LV Cast Resin Transformers

Introduction

In CIC's low-voltage Cast Resin Dry Type Transformers (CRT), coils are cast in epoxy resin (Class F insulation). These transformers, with excellent insulation, are selfextinguishing and can be used in moistureprone and polluted environments. Protective enclosures (optional) will enable outdoor applications of these transformers and offer additional protection against dust.

Examples of suitable applications include rapid transit systems, public transport stations, hospitals, residential and commercial buildings, and factories where significant pollution is present.

To ensure product quality, safety, and durability, all units undergo pre-delivery testing by an electricity laboratory accredited by TAF (a member of the ILAC) according to ISO/IEC 17025.



Overload & Over-Temperature Protection Devices Available



Features

- High-permeability transformer cores made with cold-rolled grain-oriented silicon steel sheets (CRGO), together with tight windings of high conductivity, ensure low-noise and high-efficiency performance.
- Self-extinguishing property, superior insulation, and excellent resistance to pollution and moisture—made possible by casting of the coils in epoxy resin.
- For transformers with a rating of 25 kVA or above, there are cooling ducts within the coils (between primary and secondary windings) for enhanced dissipation of heat.
- Optional protective enclosures (IP20) available.
- Optional protective devices available for overload and over-temperature protection.
- Custom requests and specifications available.



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Specifications

- Standards: IEC (or specific national standards by request)
- Number of Phases: 3
- Frequency: 50 or 60Hz
- Primary Voltage: ≤ 600V
- Secondary Voltage: ≤ 600V
- Connection Type: $\Delta \Delta$, ΔY , $Y \Delta$ or Y Y
- Capacity: 3 kVA ~ 200 kVA
- Cooling Method: Air Natural (AN)
- Other specifications or custom requirements available.

Drawings and Selection Tables



Without Enclosure (IP00)



With Enclosure (IP20)

| Without Enclosure (IP00) | | | | | | | | |
|--------------------------|--------------|--------------|---------------|----------------|--|--|--|--|
| Capacity (kVA) | Dim | Approx. | | | | | | |
| | Width (W) | Depth (D) | Height (H) | Weight (kg) | | | | |
| 3 | 290 | 250 | 330 | 45 | | | | |
| 5 | 290 | 250 | 350 | 50 | | | | |
| 7.5 | 510 | 300 | 405 | 85 | | | | |
| 10 | 520 | 300 | 435 | 80 | | | | |
| 15 | 520 | 300 | 480 | 90 | | | | |
| 20 | 520 | 300 | 505 | 95 | | | | |
| 25 | 630 | 350 | 525 | 135 | | | | |
| 75 | 710 | 540 | 650 | 350 | | | | |
| 100 | 750 | 565 | 670 | 430 | | | | |

| With Enclosure (IP20) | | | | | | | |
|-----------------------|--------------|--------------|---------------|----------------|--|--|--|
| Capacity | Dii | Approx. | | | | | |
| (kVA) | Width (W) | Depth (D) | Height (H) | Weight (kg) | | | |
| 3 | 350 | 330 | 600 | 60 | | | |
| 5 | 350 | 330 | 600 | 65 | | | |
| 7.5 | 550 | 400 | 650 | 110 | | | |
| 10 | 600 | 400 | 650 | 110 | | | |
| 15 | 600 | 400 | 750 | 120 | | | |
| 20 | 600 | 400 | 750 | 125 | | | |
| 25 | 700 | 400 | 765 | 170 | | | |
| 75 | 1000 | 800 | 1500 | 390 | | | |
| 100 | 1000 | 800 | 1500 | 450 | | | |

Note: The data above are given as examples only. Please contact us with your special requests and for final specifications.

(Unit: mm)

Overload and Over-Temperature Protection Devices (Optional)

| Туре | OHA-1 | OHA-2 | ОНТА |
|----------------------------|---|---|---|
| Description | Device for Overload and Over-Temperature Notification and Automatic Reset | Two-Stage Notification and Automatic Reset Device for Overload and Over- Temperature Protection | Automatic Reset and Switch-Off Device for Overload, Over-Temperature, and Surge Protection |
| Appearance | 早役式過温警報器 [1]] ● 定年 ③ 11 相当運車紙 ④ 24 由温章紙 ④ 23 有法温章紙 ● 23 有法温章紙 ● 23 有法温章紙 ● 23 有法温章紙 | 二段式 透温 警教 英 [2]] ④ 夜座 ④ 11 相違漢 復要 ④ 12 相違漢 復要 ③ 22 相違漢 理要 ③ 73 相違漢 理 (2) 13 五 尊礼 (2) 13 五 尊礼 内 上 王 夜代 名 然 5 引 風 作 夜 13. 0000 2551-176 | <image/> |
| Dimensions | 80W x 155L x 32H (mm) | | Without Enclosure (with Base Board) 210W x 130L x 96H (mm) With Enclosure 300W x 300L x 105H (mm) (For reference only. Product appearance and dimensions vary according to component configurations.) |
| Protection Function | Protection against over-tempe short circuit on the load side total capacity of transform one of the phases overload | on of three phases | |
| Detection and Action | Device signals can prompt use redistribute the load between phases has a corresponding li independently). Stage 1 (Model OHA-2 only): V the transformer approaches o (at any of the phases). Stage 2: Actual over-tempera phases) is notified by a light s signal (Model OHA-2). | ers to timely inspect or the phases (each of the ght which can signal Warning light(s) will turn on as ver-temperature or overload ture or overload (at any of the ignal (Model OHA-1) or sound | Device will switch off the transformer at overload or over-temperature to allow timely inspection and to prevent damage of the transformer. Surge protection devices (SPD) are optional. |
| Installation | Signal devices can be mounte or at a remote location th | ed directly on the transformer nrough wired connection. | Installed with an enclosure, or directly mounted inside the distribution panel. |

Note: For wiring diagrams, please refer to the full brochure of these protective devices, provided upon request.