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PDU(BDU) Catalogue

To Build The Most Competitive New Energy
Automobile Integrated Power Platform

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EV POWER DISTRIBUTION UNIT

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EV CHARGING DISTRIBUTION UNIT

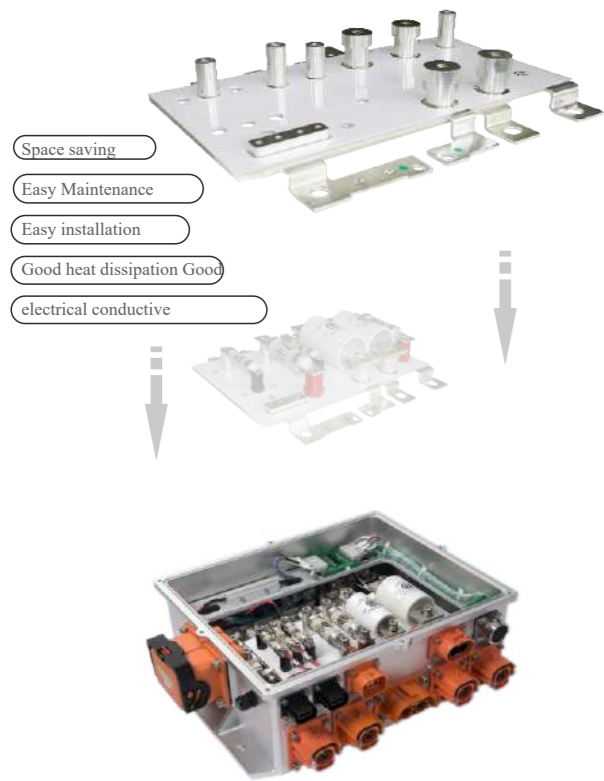
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Major Customers



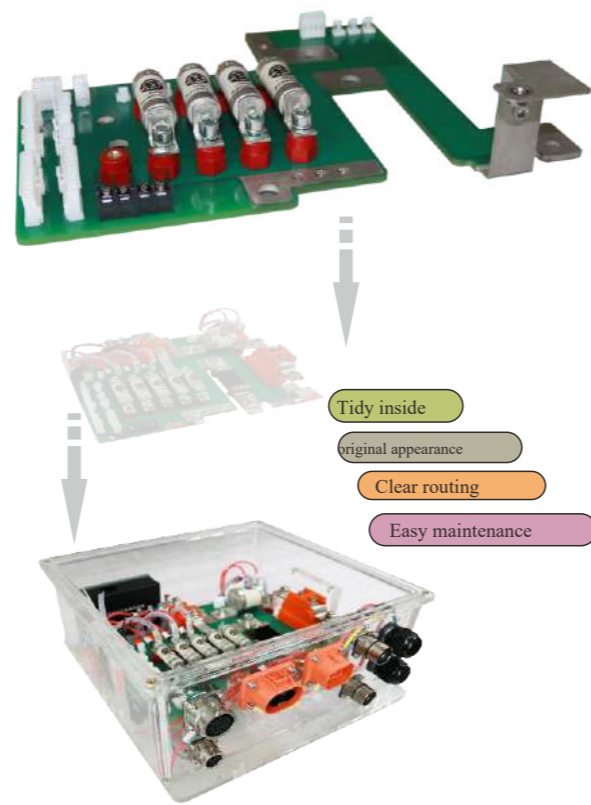
PDU TOTAL EV POWER DISTRIBUTION SOLUTION WITH CONTROL AND PROTECTION
 SMART CONNECTION DESIGN TO COMPACT SPACE, POWER I/O INTEGRATED MAKE THE POWER SUPPLY SYSTEM MORE SAFETY

APPLICATION OF BUSBAR

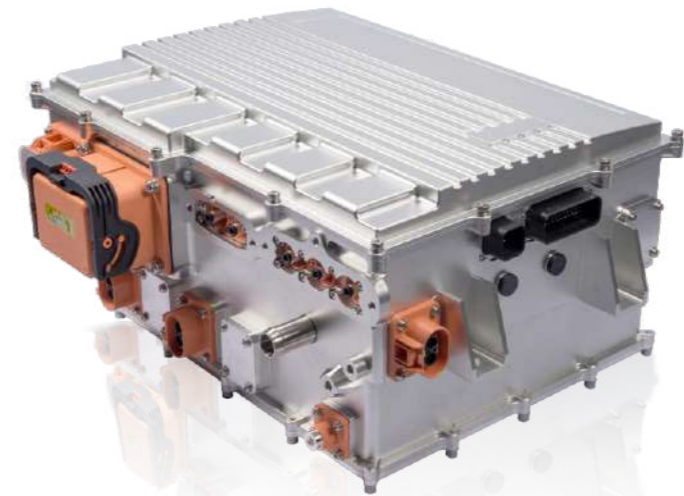
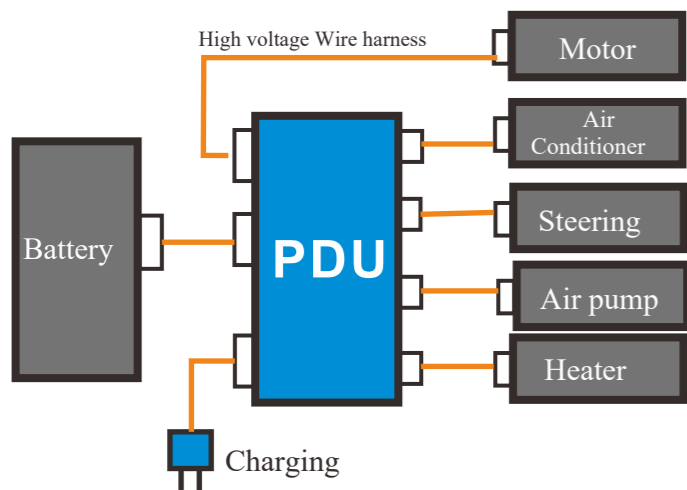


APPLICATION OF PEBA

Busbar and PCB technology integrated together High voltage and low voltage integrated on one board, make the electric circuit more tidy and more reliable.

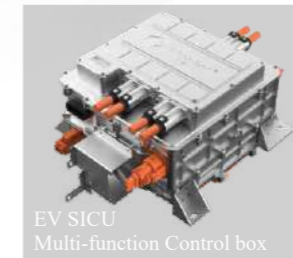


PDU Application Diagram



Multi-function PDU

Fine styling for cars
 High integration design to solve EMC And reduce costs and improve reliability Competitive volume in the industry The industry has a competitive price performance Greatly reduce the vehicle high-pressure wiring harness to And connector



ADVANTAGES

- > High voltage wire harness manufacture
- > High current and high voltage busbar with patent design and manufacture
- > High voltage relay with patent design and manufacture
- > High voltage connector with patent design and manufacture
- > We owned the whole basic manufacture chain, such as stamping, die-casting and inject molding, including the tool manufacture.
- > High current terminal with patent design and manufacture
- > Professional R&D Team. Quick response and accurate assessment is available with a group of professional engineers who owned over 5 years' experience within electric and EV products.
- > Advanced production facilities invested over 300 million provide customers products with high quality and low cost.
- > Our test equipment can verify most of test, it makes sure the product we develop can meet customer's request.
- > Annual production capacity: 600,000 products
- > A special after-sale team support customers practical and professional advice and guidance.
- > Special incentive funds around 20 million RMB has been invested to R&D team which makes this team more diligent, innovative and rigorous.
- > Complete industry chain, advanced production equipment, quick response for sample, experienced engineers and high-efficient management system contribute to our superior products for customers.

EV POWER DISTRIBUTION UNIT

MULTI-FUNCTION PDU



▶ INTERFACE SPECIFICATION

INTERFACE (OPTIONAL)	PARAMETER	
Signal confvil uoltage	21V~28V	
Operating Voltage	480~620V DC	
Operating temperature	-40° C~85° C	
Battery Interface	300A	
Charging interface	Fast charge	690VDC 125A
	Fast charge	690VDC 250A
Air conditioning interface	20A	
Defrost Interface	10A	
PTC / heating interface	5A	
Pneumatic pump Interface	10A	
Hydraulic pump port	10A	
Steering Pump Interface	10A	
DC/DC Interface	10A	
Communication Interface	0.5~4A	
MCU	300A	
Auxiliary Interface	10A	
MSD	FU 350A~500A	
COOLING	Liquid cooling	

▶ PART NUMBERING RULE

AT- 133 - 0001 - 05 - 01

PRODUCTION CODE	CUSTOMER CODE	PRODUCT SERIES	MODELS OF:
133	0001-9999	1-EDM	00-99
		2-BDU	
		3-IPU	
		4-Charging box	
		5-PDU	



Above parameters is tested under 23 ° C working temperature. Customized order is open

EV POWER DISTRIBUTION UNIT

MULTI-FUNCTION PDU



▶ APPLICATION

The bus is pure electric, hybrid, new energy vehicles

▶ FUNCTION DESCRIPTION

FUNCTIONAL MODULE	COMPONENT DESCRIPTION
Power distribution	Busbar component design, fast heat dissipation, high energy transmission efficiency
Power Distribution Protection	Protection with fuse,electric living parts separated with insulation material ,BMS
Power Distribution control	Power distribution control reaized by high voltage relay,it make energy conversion more reliability and safety.
Current and voltage data collection	Collector, auxiliary equipment use more safety
Precharge	Power resistance, anti surge, pulse
Communication function	CAN communicate with bus in real-time.
Insulation detection	Electric insulation detection, the leakage current can be cut off quickly.
Drive, energy conversion	Host drive, auxiliary zone drive, DC/AC, DC/DC, energy recovery

▶ PRODUCT MANUAL

- ▶ The utility model has the advantages of flexible production, cheap manufacture, good protection performance, light weight and good structural strength
- ▶ Set the internal use of Formex isolation of electronic components, so that the insulation function better;
- ▶ All kinds of connectors, independent research and development, design, bus connection handling is simple, highly integrated, convenient maintenance;

▶ PERFORMANCE PARAMETERS

Protection class	IP67	
Shielding	50db@100MHz	
Environmental Testing	Water-proof test	IPX7
	High Temperature Test	85° C 72H
	Low Temperature Test	-40° C 72H
	Salt spray test	48H
	Constant moisture test	5 to 85% R.H.
Electrical Testing	Insulation test	20MΩ 1000V DC/300MΩ 1000V DC
	Voltage withstand test	4000V AC 60 Sec.10mA
	Conductive test	3V DC 0.1A
Mechanical testing	Vibration test	30 %{3G} 5-55Hz 1-2mm,55-500Hz 30mm
	Shock test	500 %{50G} 4ms IK10
Weight	15KG±10%	

Above parameters is tested under 23 ° C working temperature. Customized order is open.

EV POWER DISTRIBUTION UNIT

PRIVATE CAR PDU



EV POWER DISTRIBUTION UNIT

PRIVATE CAR PDU



▶ INTERFACE SPECIFICATION

INTERFACE (OPTIONAL)	PARAMETER	
Signal confvii uoltage	9V~16V	
Working voltage	250~340V DC	
Working temperature	-40 ° C~85° C	
Battery interface	150A	
Charging interface	Fast charge	500VDC 125A
	Slow charge	220AC 30A
Air conditioning interface	15A	
Defrost Interface	10A	
PTC/ heating interface	5A	
Air compressor interface	10A	
Compressor Interface	10A	
Steering pump interface	10A	
Air Pump Interface	10A	
DC/DC interface	10A	
Communication interface	0.5~4A	
MCU	300A	
Auxiliary interface	10A	
MSD	FU 350A~500A	

▶ PERFORMANCE PARAMETERS

Protection class		IP67
Shielding		50db @ 100MHz
Environmental Testing	Water-proof test	IPX7
	High Temperature Test	85° C 72H
	Low Temperature Test	- 40°C 72H
	Salt spray test	48H
	Constant moisture test	5 to 85% R.H.
Electrical Testing	Insulation test	20MΩ 1000V DC/300MΩ 1000V DC
	Voltage withstand test	4000V AC 60 Sec.10mA
	Conductive test	3V DC 0.1A
Mechanical testing	Vibration test	30 %3G} 5-55Hz 1-2mm,55-500Hz 30mm
	Shock test	500 %50G} 4ms IK10
Weight		10KG±10%

Above parameters is tested under 23 ° C working temperature. Customized order is open

▶ APPLICATION

Passenger cars, SUV, private cars and other pure electric, hybrid, new energy vehicles

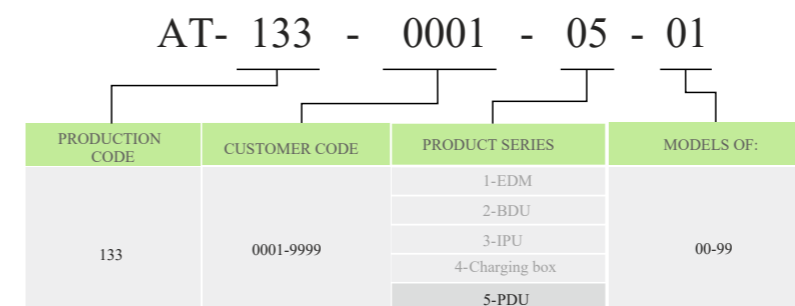
▶ FUNCTION DESCRIPTION

FUNCTIONAL MODULE	COMPONENT DESCRIPTION
Power distribution	Busbar component design, fast heat dissipation, high energy transmission efficiency
Power Distribution Protection	Protection with fuse,electric living parts separated with insulation material ,BMS
Power Distribution control	Power distribution control reaized by high voltage relay,it make energy conversion more reliability and safety.
Current and voltage data collection	Collector, auxiliary equipment use more safety
Precharge	Power resistance, anti surge, pulse
Communication function	CAN communicate with bus in real-time.
Insulation detection	Electric insulation detection, the leakage current can be cut off quickly.

▶ PRODUCT MANUAL

- Realize the function of power distribution control. It make installation simple, maintenance convenient and manufacture very fast.
- Shell with aluminum alloy die-casting provide water proof protection, rust against protection (finish process bright silver oxidation).It's light weight, strength very good and good appearance.
- Designed with busbar solution make the product with low temperature rise, good heat dispassion,electric conductive better and installation easily.
- Variety busbar,connector solution developed by Ebusbar has been applied;meets in this products, it meet most customer request.
- This product can be designed and manufactured and manufacture according to customer's requirements, including the Logo.

▶ PART NUMBERING RULE



Above parameters is tested under 23 ° C working temperature. Customized order is open.

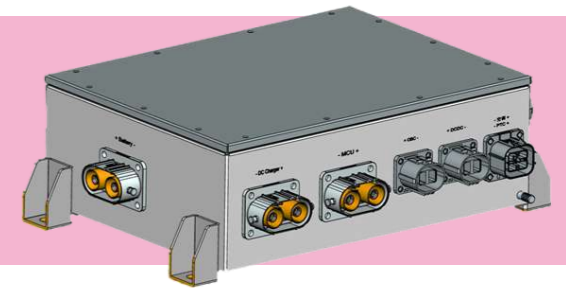
EV POWER DISTRIBUTION UNIT

LOGISTICS VEHICLES PDU



EV POWER DISTRIBUTION UNIT

LOGISTICS VEHICLES PDU



▶ INTERFACE SPECIFICATION

INTERFACE (OPTIONAL)	PARAMETER
Signal confvil uoltage	9V~16V
Working voltage	250~450VDC
Working temperature	-40 ° C~85° C
Battery interface	350A
MCU	300A
DC Charger	300A
OBC	50A
DC/DC interface	20A
PTC/ heating interface	20A
Air conditioning interface	20A
Communication interface	0.5~4A

▶ APPLICATION

Logistics vehicles, sightseeing cars and other pure electric, hybrid new energy vehicles.

▶ FUNCTION DESCRIPTION

FUNCTIONAL MODULE	COMPONENT DESCRIPTION
Power distribution	Busbar component design, fast heat dissipation, high energy transmission efficiency
Power Distribution Protection	Protection with fuse,electric living parts separated with insulation material ,BMS
Power Distribution control	Power distribution control reaized by high voltage relay,it make energy conversion more reliability and safety.
Current and voltage data collection	Collector, auxiliary equipment use more safety
Precharge	Power resistance, anti surge, pulse
Communication function	CAN communicate with bus in real-time.
Insulation detection	Electric insulation detection, the leakage current can be cut off quickly.

▶ PERFORMANCE PARAMETERS

Protection class		IP55
Shielding		50db @ 100MHz
Environmental Testing	Water-proof test	IP55
	High Temperature Test	85° C 72H
	Low Temperature Test	- 40°C 72H
	Salt spray test	48H
	Constant moisture test	5 to 85% R.H.
Electrical Testing	Insulation test	20MΩ 1000V DC/300MΩ 1000V DC
	Voltage withstand test	4000V AC 60 Sec.10mA
	Conductive test	3V DC 0.1A
Mechanical testing	Vibration test	30 %{3G} 5-55Hz 1-2mm,55-500Hz 30mm
	Shock test	110 %{50G} 4ms IK10
Weight		12KG±10%

Above parameters is tested under 20 ° C working temperature. Customized order is open

▶ PRODUCT MANUAL

- Metal shell, flexible production, and low cost, good protective performance, light weight, good structural strength.
- Formex paste inside the box, making insulation better;
- Designed with busbar solution make the product with low temperature rise, good heat dispassion,electric conductive better and installation easily.
- Variety busbar,connector solution developed by Ebusbar has been applied; meets in this products, it meet most customer request.
- This product can be designed and manufactured and manufacture according to customer's requirements, including the Logo.

▶ PART NUMBERING RULE

AT- 133 - 0001 - 05 - 01

PRODUCTION CODE	CUSTOMER CODE	PRODUCT SERIES	MODELS OF:
133	0001-9999	1-EDM	00-99
		2-BDU	
		3-IPU	
		4-Charging box	
		5-PDU	



Above parameters is tested under 20 ° C working temperature. Customized order is open.

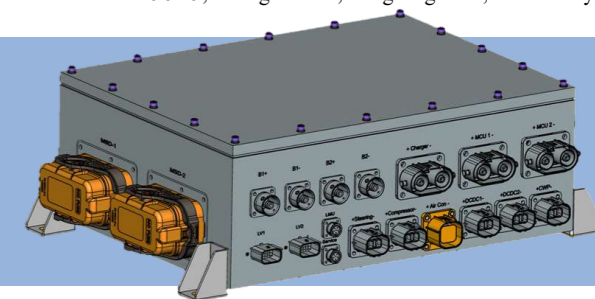
EV POWER DISTRIBUTION UNIT

BUS PDU



EV POWER DISTRIBUTION UNIT

BUS PDU



▶ INTERFACE SPECIFICATION

INTERFACE (OPTIONAL)	PARAMETER
Signal confvil uoltage	21V~28V
Working voltage	350~800VDC
Working temperature	-40° C~85° C
Battery 1 Interface	250A
Battery 2 Interface	250A
MCU 1	200A
MCU 2	200A
DC Charger	200A
Air conditioning interface	30A
DC/DC 1 interface	30A
DC/DC 2 interface	30A
Air pump	30A
Oil pump	30A
Communication Interface	0.5~4A

▶ PERFORMANCE PARAMETERS

Protection class	IP55	
Shielding	50db@100MHz	
Environmental Testing	Water-proof test	IP55
	High Temperature Test	85° C 72H
	Low Temperature Test	-40° C 72H
	Salt spray test	48H
	Constant moisture test	5 to 85% R.H.
Electrical Testing	Insulation test	20MΩ 1000V DC/300MΩ 1000V DC
	Voltage withstand test	4000V AC 60 Sec.10mA
	Conductive test	3V DC 0.1A
Mechanical testing	Vibration test	30 ㄩ{3G} 5-55Hz 1-2mm,55-500Hz 30mm
	Shock test	500 ㄩ{50G} 4ms 1K10
Weight	15KG±10%	

Above parameters is tested under 20 ° C working temperature. Customized order is open

▶ APPLICATION

Bus, engineering vehicles and a variety of special vehicles, such as pure electric, hybrid, fuel cell and other new energy vehicles.

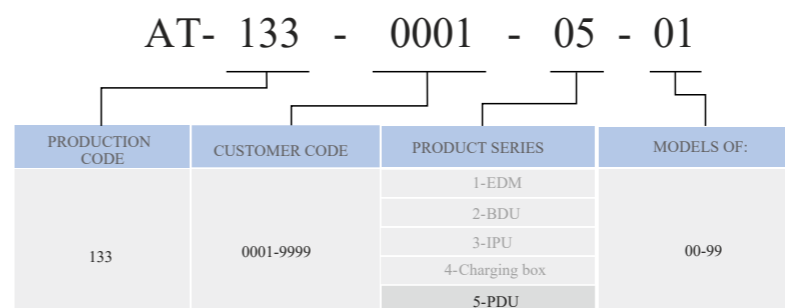
▶ FUNCTION DESCRIPTION

FUNCTIONAL MODULE	COMPONENT DESCRIPTION
Power distribution	Busbar component design, fast heat dissipation, high energy transmission efficiency
Power Distribution Protection	Protection with fuse,electric living parts separated with insulation material ,BMS
Power Distribution control	Power distribution control reaized by high voltage relay,it make energy conversion more reliability and safety.
Current and voltage data collection	Collector, auxiliary equipment use more safety
Precharge	Power resistance, anti surge, pulse
Communication function	CAN communicate with bus in real-time.
Insulation detection	Electric insulation detection, the leakage current can be cut off quickly.

▶ PRODUCT MANUAL

- ▶ Realize the function of power distribution control. It make installation simple, maintenance convenient and manufacture very fast.
- ▶ Shell with aluminum alloy die-casting provide water proof protection, rust against protection (finish process bright silver oxidation).It's light weight, strength very good and good appearance.
- ▶ Designed with busbar solution make the product with low temperature rise, good heat dispassion,electric conductive better and installation easily.
- ▶ Variety busbar,connector solution developed by Ebusbar has been applied; meets in this products, it meet most customer request.
- ▶ This product can be designed and manufactured and manufacture according to customer's requirements, including the Logo.

▶ PART NUMBERING RULE



Above parameters is tested under 20 ° C working temperature. Customized order is open.

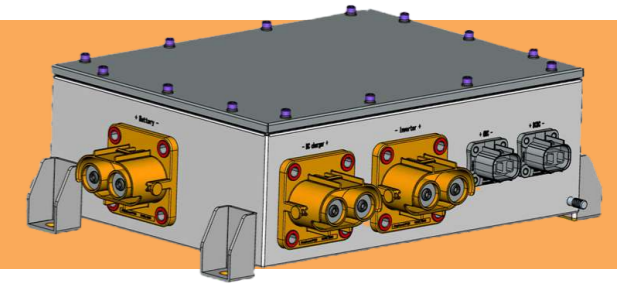
EV POWER DISTRIBUTION UNIT

TRUCKS PDU



EV POWER DISTRIBUTION UNIT

TRUCKS PDU



▶ INTERFACE SPECIFICATION

INTERFACE (OPTIONAL)	PARAMETER
Signal confvil uoltage	9V~16V
Working voltage	250~450VDC
Working temperature	-40 ° C~85° C
Battery interface	350A
MCU	300A
DC Charger	300A
OBC	50A
DC/DC interface	40A
Air compressor interface	20A
AC Inverter	75A
Communication interface	0.5~4A

▶ APPLICATION

A small truck, transport vehicles, such as pure electric, hybrid new energy vehicles.

▶ FUNCTION DESCRIPTION

FUNCTIONAL MODULE	COMPONENT DESCRIPTION
Power distribution	Busbar component design, fast heat dissipation, high energy transmission efficiency
Power Distribution Protection	Protection with fuse,electric living parts separated with insulation material ,BMS
Power Distribution control	Power distribution control reaized by high voltage relay,it make energy conversion more reliability and safety.
Current and voltage data collection	Collector, auxiliary equipment use more safety
Precharge	Power resistance, anti surge, pulse
Communication function	CAN communicate with bus in real-time.
Insulation detection	Electric insulation detection, the leakage current can be cut off quickly.

▶ PERFORMANCE PARAMETERS

Protection class	IP55	
Shielding	50db @ 100MHz	
Environmental Testing	Water-proof test	IP55
	High Temperature Test	85° C 72H
	Low Temperature Test	- 40°C 72H
	Salt spray test	48H
	Constant moisture test	5 to 85% R.H.
Electrical Testing	Insulation test	20MΩ 1000V DC/300MΩ 1000V DC
	Voltage withstand test	4000V AC 60 Sec.10mA
	Conductive test	3V DC 0.1A
Mechanical testing	Vibration test	30 % $\{3G\}$ 5-55Hz 1-2mm,55-500Hz 30mm
	Shock test	110 % $\{50G\}$ 4ms IK10
Weight	12KG±10%	

Above parameters is tested under 23 ° C working temperature. Customized order is open

▶ PRODUCT MANUAL

- ▶ Metal shell, flexible production, and low cost, good protective performance, light weight, good structural strength.
- ◊ Formex paste inside the box, making insulation better;
- ▶ Designed with busbar solution make the product with low temperature rise, good heat dispassion,electric conductive better and installation easily.
- ▶ Variety busbar,connector solution developed by Ebusbar has been applied;meets in this products, it meet most customer request.
- ◊ This product can be designed and manufactured and manufacture according to customer's requirements, including the Logo.

▶ PART NUMBERING RULE

AT- 133 - 0001 - 05 - 01

PRODUCTION CODE	CUSTOMER CODE	PRODUCT SERIES	MODELS OF:
133	0001-9999	1-EDM	00-99
		2-BDU	
		03- IPU	
		4-Charging box	
		5-PDU	



Above parameters is tested under 23 ° C working temperature. Customized order is open.

PDU TOTAL EV POWER DISTRIBUTION SOLUTION WITH CONTROL AND PROTECTION
 SMART CONNECTION DESIGN TO COMPACT SPACE. POWER I/O INTEGRATED MAKE THE POWER SUPPLY SYSTEM MORE SAFETY

EV POWER BATTERY PROTECTION DISTRIBUTION UNIT

The electric vehicle vehicle charge and discharge management and distribution of electric vehicles on the equipment current transfer, supervision, to provide isolation and protection of equipment safety, circuit protection; Battery and equipment current, voltage, control and test data communication, with the circuit on and off, switching circuit control, the charge can be disconnected other equipment circuit, to avoid charging caused by other equipment damage.



PDU

Power distributor unit designed for EV, known as "electric vehicle high voltage power distribution box", "Electric vehicle power unit" and "Electric vehicle safety box", is an important part in EV.

It supports function converting and power distribution to every systematic unit. Such as motor control unit, battery management system, charging system, DC to DC system, air condition system, electric steering auxiliary system and brake system.

PDU can also provide short circuit protection, current leaking protection and IP protection.

Battery lifespan is longer and maintenance cost of EV is reduced with this unit (Easy maintenance, convenient installation, space saving and reliable electric connection).



**INNOVATION TECHNOLOGY
 LEADING INDUSTRY**

EV POWER DISTRIBUTION UNIT

CHARGING DISTRIBUTION UNIT



▶ PERFORMANCE PARAMETERS

Protection class		IP55
Shielding		50db @ 100MHz
Environmental Testing	Water-proof test	IPX5
	High Temperature Test	85° C 72H
	Low Temperature Test	-40° C 72H
	Salt spray test	48H
	Constant moisture test	5 to 85% R.H.
Electrical Testing	Insulation test	20MΩ 1000V DC/300MΩ 1000V DC
	Voltage withstand test	4000V AC 60 Sec.10mA
	Conductive test	3V DC 0.1A
Mechanical testing	Vibration test	30% {3G} 5-55Hz 1-2mm,55-500Hz 30mm
	Shock test	110 ㄨ50G} 4ms IK10
Weight		4KG±10%

▶ APPLICATION PHOTOS



EV POWER DISTRIBUTION UNIT

CHARGING DISTRIBUTION UNIT



▶ APPLICATION

Electric vehicle, AC and DC high voltage high current charger, charging pile and the car charging interface, installation and charging pile or car end, used to do charging access port. Integrated circuit charging protection system

▶ FUNCTION DESCRIPTION

FUNCTIONAL MODULE	COMPONENT DESCRIPTION
DC charging	Charging station charging pile DC fast charge
AC charging	Self charge, slow charge
Power parameter state detection	Parameters such as current, voltage, temperature, current and so on.
Charging safety protection	Relay, anti high current and voltage damage, waterproof, current leaking
Against Fall off, hot plug	With self locking and clamping device, and achieve the locking tracking and feedback detection

▶ INTERFACE SPECIFICATION

INTERFACE (OPTIONAL)	PARAMETER	
Signal confvil uoltage	9~16V DC , 21~28V DC	
Working voltage	250~620V DC	
Working temperature	-40° C ~85° C	
Charging interface	Fast charge	500VDC 125A
	Slow charge	220AC 30A
OBC interface	10A	
Communication interface	10A	
Output interface	Connected to PDU distribution box	

▶ PART NUMBERING RULE

AT- 133 - 0001 - 04 - 01

PRODUCTION CODE	CUSTOMER CODE	PRODUCT SERIES	MODELS OF:
133	0001-9999	1-EDM	00-99
		2-BDU	
		3-IPU	
		4-Charging box	
		5-PDU	



EV POWER DISTRIBUTION UNIT

HIGH VOLTAGE AND CURRENT JUNCTION UNIT (IPU)



▶ PART NUMBERING RULE

AT- 133 - 0001 - 03 - 01

PRODUCTION CODE	CUSTOMER CODE	PRODUCT SERIES	MODELS OF:
133	0001-9999	1-EDM 2-BDU 3-IPU 4-Charging box 5-PDU	00-99

▶ PERFORMANCE PARAMETERS

Protection class		IP55
Shielding		50db @ 100MHz
Environmental Testing	Water-proof test	IPX5
	High Temperature Test	85° C 72H
	Low Temperature Test	-40° C 72H
	Salt spray test	48H
	Constant moisture test	5 to 85% R.H.
Electrical Testing	Insulation test	20MΩ 1000V DC/300MΩ 1000V DC
	Voltage withstand test	4000V AC 60 Sec.10mA
	Conductive test	3V DC 0.1A
Mechanical testing	Vibration test	30% {3G} 5-55Hz 1-2mm,55-500Hz 30mm
	Shock test	110 %50G } 4ms IK10
Weight		6KG±10%

▶ APPLICATION PHOTOS



Above parameters is tested under 23 ° C working temperature. Customized order is open

EV POWER DISTRIBUTION UNIT

HIGH VOLTAGE AND CURRENT JUNCTION UNIT (IPU)



▶ APPLICATIONS

Electric vehicles, the wiring beautiful, simplify installation and maintenance, to enhance the protection and distribution functions.

▶ FUNCTION DESCRIPTION

FUNCTIONAL MODULE	COMPONENT DESCRIPTION
Power distribution	Busbar component design, fast heat dissipation, high energy transmission efficiency
Power Distribution Protection	Protection with fuse,electric living parts separated with insulation material
More than one turn	A turn five: motors, PTC, OBC,DCDC, air conditioning and other independent line protection unit

▶ INTERFACE SPECIFICATION

INTERFACE (OPTIONAL)	PARAMETER
Working voltage	250~620V DC
Working temperature	-40° C ~85° C
Motor Interface	+
	-
Distribution interface	High voltage connector / PDU distribution box

▶ PRODUCT MANUAL

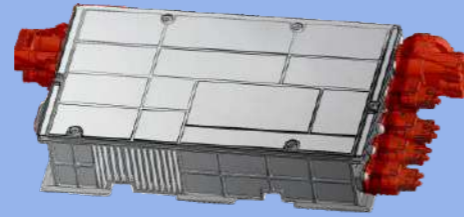
- ▶ Aluminum Alloy, metal shell, light weight, good structural strength, good antirust measures (Paint) the appearance is beautiful.
- ▶ The level of protection IP67, the design of bus connection, smaller volume
- ▶ Designed with busbar solution make the product with low temperature rise, good heat dissipation,electric conductive better and installation easily.
- ▶ Variety busbar,connector solution developed by Ebusbar has been applied;meets in this products, it meet most customer request.
- ▶ This product can be designed and manufactured and manufacture according to customer's requirements, including the Logo.



Above parameters is tested under 23 ° C working temperature. Customized order is open.

EV POWER DISTRIBUTION UNIT

BATTERY CHARGE-DISCHARGE PROTECTION UNIT(BDU)



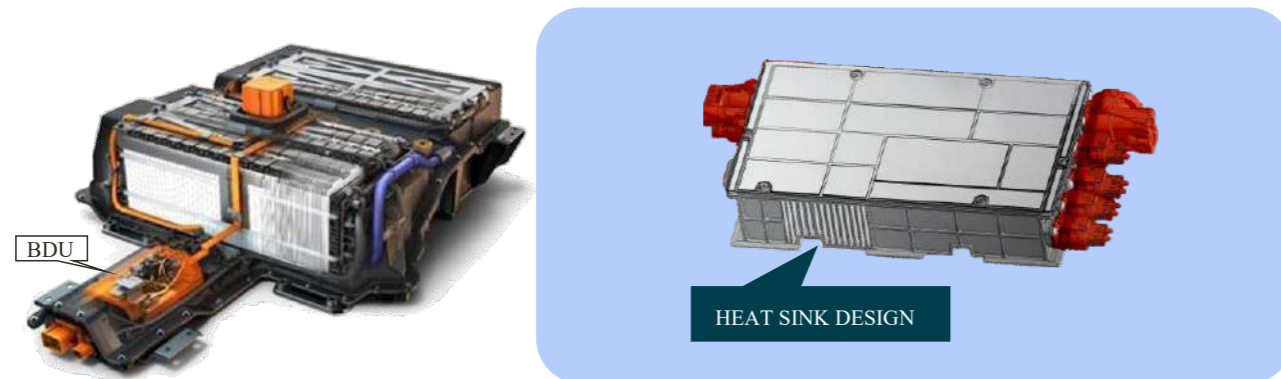
▶ PERFORMANCE PARAMETERS

Protection class		IP55
Shielding		50db @ 100MHz
Environmental Testing	Water-proof test	IPX7
	High Temperature Test	85° C 72H
	Low Temperature Test	-40° C 72H
	Salt spray test	48H
	Constant moisture test	5 to 85% R.H.
Electrical Testing	Insulation test	20MΩ 1000V DC/300MΩ 1000V DC
	Voltage withstand test	4000V AC 60 Sec.10mA
	Conductive test	3V DC 0.1A
Mechanical testing	Vibration test	30% {3G} 5-55Hz 1-2mm,55-500Hz 30mm
	Shock test	500 ㄨ{50G} 4ms IK10
Weight		10KG±10%

▶ INTERFACE SPECIFICATION

INTERFACE (OPTIONAL)	PARAMETER
Control signal voltage	9~16V DC , 21~28V DC
Working voltage	250~620V DC
Working temperature	-40° C ~85° C
Heating interface	5A
Charging interface	300A
Distribution interface	High voltage connector / PDU distribution box

▶ APPLICATION PHOTOS



Above parameters is tested under 23 ° C working temperature. Customized order is open

EV POWER DISTRIBUTION UNIT

BATTERY CHARGE-DISCHARGE PROTECTION UNIT(BDU)



▶ APPLICATION

Electric vehicle battery, solar power generation battery, room group UPS battery, high voltage energy storage battery external coordination use, high voltage battery charging and discharging safety protection box.

▶ FUNCTION DESCRIPTION

FUNCTIONAL MODULE	COMPONENT DESCRIPTION
Power distribution	Busbar component design, fast heating dissipation, high energy transmission efficiency
Power Distribution Protection	Protect with fuse,electric living parts separated with insulation material ,BMS
Power Distribution control	Power distribution control realized by high voltage relay,it make energy conversion more reliability and safety.
Current and voltage data collection	Collector, auxiliary equipment use more safety
Precharge	High power resistance, anti surge, pulse
Communication function	CAN communicate with bus in real-time.
BMS	Battery Management System BMS

▶ PRODUCT MANUAL

- Realize the function of power distribution control. It Simple installation, convenient maintenance and fast manufacture are available with function of power distribution control.
- Shell with aluminum alloy die-casting provide water proof protection, rust against protection (finish process bright silver oxidation).weight light, good strength and good appearance.
- Designed with busbar solution make the product with low temperature rise, good heat dispassion,electric conductive better and installation easily.
- Variety busbar,connector solution developed by Ebusbar has been applied;meets in this products, it meet most customer request.
- This product can be designed and manufactured and manufacture according to customer's requirements, including the Logo.

PART NUMBERING RULE

▶ PART NUMBERING RULE

AT- 133 - 0001 - 02 - 01

PRODUCTION CODE	CUSTOMER CODE	PRODUCT SERIES	MODELS OF:
133	0001-9999	1-EDM	00-99
		2-BDU	
		3-IPU	
		4-Charging box	
		5-PDU	



Above parameters is tested under 23 ° C working temperature. Customized order is open.

EV POWER DISTRIBUTION UNIT

BATTERY CHARGE-DISCHARGE PROTECTION MODULE(EDM)



▶ INTERFACE SPECIFICATION

INTERFACE (OPTIONAL)	PARAMETER
Control signal voltage	9~16V DC , 21~28V DC
Working voltage	250~620V DC
Working temperature	-40° C ~85° C
Heating interface	5A
Charging interface	300A
Distribution interface	High voltage connector / PDU distribution box

▶ PERFORMANCE PARAMETERS

Protection class		IP55
Environmental Testing	Water-proof test	85° C 72H
	High Temperature Test	-40°C 72H
	Low Temperature Test	48H
	Salt spray test	5 to 85% R.H.
	Constant moisture test	UL94-V0/CSA Ft2
Electrical Testing	Insulation test	20MΩ 1000V DC/300MΩ 1000V DC
	Voltage withstand test	4000V AC 60 Sec.10mA
	Conductive test	3V DC 0.1A
Mechanical testing	Vibration test	30% {3G} 5-55Hz 1-2mm,55-500Hz 30mm
	Shock test	110 % {50G} 4ms IK10
Weight		5KG±10%

▶ APPLICATION PHOTOS



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EV POWER DISTRIBUTION UNIT

BATTERY CHARGE-DISCHARGE PROTECTION MODULE(EDM)



▶ APPLICATION

Electric car battery, solar power generation group battery, engine room group UPS power distribution system, the integration of high voltage energy storage battery internal use;

▶ FUNCTION DESCRIPTION

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Precharge	High power resistance, anti surge, pulse

▶ PRODUCT MANUAL

- ▶ To protect the battery during charging and discharging process, to enhance the safety of the system, signal current collection and communication, control power connection and disconnection
- ▶ With polyurethane silicone glue, good thermal conductivity, better isolation, resistance sealed, higher structure strength, no pollution, and better anti-vibration performance and quick action for certain characteristics.
- ▶ Saving ing space and material, it can be designed according to the user requirements including the LOGO

▶ PART NUMBERING RULE

AT- 133 - 0001 - 01 - 01

PRODUCTION CODE	CUSTOMER CODE	PRODUCT SERIES	MODELS OF:
133	0001-9999	1-EDM	00-99
		2-BDU	
		3-IPU	
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EV POWER DISTRIBUTION UNIT

BATTERY CHARGE-DISCHARGE PROTECTION MODULE(EDM)



EV POWER DISTRIBUTION UNIT

BATTERY CHARGE-DISCHARGE PROTECTION MODULE(EDM)



▶ TECHNICAL PARAMETERS

DESCRIPTION	PARAMETER
Rated current	350A
Rated voltage	500V
Product IP rating	IP2X
Withstand voltage-Positive and negative poles	2600VDC, 60s leakage current less than 3mA
Withstand voltage-HV poles and LV terminal	1300VDC, 60s leakage current less than 3mA
Insulation resistance	1000VDC, 60S, more than 500 MΩ
Relay drive voltage	12V
Vibration test	IEC 60068-2-64
Flammability standard	UL94 V-0
Operating temperature	-40~+125°C
Ambient storage temperature	-40~+65°C

▶ KEY COMPONENTS PARAMETER

DESCRIPTION	PARAMETER
Current Sensor	Sampling current (A): ±350
	Sampling accuracy: 3%
Fuse	DC+: 500V, 630A
	DC+: 600V, 450A
Relay	DC Charge +: 800V, 500A
	DC Pre-charge +: 500V, 20A
Pre-charge resistance	Power: 150W, Resistance: 50Ω
NTC	3435K to 4190K

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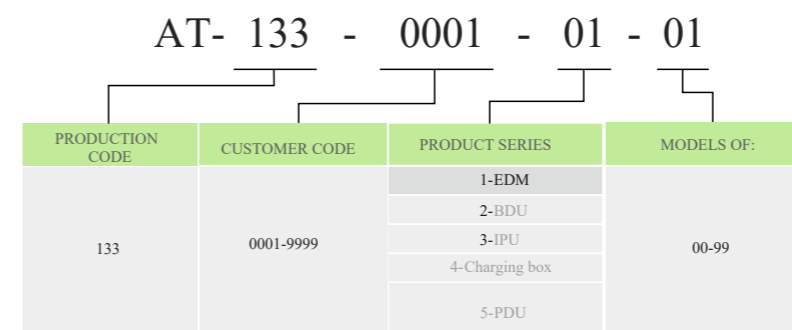
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EV POWER DISTRIBUTION UNIT

BATTERY CHARGE-DISCHARGE PROTECTION MODULE(EDM)



EV POWER DISTRIBUTION UNIT

BATTERY CHARGE-DISCHARGE PROTECTION MODULE(EDM)



▶ Features

No.	Features
1	B+/- , DC Charge +/- , FEDS+/-, REDS+/- multiple Channels
2	Rated voltage :450Vdc
3	Rated Current 400A dc
4	IP Rating: IP 2X , Plastic top cover & Al-alloy bottom plate
5	Cooling System: Liquid cooling , flew rate \geq 0.5L/Min
6	Shunt current sensor with CAN 2.0A/B Motorola
7	EDS Pre-charge support
8	2x NTC thermal sensing
9	6x High voltage junctions monitoring

▶ TECHNICAL PARAMETERS

Item	Parameter	Remark
Withstand Voltage	2000Vdc / 3mA	
Insulation resistance	20M Ω	
Ground resistance	\leq 0.1 ohm	
Rated current	300A dc (Charge & discharge)	
Rated current -Main contact	300A dc (Combination)	FEDS discharge only
Rated Voltage	450Vdc	
Rated drive (Coil) voltage	12Vdc	
Rated drive (Coil) power	6W	
Nominal contact resistance	12m Ω	
Rated current pre-charge contact	20A dc	FEDS only
Precharge resistor	30 Ω , 40W	FEDS only
Accuracy of current sense	2%	
Supply voltage of current sensor	12Vdc	Max. consume current :100mA
Fuse	600A	

Above parameters is tested under 20 ° C working temperature. Customized order is open

▶ APPLICATION

Electric car battery, solar power generation group battery, engine room group UPS power distribution system, the integration of high voltage energy storage battery internal use;

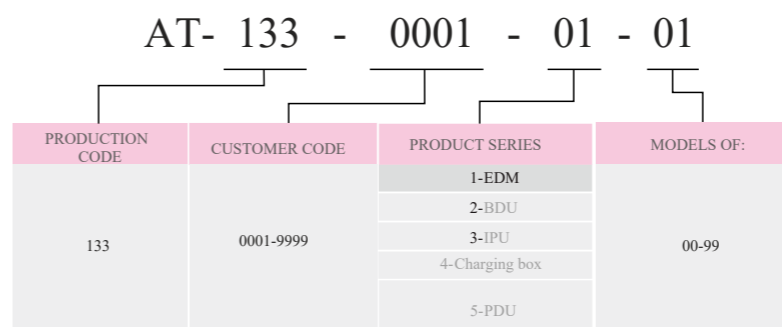
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▶ PART NUMBERING RULE



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