



C

Product brochure



S

Amphenol Group Worldwide



Catalogue

JAEVS	3~13
TWCM	14~15
TWC	16~22
RTHP /9;g	23~30
HE	31~38
Amphenol Sealed	39~43
ATHP /7p"	44~59
JAEVS series	3~13
TWCM series	14~15
TWC series	16~22
RTHP Single core high voltage interlock loop connector	23~30
HE series	31~38
Amphenol Sealed	39~43
ATHP series-Single core push-button type	44~59



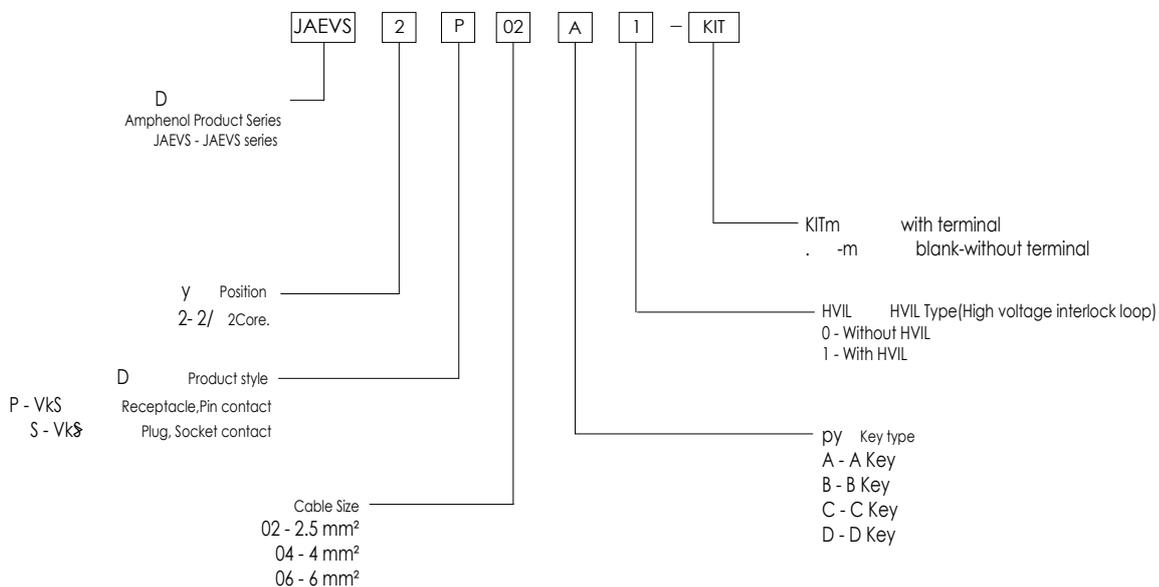
JAEVS Series

Pd 6SHFLFDWLRQ'DWD

- y Pin number: 2(+2 HVIL)
- pyU# Available keys: A,B,C,D
- >* Wire size: 2.5mm²~6.0mm²
- v Rated Current: 2.5mm² 20A, 4.0mm² 30A, 6.0mm² 40A.
- W9 Operation voltage: 1000VDC
Protection rate: IP67, IP69K(Mated) IP2XB(Unmated)
- " Operation temperature: -40°C ~ +125°C
- .x Durability: 100



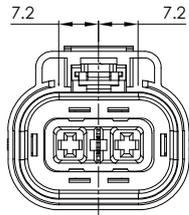
JAEVS x - Y JAEVS PART NUMBER SEQUENCE



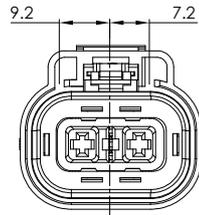
=) Dimension

Plug

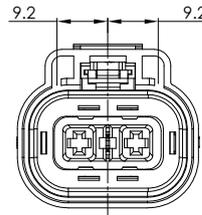
JAEVS-2SXXAX (CODE A)



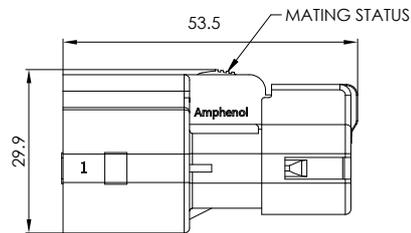
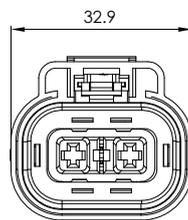
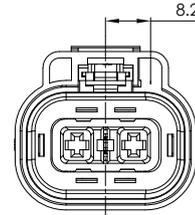
JAEVS-2SXXBX (CODE B)



JAEVS-2SXXCX (CODE C)

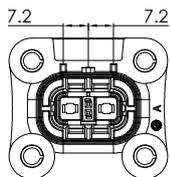


JAEVS-2SXXDX (CODE D)

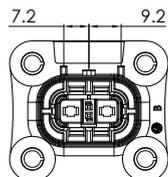


V Receptacle

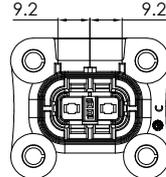
JAEVS-2PXXAX (CODE A)



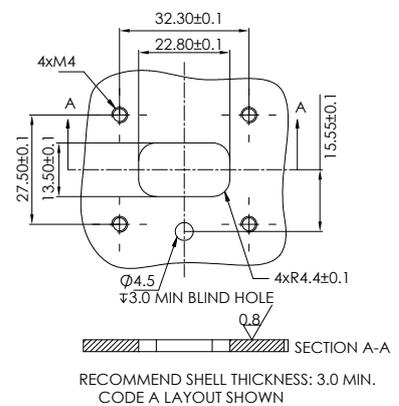
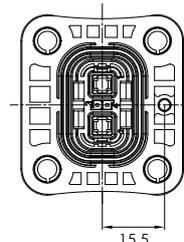
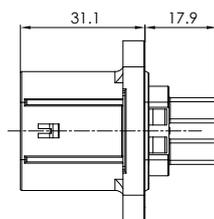
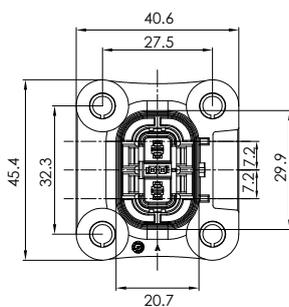
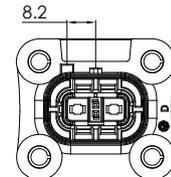
JAEVS-2PXXBX (CODE B)



JAEVS-2PXXCX (CODE C)



JAEVS-2PXXDX (CODE D)



JAEVS x

JAEVS series Plug

7jY Plug P/N	Y Wire size	EOH2	5 HVFULSWLRQ	
JAEVS-2S02*1	2.5mm ²	Ø5.3+/-0.2mm	m k9;g	Terminals are not included. With HVIL
JAEVS-2S04*1	4mm ²	Ø5.6+/-0.2mm	m k9;g	Terminals are not included. With HVIL
JAEVS-2S06*1	6mm ²	Ø6.4+/-0.2mm	m k9;g	Terminals are not included. With HVIL
JAEVS-2S02*1-KIT	2.5mm ²	Ø5.3+/-0.2mm	DmkP k9;g	Terminals are included. No purchase is required With HVIL
JAEVS-2S04*1-KIT	4mm ²	Ø5.6+/-0.2mm	DmkP k9;g	Terminals are included. No purchase is required With HVIL
JAEVS-2S06*1-KIT	6mm ²	Ø6.4+/-0.2mm	DmkP k9;g	Terminals are included. No purchase is required With HVIL

JAEVS x

JAEVS series Receptacle

Y Receptacle P/N	Wire size	5 HVFULSWLRQ	
JAEVS-2P00*1	2.5mm ² ~6mm ²	mC8 k9;g	Terminals and dust caps are not included. With HVIL.
JAEVS-2P02*1-KIT	2.5mm ²	DmkP k9;g	Terminals are included. No purchase is required With HVIL
JAEVS-2P04*1-KIT	4mm ²	DmkP k9;g	Terminals are included. No purchase is required With HVIL
JAEVS-2P06*1-KIT	6mm ²	DmkP k9;g	Terminals are included. No purchase is required With HVIL

T

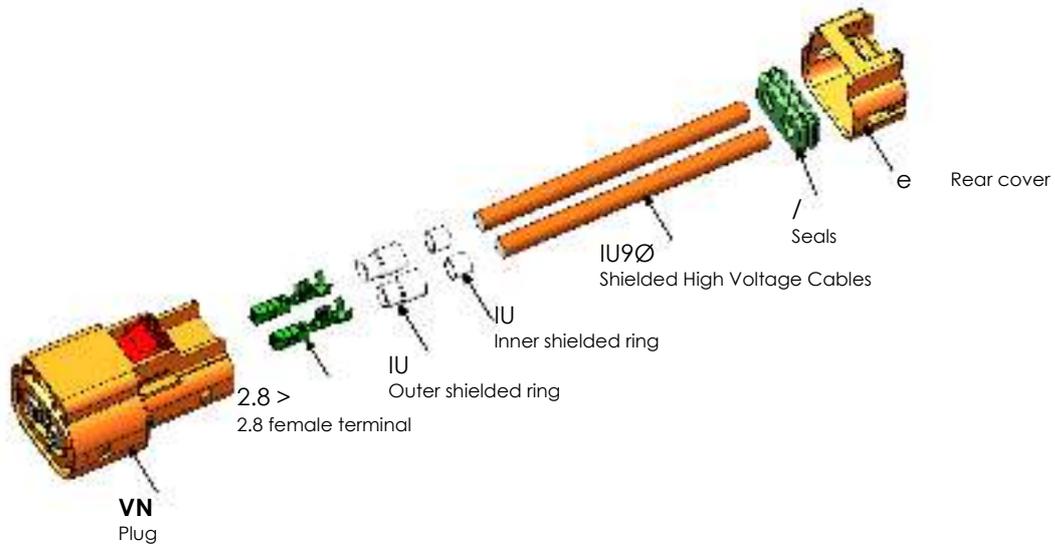
Optional accessories

jY P/N	SR	Wire range	W Rated current	C Suitable product	Picture
JAEVS-FC4	2.8mm>k 2.8mm female power terminal	2.5mm ² ~4.0mm ²	30A	JAEVS-2S02** JAEVS-2S04**	
JAEVS-FC6	2.8mm>k 2.8mm female power terminal	6.0mm ²	40A	JAEVS-2S06**	
JAEVS-MC4	2.8mmk 2.8mm male power terminal	2.5mm ² ~4.0mm ²	30A	JAEVS-2P00**	
JAEVS-MC6	2.8mmk 2.8mm male power terminal	6.0mm ²	40A	JAEVS-2P00**	
JAEVS-SFC1	0.63mm>k9;g 0.63mm as high voltage interlock female terminal	0.5mm ² ~0.75mm ²	5A	JAEVS-2P00**	
JAEVS-2P-CAP	8 Dust caps	/	/	JAEVS-2P00*0	

*WnU#y A,B,C,D
* Stands for key: A,B,C,D

JAEVS xGy

JAEVS Series Assembly Instructions-Plug



1. P~1IUØx/yek 1
 Install the shielding cable into the seal and back cover in the sequence shown below, see Figure 1

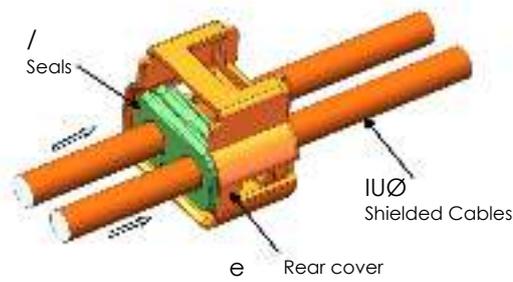


Figure 1

2. 1Ø/yeYk)YØ/oCoIUCo
 Zo/yIUkwZØIUVo

2, GYqikY

Securely isolate the cable seal and back cover, and strip the inner core, insulation and shield of each cable in turn. See Figure 2, make sure that during the stripping operation, the stripping equipment does not scratch or cut the inner core and shielding wire, and that there is no remaining cable shielding strand.

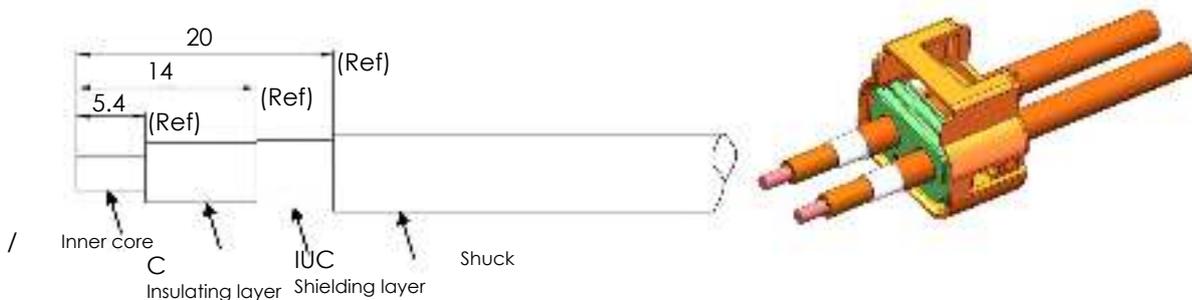
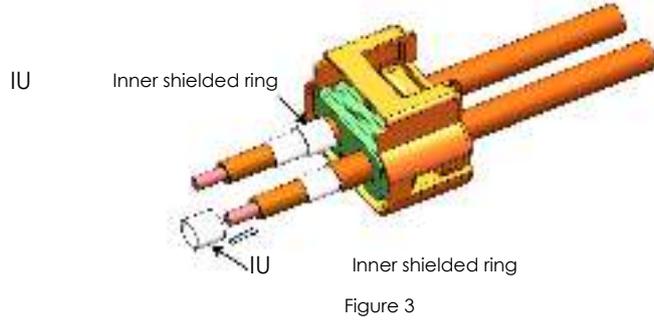


Figure 2

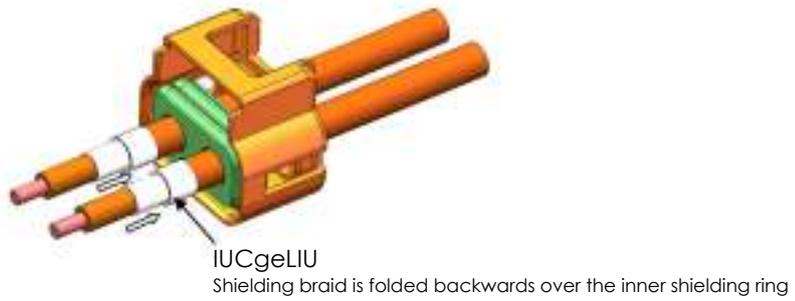
JAEVS xGy

JAEVS Series Assembly Instructions-Plug

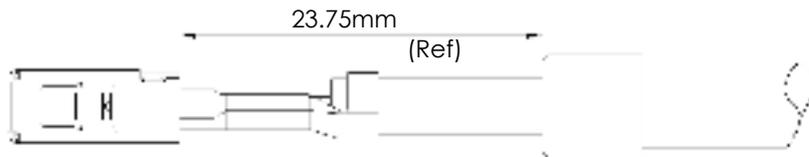
3. 1IU VØk 3 Po
 Insert the inner shielding ring into each cable, as shown in Figure 3.



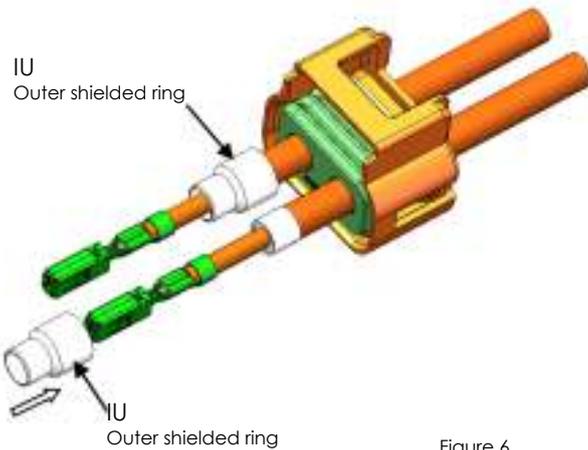
4. 1IUCgeLIUk4O4IUyk Yuk 4 Po
 Fold the shield braid back over the inner shield ring, being careful to keep the inner shield ring in place as long as possible so that its edges
 DUHXVKZLWKWVKHVWULSSHGHGJHVRIWKHRXWHUVKHDWKDVKRZQLQ)LJXUH



5. Øx²w9xk9Ne 5 P>*o
 Install a terminal on each cable and secure it. Ensure that the terminal size is as shown in Figure 5.



6. 7PgVØk1IUxIUyLeØo 6o
 Insert the outer shield ring into the inner shield ring and the folded braided cable in the direction shown. See Figure 6.

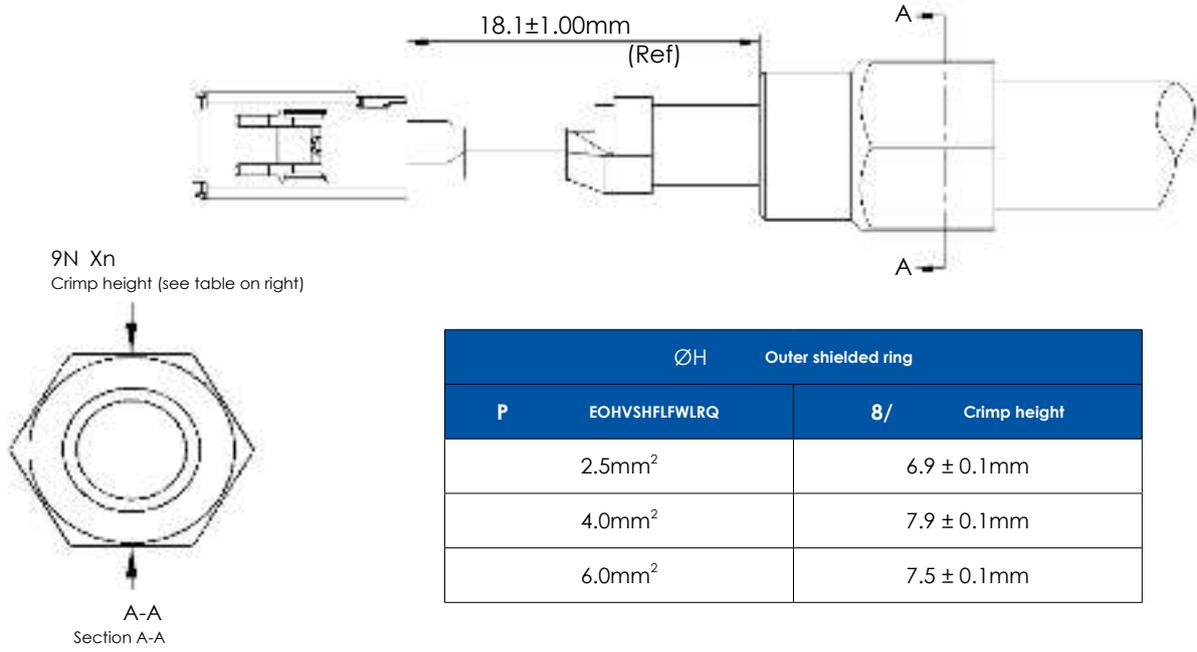


JAEVS xGy

JAEVS Series Assembly Instructions-Plug

7. RIUAB°~g“kh~~Y5k IU23GkiUJo

Any loose wire woven from the tail surface of the outer shield ring should be trimmed, taking special care not to cut off any insulation or leave any separated wire attached to the component, the outer shield ring hexagonal crimp height is correct, and the outer shield ring is not deformed.



- 8. ØxF Check before cable assembly
 - 7 /ZC° The seal is not rolling or damaged;
 - 8 -C° The outer sheath or wire is not damaged;
 - 9 ØIUyIU9NZs
- There is no loose or protruding stranded wire at the junction of braided cable shield and shield ring;
: IU23GkJK,+9Ør+o
- The outer shielding ring hexagonal crimp height is correct, the jacket is not deformed, and it is straight relative to the cable.

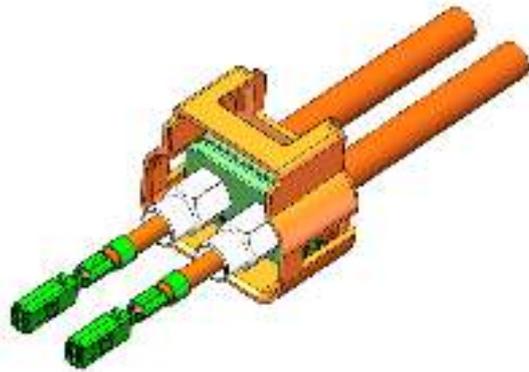


Figure 7

JAEVS xGy

JAEVS Series Assembly Instructions-Plug

9. x Terminal installation:

1gxNkyØkØ/VN

CPA g+k

8 Po

Install the terminal into the connector in the direction shown, and position the cable assembly so that the seal on the cable is aligned with the CPA latch of the plug connector, as shown in Figure 8.

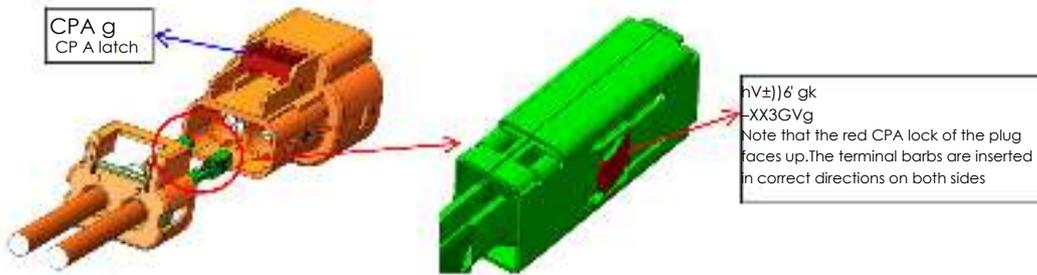


Figure 8

1VVNRk+gkwy*xye*+oo

1IUxNIUCNk-2k4*ØVkVo

Insert the terminals into their respective plug connector circuit cavities until they are fully locked and a clicking sound is detected when the terminal clip is in place. See Figure 9. Installing the outer shield ring into the contact spring of the connector shield causes some resistance, so verify that the socket terminal is fully inserted by gently pulling on the cable.

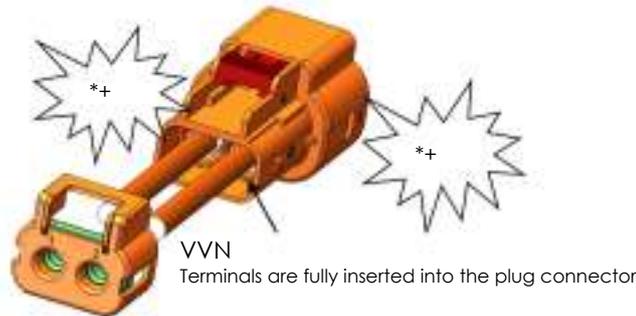


Figure 9

11. VØ/k+2VNo

10k-

Ao 1VNxØ/

eo 10k- Bo gkCNo

Fully insert the cable seal until it stops inside the back of the plug connector. See FIG . 10, Detail A. Fully install the cable seal back cover on the back of the plug connector. See Figure 10, Detail B. Verify that both locking features are fully engaged.

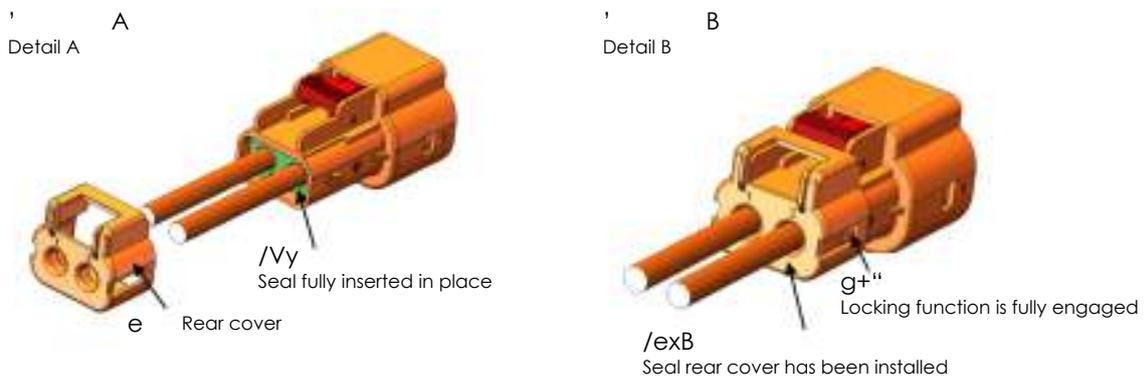


Figure 10

JAEVS xGy

JAEVS Series Assembly Instructions-Plug

12. V_yV+V_yY Insertion and separation of plugs and sockets

Am+V Match up

'+VNyVk

11 Po

Align the socket connector and plug assembly, as shown in Figure 11.

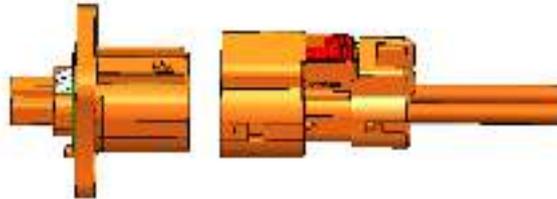


Figure 11

"1VyVP²k+2

CPA gy

(±))k

12 Po

(1n*+

)o VNyVgkw*U

Push the socket and plug assembly completely together until they stop (a clicking sound will be heard). Verify that the socket connector and plug assembly are fully locked and visually verify the CPA lock status position (red), as shown in Figure 12.

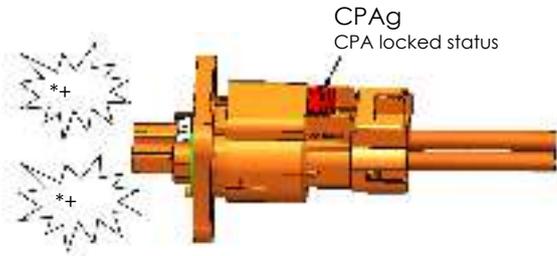


Figure 12

BmY secession

'N

CPA g (±))o

13o4k

HVIL kx9QNo

hyØo

Fully unplug the plug connector CPA latch (red). See Figure 13. At this point, the HVIL circuit is open, but the high voltage terminals are still making contact. Note: Don't pull on the cable.



Figure 13

"7

CPA gg±)ho

14k

Ao Nk+BYo

14k

Bo

hyØo

Press the CPA latch (red) completely. See Figure 14, detail A. Unplug the socket connector until it is completely separated from the head assembly. See Figure 14, detail B. Note: Don't pull on the cable.

' Detail A



' Detail B

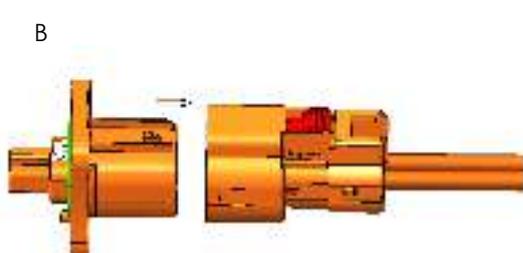


Figure 14

JAEVS xGy

JAEVS Series Assembly Instructions-Plug

13. Check
15 Po
See Figure 15.

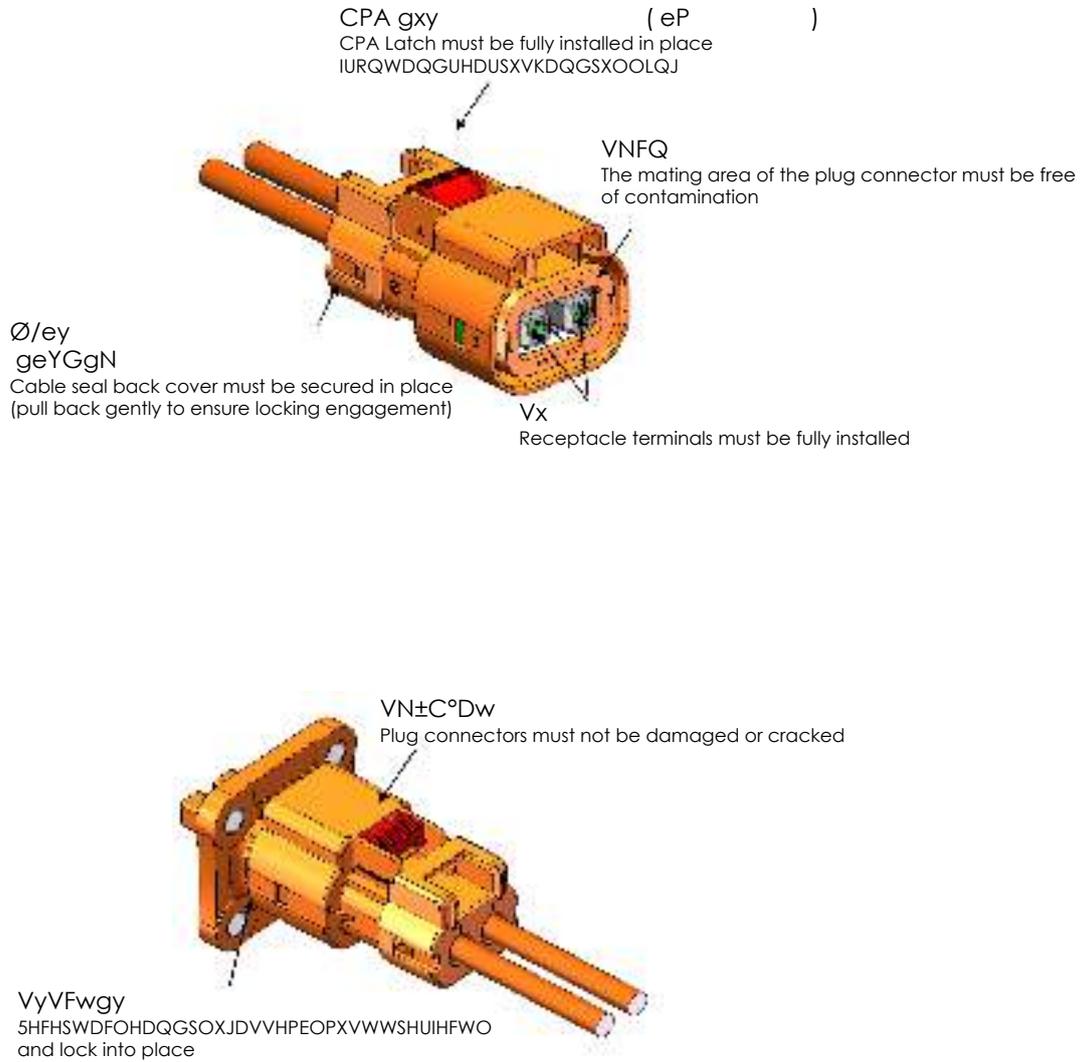
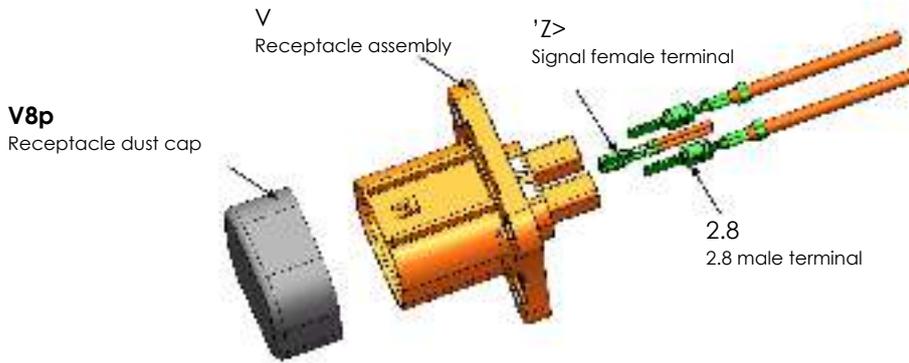


Figure 15

JAEVS xGy

JAEVS Series Assembly Instructions-Receptacle



1. xV Install the socket assembly

1.1 V<k/k1V+yCp<pyyxn

Check for seals on the socket assembly and mount the socket assembly to the surface of the unit by aligning the locating slots and key locating holes (see Figure 1)

1.2 1 4 M4 *BxVxk17r>

L> 2.5 ±0.3 Nm (1)

Insert the 4 M4 fasteners through the mounting holes in the head into the holes in the unit and tighten each fastener to the required torque (meet the required torque of 2.5 ± 0.3 Nm) (see Figure 1)

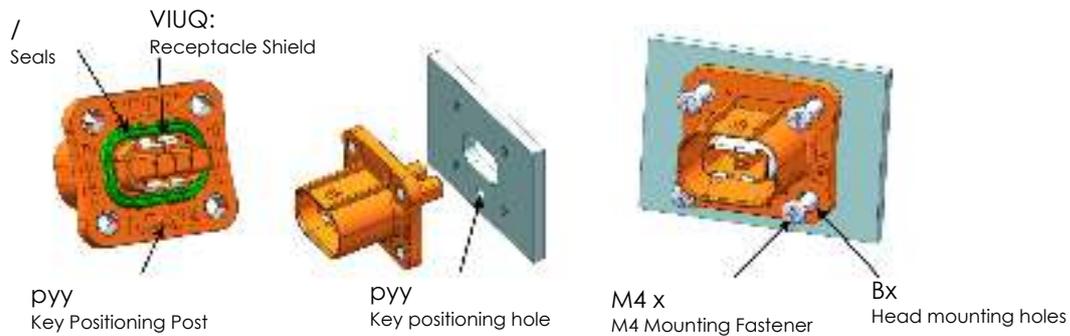


Figure 1

2. x Installing the terminals

2.1 1V+Nk+n*+k

2kxe-kYG

g Insert each terminal into the corresponding connector hole until a click is heard, see Figure 2, and gently pull back on the wires of each terminal once installed to verify that the terminals are fully locked;

2.2 k18pxB

If required, install the dust cap on the head;

2.3 9U99k4gkykgkG9tWo

As high voltage may be present it is not recommended to carry out an energized test, if a continuity check is required ensure that the high voltage power supply has been disabled.

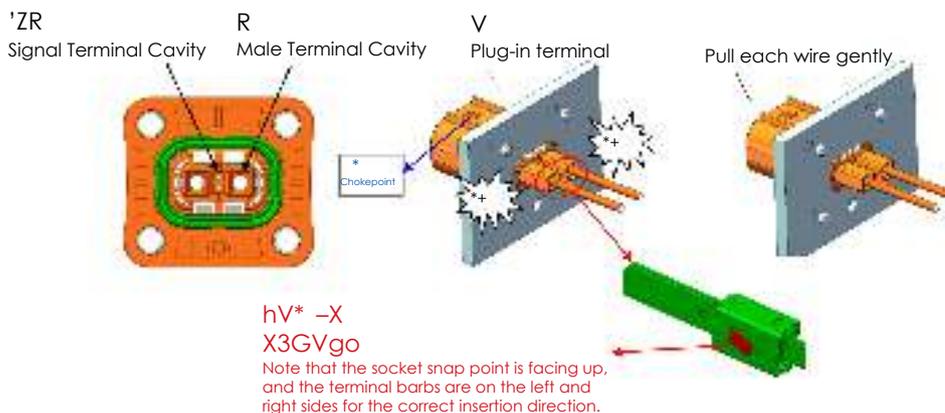


Figure 2

JAEVS xGy

JAEVS Series Assembly Instructions-Receptacle

3. VyV+V Plug and socket pairing
 3.1 +Vk+NV8p If mating is required, pull off the socket dust cap directly;

3.2 +VyVFke1NP²k+ CPA gNohkN
 Fk1kn^{2*}+ 3)
 Align the mating surfaces of the plug and socket, then push the connectors together until the CPA latches engage. Note that when the connectors are fully mated, an audible click will be heard. See Figure 3.

N xkY y
 ,lWKHFRQQHFWRUGRHVQRWWHDVLOFKHFNWKHIROORZLQJ
 --- NFpy++ The keys matching the connector are correct

3.3 VkGNkgoe1V CPA PBgo 3o
 Verify that the connector is fully locked by gently pulling down on the plug. Then push the CPA of the plug until the head is fully locked. See Figure 3.

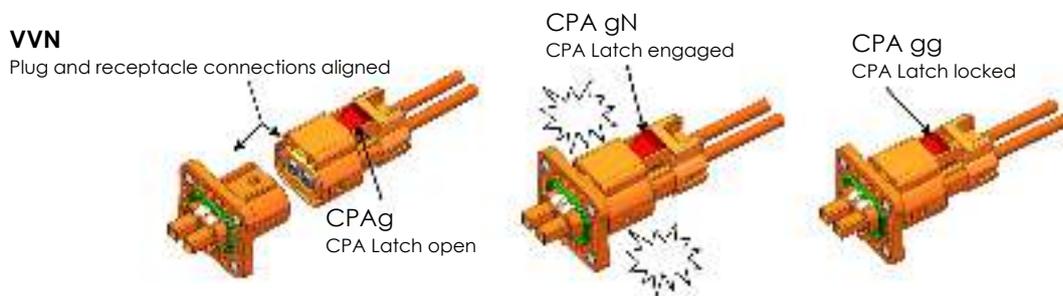


Figure 3

4. VVY Separating the plug and socket
 4.1 g CPA go 4o Pull out the CPA latch. See Figure 4.

4.2 7V CPA gkc~~W~~k+2o4kNNNo 4o
 Push down on the CPA latch of the plug and at the same time pull out the plug until it stops. At this point the connector is not fully connected. See Figure 4.

4.3 69y9 CPA gkc~~W~~yBo~~0~~o 4o
 8VHRXUQJHUVWRGHSUHVVKHODWFKDWWKH&3ZKLOHXQSOXJLLQJWKHSOXJDQGWKHKHDG
 Don't pull out the cable or the sealing ring at the cable. See Figure 4.

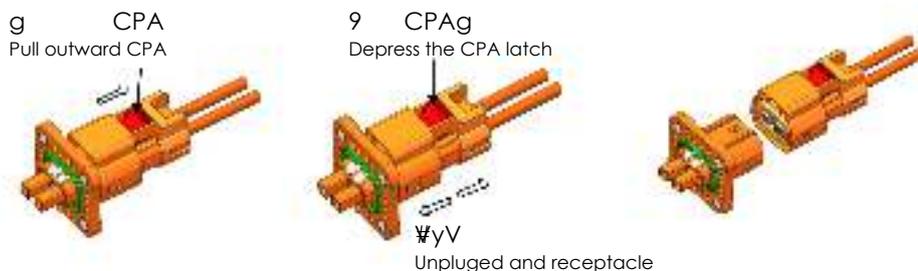


Figure 4

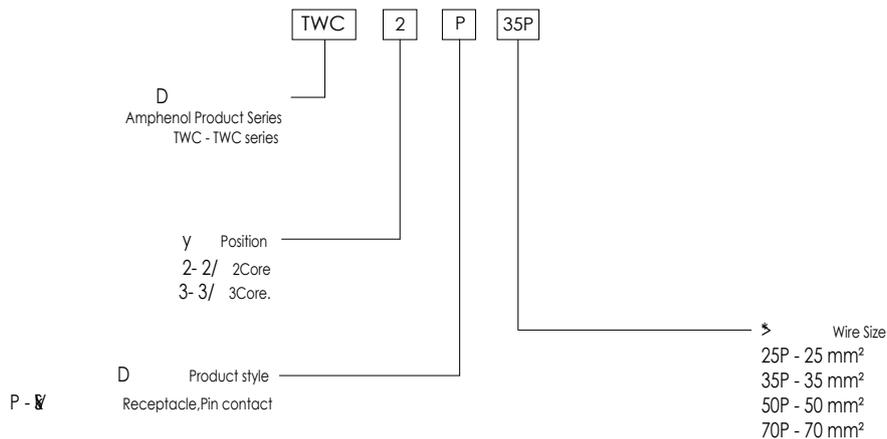
TWCM Series



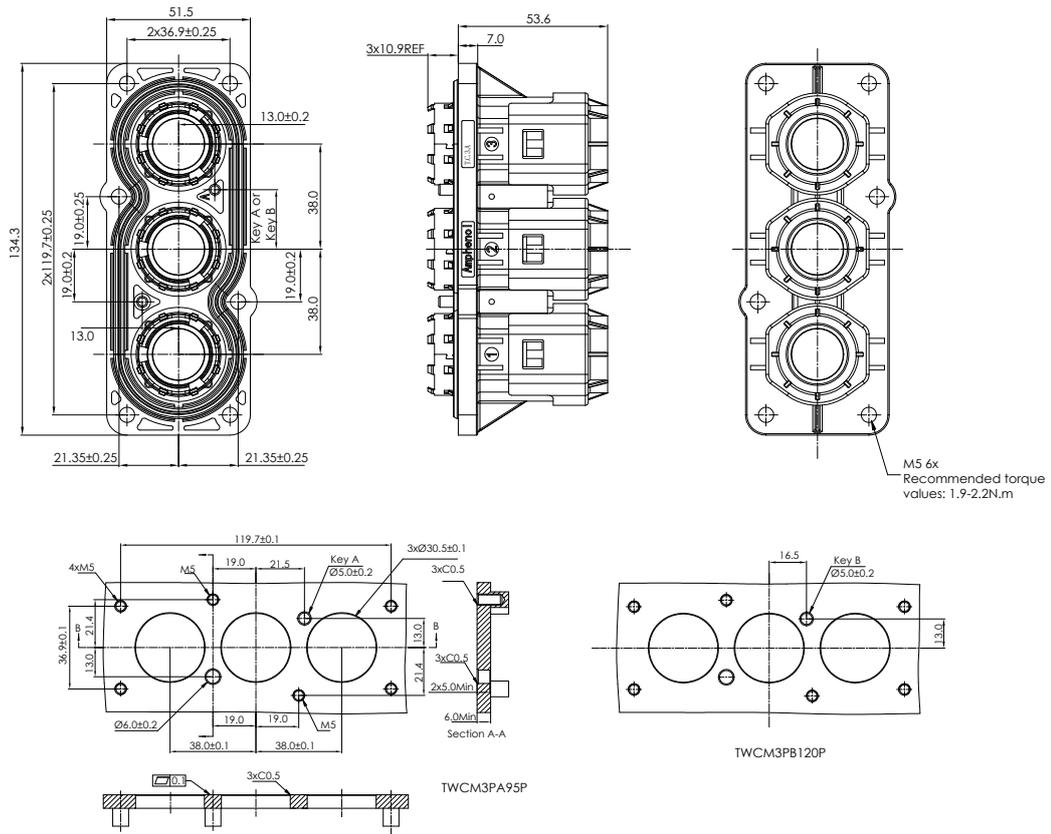
Pd 8E/RQ/D

- y Pin number: 2,3 Pos
- pyU# Available keys: A/B
- Shell material: e/P Aluminum alloy
- >* Wire size: 95mm²~120mm²
- v Rated current: 95mm² 300A, 120mm² 400A
- W9 Operation voltage: 1000VDC
- Protection rate: IP67, IP69K(Mated), IP2XB(Unmated)
- IU Shieldingy360
- "8 Temperature range: -40°C To 125°C
- ÿJk SSOLFDWLRQHOGV,QYHUWHUVFKDUJHUVHWF

TWCM x - Y TWCM PART NUMBER SEQUENCE



=)
Dimension



TWCM x/
TWCM series connector

Y P/N) Wire size	W Rated current	EOH2
TWCM2PA95P	95mm ²	300A	Ø20.9/-0.8mm
TWCM2PB120P	120mm ²	400A	Ø23.0/-0.8mm
TWCM3PA95P	95mm ²	300A	Ø20.9/-0.8mm
TWCM3PB120P	120mm ²	400A	Ø23.0/-0.8mm

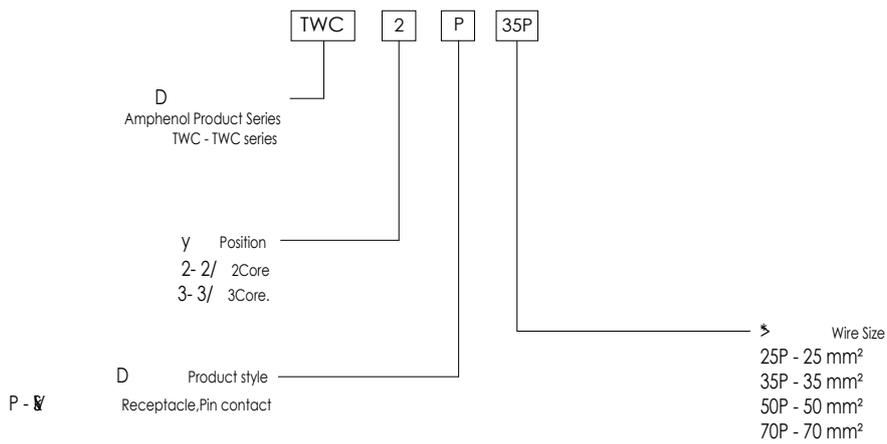
TWC Series

Pd
6SHFLFDWLRQ'DWD



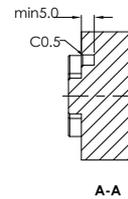
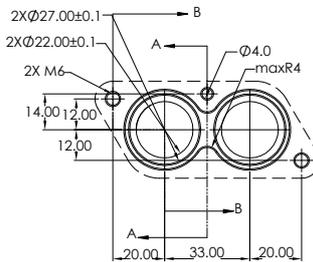
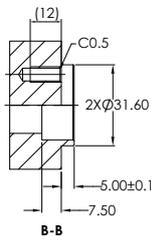
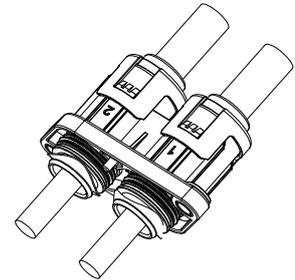
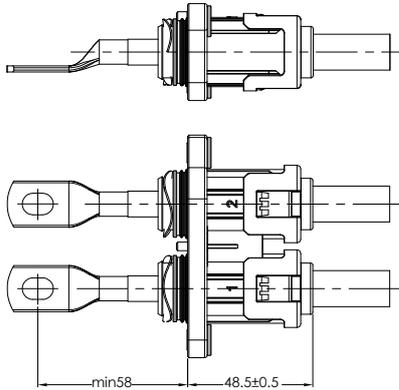
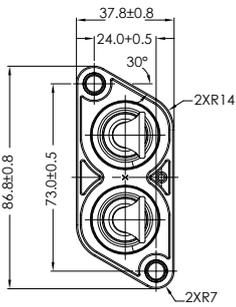
- yU# Pin number: 2,3 Pos
- >* Wire size: 25mm²~120mm²
- v Rated current: 25mm² 150A, 35mm² 200A, 50mm² 250A, 70mm² 300A
- W9 Operation voltage: 1000VDC
Protection rate: IP67, IP69K(Mated), IP2XB(Unmated)
- IU Shieldingy 360
- "8 Temperature range: -40°C To 125°C
- ŷJk SSOLFDWLRQHOGV,QYHUWHUVFKDUJHUVHWF

TWC x - Y TWC PART NUMBER SEQUENCE



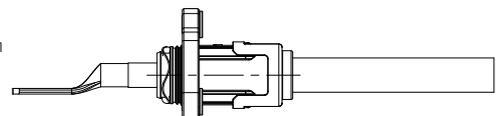
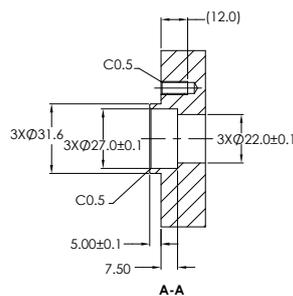
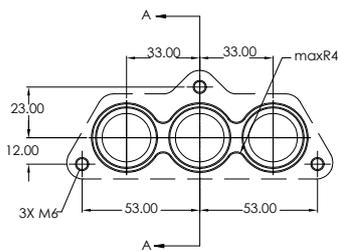
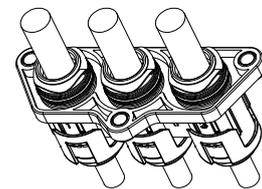
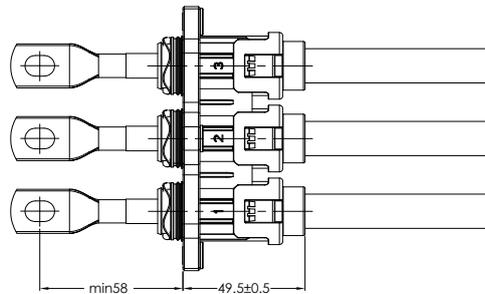
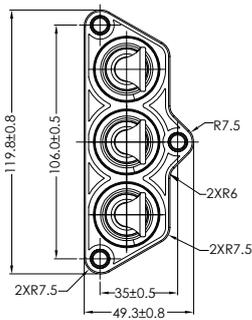
=) Dimension

2POS



Recommend Mounting interface Layout

3POS



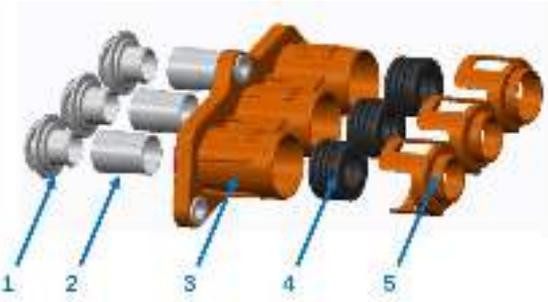
Recommend Mounting interface Layout

TWC x/
TWC series connector

jY P/N) Wire size	W Rated current	C Product picture
TWC2P25P	25mm ²	150A	
TWC2P35P	35mm ²	200A	
TWC2P50P	50mm ²	250A	
TWC2P70P	70mm ²	300A	
TWC3P25P	25mm ²	150A	
TWC3P35P	35mm ²	200A	
TWC3P50P	50mm ²	250A	
TWC3P70P	70mm ²	300A	

TWC xGy

TWC Series Assembly Instructions



Item	Description	QTY	
1	SHIELDING SLEEVE BODY	2	3
2	SHIELDING SLEEVE	2	3
3	2POS,RING TONGUE,HSG,ASSY,SEAL	1	/
	3POS,RING TONGUE,HSG,ASSY,SEAL	/	1
4	SINGLE WIRE SEA	2	3
5	PROTECTIVE COVER. TWC 16-70mm SQ CABLE	2	3
FG part number		TWC2PxxP	TWC3PxxP

1.7 2 xQ:o/oyIUo

Assemble the shield, single wire seal, housing, and shielding sleeve as Figure 2.

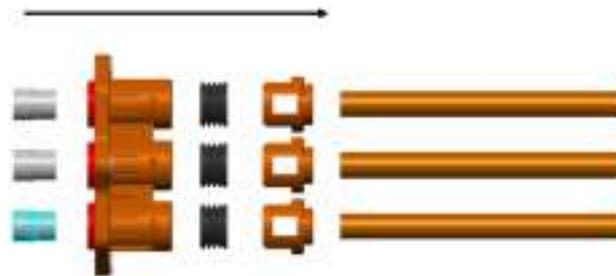


Figure 2

2. >*kk o) y * H8o

Dimension "A" to be calculated, recommendation for calculation as followsz VHHJXUH &'7DNHIURPULQJWRQJXHVSFLFDWLRQ
> HØxF ;7DNHIURPFDEOHDVVHPEOVSHFLFDWLRQGUDZLQJ

$$A = X - (D - C) + 8 \text{ (Unit=mm)}$$

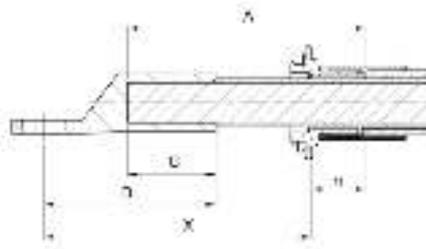


Figure 3

1Ø>*koy±C°IUCo

6WULSWKHFDFOHMDFNHWWRGLPHQVLRQVHHJXUHWWHQWLRQWKHVKLHOGLQJEUDLGPXVWQRWEHGDPDJHG

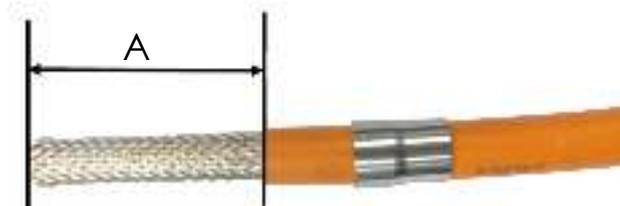


Figure 4

TWC xGy

TWC Series Assembly Instructions

3. IU B+/-1mmk 5ohy±C°Co
&XWWKHVKLHOGLQJEUDLGPVHHJXUHWWHQWLRQWKHLQVXODWLRQPXVWQRWEHGDPDJHG

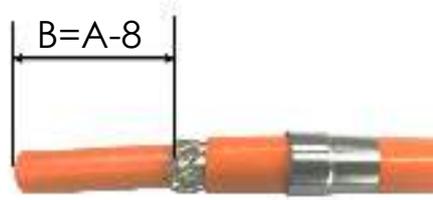


Figure 5

4. >ØBck>*)SSkohy±C°Co
6WULSWKHLQQHUFDEOHLQVXODWLRQWRGLPHQVLRQ&PPVHHJXUHWWHQWLRQWKHLQVXODWLRQPXVWQRWEHGDPDJHG



Figure 6

5. 1IU'yxØoo
6VHPEOHWKH6+,(/,'1*6/((9(2'DQG5,1*7521*8(WRFDEOH6HHJXUH



Figure 7

6. 1 RING TRONGUE 9NØk9Nnoo
&ULPSWKH5,1*7521*8(RQWKHFDEOHFULPSWHQVLOHUHIHUWRIROORZLQJWDEOH6HHJXUH

Cable size	Refer to standard	Ref crimp tensile
35mm ²	LV 215 or RING TRONGUE manufacturer	>=2300N
50mm ²		>=2800N
70mm ²		>=3100N

ØC49 1 Do
Gap between ring tongue and cable insulation should be less than 1mm.



Figure 8

TWC xGy

TWC Series Assembly Instructions

7. 1IUPIUk+o 9o
 3XVWKH6+,{',1*6/((92'XQGHUWKHVKLHOGLQJEUDLGXQWLWLFORVHZLWKWKHRXWHUMDFNHW6HHJXUH



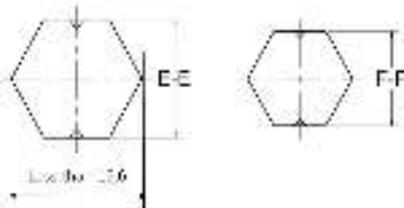
Figure 9

1IU'4 ykPIU'YIUk+IU'ck 10o
 Holding the SHIELDING SLEEVE BODY in position, pushing the SHIELDING SLEEVE to entrap the shielding braid until it close the SHIELDING SLEEVE 2)ODQJHVHHJXUH



Figure 10

8. Gn9NIUoIUc49 1.0 Do 11o
 &ULPSWKHVKLHOGLQJDFFRUGLQJWRWKHIROORZLQJWDEOH7KHJDSEHWZHHQVKLHOGLQJVOHHYHDQGFQRQWDFWFRGDQJHVKRXOGEHOHVVWKDQPP VHHJXUH



Cable size	Shield crimp Position E Height E-E(mm)	Insulation crimp Position F Height F-F(mm)
35mm ²	15.4	14.4
50mm ²	16.2	15.4
70mm ²	17.6	17.6

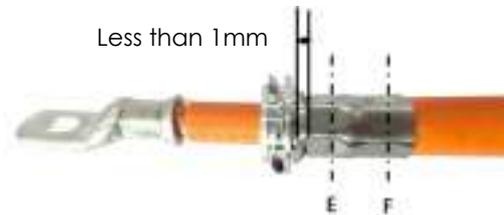


Figure 11

9. 1y/Øke1Øw*oG*oo
 6OLGHWKHKRXVLQJDQGVVLQJOHZLUHVHDODORQJWKHFDEOHWKHQVOLGHSXVWKHSURWFWLYHFRYHUDORQJWKHFDEOHDQGVQDSWRQWKHKRXVLQJ 0DNHVXUHWKDWKHSURWFWLYHFRYHUKDYHEHHQIXOOVQDSWRQWKHKRXVLQJ6HHJXUH



Figure 12

TWC xGy
TWC Series Assembly Instructions

10. Jv'k~9Nyo 13o
 Shrink a tube with glue to cover the crimping and insulation area.
 6HHJXUH



Figure 13

11. *NMVo 14o
 Insert the housing assy through the interface bore hole.
 6HHJXUH

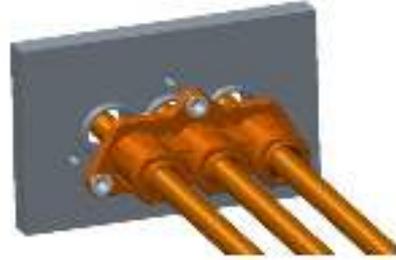


Figure 14

12. 19NMk+IU'NNMNo 15o
 NMN 2 Do
 Press the housing assy into the interface until the shield sleeve body touches the interface ground. The gap between housing assy and LQWHUIDFHVKRXOGDPRXQWQH DUOPP6HHJXUH

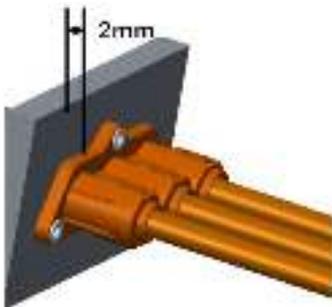


Figure 15

13. M6 YT1xNMkYTx 16o
 20mmk> 5-7N.m
 Using M6 screws to mount the housing assy onto the interface. Screws length about 20mm.Recommend torque LV1P6HHJXUH

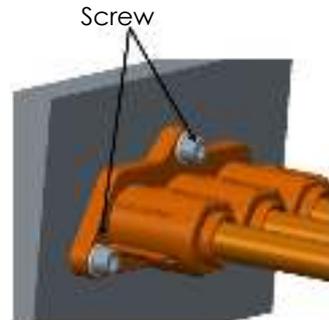


Figure 16



RTHP- 86/

RTHP-Single core high voltage interlock loop connector

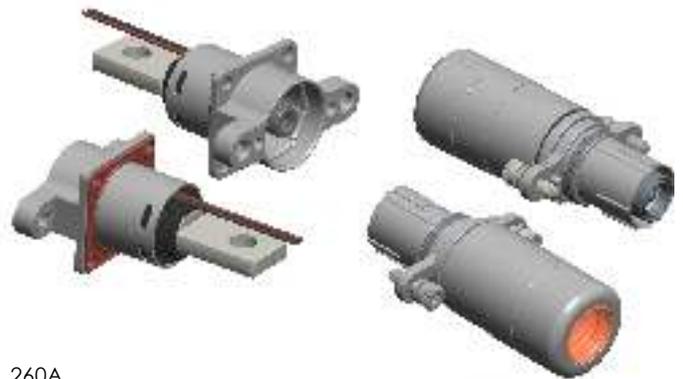
Pd
6SHFLFDWLRQ'DWD

- y Pin number: 1(+2 HVIL)-Thread connection
1(+2 HVIL)- Bayonet lock
- pyU# Available keys: N,W,X,Y,Z
- >* Wire size: 35mm², 50mm², 70mm²
- v Rated current: 35mm² 150A, 50mm² 200A, 70mm² 260A
- W9 Operation voltage: 1000VDC
Protection rate: IP67, IP69K(Mated), IP2XB(Unmated)
- .x Durability: 100+
- "8 Temperature range: -40°C To 125°C
- IU Shield: 360°

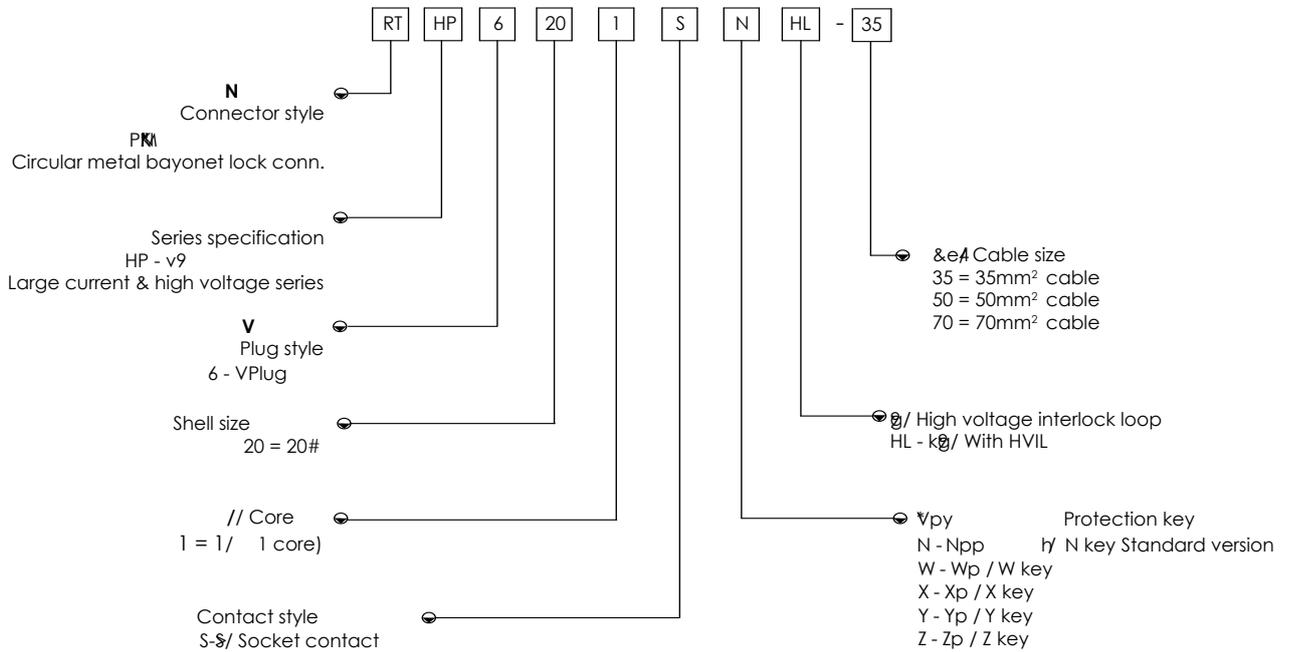
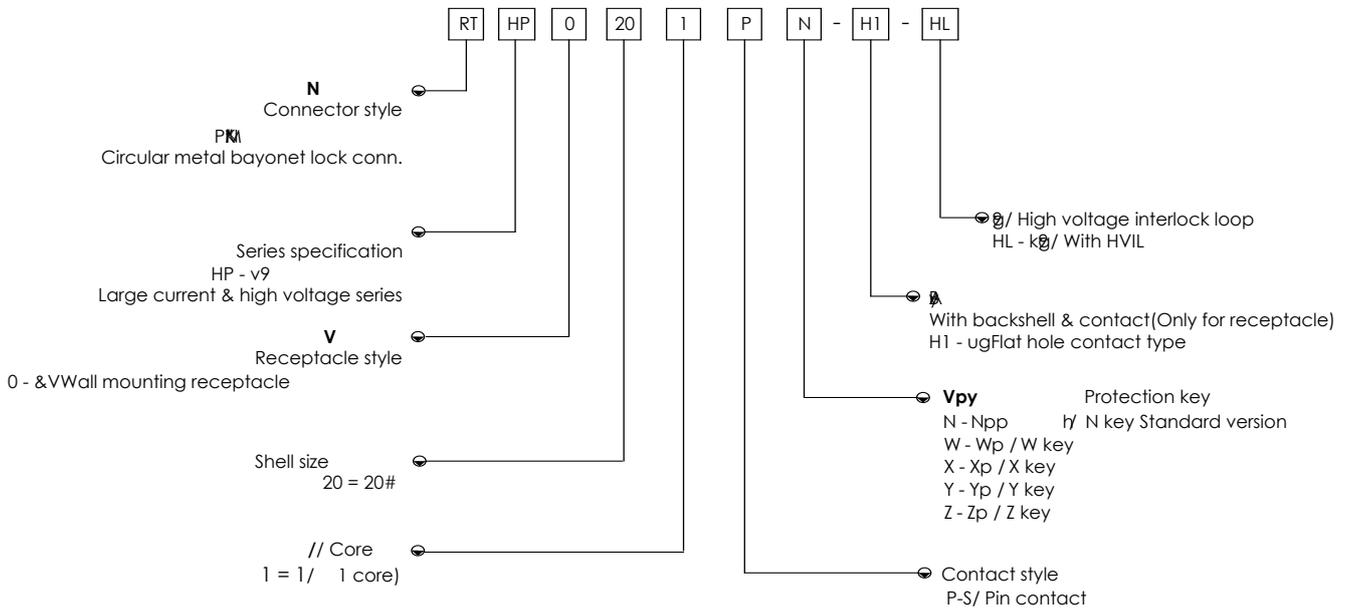
&3:LWK

W&σ&σ&DNWyL;

Application: new energy vehicles, robots, military, railway, aviation, welding industry and other equipment requiring interconnection.



PART NUMBER SEQUENCE



RTHP x
RTHP series

7jY Receptacle P/N) LPHQVLRQ	C Product picture
RTHP0201P*-H1-HL		

Y Plug P/N	EOH2) LPHQVLRQ	C Product picture
RTHP6201S*HL-35P	14~15.0 mm ²		
RTHP6201S*HL-50P	16.5~17.5 mm ²		
RTHP6201S*HL-70P	19.0~20.0 mm ²		

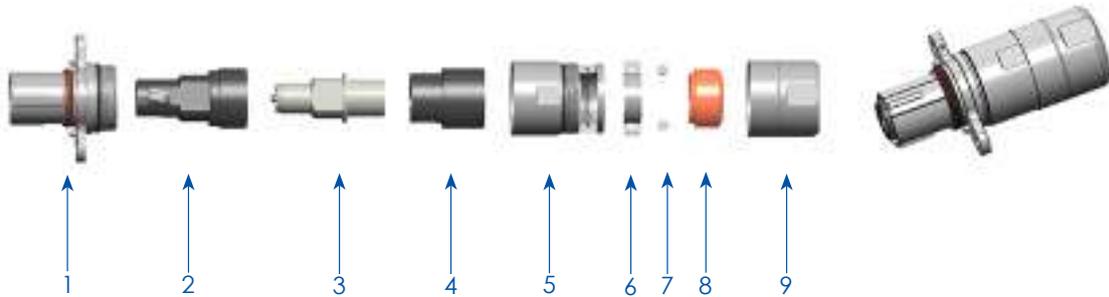
*WnU#y N,W,X,Y,Z
* Stands for key: N,W,X,Y,Z

8T4 8:.6 Vk9:gN6-0oY

RTHP6201SNHL-70 kDy

y

7KLVVSHFLFDWLRQGHVFULEHVWKHZRUNLQVWUXFWLRQRIRWKH57+3FRQQHFWRUZLWK+9,/SOXJ7DNH57+361+/DVDQHDPSONH product pictures and component pictures are as follows



RTHP6201SNHL-70 y

The list of RTHP6201SNHL-70 parts is as follows

Item	HVFULSWLRQ	QTY
1	PLUG METAL SHELL	1
2	PLUG INSERT HOUSING	1
3	10 mm FEMALE CONTACT	1
4	PLASTIC BUSHING	1
5	METAL CLAMP GRIP	1
6	METAL SHIELD CLAMP	1
7	SCREWS,M2.5*9	2
8	WIRE SEAL	1
9	SHORT METAL NUT	1

Øy
&DEOHVSHFLFDWLRQ

Cable Size	Refer to standard	QVXOWLRQ2
35mm ²	QC-T1037	14.5±0.5mm
50mm ²	QC-T1037	16.5±0.5mm
70mm ²	QC-T1037	19.5±0.5mm

²yHNw3kPo

6WHS7DNHRXWWKHFRQQHFWRUDQGGLVDVVHPEOHWKHSDUWVDVVKRZQLQJXUH



Figure 1

Gy7

Assembly Instructions-plug

8yØo

Step 2- Processing of cable.

a. Gn 1 k,>*

2.

a.Strip the cable according to the parameters in Table 1, and refer to Figure 2 for the corresponding strip size.

Description	Length(mm)
Dimensions of external insulation strip(a)	30±0.5
Internal insulation strip dimensions(b)	16±0.5
Shield size(c)	10±0.5

Table 1

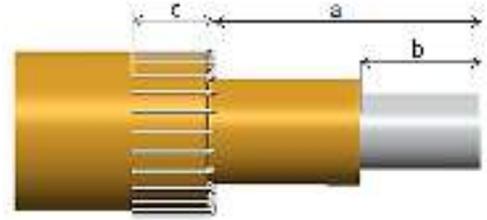


Figure 2

b. Vke1bPkNkk

3 Po

b.Comb the braid, then twining the copper foil on the braiding wire to make it fully contact with the braiding wire, cutting WKHHFHVVEUDLGDVVKRZQLQJXUH



Figure 3

yxk

4 P~ØxPKY>o/oPK

clamp y.>oo

Step 3- Preassembly Pre-install short metal nut, wire seal, metal clamp grip and plastic bushing on the cable in the order VKRZQLQJXUH



Figure 4

ya9kGn

2 9Nk9N3k

5 Po

Step 4-Crimp contacts Crimp the contacts according to the parameters in Table 2, the crimp shape is a regular hexagon, and its outline diagram is shown in Figure 5.

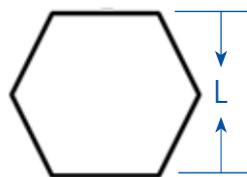


Figure 5

Cable Size	L	Pull crimp tensile
35mm ²	10.9±0.10mm	1
50mm ²	10.3±0.10mm	1
70mm ²	11.70±0.10mm	1

Note: The crimping standards refer to VW 60330 and LV215.

yX

Step 5-Assemble

a. 1ØVVke1VVPKkh

a. Insert the cable into the insert housing, then insert them into plug metal shell, notice that the HVIL should be toward the PDLQNHRI PHWDOVKHOOVV KRZQLQJXUH

HVIL gPKpo

6 Po



Figure 6

b. Y 18~20 N.m > 1PK47rVPKk

E6FUHZWKHPHWDOFODPSJULSRQWKHSOXJPHWDOVKHOOZLWka1PWRUTXHDVVKRZQLQJXUH

7 Po



Figure 7

c. 1PKIuybke

M2.5 Y7rk>

0.9~1.1 N.mk

8 Po

F3ODFHWKHPHWDOVKLHOGFODPSRQWKHFRSSHUIRLOWKHQWLJKWHQLWZLWKOEROWWKHWRTXHLVa1PDVVKRZQLQJXUH



Figure 8

d.)x/yPKY>kY>g>

18~20N.mk

9 Po

d. Assemble the wire seal and the short metal nut in turn, and the locking torque of the nut is 18~20N.m, as shown in Figure 9.

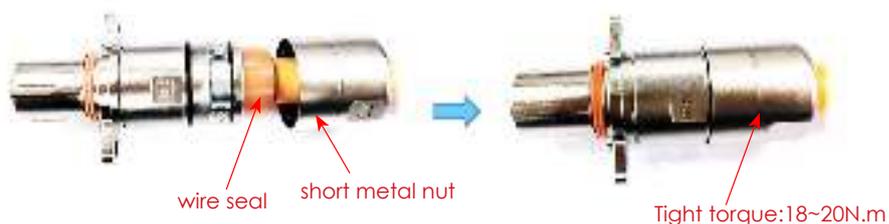


Figure 9

8T4 8.6 VkgN6-0oY

7KLVVSHFLFDWLRQGHVFULEHVWKHZRUNLQVWUXFWLRQRIRWKH57+3FRQQHFWRUZLWK+9./UHFHSWDFOH7DNH57+331 H1-HL as an example, product pictures and component pictures are as follows

RTHP0201PN-H1-HL kDyy



X PANEL INSTALLATION INSTRUCTIONS

2yHNkDx>*k

1 Po

6WHS7DNHRXWWKHFRQQHFWRUFKHFNVKHSURGXFWLQVWDOODWLRQSDQHVLHDVVKRZQLQJXUH

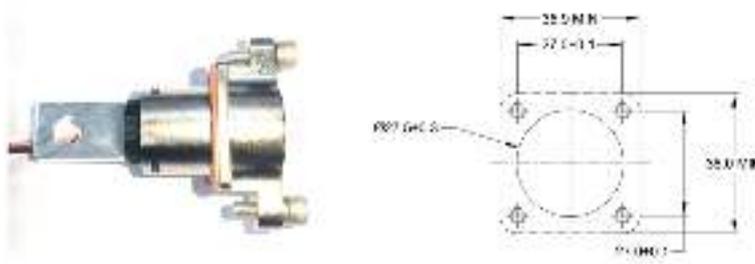


Figure 1

8yxk1DVxk

4XM4 YkYxkPY>

1.6~2.4Nmk

2 Po

Step 2- Panel Mounting Insert the product into the mounting panel hole and secure it with the 4XM4 screw, the length of the screw depends on the application WKHUHFRPPHQGHGVFUHZWRUTXHLVa1PDVVKRZQLQJXUH



Figure 2

Assembly Instructions-receptacle

yxFVyVkJVyVxFC3o

Step 3- Assembly plug and receptacle The following details the mating and removal of plugs and receptacle

NxF

Connector Mating

a. H m5 Yk 3 Po

a. Take out the m5 screws , as shown in Figure 3.



Figure 3

b. D7pyk3Gke1VVfk

4 Po

E&KHFNZKHWKHUWKHNHSRVLWLRQLVFRUJHFWRIWKHSURGXFDWGQGWKHQPWFVKWKHSOXJZLWKWKHUHFHSWDFOHDDVVKRZQLQJXUH



Figure 4

c. 2XM5 YkPY>

2.82 ~ 3.39 Nm

5 Po

c. Secure it with the 2XM5 screw and the recommended screw torque is 2.82 ~ 3.39 Nm, as shown in Figure 5.



Figure 5

N3

Connector Remove

a. Yk

6 Po

a. Remove the bolts using a hex wrench, as shown in Figure 6.



Figure 6

b. YwNk

7 Po

b. Remove the hex bolt and pull out the connector, as shown in Figure 7.



Figure 7

HE 86/

HE - High voltage interlock loop connector

Pd
6SHFLFDWLRQ'DWD

- y Pin number: 2(+2 HVIL)
- pyU# Available keys: A,B,C,D
- >* Wire size: 25mm², 35mm², 50mm²
- v Rated current: 25mm² 130A, 35mm² 160A, 50mm² 200A
- W9 Operation voltage: 1000VDC
Protection rate: IP67, IP69K(Mated), IP2XB(Unmated)
- .x Durability: 100+
- "8 Temperature range: -40°C To 125°C

IU Shield: 360°

&3:LWK

γκσϖαϑDNWYL;

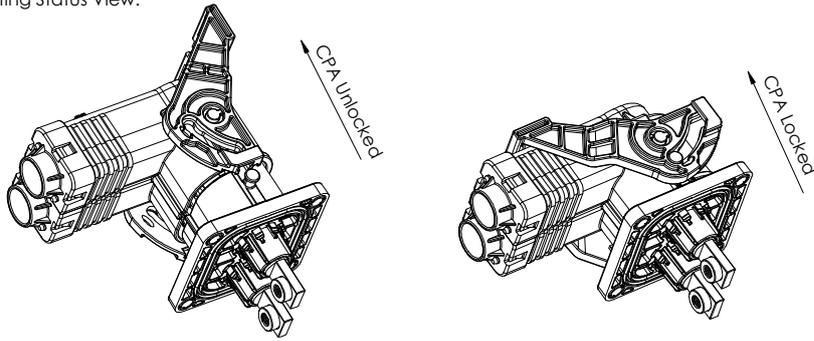
Application: new energy vehicles, robots, military, railway, aviation, welding industry and other equipment requiring interconnection.

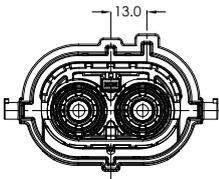
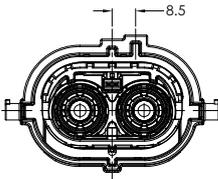
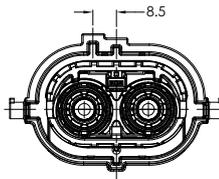
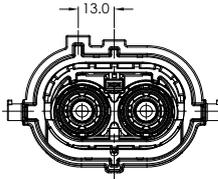


Part Number	HE042P080STA01 -H1	HE042P080STB01 -H1	HE042P080STC01 -H1	(36)
Key Position	A	B	C	
Front View				

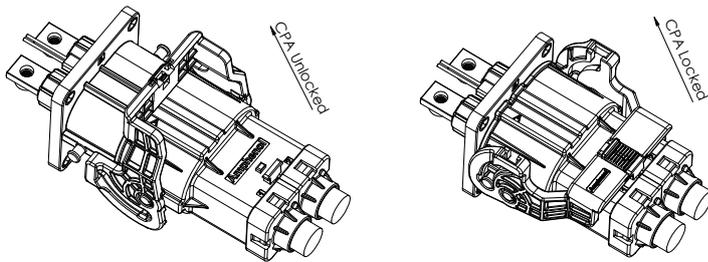
Part Number	HE042P080STA02 -H1	HE042P080STB02 -H1	HE042P080STC02 -H1	(36)
Key Position	A	B	C	
Front View				
Rear View				
Panel Key				

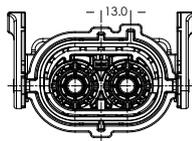
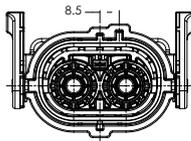
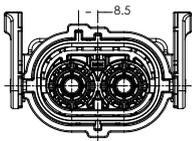
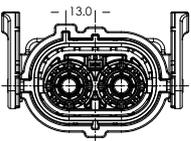
Mating Status View:



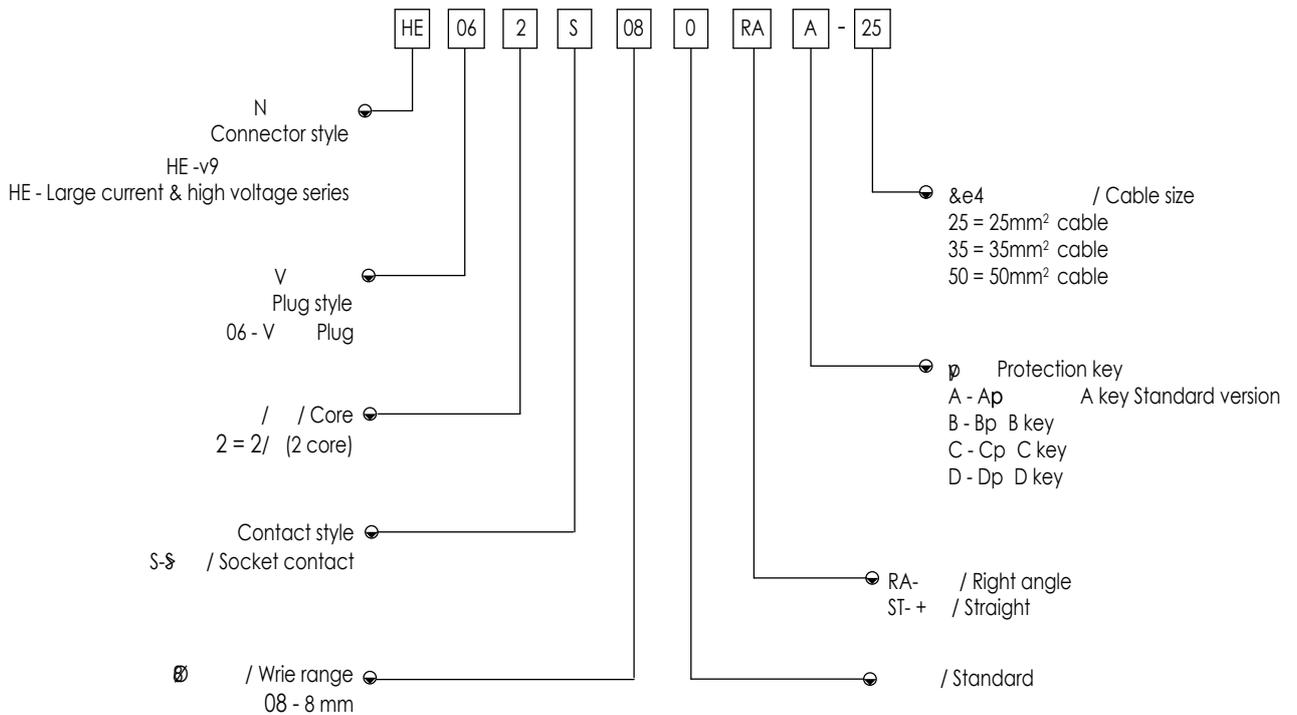
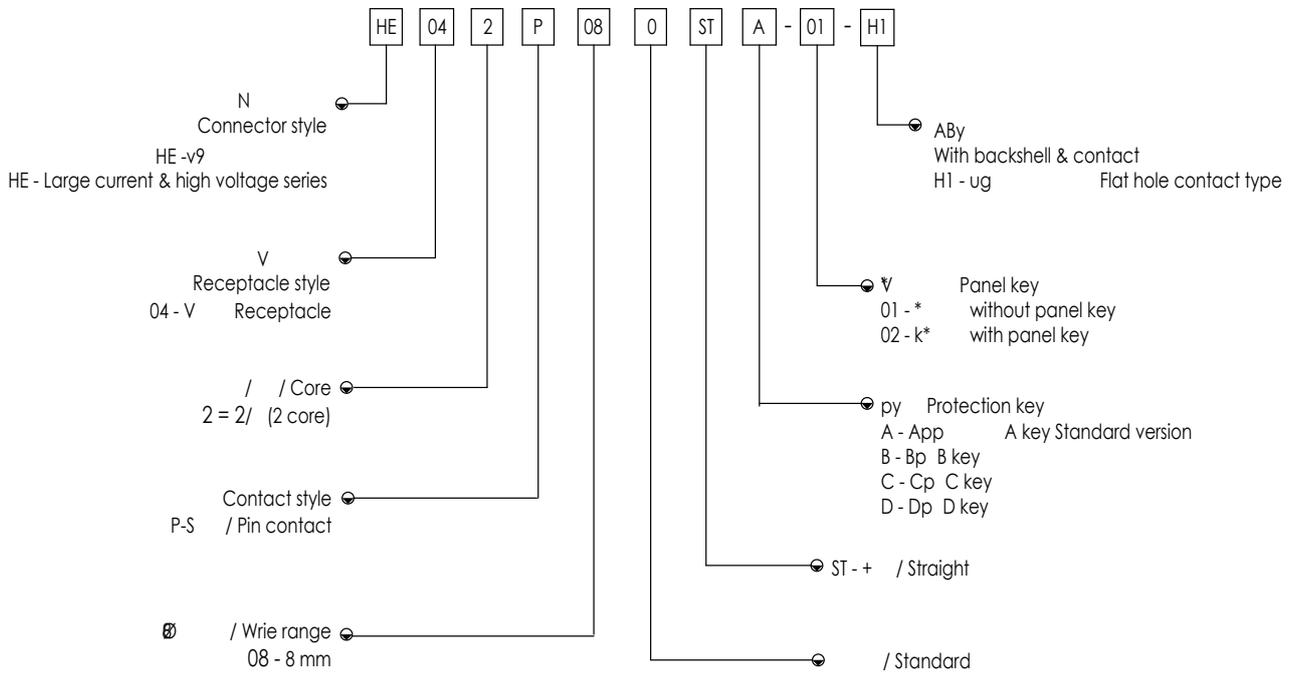
Key Position	A	B	C	
Front View				
Cable Size 25mm ²	HE062S080RAA25	HE062S080RAB25	HE062S080RAC25	HE062S080RAD25
Cable Size 35mm ²	HE062S080RAA35	HE062S080RAB35	HE062S080RAC35	HE062S080RAD35
Cable Size 50mm ²	HE062S080RAA50	HE062S080RAB50	HE062S080RAC50	HE062S080RAD50

Mating Status View:



Key Position	A	B	C	
Front View				
Cable Size 25mm ²	HE062S080STA25	HE062S080STB25	HE062S080STC25	HE062S080STD25
Cable Size 35mm ²	HE062S080STA35	HE062S080STB35	HE062S080STC35	HE062S080STD35
Cable Size 50mm ²	HE062S080STA50	HE062S080STB50	HE062S080STC50	HE062S080STD50

PART NUMBER SEQUENCE



HE x
HE series

7jY Receptacle P/N	W Rated current	5 HVFULSWLRQ	C Product picture
HE042P080ST*01-H1	130A/200A Based on Wire Size	2/+Vk 8.0MMk*pku 2Pos, receptacle, 8.0mm pin, without panel key, DWKROH	
HE042P080ST*02-H1	130A/200A Based on Wire Size	2/+Vk 8.0MMk*pku 2Pos, receptacle, 8.0mm pin, with panel key, DWKROH	

Y Plug P/N	W Rated current	5 HVFULSWLRQ	C Product picture
HE062S080RA*25	130A	2/Vk 8.0MM>kØ>* 25mm ² 2pos, plug, 8.0mm socket, right angle, 25mm ²	
HE062S080RA*35	160A	2/Vk 8.0MM>kØ>* 35mm ² 2pos, plug, 8.0mm socket, right angle, 35mm ²	
HE062S080RA*50	200A	2/Vk 8.0MM>kØ>* 50mm ² 2pos, plug, 8.0mm socket, right angle, 50mm ²	
HE062S080ST*25	130A	2/+Vk 8.0MM>kØ>* 25mm ² 2pos, plug, 8.0mm socket, straight, 25mm ²	
HE062S080ST*35	160A	2/+Vk 8.0MM>kØ>* 35mm ² 2pos, plug, 8.0mm socket, straight, 35mm ²	
HE062S080ST*50	200A	2/+Vk 8.0MM>kØ>* 50mm ² 2pos, plug, 8.0mm socket, straight, 50mm ²	

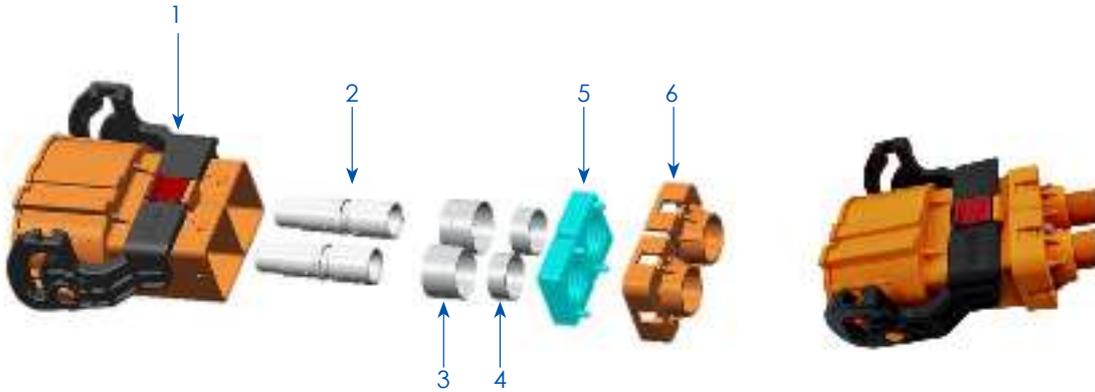
*WnU#y A,B,C,D
* Stands for key: A,B,C,D

Gy

Assembly Instructions

8T4 HE N 180° V6-0oY HE062S080STA50 kDCBy

7KLVSFLFDWLRQGHVFULEHVWKHZRUNLQVWUXFWLRQRIRWKH+(FRQQHFWRUSOXJ7DNH+(667DVDQHDPSOHSURGXFW pictures and component pictures are as follows.



HE062S080STA50 y
The list of HE062S080STA50 parts is as follows:

Item	HVFULSWLRQ	QTY
1	2 Pos Body(180°)	1
2	HV 8.0mm female terminal	2
3	Shield crimp ring,Outer	2
4	Shield crimp ring,Inner	2
5	Shield-Wrie seal	2
6	Protective Cap	2

Øy
&DEOHVSHFLFDWLRQ

Cable Size	Refer to standard	Insulation O.D	Jacket material
25mm ²	LV216-2/ISO 14572	12.2(-0.6)mm	Silicone rubber
35mm ²	LV216-2/ISO 14572	14.4(-0.6)mm	
50mm ²	LV216-2/ISO 14572	15.8(-0.6)mm	

²y7 1 P~Øxpo/oiUoiUo
3UHLQVWDOOSURWHFWLYH&DS6LQJOH:LUH6HDO,QWHULRUVKLGHOGLQJULQJ2XWHUVKLGHOGLQJRQWKHFDEOHLQWKHRUGHUVKRZQLQ



Figure 1

8yØo
Processing of cable.

Description	Length(mm)
Dimensions of external insulation strip(a)	20.5±0.5
Dimensions of internal insulation strip (b)	15±0.5
Shield size(c)	8.0±1.0

Table 1

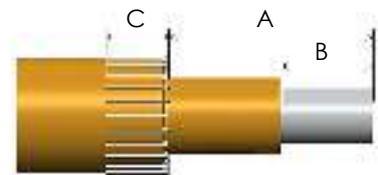


Figure 2

yNo

Crimp terminal.

ay7n 2 9NoZp3k

3 Po hy9

VW 60330 y LV215o

a. Crimp the terminal according to table 2. The crimp shape is a regular hexagon, and its outline diagram is shown in Figure 3. (Note: The crimping standards refer to VW 60330 and LV215.)

Cable Size	L	Pull crimp tensile
25mm ²	7.65mm	1
35mm ²	8.50mm	1
50mm ²	9.70mm	1

Table 2



Figure 3

by9Nek9NN²k'k1'vkZ49NNk Po

b. After crimping, put a heat shrink tube without glue on the terminal crimping joint, shrink the heat shrink tube, and make it wrap the crimping joint, as shown in Figure 4.



Figure 4

y9NIUo

Crimp shield ring.

ay1IUxØke1

IUIUo

5 Po

a. Assemble the inner shield ring to the outer LQVXODWLRQMDFNHWRIWKHFDEOHWKHQLSWKHVKLHOG back onto the inner shield ring. As shown in Figure 5.

bye1IUxIUCo

6 Po

b. Then the outer shielding ring is assembled on the shielding layer. As shown in Figure 6.



Figure 5



Figure 6

Gy Assembly Instructions

yNIUo

Crimp shield ring.

cyIU7n 3 g9NkC=

7 Po

c. The shielding ring is crimped according to the parameters in Table 3, and its shape and schematic diagram are shown in Figure 7.

Cable Size	Crimp Height	Pull-out force
25mm ²	7.65±0.1mm	1
35mm ²	8.50±0.1mm	1
50mm ²	9.70±0.1mm	1

Table 3



Figure 7

h Notey

1. IUyukiUØek

8 Po

7KHSRVLWRQRWIKHLQQHUVKLHOGLQJULQJVKRXOGEHXVKZLWKRUIRUZDUGRIWKHVWULSSLQJHQGQRWEHKLQGWKWHVWULSSLQJHQGDGQ the shielding cable, as shown in Figure 8.

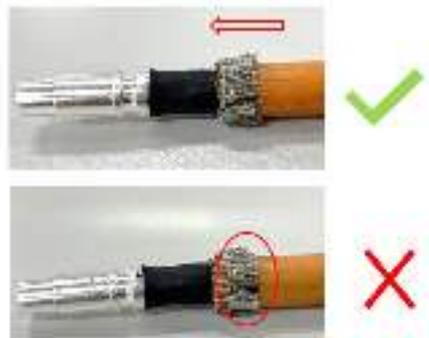


Figure 8

2. 1IUxØIUkPØIUke9N3k

9 Po

2. The outer shielding ring is assembled on the shielding of cable, pushed to the shielding root of the cable, and then crimped into a regular hexagon, as shown in Figure 9.

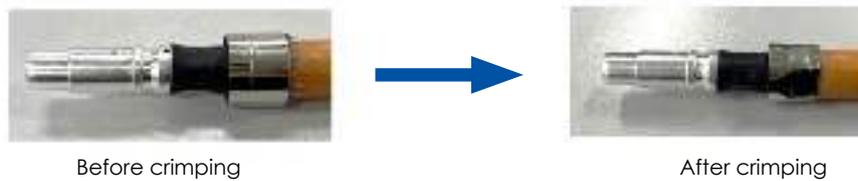


Figure 9

3. IU9NUGØ ²kiU

150N YoIUYO

51.5±0.5mmk 10 Po

3. The crimping height of the shielding ring can be adjusted appropriately according to the cable, and the pulling force of the shielding ring must be above 150N. The distance between the front end of the terminal and the front end of the shielding ring is controlled in 51.5±0.5mm, as shown in Figure 10.



Figure 10

Gy

Assembly Instructions

yxFo

Terminal assembly.

7 11 Pg19NØxon

" + " 2ek1Øw4=ykyo

Assemble the crimped cable into the shell in the direction shown in Figure 11. When you hear a clear snapping sound, pull the cable back and keep it in place, indicating that the assembly is in place.

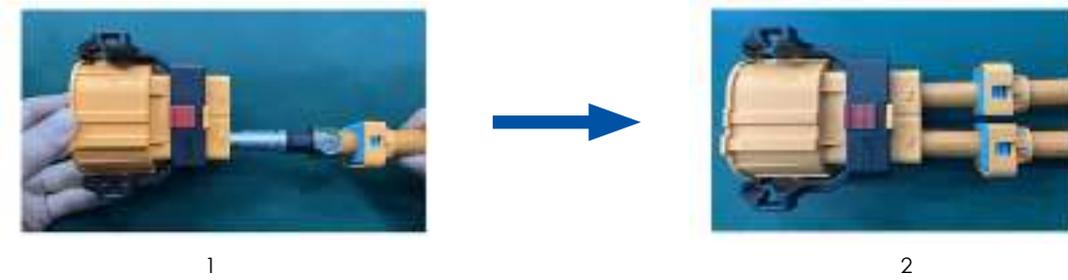


Figure 11

y/ypxo

Installation of wire seal and protective cap.

1/xpke1pxkwp

6 kyo

12 Po

Preassemble the convex point of wire seal to the hole of the protective cap, then assemble the protective cap on the body, and check whether the six fasteners on the protective cap are in place. As shown in Figure 12.

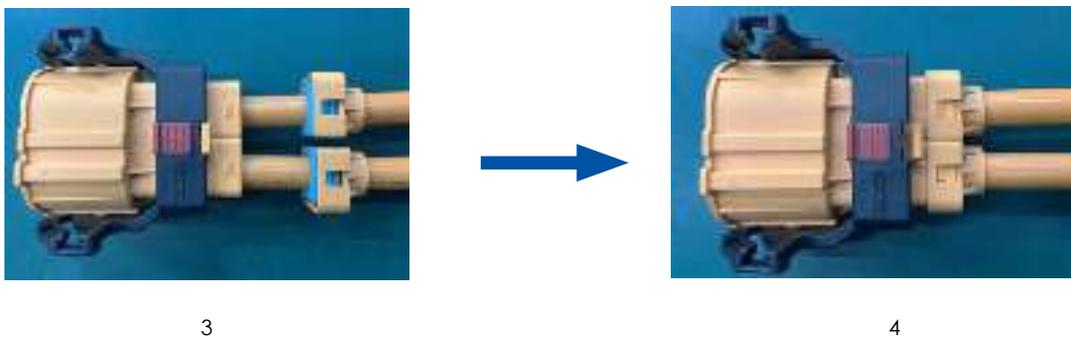


Figure 12



Amphenol Sealed Series™ /

Amphenol Sealed Series™ connectors

Amphenol Sealed NTW +N o.N
 J/kUkwFNMy
 yk,"-r#D 9*oo>oWioo
 JJso>oEJoB"og~ofoko

PCB NMkUI"

Amphenol Sealed Series™ connectors are designed for off-line, on-board connection applications in harsh operating environments. With a sealed construction, this connector offers excellent reliability and is equipped with both wire-end and PCB-end interfaces to withstand extreme temperatures and humidity, including high-temperature engine bay applications. The series of products are suitable for trucks, buses, off-highway vehicles, construction machinery, agricultural machinery, mining machinery, emergency vehicles, forest machinery, fork lift, leisure

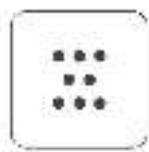
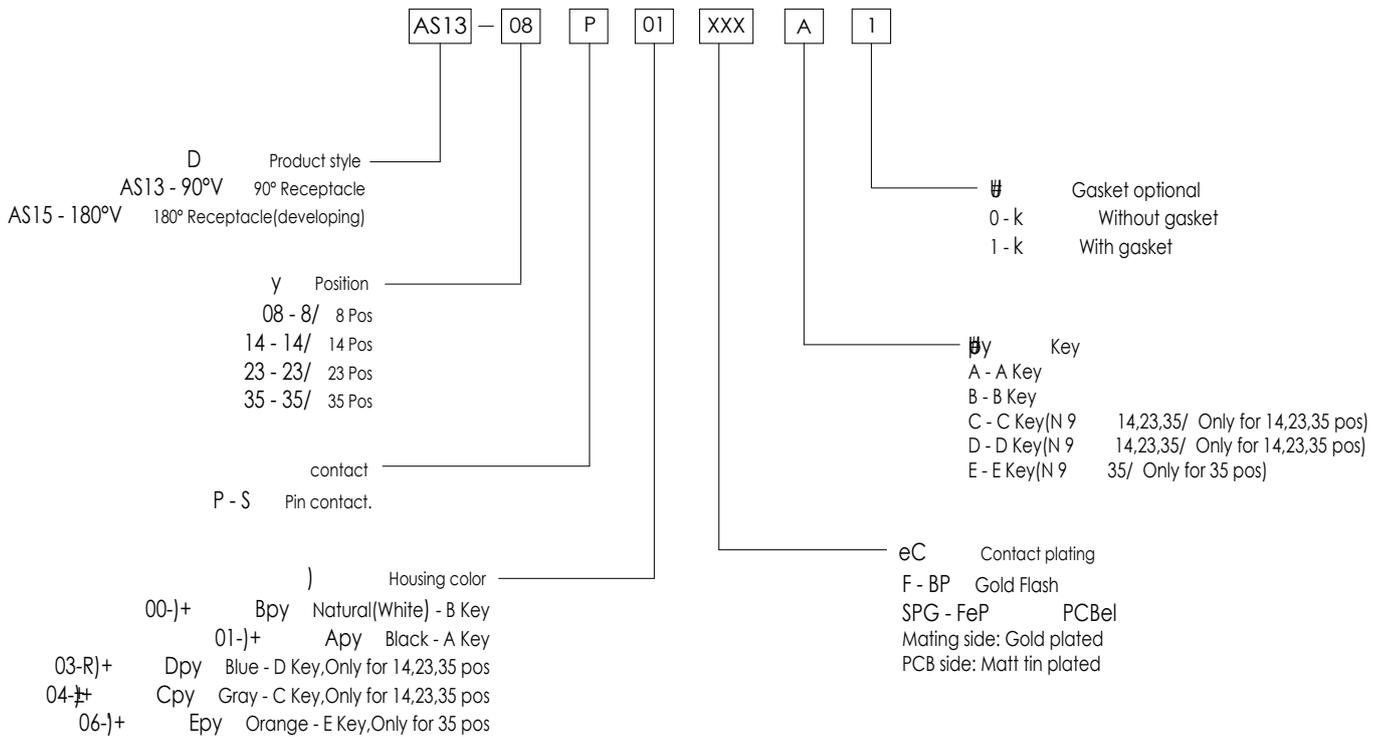
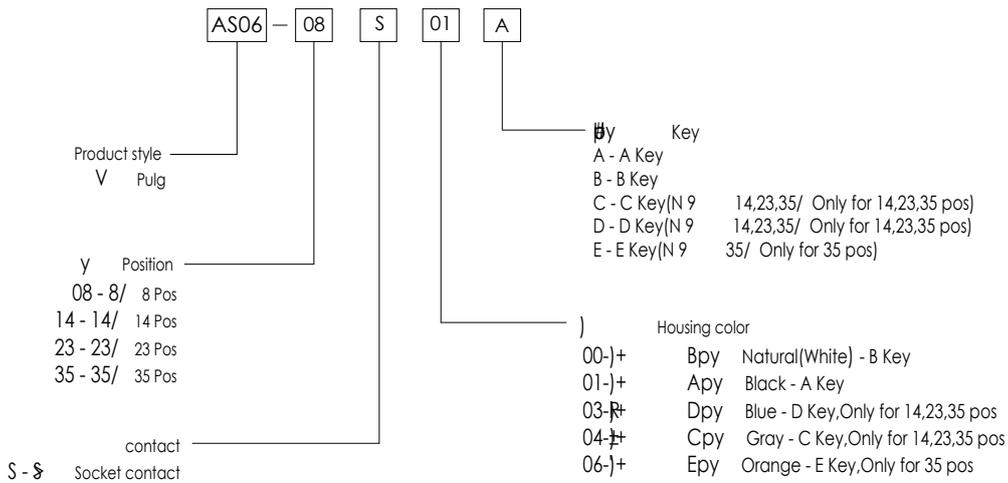


)4 Performance

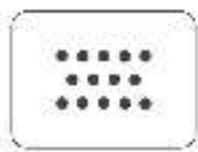
Temperature Range	† -40°C ~ +105°C Operative at temperatures from -40°C to +105°C. Continuous at rated current.
Submersion	+.4 IP68&IP69K
Max. Current (Max. Wire Gauge)	VW Max. 10A
Rating Voltage	V8 250V AC/DC according to IEC 500V AC/DC according to UL 1977
Contact Resistance	/VY P
Current Leakage	p8 1000V ACkv49 2Do Current leakage less than 2 milliamperes under 1000 V AC.
Minimum Mating Cycles	2-w x4 100)kZHo No electrical or mechanical defects after more than 100 cycles of engagement and disengagement.
Insulation Resistance	Y 25°Ck49 500,o 500 megohms minimum at 25°C.
Vibration	7"Zp ukY 10~2000Hz,20G,37ekZgkZ C°kZ9ao No unlocking or unmating and exhibits no mechanical or physical damage after sinusoidal vibration levels of 20G's at 10 to 2000 Hz in each of the three mutually perpendicular planes. No electrical discontinuities longer than 1 microsecond.
Thermal Cycle	CZp R -40°C +105°C 20²ekZwkJ1no No cracking, chipping or leaking after 20 times test cycles from -40°C to +105°C.
RoHS Compliant	Yes
Material	j yy. /yJ(y#ePoel Housing and wedge: thermoplastic Seals: silicone elastomer Contact: Selective gold plated or matt tin plated

Amphenol Sealed Series™ Y

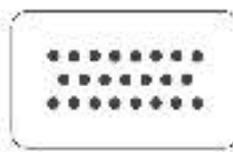
Amphenol Sealed Series™ Part number sequence



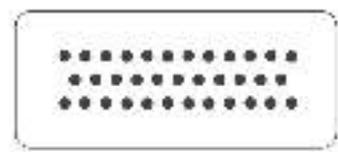
8 pos
8 size 1.3mm



14 pos
14 size 1.3mm



23 pos
23 size 1.3mm



35 pos
35 size 1.3mm

Amphenol Sealed Series™ /

Amphenol Sealed Series™ Connectors

7Y Plug P/N	5 HVFULSWLRQ	C Product picture
AS06-08S**x	AS/Nk 8/kV Sealed connector, 8 Pin, Plug	
AS06-14S**x	AS/Nk 14/kV Sealed connector, 14 Pin, Plug	
AS06-23S**x	AS/Nk 23/kV Sealed connector, 23 Pin, Plug	
AS06-35S**x	AS/Nk 35/kV Sealed connector, 35 Pin, Plug	

7Y Receptacle P/N	5 HVFULSWLRQ	C Product picture
AS13-08P**XXXx*	AS 8/k PCB 90°V 8 Pos, RA Flange mount PCB 90° Receptacle	
AS13-14P**XXXx*	AS 14/k PCB 90° V 14 Pos, RA Flange mount PCB 90° Receptacle	
AS13-23P**XXXx*	AS 23/k PCB 90° V 23 Pos, RA Flange mount PCB 90° Receptacle	
AS13-35P**XXXx*	AS 35/k PCB 90° V 35 Pos, RA Flange mount PCB 90° Receptacle	

h Note ** Wn) Housing Colour : 00-) /Natural(White) - B Key : 01-) /Black - A Key ; 03-R) /Blue - D Key,Only for 14,23,35 pos ;
 04-±) /Gray - C Key,Only for 14,23,35 pos ; 06-) /Orange - E Key,Only for 35 pos
 XXX WneC Contact plating : F-BP /Gold Flash ; SPG-FePk PCBel /Mating side:Gold plated PCB side:Matt tin plated
 x WnUpy Key : A - A Key z B - B Key ; C - C Key(Only for 14,23,35 pos) ; D - D Key(Only for 14,23,35 pos) ; E - E Key(Only for 35 pos)
 * WnU# Gasket optional : 0-k /Without gasket ; 1-k /With gasket

7Y Receptacle P/N	5 HVFULSWLRQ	C Product picture
AS15-08P**XXXx*	AS 8/k PCB +V 8 Pos, RA Flange mount PCB Straight Receptacle	
AS15-14P**XXXx*	AS 14/k PCB +V 14 Pos, RA Flange mount PCB Straight Receptacle	
AS15-23P**XXXx*	AS 23/k PCB +V 23 Pos, RA Flange mount PCB Straight Receptacle	
AS15-35P**XXXx*	AS 35/k PCB +V 35 Pos, RA Flange mount PCB Straight Receptacle	

X Housing Colour / Key picture



T Optional accessories

I Series	Y P/N	Wire range(mm ²)	Pictures	I Remark
eI Contact plating:Matt Tin	SC000917-77	16~20AWG (1.3-0.5mm ²)		Wv 8A Max. Current: 8A
#eP Contact plating:Selective Gold	SC000917-44	16~20AWG (1.3-0.5mm ²)		Wv 10A Max. Current: 10A
Sealing plug	SA-00479	N/A		N/A

h Note ** Wn) Housing Colour : 00-) /Natural(White) - B Key ; 01-) /Black - A Key ; 03-R) /Blue - D Key, Only for 14,23,35 pos ; 04-±) /Gray - C Key, Only for 14,23,35 pos ; 06-') /Orange - E Key, Only for 35 pos
 XXX WneC Contact plating : F-BP /Gold Flash ; SPG-FePk PCBel /Mating side:Gold plated PCB side:Matt tin plated
 x WnUpy Key : A - A Key z B - B Key ; C - C Key(Only for 14,23,35 pos) ; D - D Key(Only for 14,23,35 pos) ; E - E Key(Only for 35 pos)
 * WnU# Gasket optional : 0-k /Without gasket ; 1-k /With gasket

G y Assembly instruction



11
Crimp contact.



2 13
Hold connector with rear and insert contact depending on corresponding hole.



3
Push contact straight into connector until a `SRVLWLYHVWRSLVIHOWVOLJKWWXJZLOOFRGUPWKDWLWL` properly locked in place.



4 1
After installing all the terminals, push the platen vertically into the plug to hear a crisp clicking soundg.

2U How to extract contacts



1 13
Insert the tip of a screwdriver between the edge of the plug assembly housing and one corner of the wedgelock.



2 4
4
Gently pry the edge of the wedgelock until it is released from (but not completely removed) the housing. Repeat these steps for the opposite corner of the wedge.



3 3
3
Gently pull the wire of the contact to be removed while rotating the wire (a quarter turn each direction) back and forth until the contact is removed from the housing.



ATHP Series™



ATHPg	SAE-J2030 k ² ..>N		
kG No		ATHP	xEV
yk	IP67kvR	100A 350A/o	

Design to meet the requirements of SAE-J2030 standard for lock structure, ATHP Series is a rugged thermoplastic power connector series featuring the surety and high performance contact technology of crown spring struture. Designed for various "xEV" and Storage applications, ATHP is IP67 and available in single pole housing with rated current from 100A to 350A.

QP W
 Battery energy storage system(Computer room, railway, power grid, household, industrial and FRPPHUFLDOHOGV

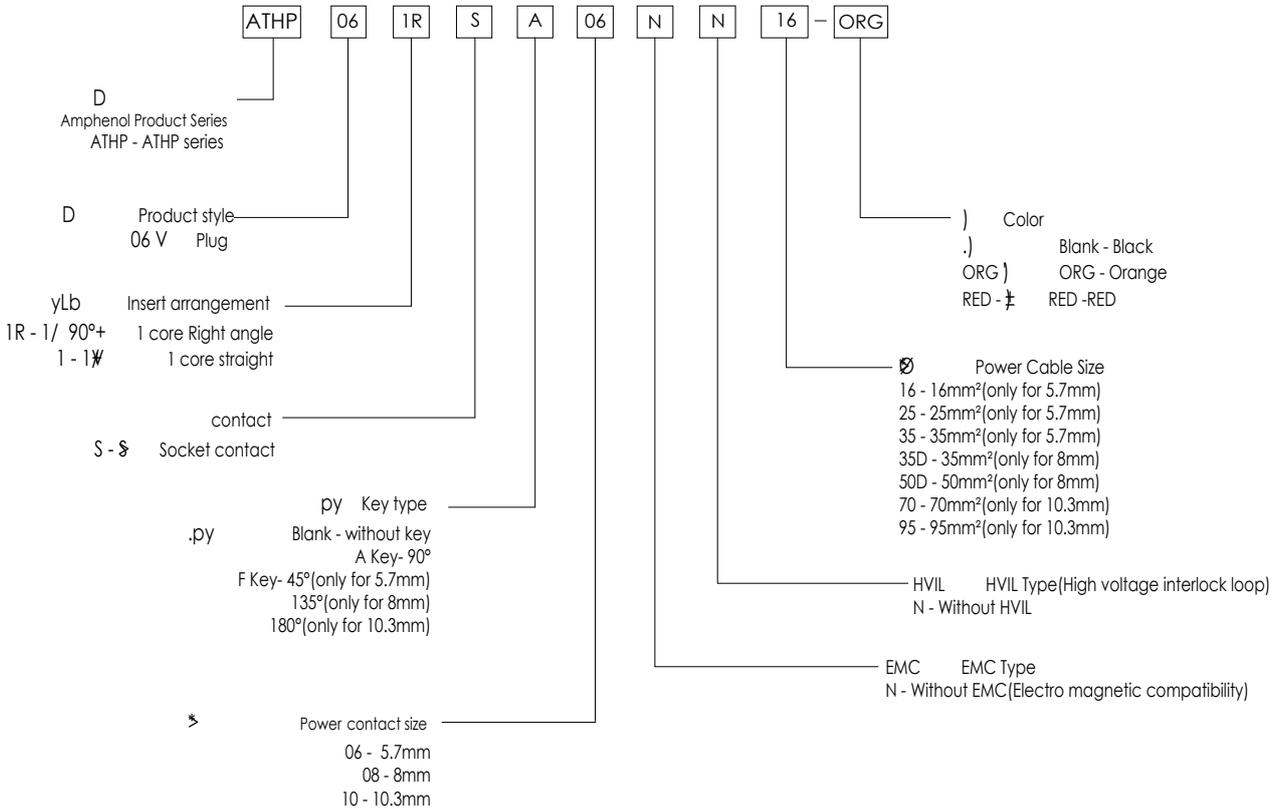
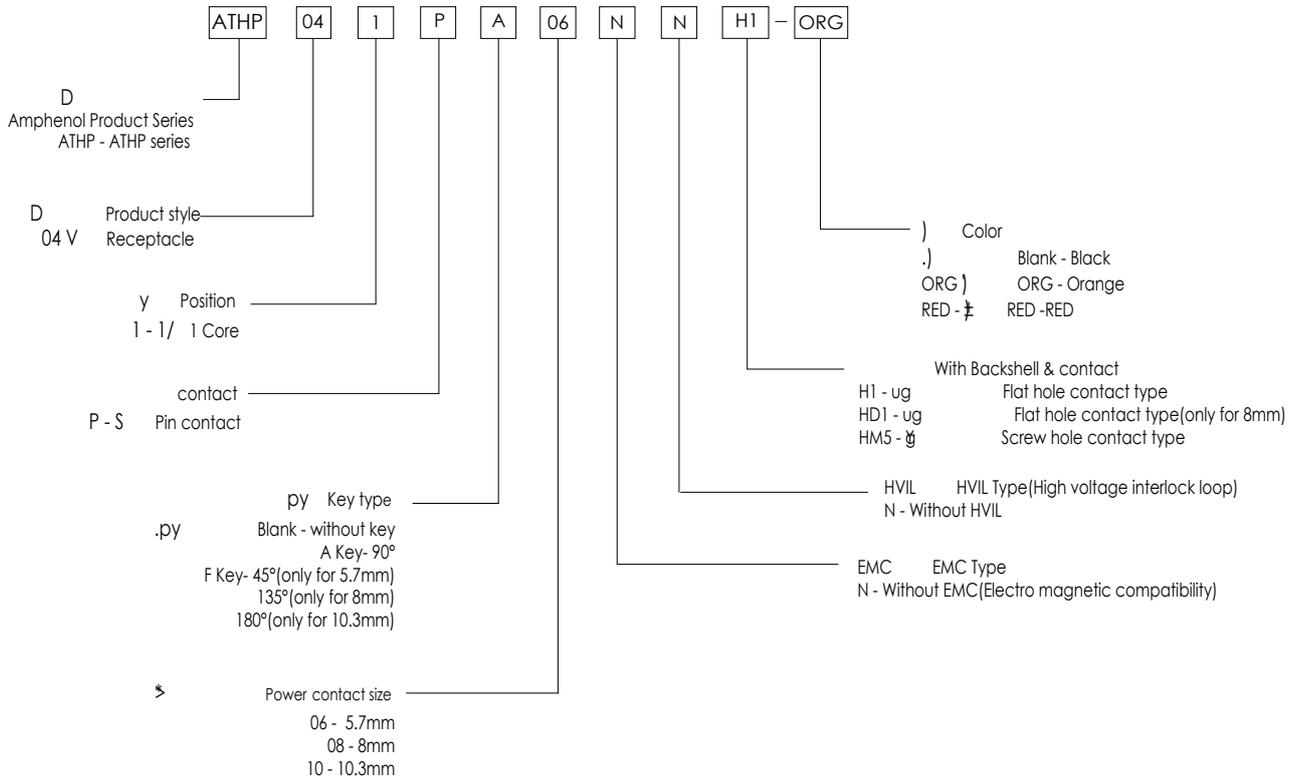
ATHP Series - Technical Performance

ATHP Series - Technical Performance

Protection	IP67(Mated) IP2XB(Unmated)					
Housing Body	Thermoplastic					
Contacts	bPec Brass, Silver-plated					
/ Seals	(Rubber					
98 Wire Range/mm ²	16mm ²	25mm ²	35mm ²	50mm ²	70mm ²	95mm ²
v Current Rating	100A	120A	130A	200A	300A	350A
Ø8 Cable OD Range	Ø8.1±0.2mm	Ø10.2±0.2mm	Ø12~14mm	Ø14.0±0.5mm	Ø15.5±0.5mm	Ø18~21.5mm
W9 Rating Voltage	1000V AC	1000V AC	1000V AC	1500V AC	1500V AC	1500V AC
N Contact Resistance	P					
9 Rated impulse Voltage	6800V DCkv49 2Do Current leakage less than 2 milliampere under 6800V DC.					
.x Minimum Mating Cycles	x49 500)kZHo No electrical or mechanical defects after more than 500 cycles of engagement and disengagement.					
9;glU HVIL & Shielded	Without					
Insulation Resistance	25°Ck49 5000,o 5000 megohms minimum at 25°C.					
7y Vibration Resistance	;+ukY 10~2000Hz,20G,37ekZgkZC %k Z9ao No unlocking or unmating. Exhibits no mechanical or physical damage after sinusoidal vibration levels of 20G's at 10 to 2000 Hz in each of the three mutually perpendicular planes. No electrical discontinuities longer than 1 microsecond.					
y Thermal Cycle	R -40°C d +125°C 20°ekZwkJ1no No cracking, chipping or leaking after 20 times test cycles from -40°C to +125°C.					
RoHS Compliant	Yes					



ATHP Series - Part Number Sequence



ATHP x

ATHP series Receptacle

7jY Receptacle part number	x KEY Type	○) Power contact size	C Picture
ATHP041P06NN-H1	Without Key	5.7 mm	
ATHP041PA06NN-H1	90°	5.7 mm	
ATHP041PF06NN-H1	45°	5.7 mm	
ATHP041P06NN-H1-ORG	Without Key	5.7 mm	
ATHP041PA06NN-H1-ORG	90°	5.7 mm	
ATHP041PF06NN-H1-ORG	45°	5.7 mm	
ATHP041P06NN-HM5	Without Key	5.7 mm	
ATHP041PA06NN-HM5	90°	5.7 mm	
ATHP041PF06NN-HM5	45°	5.7 mm	
ATHP041P06NN-HM5-ORG	Without Key	5.7 mm	
ATHP041PA06NN-HM5-ORG	90°	5.7 mm	
ATHP041PF06NN-HM5-ORG	45°	5.7 mm	
ATHP041P08NN-HD1	Without Key	8 mm	
ATHP041PA08NN-HD1	90°	8 mm	
ATHP041PF08NN-HD1	135°	8 mm	
ATHP041P08NN-HD1-ORG	Without Key	8 mm	
ATHP041PA08NN-HD1-ORG	90°	8 mm	
ATHP041PF08NN-HD1-ORG	135°	8 mm	
ATHP041P10NN-H1	Without Key	10.3 mm	
ATHP041PA10NN-H1	90°	10.3 mm	
ATHP041PF10NN-H1	180°	10.3 mm	
ATHP041P10NN-H1-ORG	Without Key	10.3 mm	
ATHP041PA10NN-H1-ORG	90°	10.3 mm	
ATHP041PF10NN-H1-ORG	180°	10.3 mm	

ATHP x

ATHP series Plug

7jY Plug part number	x KEY Type) Power Cable Size	C Picture
ATHP061RS06NN-16	Without Key	16 mm ²	
ATHP061RSA06NN-16	90°	16 mm ²	
ATHP061RSF06NN-16	45°	16 mm ²	
ATHP061RS06NN-16-ORG	Without Key	16 mm ²	
ATHP061RSA06NN-16-ORG	90°	16 mm ²	
ATHP061RSF06NN-16-ORG	45°	16 mm ²	
ATHP061RS06NN-25	Without Key	25 mm ²	
ATHP061RSA06NN-25	90°	25 mm ²	
ATHP061RSF06NN-25	45°	25 mm ²	
ATHP061RS06NN-25-ORG	Without Key	25 mm ²	
ATHP061RSA06NN-25-ORG	90°	25 mm ²	
ATHP061RSF06NN-25-ORG	45°	25 mm ²	
ATHP061RS06NN-35	Without Key	35 mm ²	
ATHP061RSA06NN-35	90°	35 mm ²	
ATHP061RSF06NN-35	45°	35 mm ²	
ATHP061RS06NN-35-ORG	Without Key	35 mm ²	
ATHP061RSA06NN-35-ORG	90°	35 mm ²	
ATHP061RSF06NN-35-ORG	45°	35 mm ²	

ATHP x

ATHP series Plug

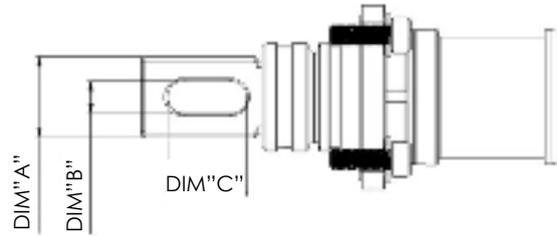
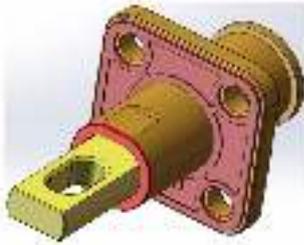
Y Plug part number	x KEY Type) Power Cable Size	C Picture
ATHP061RS08NN-50D	WITHOUT KEY	50 mm ²	
ATHP061RSA08NN-50D	90°	50 mm ²	
ATHP061RSF08NN-50D	135°	50 mm ²	
ATHP061RS08NN-50D-ORG	WITHOUT KEY	50 mm ²	
ATHP061RSA08NN-50D-ORG	90°	50 mm ²	
ATHP061RSF08NN-50D-ORG	135°	50 mm ²	
ATHP061RS10NN-70	WITHOUT KEY	70 mm ²	
ATHP061RSA10NN-70	90°	70 mm ²	
ATHP061RSF10NN-70	180°	70 mm ²	
ATHP061RS10NN-70-ORG	WITHOUT KEY	70 mm ²	
ATHP061RSA10NN-70-ORG	90°	70 mm ²	
ATHP061RSF10NN-70-ORG	180°	70 mm ²	
ATHP061RS10NN-95	WITHOUT KEY	95 mm ²	
ATHP061RSA10NN-95	90°	95 mm ²	
ATHP061RSF10NN-95	180°	95 mm ²	
ATHP061RS10NN-95-ORG	WITHOUT KEY	95 mm ²	
ATHP061RSA10NN-95-ORG	90°	95 mm ²	
ATHP061RSF10NN-95-ORG	180°	95 mm ²	

G y

Assembly instruction

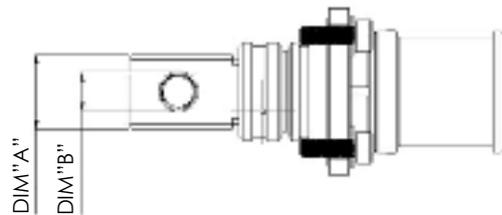
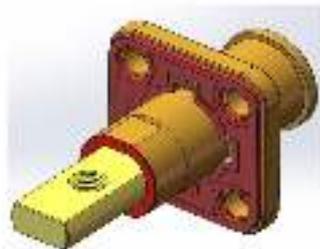
Receptacle

2y Waist hole structure



Connectors P/N	0	0	0
ATHP041PX06NN-H1-XXX	10.0	5.2	10.3
ATHP041PX08NN-HD1-XXX	14.0	5.5	11.0
ATHP041PX10NN-H1-XXX	16.5	6.5	16.0

8yY Screw holes structure



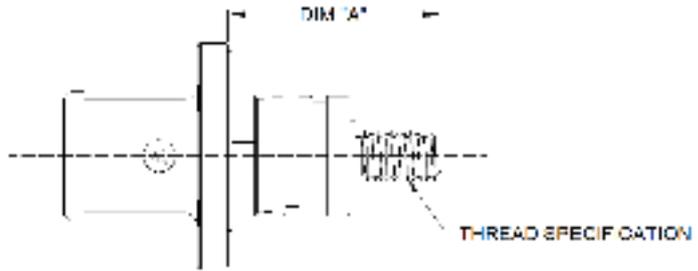
Connectors P/N	0	0
ATHP041PX06NN-HM5-XXX	10.0	M5 Y
ATHP041PX08NN-HM5-XXX	14.0	M6 Y
ATHP041PX10NN-HM5-XXX	16.5	M8 Y
ATHP041PX08NN-HM5-XXX-M8	14.0	M8 Y

hy "X" Wncpykqpyk Ay 90° pyk Fy 45° 135° 180° py , "XXX" Wn " qo ORGo RED"
 Notes: "X" represents different keys, such as blank: no key, A: 90° key, F: 45° or 135° or 180° key, "XXX" stands for Blank, ORG, RED.

G y

Assembly instruction

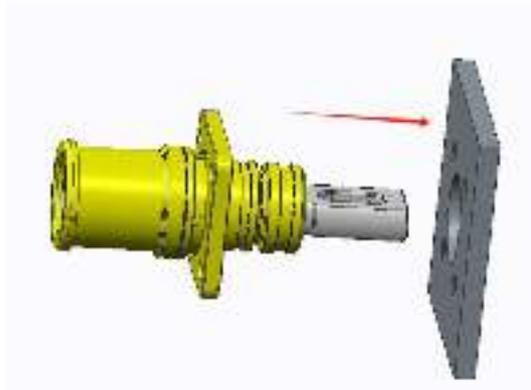
yY Screw Bolt structure



/jY Connectors P/N	0	Y THREAD SPECIFICATION
ATHP041PX06NN-M1-XXX	21.6	M6X1.0
ATHP041PX08NN-MD1-XXX	41.50	M8X1.25

25 1VyKp

Step 1y Place the socket on the panel as shown below



85 : Y1V (P> 0.4~0.7 N.m)

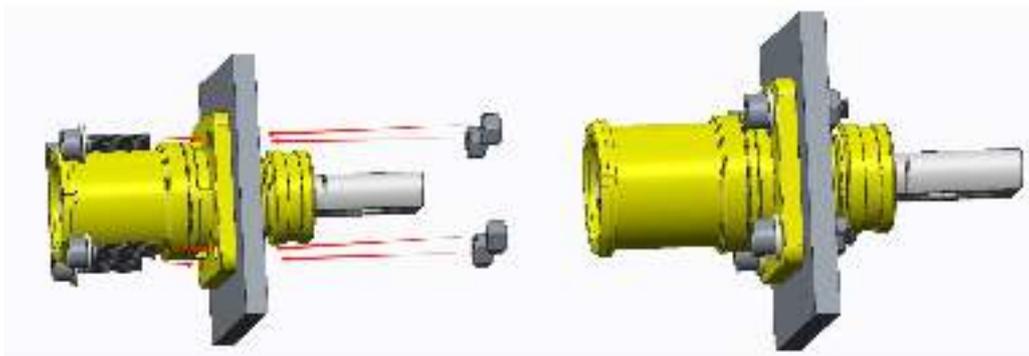
Step 2y Tighten receptacle onto the panel with bolts (recommended torque is 0.4~0.7 N.m)

(1. P QB/T70.2-2015 Y

Recommended to use QB/T70.2-2015 standard bolts

(2. P BS 4464:1969(2004)

Recommended to use BS 4464:1969(2004) standard spring gaskets



Y Connectors P/N	1Y Recommended screw	1i Recommended spring gaskets
ATHP041PX06NN-H1-XXX	M4	M4
ATHP041PX06NN-HM5-XXX	M4	M4
ATHP041PX08NN-HD1-XXX	M4	M4
ATHP041PX08NN-HM5-XXX	M4	M4
ATHP041PX10NN-H1-XXX	M5	M5
ATHP041PX10NN-HM5-XXX	M5	M5

hy "X" Wncpykqpyk Ay 90° pyk Fy 45° 135° 180° py , "XXX" Wn " qo ORGo RED"
 Notes: "X" represents different keys, such as blank: no key, A: 90° key, F: 45° or 135° or 180° key, "XXX" stands for Blank, ORG, RED.

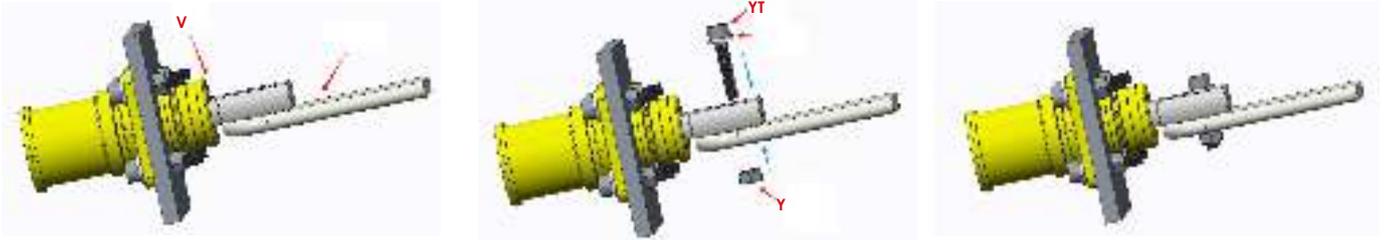
7G Receptacle assembly

5 1Vc>bN

Step 3y Connect the socket to the customer bus copper wire

YCY

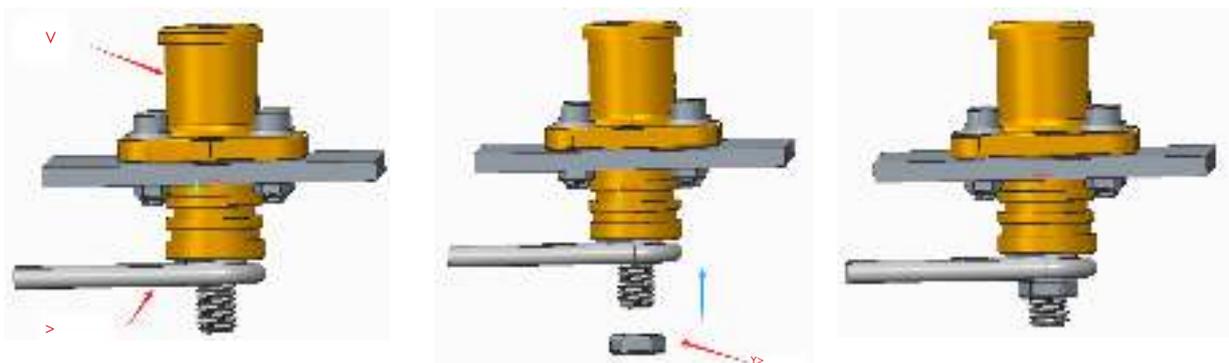
1.Waist hole and thread hole structure



$\int Y$ Connectors P/N	1Y Recommended screw	1 Recommended spring gaskets
ATHP041PX06NN-H1-XXX	M5	3.0-3.5N.m
ATHP041PX06NN-HM5-XXX	M5	3.0-3.5N.m
ATHP041PX08NN-HD1-XXX	M5	3.0-3.5N.m
ATHP041PX08NN-HM5-XXX	M6	6.10-7.45N.m
ATHP041PX10NN-H1-XXX	M6	6.10-7.45N.m
ATHP041PX10NN-HM5-XXX	M8	9.8-10.8 N.m

Y

2. Screw Bolt structure



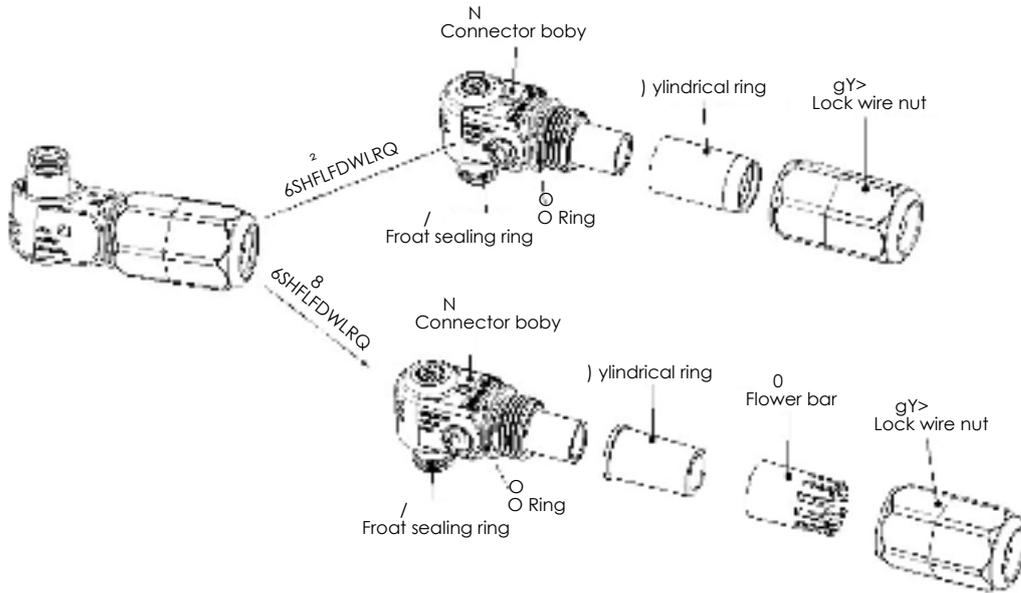
$\int Y$ Connectors P/N	1Y Recommended screw	1 Recommended spring gaskets
ATHP041PX06NN-M1-XXX	M6	6.10-7.45N.m
ATHP041PX08NN-MD1-XXX	M8	9.8-10.8 N.m

hy "X" Wncpykqpyk Ay 90° pyk Fy 45° 135° 180° py , "XXX" Wn " qo ORGo RED"
 Notes: "X" represents different keys, such as blank: no key, A: 90° key, F: 45° or 135° or 180° key, "XXX" stands for Blank, ORG, RED.

7 Plug

Product Component

NY
 7KHFRQQHFWRUVDUHGLYLGHGLQWRWKHIROORZLQJWZRVSFLFDWLRQV
 2 : N gY>
 6SHFLFDWLRQ&RPSRVHGRIFRQQHFWRUERGFOLQGULFDOLQJORFNZLUHQXW
 8 : N 0 gY>
 6SHFLFDWLRQ&RPSRVHGRIFRQQHFWRUERGFOLQGULFDOLQJRZHUEDUORFNZLUHQXW



y+VNgPy
 The unlocking structure of the right angle and straight plug connectors are as follows:

2 79"gz
 Structure 1: Press unlock

2
 6SHFLFDWLRQ



+VN
 Straight plug connector

/jY Connectors P/N	/l Connector type	Unlock structure	Applicable wire	1 Recommended wire RYHUOLQVXOWLRQ
ATHP061RSX06NN-16-XXX	5.7mm	7p"gz Push-button unlock	16mm ²	7.9-8.3mm
ATHP061SX06NN-16-XXX	5.7mm +	79"gz 6XKYYTRUIQ	16mm ²	7.9-8.3mm
ATHP061RSX06NN-25-XXX	5.7mm	7p"gz 6YNHZZUT TRUIQ	25mm ²	10.0-10.4mm
ATHP061SX06NN-25-XXX	5.7mm +	79"gz 6XKYYTRUIQ	25mm ²	10.0-10.4mm

hy "X" Wncpykqpyk Ay 90° pyk Fy 45° 135° 180° py , "XXX" Wn " qo ORGo RED"
 Notes: "X" represents different keys, such as blank: no key, A: 90° key, F: 45° or 135° or 180° key, "XXX" stands for Blank, ORG, RED.

7 Plug

8 7p"gz

Structure 2: Push-button unlock;



VN
Right angle plug connector



+VN
Straight plug connector

8
6SHFLDWLRQ

/jY Connectors P/N	/l Connector type	Unlock structure	Applicable wire	1 Recommended wire RYHUOLQVXOWLRQ2
ATHP061RSX06NN-35-XXX	5.7mm	7p"gz Push-button unlock	35mm ²	12.0-13.0mm
ATHP061RSX08NN-50D-XXX	8.0mm	7p"gz Push-button unlock	50mm ²	13.5-14.5mm
ATHP061RSX08NN-70-XXX	8.0mm		70mm ²	15.0-15.5mm
ATHP061SX08NN-50D-XXX	8.0mm +	7p"gz 6XKYTRUIQ	50mm ²	13.5-14.5mm
ATHP061RSX10NN-70-XXX	SS	7p"gz Push-button unlock	70mm ²	15.0-16.0mm
ATHP061SX10NN-70-XXX	SS +		70mm ²	15.0-15.5mm
ATHP061RSX10NN-95-XXX	SS	7p"gz Push-button unlock	95mm ²	19.0-20.0mm
ATHP061SX10NN-95-XXX	SS +		90mm ²	19.0-20.0mm

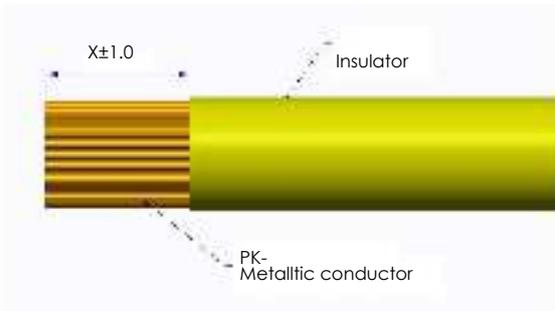
hy "X" Wncpykqpyk

Ay 90° pyk Fy 45° 135° 180° py , "XXX" Wn " qo ORGo RED"

Notes: "X" represents different keys, such as blank: no key, A: 90° key, F: 45° or 135° or 180° key, "XXX" stands for Blank, ORG, RED.

25ykyC

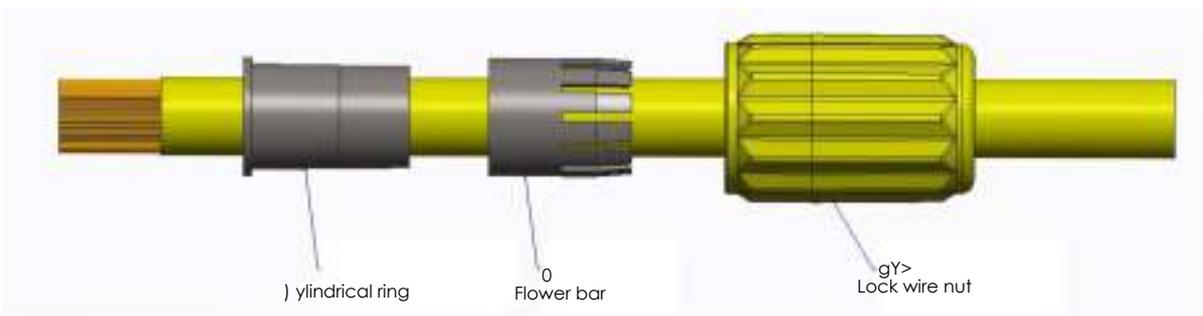
Step 1y Peel off the wire and strip off the cable insulation layer
hC/o
Be attention and not to cut off the wire core



Wire range	1G X
16mm ²	17.0mm
25mm ²	20.0mm
35mm ²	
50mm ²	
70mm ²	
95mm ²	

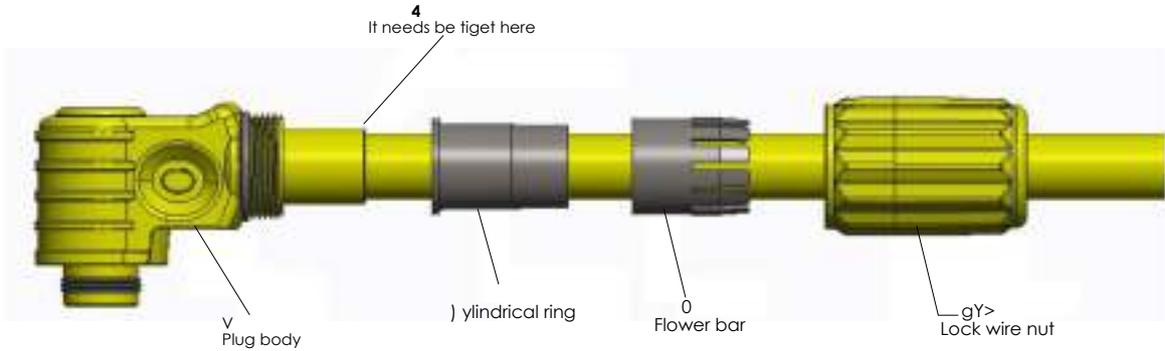
85y1o0ogY>|kPo

Step 2y 6HWWKHFOLQGULFDOFLUFOHRZHUEDUORFNZLUHQXWRQWKHZLUHLQWXUQ7KHIROORZLQJGLDJUDPVKRZV
hy²k1ogY>|o
1RWH,IWKHVWUXFWXUHRIVSHFLDWLRQLVXVHGWKHFROXPQLQJDQGWKHORFNQXWDXHSODFHGRQWKHZLUHLQWXUQ



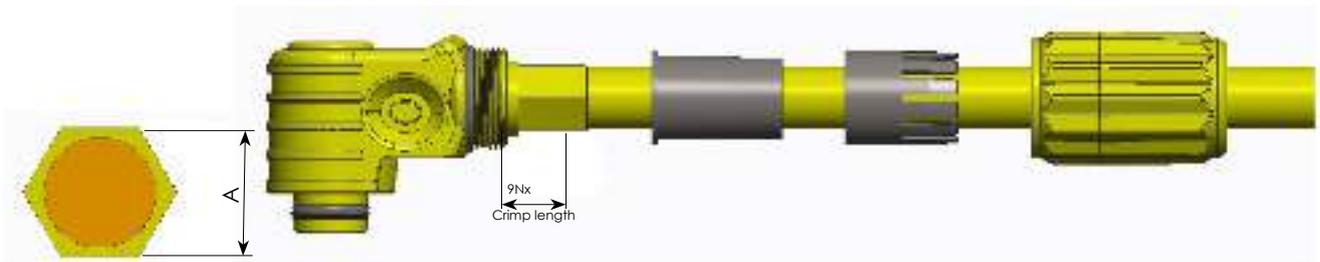
5y1-BaVNakPo

Step 3y Insert the wire conductor into the ear of the connector riveting terminal; The following diagram shows.



5y19N-BakPo

Step 4y Press the wire ear to the wire conductor part; The following diagram shows.
 P9Nx 15±0.5mm
 commended crimp length 15±0.5mm



Wire size	08d A	8/G CRIMP LENGTH	8/ c2d Cable pullout force
16mm ²	7.1mm	7±0.5mm	4
25mm ²	8.1mm	10±0.5mm	4
35mm ²	9.0mm	10±0.5mm	4
50mm ²	11.2mm	15±0.5mm	4
70mm ²	13.2mm	15±0.5mm	4
95mm ²	14.2mm	15±0.5mm	4

h P9N>*N KGØ 9NW 9Nym“yyP
 ,YCy²9N>*

Notes: The recommended crimp sizes are only for reference. The customer should adjust them according to FDEOHVSHFLFDWLRQDQGQFULPSWRRODQGWVWUHVXOWVLQFOXGLQJWHPHUDWXUHULVHDQGGPHWDOORJUDSKLFDG pullout force.

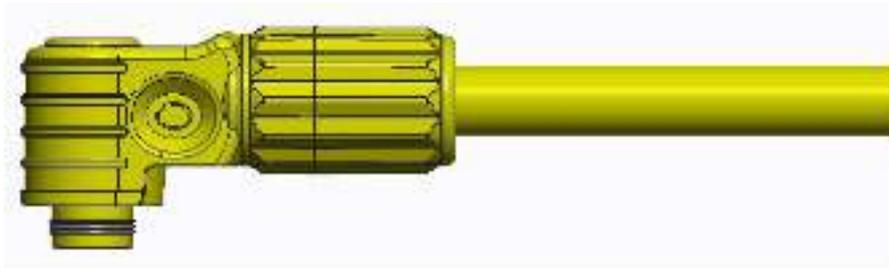
5yxy0k 0x kPo

Step 5y VVHPEOHWKHFOLQGULFDOULQJDQGRZHUEDUUUVWZLWKRWRZHUEDUVSHFLFDWLRQVDVVHPEOLVQRWUHTXLUHGDVVKRZQLQWKHIROORZLQJXXUH



5yexgY>kw"7rykgY>cNkPo

Step 6y 7KHQDVVHPEOHWKHFDEOHQXWDQGURWDWHLWLQWRSODFH7KHFEQHGXWWVVDPOHVVOZLWKKHFRQQH DVVKRZQLQWKHIROORZLQJXXUH



/jY Connectors P/N	16Y (N.M) Recommended tightening torque for cable nuts
ATHP061RSX06NN-16-XXX	2.5 - 3.0
ATHP061RX06NN-16-XXX	2.5 - 3.0
ATHP061RSX06NN-25-XXX	2.5 - 3.5
ATHP061RX06NN-25-XXX	2.5 - 3.5
ATHP061RSX06NN-35-XXX	3.3 - 3.8
ATHP061RX06NN-35-XXX	3.3 - 3.8
ATHP061RSX08NN-50D-XXX	3.3 - 3.8
ATHP061RX08NN-50D-XXX	3.3 - 3.8
ATHP061RSX10NN-70-XXX	4.5 - 5.0
ATHP061RX10NN-70-XXX	4.5 - 5.0
ATHP061RSX10NN-95-XXX	4.5 - 5.0
ATHP061RX10NN-95-XXX	4.5 - 5.0

hy "X" Wncpykqpyk Ay 90° pyk Fy 45° 135° 180° py , "XXX" Wn " qo ORGo RED"
 Notes: "X" represents different keys, such as blank: no key, A: 90° key, F: 45° or 135° or 180° key, "XXX" stands for Blank, ORG, RED.

Nmwoybg-PQIS

Tel18550810771