VIKO by Panasonic

MINIATURE CIRCUIT BREAKER USER MANUAL

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Thank you for choosing 10VTB Series Miniature Circuit Breaker. please read this User Manual carefully before installing and using the device and keep it properly for future reference.

STANDARD AND QUALITY CERTIFICATES

IEC/EN 60947-2 CE

TECHNICAL SPECIFICATIONS

Stock Code	Product Definition	Pole Size	Rated Current	Breaking Capacity (kA)
2679-1C06-KU	MCB 10kA 2P,C Type 6kA	2P	6In	10kA
2679-1C10-KU	MCB 10kA 2P,C Type 10kA	2P	10In	10kA
2679-1C13-KU	MCB 10kA 2P,C Type 13kA	2P	13In	10kA
2679-1C16-KU	MCB 10kA 2P,C Type 16kA	2P	16In	10kA
2679-1C20-KU	MCB 10kA 2P,C Type 20kA	2P	20In	10kA
2679-1C25-KU	MCB 10kA 2P,C Type 25kA	2P	25In	10kA
2679-1C32-KU	MCB 10kA 2P,C Type 32kA	2P	32In	10kA
2679-1C40-KU	MCB 10kA 2P,C Type 40kA	2P	40In	10kA
2679-1C50-KU	MCB 10kA 2P,C Type 50kA	2P	50In	10kA
2679-1C63-KU	MCB 10kA 2P,C Type 63kA	2P	63In	10kA
2679-1C80-KU	MCB 10kA 4P,C Type 80A	4P	80In	10kA
2679-1C100-KU	MCB 10kA 4P,C Type 100A	4P	100In	10kA
2679-1C125-KU	MCB 10kA 4P,C Type 125A	4P	125In	10kA

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INSTALLATION AND TRANSPORTATION

Conditions of normal use and installation

1. The ambient temperature ranges between -25°Cand +55°C with average value in 24h not exceeding +35°C.
2. Altitude: ≤2000m.
3. The relative humidity should not exceed 50% at a maximum temperature of +40°C. the relative humidity is allowed to increase while under lower temperature, for instance 90% for temperature +20%, but should take condensation into consideration when temperature is changed.
4. The external magnetic field near the installation site of the residual current circuit breaker shall not exceed 5 times the geomagnetic field in any direction.
5. It shall be installed in medium free of explosion risk and gas or dust that may cause metal corrosion or damage to insulation;
6. It shall be installed in places where there is no shock and vibration, or rain and snow leakage;
7. Pollution class 2;
8. Installation category: II & III;
9. It shall be installed in distribution box, distribution cabinet or box;
10. Negative wiring is allowed for the product;
11. For products with N pole, the phase line shall be connected to the pole with the indication N.

Conditions of normal storage and transportation

(1) Temperature range: -25°C ~ +70°C;
(2) Relative humidity: ≤95%;
(3) The product shall be handled with care during transportation without upside down. Avoid violent collision.

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MAIN TECHNICAL AND PERFORMANCE PARAMETERS

Model No.	Setting Current	Icu/k	Number of Poles	Rated Voltage Ue	Rated Breaking Capacity	Standard
10VTB-1B-C(UL-B series)	10In,20In	4G, 10G, 12.5	1, 2, 3, 4P	230/240V, 400/415V,	10000A	IEC/EN60947-2

Overcurrent protection characteristics of the circuit breaker

Rated uninoculate	Thermal Release			Magnetic release		
	Non-tripping (uninoculate)	Tripping (uninoculate)	Time-tripping (electric)	Tripping (electric)	Holding time (s)	Tripping (electric)
40~125	1.05In	1.35In	2P		≥1.2	>10.2
		1.35In		>2		>10.2

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PRODUCT ASSEMBLY

Product calibrating and programming are performed during manufacturing and each product is offered to sales after a through quality control. There are no maintenance or programming tasks that the users can perform.

DIMENSIONS

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INSTALLATION, USE AND MAINTENANCE

Before installing the circuit breaker:

(1) Check whether the technical parameters of the product meet the use requirements;
(2) Before use, users shall check the insulation resistance respectively between the two poles (except for single pole), the pole and the shell, the pole and the mounting rail, the incoming and the outgoing line end with a 500V megohmmeter. Do not use the product if the insulation resistance is below 1-7-15 megaohms and contact the supplier timely for exchange.
(3) Close and open the breaker for several times to check whether the operation mechanism is reliable or clamping stagnation exists in the mechanism;
(4) The ambient temperature for the breaker of this series is Operating ambient temperature is -25℃~+40℃;
(5) The sectional area of connecting conductor shall fit the rated current of the circuit breaker.

Rated current and section area of the connecting wire

Rated current A	80	100	125
Sectional area of conductor mm²	25	35	50

(6) The breaker of this series adopts DIN rail mounting method, for which TH35-7.5 steel DIN rail shall apply.

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(7) When the ambient temperature changes, the rated current shall be corrected accordingly. For temperature correction coefficient.

Influence of ambient temperature on load carrying capacity

Ambient temperature (℃)	Correction factor for rated current (%)											
	-40℃	-30℃	-20℃	-10℃	0℃	10℃	20℃	30℃	40℃	50℃	60℃	70℃
80	106.4	103.2	100	96	93	89.6	86	82	75.2	68.8	62	55.2
100	110	106	101	97	93	89	85	81	73	65	56	46
125	118.2	111.2	104.2	97.2	90.6	83.8	77	70.2	63.4	56.6	49.8	43

MAINTENANCE AND CARE

(1) The installation, repair and maintenance shall be implemented by qualified personnel.
(2) It must be ensured that the product is de-energized.
(3) Maintenance and care shall be conducted once a year under normal operation condition. The details of maintenance and care are shown in following table.

Item	Content
Appearance	Free of dust and condensation; No damage No change of color for the shell and connecting terminal
Wiring terminal connection	Tighten according to the torque stipulated in "Product Assembly" and ensure it does not loosen.
Handle closing/ opening operation	Operation shall be smooth and flexible

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UNPACKING INSPECTION

After unpacking, the user must check whether the product is intact, whether the exposed metal is rusty and whether the product is defective due to improper transportation or custody. In case of above phenomenon, do not use the product and timely contact the dealer.

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WARRANTY CONDITIONS

- Warranty period starts as of the delivery date of the product and it is 2 years.
- Warranty covers the malfunctions likely to occur due to the manufacturing defects of the product and within the warranty period.
- The product indicating all its parts is under warranty as a whole. If the product turns out to be defective, the consumer can use one of the following rights stipulated in Article 11 of Consumer Protection Law no, 6502:
  - a- Withdrawal from the contract
  - b- Demanding free repair.
  - c- Demanding discount from sales fee
  - d- Demanding the replacement of the product
  - e- Demanding the replacement of the product free of defects,
  - f- Demanding the repair of the product free of defects,
- In case the consumer chooses the right of free repair among those rights; the dealer is obliged to repair the product or have the product repaired without charging any fee, labor or material expenses within the warranty period. In the case of such repairs, The consumer can also use the right of free repair against the manufacturer or exporter. The dealer, manufacturer and exporter are jointly and severally liable for the usage of this right by the consumer.
- In case the consumer uses the right of free repair and if the product fails within the warranty period again and
  - The defect occurred cannot be repaired or the repair is exceeded and
  - Authorized service station, dealer, manufacturer or exporter state that it's not possible to repair the product in a report, the consumer can demand the return of the product free, fee discount at the ratio of the defect or the replacement with the one free of defects, if possible, from the dealer. The dealer cannot reject the demand of the consumer, In case this demand is not met, the dealer, manufacturer and exporter shall jointly and severally be held responsible.

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WARRANTY CONDITIONS

- The repair period of the product can not exceed 20 business days. This period starts on the notification of the failure on the product to the authorized service station or the dealer within the warranty period and from the date of delivery of the product by the authorized servicestation out of warranty period, In case of not eliminating the product malfunction within 10 business days, manufacturer or importer is obliged to dedicate another product with similar characteristics to the use of the consumer until the completion of the product repair. In case the product fails within the warranty period, the warranty period shall be extended by 10 days.
- Usage of the product contrary to the rules stipulated in user's manual, operating out of determined voltage, current and environmental conditions, damage on the cable connection due to the user's fault and failure of the product due to the facts arising from the fire, flood, earthquake, lightning and similar disasters are not under warranty.
- The consumer can apply to the arbitration committee for consumers or consumer courts with the monetary amount determined by law in the residential area for the disputes to be occurred regarding the usage of the rights arising from the warranty.
- In case the dealer doesn't provide this certificate of warranty, the consumer can apply to the General Directorate of Consumer Protection and Market Surveillance of Ministry of Customs and Trade'

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WARNING

- Ensure that the power is cut off before the assembly of the products
- Connection and assembly of the electrical devices should be carried out only by the technical personnel having certificate of competency.
- No responsibility is assumed for the entire of the malfunction, accident and loss arising from the assembly or interference of the persons not having the competency certificate.
- Never use alcohol, cologne, detergent or other similar chemicals for cleaning the product. Cleaning do not contact the product with water when the product is energized.
- Keep the product away from the damp or wet environment during the transportation and shipping.

PANASONIC AND ENVIRONMENT

As Panasonic, we are aware of the contribution of a balanced rotation economy and environmental protection to the sustainable life. Thanks to our continuous innovation and R&D studies, we prefer materials and technologies that are not affecting the environment in a negative way during the production and usage of the products starting from the designing phase. We take necessary measures to use energy and natural sources in a more efficient way.

This symbol indicates separate collection of waste electrical and electronic equipment.

PANASONIC CUSTOMER RELATIONS

Dear Customer,

We believe in providing quality service to your as well as offering quality products,

VIKO by Panasonic

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