

## Under voltage trip device (UVT)

Option

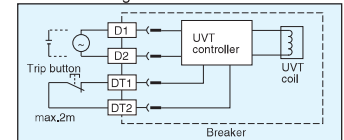
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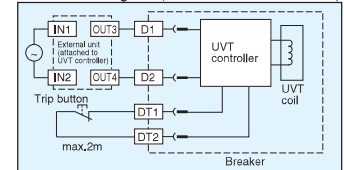
This is the device that automatically trips the breaker when the circuit voltage drops below the nominal voltage, and comprises UVT coil and UVT controller. There are 3 kinds of tripping time, INST, 0.5s and 3.0s. A trip terminal for forced OFF function is included as standard equipment.

Rated voltage	Frequency	operating time (time delay)	Pick-up voltage	Drop-out voltage	Trip function	Power consumption
100-120V AC	50/60Hz	<input type="checkbox"/> Inst(0.2s) <input type="checkbox"/> 0.5s(Min.) <input type="checkbox"/> 3.0s(Min.)	65-85V	45-70V	With open circuit of DT1,DT2 terminals.	Steady : 20VA Inrush : 200VA ≤ 0.4S (100-120V AC) 24V DC (Inrush 100VA ≤ 1S)
200-240V AC			130-170V	90-140V		
380-460V AC			247-323V	171-266V		
24V DC	-		15.6-20.4V	10.8-16.8V		
48V DC			31.2-40.8V	21.6-33.6V		
100-110V DC			65-85V	45-70V		
120-125V DC			78-102V	54-84V		

UVT circuit diagram



UVT circuit diagram (In case of 380-460V AC)



Note1) In case of 380-460V AC, the external unit is attached additionally.

Note2) The operating time is a guarantee value when it drops from 85% or more of rated voltage.

Note3) Time delay should be allowed for 1.5s between applying the voltage to the UVT and closing the breaker.

Note4) If a remote trip function is required, remove the shorting bar (DT1 DT2) and connect a normally closed switch, rated 0.5A at 150VDC across them.

Note5) If a forced trip function is used, the shorting (signal input to DT1 and DT2) should be held for 0.2 sec. and more.

## OCR alarm (AL) [ Automatic reset type Short-time operation (30ms) ]

Standard if ETR is equipped

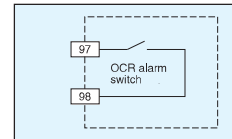
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OCR alarm (AL) is provided as standard if ETR is equipped. OCR alarm (AL) is the contact (1a) of short-time operation (30ms), being output when the breaker is tripped by the electronic trip relay. Two types of automatic reset type (standard) and manual reset type (optional) are available. When ordering, specify either automatic reset or Manual reset.

Switch rating

Voltage (V)	Current (A)	
	Resistive load	Inductive load
AC	240	3
	125	5
DC	240	0.2
	125	0.4
	30	4



Note1) Though the control power supply is unnecessary to activate OCR alarm (AL), the self-holding circuit is necessary since the contact output is activated for the short time (30ms).

Note2) This works when tripping occurs in LTD, STD, INST, GFR or ER.

Note3) If any continuous output of OCR alarm (AL) is necessary, use the trip indicator (TI) output contact of the electronic trip relay.

## OCR alarm (AL) [MRE : Manual reset type]

Option



On the manual reset type (optional), the gray manual reset button on the front side of the breaker will stick out to continuously output OCR alarm (AL) if the breaker is tripped by the electronic trip relay. After tripping, the breaker can not be turned on unless the manual reset button is pressed for resetting.

## Auxiliary switch Standard (AX) • High capacity type (HAX)

Option

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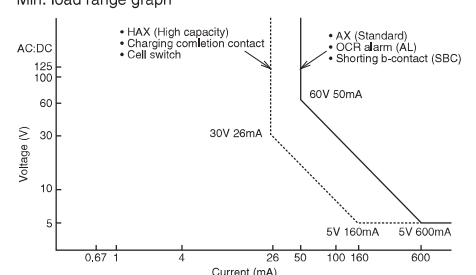


This is the contact that remotely indicates the ON or OFF status of the breaker.

Switch rating

Voltage (V)	Current (A)				
	Standard (AX)		High capacity type (HAX)		
	Resistive load	Inductive load	Resistive load	Inductive load	
AC	250	10	10	10	
	125	10	10	10	
DC	250	0.3	0.3	1.5	
	125	0.6	0.6	6	
	30	10	6	10	
Maximum contacts		5a5b		5a5b	
Change-over sequence	Breaker state	a-contact (NO)	b-contact (NC)		
	ON	ON	OFF		
	OFF	OFF	ON		

Min. load range graph



● The a and b contacts may turn simultaneously to ON instantaneously at the time of changing the contact; Pay attention to the contact state when designing circuits.

● The chattering time at the time of contact ON-OFF is below 0.025 s.