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*The company reserves the right to modify products for technological progress and upgrades. Changes may be made without prior notice.

*Images and technical descriptions in this manual may differ from the actual product. Please refer to the physical product and its operating instructions for accurate information.

*Due to our extensive product range, not all variants are listed herein. For details, please contact our Sales Department or local distributors.

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WENZHOU TAIHECHANG
PLASTIC CO., LTD.



PV Series

Combiner Box | PV Connector | Cable Gland





GRHL Series Waterproof Combiner Box

Features

- ◇ Construction: The base and frame are engineered from virgin ABS, while the transparent cover is crafted from virgin PC. This combination delivers exceptional toughness, high construction strength, superior impact resistance, and an enhanced service life.
- ◇ Versatility: This product is ideally suited for various indoor and outdoor applications requiring reliable waterproof, dustproof, and corrosion-resistant performance.
- ◇ Compliance Standards: Fully compliant with GB/T 17466.1, GB/T 17466.24, and IEC 60529 (IP65 rating).

Performance Advantages



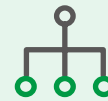
Compact size, easy to install



Comprehensive configuration, effectively protect the normal operation of the system



Protection grade IP65, can be installed in the outdoor, effective waterproof



Convenient wiring, factory components have been completed wiring

Technical Specifications

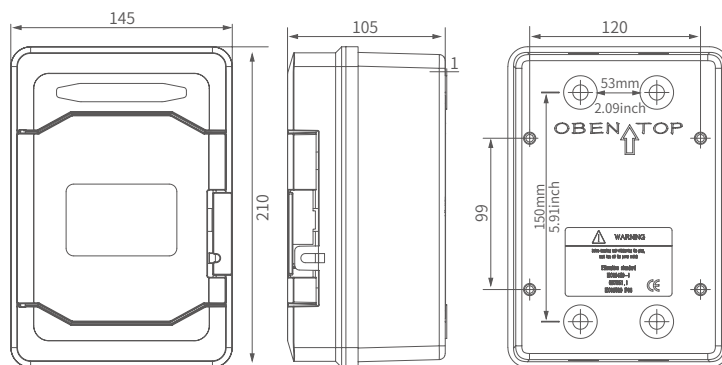
Product Name	Model	Size	Pole	PCS/CTN	Carton Size
PV Combiner Box	GRHL-4P	145×105×210	4	30	55×44.5×47
	GRHL-6P	165×105×210	6	20	55×35×45
	GRHL-9P	220×105×210	9	20	55×44.5×47
	GRHL-12P	275×105×225	12	16	49×47×57.5
	GRHL-18P	380×105×230	18	10	60×40×49
	GRHL-24P	270×105×380	24	10	59×39.7×57.5
	GRHL-36P	270×105×530	36	8	57.5×47×55

GRHL WATERPROOF COMBINER BOX

GRHL-4P



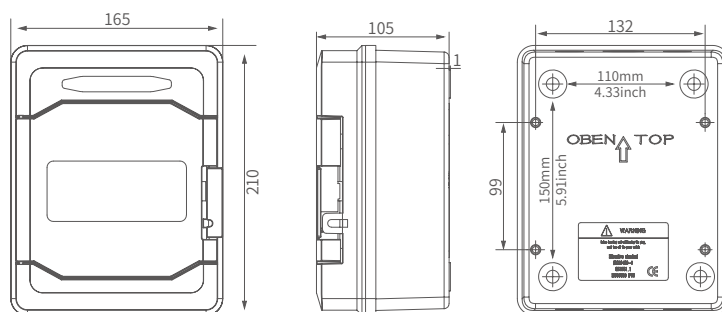
Dimensions



GRHL-6P



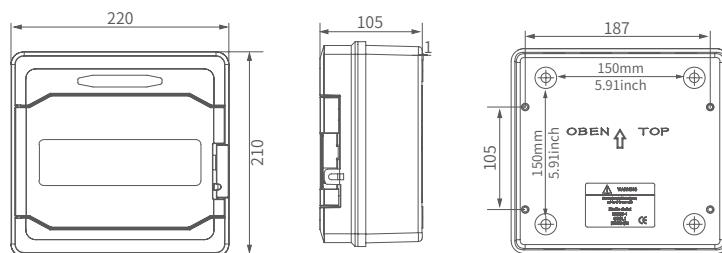
Dimensions



GRHL-9P



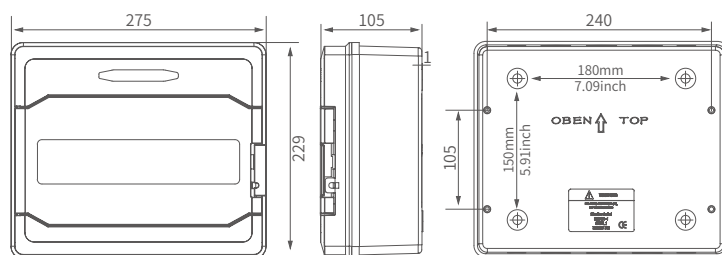
Dimensions



GRHL-12P



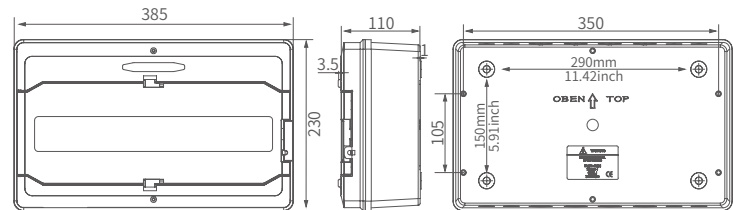
Dimensions



GRHL-18P



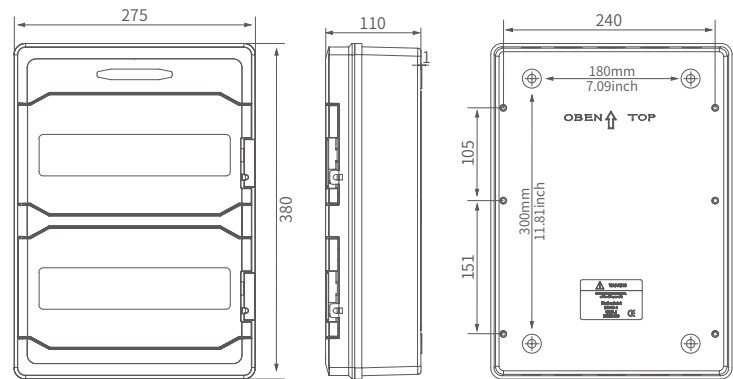
Dimensions



GRHL-24P



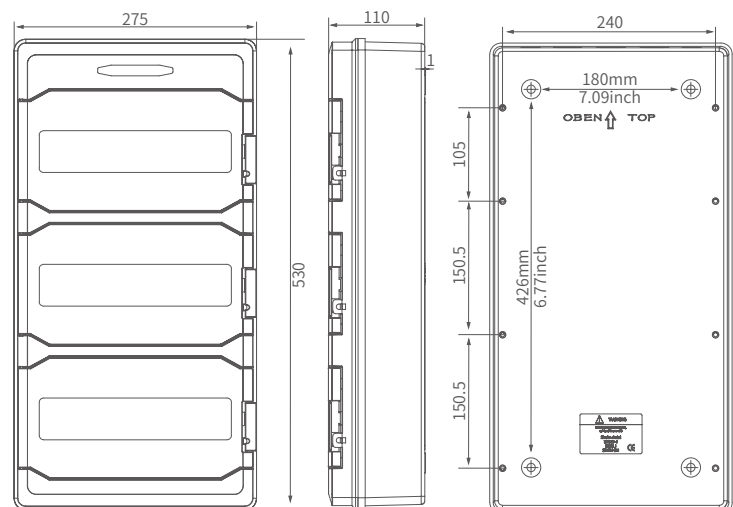
Dimensions



GRHL-36P

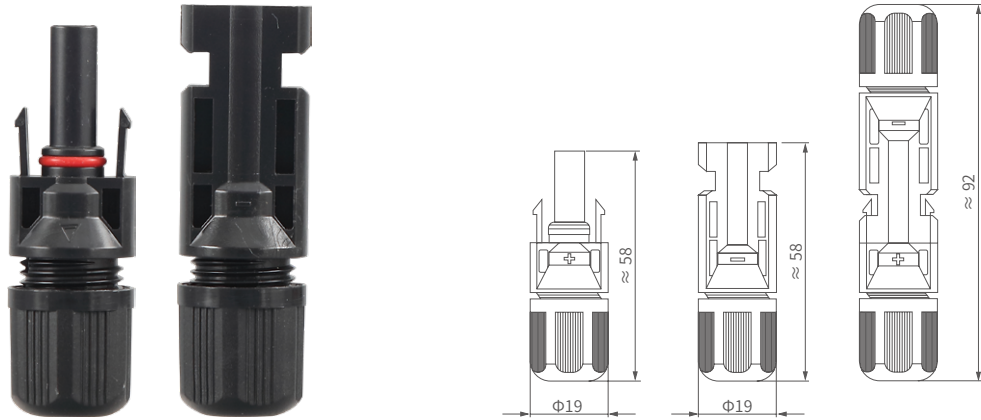


Dimensions



PV CONNECTOR

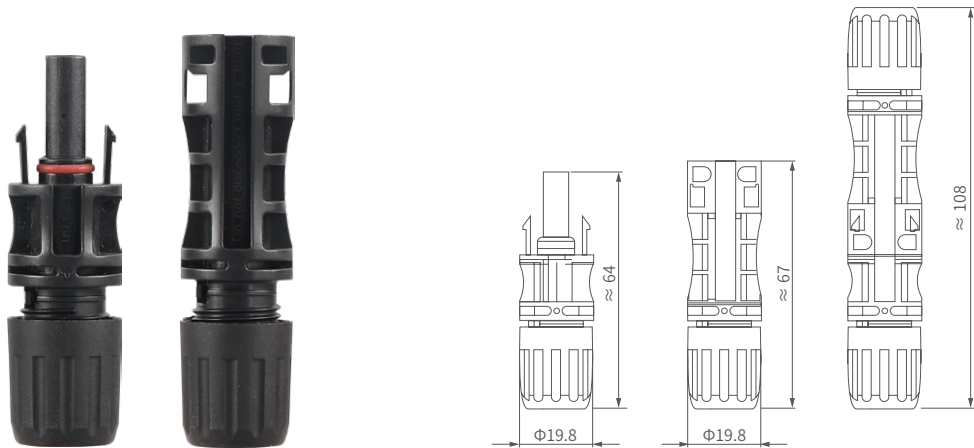
PV-THC-01 Solar DC Connector



Main Parameters

- ◇ Rated current: 30A or 50A
- ◇ Rated voltage: 1000VDC (IEC) DC (UL)
- ◇ Ambient temperature range: $-40^{\circ}\text{C} \sim +90^{\circ}\text{C}$ (ec)
- ◇ Degree of protection: IP67 mated IP2X unmated
- ◇ Contact resistance of plug connectors: $0.5\text{m}\Omega$
- ◇ Contact material: Copper, tin plated
- ◇ Locking system plug connectors: Snap-in (nur/only MC4)
- ◇ Flame class: UL94-HB/UL94-VO
- ◇ Cable size: $2.5\text{-}6\text{mm}^2$

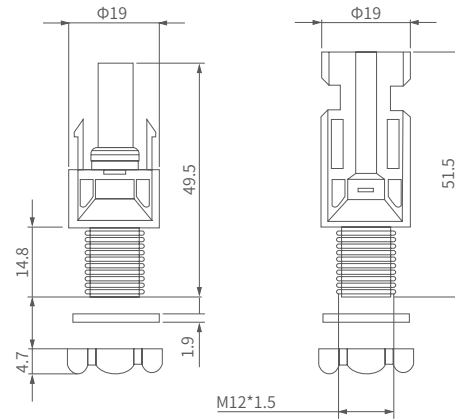
PV-THC-02 Solar DC Connector



Main Parameters

- ◇ Rated current: 30A or 50A
- ◇ Rated voltage: 1500VDC (IEC) DC (UL)
- ◇ Ambient temperature range: $-40^{\circ}\text{C} \sim +90^{\circ}\text{C}$ (ec)
- ◇ Degree of protection: IP67 mated IP2X unmated
- ◇ Contact resistance of plug connectors: $0.5\text{m}\Omega$
- ◇ Contact material: Copper, tin plated
- ◇ Locking system plug connectors: Snap-in (nur/only MC4)
- ◇ Flame class: UL94-HB/UL94-VO
- ◇ Cable size: $2.5\text{-}10\text{mm}^2$

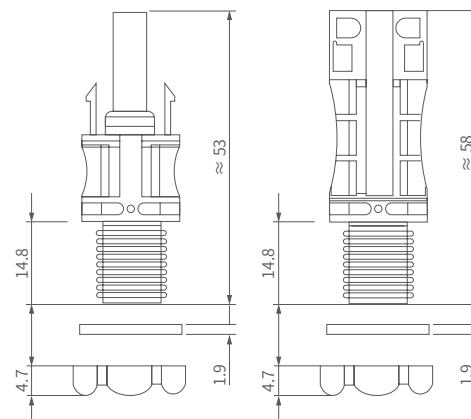
PV-THC-03 Solar DC Connector



Main Parameters

- ◇ Rated current:30A or 50A
- ◇ Rated voltage:1000VDC(IEC) DC(UL)
- ◇ Ambient temperature range:-40°C ~+90°C (ec)
- ◇ Degree of protection:IP67mated IP2X unmated
- ◇ Contact resistance of plug connectors:0.5mΩ
- ◇ Contact material:Copper, tin plated
- ◇ Locking system plug connectors:Snap-in(nur/only MC4)
- ◇ Flame class:UL94-HB/UL94-VO
- ◇ Cable size:2.5-6mm²

PV-THC-04 Solar DC Connector

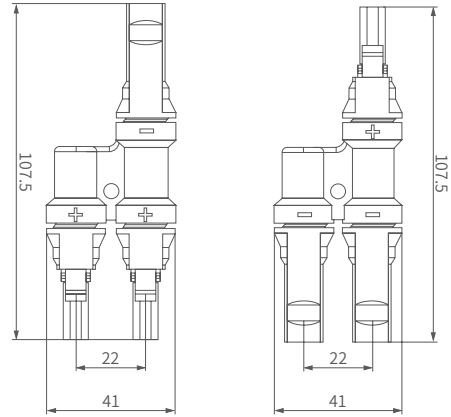


Main Parameters

- ◇ Rated current:30A or 50A
- ◇ Rated voltage:1500VDC(IEC) DC(UL)
- ◇ Ambient temperature range:-40°C ~+90°C (ec)
- ◇ Degree of protection:IP67mated IP2X unmated
- ◇ Contact resistance of plug connectors:0.5mΩ
- ◇ Contact material:Copper, tin plated
- ◇ Locking system plug connectors:Snap-in(nur/only MC4)
- ◇ Flame class:UL94-HB/UL94-VO
- ◇ Cable size:2.5-10mm²

PV CONNECTOR

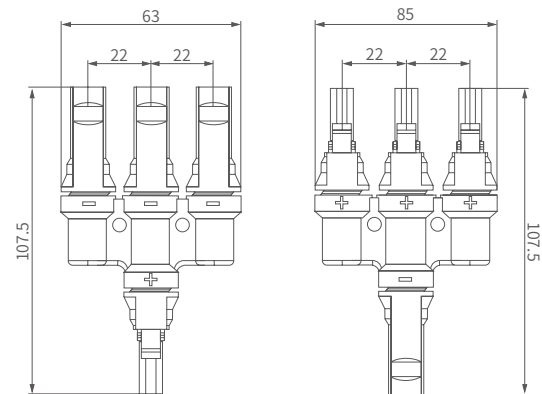
PV-THC-T1/2 Branch Connector



Main Parameters

- ◇ Rated current:50A
- ◇ Rated voltage:1500VDC(IEC) 800VDC(UL)
- ◇ Ambient temperature range:-40°C ~+90°C (ec)
- ◇ Degree of protection:IP67mated IP2X unmated
- ◇ Contact resistance of plug connectors:0.5mΩ
- ◇ Contact material:Copper, tin plated
- ◇ Locking system plug connectors:Snap-in(nur/only MC4)
- ◇ Flame class:UL94-HB/UL94-V0
- ◇ Cable size:2.5mm²、4mm²、6mm²
- ◇ Diode/Fuse Type:Schottky Diode/PV Fuse

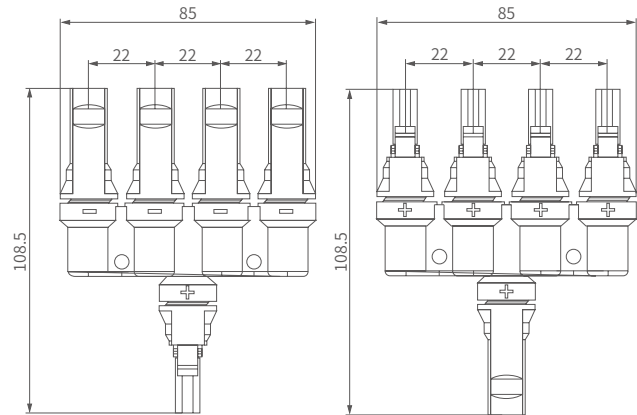
PV-THC-T1/3 Branch Connector



Main Parameters

- ◇ Rated current:50A
- ◇ Rated voltage:1500VDC(IEC) 800VDC(UL)
- ◇ Ambient temperature range:-40°C ~+90°C (ec)
- ◇ Degree of protection:IP67mated IP2X unmated
- ◇ Contact resistance of plug connectors:0.5mΩ
- ◇ Contact material:Copper, tin plated
- ◇ Locking system plug connectors:Snap-in(nur/only MC4)
- ◇ Flame class:UL94-HB/UL94-V0
- ◇ Cable size:2.5mm²、4mm²、6mm²
- ◇ Diode/Fuse Type:Schottky Diode/PV Fuse

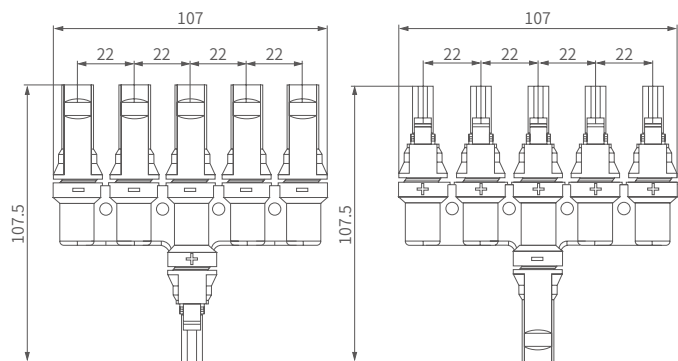
PV-THC-T1/4 Branch Connector



Main Parameters

- ◇ Rated current:50A
- ◇ Rated voltage:1500VDC(IEC) 800DC(UL)
- ◇ Ambient temperature range:-40°C ~+90°C (ec)
- ◇ Degree of protection:IP67mated IP2X unmated
- ◇ Contact resistance of plug connectors:0.5mΩ
- ◇ Contact material:Copper, tin plated
- ◇ Locking system plug connectors:Snap-in(nur/only MC4)
- ◇ Flame class:UL94-HB/UL94-VO
- ◇ Cable size:2.5mm²、4mm²、6mm²
- ◇ Diode/Fuse Type:Schottky Diode/PV Fuse

PV-THC-T1/5 Branch Connector

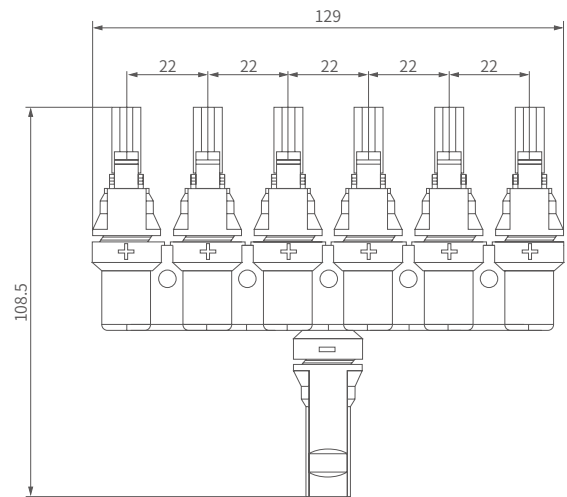
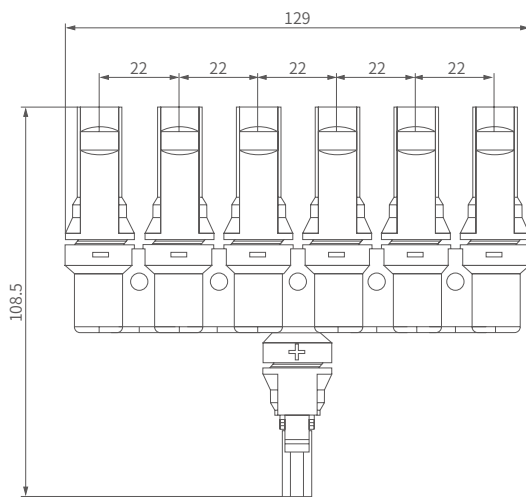


Main Parameters

- ◇ Rated current:50A
- ◇ Rated voltage:1500VDC(IEC) 800DC(UL)
- ◇ Ambient temperature range:-40°C ~+90°C (ec)
- ◇ Degree of protection:IP67mated IP2X unmated
- ◇ Contact resistance of plug connectors:0.5mΩ
- ◇ Contact material:Copper, tin plated
- ◇ Locking system plug connectors:Snap-in(nur/only MC4)
- ◇ Flame class:UL94-HB/UL94-VO
- ◇ Cable size:2.5mm²、4mm²、6mm²
- ◇ Diode/Fuse Type:Schottky Diode/PV Fuse

PV CONNECTOR

PV-THC-T1/6 Branch Connector

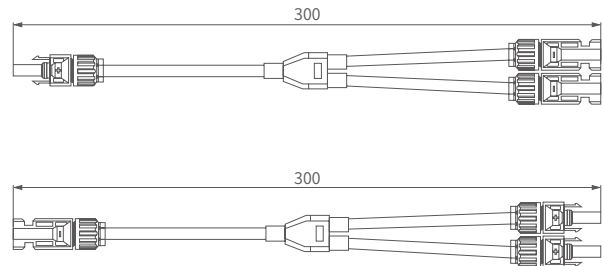


Main Parameters

- ◇ Rated current:50A
- ◇ Rated voltage:1500VDC(IEC) 800DC(UL)
- ◇ Ambient temperature range:-40°C ~+90°C (ec)
- ◇ Degree of protection:IP67mated IP2X unmated
- ◇ Contact resistance of plug connectors:0.5mΩ

- ◇ Contact material:Copper, tin plated
- ◇ Locking system plug connectors:Snap-in(nur/only MC4)
- ◇ Flame class:UL94-HB/UL94-V0
- ◇ Cable size:2.5mm²、4mm²、6mm²
- ◇ Diode/Fuse Type:Schottky Diode/PV Fuse

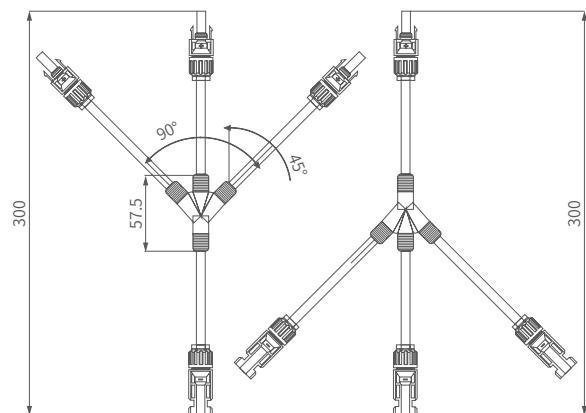
PV-THC-Y1/2 Branch Connector



Main Parameters

- ◇ Rated current:30A
- ◇ Rated voltage:1000VDC(IEC) 800DC(UL)
- ◇ Ambient temperature range:-40°C ~+90°C (ec)
- ◇ Degree of protection:IP67mated IP2X unmated
- ◇ Contact resistance of plug connectors:0.5mΩ
- ◇ Contact material:Copper, tin plated
- ◇ Locking system plug connectors:Snap-in(nur/only MC4)
- ◇ Flame class:UL94-HB/UL94-VO
- ◇ Cable size:2.5mm²、4mm²、6mm²
- ◇ Diode/Fuse Type:Schottky Diode/PV Fuse

PV-THC-Y1/3 Branch Connector

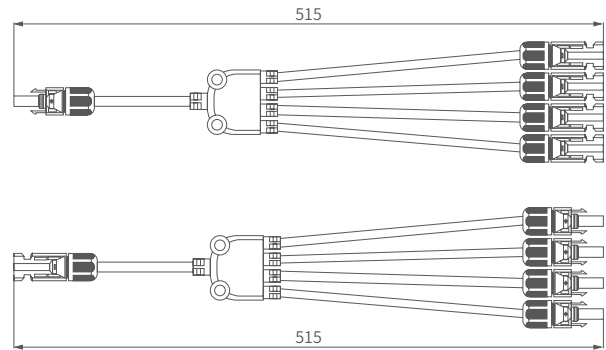


Main Parameters

- ◇ Rated current:30A
- ◇ Rated voltage:1000VDC(IEC) 800DC(UL)
- ◇ Ambient temperature range:-40°C ~+90°C (ec)
- ◇ Degree of protection:IP67mated IP2X unmated
- ◇ Contact resistance of plug connectors:0.5mΩ
- ◇ Contact material:Copper, tin plated
- ◇ Locking system plug connectors:Snap-in(nur/only MC4)
- ◇ Flame class:UL94-HB/UL94-VO
- ◇ Cable size:2.5mm²、4mm²、6mm²
- ◇ Diode/Fuse Type:Schottky Diode/PV Fuse

PV CONNECTOR

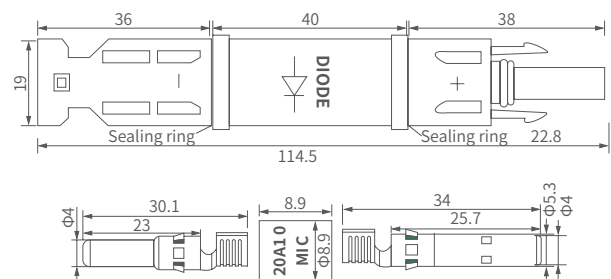
PV-THC-Y1/4 Branch Connector



Main Parameters

- ◇ Rated current:30A
- ◇ Rated voltage:1000VDC(IEC) 800DC(UL)
- ◇ Ambient temperature range:-40°C ~+90°C (ec)
- ◇ Degree of protection:IP67mated IP2X unmated
- ◇ Contact resistance of plug connectors:0.5mΩ
- ◇ Contact material:Copper, tin plated
- ◇ Locking system plug connectors:Snap-in(nur/only MC4)
- ◇ Flame class:UL94-HB/UL94-VO
- ◇ Cable size:2.5mm²、4mm²、6mm²
- ◇ Diode/Fuse Type:Schottky Diode/PV Fuse

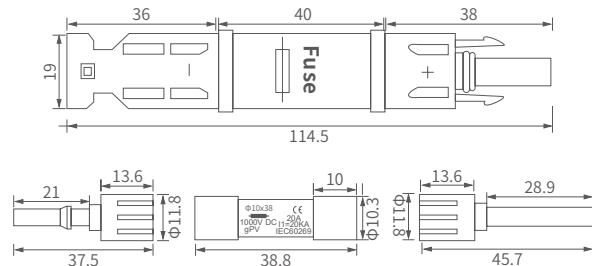
PV-THC-004D Photovoltaic Secondary Tube Connector



Main Parameters

- ◇ Model: PV004-D
- ◇ Rated voltage: 1000VDC
- ◇ Contact material: tinned copper
- ◇ Rated current: 10A, 15A, 20A,25A,30A
- ◇ Standard: IEC 62852:2014
- ◇ Protection level: IP65
- ◇ Contact resistance: $\leq 0.5\text{m}\Omega$
- ◇ Environmental temperature: -40 °C ~+85°C
- ◇ Insulation material: PPO
- ◇ Flame retardant grade: UL94 V-0

PV-THC-004F Photovoltaic Fuse Connector



Main Parameters

- ◇ Model: PV004-F
- ◇ Rated voltage: 1000VDC
- ◇ Contact material: tinned copper
- ◇ Rated current: 10A, 15A, 20A, 25A, 30A
- ◇ Standard: IEC 62852:2014

- ◇ Protection level: IP65
- ◇ Contact resistance: $\leq 0.5\text{m}\Omega$
- ◇ Environmental temperature: $-40\text{ }^{\circ}\text{C} \sim +85\text{ }^{\circ}\text{C}$
- ◇ Insulation material: PPO
- ◇ Flame retardant grade: UL94 V-0

Photovoltaic Accessories



30A Copper Pin



50A Copper Pin



MC4 Spanner

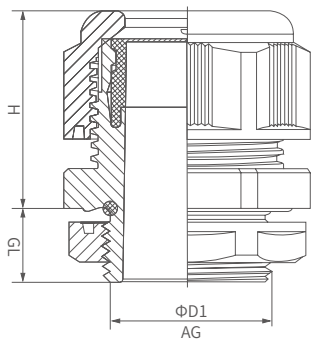


PV Crimping Tool



PG /M Type Cable Gland

Dimensions



Features

- ◇ Material: Nylon PA/UL94-V0
- ◇ Seal: NBR
- ◇ Protection class: IP68/IP69k (the wire should be in clamping range, and use O-rings.)
- ◇ Temperature range: -40°C to 100°C in static state, -20°C to 80°C in dynamic state.
- ◇ Color: Grey, black, white, other colors customized

Technical Specifications

Thread	Cable range(mm)	AG(mm)	GL(mm)	Spanner Size(mm)
PG7	3-6.5	12.5	8	17/15
PG9	4-8	15.2	8	22/19
PG11	5-10	18.6	9	24/22
PG13.5	6-12	20.4	9	27/24
PG16	10-14	22.5	10	30/27
PG19	10-14	24.0	10	30/27
PG21	13-18	28.0	12	36/33
PG25	15-22	29.5	12	36/37
PG29	18-25	37.0	12	46/41
PG36	25-33	47.0	16	57/52
PG42	32-38	54.0	18	64/62
PG48	37-44	59.0	20	70/65
PG63	42-52	72.0	26	78
M8*1.25	2-4.5	8.0	12	13/12
M10*1.5	3-6	10.0	8	15/13
M12*1.5	3-6.5	12.0	8	18/15
M12*1.5	4-8	12.0	8	18/19
M14*1.5	4-8	14.0	9	22/19
M16*1.5	4-8	16.0	9	22/19
M16*1.5	5-10	16.0	9	22/22
M18*1.5	5-10	18.0	10	24/22
M20*1.5	6-12	20.0	10	27/27
M22*1.5	10-14	22.0	11	27/27
M24*1.5	10-14	24.0	11	27/27
M25*1.5	11-15	25.0	11	30/30
M25*1.5	13-18	25.0	11	33/33
M27*1.5	13-18	27.0	12	33/33
M30*1.5	13-18	30.0	12	36/36
M32*1.5	15-22	32.0	12	41/42
M32*1.5	18-25	32.0	12	41/42
M36*1.5	18-25	36.0	12	45/42
M40*1.5	22-33	40.0	15	45/42
M50*1.5	32-38	50.0	17	62/62
M63*1.5	39-45	63.0	20	75/65
M72*2	42-52	72.0	25	/
M75*2	42-52	75.0	25	/
M75*2	50-59	75.0	25	/
M80*2	60-70	80.0	28	/
M88*2	60-70	88.0	28	/
M100*2	80-94	100.0	28	/
M114*2	80-94	114.0	28	/