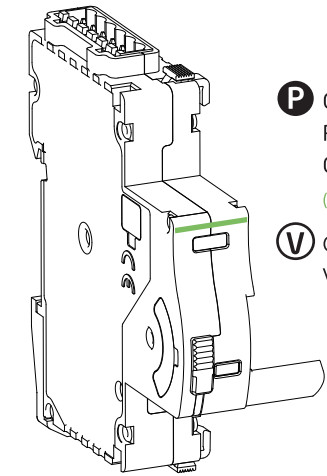


MT53PV

Product Manual



P Over/Under Voltage Recloser for PV/ Charging Pile
(Island Protection Device)

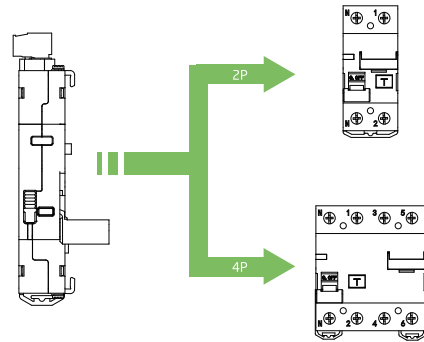
V Over/Under Voltage Protector

Shanghai Matis Electric Co.Ltd

Web:www.matismart.com

Tel:+86 21 6050 3668,+86 18621879631

Add: Room 318-320, No.83,West Huanhu Road, Pudong, Shanghai, China 201306



Compatible CB for MT53PV

Circuit Breaker Model	MCB				RCD				RCBO			
	1P	2P	3P/4P		2P	4P	1P	2P	3P	3P+N	4P	
MT53PV-1N	✓	✓			✓		✓	✓				
MT53PV-2N			✓			✓			✓		✓	
MT53PV-11N	✓						✓					
MT53PV-12N		✓	✓		✓			✓				

Note: The position  represents the matching circuit breaker code, and the details can be found in the "MT53PV Series Product Model"

MT53PV Series Product Model

For example:MT53PVN-1N

M → Company

T → Control, automatic reclosing device

53 → Design serial number

P → Over and under voltage recloser for PV /charging pile(island protection device)

V → Over and under voltage protector

N →
W:Matis 50 series
J:Matis 60 series
H:Matis 22 series
K:Matis 90 series
N:Schneider Acti 9 series MCB/RCBO
I:Schneider Acti 9 Series RCD iId
L:Nader NDB2 MCB/RCCB
Z:Chint NB1 MCB
C:Chint NL1 RCCB

1 →
11 :18mm handle only to 1P circuit breaker
12 :18mm handle only to 2P circuit breaker
1 :18mm handle to 1P/2P circuit breaker
2 :36mm handle to 3P/4P circuit breaker

N → N:AC220V

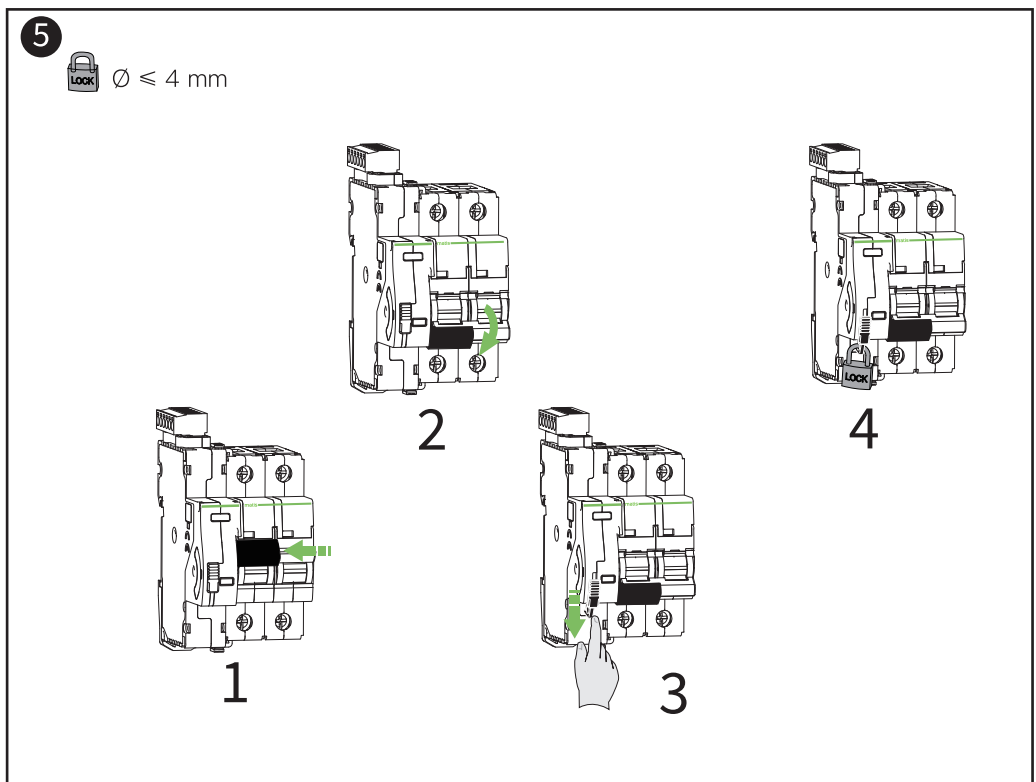
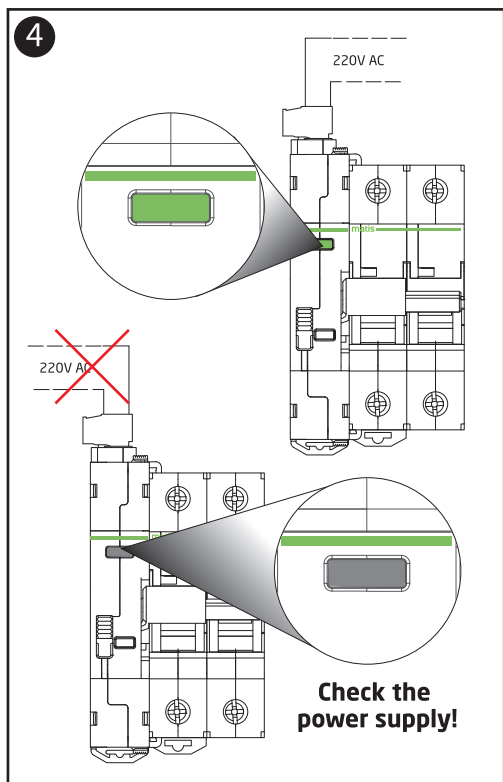
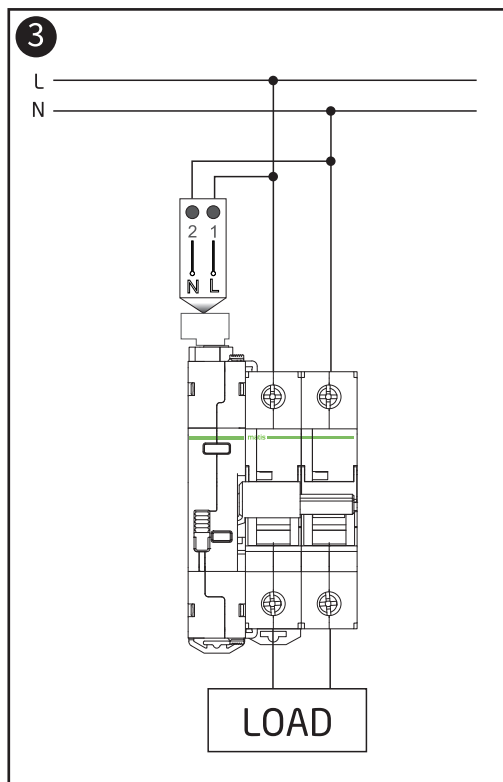
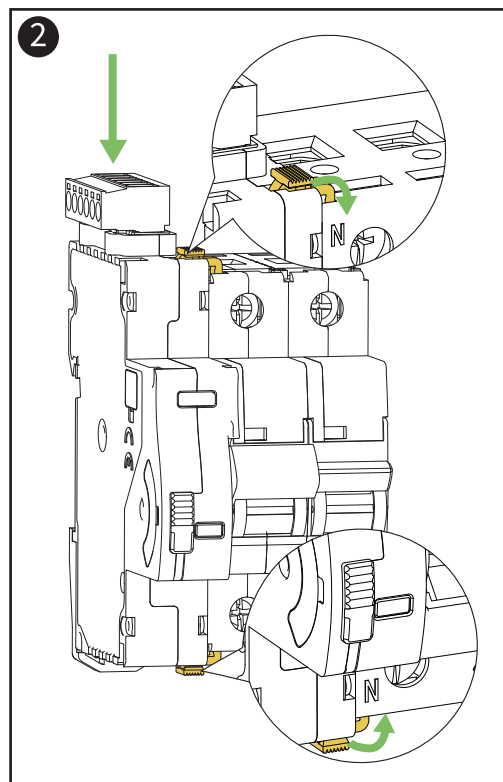
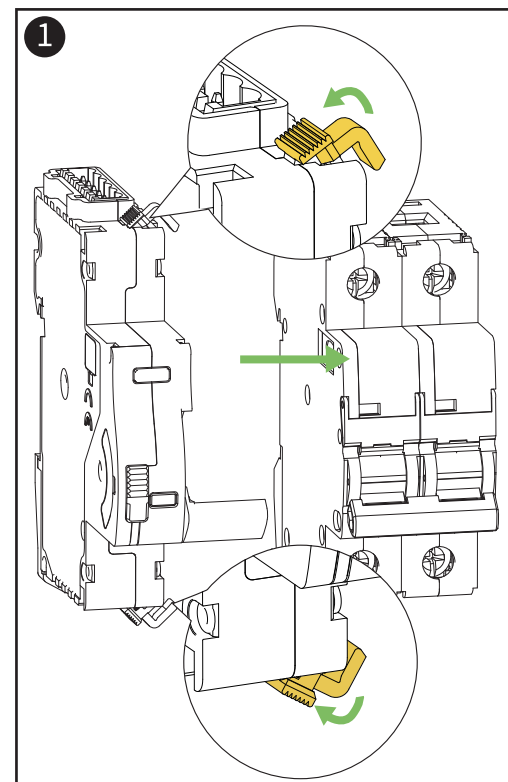
Electrical Characteristics

Standard	YDT 2346-2011
Power Distribution System	TN - S
Rated Voltage (Ue)	230 V ~ 50 / 60 Hz
Minimum Voltage (Minimum Ue)	160V
Maximum Voltage (Maximum Ue)	305V
Rated Insulation Voltage (Ui)	400V
Inter-polar Dielectric Strength Test Voltage	2500V AC for 1 minute
Uimp	4kV
Overvoltage Type	III
Rated Frequency	50Hz
Static Power	1VA
Power During Remote Control	20VA
Leakage Making/Breaking Capability (IΔm)	IΔm of related circuit breakers
Rated Condition Residual Short Circuit Current (IΔc)	IΔc of related circuit breakers
Handle Length	1 - 2
MCB Type	1P - 2P - 3P - 4P
RCCB Type	AC - A - A[R] - A[S]
Rated Current (In)	In of related circuit breakers
Rated Residual Operating Current (IΔn)	IΔn of related circuit breakers

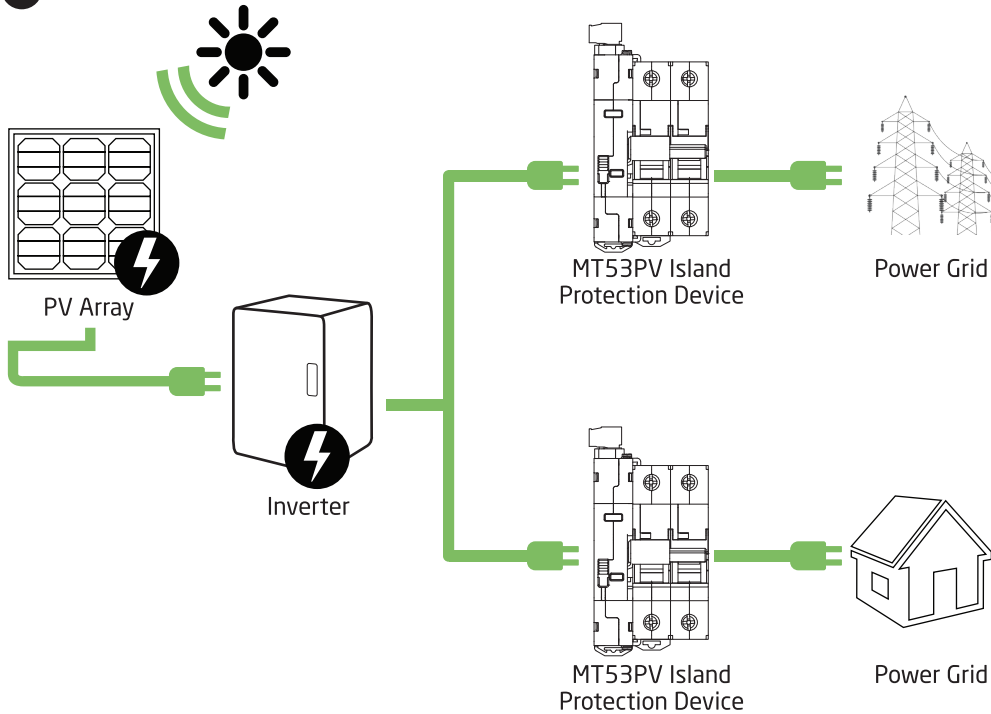
Mechanical Characteristics

Width in the DIN Module	1
Maximum Operating Frequency	30open/h
Maximum Mechanical Durability (Total Number of Operations)	10000
Maximum Number of Continuous Auto-reclosings	3
Protection Grade	IP20(outside the cabinet) IP40 (inside the cabinet)
Circuit Breaker Terminal Section	Soft wire: ≤ 1x16mm ² Hard wire: ≤ 1x25mm ²
Environmental Characteristics	
Pollution Level	2
Working Temperature	-25°C +60°C
Storage Temperature	-40°C +70°C
Relative Humidity	55°C - RH 95%
Over/Under Voltage Characteristics(Island Protection)	
Overvoltage Protection Value	≥295±10V
Overvoltage Recovery Value	≤270±10V
Overvoltage Reaction Time	10s
Overvoltage Protection Value	Overvoltage Protection Value
Overvoltage Protection Reaction Time	4.5s

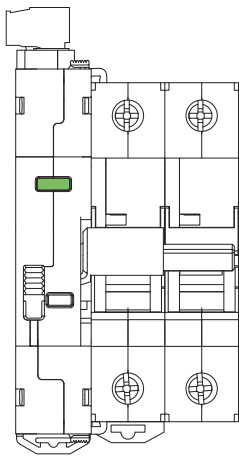
Undervoltage Protection Value		Undervoltage Protection Value	
Undervoltage Protection Reaction Time		Undervoltage Protection Reaction Time	
Voltage Loss Protection Value		≤45V	
Voltage Loss Protection Time		4.5s	
Functional Characteristics			
Self-recovery Over/Under Voltage		●	
Signal that a Reclosing Operation is in Progress		●	
Over/Under Voltage Indicator		●	
Automatic/Manual Function		●	
Anti-islanding		●	
Internal Electrical Protection		PTC	
 Warranty Anyone who purchases this model of device enjoys a 24-month warranty period from the date of purchase. During the warranty period, if the quality of the device itself affects the normal use, you can enjoy free repair and replacement, and the condition of paid service as follows: the improper use, drop, installation and wiring errors that cause irreversible damage. Besides, if you disassemble and modify the device yourself, you will not enjoy the warranty service.			



6

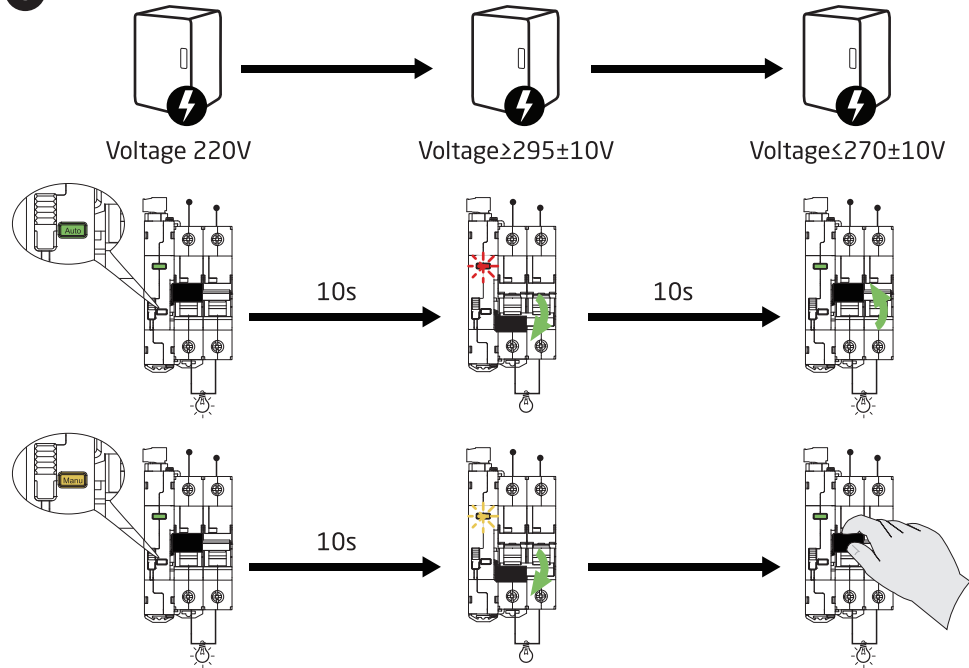


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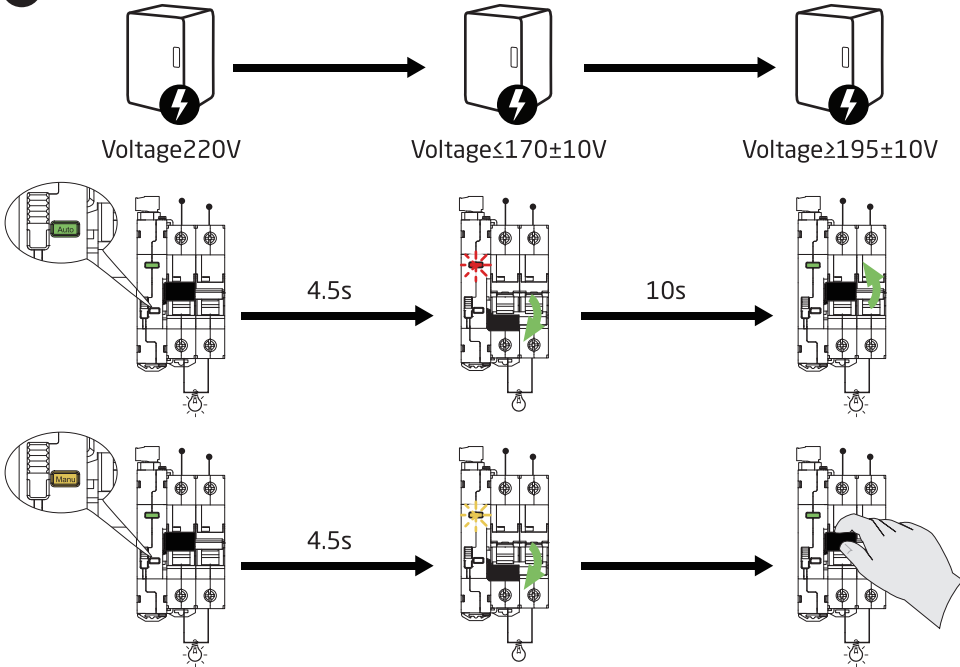
Indicator			
Mode	Status	Color	Remark
Auto	Open	Red light on	
	Overvoltage opening	Red light flashes(2s on and 2s off)	
	Undervoltage opening	Red light flashes(0.5s on and 2s off)	
	Voltage loss opening	Red light flashes(1s on and 1s off)	
Manu	Open	Yellow light on	
	Overvoltage opening	Yellow light flashes(2s on and 2s off)	
	Undervoltage opening	Yellow light flashes(0.5s on and 2s off)	
Auto/Manu	Normal power-on	Normal power-on	
Clock	Self-lock	Red/green light flashes alternately	
Device startup		Green light flashes	

8



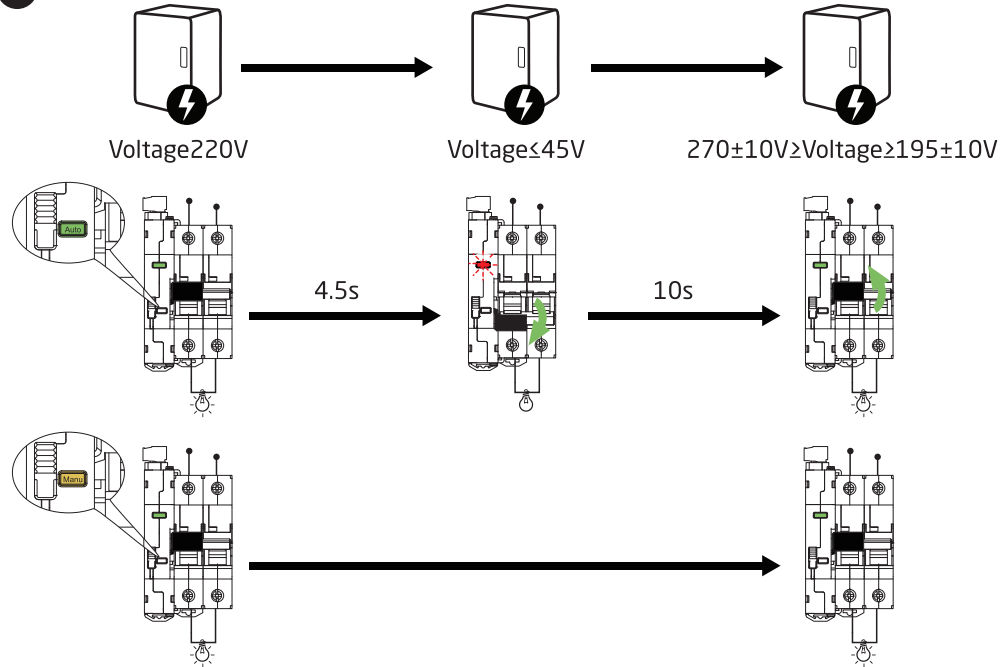
Note: When the voltage is overvoltage, the flashing frequency of the indicator is 2s on and 2s off.

9



Note: When the voltage is undervoltage, the flashing frequency of the indicator is 0.5s on and 2s off.

10



Note: When the voltage is lost, the flashing frequency of the indicator is 1s on and 1s off.

11

PV Side Supply Voltage		Initial Status	Post-action Status		Continu- ous Hold Time
			Auto Mode	Manu Mode	
Overvoltage	≥295±10V	ON	OFF	OFF	10s
		OFF	OFF	OFF	Initial status
Overvoltage recovery	≤270±10V	OFF	ON	OFF	10s
		ON	ON	ON	Initial status
Undervoltage	≤170±10V	ON	OFF	OFF	4.5s
		OFF	OFF	OFF	Initial status
Undervoltage recovery	≥195±10V	OFF	ON	OFF	10s
		ON	ON	ON	Initial status
Power off and voltage loss	≤45V	ON	OFF	ON	4.5s

