



E-mobility connectivity solutions



DEGSON website



LINKEDIN



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The catalog is for reference purpose only and details are base on company's specifications

HV 25-E01

E-mobility connectivity solutions

ISO9001 ISO14001 ISO45001 IATF16949   CB CE  RoHS REACH EV READY

Brief Introduction

Founded in 1990, DEGSON is a Global Leader in Integrated Industrial Connectivity and New Energy Solutions, with UL-CTDP, VDE-TDAP and CNAS approved laboratory. DEGSON has passed ISO9001, ISO14001, ISO45001, ISO80079-34, ISO/TS22163 and IATF16949 Management System, and is a national high-tech enterprise.

DEGSON is engaged in supplying highly reliable and durable products to serve global customers. The company has a market-leading capability of mould processing, automatic manufacturing and advanced testing. DEGSON has the complete engineering ability to support global customers with the professional customization solution and value-added service.

DEGSON products are widely recognized in China, the USA, Germany, the UK, Italy, Spain, Turkey, Japan, South Korea, Singapore, etc. totally hundred countries and regions. DEGSON supply high quality products and provide professional services globally in the industry sectors likely industrial automation, instrument, electric power, railway, marine and offshore, new energy, elevator, lighting, security, machinery, E-bike industry, etc. The company won the recognition from partners among Fortune 500 and industry leading enterprises.

Based on the business philosophy of "Clients First, Win-win Strategy, Responsibility Integrity, Excellence Pursuit.", DEGSON continuously integrates professional technical resources, R&D innovation, product manufacturing and technology application capabilities. Relying on global sales network, DEGSON aims to supply series of multiple varieties of high-quality products and services. We provide global customers with professional and quick connected application solutions, help customers continue to create value. DEGSON is making contributions to creating a smart and interconnected world.



UL-CTDP (USA), VDE-TDAP (Germany) and CNAS laboratories

Strategic cooperation with UL and VDE



① The general manager of UL global energy & technology division visit our company



② Sven Ohrke, President of VDE global services, discusses mutual strategic cooperation in DEGSON



③ VDE Laboratory Accreditation: In July 2010, VDE issued the "VDE Authorized Laboratory" certificate to DEGSON laboratory.

UL laboratory accreditation: UL formally issued "UL WTDP" certificate to DEGSON in March 2013. In April, 2016, UL-CTDP. In December, 2016, VDE-TDAP. In January, 2017, Pass IRIS system audit.



ISO9001

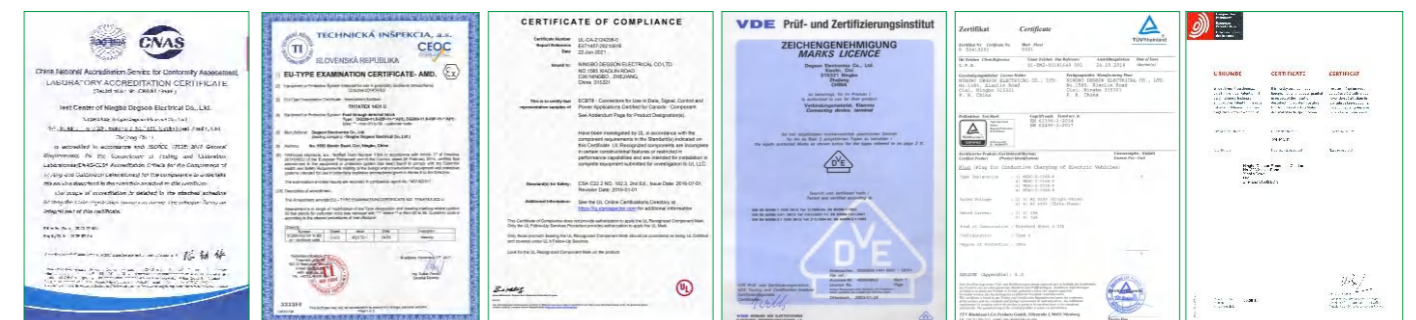
ISO14001

IATF16949

ISO/TS 22163

UL - CTDP

VDE - TDAP



CNAS

EX certificate

UL Certificates:10,Covering 4000+Products

VDE Certificates:178,Covering 3000+Products

TUV certificate

European invention patent

DEGSON Global Production Base and R&D Center



China Factory



Vietnam Factory

High-tech Zone Factory

Competence Center Nanjing

Luoyang R&D Center

DEGSON products are very popular more than 100 countries and areas.



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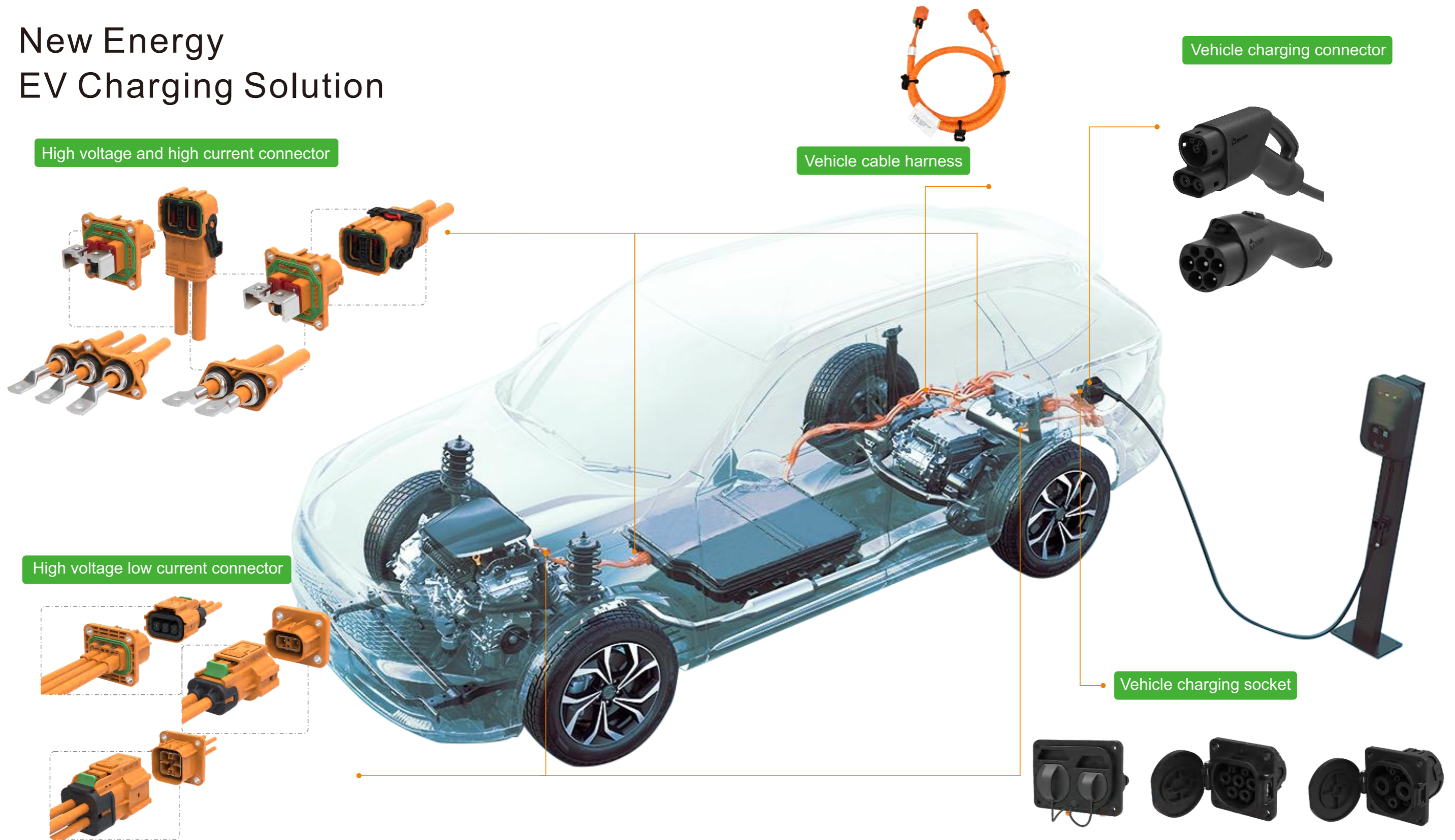
High Voltage Connector

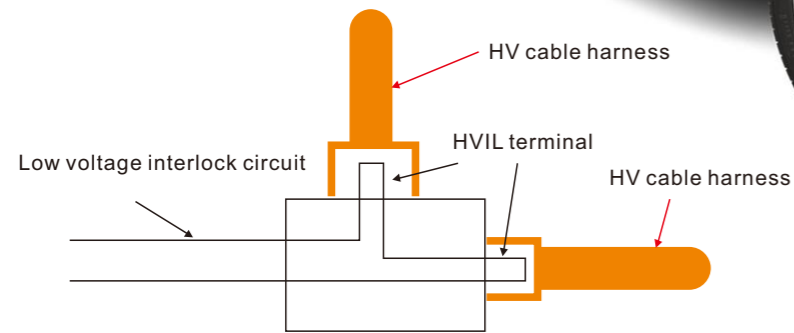
High voltage connector products include: 280 series connector, 630 series connector, 1800 series connector, hole series connector, single core wall terminal, etc.



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New Energy EV Charging Solution





HV connector

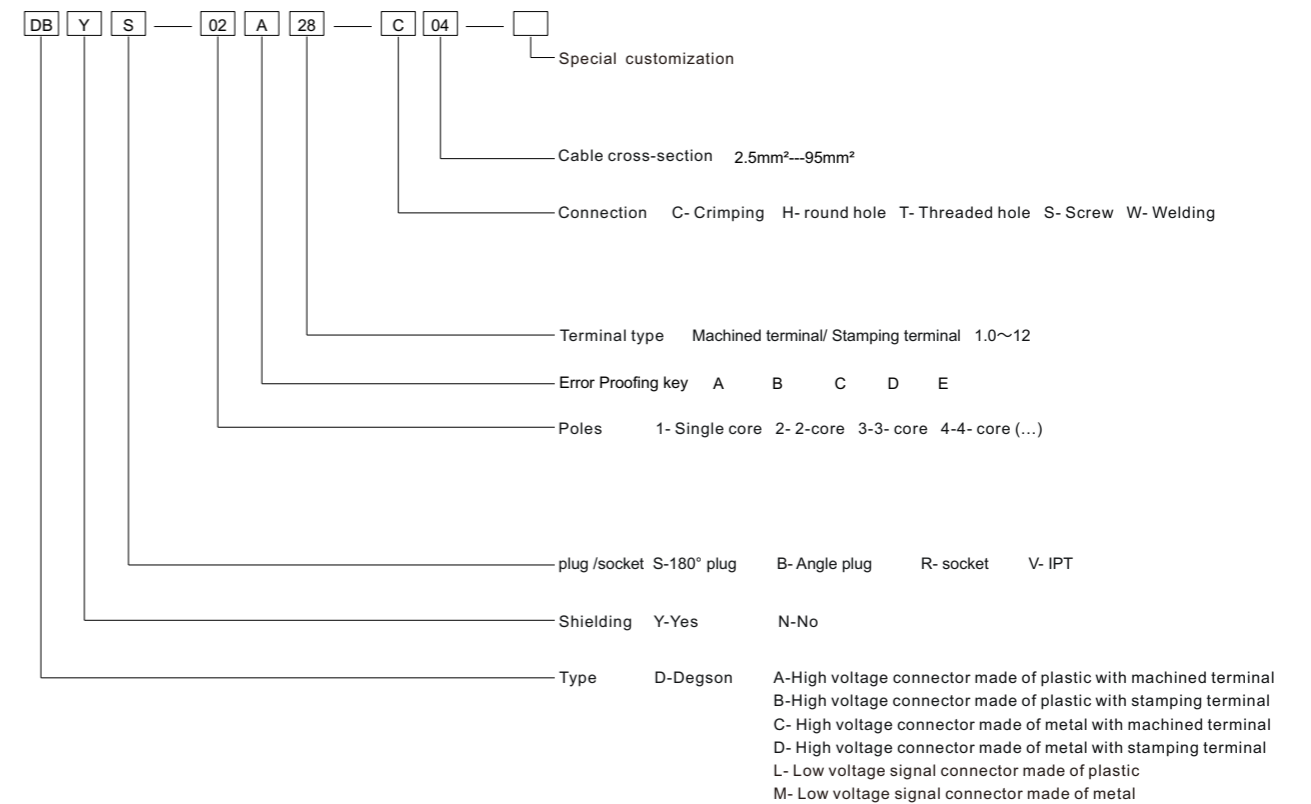
HV connector is used for high-voltage connection among on-board chargers, battery packs, high-voltage power distribution boxes, motor controllers, motors, air conditioners, PTC and other components. HV connector has a built-in short-circuit high-voltage interlock for safety control. And according to customer needs, we can provide customized services for high-voltage connectors and high-voltage cable harnesses.

Product feature

- High-strength thermoplastic material, safe and handiness
- EMC shielding, UL94V-0 flame retardant grade
- Finger-touch resistant design
- Secondary lock design, high voltage interlock
- Waterproof seal, IP67, IP6K9K
- High current, high voltage, high performance
- USCAR-2, LV215 standard design meets the requirements of industry



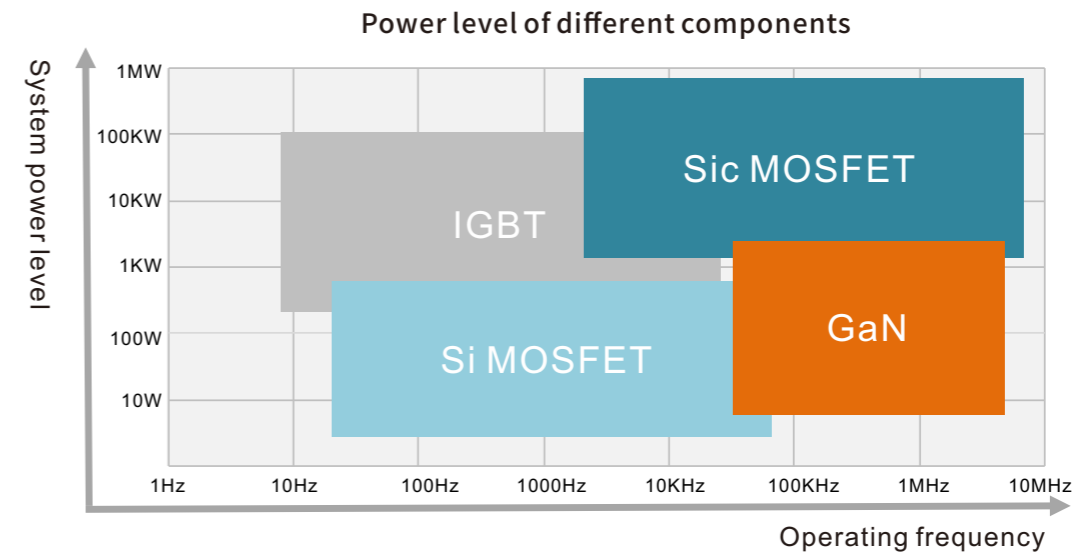
Naming convention



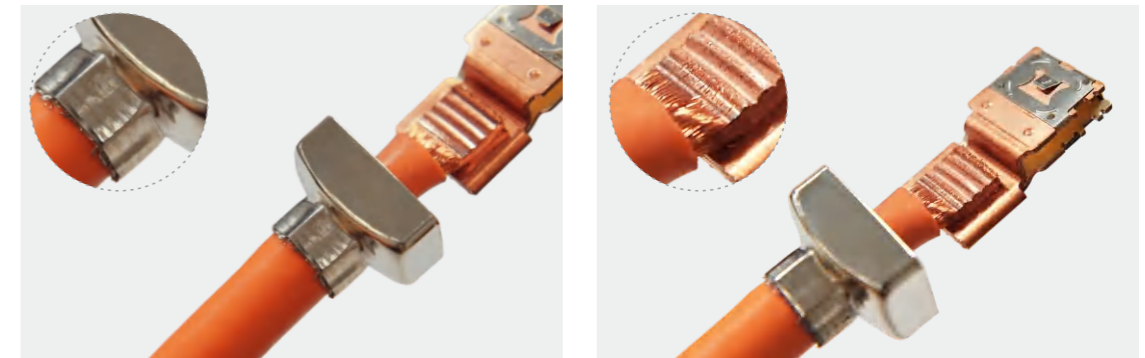


Customization service for HV cable harness

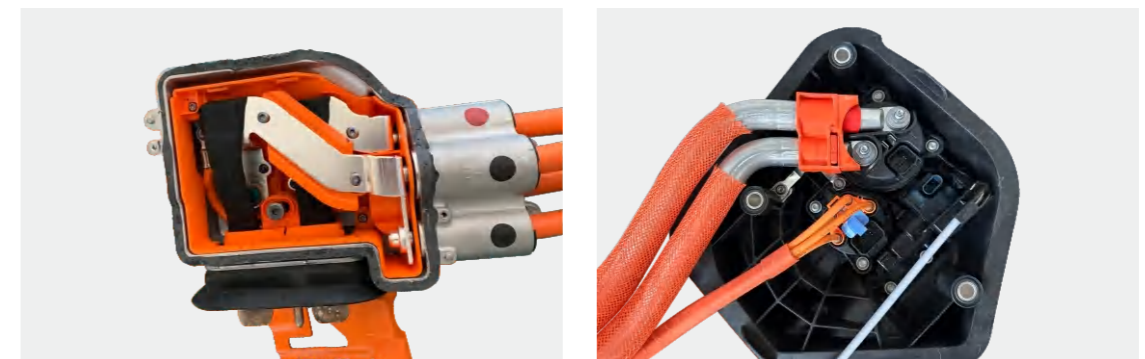
DEGSON provides solutions for the entire high-voltage cable harness. We can not only provide HV connectors, charging sockets, charging cable and other products, but also provide solutions for the entire high-voltage cable harness, which is our advantage. Based on mature technical concepts and strict technical specifications, our products can meet the standards of current mainstream EV. For new energy vehicles including plug-in hybrid (PHEV), HEV and battery electric vehicle (BEV), and fuel cells, DEGSON can provide provides integrated high-voltage cable harness solutions from the battery pack DC bus line to the charging system, as well as the thermal system and other integrated high-voltage cable harness solutions.



The electronic control will use SIC to replace the existing IGBT in the future, and the higher operating frequency asks higher requirements for the EMC of the high-voltage platform. DEGSON HV cable harness products are fully shielded at 360°, and are tested strictly according to the vehicle test standard.



Reliable shield crimping and soldering can ensure low resistance conduction



Custom-designed cable harness, compatible with 400V/800V platforms to meet different HV architectures (3+3/eight-in-one architecture), providing customers with low-cost and reliable products



2 PIN IPT Connector

Electrical Performance

Type	DBYV-02AX7-CXX
Insulation resistance	> 200MΩ 1000V DC
Withstand voltage	< 5mA 3000V AC 60S
Rated current @85 °C	150A@35mm ² , 200A@50mm ²
High-Voltage Interlock (HVIL)	NO

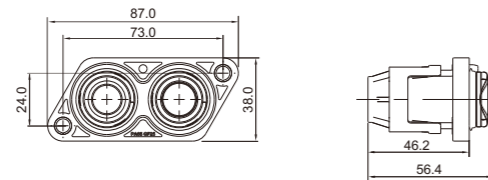
Mechanical Performance

Mating cycles	/
Insertion / Withdrawal force	/
Coding	/
Adapt cable	35mm ² , 50mm ² (Cable dimensions are according to QC / T1037)
Cable connection angle	180°
Vibration class	USCAR-2 V2
IP class(mated)	IP6K9K / IPX8 / IPXXD
IP class (unmated)	/

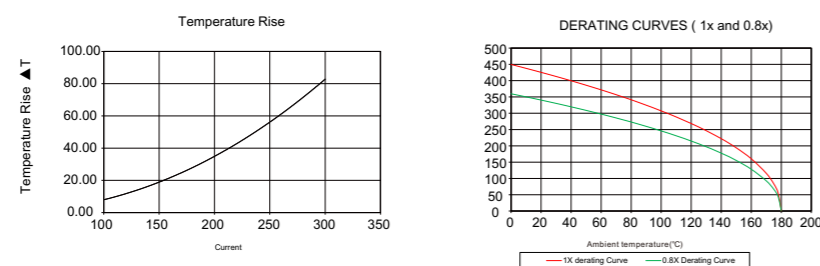
Environmental Performance

Temperature range	-40 °C ~ +125 °C
RoHS	Compliant

Size



Derating curve according to (DIN EN 60512-5-2) — 50 mm²



3 PIN IPT Connector

Electrical Performance

Type	DBYV-03AX7-CXX
Insulation resistance	> 200MΩ 1000V DC
Withstand voltage	< 5mA 3000V AC 60S
Rated current @85 °C	150A@35mm ² , 200A@50mm ²
High-Voltage Interlock (HVIL)	NO

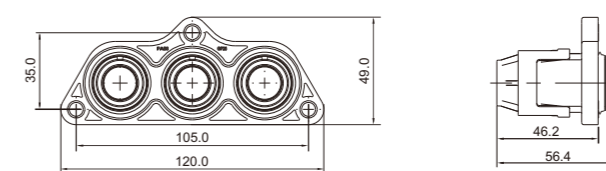
Mechanical Performance

Mating cycles	/
Insertion / Withdrawal force	/
Coding	/
Adapt cable	35mm ² , 50mm ² (Cable dimensions are according to QC / T1037)
Cable connection angle	180°
Vibration class	USCAR-2 V2
IP class(mated)	IP6K9K / IPX8 / IPXXD
IP class (unmated)	/

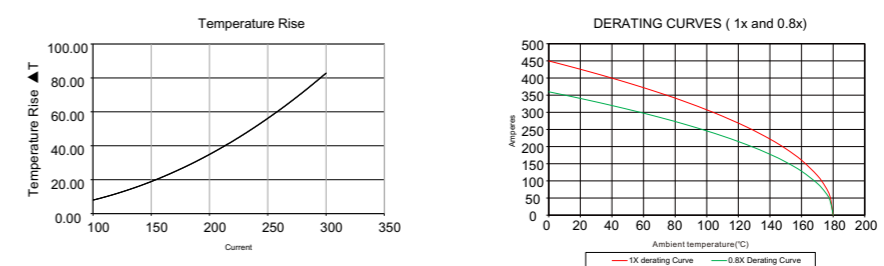
Environmental Performance

Temperature range	-40 °C ~ +125 °C
RoHS	Compliant

Size



Derating curve according to (DIN EN 60512-5-2) — 50 mm²





2 PIN 280 Connector

Electrical Performance

Type	Plug DBYS-02X28-CXX	Header DBYR-02X28-CXX
Insulation resistance	> 200MΩ 1000VDC	
Withstand voltage	< 5mA 3000V AC 60S	
Rated current @85 °C	16A@2.5mm ² , 24@4mm ²	
High-Voltage Interlock (HVIL)	Yes	

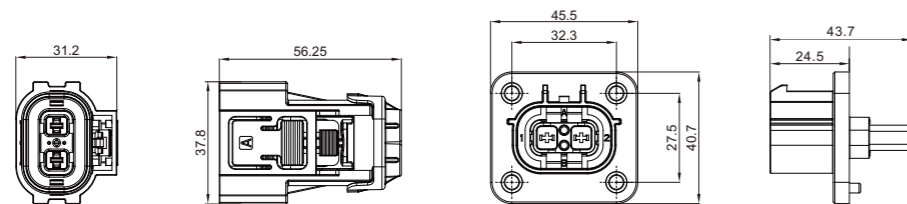
Mechanical Performance

Mating cycles	≥ 50 times
Insertion / Withdrawal force	≤ 75 N
Coding	A,B,C,D,E
Adapt cable	2.5 mm ² , 4 mm ² (Cable dimensions are according to QC / T1037)
Cable connection angle	180°
Vibration class	USCAR-2 V2
IP class(mated)	IP6K9K / IPX8 / IPXXD
IP class (unmated)	IPXXB

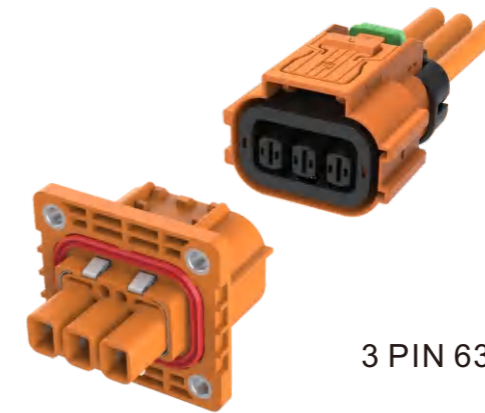
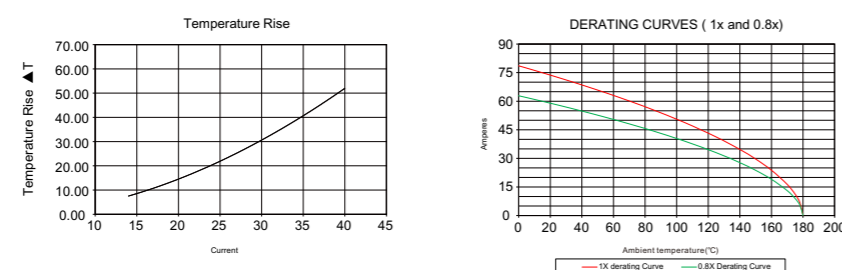
Environmental Performance

Temperature range	-40 °C ~ +125 °C
RoHS	Compliant

Size



Derating curve according to (DIN EN 60512-5-2) — 4 mm²



3 PIN 630 Connector

Electrical Performance

Type	Plug DBYS-03X63-CXX	Header DBYR-03X63-CXX
Insulation resistance	> 200MΩ 1000VDC	
Withstand voltage	< 5mA 3000V AC 60S	
Rated current @85 °C	32A@4mm ² , 40A@6mm ²	
High-Voltage Interlock (HVIL)	Yes	

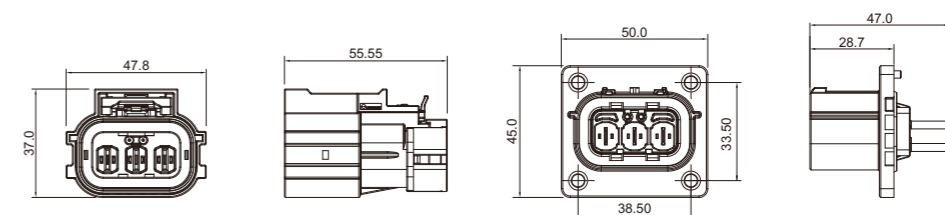
Mechanical Performance

Mating cycles	≥ 50 times
Insertion / Withdrawal force	≤ 75 N
Coding	A,B,C,D,E
Adapt cable	4 mm ² , 6 mm ² (Cable dimensions are according to QC / T1037)
Cable connection angle	180°
Vibration class	USCAR-2 V2
IP class(mated)	IP6K9K / IPX8 / IPXXD
IP class (unmated)	IPXXB

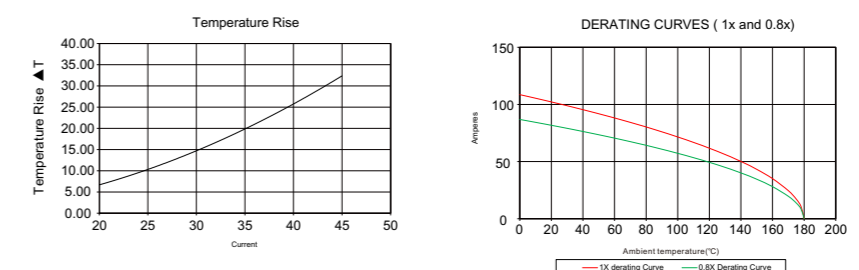
Environmental Performance

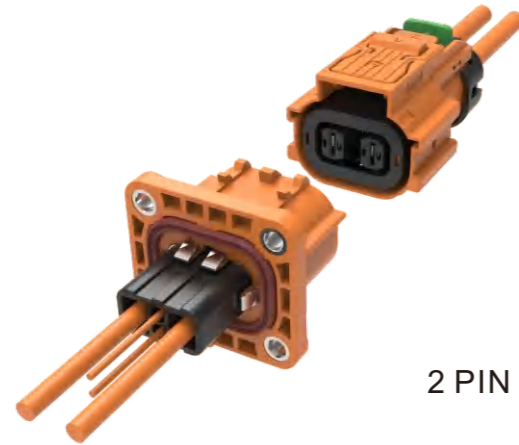
Temperature range	-40 °C ~ +125 °C
RoHS	Compliant

Size

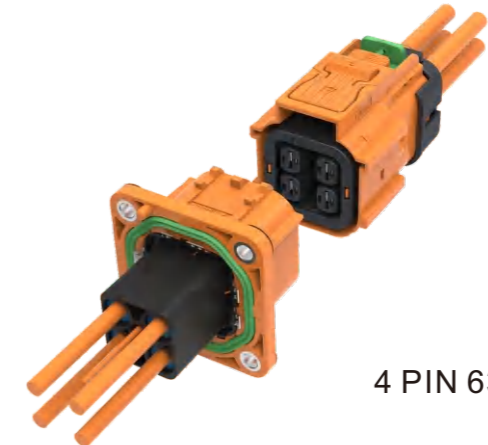


Derating curve according to (DIN EN 60512-5-2) — 6 mm²





2 PIN 630 Connector



4 PIN 630 Connector

Electrical Performance

Type	Plug DBYS-02X63-CXX Header DBYR-02X63-CXX
Insulation resistance	> 200MΩ 1000VDC
Withstand voltage	< 5mA 3000V AC 60S
Rated current @85 °C	32A@4mm ² , 40A@6mm ²
High-Voltage Interlock (HVIL)	Yes

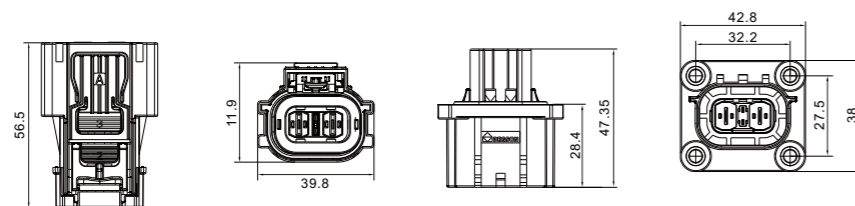
Mechanical Performance

Mating cycles	≥ 50 times
Insertion / Withdrawal force	≤ 75 N
Coding	A,B,C,D,E
Adapt cable	4 mm ² , 6 mm ² (Cable dimensions are according to LV216-2)
Cable connection angle	180°
Vibration class	USCAR-2 V2
IP class(mated)	IP6K9K / IPX8 / IPXXD
IP class (unmated)	IPXXB

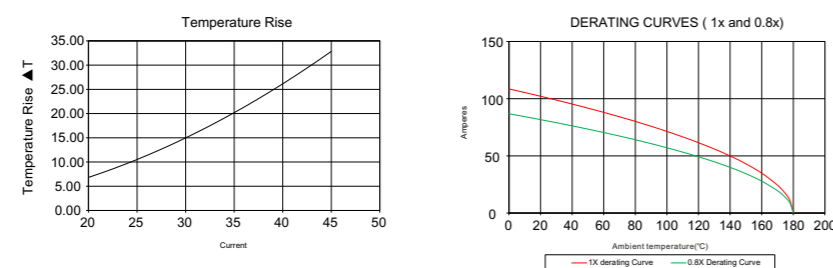
Environmental Performance

Temperature range	-40 °C ~ +125 °C
RoHS	Compliant

Size



Derating curve according to (DIN EN 60512-5-2) — 6 mm²



Electrical Performance

Type	Plug DBYS-04X63-CXX Header DBYR-04X63-CXX
Insulation resistance	> 200MΩ 1000VDC
Withstand voltage	< 5mA 3000V AC 60S
Rated current @85 °C	32A@4mm ² , 40A@6mm ²
High-Voltage Interlock (HVIL)	Yes

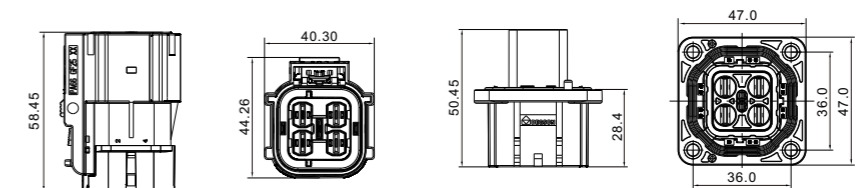
Mechanical Performance

Mating cycles	≥ 50 times
Insertion / Withdrawal force	≤ 75 N
Coding	A,B,C,D,E
Adapt cable	4 mm ² , 6 mm ² (Cable dimensions are according to LV216-2)
Cable connection angle	180°
Vibration class	USCAR-2 V2
IP class(mated)	IP6K9K / IPX8 / IPXXD
IP class (unmated)	IPXXB

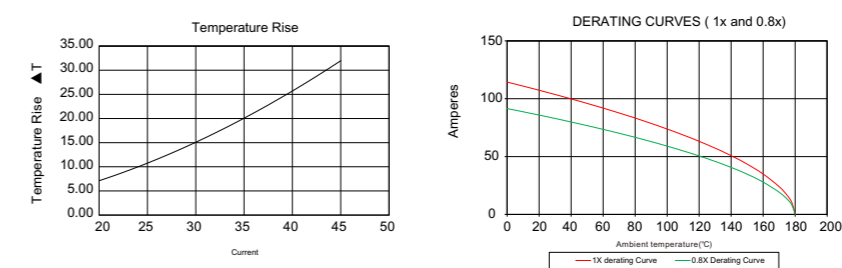
Environmental Performance

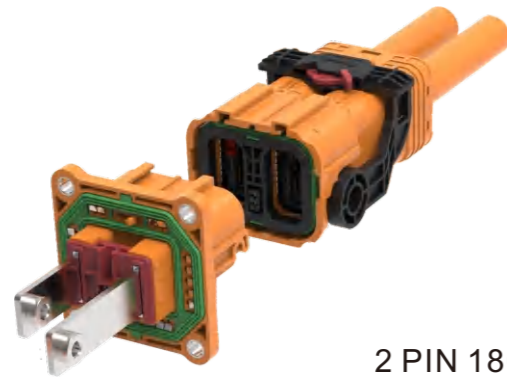
Temperature range	-40 °C ~ +125 °C
RoHS	Compliant

Size



Derating curve according to (DIN EN 60512-5-2) — 6 mm²





2 PIN 1800 Connector-180°



2 PIN 1800 Connector-90°

Electrical Performance

Type	Plug DBYS-02XX8-WXX Header DBYR-02XX8-SXX
Insulation resistance	> 200MΩ 1000VDC
Withstand voltage	< 5mA 3000V AC 60S
Rated current @85 °C	130A@25mm ² , 200A@35mm ² , 250A@50mm ² , 280A@70mm ²
High-Voltage Interlock (HVIL)	Yes

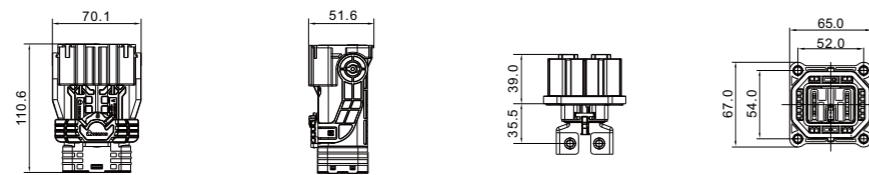
Mechanical Performance

Mating cycles	≥ 50 times
Insertion / Withdrawal force	≤ 75 N
Coding	A,B,C,D
Adapt cable	25 mm ² , 35mm ² , 50mm ² , 70mm ² (Cable dimensions are according to LV216-2)
Cable connection angle	180°
Vibration class	USCAR-2 V2
IP class(mated)	IP6K9K / IPX8 / IPXXD
IP class (unmated)	IPXXB

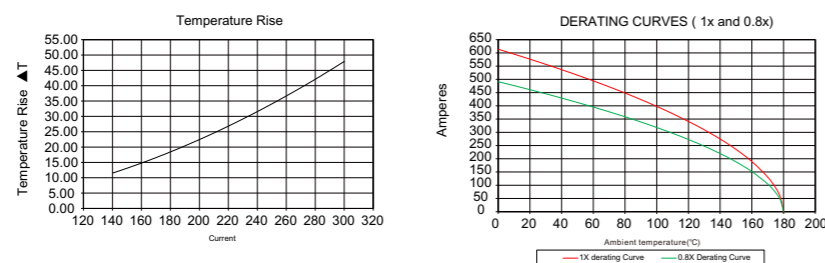
Environmental Performance

Temperature range	-40 °C ~ +125 °C
RoHS	Compliant

Size



Derating curve according to (DIN EN 60512-5-2) — 70 mm²



Electrical Performance

Type	Plug DBYB-02XX8-WXX Header DBYR-02XX8-SXX
Insulation resistance	> 200MΩ 1000VDC
Withstand voltage	< 5mA 3000V AC 60S
Rated current @85 °C	130A@25mm ² , 200A@35mm ² , 250A@50mm ² , 280A@70mm ²
High-Voltage Interlock (HVIL)	Yes

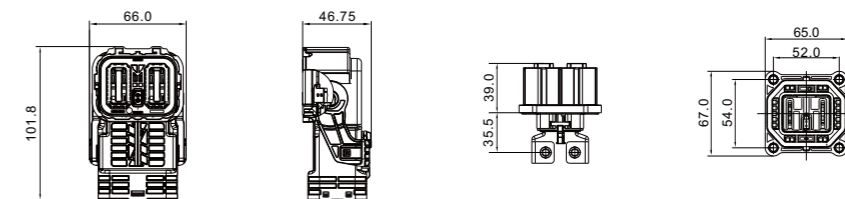
Mechanical Performance

Mating cycles	≥ 50 times
Insertion / Withdrawal force	≤ 75 N
Coding	A,B,C,D
Adapt cable	25 mm ² , 35mm ² , 50mm ² , 70mm ² (Cable dimensions are according to LV216-2)
Cable connection angle	90°
Vibration class	USCAR-2 V2
IP class(mated)	IP6K9K / IPX8 / IPXXD
IP class (unmated)	IPXXB

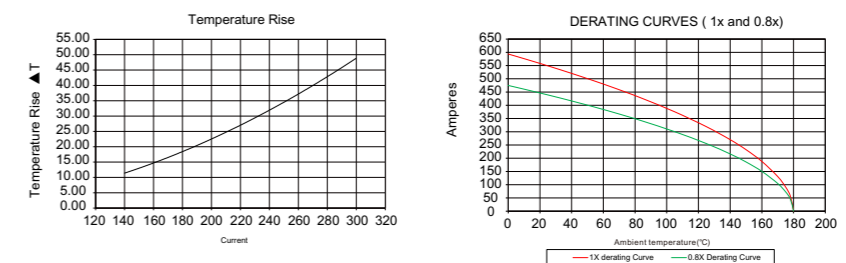
Environmental Performance

Temperature range	-40 °C ~ +125 °C
RoHS	Compliant

Size



Derating curve according to (DIN EN 60512-5-2) — 70 mm²





Single core terminal 300A

Single core terminal 400A

Electrical Performance

Type	90° SA-EHTF-1300-F-L000-01A(H) 180° SA-EHTF-1300-F-L000-00A(H)	90° SA-EHTF-1400-F-L000-01A(H) 180° SA-EHTF-1400-F-L000-00A(H)
Insulation resistance	≥ 500 MΩ 1000 V DC	≥ 500 MΩ 1000 V DC
Withstanding voltage	3500V AC(50/60HZ) 60s no flashover, breakdown, leakage current ≤5mA	3500V AC(50/60HZ) 60s no flashover, breakdown, leakage current ≤5mA
Rated current	300A	400A
Temperature rise	< 50K	< 50K

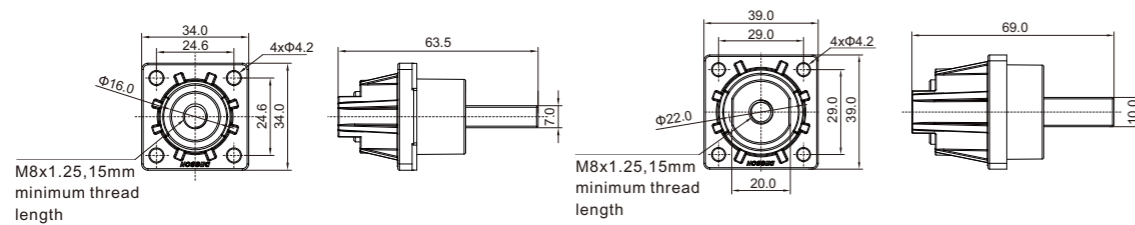
Mechanical Performance

Anti rotation or No	Yes	Yes
Terminal adapting bolts	M8×1.25-6g	M8×1.25-6g
Mounting Hole adapting bolts	M4	M4
Mounting size	24.6×24.6mm	29×29mm
Wiring direction	90°,180°	90°,180°

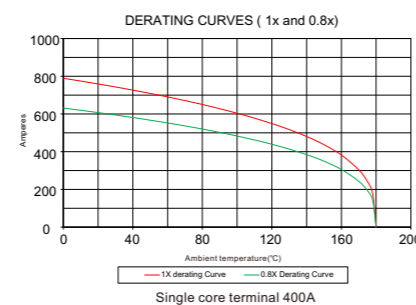
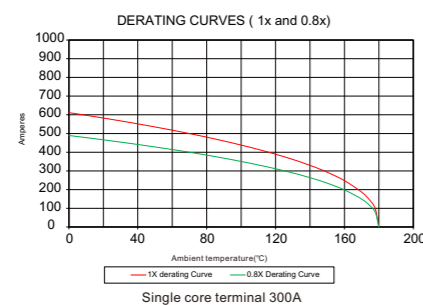
Environmental Performance

Flame retardant grade	UL94-V0	UL94-V0
Salt spray resistance	72H	72H
Working temperature	-40~125°C	-40~125°C

Size



Derating curve according to (DIN EN 60512-5-2)



GB/T AC socket

Definition

Standard	GB/T20234-2-2015
Charging mode	3
Connection mode	C
Current type	AC
Housing color	Black
Shell color	Black

Environmental Performance

Ambient temperature (working)	-30 ~ +50°C
Ambient temperature (storage)	-40 ~ +80°C
Highest altitude	5000M
Ingress protection	Working condition IP55, Protective cap IP54

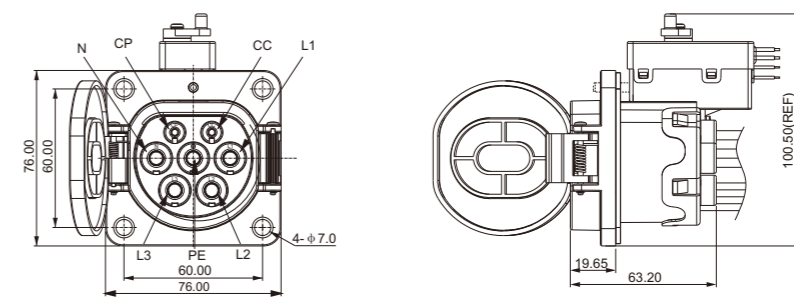
Mechanical Performance

Insertion / Withdrawal cycles	> 10000 times
Insertion / Withdrawal force	< 100N
Withstanding Impact force	Charging interface can withstand 1 meter height drop

Electrical Performance

Rated current	16A, 32A
Rated voltage	250V/ 480V
Power contact number	3(L, N, PE) 5(L1, L2, L3, N, PE)
Signal contact number	2(CC, CP)
Signal pin current	2A
Insulation resistance	> 100MΩ

Size





GB/T DC socket

Definition

Standard	GB/T20234.3-2015
Charging mode	4
Connection mode	C
Current type	DC
Housing color	Black
Shell color	Black

Environmental Performance

Ambient temperature (working)	-30 ~ +50°C
Ambient temperature (storage)	-40 ~ +80°C
Highest altitude	5000M
Ingress protection	IP54

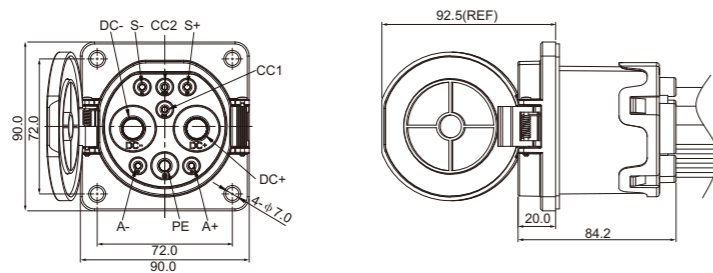
Mechanical Performance

Insertion / Withdrawal cycles	> 10000 times
Insertion / Withdrawal force	< 140N
Withstanding Impact force	Charging interface can withstand 1 meter height drop

Electrical Performance

Rated current	125A, 200A, 250A
Rated voltage	750V/1000V
Power contact number	3(DC+, DC-, PE)
Signal contact number	6(A+, A-, CC1, CC2, S+, S-)
Signal pin current	20A(A+, A-) 2A(CC1, CC2, S+, S-)
Insulation resistance	> 100MΩ

Size



Chinese standards AC and DC socket

Definition

Standard	GB/T20234-2-2015/ GB/T20234-3-2023
Charging mode	3/4
Connection mode	C
Current type	AC/DC
Housing color	Black
Shell color	Black

Environmental Performance

Ambient temperature (working)	-30 ~ +50°C
Ambient temperature (storage)	-40 ~ +80°C
Highest altitude	5000M
Ingress protection	IP54(IP 55, After interpolation)

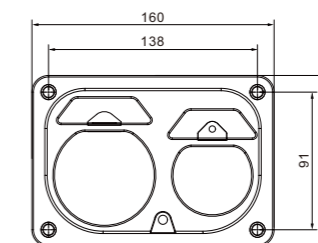
Mechanical Performance

Insertion / Withdrawal cycles	> 10000 times
Insertion / Withdrawal force	AC < 100N DC < 140N
Withstanding Impact force	Charging interface can withstand 1 meter height drop

Electrical Performance

Rated current	AC:32A DC:125A Maximum current: 400A (optional)
Rated voltage	AC 250V / DC 1000V
Power contact number	3(L, N, PE)/(DC+, DC-, PE)
Signal contact number	2(CC CP) /4(S+ S- CC1 CC2)
Signal pin current	2A
Insulation resistance	≥100MΩ

Size



GB/T



GB/T mode 2 EV Charger

Definition

Standard	GB/T18487, GB/T20234
Charging mode	2
Connection mode	B
Current type	AC
Housing color	Black
Shell color	Black

Environmental Performance

Ambient temperature (working)	-30 ~ 50°C
Ambient temperature (storage)	-40 ~ 80°C
Highest altitude	2000M
Ingress protection	EV charging cable IP55

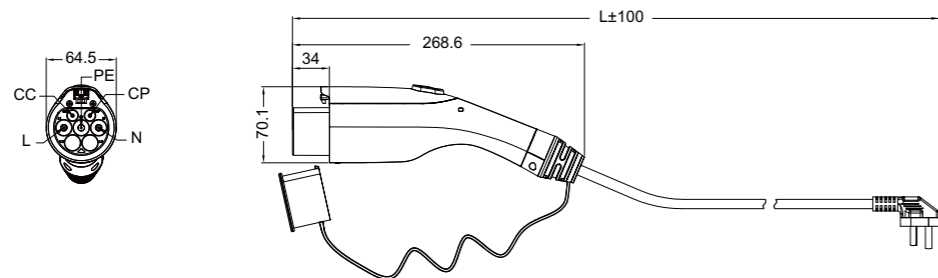
Mechanical Performance

Insertion / Withdrawal cycles	> 10000次
Insertion / Withdrawal force	< 100N
Withstanding Impact force	Charging interface can withstand 1 meter height drop and 2 tons of car rolling

Electrical Performance

Rated current	8A, 10A, 13A, 16A
Rated voltage	250V
Power contact number	3(L, N, PE)
Signal contact number	2(CP PP)
Signal pin current	2A
Insulation resistance	> 5MΩ

Size



TYPE2 mode2



Type2 mode 2 EV Charger

Definition

Standard	IEC 62196-2:2016
Charging mode	2
Connection mode	B
Current type	AC
Housing color	Black
Shell color	Black

Environmental Performance

Ambient temperature (working)	-30 ~ 50°C
Ambient temperature (storage)	-40 ~ 80°C
Highest altitude	2000M
Ingress protection	EV charging cable IP54 IC-CPD IP66

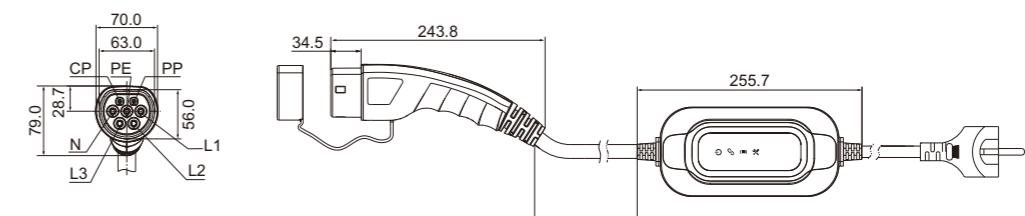
Mechanical Performance

Insertion / Withdrawal cycles	> 10000次
Insertion / Withdrawal force	< 100N
Withstanding Impact force	Charging interface can withstand 1 meter height drop and 2 tons of car rolling

Electrical Performance

Rated current	8A, 10A, 13A, 16A, 32A
Rated voltage	250V
Power contact number	3(L, N, PE)
Signal contact number	2(CP PP)
Signal pin current	2A
Insulation resistance	> 5MΩ

Size





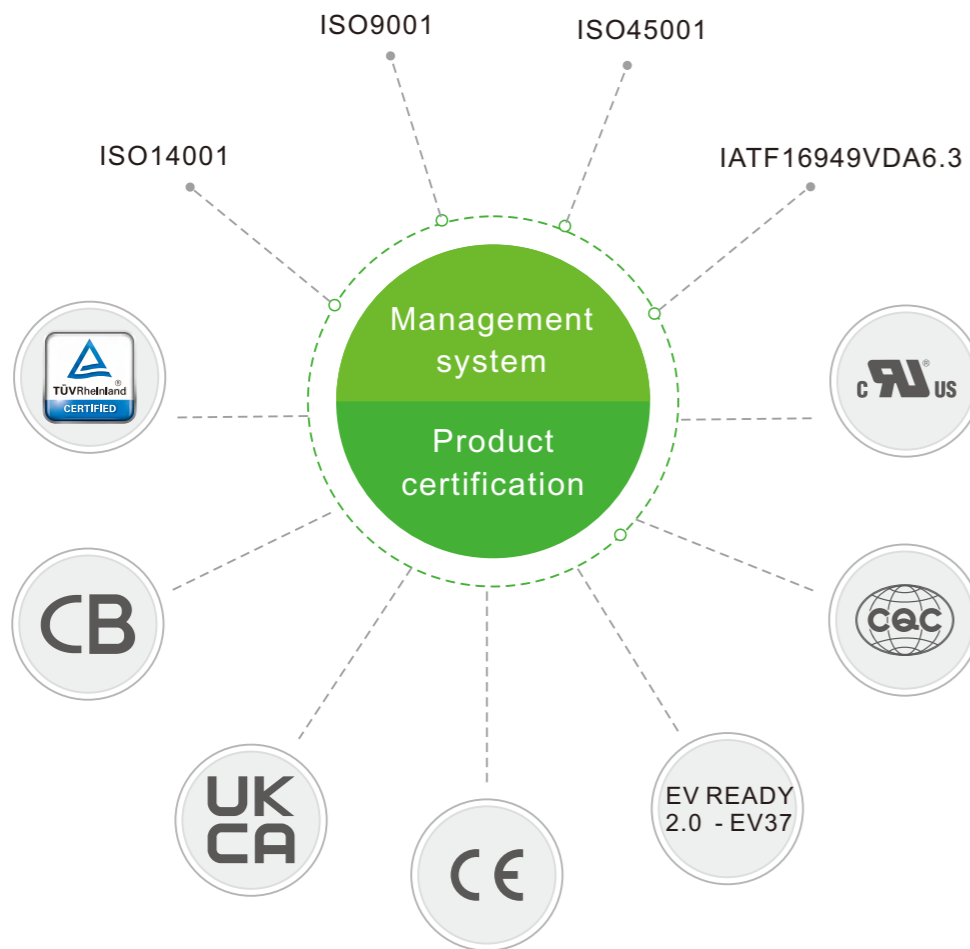
Quality assurance

Core factor of quality

The core factors of quality come from the important standards and specifications of product and process control in different industries and field

Certification bodies and safety marks

Product certification is an internationally accepted model of product quality assurance, and it is an inevitable choice in line with international standards to improve the credibility of products



Certification in specific fields

DEGSON's EV Chargers are certified by major safety and quality laboratories



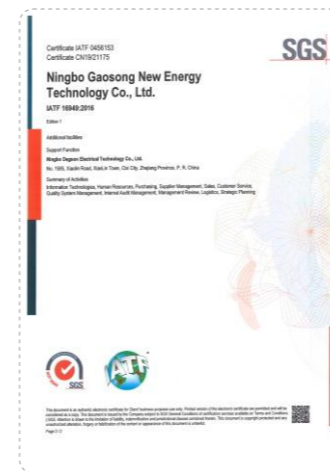
A specialized organization established in 1996 by the world's major automobile manufacturers and associations



The United States safety verification laboratory, the international authority and recognized public safety testing, authentication institutions, strict organization and management system and product certification procedures



China national certification body, state-approved management system and product certification body



- Germany Rheinland certification, TUV +CE+CB certification for the international market
- CCS2 TUV certification
- Type 2 EV Charger CB certificate can be used for certificate conversion using European standard countries
- China national certification body, state-approved management system and product certification body





R&D staff more than 400

- 160 engineers for product development
- 45 engineers for mould development
- 45 engineers for automated development
- 190 engineers for engineering technology
- Awarded "National High-tech Enterprise" for four consecutive years
- National-level professional, refined, characteristic and innovative "little giant" enterprise
- Provincial level high-tech enterprise R&D center
- Ningbo patents model enterprise



Customized services

- Professional team provides comprehensive professional support from development, production, quality assurance to implementation stages, Design and produce customized solutions for you.
- Early involvement of suppliers, covering raw material selection, DFM, DOE, model flow analysis, product prototype production, etc., reducing project time and customer costs.
- Can quickly provide 3D printing samples.



Customization of high-voltage connectors



Customized high-voltage distribution box



Busbar electric compressor



Global High Voltage System manufacturer

Providing customization solution for clients

