



AMPHENOL PCD



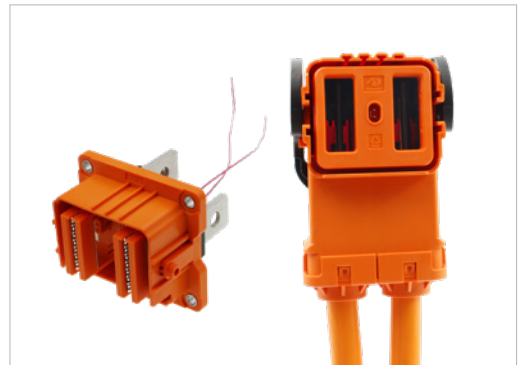
# EXCEL | MATE

## HVSL Series

Ref. No: HVSL-ALL-0325

[www.amphenolpcd.com.cn](http://www.amphenolpcd.com.cn)

HIGHPOWER @ AMPHENOL  
TRUSTED GLOBALLY



When high-performance and increased safety are required in HEV, Amphenol PCD's **EXCEL | MATE** connectors fulfill the challenge.

HVSL Series is designed for various HEV applications, including power and signal interconnect solutions. Different versions are available, from 1 position to 6 positions and a rated current from 20A to 450A.

Product	HVSL 1400	HVSL 1200	HVSLP 1200	HVSL 1000	HVSLP 1000	HVSL F18	HVSL F300	HVSL 800	HVSLP 800	HVPC 800	HVPC 18	HVSL 800	HVSL 8003	HVSL 600	HVSL 600	HVSL 630	HVSL 633	HVSL 635B	HVSL 280	HVSL 282	HVSL 362	HVSL 364	HVSL 365	HVSL 366
Position	2	2	2	1, 2, 3	2	2	2	2, 3	2	2	2	2	2	2, 3	1	2	3	5	3	2	2	3, 4	5	6
Rated Voltage	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V	690V	1000V	1000V	1000V	1000V	1000V	1000V
Rated Current	450A	350A	400A	250A	250A	270A	430A	180A	200A	180A	250A	180A	180A	120A	120A	40A	40A	40A	32A	32A	95A	80A	40A	40A
HVIL	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Shielding	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Shell	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic	Metal	Metal	Metal	Metal	Metal	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic
IP67, IP6K9K	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Touch-Proof IP2XB	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Cable size mm <sup>2</sup>	70 to 120	70 to 95	70 to 95	25 to 70	50 to 70	25 to 70	95 to 120	25 to 50	25 to 50	35 to 50	35 to 70	25 to 50	25 to 50	16 to 25 6/8AWG	25	4 to 6	2.5 to 6	2.5 to 6	2.5 to 4	2.5 to 4	6 to 16	2.5 to 16	2.5 to 6	2.5 to 6
Cable type shielded wire	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	M	I/M	M	M	I/M	I	I	I	I

**Cable type shielded wire**  
**I:** Individually / **M:** Multicore

EXCEL | MATE Metal: 2 PIN & 3 PIN CONNECTOR



EXCEL | MATE Metal

EXCEL | MATE Metal is a 2 pin and 3 pin connector with current carrying capacity from 80 to 120A and 16 to 25mm<sup>2</sup> crimping cable.

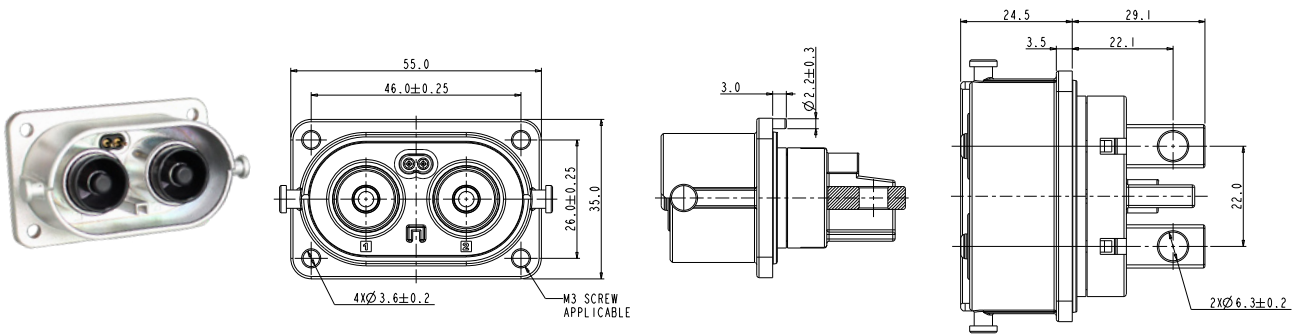
Specially designed for battery, inverters, junction boxes, power distribution boxes and others HEV devices' equipment.

KEY FEATURES

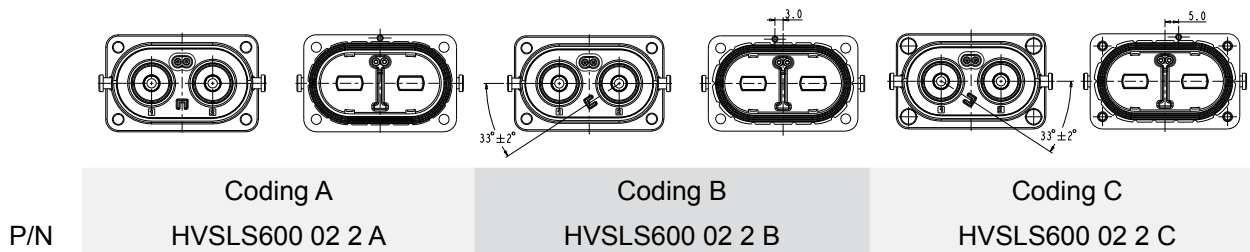
- Integrated internal HVIL
- Current rating up to 120A@ ambient temperature 70°C
- No tool required to unmate
- Sealing, IP67 (mated), IP6K9K
- Touch-proof, IP2XB
- Multiple coding positions
- CPA available

MECHANICAL	
Durability	≥ 50 mating cycles
Wire range	16 to 25 mm <sup>2</sup> 6AWG/8AWG
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	> 100MΩ
Dielectric withstand voltage	3000V AC
Shielding	360° from wire to device
ENVIRONMENTAL	
Sealing	IP67, IP6K9K (mated)
Touch-proof	IP2XB
Temperature range	-40°C to 125°C
Salt spray	96 hours
STANDARDS	
USCAR-2	
USCAR-37	
LV-215	
RoHS	
MATERIAL	
Terminals	Copper/copper alloy with silver plating
Housing	Zinc alloy

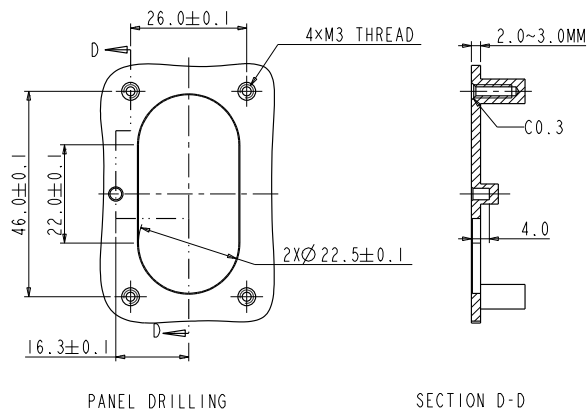
## 2 PIN RECEPTACLE



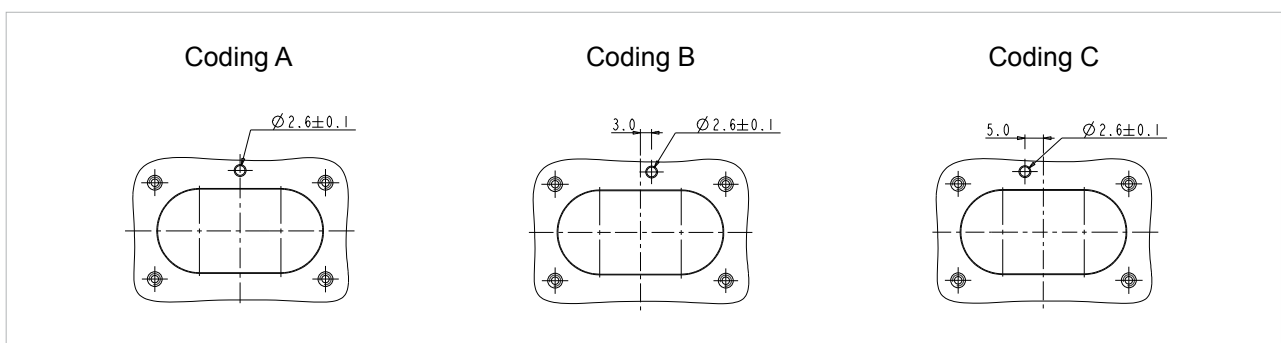
## INSERT ORIENTATIONS



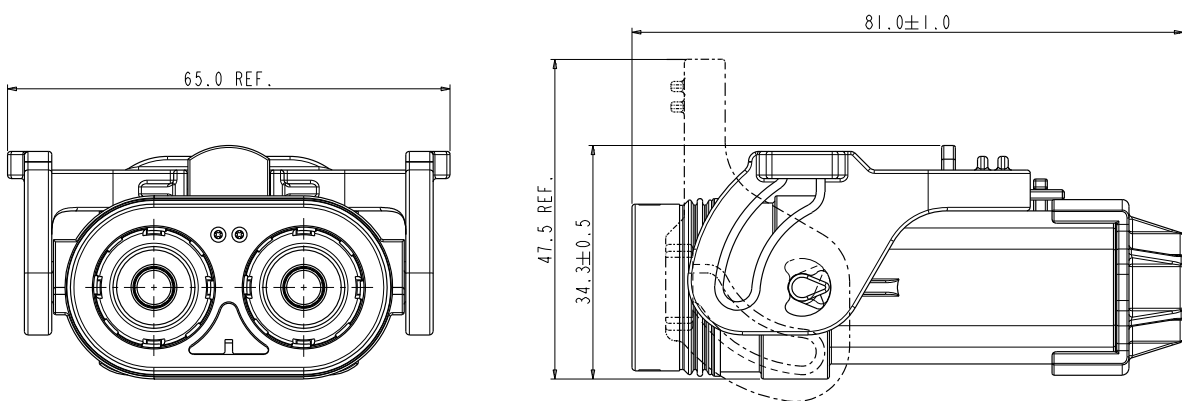
## PANEL MOUNTING DIMENSIONS



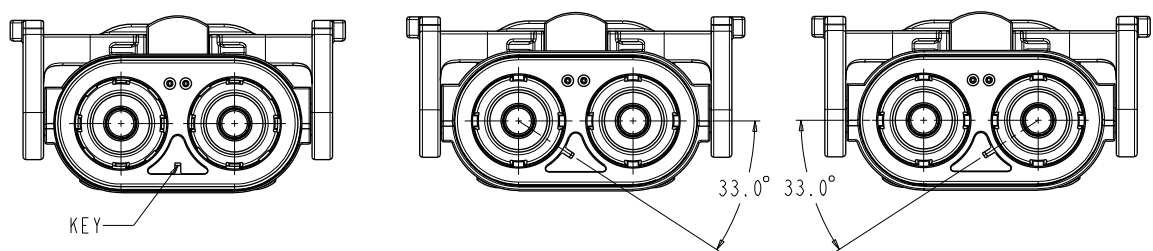
## INSERT ORIENTATIONS



2 PIN STRAIGHT PLUG



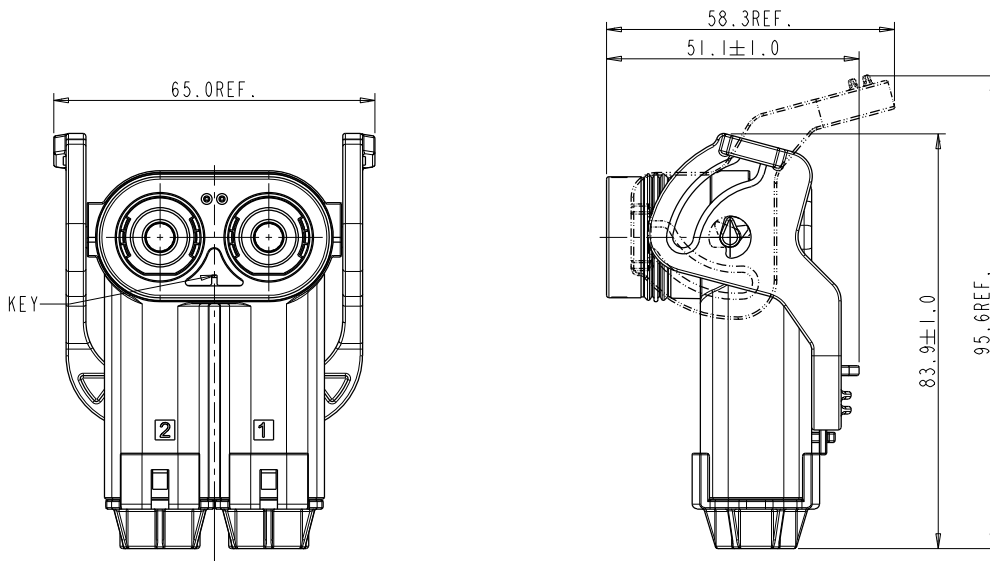
INSERT ORIENTATIONS



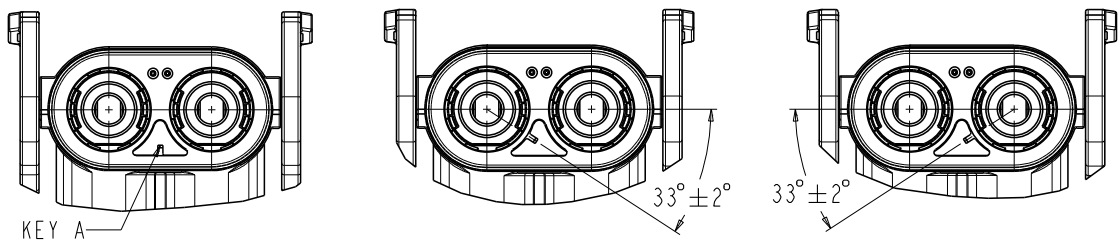
	Coding A	Coding B	Coding C
P/N	HVSLS600 06 2 A	HVSLS600 06 2 B	HVSLS600 06 2 C

# Excel|Mate Metal (HVSLS 600)

## 2 PIN RIGHT ANGLE PLUG

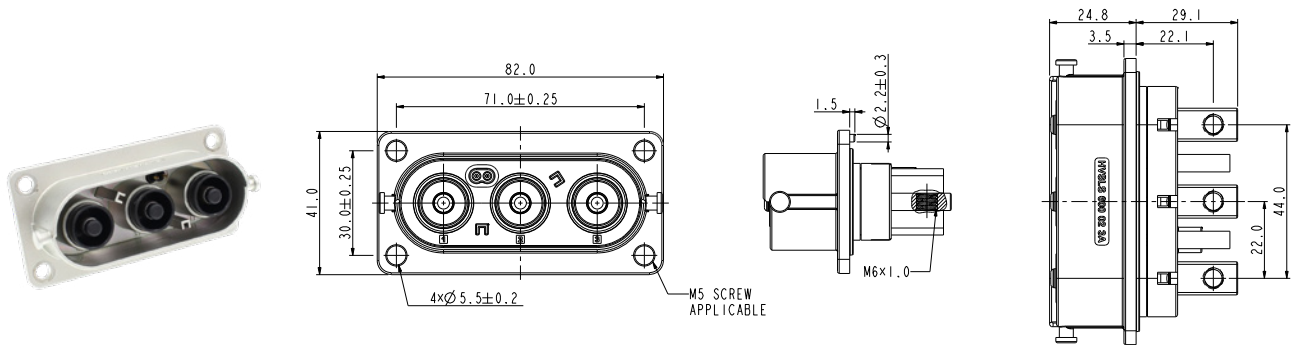


## INSERT ORIENTATIONS

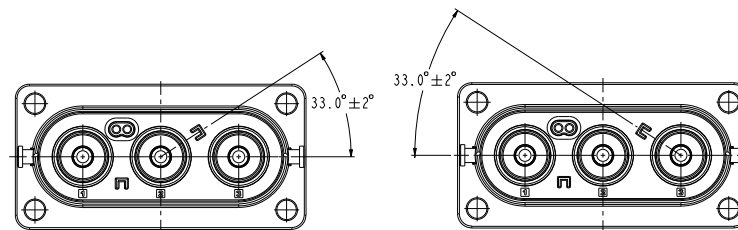


	Coding A	Coding B	Coding C
P/N	HVSLS600 08 2 A	HVSLS600 08 2 B	HVSLS600 08 2 C

## 3 PIN RECEPTACLE

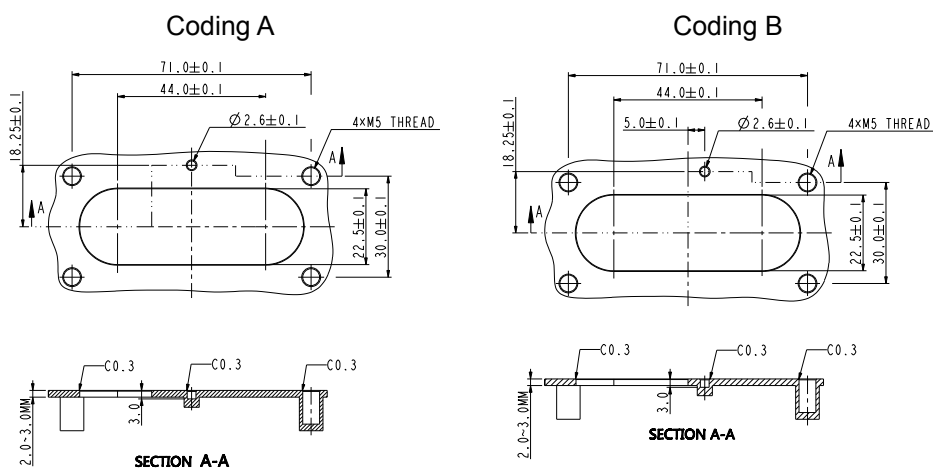


## INSERT ORIENTATIONS



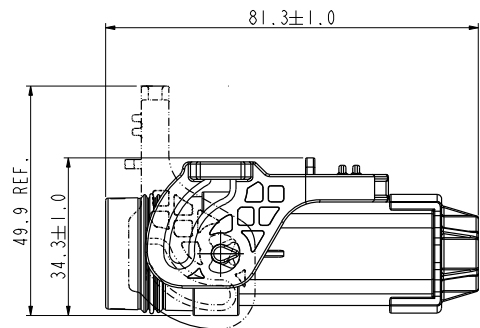
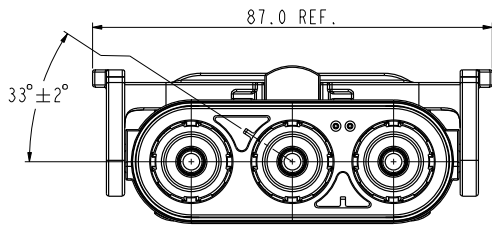
	Coding A	Coding B
P/N	HVSL600 02 3 A	HVSL600 02 3 B

## PANEL MOUNTING DIMENSIONS

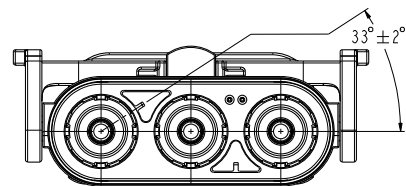
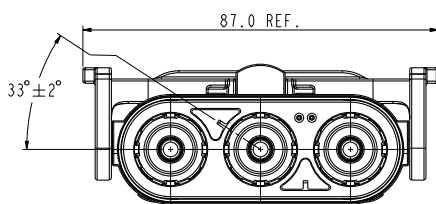


# Excel|Mate Metal (HVSL S 600)

## 3 PIN STRAIGHT PLUG

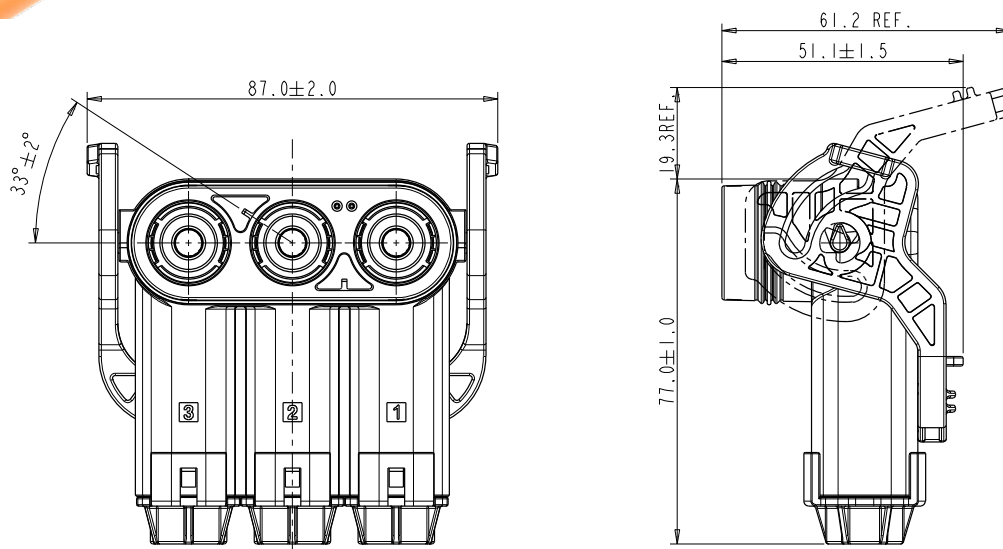


## INSERT ORIENTATIONS

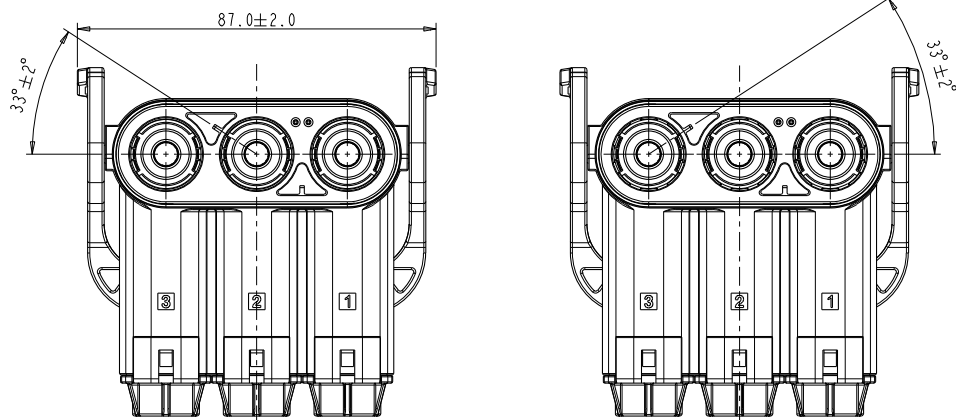


	Coding A	Coding B
P/N	HVSL S600 06 3 A	HVSL S600 06 3 B

3 PIN RIGHT ANGLE PLUG

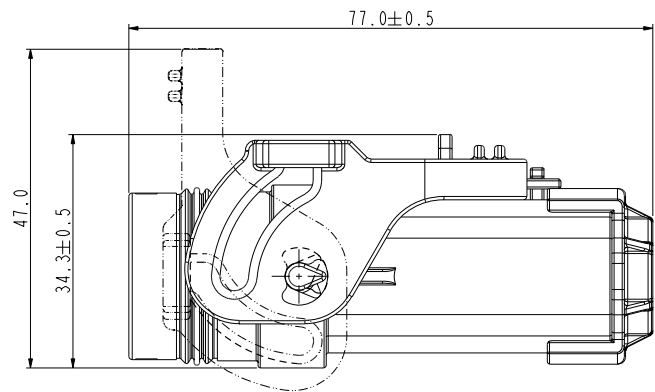
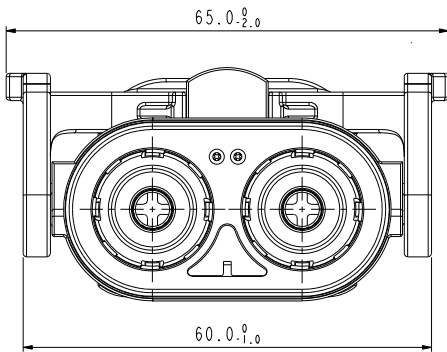


INSERT ORIENTATIONS



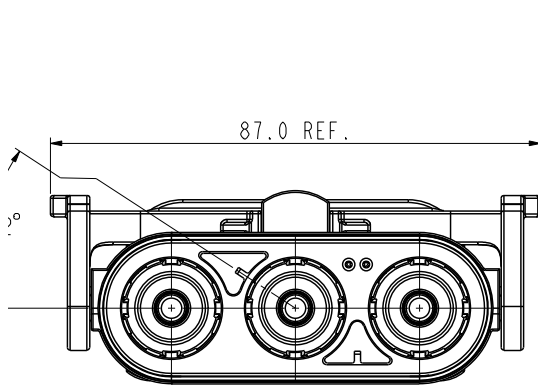
	Coding A	Coding B
P/N	HVSL S600 08 3 A	HVSL S600 08 3 B

DUMMY PLUG - 2PIN

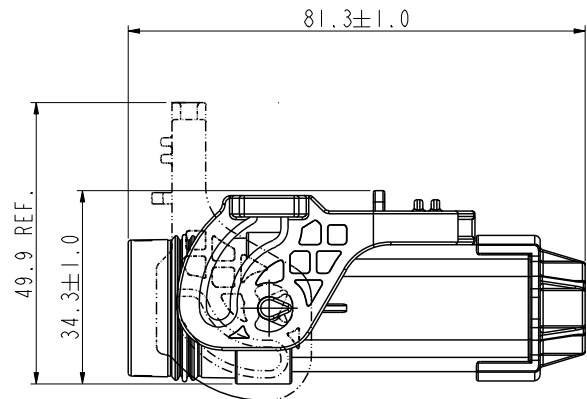


	HVSL S600	06	2	A	0	S03
<b>Product type:</b>	06: Straight plug					
<b>Position:</b>	2: 2 position					
<b>Coding / Alternate position:</b>	A: Coding A B: Coding B C: Coding C					
<b>Interlock:</b>	0: Without interlock   1: With interlock					
<b>Dummy plug:</b>	S03					

DUMMY PLUG - 3PIN

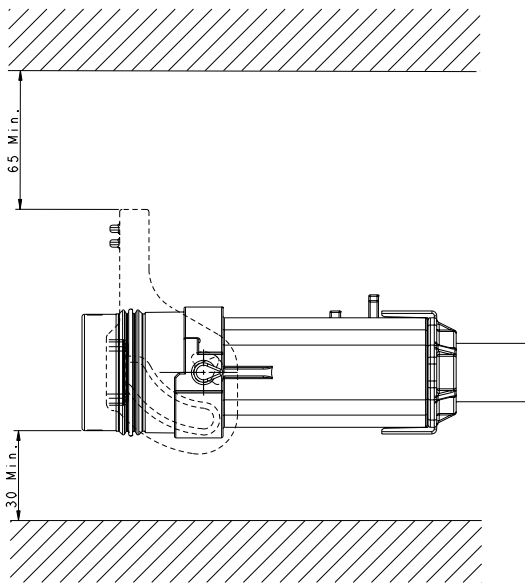


CODING A



	HVSL S600	06	3	A	0	S02
<b>Product type:</b>	06: Straight plug					
<b>Position:</b>	3: 3 position					
<b>Coding / Alternate position:</b>	A: Coding A B: Coding B					
<b>Interlock:</b>	0: Without interlock   1: With interlock					
<b>Dummy plug:</b>	S02					

INSTALLATION CLEARANCE



TOOL FOR RIGHT ANGLE PLUGS



Remark:

Customer needs to use fixture HVSLP033002 with Stanley torque wrench sleeve (purchased by the customer) for assembling the finish product HVSL S600082.

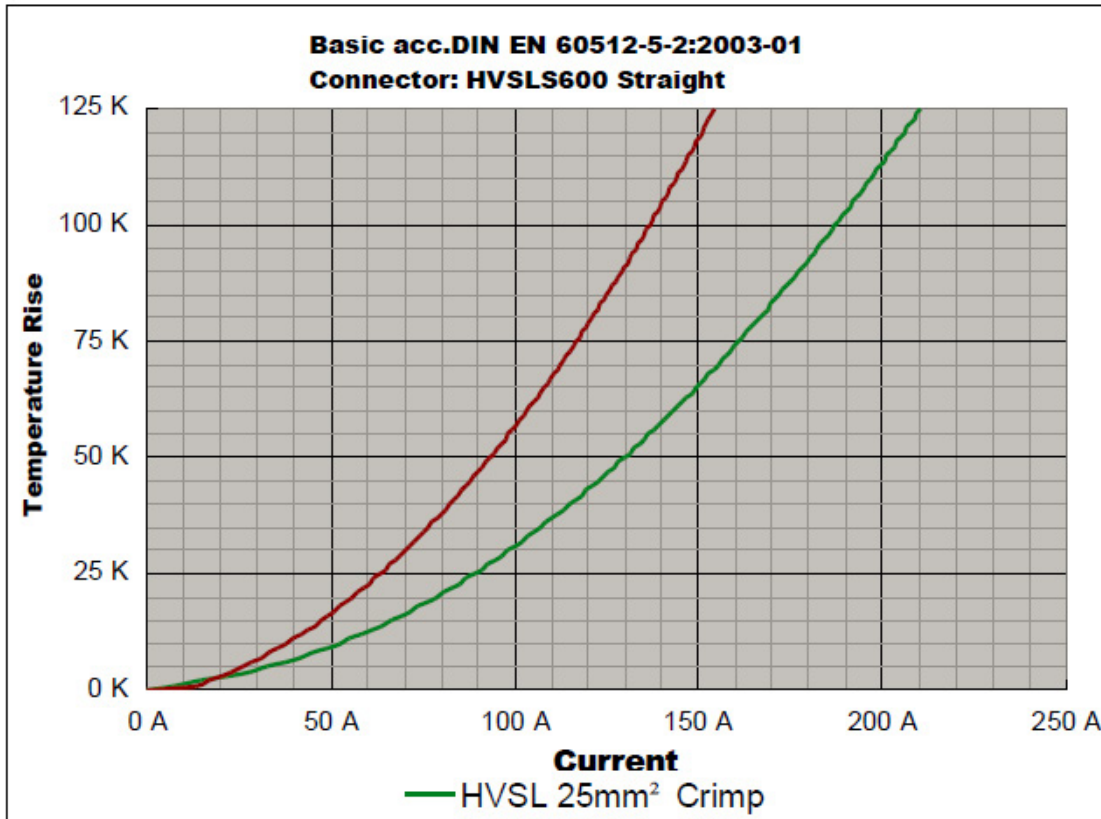
HOW TO ORDER: PLUG

	HVSL S600	06	2	A	0	16
<b>Product type:</b>	06: Straight plug   08: Right angle plug					
<b>Position:</b>	2: 2 position   3: 3 position					
<b>Coding / Alternate position:</b>	A: Coding A   B: Coding B   C: Coding C (for 2-pos. only)					
<b>Interlock:</b>	0: Without interlock   1: With interlock					
<b>Cable size:</b>	16: 16mm <sup>2</sup> cable   25: 25mm <sup>2</sup> cable					

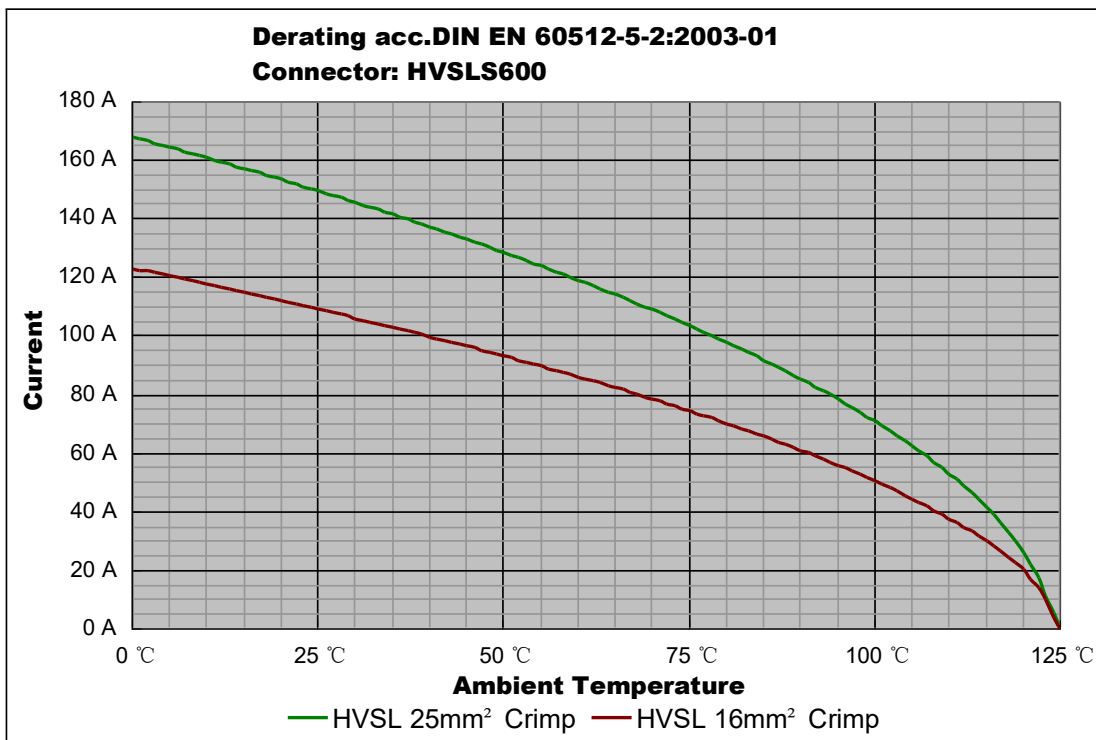
HOW TO ORDER: RECEPTACLE

	HVSL S600	02	2	A	0	H6
<b>Product type:</b>	02: Box mounted receptacle					
<b>Position:</b>	2: 2 position   3: 3 position					
<b>Coding / Alternate position:</b>	A: Coding A   B: Coding B   C: Coding C (for 2-pos. only)					
<b>Interlock:</b>	0: Without interlock   1: With interlock					
<b>Cable size:</b>	H6: OT terminal					

## HVSL 600 | Temperature Rise



## HVSL 600 | Derating Curve



Remark: tests carried out on the complete connector.

# EXCEL | MATE Metal (HVSL S 800)

## EXCEL | MATE Metal (HVSL S 800)



### EXCEL | MATE Metal

EXCEL | MATE Metal is a 2 pin connector with a current carrying capacity of 180A and 25 to 50mm<sup>2</sup> crimping cable.

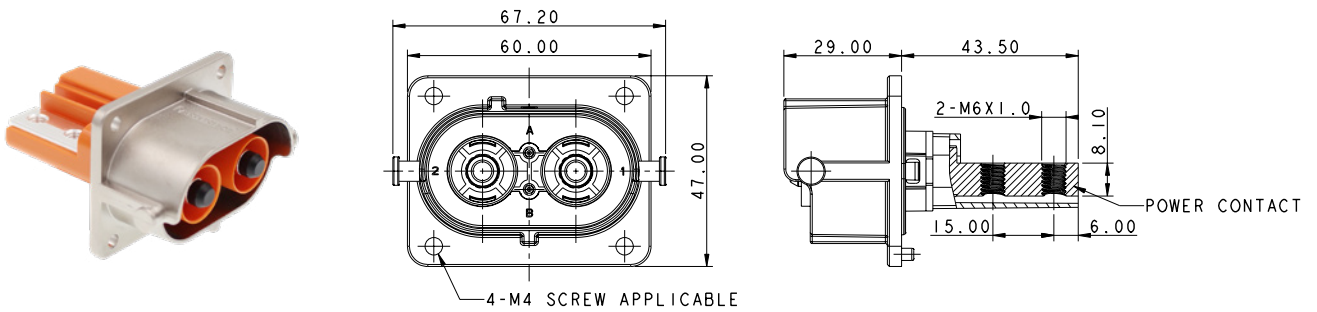
Specially designed for battery, inverters, junction boxes, power distribution boxes and others HEV devices' equipment.

### KEY FEATURES

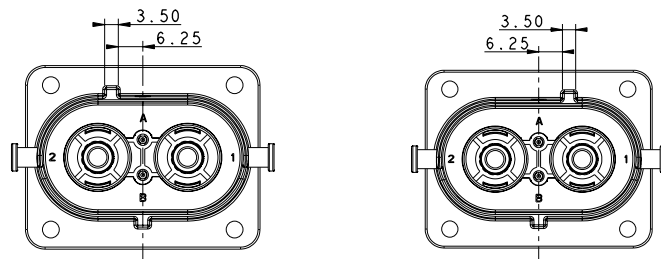
- Integrated internal HVIL
- Current rating up to 180A@ ambient temperature 70°C
- No tool required to unmate
- Sealing, IP67 (mated), IP6K9K
- Touch-proof, IP2XB
- Multiple coding positions
- CPA available

MECHANICAL	
Durability	≥ 50 mating cycles
Wire range	25 to 50 mm <sup>2</sup> shielded wire
Insertion and extraction force	< 75N
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
Shielding	360° from wire to device
ENVIRONMENTAL	
Sealing	IP67, IP6K9K (mated)
Touch-proof	IP2XB
Temperature range	-40°C to 125°C
Salt spray	96 hours
STANDARDS	
USCAR-2	
USCAR-37	
LV-215	
RoHS	
MATERIAL	
Terminals	Copper/copper alloy with silver plating
Housing	Aluminium alloy

RECEPTACLE

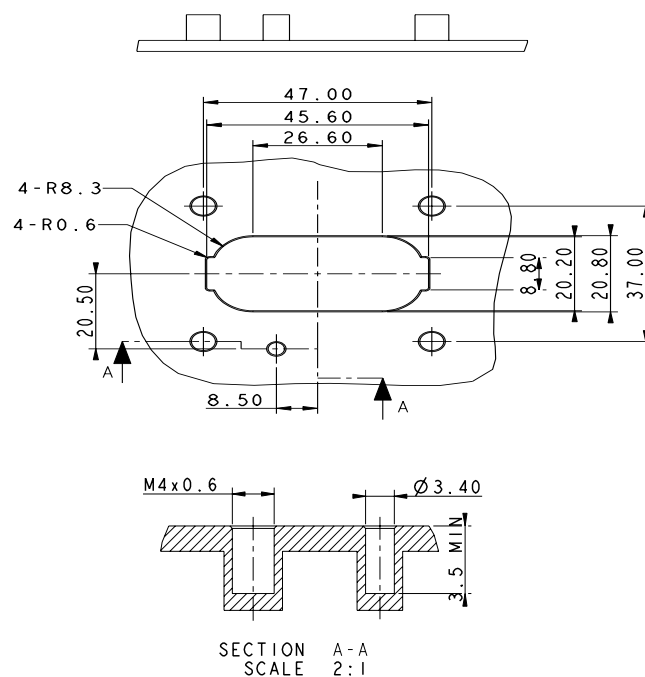


INSERT ORIENTATIONS



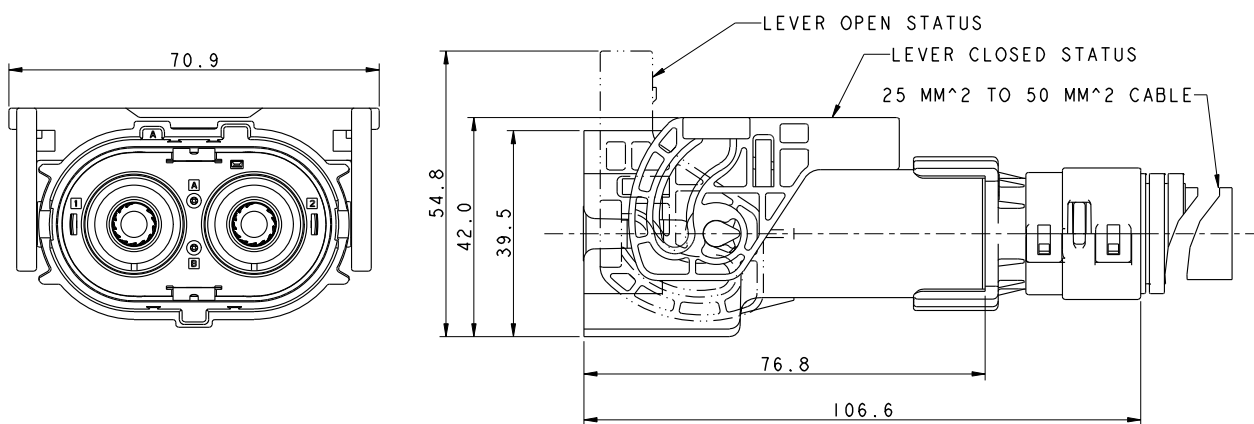
	Coding A	Coding B
P/N	HVSL800 02 2 A	HVSL800 02 2 B

PANEL MOUNTED DIMENSIONS

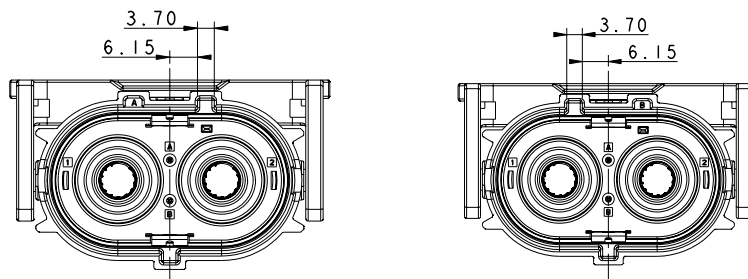


# Excel|Mate Metal (HVSL S 800)

## STRAIGHT PLUG



## INSERT ORIENTATIONS

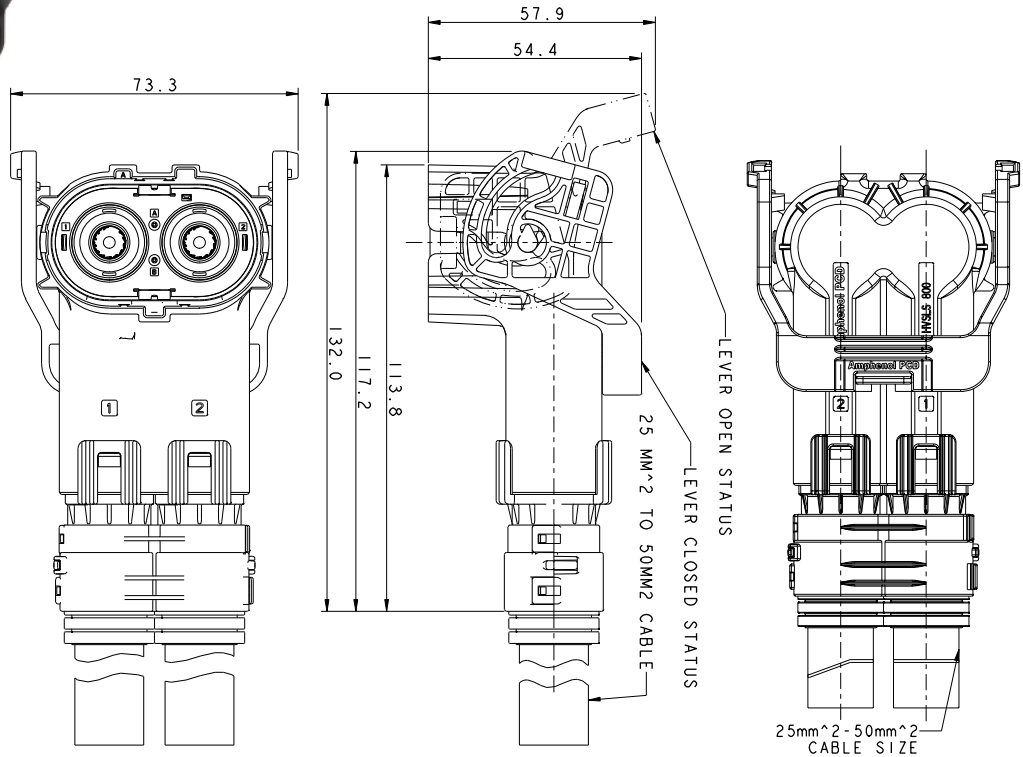


P/N

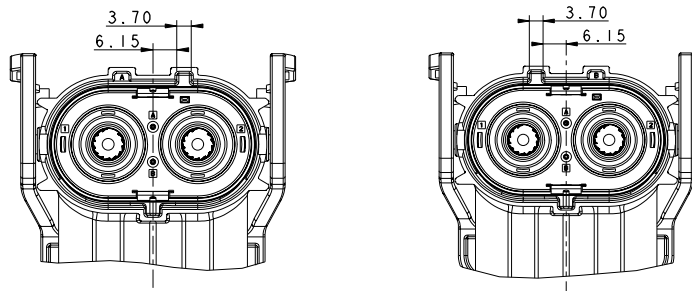
Coding A  
HVSL S800 06 2 A

Coding B  
HVSL S800 06 2 B

PLUG RIGHT ANGLE

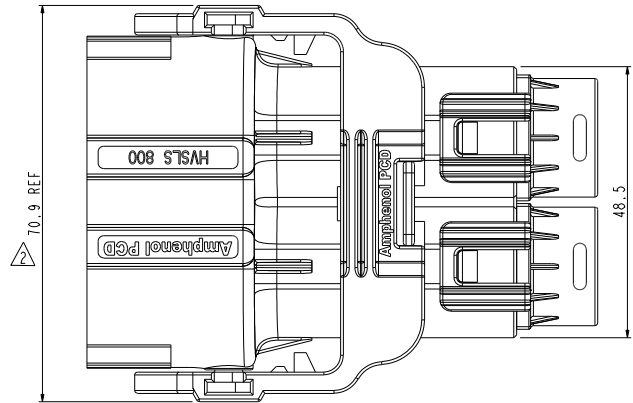
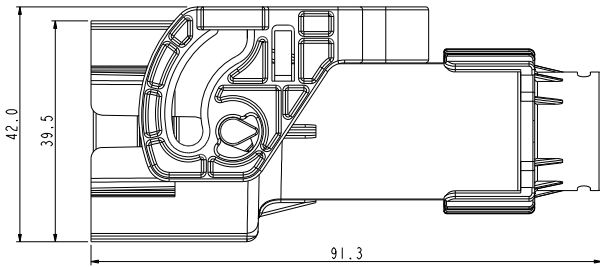


INSERT ORIENTATIONS



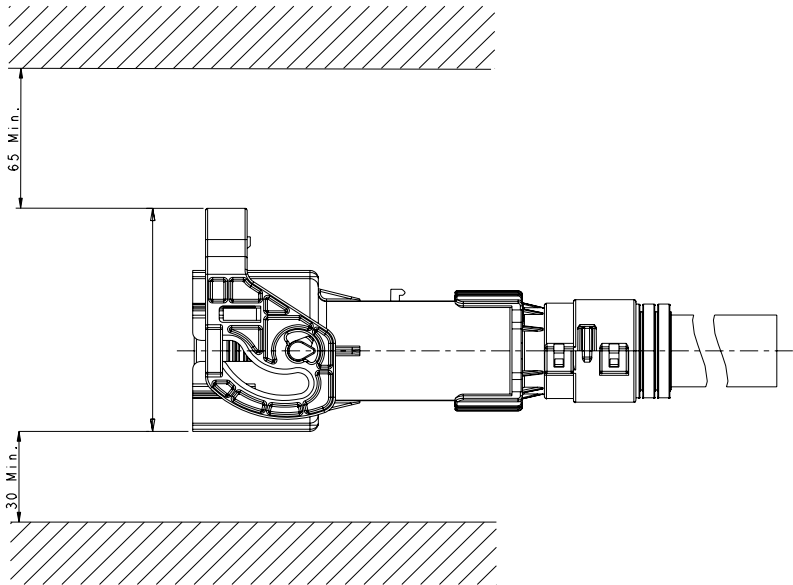
	Coding A	Coding B
P/N	HVSL800 08 2 A	HVSL800 08 2 B

DUMMY PLUG - 2PIN



	HVSL S 800	06	2	A	S1
<b>Product type:</b>	06: Straight plug				
<b>Position:</b>	2: 2 position				
<b>Coding / Alternate position:</b>	A: Coding A B: Coding B				
<b>Dummy plug:</b>	S1				

INSTALLATION CLEARANCE



HOW TO ORDER: PLUG

	HVSL S800	06	2	A	0	35
<b>Product type:</b>	06: Straight plug   08: Right angle plug					
<b>Position:</b>	2: 2 position					
<b>Coding / Alternate position:</b>	A: Coding A   B: Coding B					
<b>Interlock:</b>	0: Without interlock   1: With interlock					
<b>Cable size:</b>	25: 25mm <sup>2</sup> cable   35: 35mm <sup>2</sup> cable   50: 50mm <sup>2</sup> cable					

HOW TO ORDER: RECEPTACLE

	HVSL S800	02	2	A	0	H6
<b>Product type:</b>	02: Box mounted receptacle					
<b>Position:</b>	2: 2 position					
<b>Coding / Alternate position:</b>	A: Coding A   B: Coding B					
<b>Interlock:</b>	0: Without interlock   1: With interlock					
<b>Cable size:</b>	H6: OT terminal					

# EXCEL | MATE Metal (HVSL 8003)

## EXCEL | MATE Metal (HVSL 8003)



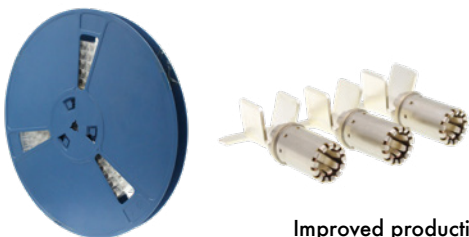
### EXCEL | MATE Metal

EXCEL | MATE Metal is a 2 pin connector with a current carrying capacity of 180A and 25 to 50mm<sup>2</sup> crimping cable.

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

### KEY FEATURES

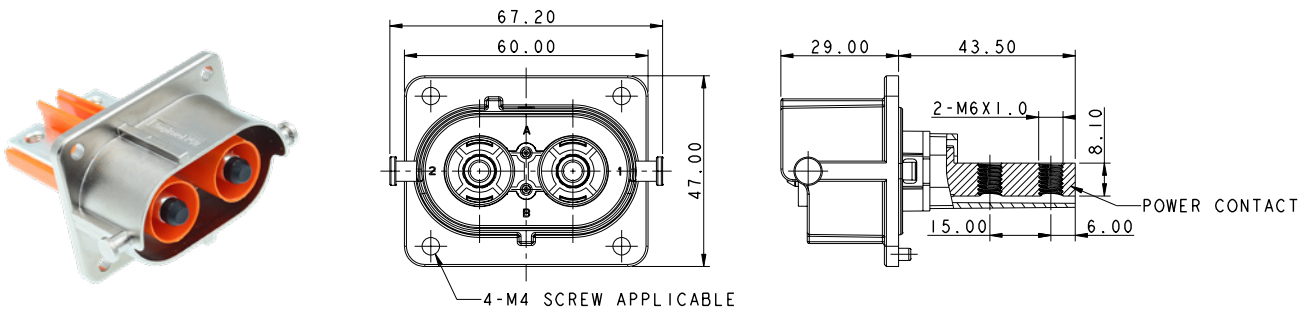
- Integrated internal HVIL
- Current rating up to 180 A@ ambient temperature 70°C
- No tool required to unmate
- Sealing, IP67 (mated), IP6K9K
- Touch-proof, IP2XB
- Multiple coding positions
- CPA available



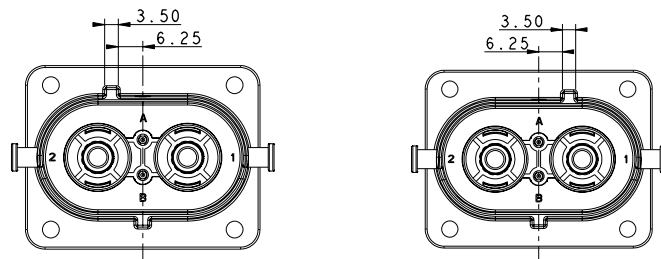
Improved production efficiency. Automated tape and reel packaging.

MECHANICAL	
Durability	≥ 50 mating cycles
Wire range	25 to 50 mm <sup>2</sup> shielded wire
Insertion and extraction force	< 75N
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
Shielding	360° from wire to device
ENVIRONMENTAL	
Sealing	IP67, IP6K9K (mated)
Touch-proof	IP2XB
Temperature range	-40°C to 125°C
Salt spray	96 hours
STANDARDS	
USCAR-2	
USCAR-37	
LV-215	
RoHS	
MATERIAL	
Terminals	Copper/copper alloy with silver plating
Housing	Aluminium alloy

RECEPTACLE

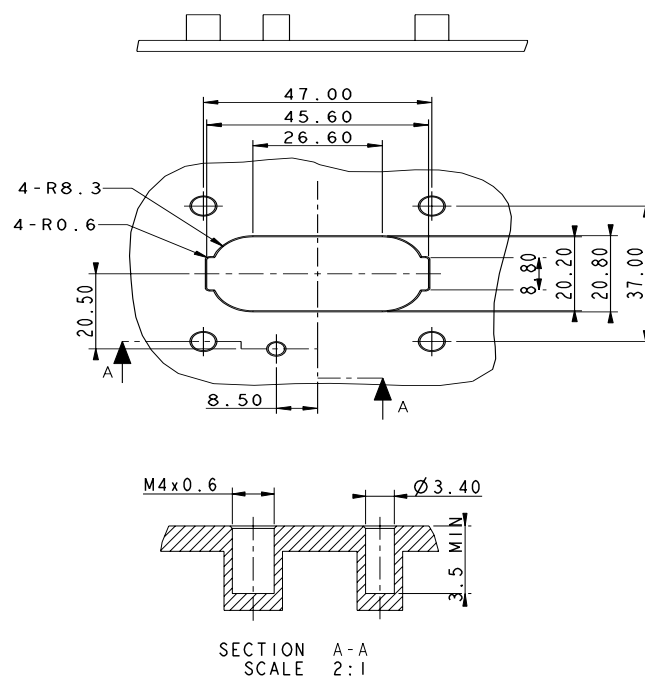


INSERT ORIENTATIONS



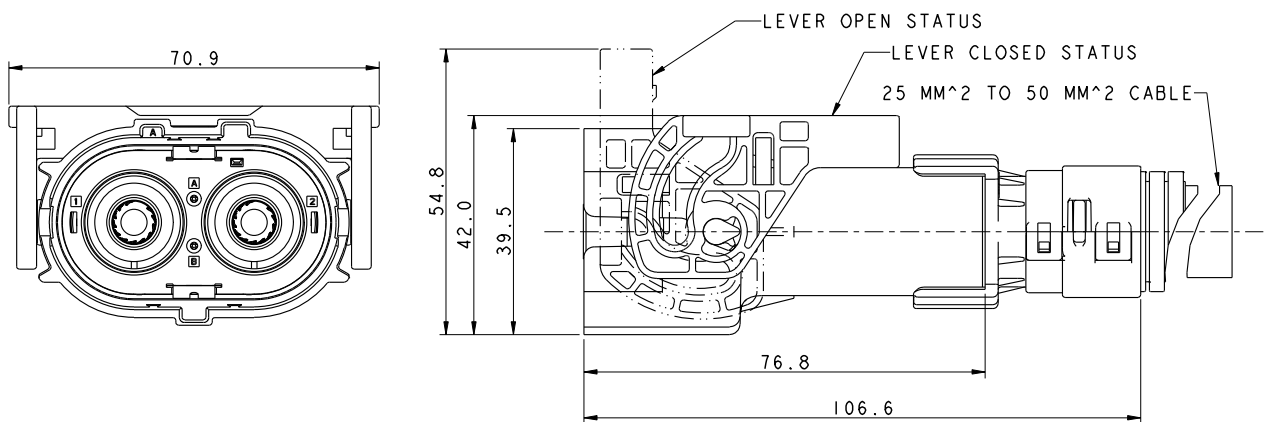
	Coding A	Coding B
P/N	HVSL8003 2 2 A	HVSL8003 2 2 B

PANEL MOUNTED DIMENSIONS

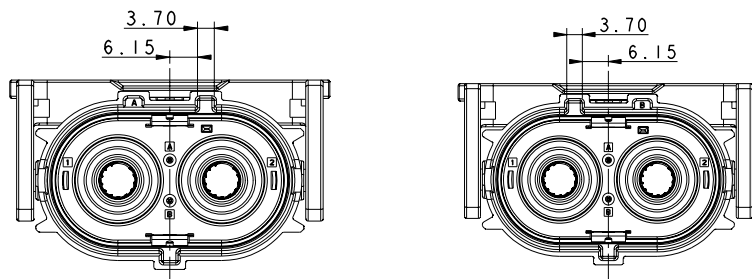


# Excel|Mate Metal (HVSL 8003)

## STRAIGHT PLUG



## INSERT ORIENTATIONS

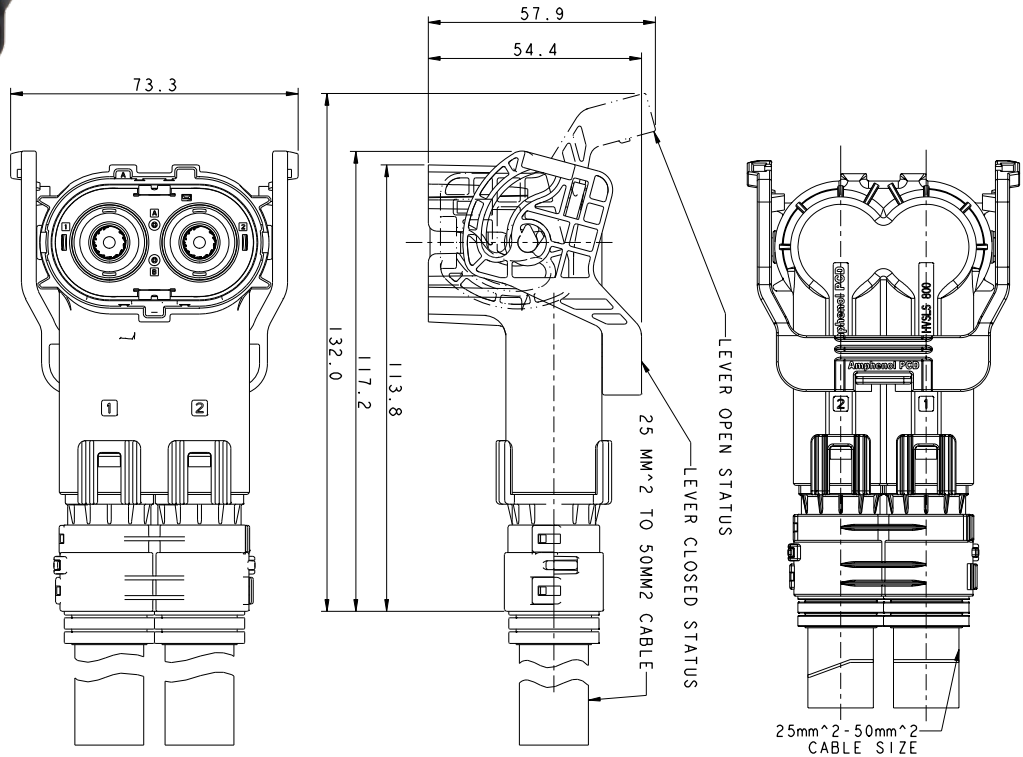


P/N

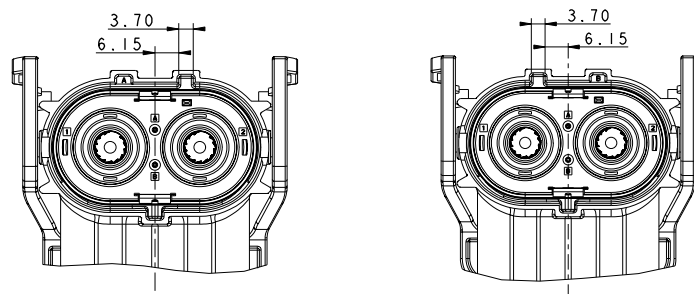
Coding A  
HVSL8003 6 2 A

Coding B  
HVSL8003 6 2 B

RIGHT ANGLE PLUG

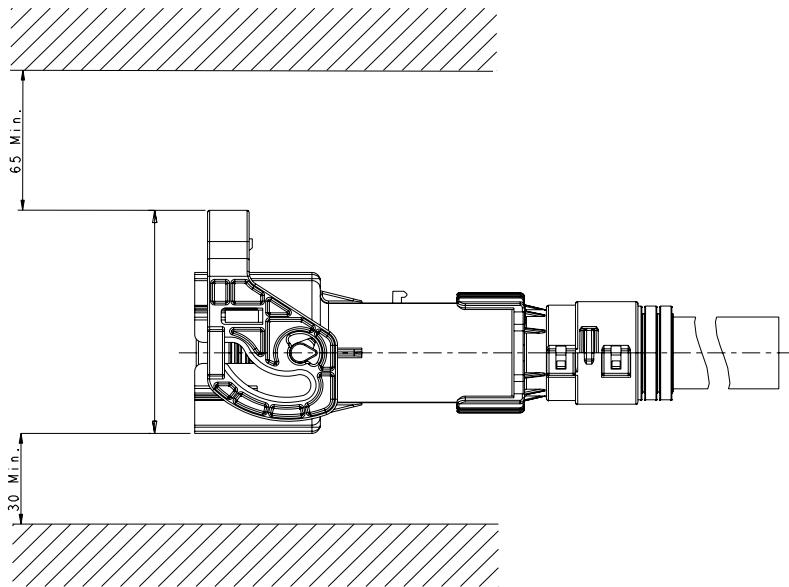


INSERT ORIENTATIONS



	Coding A	Coding B
P/N	HVSL8003 8 2 A	HVSL8003 8 2 B

INSTALLATION CLEARANCE



HOW TO ORDER: PLUG

HVSL8003	6	2	A	0	35
<b>Product type:</b>					
6: Straight plug   8: Right angle plug					
<b>Position:</b>					
2: 2 position					
<b>Coding / Alternate position:</b>					
A: Coding A   B: Coding B					
<b>Interlock:</b>					
0: Without interlock   1: With interlock					
<b>Cable size:</b>					
25: 25mm <sup>2</sup> cable   35: 35mm <sup>2</sup> cable   50: 50mm <sup>2</sup> cable					

HOW TO ORDER: RECEPTACLE

HVSL8003	2	2	A	0	H6
<b>Product type:</b>					
2: Box mounted receptacle					
<b>Position:</b>					
2: 2 position					
<b>Coding / Alternate position:</b>					
A: Coding A   B: Coding B					
<b>Interlock:</b>					
0: Without interlock   1: With interlock					
<b>Cable size:</b>					
H6: OT terminal					

Amphenol PCD Shenzhen

Building C  
Dagang Industrial Zone  
Guangming District  
Shenzhen 518132  
China

Tel.: +86 755-8173-8000  
Email: [inquiry@amphenolpcd.com.cn](mailto:inquiry@amphenolpcd.com.cn)

[www.amphenolpcd.com.cn](http://www.amphenolpcd.com.cn)



Notes:

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