ISO 9001 ISO 14001 OHSAS 18001

LEADING THE RECYCLING ECONOMY,
INNOVATIVE ENERGY-SAVING EMISSION REDUCTION!

Oldlang Smart Electrical

Type B RCCB

Type B Residual Current Operated Circuit-Breaker

1~63A 240/410V~

$I_{\Delta}n$: 30mA, 100mA, 300mA ≤0.1s

10000
3

GB 16916.1
GB 22794
IEC 62423
IEC/EN 61008-1

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About Oldlang Smart Electrical

The company named Oldlang Smart Electrical, which is a modern technology enterprise, committed to innovating energy conservation and emission reduction and leading the circular economy. The products focus on the original, low carbon, energy saving, collecting data, remote control and other functions are the characteristics of Oldlang's Smart electrical products. To enable users to use energy safely, reliably and efÞciently is the value idea of Oldlang Smart Electrical. Therefore, the intelligent energy management is not only the inevitable development of the times, but also the direction of the development of the intelligent electrical of Oldlang's. Oldlang Smart Electrical provide wisdom into the city, the intelligent household practical products, improve people's life, improve the earth's environment, insist on sustainable development has always been the belief of Oldlang Smart Electrical.

In Oldlang smart electrical, we are always advocating:
INNOVATIVE ENERGY-SAVING EMISSION REDUCTION LEADING THE RECYCLING ECONOMY!

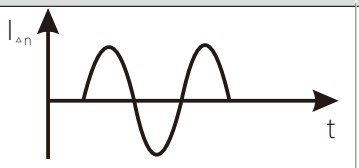
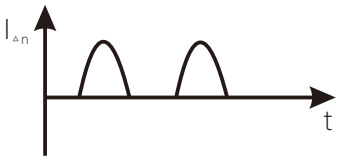
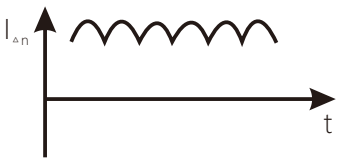
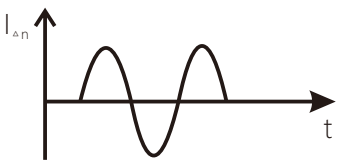
Low Carbon Wireless Energy Saving

TypeB RCCB
Residual Current Operated Circuit-Breaker

Application

■ VDL14-63 and CHL15-63 Type B residual current circuit breaker (RCCB) Type B as to protect the personal safety, to prevent electrical Þres, a security appliances, electrical equipment damage can be widely used in power distribution system, with the development of new energy electric vehicles and intelligent industrial electrical equipment for energy saving, high frequency, the requirement of precise control, charging pile, inverter device is used in great quantities, such as the application of these devices contain pure dc residual current, residual current after the three-phase rectiÞer, high frequency residual current and other kinds of different types of residual current, Therefore, the application of b-type residual current action circuit breaker will be very important and indispensable.

■ According to the waveform of detecting current, RCCB is generally divided into four categories: AC type, A type, F type and B type. AC type is applicable to the residual current of AC sinusoidal current wave.Type A is suitable for ac sinusoidal current wave, pulsating dc current and pulsating dc superposition 0.006A smooth dc wave residual current.In addition to the functions of type A, type B is also suitable for high-frequency sinusoidal ac residual current within 1KHz (type F), pulsating dc residual current generated by two-phase or multi-phase rectiÞcation circuit, and smooth dc residual current.

Type	Residual current	AC	A	B
Single phase (50Hz)		☆	☆	☆
Single-phase half wave rectiÞcation			☆	☆
Six pulse format				☆
1000Hz and below				☆

Low Carbon Wireless Energy Saving

TypeB RCCB
Residual Current Operated Circuit-Breaker

Structural features

■ VDL14-63 and CHL15-63 type B residual current action circuit breaker according to different working principles, mainly electromagnetic type and electronic type.The residual current signals collected by the electromagnetic zero-sequence current transformer directly drive the electromagnetic tripping device, the tripper drives the mechanism tripping and the circuit breaker disconnects.Electromagnetic type manufacturing process is complex, with high cost. The advantage is that it can reliably protect the action when there is no auxiliary voltage or zero line. The safety is relatively high.Power of zero sequence current transformer will be collected to the electronic circuit of residual current signal after, through the trip coil driver voltage trip action, trip to drive circuit breakers to disconnect, electronic manufacturing process relatively simple, relatively easy to realize the overvoltage, undervoltage, latency, and other functions, function extensibility is better, but there must be auxiliary power supply, and easy to grid interference, reliability is relatively low.

■ VDL14-63 and CHL15-63 type B residual current action circuit breaker is integrated with electronic residual current detection module and electromagnetic residual current detection module.The detection of high frequency residual current within 1KHz and smooth dc residual current is realized by electronic circuit, combining the advantages of electromagnetic and electronic.

■ With leakage and isolation double protection;
■ High short circuit tolerance;
■ The upper and lower terminals can connect both the cable and the u-shaped and needle-shaped bus at the same time;
■ The shell and parts are made of high ßame retardant, high temperature resistant and impact resistant plastics imported from abroad;
■ When there is an insulation fault between the phase line and the ground and the residual current is greater than the set value, the fault loop is automatically removed.Electromagnetic leakage circuit breaker does not need auxiliary power supply, which overcomes the defect of poor drought-resistance of electronic products, which is affected by grid voltage ßuctuation and cannot be protected due to neutral line disconnection, and broadens the range of residual current protection.

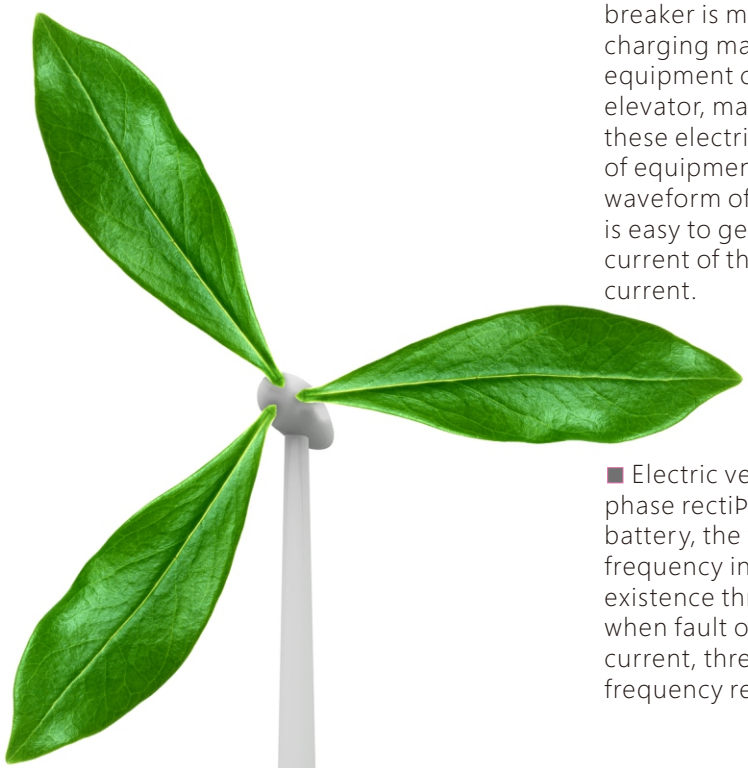
Technical parameters

■ Pol.: 2P, 4P
■ Rated voltage (Ue): AC 230/415V
■ Rated current (In): 6, 10, 16, 20, 25, 32, 40, 50, 63A
■ Working frequency: 50/60Hz
■ Rated residual operating current ($I_{\Delta}n$): 10, 30, 100, 300mA
■ Rated residual non operating current ($I_{\Delta}no$): 0.5$I_{\Delta}n$
■ Mode: Electromagnetic, Electronic
■ Type: AC, A, F, B
■ Rated residual connection capacity($I_{\Delta}m$): 500A
■ Rated short circuit capacity (Icn): 4500A
■ Maximum operating time: 0.1s
■ Electrical life: 4000
■ Protection grade (IEC 60529)
□ Circuit breaker body:IP20
□ Installed in the distribution box:IP40

TypeB RCCB
Residual Current Operated Circuit-Breaker

Typical applications

■ VDL14-63 and CHL15-63 type B residual current action circuit breaker is mainly used in three-phase power supply circuit, such as charging machine of electric vehicle, UPS, and some electrical equipment controlled by frequency converter, such as fan, pump, elevator, machine tool, etc., which is connected to the front end of these electrical equipment, as the residual current action protection of equipment.These devices are basically output of frequency waveform of different demands after three-phase rectiÞcation, which is easy to generate smooth dc residual current, pulsating dc residual current of three-phase rectiÞcation and high-frequency residual current.



■ Electric vehicle charging pile of three-phase electric Þlter, three-phase rectiÞer, inverter, rectiÞer, Þlter again after the output to the battery, the whole process through a three-phase rectiÞer, high frequency inverter for battery charging again, because of the existence three-phase rectiÞer circuit, inverter circuit, battery, etc., when fault occurs, the fault current may appear smooth dc residual current, three-phase rectiÞer pulsating dc residual current and high frequency residual current.

■ The inverter performs three-phase rectiÞcation, Þltering and inverting of the circuit, and provides the motor. The entire working process is completed through three-phase rectiÞcation, Þltering and inverting, and the output control motor rotates.Due to the existence of three-phase rectiÞcation, inverter and other circuits, when failure occurs, the fault current may present the pulsating dc residual current and high-frequency residual current of three-phase rectiÞcation.

■ When these residual currents are generated, AC and A RCCB are unable to carry out effective residual current signal detection and provide reliable protection.VDL14-63 and CHL15-63 type B residual current action circuit breakers can be reliably protected in the circuits of these devices.

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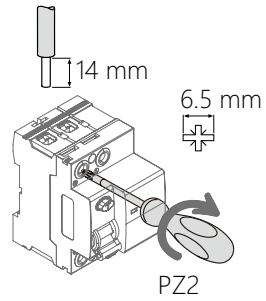
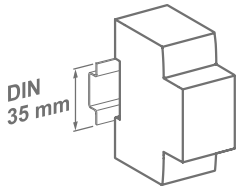


Connection

Screw size	Rated torque	Limit torque	National standard	Copper cables only	
				Rigid	Flexible or with ferrule
					
1~25A: M5	2.5Nm	5.1Nm	2Nm	1~25 mm^2	1~16 mm^2
32~63A: M6.5	3.5Nm	5.6Nm	3.5Nm	1~35 mm^2	1~25 mm^2

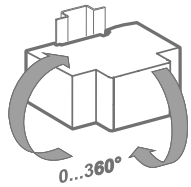


35mm DIN

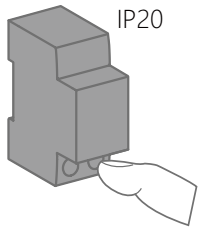
Weight (g)

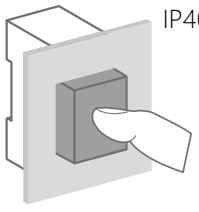
VDL14-63	
2P: 1~40A	210
2P: 50~63A	260
4P: 1~40A	330
4P: 50~63A	380

CHL15-63	
2P: 1~40A	200
2P: 50~63A	250
4P: 1~40A	330
4P: 50~63A	380



Can be installed at any Angle



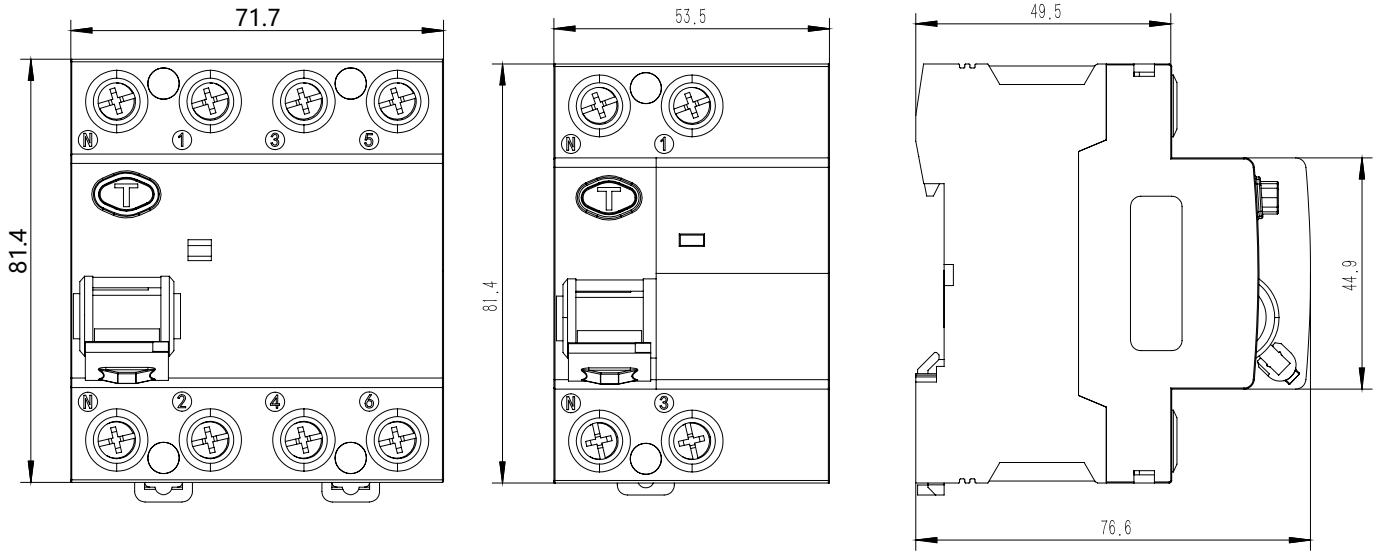


GB 22794 IEC 62423
GB 16916.1 IEC/EN 61008-1

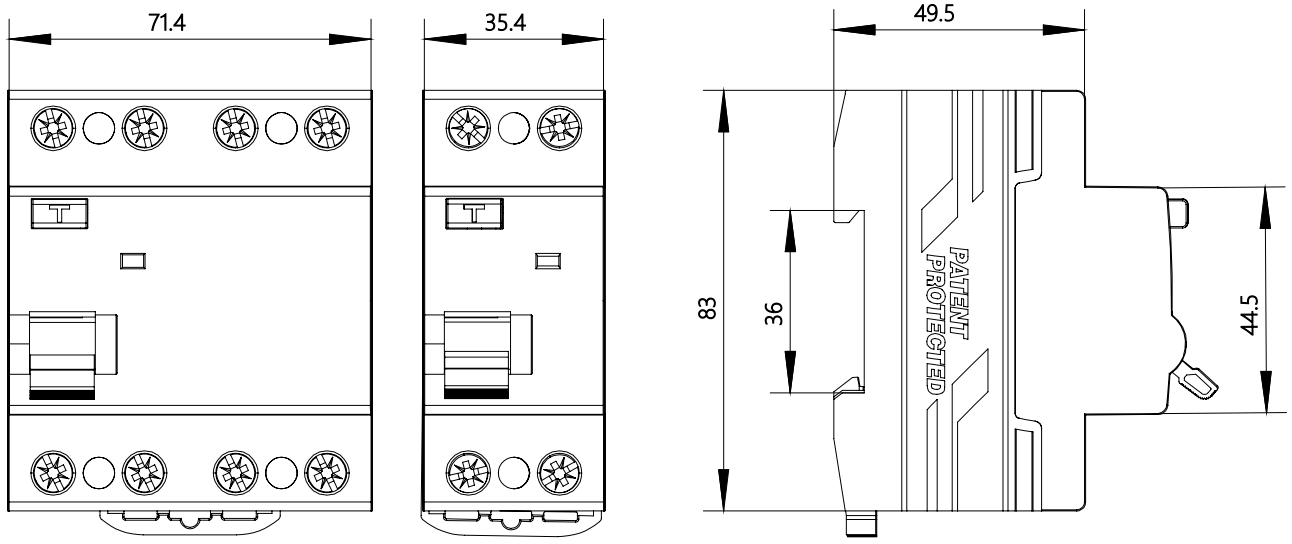
Outline Size And Connection Diagram (mm)

Arc fault detection device	
Undimensioned tolerance	Mounting hole size tolerance
< 1mm:±0.2mm 1~5mm:±0.3mm > 5mm:±0.5mm	±0.4mm

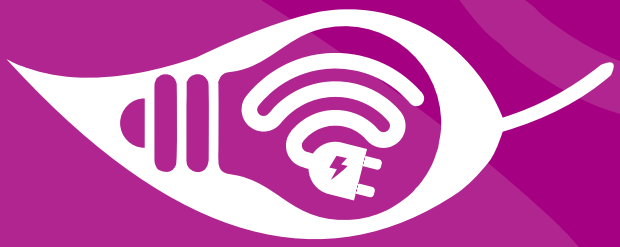
VDL14-63



CHL15-63



SAVE ON ENERGY, STARTS FROM ME !



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Wireless

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