



AMPHENOL PCD SHENZHEN



EXCEL | MATE

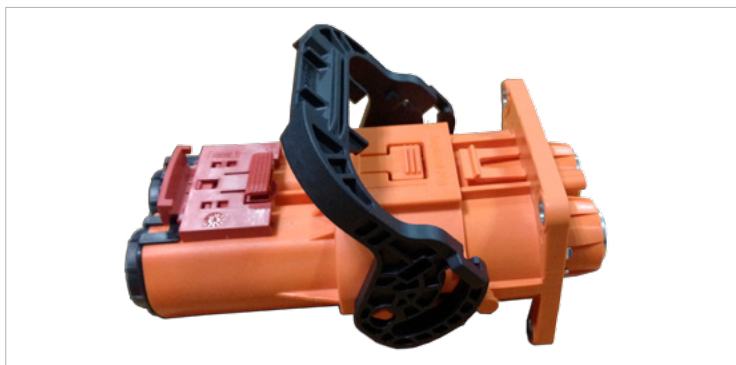
High Voltage Safety Lock

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TRUSTED GLOBALLY

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PRODUCT INTRODUCTION



When high-performance and increased safety are required in xEV, Amphenol PCD's **Excel|Mate** connectors fulfil the challenge.

HVSL Series is designed to meet AK standards for various xEV applications, including power and signal interconnect solutions. Different versions are available, from 1 position to 3 positions and a rated current from 23A to 250A.

Product	HVSL1000	HVSL800	HVSL800	HVSL600	HVSL600	HVSL630	HVSL633	HVSL280	HVSL282
Position	1, 2, 3	2	2	2	1	2	3	3	2
Rated Voltage	1000V	1000V	1000V	1000V	800V	800V	800V	800V	800V
Rated Current	250A	180A	180A	120A	120A	40A	40A	23A	23A
HVIL	√	√	√	√	√	√	√	√	√
Shielding	√	√	√	√	√	√	√	√	√
Shell	Plastic	Plastic	Metal	Metal	Plastic	Plastic	Plastic	Plastic	Plastic
IP67,IP6K9K	√	√	√	√	√	√	√	√	√
Touch-Proof IP2XB	√	√	√	√	√	√	√	√	√
Cable size mm ²	25 to 70	35 to 50	35 to 50	16 to 25	25	4 to 6	4 to 6	2.5 to 4	2.5 to 4
Cable type shielded wire	Individually	Individually	Individually	Individually	Individually	multicore	Individually	multicore	Individually

Excel|Mate Plus



High Voltage Safety Lock

Excel|Mate Plus offers a max rated voltage up to 1000V and a max rated current of 250A. It can be used for power solutions in various xEV applications.

External HVIL for 1 position and internal HVIL for 2 to 3 positions.

KEY FEATURES

With Inter-Lock solution

RADSOK® Technology R4 version
10mm

Shielding performance: EMI/RFI 60DB

AK compliance LV215

Sealing, IP67 (mated), IP6K9K

1 to 3 positions available

Touch-proof, IP2XB

Multiple coding positions

APPLICATIONS

xEV Battery

Inverters

Junction boxes

Power distribution boxes

MECHANICAL

Durability ≥ 50 mating cycles

Wire range 25 to 70 mm²

ELECTRICAL

Rated voltage 1000V DC

Rated current 250A Max @ ambient
temperature 70°C

Insulator resistance $> 200\text{M}\Omega$

Dielectric withstand
voltage 3000V AC

ENVIRONMENTAL

Sealing IP67, IP6K9K (mated)

Touch-proof IP2XB

Temperature range -40°C to 125°C

Inflammability UL94V0

STANDARDS

USCAR-2

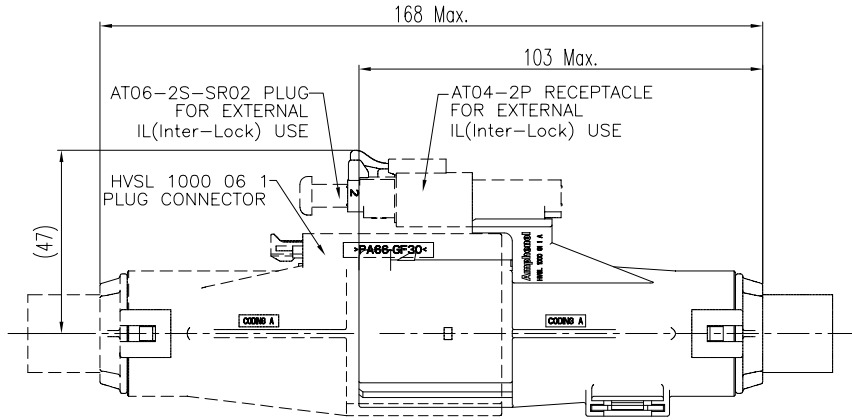
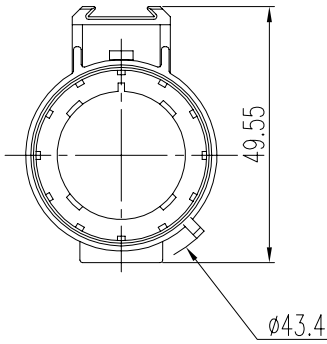
USCAR-37

RoHS

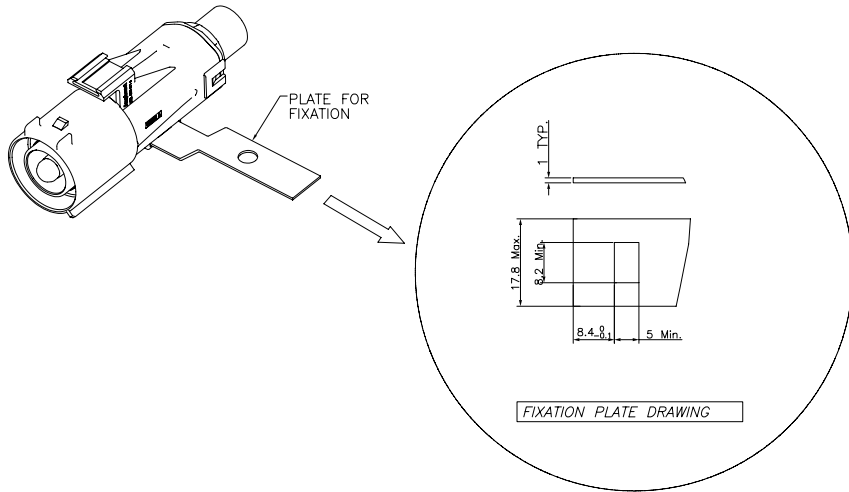
LV-215

ExcelMate Plus (HVSL 1000)

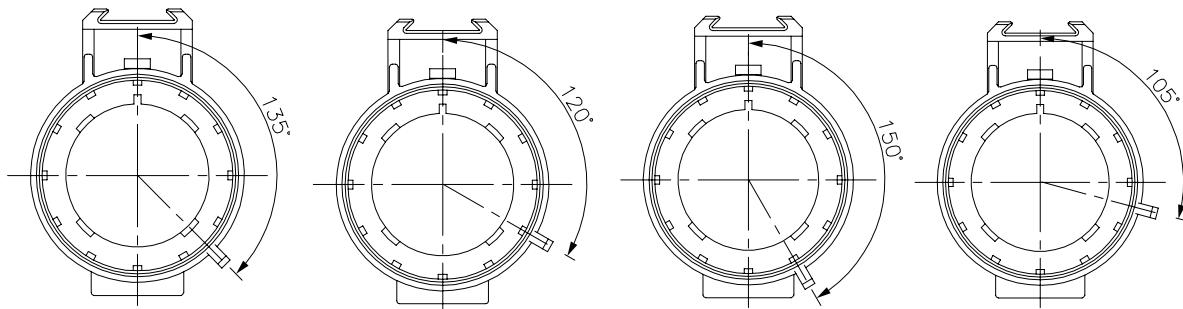
RECEPTACLE IN-LINE



MOUNTED GROOVE

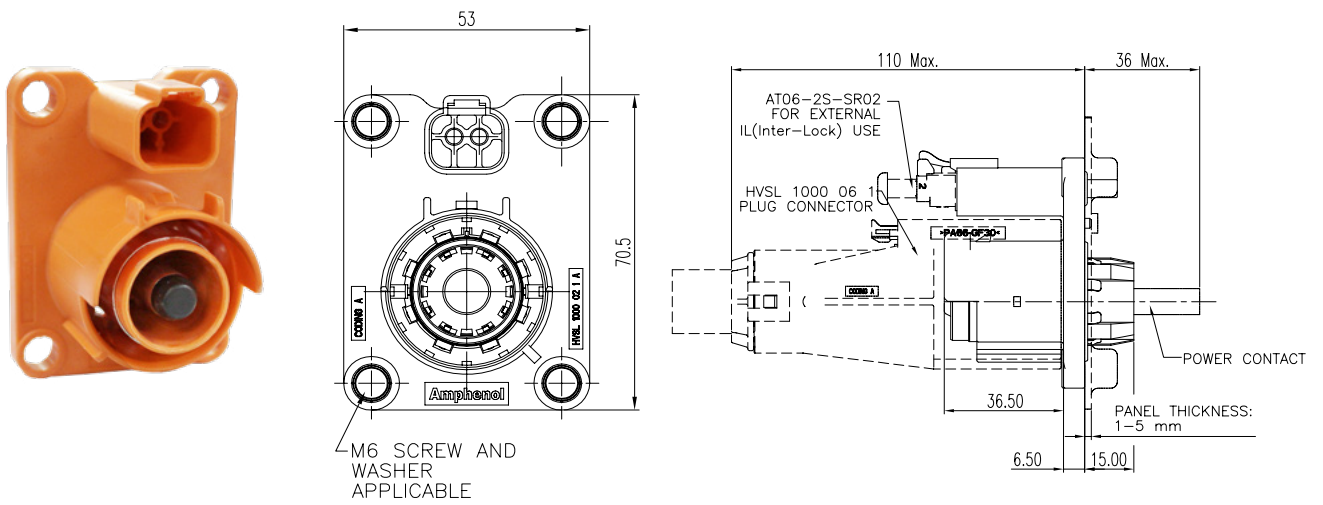


INSERT ORIENTATIONS

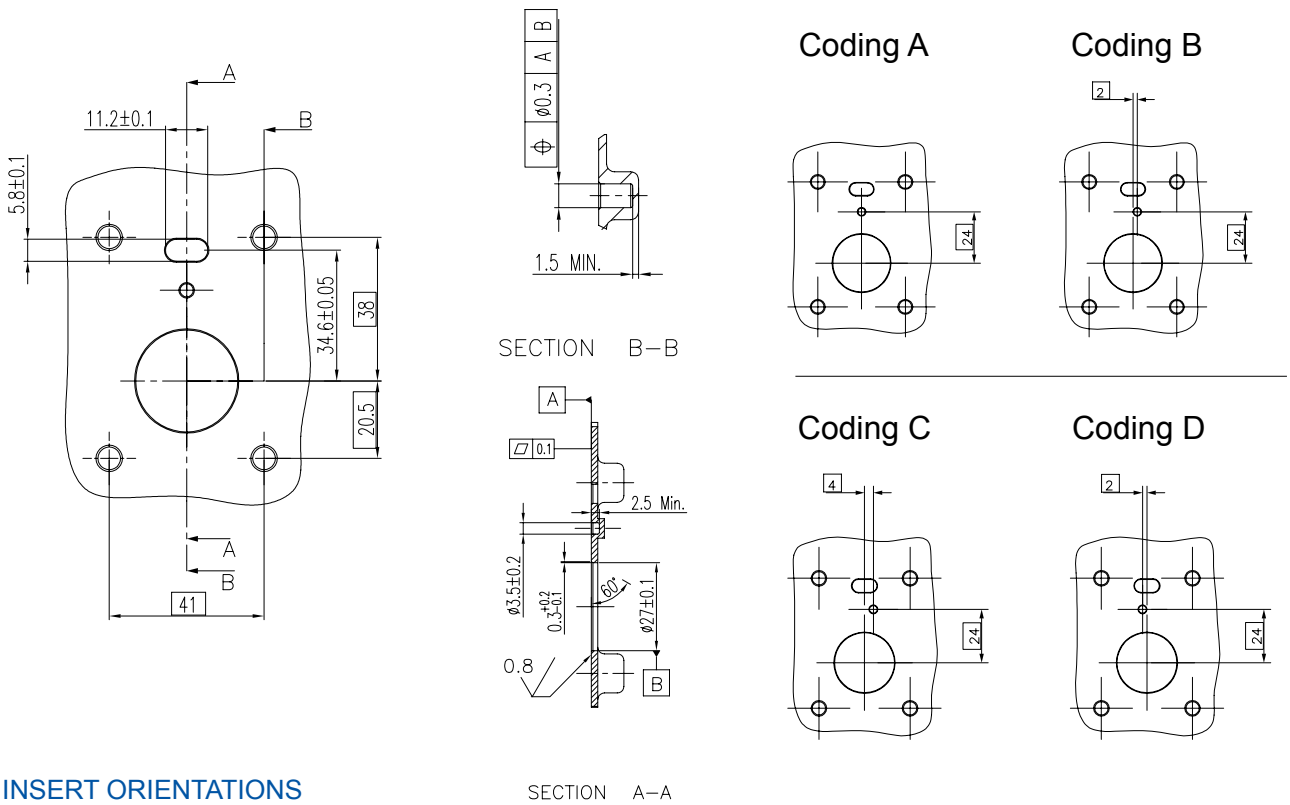


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P/N	HVSL1000 01 1 A	HVSL1000 01 1 B	HVSL1000 01 1 C	HVSL1000 01 1 D

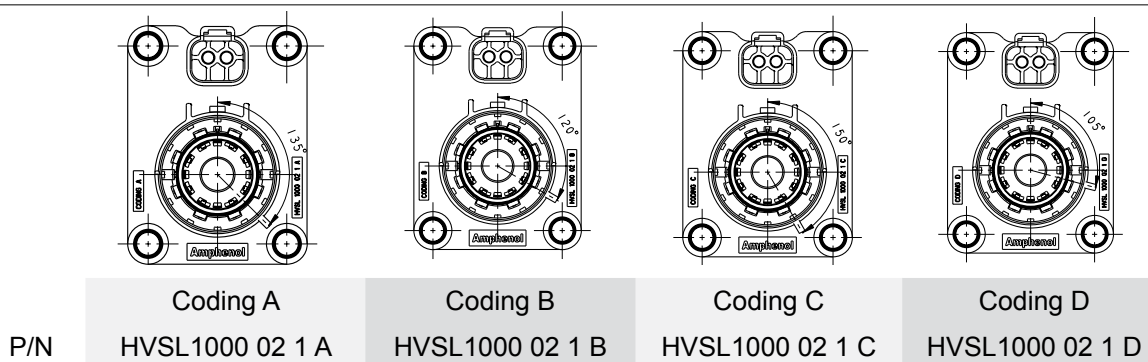
RECEPTACLE BOX MOUNTED



PANEL MOUNTING DIMENSIONS

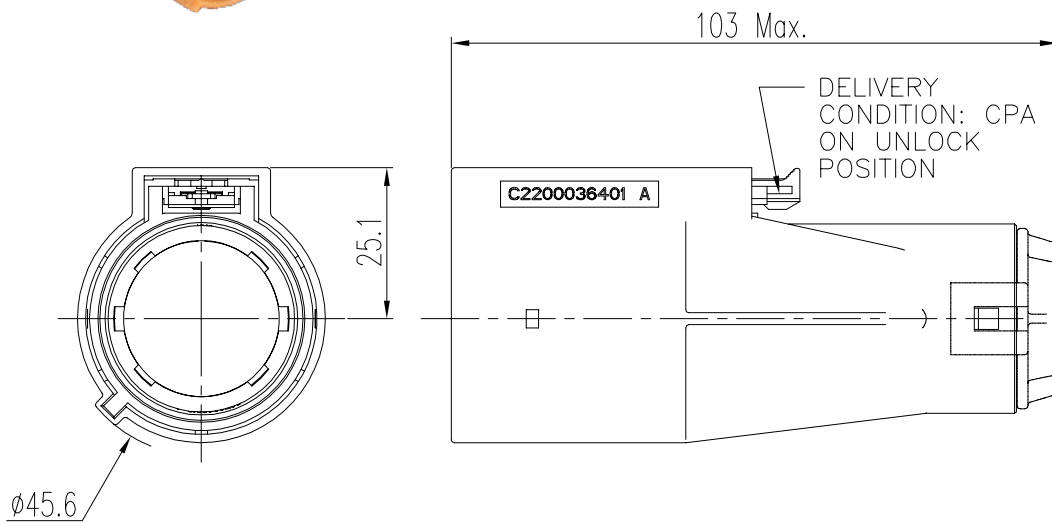


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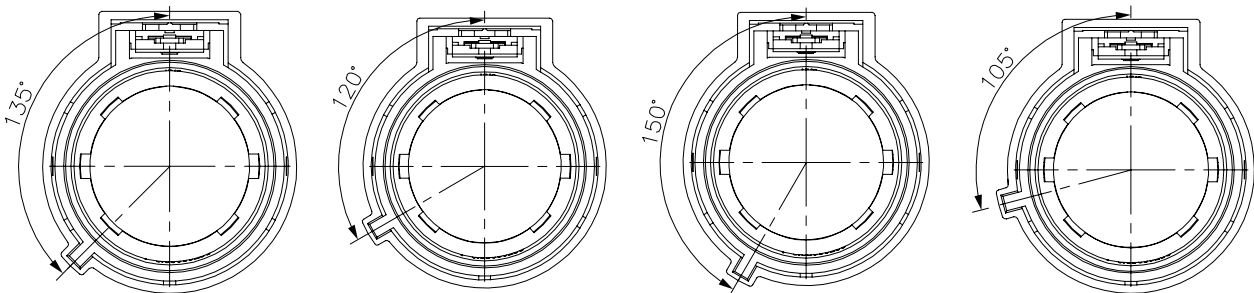


Excel|Mate Plus (HVSL 1000)

PLUG

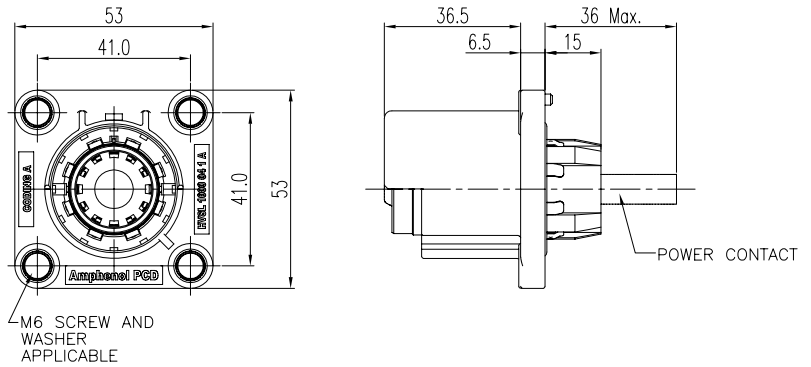


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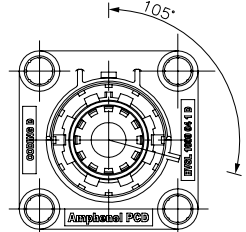
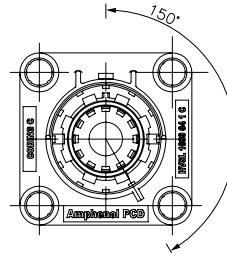
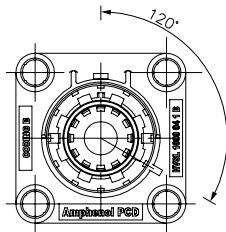
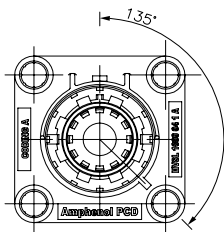


	Coding A	Coding B	Coding C	Coding D
P/N	HVSL1000 06 1 A	HVSL1000 06 1 B	HVSL1000 06 1 C	HVSL1000 06 1 D

RECEPTACLE BOX MOUNTED WITHOUT INTER-LOCK

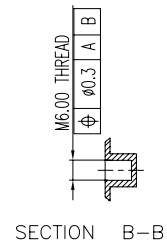
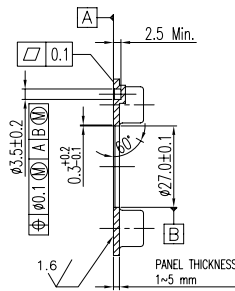
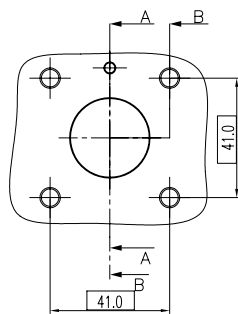


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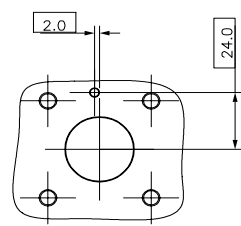
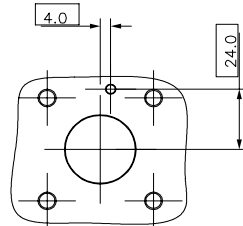
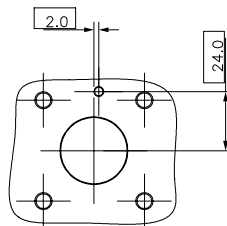
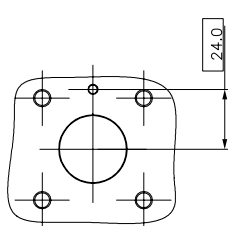


	Coding A	Coding B	Coding C	Coding D
P/N	HVSL1000 04 1 A	HVSL1000 04 1 B	HVSL1000 04 1 C	HVSL1000 04 1 D

PANEL MOUNTING DIMENSIONS



SECTION A-A



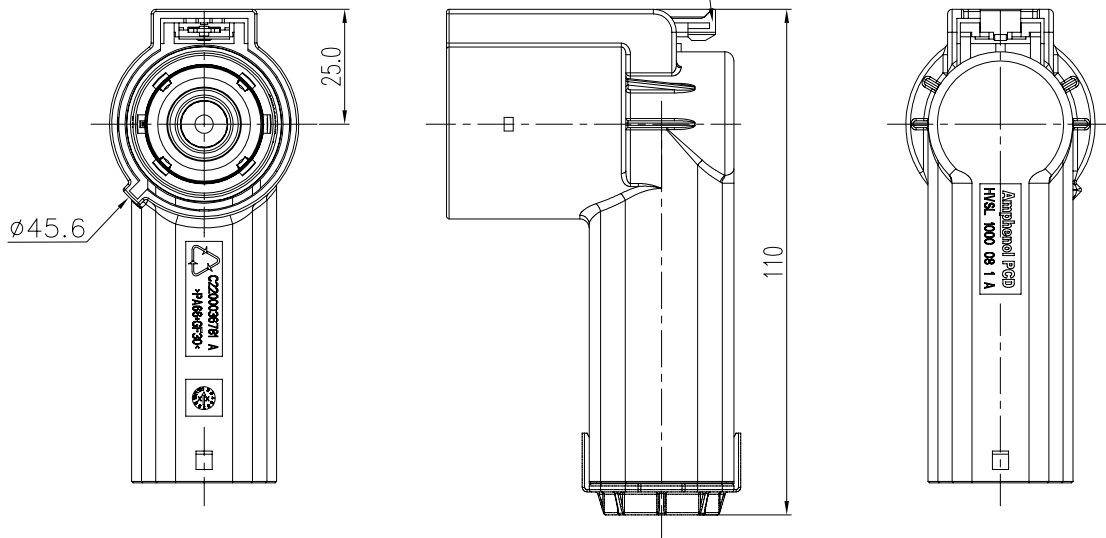
Coding A	Coding B	Coding C	Coding D
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Excel|Mate Plus (HVSL 1000)

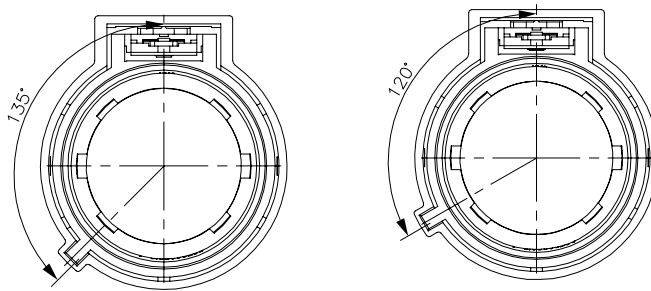
PLUG RIGHT ANGLE



DELIVERY CONDITION:
CPA ON UNLOCK
POSITION

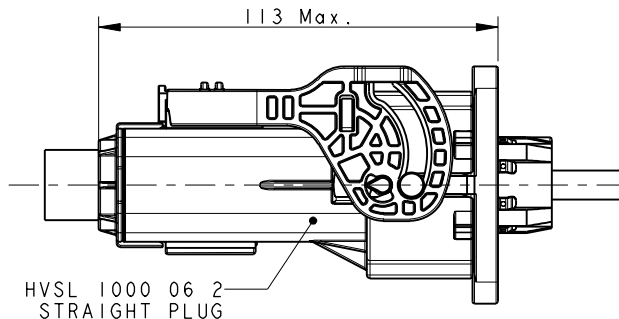


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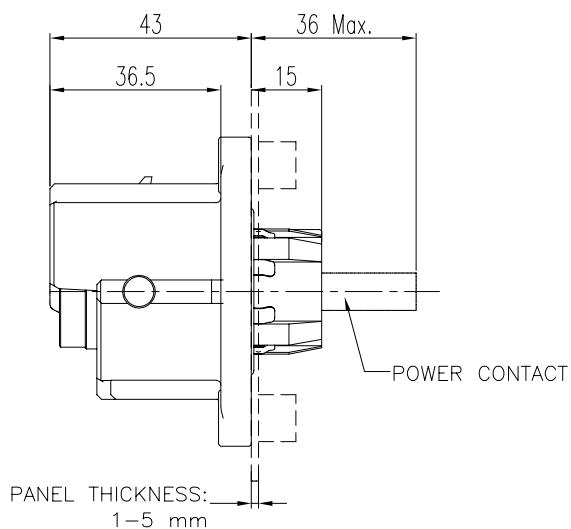
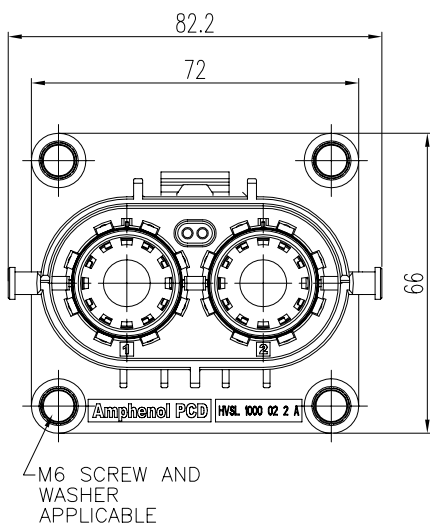


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P/N	HVSL1000 08 1 A	HVSL1000 08 1 B

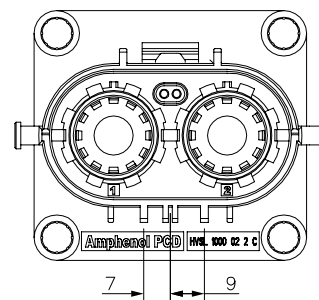
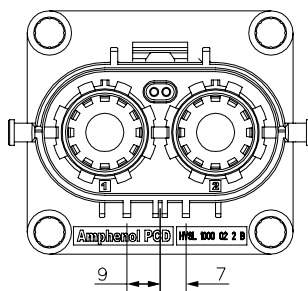
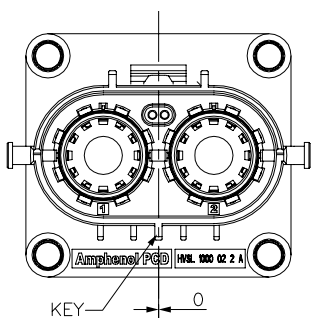
2 PIN RECEPTACLE BOX MOUNTED



CONNECTORS MATED OUTLINE

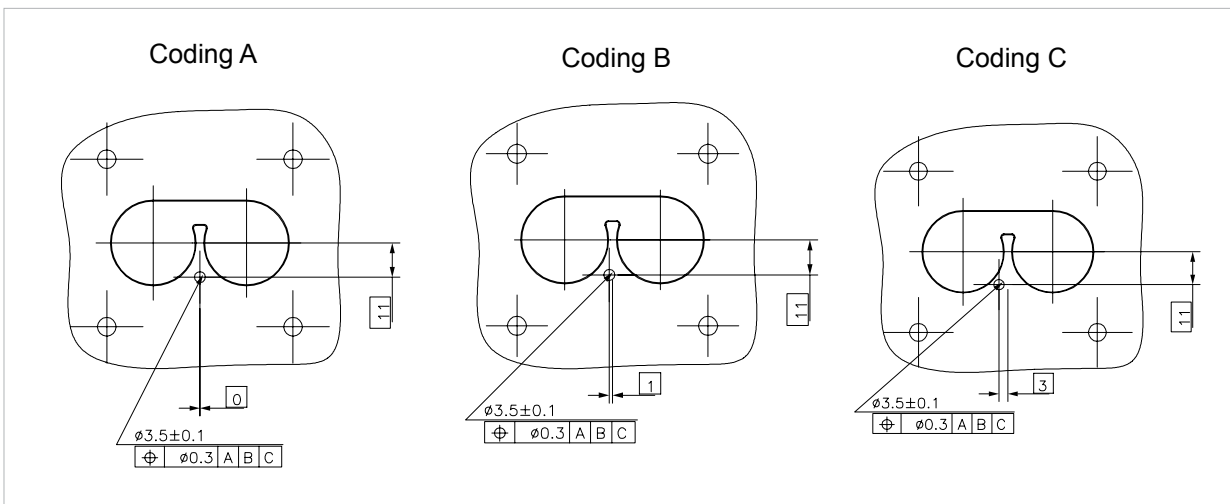
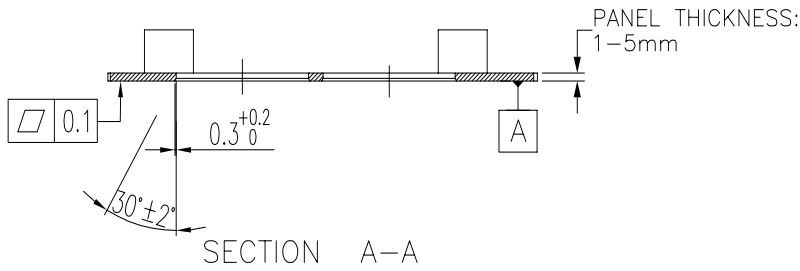
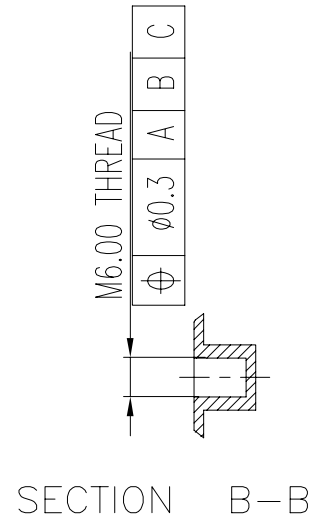
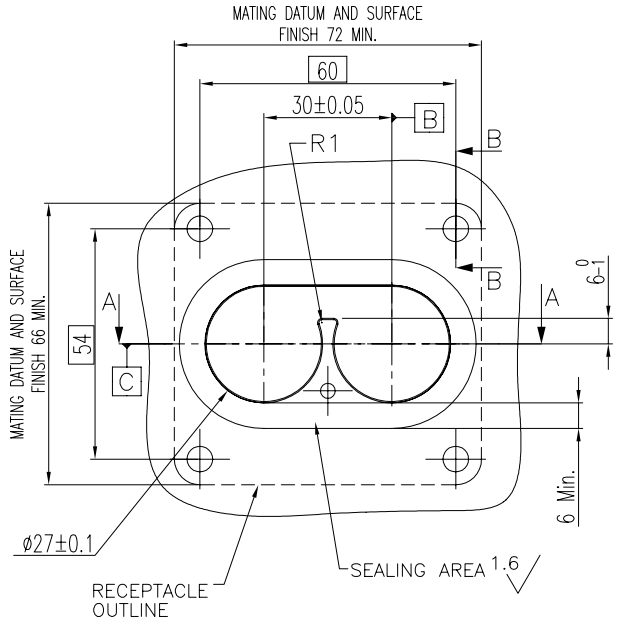


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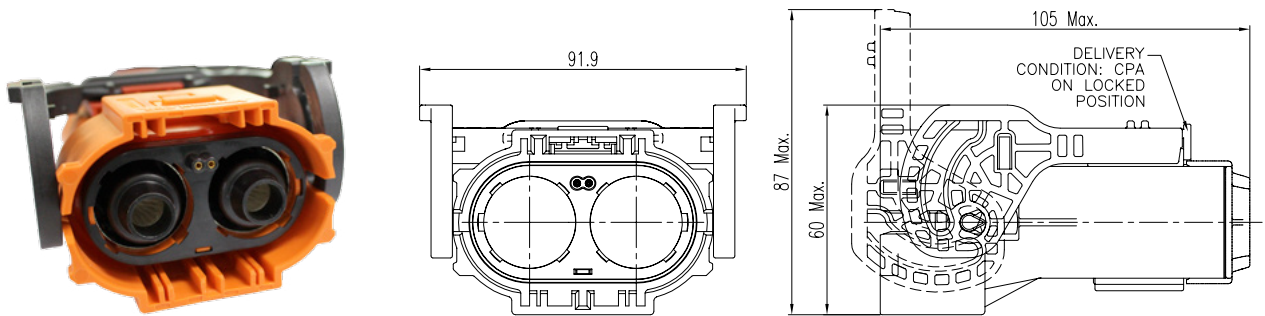


	Coding A	Coding B	Coding C
P/N	HVSL1000 02 2 A	HVSL1000 02 2 B	HVSL1000 02 2 C

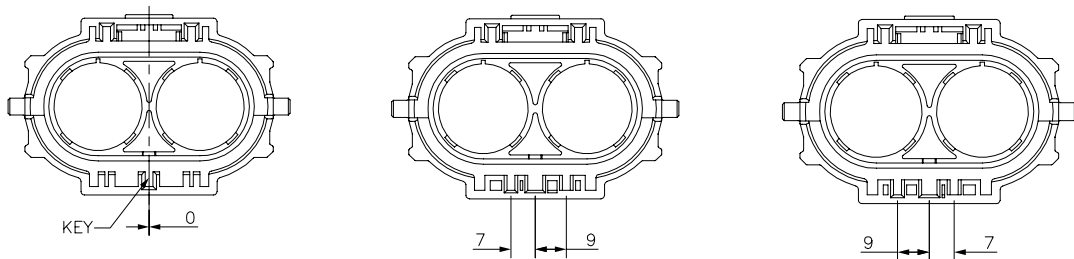
PANEL MOUNTING DIMENSIONS



2 PIN PLUG

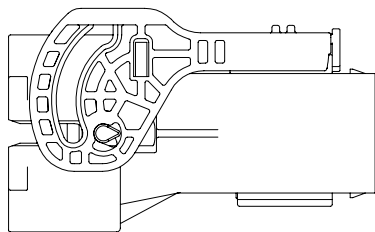


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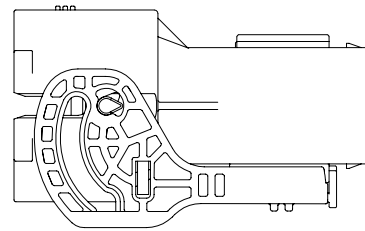


	Coding A	Coding B	Coding C
P/N	HVSL1000 06 2 A	HVSL1000 06 2 B	HVSL1000 06 2 C

LEVER POSITION

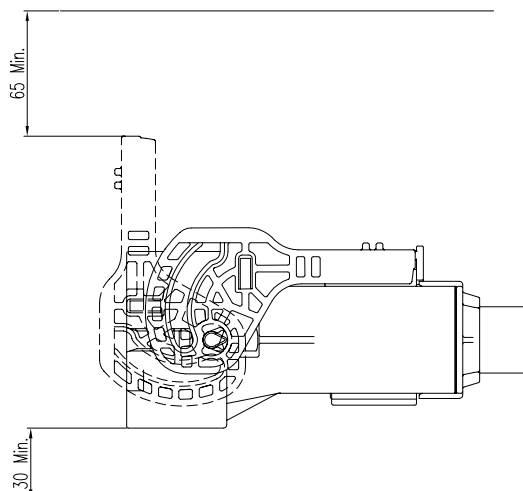


STANDARD LEVER



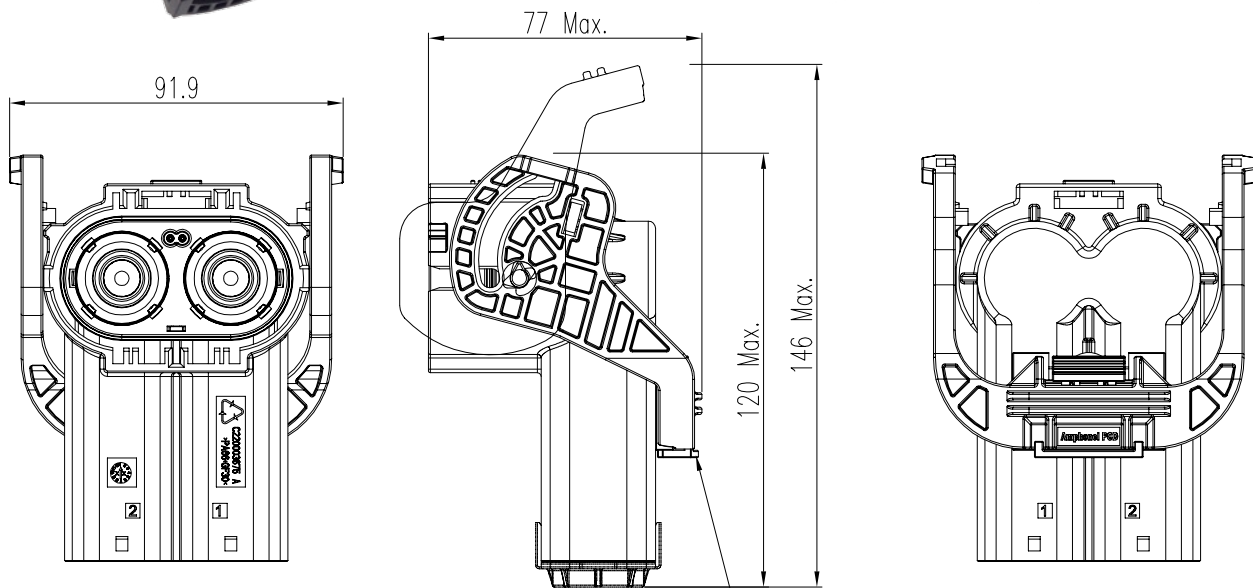
REVERSE LEVER

INSTALLATION CLEARANCE



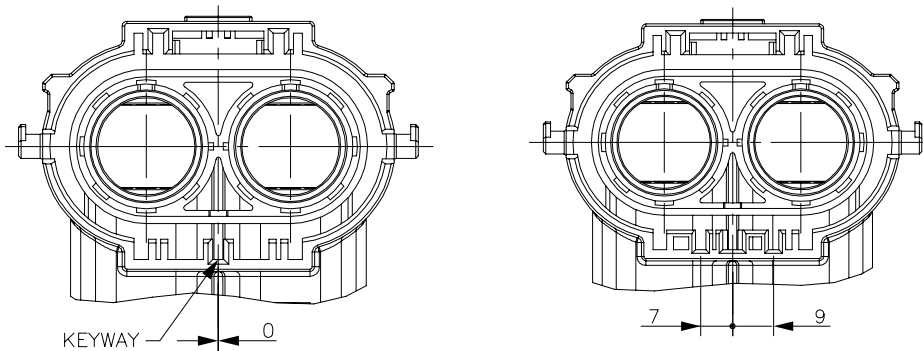
Excel|Mate Plus (HVSL 1000)

2 PIN PLUG RIGHT ANGLE



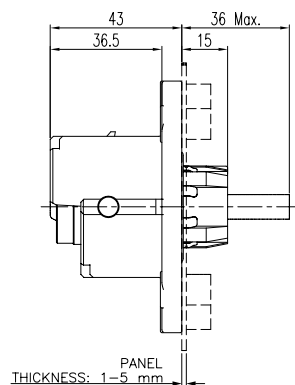
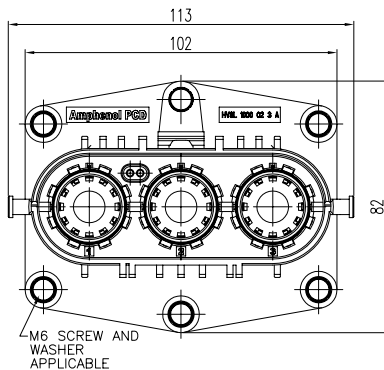
DELIVERY CONDITION:
CPA ON LOCKED
POSITION

INSERT ORIENTATIONS

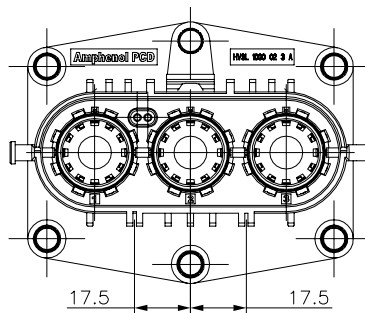


	Coding A	Coding B
P/N	HVSL1000 08 2 A	HVSL1000 08 2 B

3 PIN RECEPTACLE BOX MOUNTED

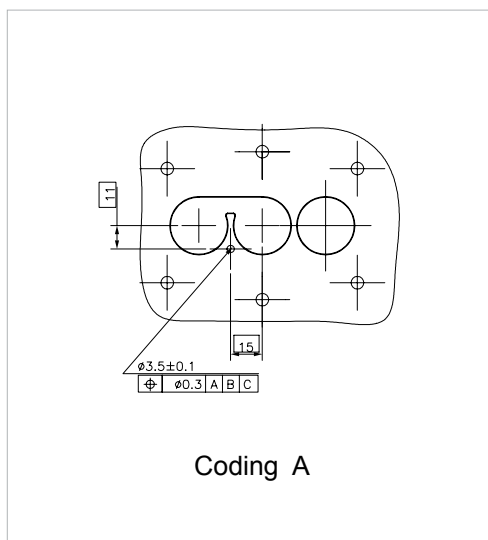
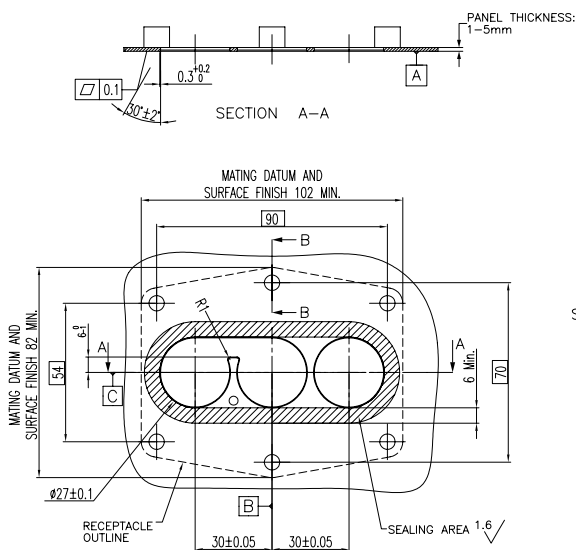


INSERT ORIENTATIONS



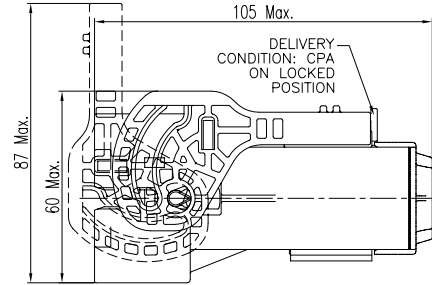
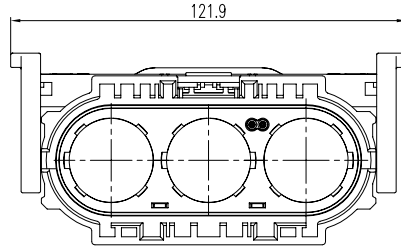
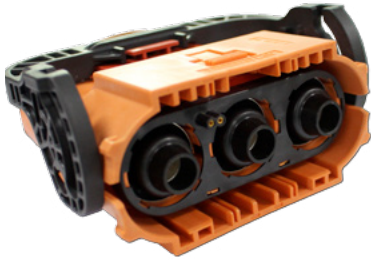
Coding A
P/N HVSL1000 02 3 A

PANEL MOUNTING DIMENSIONS

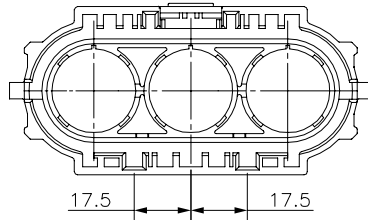


Excel|Mate Plus (HVSL 1000)

3 PIN PLUG

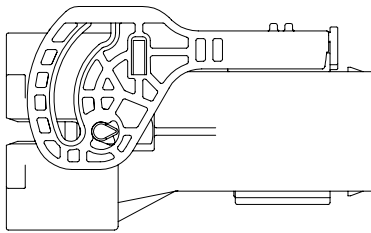


INSERT ORIENTATIONS

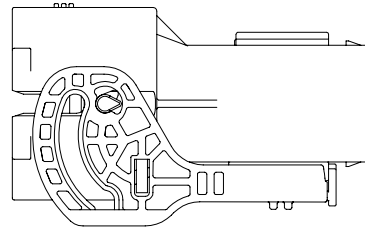


Coding A
P/N HVSL1000 06 3 A

LEVER POSITION

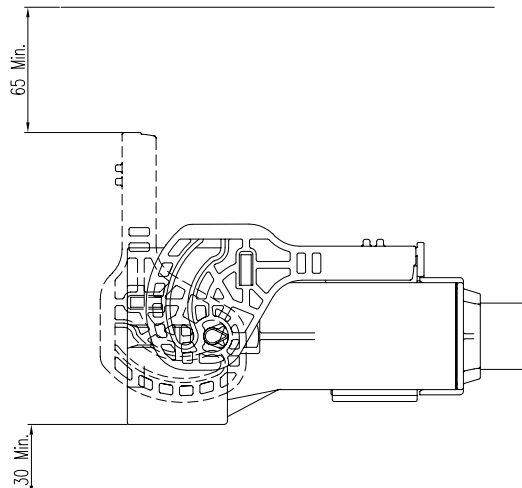


STANDARD LEVER

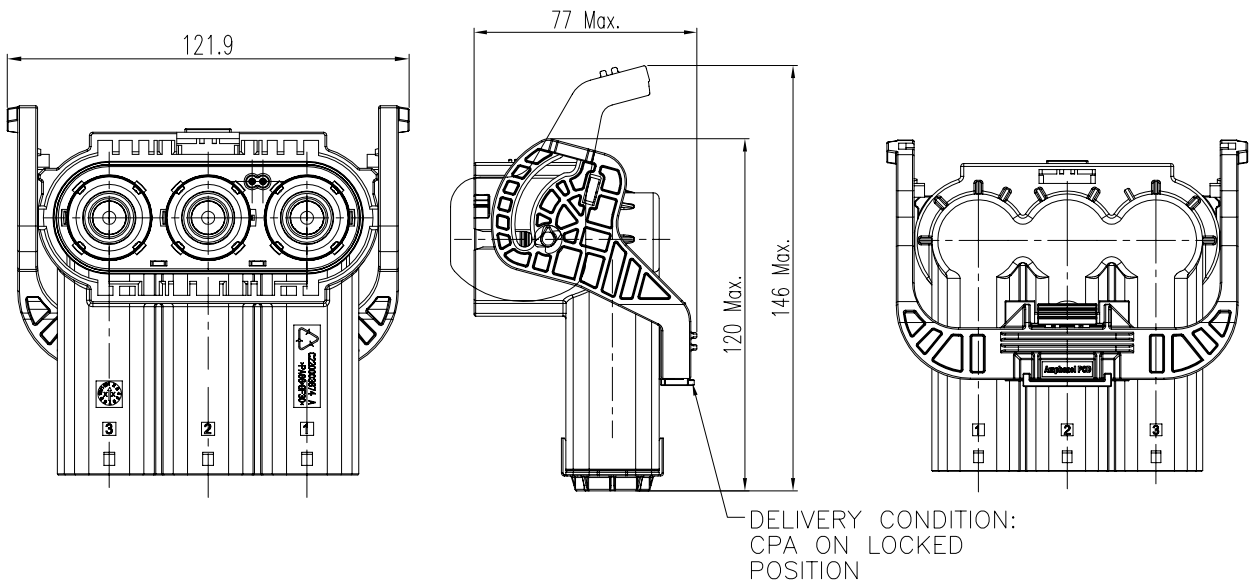


REVERSE LEVER

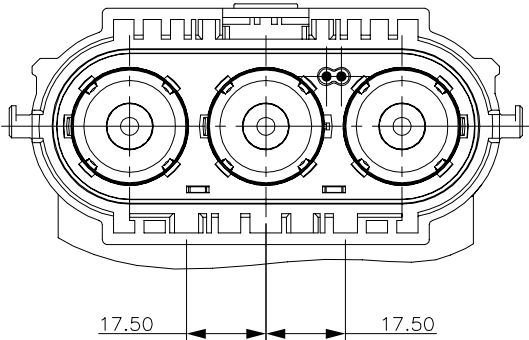
INSTALLATION CLEARANCE



3 PIN PLUG RIGHT ANGLE



INSERT ORIENTATIONS

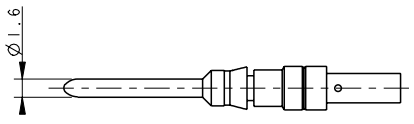
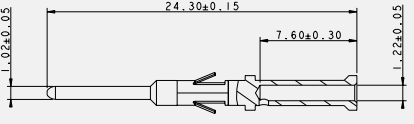
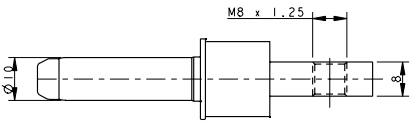
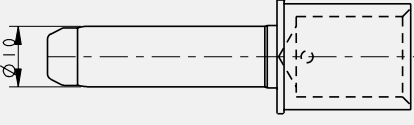
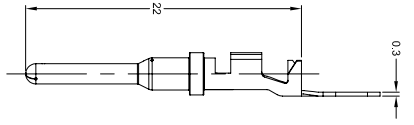
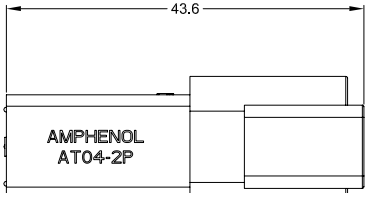
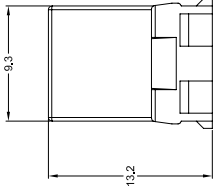


Coding A
P/N HVSL1000 08 3 A

CONTACTS FOR RECEPTACLE

ATTACHMENT: CONTACTS FOR RECEPTACLE

All connectors include contacts. For extra contacts, please order them separately (ref: P/N below)

Name	Contact P/N & Wire Size	Drawing
1 Pin Box mounted receptacle for Inter-Lock	C42000400504G 0.5mm ² max wire	
2 or 3 pin for Inter-Lock	C20003609 0.5mm ² max wire	
Power contact Thread for Bus-bar	C4200036152	
Power contact Crimp for wire	C42000361511 - 70mm ² wire C42000361512 - 50mm ² wire C42000361513 - 35mm ² wire C42000361514 - 25mm ² wire	
1 Pin: In-line receptacle for Inter-Lock	AT60-16-0622 0.5mm ² max wire	
	AT04-2P-SR02BLK 0.5mm ² max wire	
	AW2P	

ATTACHMENT: CONTACTS FOR PLUG

All connectors include contacts. For extra contacts, please order them separately (ref: P/N below)

Name	Contact P/N & Wire Size	Drawing
1 Pin HVIL plug	C210003610	
1 Pin (For In-line plug) Rope for Inter-Lock	C210003608 (Order with HVIL plug)	
1 Pin (For R/A plug) Rope for Inter-Lock	C210003611 (Order with HVIL plug)	
Socket contact	C4200036161 - 70mm ² wire C4200036162 - 50mm ² wire C4200036163 - 35mm ² wire C4200036164 - 25mm ² wire	
Kit of socket insert For plug	C4220036011 - 70mm ² wire C4220036012 - 50mm ² wire C4220036013 - 35mm ² wire C4220036014 - 25mm ² wire	
Kit of socket insert For receptacle in-line	C4220036021 - 70mm ² wire C4220036022 - 50mm ² wire C4220036023 - 35mm ² wire C4220036024 - 25mm ² wire	
Power contact - rear Crimp for wire for right angle plug	C4220036031 - 70mm ² wire C4220036032 - 50mm ² wire C4220036033 - 35mm ² wire C4220036034 - 25mm ² wire	

PRODUCT SERIES OVERVIEW

PRODUCT SERIES OVERVIEW

Single pin
(HVIL External)



In-line receptacle

In-line plug

Single pin



2 pin
(HVIL Integrated)



3 pin
(HVIL Integrated)



	HVSL1000	06	1	A	0	35
Product type:						
01: In-line receptacle						
02: Box mounted receptacle						
04: Box mounted receptacle without inter-lock						
06: Straight plug						
08: R/A 90° plug						
Position:						
1: 1 position						
2: 2 position						
3: 3 position						
Coding / Alternate position:						
A: Coding A						
B: Coding B						
C: Coding C (For 2 pin receptacle and straight plug)						
D: Coding D (N/A)						
Inter-lock:						
0: Without Inter-lock						
1: With Inter-lock						
Conductor size:						
25: 25mm ² cable (N/A, upon request)						
35: 35mm ² cable						
50: 50mm ² cable						
70: 70mm ² cable						
H8: OT terminal (Stud hole is M8)						

Excel|Mate S (HVSL 800)

Excel|Mate S



Excel|Mate S

Excel|Mate S is a 2-pin connector with a current carrying capacity from 150 to 180A and 35 to 50 mm² crimping cable.

Specially designed for battery, inverters, junction boxes, power distribution boxes and others xEV devices' equipment.

KEY FEATURES

- Integrated internal HVIL
- Current rating up to 180A
- No tool required to unmate
- Sealing, IP67 , IP6K9K
- Touch-proof, IP2XB
- Multiple coding positions
- CPA available

MECHANICAL

Durability	≥ 50 mating cycles
Wire range	35 to 50 mm ² shielded wire
Insertion and extraction force	< 100N
Connection type	Copper bar
HVIL	Integrated
CPA	CPA

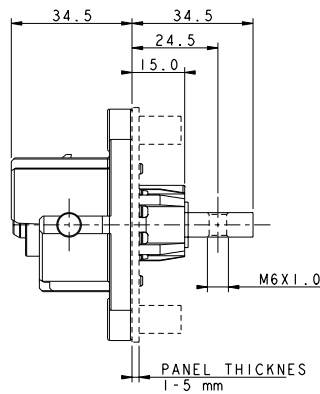
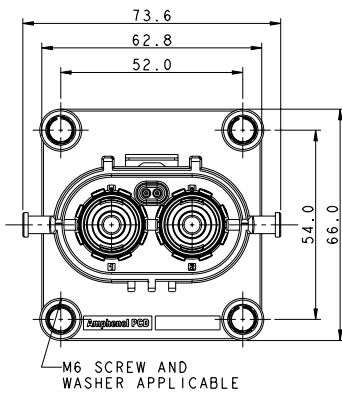
ELECTRICAL

Rated voltage	1000V DC
Rated current	Max 180A @ ambient temperature 70°C
Insulator resistance	> 200MΩ
Dielectric withstand voltage	3000V AC
Temperature rise	≤ 55°C
Shielding	360° from wire to device

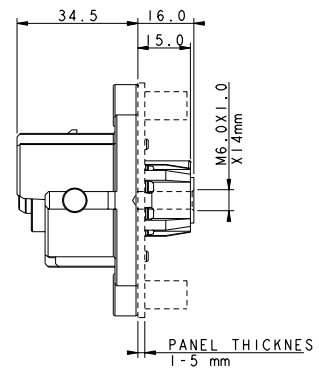
ENVIRONMENTAL

Sealing	IP67, IP6K9K (mated)
Touch-proof	IP2XB
Temperature range	-40°C to 125°C
Salt spray	48 hours

RECEPTACLE

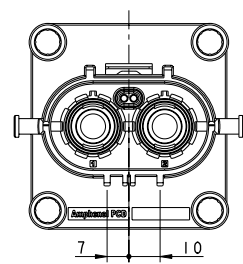
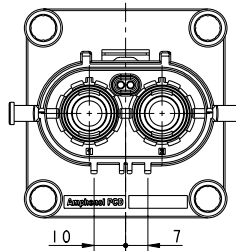
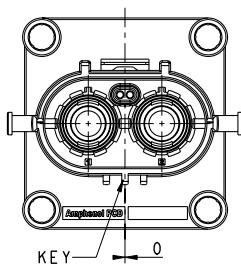


POWER CONTACT
HOLE TERMINATION



POWER CONTACT
SCREW TERMINATION-INTERNAL

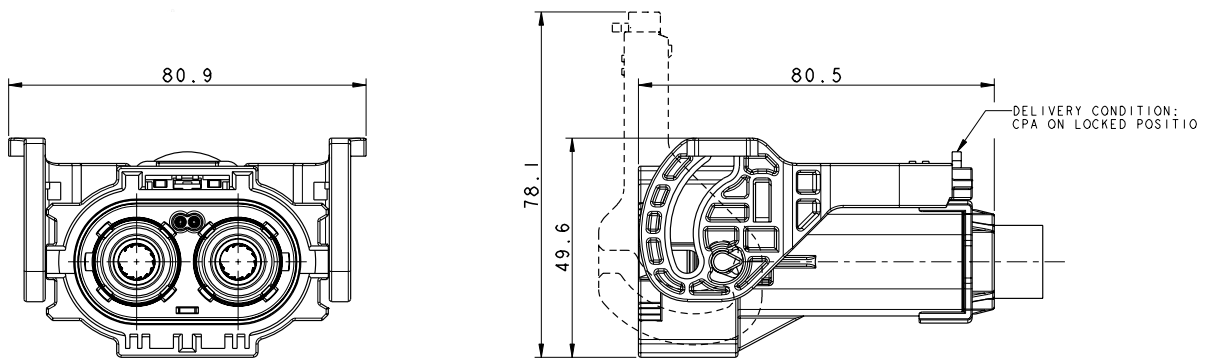
INSERT ORIENTATIONS



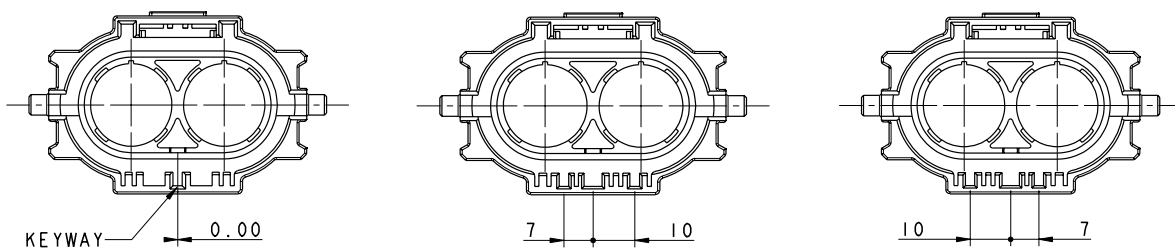
	A	B	C
P/N	HVSL800 02 2 A	HVSL800 02 2 B	HVSL800 02 2 C

Excel|Mate S (HVSL 800)

STRAIGHT PLUG

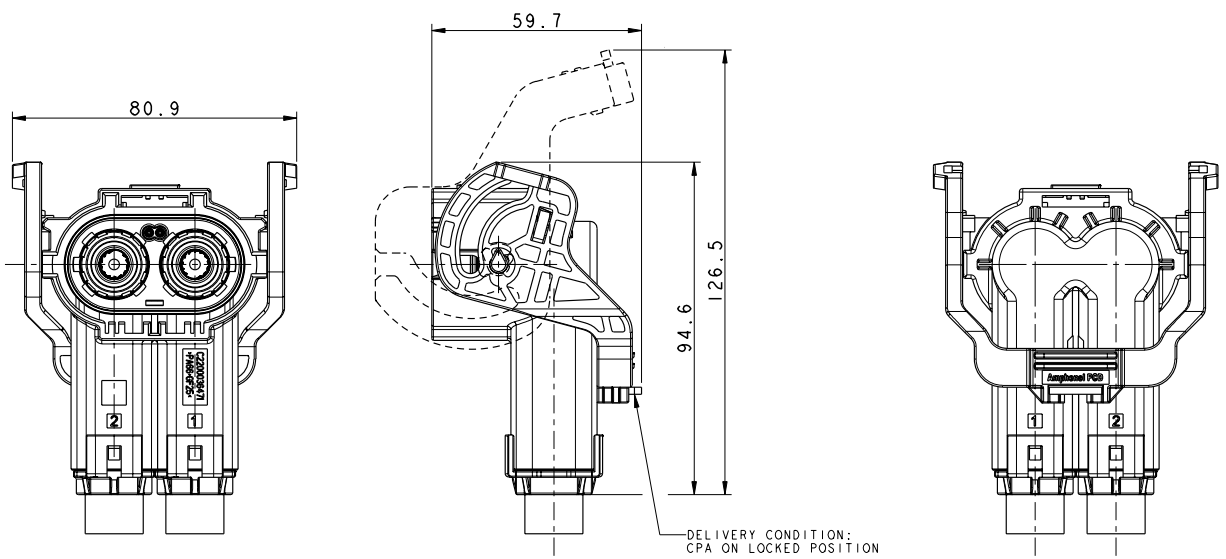


INSERT ORIENTATIONS

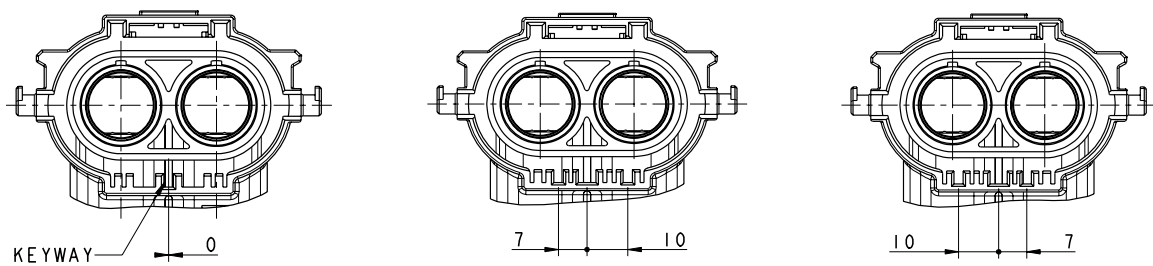


	A	B	C
P/N	HVSL800 06 2 A	HVSL800 06 2 B	HVSL800 06 2 C

RIGHT ANGLE PLUG

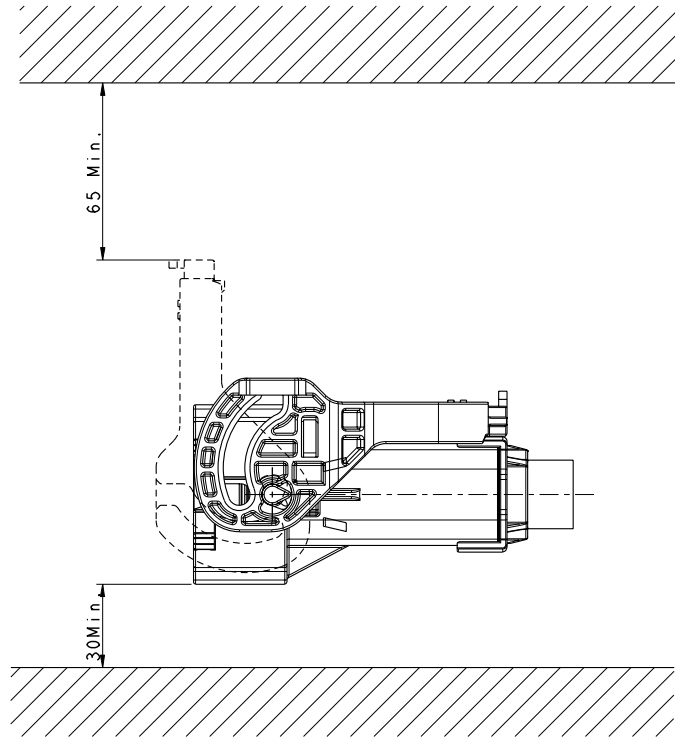


INSERT ORIENTATIONS



	A	B	C
P/N	HVSL800 08 2 A	HVSL800 08 2 B	HVSL800 08 2 C

INSTALLATION CLEARANCE



HOW TO ORDER: EXCEL|MATE S

	HVSL800	06	2	A	0	50
Product type:						
02: Box mounted receptacle						
06: Straight plug						
08: Right angle plug						
Position:						
2: 2 position						
Coding / Alternate position:						
A: Coding A						
B: Coding B						
C: Coding C (N/A)						
Inter-lock:						
0: Without Inter-lock						
1: With Inter-lock						
Conductor size:						
35: 35mm ² cable						
50: 50mm ² cable						
H6: Copper bar, OT terminal, M6 (For receptacle)						
D6: Screw(Internal), OT terminal, M6 (For receptacle)						

Excel|Mate Metal: 2 PIN CONNECTOR



Excel|Mate Metal

Excel|Mate Metal is a 2-pin connector with current carrying capacity from 80 to 120A and 16 to 25mm² crimping cable.

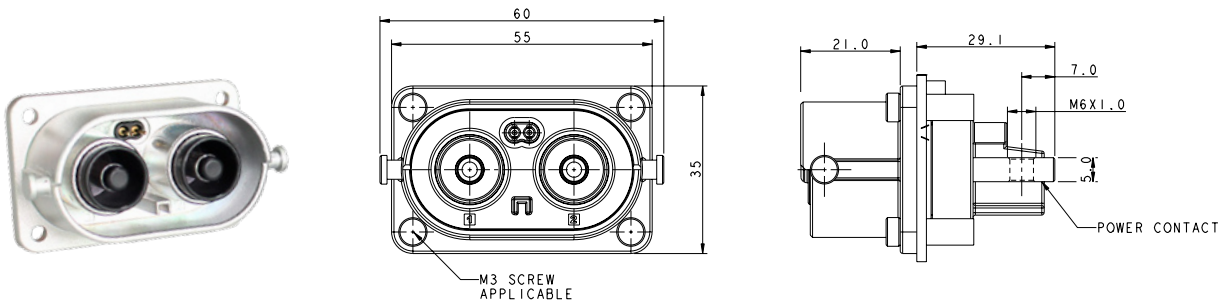
Specially designed for battery, inverters, junction boxes, power distribution boxes and others xEV devices' equipment.

KEY FEATURES

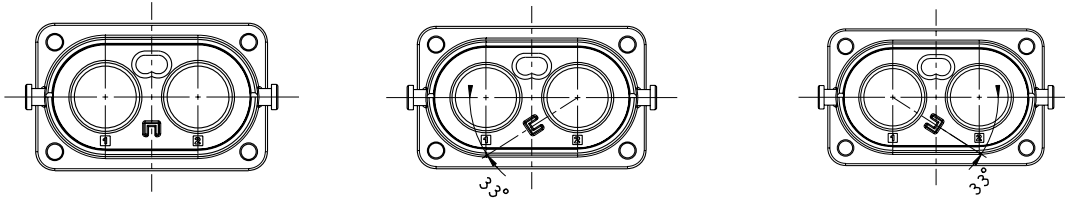
- Integrated internal HVIL
- Current rating up to 120A
- No tool required to unmate
- Sealing, IP67 (mated), IP6K9K
- Touch-proof, IP2XB
- Multiple coding positions
- CPA available

MECHANICAL	
Durability	≥ 50 mating cycles
Wire range	16 to 25 mm ² shielded wire
Insertion and extraction force	< 100N
Connection type	Copper bar
HVIL	Integrated
CPA	Available
ELECTRICAL	
Rated voltage	1000V DC
Rated current	120A Max @ ambient temperature 70°C
Insulator resistance	> 200MΩ
Dielectric withstand voltage	3000V AC
Temperature rise	≤ 55°C
Shielding	360° from wire to device
ENVIRONMENTAL	
Sealing	IP67, IP6K9K (mated)
Touch-proof	IP2XB
Temperature range	-40°C to 125°C
Salt spray	48 hours
MATERIAL	
Terminals	Copper/copper alloy with silver plating
Housing	Zinc alloy

RECEPTACLE

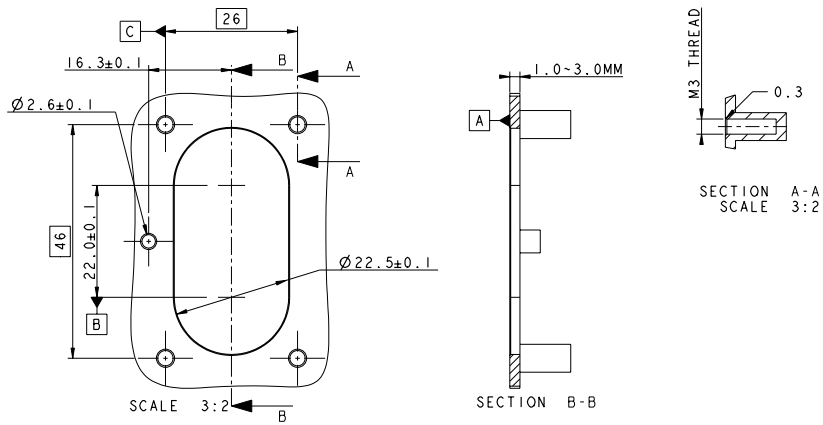


INSERT ORIENTATIONS

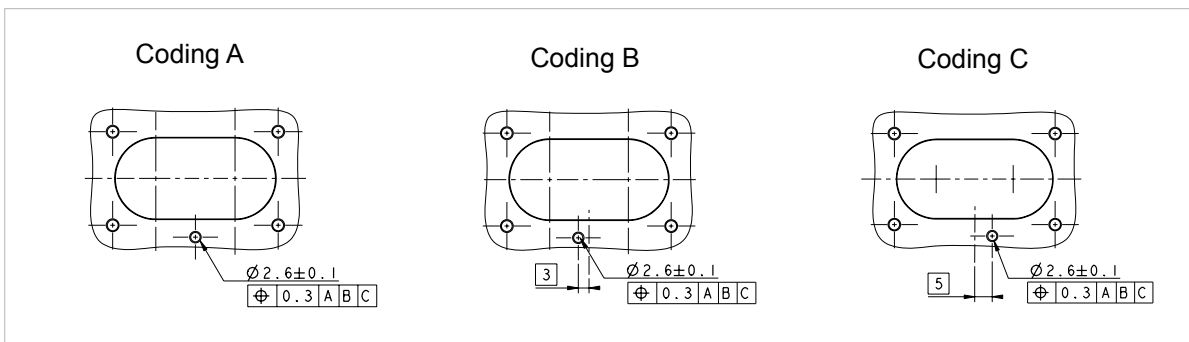


	Coding A	Coding B	Coding C
P/N	HVSL S600 02 2 A	HVSL S600 02 2 B	HVSL S600 02 2 C

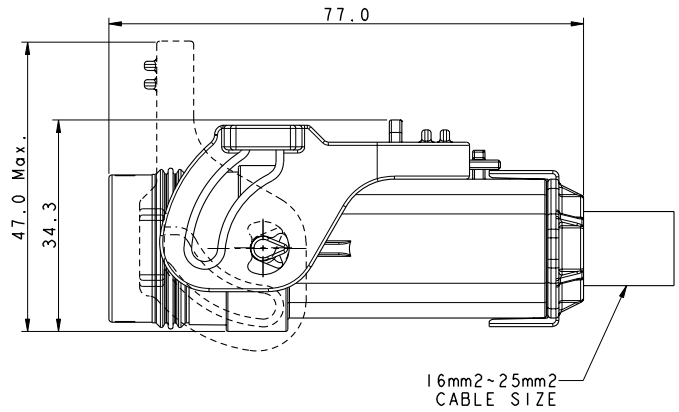
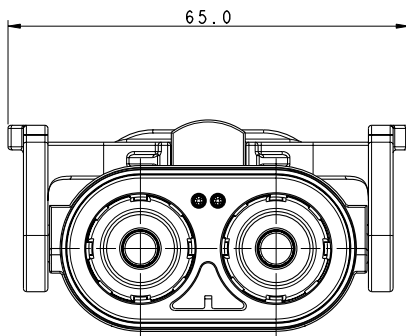
PANEL MOUNTING DIMENSIONS



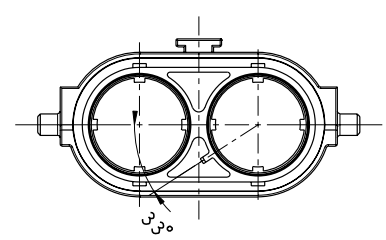
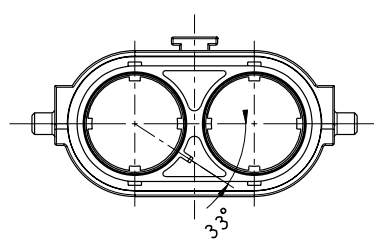
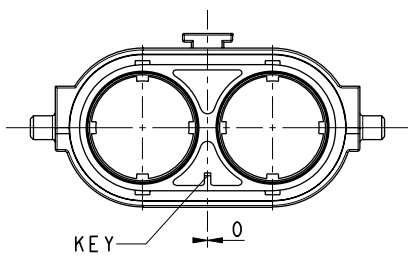
INSERT ORIENTATIONS



STRAIGHT PLUG



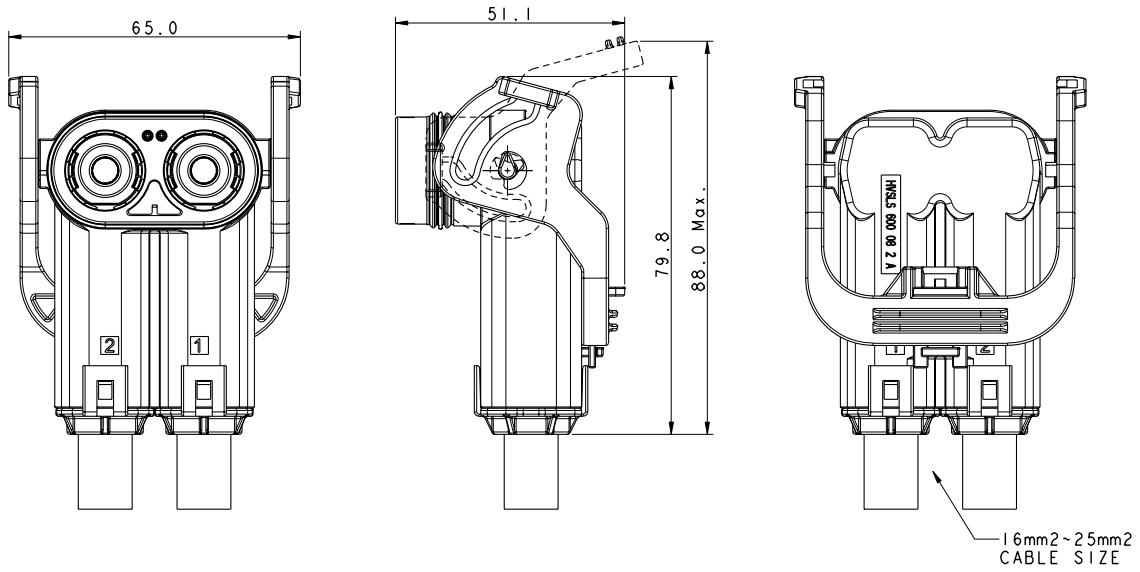
INSERT ORIENTATIONS



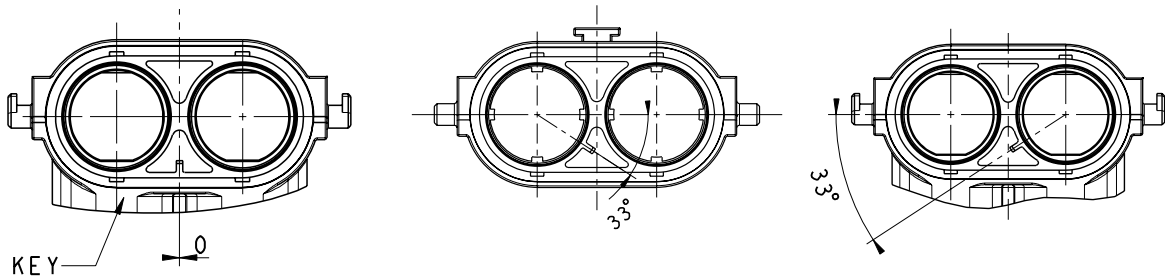
	Coding A	Coding B	Coding C
P/N	HVSLS600 06 2 A	HVSLS600 06 2 B	HVSL600 06 2 C

Excel|Mate Metal (HVSL S 600)

RIGHT ANGLE PLUG

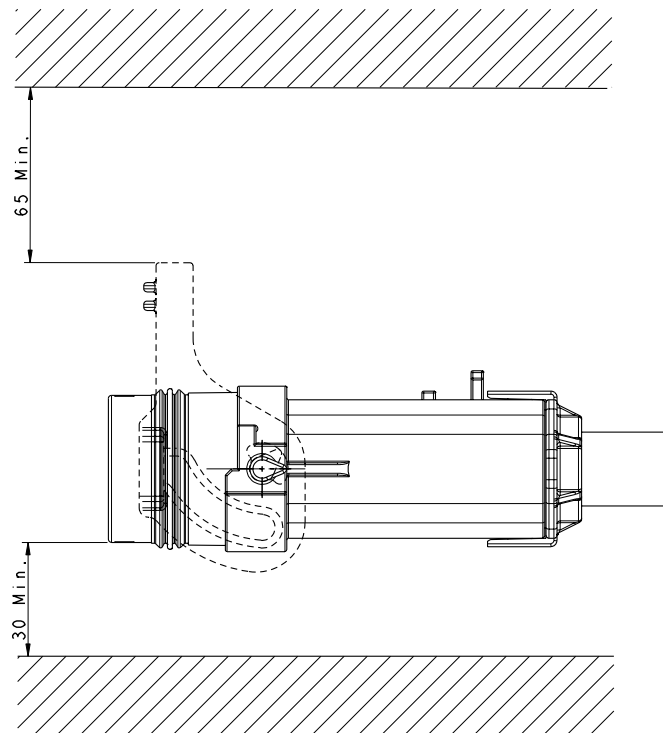


INSERT ORIENTATIONS



	Coding A	Coding B	Coding C
P/N	HVSL S600 08 2 A	HVSL S600 08 2 B	HVSL600 08 2 C

INSTALLATION CLEARANCE



HOW TO ORDER: EXCEL|MATE METAL

	HVSLS600	06	2	A	0	25
Product type:						
02: Box mounted receptacle						
06: Straight plug						
08: Right angle plug						
Position:						
2: 2 position						
Coding / Alternate position:						
A: Coding A						
B: Coding B						
C: Coding C (N/A)						
Inter-lock:						
0: Without Inter-lock						
1: With Inter-lock						
Conductor size:						
16: 16mm ² cable						
25: 25mm ² cable						
H6: OT terminal (Stud hole is M6) (For receptacle)						

Excel|Mate Metal (HVSL S 800)

Excel|Mate Metal (HVSL S800)



Excel|Mate Metal

Excel|Mate Metal is a 2-pin connector with a current carrying capacity of 180A and 35 to 50mm² crimping cable.

Specially designed for battery, inverters, junction boxes, power distribution boxes and others xEV devices' equipment.

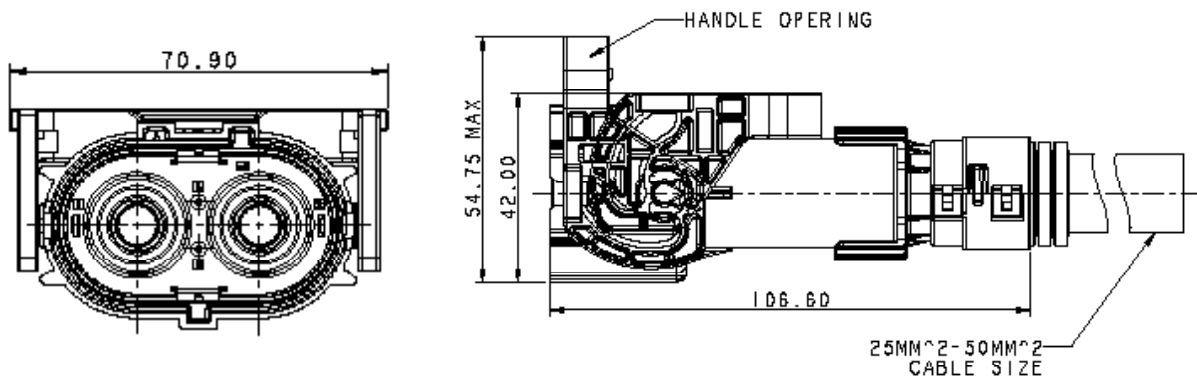
KEY FEATURES

- Integrated internal HVIL
- Current rating up to 180A
- No tool required to unmate
- Sealing, IP67 (mated), IP6K9K
- Touch-proof, IP2XB
- Multiple coding positions
- CPA available

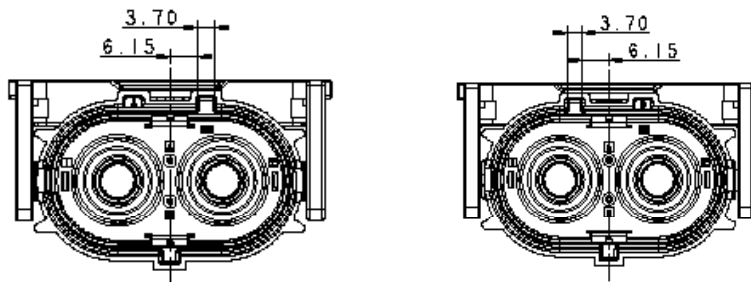
MECHANICAL	
Durability	≥ 50 mating cycles
Wire range	35 to 50 mm ² shielded wire
Insertion and extraction force	< 100N
Connection type	Copper bar
HVIL	Integrated
CPA	Available
ELECTRICAL	
Rated voltage	1000V DC
Rated current	180A Max @ ambient temperature 70°C
Insulator resistance	> 200MΩ
Dielectric withstand voltage	3000V AC
Temperature rise	≤ 55°C
Shielding	360° from wire to device
ENVIRONMENTAL	
Sealing	IP67, IP6K9K (mated)
Touch-proof	IP2XB
Temperature range	-40°C to 125°C
Salt spray	48 hours
MATERIAL	
Terminals	Copper/copper alloy with silver plating
Housing	Zinc alloy

Excel|Mate Metal (HVSL S 800)

STRAIGHT PLUG



INSERT ORIENTATIONS



P/N

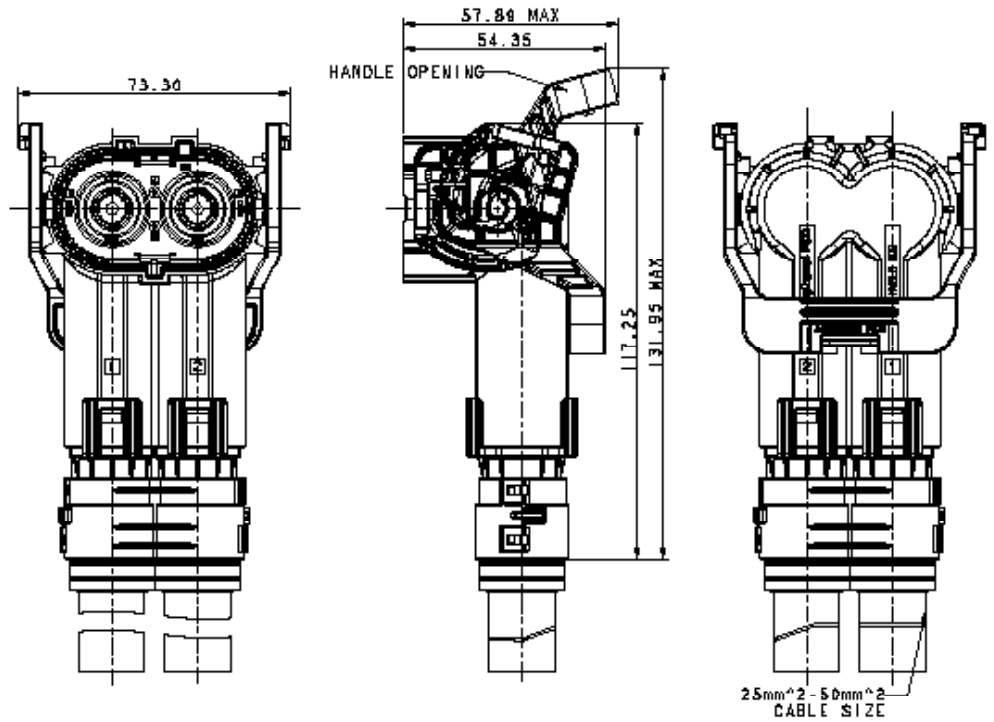
Coding A

HVSL S800 06 2 A

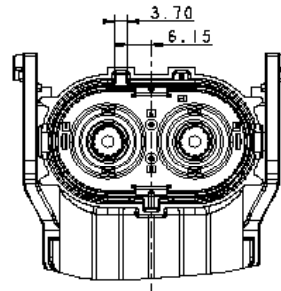
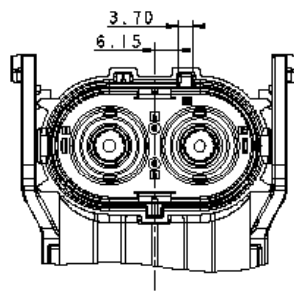
Coding B

HVSL S800 06 2 B

RIGHT ANGLE PLUG



INSERT ORIENTATIONS

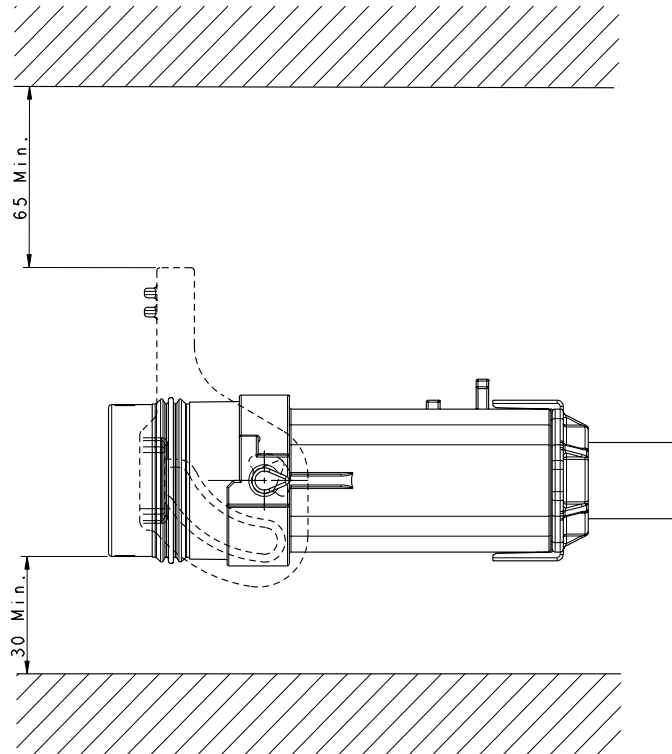


P/N

Coding A
HVSL800 08 2 A

Coding B
HVSL800 08 2 B

INSTALLATION CLEARANCE



HOW TO ORDER

	HVSL S 800	06	2	A	0	35
Product type:						
02: Box mounted receptacle						
06: Straight plug						
08: Right angle plug						
Position:						
2: 2 position						
Coding / Alternate position:						
A: Coding A						
B: Coding B						
C: Coding C (N/A)						
Inter-lock:						
0: Without Inter-lock						
1: With Inter-lock						
Conductor size:						
35: 35mm ² cable						
50: 50mm ² cable						
H6: OT terminal (Stud hole is M6) (For receptacle)						

Excel|Mate Eco (HVSL600 1 POSITION CONNECTOR)



HVSL600

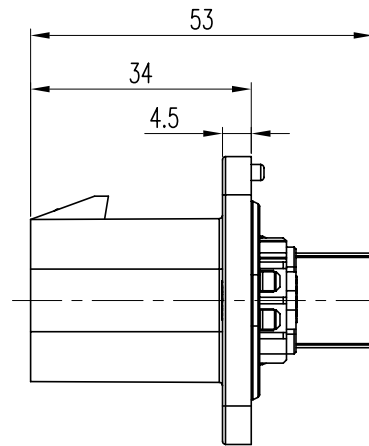
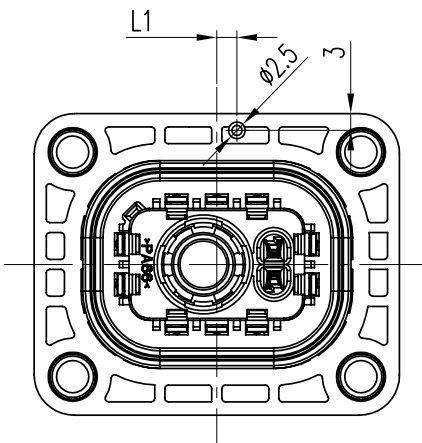
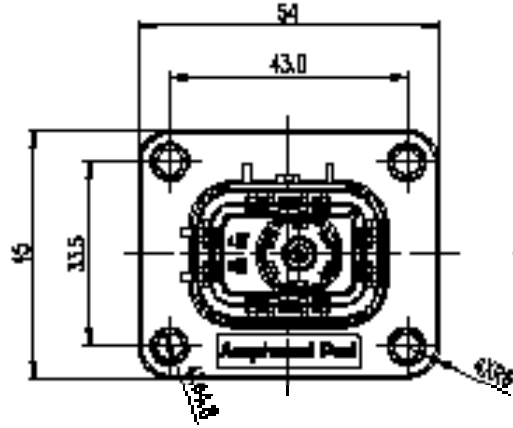
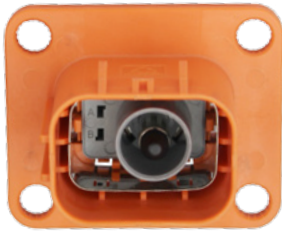
HVSL600 is a single pin connector with a current carrying capacity of 120A and 25mm² crimping cable. It can be utilized with multi-core or individually shielded wire. An integrated internal HVIL with multiple routing options allows package size optimization and flexibility.

KEY FEATURES

- Integrated internal HVIL
- Current rating up to 120A
- Two-stage, tool or thumb activated latching
- No tool required to unmate
- Sealing, IP67 (mated), IP6K9K
- Touch-proof, IP2XB
- Multiple coding positions
- CPA available

MECHANICAL	
Durability	≥ 50 mating cycles
Wire range	25mm ² shielded wire
Insertion and extraction force	< 100N
Connection type	Crimping or bus-bar
Latching style	Two stage, finger actuated
HVIL	Integrated
CPA	Available
ELECTRICAL	
Rated voltage	800V DC
Rated current	120A @ ambient temperature 70°C
Insulator resistance	> 200MΩ
Dielectric withstand voltage	3000V AC
Temperature rise	≤ 55°C
Shielding	360° from wire to device
ENVIRONMENTAL	
Sealing	IP67, IP6K9K (mated)
Touch-proof	IP2XB
Temperature range	-40°C to 125°C
Salt spray	48 hours
MATERIAL	
Terminals	Copper/copper alloy with silver plating
Housing	PA66 + GF

RECEPTACLE



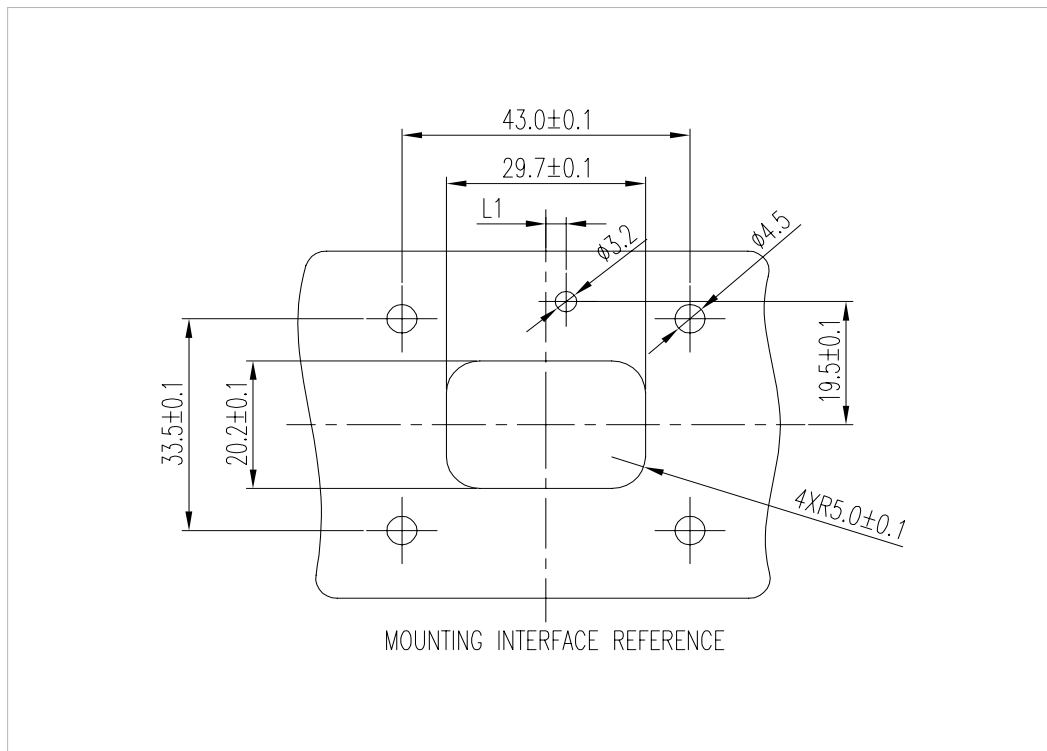
CONTACTS

All connectors include contacts. For extra contacts, please order them separately (ref: P/N below)

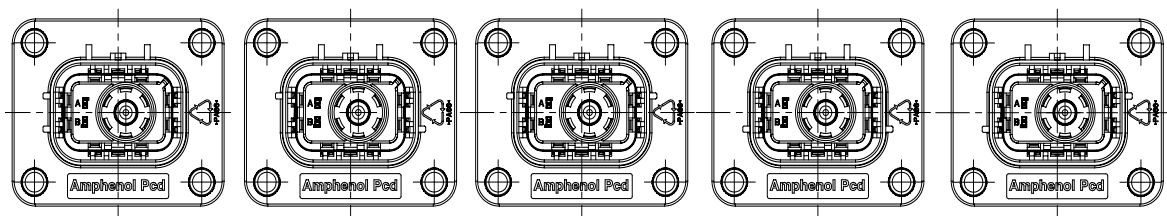
Main contacts: Crimping	Main contacts: Bus-bar	HVIL contacts
P/N: C420003621	P/N: C420003625	P/N: C310003613

PANEL MOUNTING DIMENSIONS

CODING	A	B	C	D	E
L1 (Receptacle)	0	3	6	-3	-6
L1 (Panel mount)	0	-3	-6	3	6



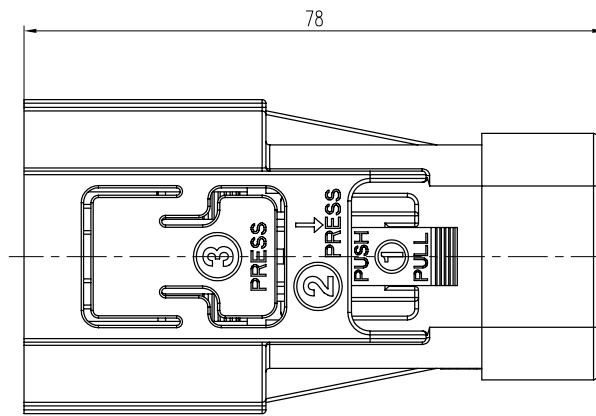
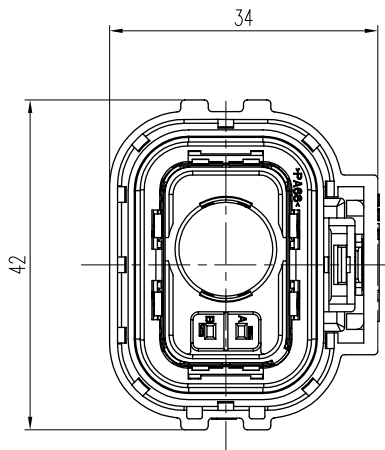
INSERT ORIENTATIONS



	Coding A	Coding B	Coding C	Coding D	Coding E
P/N	HVSL600 02 1 A	HVSL600 02 1 B	HVSL600 02 1 C	HVSL600 02 1 D	HVSL600 02 1 E

Excel|Mate Eco (HVSL 600)

PLUG



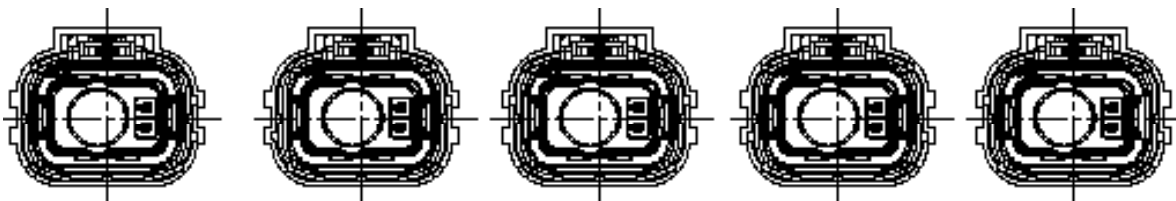
CONTACTS

All connectors include contacts. For extra contacts, please order them separately (ref: P/N below)

Contacts

Main contacts	HVIL	Φ12	Φ11	Φ10
P/N: C420003620	P/N: C310003614	P/N: C270003607	P/N: C2700036071	P/N: C2700036072

INSERT ORIENTATIONS



	Coding A	Coding B	Coding C	Coding D	Coding E
P/N	HVSL600 06 1 A	HVSL600 06 1 B	HVSL600 06 1 C	HVSL600 06 1 D	HVSL600 06 1 E

Excel|Mate Eco (HVSL630 2 POSITION CONNECTOR)



HVSL630

HVSL630 is a 2 position connector with a current carrying capacity from 23 to 40A and 4 to 6mm² crimping cable.

Specially designed for DC-DC, air-conditioner, and others xEV devices' equipment.

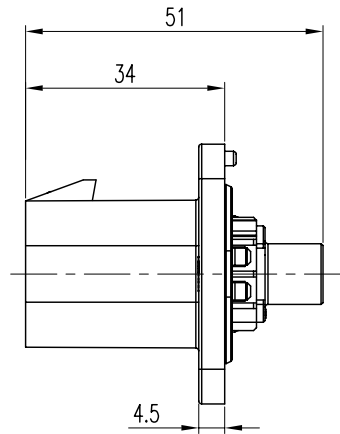
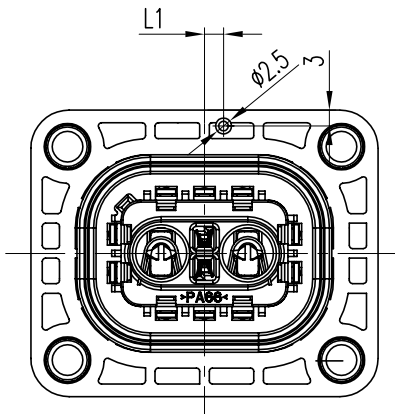
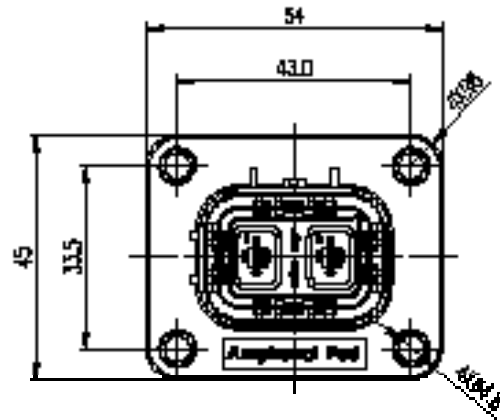
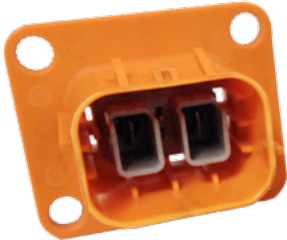
KEY FEATURES

- Integrated internal HVIL
- Current rating up to 40A
- Two-stage, tool or thumb activated latching
- No tool required to unmate
- Sealing, IP67 (mated), IP6K9K
- Touch-proof, IP2XB
- Multiple coding positions
- CPA available

MECHANICAL	
Durability	≥ 50 mating cycles
Wire range	4 to 6 mm ² shielded wire
Insertion and extraction force	< 100N
Connection type	Crimping
Latching style	Two stage, finger actuated
HVIL	Integrated
CPA	Available
ELECTRICAL	
Rated voltage	800V DC
Rated current	40A Max @ ambient temperature 70°C
Insulator resistance	> 200MΩ
Dielectric withstand voltage	3000V AC
Temperature rise	≤ 55°C
Shielding	360° from wire to device
ENVIRONMENTAL	
Sealing	IP67, IP6K9K (mated)
Touch-proof	IP2XB
Temperature range	-40°C to 125°C
Salt spray	48 hours
MATERIAL	
Terminals	Copper/copper alloy with tin plating
Housing	PA66 + GF

Excel|Mate Eco (HVSL 630)

RECEPTACLE



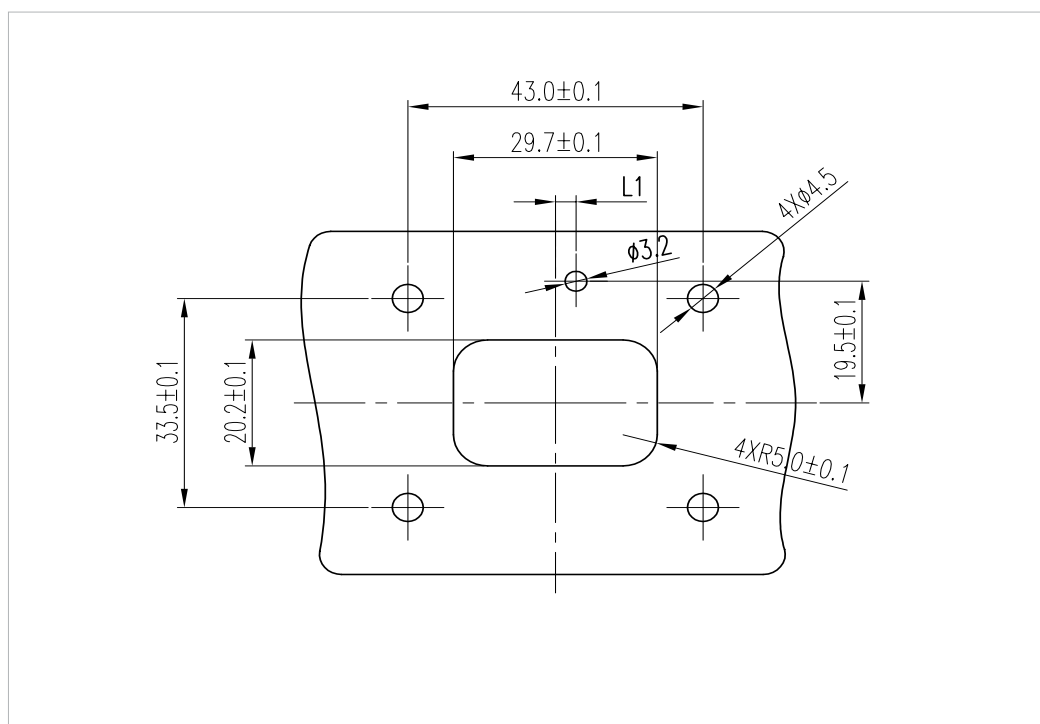
CONTACTS

All connectors include contacts. For extra contacts, please order them separately (ref: P/N below)

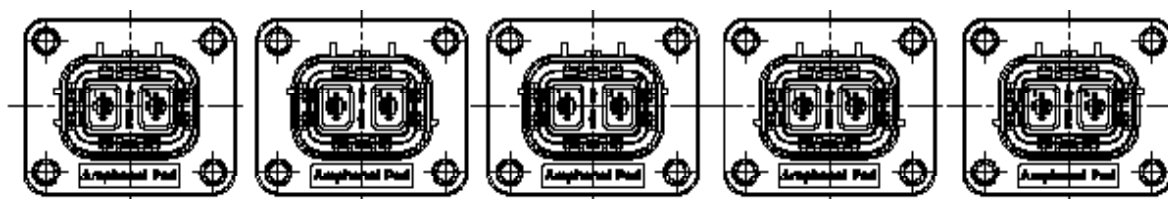
Main contacts: Crimping		HVIL contacts	
P/N: C310003622		P/N: C310003613	

PANEL MOUNTING DIMENSIONS

CODING	A	B	C	D	E
L1 (Receptacle)	0	3	6	-3	-6
L1 (Panel mount)	0	-3	-6	3	6



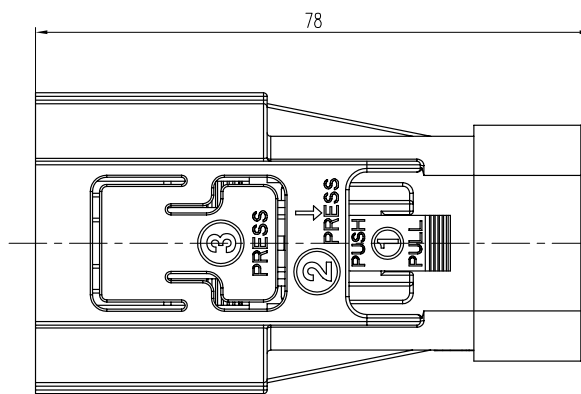
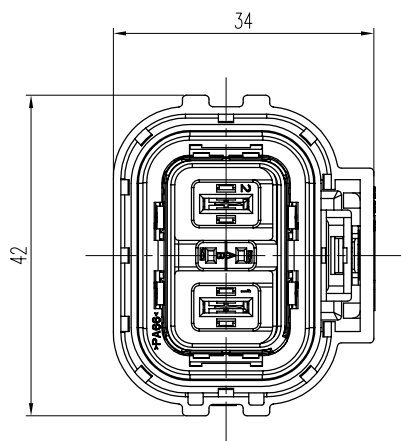
INSERT ORIENTATIONS



	Coding A	Coding B	Coding C	Coding D	Coding E
P/N	HVSL630 02 2 A	HVSL630 02 2 B	HVSL630 02 2 C	HVSL630 02 2 D	HVSL630 02 2 E

Excel|Mate Eco (HVSL 630)

PLUG



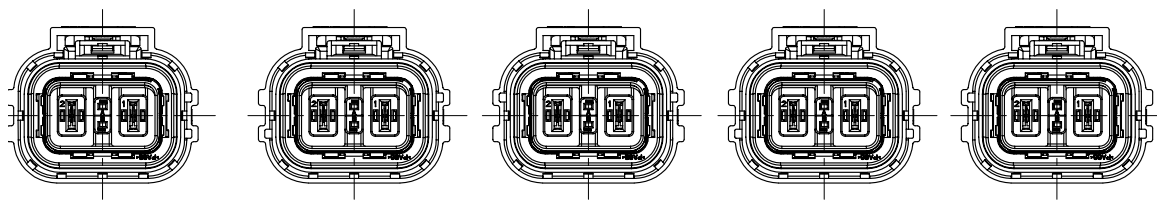
CONTACTS

All connectors include contacts. For extra contacts, please order them separately (ref: P/N below)

Contacts

Main contacts	HVIL contacts	Φ12	Φ11	Φ10
P/N: C310003623	P/N: C310003614	P/N: C270003607	P/N: C2700036071	P/N: C2700036072

INSERT ORIENTATIONS



	Coding A	Coding B	Coding C	Coding D	Coding E
P/N	HVSL630 06 2 A	HVSL630 06 2 B	HVSL630 06 2 C	HVSL630 06 2 D	HVSL630 06 2 E

Excel|Mate (HVSL633 3-pin connector)



HVSL633

HVSL633 is a 3 position connector with a current carrying capacity from 23 to 40A and 4 to 6mm² crimping cable.

Specially designed for DC-DC, air-conditioner, and others xEV devices' equipment.

KEY FEATURES

Integrated internal HVIL

Current rating up to 40A

Two-stage, tool or thumb activated latching

No tool required to unmate

Sealing, IP67 (mated), IP6K9K

Touch-proof, IP2XB

Multiple coding positions

CPA available

MECHANICAL

Durability	≥ 50 mating cycles
Wire range	4 to 6 mm ² shielded wire
Insertion and extraction force	< 100N
Connection type	Crimping
Latching style	Two stage, finger actuated
HVIL	Integrated
CPA	Available

ELECTRICAL

Rated voltage	800V DC
Rated current	40A Max @ ambient temperature 70°C
Insulator resistance	> 200MΩ
Dielectric withstand voltage	3000V AC
Temperature rise	≤ 55°C
Shielding	360° from wire to device

ENVIRONMENTAL

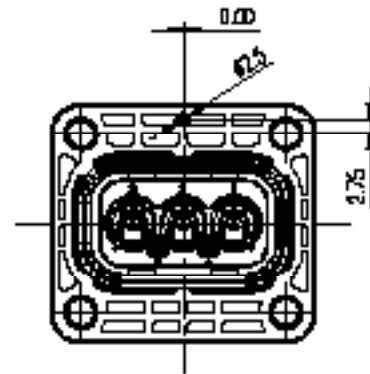
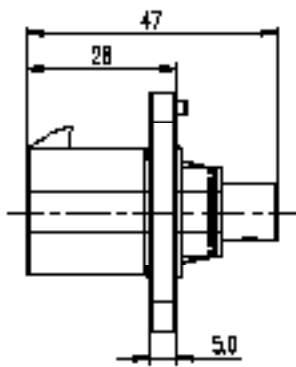
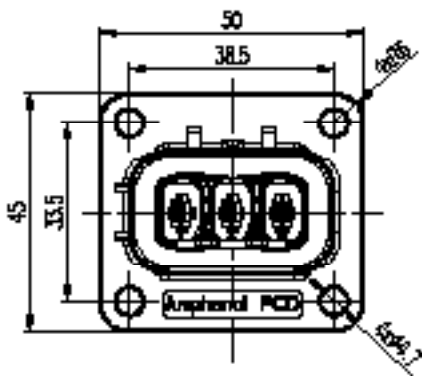
Sealing	IP67, IP6K9K (mated)
Touch-proof	IP2XB
Temperature range	-40°C to 125°C
Salt spray	48 hours

MATERIAL

Terminals	Copper/copper alloy with tin plating
Housing	PA66 + GF

Excel|Mate Eco (HVSL 633)

RECEPTACLE HVSL633

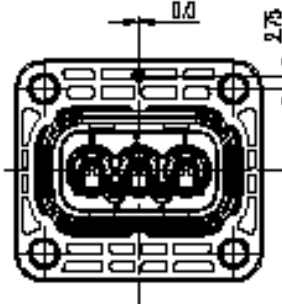
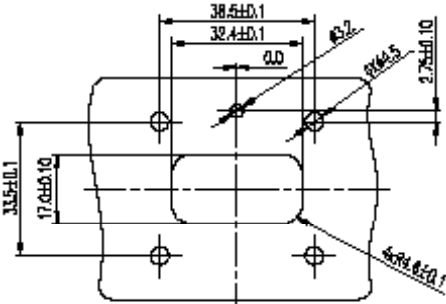
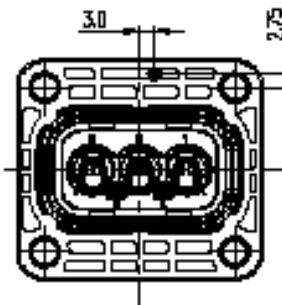
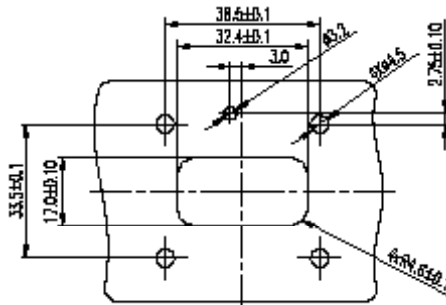
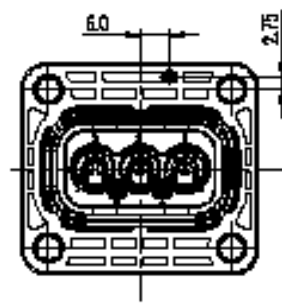
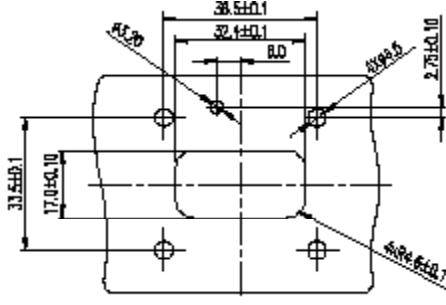
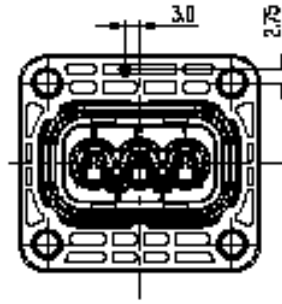
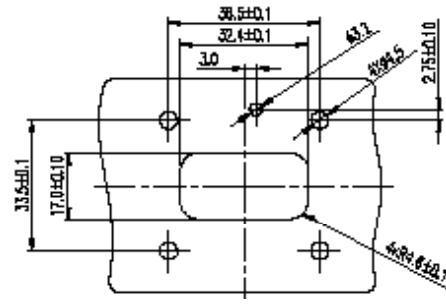
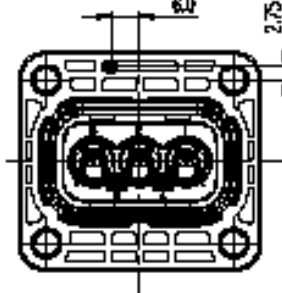
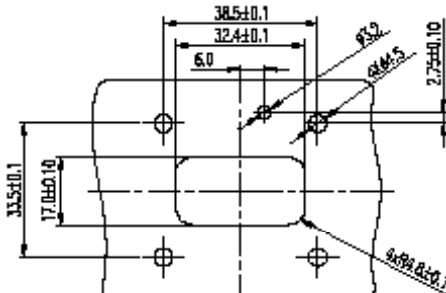


CONTACTS

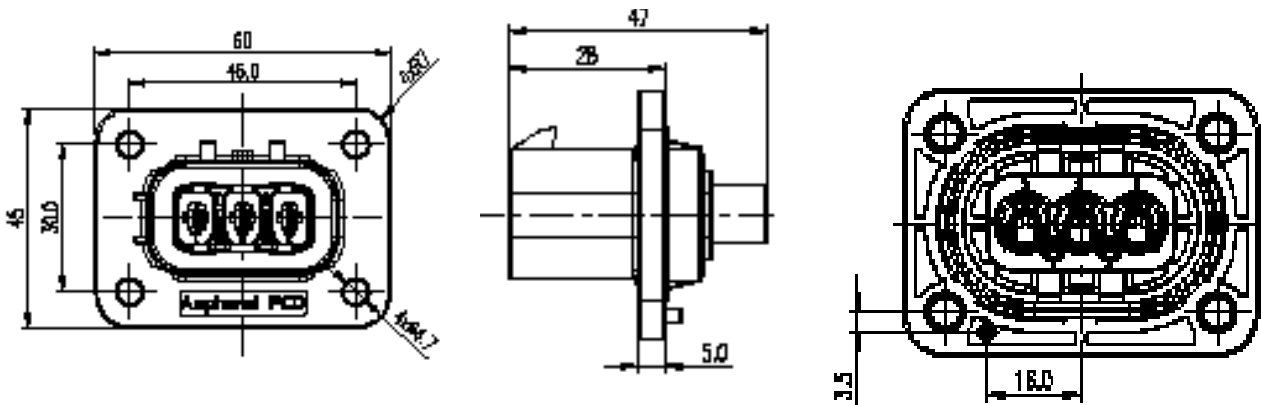
All connectors do not include contacts. Please order them separately (ref: P/N below)

All connectors do not include contacts. Please order them separately (ref: P/N below)	
Main contacts: Crimping	HVIL contacts
P/N: C310003622	P/N: C310003614

PANEL MOUNTING DIMENSION

PART NUMBER	INSERT ORIENTATION	PANEL MOUNTED DIMENSION
HVSL633 023 A		
HVSL633 023 B		
HVSL633 023 C		
HVSL633 023 D		
HVSL633 023 E		

RECEPTACLE HVSLC633



CONTACTS

All connectors do not include contacts. Please order them separately (ref: P/N below)

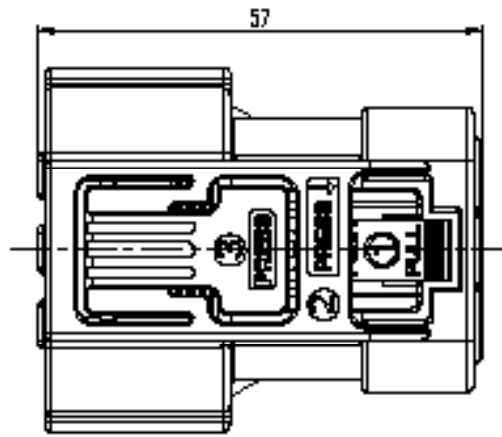
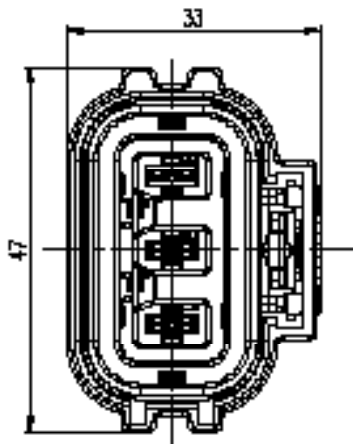
Main contacts: Crimping		HVIL contacts	
P/N: C310003622		P/N: C310003614	

PANEL MOUNTING DIMENSION

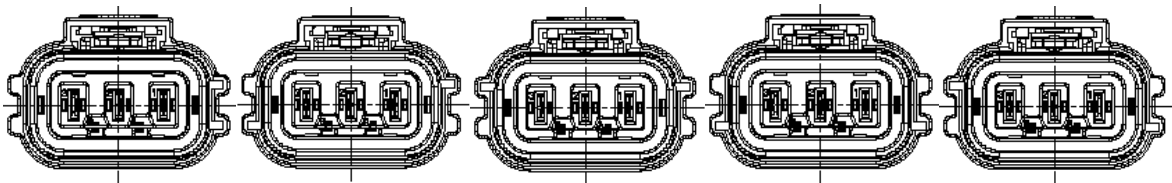
PART NUMBER	INSERT ORIENTATION	PANEL MOUNTED DIMENSION
HVSLC633 023 A		
HVSLC633 023 B		
HVSLC633 023 C		
HVSLC633 023 D		

Excel|Mate Eco (HVSL 633)

PLUG



INSERT ORIENTATIONS



	A	B	C	D	E
P/N	HVSL633 06 3 A	HVSL633 06 3 B	HVSL633 06 3 C	HVSL633 06 3 D	HVSL633 06 3 E

CONTACTS

All connectors do not include contacts. Please order them separately (ref: P/N below)	
Main contacts: Crimping	HVIL contacts
P/N: C310003623	Integrated, no need to buy.

Excel|Mate Eco (HVSL280 3 POSITION CONNECTOR)



HVSL280

HVSL280 is a 3 position connector with plastic housing, high voltage, integrated HVIL. It provides a current carrying capacity from 16 to 23A and 2.5 to 4mm² crimping cable.

Specially designed for DC-DC, air-conditioner, and other equipment in xEV device applications.

KEY FEATURES

Integrated internal HVIL

Current rating up to 23A

Two-stage, tool or thumb activated latching

No tool required to unmate

Sealing, IP67 (mated), IP6K9K

Touch-proof, IP2XB

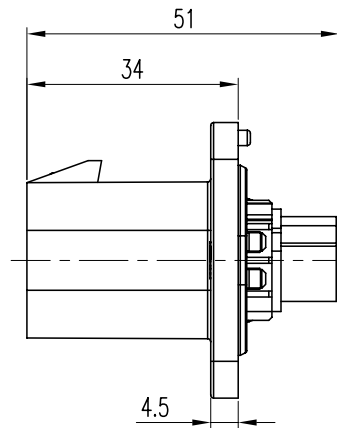
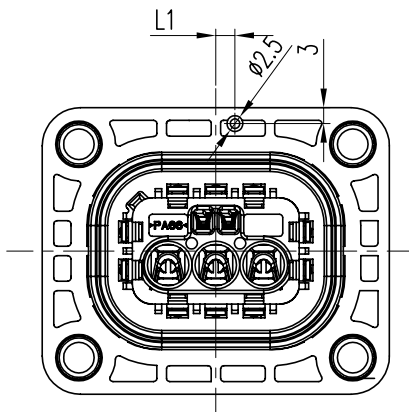
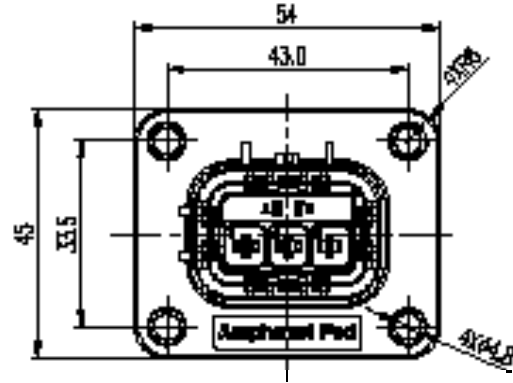
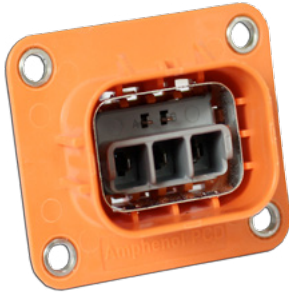
Multiple coding positions

CPA available

MECHANICAL	
Durability	≥ 50 mating cycles
Wire range	2.5 to 4 mm ² shielded wire
Insertion and extraction force	< 100N
Connection type	Crimping
Latching style	Two stage, finger actuated
HVIL	Integrated
CPA	Available
ELECTRICAL	
Rated voltage	800V DC
Rated current	23A Max @ ambient temperature 70°C
Insulator resistance	> 200MΩ
Dielectric withstand voltage	3000V AC
Temperature rise	≤ 55°C
Shielding	360° from wire to device
ENVIRONMENTAL	
Sealing	IP67, IP6K9K (mated)
Touch-proof	IP2XB
Temperature range	-40°C to 125°C
Salt spray	48 hours
MATERIAL	
Terminals	Copper/copper alloy with tin plating
Housing	PA66 + GF

Excel|Mate Eco (HVSL 280)

RECEPTACLE



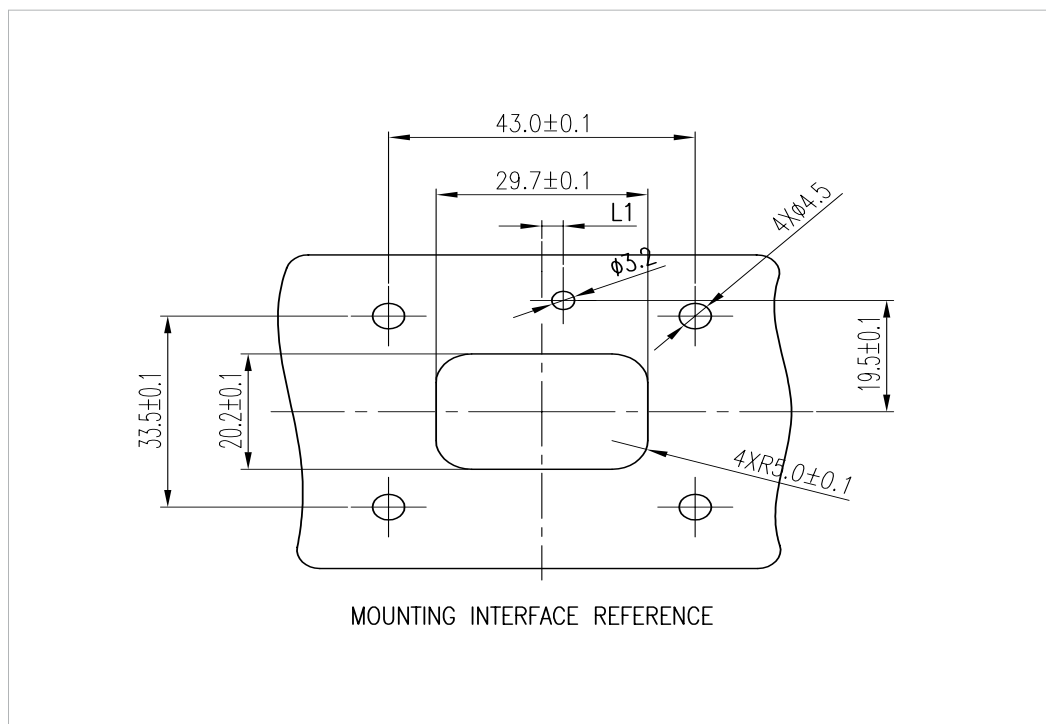
CONTACTS

All connectors include contacts. For extra contacts, please order them separately (ref: P/N below)

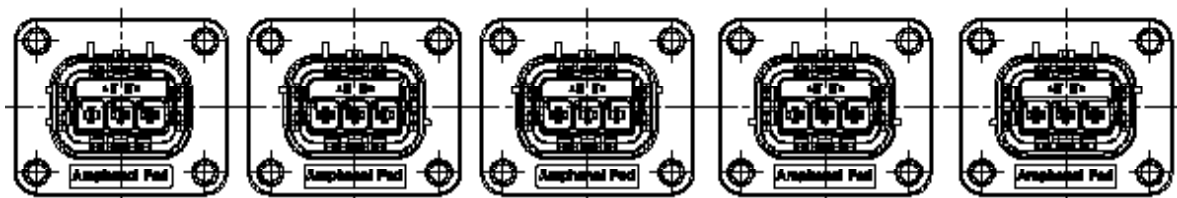
Main contacts: Crimping		HVIL contacts	
P/N: C310003611		P/N: C310003613	

PANEL MOUNTING DIMENSIONS

CODING	A	B	C	D	E
L1 (Receptacle)	0	3	6	-3	-6
L1 (Panel mount)	0	-3	-6	3	6



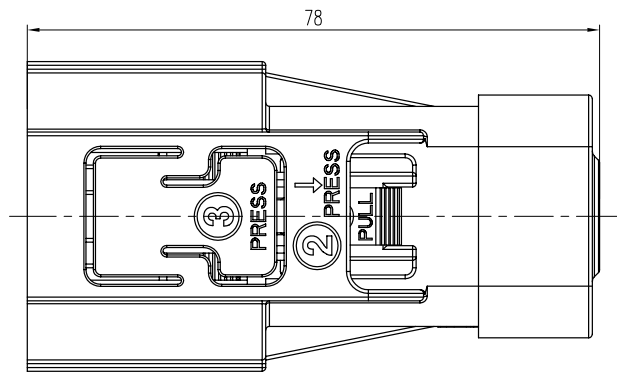
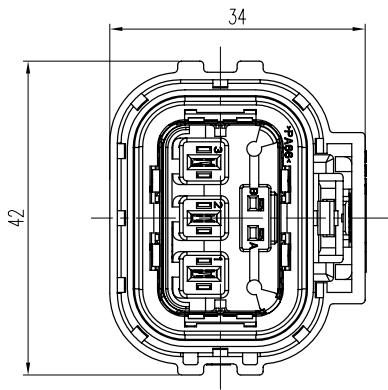
INSERT ORIENTATIONS



	Coding A	Coding B	Coding C	Coding D	Coding E
P/N	HVSL280 02 3 A	HVSL280 02 3 B	HVSL280 02 3 C	HVSL280 02 3 D	HVSL280 02 3 E

Excel|Mate Eco (HVSL 280)

PLUG



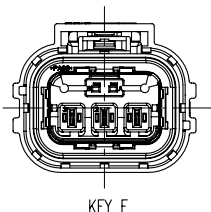
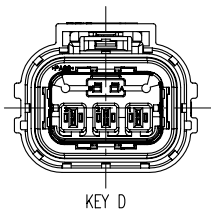
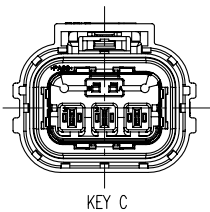
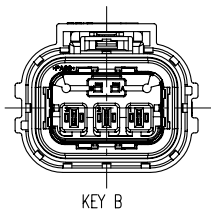
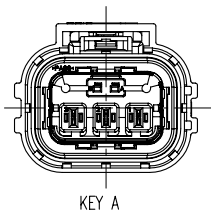
CONTACTS

All connectors include contacts. For extra contacts, please order them separately (ref: P/N below)

Contacts

Main contacts	HVIL contacts	Φ12	Φ11	Φ10
P/N: C310003612	P/N: C310003614	P/N: C270003607	P/N: C2700036071	P/N: C2700036072

INSERT ORIENTATIONS



	Coding A	Coding B	Coding C	Coding D	Coding E
P/N	HVSL280 06 3 A	HVSL280 06 3 B	HVSL280 06 3 C	HVSL280 06 3 D	HVSL280 06 3 E

Excel|Mate Eco (HVSL282 2 pins connector)



HVSL282

HVSL282 is a 2 position connector with plastic housing, high voltage, integrated HVIL. It provides a current carrying capacity from 16 to 23A and 2.5 to 4mm² crimping cable.

Specially designed for DC-DC, air-conditioner, and other equipment in xEV device applications.

KEY FEATURES

Integrated internal HVIL

Current rating up to 23A

Two-stage, tool or thumb activated latching

No tool required to unmate

Sealing, IP67 (mated), IP6K9K

Touch-proof, IP2XB

Multiple coding positions

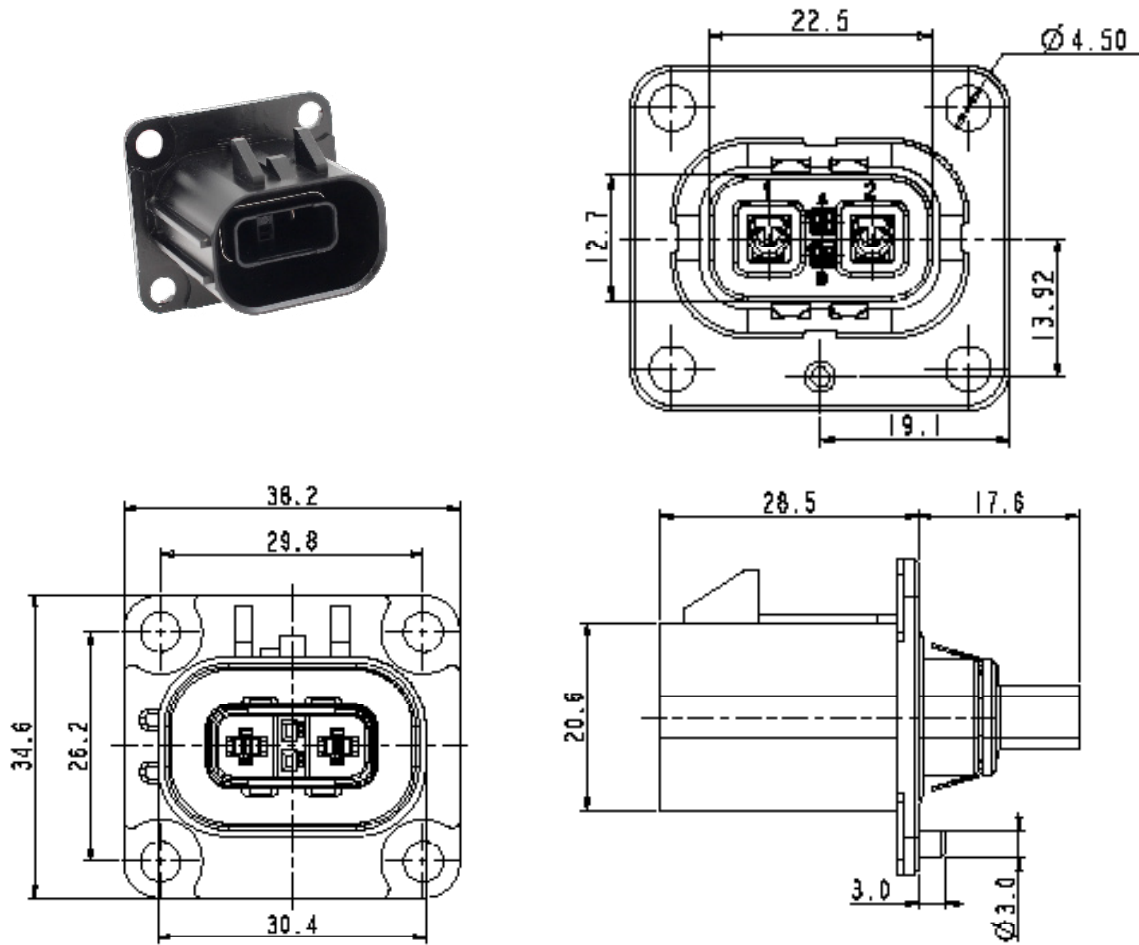
CPA available

MECHANICAL	
Durability	≥ 50 mating cycles
Wire range	2.5 to 4 mm ² shielded wire
Insertion and extraction force	< 100N
Connection type	Crimping
Latching style	Two stage, finger actuated
HVIL	Integrated
CPA	Available
ELECTRICAL	
Rated voltage	800V DC
Rated current	23A Max @ ambient temperature 70°C
Insulator resistance	> 200MΩ
Dielectric withstand voltage	3000V AC
Temperature rise	≤ 55°C
Shielding	360° from wire to device
ENVIRONMENTAL	
Sealing	IP67, IP6K9K (mated)
Touch-proof	IP2XB
Temperature range	-40°C to 125°C
Salt spray	48 hours
MATERIAL	
Terminals	Copper/copper alloy with tin plating
Housing	PA66 + GF

PANEL MOUNTING HOLES POSITIONS

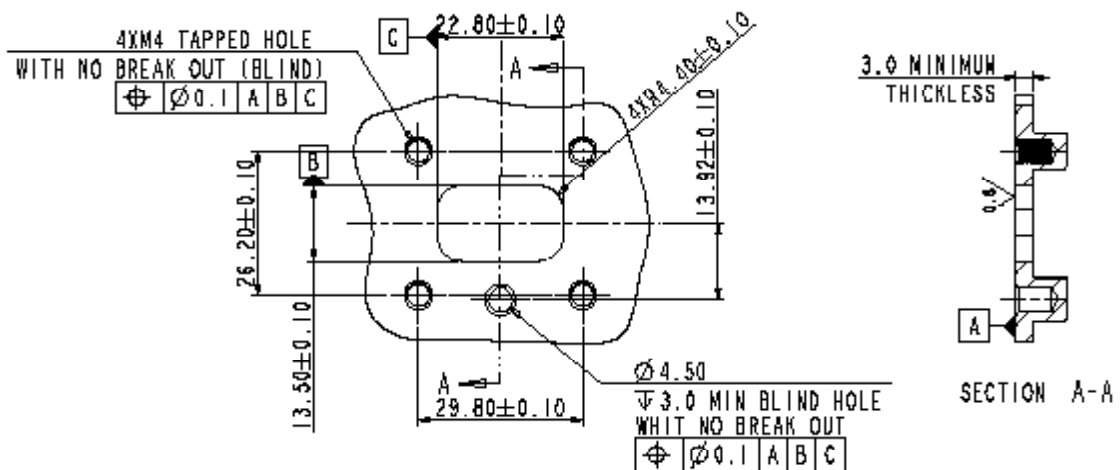
PART NUMBER	INSERT ORIENTATION	PANEL MOUNTING DIMENSION
HVSL282 02 A		
HVSL282 02 B		
HVSL282 02 C		
HVSL282 02 D		
HVSL282 02 E		
HVSL282 02 F		

RECEPTACLE: METAL SHELL

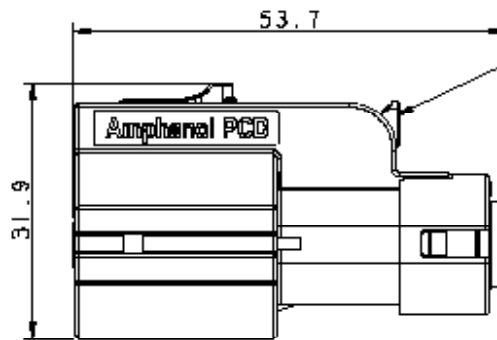
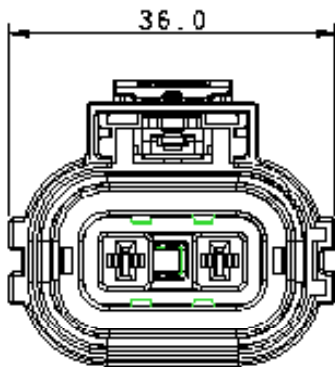


PANEL MOUNTING DIMENSION

PANEL CUT-OUT REFERENCE



PLUG



DELIVERY CONDITION:
CPA ON LOCKED POSITION

CONTACTS

All connectors do not include contacts. Please order them separately (ref: P/N below)

Contacts

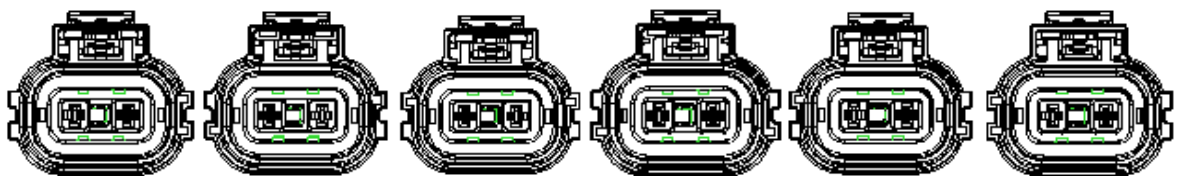
Main contacts : Crimping

HVIL contacts

P/N: C310003612

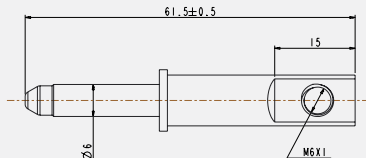
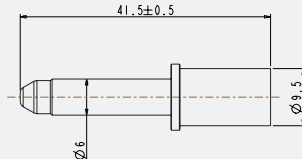
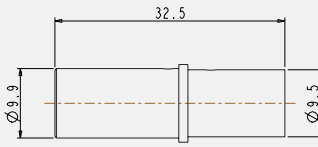
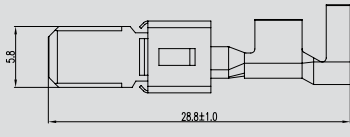
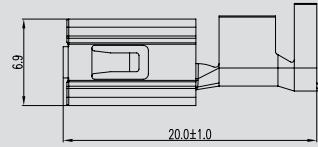
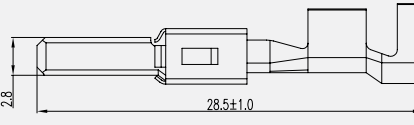
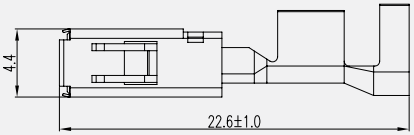
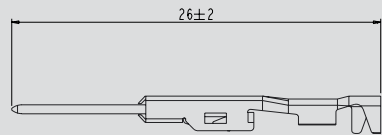
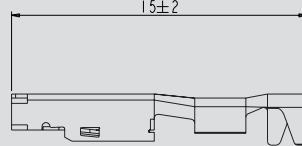
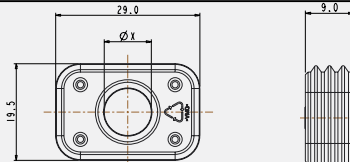
Integrated, no need to buy.

INSERT ORIENTATIONS



	A	B	C	D	E	F
P/N	HVSL282 06 2 A	HVSL282 06 2 B	HVSL282 06 2 C	HVSL282 06 2 D	HVSL282 06 2 E	HVSL282 06 2 F

ATTACHMENT: CONTACT

Name	Contact P/N & Wire Size	Drawing
Pin contact End with bus-bar For HVSL600021XXH6	C420003625 25mm ² unshielded wire	
Pin contact Crimp for wire For HVSL600021XX25	C420003621 25mm ² unshielded wire	
Socket contact For HVSL600061XX25XX	C420003620 25mm ² shielded wire	
Pin contact For HVSL630022XX06	C310003622 4 to 6mm ² unshielded wire	
Socket contact For HVSL630062XX06XX	C310003623 4 to 6mm ² 2 pin shielded cable	
Pin contact For HVSL280023XX04	C310003611 2.5 to 4mm ² unshielded cable	
Socket contact For HVSL280063XX04XX	C310003612 2.5 to 4mm ² 3 pin shielded cable	
Pin signal contact For: HVSL600021XX25 HVSL630022XX06 HVSL280023XX04	C310003613 0.5mm ² unshielded wire	
Socket signal contact For: HVSL600061XX25XX HVSL630062XX06XX HVSL280063XX04XX	C310003614 0.5mm ² unshielded wire	
Sealing gasket For: HVSL600061XX25XX HVSL630062XX06XX HVSL280063XX04XX	C270003607 OD12mm wire C2700036071 OD11mm wire C2700036072 OD10mm wire	

Notes: All connectors include contacts. For extra contacts, please order them separately (ref: P/N above)

HOW TO ORDER: PLUG

	HVSL600	06	1	A	0	25	I
Product Series:	HVSL600 HVSL630 HVSL633 HVSL280 HVSL282						
Product type:	06: Straight plug						
Position:	1: 1 position 2: 2 positions 3: 3 positions						
Coding / Alternate position:	A: Coding A B: Coding B C: Coding C D: Coding D E: Coding E						
Inter-lock:	0: Without Inter-lock 1: With Inter-lock						
Conductor size:	03: 2.5mm ² cable (For HVSL280) 04: 4mm ² cable (For HVSL280) 06: 6.0mm ² cable (For HVSL630) 25: 25mm ² cable (For HVSL600)						
Wire type:	I: Individually shielded wire M: Multicore shielded wire						

HOW TO ORDER: RECEPTACLE

	HVSL600	02	1	A	0	(H6)
Product Series:	HVSL600 HVSL630 HVSL633 HVSL280 HVSL282					
Product type:	02: Box mounted receptacle					
Position:	1: 1 position 2: 2 positions 3: 3 positions					
Coding / Alternate position:	A: Coding A B: Coding B C: Coding C D: Coding D E: Coding E					
Inter-lock (Not available for HVSL282):	0: Without Inter-lock 1: With Inter-lock					
	H6: OT terminal, stud hole is M6 ((For HVSL600 receptacle)					

Excel|Mate PT (HVPT)

Excel|Mate PT (HVPT - PASS-THROUGH WITH CABLE GLAND)

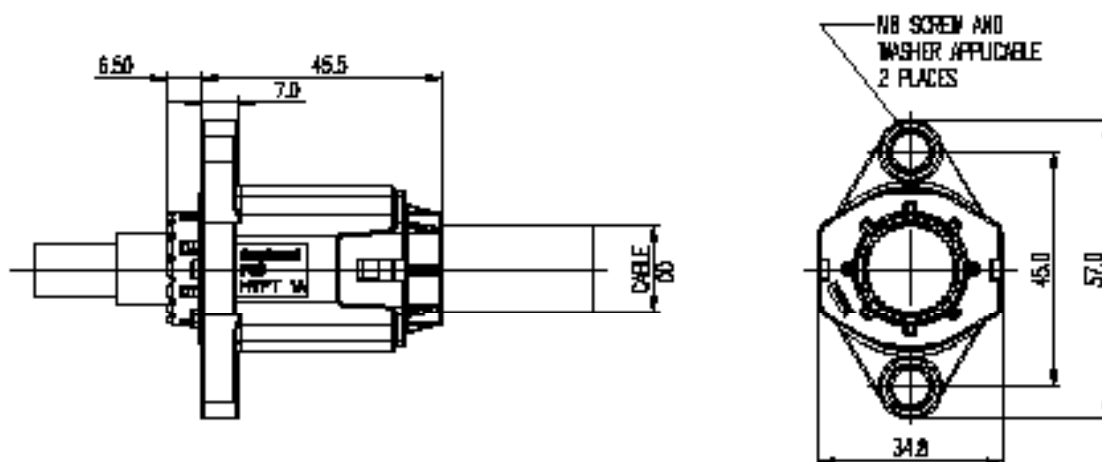
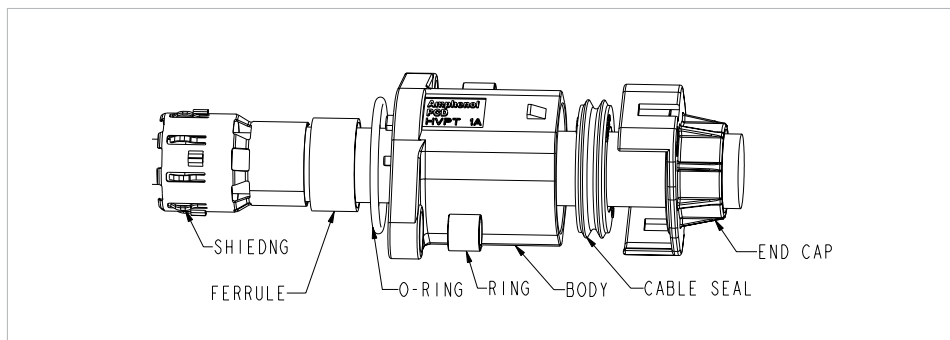


MECHANICAL	
Wire range	25 to 70 mm ² shielded wires
Connection type	Crimping
ELECTRICAL	
Rated voltage	1000V DC
Rated current	250A Max @ ambient temperature 70°C
Dielectric withstand voltage	3000V AC
Shielding	360° from wire to device
ENVIRONMENTAL	
Sealing	IP67, IP6K9K (mated)
Temperature range	-40°C to 125°C
Salt spray	48 hours
MATERIAL	
Housing	PA66 + GF

KEY FEATURES

- 1 to 3 positions available
- Light in weight with plastic shell
- Easy to install, reliable connection
- Sealing, IP67 (mated), IP6K9K
- Multiple coding positions
- 360° shielded from wire to device
- Economical

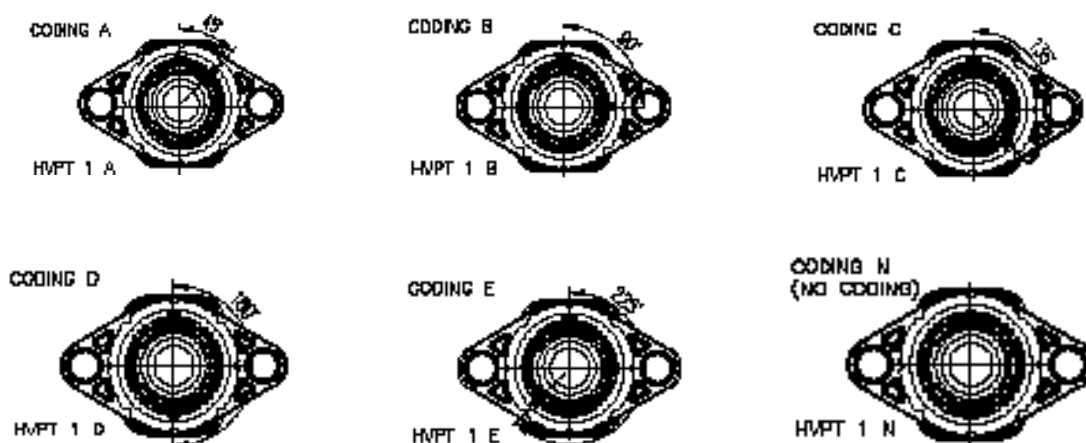
1 POSITION PASS-THROUGH



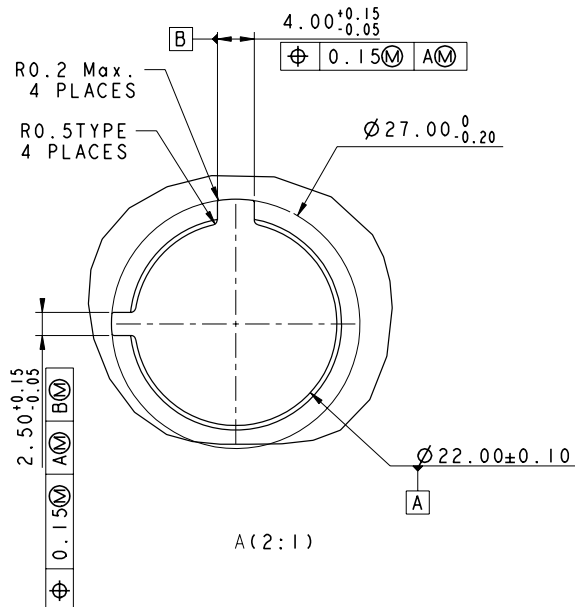
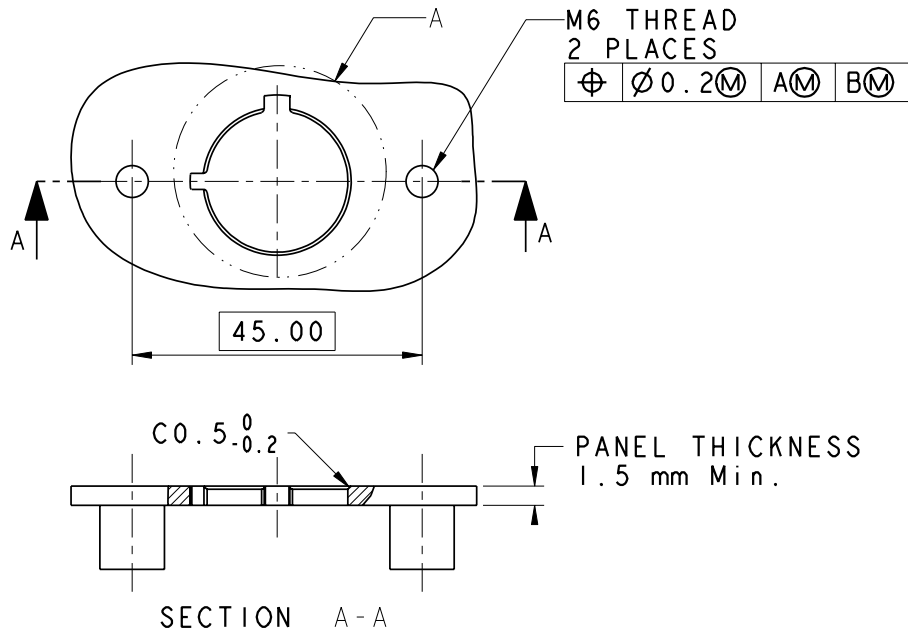
CONTACTS

Part number	Conductor cross section (mm ²)	Cable OD
HVPT 1 X 70	70	19.0±0.3
HVPT 1 X 50	50	16.5±0.3
HVPT 1 X 35	35	14.2±0.3
HVPT 1 X 25	25	11.9±0.3

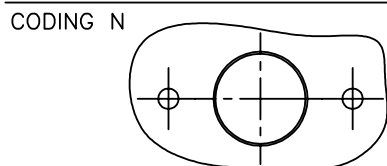
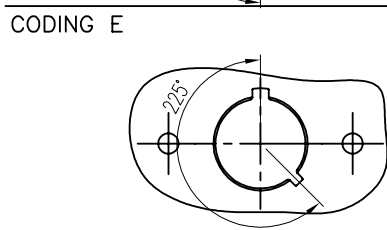
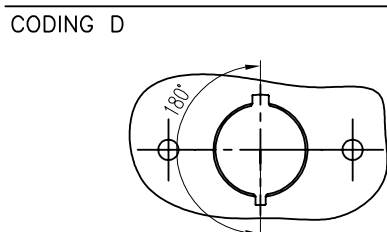
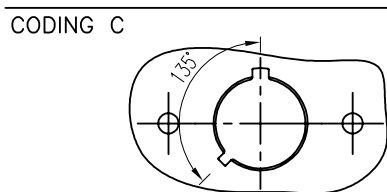
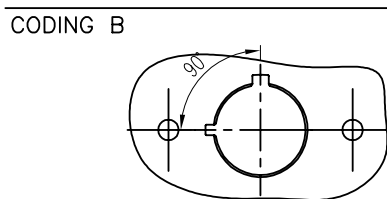
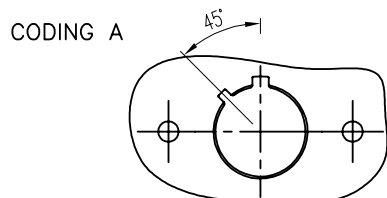
INSERT ORIENTATIONS



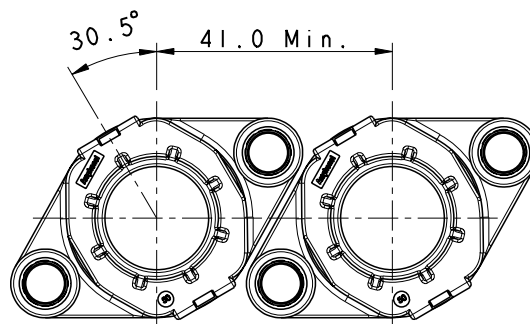
PANEL MOUNTING DIMENSIONS



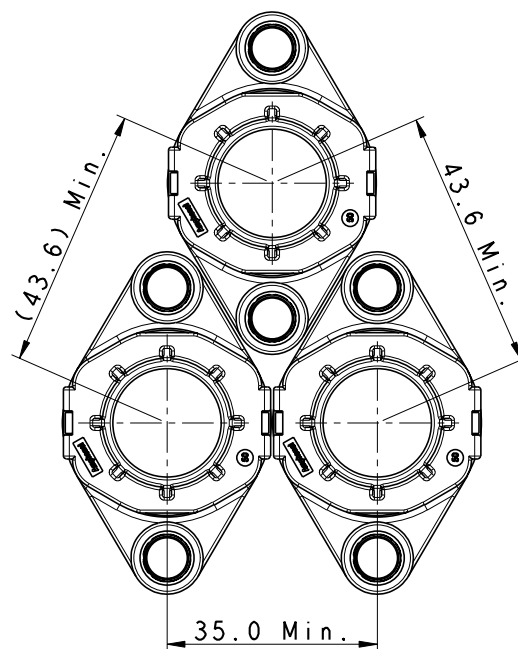
PANEL MOUNTING DIMENSIONS



RECOMMENDED LAYOUT FOR 2 UNITS

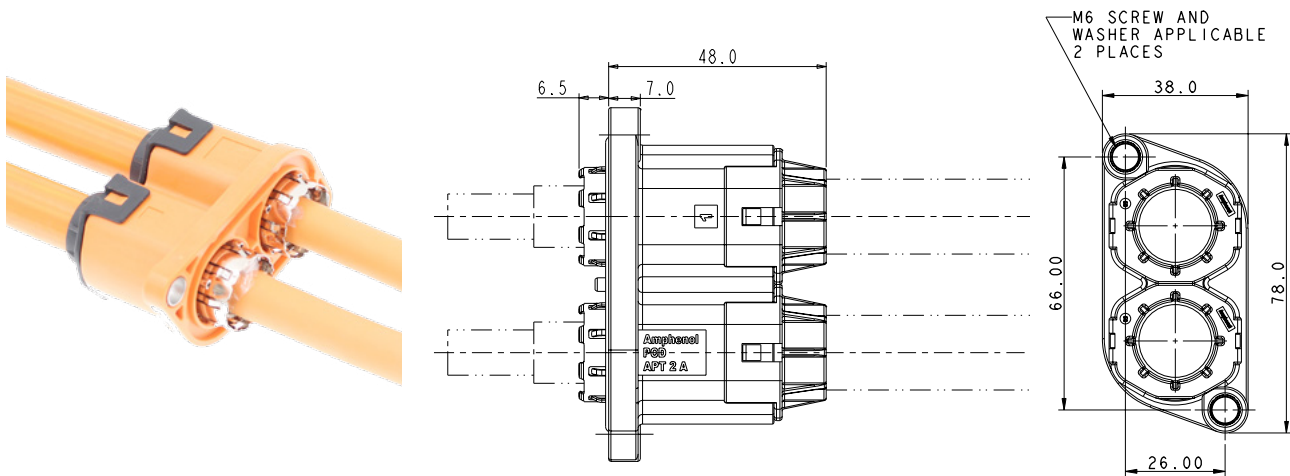


RECOMMENDED LAYOUT FOR 3 UNITS



Excel|Mate PT (HVPT)

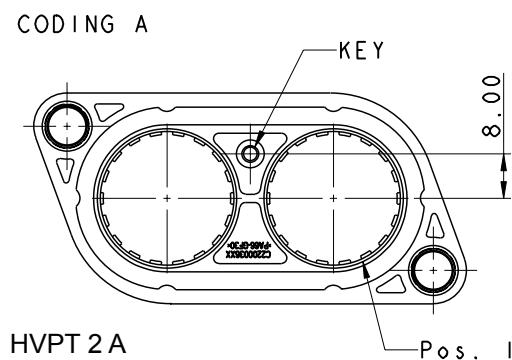
2 POSITION PASS-THROUGH



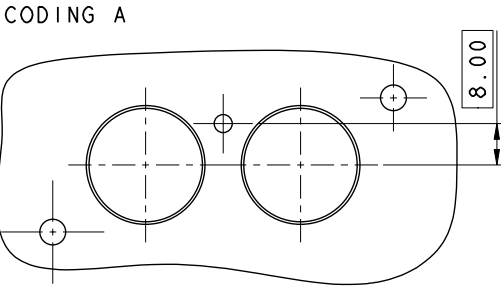
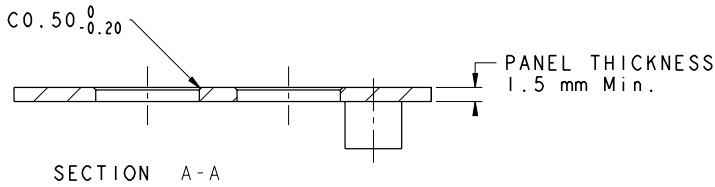
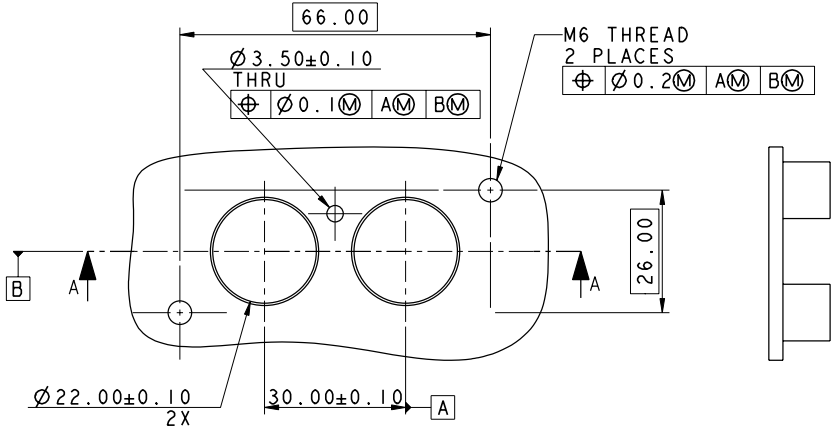
CONTACTS

Part number	Conductor cross section (mm ²)	Cable OD
HVPT 2 X 70	70	19.0±0.3
HVPT 2 X 50	50	16.5±0.3
HVPT 2 X 35	35	14.2±0.3
HVPT 2 X 25	25	11.9±0.3

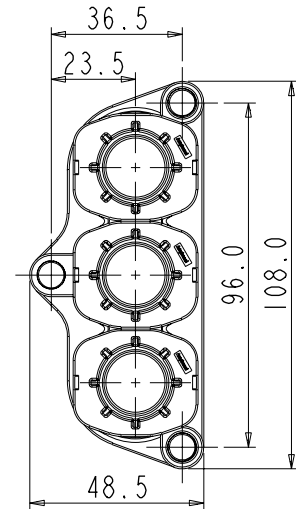
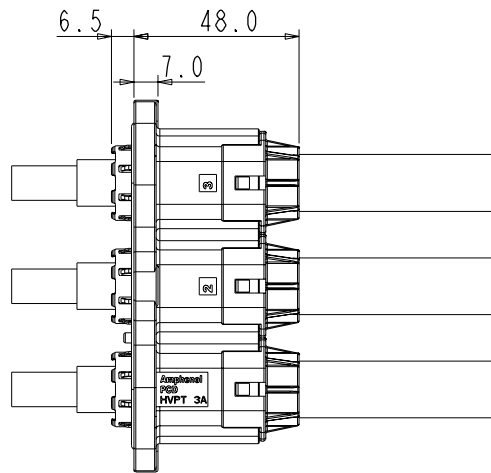
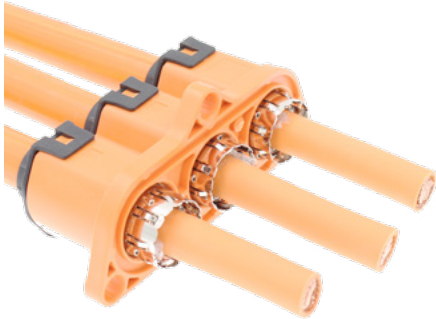
INSERT ORIENTATIONS



PANEL MOUNTING DIMENSIONS



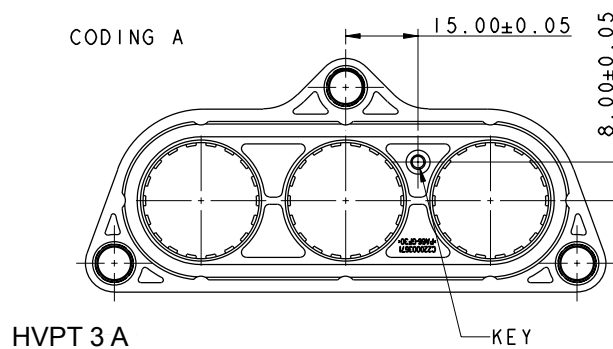
3 POSITION PASS-THROUGH



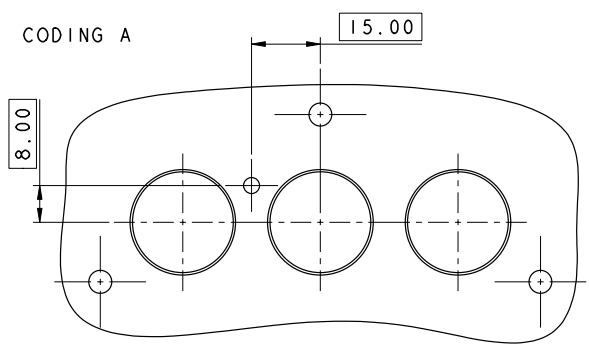
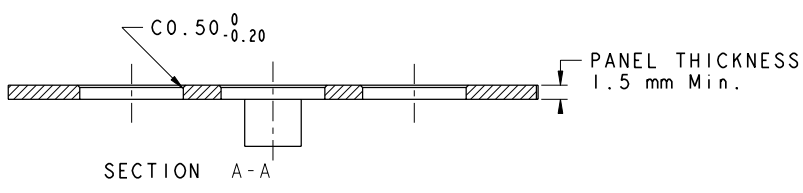
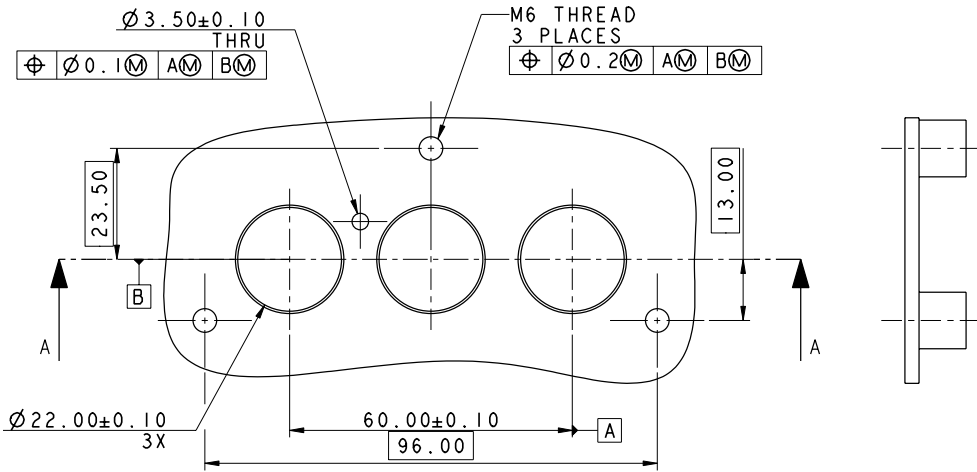
CONTACTS

Part number	Conductor cross section (mm ²)	Cable OD
HVPT 3 X 70	70	19.0±0.3
HVPT 3 X 50	50	16.5±0.3
HVPT 3 X 35	35	14.2±0.3
HVPT 3 X 25	25	11.9±0.3

INSERT ORIENTATIONS

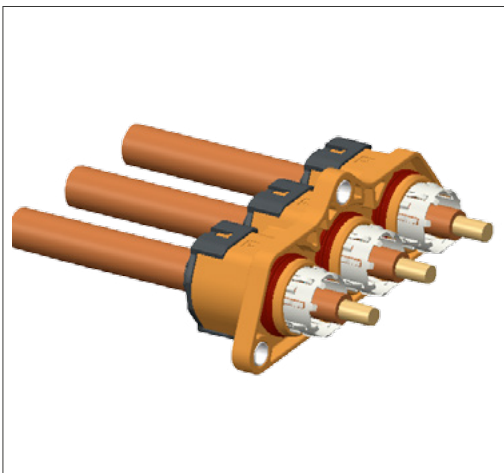
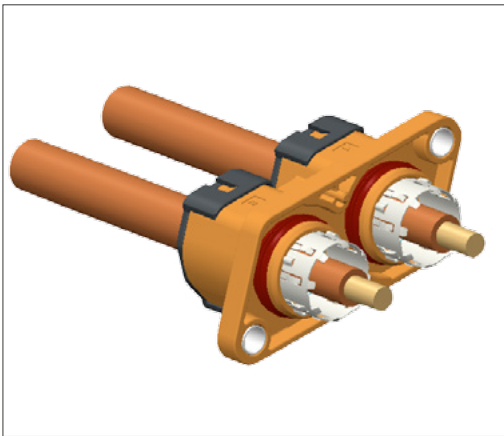


PANEL MOUNTING DIMENSIONS



Excel|Mate PT (HVPT B)

HVPT B PASS-THROUGH

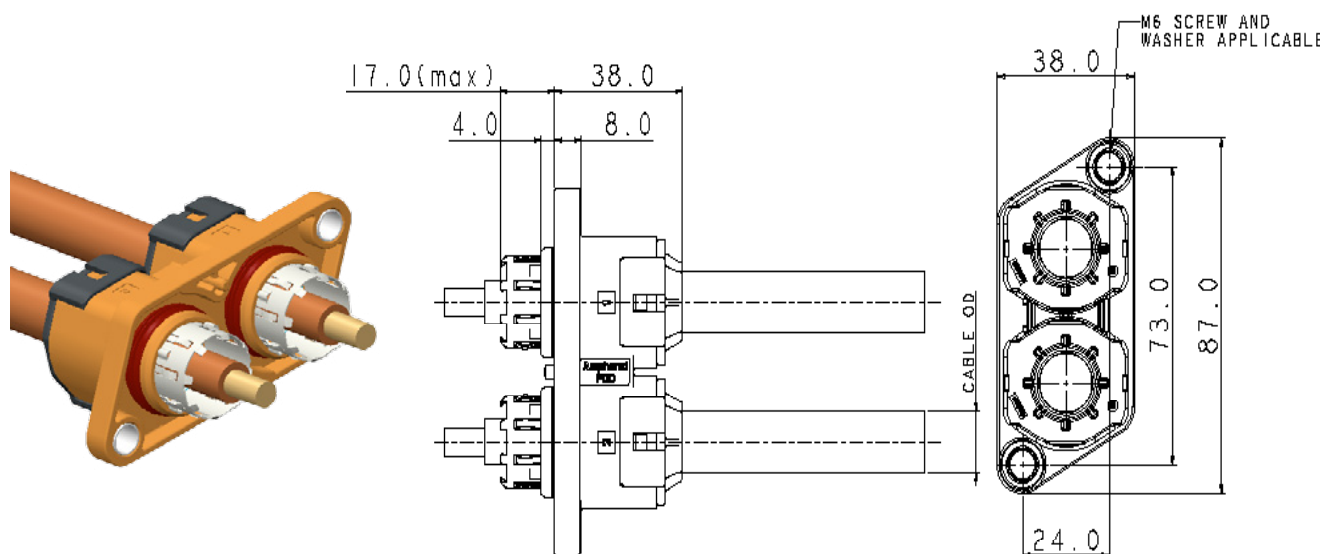


MECHANICAL	
Wire range	25 to 70 mm ² shielded wires
Connection type	Crimping
ELECTRICAL	
Rated voltage	1000V DC
Rated current	250A Max @ ambient temperature 70°C
Dielectric withstand voltage	3000V AC
Shielding	360° from wire to device
ENVIRONMENTAL	
Sealing	IP67, IP6K9K (mated)
Temperature range	-40°C to 125°C
Salt spray	48 hours
MATERIAL	
Housing	PA66 + GF

KEY FEATURES

- 2 & 3 positions available
- Light in weight with plastic shell
- Easy to install, reliable connection
- Sealing, IP67 (mated), IP6K9K
- Multiple coding positions
- 360° shielded from wire to device
- Economical

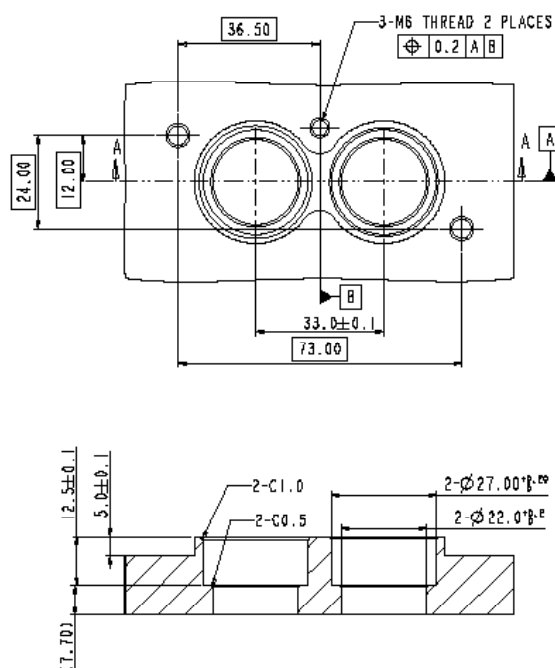
HVPTB 2 POSITION PASS-THROUGH



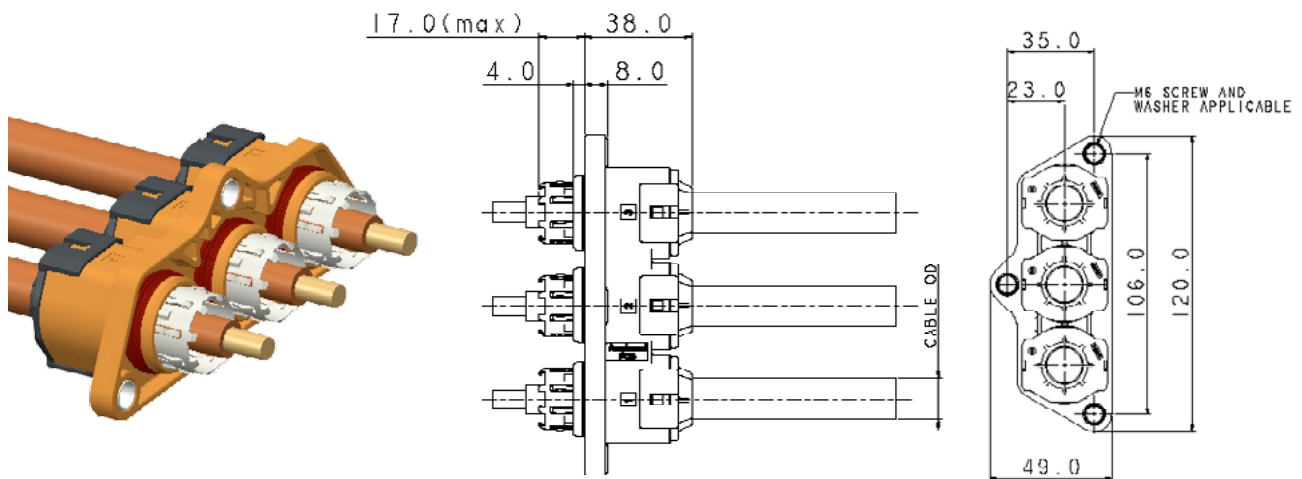
PART NUMBER

Part number	Conductor cross section (mm ²)	Cable OD
HVPTB 2 B 70	70	19.0±0.3
HVPTB 2 B 50	50	16.5±0.3
HVPTB 2 B 35	35	14.2±0.3
HVPTB 2 B 25	25	11.9±0.3

PANEL MOUNTING DIMENSIONS



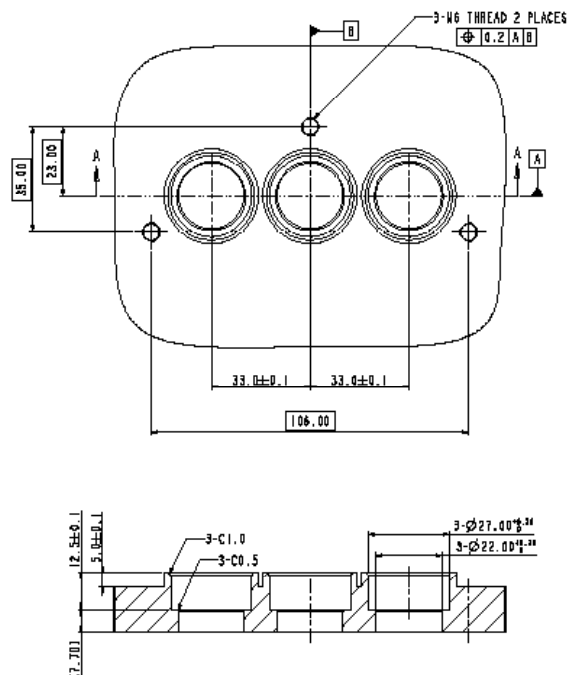
HVPTB 3 POSITION PASS-THROUGH



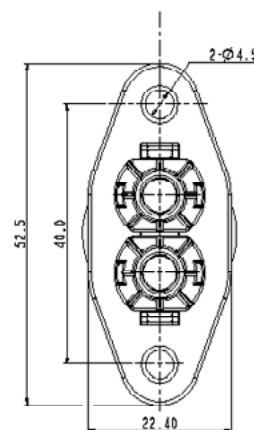
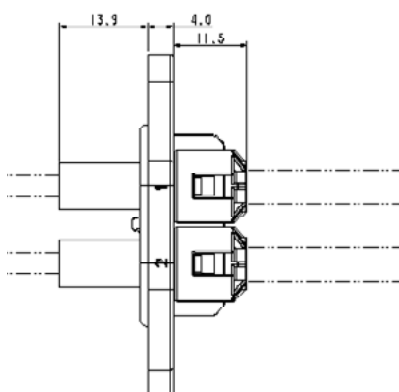
PART NUMBER

Part number	Conductor cross section (mm ²)	Cable OD
HVPTB 3 N 70	70	19.0±0.3
HVPTB 3 N 50	50	16.5±0.3
HVPTB 3 N 35	35	14.2±0.3
HVPTB 3 N 25	25	11.9±0.3

PANEL MOUNTING DIMENSIONS



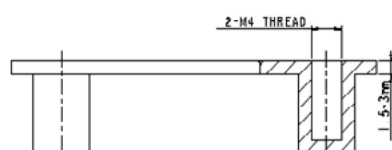
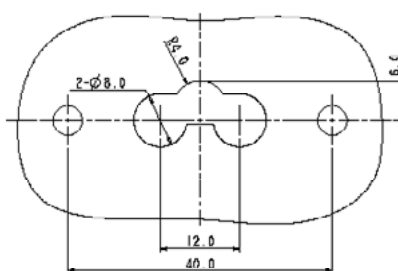
HVPTB 2A POSITION PASS-THROUGH



PART NUMBER

Part number	Conductor cross section (mm ²)	Cable OD (mm)
HVPTB 2 A 06	6.0	6.1 to 6.7
HVPTB 2 A 04	4.0	5.1 to 5.7
HVPTB 2 A 02	2.5 / 3.0	4.3 to 4.8

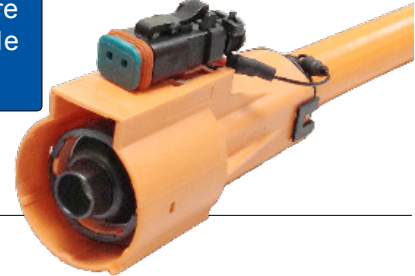
PANEL MOUNTING DIMENSIONS



DERATING CURVE

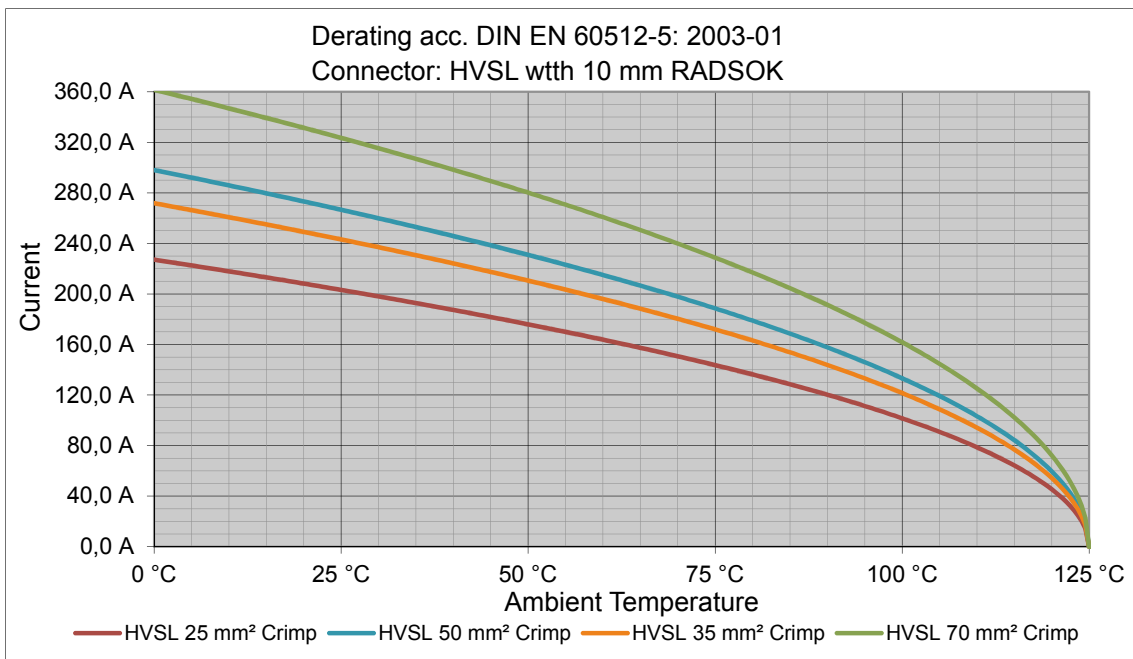
HVSL SERIES PERFORMANCES

The following derating curves are the results of tests, which were carried out on complete connectors and not only on a single conductor or fuse.

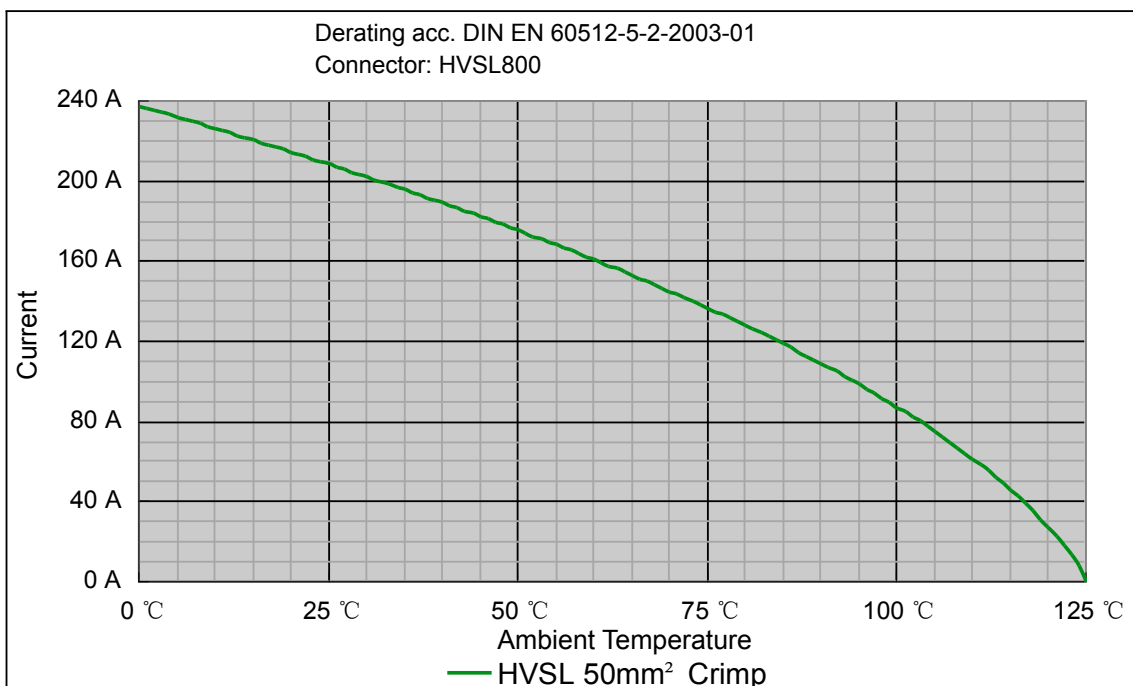


DERATING CURVE

HVSL1000 | Test carried out on the complete connector

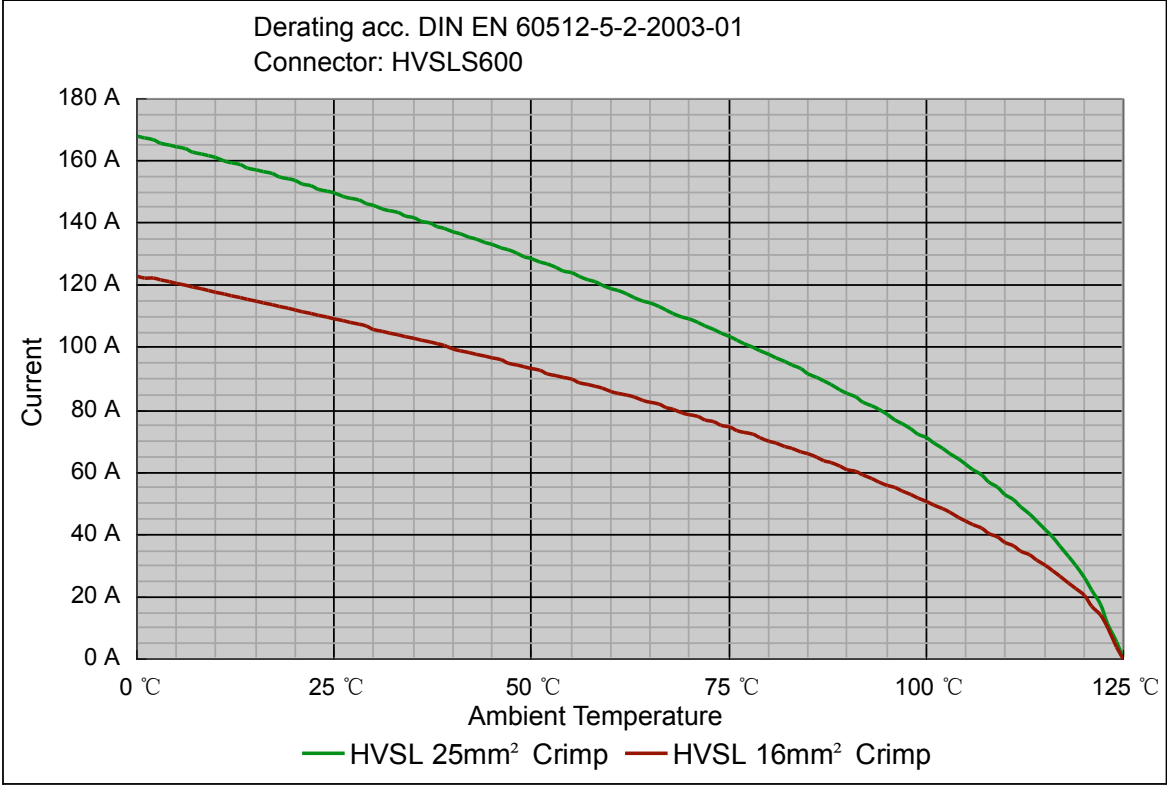


HVSL800 | Test carried out on the complete connector

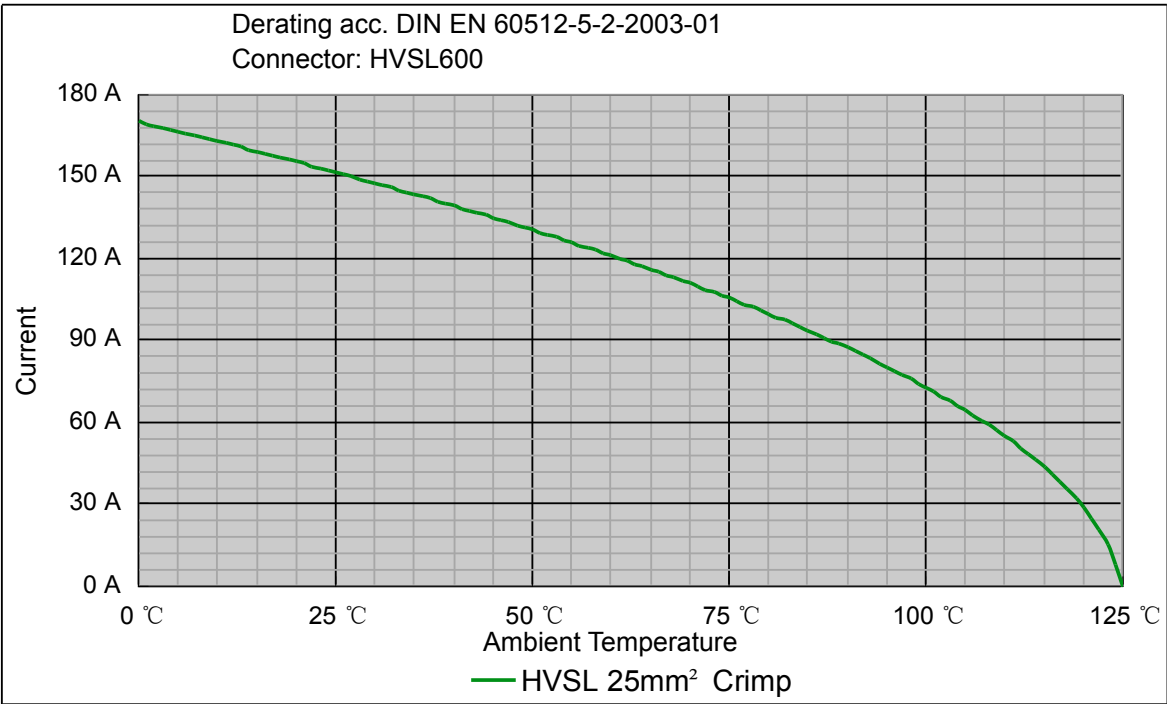


DERATING CURVE

HVSL600 | Test carried out on the complete connector



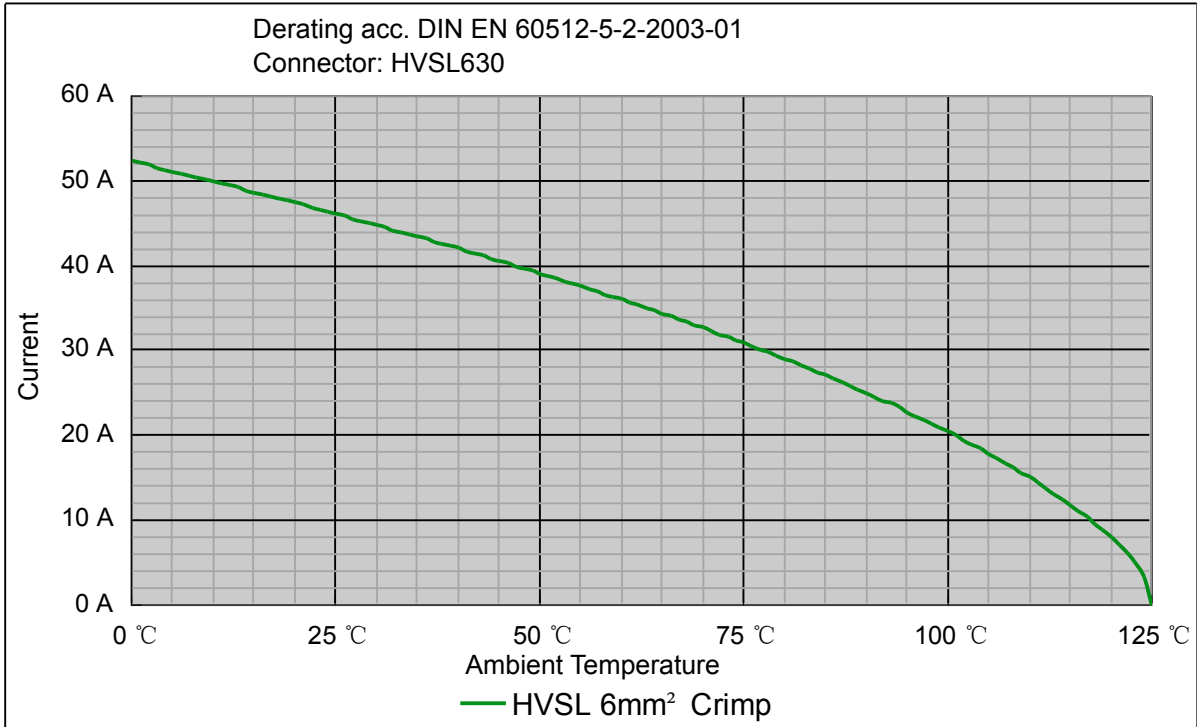
HVSL600 | Test carried out on the complete connector



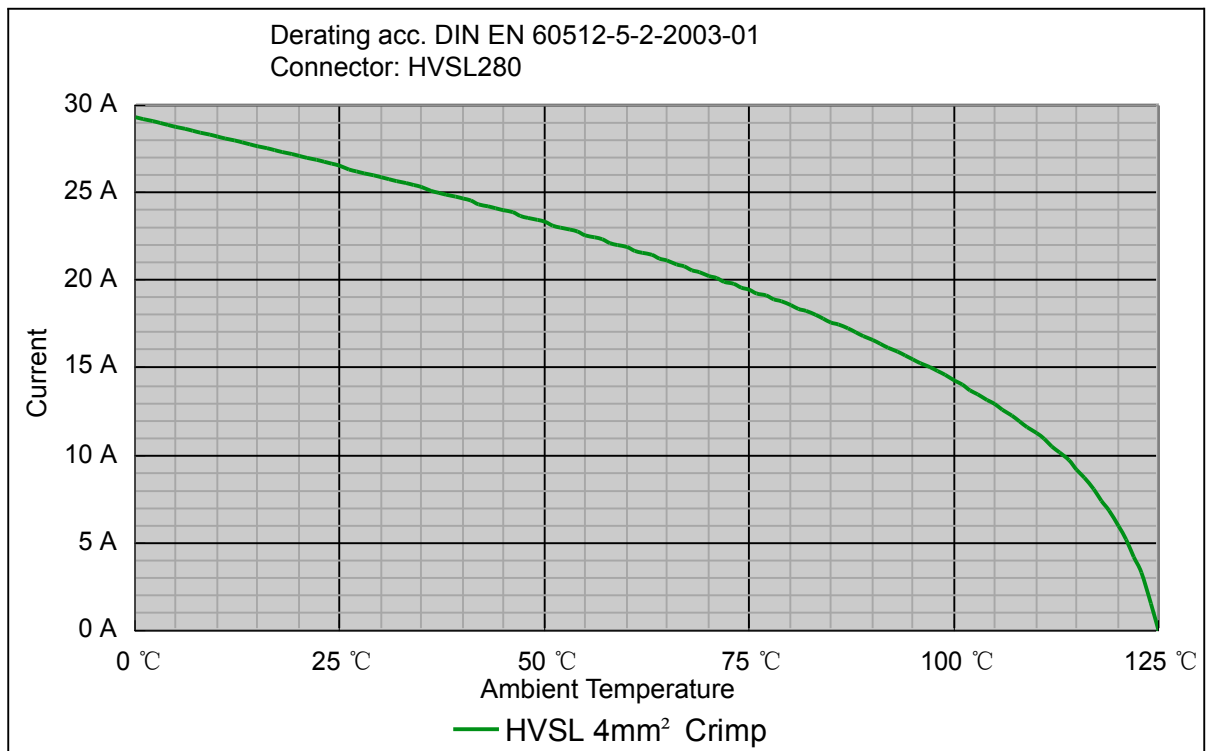
DERATING CURVE

DERATING CURVE

HVSL630 | Test carried out on the complete connector



HVSL280 | Test carried out on the complete connector



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Amphenol PCD Shenzhen reserves the right to clarify this catalog.