	Natural air cooled/ Forced air cooled
Certification	Available on request



### Product Variants

DC OUTPUT VOLTAGE		
BATTERY	FLOAT MODE	BOOST MODE
Flooded Lead Acid	2.15VPC to 2.2VPC	2.65VPC to 2.75VPC
VRLA	2.15VPC to 2.25VPC	2.3VPC to 2.35VPC
Nickel Cadmium	1.4VPC to 1.42VPC	1.65VPC to 1.7VPC

**DC OUTPUT CURRENT** 5A-250A (Customizable)



### Ingress Protection

IP20/ IP 31/ IP 42



### Applications

DC UPS in various industries where they need continuous uninterrupted DC Power Supply.



## Our Esteemed Clients

**LOG9** | PIONEERING RESPONSIBLE ENERGY

**nexcharge**  
Exide Leclanche Energy Private Limited

**INDIA** **murugappa**



**M+E**  
**Bazar**  
one stop solution

**BIRDS INDIA**  
Lithium Ion Batteries

**WAAREE**  
One with the Sun

**Rēthium**

**TOYOTA**  
INDUSTRIAL EQUIPMENT **BT**

**HYUNDAI**  
MATERIAL HANDLING

**Goody** | MATERIAL HANDLING

**PUMA LIFT**

**JUNGHEINRICH**

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**KION**  
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**TENNANT**



**LIUGONG**

**ElectroMech**  
Solutions | Service | Satisfaction

**HANGCHA**



**SIRIUS**  
**CONTROLS**

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