



APsystems DS&QT&ECU(LATAM) Accessories

Rev 1.8

ALTENERGY POWER SYSTEM Inc.
latam.APlsystems.com

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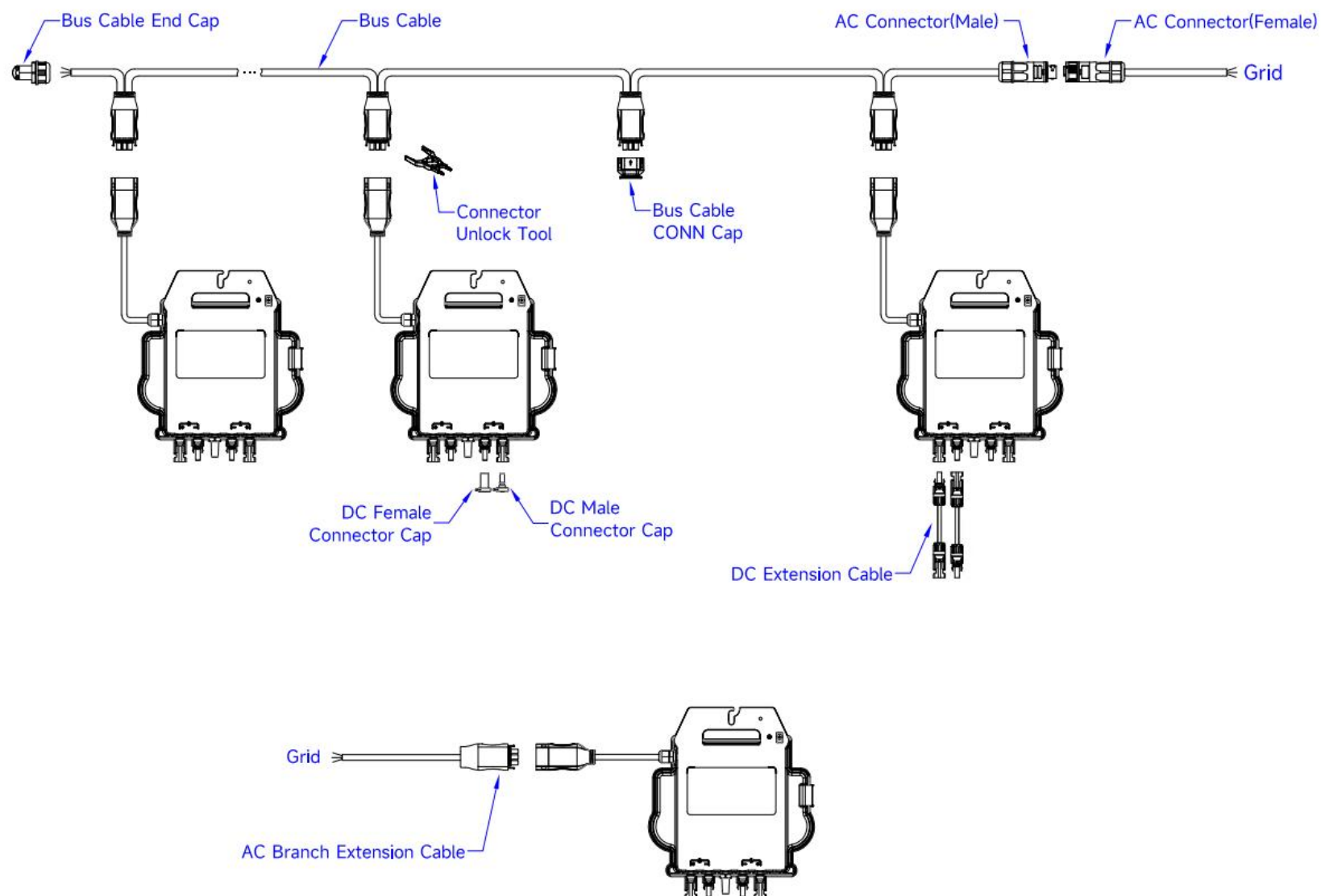
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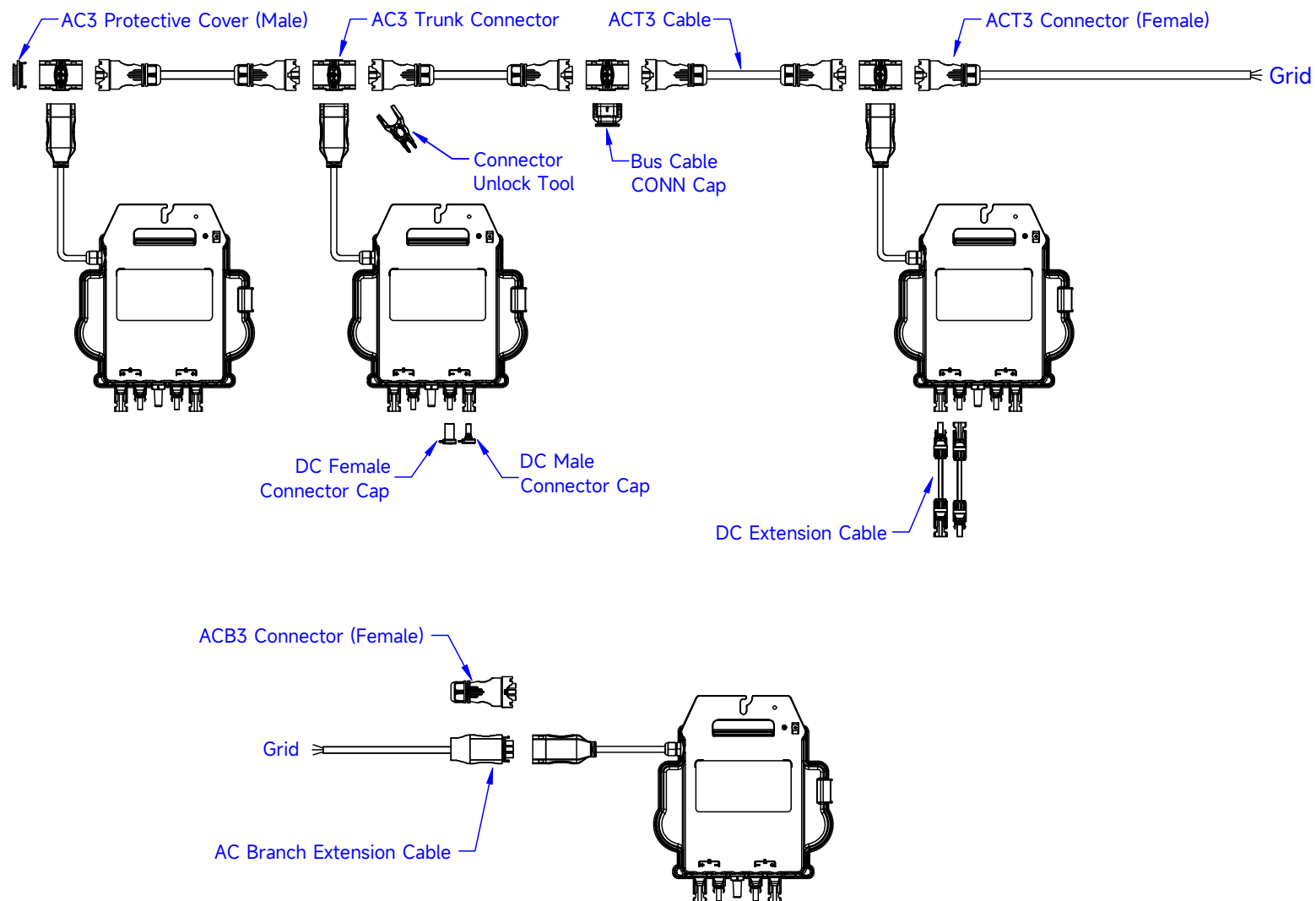
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DS3 Series Accessories

1. Wiring Diagram Y3

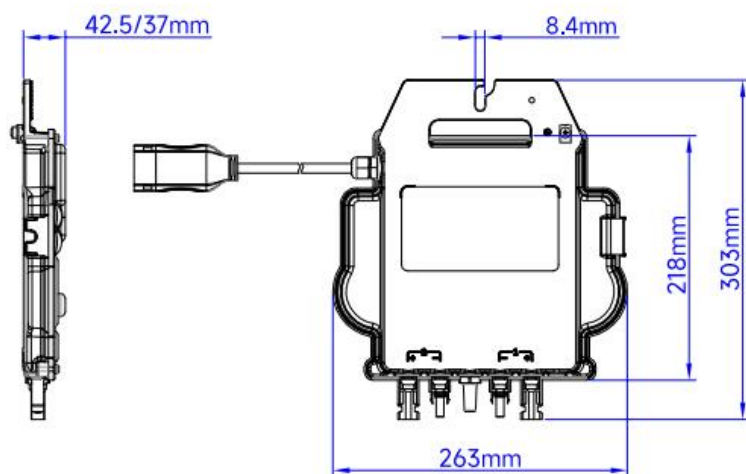


AC3

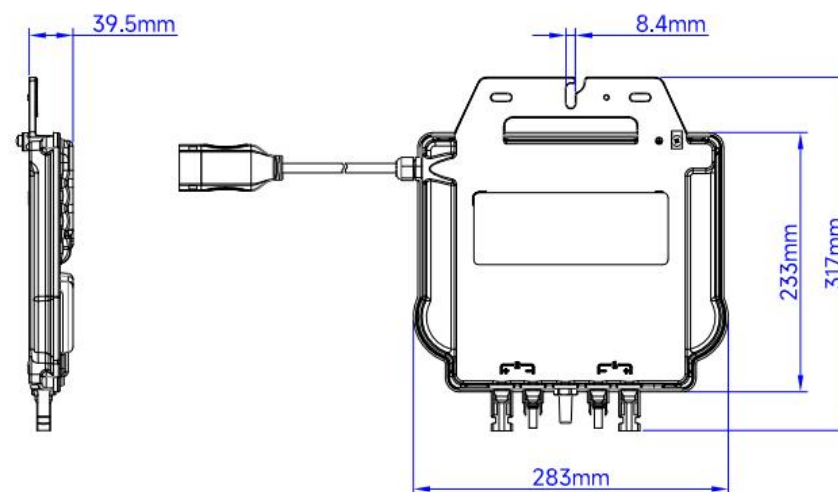
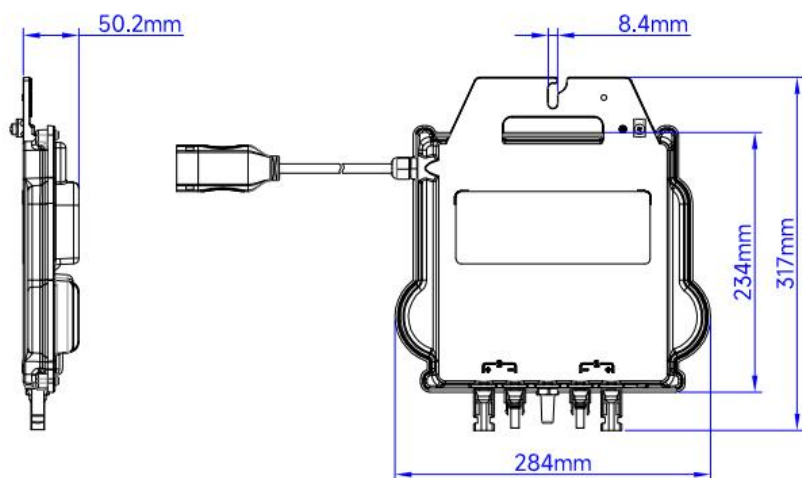


2. Dimensions

DS3-H Dimensions



DS3-LV Dimensions



3. Accessories Summary

Y3

Region		Accessories									
		Bus Cable (Mandatory)	AC Branch Extension Cable (Optional)	Bus Cable End Cap (Mandatory)	Bus Cable CONN Cap (Optional)	Connector Unlock Tool (Mandatory)	DC Male Connector Cap (Optional)	DC Female Connector Cap (Optional)	AC Connector (Male) (Optional)	AC Connector (Female) (Optional)	DC Extension Cable (Optional)
LATAM	Mexico -H-MX: 120031 -LV-MX: 137031	2322600403_Split Phase Bus Cable (10AWG,TC,2.4m) 2322301303_Split Phase Bus Cable (12AWG,TC,2m) (See Pic. A)	2334075242_Split Phase Br. Ext-cable (18AWG,TC, 2m) (See Pic. B)	2060700017_ 3-wire Bus Cable End Cap (See Pic. C)	2061702007_ Bus Cable Y-CONN Cap (See Pic. D)	2355000003_ Y3-DC Connector Unlock Tool (See Pic. E)	2060401006_ DC Male Connector Cap (MC4) (See Pic. F)	2060402006_ DC Female Connector Cap (MC4) (See Pic. G)	2300931212_ AC Connector (3 core, two seals, male) (See Pic. H)	2300932212_ AC Connector (3 core, two seals, female) (See Pic. I)	2310310274_1m DC Extension Cable (MC4) 2310360214_2m DC Extension Cable (MC4) 2310360224_3m DC Extension Cable (MC4) (See Pic. J)
	Brazil -H-BR: 120006 -LV-BR: 117033	2322601403_Single Phase Bus Cable (4mm²,H07,2.4m) 2322304903_Single Phase Bus Cable (2.5mm², H07,2m) (See Pic. A))	2334076132_Single Phase Br. Ext-cable (2.5mm²,1m) (See Pic. B)								

Notes: The cables in this table are recommended by APsystems, and the O.D. and length of the cable can be customized according to customer needs.

AC3

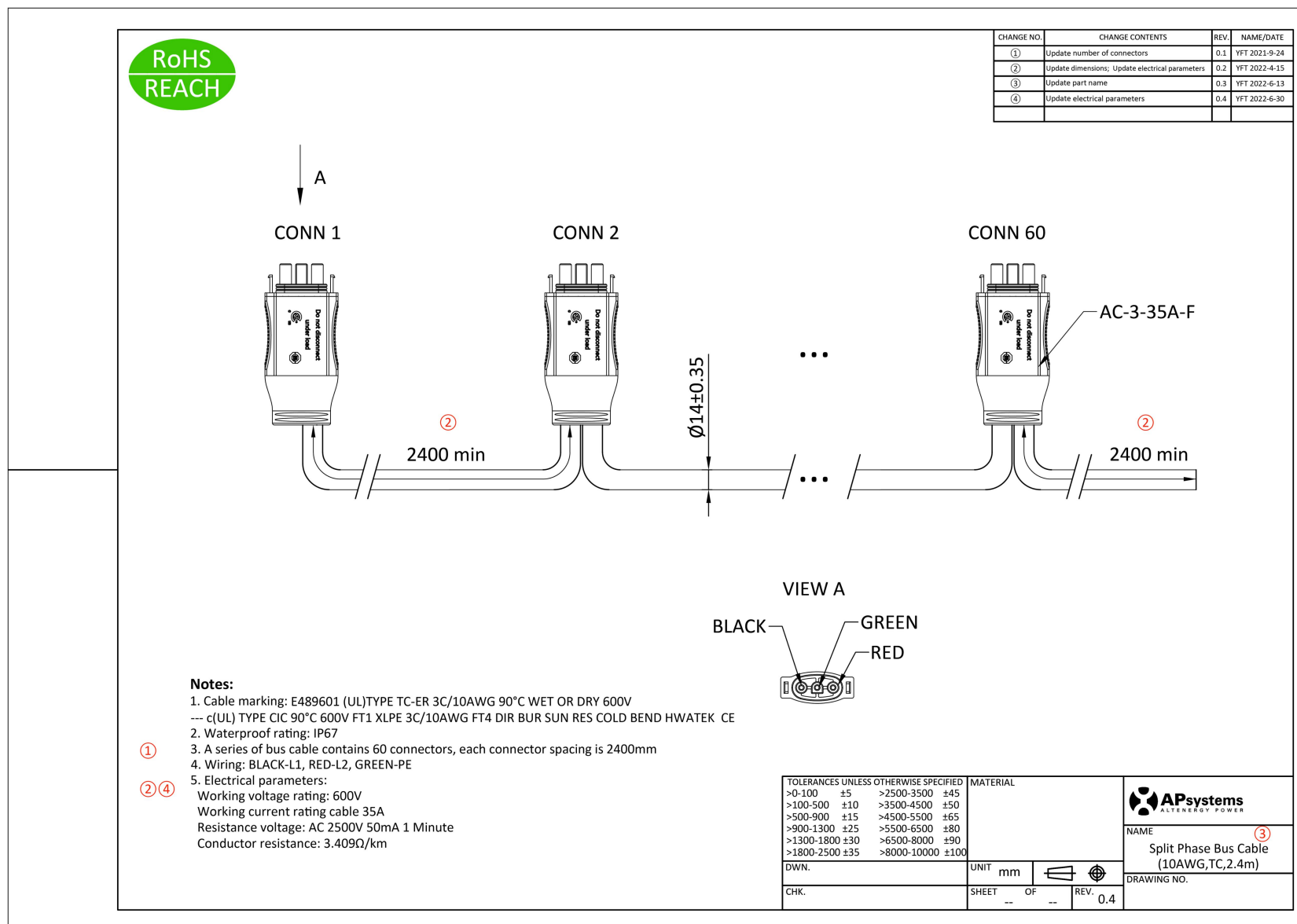
Region		Accessories										
		ACT3 Cable (Mandatory)	AC Branch Extension Cable (Optional)	AC3 Protective Cover (male) (Mandatory)	Bus Cable CONN Cap (Optional)	Connector Unlock Tool (Mandatory)	DC Male Connector Cap (Optional)	DC Female Connector Cap (Optional)	AC3 Trunk Connector (Mandatory)	ACT3 Connector (Female) (Mandatory)	DC Extension Cable (Optional)	ACB3 Connector (Female) (Optional)
LATAM	Mexico -H-MX: 120031 -LV-MX: 137031	2338118132_ ACT3 Cable (10AWG, TC-ER,2.3m) 2338111132_ ACT3 Cable (12AWG, TC-ER,2.3m) (See Pic. K)	2334075242_ Split Phase Br. Ext-cable (18AWG,TC, 2m) (See Pic. B)	2062731007 _ AC3 Protective Cover (male) (See Pic. L)	2061702007 _Bus Cable Y-CONN Cap (See Pic. D)	2355000003 _ Y3-DC Connector Unlock Tool (See Pic. E)	2060401006 _DC Male Connector Cap (MC4) (See Pic. F)	2060402006 _DC Female Connector Cap (MC4) (See Pic. G)	2301733005 _AC3 Trunk Connector (2male- 1female) (See Pic. M)	2301632505_ ACT3 Connector (3core,female,40A) (See Pic. N)	2310310274_1m DC Extension Cable (MC4) 2310360214_2m DC Extension Cable (MC4) 2310360224_3m DC Extension Cable (MC4) (See Pic. J)	2301432705_ ACB3 Connector (3C, female, 25A, two seals) (See Pic. O)
	Brazil -H-BR: 120006 -LV-BR: 117033	2338113132_ ACT3 Cable (4mm²,H07,2.3m) 2338102613_ ACT3 Cable (2.5mm²,H07,2.3m) (See Pic. K)	2334076132_ Single Phase Br. Ext-cable (2.5mm²,1m) (See Pic. B)									

4. Physical Picture

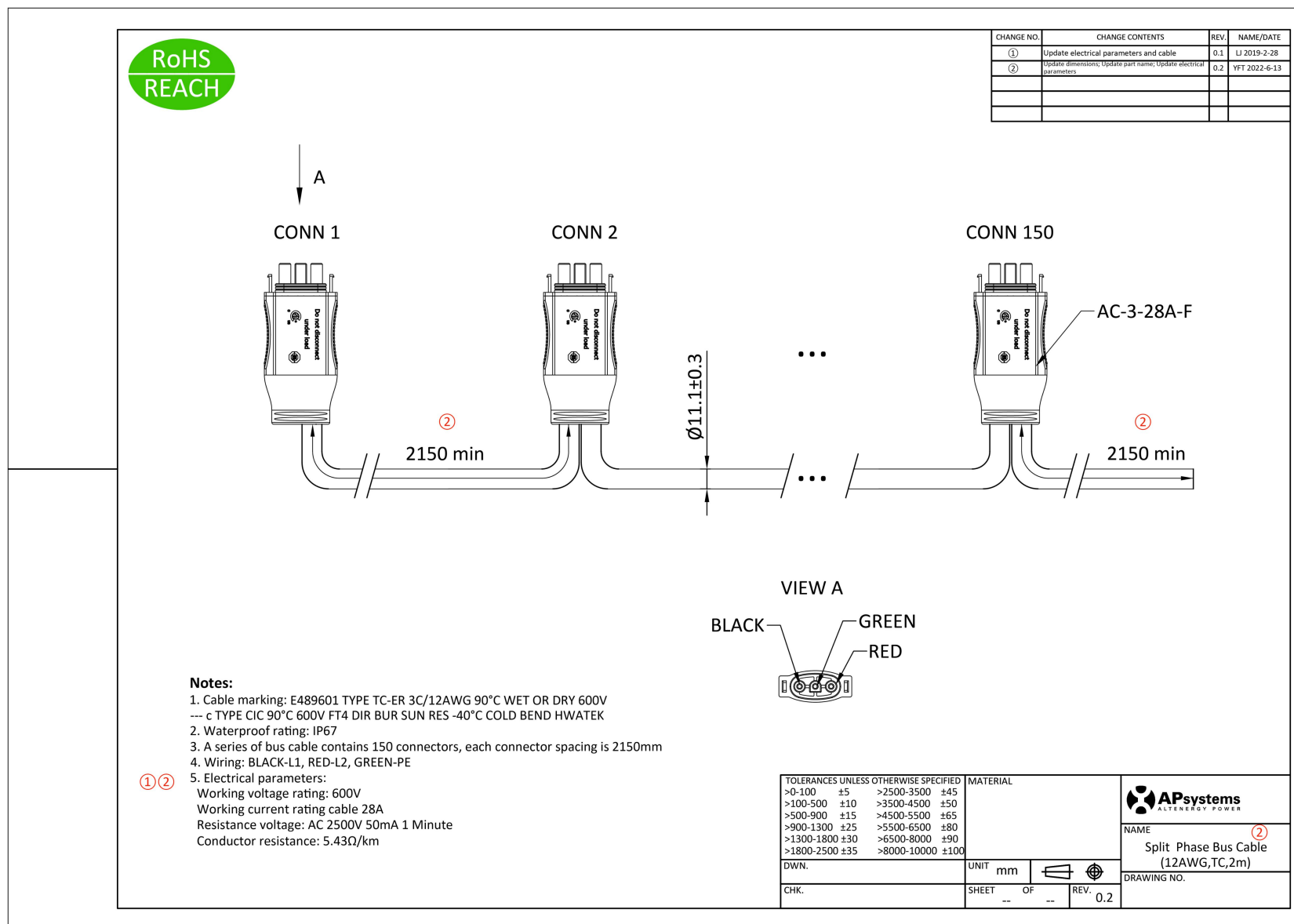
Bus Cable  Pic. A	AC Branch Extension Cable  Pic. B	Bus Cable End Cap  Pic. C	Bus Cable CONN Cap  Pic. D	Connector Unlock Tool  Pic. E	DC Male Connector Cap  Pic. F
DC Female Connector Cap  Pic. G	AC Connector (Male)  Pic. H	AC Connector (Female)  Pic. I	DC Extension Cable  Pic. J	ACT3 Cable  Pic. K	AC3 Protective Cover (male)  Pic. L
AC3 Trunk Connector  Pic. M	ACT3 Connector (Female)  Pic. N	ACB3 Connector (Female)  Pic. O			

5. Accessories information

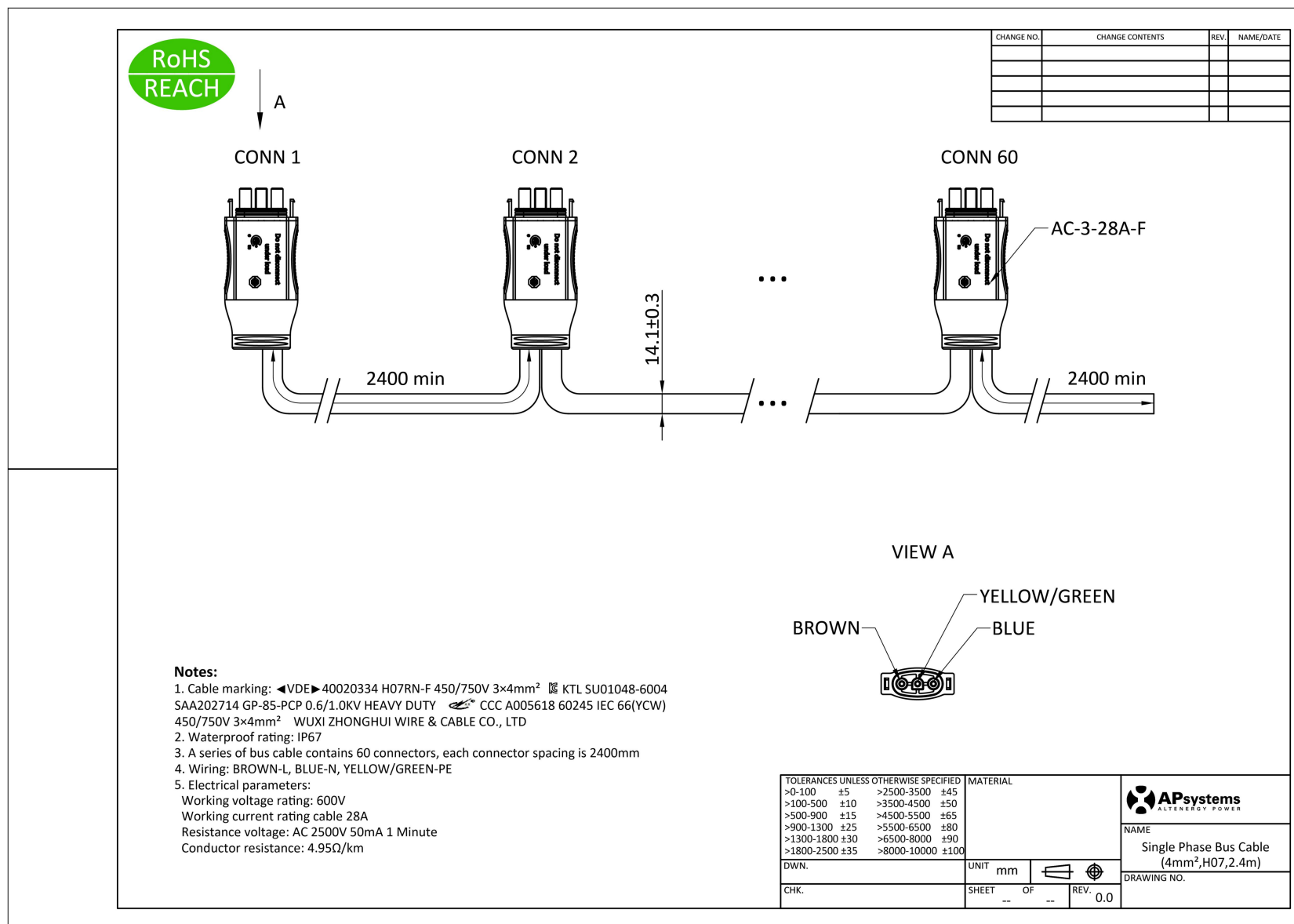
2322600403_Split Phase Bus Cable (10AWG,TC,2.4m)



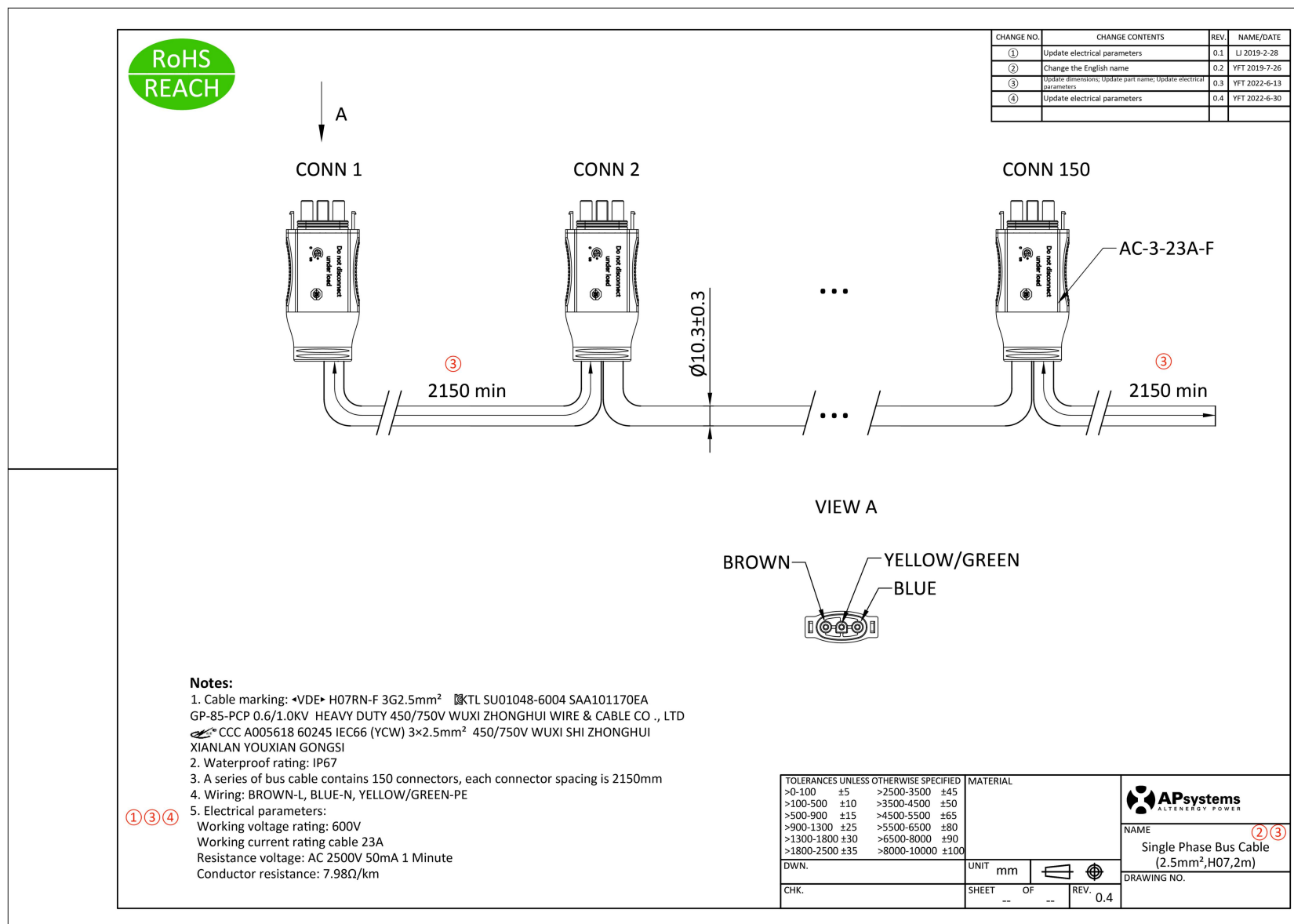
2322301303_Split Phase Bus Cable (12AWG,TC,2m)



2322601403_Single Phase Bus Cable (4mm²,H07,2.4m)



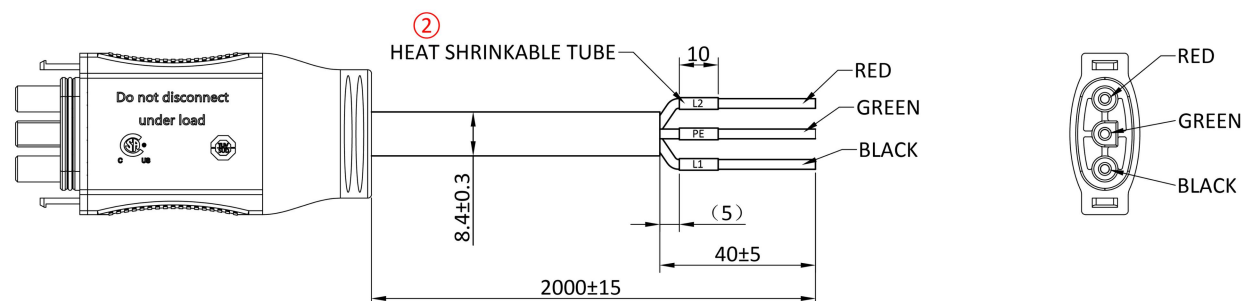
2322304903_Single Phase Bus Cable (2.5mm²,H07,2m)



2334075242_ Split Phase Br. Ext-cable (18AWG,TC, 2m)

RoHS
REACH

CHANGE NO.	CHANGE CONTENTS	REV.	NAME/DATE
①	Update electrical parameters and cable	0.1	LI 2019-2-28
②	Change the label to heat shrinkable tube	0.2	YFT 2020-5-22
③	Update part name; Update electrical parameters	0.3	YFT 2022-6-13



WIRE RUN LIST		
AWG	COLOR	LABEL
18	BLACK	L1
	RED	L2
	GREEN	PE

Notes:

- ① Cable:E489601 TYPE TC-ER 3C/18AWG 90°C WET OR DRY 600V OIL RES
--- c TYPE CIC 90°C 600V FT4 DIR BUR SUN RES -40°C COLD IMPACT AND COLD BEND HWATEK
- ② Waterproof rating: IP67;
- ③ Wiring: BLACK-L1, RED-L2, GREEN-PE;
- ④ Electrical parameters:
Working voltage rating: 600V
Working current rating cable 10A
Resistance voltage: AC 2500V 50mA 1 Minute
Conductor resistance: 21.8Ω/km

TOLERANCES UNLESS OTHERWISE SPECIFIED		MATERIAL	
>0-100	±5	>2500-3500	±45
>100-500	±10	>3500-4500	±50
>500-900	±15	>4500-5500	±65
>900-1300	±25	>5500-6500	±80
>1300-1800	±30	>6500-8000	±90
>1800-2500	±35	>8000-10000	±100
DWN.	UNIT	mm	REV.
CHK.	SHEET	OF	0.3



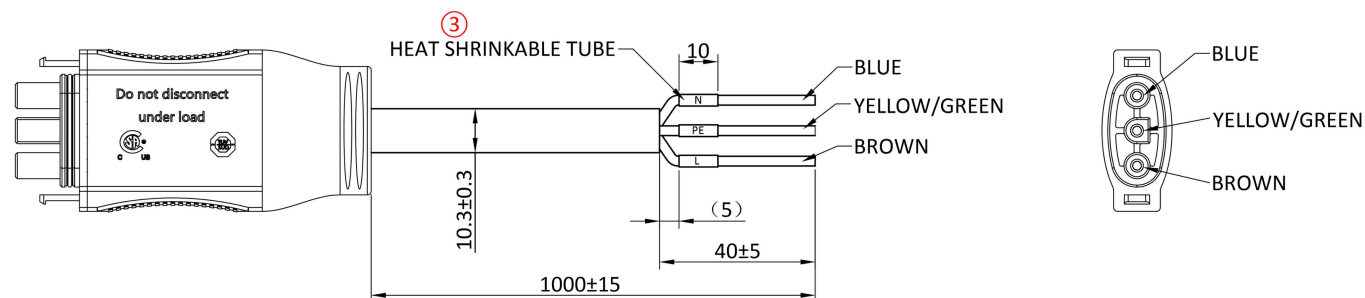
NAME
Split Phase Br. Ext-cable (18AWG,TC,2m)

DRAWING NO.

2334076132_ Single Phase Br. Ext-cable (2.5mm²,1m)



CHANGE NO.	CHANGE CONTENTS	REV.	NAME/DATE
①	Update electrical parameters	0.1	U 2019-2-28
②	Change the part name	0.2	YFT 2019-7-26
③	Change the label to heat shrinkable tube	0.3	YFT 2020-5-22
④	Update part name; Update electrical parameters	0.4	YFT 2022-6-13
⑤	Update electrical parameters	0.5	YFT 2022-6-30



WIRE RUN LIST		
mm ²	COLOR	LABEL
2.5	BROWN	L
	BLUE	N
	YELLOW/GREEN	PE

Notes:

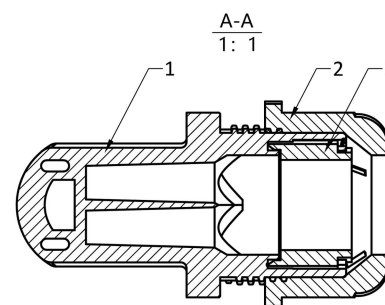
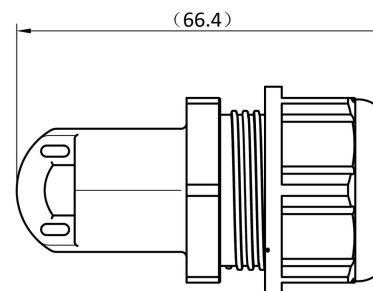
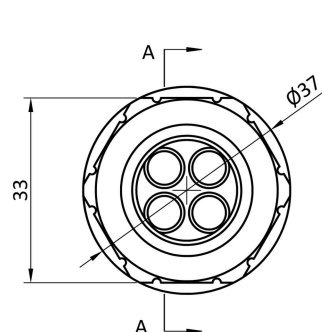
- Cable: •VDE• H07RN-F 3G2.5mm² KTL SU01048-6004 SAA101170EA GP-85-PCP 0.6/1.0KV HEAVY DUTY 450/750V WUXI ZHONGHUI WIRE & CABLE CO., LTD CCC A005618 60245 IEC66 (YCW) 3×2.5mm² 450/750V WUXI SHI ZHONGHUI XIANLAN YOUXIAN GONGSI
- Waterproof rating: IP67;
- Wiring: BROWN-L, BLUE-N, YELLOW/GREEN-PE;
- Electrical parameters:
Working voltage rating: 600V
Working current rating cable 23A
Resistance voltage: AC 2500V 50mA 1 Minute
Conductor resistance: 7.98Ω/km

①④⑤

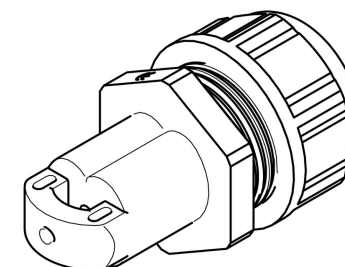
TOLERANCES UNLESS OTHERWISE SPECIFIED			MATERIAL		 NAME Single Phase Br. Ext-Cable(2.5mm ² ,1m)
>0-100	±5	>2500-3500	±45		
>100-500	±10	>3500-4500	±50		
>500-900	±15	>4500-5500	±65		
>900-1300	±25	>5500-6500	±80		
>1300-1800	±30	>6500-8000	±90		
>1800-2500	±35	>8000-10000	±100		
DWN.		UNIT	mm		
CHK.		SHEET	OF	REV.	0.5

2060700017_ 3-wire Bus Cable End Cap

RoHS
REACH



CHANGE NO.	CHANGE CONTENTS	REV.	NAME/DATE
①	Change the name	0.2	ZZH 2023-6-9



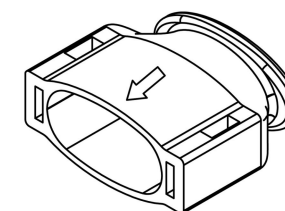
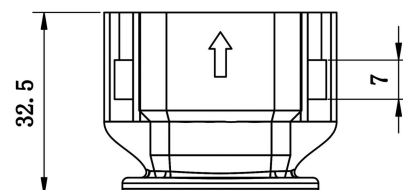
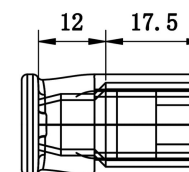
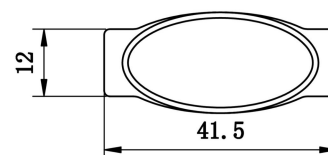
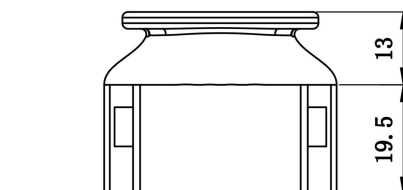
Notes:
1. Cable Size: 10~16mm;
2. Nut Torque: 3.0~5.0N·m;
3. Waterproof Rating: IP68;
4. Operating Temperature Range: -40~105°C;

3	Sealing bushing		Rubber	1	
2	Round nut		PA6	1	
1	Joint body		PA6	1	
NO.	NAME	TYPE	MAT.	QTY.	REMARK
TOLERANCES UNLESS OTHERWISE SPECIFIED					
±0.5					
MATERIAL					
-					
					
NAME ①					
3-wire Bus Cable End Cap					
DWN.	UNIT	mm		DRAWING NO.	
CHK.	SHEET	--	OF	--	REV. 2.1

2061702007_Bus Cable Y-CONN Cap

RoHS
REACH

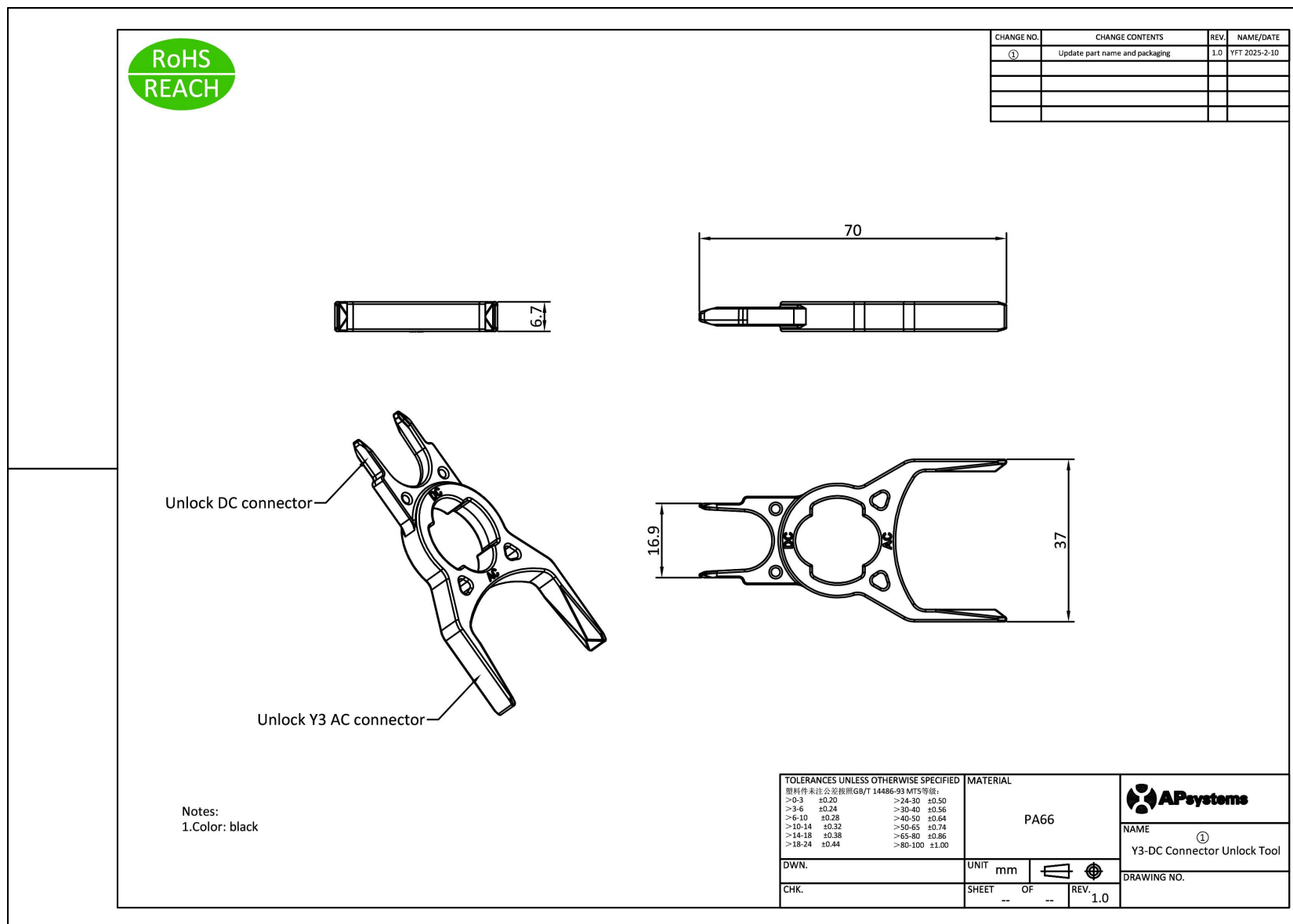
CHANGE NO.	CHANGE CONTENTS	REV.	NAME/DATE



Notes:
1. Type: DUO0050

TOLERANCES UNLESS OTHERWISE SPECIFIED		MATERIAL		 APsystems ALTERNERGY POWER
> 0.5°3: ±0.15 > 3°6: ±0.2 > 6°30: ±0.5 > 30°120: ±0.8 > 120°315: ±1.2 ANGLES: ±1°		PPE		
DWN.	UNIT	mm		NAME Bus Cable Y-CONN Cap
CHK.	SHEET	OF	REV. 0.0	DRAWING NO. -

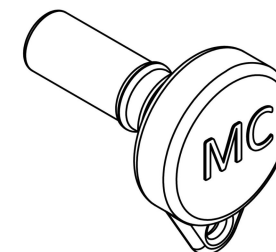
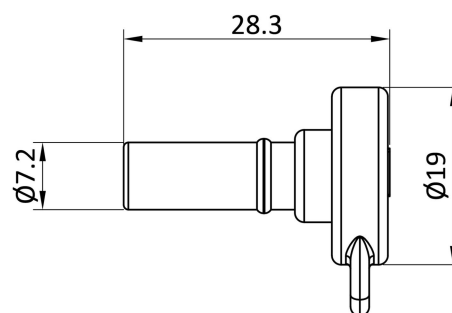
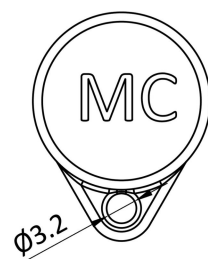
2355000003_Y3-DC Connector Unlock Tool



2060401006_DC Male Connector Cap (MC4)

RoHS
REACH

CHANGE NO.	CHANGE CONTENTS	REV.	NAME/DATE



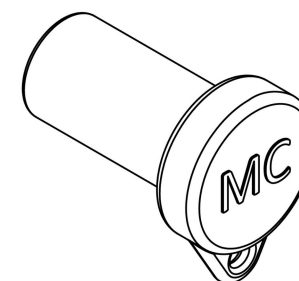
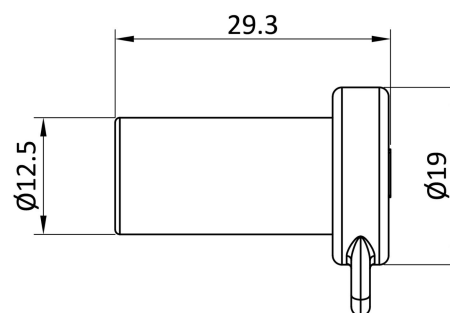
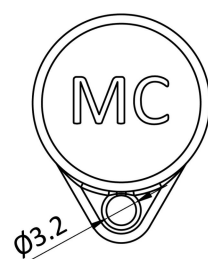
Notes:
1. Type: PV-SVK4;
2. Degree of protection: IP67;

TOLERANCES UNLESS OTHERWISE SPECIFIED ±0.5		MATERIAL TPE		 NAME DC Male Connector Cap (MC4) DRAWING NO. -
DWN.	UNIT mm			
CHK.	SHEET -- OF --	REV.	0.0	

2060402006_DC Female Connector Cap (MC4)

RoHS
REACH

CHANGE NO.	CHANGE CONTENTS	REV.	NAME/DATE



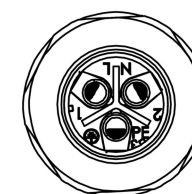
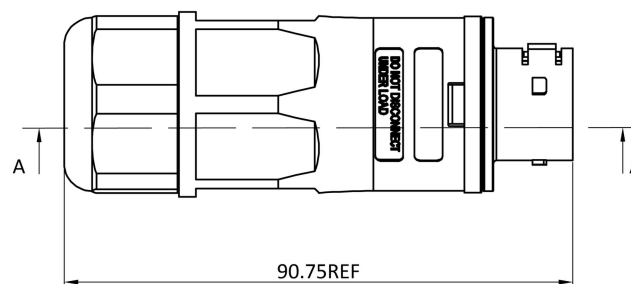
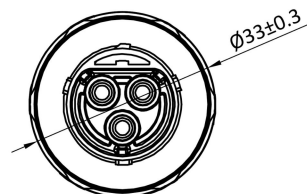
Notes:
1. Type: PV-BVK4;
2. Degree of protection: IP67;

TOLERANCES UNLESS OTHERWISE SPECIFIED ±0.5		MATERIAL TPE		 APsystems ALTERNERGY POWER
DWN.		UNIT mm		
CHK.	SHEET OF	REV.	0.0	DRAWING NO. -

2300931212_AC Connector (3 core, two seals, male)

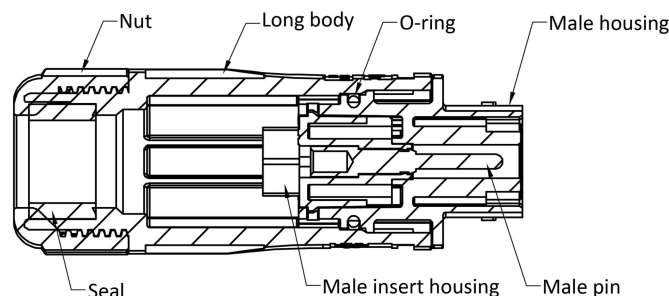


CHANGE NO.	CHANGE CONTENTS	REV.	NAME/DATE
①	Add seal; update Cable 0.5; update current; update name	1.0	YFT 2022-8-9



Single-phase connect to L/N/PE
Three-phase connect to 1/2/3

A-A
1: 1



Notes:

Electrical

1. Rated Voltage: 250V AC;
2. Rated Impulse Voltage: 4000V;
3. Rated Current: CSA 32A, TUV 35A;
4. Contact Resistance: ≤5mΩ;
5. Insulation Resistance: ≥500MΩ;

Mechanical

1. Mating Cycle: ≥500;
2. Cable Retention Force: ≥120N;
3. Pin Retention Force: ≥80N;
4. Cable O.D: 10~15mm;
5. Wire Size: ≤6.0mm²(10AWG);

Environmental

1. Waterproof Rate: IP68 1m24H;
2. Application Temperature: -40°C~+105°C;
3. Flaming Level: UL94-V0;

Material

1. Plastic Material: PC&PBT(f1)
2. Pin Material: Copper Alloy, Silver Plating;
3. Sealing Material: Silicone Rubber;
4. Screw Material: SUS, Torque 0.8N.m

Others

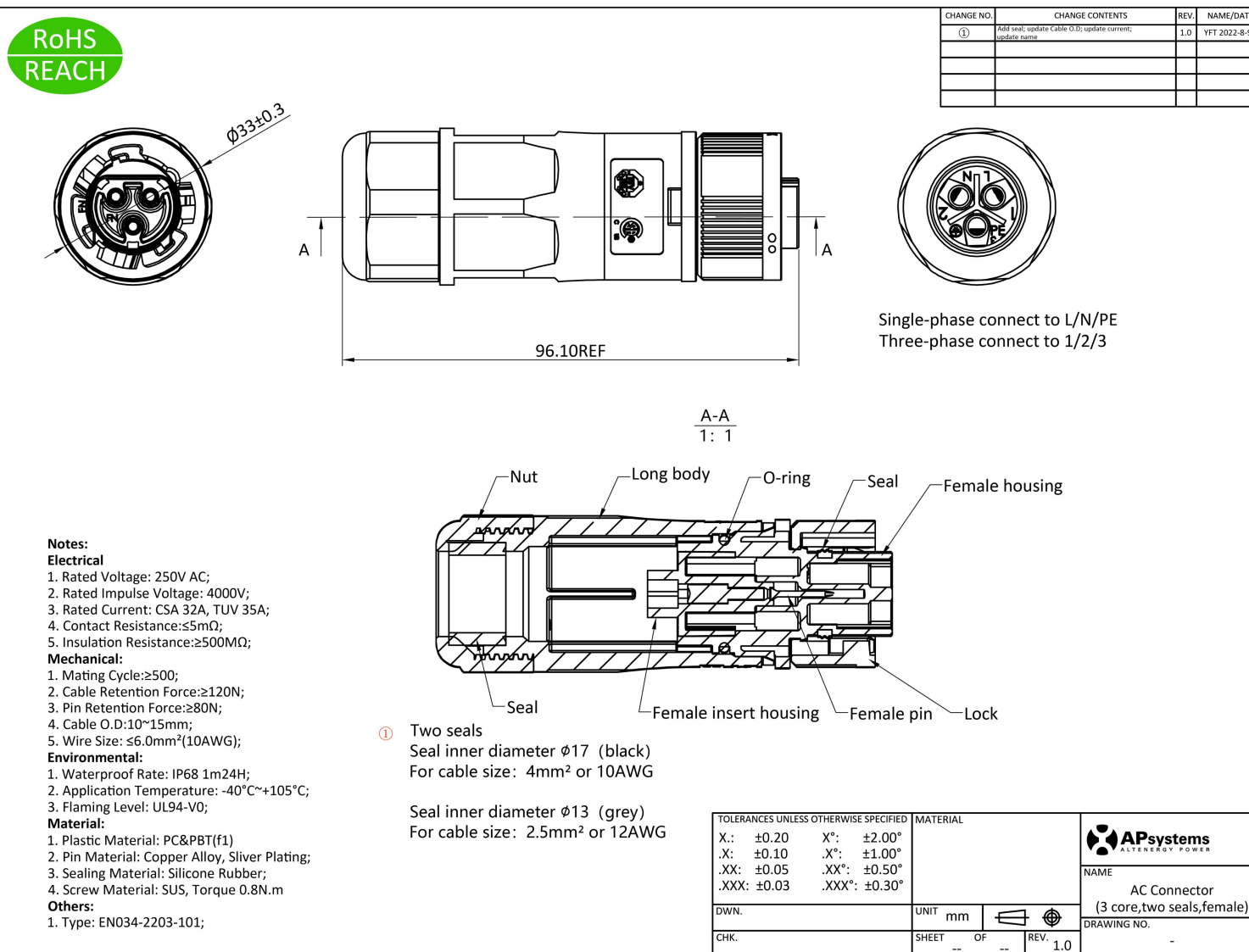
1. Type : EN034-2103-101;

- ① Two seals
Seal inner diameter Ø17 (black)
For cable size: 4mm² or 10AWG

- Seal inner diameter Ø13 (grey)
For cable size: 2.5mm² or 12AWG

TOLERANCES UNLESS OTHERWISE SPECIFIED				MATERIAL		 APsystems ALTENERGY POWER
X.: ±0.20	X°: ±2.00°					
.X: ±0.10	.X°: ±1.00°	NAME				
.XX: ±0.05	.XX°: ±0.50°	AC Connector				
.XXX: ±0.03	.XXX°: ±0.30°	(3 core,two seals,male)				
DWN.	UNIT	mm		DRAWING NO.		
CHK.	SHEET	OF	REV.	1.0	-	

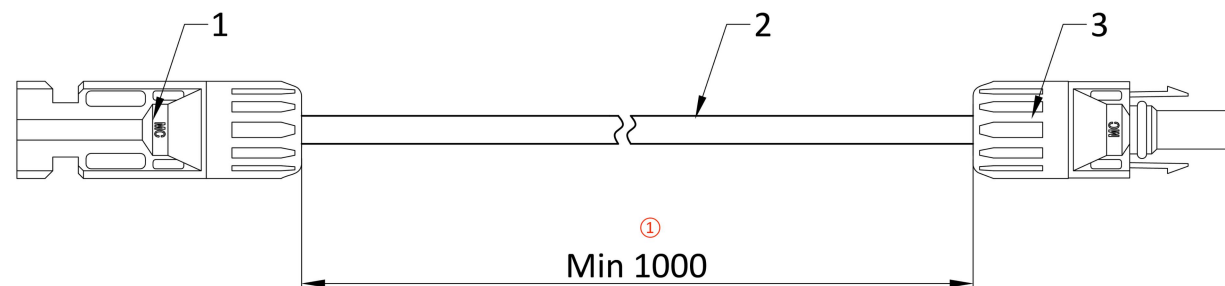
2300932212_AC Connector (3 core, two seals, female)



2310310274_1m DC Extension Cable (MC4)

RoHS
REACH

CHANGE NO.	CHANGE CONTENTS	REV.	NAME/DATE
①	Update cable type; Update dimensions	0.1	YFT 2022-9-14



Notes:

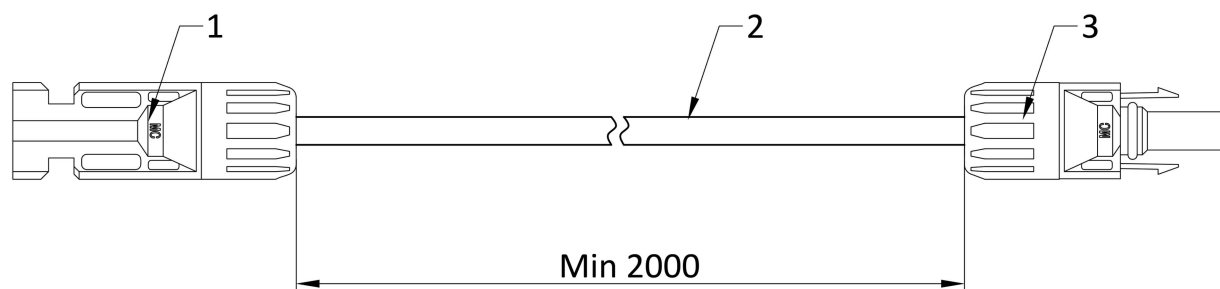
1. The DC cable and connector connect firmly, can sustain 100N-60s tension
2. The pin concentric with plastic parts, ensure that there is no contradict phenomenon when male connector inserts into female connector

3	DC Connector (female)	MC4 PV-KBT4/6II		1	Female, STAUBLI	
① 2	DC Cable	FLEX-SOL-EVO-DX 4.0		1	4.0mm ² , TUV/UL certification	
		62930 IEC 131/PV		1	4.0mm ² /12AWG, TUV/UL certification	Alternative
1	DC Connector (male)	MC4 PV-KST4/6II		1	Male, STAUBLI	
NO.	NAME	TYPE	MAT.	QTY.	DESCRIPTION	REMARK
TOLERANCES UNLESS OTHERWISE SPECIFIED		MATERIAL				
>0-100	±5	>2500-3500	±45	 NAME 1m DC Extension Cable (MC4)		
>100-500	±10	>3500-4500	±50			
>500-900	±15	>4500-5500	±65			
>900-1300	±25	>5500-6500	±80			
>1300-1800	±30	>6500-8000	±90			
>1800-2500	±35	>8000-10000	±100			
DWN.			UNIT	mm	 DRAWING NO.	
CHK.			SHEET	OF	REV.	0.1

2310360214_2m DC Extension Cable (MC4)



CHANGE NO.	CHANGE CONTENTS	REV.	NAME/DATE
②	Add alternative cable	0.2	YFT 2022-9-14



Notes:

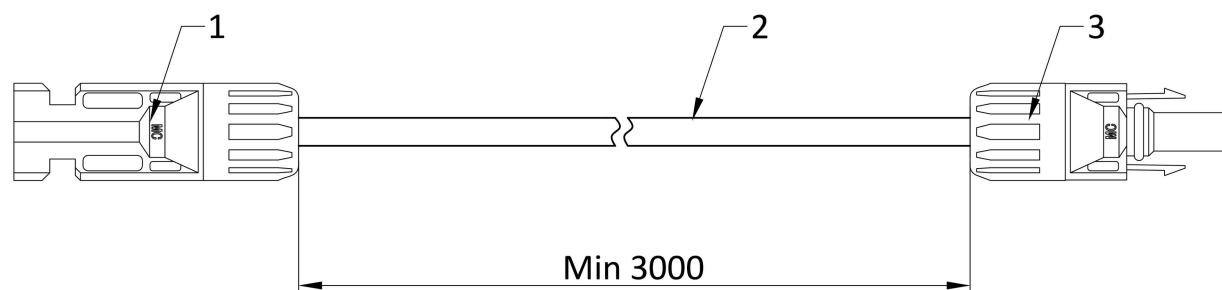
1. The DC cable and connector connect firmly, can sustain 100N-60s tension
2. The pin concentric with plastic parts, ensure that there is no contradict phenomenon when male connector inserts into female connector

①	3	DC Connector (female)	MC4 PV-KBT4/6II		1	Female, STAUBLI				
	2	DC Cable	FLEX-SOL-EVO-DX 4.0		1	4.0mm², TUV/UL certification				
			62930 IEC 131/PV		1	4.0mm²/12AWG, TUV/UL certification	Alternative			
	1	DC Connector (male)	MC4 PV-KST4/6II		1	Male, STAUBLI				
NO.		NAME		TYPE		MAT.	QTY.	DESCRIPTION	REMARK	
TOLERANCES UNLESS OTHERWISE SPECIFIED				MATERIAL  APsystems ALTERNERGY POWER NAME 2m DC Extension Cable (MC4)						
>0-100	±5	>2500-3500								±45
>100-500	±10	>3500-4500								±50
>500-900	±15	>4500-5500								±65
>900-1300	±25	>5500-6500								±80
>1300-1800	±30	>6500-8000								±90
>1800-2500	±35	>8000-10000		±100						
DWN.				UNIT	mm			DRAWING NO.		
CHK.				SHEET	OF	REV.	0.2			

2310360224_3m DC Extension Cable (MC4)



CHANGE NO.	CHANGE CONTENTS	REV.	NAME/DATE
①	Add alternative cable	0.1	YFT 2022-9-14

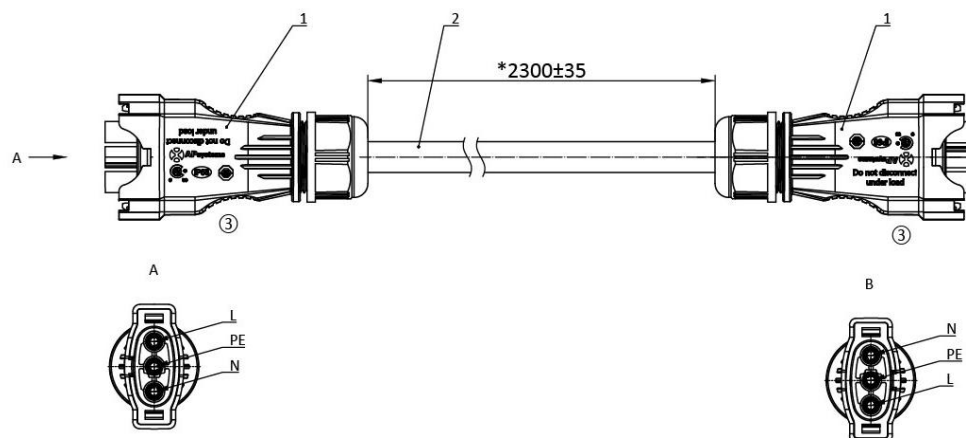


Notes:

1. The DC cable and connector connect firmly, can sustain 100N-60s tension
2. The pin concentric with plastic parts, ensure that there is no contradict phenomenon when male connector inserts into female connector

3	DC Connector (female)	MC4 PV-KBT4/6II		1	Female, STAUBLI	
① 2	DC Cable	FLEX-SOL-EVO-DX 4.0		1	4.0mm ² , TUV/UL certification	
		62930 IEC 131/PV		1	4.0mm ² /12AWG, TUV/UL certification	Alternative
1	DC Connector (male)	MC4 PV-KST4/6II		1	Male, STAUBLI	
NO.	NAME	TYPE	MAT.	QTY.	DESCRIPTION	REMARK
TOLERANCES UNLESS OTHERWISE SPECIFIED			MATERIAL			
>0-100	±5	>2500-3500	±45	 APsystems ALTERNATELY POWER NAME 3m DC Extension Cable (MC4) DRAWING NO.		
>100-500	±10	>3500-4500	±50			
>500-900	±15	>4500-5500	±65			
>900-1300	±25	>5500-6500	±80			
>1300-1800	±30	>6500-8000	±90			
>1800-2500	±35	>8000-10000	±100			
DWN.	UNIT		mm			
CHK.	SHEET		OF	REV.	0.1	

2338102613 ACT3 Cable (2.5mm², H07, 2.3m)

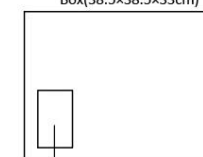


Technical parameter:

1. Comply with ROHS and REACH environmental protection requirements;
2. CABLE: VDE H07RN-F 3G2.5mm² KTL SU01048-6004 SAA101170EA GP-85-PCP 0.6/1.0KV HEAVY DUTY 450/750V WUXI ZHONGHUI WIRE & CABLE CO., LTD CCC A005618 60245 IEC66 (YCW) 3x2.5mm² 450/750V WUXI SHI ZHONGHUI XIANLAN YOUXIAN GONGSI
3. COUPLER FEMALE: ACT3-40A-F-AS;
4. The protection level of the wiring harness meets IP68, and the equivalent airtight test pressure is 27Kpa and maintained for 30s. And can pass the pressure and wet leak test
5. Harness withstand voltage test meets AC3000V, 60 seconds, leakage current ≤20mA
6. Wire harness wet leak test meets 1000V, 60 minutes, impedance >500MΩ
7. The *** size is the important size.
8. Clamping force requirement: Hold a 200g weight without dropping for 3 seconds.

CHANGE NO.	CHANGE CONTENTS	REV.	NAME/DATE
①	Modify Packaging Specifications	1.1	
②	Add Lifting Lead Test	1.1	
③	Add Logo	1.1	

① Box(38.5×38.5×33cm)

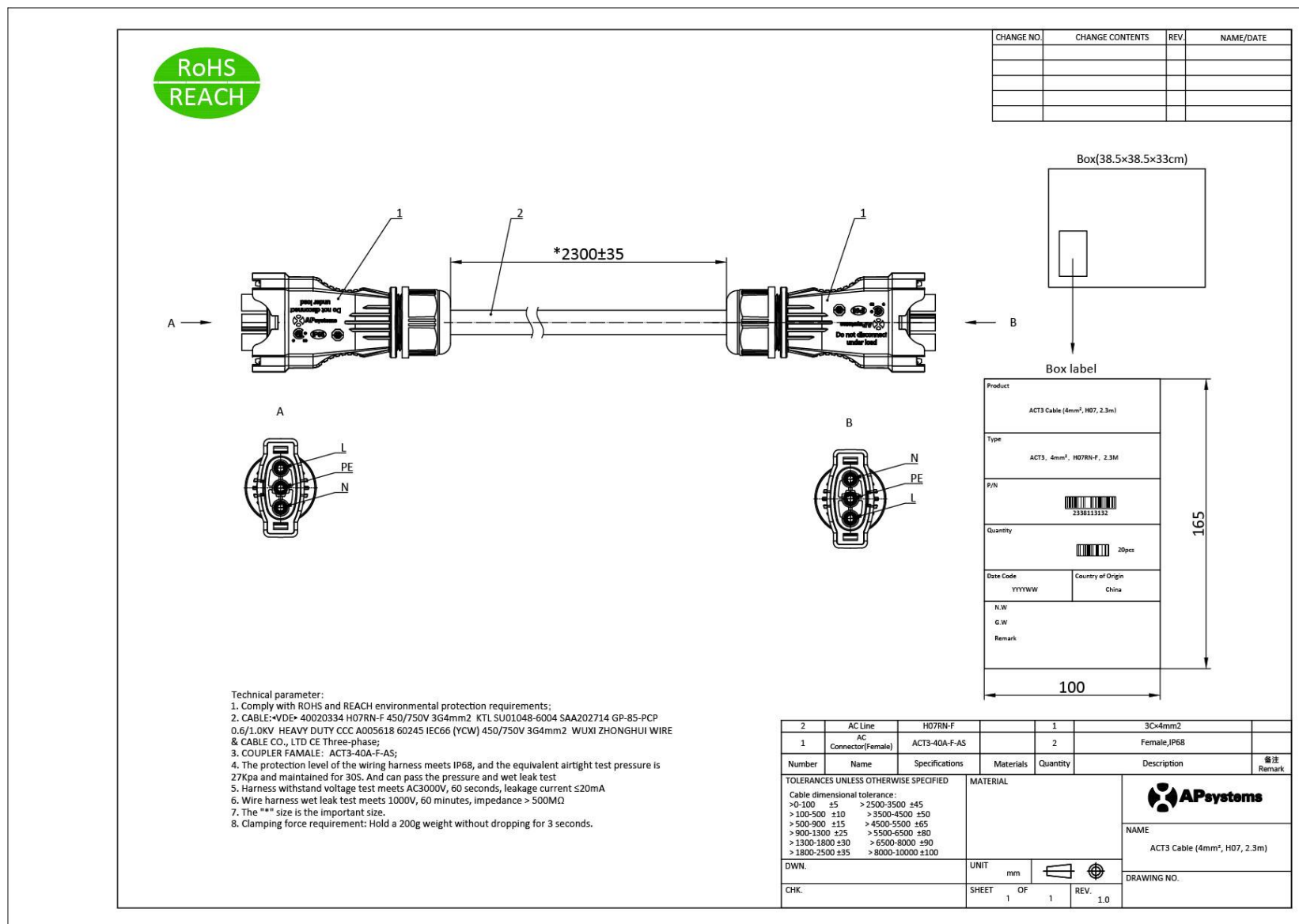


Box label

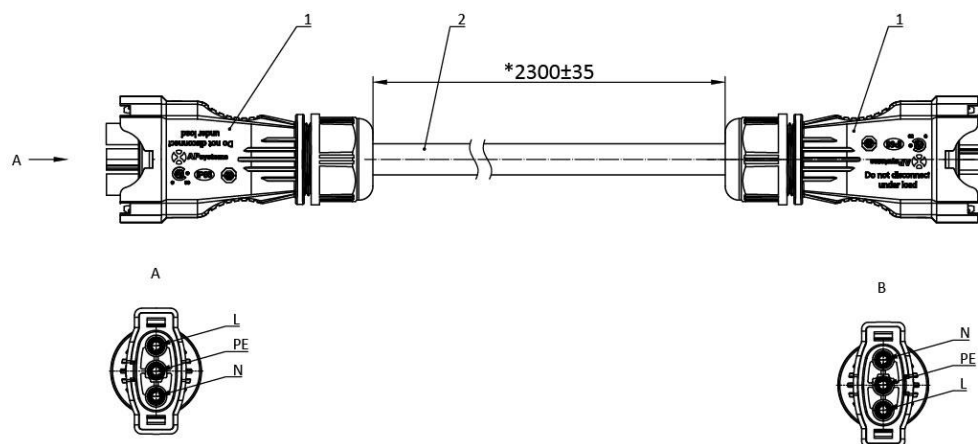
Product ACT3 Cable (2.5mm ² , H07, 2.3m)		165
Type ACT3, 2.5mm ² , H07RN-F, 2.3M		
P/N 		
Quantity  30pcs		
Date Code YYYYWW	Country of Origin China	
N.W G.W Remark		
100		

2	AC Line	H07RN-F	1	3C×2.5mm ²		
1	AC Connector(Female)	ACT3-40A-F-AS	2	Female, IP68		
Number	Name	Specifications	Materials	Quantity	Description	备注 Remark
TOLERANCES UNLESS OTHERWISE SPECIFIED			MATERIAL			
Cable dimensional tolerance: >0-100 ±5 >2500-3500 ±45 >100-500 ±10 >3500-4500 ±50 >500-900 ±15 >4500-5500 ±65 >900-1300 ±25 >5500-6500 ±80 >1300-1800 ±30 >6500-8000 ±90 >1800-2500 ±35 >8000-10000 ±100						
DWN.		UNIT	mm		NAME ACT3 Cable (2.5mm ² , H07, 2.3m)	
CHK.		SHEET	1	OF	1	REV. 1.1
DRAWING NO.						

2338113132 ACT3 Cable (4mm², H07, 2.3m)



2338111132 ACT3 Cable (12AWG, TC-ER, 2.3m)



- Technical parameter:
1. Comply with ROHS and REACH environmental protection requirements;
 2. CABLE: E489601(U)L)TYPETC-ER XHHW-2 3C/12AWG 90°C WET ORDRY 600V FT4
 - DIRBRSUNRESCOLDBEND—C(U)L)TYPEIC9OCDRY 600VFT1XLP3C/12AWGHWATEK CE;
 4. The protection level of the wiring harness meets IP68, and the equivalent airtight test pressure is 27Kpa and maintained for 30s. And can pass the pressure and wet leak test;
 5. Harness withstand voltage test meets AC3000V, 60 seconds, leakage current ≤20mA;
 6. Wire harness wet leak test meets 1000V, 60 minutes, impedance > 500MΩ;
 7. The "*" size is the important size;
 8. Clamping force requirement: Hold a 200g weight without dropping for 3 seconds. ①

CHANGE NO.	CHANGE CONTENTS	REV.	NAME/DATE
①	Add Lifting Load Test	1.1	

Box(38.5×38.5×33cm)

Box label

Product	ACT3 Cable (12AWG, TC-ER, 2.3m)		
Type	ACT3, 12AWG, TC-ER, 2.3M		
P/N	2338111132		
Quantity	20pcs		
Date Code	YYYYWW	Country of Origin	China
N.W			
G.W			
Remark			

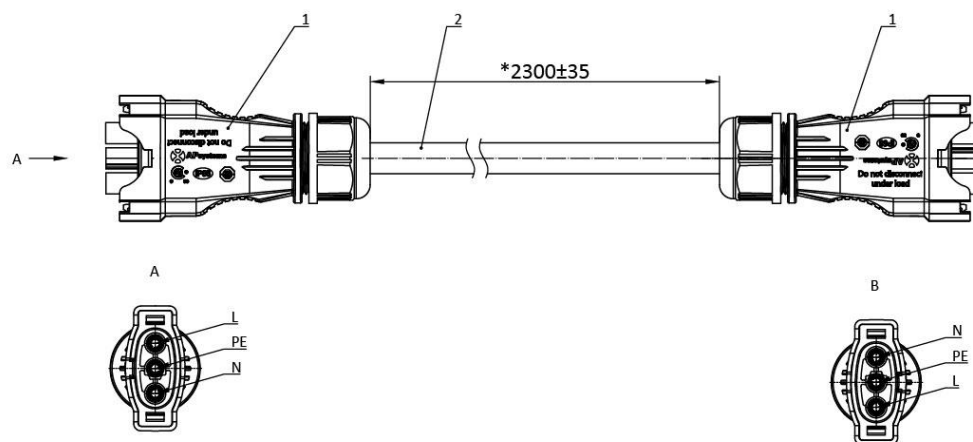
100

165

2	AC Line	TC-ER		1	12AWG	
1	AC Connector(Female)	ACT3-40A-F-AS		2	Female,IP68	
Number	Name	Specifications	Materials	Quantity	Description	備註 Remarks
TOLERANCES UNLESS OTHERWISE SPECIFIED			MATERIAL			
Cable dimensional tolerance:						
>0-100 ±5 >500-3500 ±45						
>100-500 ±10 >3500-4500 ±50					NAME	
>500-900 ±15 >4500-5500 ±65					ACT3 Cable (12AWG, TC-ER, 2.3m)	
>900-1300 ±25 >5500-6500 ±80					DRAWING NO.	
>1300-1800 ±30 >6500-8000 ±90						
>1800-2500 ±35 >8000-10000 ±100						
DWN.	UNIT		mm			
CHK.	SHEET		1	OF	1	REV. 1.1

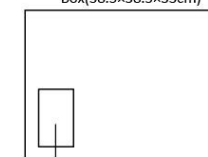
2338118132 ACT3 Cable (10AWG, TC-ER, 2.3m)

RoHS
REACH



CHANGE NO.	CHANGE CONTENTS	REV.	NAME/DATE
①	Add Lifting Load Test	1.1	

Box(38.5×38.5×33cm)



Box label

Product	ACT3 Cable (10AWG, TC-ER, 2.3m)
Type	ACT3, 10AWG, TC-ER, 2.3M
P/N	2338118132
Quantity	20pcs
Date Code	YYYYWW
Country of Origin	China
N.W	
G.W	
Remark	

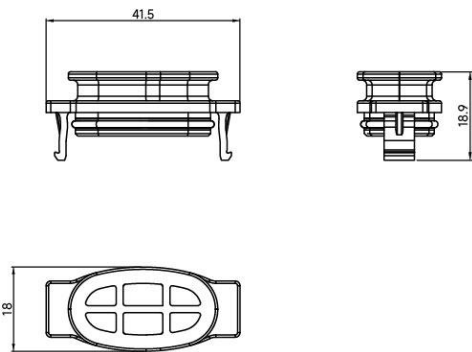
Technical parameter:

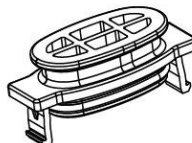
1. Comply with ROHS and REACH environmental protection requirements;
2. CABLE: E489601 (UL) TYPE TC-ER XHHW-2 3C/10AWG (3X6.0mm²) 90 WET OR DRY 600V FT4 DIR BUR SUN RES COLD BEND --- c(UL) TYPE CIG 90 DRY 600V FT1 XLPE 3C/10AWG HWATEK CE;
4. The protection level of the wiring harness meets IP68, and the equivalent airtight test pressure is 27Kpa and maintained for 30S. And can pass the pressure and wet leak test;
5. Harness withstand voltage test meets AC3000V, 60 seconds, leakage current ≤20mA;
6. Wire harness wet leak test meets 1000V, 60 minutes, impedance > 500MQ;
7. The "*" size is the important size;
8. Clamping force requirement: Hold a 200g weight without dropping for 3 seconds. ①

2	AC Line	TC-ER		1	10AWG	
1	AC Connector(Female)	ACT3-40A-F-AS		2	Female,IP68	
Number	Name	Specifications	Materials	Quantity	Description	备注 Remark
TOLERANCES UNLESS OTHERWISE SPECIFIED				 NAME ACT3 Cable (10AWG, TC-ER, 2.3m)		
Cable dimensional tolerance: >0-100 ±5 > 2500-3500 ±45 >100-500 ±10 > 3500-4500 ±50 >500-900 ±15 > 4500-5500 ±65 >900-1300 ±25 > 5500-6500 ±80 >1300-1800 ±30 > 6500-8000 ±90 >1800-2500 ±35 > 8000-10000 ±100						
DWN.			UNIT	mm	 	DRAWING NO.
CHK.			SHEET	1 OF 1	REV. 1.1	

2062731007 AC3 Protective cover(male)

RoHS
REACH





Packaging Diagram:

CHANGE NO.	CHANGE CONTENTS	REV.	NAME/DATE
①	Modify Packaging Specifications	1.1	



PE bag

Part Number:2062731007
 Product Name:AC3 Protective cover(male)
 Quantity:25Pcs ①
 Date Code: YYYYWW

Box(48×30×27.5cm)



Box label

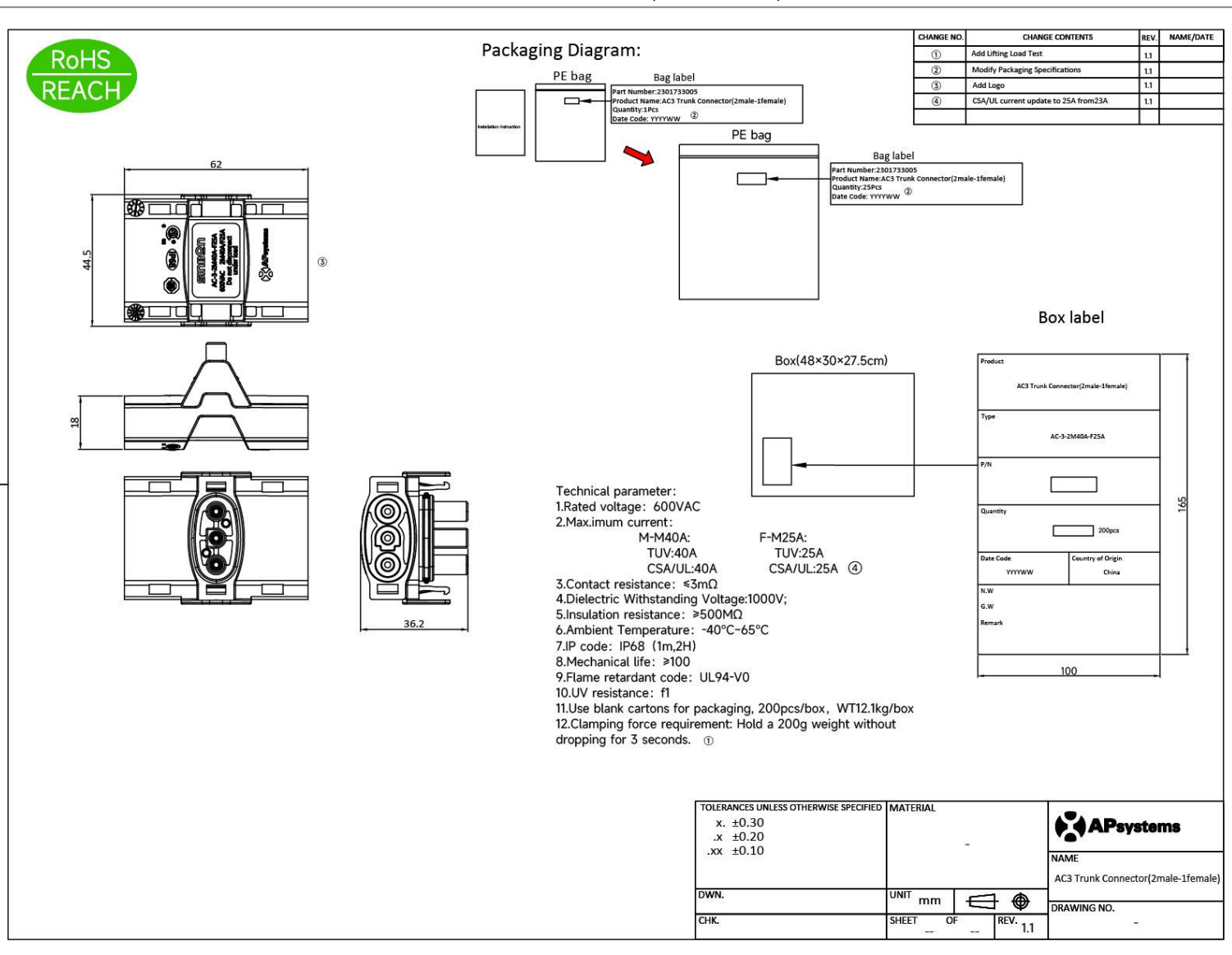
Product AC3 Protective cover (male)	
Type ACB3-ACT3-M-D	
P/N 	
Quantity  2000pcs	
Date Code YYYYWW	Country of Origin China
N.W	
G.W	
Remark	

Technical parameter:

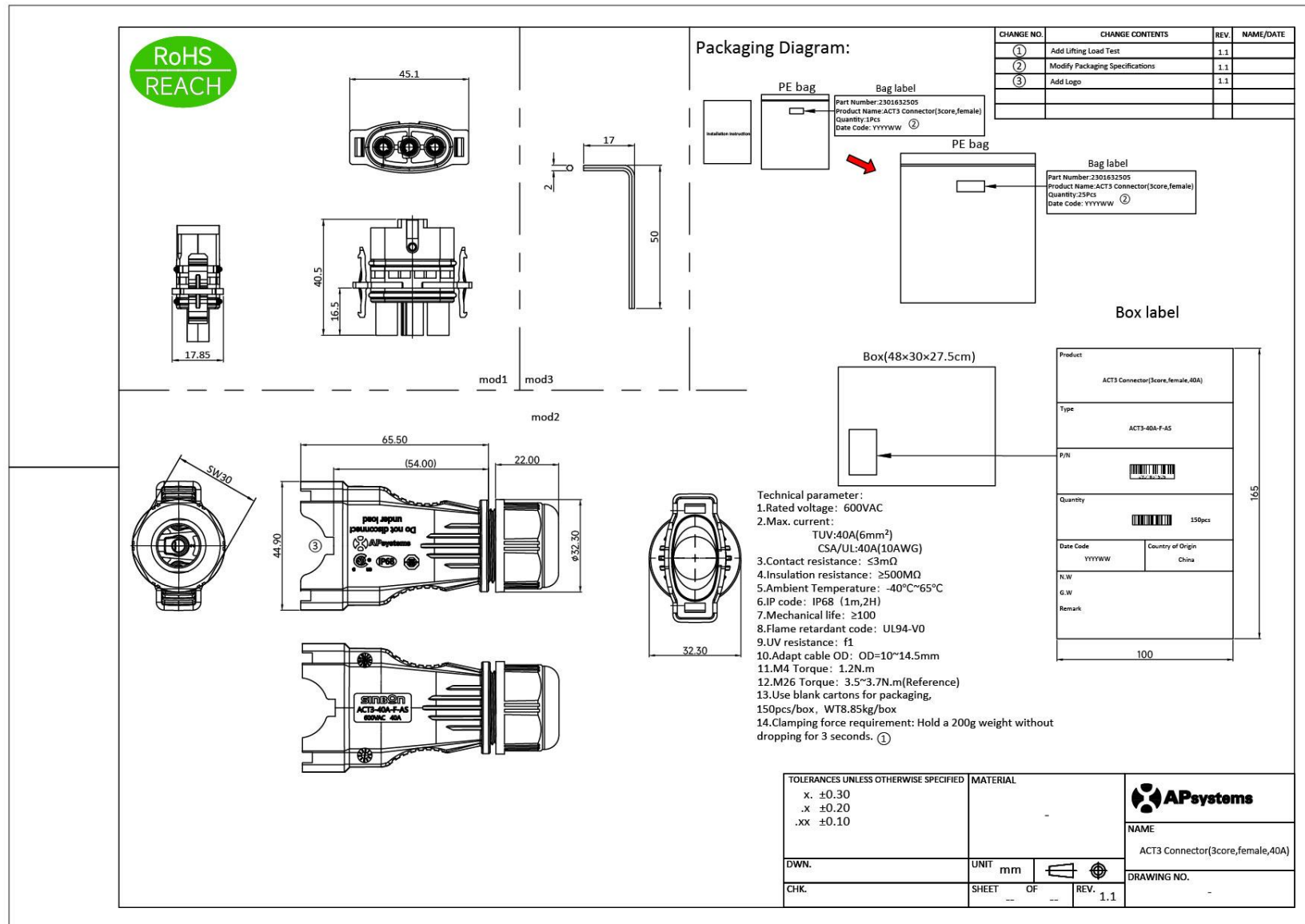
- 1.The limit deviation of unmarked tolerance dimensions shall be in accordance with GB/T 14486-MT6 level;
- 2.The parts are made of F1 weather resistant PPE+HIPS rubber black molding, and the waterproof ring is made of red F1 weather resistant silicone rubber molding. The surface of the product should be full, smooth, and uniform in color; No defects such as shrinkage marks, cracks, silver wires, etc;
- 3.After trimming the sprue and overflow edge, the flash edge should be ≤ 0.3 and should not damage the body;
- 4.Misalignment with the corresponding assembly joint surface shape ≤ 0.3;
5. Use blank cartons for packaging, 2000pcs/box, WT9.4kg/box

TOLERANCES UNLESS OTHERWISE SPECIFIED X. ±0.30 .X ±0.20 .XX ±0.10	MATERIAL -		 NAME AC3 Protective cover(male)

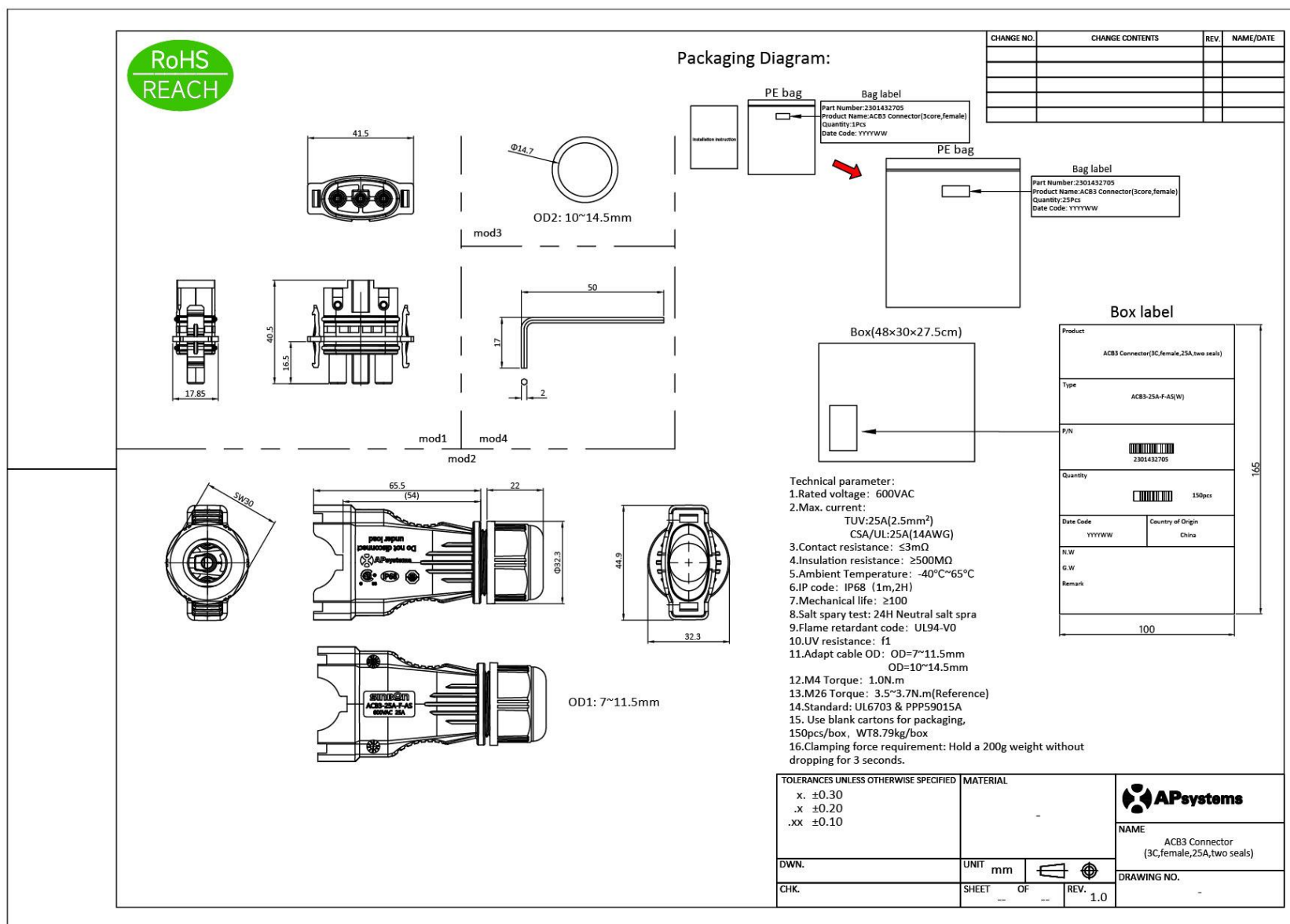
2301733005 AC3 Trunk Connector(2male-1female)



2301632505 ACT3 Connector(3core,female,40A)

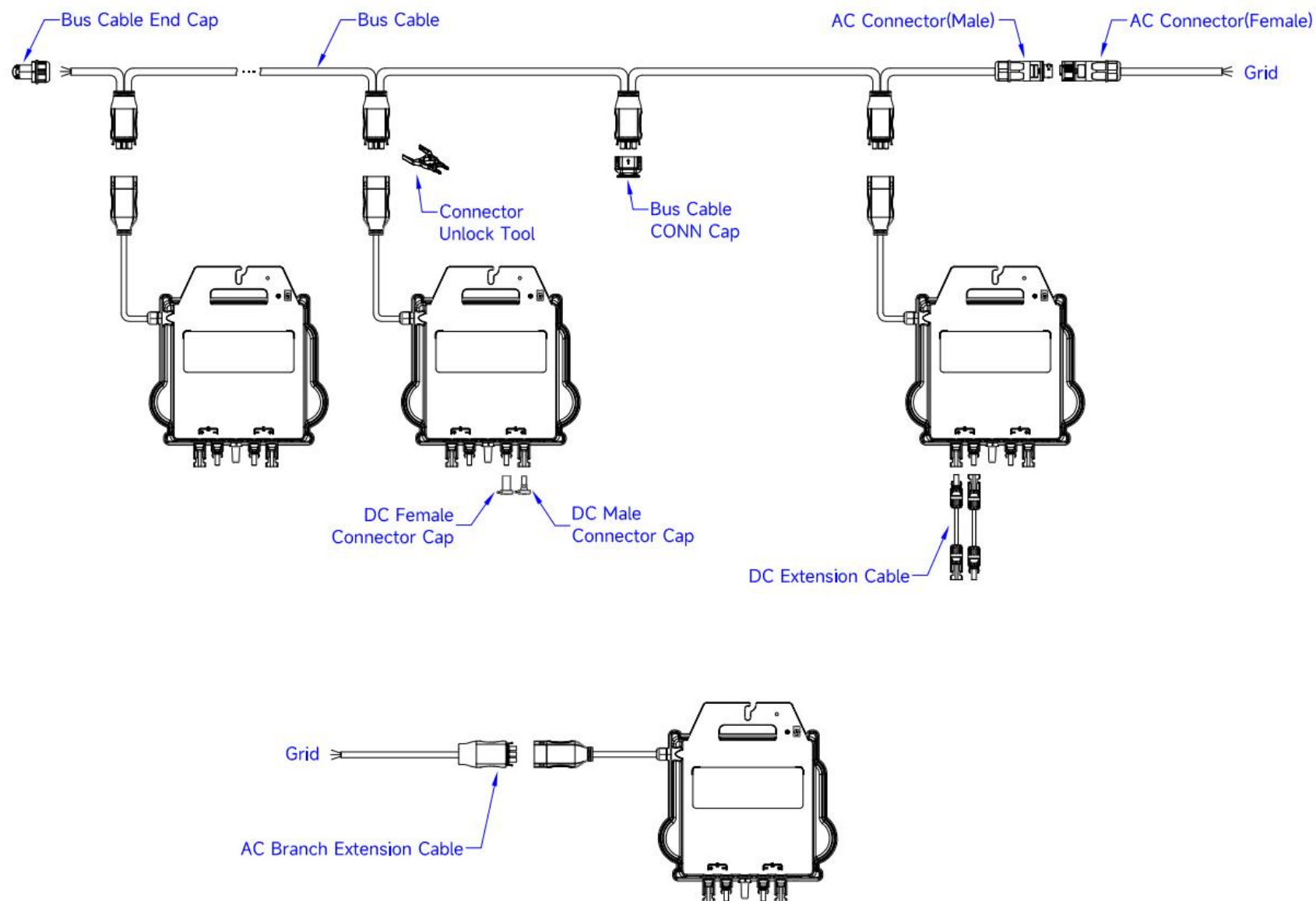


2301432705 ACB3 Connector(3C,female,25A,two seals)

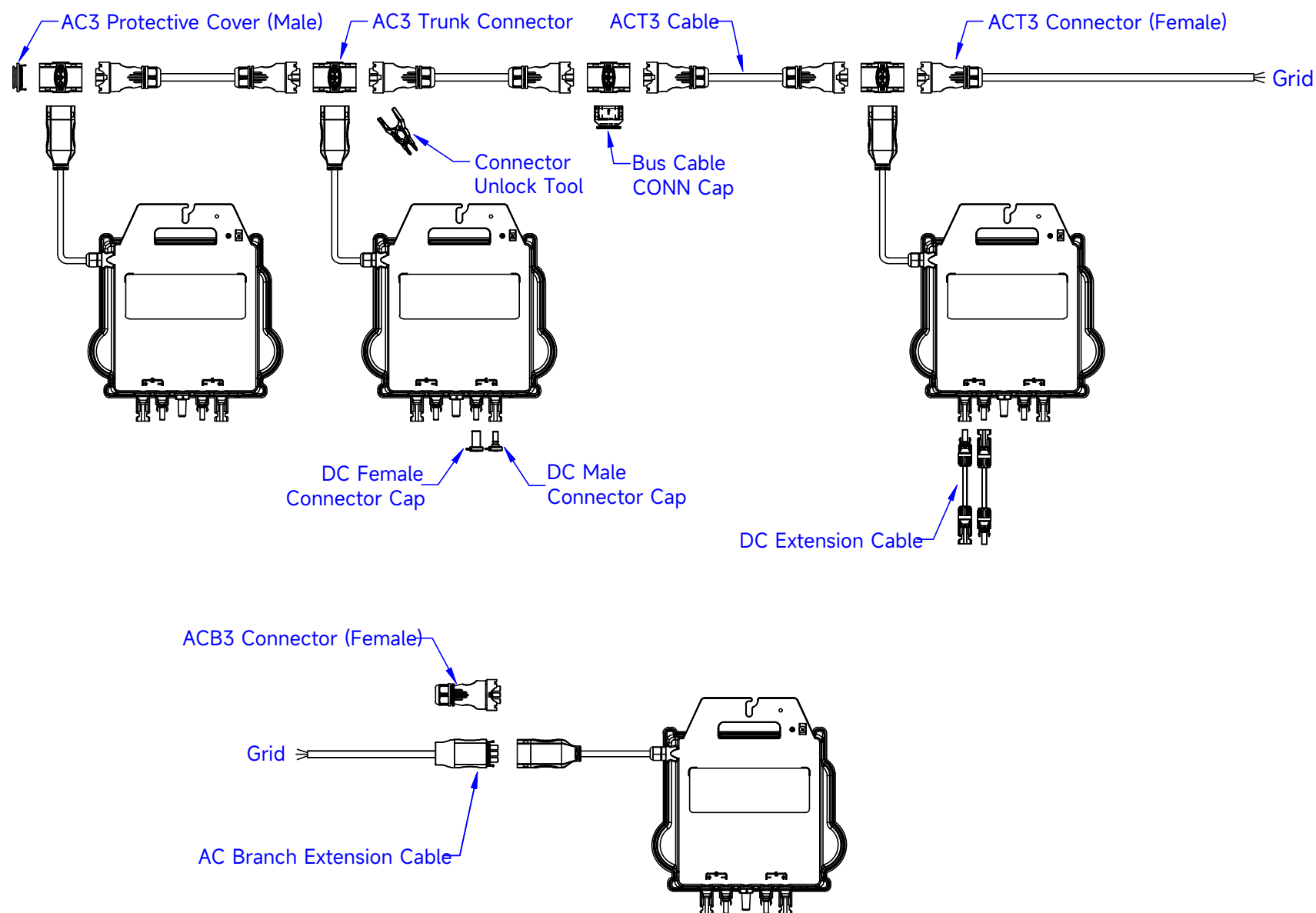


DS3D Accessories

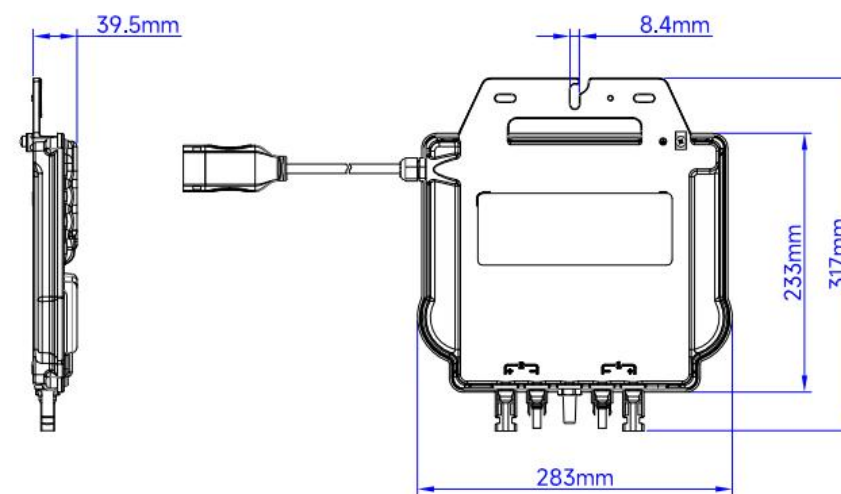
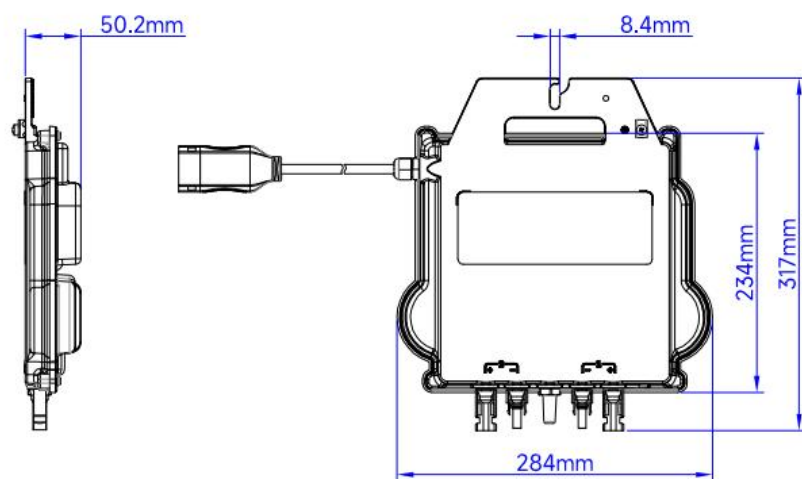
1. Wiring Diagram Y3



AC3



2. DS3D Dimensions



3. Accessories Summary

Y3

Region		Accessories									
		Bus Cable (Mandatory)	AC Branch Extension Cable (Optional)	Bus Cable End Cap (Mandatory)	Bus Cable CONN Cap (Optional)	Connector Unlock Tool (Mandatory)	DC Male Connector Cap (Optional)	DC Female Connector Cap (Optional)	AC Connector (Male) (Optional)	AC Connector (Female) (Optional)	DC Extension Cable (Optional)
LATAM	Mexico -MX: 121031	2322600403_Split Phase Bus Cable (10AWG,TC,2.4m)	2334075242_ Split Phase Br. Ext-cable (18AWG,TC, 2m) (See Pic. B)	2060700017_ 3-wire Bus Cable End Cap (See Pic. C)	2061702007_ Bus Cable Y-CONN Cap (See Pic. D)	2355000003_ Y3-DC Connector Unlock Tool (See Pic. E)	2060401006_ DC Male Connector Cap (MC4) (See Pic. F)	2060402006_ DC Female Connector Cap (MC4) (See Pic. G)	2300931212_ AC Connector (3 core, two seals, male) (See Pic. H)	2300932212_ AC Connector (3 core, two seals, female) (See Pic. I)	2310310274_1m DC Extension Cable (MC4)
		2322301303_Split Phase Bus Cable (12AWG,TC,2m) (See Pic. A)									2310360214_2m DC Extension Cable (MC4)
	Brazil -BR: 121006/121252 -L-BR: 125006	2322601403_Singl e Phase Bus Cable (4mm²,H07,2.4m)	2334076132_ Single Phase Br. Ext-cable (2.5mm²,1m) (See Pic. B)								2310360224_3m DC Extension Cable (MC4)
		2322304903_Singl e Phase Bus Cable (2.5mm², H07,2m) (See Pic. A)									2310370236_4m DC Extension Cable (MC4) (See Pic. J)

Notes: The cables in this table are recommended by APsystems, and the O.D. and length of the cable can be customized according to customer needs.

AC3

Region		Accessories										
		ACT3 Cable (Mandatory)	AC Branch Extension Cable (Optional)	AC3 Protective Cover (male) (Mandatory)	Bus Cable CONN Cap (Optional)	Connector Unlock Tool (Mandatory)	DC Male Connector Cap (Optional)	DC Female Connector Cap (Optional)	AC3 Trunk Connector (Mandatory)	ACT3 Connector (Female) (Mandatory)	DC Extension Cable (Optional)	ACB3 Connector (Female) (Optional)
LATAM	Mexico -MX: 121031	2338118132_ ACT3 Cable (10AWG, TC-ER, 2.3m)	2334075242_ Split Phase Br. Ext-cable (18AWG,TC, 2m) (See Pic. B)	2062731007_ AC3 Protective Cover (male) (See Pic. L)	2061702007_ Bus Cable Y-CONN Cap (See Pic. D)	2355000003_ Y3-DC Connector Unlock Tool (See Pic. E)	2060401006_ DC Male Connector Cap (MC4) (See Pic. F)	2060402006_ DC Female Connector Cap (MC4) (See Pic. G)	2301733005_ ACT3 Trunk Connector (2male- 1female) (See Pic. M)	2301632505_ ACT3 Connector (3core, female, 40A) (See Pic. N)	2310310274_1m DC Extension Cable (MC4)	2301432705_ ACB3 Connector (3C, female, 25A, two seals) (See Pic. O)
		2338111132_ ACT3 Cable (12AWG, TC-ER, 2.3m) (See Pic. K)									2310360214_2m DC Extension Cable (MC4)	
	Brazil -BR: 121006/121252 -L-BR: 125006	2338113132_ ACT3 Cable (4mm², H07,2.3m)	2334076132_ Single Phase Br. Ext-cable (2.5mm²,1m) (See Pic. B)								2310360224_3m DC Extension Cable (MC4)	
		2338102613_ ACT3 Cable (2.5mm², H07, 2.3m) (See Pic. K)									2310370236_4m DC Extension Cable (MC4) (See Pic. J)	

Notes: The cables in this table are recommended by APsystems, and the O.D. and length of the cable can be customized according to customer needs.

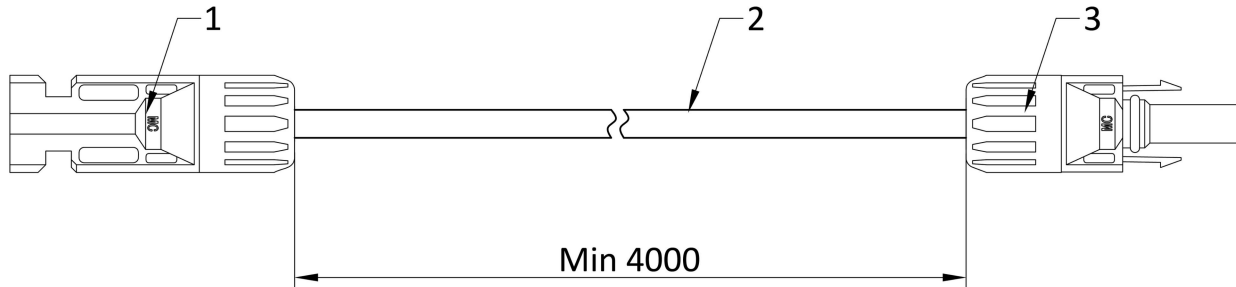
4. Physical Picture

Bus Cable	AC Branch Extension Cable	Bus Cable End Cap	Bus Cable CONN Cap	Connector Unlock Tool	DC Male Connector Cap
 Pic. A	 Pic. B	 Pic. C	 Pic. D	 Pic. E	 Pic. F
DC Female Connector Cap	AC Connector (Male)	AC Connector (Female)	DC Extension Cable	ACT3 Cable	AC3 Protective Cover (male)
 Pic. G	 Pic. H	 Pic. I	 Pic. J	 Pic. K	 Pic. L
AC3 Trunk Connector	AC Connector (Male)	ACB3 Connector (Female)			
 Pic. M	 Pic. N	 Pic. O			

5. Accessories information

2310370236_4m DC Extension Cable (MC4)





Min 4000

CHANGE NO.	CHANGE CONTENTS	REV.	NAME/DATE
①	Add alternative cable	0.1	YFT 2022-9-14

Notes:

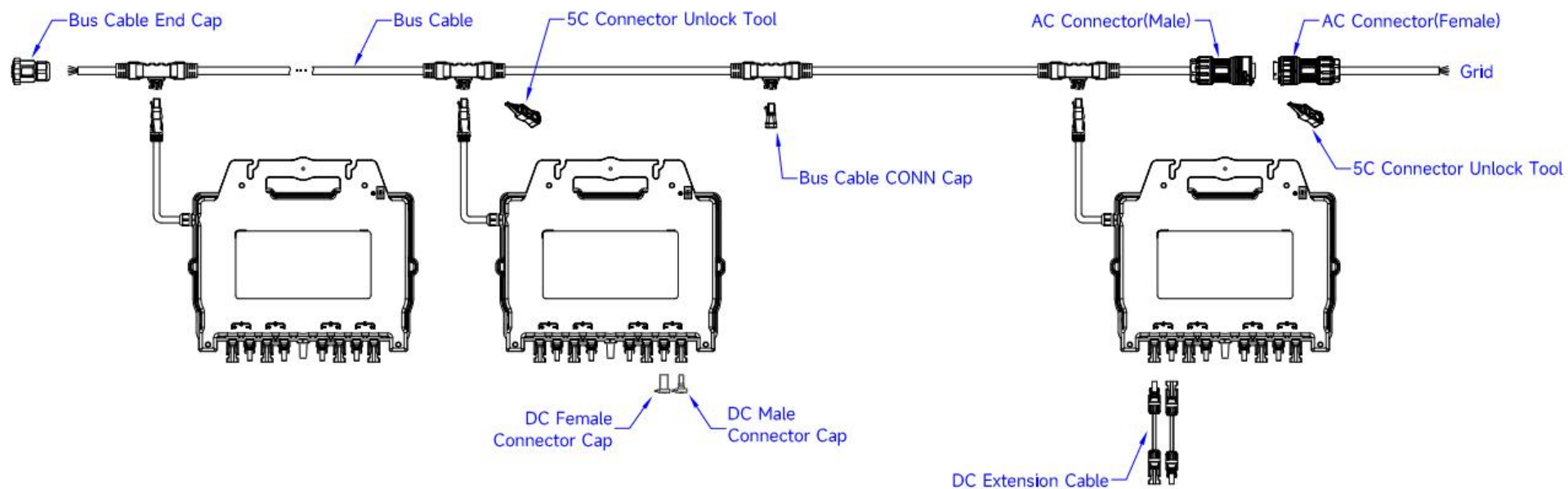
1. The DC cable and connector connect firmly, can sustain 100N-60s tension
2. The pin concentric with plastic parts, ensure that there is no contradict phenomenon when male connector inserts into female connector

3	DC Connector (female)	MC4 PV-KBT4/6II		1	Female, STAUBLI	
① 2	DC Cable	FLEX-SOL-EVO-DX 4.0		1	4.0mm ² , TUV/UL certification	
		62930 IEC 131/PV		1	4.0mm ² /12AWG, TUV/UL certification	Alternative
1	DC Connector (male)	MC4 PV-KST4/6II		1	Male, STAUBLI	

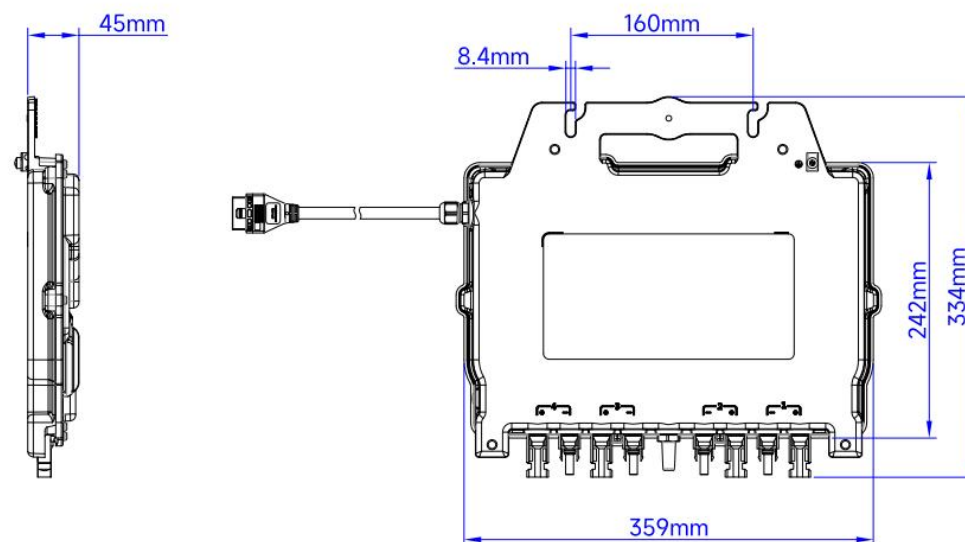
NO.	NAME	TYPE	MAT.	QTY.	DESCRIPTION	REMARK
TOLERANCES UNLESS OTHERWISE SPECIFIED		MATERIAL				
>0-100	±5	>2500-3500	±45	 NAME 4m DC Extension Cable (MC4) DRAWING NO.		
>100-500	±10	>3500-4500	±50			
>500-900	±15	>4500-5500	±65			
>900-1300	±25	>5500-6500	±80			
>1300-1800	±30	>6500-8000	±90			
>1800-2500	±35	>8000-10000	±100			
DWN.		UNIT	mm			
CHK.	SHEET	OF	REV.	0.1		

QT2 Accessories

1. Wiring Diagram



2. QT2 Dimensions



3. Accessories Summary

Region		Accessories								
		Bus Cable (Mandatory)	Bus Cable End Cap (Mandatory)	Bus Cable CONN Cap (Optional)	5C Connector Unlock Tool (Mandatory)	DC Male Connector Cap (Optional)	DC Female Connector Cap (Optional)	AC Connector (Male) (Optional)	AC Connector (Female) (Optional)	DC Extension Cable (Optional)
LATAM	Mexico -MX: 124031	2322604502_3-phase 5C Bus Cable (12AWG,TC,2.4m)	2062050012_5C Bus Cable End Cap (Two seals) (See Pic. B)	2061252032_5-wire Bus Cable T-CONN Cap (See Pic. C)	2353000002_5C Connector Unlock Tool (See Pic. D)	2060401006_DC Male Connector Cap (MC4) (See Pic. E)	2060402006_DC Female Connector Cap (MC4) (See Pic. F)	2301511002_ AC Connector (5C,40A,male) (See Pic. G)	2301512002_ AC Connector (5C,40A,female) (See Pic. H)	2310310274_1m DC Extension Cable (MC4)
		2322904502_3-phase 5C Bus Cable (12AWG,TC,4.6m)								2310360214_2m DC Extension Cable (MC4)
		2322609202_3-phase 5C Bus Cable(10AWG,TC,2.4m)								
		2322909202_3-phase 5C Bus Cable (10AWG,TC,4.6m) (See Pic. A)								
	Brazil -220-BR: 124011	2322604802_3-phase 5C Bus Cable (2.5mm²,H07,2.4m)								2310360224_3m DC Extension Cable (MC4)
		2322555602_3-phase 5C Bus Cable (2.5mm² ,H07,5.5m)								2310370236_4m DC Extension Cable (MC4) (See Pic. I)
		2322289182_3-phase 5C Bus Cable(4mm² ,H07,2.8m)								
		2322559192_3-phase 5C Bus Cable (4mm² ,H07,5.5m) (See Pic. A)								

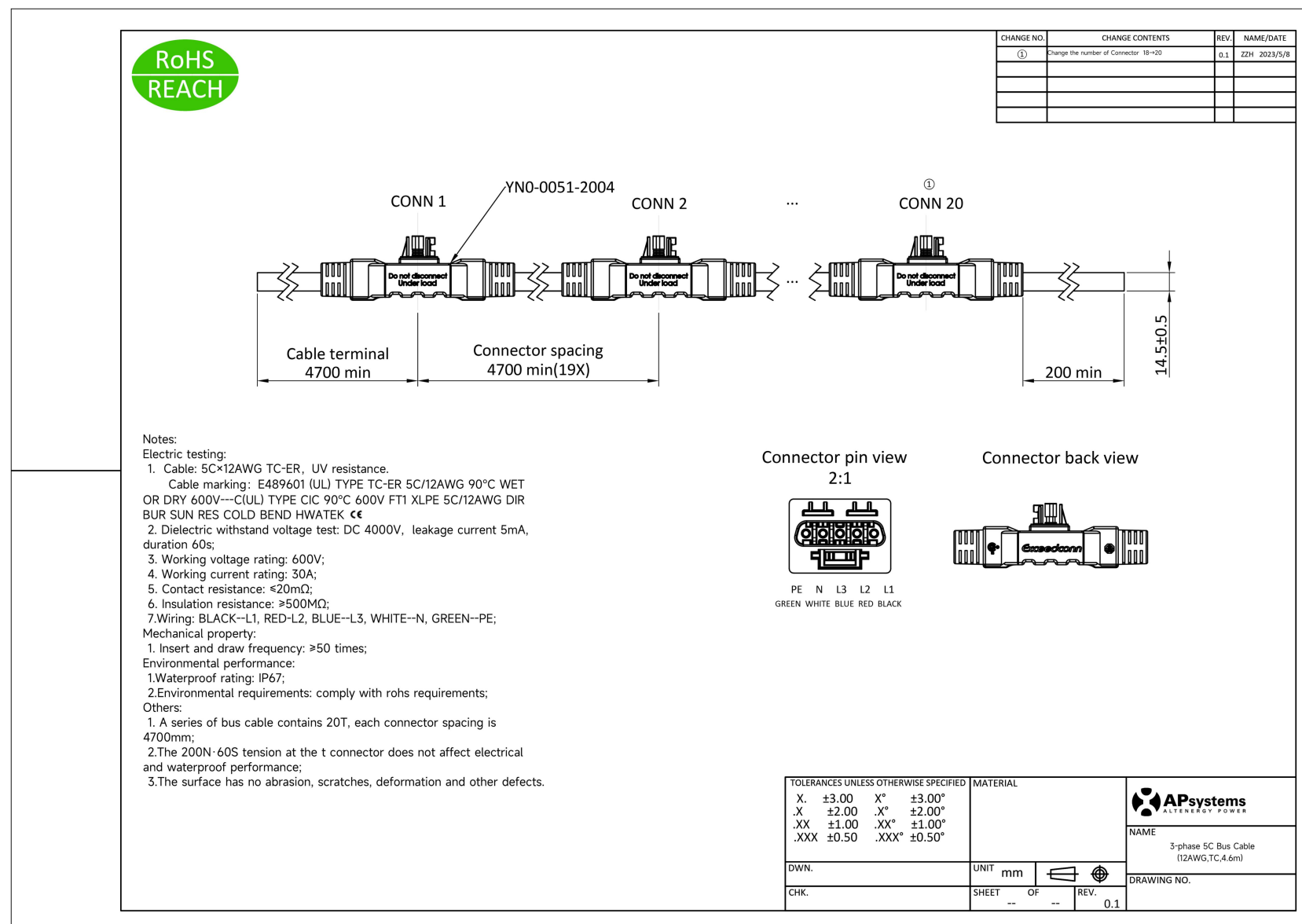
Notes: The cables in this table are recommended by APsystems, and the O.D. and length of the cable can be customized according to customer needs.

4. Physical Picture

Bus Cable	Bus Cable End Cap	Bus Cable CONN Cap	5C Connector Unlock Tool	DC Male Connector Cap	DC Female Connector Cap
 Pic. A	 Pic. B	 Pic. C	 Pic. D	 Pic. E	 Pic. F
AC Connector (Male)	AC Connector (Female)	DC Extension Cable			
 Pic. G	 Pic. H	 Pic. I			

5. Accessories information

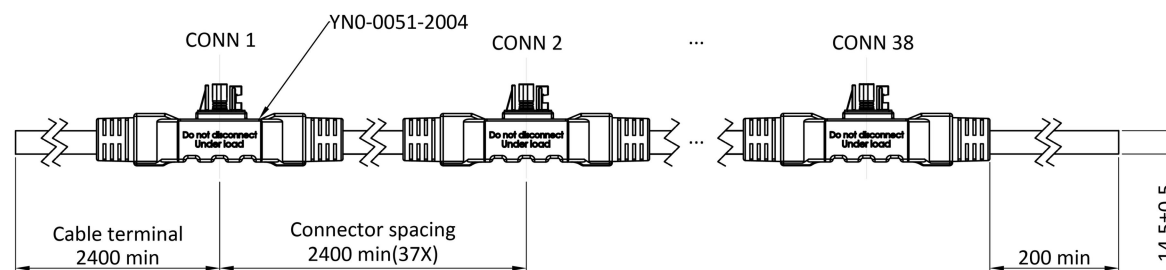
2322904502_3-phase 5C Bus Cable(12AWG,TC,4.6m)



2322604502_3-phase 5C Bus Cable (12AWG,TC,2.4m)



CHANGE NO.	CHANGE CONTENTS	REV.	NAME/DATE



Notes:

Electric testing:

1. Cable: 5C×12AWG TC-ER, UV resistance.
Cable marking: E489601 (UL) TYPE TC-ER 5C/12AWG 90°C WET OR DRY 600V---C(UL) TYPE CIC 90°C 600V FT1 XLPE 5C/12AWG DIR BUR SUN RES COLD BEND HWATEK 
2. Dielectric withstand voltage test: DC 4000V, leakage current 5mA, duration 60s;
3. Working voltage rating: 600V;
4. Working current rating: 30A;
5. Contact resistance: ≤20mΩ;
6. Insulation resistance: ≥500MΩ;
7. Wiring: BLACK--L1, RED-L2, BLUE--L3, WHITE--N, GREEN--PE;

Mechanical property:

1. Insert and draw frequency: ≥50 times;

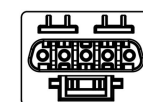
Environmental performance:

1. Waterproof rating: IP67;
2. Environmental requirements: comply with rohs requirements;

Others:

1. A series of bus cable contains 38T, each connector spacing is 2400mm;
2. The 200N-60S tension at the t connector does not affect electrical and waterproof performance;
3. The surface has no abrasion, scratches, deformation and other defects.

Connector pin view 2:1



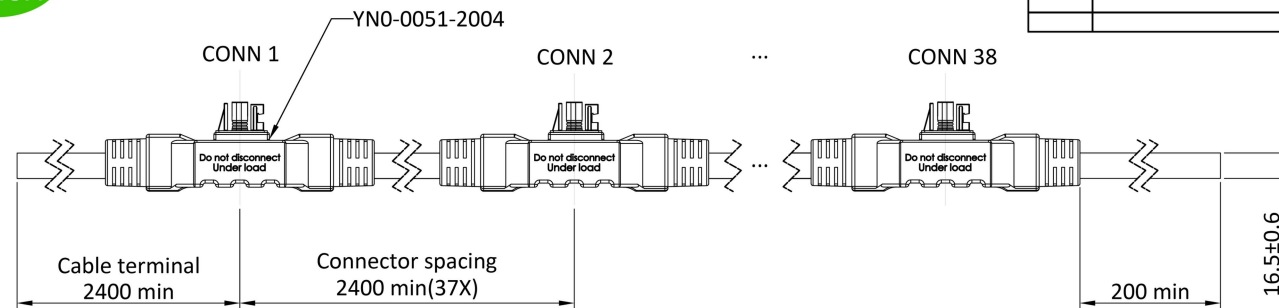
PE N L3 L2 L1
GREEN WHITE BLUE RED BLACK

Connector back view

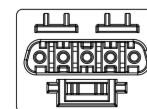


TOLERANCES UNLESS OTHERWISE SPECIFIED		MATERIAL		 APsystems ALTERNATIVE POWER
X. ±3.00	X° ±3.00°			
.X ±2.00	.X° ±2.00°			
.XX ±1.00	.XX° ±1.00°	DRAWING NO.		
.XXX ±0.50	.XXX° ±0.50°			

2322609202_ 3-phase 5C Bus Cable(10AWG,TC, 2.4m)

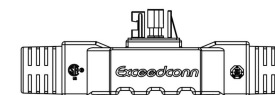


Connector pin view
2:1



PE N L3 L2 L1
GREEN WHITE BLUE RED BLACK

Connector back view



Notes:

Electric testing:

1. Cable: 5C×10AWG TC-ER, UV resistance.
Cable marking: E489601 (UL) TYPE TC-ER 5C/10AWG 90°C WET OR DRY 600V---C(UL) TYPE CIC 90°C 600V FT1 XLPE 5C/10AWG DIR BUR SUN RES COLD BEND HWATEK **CE**
2. Dielectric withstand voltage test: DC 4000V, leakage current 5mA, duration 60s;
3. Working voltage rating: 600V;
4. Working current rating: 40A;
5. Contact resistance: ≤20mΩ;
6. Insulation resistance: ≥500MΩ;
7. Wiring: BLACK--L1, RED-L2, BLUE--L3, WHITE--N, GREEN--PE;

Mechanical property:

1. Insert and draw frequency: ≥50 times;

Environmental performance:

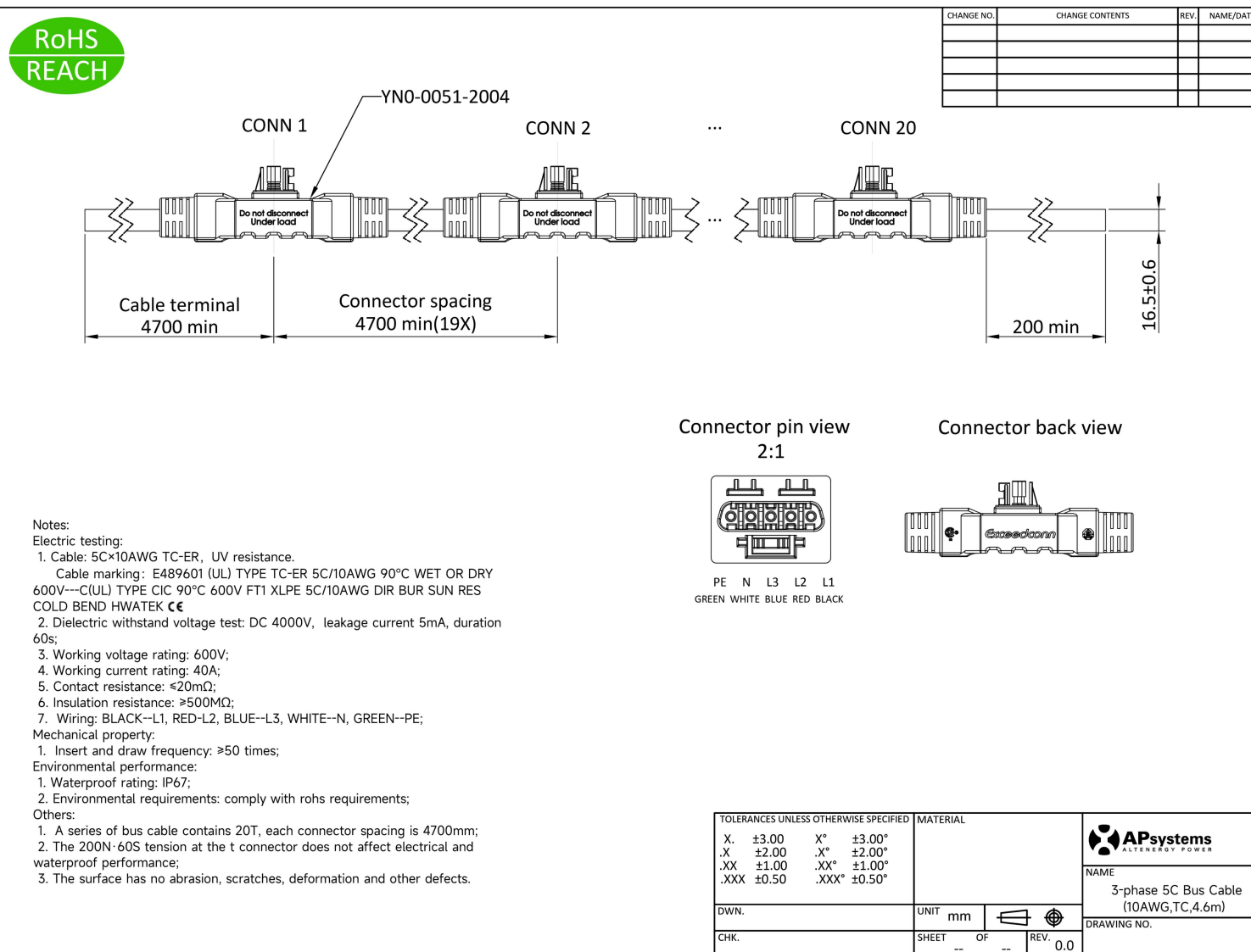
1. Waterproof rating: IP67;
2. Environmental requirements: comply with rohs requirements;

Others:

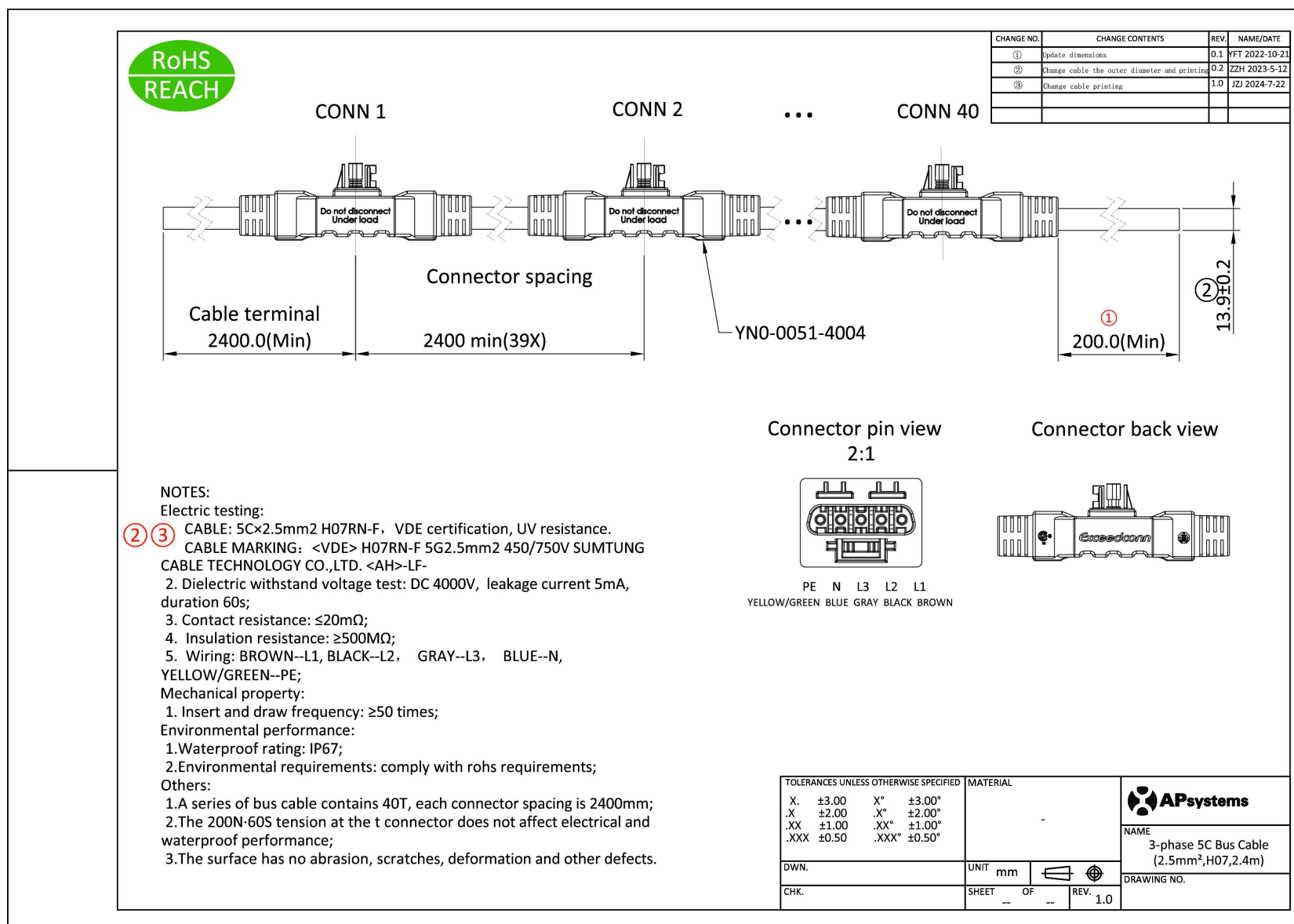
1. A series of bus cable contains 38T, each connector spacing is 2400mm;
2. The 200N·60S tension at the t connector does not affect electrical and waterproof performance;
3. The surface has no abrasion, scratches, deformation and other defects.

TOLERANCES UNLESS OTHERWISE SPECIFIED		MATERIAL		 APsystems ALTERNERGY POWER	
X. ±3.00	X° ±3.00°				NAME
.X ±2.00	.X° ±2.00°				3-phase 5C Bus Cable (10AWG,TC,2.4m)
.XX ±1.00	.XX° ±1.00°			DRAWING NO.	
.XXX ±0.50	.XXX° ±0.50°				
DWN.	UNIT mm				
CHK.	SHEET OF REV. 0.0				

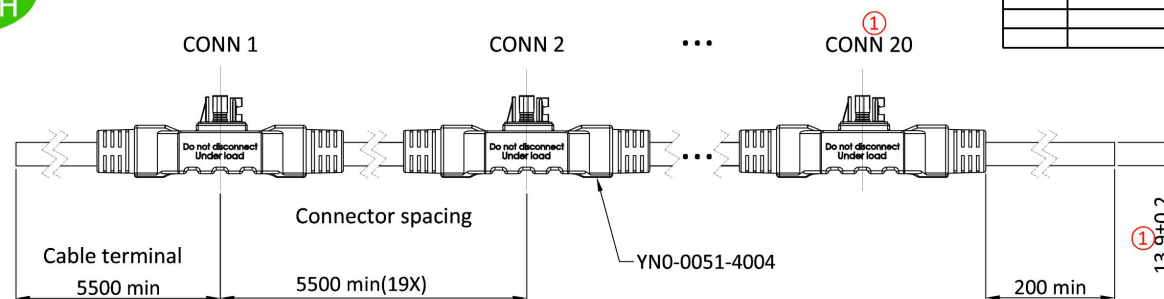
2322909202_3-phase 5C Bus Cable(10AWG,TC,4.6m)



2322604802_3-phase 5C Bus Cable(2.5mm²,H07,2.4m)

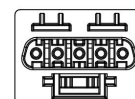


2322555602_3-phase 5C Bus Cable (2.5mm²,H07,5.5m)



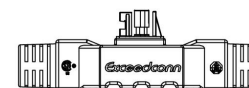
CHANGE NO.	CHANGE CONTENTS	REV.	NAME/DATE
①	Change the number of Connector 18→20. Change cable the outer diameter and printing.	0.1	ZZH 2023/5/12
②	Change cable printing	1.0	IZI 2024/7/22

Connector pin view
2:1



PE N L3 L2 L1
YELLOW/GREEN BLUE GRAY BLACK BROWN

Connector back view



NOTES:

Electric testing:

1. CABLE :5C×2.5mm² H07RN-F, VDE certification, UV resistance.
- ① ② CABLE MARKING: <VDE> H07RN-F 5G2.5mm² 450/750V SUMTUNG CABLE TECHNOLOGY CO.,LTD. <AH>-LF-
2. Dielectric withstand voltage test: DC 4000V, leakage current 5mA, duration 60s;
3. Contact resistance: ≤20mΩ;
4. Insulation resistance: ≥500MΩ;
5. Wiring: BROWN--L1, BLACK--L2, GRAY--L3, BLUE--N, YELLOW/GREEN--PE;

Mechanical property:

1. Insert and draw frequency: ≥50 times;

Environmental performance:

1. Waterproof rating: IP67;
2. Environmental requirements: comply with rohs requirements;

Others:

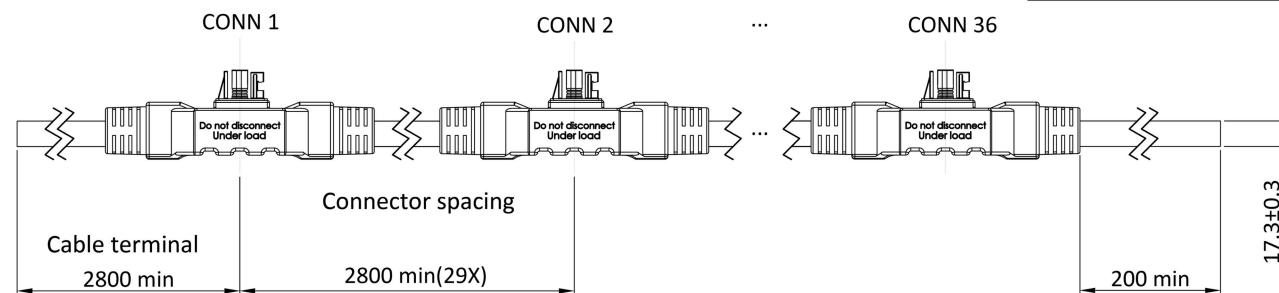
- 1.A series of bus cable contains 20T, each connector spacing is 5500mm;
- 2.The 200N-60S tension at the t connector does not affect electrical and waterproof performance;
- 3.The surface has no abrasion, scratches, deformation and other defects.

TOLERANCES UNLESS OTHERWISE SPECIFIED				MATERIAL		 APsystems NAME 3-phase 5C Bus Cable (2.5mm²,H07,5.5m)
X.	±3.00	X°	±3.00°			
.X	±2.00	.X°	±2.00°			
.XX	±1.00	.XX°	±.00°			
.XXX	±0.50	.XXX°	±0.50°			DRAWING NO.
DWN.				UNIT	mm	
CHK.				SHEET	OF	
						REV. 1.0

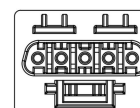
2322289182_3-phase 5C Bus Cable (4mm², H07,2.8m)

RoHS
REACH

CHANGE NO.	CHANGE CONTENTS	REV.	NAME/DATE

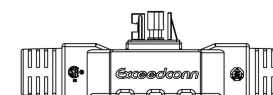


Connector pin view
2:1



PE N L3 L2 L1
YELLOW/GREEN BLUE GRAY BLACK BROWN

Connector back view



Notes:

Electric testing:

1. Cable: 5C×4mm² H07RN-F, UV resistance.
Cable marking: 60245IEC66(YCW) 450/750V 5×4MM2 <VDE> H07RN-F 5G4MM2
SUMTUNG CABLE TECHNOLOGY CO.,LTD. -LF-
2. Dielectric withstand voltage test: DC 4000V, leakage current 5mA, duration 60s;
3. Working voltage rating: 600V;
4. Working current rating: 30A;
5. Contact resistance: ≤20mΩ;
6. Insulation resistance: ≥500MΩ;
7. Wiring: BROWN--L1, BLACK--L2, GRAY--L3, BLUE--N, YELLOW/GREEN--PE;

Mechanical property:

1. Insert and draw frequency: ≥50 times;

Environmental performance:

1. Waterproof rating: IP67;
2. Environmental requirements: comply with rohs requirements;

Others:

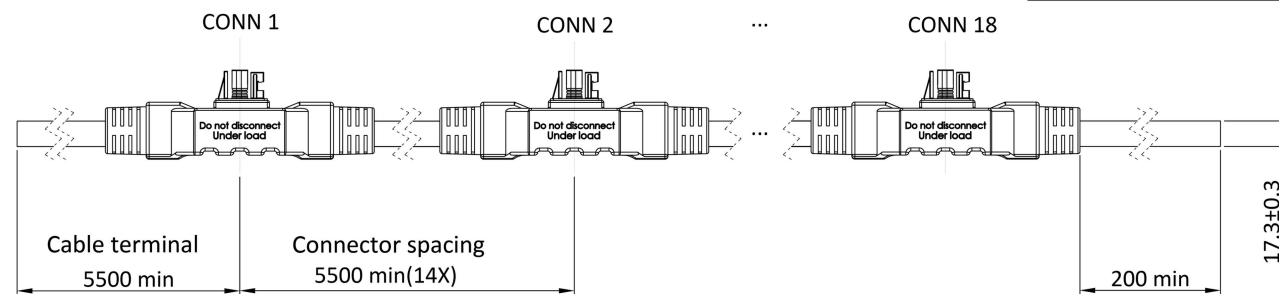
1. A series of bus cable contains 30T, each connector spacing is 2800mm;
2. The 200N-60S tension at the t connector does not affect electrical and waterproof performance;
3. The surface has no abrasion, scratches, deformation and other defects.

TOLERANCES UNLESS OTHERWISE SPECIFIED				MATERIAL		APsystems ALTERNERGY POWER
X.	±3.00	X°	±3.00°			
.X	±2.00	.X°	±2.00°			
.XX	±1.00	.XX°	±.00°	NAME		3-phase 5C Bus Cable (4mm ² ,H07,2.8m)
.XXX	±0.50	.XXX°	±0.50°	DWN.		
CHK.				SHEET	OF	REV. 0.0
				DRAWING NO.		

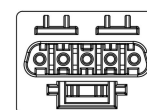
2322559192_3-phase 5C Bus Cable (4mm², H07, 5.5m)

**RoHS
REACH**

CHANGE NO.	CHANGE CONTENTS	REV.	NAME/DATE



Connector pin view
2:1



PE N L3 L2 L1
YELLOW/GREEN BLUE GRAY BLACK BROWN

Connector back view



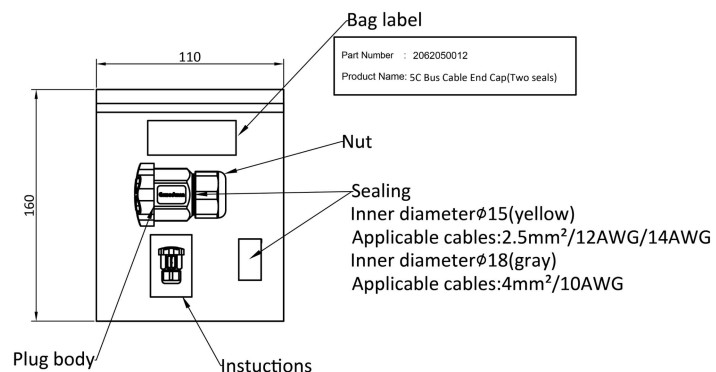
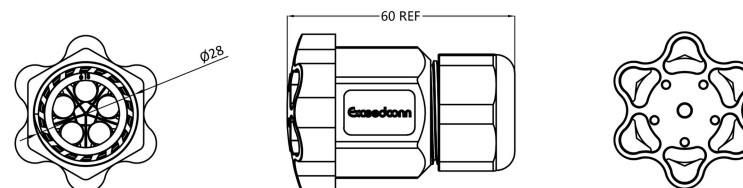
- Notes:
- Electric testing:
- 1.Cable: 5C×4mm² H07RN-F, UV resistance.
Cable marking: 60245IEC66(YCW) 450/750V 5×4MM2 <VDE> H07RN-F 5G4MM2
 - 2.Dielectric withstand voltage test: DC 4000V, leakage current 5mA, duration 60s;
 - 3.Working voltage rating: 600V;
 - 4.Working current rating: 30A;
 - 5.Contact resistance: ≤20mΩ;
 - 6.Insulation resistance: ≥500MΩ;
 - 7.Wiring: BROWN--L1, BLACK--L2, GRAY--L3, BLUE--N, YELLOW/GREEN--PE;
- Mechanical property:
1. Insert and draw frequency: ≥50 times;
- Environmental performance:
- 1.Waterproof rating: IP67;
 - 2.Environmental requirements: comply with rohs requirements;
- Others:
- 1.A series of bus cable contains 15T, each connector spacing is 5500mm;
 - 2.The 200N·60S tension at the t connector does not affect electrical and waterproof performance;
 - 3.The surface has no abrasion, scratches, deformation and other defects.

TOLERANCES UNLESS OTHERWISE SPECIFIED				MATERIAL		APsystems ALTERNATIVE POWER NAME 3-phase 5C Bus Cable (4mm²,H07,5.5m) DRAWING NO.
X.	±3.00	X°	±3.00°			
.X	±2.00	.X°	±2.00°			
.XX	±1.00	.XX°	±.00°			
.XXX	±0.50	.XXX°	±0.50°			
DWN.				UNIT	mm	
CHK.				SHEET	OF	REV. 0.0

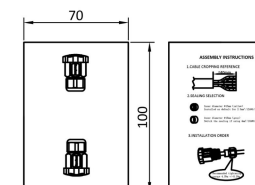
2062050012_5C Bus Cable End Cap(Two seals)



CHANGE NO.	CHANGE CONTENTS	REV.	NAME/DATE



Instructions



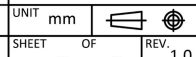
Notes:

Mechanical:

1. Cable and Connector Retention Force: $\geq 120N$;
2. Applicable cables: 2.5mm², 4mm², 10AWG, 12AWG, 14AWG
3. Sealing Inner diameter: $\phi 15/18mm$;

Environmental:

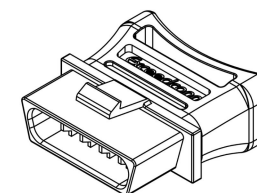
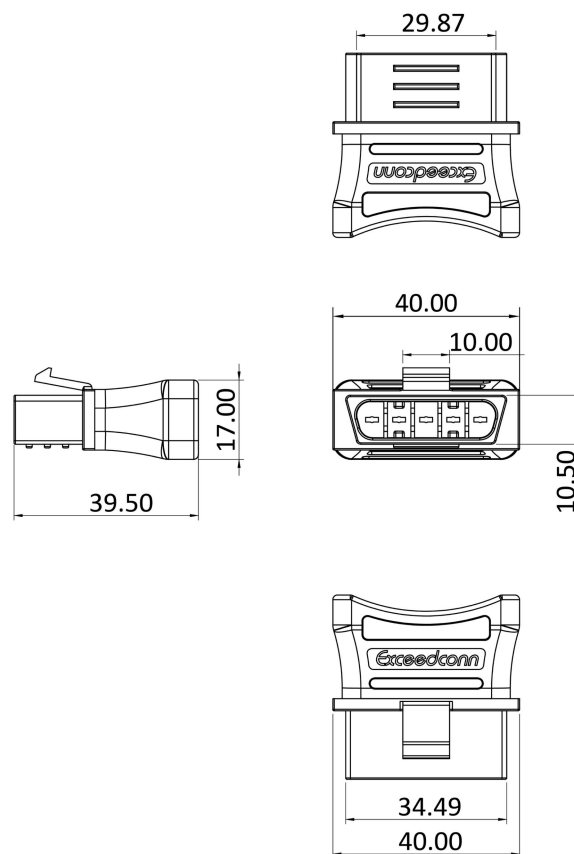
1. Waterproof Rate: IP68 1m 1H;
 2. Application Temperature: $-40^{\circ}C \sim +85^{\circ}C$;
- Others:
1. Type No: EN050-1423-00

TOLERANCES UNLESS OTHERWISE SPECIFIED				MATERIAL		 APsystems ALTENERGY POWER	
X.	±3.00	X"	±3.00°				
.X	±2.00	.X"	±2.00°				
.XX	±1.00	.XX"	±.00°	DRAWING NO.			
.XXX	±0.50	.XXX"	±0.50°	5C Bus Cable End Cap(Two seals)			

2061252032_5-wire Bus Cable T-CONN Cap



CHANGE NO.	CHANGE CONTENTS	REV.	NAME/DATE



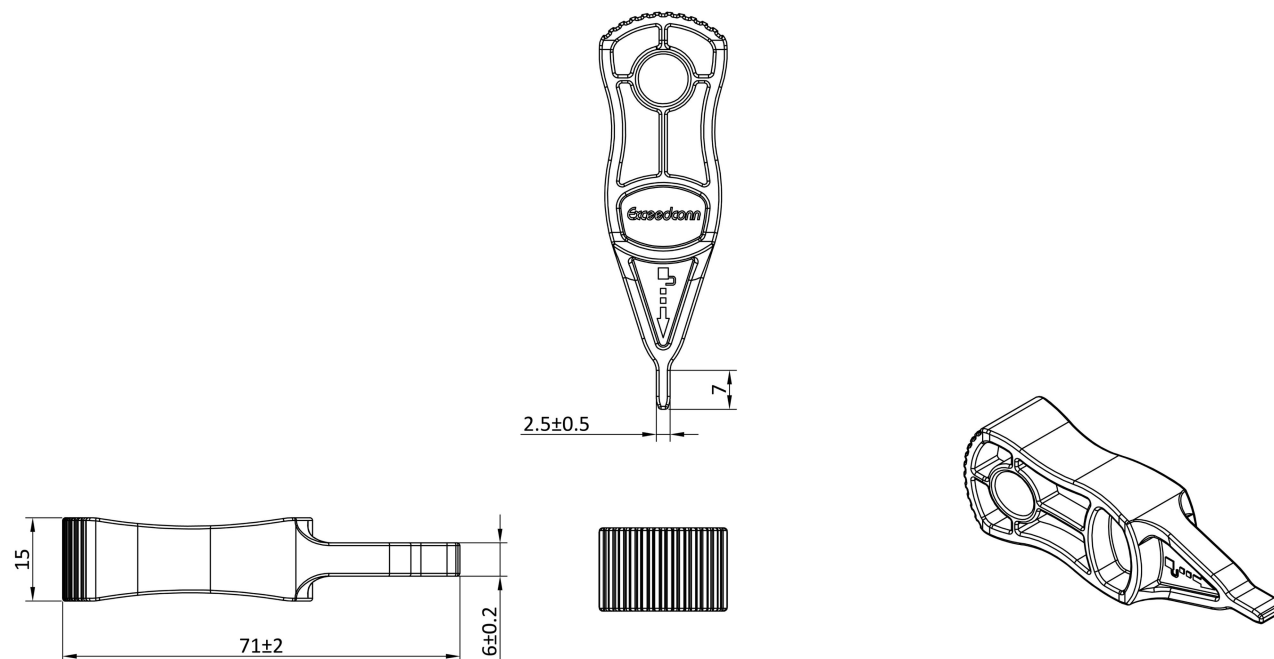
- Notes:
1. Type: MIH-1-01;
 2. Waterproof Rate: IP67;
 3. Mating Cycle: ≥ 50 ;
 4. Part Retention Force: 100N;

TOLERANCES UNLESS OTHERWISE SPECIFIED		MATERIAL		 APsystems ALTERNATIVE POWER	
X.	±2.00	-			
.X	±1.00				
.XX	±0.64				
.XXX	±0.38				
DWN.	UNIT	mm	 	NAME	
CHK.	SHEET	OF	REV.	DRAWING NO.	
			0.0	-	

2353000002_5C Connector unlock tool



CHANGE NO.	CHANGE CONTENTS	REV.	NAME/DATE
①	Appearance change, name change.	1.0	ZH 2023/3/31



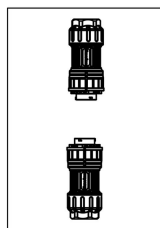
Technical Data:
1. Material: PBT
2. Color: Black

TOLERANCES UNLESS OTHERWISE SPECIFIED				MATERIAL		 APsystems ALTENERGY POWER
X.	±1.00	X°	±3.00°	PBT		
.X	±0.50	.X°	±2.00°			NAME
.XX	±0.20	.XX°	±.00°			5C Connector Unlock Tool
.XXX	±0.10	.XXX°	±0.50°			DRAWING NO.
DWN.				UNIT	mm	
CHK.				SHEET	OF	REV. 1.0

2301512002_AC Connector(5C,40A,female)



Instruction



Wrench



Notes:

Electric testing:

- 1.Rated Voltage:600V;
- 2.Rated Current:40A;
- 3.Contact Resistance:≤50mΩ;
- 4.Dielectric Withstanding Voltage:3000V
- 5.Insulation resistance: ≥500MΩ;

Mechanical property:

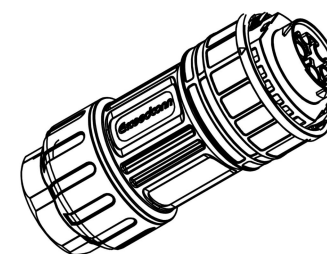
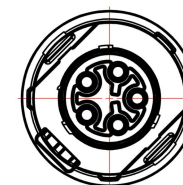
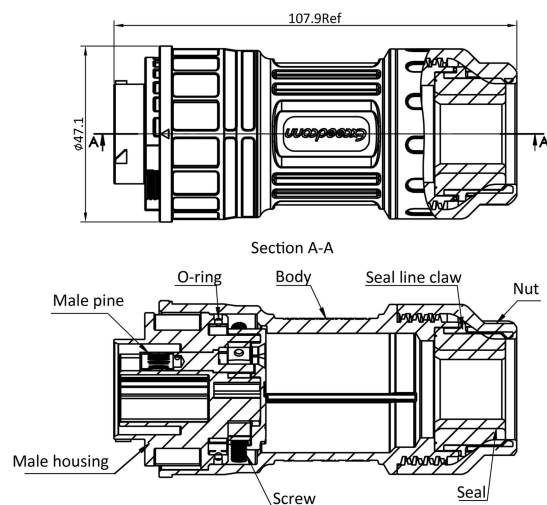
- 1.Mating Cycle: ≥500次;
- 2.Applicable cables: 2.5mm²,4mm²,10AWG,12AWG,14AWG.

Environmental performance:

- 1.Waterproof Rate: IP67 1m-30min(After mating);
- 2.Operating Temperature: -40°C~105°C

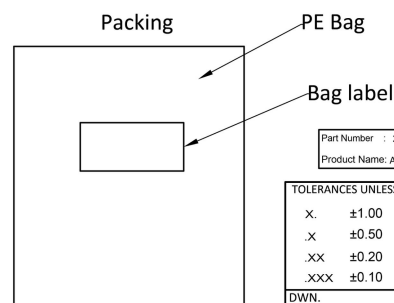
Others:

- 1.Type No:EN200-2205-101



Two seals
Seal inner diameter φ21(black)
For cable size:4mm² or 10AWG

Seal inner diameter φ16(grey)
For cable size:2.5mm²,12AWG or 14AWG

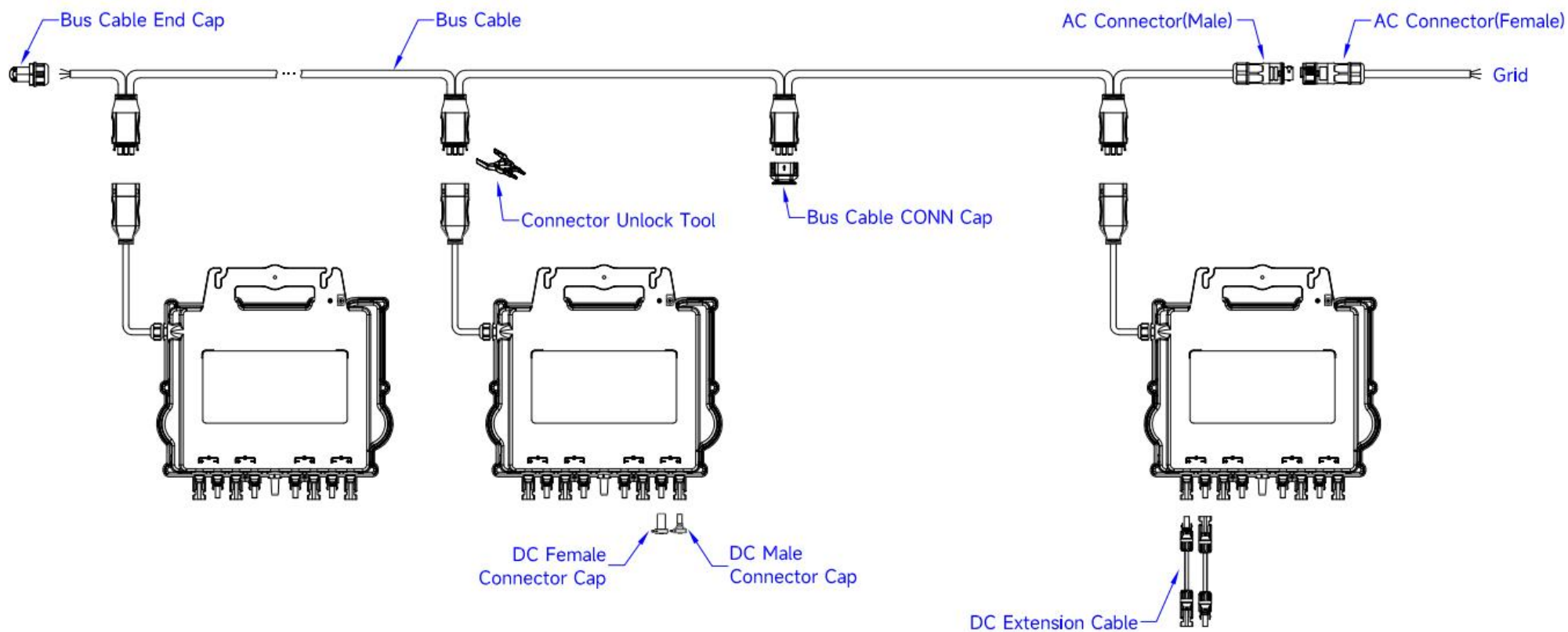


Part Number : 2301512002
Product Name: AC Connector (5C,40A,female)

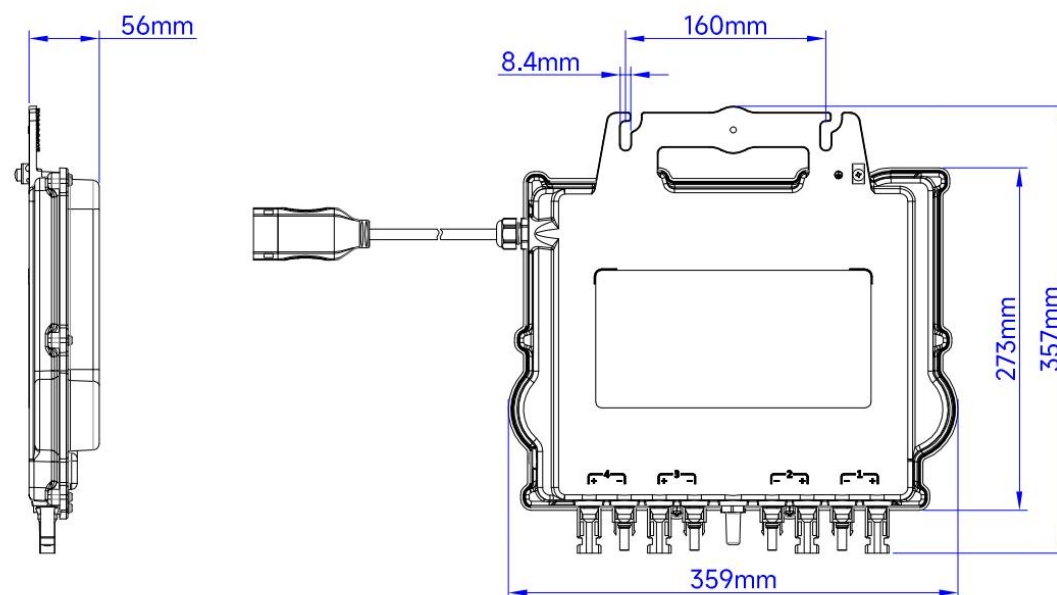
TOLERANCES UNLESS OTHERWISE SPECIFIED				MATERIAL		 APsystems ALTERNATE POWER
X.	±1.00	X	±3.00°			
.X	±0.50	.X	±2.00°			
.XX	±0.20	.XX	±1.00°			
.XXX	±0.10	.XXX	±0.50°			
DWN.				UNIT	mm	
CHK.				SHEET	OF	REV.
				DRAWING NO.		
				-		

QT2D Accessories

1. Wiring Diagram



2. QT2D Dimensions



3. Accessories Summary

Region	Accessories								
	Bus Cable (Mandatory)	Bus Cable End Cap (Mandatory)	Bus Cable CONN Cap (Optional)	Connector Unlock Tool (Mandatory)	DC Male Connector Cap (Optional)	DC Female Connector Cap (Optional)	AC Connector (Male) (Optional)	AC Connector (Female) (Optional)	DC Extension Cable (Optional)
Brazil -BR: 122006	2322030813_ 3-phase Bus Cable(4mm², H07,5.5m) (See Pic. A)	2060700017_ 3-wire Bus Cable End Cap (See Pic. B)	2061702007_ Bus Cable Y-CONN Cap (See Pic. C)	2355000003_ Y3-DC Connector Unlock Tool (See Pic. D)	2060401006_DC Male Connector Cap (MC4) (See Pic. E)	2060402006_DC Female Connector Cap (MC4) (See Pic. F)	2300931212_AC Connector (3 core, two seals, male) (See Pic. G)	2300932212_AC Connector (3 core, two seals, female) (See Pic. H)	2310310274_1m DC Extension Cable (MC4) 2310360214_2m DC Extension Cable (MC4) 2310360224_3m DC Extension Cable (MC4) 2310370236_4m DC Extension Cable (MC4) 2310370246_6m DC Extension Cable (MC4) (See Pic. I)

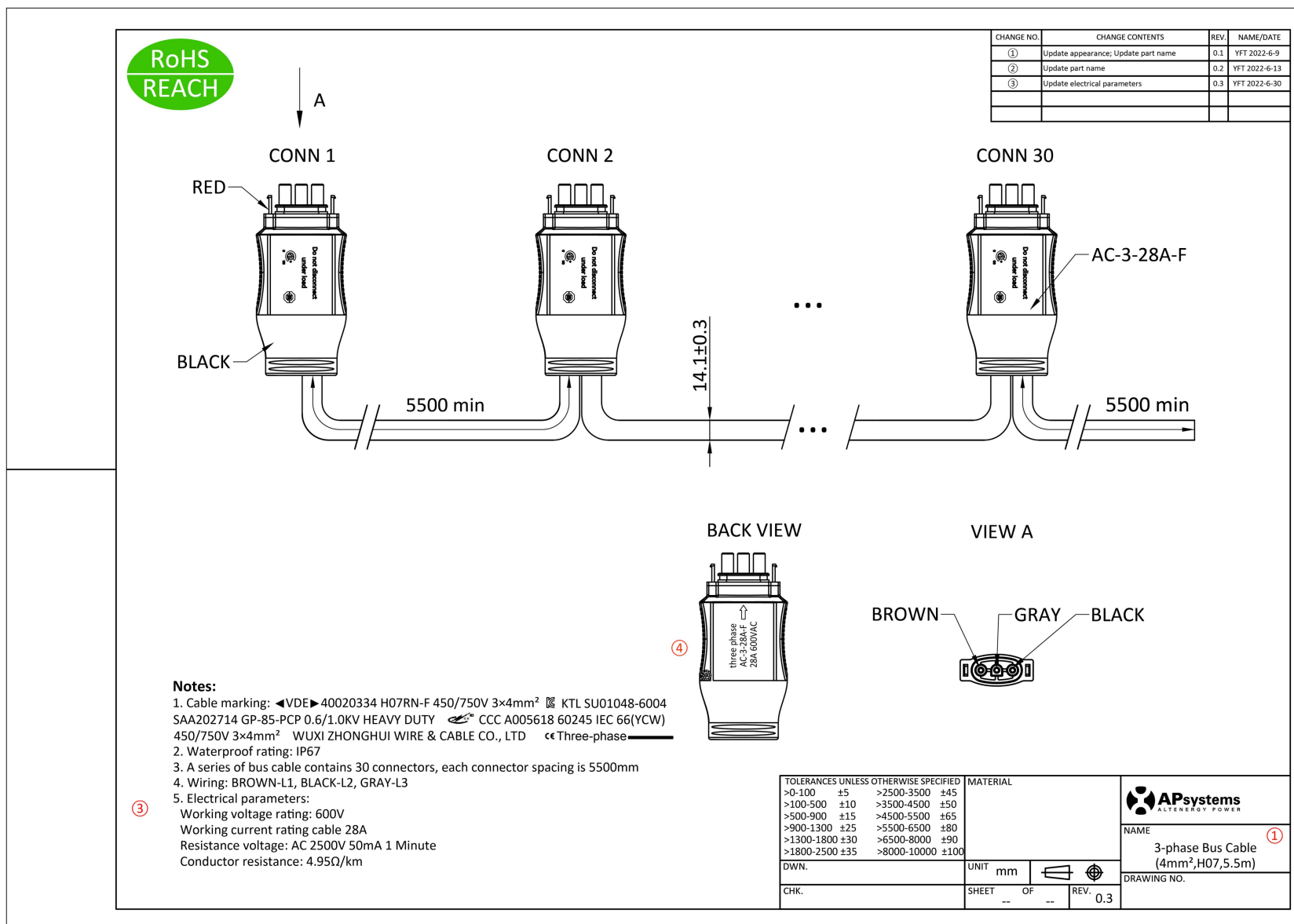
Notes: The cables in this table are recommended by APsystems, and the O.D. and length of the cable can be customized according to customer needs.

4. Physical Picture

Bus Cable	Bus Cable End Cap	Bus Cable CONN Cap	Connector Unlock Tool	DC Male Connector Cap	DC Female Connector Cap
 Pic. A	 Pic. B	 Pic. C	 Pic. D	 Pic. E	 Pic. F
AC Connector (Male)	AC Connector (Female)	DC Extension Cable			
 Pic. G	 Pic. H	 Pic. I			

5. Accessories information

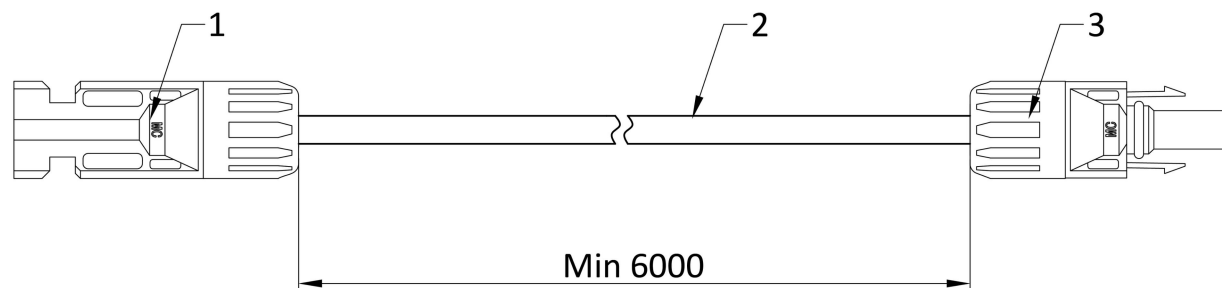
2322030813_3-phase Bus Cable(4mm²,H07,5.5m)



2310370246_6m DC Extension Cable (MC4)



CHANGE NO.	CHANGE CONTENTS	REV.	NAME/DATE
①	Add alternative cable	0.1	YFT 2022-9-14



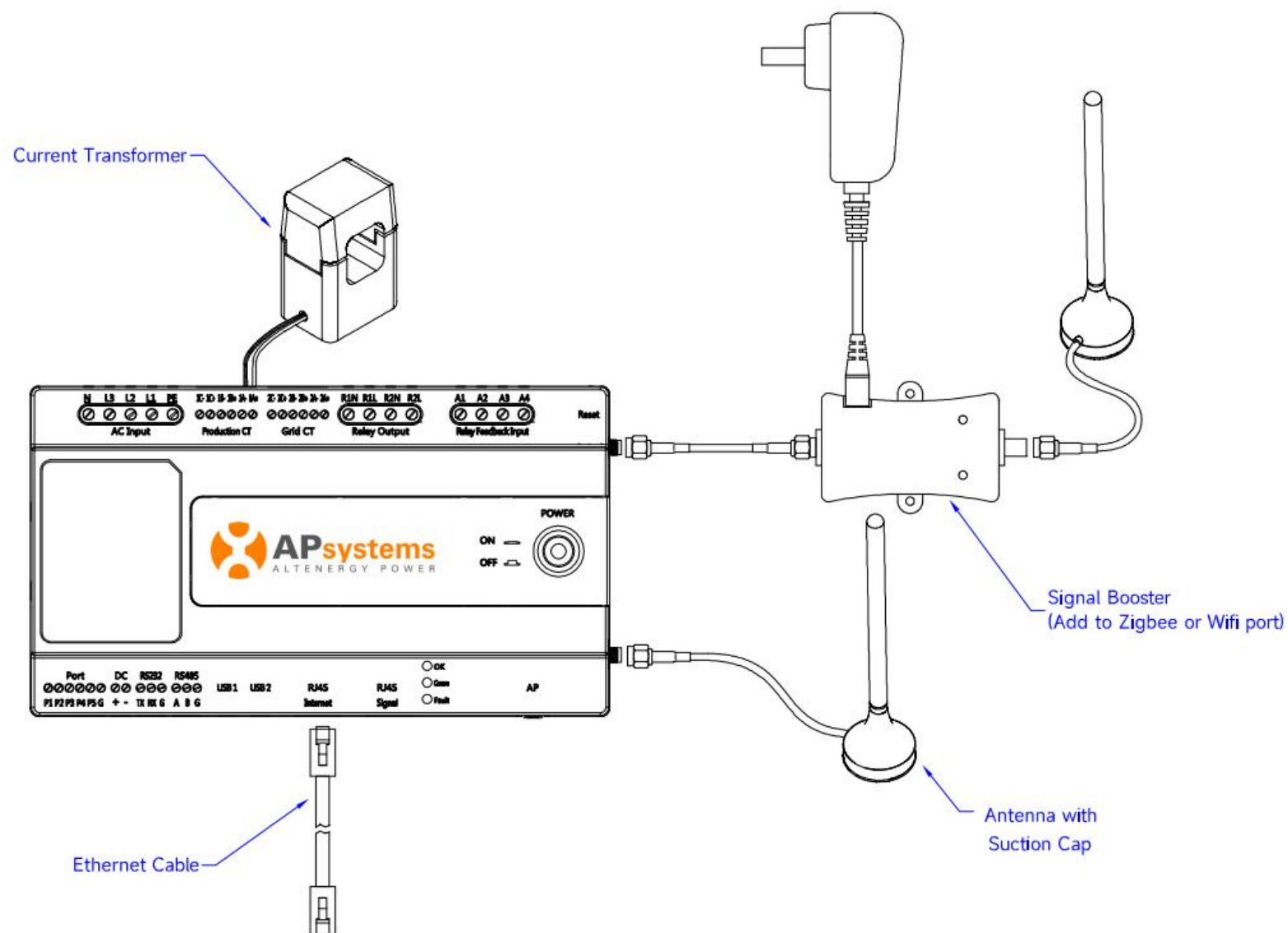
Notes:

1. The DC cable and connector connect firmly, can sustain 100N-60s tension
2. The pin concentric with plastic parts, ensure that there is no contradict phenomenon when male connector inserts into female connector

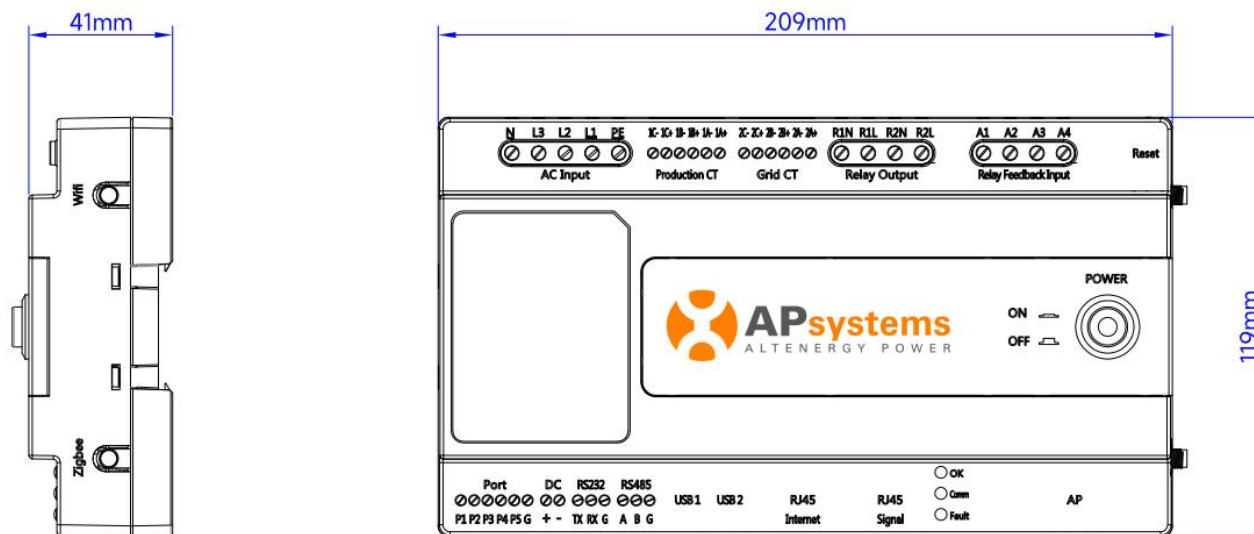
3	DC Connector (female)	MC4 PV-KBT4/6II		1	Female, STAUBLI	
① 2	DC Cable	FLEX-SOL-EVO-DX 4.0		1	4.0mm ² , TUV/UL certification	
		62930 IEC 131/PV		1	4.0mm ² /12AWG, TUV/UL certification	Alternative
1	DC Connector (male)	MC4 PV-KST4/6II		1	Male, STAUBLI	
NO.	NAME	TYPE	MAT.	QTY.	DESCRIPTION	REMARK
TOLERANCES UNLESS OTHERWISE SPECIFIED		MATERIAL				
>0-100	±5	>2500-3500	±45	 NAME 6m DC Extension Cable (MC4)		
>100-500	±10	>3500-4500	±50			
>500-900	±15	>4500-5500	±65			
>900-1300	±25	>5500-6500	±80			
>1300-1800	±30	>6500-8000	±90			
>1800-2500	±35	>8000-10000	±100			
DWN.		UNIT	mm	 REV. 0.1		
CHK.		SHEET	OF			
		--	--	DRAWING NO.		

ECU-C Accessories

1. Wiring Diagram



2. ECU-C Dimensions



3. Accessories Summary

Region		Accessories			
		Antenna with Suction Cap (Supply)	Ethernet Cable (Supply)	Current Transformer (Supply)	Signal Booster (Optional)
Mexico	-MX: 205031	Antenna with Suction Cap(L2m) (See Pic. A)	Ethernet cable (See Pic. B)	Current Transformer (80A/26.6mA) (See Pic. C)	2376000003_Signal Booster (American Standard) (See Pic. E)
	-MX: 205051			Current Transformer (200A/66.6mA) (See Pic. D)	

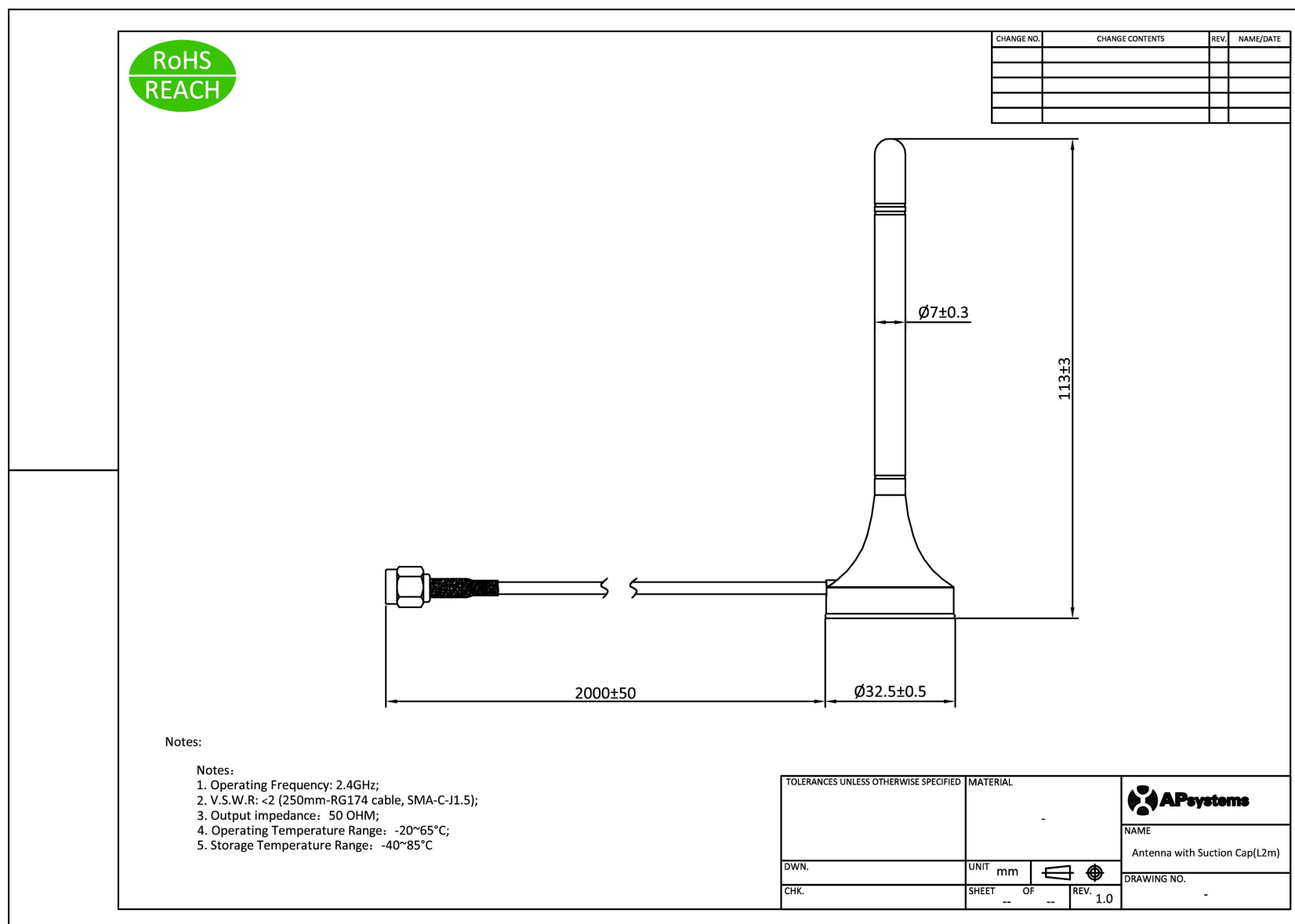
Region		Accessories			
		Antenna with Suction Cap (Supply)	Ethernet Cable (Supply)	Current Transformer (Optional)	Signal Booster (Optional)
Brazil		Antenna with Suction Cap(L2m) (See Pic. A)	Ethernet cable (See Pic. B)	18083020112_Current Transformer (80A/26.6mA) (See Pic. C) 18083020012_Current Transformer (200A/66.6mA) (See Pic. D)	2376010003_Signal Booster (European Standard) (See Pic. E)

4. Physical Picture

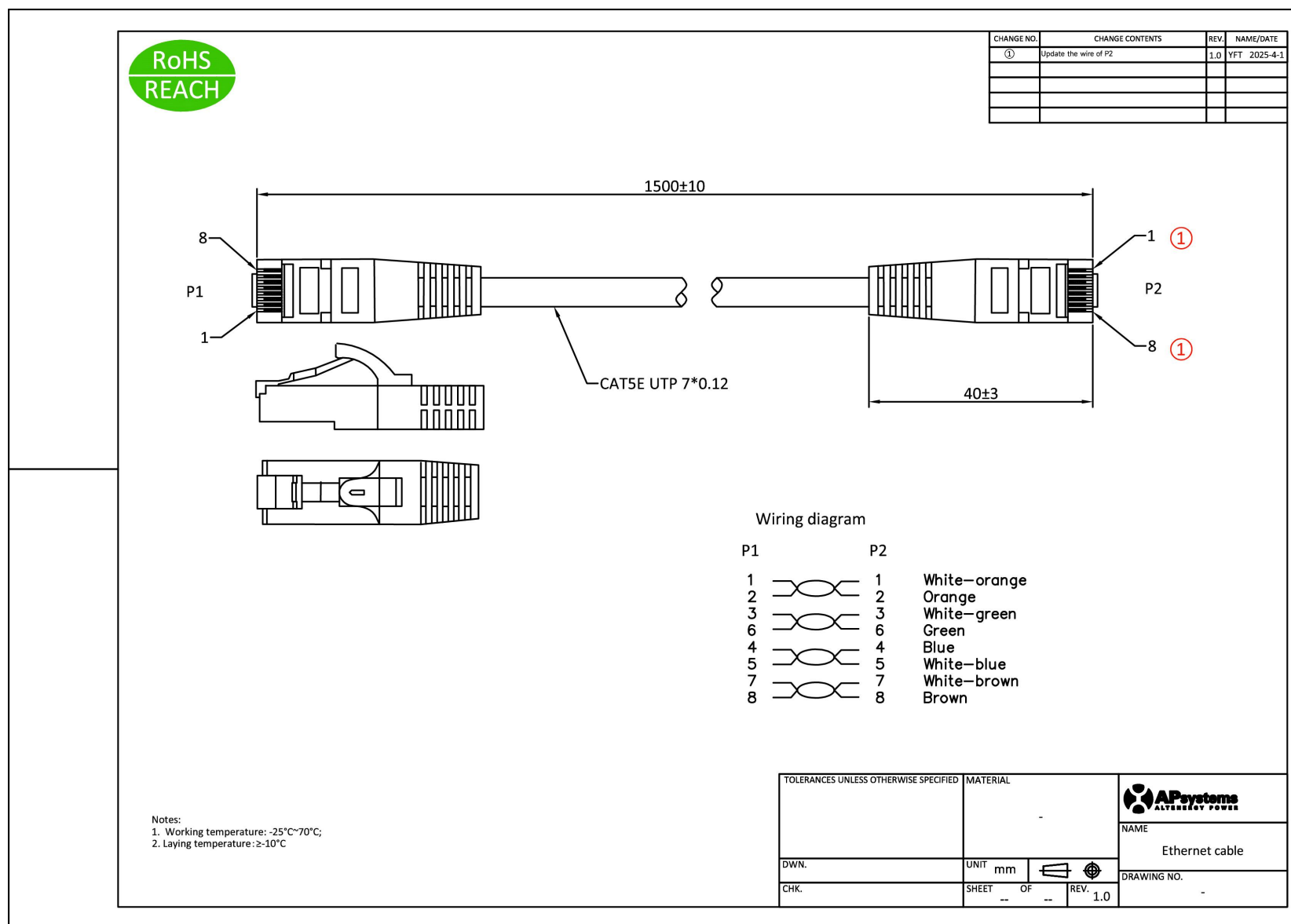
Antenna with Suction Cap	Ethernet Cable	Current Transformer		Signal Booster
 Pic. A	 Pic. B	 Pic. C	 Pic. D	 Pic. E

5. Accessories information

Antenna with Suction Cap(L2m)



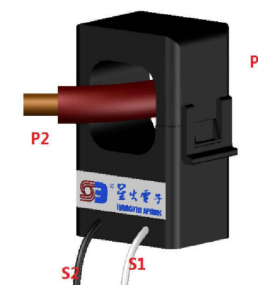
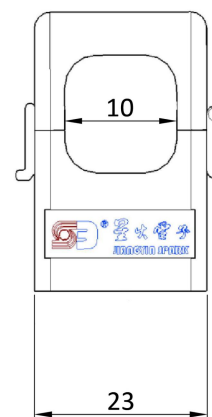
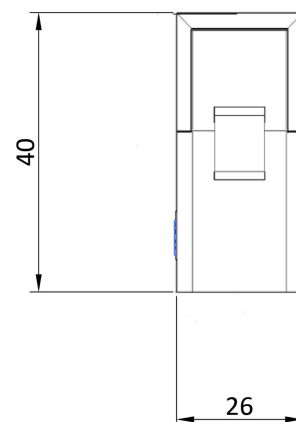
Ethernet cable



18083020112_Current Transformer (80A/26.6mA)

RoHS
REACH

CHANGE NO.	CHANGE CONTENTS	REV.	NAME/DATE



SCT-T10		
Input current(A)	Turn ratio(T)	output voltage(mV)
5-80	1000-3000 Recommended value 3000	333-5000 Recommended value 333

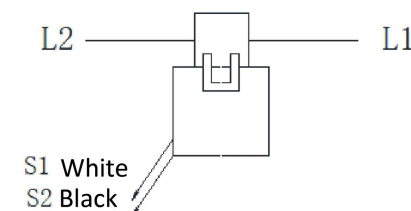
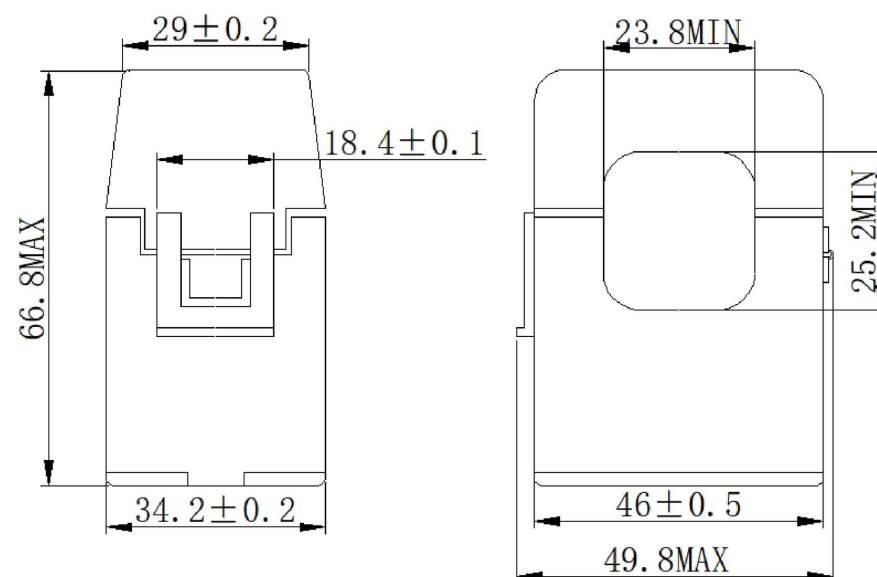
Notes:
 1. Type: SCT-T10;
 2. Primary current range: 10-3000Arms;
 3. Lead wire: UL1007 24AWG, 1m;
 4. Working temperature: -25°C~50°C;

TOLERANCES UNLESS OTHERWISE SPECIFIED	MATERIAL	APsystems ALTENERGY POWER	
	-	NAME	Current Transformer (80A/26.6mA)
DWN.	UNIT mm	DRAWING NO.	-
CHK.	SHEET -- OF --	REV. 0.0	-

18083020012_Current Transformer (200A/66.6mA)

RoHS
REACH

CHANGE NO.	CHANGE CONTENTS	REV.	NAME/DATE



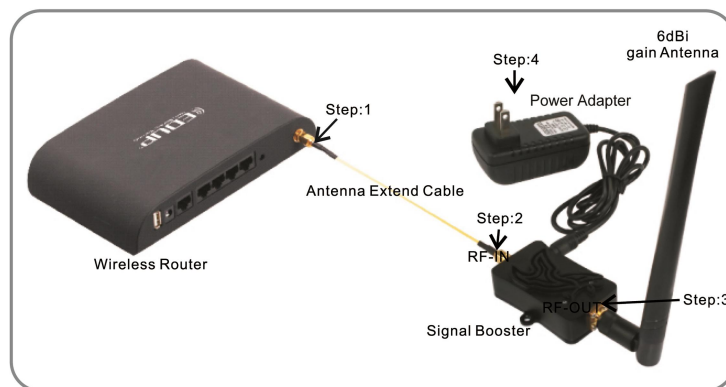
Notes:
1. Type: XH-SCT-T24/200;
2. Lead wire: UL1015 24AWG, 1m

TOLERANCES UNLESS OTHERWISE SPECIFIED		MATERIAL		 NAME Current Transformer (200A/66.6mA)
DWN.	UNIT mm			
CHK.	SHEET -- OF --	REV. 0.0	DRAWING NO. --	

2376010003_Signal Booster (European Standard) /2376000003_Signal Booster (American Standard)

Wifi booster instruction Manual

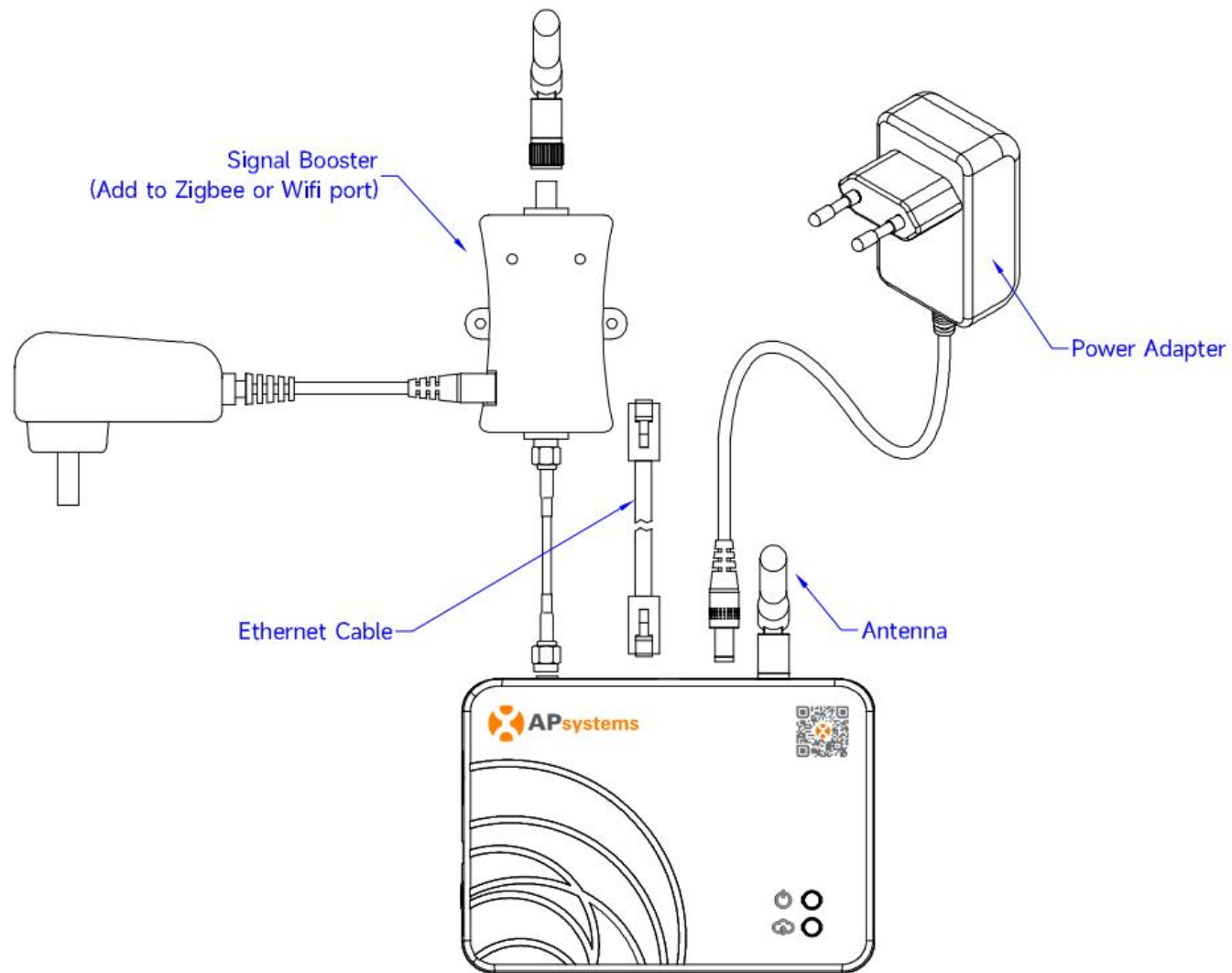
- 1.Support Standards:IEEE 802.11b/g/n
- 2.Frequency:2400~2500MHz
- 3.Working Pattern:TDD
- 4.RF Output Power:36dBm[4W]
- 5.Input Trigger Power:Min:3dBm Max:20dBm
- 6.Transmit Gain:13 dB $\pm$ 1
- 7.Receiver Gain:10 dB $\pm$ 1
- 8.TX/RX Switch Time Delay: < 1us
- 9.Noise Figure: < 2.5dB(typical)
- 10.Operating Temp:-40°C~+70°C
- 11.Working Voltage:6-18VDC
- 12.Operating Humidity:up to 95% rel humidity



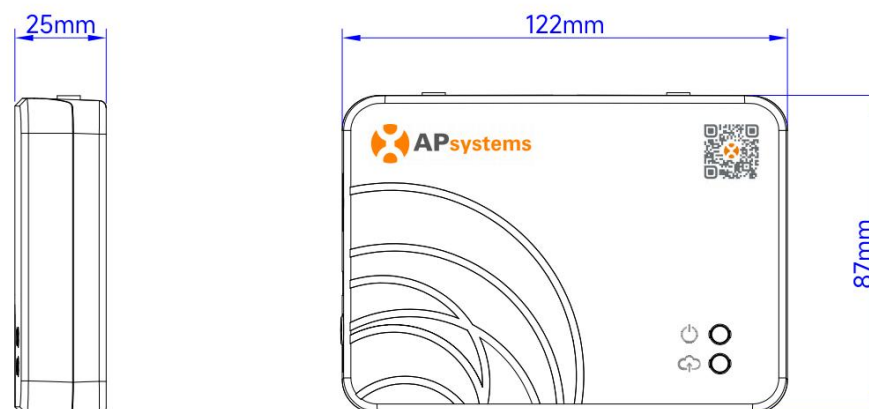
- Step1:Remove the Antenna from the wireless Router (Access Point)
- Step2:Use cable to connect the Booster and AP
- Step3:Connect the Antenna to the other end of Booster
- Step4:Plug in the Power Adapter

ECU-R Accessories

1. Wiring Diagram



2. ECU-R Dimensions



3. Accessories Summary

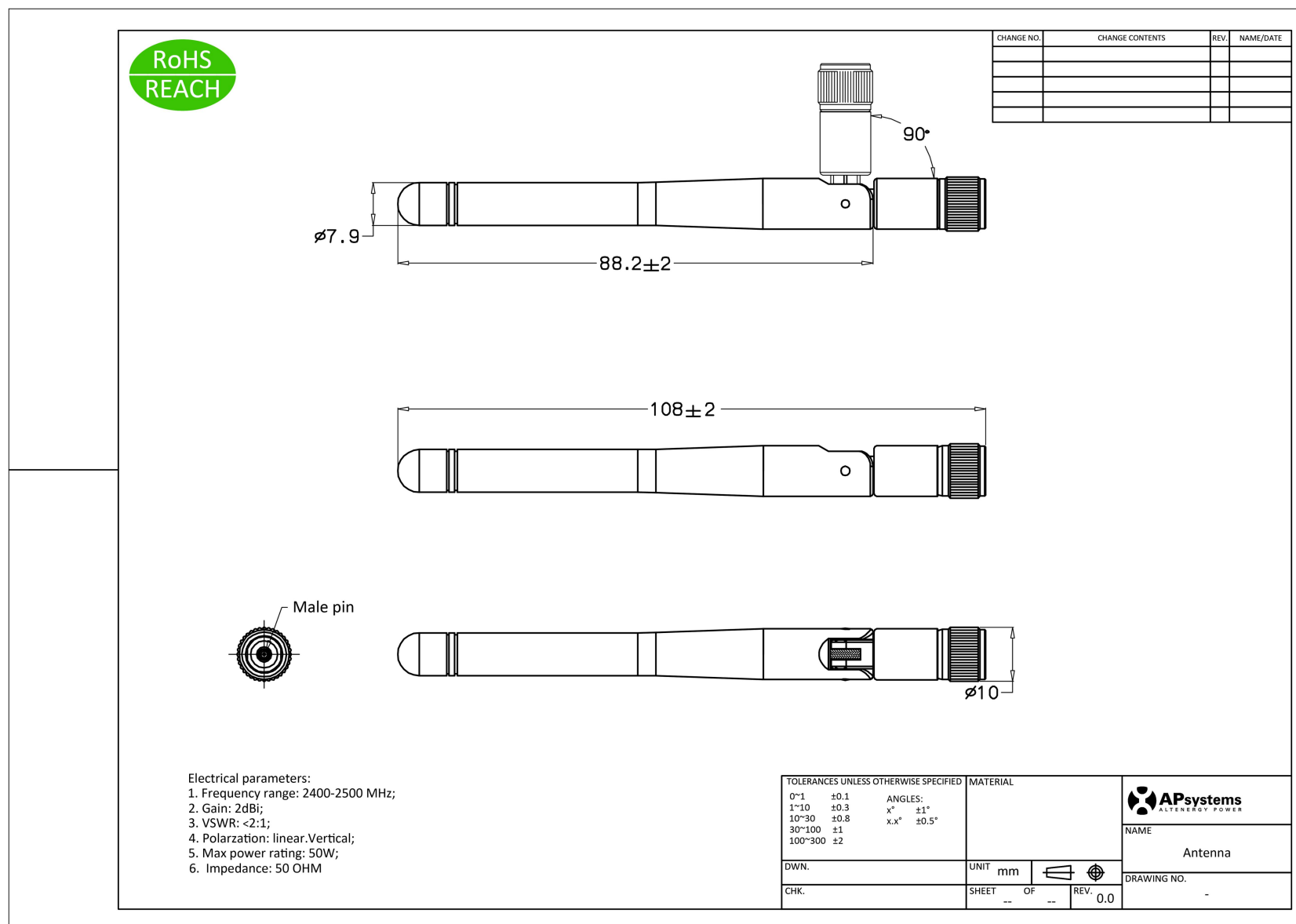
Region		Accessories			
		Antenna (Supply)	Ethernet Cable (Supply)	Power Adapter (Supply)	Signal Booster (Optional)
LATAM	Mexico -MX: 209031	Antenna (See Pic. A)	Ethernet cable (See Pic. B)	Power Adapter (US) (See Pic. C)	2376000003_Signal Booster (American Standard) (See Pic. E)
	Brazil -BR: 209006			Power Adapter (EU) (See Pic. D)	2376010003_Signal Booster (European Standard) (See Pic. E)

4. Physical Picture

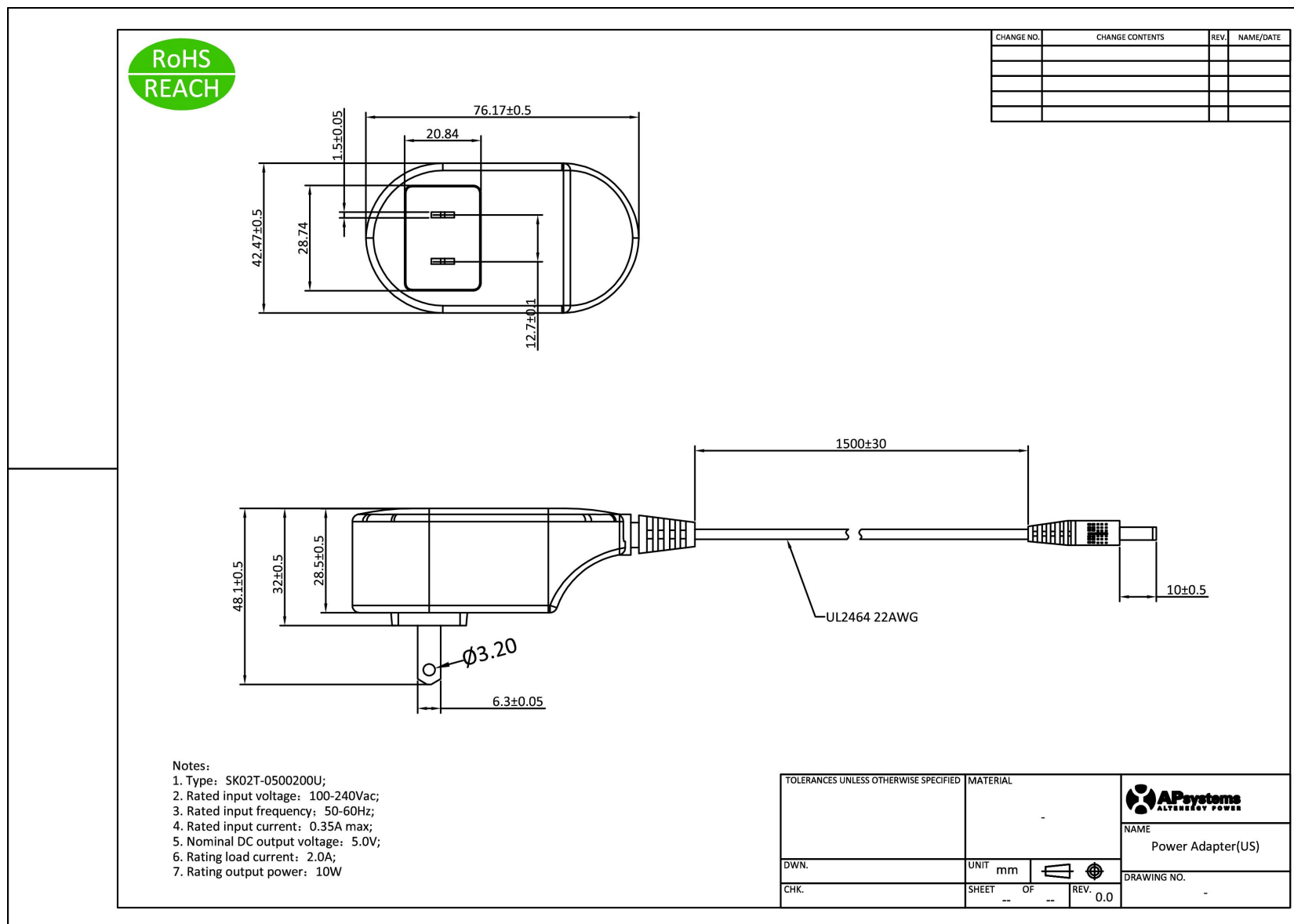
Antenna	Ethernet Cable	Power Adapter		Signal Booster
				
Pic. A	Pic. B	Pic. C	Pic. D	Pic. E

5. Accessories information

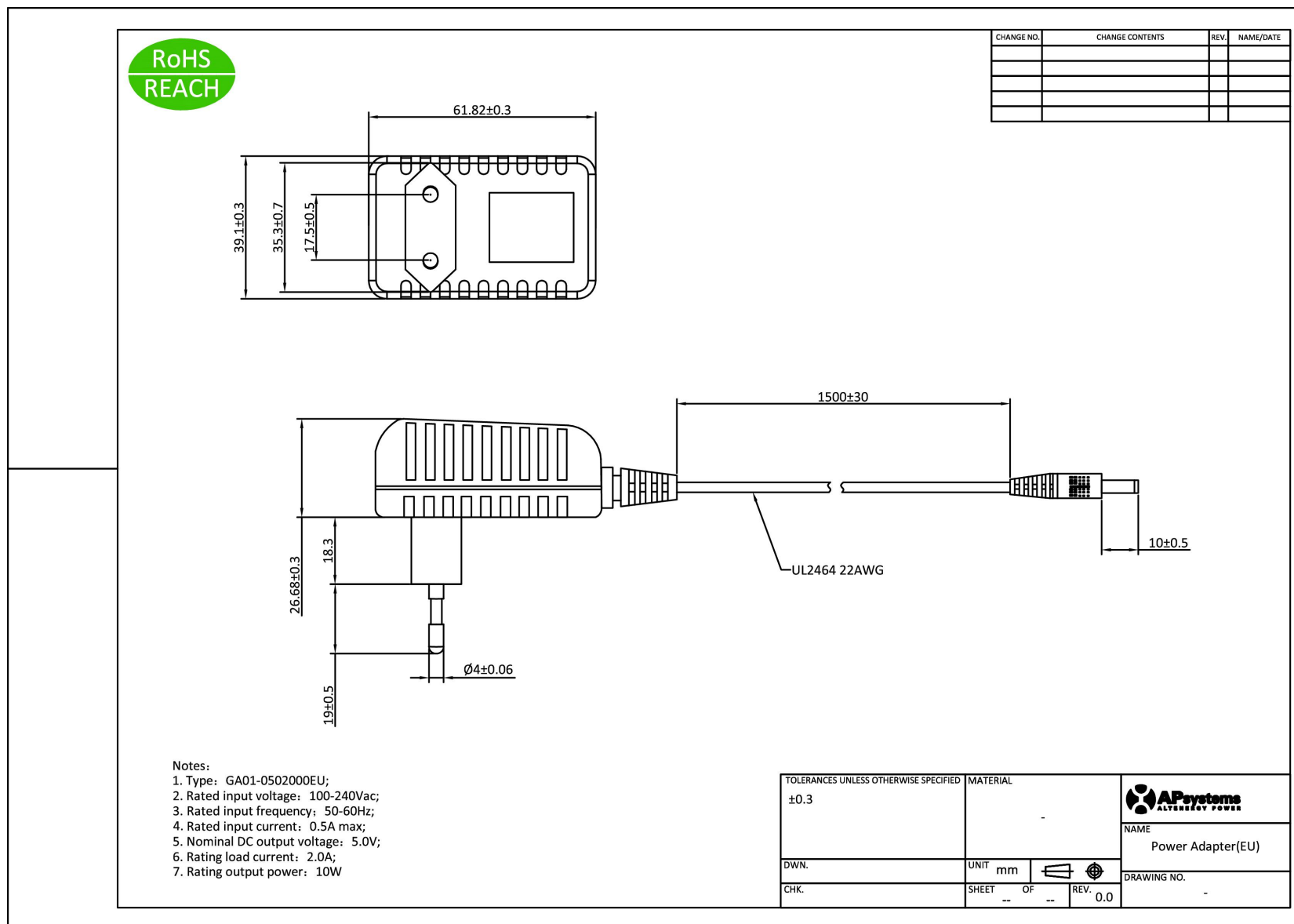
Antenna



Power Adapter (US)

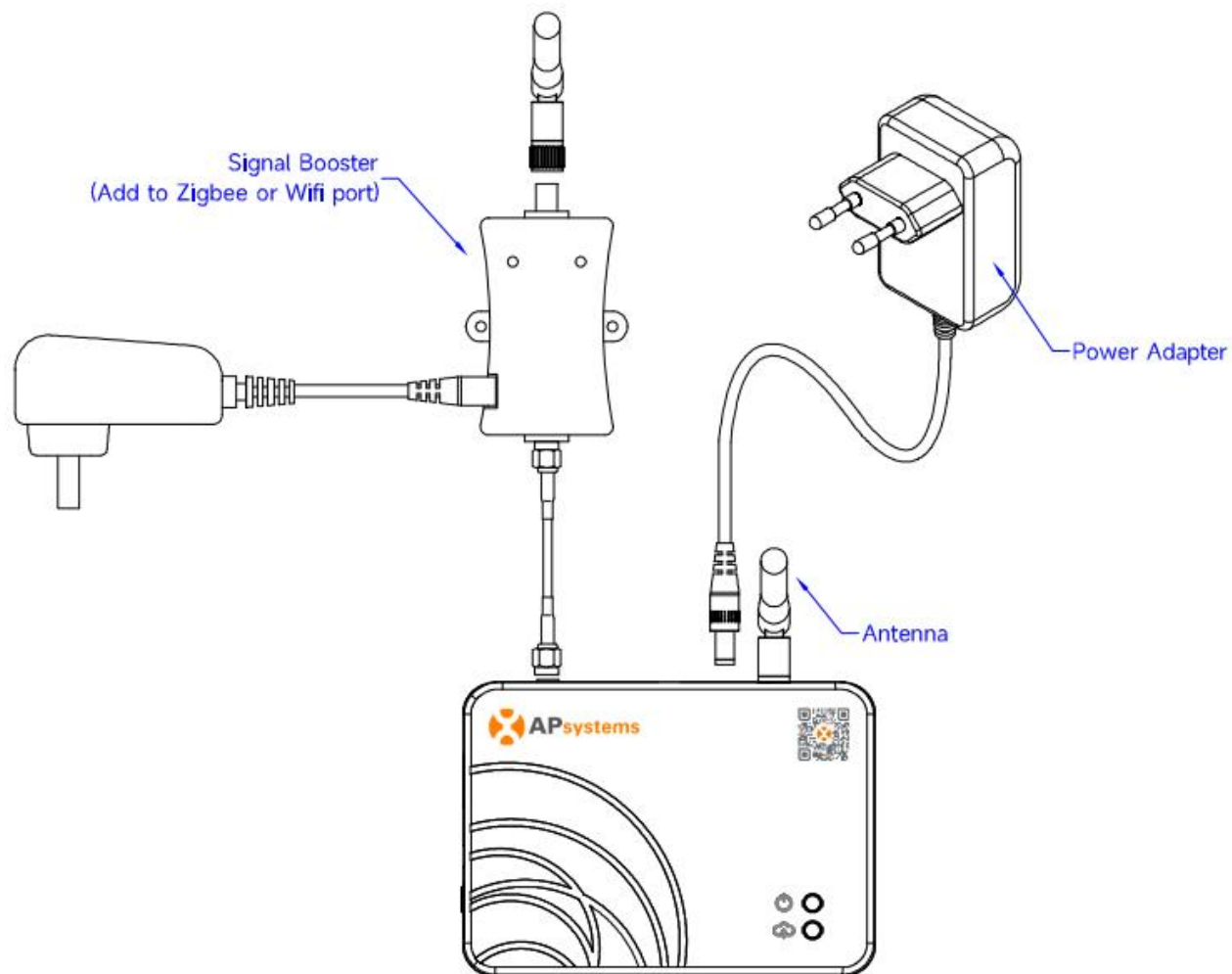


Power Adapter (EU)

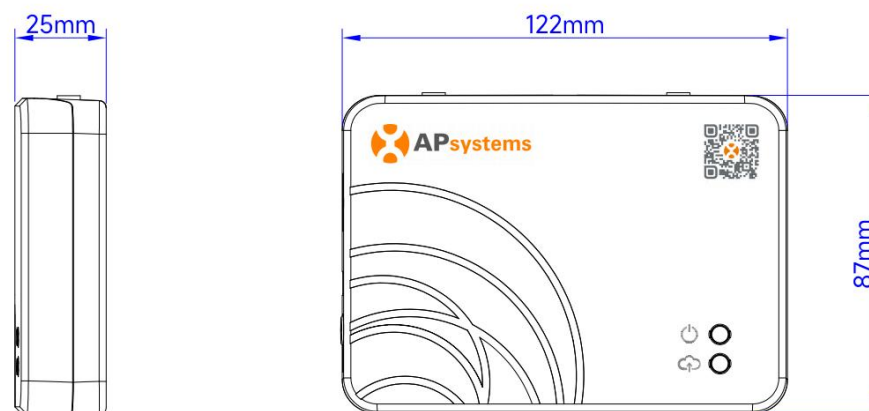


ECU-B Accessories

1. Wiring Diagram



2. ECU-B Dimensions



3. Accessories Summary

Region		Accessories		
		Antenna (Supply)	Power Adapter (Supply)	Signal Booster (Optional)
LATAM	Mexico -MX: 211031	Antenna (See Pic. A)	Power Adapter (US) (See Pic. B)	2376000003_Signal Booster (American Standard) (See Pic. D)
	Brazil -BR: 211006		Power Adapter (EU) (See Pic. C)	2376010003_Signal Booster (European Standard) (See Pic. D)

4. Physical Picture

Antenna	Power Adapter		Signal Booster
			
Pic. A	Pic. B	Pic. C	Pic. D

Revision history		
Version	Change contents	Date
REV1.0	First edition	2022-08-23
REV1.1	Update DS3D wiring diagram; DS3D add AC branch extension cable; DS3D/QT2/QT2D add DC extension cable(MC4); Delete Tel	2022-12-03
REV1.2	Delete QT2 6m DC extension cable(MC4); Update ECU-C/ECU-R/ECU-B wiring diagram	2022-12-08
REV1.3	Add DS3 accessories; Add QT2-BR accessories; Change QT2-MX accessories; Update DS3/DS3D/ QT2/QT2D wiring diagram	2023-02-25
REV1.4	Update QT2 accessories ; Update QT2 wiring diagram; Update the name of DS3/DS3D/QT2D bus cable end cap	2023-06-16
REV1.5	Update all drawings,add DS3 bus cable(2.5mm ² ,H07,4m)	2023-07-10
REV1.6	Update the DS3/DS3D optional bus cable and 5C AC Connector drawings; change the 5C Bus Cable End Cap; update address information	2024-07-31
REV1.7	Change 3C connector unlock tool; Update QT2 dimensions; Update ethernet cable drawing; Delete 2322404502_3-phase 5C Bus Cable (12AWG,TC,4m)	2025-05-06
REV1.8	DS3/DS3D add AC3 wiring diagram, AC3 accessories summary and AC3 physical picture, Add AC3 accessories information	2025-6-24