

Excel|Mate Mono

High Voltage with Inter-Lock



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ExcelMate Mono (HVBI)

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HVS

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ExcelMate Mono (HVBI)



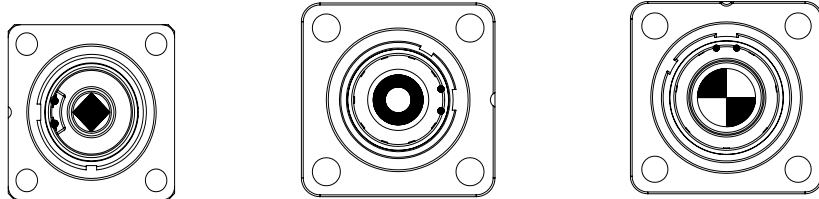
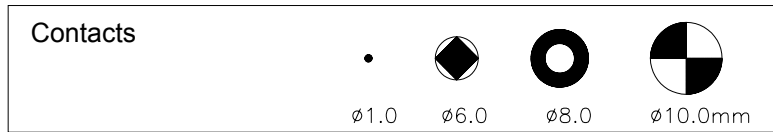
KEY FEATURES

- High voltage with interlock
- Easy to install in a limited space
- Push-pull locking system with audible "click"
- EMI shielding
- No tool required for unmating
- Touch-proof IP2X
- Sealing, IP67 (mated), IP6K9K
- RoHS compliant
- Multiple coding positions

MECHANICAL	
Durability	> 200 mating cycles
Wire range	16 to 70mm ²
Connection type	Crimping
ELECTRICAL	
Rated voltage	1000V DC
Rated current	250A Max @ Ambient temperature 70°C
Insulator resistance	> 2000MΩ
Dielectric withstand voltage	3000V AC
ENVIRONMENTAL	
Sealing	IP67 (mated)
Operating temperature	-40°C to 125°C
Inflammability	UL94V0
Salt spray	48h, 96h
MATERIAL	
Shell	Zinc alloy, zinc plating and anodic oxidation
Contacts	Copper alloy, silver plating
Insulator	Flame-retardant thermoplastic composition
Sealing	Rubber

INSERT ARRANGEMENT

From front face of receptacle

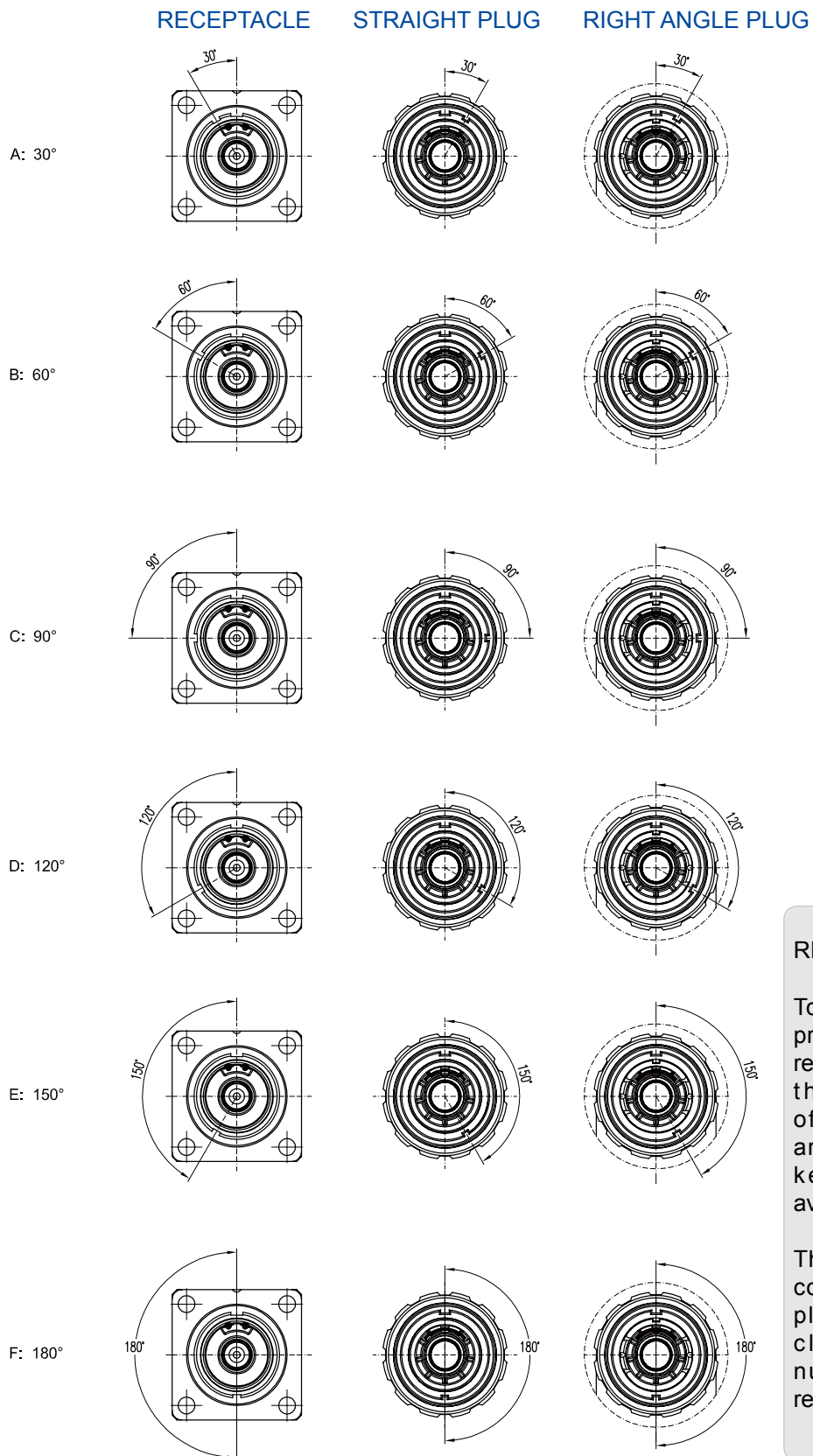


Insert arrangement	HVBI R6	HVBI R8	HVBI R10
Rated voltage	1000V DC	1000V DC	1000V DC
Rated current	120A +2 x 7.5A	180A +2 x 7.5A	250A +2 x 7.5A
Contact number	Power: 1 / Signal: 2	Power: 1 / Signal: 2	Power: 1 / Signal: 2
Withstanding voltage	3000V AC	3000V AC	3000V AC

HOW TO ORDER: RECEPTACLE

	HVBI	0	02R6	A	M	H	BBK
Shell type:							
0: Receptacle							
Insert size:							
02R6: 6mm Male contact (Rated current 120A)							
03R8: 8mm Male contact (Rated current 180A)							
05R10: 10mm Male contact (Rated current 250A)							
HVIL:							
A: With HVIL							
B: Without HVIL							
Insert type:							
M: Male contact							
Termination:							
H: Copper bar							
T: Screw							
Alternate keying positions & Color of locking nut:							
ARD: 30°, Red							
BBK: 60°, Black							
CYL: 90°, Yellow							
DGR: 120°, Green							
EBL: 150°, Blue							
FPU: 180°, Purple							

ALTERNATE KEYING POSITIONS

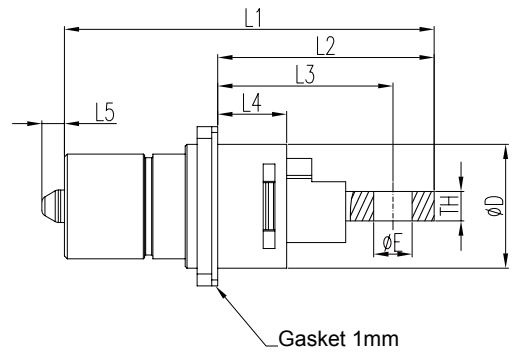
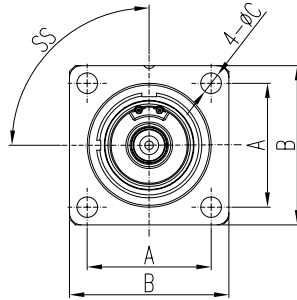


REMARK

To avoid cross-plugging problems in applications requiring the use of more than one connector of the same size and arrangement, alternate keying positions are available.

The shell key is rotated counter-clockwise. The plug would be rotated clockwise the same number of degrees in respect to the shell key.

RECEPTACLE WITH COPPER BAR

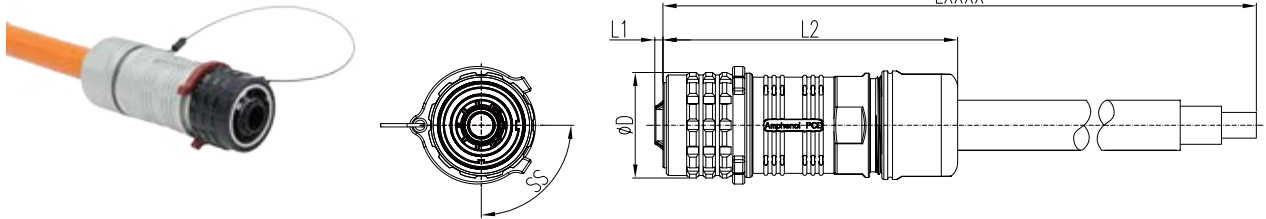


Part number	A	B	C	D	E	L1	L2	L3	L4	L5	TH
HVBI-0-02R6-XMHX-XX	21.0	27.0	3.5	21.0	6.5	62.7	37.7	30.7	12.7	3.8	5.0
HVBI-0-03R8-XMHX-XX	23.0	31.0	4.5	23.0	8.5	76.7	43.7	35.7	15.9	/	5.0
HVBI-0-05R10-XMHX-XX	24.6	33.0	4.5	26.0	10.5	85.9	52.6	40.6	18.4	0.8	6.0

HOW TO ORDER: PLUG

	HVBI	9	02R6	A	F	C	ARD	FG	25	LXXXX
Shell type: 7: Straight plug 9: Right angle plug										
Insert size: 02R6: 6mm Radsok (Rated current 120A) 03R8: 8mm Radsok (Rated current 180A) 05R10: 10mm Radsok (Rated current 250A)										
HVIL: A: With HVIL B: Without HVIL										
Insert type: F: Female contact										
Contact type: C: Crimp										
Alternate keying positions: ARD: 30°, Red BBK: 60°, Black CYL: 90°, Yellow DGR: 120°, Green EBL: 150°, Blue FPU: 180°, Purple										
FG: Shielded PC: Unshielded										
Cable section: 16: 16mm ² cable 25: 25mm ² cable 35: 35mm ² cable 50: 50mm ² cable 70: 70mm ² cable										
Cable length: LXXXX: Cable length (Unit in mm)										

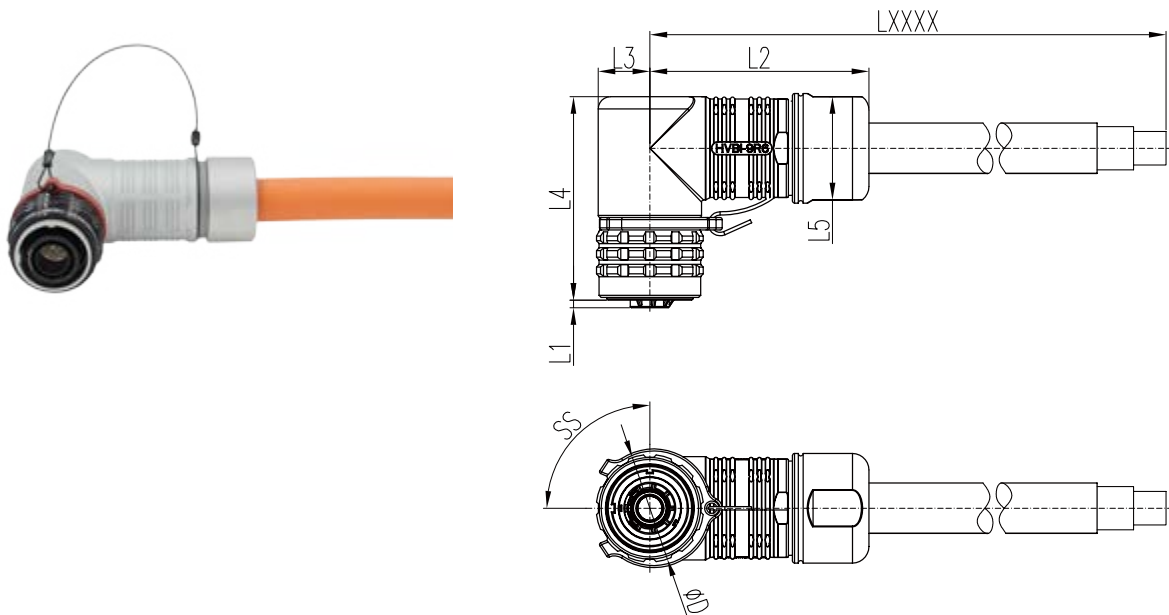
STRAIGHT PLUG



Part number	D	L1	L2	LXXXX	Cable section(mm ²)
HVBI-7-02R6-XFC-X-XX-FG / PC-XX....	26.0	2.0	70	Cable length (mm), custom orders are available	16mm ² to 25mm ²
HVBI-7-03R8-XFC-X-XX-FG / PC-XX....	27.5	2.0	82		35mm ² to 50mm ²
HVBI-7-05R10-XFC-X-XX-FG / PC-XX....	32.5	1.5	92		50mm ² to 70mm ²

Notes: FG: Shielded type PC: Unshielded type

RIGHT ANGLE PLUG



Part number	D	L1	L2	L3	L4	L5	LXXXX	Cable section (mm ²)
HVBI-9-02R6-XFC-X-XX-FG / PC-XX....	26.0	1.8	53.0	12.5	49.3	25.0	Cable length (mm), custom orders are available	16mm ² to 25mm ²
HVBI-9-03R8-XFC-X-XX-FG / PC-XX....	27.5	2.0	62.0	13.9	58.5	27.3		35mm ² to 50mm ²
HVBI-9-05R10-XFC-X-XX-FG / PC-XX....	32.5	1.5	69.5	16.0	64.0	31.5		50mm ² to 70mm ²

Notes: FG: Shielded type PC: Unshielded type

HVG SERIES



KEY FEATURES

- Easy to install in a limited space
- Push-pull locking system with audible "click"
- EMI shielding
- No tool required to unmate
- Sealing, IP67 (mated)
- Multiple coding positions
- RoHS compliant

APPLICATIONS	
xEV air-conditioner	
DCDC	
PTC	
Power distribution boxes	
MECHANICAL	
Durability	> 200 mating cycles
Connection type	Crimping
ELECTRICAL	
Rated voltage	690V to 800V DC
Rated current	50A Max @ Ambient temperature 70°C
Insulator resistance	> 2000MΩ
Dielectric withstand voltage	3000V AC
Shielding	Yes
ENVIRONMENTAL	
Sealing	IP67 (mated)
Temperature range	-40°C to 125°C, short term to 150°C
Inflammability	UL94V0
Salt spray	48h, 96h
MATERIAL	
Shell	Aluminum alloy with zinc, nickel plating and anodic oxidation
Contacts	Copper alloy, silver plating
Insulator	Flame-retardant thermoplastic composition
Sealing	Rubber

INSERT ARRANGEMENT

From front face of receptacle

Contacts

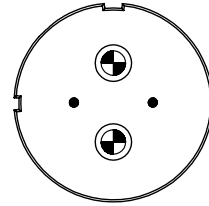
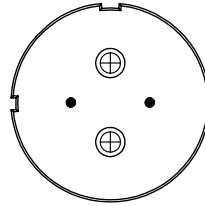
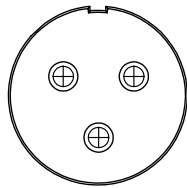


∅1.0

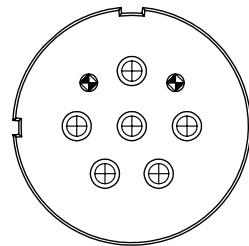
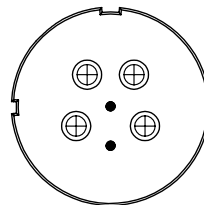
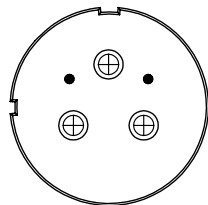
∅1.6

∅3.0

∅3.6mm



Insert arrangement	HVS203	HVG402	HVG492
Rated voltage	400V	690V	690V
Rated current	3 x 32A	2 x 40A + 2 x 7.5A	2 x 50A + 2 x 7.5A
Contact number	Power: 3	Power: 2 / Signal: 2	Power: 2 / Signal: 2
Withstanding voltage	3000V	3000V	3000V



Insert arrangement	HVG403	HVG404	HVG406
Rated voltage	690V	800V	800V
Rated current	3 x 40A + 2 x 7.5A	4 x 40A + 2 x 7.5A	6 x 40A + 2 x 7.5A
Contact number	Power: 3 / Signal: 2	Power: 4 / Signal: 2	Power: 6 / Signal: 2
Withstanding voltage	3000V	3000V	3000V

HOW TO ORDER

RECEPTACLE

	HVG	1S	402	M	C	XRD	2
Product series: HVG series HVS series							
Product type: 1S: Flange receptacle							
Insert arrangement: (HVG Series not include contact, oder seperately, P/N please refer to page 18): 203: 3 X 32A 402: 2 X (23A to 40A) + 2 X 7.5A 403: 3 X (23A to 40A) + 2 X 7.5A 404: 4 X (23A to 40A) + 2 X 7.5A 406: 6 X (23A to 40A) + 2 X 7.5A 492: 2 X (40A to 50A) + 2 X 7.5A							
Contact type: M: Male contact F: Female contact							
C: Crimp version							
Alternate keying positions & Shell color: NBK: Without, Black XRD: 270°, Red YGR: 315°, Green ZBL: 90°, Blue WYL: 45°, Yellow							
Cable section: 2: 2.5mm ² 4: 4mm ² 6: 6mm ²							

HOW TO ORDER

PLUG

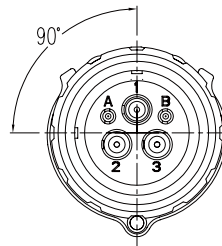
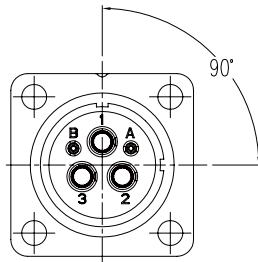
	HVG	1P	402	M	C	XRD	D	2	A	2
Product series: HVG series HVS series										
Product type: 1P: Plug										
Insert arrangement (HVG series not include contact, order separately, P/N please refer to page 18): 203: 3 X 32A 402: 2 X (23A to 40A) + 2 X 7.5A 403: 3 X (23A to 40A) + 2 X 7.5A 404: 4 X (23A to 40A) + 2 X 7.5A 406: 6 X (23A to 40A) + 2 X 7.5A 492: 2 X (40A to 50A) + 2 X 7.5A										
Contact type: M: Male contact F: Female contact										
Contact type: C: Crimp version										
Alternate keying positions & Locking nut color: NBK: Without, Black XRD: 270°, Red YGR: 315°, Green ZBL: 90°, Blue WYL: 45°, Yellow										
Gland type: /: Straight metal gland D: Straight plastic gland										
Cable quantity: 2 / 3 / 4 / 6										
Cable type: A: Core shielded cable B: Core unshielded cable D: Single unshielded wire										
Cable section: 2: 2.5mm ² 4: 4mm ² 6: 6mm ²										

ALTERNATE KEYING POSITIONS

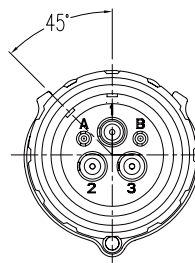
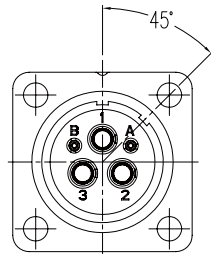
RECEPTACLE

STRAIGHT PLUG

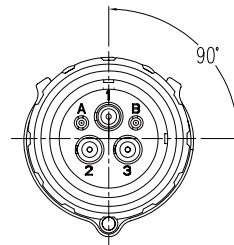
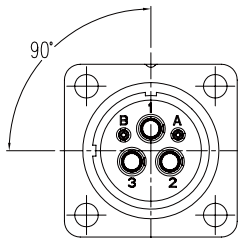
X: 270°



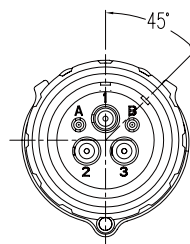
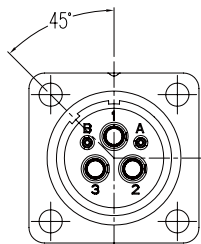
Y: 315°



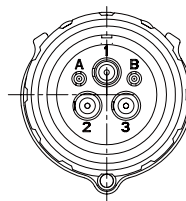
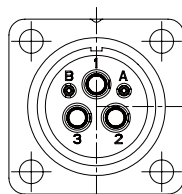
Z: 90°



W: 45°



N: NORMAL

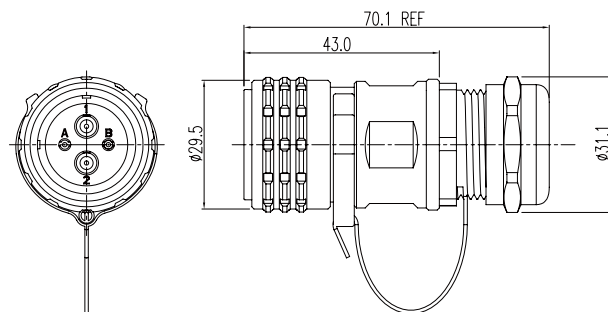
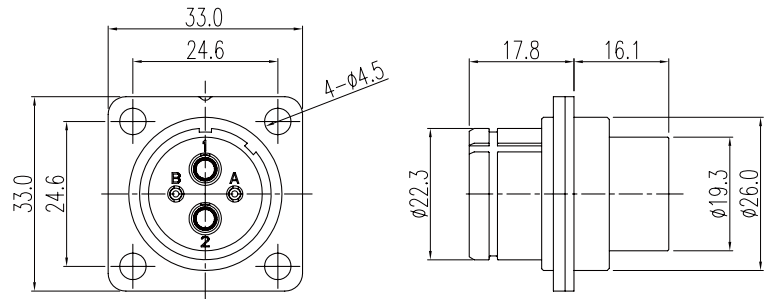


REMARK

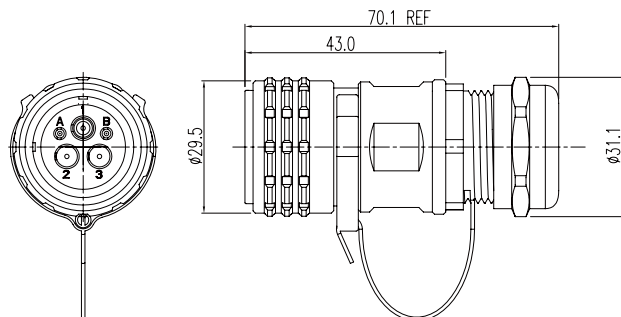
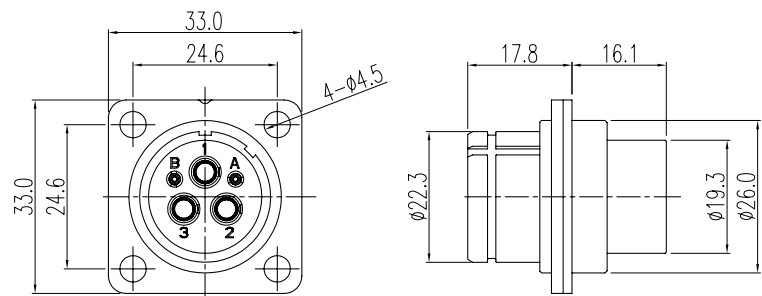
To avoid cross-plugging problems in applications requiring the use of more than one connector of the same size and arrangement, alternate keying positions are available.

The shell key is rotated counter-clockwise. The plug would be rotated clockwise the same number of degrees in respect to the shell key.

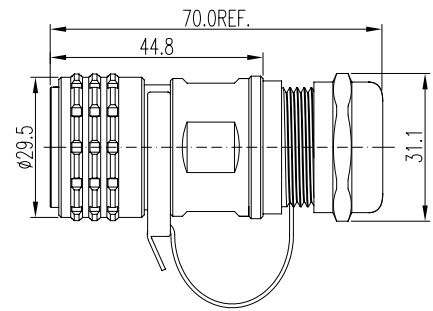
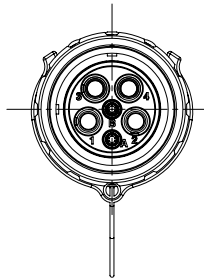
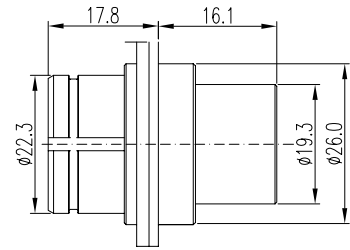
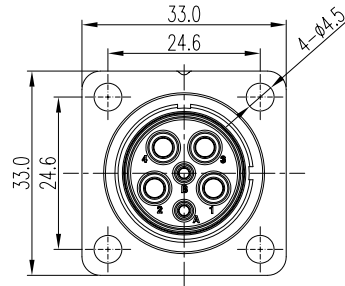
RECEPTACLE AND PLUG: 402



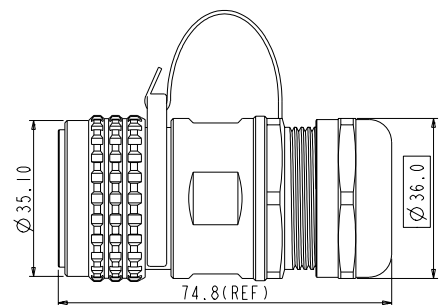
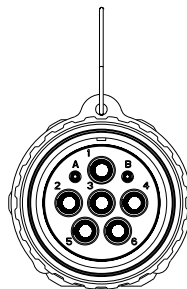
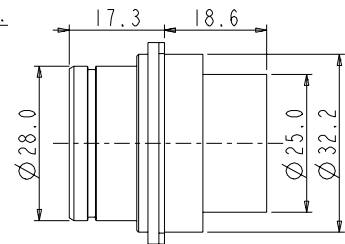
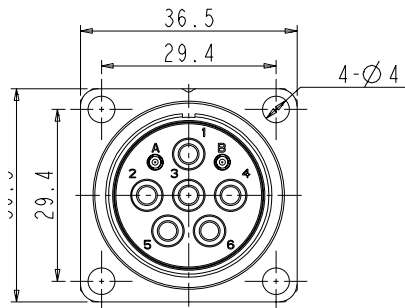
RECEPTACLE AND PLUG: 403



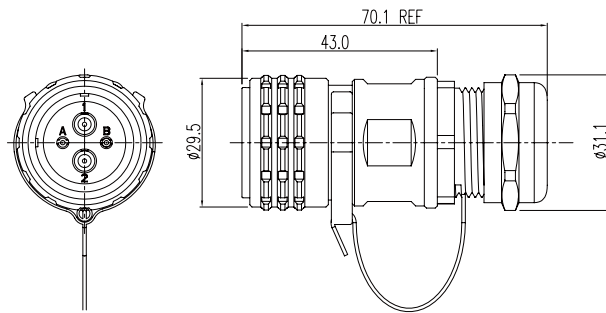
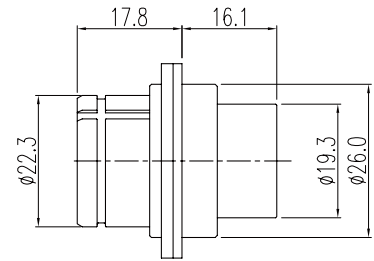
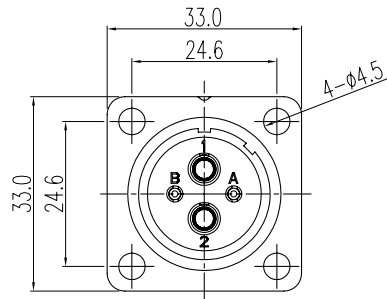
RECEPTACLE AND PLUG: 404



RECEPTACLE AND PLUG: 406



RECEPTACLE AND PLUG: 492



HVS SERIES



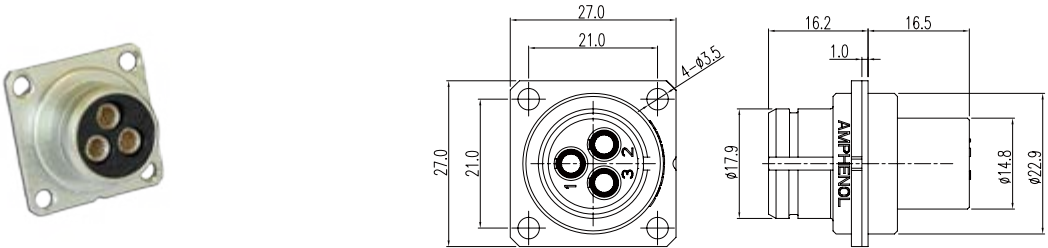
KEY FEATURES

- Easy to install in a limited space
- Push-pull locking system with audible "click"
- EMI shielding
- No tool required for unmating
- Sealing, IP67 (mated)
- Multiple coding positions
- RoHS compliant

APPLICATIONS	
xEV air-conditioner	
DCDC	
PTC	
Power distribution boxes	
MECHANICAL	
Durability	> 200 mating cycles
Connection type	Crimping
ELECTRICAL	
Rated voltage	230V AC / 400V DC
Rated current	32A Max @ Ambient temperature 70°C
Insulator resistance	> 2000MΩ
Dielectric withstand voltage	2500V AC
Shielding	Yes
ENVIRONMENTAL	
Sealing	IP67 (mated)
Temperature range	-40°C to 125°C, short term to 150°C
Inflammability	UL94V0
Salt spray	48h, 96h
MATERIAL	
Shell	Aluminum alloy with zinc, nickel plating and anodic oxidation
Contacts	Copper alloy, silver plating
Insulator	Flame-retardant thermoplastic composition
Sealing	Rubber

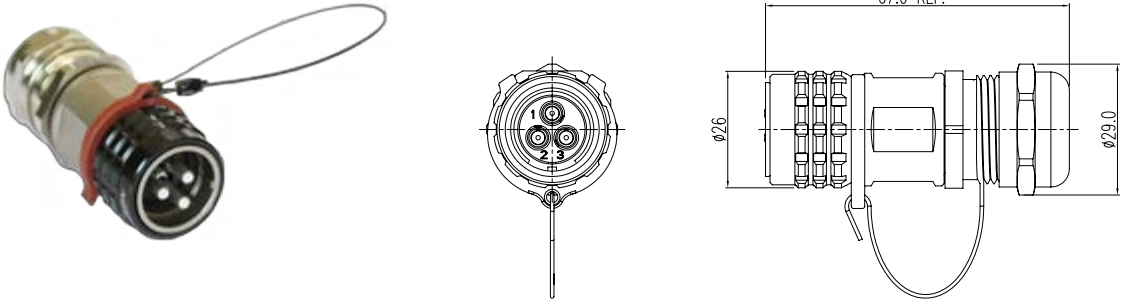
RECEPTACLE

P/N: **HVS1S-203FC** (socket) / **HVS1S-203MC** (pin)



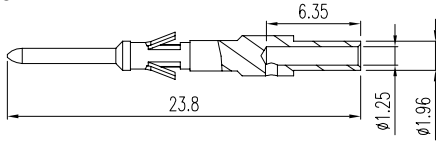
PLUG

P/N: **HVS1P-203MC** (pin) / **HVS1P-203FC** (socket)

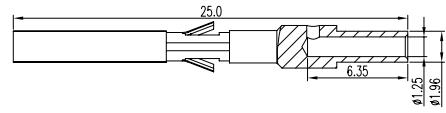


CONTACTS Notice: HVG series connectors are not include contact, please order separately.

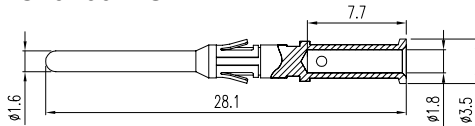
HVG20M1



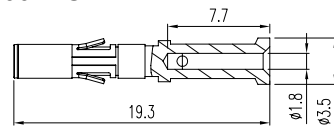
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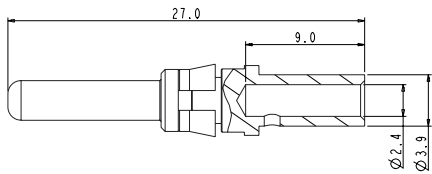
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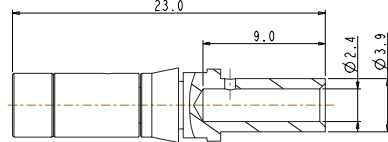
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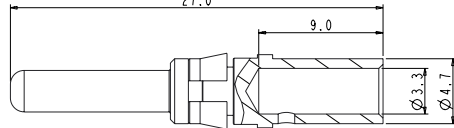
HVG30M2



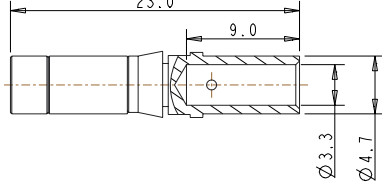
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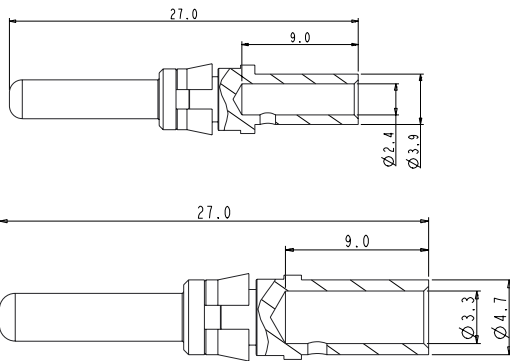
HVG30M4



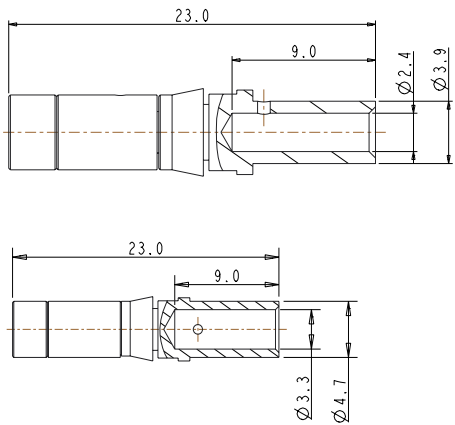
HVG30F4



HVG30M6



HVG30F6

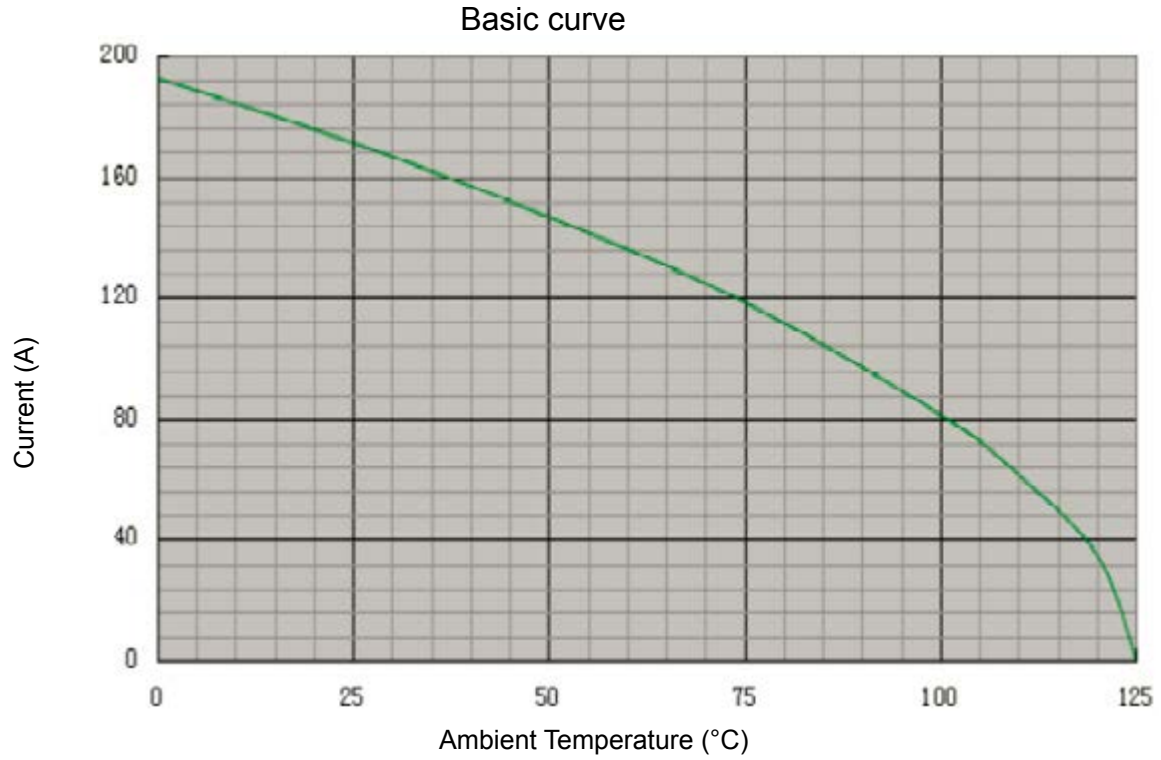


PART NUMBER

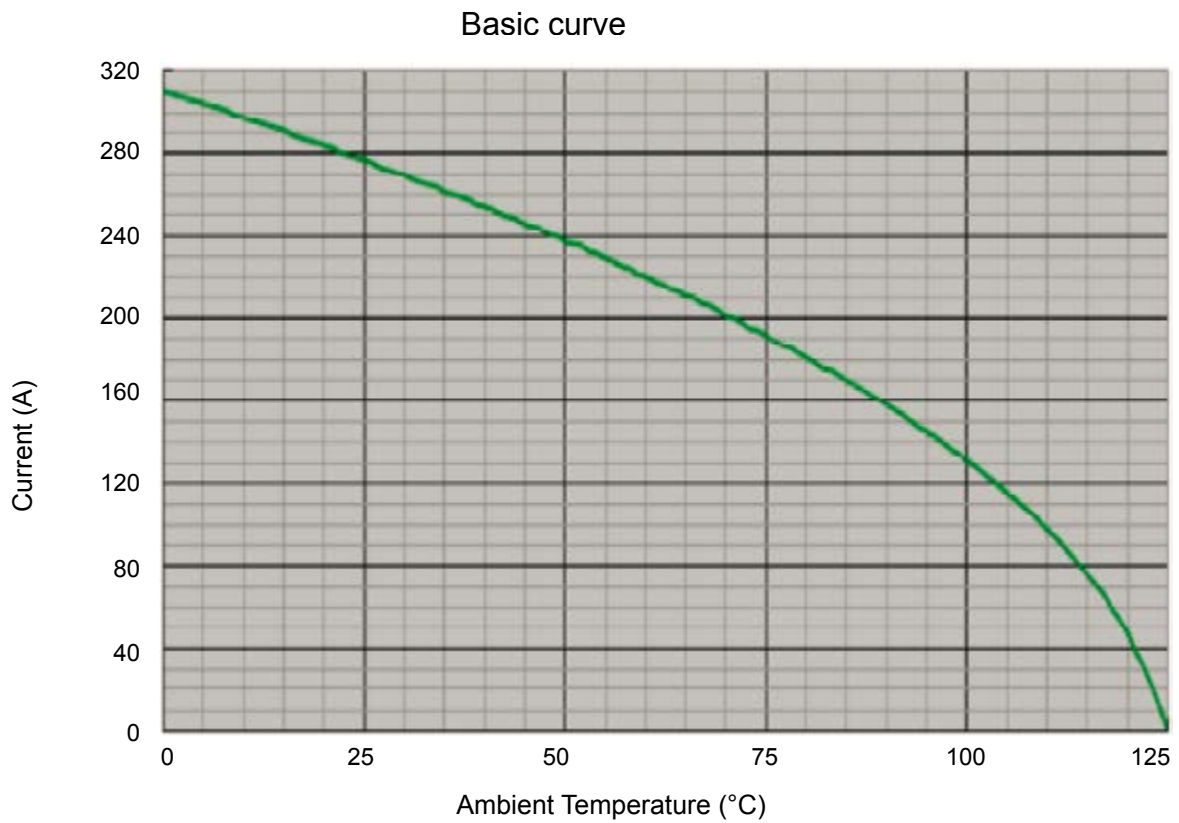
Contact type for connector	Contact size	Part number		Rated Current	For cable section	Extraction tool
		Pin	Socket			
Signal: HVG402/403/492	1.0mm	HVG20M1	HVG20F1	7.5A max	0.5 to 1.0 mm ²	HV-TOOL-20R
Signal: HVG404/406	1.6mm	ASRC16PC001AU	ASRC16SC001AU	13A max	0.75 to 1.5 mm ²	ASGTC-R-16S
Power: HVS, HVG402/403/404/406	3.0mm	HVG30M2	HVG30F2 / HVG30FS2	23A max	2.5 mm ²	HV-TOOL-30R
Power: HVS HVG402/403/404/406	3.0mm	HVG30M4	HVG30F4 / HVG30FS4	40A max	4.0 mm ²	HV-TOOL-30R
Power: HVG492	3.6mm	HVG30M6	HVG30F6	50A max	6.0 mm ²	HV-TOOL-36R
		HVG30M10	HVG30F10		10.0 mm ²	

TEMPERATURE RISE CURVE

HVBI R6

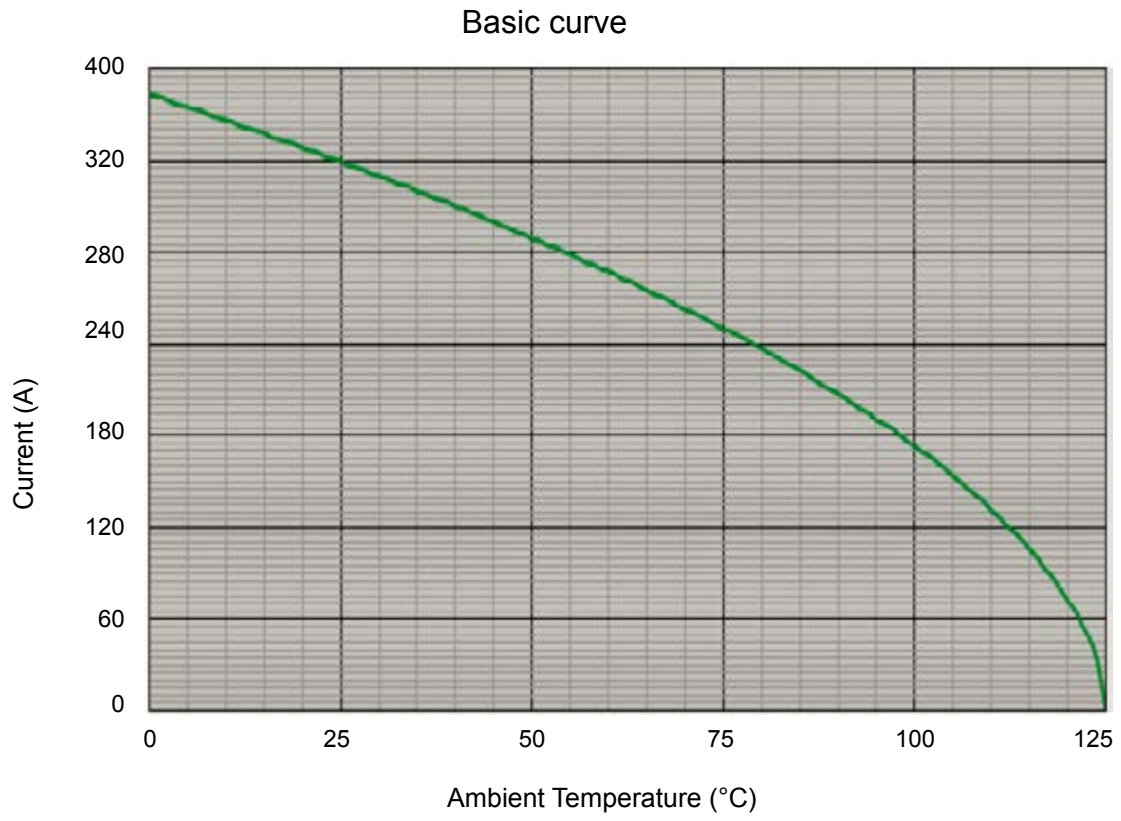


HVBI R8



TEMPERATURE RISE CURVE

HVBI R10



Amphenol PCD Shenzhen

Building 21
1st Liao Keng Industrial Zone
Shi Yan Street, Bao An District Shenzhen 518108
China

Tel.: +86 755-8173-8000
Fax: +86 755-8173-8180
Email: inquiry@amphenolpcd.com.cn

www.amphenolpcd.com.cn

Notes:

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