



HVES & HVSP

High Voltage Energy Storage

CONTENT

PRODUCT INTRODUCTION..... 2

HVES 06 - TECHNICAL CHARACTERISTICS..... 3

PRODUCT DIMENSION..... 4

HOW TO ORDER..... 5

HVES 12 - TECHNICAL CHARACTERISTICS..... 6

PRODUCT DIMENSION..... 7

HOW TO ORDER..... 9

HVSP - TECHNICAL CHARACTERISTICS..... 10

R6 RECEPTACLE & PLUG..... 11

R8 RECEPTACLE & PLUG..... 12

R10 RECEPTACLE & PLUG..... 13

HOW TO ORDER..... 14

PART NUMBER REFERENCE..... 15

CODING / ALTERNATE POSITION..... 16

TEMPERATURE RISE CURVE..... 17

PRODUCT INTRODUCTION



HVSP series is High Voltage Small size Plastic connector, it has rotation and polarization integration, can be used in Energy Storage and other applications. It's a prime solution for limited space and cost.

HVES series is an evolution of our HVSP, offers higher current applications with environmental sealing in more compact sizes. It features an innovative quick lock and press-to-release design for effortless operation.

Product Series	HVES 06	HVES 12	HVSP R6	HVSP R8	HVSP R10
Rated Current	120A	400A	120A	150A to 180A	180A to 250A
Rated Voltage	1000V DC	1500V DC	1000V DC	1000V DC	1000V DC
IP Rating	IP67	IP67/IP6K9K	IP67/IP6K9K	IP67/IP6K9K	IP67/IP6K9K
Touch-Proof	Yes	Yes	Yes	Yes	No
Cable Type	4AWG	95 to 120mm ² 4AWG	25mm ²	35 to 50mm ²	50 to 70mm ²
Shielding	No	No	No	No	No

HVES 06 - TECHNICAL CHARACTERISTICS



HVES 06 KEY FEATURES

Small in size with plastic housing

Right angle plug

360° rotation & polarization intergration

Multiple alternate positions

Tool required to unmate

Safe, sealed with touch proof

RoHS compliant

APPLICATIONS

Battery

Motor

Inverter

MECHANICAL

Durability ≥ 50 mating cycles

Wire range 4AWG

Insertion and extraction force N/A

Tool Electric wrench
12mm hexagonal sleeve

ELECTRICAL

Rated voltage 1000V DC

Max rated current up to 120A

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

Dielectric withstand voltage 3000V AC

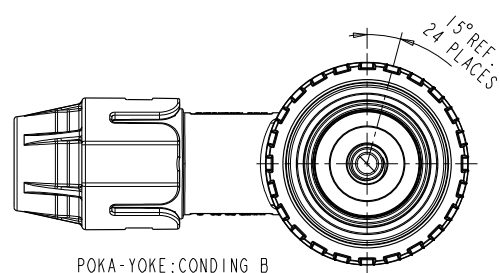
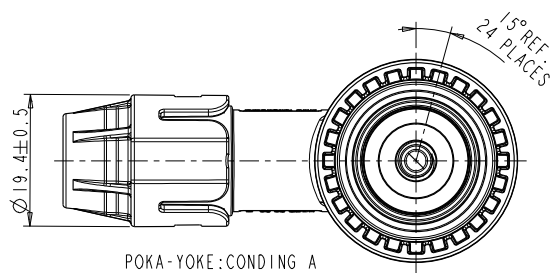
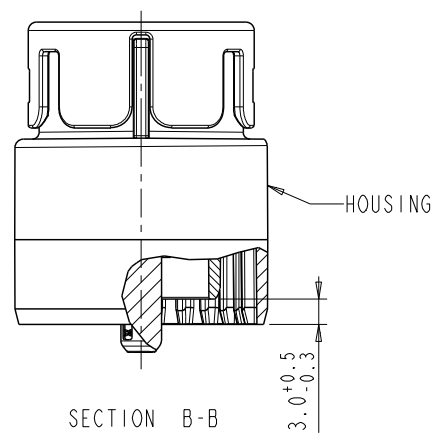
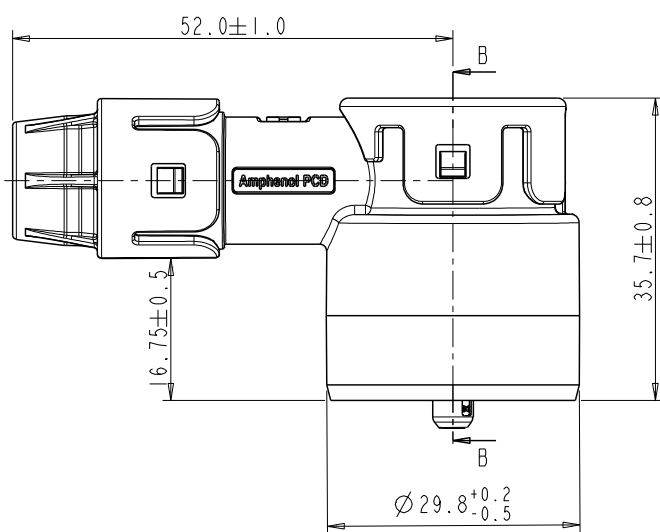
Shielding type No shielding

ENVIRONMENTAL

Sealing IP67 (mated)

Temperature range -40°C to 125°C

HVES 06 - PRODUCT DIMENSION



HOW TO ORDER

	HVES	06	08	A	S01
Terminal specification: Series number: 06					
Connector type: 08: Plug					
Coding / Alternate position: A: Key A, Orange color B: Key B, Black color					
Version: S01: Version S01					

HVES 12 - TECHNICAL CHARACTERISTICS



HVES 12 KEY FEATURES

Small in size with plastic housing

Broad wire range

Right angle plug

360° rotation & polarization intergration

Multiple alternate positions

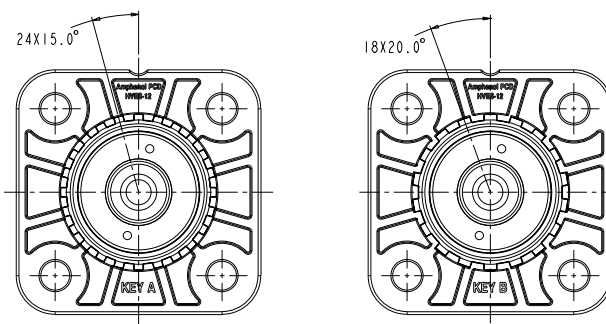
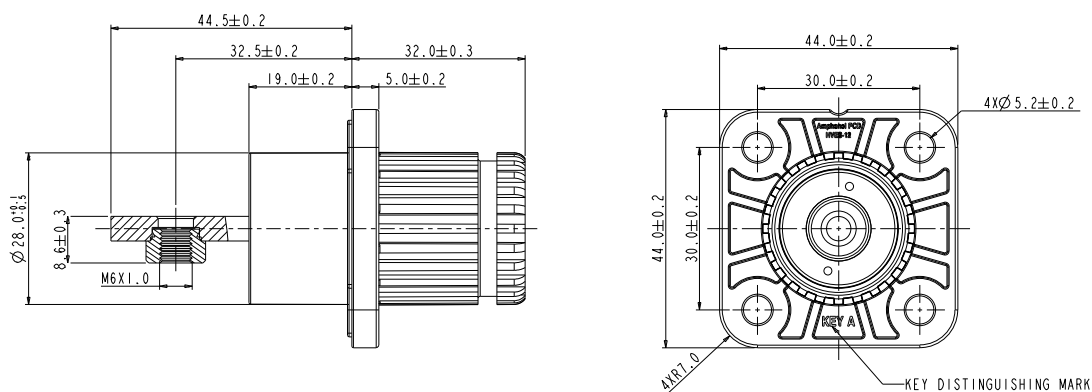
No tool required to unmate

RoHS compliant

APPLICATIONS	
Battery	
Motor	
Inverter	
MECHANICAL	
Durability	≥ 50 mating cycles
Wire range	95mm ² to 120mm ² 4AWG
Insertion and extraction force	< 100N
ELECTRICAL	
Rated voltage	1500V DC
Max rated current	up to 400A
Insulator resistance	> 200MΩ
Dielectric withstand voltage	4000V AC
Shielding type	No shielding
ENVIRONMENTAL	
Sealing	IP67 (mated), IP6K9K
Temperature range	-40°C to 125°C

RECEPTACLES HVES 12

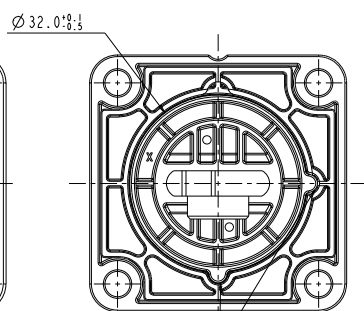
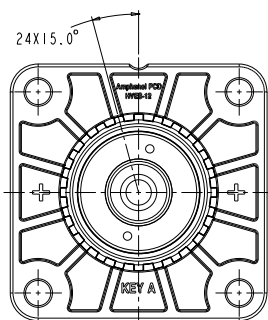
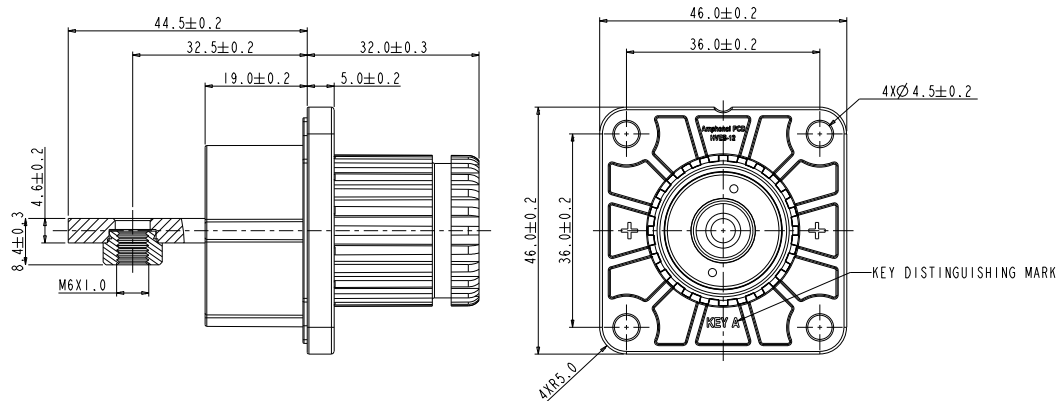
S1 VERSION



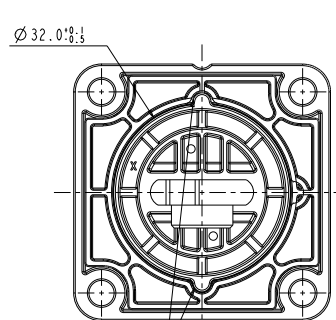
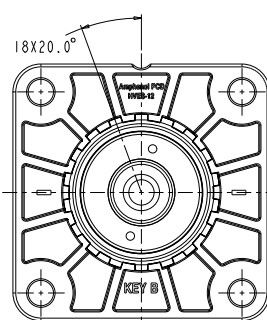
KEY A

KEY B

S2 VERSION



Install the fool-proof key A

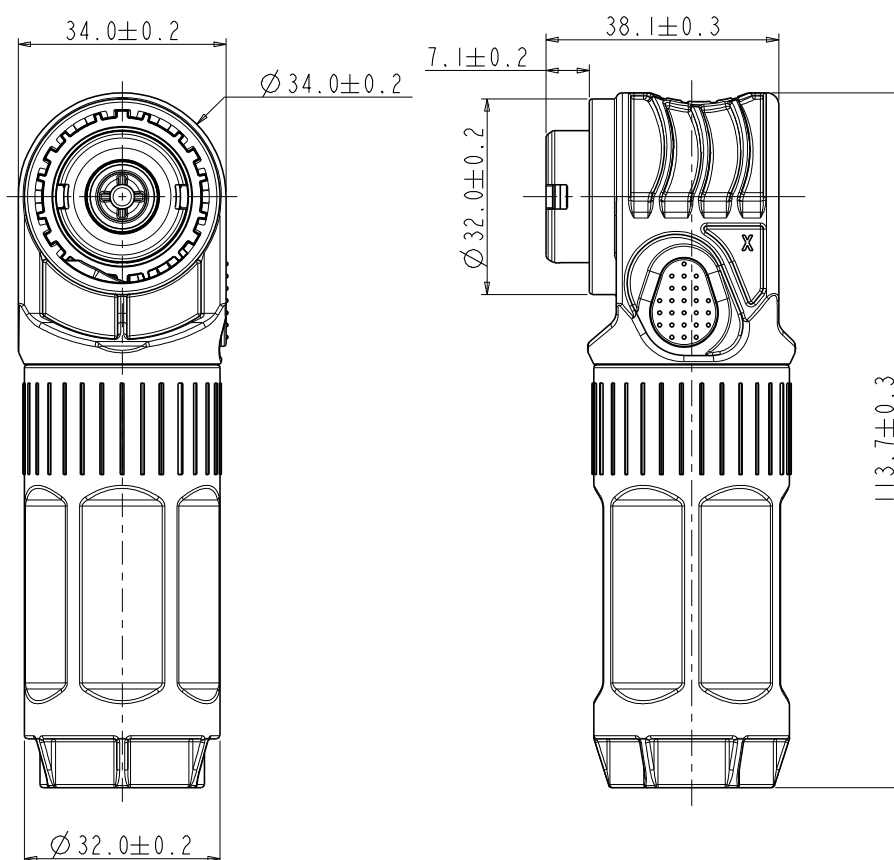


Install the fool-proof key A

KEY A

KEY B

PLUGS HVES 12



HOW TO ORDER RECEPTACLES

	HVES	12	02	1	A	S01
Terminal specification: Series number: 12						
Connector type: 02: Receptacle						
Pin: 1: 1-Pin						
Coding / Alternate position: A: Key A, Orange color B: Key B, Black color						
Version: S01: Version S01 S02: Version S02						

HOW TO ORDER PLUG

	HVES	12	08	1	A	01
Terminal specification: Series number: 12						
Connector type: 08: Plug						
Pin: 1: 1-Pin						
Coding / Alternate position: A: Key A, Orange color B: Key B, Black color						
Wire range: 01: 120mm ² , Wire OD = 22.0 ± 0.5mm 02: 95mm ² , Wire OD = 17.5 ± 0.4mm 03: 4/0AWG, Wire OD = 18.5 ± 0.5mm						

HVSP - TECHNICAL CHARACTERISTICS



HVSP KEY FEATURES

Small in size with plastic housing

Broad wire range

Right angle plug

360° rotation & polarization intergation

Multiple alternate positions

No tool required to unmate

Safe, sealed with touch proof

RoHS compliant

APPLICATIONS

Battery

Motor

Inverter

MECHANICAL

Durability ≥ 50 mating cycles

Wire range 25mm^2 to 70mm^2

Insertion and extraction force $< 100\text{N}$

CPA Available

ELECTRICAL

Rated voltage 1000V DC

Max rated current up to 250A

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

Dielectric withstand voltage 3000V AC

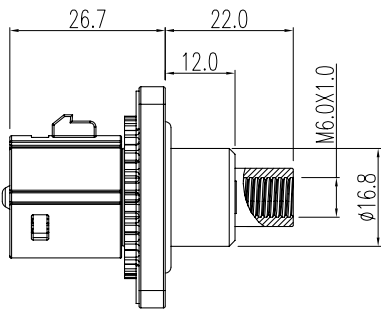
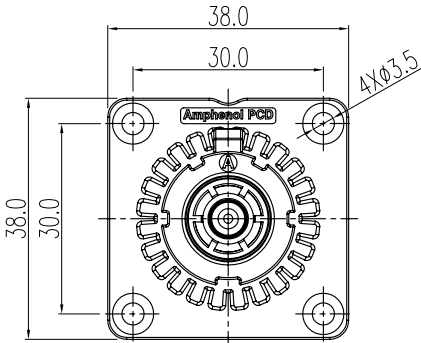
Shielding type No shielding

ENVIRONMENTAL

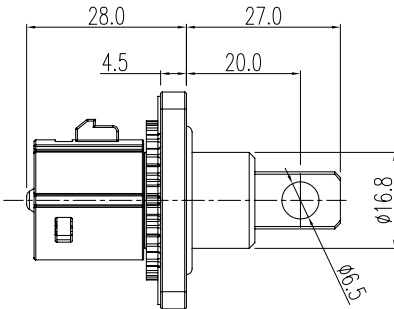
Sealing IP67(mated), IP6K9K

Temperature range -40°C to 125°C

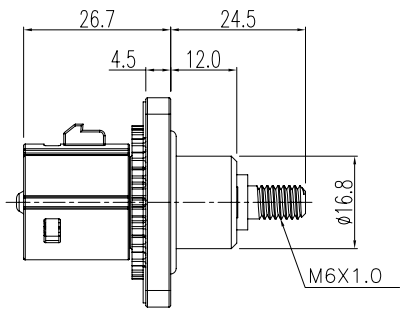
RECEPTACLE R6



Screw termination- Internal
MD Type

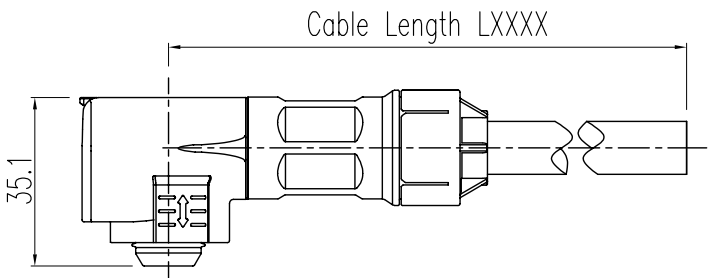
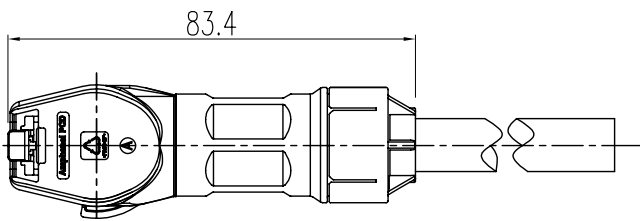
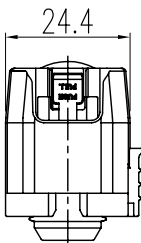


Through hole termination
MH Type

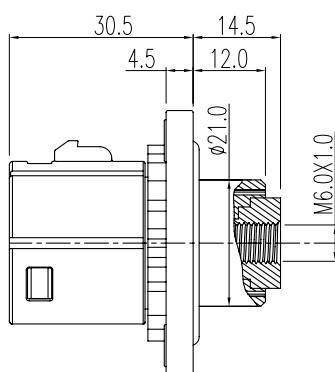
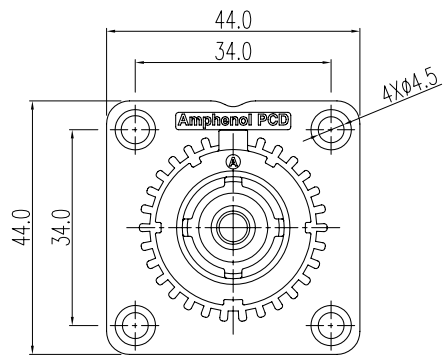


Screw termination - External
MT Type

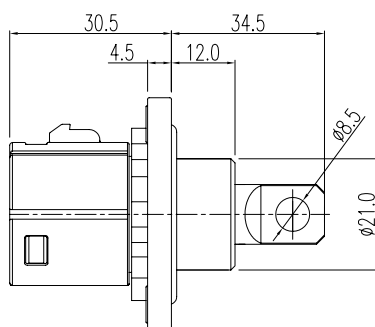
PLUG R6



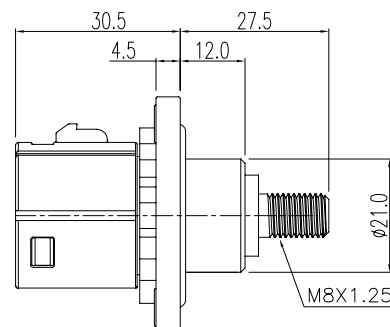
RECEPTACLE R8



Screw termination- Internal MD Type

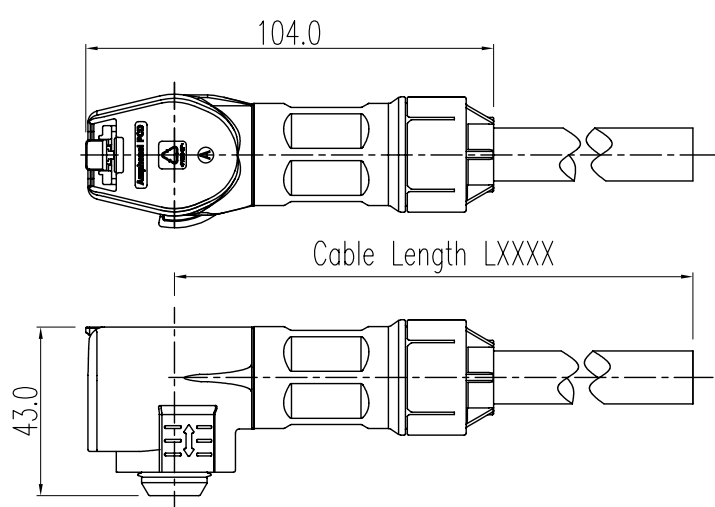
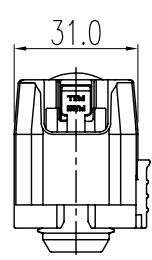


Through hole termination MH Type

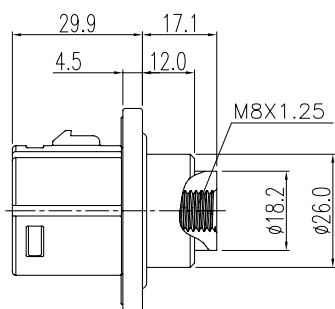
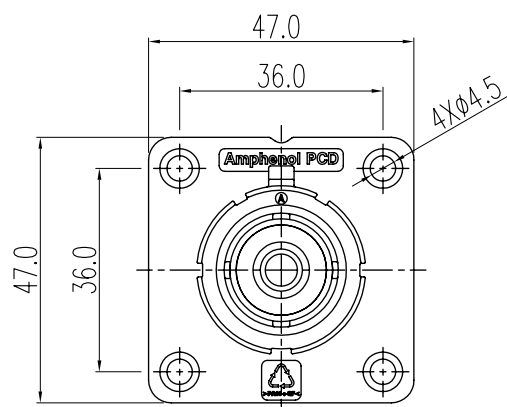


Screw termination - External MT Type

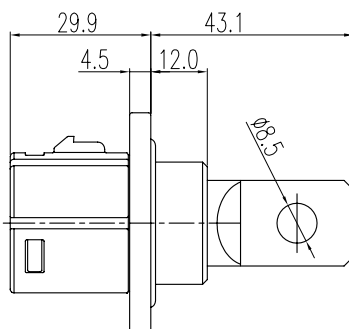
PLUG R8



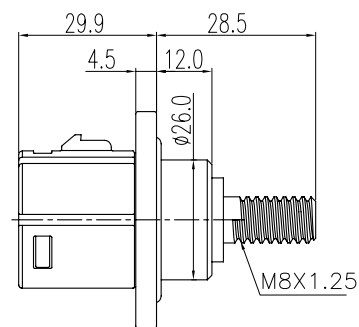
RECEPTACLE R10



Screw termination - Internal
MD Type

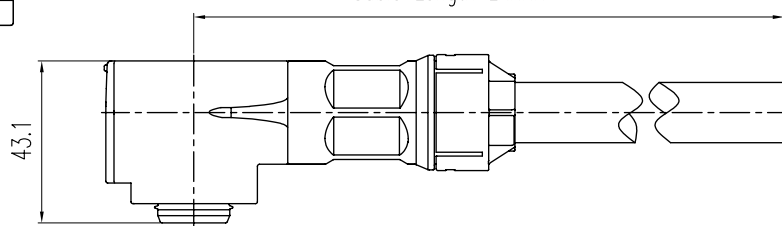
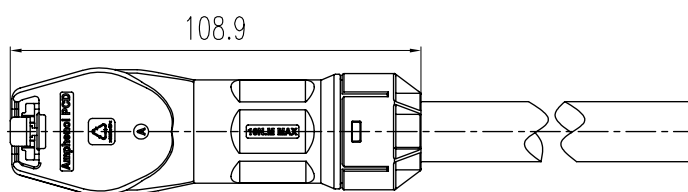
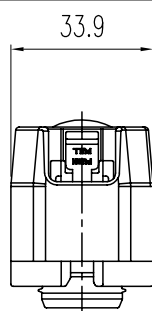


Through hole termination
MH Type



Screw termination - External
MT Type

PLUG R10



HOW TO ORDER RECEPTACLE

	HVSP	0	R8	MT	A	/	
Shell type:							
0: Box mounting receptacle							
Insert size:							
R6: 6mm pin contact							
R8: 8mm pin contact							
R10: 10mm pin contact							
Termination:							
MT: Screw tail							
MH: Through hole contact							
MD: Screw tail inside							
Coding / Alternate position:							
A: Alternate position A, please refer to page 16							
B: Alternate position B, please refer to page 16							
C: Alternate position C, please refer to page 16							
D: Alternate position D, please refer to page 16							
E: Alternate position E, please refer to page 16							
Color of housing:							
/: Omit, orange							
B: Black							

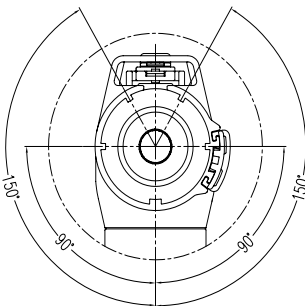
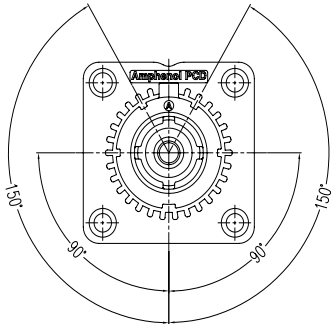
HOW TO ORDER PLUG

	HVSP	9	R8	FC	X	/	35	LXXXX
Shell type:								
9: Right angle plug								
Insert size:								
R6: 6mm socket contact								
R8: 8mm socket contact								
R10: 10mm socket contact								
Termination:								
FC: Crimp								
Coding / Alternate position:								
A: Alternate position A, please refer to page 16								
B: Alternate position B, please refer to page 16								
C: Alternate position C, please refer to page 16								
D: Alternate position D, please refer to page 16								
E: Alternate position E, please refer to page 16								
Color of housing:								
/: Omit, orange								
B: Black								
Cable diameter:								
25: 25mm ² cable (OD: 9.5mm to 11mm)								
35: 35mm ² cable (OD: 11mm to 12.5mm)								
50: 50mm ² cable (OD: 13mm to 14.5mm)								
70: 70mm ² cable (OD: 15mm to 16.5mm)								
Cable length :								
LXXXX: (Unit in mm)								

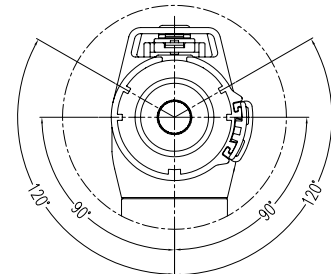
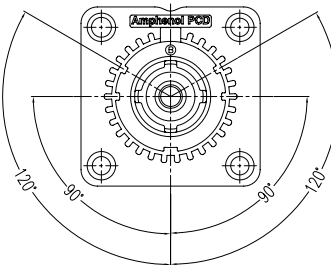
PART NUMBER REFERENCE	
Receptacle	Plug
HVSP R6 PART NUMBER (TBD)	
HVSP-0R6-M D/H/T A	HVSP-9R6-FCA-XXLXXXX
HVSP-0R6-M D/H/T B	HVSP-9R6-FCB-XXLXXXX
HVSP-0R6-M D/H/T C	HVSP-9R6-FCC-XXLXXXX
HVSP-0R6-M D/H/T D	HVSP-9R6-FCD-XXLXXXX
HVSP-0R6-M D/H/T E	HVSP-9R6-FCE-XXLXXXX
HVSP R8 PART NUMBER	
HVSP-0R8-M D/H/T A	HVSP-9R8-FCA-XXLXXXX
HVSP-0R8-M D/H/T B	HVSP-9R8-FCB-XXLXXXX
HVSP-0R8-M D/H/T C	HVSP-9R8-FCC-XXLXXXX
HVSP-0R8-M D/H/T D	HVSP-9R6-FCD-XXLXXXX
HVSP-0R8-M D/H/T E	HVSP-9R6-FCE-XXLXXXX
HVSP R10 PART NUMBER	
HVSP-0R10-M D/H/T A	HVSP-9R10-FCA-XXLXXXX
HVSP-0R10-M D/H/T B	HVSP-9R10-FCB-XXLXXXX
HVSP-0R10-M D/H/T C	HVSP-9R10-FCC-XXLXXXX
HVSP-0R10-M D/H/T D	HVSP-9R10-FCD-XXLXXXX
HVSP-0R10-M D/H/T E	HVSP-9R10-FCE-XXLXXXX

CODING / ALTERNATE POSITION

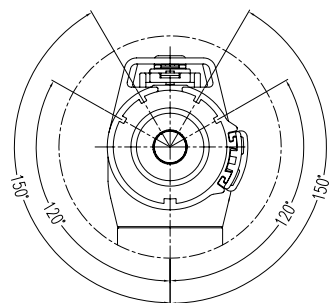
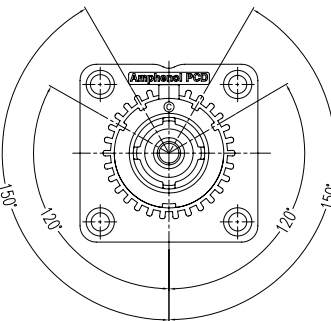
Coding A



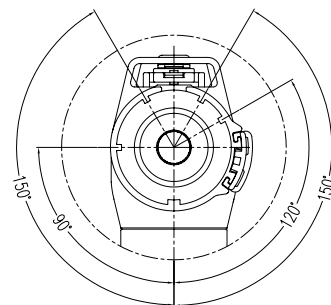
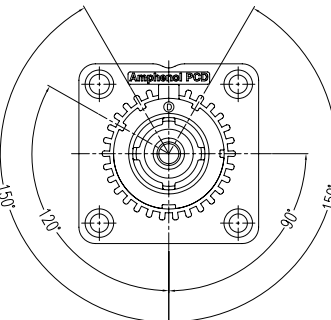
Coding B



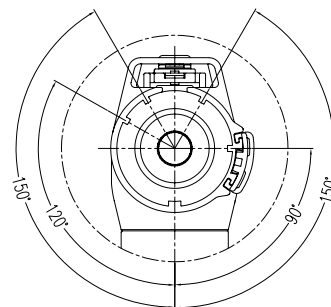
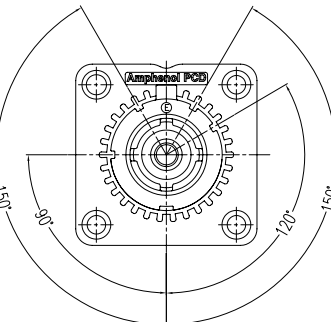
Coding C



Coding D

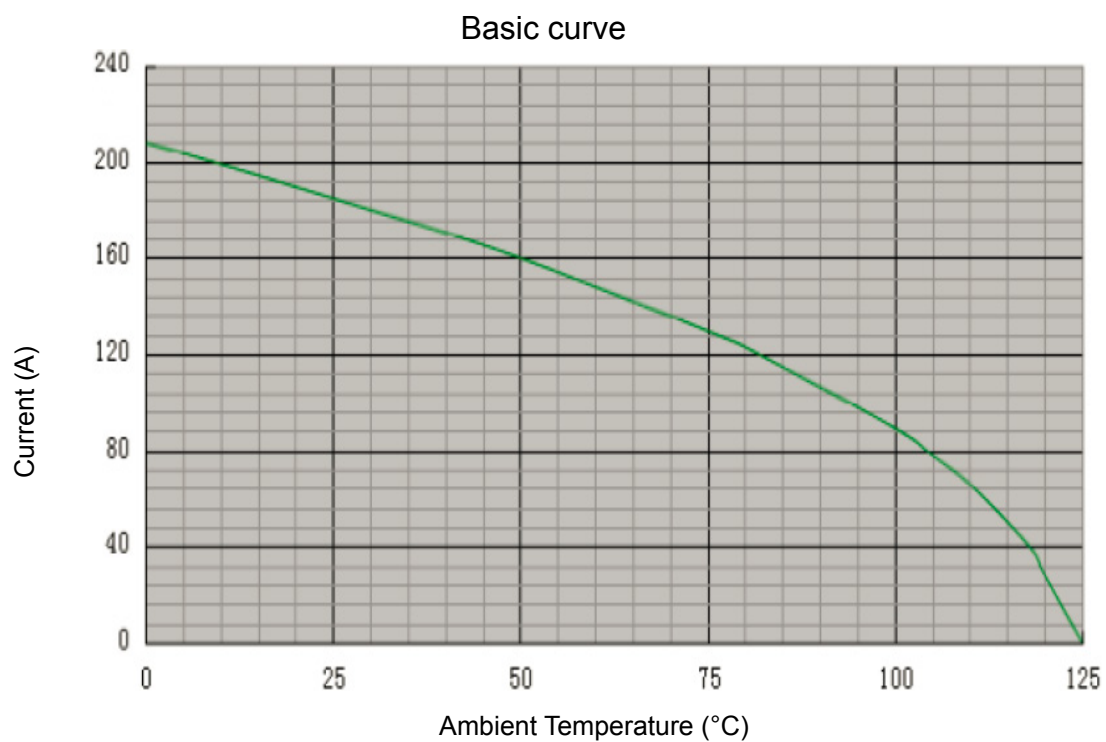


Coding E

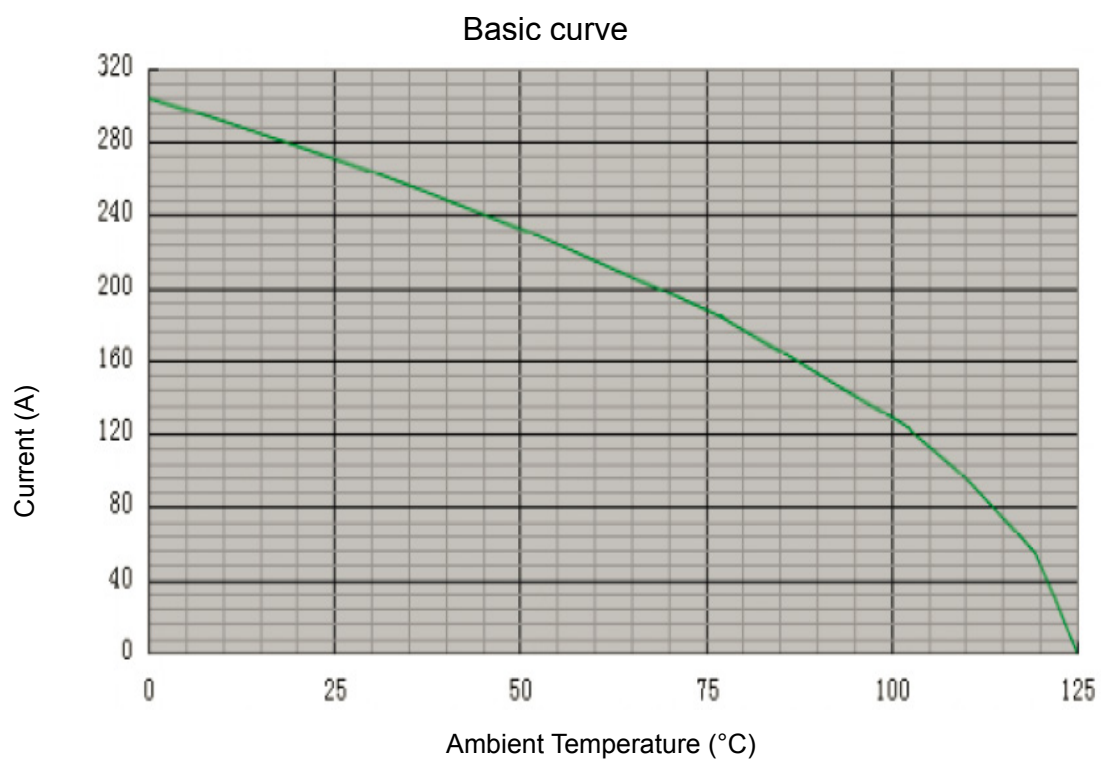


TEMPERATURE RISE CURVE

HVSP R6



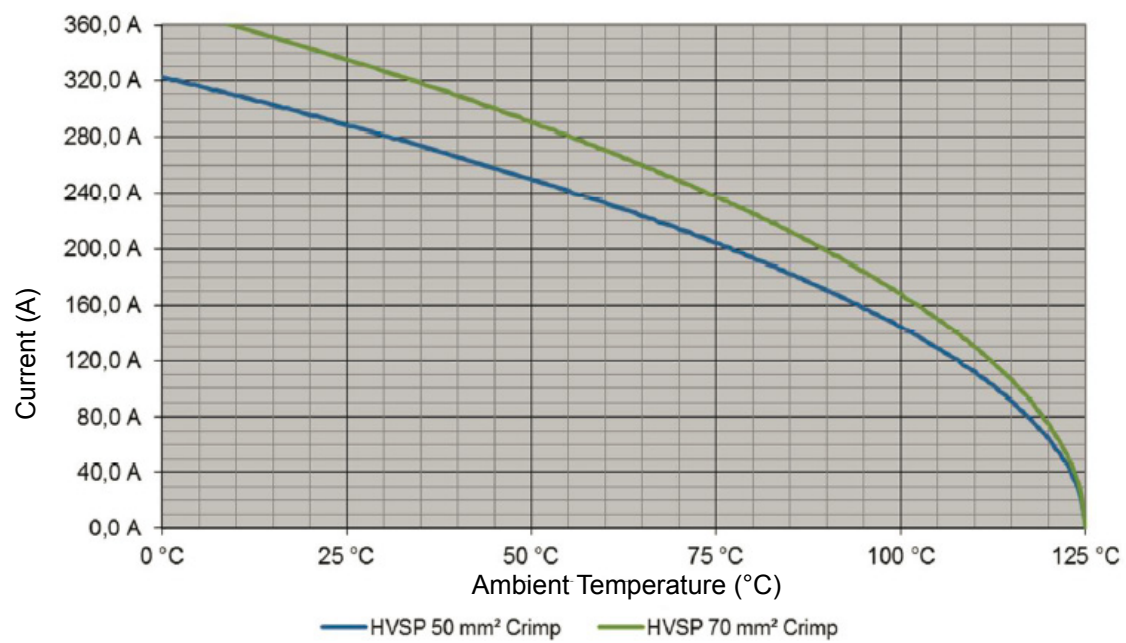
HVSP R8



TEMPERATURE RISE CURVE

HVSP R10

Basic curve



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Notes:

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Amphenol PCD Shenzhen reserves the right to clarify this catalog.