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A BOUT US

PortaPower, founded in Hong Kong in 1995, is an experienced and reputable manufacturer and exporter of Li-ion, Li-Polymer, Ni-Cd and Ni-MH rechargeable battery packs and related products. **PortaPower** provides total energy solution for local and overseas OEM/ODM customers on all rechargeable battery packs of different chemistries.

PortaPower operates state-of-the-art manufacturing facilities based in China, with a strong and reliable support of our in-house R&D team in Canada. These are the edges for our OEM/ODM business.

With strictest quality assurance policy, **PortaPower** ensures the highest standard in all production stages, offering high-quality battery products, with a focused goal of helping and reserving customers' request. To conclude, **PortaPower** is committed to offering innovative batteries and energy solutions that would provide profitable and value-added service of the highest quality to its customers.

To further enhance our quality service, **PortaPower** now provides a **2-Year warranty** to all of our products.





We are an expert
in handling all
applications of high
power consumption
products.

PP



A

BOUT US

Fully-equipped Manufacturing Facilities





A

BOUT US

New Manufacturing Facilities



**Air-cushion
Packing Machine**



**Digital Dispenser
(Edge Waterproof)**



Manual Dispenser



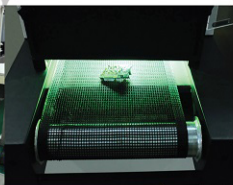
**Automatic Labeling
Machine**



VR Battery Cell Screener



**Semi-auto Solder-paste
Printing Machine**



UV Curing Machine



**Automatic Optical Inspection
(AOI) Machine**



Laser Engraving Machine



Digital Dispenser



Automatic Spraying Machine



Automatic Taping Machine



Low Pressure Molding Machine



A

BOUT US

After-sales Service Centre in Germany

We believe client satisfaction comes not only from quality products but also our commitment to bring confidence to both before and after sales. Therefore, a new service centre has been set up in Berlin to provide our clients with the most timely and efficient technical support.



NEEDs

MEET U NEEDs

EQUIPMENT





- AN02 (8 Channels)

- AN03 (1 Channel)

R

Rechargeable Battery Analyzers

AN02 is a multi-channel charge & discharge analyzer for a wide range of rechargeable batteries up to 100V, with discharge power up to 80A.

AN03 is a single channel charge & discharge analyzer and has all the same functions as AN02. Its maximum discharge power is 20A.

- ▶ Merges the charge and discharge ports at the same location. An integrated system for discharging, charging and aging test consecutively as programmed, supporting internal / external charging.
- ▶ Scans barcode to link analyzed results with database.
- ▶ It also has a modularized structure for easy upgrade, maintenance and enhancement of production efficiency.
- ▶ Channels can be linked up in parallel to increase output power.



Working Diagrams

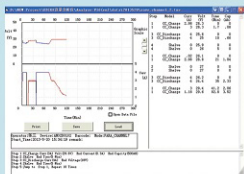


The whole system, including testing procedural design and process monitoring, works through its computer interface.



- ▶ Each computer could control up to 32 channels (4 AN02) simultaneously or separately.
- ▶ A modularized structure enables easy upgrade as well as maintenance, and thus increased production efficiency.
- ▶ Channels can be linked in parallel to increase output discharge power up to 80A.

- ▶ Designed for various rechargeable batteries such as Li-Ion, Li-Co, Li-Mn, Ni-MH, and Ni-CD, etc.



Test results could be:

- ▶ Displayed on screen
- ▶ Stored electronically
- ▶ Generated in graphic curves
- ▶ Printed as report
- ▶ Uploaded by PQTS system

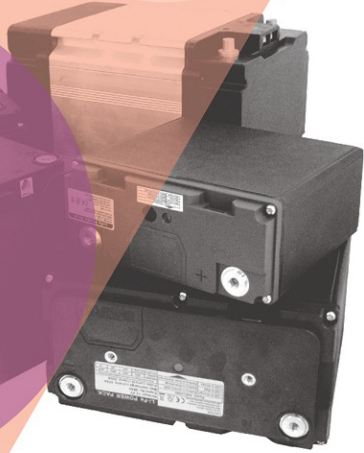


Scans barcode to upload / download analyzed results to / from database.

Specifications (Each Channel)

	Parameters	Range	Margin of Error
Charge	Use Built-in Charger	Voltage	8.4 ~ 54.6V
		Current	Max. 4A
		Power	0 ~ 100W
	Use External Charger	Voltage	1 ~ 100V
		Current	Max. 10A
		Power	0 ~ 1000W
Discharge	Limited Current / Constant Current Discharge Mode	Voltage	0 ~ 100V
		Current	Max. 20A
		Power	0 ~ 800W

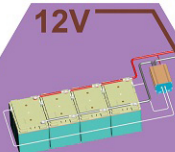
POWER LITHIUM APPLICATIONS



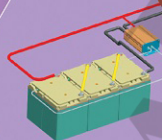
Battery Systems on High Power Consumption Applications



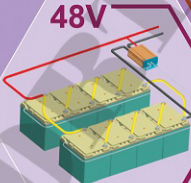
UPS System



12V



36V



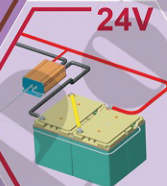
48V



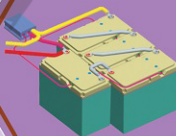
Electric 2-seater
Golf Cart



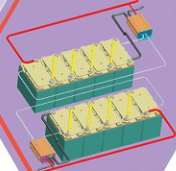
Electric Golf Cart



24V



48V



60V



Electric Scooter



Electric Motorcycle



Electric Car



High Power Lithium Battery Packs Use in Combination

Battery combination, in both series and parallel: Batteries are connected in series to meet the desired voltage; and connected in multiple series of combined batteries in parallel to meet capacity requirements.

Batteries are operated by an external BMS controller to provide protection functions, such as over-charge and over-discharge protections. There is no independent protection circuit module inside each battery pack.

	Model No.	KLF0317B.357F	KLF1217B.357F
	Cell Type	Li-Fe	Li-Fe
	Voltage	3.2V	12V
	Rate	68Ah	17Ah
	Dimensions	181(L) x 77(W) x 172(H) mm	
	Weight	4.5kg	4.5kg
	Cont. Discharge Current*	100A	30A
	Pulse Discharge Current*	400A (3 sec.)	55A (5 sec.)
	Model No.	KLF0333B.379F	KLF1233B.379F
	Cell Type	Li-Fe	Li-Fe
	Voltage	3.2V	12V
	Rate	144Ah	36Ah
	Dimensions	222(L) x 115(W) x 183(H) mm	
	Weight	6.8kg	6.8kg
	Cont. Discharge Current*	100A	100A
	Pulse Discharge Current*	400A (3 sec.)	360A (3 sec.)
	Model No.	KLF0355B.379F	KLF1255B.379F
	Cell Type	Li-Fe	Li-Fe
	Voltage	3.2V	12V
	Rate	192Ah	48Ah
	Dimensions	222(L) x 155(W) x 179(H) mm	
	Weight	8.8kg	8.8kg
	Cont. Discharge Current*	100A	100A
	Pulse Discharge Current*	400A (3 sec.)	480A (3 sec.)
	Model No.	KLF0336B.379F	KLF1272B.379F
	Cell Type	Li-Fe	Li-Fe
	Voltage	3.2V	12V
	Rate	360Ah	72Ah
	Dimensions	270(L) x 185(W) x 250(H) mm	
	Weight	17.5kg	17.5kg
	Cont. Discharge Current*	150A	150A
	Pulse Discharge Current*	500A (3 sec.)	500A (3 sec.)

*Maximum discharge current value is subject to change. Please refer to the respective specification sheet of different products for the most updated details.



How to configure the Battery Packs

Gather all the parts that we need



High-Power
Lithium Battery Packs



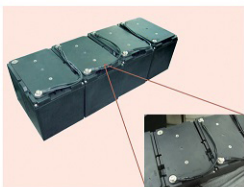
External BMS Controller



Connecting Power Cables



Signal Cable



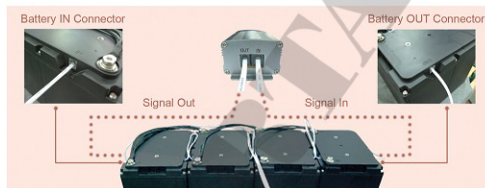
1. Connect the battery packs into serial.



2. Use signal cable to link up the battery packs.



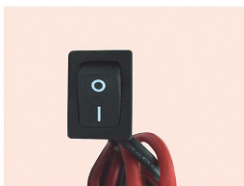
3. Get ready the External BMS Controller.



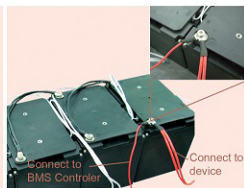
4. Connect battery modules and External BMS Controller with signal cable as shown in illustration above.



6. Then, connect module cathode separately to the device and External BMS controller.



7. After configure the battery system, turn on the power of the external controller.



5. Connect the module anode output separately to the device and External BMS controller.




8. All battery LED indicators turn orange, and the battery system is now ready to use.




Independent Use Power Li-Fe Battery Packs

Voltage and capacity can be configured by different series and parallel combinations inside battery. There is an independent protection circuit module inside each battery, which can provide protection functions to avoid abnormalities, such as over-charge, and over-discharge, etc


In addition, the protection circuit module built-in Gas gauge IC monitors battery status and enables data output to various accessories such as LCD Panel.



Product Code	Configuration	Cell Type	Voltage	Rate	Power	Max. Discharge Current*		
						Cont.	Pluse (20s)	Protect
HF12S53B.279F	IFP287194S10A-4S3P	Li-Fe	12V	30Ah	360Wh	80A	90A	100A
HF12S53B.379F	IFP337194S12A-4S3P	Li-Fe	12V	36Ah	432Wh	80A	90A	100A
HF12S54B.279F	IFP287194S10A-4S4P	Li-Fe	12V	40Ah	480Wh	80A	90A	100A
HF12S54B.379F	IFP337194S12A-4S4P	Li-Fe	12V	48Ah	576Wh	80A	90A	100A
HF24S54B.279F	IFP287194S10A-8S2P	Li-Fe	24V	20Ah	480Wh	60A	70A	100A
HF24S54B.379F	IFP337194S12A-8S2P	Li-Fe	24V	24Ah	576Wh	60A	70A	100A
HF36S54B.279F	IFP337194S10A-11S1P	Li-Fe	36V	10Ah	360Wh	45A	55A	100A
HF36S54B.379F	IFP337194S12A-11S1P	Li-Fe	36V	12Ah	432Wh	45A	55A	100A
HF36S54B.357F	IFP33774S9A-11S2P	Li-Fe	36V	16Ah	576Wh	45A	55A	100A
HF48S54B.279F	IFP287194S10A-16S1P	Li-Fe	48V	10Ah	480Wh	45A	55A	100A
HF48S54B.379F	IFP337194S12A-16S1P	Li-Fe	48V	12Ah	576Wh	45A	55A	100A
HF60S54B.357F	IFP335774S9A-20S1P	Li-Fe	60V	8Ah	480Wh	30A	40A	65A



Product Code	Configuration	Cell Type	Voltage	Rate	Power	Max. Discharge Current*		
						Cont.	Pluse (20s)	Protect
HF12S32B.279F	IFP287194S10A-4S2P	Li-Fe	12V	20Ah	240Wh	60A	70A	80A
HF12S32B.379F	IFP337194S12A-4S2P	Li-Fe	12V	24Ah	288Wh	60A	70A	80A
HF12S33B.279F	IFP287194S10A-4S3P	Li-Fe	12V	30Ah	360Wh	60A	70A	80A
HF12S33B.379F	IFP337194S12A-4S3P	Li-Fe	12V	36Ah	432Wh	60A	70A	80A
HF24S33B.279F	IFP287194S10A-8S1P	Li-Fe	24V	10Ah	240Wh	30A	40A	65A
HF24S33B.379F	IFP337194S12A-8S1P	Li-Fe	24V	12Ah	288Wh	30A	40A	65A
HF36S33B.279F	IFP337194S10A-11S1P	Li-Fe	36V	10Ah	360Wh	30A	40A	65A
HF36S33B.379F	IFP337194S12A-11S1P	Li-Fe	36V	12Ah	432Wh	30A	40A	65A




Product Code	Configuration	Cell Type	Voltage	Rate	Power	Max. Discharge Current*		
						Cont.	Pluse (20s)	Protect
HF12S55B.279F	IFP287194S10A-4S4P	Li-Fe	12V	40Ah	480Wh	60A	70A	80A
HF12S55B.379F	IFP337194S12A-4S4P	Li-Fe	12V	48Ah	576Wh	60A	70A	80A
HF24S55B.279F	IFP287194S10A-8S2P	Li-Fe	24V	20Ah	480Wh	60A	70A	80A
HF24S55B.379F	IFP337194S12A-8S2P	Li-Fe	24V	24Ah	576Wh	60A	70A	80A
HF48S55B.279F	IFP287194S10A-16S1P	Li-Fe	48V	10Ah	480Wh	30A	40A	65A
HF48S55B.379F	IFP337194S12A-16S1P	Li-Fe	48V	12Ah	576Wh	30A	40A	65A

*Maximum discharge current value is subject to change. Please refer to the respective specification sheet of different products for the most updated details.




Independent Use Power Li-ion Battery Packs

	Product Code	Configuration	Cell Type	Voltage	Rate	Power	Max. Discharge Current*		
							Cont.	Pluse (20s)	Protect
181Lx77Wx172H mm	HL24S17B.906	NCR18650GA-7S8P	Li-ion	24V	28Ah	672Wh	30A	40A	65A
	HL36S17B.906	NCR18650GA-10S5P	Li-ion	36V	17.5Ah	630Wh	30A	40A	65A
	HL48S17B.906	NCR18650GA-14S4P	Li-ion	48V	14Ah	672Wh	20A	40A	65A

	Product Code	Configuration	Cell Type	Voltage	Rate	Power	Max. Discharge Current*		
							Cont.	Pluse (20s)	Protect
222Lx115Wx183H mm	HL24S33B.906	NCR18650GA-7S15P	Li-ion	24V	52.5Ah	1260Wh	45A	50A	65A
	HL36S33B.906	NCR18650GA-10S10P	Li-ion	36V	35Ah	1260Wh	45A	55A	65A
	HL48S33B.906	NCR18650GA-14S7P	Li-ion	48V	24.5Ah	1176Wh	45A	55A	65A
	HL54S33B.906	NCR18650GA-15S7P	Li-ion	54V	24.5Ah	1323Wh	45A	55A	65A

	Product Code	Configuration	Cell Type	Voltage	Rate	Power	Max. Discharge Current*		
							Cont.	Pluse (20s)	Protect
222Lx155Wx179H mm	HL24S55B.906	NCR18650GA-7S21P	Li-ion	24V	73.5Ah	1764Wh	45A	50A	65A
	HL36S55B.906	NCR18650GA-10S16P	Li-ion	36V	56Ah	2016Wh	60A	70A	100A
	HL48S55B.906	NCR18650GA-14S10P	Li-ion	48V	35Ah	1680Wh	60A	70A	100A
	HL54S55B.906	NCR18650GA-15S10P	Li-ion	54V	35Ah	1890Wh	60A	70A	100A

	Product Code	Configuration	Cell Type	Voltage	Rate	Power	Max. Discharge Current*		
							Cont.	Pluse (20s)	Protect
222Lx155Wx179H mm	HL24S54B.906	NCR18650GA-7S22P	Li-ion	24V	77Ah	1848Wh	45A	50A	65A
	HL36S54B.906	NCR18650GA-10S16P	Li-ion	36V	56Ah	2016Wh	60A	70A	100A
	HL48S54B.906	NCR18650GA-14S10P	Li-ion	48V	35Ah	1680Wh	60A	70A	100A
	HL54S54B.906	NCR18650GA-15S10P	Li-ion	54V	35Ah	1890Wh	60A	70A	100A

*Maximum discharge current value is subject to change. Please refer to the respective specification sheet of different products for the most updated details.



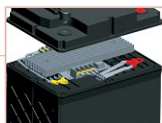
Battery LED Indicator



Different Connectors Available



Independent Charging Terminal



Built-in Protection Circuit

ELECTRIC MOTORCYCLE BATTERY TYPES

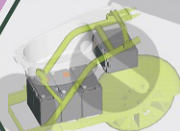




Electric Motorcycle Battery & Internal Battery Management Systems (BMS)



48V



4 sets of 12V / 40Ah (48V / 40Ah) Lithium Battery Pack, connecting to an Internal BMS

48V Battery System
Combination: 4S1P
4 sets of 12V / 40Ah Lithium Battery Pack, connected to a 48V / 40Ah Battery System Internal BMS



48V



4 sets of 12V / 40Ah (48V / 40Ah) Lithium Battery Pack, connecting to an Internal BMS

48V Battery System
Combination: 4S1P
4 sets of 12V / 40Ah Lithium Battery Pack, connected to a 48V / 40Ah Battery System Internal BMS



60V



5 sets of 12V / 40Ah (60V / 40Ah) Lithium Battery Pack, connecting to an Internal BMS

60V Battery System
Combination: 5S1P
5 sets of 12V / 40Ah Lithium Battery Pack, connected to a 60V / 40Ah Battery System Internal BMS

Plug-and-Run Battery Management System (BMS) For eMotorcycles



LCD Instrumentation

Lithium Battery Packs



Motor Controller



DC Hub Motor

- Accommodate up to 3 lithium battery packs.
- Each pack can operate independently.
- BMS to command switching automatically from one used up battery to another one for supplying power continuously.

LCD Instrumentation

The BMS controller analyzes performance of both the batteries and motorcycle with data shown on the LCD display panel.



Battery Capacity



Battery Error



Battery Charging Status



Battery Temperature Warning



Current Speed



Total Distance Travelled



Manual Mode



Estimated Range Available



High-Power Lithium Battery Packs For Plug-and-Run Battery System only

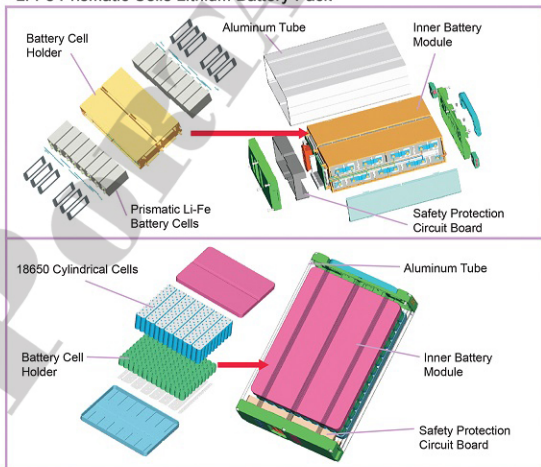


Battery Pack Specifications

Product Code	KLFS2B16S.379F	KL48B09S.906	KLFS4B18S.279F	KL54B09S.906	KLFS60B16S.279F	KL60B19S.906
Voltage	48V	48V	48V	48V	60V	60V
Rate	12Ah	35Ah	10Ah	31.5Ah	10Ah	28Ah
Combination	16S1P	14S10P	18S1P	15S9P	20S1P	18S8P
Battery Chemistry	Li-ion				Li-ion	
Dimensions (mm)	346 (L) x 212 (W) x 84.5 (H)				430 (L) x 212 (W) x 84.5 (H)	
Weight (kg)	10.5	10.2	9.5	10	11	10.2
Max. Cont. Discharge*	60A				60A	
Max. Pulse Discharge*	100A (20sec.)				100A (20sec.)	

*Maximum discharge current value is subject to change. Please refer to the respective specification sheet of different products for the most updated details.

- Li-Fe Prismatic Cells Lithium Battery Pack



- Li-NMC Cylindrical Cells Lithium Battery Pack

I

Independent Use High-Power Lithium Battery Packs



- High Capacity and High Discharge Current
- LCD state of charge indicator
- Customized Size (capacity based)
- Strong and Portable Aluminum Casing
- Suitable for a wide range of applications



-The discharge time and capacity are recorded and shown on LCD Panel.

Product Code	KL48BC09S.906	KL60BC09S.906
Configuration	NCR18650PF-14S10P	NCR18650PF-18S8P
Cell Type	Li-ion	Li-ion
Voltage	48V	60V
Rate	35Ah	28Ah
Power	1680Wh	1680Wh
Dimensions (mm)	346 (L) x 212 (W) x 84.5 (H)	430 (L) x 212 (W) x 84.5 (H)
Max. Cont. Discharge*	60A	60A
Max. Pulse Discharge*	100A (20sec.)	100A (20sec.)

*Maximum discharge current value is subject to change. Please refer to the respective specification sheet of different products for the most updated details.

I

Independent Use High-Power Lithium Battery Charger



-500W Charger



-1200W Charger

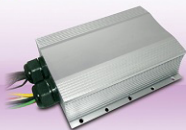
Input	115V~60Hz 6A max. or 230V~50Hz 3A max.
Output	14.4V - 75.5V \approx 15A max.
Power	Max. 500W
Dimensions (mm)	185 (L) x 155 (W) x 90 (H)
Weight	2kg

Input	100V~240V 50-60Hz 17A max.
Output	14.4V - 75.5V \approx 20A max.
Power	Max. 1200W
Dimensions (mm)	185 (L) x 155 (W) x 90 (H)
Weight	3kg



Choose the right charger and DC output plug according to the battery voltage.

B Brushless Motor Controllers



Voltage	40V - 75V
Power	Max. 3000W
Rated Current	45A - 60A
Max. Current	70A
Dimensions (mm)	265 (L) x 178 (W) x 58.5 (H)
Weight	2.7kg
Water Resistant	Complies with IPX4 IEC60529

Voltage	60V - 85V
Power	Max. 4500W
Rated Current	60A - 75A
Max. Current	100A
Dimensions (mm)	242 (L) x 208 (W) x 70 (H)
Weight	3.9kg
Water Resistant	Complies with IPX4 IEC60529

D Brushless Hub Motors



Diameter	10-inch			
Power	1500W	2000W	2500W	3000W
Voltage	48V - 60V			
Rated Current	60A			
Speed	310rpm	740rpm	847rpm	1175rpm
Torque	126N.m	120N.m	127N.m	139N.m
Dimensions (mm)	Ø254 x 63.5 (H)			
Weight	13.95kg			
Tires	3.5 - 10			

Diameter	13-inch	
Power	3000W	4000W
Voltage	54V - 72V	
Rated Current	80A	
Speed	490rpm	1070rpm
Torque	150N.m	179N.m
Dimensions (mm)	Ø330 x 89 (H)	
Weight	16.67kg	
Tires	130/60 - 13	

ELECTRIC WHEELCHAIR & SCOOTER BATTERY TYPES



2

4V Lithium Battery System For Electric Wheelchairs



Model No.	KL24H97	KL24H27
Voltage	24V	24V
Configuration	7S4P	7S4P
Rate	8.8Ah - 14.0Ah	8.8Ah - 14.0Ah
Cont. Discharge Current*	15A	15A
Weight (kg)	2.01	1.81
Dimensions (mm)	89 (L) x 87 (W) x 232 (H)	Ø 81.5 x 289 (H)

*Maximum discharge current value is subject to change. Please refer to the respective specification sheet of different products for the most updated details.



For Wheelchairs

2

4V Lithium Battery System For Electric Wheelchairs



Model No.	KL24H94
Voltage	24V
Configuration	7S4P
Rate	8.8Ah - 14.0Ah
Cont. Discharge Current*	15A
Weight (kg)	1.77
Dimensions (mm)	148 (L) x 56 (W) x 249 (H)

*Maximum discharge current value is subject to change. Please refer to the respective specification sheet of different products for the most updated details.



For Wheelchairs

2

4V Lithium Battery System For Electric Wheelchairs & Scooters



181(L) x 77(W) x 172(H) mm







222(L) x 115(W) x 183(H) mm



222(L) x 155(W) x 179(H) mm



230(L) x 171(W) x 199(H) mm

	Product Code	Configuration	Cell Type	Voltage	Rate	Power	Max. Discharge Current*		
							Cont.	Pulse (20s)	Protect
	HF24S17B.357F	IFP335774S850-8S1P	Li-Fe	24V	8.5Ah	204Wh	20A	30A	65A
	HL24S17B.906	NCR18650GA-7S8P	Li-ion	24V	28Ah	672Wh	30A	40A	65A
	Product Code	Configuration	Cell Type	Voltage	Rate	Power	Max. Discharge Current*		
							Cont.	Pulse (20s)	Protect
	HF24S33B.279F	IFP287194S1000-8S1P	Li-Fe	24V	10Ah	240Wh	30A	40A	65A
	HF24S33B.379F	IFP337194S1200-8S1P	Li-Fe	24V	12Ah	288Wh	30A	40A	65A
	HL24S33B.906	NCR18650GA-7S15P	Li-ion	24V	52.5Ah	1260Wh	45A	55A	65A
	Product Code	Configuration	Cell Type	Voltage	Rate	Power	Max. Discharge Current*		
							Cont.	Pulse (20s)	Protect
	HF24S55B.279F	IFP287194S1000-8S2P	Li-Fe	24V	20Ah	480Wh	60A	70A	100A
	HF24S55B.379F	IFP337194S1200-8S2P	Li-Fe	24V	24Ah	576Wh	60A	70A	100A
	HL24S55B.906	NCR18650GA-7S22P	Li-ion	24V	77Ah	1848Wh	45A	50A	65A
	Product Code	Configuration	Cell Type	Voltage	Rate	Power	Max. Discharge Current*		
							Cont.	Pulse (20s)	Protect
	HF24S54B.279F	IFP287194S1000-8S2P	Li-Fe	24V	20Ah	480Wh	60A	70A	100A
	HF24S54B.379F	IFP337194S1200-8S2P	Li-Fe	24V	24Ah	576Wh	60A	70A	100A
	HL24S54B.906	NCR18650GA-7S22P	Li-ion	24V	77Ah	1848Wh	45A	50A	65A

*Maximum discharge current value is subject to change. Please refer to the respective specification sheet of different products for the most updated details.

Suitable for
Wheelchairs



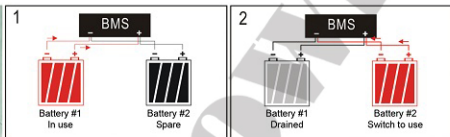
Suitable for
Scooters



Innocative Battery System Design

Users could flexibly choose the desired number of battery packs for use, and each battery pack can operate independently.

The Intelligent Battery Management System (BMS) monitors the performance of the battery packs and commands switching automatically from a drained battery to a charged one for supplying power continuously.



- According to the weight and stroke needed, to decide installing one or more sets of battery packs.



Battery LED Indicator



Different Connectors Available

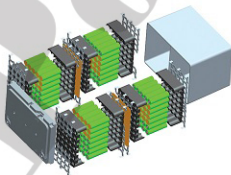


Independent Charging Terminal

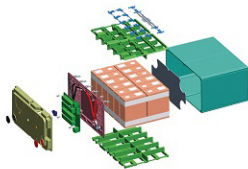


Built-in Protection Circuit

Features



Assembly with 18650 cells



Assembly with 337194 cells

Exploded View Drawing



Lithium Battery System For Electric Scooters



Electric Scooter - Test Product

No. of Wheels	3
Tires	Front 10"; Rear 10"
Motor	24V DC Sealed Transaxle Motor
Max. Speed	12 km/h
Weight	58kg (Scooter only)
Dimensions (mm)	1168 (L) x 610 (W)

Comparison with Different Battery Type

Type	Powered by High-Power Li-Fe Battery	Powered by Lead Acid Battery
Battery Spec.	12V 36Ah x 2pcs	12V 36Ah x 2pcs
Battery Combination	2S1P	2S1P
Total Weight (kg)	10	23
Dimensions (mm)	222 (L) x 115 (W) x 183 (H) (each battery)	195 (L) x 130 (W) x 160 (H) (each battery)
Cruise Range	48km per battery charge	40km per battery charge
Photo		

Optional Accessories



LCD Panel

- Battery Voltage
- Battery Capacity
- Total Number of Cycles
- Battery Temperature
- Estimated Range Available

CAR STARTER BATTERY TYPES

TAKE POWER





Car Starter Lithium Battery Packs



Features:

- Economize the use of gasoline
- Environmentally friendly
- Longer lifetime
- Light weight
- Stable discharge voltage
- Reduce noise
- Strong starting power under cold weather

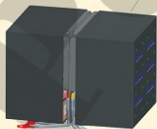


Voltage	12V	12V	12V
Rate	48Ah	36Ah	36Ah
Dimensions (mm)	230 (L) x 171 (W) x 199 (H)	230 (L) x 171 (W) x 199 (H)	222 (L) x 115 (W) x 183 (H)

Li-ion Cells



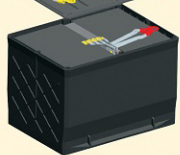
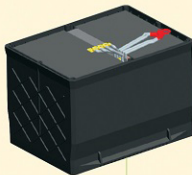
Battery Holder



PCM Board



Strong Plastic Outer Casing



Lithium battery cells are assembled and housed by a battery holder.

The battery pack is contained in a strong outer casing, as the second layer protection.

With build-in protection circuit to avoid over-charge, over-discharge, over-current, and over-heat of the battery pack.

UPS SYSTEM BATTERY TYPES

POWER



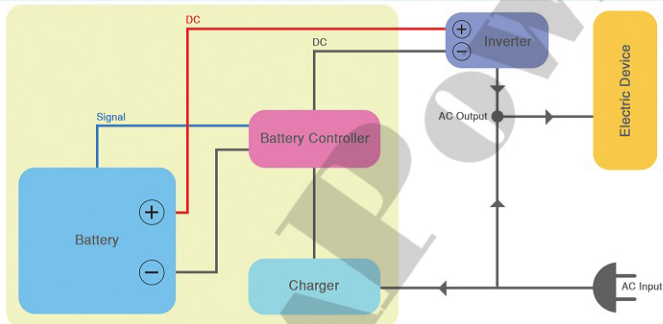


Uninterruptible Power Supply (UPS) System

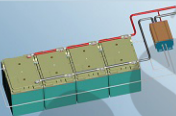
When the primary power source is lost, uninterruptible power supply (UPS) is the second power source which enables the electric device to keep running for a short period of time. This may prevent damage due to the sudden shut down of electric device.

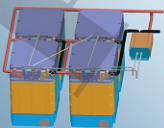
Also, it provides protection against power surges, and avoid electric device to be damaged. Besides, there is a built-in inverter to change the direct current (DC) into an alternating current (AC).

UPS System Connection



UPS Lithium Battery System

12V System								
	UPS Model	Cell Type	Voltage	Rate	Power	Battery Controller	Max. Discharge Current*	
							Cont.	Pluse (20ms)
	KLF1217B.357F	Li-Fe	12V	68Ah	816Wh	BC11D51	50A	100A
	KLF1233B.379F	Li-Fe	12V	144Ah	1728Wh		50A	100A
	KLF1255B.379F	Li-Fe	12V	160Ah	1920Wh		50A	100A
	KLF1272B.379F	Li-Fe	12V	288Ah	3456Wh		50A	100A
Combination: 1S4P								

24V System								
	UPS Model	Cell Type	Voltage	Rate	Power	Battery Controller	Max. Discharge Current*	
							Cont.	Pluse (30sec.)
	KLF1217B.357F	Li-Fe	24V	34Ah	816Wh	BC21D51	50A	100A
	KLF1233B.379F	Li-Fe	24V	72Ah	1728Wh	BC21D22	200A	250A
	KLF1255B.379F	Li-Fe	24V	96Ah	2304Wh		200A	250A
	KLF1272B.379F	Li-Fe	24V	144Ah	3456Wh		200A	250A
Combination: 2S2P								

*Maximum discharge current value is subject to change. Please refer to the respective specification sheet of different products for the most updated details.

Battery Controllers



Product Photo	Model	Specifications	
	BC11D51	Input Voltage	DC 14.4V
		Max. Cont. Discharge Current*	50A
		Max. Pulse Discharge Current*	100A (20ms)
		Max. Charging Current	30A
		Casing	Aluminum Alloy
		Dimensions (mm)	112.7 (L) x 63.5 (W) x 38.2 (H)
	BC21C11	Input Voltage	DC 28.8V
		Max. Cont. Discharge Current*	20A
		Max. Pulse Discharge Current*	30A (30sec.)
		Max. Charging Current	20A
		Casing	Aluminum Alloy
		Dimensions (mm)	112.7 (L) x 63.5 (W) x 38.2 (H)
	BC21D22	Input Voltage	DC 28.8V
		Max. Cont. Discharge Current*	200A
		Max. Pulse Discharge Current*	250A (30sec.)
		Max. Charging Current	200A
		Casing	Aluminum Alloy
		Dimensions (mm)	137.5 (L) x 178.0 (W) x 68.8 (H)
	BC31S21	Input Voltage	DC 43.2V
		Max. Cont. Discharge Current*	20A
		Max. Pulse Discharge Current*	30A (30sec.)
		Max. Charging Current	20A
		Casing	Aluminum Alloy
		Dimensions (mm)	137.5 (L) x 178.0 (W) x 68.8 (H)

*Maximum discharge current value is subject to change. Please refer to the respective specification sheet of different products for the most updated details.

Remarks:

1. Discharging current is controlled by the Electric Device.
2. The data listed is the upper limit of the controller itself, NOT the of battery packs.
3. Controller only controls 'activating' / 'cutting off' the charging current; and the actual current is determined by the charger.



ELECTRIC BICYCLES BATTERY TYPES



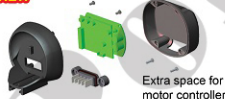
DM Series Water Bottle Battery Packs



Tube A: Ø 66 mm

Voltage	24V	24V	36V
Model No.	KL24H30	KL24H31	KL36H31
Configuration	7S2P	7S3P	10S2P
Rate	4.4Ah - 7.0Ah	6.6Ah - 10.5Ah	4.4Ah - 7.0Ah
Weight (kg)	0.99	1.43	1.38
Dimensions (mm)	Ø 66 x 220 (H)	Ø 66 x 289 (H)	Ø 66 x 289 (H)

NEW



Extra space for
motor controller



Classic Battery Holder

NEW





DM Series Water Bottle Battery Packs



Tube B

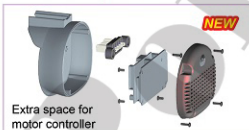
KL24H27
KL36H27



KL24H26
KL36H26

Tube B: Ø 81.5 mm

Voltage	24V	24V	36V	36V
Model No.	KL24H26	KL24H27	KL36H26	KL36H27
Configuration	7S3P	7S4P	10S2P	10S3P
Rate	6.6Ah - 10.5Ah	8.8Ah - 14.0Ah	4.4Ah - 7.0Ah	6.6Ah - 10.5Ah
Weight (kg)	1.39	1.81	1.33	1.76
Dimensions (mm)	Ø 81.5 x 220 (H)	Ø 81.5 x 289 (H)	Ø 81.5 x 220 (H)	Ø 81.5 x 289 (H)



Extra space for
motor controller



Classic Battery Holder





DM Series Water Bottle Battery Packs



Tube C



KL36H55



Tube D



KL42H03

Tube C: Ø 92 mm

Voltage	24V	36V	48V NEW
Model No.	TBA	KL36H55	TBA
Configuration	7S6P	10S4P	13S3P
Rate	13.2Ah - 21.0Ah	8.8Ah - 14.0Ah	6.6Ah - 10.5Ah
Weight (mm)	2.75	2.34	2.2
Dimensions (mm)	Ø 91.8 x 289 (H)	Ø 91.8 x 289 (H)	Ø 91.8 x 311 (H)

Tube D: Ø 85 mm

Voltage	42V
Model No.	KL42H03
Configuration	12S3P
Rate	6.6Ah - 10.5Ah
Weight (mm)	2.21
Dimensions (mm)	Ø 85 x 285 (H)

Model: KF373



Features:
Fixed cable

Model: KF383



Features:
Removeable cable

Model: KS432



NEW
Features:
Extra space
for motor controller



Slide-in design for KL42H03



DM Series Multi-fit Battery Packs



**New Model
KL36H70**



Voltage	24V	36V	36V NEW	36V
Model No.	KL24H99	KL36H32	KL36H70	KL36H91
Configuration	7S4P	10S3P	10S3P	10S4P
Rate	8.8Ah - 14.0Ah	6.75Ah - 10.5Ah	6.6Ah - 10.5Ah	8.8Ah - 14.0Ah
Weight (kg)	1.72	1.88	1.75	2.33
Casing	ABS Plastic	ABS Plastic	ABS Plastic	ABS Plastic
Dimensions (mm)	110 (L) x 75 (W) x 175 (H)	110 (L) x 75 (W) x 213 (H)	110 (L) x 75 (W) x 171 (H)	123 (L) x 92 (W) x 180 (H)
Voltage	36V	48V NEW	Features: Welding on any part of the bike frame. 	
Model No.	KL36H99	KL48H91		
Configuration	10S4P	13S3P		
Rate	8.8Ah - 14.0Ah	6.6Ah - 10.5Ah		
Weight (kg)	2.4	2.2		
Casing	ABS Plastic	ABS Plastic		
Dimensions (mm)	110 (L) x 75 (W) x 245 (H)	123 (L) x 92 (W) x 180 (H)		

Connection Options:

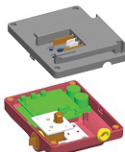
Option A: Clipping

Option B: Welding

NEW



Option C:
Features:
Extra space
for motor controller





DM Series Rear Carrier Battery Packs



KL36H92
KL48H92



KL24H94
KL36H94

Voltage	24V	36V	36V	48V NEW
Model No.	KL24H94	KL36H92	KL36H94	KL48H92
Configuration	7S4P	10S4P	10S3P	13S3P
Rate	8.8Ah - 14.0Ah	8.8Ah - 14.0Ah	6.6Ah - 10.5Ah	6.6Ah - 10.5Ah
Weight (kg)	1.77	2.4	1.85	2.3
Dimensions (mm)	148 (L) x 56 (W) x 249 (H)	148 (L) x 56 (W) x 321 (H)	148 (L) x 56 (W) x 249 (H)	148 (L) x 56 (W) x 321 (H)



Black and Gray colors available



Standard

Dimensions (mm):
245 (L) x 148 (W) x 60 (H)



Option A

Dimensions (mm):
294 (L) x 148 (W) x 74 (H)



Option B

Dimensions (mm):
294 (L) x 148 (W) x 94 (H)



Extra space for
motor controller



Standard Version
(without Rear Light)



Customized
Rear Light Version



DM Series Rear Carrier Battery Packs



KL24H93



KL24H95
KL36H61
KL36H93

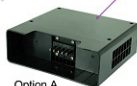
Voltage	24V	24V	36V	36V
Model No.	KL24H93	KL24H95	KL36H61	KL36H93
Configuration	7S4P	7S5P	10S3P	10S4P
Rate	8.8Ah - 14.0Ah	11.0Ah - 17.5Ah	6.6Ah - 10.5Ah	8.8Ah - 14.0Ah
Weight (kg)	2.45	2.5	2.65	3.05
Dimensions (mm)	151 (L) x 53 (W) x 291 (H)	151 (L) x 53 (W) x 365 (H)	151 (L) x 53 (W) x 365 (H)	151 (L) x 53 (W) x 365 (H)

Connect to different battery bases



Standard

Dimensions (mm):
150 (L) x 60 (W) x 53 (H)



Option A

Dimensions (mm):
150 (L) x 143 (W) x 53 (H)



Option B

Dimensions (mm):
150 (L) x 107 (W) x 79 (H)



Extra space for
motor controller





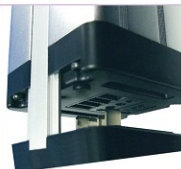
DM Series Handy Carry Battery Packs



Voltage	24V	36V	36V	48V	48V
Model No.	KL24H97	KL36H97	KLH3615	KLH4805	KLH4806
Configuration	7S4P	10S4P	10S5P	13S5P	13S6P
Rate	8.8Ah - 14.0Ah	8.8Ah - 14.0Ah	11.0Ah - 17.5Ah	11.0Ah - 17.5Ah	13.2Ah - 21.0Ah
Weight (kg)	2.01	2.66	3.25	4.09	4.69
Dimensions (mm)	89 (L) x 87 (W) x 232 (H)	89 (L) x 87 (W) x 289 (H)	89 (L) x 87 (W) x 395 (H)	93 (L) x 90 (W) x 420 (H)	111 (L) x 87 (W) x 484 (H)



Aluminium Rail



Battery Base Socket



Features:

- Strong and Portable Casing - Aluminum tube with ABS Plastic Cover.
- Designed with Aluminium Rail and Battery Base Socket to ensure quick and proper battery installation.



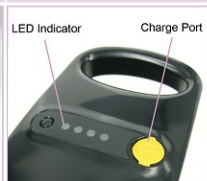
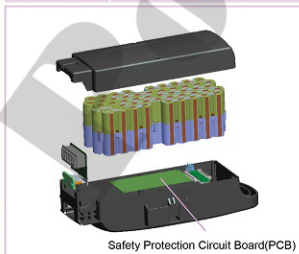
Compatible Series Handy Carry Battery Packs



Voltage	24V	24V
Model No.	KLH24S65B	KLH24S66B
Configuration	7S5P	7S4P
Rate	11.0Ah - 17.5Ah	8.8Ah - 14.0Ah
Dimensions (mm)	104.7 (L) x 301 (H)	104.7 (L) x 301 (H)

Other Available Configuration Specifications

Configurations	7S3P	7S6P	7S7P
Voltage	24V	24V	24V
Rate	6.6Ah - 10.5Ah	13.2Ah - 21.0Ah	15.4Ah - 24.5Ah
Dimensions (mm)	104.7 (L) x 301 (W)	104.7 (L) x 301 (W)	104.7 (L) x 301 (W)





Compatible Series Water Bottle Battery Packs

KL36H45



KL36H22



Voltage	36V	36V
Model No.	KL36H45	KL36H22
Configuration	10S4P	10S4P
Rate	8.8Ah - 14.0Ah	8.8Ah - 14.0Ah
Weight (kg)	2.53	2.53
Dimensions (mm)	Ø 96 x 312 (H)	Ø 96 x 325 (H)



Designed for easy
installation

LED Power Indicator



Charge port with protective cover

KF369 for KL3645 only
(Extra space for motor controller)



KF344 for KL3622 only



Compatible Series Aluminum Cases

KL36H12



KL36H08

Voltage	36V	36V
Model No.	KL36H08	KL36H12
Configuration	10S4P	10S7P
Rate	8.8Ah - 14.0Ah	15.4Ah - 24.5Ah
Weight (kg)	2.79	4.8
Dimensions (mm)	90 (L) x 92 (W) x 385 (H)	110 (L) x 78 (W) x 390 (H)

Charge Port & Power Switch



Different Types of Discharge Ports





Compatible Series Little Frog Types



KL24H07
KL36H07
KL36H43

Voltage	24V	36V	36V
Model No.	KL24H07	KL36H07	KL36H43
Configuration	7S4P	10S4P	10S3P
Rate	8.8Ah - 14.0Ah	8.8Ah - 14.0Ah	6.6Ah - 10.5Ah
Weight (kg)	1.82	2.32	1.74
Dimensions (mm)	241 (L) x 143 (W) x 85 (H)	241 (L) x 143 (W) x 85 (H)	241 (L) x 143 (W) x 85 (H)





Compatible Series Rear Carrier Types



KL36H17
KL36H18



KL24H08

Voltage	24V	36V	36V
Model No.	KL24H08	KL36H17	KL36H18
Configuration	7S4P	10S5P	10S6P
Rate	8.8Ah - 14.0Ah	11.0Ah - 17.5Ah	13.2Ah - 21.0Ah
Weight (kg)	2.62	3.79	4.18
Dimensions (mm)	397 (L) x 150 (W) x 76 (H)	410 (L) x 151 (W) x 66 (H)	410 (L) x 151 (W) x 66 (H)

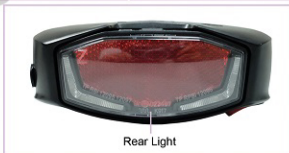




Compatible Series Rear carrier Types



Voltage	36V	48V
Model No.	TBC	TBC
Configuration	10S4P	10S3P
Rate	8.8Ah - 14.0Ah	6.6Ah - 10.5Ah
Weight (kg)	2.79	2.52
Dimensions (mm)	369 (L) x 15.3 (W) x 65.7 (H)	369 (L) x 15.3 (W) x 65.7 (H)





Compatible Series Rear Carrier Types



KL36PHS21

Voltage	36V
Model No.	KL36PHS21
Configuration	10S3P
Rate	6.6Ah - 10.5Ah
Weight (kg)	2.4
Dimensions (mm)	404 (L) x 153 (W) x 44 (H)



Power Switch & LED Indicator



USB Port



Rear Light

Charging Port

NEW



Two Battery Bases for Selection:

Option B

Option A

Extra space for
motor controller





Compatible Series Rear Carrier Types



KL37H02

Voltage	36V
Model No.	KL37H02
Configuration	10S5P
Rate	11.0Ah - 17.5Ah
Weight (kg)	2.82
Dimensions (mm)	410 (L) x 163 (W) x 88 (H)



Power Switch & LED Indicator



USB Port

Charging Port



Compatible Series Rear Carrier Types



KL37H01

Voltage	36V
Model No.	KL37H01
Configuration	10S9P
Rate	19.8Ah - 31.5Ah
Weight (kg)	4.95
Dimensions (mm)	467 (L) x 163 (W) x 97 (H)



LED Indicator



Charging Port

USB Port



Power Switch



Compatible Series In-tube Types



Voltage	36V
Model No.	KL37H05
Configuration	10S3P
Rate	6.6Ah - 10.5Ah
Weight (kg)	2.35
Dimensions (mm)	378 (L) x 99 (W) x 40 (H)

Battery Base Lock



USB Port

Charging Port



Power Switch



Compatible Series Inner Frame Types



Voltage	36V	48V
Model No.	TBC	TBC
Configuration	10S4P	13S3P
Rate	8.8Ah - 14.0Ah	6.6Ah - 10.5Ah
Weight (kg)	2.79	2.65
Dimensions (mm)	460 (L) x 84.5 (W) x 65.4 (H)	460 (L) x 84.5 (W) x 65.4 (H)

Discharging Port

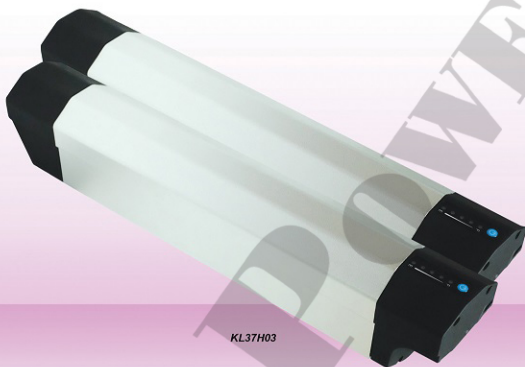


LED Indicator

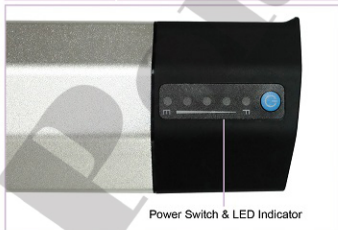




Compatible Series Inner Frame Types



Voltage	36V
Model No.	KL37H03
Configuration	10S4P
Rate	8.8Ah - 14.0Ah
Weight (kg)	2.79
Dimensions (mm)	407 (L) x 67 (W) x 87 (H)





Compatible Series Outer Frame Types



KL37H04

Voltage	36V	36V
Model No.	KL37H04	TBC
Configuration	10S3P	10S4P
Rate	6.6Ah - 10.5Ah	8.8Ah - 14.0Ah
Weight (kg)	2.4	2.79
Dimensions (mm)	380 (L) x 80 (W) x 80 (H)	380 (L) x 80 (W) x 80 (H)





Compatible Series Outer Frame Types



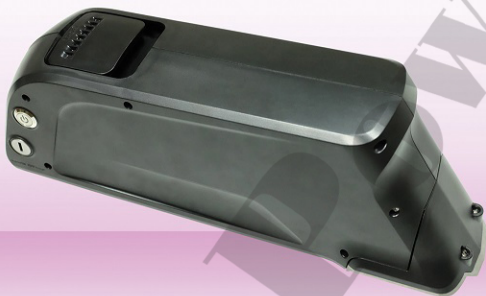
KL37H06

Voltage	36V
Model No.	KL37H06
Configuration	10S4P
Rate	8.8Ah - 14.0Ah
Weight (kg)	2.79
Dimensions (mm)	380 (L) x 80 (W) x 80 (H)





Compatible Series Outer Frame Types



Voltage	36V	48V
Model No.	TBC	TBC
Configuration	10S4P	13S3P
Rate	8.8Ah - 14.0Ah	6.6Ah - 10.5Ah
Weight (kg)	2.80	2.52
Dimensions (mm)	315 (L) x 90 (W) x 135 (H)	315 (L) x 90 (W) x 135 (H)

Power Switch



Charging Port

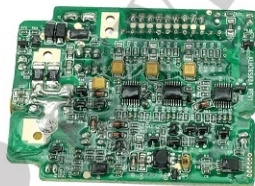




Li-ion Battery Pack Featuring Reliable Designs

1. Intelligent Protection Circuit Module provides:

- Cell Balancing
- Over-charge Protection
- Over-discharge Protection
- Over-Current Protection
- Secondary Protection
- Temperature Protection



Protection Circuit Board (PCB) – coated with Water-proof Plastic Layer

2. Water & Dust Resistant of Protection Circuit Board (PCB)

A layer of water-proof plastic coating has been applied to prevent damages of the Protection Circuit Board (PCB) to be caused by both water and dust. The level of ingress protection reaches IP65*, i.e. the PCB is well protected even the battery pack is sank into water.

*IP65 of the Ingress Protection Rating System – the higher the number, the better protection.

IP	Means Ingress Protection System (with a 2-digit rating).
6	The first digit (IP6_) relates to ingress protection against solid objects; and '6' means dust tight, i.e. no ingress of dust.
5	The second digit (IP_5) relates to ingress protection against water; and '5' means protected against water jets, i.e. water projected from a nozzle (6.3mm) against the enclosure from any direction shall have no harmful effect.

3. Automatic Sleep Mode:

Sleep Mode shuts off the output of the battery pack automatically to prevent it from complete discharge during prolonged storage or inactivity.

Option A:

If the battery is activated for more than **16 hours****, the battery circuit will automatically turn off its output.

Option B:

If the battery output is under 4A current, the battery circuit will automatically turn off its output after **1 hour****.

** May adjust the activation time of the Sleep Mode to suit the needs of different clients.



i-ion Battery Pack Featuring Reliable Designs

4. Built-in Gas Gauge IC

The protection circuit board build-in Gas Gauge IC monitors battery status and enables data output to various data collector, by means of HDQ protocol or UART protocol.

Battery Data	HDQ Protocol	VS.	UART Protocol
Cell Type	✓		✓
Cell Configuration	✓		✓
Battery Type	✓		✓
Battery Model	—		✓
Voltage	✓		✓
Rate	✓		✓
Temperature	✓		✓
Total Number of Cycles	✓		✓
Battery Life	—		✓
Battery Serial No.	—		✓
Manufacturer Name	—		✓
Manufacture Data	—		✓
500 Times of Discharge History	—		✓
500 Times of Charge History	—		✓
Repaired Record	—		✓



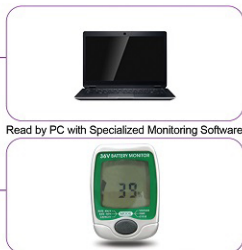
-Data Collector



Smart Lithium Battery



Data Collector



Read by PC with Specialized Monitoring Software

Read by LCD Panel

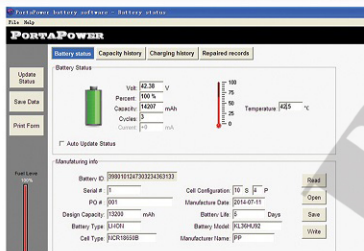
Designed specifically for engineering testing. User can collect the battery data with the **LI-ION BATTERY PACK DATA COLLECTOR**; and all the data will be shown on the screen.



Battery Read-out By UART protocol

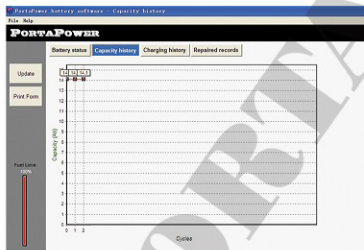


Model: KL36HU92



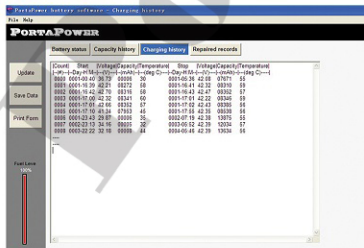
The Battery Status Read-out

- Connect the data collector to the PC with an USB cable.
- Start the software program.
- All battery data will be shown, such as battery voltage, capacity, temperature, and cell configuration, etc.



The Battery Capacity History Read-out

- A maximum of 500 discharging cycles in record.
- Discharge curve and data are printable.



The Battery Charging History Read-out

- A maximum of 500 charging cycles in record.
- Charging records can be saved in .txt file and printed.

E

lectric Bicycle Accessories LCD Panel



Current Speed
(in Km/h or MPH)



Current Battery Capacity



Battery Fully Charged



Low Battery Alarm
(battery status bar flashing)



Battery Empty



Torque



Speed Mode Conversion



Total Number of Cycles



Total Time of Trip



Total Distance of Trip



Estimated Range Available
(in Km/h or Miles)



Battery Error

Four speed modes for choice:

- Eco: Energy saving scheme to provide gentle support while pedaling
- Tour: An optimal balance of comfortable riding experience and efficient power usage
- Sport: Deliver solid power for best performance
- Turbo: Always at time when extra speed is needed



81 (L) x 65 (W) mm



Features:

- Compact Size
 - easy to carry & install
- Multi-functional as:
 - Power key
 - Smartphone USB charge port
 - Display battery and eBike performance data



USB Output



Electric Bicycle Accessories

LCD Panel



BMS1002



BMS2002



Current Speed
(in Km/h or MPH)



Current Battery
Capacity



Battery Fully
Charged



Current Battery
Temperature



Total Number of
Cycles



Low Battery Alarm
(battery status bar flashing)



Battery Empty



Current Battery
Voltage



Battery Error



With the built-in fuel gauge, data and performance of the eBike battery, like power available, voltage, temperature and total number of cycles could be captured and shown on the LCD panel.

B

Battery Discharge Current Specifications

In order to choose a suitable battery for your vehicle at best, high discharge current is also available according to various specification in the market.

Fitting Product Model Code: KLHxxxx / KLHxxSxx / KLxxHxx / KLxxHSxx

Cell Brand.	Cell Model	Cell Code	Configuration	Rate(Ah)	Maximum Discharge Current*		
					Continue	10 mins	5s
Panasonic	UR18650AA	082	3P	6.75	10A	13A	18A
			4P or above	≥8.7	15A	18A	35A
	NCR18650PF	089 / 809	2P	5.8	10A	13A	18A
			3P	8.7	13A	15A	25A
			4P or above	>8.7	15A	18A	35A
	NCR18650BL	804	3P	10.2	10A	13A	18A
			4P or above	>10.2	15A	18A	35A
	YLE	083	3P	6.6	10A	13A	18A
			4P or above	≥8.8	15A	18A	35A
	INR18650A250	085	3P	7.5	10A	13A	18A
			4P or above	≥10	15A	18A	35A
Samsung	ICR18650-22F	803	3P	6.6	10A	13A	18A
			4P or above	≥8.8	15A	18A	35A
	ICR18650-26H	806	3P	7.8	10A	13A	18A
			4P or above	>10.4	15A	18A	35A

*Maximum discharge current value is subject to change. Please refer to the respective specification sheet of different products for the most updated details.

E

Extra Information

KL Product Model Code Structure

High Discharge Current Version

e.g. KL24HU94B.803

KL	24	H	U	94	B	.803
KL = eBike Battery	24 = Voltage	H = High Discharge Current	U = UART Protocol	94 = Serial No.	B = Black Color	803 = Cell Code

e.g. KL36HS92G.089

KL	36	H	S	92	G	.089
KL = eBike Battery	36 = Voltage	H = High Discharge Current	S = HDQ Protocol	92 = Serial No.	G = Grey Color	089 = Cell Code

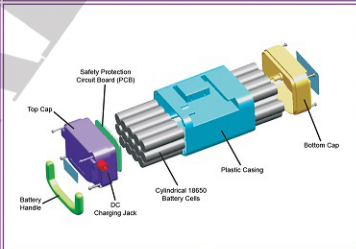
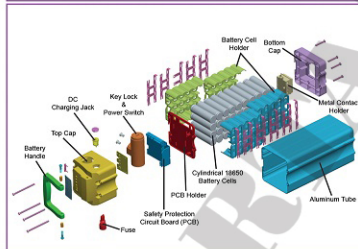
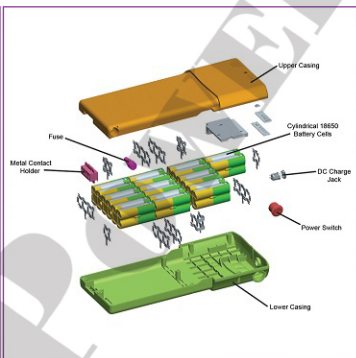
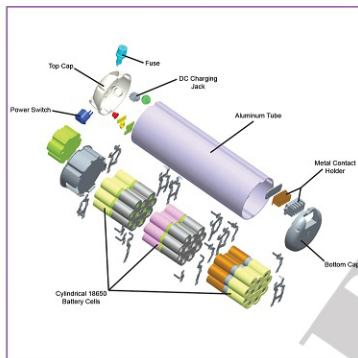
High Discharge & High Charge Current Version (uses 200W Charger)

e.g. KLH48S05S.083

KL	H	48	S	05	S	.083
KL = eBike Battery	H = High Discharge Current & High Charge Current	48 = Voltage	S = HDQ Protocol	05 = Serial No.	S = Silver Color	083 = Cell Code

E

lectric Bicycle Batteries with Cylindrical Battery Cells



Brand: Panasonic
Model No.: NCR18650PF
Voltage: 3.6V
Rate:: 2900mAh
Dimensions (mm): Ø18.6 x 65.2



Brand: Samsung
Model No.: ICR18650-26H
Rate:: 3.6V
Capacity: 2600mAh
Dimensions (mm): Ø18.4 x 65



Brand: YLE
Model No.: INR18650A220
Voltage: 3.6V
Rate:: 2200mAh
Dimensions (mm):: Ø18.6 x 65.2



Brand: YLE
Model No.: INR18650A250
Voltage: 3.6V
Rate:: 2500mAh
Dimensions(mm): Ø18.6 x 65.2



Electric Bicycle Accessories

Battery Chargers

60W Charger



Specifications: Choice of 6 different DC output plugs

Model	ACK2804N	ACK4201N	C060L0701	C060L1001
Battery Voltage	24V	36V	24V	36V
AC Input	100 - 240V			
Frequency	47 - 63Hz			
DC Output	29.4V	42.0V	29.4V	42.0V
Charging Current	1.5A	1.35A	1.5A	1.35A
Power	Max.60W			
Dimensions	115(L) x 58(W) x 31(H) mm			
Certifications	CE, UL, GS, SAA & C-tick		CE, FCC	

100W Charger



Specifications: Choice of 7 different DC output plugs

Model	CP100L0702	CP100L1002	CP100L1202	CP100L1302
Battery Voltage	24V	36V	42V	48V
AC Input	100 - 240V			
Frequency	47 - 63Hz			
DC Output	29.4V	42.0V	50.4V	54.6V
Charging Current	2.35A	2.2A	1.8A	1.8A
Power	Max.100W			
Dimensions	170(L) x 65(W) x 38.5(H) mm			
Certifications	CE, FCC, SAA, C-tick		CE, FCC, C-tick	
Features	With Power Factor Correction Built-in			

200W Charger



Specifications: Choice of 3 different DC output plugs

Model	CP200F0807	CP200F1205	CP200F1604
Battery Voltage	24V	36V	48V
AC Input	100 - 240V		
Frequency	50 - 60Hz		
DC Output	29.4V	42.0V	54.6V
Charging Current	7A	5A	3.5A
Power	Max.200W		
Dimensions	203(L) x 138(W) x 75.5(H) mm		
Certifications	CE, FCC		
Features	With Power Factor Correction Built-in		

Specifications: Choice of 7 different input plugs for AC chargers

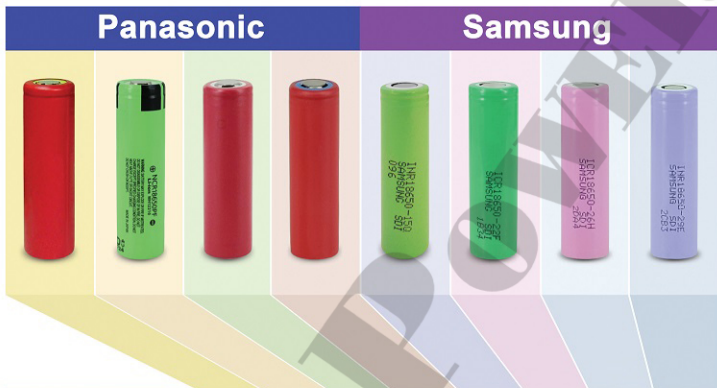




BATTERY CELLS



APAN and KOREA Cells



Brand		Panasonic	Panasonic	Panasonic	Panasonic	Samsung	Samsung	Samsung	Samsung
Model		UR18650AA	NCR18650PF	NCR18650BL	NCR18650GA	INR18650-15Q	ICR18650-22F	ICR18650-26H	INR18650-29E
Chemistry		Li-ion	Li-ion	Li-ion	Li-ion	Li-ion	Li-ion	Li-ion	Li-ion
Nominal Voltage		3.6V	3.6V	3.6V	3.6V	3.6V	3.6V	3.7V	3.7V
Minimum Rate		2150mAh	2750mAh	3250mAh	3350mAh	1450mAh	2100mAh	2550mAh	2750mAh
Typical Rate		2250mAh	2900mAh	3350mAh	3450mAh	1500mAh	2200mAh	2600mAh	2850mAh
Internal Impedance		≤ 100mΩ	≤ 35mΩ	≤ 50mΩ	≤ 38mΩ	≤ 30mΩ	≤ 100mΩ	≤ 100mΩ	≤ 100mΩ
Charge	Method	CV/CC*	CV/CC*	CV/CC*	CV/CC*	CV/CC*	CV/CC*	CV/CC*	CV/CC*
	Voltage	4.2V	4.2V	4.2V	4.2V	4.2V	4.2V	4.2V	4.2V
	Standard Current	1.50A	1.35A	1.62A	1.67A	0.75A	1.1A	1.3A	1.37A
	Rapid Current	2.15A	1.35A	3.4A	1.67A	4A	2.2A	2.8A	2.75A
Discharge**	Cut-off Voltage	2.75V	2.5V	2.5V	2.5V	2.5V	2.75V	2.75V	2.5V
	Constant Current	5A	10A	10A	10A	18A	4.4A	5.2A	8.25A
Dimensions	Diameter	Ø18.3 mm	Ø18.6mm	Ø18.5 mm	Ø18.5 mm	Ø18.15mm	Ø18.4mm	Ø18.4mm	Ø18.4 mm
	Height	64.9mm	65.2mm	65.3mm	65.1mm	64.6mm	65mm	65mm	65mm
Approx. Weight		42.2g	44.5g	47.5g	49.5g	43g	44.5g	45g	45g

* CC/CV = Constant Current/Constant Voltage

** Maximum discharge current value is subject to change. Please refer to the respective specification sheet of different products for the most updated details.

We are the Authorized Assembler of **Panasonic** and **Samsung** on high power consumption battery packs.



CHINA Cells

YLE

YLE	YLE	YLE	YLE	YLE	YLE	YLE	YLE	Brand
INR18650D150	INR18650D220	INR18650A205	INR18650A220	INR18650A250	INR18650A280	INR18650A280	ICR18650A310	Model
Li-NMC	Li-NMC	Li-NMC	Li-NMC	Li-NMC	Li-NMC	Li-NMC	Li-Co	Chemistry
3.6V	3.6V	3.6V	3.6V	3.6V	3.6V	3.6V	3.8V	Nominal Voltage
1450mAh	2150mAh	2000mAh	2150mAh	2480mAh	2530mAh	2700mAh	2980mAh	Minimum Rate
1500mAh	2200mAh	2050mAh	2200mAh	2530mAh	2600mAh	2800mAh	3100mAh	Typical Rate
≤ 18mΩ	≤ 25mΩ	≤ 48mΩ	≤ 48mΩ	≤ 48mΩ	≤ 55mΩ	≤ 55mΩ	≤ 48mΩ	Internal Impedance
CV/CC*	CV/CC*	CV/CC*	CV/CC*	CV/CC*	CV/CC*	CV/CC*	CV/CC*	Method
4.25V	4.25V	4.25V	4.25V	4.25V	4.25V	4.25V	4.4V	Voltage
0.3A	0.44A	0.41A	0.44A	0.5A	0.52A	0.56A	0.62A	Standard Current
4.5A	1.54A	2.05A	1.54A	1.75A	1.3A	1.96A	1.55A	Rapid Current
2.75V	2.75V	2.75V	2.75V	2.75V	2.75V	2.75V	2.75V	Cut-off Voltage
30A	11A	6A	6.2A	7A	5.2A	5.6A	6.2A	Constant Current
Ø18.5 mm	Ø18.4 mm	Ø18.4 mm	Ø18.4 mm	Ø18.4 mm	Ø18.4 mm	Ø18.4 mm	Ø18.4 mm	Diameter
65.2mm	65.2mm	65.2mm	65.2mm	65.2mm	65.2mm	65.2mm	65.2mm	Height
43g	43g	41g	43g	44g	49g	49g	50g	Approx. Weight

* CC/CV = Constant Current/Constant Voltage

** Maximum discharge current value is subject to change. Please refer to the respective specification sheet of different products for the most updated details.

Partnered with **YikLik Energy Limited (YLE)**, battery cell manufacturer, we have successfully produced high-quality Li-ion and Li-polymer cells of LiCoO₂, LiNMC, LiFePO₄ chemistries. They are now being used in the making of battery packs for eBikes, eMotorcycles, Electric Wheelchairs, Electric Golf Carts, Car Starter Batteries, UPS Systems, Lightings, Household Appliances, Remote Control Toys, and many others.



i-Fe Series Highly Reliable Battery Cells

YLE



YLE	YLE	YLE	YLE	YLE	YLE	YLE	Brand
IFR18650D110	IFR26650A320	IFP335774S900	IFP287194S1000	IFP287194S1300	IFP337194S1200	IFP337194S1500	Model
Li-Fe	Li-Fe	Li-Fe	Li-Fe	Li-Fe	Li-Fe	Li-Fe	Chemistry
3.2V	3.2V	3.2V	3.2V	3.2V	3.2V	3.2V	Nominal Voltage
1000mAh	3100mAh	8500mAh	9500mAh	12000mAh	11000mAh	14000mAh	Minimum Rate
1100mAh	3200mAh	9000mAh	10000mAh	13000mAh	12000mAh	15000mAh	Typical Rate
≤ 23mΩ	≤ 30mΩ	≤ 10mΩ	≤ 10mΩ	≤ 10mΩ	≤ 12mΩ	≤ 10mΩ	Internal Impedance
CV/CC*	CV/CC*	CV/CC*	CV/CC*	CV/CC*	CV/CC*	CV/CC*	Method
3.7V	3.9V	3.9V	3.9V	3.9V	3.9V	3.9V	Voltage
0.22A	0.64A	1.6A	2A	2.6A	2.4A	3A	Standard Current
3.3A	3.2A	8A	10A	13A	12A	15A	Rapid Current
2.0V	2.0V	2.0V	2.0V	2.0V	2.0V	2.0V	Cut-off Voltage
16.5A	16A	24A	50A	39A	60A	45A	Constant Current
/	/	33 mm	28 mm	28 mm	33 mm	33 mm	Height
Ø18.5 mm	Ø26.3 mm	57 mm	71 mm	71 mm	71 mm	71 mm	Width
65.3 mm	65.2mm	74mm	94 mm	94 mm	94 mm	94mm	Length
42g	85g	350g	400g	410g	460g	480g	Approx. Weight

* CC/CV = Constant Current/Constant Voltage

** Maximum discharge current value is subject to change. Please refer to the respective specification sheet of different products for the most updated details.

Remarks: 'Screw Connect Method' is recommended for the constant discharge current is higher than 30A.

The logo features a purple circle on the left containing a white letter 'M'. To the right of the circle, the text 'MEET U NEEDS' is displayed in a bold, black, sans-serif font. Below this, the phrase 'Energy Solution Provider' is written in a green, sans-serif font.

MEET U NEEDS

Energy Solution Provider

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PORTAPOWER (HK) Limited

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