Ringmaster

Medium Voltage Distribution
## General contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation</td>
<td>3</td>
</tr>
<tr>
<td>Ring main units</td>
<td>21</td>
</tr>
<tr>
<td>Circuit breaker, metering and switches</td>
<td>41</td>
</tr>
<tr>
<td>Remote control</td>
<td>87</td>
</tr>
<tr>
<td>Installation drawings</td>
<td>93</td>
</tr>
<tr>
<td>Schematic diagrams</td>
<td>105</td>
</tr>
<tr>
<td>Accessories &amp; options</td>
<td>127</td>
</tr>
<tr>
<td>Order form</td>
<td>138</td>
</tr>
</tbody>
</table>
Presentation
We are proud to present the new Ringmaster RN2d, built on its best selling predecessor RN2c. RN2d is an SF6 insulated Ring Main Unit (RMU) for medium voltage networks up to 13.8kV with improvements guided by customer feedback and Design Failure Mode Effect Analysis (DFMEA).

The RN2d has safety, reliability, and flexibility at its core and becomes a smart RMU when integrated with the Easergy T300 feeder RTU.

Schneider Electric is a global specialist in energy management with operations in more than 100 countries, offers integrated solutions across multiple market segments, including leading positions in utilities and infrastructure, industries, residential and non residential buildings and datacenters.

Focused on making energy safe, reliable, efficient, productive and green Schneider Electric invests significantly in R&D to come up with product and services to meet future needs of the market.
Ringmaster is a range of SF6 Insulated ring main units and the ideal choice for all your MV applications.

From simple transformer protection, or sectionalising with remote control, to multi-panel metered consumer switchboards, the Ringmaster range from Schneider Electric offers a solution.

Quality engineering for extreme climates enables Ringmaster to provide flexibility for any location.

Covering a wide range of options with an indoor and outdoor IP54 design and ratings up to 13.8 kV, 630 A and 21 kA, Ringmaster has proved successful in markets around the world.

**Product advantages**

- Simple, clear operation combined with compact size, high functionality and reliability extends the applications of the Ringmaster range.

- **Reduced risk**
  - Fully certified internal arc design in accordance with latest international standards.

- **Indoor/outdoor design**
  - No need for expensive switchrooms.

- **Self-powered protection**
  - Not reliant on costly battery chargers.

- **Compact**
  - Reduced dimensions, gives reduced civil costs.

- **Virtually maintenance free**
  - Low lifetime costs.

- **Modular design**
  - Quick, simple & easy to install.

- **Proven quality**
  - Assured consistent quality.
  - ISO 9001 quality certification.

- **Environmental**
  - Manufacture to ISO 14001 environmental standards.

- **Direct mounting to transformer**
  - No cable connection needed thus cost saving in term of cable and cable connection when directly mounted to transformers

- **Plug in motor**
  - Directly mountable to a pre-wired live RMU on site, in less than 1 min.

- **SCADA compatible with Remote Terminal Unit (RTU): Easergy T300**

- **High performance**
  - Switch rated up to 5000 numbers mechanical operations.
A variety of different panel types are available for each unit within the range, together with a number of optional accessories enabling Ringmaster to satisfy the most complex system specification.

### General characteristics

- Gas pressure indicator as standard
- Anti-reflex operating handle with facilities for electrical operation
- Interlocked MV cable test access (no need to remove cable terminations or use loose earthing devices)
- Type C bushing offers flexibility of wide choice of 3rd party screened & unscreened termination system
- Integral self-powered protection with TFL, adjustable curve & relay options
- IP54 enclosure
- Simple to follow mimic providing user-friendly operation
- Earth screened cast-resin gas module

- Range of dry type metering units
- Mechanical tripped on-fault indication
- Resin encapsulated busbars in air bus chamber for extensible version
- Direct coupling to transformers or cable connection
- Remote monitoring & control through Easergy T300 range of FRTUs.

### A multitude of configurations

- Free standing, non-extensible, cable connected ring main unit.
- Transformer mounted, non-extensible ring main unit, incorporated in a packaged substation.
- Free standing, extensible cable connected ring main unit.
- Transformer mounted, extensible ring main unit, incorporated in a packaged substation.
- Free standing, non-extensible circuit breaker.
- Cable connected extensible switchboard.
- Free standing, non-extensible, top entry, cable connected ring main unit.
With over 100 years experience in the electrical industry, Schneider Electric has established itself as a world leader in the supply and manufacture of products for the distribution, monitoring and control of electrical power.

Schneider Electric regards its customers as commercial partners, who, like us, demand the highest standards of excellence in terms of products, projects and services.

Schneider Electric is proud to provide the solutions to meet their needs.

Schneider Electric operates the largest, dedicated sales force in the electrical industry.

Sales engineers have specialist expertise and an understanding of the customer needs within each of the following market sectors:

- Building systems and solutions
- Industrial systems and solutions
- Energy and infrastructure systems and solutions
- Package substations
- Mining industry
Schneider Electric offer a wide range of solutions in the area of industries and building management services and uses its expertise in all of these applications to protect people and equipment.

**Schneider Electric means greater comfort, lower operating costs and enhanced safety.**

Our products and services adapt to each specific business and environment, from discrete manufacturing and production lines to continuous processes in a wide variety of industries and buildings such as:

- Retail
- Education
- Health
- Entertainment centres
- Offices
- Warehouses
- Agriculture
- Factory
- Private residential
- Public residential
- Automotive
- Food and beverage
- Pharmaceuticals
- Construction materials
- Waste management.

Across a wide range of applications including:

- Conveyors
- Packaging
- Materials handling
- Hoisting.

**Principal customers in the construction market:**

- Contracting authorities
- Main contractors
- Building engineers.

The real reason for putting technology into buildings is to simplify tasks, enhance safety and improve the quality of life.

Schneider Electric knows this and has created attractive, functional products for the residential building sector. Well being comfort and entertainment are key concepts in this area.
Today, electrical substation and network protection, monitoring and control are highly effective in reducing outage time.

Proven technologies offer a wide range of simple, efficient and flexible solutions for optimised, step by step investments.

Infrastructure

Schneider Electric is involved in developing infrastructure and transportation systems around the world. In areas where no failures can be tolerated, such as road and rail equipment, harbour installations and airports, Schneider Electric provides solutions in electrical distribution, control and monitoring, automation and supervision.

Key markets

• Electricity distribution
• Water
• Rail
• Airports
• Seaports
• Defence
• Gas
• Telecommunications
• Road.

Principal customers in the electric power market

• Power suppliers involved in generation and distribution
• Utility companies
• Major contractors
• Large end user sites
• Government departments.
Robust and simple solution for mine MV network

Ringmaster is a range of MV switchgear with a genuine IP 54 design to maximise resistance to the toughest environment:
- Dust
- Pollution
- Humidity

Cost effective and simple
- The IP54 degree of protection of the Ringmaster’s housing makes it possible to be used in the most aggressive environment. No consideration needs to be taken for an external enclosure, saving cost compared to traditional solutions.
- A virtually maintenance free design is achieved having all MV contacts housed in a sealed for life IP67 SF6 gas filled enclosure.
- Underground handling in narrow tunnels and lifts is simplified by compact dimensions and light weight.

Robust and reduced risk for people
- Unlike air insulated switchgear, Ringmaster offers full encapsulation and no primary conductor is exposed to the ambient air. Contact with conductive particles present in dusty environment is avoided, greatly reducing the risk of partial discharge and flash over.
- Operator safety is maximised with an advanced design fully compliant to the latest internal arc classification as per IEC62271-200.

Over 5000 functions of Ringmaster protect mine networks worldwide
- BHP Billiton, Rio Tinto, Gold Fields, Alcoa, CSA Global, Newcrest, Xstrata, Gloucester Coal, Aditya Birla Group, AngloGold Ashanti, Anglo Coal, ASSMANG.
Schneider Electric engineered package substation solutions tailored to customers requirement using products from our comprehensive range.

This provides customers with a convenient single source package substation with minimum time and costs.

### One stop engineered package substation

**Ease** of specification is guaranteed by one point of contact from initial enquiry through manufacture, delivery, commissioning and after sales service. Schneider Electric engineers design specific engineered solutions to fulfil customer requirements.

**Flexibility** of tailored configurations are available from the wide range of Schneider Electric products which include:
- Transformers from 315 kVA to 2000 kVA (up to 5 MVA for special applications)
- Extensible and non-extensible Ringmaster MV switchgear
- LV SAIF and shielded fusegear from 800 A to 3200 A
- LV acb and mccb pillars up to 3200 A
- Automation and monitoring systems
- Tailor made enclosures can be mounted on the transformer underbase to provide single lift complete installation.

**Protection** of operators is ensured by direct coupling of the individual elements with provision for isolation for maintenance.

**Cost savings** are achieved by reducing the foundation area requirement due to the direct coupling which requires minimum cabling and reduced maintenance. Space requirements are minimised by direct connection, logistics costs minimised because the complete substation is delivered as a single unit. One stop package substations also reduce the time commitment needed by customers for the overall project.

### One stop engineered solutions

**Features**
- One contact
- Complete system, delivered as one unit
- Typical drawing and technical specification with tender
- Metering facilities-optional
- Remote control-optional
- Free breathing, conservator or hermetically sealed tank option
- Premium quality of Schneider Electric
- Direct coupled MV & LV equipment
- Additional enclosure option.

**Expertise in developing solutions for specialised applications**
- Unit substations have MV and LV switchgear located on the same side of the transformer tank
- In-line substations have MV and LV switchgear mounted on opposite ends of the transformer tank
- Compact or mini substations for lower rating applications
- Specialised substations are designed to meet specific requirements. For example, MV and LV switchgear can be mounted at a 90° angle on the transformer tank
- Remote control options enable network automation for secondary distribution.
Conformity with standards in force

Ringmaster meets the current national or international standards in force: (IEC, BS, IS). The main electro-technical standards cover:

- The design of the functional units and switchgear
- Medium voltage switchgear (interruption, sectionalising, insulation)
- Current and voltage transformers
- Low voltage switchgear
- SF6 gas
- Cables and conductors
- Graphs and diagrams
- Tests
- International electro-technical vocabulary.

A quality and safety approach

Both sites ie. Leeds in UK and Hyderabad in India, are, for many years, been committed to a global quality approach and are certified:

- ISO 9001: 2000
- ISO 14001: 2004

Tests on the devices

Various factory tests are carried out on Ringmaster before it is shipped to the customer:

- Tank leak-tightness test
- Mechanical test for control mechanisms
- Dielectric tests.

The Ringmaster switchboards comply with the requirements of the following standards and regulations:

<table>
<thead>
<tr>
<th>Description</th>
<th>IEC standard</th>
<th>IEC classes</th>
<th>EN standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switchboard</td>
<td>IEC 62271-200</td>
<td>LSC partition class PM</td>
<td>EN 62271-200</td>
</tr>
<tr>
<td></td>
<td>IEC 62271-1</td>
<td>Continuity of service of the cable connection</td>
<td>EN 62271-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and fuse compartments: LSC2A (1)</td>
<td></td>
</tr>
<tr>
<td>Behaviour in the event of internal faults</td>
<td>IEC 62271-200</td>
<td></td>
<td>EN 62271-200</td>
</tr>
<tr>
<td>Earthing switch</td>
<td>IEC 62271-102</td>
<td>E2</td>
<td>EN 62271-102</td>
</tr>
<tr>
<td>Ring switch</td>
<td>IEC 62271-103</td>
<td>M1, E3(1), C1</td>
<td>EN 62271-100</td>
</tr>
<tr>
<td>Circuit-breaker</td>
<td>IEC 62271-100</td>
<td>M1, E2</td>
<td>EN 62271-100</td>
</tr>
<tr>
<td>Current transformer</td>
<td>IEC 60044-1</td>
<td></td>
<td>EN 60044-1</td>
</tr>
<tr>
<td>Voltage transformer</td>
<td>IEC 60044-2</td>
<td></td>
<td>EN 60044-2</td>
</tr>
<tr>
<td>Voltage presence indicators</td>
<td>IEC 61958</td>
<td></td>
<td>EN 61958</td>
</tr>
<tr>
<td>Voltage detection systems</td>
<td>IEC 61243-5</td>
<td></td>
<td>EN 61243-5</td>
</tr>
<tr>
<td>Protection against accidental contact, foreign</td>
<td>IEC 60529</td>
<td></td>
<td>EN 60529</td>
</tr>
<tr>
<td>bodies and ingress of water</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Installation</td>
<td></td>
<td>HD 637 S</td>
<td>EN 50110</td>
</tr>
<tr>
<td>Operation of the electrical equipment</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1) For RMR ranges: E2
**TFL protection**

An effective low cost option without compromising reliability. CT operated trip coils (with TFL) provide phase overcurrent and earth fault inverse time protection, the characteristic being given by a Time Fuse Link (TFL). This option is suitable for transformer protection up to 1600 kVA.

<table>
<thead>
<tr>
<th>Voltage Transformer rated power (kVA)</th>
<th>200</th>
<th>315</th>
<th>500</th>
<th>800</th>
<th>1000</th>
<th>1250</th>
<th>1600</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT ratio = 50/5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>earth fault setting = 25 A (instantaneous trip)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CT ratio = 100/5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>earth fault setting = 30 A (instantaneous trip)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Low cost
- Fast clearance of LV faults
- Simple to replace
- Proven protection to EA standards
- Fast tripping for MV earth faults
- Improved discrimination with LV fuse

The current transformer feeds a trip coil that is normally shunted by a time fuse link. In the event of a fault the fuse ruptures, diverting all the fault current through the trip coil, tripping the breaker. A residually connected trip coil provides instantaneous earth fault protection.

**Protection application guide**

<table>
<thead>
<tr>
<th>Product</th>
<th>CE2, CN2, RN2d, RE2d</th>
<th>CE6, RN6d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application</td>
<td>Transformers</td>
<td>Transformers</td>
</tr>
<tr>
<td>200-1600 kVA</td>
<td>400-3800 kVA</td>
<td>1900-12000 kVA</td>
</tr>
<tr>
<td>Time fuse Link</td>
<td>IDMT VIP 400</td>
<td>IDMT VIP 400</td>
</tr>
<tr>
<td>IDMT VIP 400</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: a protection co-ordination study may be necessary to verify the type of protection. Consult your local Schneider Electric sales engineer if in doubt.*

**Protection selection guide**

<table>
<thead>
<tr>
<th>Primary current (A)</th>
<th>10</th>
<th>20</th>
<th>80</th>
<th>100</th>
<th>125</th>
<th>200</th>
<th>630</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equivalent transformer rating at 11 kV</td>
<td>200 kVA</td>
<td>400 kVA</td>
<td>1600 kVA</td>
<td>1900 kVA</td>
<td>2400 kVA</td>
<td>3800 kVA</td>
<td>12000 kVA</td>
</tr>
<tr>
<td>Application Panel Protection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transformer protection</td>
<td>CE2/CN2</td>
<td>Time Fuse Link</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RE2d/RN2d IDMT-VIP 40/45</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RE2d/RN2d IDMT - VIP 400</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feeder protection</td>
<td>CE6/RN6d IDMT - VIP 400</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Schneider Electric functional units including a circuit breaker core unit can be equipped for self powered protection with:

- A VIP 40, 45 or 400 protection relays, integrated in an optimised functional block to form a protection system dedicated to the application
- Simple protection, easy to implement
- High sensitivity sensors to provide the highest level of reliability and sensitivity from 0.2 A to 20 In.

VIP 40/45 & VIP 400 - self-powered integrated protection relay

Optimised performance for transformer, incomer, feeder and bus riser protection

- Complete engineered and pre-tested protection system: dedicated CT and low power actuator (Mitop)
- Savings on space and cabling time
- Optimised for circuit breaker to work together in an optimum manner:
  - Simple protection, easy to implement
  - Perfectly adapted to dedicated applications

VIP 40/45: designed for transformer protection

- MV/LV transformer protection up to 200A
- Dedicated protection curve to protect against overloads, short-circuits and earth faults with straightforward settings
- Designed up to 200 A circuit breakers to replace fuse-switch solutions

VIP 400: designed for buildings and MV/LV substation utilities

- Substation protection (incomers, feeders, bus risers) using 200/630A circuit breaker
- MV/LV transformer protection instead of VIP 40/45 if more functions are required
- DT (Definite Time) and IDMT (Inverse Definite Minimum Time) standardised tripping curves
- Switchgear diagnostics
- Multi-language display
- Metering functions

<table>
<thead>
<tr>
<th>Transformer protection</th>
<th>General use protection VIP 400</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase overcurrent (ANSI 50-51)</strong></td>
<td><img src="image1.png" alt="VIP 40/45" /> <img src="image2.png" alt="VIP 400" /></td>
</tr>
<tr>
<td>Earth fault phase (ANSI 51N)</td>
<td><img src="image3.png" alt="Standard method" /> <img src="image4.png" alt="High sensitivity method" /></td>
</tr>
<tr>
<td><strong>Thermal overload (ANSI 49)</strong></td>
<td><img src="image5.png" alt="Standard method" /></td>
</tr>
<tr>
<td>Cold load pick-up</td>
<td><img src="image6.png" alt="Standard method" /></td>
</tr>
</tbody>
</table>

**Measurement functions**

- Phase current
- Earth current
- Phase peak demand current
- Load history: Cumulative time

**Control and monitoring functions**

- Trip indication: Local (with origin of the fault) and Remote (one contact) (3)
- 3 output relays

**Trip circuit supervision (ANSI 741C)**

- Local on display (5 last trips)
- Remote, via communication

**External tripping input**

- Number of phase and earth trips

**Power supply**

- Type of supply: Self-powered or auxiliary supply
- Minimum load current to activate the VIP: 4A, 4A, 7A (2)

---

VIP 40/45 & VIP 400 - self-powered integrated protection relay

Optimised performance for transformer, incomer, feeder and bus riser protection

- Complete engineered and pre-tested protection system: dedicated CT and low power actuator (Mitop)
- Savings on space and cabling time
- Optimised for circuit breaker to work together in an optimum manner:
  - Simple protection, easy to implement
  - Perfectly adapted to dedicated applications

VIP 40/45: designed for transformer protection

- MV/LV transformer protection up to 200A
- Dedicated protection curve to protect against overloads, short-circuits and earth faults with straightforward settings
- Designed up to 200 A circuit breakers to replace fuse-switch solutions

VIP 400: designed for buildings and MV/LV substation utilities

- Substation protection (incomers, feeders, bus risers) using 200/630A circuit breaker
- MV/LV transformer protection instead of VIP 40/45 if more functions are required
- DT (Definite Time) and IDMT (Inverse Definite Minimum Time) standardised tripping curves
- Switchgear diagnostics
- Multi-language display
- Metering functions

<table>
<thead>
<tr>
<th>Transformer protection</th>
<th>General use protection VIP 400</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase overcurrent (ANSI 50-51)</strong></td>
<td><img src="image1.png" alt="VIP 40/45" /> <img src="image2.png" alt="VIP 400" /></td>
</tr>
<tr>
<td>Earth fault phase (ANSI 51N)</td>
<td><img src="image3.png" alt="Standard method" /> <img src="image4.png" alt="High sensitivity method" /></td>
</tr>
<tr>
<td><strong>Thermal overload (ANSI 49)</strong></td>
<td><img src="image5.png" alt="Standard method" /></td>
</tr>
<tr>
<td>Cold load pick-up</td>
<td><img src="image6.png" alt="Standard method" /></td>
</tr>
</tbody>
</table>

**Measurement functions**

- Phase current
- Earth current
- Phase peak demand current
- Load history: Cumulative time

**Control and monitoring functions**

- Trip indication: Local (with origin of the fault) and Remote (one contact) (3)
- 3 output relays

**Trip circuit supervision (ANSI 741C)**

- Local on display (5 last trips)
- Remote, via communication

**External tripping input**

- Number of phase and earth trips

**Power supply**

- Type of supply: Self-powered or auxiliary supply
- Minimum load current to activate the VIP: 4A, 4A, 7A (2)
**Remote Terminal Unit**

**T300 telecontrol**

**Ringmaster and Easergy T300**

**Control your Ringmaster remotely**

The Schneider Electric Easergy T300 telecontrol cabinet, which links the Ringmaster to a control centre’s automation system, allows you to manage a secondary distribution network from a remote point. Network faults can be identified and isolated and the network reconfigured in seconds without manual intervention, which substantially improves the quality of supply.

The compact and modular Easergy T300 can be easily mounted directly onto the Ringmaster, saving installation costs and valuable floor space. Telecontrol equipment can be added any time after installation. This makes Ringmaster RMU's even more cost-effective to install, since a control system can be bought separately if needed at a later date.
Continuity of service through modular, modern feeder automation solution

Schneider Electric offers you a complete solution, including:

- Easergy T300 telecontrol interface,
- Switchgear that is adapted for telecontrol.

Easergy L500, a cost effective solution to immediately improve your SAIDI (1)

Easergy L500 is a SCADA providing all the functions needed to operate the MV network in real time:

- Pre-configured with Easergy range products:
  - MV/LV substations equipped with T300 or Flair 200C
  - Overhead line equipped with Flite 116/G200
- Broad range of transmission supports: Radio, GSM, GPRS, PSTN, LL, FO.

Advantages

- Simple implementation:
  - One to two weeks only for 20 MV/LV substations
  - Configuration, training and handling within a few days
- Short return on investment
- Simple and fast evolutions by operations managers
- Service quality and operations rapidly improved.

(1) SAIDI: System Average Interruption Duration Index

Nota:
Please consult us for other SCADA platforms, PACiS, OaSys.
Ringmaster selection guide

Key to product references

Ringmaster is available as standard panel types, allowing easy selection and specification. The product references are made up as follows:

- **R**: Ring main unit
- **C**: Standalone circuit breaker
- **S**: Stand-alone switch
- **N**: Non-Extensible
- **E**: Extensible
- **MU**: Metering unit

Example: RN2d-T1/21 = Ringmain unit with 2nos load break switch and 1no, 200 A circuit breaker, non-extensible, 21kA fault rating.

The Ringmaster catalogue allows easy selection and specification, based on a broad range of worldwide applications. Included in this publication is:
- panel type specifications
- details of optional accessories
- schematic diagrams
- Installation drawings.

Accessories

Accessories for the Ringmaster range are supplied either fitted or loose, where stated enabling simple panel configuration on site. Details of accessories are contained within the panel type pages.

Need more information?

If your requirements are not listed, please contact your local Schneider Electric representative at:


Electronic catalogue requests

Electronic copies of this selection guide are available free of charge upon request. For this, and other MV literature, please email your full contact details to Email:

[MVSwitchgearGB@schneider-electric.com](mailto:MVSwitchgearGB@schneider-electric.com)
Range selection process

Selection Matrix

Ring main units
- Ring main unit
- Ringmaster 630 A Breaker
- Protection systems (TFL / Relay) electrical operation
  - T1 - TFL
  - T5 - Glass TFL
- Non extensible / extensible 16 kA or 21 kA
- 200A 630A

Ringmaster range
- Switch
- Breaker
- 630A 200A 630A

Metering units
- 200A 630A
- Select CTs / VTs
- Accessories selection (Padlocks, gland plates etc.)

Options

Complete the order form
Ring main units
# Ring main units

<table>
<thead>
<tr>
<th>Characteristics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Electrical and Mechanical</strong></td>
<td>22</td>
</tr>
<tr>
<td><strong>Non-extensible ring main units</strong></td>
<td>23</td>
</tr>
<tr>
<td>Specification</td>
<td></td>
</tr>
<tr>
<td>Accessories</td>
<td></td>
</tr>
<tr>
<td><strong>Non-extensible ring main units 200 A</strong></td>
<td>26</td>
</tr>
<tr>
<td>RN2d-T1, RN2d-T2, RN2d-T3, RN2d-T4, RN2d-T5</td>
<td></td>
</tr>
<tr>
<td><strong>Non-extensible ring main units 630 A</strong></td>
<td>31</td>
</tr>
<tr>
<td>RN6d-T1</td>
<td></td>
</tr>
<tr>
<td><strong>Extensible ring main units</strong></td>
<td>32</td>
</tr>
<tr>
<td>Specification</td>
<td></td>
</tr>
<tr>
<td>Accessories</td>
<td></td>
</tr>
<tr>
<td><strong>Extensible ring main units 200 A</strong></td>
<td>35</td>
</tr>
<tr>
<td>RE2d-T1, RE2d-T2, RE2d-T3, RE2d-T4</td>
<td></td>
</tr>
</tbody>
</table>
# Characteristics

## Electrical and Mechanical

### Characteristics of Ringmaster

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value 1</th>
<th>Value 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated voltage (Ur) kV</td>
<td>12</td>
<td>13.8</td>
</tr>
<tr>
<td>Rated frequency (fr) Hz</td>
<td>50/60</td>
<td>50/60</td>
</tr>
<tr>
<td>Rated lightning impulse withstand voltage (Up) kV</td>
<td>75</td>
<td>95</td>
</tr>
<tr>
<td>Rated power frequency withstand voltage (Ud) kV</td>
<td>28</td>
<td>38</td>
</tr>
<tr>
<td><strong>Rated current</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ring switches (Ir) A</td>
<td>630</td>
<td>630</td>
</tr>
<tr>
<td>Circuit breaker (Ir) A</td>
<td>200/630</td>
<td>200/630</td>
</tr>
<tr>
<td>Ring switch rated short time withstand, 3 s (Ik) kA</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td>Ring switch earth short time withstand, 3 s (Ik) kA</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td>Ring switch peak making current (Ip) kA</td>
<td>40</td>
<td>52.5</td>
</tr>
<tr>
<td>Ring switch earth peak making current (Ip) kA</td>
<td>40</td>
<td>52.5</td>
</tr>
<tr>
<td>Circuit breaker short time withstand, 3 s (Ik) kA</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td>Circuit breaker earth short time withstand, 3 s (Ik) kA</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td>Circuit breaker peak making current (Ip) kA</td>
<td>40</td>
<td>53</td>
</tr>
<tr>
<td>Circuit breaker earth peak making current (Ip) kA</td>
<td>40</td>
<td>53</td>
</tr>
<tr>
<td>Internal arc withstand - gas enclosure (1 s) kA</td>
<td>21 (A-FLR)</td>
<td>21 (A-FLR)*</td>
</tr>
<tr>
<td>Internal arc withstand - cable box (1 s) kA</td>
<td>13.1(AF)**</td>
<td></td>
</tr>
<tr>
<td><strong>Number of operating cycles</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical: ring switch (main)</td>
<td>5000</td>
<td>5000</td>
</tr>
<tr>
<td>ring switch</td>
<td>5000</td>
<td>5000</td>
</tr>
<tr>
<td>ring switch (earth)</td>
<td>1000</td>
<td>1000</td>
</tr>
<tr>
<td>circuit breaker (main)</td>
<td>2000</td>
<td>2000</td>
</tr>
<tr>
<td>circuit breaker (earth)</td>
<td>1000</td>
<td>1000</td>
</tr>
<tr>
<td>circuit breaker (at rated short circuit breaking current)</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td><strong>SF6 gas</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pressure</td>
<td>bar G</td>
<td></td>
</tr>
<tr>
<td>Weight (RN2d/RN6d)</td>
<td>g</td>
<td>516</td>
</tr>
<tr>
<td>Weight (RE2d)</td>
<td>g</td>
<td>612</td>
</tr>
</tbody>
</table>

*: 21kA (AF) as option - Please consult us for details.

**: 21kA (AF) - Please consult us.
## Non-extensible ring main units

### Specification

<table>
<thead>
<tr>
<th>Environment</th>
<th>RN2d-T1 TFL</th>
<th>RN2d-T2 VIP 400</th>
<th>RN2d-T3 VIP 40</th>
<th>RN2d-T4 VIP 45</th>
<th>RN2d-T5 Glass TFL</th>
<th>RN6d-T1 VIP 400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indoor / outdoor</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>IP54</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Freestanding</td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

### Ratings

<table>
<thead>
<tr>
<th>Transformer mounted</th>
<th>RN2d-T1 TFL</th>
<th>RN2d-T2 VIP 400</th>
<th>RN2d-T3 VIP 40</th>
<th>RN2d-T4 VIP 45</th>
<th>DN6d-T1 VIP 400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Busbars 630 A</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Circuit breaker normal rated current 200 A</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Circuit breaker normal rated current 630 A</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Switch normal rated current 630 A</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>12 kV 16 kA 3 seconds 75 kV BIL</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>13.8 kV 21 kA 3 seconds 95 kV BIL</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Ring switch cable earth switch 16 kA 3 seconds</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Ring switch cable earth switch 21 kA 3 seconds</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Circuit breaker earth switch 3.15 kA</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

### Mechanism

<table>
<thead>
<tr>
<th>Provision for motorised mechanism LH ring switch</th>
<th>RN2d-T1 TFL</th>
<th>RN2d-T2 VIP 400</th>
<th>RN2d-T3 VIP 40</th>
<th>RN2d-T4 VIP 45</th>
<th>DN6d-T1 VIP 400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent manual</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Provision for motorised mechanism RH ring switch</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Provision for motorised mechanism circuit breaker</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

### Protection & control - circuit breaker

<table>
<thead>
<tr>
<th>Protection &amp; control - circuit breaker</th>
<th>RN2d-T1 TFL</th>
<th>RN2d-T2 VIP 400</th>
<th>RN2d-T3 VIP 40</th>
<th>RN2d-T4 VIP 45</th>
<th>DN6d-T1 VIP 400</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT’s dual ratio - 100/50/5 A class X</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>CT’s ratio - 200/1 A class X</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>CT’s ratio - 200/100/1 5P20</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>CT’s ratio - 500/200/1 A class X</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>CT’s ratio - 800/400/1 A class X</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Overcurrent &amp; earth fault CT operated trip coils - TFL</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Overcurrent &amp; earth fault CT operated trip coils - glass TFL</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Overcurrent relay - VIP 40</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Overcurrent &amp; earth fault relay - VIP 45</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>IDMT overcurrent &amp; earth fault relay - VIP 400</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Multi voltage shunt trip coil</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

### Indication

<table>
<thead>
<tr>
<th>Indication</th>
<th>RN2d-T1 TFL</th>
<th>RN2d-T2 VIP 400</th>
<th>RN2d-T3 VIP 40</th>
<th>RN2d-T4 VIP 45</th>
<th>DN6d-T1 VIP 400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical ON/OFF</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Mechanical EARTH/MAIN</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>VPI indication 6.6 - 13.8 kV</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Gas pressure indicator (-25°C to +55°C)</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>RSW aux contacts 1NO &amp; 1NC</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

### Test facility

<table>
<thead>
<tr>
<th>Test facility</th>
<th>RN2d-T1 TFL</th>
<th>RN2d-T2 VIP 400</th>
<th>RN2d-T3 VIP 40</th>
<th>RN2d-T4 VIP 45</th>
<th>DN6d-T1 VIP 400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integral ring cable test facility</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Integral circuit breaker test facility</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

### Standard features

<table>
<thead>
<tr>
<th>Standard features</th>
<th>RN2d-T1 TFL</th>
<th>RN2d-T2 VIP 400</th>
<th>RN2d-T3 VIP 40</th>
<th>RN2d-T4 VIP 45</th>
<th>DN6d-T1 VIP 400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating handle</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

### Cable (see available cable kit accessories)

<table>
<thead>
<tr>
<th>Cable (see available cable kit accessories)</th>
<th>RN2d-T1 TFL</th>
<th>RN2d-T2 VIP 400</th>
<th>RN2d-T3 VIP 40</th>
<th>RN2d-T4 VIP 45</th>
<th>DN6d-T1 VIP 400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottom entry up 1 x 3C 300 mm²</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Bottom entry up 3 x 1C 630 mm²</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

### Order codes

<table>
<thead>
<tr>
<th>Order codes</th>
<th>RN2d-T1 TFL</th>
<th>RN2d-T2 VIP 400</th>
<th>RN2d-T3 VIP 40</th>
<th>RN2d-T4 VIP 45</th>
<th>RN6d-T1 VIP 400</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 kV, 16 kA, 75 kV BIL</td>
<td>RN2d-T1/16</td>
<td>RN2d-T2/16</td>
<td>RN2d-T3/16</td>
<td>RN2d-T4/16</td>
<td>RN6d-T1/16</td>
</tr>
<tr>
<td>13.8 kV, 21 kA, 95 kV BIL</td>
<td>RN2d-T1/21</td>
<td>RN2d-T2/21</td>
<td>RN2d-T3/21</td>
<td>RN2d-T4/21</td>
<td>RN6d-T1/21</td>
</tr>
</tbody>
</table>

Key: ■ Standard feature ● Optional feature
## Ring main units

### Non-extensible ring main units

### Accessories

<table>
<thead>
<tr>
<th>Cable kits</th>
<th>RN2d-T1 TFL</th>
<th>RN2d-T2 VIP 400</th>
<th>RN2d-T3 VIP 40</th>
<th>RN2d-T4 VIP 45</th>
<th>RN2d-T5 Glass FL</th>
<th>RN6d-T1 VIP 400</th>
<th>Kit no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circuit breaker cable box</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMD-F47</td>
</tr>
<tr>
<td>Circuit breaker cable box with integral cable test facility</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMD-F325</td>
</tr>
<tr>
<td>Gland plate 1 x 3C</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMD-A316</td>
</tr>
<tr>
<td>Gland plate 3 x 1C</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMD-A319</td>
</tr>
<tr>
<td>Small gland plate 1 x 3C</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMD-A322</td>
</tr>
<tr>
<td>Blank galvanised gland plate</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMD-A320</td>
</tr>
<tr>
<td>Galvanised steel wiping plate 1 x 3C</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMD-A10</td>
</tr>
<tr>
<td>Galvanised steel wiping plate 3 x 1C</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMD-A11</td>
</tr>
<tr>
<td>Galvanised steel wiping plate 1 x 3C</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMD-A105</td>
</tr>
<tr>
<td>Tubular gland 1 x 3C</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMD-A12</td>
</tr>
<tr>
<td>Tubular gland 3 x 1C</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMD-A13</td>
</tr>
<tr>
<td>Small tubular gland</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMD-A106</td>
</tr>
<tr>
<td>CES5 gland</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMD-A120</td>
</tr>
<tr>
<td>CES5 gland plate 1 x 3C</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMD-A321</td>
</tr>
<tr>
<td>CES5 gland adaptor</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMD-A525</td>
</tr>
<tr>
<td>Top entry cables RH cable box (indoor only)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMD-F303</td>
</tr>
<tr>
<td>Top entry cables LH cable box (indoor only)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMD-F302</td>
</tr>
<tr>
<td>RSW extension box for 2 x 3C cables (left hand)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMD-F523</td>
</tr>
<tr>
<td>RSW extension box for 2 x 3C (right hand)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMD-F522</td>
</tr>
<tr>
<td>Angled gland plate 1 x 3C</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMD-A317</td>
</tr>
<tr>
<td>Split gland plate 1 x 3C</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMD-A318</td>
</tr>
</tbody>
</table>

### Installation items

| Transformer mounting kit | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | RMD-A461 |
| Extension trunking (to clear transformer radiators) | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | RMD-A20 |
| Set of padlocks - 11 no | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | RMD-A343 |
| Anti-vandal fixings, including tool | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | RMD-A344 |
| Foundation bolts (not required for transformer mounting) | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | RMD-A22 |
| Multicore pilot glands | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | RMD-A342 |
| Time Fuse Link | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | RMD-A17 |
| RN2d to MU2d installation kit | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | RMD-A350 |
| Ariel mounting bracket | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | RMD-A201 |

Key: ☐ Standard feature ☐ Factory fitted accessory ☐ Loose accessory, assembled on site
### Ring main units

**Non-extensible ring main units**

**Accessories**

<table>
<thead>
<tr>
<th>Operational items</th>
<th>RN2d-T1 TFL</th>
<th>RN2d-T2 VIP 400</th>
<th>RN2d-T3 VIP 40</th>
<th>RN2d-T4 VIP 45</th>
<th>RN2d-T5 Glass TFL</th>
<th>RN6d-T1 VIP 400</th>
<th>Kit no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating handle</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>RMD-F345</td>
</tr>
<tr>
<td>LH ring switch control auxiliary sw for motorised mechanism provision</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>RMD-F328</td>
</tr>
<tr>
<td>LH ring switch termination block for motorised mechanism provision (not FRTU)</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>RMD-F363</td>
</tr>
<tr>
<td>RH ring switch control auxiliary sw for motorised mechanism provision</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>RMD-F329</td>
</tr>
<tr>
<td>RH ring switch termination block for motorised mechanism provision (not FRTU)</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>RMD-F364</td>
</tr>
<tr>
<td>Provision for motorised mechanism circuit breaker</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>RMD-F543</td>
</tr>
<tr>
<td>Motorised mechanism</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>RMD-F507</td>
</tr>
<tr>
<td>Shunt trip coil (20-250 V DC, 110-250 V AC) TFL</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>RMD-F581</td>
</tr>
<tr>
<td>Shunt trip coil (20-250 V DC, 110-250 V AC) VIP</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>RMD-F582</td>
</tr>
<tr>
<td>Ring switch cable VPIS indication (3.3-13.8 kV)</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>RMD-F341</td>
</tr>
<tr>
<td>Circuit breaker cable VPIS indication (11-13.8 kV)</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>RMD-F340</td>
</tr>
<tr>
<td>Phase indication device</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>RMD-A374</td>
</tr>
<tr>
<td>Emergency trip push button</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>RMD-F339</td>
</tr>
<tr>
<td>Gas pressure switch for remote indication only</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>RMD-F368</td>
</tr>
</tbody>
</table>

### Mechanical interlocks

- Circuit breaker - key free, EARTH ON
- Circuit breaker - key free, MAIN OFF
- Switch - key free, SWITCH OFF LH
- Switch - key free, SWITCH OFF RH

**N. B. specify lock symbol at time of ordering (3 digits max) not available with motor mechanisms**

### Earth fault passage indication

(choose provision kit and an EFPI required if not using Easergy T300)

- Phase & earth fault provision for Easergy T300
- EFPI provision kit, inside cable box
- EFPI provision kit, CT outside cable box
- EFPI provision kit, inside cable box, top entry
- EFPI provision kit, outside cable box, top entry
- Bowden “RR” EFPI and CT
- Bowden STD EFPI type NB
- Bowden LV reset EFPI type NB1
- Bowden LV reset & alarm type NB2

**N. B. above CT’s are ring type for split core - please consult Schneider Electric**

**Key:**  ■ Factory fitted accessory  ◯ Loose accessory, assembled on site
Non-extensible ring main unit
200 A
RN2d-T1

Transformer protection up to 1.6 MVA at 11 kV

Protection & control - CB
Overcurrent and earth fault protection using CT operated trip coils with provision for
time fuse links
Protection CT's - 100/50/5 A class X

Transformer ratings
See table on Time Fuse Link - page13

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 16/21 kA 3 s
Internal arc 21kA 1s IAC
class A-FLR for gas enclosure *
Internal arc 13.1kA 1s IAC
AF classification for cable boxes **
Normal current rating 630 A/200 A
Normal rated voltage 12/13.8 kV

Normal rated BIL 75/95 kV

Operating mechanism
Independent manual

Standard features
Ring cable earth switch, 16/21 kA 3 s
Transformer earth switch, 16/21 kA 3 s
Anti-reflex operating handle
Provision for motorised mechanism LH/RH ring switch with plug interface

Indication
Mechanical tripped on fault flag indicator
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Gas pressure indicator
CB auxiliary contacts 1NO 1NC
CB earth position selected 1NO
CB earth ON, 1NO

Test facility
Integral ring switch cable test facility

Cable
Bottom entry up to 1 x 3C 300 mm²
Bottom entry up to 3 x 1C 630 mm²

Accessories
CB, LH, RH motor kits
LH, RH ring switch indication 1NO 1NC earth On 1NO
Multi voltage shunt trip coil 20-48 V DC - 110-250 V AC/ DC
VPIS indication
Inverted cable boxes (indoor only)
Transformer mounting kit
Freestanding tee-off cable box

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>RN2d-T1/16</td>
<td>16 kA, 12 kV, 75 kV BIL</td>
</tr>
<tr>
<td>RN2d-T1/21</td>
<td>21 kA, 13,8 kV, 95 kV BIL</td>
</tr>
</tbody>
</table>

[*] 21kA (AF) - Please consult us.
[**] 21kA (AF) - Please consult us.
Ring main units

Non-extensible ring main unit
200 A
RN2d-T2

Transformer protection up to 3.5 MVA at 11 k

Protection & control - CB
Self powered IDMT overcurrent and earth fault relay, VIP 400. In accordance with IEC 60255 and BS142
Protection CT's - 200/1 A class X
• Setting range:
  - Overcurrent: 20-200 A
  - Earth fault: 2-160 A

Transformer ratings
See table on Time Fuse Link - page 13

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 16/21 kA 3 s
Internal arc 21kA 1s IAC class A-FLR for gas enclosure *
Internal arc 13.1kA 1s IAC class AF for cable boxes **
Normal current rating 630 A/200 A
Normal rated voltage 12/13.8 kV
Normal rated BIL 75/95 kV

Operating mechanism
Independent manual

Standard features
Ring cable earth switch, 16/21 kA 3 s
Transformer earth switch, 16/21 kA 3 s
Anti-reflex operating handle
Provision for motorised mechanism LH/RH ring switch with plug interface
Multi voltage shunt trip coil 20-48 V DC - 110-250 V AC/DC
VPIS indication

Indication
Mechanical tripped on fault flag indicator
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Gas pressure indicator
CB auxiliary contacts 1NO 1NC
CB earth position selected 1NO
CB earth ON, 1NO

Test facility
Integral ring switch cable test facility

Cable
Bottom entry up to 1 x 3C 300 mm²
Bottom entry up to 3 x 1C 630 mm²

Accessories
CB, LH, RH motor kits
LH, RH ring switch indication 1NO 1NC earth On 1NO
Inverted cable boxes (indoor only)
Transformer mounting kit
Freestanding tee-off cable box

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>RN2d-T2/16</td>
<td>16 kA, 12 kV, 75 kV BIL</td>
</tr>
<tr>
<td>RN2d-T2/21</td>
<td>21 kA, 13.8 kV, 95 kV BIL</td>
</tr>
</tbody>
</table>

[*] 21kA (AF) - Please consult us.
[**] 21kA (AF) - Please consult us.
Ring main units

Non-extensible ring main unit
200 A
RN2d-T3

MV transformer protection

Protection & control - CB
Self powered overcurrent relay, VIP 40.
Protection CT's - 500/200/1 A class X
• Setting range: 500/1 A
  - Overcurrent: 20-200 A
• Setting range: 200/1 A
  - Overcurrent: 8-80 A

Transformer ratings
See table on Time Fuse Link - page 13

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 16/21 kA 3 s
Internal arc 21kA 1s IAC class A-FLR for gas enclosure *
Internal arc 13.1kA 1s IAC class AF for cable boxes **
Normal current rating 630 A/200 A
Normal rated voltage 12/13.8 kV
Normal rated BIL 75/95 kV

Operating mechanism
Independent manual

Standard features
Ring cable earth switch, 16/21 kA 3 s
Transformer earth switch, 16/21 kA 3 s
Anti-reflex operating handle
Provision for motorised mechanism LH/RH ring switch with plug interface

Indication
Mechanical tripped on fault flag indicator
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Gas pressure indicator
CB auxiliary contacts 1NO 1NC
CB earth position selected 1NO
CB earth ON, 1NO

Test facility
Integral ring switch cable test facility

Cable
Bottom entry up to 1 x 3C 300 mm²
Bottom entry up to 3 x 1C 630 mm²

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>RN2d-T3/16</td>
<td>16 kA, 12 kV, 75 kV BIL</td>
</tr>
<tr>
<td>RN2d-T3/21</td>
<td>21 kA, 13.8 kV, 95 kV BIL</td>
</tr>
</tbody>
</table>

[*] 21kA (AF) - Please consult us.
[**] 21kA (AF) - Please consult us.
Non-extensible ring main unit
200 A
RN2d-T4

MV transformer protection

Protection & control - CB
Self powered overcurrent and earth fault relay, VIP 45.
Protection CT's - 500/200/1 A class X
CH30 core balance CT
  • Setting range: 500/1 A
    - Overcurrent: 20-200 A
    - Earth fault: 25-300 A
  • Setting range: 200/1 A
    - Overcurrent: 8-80 A
    - Earth fault: 10-120 A

Transformer ratings
See table on Time Fuse Link - page 13

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 16/21 kA 3 s
Internal arc 21 kA 1 s IAC class A-FLR for gas enclosure *
Internal arc 13.1 kA 1 s IAC class AF for cable boxes **
Normal current rating 630 A/200 A
Normal rated voltage 12/13.8 kV
Normal rated BIL 75/95 kV

Operating mechanism
Independent manual

Standard features
Ring cable earth switch, 16/21 kA 3 s
Transformer earth switch, 16/21 kA 3 s
Anti-reflex operating handle
 Provision for motorised mechanism LH/RH ring switch with plug interface

Indication
Mechanical tripped on fault flag indicator
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Gas pressure indicator
CB auxiliary contacts 1NO 1NC
CB earth position selected 1NO
CB earth ON, 1NO

Test facility
Integral ring switch cable test facility

Cable
Bottom entry up to 1 x 3C 300 mm²
Bottom entry up to 3 x 1C 630 mm²

Accessories
CB, LH, RH motor kits
LH, RH ring switch indication 1NO 1NC earth On 1NO
Multi voltage shunt trip coil
20-48 V DC - 110-250 V AC/DC
VPIS indication
Inverted cable boxes (indoor only)
Transformer mounting kit
Freestanding tee-off cable box

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>RN2d-T4/16</td>
<td>16 kA, 12 kV, 75 kV BIL</td>
</tr>
<tr>
<td>RN2d-T4/21</td>
<td>21 kA, 13.8 kV, 95 kV BIL</td>
</tr>
</tbody>
</table>

[*] 21 kA (AF) - Please consult us.
[**] 21 kA (AF) - Please consult us.
Non-extensible ring main unit
200 A
RN2d-T5

Transformer protection up to 1.6 MVA at 11 kV

Protection & control - CB
Overcurrent and earth fault protection using CT operated trip coils with provision for
time fuse links (glass fuse link)
Protection CT’s - 100/50/5 A class X

Transformer ratings
See table on Time Fuse Link - page 13

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 16/21 kA 3 s
Internal arc 21kA 1s IAC class A-FLR for gas enclosure *
Internal arc 13.1kA 1s IAC class AF for cable boxes **
Normal current rating 630 A/200 A
Normal rated voltage 12/13.8 kV
Normal rated BIL 75/95 kV

Operating mechanism
Independent manual

Standard features
Ring cable earth switch, 16/21 kA 3 s
Transformer earth switch, 16/21 kA 3 s
Anti-reflex operating handle
Provision for motorised mechanism LH/RH ring switch with plug interface

Indication
Mechanical tripped on fault flag indicator
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Gas pressure indicator
CB auxiliary contacts 1NO 1NC
CB earth position selected 1NO
CB earth ON, 1NO

Test facility
Integral ring switch cable test facility

Cable
Bottom entry up to 1 x 3C 300 mm²
Bottom entry up to 3 x 1C 630 mm²

Accessories
CB, LH, RH motor kits
LH, RH ring switch indication 1NO 1NC earth On 1NO
Multi voltage shunt trip coil
20-48 V DC - 110-250 V AC/DC
VPIS indication
Inverted cable boxes (indoor only)
Transformer mounting kit
Freestanding tee off cable box

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>RN2d-T5/16</td>
<td>16 kA, 12 kV, 75 kV BIL</td>
</tr>
<tr>
<td>RN2d-T5/21</td>
<td>21 kA, 13.8 kV, 95 kV BIL</td>
</tr>
</tbody>
</table>

[*] 21kA (AF) - Please consult us.
[**] 21kA (AF) - Please consult us.
Non-extensible ring main unit
630 A
RN6d-T1

Network sectionalising up to 12 MVA 11 kV

Protection & control - CB
Self powered IDMT overcurrent and earth fault relay, VIP 400. In accordance with IEC 60255 and BS142
Protection CT's - 800/400/1 A class X
• Setting range: 800/1 A ratio
  - Overcurrent: 80-800 A
  - Earth fault: 8-640 A
• Setting range: 400/1 A
  - Overcurrent: 40-400 A
  - Earth fault: 4-320 A

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 16/21 kA 3 s
Internal arc 21kA 1s IAC class A-FLR for gas enclosure *
Internal arc 13.1kA 1s IAC class AF for cable boxes **
Normal current rating 630 A/630 A
Normal rated voltage 12/13.8 kV
Normal rated BIL 75/95 kV

Operating mechanism
Independent manual

Standard features
Circuit breaker earth switch 16/21 kA
Ring cable earth switch, 16/21 kA 3 s
Anti-reflex operating handle
Provision for motorised mechanism LH/RH ring switch and circuit breaker with plug interface

Indication
Mechanical tripped on fault flag indicator
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Gas pressure indicator
CB auxiliary contacts 1NO 1NC
CB earth position selected 1NO
CB earth ON, 1NO

Test facility
Integral ring switch and circuit breaker test facility

Cable
Bottom entry up to 1 x 3C 300 mm²
Bottom entry up to 3 x 1C 630 mm²

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>RN6d-T1/16</td>
<td>16 kA, 12 kV, 75 kV BIL</td>
</tr>
<tr>
<td>RN6d-T1/21</td>
<td>21 kA, 13.8 kV, 95 kV BIL</td>
</tr>
</tbody>
</table>

[*] 21kA (AF) - Please consult us.
[**] 21kA (AF) - Please consult us.
## Extensible ring main units

### Specification

<table>
<thead>
<tr>
<th>Environment</th>
<th>RE2d-T1 TFL</th>
<th>RE2d-T2 VIP 400</th>
<th>RE2d-T3 VIP 40</th>
<th>RE2d-T4 VIP 45</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indoor / outdoor</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>IP54</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Transformer mounted</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Freestanding</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Extensible (RHS)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

### Ratings

<table>
<thead>
<tr>
<th>Busbars 630 A</th>
<th>RE2d-T1 TFL</th>
<th>RE2d-T2 VIP 400</th>
<th>RE2d-T3 VIP 40</th>
<th>RE2d-T4 VIP 45</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circuit breaker normal rated current 200 A</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Circuit breaker normal rated current 630 A</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Switch normal rated current 630 A</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>12 kV 16 kA 3 seconds 75 kV BIL</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>13.8 kV 21 kA 3 seconds 95 kV BIL</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Ring switch cable earth switch 16 kA 3 seconds</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Ring switch cable earth switch 21 kA 3 seconds</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Circuit breaker earth switch 3.15 kA</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Extensible RMU busbar chamber 630 A</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

### Mechanism

<table>
<thead>
<tr>
<th>Independent manual</th>
<th>RE2d-T1 TFL</th>
<th>RE2d-T2 VIP 400</th>
<th>RE2d-T3 VIP 40</th>
<th>RE2d-T4 VIP 45</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provision for motorised mechanism LH ring switch</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Provision for motorised mechanism RH ring switch</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Provision for motorised mechanism circuit breaker</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

### Protection & control - circuit breaker

<table>
<thead>
<tr>
<th>CT’s dual ratio - 100/50/5 A class X</th>
<th>RE2d-T1 TFL</th>
<th>RE2d-T2 VIP 400</th>
<th>RE2d-T3 VIP 40</th>
<th>RE2d-T4 VIP 45</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT’s ratio - 200/1 A class X</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>CT’s ratio 200/100/1 A 5P20</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>CT’s ratio - 500/200/1 A class X</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Overcurrent &amp; earth fault CT operated trip coils - TFL</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Overcurrent relay - VIP 40</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Overcurrent &amp; earth fault relay - VIP 45</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>IDMT overcurrent &amp; earth fault relay - VIP 400</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>IDMT relay Sepam 10</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Multi voltage shunt trip coil (see accessories)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

### Indication

<table>
<thead>
<tr>
<th>Mechanical ON/OFF</th>
<th>RE2d-T1 TFL</th>
<th>RE2d-T2 VIP 400</th>
<th>RE2d-T3 VIP 40</th>
<th>RE2d-T4 VIP 45</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical EARTH/MAIN</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>VPIS indication 6.6 - 13.8 kV</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Gas pressure indicator (-25°C to +55°C)</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>RSW aux contacts 1NO &amp; 1NC</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

### Test facility

<table>
<thead>
<tr>
<th>Integral ring cable test facility</th>
<th>RE2d-T1 TFL</th>
<th>RE2d-T2 VIP 400</th>
<th>RE2d-T3 VIP 40</th>
<th>RE2d-T4 VIP 45</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating handle</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
</tbody>
</table>

### Standard features

<table>
<thead>
<tr>
<th>Cable (see available cable kit accessories)</th>
<th>RE2d-T1 TFL</th>
<th>RE2d-T2 VIP 400</th>
<th>RE2d-T3 VIP 40</th>
<th>RE2d-T4 VIP 45</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottom entry up 1 x 3C 300 mm²</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Bottom entry up 3 x 1C 630 mm²</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Top entry cables (indoor only) (left hand side only)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

### Order codes

<table>
<thead>
<tr>
<th>12 kV, 16 kA, 75 kV BIL</th>
<th>RE2d-T1/16</th>
<th>RE2d-T2/16</th>
<th>RE2d-T3/16</th>
<th>RE2d-T4/16</th>
</tr>
</thead>
</table>

Key:
- ■ Standard feature
- ○ Optional feature
### Accessories

<table>
<thead>
<tr>
<th>Kit no.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMD-F47</td>
<td>Extensible ring main units</td>
</tr>
<tr>
<td>RMD-A316</td>
<td>Gland plate 1 x 3C</td>
</tr>
<tr>
<td>RMD-A319</td>
<td>Gland plate 3 x 1C</td>
</tr>
<tr>
<td>RMD-A322</td>
<td>Small gland plate 1 x 3C</td>
</tr>
<tr>
<td>RMD-A320</td>
<td>Blank galvanised gland plate</td>
</tr>
<tr>
<td>RMD-A10</td>
<td>Galvanised steel wiping gland 1 x 3C</td>
</tr>
<tr>
<td>RMD-A11</td>
<td>Galvanised steel wiping gland 3 x 1C</td>
</tr>
<tr>
<td>RMD-A105</td>
<td>Small galvanised steel wiping gland 1 x 3C</td>
</tr>
<tr>
<td>RMD-A12</td>
<td>Tubular gland 1 x 3C</td>
</tr>
<tr>
<td>RMD-A13</td>
<td>Tubular gland 3 x 1C</td>
</tr>
<tr>
<td>RMD-A106</td>
<td>Small tubular gland 1 x 3C</td>
</tr>
<tr>
<td>RMD-A120</td>
<td>CESS gland</td>
</tr>
<tr>
<td>RMD-A321</td>
<td>CESS gland plate 1 x 3C</td>
</tr>
<tr>
<td>RMD-A525</td>
<td>CESS gland plate adaptor</td>
</tr>
<tr>
<td>RMD-A317</td>
<td>Top entry cables LH cable box (indoor only)</td>
</tr>
<tr>
<td>RMD-A318</td>
<td>Angled gland plate 1 x 3C</td>
</tr>
<tr>
<td>RMD-A319</td>
<td>Split gland plate 1 x 3C</td>
</tr>
<tr>
<td>RMD-F47</td>
<td>Transformer mounting kit</td>
</tr>
<tr>
<td>RMD-A461</td>
<td>Extension trunking (to clear radiators)</td>
</tr>
<tr>
<td>RMD-A20</td>
<td>Set of padlocks - 11 no</td>
</tr>
<tr>
<td>RMD-A343</td>
<td>Anti-vandal fixings, including tool</td>
</tr>
<tr>
<td>RMD-A22</td>
<td>Foundation bolts (not required for transformer mounting)</td>
</tr>
<tr>
<td>RMD-A342</td>
<td>Multicore pilot glands</td>
</tr>
<tr>
<td>RMD-A17</td>
<td>Time Fuse Link (set of 2 - specify rating as table page 133)</td>
</tr>
<tr>
<td>RMD-A350</td>
<td>RE2d to MU2 installation kit</td>
</tr>
<tr>
<td>RMD-A369</td>
<td>Extensible busbar chamber 630 A</td>
</tr>
<tr>
<td>RMD-A201</td>
<td>Ariel mounting bracket</td>
</tr>
<tr>
<td>RMD-F345</td>
<td>Operating handle</td>
</tr>
<tr>
<td>RMD-F328</td>
<td>LH ring switch control auxiliary sw for motorised mechanism provision</td>
</tr>
<tr>
<td>RMD-F363</td>
<td>LH ring switch termination block for motorised mechanism provision (not Easergy)</td>
</tr>
<tr>
<td>RMD-F329</td>
<td>RH ring switch control auxiliary sw for motorised mechanism provision</td>
</tr>
<tr>
<td>RMD-F364</td>
<td>RH ring switch termination block for motorised mechanism provision (not Easergy)</td>
</tr>
<tr>
<td>RMD-F543</td>
<td>Provision for motorised mechanism circuit breaker</td>
</tr>
<tr>
<td>RMD-F507</td>
<td>Motorised mechanism</td>
</tr>
<tr>
<td>RMD-F581</td>
<td>Shunt trip coil (20-250 V DC, 110-250 V AC) TFL</td>
</tr>
<tr>
<td>RMD-F582</td>
<td>Shunt trip coil (20-250 V DC, 110-250 V AC) VIP</td>
</tr>
<tr>
<td>RMD-F341</td>
<td>Ring switch cable VPIS indication (3.3-13.8 kV)</td>
</tr>
<tr>
<td>RMD-F340</td>
<td>Circuit breaker VPIS indication (11-13.8 kV)</td>
</tr>
<tr>
<td>RMD-A374</td>
<td>Phase indication device</td>
</tr>
<tr>
<td>RMD-F339</td>
<td>Emergency trip push button</td>
</tr>
<tr>
<td>RMD-F368</td>
<td>Gas pressure switch for remote indication only</td>
</tr>
</tbody>
</table>

Key: ■ Standard feature ○ Factory fitted accessory ○ Loose accessory, assembled on site

---

<table>
<thead>
<tr>
<th>Cable kits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE2d-T1 TFL</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Kit no.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMD-F47</td>
<td>Extensible ring main units</td>
</tr>
<tr>
<td>RMD-A316</td>
<td>Gland plate 1 x 3C</td>
</tr>
<tr>
<td>RMD-A319</td>
<td>Gland plate 3 x 1C</td>
</tr>
<tr>
<td>RMD-A322</td>
<td>Small gland plate 1 x 3C</td>
</tr>
<tr>
<td>RMD-A320</td>
<td>Blank galvanised gland plate</td>
</tr>
<tr>
<td>RMD-A10</td>
<td>Galvanised steel wiping gland 1 x 3C</td>
</tr>
<tr>
<td>RMD-A11</td>
<td>Galvanised steel wiping gland 3 x 1C</td>
</tr>
<tr>
<td>RMD-A105</td>
<td>Small galvanised steel wiping gland 1 x 3C</td>
</tr>
<tr>
<td>RMD-A12</td>
<td>Tubular gland 1 x 3C</td>
</tr>
<tr>
<td>RMD-A13</td>
<td>Tubular gland 3 x 1C</td>
</tr>
<tr>
<td>RMD-A106</td>
<td>Small tubular gland 1 x 3C</td>
</tr>
<tr>
<td>RMD-A120</td>
<td>CESS gland</td>
</tr>
<tr>
<td>RMD-A321</td>
<td>CESS gland plate 1 x 3C</td>
</tr>
<tr>
<td>RMD-A525</td>
<td>CESS gland plate adaptor</td>
</tr>
<tr>
<td>RMD-A317</td>
<td>Top entry cables LH cable box (indoor only)</td>
</tr>
<tr>
<td>RMD-A318</td>
<td>Angled gland plate 1 x 3C</td>
</tr>
<tr>
<td>RMD-A319</td>
<td>Split gland plate 1 x 3C</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Installation items</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE2d-T1 TFL</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Kit no.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMD-F47</td>
<td>Transformer mounting kit</td>
</tr>
<tr>
<td>RMD-A461</td>
<td>Extension trunking (to clear radiators)</td>
</tr>
<tr>
<td>RMD-A20</td>
<td>Set of padlocks - 11 no</td>
</tr>
<tr>
<td>RMD-A343</td>
<td>Anti-vandal fixings, including tool</td>
</tr>
<tr>
<td>RMD-A22</td>
<td>Foundation bolts (not required for transformer mounting)</td>
</tr>
<tr>
<td>RMD-A342</td>
<td>Multicore pilot glands</td>
</tr>
<tr>
<td>RMD-A17</td>
<td>Time Fuse Link (set of 2 - specify rating as table page 133)</td>
</tr>
<tr>
<td>RMD-A350</td>
<td>RE2d to MU2 installation kit</td>
</tr>
<tr>
<td>RMD-A369</td>
<td>Extensible busbar chamber 630 A</td>
</tr>
<tr>
<td>RMD-A201</td>
<td>Ariel mounting bracket</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operational items</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE2d-T1 TFL</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Kit no.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMD-F47</td>
<td>Operating handle</td>
</tr>
<tr>
<td>RMD-F345</td>
<td>LH ring switch control auxiliary sw for motorised mechanism provision</td>
</tr>
<tr>
<td>RMD-F328</td>
<td>LH ring switch termination block for motorised mechanism provision (not Easergy)</td>
</tr>
<tr>
<td>RMD-F363</td>
<td>RH ring switch control auxiliary sw for motorised mechanism provision</td>
</tr>
<tr>
<td>RMD-F329</td>
<td>RH ring switch termination block for motorised mechanism provision (not Easergy)</td>
</tr>
<tr>
<td>RMD-F543</td>
<td>Provision for motorised mechanism circuit breaker</td>
</tr>
<tr>
<td>RMD-F507</td>
<td>Motorised mechanism</td>
</tr>
<tr>
<td>RMD-F581</td>
<td>Shunt trip coil (20-250 V DC, 110-250 V AC) TFL</td>
</tr>
<tr>
<td>RMD-F582</td>
<td>Shunt trip coil (20-250 V DC, 110-250 V AC) VIP</td>
</tr>
<tr>
<td>RMD-F341</td>
<td>Ring switch cable VPIS indication (3.3-13.8 kV)</td>
</tr>
<tr>
<td>RMD-F340</td>
<td>Circuit breaker VPIS indication (11-13.8 kV)</td>
</tr>
<tr>
<td>RMD-A374</td>
<td>Phase indication device</td>
</tr>
<tr>
<td>RMD-F339</td>
<td>Emergency trip push button</td>
</tr>
<tr>
<td>RMD-F368</td>
<td>Gas pressure switch for remote indication only</td>
</tr>
</tbody>
</table>

Key: ■ Standard feature ○ Factory fitted accessory ○ Loose accessory, assembled on site
### Extensible ring main units

#### Accessories

<table>
<thead>
<tr>
<th>Mechanical interlocks</th>
<th>RE2d-T1 TFL</th>
<th>RE2d-T2 VIP 400</th>
<th>RE2d-T3 VIP 40</th>
<th>RE2d-T4 VIP 45</th>
<th>Kit no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circuit breaker - key free, earth on</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RMD-F337</td>
</tr>
<tr>
<td>Circuit breaker - key free, main off</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RMD-F338</td>
</tr>
<tr>
<td>Switch - key free, switch off LH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RMD-F335</td>
</tr>
<tr>
<td>Switch - key free, switch off RH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RMD-F336</td>
</tr>
<tr>
<td>N. B. specify lock symbol at time of ordering (3 digits max) not available with motor mechanisms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Earth fault passage indication (choose provision kit and an EFPI required if not using Easergy T300)**

<table>
<thead>
<tr>
<th>Provision</th>
<th>RE2d-T1 TFL</th>
<th>RE2d-T2 VIP 400</th>
<th>RE2d-T3 VIP 40</th>
<th>RE2d-T4 VIP 45</th>
<th>Kit no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EFPI provision kit, inside cable box</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RMD-F310</td>
</tr>
<tr>
<td>EFPI provision kit, CT outside cable box</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RMD-A304</td>
</tr>
<tr>
<td>EFPI provision kit, inside cable box, top entry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RMD-A305</td>
</tr>
<tr>
<td>EFPI provision kit, inside cable box, top entry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RMD-A308</td>
</tr>
<tr>
<td>Bowden &quot;RR&quot; EFPI and CT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RMD-A309</td>
</tr>
<tr>
<td>Bowden STD EFPI type NB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RMD-A422</td>
</tr>
<tr>
<td>Bowden LV reset EFPI type NB1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RMD-A277</td>
</tr>
<tr>
<td>Bowden LV reset &amp; alarm type NB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RMD-A278</td>
</tr>
<tr>
<td>N. B. above CT’s are ring type for split core - please consult Schneider Electric</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Key:** ☐ Factory fitted accessory  ☐ Loose accessory, assembled on site
Extensible ring main unit 200 A
RE2d-T1

Multiple transformer feeders or network switching points

Protection & control - CB
Overcurrent and earth fault protection using CT operated trip coils with provision for
time fuse links.
Protection CT’s - 100/50/5 A class X

Transformer ratings
See table on Time Fuse Link - page 13

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 16/21 kA 3 s
Internal arc 21kA 1s IAC class A-FLR for gas enclosure *
Internal arc 13.1kA 1s IAC class AF for cable boxes **
Normal current rating 630 A/200 A
Normal rated voltage 12/13.8 kV
Normal rated BIL 75/95 kV

Operating mechanism
Independent manual

Standard features
Ring switch cable earth switch, 16/21 kA 3 s
Transformer earth switch, 16/21 kA 3 s
Anti-reflex operating handle
Extensible (RHS)
Provision for motorised mechanism LH/RH ring switch with plug interface

Indication
Mechanical tripped on fault flag indicator
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Gas pressure indicator
CB auxiliary contacts 1NO 1NC
CB earth position selected 1NO
CB earth ON, 1NO

Test facility
Integral ring switch test facility

Cable
Bottom entry up to 1 x 3C 300 mm²
Bottom entry up to 3 x 1C 630 mm²

Accessories

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE2d-T1/16</td>
<td>16 kA, 12 kV, 75 kV BIL</td>
</tr>
<tr>
<td>RE2d-T1/21</td>
<td>21 kA, 13.8 kV, 95 kV BIL</td>
</tr>
</tbody>
</table>

[*] 21kA (AF) - Please consult us.
[**] 21kA (AF) - Please consult us.
Multiple transformer feeders or network switching points

**Protection & control - CB**
Self powered IDMT overcurrent and earth fault relay, VIP 400. In accordance with IEC 60255 and BS 142.
- Protection CT's - 200/1 A class X
  - Setting range:
    - Overcurrent: 20-200 A
    - Earth fault: 2-160 A

**Transformer ratings**
See table on Time Fuse Link - page 13

**Documents**
Installation drawing ref. RMINST-22
Schematic drawing ref. RMSCH-03

**Environment**
Indoor/outdoor
IP54

**Ratings**
Busbars 630 A
- Short time withstand 16/21 kA 3 s
- Internal arc 21 kA 1s IAC class A-FLR for gas enclosure *
- Internal arc 13.1 kA 1s IAC class AF for cable boxes **
- Normal current rating 630 A/200 A
- Normal rated voltage 12/13.8 kV
- Normal rated BIL 75/95 kV

**Operating mechanism**
Independent manual

**Standard features**
- Ring switch cable earth switch, 16/21 kA 3 s
- Transformer earth switch, 16/21 kA 3 s
- Anti-reflex operating handle
- Extensible (RHS)
- Provision for motorised mechanism LH/RH ring switch

**Indication**
- Mechanical tripped on fault flag indicator
- Mechanical ON/OFF indicator
- Mechanical earth/main indicator
- Gas pressure indicator
- CB auxiliary contacts 1 NO 1 NC
- CB earth position selected 1 NO
- CB earth ON, 1 NO

**Test facility**
- Integral ring switch test facility

**Cable**
- Bottom entry up to 1 x 3C 300 mm²
- Bottom entry up to 3 x 1C 630 mm²

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE2d-T2/16</td>
<td>16 kA, 12 kV, 75 kV BIL</td>
</tr>
<tr>
<td>RE2d-T2/21</td>
<td>21 kA, 13.8 kV, 95 kV BIL</td>
</tr>
</tbody>
</table>

[*] 21 kA (AF) - Please consult us.
[**] 21 kA (AF) - Please consult us.
Extensible ring main unit 200 A
RE2d-T3

MV transformer protection

Protection & control - CB
Self powered overcurrent relay, VIP 40.
Protection CT's - 500/200/1 A class X
- Setting range: 500/1 A
- Overcurrent: 20-200 A
- Setting range: 200/1 A
- Overcurrent: 8-80 A

Transformer ratings
See table on Time Fuse Link - page13

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 16/21 kA 3 s
Internal arc 21kA 1s IAC class A-FLR for gas enclosure *
Internal arc 13.1kA 1s IAC class AF for cable boxes **
Normal current rating 630 A/200 A
Normal rated voltage 12/13.8 kV
Normal rated BIL 75/95 kV

Operating mechanism
Independent manual

Standard features
Ring switch cable earth switch, 16/21 kA 3 s
Transformer earth switch, 16/21 kA 3 s
Anti-reflex operating handle
Extensible (RHS)
Provision for motorised mechanism LH/RH ring switch

Indication
Mechanical tripped on fault flag indicator
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Gas pressure indicator
CB auxiliary contacts 1NO 1NC
CB earth position selected 1NO
CB earth ON, 1NO

Test facility
Integral ring switch test facility

Cable
Bottom entry up to 1 x 3C 300 mm²
Bottom entry up to 3 x 1C 630 mm²

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE2d-T3/16</td>
<td>16 kA, 12 kV, 75 kV BIL</td>
</tr>
<tr>
<td>RE2d-T3/21</td>
<td>21 kA, 13.8 kV, 95 kV BIL</td>
</tr>
</tbody>
</table>

[*] 21kA (AF) - Please consult us.
[**] 21kA (AF) - Please consult us.
Extensible ring main unit 200 A
RE2d-T4

MV transformer protection

Protection & control - CB
Protection & control - CB
Self powered overcurrent and earth fault relay, VIP 45.
Protection CT's - 500/200/1 A class with CH30 core balance CT
  • Setting range: 500/1 A
    - Overcurrent: 20-200 A
    - Earth fault 25-300 A
  • Setting range: 200/1 A
    - Overcurrent: 8-80 A
    - Earth fault 10-120 A

Transformer ratings
See table on Time Fuse Link - page 13

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 16/21 kA 3 s
Internal arc 21kA 1s IAC class A-FLR for gas enclosure *
Internal arc 13.1kA 1s IAC class AF for cable boxes **
Normal current rating 630 A/200 A
Normal rated voltage 12/13.8 kV
Normal rated BIL 75/95 kV

Operating mechanism
Independent manual

Standard features
Ring switch cable earth switch, 16/21 kA 3 s
Transformer earth switch, 16/21 kA 3 s
Anti-reflex operating handle
Extensible (RHS)
Provision for motorised mechanism LH/RH ring switch

Indication
Mechanical tripped on fault indicator
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Gas pressure indicator
CB auxiliary contacts 1NO 1NC
Earth position selected 1NO
Earth ON, 1NO

Test facility
Integral ring switch test facility

Cable
Bottom entry up to 1 x 3C 300 mm²
Bottom entry up to 3 x 1C 630 mm²

[**] 21kA (AF) - Please consult us.
[***] 21kA (AF) - Please consult us.

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE2d-T4/16</td>
<td>16 kA, 12 kV, 75 kV BIL</td>
</tr>
<tr>
<td>RE2d-T4/21</td>
<td>21 kA, 13.8 kV, 95 kV BIL</td>
</tr>
</tbody>
</table>

Accessories
CB, LH, RH motor kit
LH, RH ring switch indication 1NO 1NC
Multi voltage shunt trip coil
20-48 V DC - 110-250 V AC/DC
VPIS indication
Inverted cable boxes LH, CB (indoor only)
Transformer mounting
Freestanding tee-off cable box
Circuit breaker metering and switches
## Circuit breaker, metering and switches

### Characteristics - Electrical & Mechanical

<table>
<thead>
<tr>
<th>Type</th>
<th>Specification - Accessories</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-extendible circuit breakers 200 A</td>
<td>CN2-T1, CN2-T6</td>
<td>43</td>
</tr>
<tr>
<td>Non-extendible switches 630 A</td>
<td>SN6-S1, SN6-S2</td>
<td>47</td>
</tr>
<tr>
<td>Non-extendible metering units 200 A</td>
<td>MU2d-M1/16, MU2d-M2/16, MU2d-M3/16</td>
<td>51</td>
</tr>
<tr>
<td>Non-extendible metering units 630 A</td>
<td>MU6d-N**</td>
<td>56</td>
</tr>
<tr>
<td>Extensible circuit breakers 200 A</td>
<td>CE2-T30, CE2-T7, CE2-T*, CE2-T31, CE2-T**, CE2-T35, CE2-T33, CE2-T34</td>
<td>59</td>
</tr>
<tr>
<td>Extensible circuit breakers 630 A</td>
<td>CE6-T4, CE6-T*, CE6-T8, CE6-T25, CE6-T**</td>
<td>70</td>
</tr>
<tr>
<td>Extensible switches 630 A</td>
<td>SE6-S1, SE6-S2, SE6-E1</td>
<td>76</td>
</tr>
<tr>
<td>Extensible bus-section 630 A</td>
<td>SE6-B1, CE6-B3, CE6-B5</td>
<td>81</td>
</tr>
</tbody>
</table>
### Characteristics of RMR switch

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value 1</th>
<th>Value 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated voltage (Ur) (kV)</td>
<td>12</td>
<td>13.8</td>
</tr>
<tr>
<td>Rated frequency (fr) (Hz)</td>
<td>50/60</td>
<td>50/60</td>
</tr>
<tr>
<td>Rated lightning impulse withstand voltage (Up) (kV)</td>
<td>75</td>
<td>95</td>
</tr>
<tr>
<td>Rated power frequency withstand voltage (Ud) (kV)</td>
<td>28</td>
<td>38</td>
</tr>
<tr>
<td>Rated current</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Switches (Ir) (A)</td>
<td>630</td>
<td>630</td>
</tr>
<tr>
<td>Switch rated short time withstand, 3 s (lk) (kA)</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td>Switch earth short time withstand, 3 s (lk) (kA)</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td>Switch peak making current (Ip) (kA)</td>
<td>40</td>
<td>53</td>
</tr>
<tr>
<td>Switch earth peak making current (Ip) (kA)</td>
<td>40</td>
<td>53</td>
</tr>
<tr>
<td>Internal arc withstand</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td>Number of operating cycles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical: switch (main)</td>
<td>1000</td>
<td>1000</td>
</tr>
<tr>
<td>switch (in option)</td>
<td>2000</td>
<td>2000</td>
</tr>
<tr>
<td>switch (earth)</td>
<td>1000</td>
<td>1000</td>
</tr>
<tr>
<td>SF6 gas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pressure (bar G)</td>
<td>0.35</td>
<td>0.55</td>
</tr>
<tr>
<td>Weight (g)</td>
<td>429</td>
<td>493</td>
</tr>
</tbody>
</table>

### Characteristics of RMR circuit breaker

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value 1</th>
<th>Value 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated voltage (Ur) (kV)</td>
<td>12</td>
<td>13.8</td>
</tr>
<tr>
<td>Rated frequency (fr) (Hz)</td>
<td>50/60</td>
<td>50/60</td>
</tr>
<tr>
<td>Rated lightning impulse withstand voltage (Up) (kV)</td>
<td>75</td>
<td>95</td>
</tr>
<tr>
<td>Rated power frequency withstand voltage (Ud) (kV)</td>
<td>28</td>
<td>38</td>
</tr>
<tr>
<td>Rated current</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Circuit breaker (Ir) (A)</td>
<td>200/630</td>
<td>200/630</td>
</tr>
<tr>
<td>Circuit breaker short time withstand, 3 s (lk) (kA)</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td>Circuit breaker earth short time withstand, 3 s (lk)</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td>Circuit breaker peak making current (Ip) (kA)</td>
<td>40</td>
<td>53</td>
</tr>
<tr>
<td>Circuit breaker earth peak making current (Ip) (kA)</td>
<td>40</td>
<td>53</td>
</tr>
<tr>
<td>Number of operating cycles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical: circuit breaker (main)</td>
<td>2000</td>
<td>2000</td>
</tr>
<tr>
<td>circuit breaker (earth)</td>
<td>1000</td>
<td>1000</td>
</tr>
<tr>
<td>circuit breaker (at rated short circuit breaking current)</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>SF6 gas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pressure (bar G)</td>
<td>0.35</td>
<td>0.55</td>
</tr>
<tr>
<td>Weight (g)</td>
<td>429</td>
<td>493</td>
</tr>
</tbody>
</table>
## Non-extensible circuit breakers 200 A

### Specification

<table>
<thead>
<tr>
<th>Environment</th>
<th>CN2-T9 VIP 400</th>
<th>CN2-T6 TFL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indoor / outdoor</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>IP54</td>
<td>■</td>
<td>■</td>
</tr>
</tbody>
</table>

### Ratings

| Normal rated current 200 A | ■              | ■          |
| 12 kV 16 kA 3 seconds 75 kV BIL | ■              | ■          |
| 13.8 kV 21 kA 3 seconds 95 kV BIL | ■              | ■          |
| Cable earth switch 16 kA 3 seconds | ■              | ■          |
| Cable earth switch 21 kA 3 seconds | ■              | ■          |
| Transformer earth switch 3.15 kA 3 seconds | ■              | ■          |

### Mechanism

| Independent manual | ■              | ■          |

### Protection & control - circuit breaker

| CT's dual ratio - 100/50/5 A class X | ■              | ■          |
| CT's ratio - 200/1 A class X | ■              | ■          |
| CT's dual ratio 200/100/1 A 5P20 | ■              | ■          |
| Overcurrent & earth fault CT operated trip coils | ■              | ■          |
| Time fuse Link | ■              | ■          |
| IDMT overcurrent & earth fault relay - VIP 400 | ■              | ■          |
| IDMT overcurrent and earth fault relay Sepam 10 | ■              | ■          |
| 20 V-250 shunt trip coil | ■              | ■          |
| Circuit breaker auxiliary switch 1NO 2NC | ■              | ■          |

### Indication

| Mechanical ON/OFF | ■              | ■          |
| Mechanical EARTH/MAIN | ■              | ■          |
| VPIS indication (6.6 - 13.8 kV) | ■              | ■          |
| Auxiliary switch contacts 1NO 2NC | ■              | ■          |
| Gas pressure indicator | ■              | ■          |

### Test facility

| Integral cable test facility | ■              | ■          |

### Standard features

| Operating handle | ■              | ■          |
| Transformer earth switch 3.15 kA 3 seconds | ■              | ■          |

### Cable (see available cable kit accessories)

| Bottom entry up 300 mm² 1 x 3C | ■              | ■          |
| Bottom entry up 630 mm² 3 x 1C | ■              | ■          |

**Key:** ■ Standard feature  Ø Optional feature
## Non-extensible circuit breakers 200 A

### Accessories

<table>
<thead>
<tr>
<th>Cable kits</th>
<th>CN2-T9 VIP 400</th>
<th>CN2-T6 TFL</th>
<th>Kit no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tee-off cable box</td>
<td>☐</td>
<td>☐</td>
<td>RMR-F47</td>
</tr>
<tr>
<td>Gland plate 1 x 3C</td>
<td>☕</td>
<td>☕</td>
<td>RMR-A44</td>
</tr>
<tr>
<td>Gland plate 3 x 1C</td>
<td>☕</td>
<td>☕</td>
<td>RMR-A49</td>
</tr>
<tr>
<td>Angled gland plates (RMR)</td>
<td>☕</td>
<td>☕</td>
<td>RMR-A50</td>
</tr>
<tr>
<td>Blank aluminium gland plate</td>
<td>☕</td>
<td>☕</td>
<td>RMR-A52</td>
</tr>
<tr>
<td>Brass wiping gland 1 x 3C</td>
<td>☕</td>
<td>☕</td>
<td>RMR-A10</td>
</tr>
<tr>
<td>Brass wiping gland 3 x 1C</td>
<td>☕</td>
<td>☕</td>
<td>RMR-A11</td>
</tr>
<tr>
<td>Tubular gland 1 x 3C</td>
<td>☕</td>
<td>☕</td>
<td>RMR-A12</td>
</tr>
<tr>
<td>Tubular gland 3 x 1C</td>
<td>☕</td>
<td>☕</td>
<td>RMR-A13</td>
</tr>
<tr>
<td>CESS gland plate 1 x 3C</td>
<td>☕</td>
<td>☕</td>
<td>RMR-A132</td>
</tr>
</tbody>
</table>

### Installation items

<table>
<thead>
<tr>
<th></th>
<th>CN2-T9 VIP 400</th>
<th>CN2-T6 TFL</th>
<th>Kit no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set of padlocks - 6 no</td>
<td>☕</td>
<td>☕</td>
<td>RMR-A18/6</td>
</tr>
<tr>
<td>Anti-vandal fixings, including tool</td>
<td>☕</td>
<td>☕</td>
<td>RMR-A19</td>
</tr>
<tr>
<td>Foundation bolts (not required for transformer mounting)</td>
<td>☕</td>
<td>☕</td>
<td>RMR-A22</td>
</tr>
<tr>
<td>Multicore pilot glands</td>
<td>☕</td>
<td>☕</td>
<td>RMR-A16</td>
</tr>
<tr>
<td>Time Fuse Link (set of 2 - specify rating as table page 133)</td>
<td>☕</td>
<td>☕</td>
<td>RMR-A17</td>
</tr>
</tbody>
</table>

### Operational items

<table>
<thead>
<tr>
<th></th>
<th>CN2-T9 VIP 400</th>
<th>CN2-T6 TFL</th>
<th>Kit no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating handle</td>
<td>☑</td>
<td>☑</td>
<td>RMR-A23</td>
</tr>
<tr>
<td>VPIS indication (6.6-13.8 kV)</td>
<td>☐</td>
<td>☐</td>
<td>RMR-F108</td>
</tr>
<tr>
<td>Neon lamp test unit (including lamp)</td>
<td>☕</td>
<td>☕</td>
<td>RMR-A24</td>
</tr>
<tr>
<td>Neon lamp</td>
<td>☕</td>
<td>☕</td>
<td>RMR-A81</td>
</tr>
<tr>
<td>VAP 6 test unit for VIP 400</td>
<td>☕</td>
<td>☕</td>
<td>RMR-A202</td>
</tr>
</tbody>
</table>

### Mechanical interlocks

<table>
<thead>
<tr>
<th></th>
<th>CN2-T9 VIP 400</th>
<th>CN2-T6 TFL</th>
<th>Kit no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key free, earth on</td>
<td>☐</td>
<td>☐</td>
<td>RMR-F85</td>
</tr>
<tr>
<td>Key free, unit off</td>
<td>☐</td>
<td>☐</td>
<td>RMR-F86</td>
</tr>
<tr>
<td>Transformer earth switch, key free, earth on</td>
<td>☐</td>
<td>☐</td>
<td>RMR-F110</td>
</tr>
</tbody>
</table>

### Order codes

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Current</th>
<th>BIL</th>
<th>Kit no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 kV, 16 kA, 75 kV BIL</td>
<td>CN2-T9/16</td>
<td>CN2-T6/16</td>
<td></td>
</tr>
<tr>
<td>13.8 kV, 21 kA, 95 kV BIL</td>
<td>CN2-T9/21</td>
<td>CN2-T6/21</td>
<td></td>
</tr>
</tbody>
</table>

**Key:** ☑ Standard feature ☐ Factory fitted accessory ☐ Loose accessory, assembled on site
Non-extensible circuit breaker
200 A
CN2-T9

Transformer protection up to 3.5 MVA

Protection & control - CB
Self powered IDMT overcurrent and earth fault relay, VIP 400. In accordance with IEC 60255 and BS142
Protection CT's - 200/1 A class X
• Setting range:
  - Overcurrent: 20-200 A
  - Earth fault: 2-160 A
Shunt trip coil, 20 V DC-250 V AC

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 16/21 kA 3 s
Internal arc 16/21 kA 1 s IAC class AF, A-FLR available on gas enclosure only
Normal current rating 200 A
Normal rated voltage 12/13.8 kV
Normal rated BIL 75/95 kV

Operating mechanism
Independent manual

Standard features
Tee-off earth switch, 3 15 kA 3 s
Cable earth switch, 16/21 kA 3 s
Anti-reflex operating handle

Indication
Mechanical tripped on fault indicator
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Gas pressure indicator
CB auxiliary contacts 1NO 2 NC

Test facility
Integral cable test facilities

Cable
Bottom entry up to 300 mm² 1 x 3C
Bottom entry up to 630 mm² 3 x 1C

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>CN2-T9/16</td>
<td>16 kA, 12 kV, 75 kV BIL</td>
</tr>
<tr>
<td>CN2-T9/21</td>
<td>21 kA, 13.8 kV, 95 kV BIL</td>
</tr>
</tbody>
</table>

Accessories
Tee-off cable box
Glands and plates
Interlocks
Please refer to accessories list.
Non-extensible circuit breaker
200 A
CN2-T6

Transformer protection up to 1.5 MVA

Protection & control - CB
Overcurrent and earth fault protection using CT operated trip coils with provision for
time fuse links.
Protection CT's - 100/50/5 A class X
Shunt trip coil, 20 V DC-250 V AC

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 16/21 kA 3 s
Internal arc 16/21 kA 1 s IAC class AF, A-FLR available on gas enclosure only
Normal current rating 200 A
Normal rated voltage 12/13.8 kV
Normal rated BIL 75/95 kV

Operating mechanism
Independent manual

Standard features
Transformer earth switch, 16/21 kA 3 s
Cable earth switch, 16/21 kA 3 s
Anti-reflex operating handle

Indication
Mechanical tripped on fault indicator
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Gas pressure indicator
CB auxiliary contacts 1NO 2 NC

Test facility
Integral cable test facilities

Cable
Bottom entry up to 300 mm² 1 x 3C
Bottom entry up to 630 mm² 3 x 1C

Accessories
Tee-off cable box
Glands and plates
Interlocks
Please refer to accessories list.

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>CN2-T6/16</td>
<td>16 kA, 12 kV, 75 kV BIL</td>
</tr>
<tr>
<td>CN2-T6/21</td>
<td>21 kA, 13.8 kV, 95 kV BIL</td>
</tr>
</tbody>
</table>
### Non-extensible switches 630 A

#### Specification

<table>
<thead>
<tr>
<th>Environment</th>
<th>SN6-S1 Manual operation</th>
<th>SN6-S2 Provision for actuator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indoor / outdoor</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>IP54</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Ratings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal rated current 630 A</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>13.8 kV 21 kA 3 seconds 95 kV BIL</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Cable earth switch 21 kA 3 seconds</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Transformer earth switch 3.15 kA 3 seconds</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Mechanism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent manual</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Provision for actuator 24 V DC</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Actuator 24 V DC</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Indication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical ON/OFF</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Mechanical EARTH/MAIN</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>VPIS indication (6.6 - 13.8 kV)</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Auxiliary switch contacts 1NO 2NC</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Phase and earth fault detection CT’s for Easergy T300</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Provision for EFPI</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Test facility</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Integral cable test facility</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Standard features</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Operating handle</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Transformer earth switch 3.15 kA 3 seconds</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Cable (see available cable kit accessories)</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Bottom entry up 300 mm² 1 x 3C</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Bottom entry up 630 mm² 3 x 1C</td>
<td>■</td>
<td>■</td>
</tr>
</tbody>
</table>

Key: ■ Standard feature ○ Optional feature
### Circuit breaker, metering and switches

#### Non-extensible switches 630 A

**Accessories**

<table>
<thead>
<tr>
<th>Accessories</th>
<th>SN6-S1 Manual operation</th>
<th>SN6-S2 Provision for actuator</th>
<th>Kit no.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cable kits</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tee-off cable box</td>
<td></td>
<td></td>
<td>RMR-F47</td>
</tr>
<tr>
<td>Gland plate 1 x 3C</td>
<td></td>
<td>√</td>
<td>RMR-A48</td>
</tr>
<tr>
<td>Gland plate 3 x 1C</td>
<td></td>
<td>√</td>
<td>RMR-A49</td>
</tr>
<tr>
<td>Angled gland plates (RMR)</td>
<td></td>
<td>√</td>
<td>RMR-A50</td>
</tr>
<tr>
<td>Blank aluminium gland plate</td>
<td></td>
<td>√</td>
<td>RMR-A52</td>
</tr>
<tr>
<td>Brass wiping gland 1 x 3C</td>
<td></td>
<td>√</td>
<td>RMR-A10</td>
</tr>
<tr>
<td>Brass wiping gland 3 x 1C</td>
<td></td>
<td>√</td>
<td>RMR-A11</td>
</tr>
<tr>
<td>Tubular gland 1 x 3C</td>
<td></td>
<td>√</td>
<td>RMR-A12</td>
</tr>
<tr>
<td>Tubular gland 3 x 1C</td>
<td></td>
<td>√</td>
<td>RMR-A13</td>
</tr>
<tr>
<td>CESS gland plate 1 x 3C</td>
<td></td>
<td>√</td>
<td>RMR-A132</td>
</tr>
<tr>
<td><strong>Installation items</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Set of padlocks - 6 no</td>
<td>√</td>
<td>√</td>
<td>RMR-A18/6</td>
</tr>
<tr>
<td>Anti-vandal fixings, including tool</td>
<td>√</td>
<td>√</td>
<td>RMR-A19</td>
</tr>
<tr>
<td>Foundation bolts (not required for transformer mounting)</td>
<td>√</td>
<td>√</td>
<td>RMR-A22</td>
</tr>
<tr>
<td>Multicore pilot glands</td>
<td>√</td>
<td>√</td>
<td>RMR-A16</td>
</tr>
<tr>
<td><strong>Operational items</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating handle</td>
<td>■</td>
<td>■</td>
<td>RMR-A23</td>
</tr>
<tr>
<td>VPIS indication (6.6-13.8 kV)</td>
<td></td>
<td>■</td>
<td>RMR-F108</td>
</tr>
<tr>
<td>Neon lamp test unit (including lamp)</td>
<td>√</td>
<td>√</td>
<td>RMR-A24</td>
</tr>
<tr>
<td>Neon lamp</td>
<td>√</td>
<td>√</td>
<td>RMR-A81</td>
</tr>
<tr>
<td>Actuator 24 V DC</td>
<td></td>
<td></td>
<td>RMR-F67</td>
</tr>
<tr>
<td><strong>Mechanical interlocks</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Key free, earth on</td>
<td></td>
<td>■</td>
<td>RMR-F85</td>
</tr>
<tr>
<td>Key free, unit off</td>
<td></td>
<td>■</td>
<td>RMR-F86</td>
</tr>
<tr>
<td>Transformer earth switch, key free, earth on</td>
<td>■</td>
<td>■</td>
<td>RMR-F110</td>
</tr>
<tr>
<td>N. B. specify lock symbol at time of ordering (3 digits max) not available with motor mechanisms</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Order codes**

13.8 kV, 21 kA, 95 kVBI  
SN6-S1/21  SN6-S2/21

**Key:** ■ Standard feature  ○ Factory fitted accessory  ○ Loose accessory, assembled on site
Circuit breaker, metering and switches

Non-extensible switch 630 A
SN6-S1

Switch disconnector

Protection & control - CB
Non-automatic

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 21 kA 3 s
Internal arc 16/21 kA 1 s IAC class AF, A-FLR available on gas enclosure only
Normal current rating 630 A
Normal rated voltage 13.8 kV
Normal rated BIL 95 kV

Operating mechanism
Independent manual

Standard features
Transformer earth switch, 16/21 kA 3 s
Cable earth switch, 21 kA 3 s
Anti-reflex operating handle

Indication
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Gas pressure indicator

Test facility
Integral cable test facilities

Cable
Bottom entry up to 300 mm² 1 x 3C
Bottom entry up to 630 mm² 3 x 1C

Accessories
Tee-off cable box
VPIS indication
Glands and plates
Interlocks

Please refer to accessories list.

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>SN6-S1/21</td>
<td>21 kA, 13.8 kV, 95 kV BIL</td>
</tr>
</tbody>
</table>
Non-extensible switch 630 A
SN6-S2

Switch disconnector

Protection & control - CB
Non-automatic

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 21 kA 3 s
Internal arc 16/21 kA 1 s IAC class AF, A-FLR available on gas enclosure only
Normal current rating 630 A
Normal rated voltage 13.8 kV
Normal rated BIL 95 kV

Operating mechanism
Independent manual
 Provision for actuator, 24 V DC

Standard features
Transformer earth switch, 16/21 kA 3 s
Cable earth switch, 21 kA 3 s
Anti-reflex operating handle

Indication
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Gas pressure indicator
Auxiliary contacts 1NO 2NC
Earth selected auxiliary contact 1NO

Test facility
Integral cable test facilities

Cable
Bottom entry up to 300 mm² 1 x 3C
Bottom entry up to 630 mm² 3 x 1C

Accessories
Tee-off cable box
Actuator, 24 V DC
VPIS indication
Glands and plates
Please refer to accessories list.

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>SN6-S2/21</td>
<td>21 kA, 13.8 kV, 95 kV BIL</td>
</tr>
</tbody>
</table>
## Circuit breaker, metering and switches

### Non-extensible metering unit

#### 200 A

**Specification**

<table>
<thead>
<tr>
<th>Environment</th>
<th>MU2d-M1/16</th>
<th>MU2d-M2/16</th>
<th>MU2d-M3/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indoor / outdoor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IP54</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Ratings**

<table>
<thead>
<tr>
<th>Normal rated current 200 A</th>
<th>MU2d-M1/16</th>
<th>MU2d-M2/16</th>
<th>MU2d-M3/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 kV 16 kA 1 second 75 kV BiL</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Metering**

(1) CT's -50/25/5 A 0.5s 7.5 VA

<table>
<thead>
<tr>
<th>CT's -100/50/5 A 0.5s 10 VA</th>
<th>MU2d-M1/16</th>
<th>MU2d-M2/16</th>
<th>MU2d-M3/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT's -200/100/5 A 0.5s 10 VA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VT's -11 kV/110 V 0.5 50 VA</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Cable (see available cable kit accessories)**

<table>
<thead>
<tr>
<th>Bottom entry up 300 mm² 1 x 3C</th>
<th>MU2d-M1/16</th>
<th>MU2d-M2/16</th>
<th>MU2d-M3/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottom entry up 630 mm² 3 x 1C</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Key:** ■ Standard feature  ○ Optional feature

(1) CT's - 2 phases (L1 & L3), VT’s phase to phase. 6.6 kV VT’s are available - Contact Schneider Electric
## Non-extensible metering unit

### 200 A

#### Accessories

<table>
<thead>
<tr>
<th>Cable kits</th>
<th>MU2d-M1/16</th>
<th>MU2d-M2/16</th>
<th>MU2d-M3/16</th>
<th>Kit no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tee-off cable box</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMR-F47</td>
</tr>
<tr>
<td>Gland plate 1 x 3C</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A48</td>
</tr>
<tr>
<td>Gland plate 3 x 1C</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A49</td>
</tr>
<tr>
<td>Angled gland plates (RMU)</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A51</td>
</tr>
<tr>
<td>Blank aluminium gland plate</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A52</td>
</tr>
<tr>
<td>Brass wiping gland 1 x 3C</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A10</td>
</tr>
<tr>
<td>Brass wiping gland 3 x 1C</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A11</td>
</tr>
<tr>
<td>Tubular gland 1 x 3C</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A12</td>
</tr>
<tr>
<td>Tubular gland 3 x 1C</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A13</td>
</tr>
<tr>
<td>CESS gland plate 1 x 3C</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A132</td>
</tr>
</tbody>
</table>

#### Installation items

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Set of padlocks - XX no</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A18/6</td>
</tr>
<tr>
<td>Foundation bolts (not required for transformer mounting)</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A22</td>
</tr>
<tr>
<td>Multicore pilot glands</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A16</td>
</tr>
<tr>
<td>RMU - MU2d installation kit</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
<td>RMD-A350*</td>
</tr>
<tr>
<td>Freestanding installation kit</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A90</td>
</tr>
</tbody>
</table>

#### Order codes

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12 kV, 16 kA, 75 kV BIL</td>
<td>MU2d-M1/16</td>
<td>MU2d-M2/16</td>
<td>MU2d-M3/16</td>
<td>RMR-A16</td>
</tr>
</tbody>
</table>

Key: ☐ Factory fitted accessory ☑ Loose accessory, assembled on site

* please consult Schneider Electric
Non-extensible metering unit

200 A
MU2d-M1/16

Protection & control - CB
N/A

Metering transformers
- Metering CT’s L1 & L3 phases
  - 50/25/5 A
  - 7.5 VA class 0.5s
- Metering VT ph - ph
  - 11 kV/110 V 50 VA
  - class 0.5

Environment
Indoor/outdoor
IP54

Ratings
Short time withstand 16 kA 1 s
Normal current rating 200 A
Normal rated voltage 12 kV
Normal rated BIL 75 kV

Standard features
Direct coupling between RMU and transformer (optional freestanding cable connection)

Cable connection
Bottom entry up to 300 mm² 1 x 3C
Bottom entry up to 630 mm² 3 x 1C

Accessories
Cable box
Glands and plates
Installation kits
Please refer to accessories list.

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>MU2d-M1/16</td>
<td>16 kA, 12 kV, 75 kV BIL</td>
</tr>
</tbody>
</table>
Non-extensible metering unit

200 A
MU2d-M2/16

Non-extensible metering unit

Protection & control - CB
N/A

Metering transformers
• Metering CT’s L1 & L3 phases
  - 100/50/5 A
  - 10 VA class 0.5s
• Metering VT ph - ph
  - 11 kV/110 V 50 VA
  - class 0.5

Environment
Indoor/outdoor
IP54

Ratings
Short time withstand 16 kA 1 s
Normal current rating 200 A
Normal rated voltage 12 kV
Normal rated BIL 75 kV

Standard features
Direct coupling between RMU and transformer (optional freestanding cable connection)

Cable connection
Bottom entry up to 300 mm² 1 x 3C
Bottom entry up to 630 mm² 3 x 1C

Accessories
Cable box
Glands and plates
Installation kits
Please refer to accessories list.

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>MU2d-M2/16</td>
<td>16 kA, 12 kV, 75 kV BIL</td>
</tr>
</tbody>
</table>
Non-extensible metering unit

200 A

MU2d-M3/16

Protection & control - CB
N/A

Metering transformers
- Metering CT’s L1 & L3 phases
  - 200/100/5 A
  - 10 VA class 0.5s
- Metering VT ph - ph
  - 11 kV/110 V 50 VA
  - class 0.5

Environment
Indoor/outdoor
IP54

Ratings
Short time withstand 16 kA 1 s
Normal current rating 200 A
Normal rated voltage 12 kV
Normal rated BIL 75 kV

Standard features
Direct coupling between RMU and transformer
(optional freestanding cable connection)

Cable connection
Bottom entry up to 300 mm² 1 x 3C
Bottom entry up to 630 mm² 3 x 1C

Accessories
Cable box
Glands and plates
Installation kits
Please refer to accessories list.

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>MU2d-M3/16</td>
<td>16 kA, 12 kV, 75 kV BIL</td>
</tr>
</tbody>
</table>
## Non-extensible metering units
### 630 A
#### Specification

<table>
<thead>
<tr>
<th>Environment</th>
<th>MU6d-N1</th>
<th>MU6d-N2</th>
<th>M6A-N3</th>
<th>MU6d-N5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indoor / outdoor</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>IP54</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
</tbody>
</table>

#### Ratings

- Normal rated current 630 A □
- 12 kV 16 kA 1 second 75 kV BIL □

#### Metering (1)

- CT’s - 400/600/5 A 10 VA □
- CT’s - 600/5 A 10 VA □
- CT’s - 400/5 A 10 VA □
- CT’s - 600/300/5 A 10 VA □
- VT’s - 11 kV/110 V 0.5 50 VA □
- VT’s - 11 kV/6.6 kV/110 V 0.5 50 VA □

#### Cable (see available cable kit accessories)

- Bottom entry up 300 mm² 1 x 3C ○
- Bottom entry up 630 mm² 3 x 1C ○

Key:
- □ Standard feature
- ○ Optional feature

(1) CT’s - 2 phases (L1 & L3), VT’s phase to phase 6.6 kV VT’s are available - Contact Schneider Electric
# Non-extensible metering units

## 630 A

### Accessories

<table>
<thead>
<tr>
<th>Cable kits</th>
<th>MU6d-N1</th>
<th>MU6d-N2</th>
<th>MU6d-N3</th>
<th>MU6d-N5</th>
<th>Kit no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tee-off cable box</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RMR-F47</td>
</tr>
<tr>
<td>Gland plate 1 x 3C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RMR-A48</td>
</tr>
<tr>
<td>Gland plate 3 x 1C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RMR-A49</td>
</tr>
<tr>
<td>Angled gland plates (RMU)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RMR-A51</td>
</tr>
<tr>
<td>Blank aluminium gland plate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RMR-A52</td>
</tr>
<tr>
<td>Brass wiping gland 1 x 3C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RMR-A10</td>
</tr>
<tr>
<td>Brass wiping gland 3 x 1C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RMR-A11</td>
</tr>
<tr>
<td>Tubular gland 1 x 3C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RMR-A12</td>
</tr>
<tr>
<td>Tubular gland 3 x 1C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RMR-A13</td>
</tr>
<tr>
<td>CES5 gland plate 1 x 3C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RMR-A132</td>
</tr>
</tbody>
</table>

### Installation items

<table>
<thead>
<tr>
<th></th>
<th>MU6d-N1</th>
<th>MU6d-N2</th>
<th>MU6d-N3</th>
<th>MU6d-N5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set of padlocks - XX no</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foundation bolts (not required for transformer mounting)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multicore pilot glands</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RMU - MU6d installation kit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freestanding installation kit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Order codes

<table>
<thead>
<tr>
<th>12 kV, 16 kA, 75 kV BIL</th>
<th>MU6d-N1</th>
<th>MU6d-N2</th>
<th>MU6d-N3</th>
<th>MU6d-N5</th>
</tr>
</thead>
</table>

Key: ■ Standard feature ○ Factory fitted accessory ◐ Loose accessory, assembled on site

* please consult Schneider Electric
Non-extensible metering units
630 A
MU6d-N**

Non-extensible metering unit

Protection & control - CB
N/A

Metering transformers

• Metering CT’s L1 & L3 phases (16 kA, 12 kV, 75 kV BIL)
  10 VA class 0.5s  N1/16  N2/16  N3/16  N5/16
  400/200/5 A  ■
  600/5 A  ■
  400/5 A  ■
  600/300/5 A  ■

• Metering VT ph – ph (16 kA, 12 kV, 75 kV BIL)
  50 VA class 0.5  N1/16  N2/16  N3/16  N5/16
  11 kV/110 V  ■  ■  ■  ■
  11 kV/6.6 kV/110 V  ■

Environment
Indoor/outdoor
IP54

Ratings
Short time withstand 16 kA 1 s
Normal current rating 630 A
Normal rated voltage 12 kV
Normal rated BIL 75 kV

Standard features
Direct coupling between RMU and transformer
(optional freestanding cable connection)

Cable connection
Bottom entry up to 300 mm² 1 x 3C
Bottom entry up to 630 mm² 3 x 1C

Accessories
Cable box
Glands and plates
Installation kits
Please refer to accessories list.

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>MU6d-N**</td>
<td>16 kA, 12 kV, 75 kV BIL</td>
</tr>
</tbody>
</table>
## Extensible circuit breakers

### 200 A

#### Specification

<table>
<thead>
<tr>
<th>(*) See complete titles footer</th>
<th>CE2-T30</th>
<th>CE2-T3</th>
<th>CE2-T7</th>
<th>CE2-T32</th>
<th>CE2-T31</th>
<th>CE2-T35</th>
<th>CE2-T36</th>
<th>CE2-T33</th>
<th>CE2-T34</th>
<th>CE2-T37</th>
<th>CE2-T38</th>
<th>CE2-T39</th>
</tr>
</thead>
</table>

### Environment

- Indoor / outdoor
- IP54

### Ratings

- Busbars 630 A
- Circuit breaker normal rated current 200 A
- T2 kV 16 kA 3 seconds 75 kV BIL
- T3.8 kV 21 kA 3 seconds 95 kV BIL
- Cable earth switch 16 kA 3 seconds
- Cable earth switch 21 kA 3 seconds

### Mechanism

- Independent manual
- Provision for actuator 24 V DC
- Actuator 24 V DC
- Operating handle

### Protection system

- CT's dual ratio - 500/200/1 A class x
- Overcurrent relay - VIP 40
- CT's dual ratio - 100/50/5 A class X
- CT's dual ratio 200/100/1 A 5P20
- CT ratio - 200/1 A class X
- Overcurrent & earth fault CT operated trip coils
- Overcurrent & earth fault relay VIP 45
- Time fuse link
- IDMT overcurrent & earth fault relay - VIP 400
- 20 V-250 shunt trip coil
- Auxiliary switch 1NO 2NC

### Metering

- CT's - 200/100/5 A 0.5s 10 VA
- VT's -13.8 kV/110 V 0.5 10 VA 13.8/110 V/110 V 0.5 50 VA 3P 20 VA
- VT's -11 kV/110 V 0.5 50 VA
- VT's -6.6 kV/110 V 0.5 50 VA
- VT's phase - phase, CT's L1 & L3
- VT's phase - earth, CT's L1, L2 & L3

### Indication

- Mechanical ON/OFF
- Mechanical EARTH/MAIN
- Cable VPIS indication (6.6 - 13.8 kV)
- Auxiliary switch contacts 1NO 2NC
- Earth selected auxiliary contacts 1NO

### Test facility

- Integral cable test facility

### Cable

- Bottom entry up to 300 mm² 1 x 3C
- Bottom entry up to 630 mm² 3 x 1C
- Top entry cables

### Key:

- ■ Standard feature
- ○ Optional feature

(*) Complete titles:

- CE2-T30-VIP400 --> CE2-T30/400
- CE2-T33/40

---

schneider-electric.com
### Extensible circuit breakers

#### 200 A

**Accessories**

<table>
<thead>
<tr>
<th>(*) See complete titles footer</th>
<th>CE2-T30</th>
<th>CE2-T40</th>
<th>CE2-T7</th>
<th>CE2-T32</th>
<th>CE2-T31</th>
<th>CE2-T35</th>
<th>CE2-T36</th>
<th>CE2-T33</th>
<th>CE2-T34</th>
<th>CE2-T37</th>
<th>CE2-T38</th>
<th>CE2-T39</th>
<th>Kit no.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cable kits</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gland plate 1 x 3C</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>RMR-A48</td>
</tr>
<tr>
<td>Gland plate 3 x 1C</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>RMR-A49</td>
</tr>
<tr>
<td>Angled gland plates (RMR)</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>RMR-A50</td>
</tr>
<tr>
<td>Blank aluminium gland plate</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>RMR-A52</td>
</tr>
<tr>
<td>Brass wiping gland 1 x 3C</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>RMR-A10</td>
</tr>
<tr>
<td>Brass wiping gland 3 x 1C</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>RMR-A11</td>
</tr>
<tr>
<td>Tubular gland 1 x 3C</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>RMR-A12</td>
</tr>
<tr>
<td>Tubular gland 3 x 1C</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>RMR-A13</td>
</tr>
<tr>
<td>CES5 gland plate 1 x 3C</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>RMR-A132</td>
</tr>
<tr>
<td>Top entry cables standard panels</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>RMR-F93</td>
</tr>
<tr>
<td>Top entry cables MU6 only</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>RMR-F94</td>
</tr>
<tr>
<td><strong>Installation items</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 phase busbars 630 A</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>RMR-A14</td>
</tr>
<tr>
<td>3 phase busbars 630 A</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>RMR-A78</td>
</tr>
<tr>
<td>Busbar end kit</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>RMR-A15</td>
</tr>
<tr>
<td>Set of padlocks - 6 no</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>RMR-A18/6</td>
</tr>
<tr>
<td>Foundation bolts (not required for transformer mounting)</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
</tr>
<tr>
<td>Multicore pilot glands</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>RMR-A16</td>
</tr>
<tr>
<td>Time Fuse Link</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>RMR-A17</td>
</tr>
<tr>
<td><strong>Operational items</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating handle</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
</tr>
<tr>
<td>Cable VPIS indication (6.6 - 13.8 kV)</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
</tr>
<tr>
<td>Neon lamp test unit (including lamp)</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
<td>box</td>
</tr>
<tr>
<td>Neon lamp</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>RMR-A81</td>
</tr>
<tr>
<td>Actuator 24 V DC</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>RMR-F67</td>
</tr>
<tr>
<td>Polarity conversion kit (1)</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>RMR-F391</td>
</tr>
<tr>
<td><strong>Mechanical interlocks</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Key free, EARTH ON</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>RMR-F85</td>
</tr>
<tr>
<td>Key free, MAIN OFF</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>RMR-F86</td>
</tr>
</tbody>
</table>

Key: ■ Standard feature ○ Factory fitted accessory □ Loose accessory, assembled on site

(1) Only required when unit is used with RE2d ring main units and automation.

N. B. specify lock symbol at time of ordering (3 digits max) not available with motor mechanisms.

---

(*) Complete titles:
- CE2-T30-VIP400 --> CE2-T30/400
- CE2-T33/40
**Circuit breaker, metering and switches**

**Extensible circuit breakers**

**200 A**

**Accessories**

<table>
<thead>
<tr>
<th>(*) See complete titles footer</th>
<th>CE2-T30</th>
<th>CE2-T40</th>
<th>CE2-T7</th>
<th>CE2-T32</th>
<th>CE2-T31</th>
<th>CE2-T35</th>
<th>CE2-T36</th>
<th>CE2-T33</th>
<th>CE2-T34</th>
<th>CE2-T37</th>
<th>CE2-T38</th>
<th>CE2-T39</th>
<th>Kit no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earth fault passage indication (choose provision kit and an EFPI required if not using Easergy T300)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EFPI provision kit, inside cable box</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>RMR-F30</td>
</tr>
<tr>
<td>Bowden STD EFPI type NB</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>RMR-A277</td>
</tr>
<tr>
<td>Bowden LV reset EFPI type NB1</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>RMR-A278</td>
</tr>
<tr>
<td>Bowden LV reset &amp; alarm type NB2</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>RMR-A279</td>
</tr>
<tr>
<td>Bowden &quot;RR&quot; EFPI and CT</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>RMR-A56</td>
</tr>
<tr>
<td>Fundamentals ER &quot;FIND&quot; EFPI and CT</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>RMR-A57</td>
</tr>
<tr>
<td>Ancillary items</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tool box</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>RMR-A80</td>
</tr>
<tr>
<td><strong>Order code</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>12 kV, 16 kA, 75 kV BIL</strong></td>
<td>CE2-T30/16</td>
<td>CE2-T3/16</td>
<td>CE2-T7/16</td>
<td>CE2-T32/16</td>
<td>CE2-T31/16</td>
<td>CE2-T35/16</td>
<td>CE2-T36/16</td>
<td>CE2-T33/16</td>
<td>CE2-T34/16</td>
<td>N/A</td>
<td>CE2-T38/16</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td><strong>13.8 kV, 21 kA, 95 kV BIL</strong></td>
<td>CE2-T30/21</td>
<td>CE2-T3/21</td>
<td>CE2-T7/21</td>
<td>CE2-T32/21</td>
<td>CE2-T31/21</td>
<td>CE2-T35/21</td>
<td>CE2-T36/21</td>
<td>CE2-T33/21</td>
<td>CE2-T34/21</td>
<td>N/A</td>
<td>CE2-T37/21</td>
<td>N/A</td>
<td>CE2-T39/21</td>
</tr>
</tbody>
</table>

**Key:** ■ Standard feature ○ Factory fitted accessory ○ Loose accessory, assembled on site

(*) Complete titles:
CE2-T30-VIP400 --> CE2-T30/400
CE2-T33/40
Extensible circuit breaker

200 A
CE2-T30

Feeder protection up to 3.5 MVA at 11 kV

Protection & control - CB
Self powered IDMT overcurrent and earth fault relay, VIP 400. In accordance with IEC 60255 and BS142.
Protection CT’s - 200/1 A class X
Shunt trip coil, 20 V DC-250 V AC
- Setting range:
  - Overcurrent: 20-200 A
  - Earth fault: 2-160 A

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 16/21 kA 3 s
Internal arc 16/21 kA 1 s IAC class AF; A-FLR available on gas enclosure only
Normal current rating 200 A
Normal rated voltage 12/13.8 kV
Normal rated BIL 75/95 kV

Operating mechanism
Independent manual

Standard features
Cable earth switch, 16/21 kA 3 s
Anti-reflex operating handle

Indication
Mechanical tripped on fault flag indicator
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Auxiliary contacts,1NO 2NC
Gas pressure indicator

Test facility
Integral cable test facilities

Cable
Bottom entry up to 300 mm² 1 x 3C
Bottom entry up to 630 mm² 3 x 1C

Accessories
VPIS indication
Glands and plates
Interlocks
Operating handle
Busbar kit
Top entry cables
Please refer to accessories list.

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE2-T30/16</td>
<td>16 kA, 12 kV, 75 kV BIL</td>
</tr>
<tr>
<td>CE2-T30/21</td>
<td>21 kA, 13.8 kV, 95 kV BIL</td>
</tr>
</tbody>
</table>
Extensible circuit breaker
200 A
CE2-T7

Transformer protection up to 1.5 MVA at 11 kV

Protection & control - CB
Overcurrent and earth fault protection using CT operated trip coils with provision for time fuse links.
Protection CT's - 100/50/5 A class X
Shunt trip coil, 20 V DC-250 V AC

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 16/21 kA 3 s
Internal arc 16/21 kA 1 s IAC class AF, A-FLR available on gas enclosure only
Normal current rating 200 A
Normal rated voltage 12/13.8 kV
Normal rated BIL 75/95 kV

Operating mechanism
Independent manual

Standard features
Cable earth switch, 16/21 kA 3 s
Anti-reflex operating handle

Indication
Mechanical tripped on fault flag indicator
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Auxiliary contacts, 1NO 2NC
Gas pressure indicator

Test facility
Integral cable test facility

Cable
Bottom entry up to 300 mm² 1 x 3C
Bottom entry up to 630 mm² 3 x 1C

Accessories
VPIS indication
Glands and plates
Interlocks
Operating handle
Busbar kit
Top entry cables

Please refer to accessories list.

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE2-T7/16</td>
<td>16 kA, 12 kV, 75 kV BIL</td>
</tr>
<tr>
<td>CE2-T7/21</td>
<td>21 kA, 13.8 kV, 95 kV BIL</td>
</tr>
</tbody>
</table>
Extensible circuit breaker
200 A
CE2-T*

Feeder protection up to 3.5 MVA at 11 kV

Protection & control - CB
Self powered IDMT overcurrent and earth fault relay, VIP 400. In accordance with IEC 60255 and BS142.
Protection CT’s - 200/1 A class X
Shunt trip coil, 20 V DC-250 V AC
• Setting range:
  - Overcurrent: 20-200 A
  - Earth fault: 2-160 A

Metering transformers
• Metering CT’s L1 & L3 phases
  - 200/100/5 A
  - 10 VA class 0.5s
• Metering VT
  - see below

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 16/21 kA 3 s
Internal arc 16/21 kA 1 s IAC class AF; A-FLR available on gas enclosure only
Normal current rating 200 A
Normal rated voltage 12/13.8 kV
Normal rated BIL 75/95 kV

Operating mechanism
Independent manual
Anti-reflex operating handle

Standard features
Cable earth switch, 16/21 kA 3 s

Indication
Mechanical tripped on fault flag indicator
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Auxiliary contacts, 1NO 2NC
Gas pressure indicator

Test facility
Integral cable test facility

Cable
Bottom entry up to 300 mm² 1 x 3C
Bottom entry up to 630 mm² 3 x 1C

Accessories
VPIS indication
Glands and plates
Interlocks
Operating handle
Busbar kit
Top entry cables
Please refer to accessories list.

Order information

<table>
<thead>
<tr>
<th>16 kA, 12 kV, 75 kV BIL</th>
<th>CE2-T40/16</th>
<th>CE2-T32/16</th>
<th>N/A</th>
<th>CE2-T38/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 kA, 13.8 kV, 95 kV BIL</td>
<td>CE2-T40/21</td>
<td>CE2-T32/21</td>
<td>CE2-T37/21</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Metering VT information:
- Phase to phase
- Phase to earth
- 6.6 kV/110 V
- 11 kV/110 V (R)
- 13.8 kV/110 V

(1) Please consult Schneider Electric when ordering units with 95 kV BIL voltage Tel: +44 (0)113 290 3500

(Select VT rating and switchgear rating from table below).
Extensible circuit breaker

200 A
CE2-T31

Feeder protection up to 3.5 MVA at 11 kV

Protection & control - CB
Self powered IDMT overcurrent and earth fault relay, VIP 400. In accordance with IEC 60255 and BS142.
Protection CT’s - 200/1 A class X
Shunt trip coil, 20 V DC-250 V AC
• Setting range:
  - Overcurrent: 20-200 A
  - Earth fault: 2-160 A

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 16/21 kA 3 s
Internal arc 16/21 kA 1 s IAC class AF; A-FLR available on gas enclosure only
Normal current rating 200 A
Normal rated voltage 12/13.8 kV
Normal rated BIL 75/95 kV

Operating mechanism
Independent manual
 Provision for actuator, 24 V DC

Standard features
Cable earth switch, 16/21 kA 3 s
Anti-reflex operating handle

Indication
Mechanical tripped on fault flag indicator
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Auxiliary contacts, 1NO 2 NC
Earth selected auxiliary contact 1NO
Gas pressure indicator

Test facility
Integral cable test facility

Cable
Bottom entry up to 300 mm² 1 x 3C
Bottom entry up to 630 mm² 3 x 1C

Accessories
Actuator, 24 V DC
VPIS indication
Glands and plates
Interlocks
Operating handle
Busbar kit
Top entry cables

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE2-T31/16</td>
<td>16 kA, 12 kV, 75 kV BIL</td>
</tr>
<tr>
<td>CE2-T31/21</td>
<td>21 kA, 13.8 kV, 95 kV BIL</td>
</tr>
</tbody>
</table>
Extensible circuit breaker
200 A
CE2-T**

Feeder protection up to 3.5 MVA at 11 kV

Protection & control - CB
Self powered IDMT overcurrent and earth fault relay, VIP 400. In accordance with IEC 60255 and BS142.
Protection CT's - 200/1 A class X
Shunt trip coil, 20 V DC-250 V AC
- Setting range:
  - Overcurrent: 20-200 A
  - Earth fault: 2-160 A

Metering transformers
- Metering CT's
  - 200/100/5 A
  - 10 VA class 0.5s
- Metering VT
  - see below

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 16/21 kA 3 s
Internal arc 16/21 kA 1 s IAC class AF, A-FLR available on gas enclosure only
Normal current rating 200 A
Normal rated voltage 12/13.8 kV
Normal rated BIL 75/95 kV

Operating mechanism
Independent manual
Provision for actuator, 24 V DC

Standard features
Cable earth switch, 16/21 kA 3 s
Anti-reflex operating handle

Indication
Mechanical tripped on fault indicator
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Auxiliary contacts: 1NO 2NC
Earth selected auxiliary contact1NO
Gas pressure indicator

Test facility
Integral cable test facility

Cable
Bottom entry up to 300 mm² 1 x 3C
Bottom entry up to 630 mm² 3 x 1C

(1) Please consult Schneider Electric when ordering units with 95 kV BIL voltage
Tel: +44 (0)113 290 3500

Order information

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Model 16 kA, 12 kV, 75 kV BIL</th>
<th>Model 21 kA, 13.8 kV, 95 kV BIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE2-T36/16</td>
<td>N/A</td>
<td>CE2-T36/21 CE2-T39/21</td>
</tr>
</tbody>
</table>

Metering VT information:
- Phase to phase
- Phase to earth
- 6.6 kV/110 V
- 11 kV/110 V
- 13.8 kV/110 V

Accessories
Actuator, 24 V DC
VPIs indication
Glend and plate
Interlocks
Operating handle
Busbar kit
Top entry cables
Please refer to accessories list.

Schematic diagram RMSCH-20
Page 124

RMINST-02
Page 96

RMINST-02
Page 96

RMSCH-36
Page 130

RMINST-02
Page 96

RMSCH-20
Page 124

(1) Please consult Schneider Electric when ordering units with 95 kV BIL voltage
Tel: +44 (0)113 290 3500
Circuit breaker, metering and switches

Extensible circuit breaker
200 A
CE2-T35

Feeder protection up to 3.5 MVA at 11 kV

Protection & control - CB
Self powered IDMT overcurrent and earth fault relay, VIP 300. In accordance with IEC 60255 and BS142.
Protection CT’s - 200/1 A class X
Shunt trip coil, 20 V DC-250 V AC
• Setting range:
  - Overcurrent: 20-200 A
  - Earth fault: 2-160 A

Metering transformers
• Metering CT’s
  - 200/100/5 A
  - 10 VA class 0.5s
• Metering VT ph - ph
  - 11 kV/110 V 50 VA
  - class 0.5

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 16/21 kA 3 s
Internal arc 16/21 kA 1 s IAC class AF, A-FLR available on gas enclosure only
Normal current rating 200 A
Normal rated voltage 12/13.8 kV
Normal rated BIL 75/95 kV

Operating mechanism
Independent manual
Actuator, 24 V DC

Standard features
Cable earth switch, 16/21 kA 3 s
Anti-reflex operating handle

Indication
Mechanical tripped on fault indicator
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Auxiliary contacts, 1NO 2NC
Earth selected auxiliary contact 1NO
Gas pressure indicator

Test facility
Integral cable test facility

Cable
Bottom entry up to 300 mm² 1 x 3C
Bottom entry up to 630 mm² 3 x 1C

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE2-T35/16</td>
<td>16 kA, 12 kV, 75 kV BIL</td>
</tr>
<tr>
<td>CE2-T35/21</td>
<td>21 kA, 13.8 kV, 95 kV BIL</td>
</tr>
</tbody>
</table>

Accessories
VPIS indication
Glands and plates
Interlocks
Operating handle
Busbar kit
Top entry cables
Please refer to accessories list.
Extensible circuit breaker
200 A
CE2-T33

Feeder protection up to 2.5 MVA at 11 kV

Protection & control - CB
Self powered overcurrent relay, VIP 40.
Protection CT's - 500/200/1 A class X
- Setting range: 500/1 A
- Overcurrent: 20-200 A
- Setting range: 200/1 A
- Overcurrent: 8-80 A

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 16/21 kA 3 s
Internal arc 16/21 kA 1 s IAC class AF, A-FLR available on gas enclosure only
Normal current rating 200 A
Normal rated voltage 12/13.8 kV
Normal rated BIL 75/95 kV

Operating mechanism
Independent manual

Standard features
Cable earth switch, 16/21 kA 3 s
Anti-reflex operating handle

Indication
Mechanical tripped on fault flag indicator
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Auxiliary contacts, 1NO 2NC
Gas pressure indicator

Test facility
Integral cable test facilities

Cable
Bottom entry up to 300 mm² 1 x 3C
Bottom entry up to 630 mm² 3 x 1C

Accessories
VPIS indication
Glands and plates
Interlocks
Operating handle
Busbar kit
Top entry cables
Please refer to accessories list.

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE2-T33/16</td>
<td>16 kA, 12 kV, 75 kV BIL</td>
</tr>
<tr>
<td>CE2-T33/21</td>
<td>21 kA, 13.8 kV, 95 kV BIL</td>
</tr>
</tbody>
</table>
Circuit breaker, metering and switches

Extensible circuit breaker
200 A
CE2-T34

Feeder protection up to 2.5 MVA at 11 kV

Protection & control - CB
Self powered IDMT overcurrent and earth fault relay, VIP 45.
Protection CT's - 500/200/1 A class X
CH30 core balance CT
• Setting range: 500/1 A
  - Overcurrent: 20-200 A
  - Earth fault: 25-300 A
• Setting range: 200/1 A
  - Overcurrent: 8-80 A
  - Earth fault: 10-120 A

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 16/21 kA 3 s
Internal arc 16/21 kA 1 s IAC class AF, A-FLR available on gas enclosure only
Normal current rating 200 A
Normal rated voltage 12/13.8 kV
Normal rated BIL 75/95 kV

Operating mechanism
Independent manual

Standard features
Cable earth switch, 16/21 kA 3 s
Anti-reflex operating handle

Indication
Mechanical tripped on fault flag indicator
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Auxiliary contacts, 1NO 2NC
Gas pressure indicator

Test facility
Integral cable test facilities

Cable
Bottom entry up to 300 mm² 1 x 3C
Bottom entry up to 630 mm² 3 x 1C

Accessories
VPIS indication
Glands and plates
Interlocks
Operating handle
Busbar kit
Top entry cables
Please refer to accessories list.

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE2-T34/16</td>
<td>16 kA, 12 kV, 75 kV BIL</td>
</tr>
<tr>
<td>CE2-T34/21</td>
<td>21 kA, 13.8 kV, 96 kV BIL</td>
</tr>
<tr>
<td>(*) See complete titles footer</td>
<td>CE6-T30</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>Environment</strong></td>
<td></td>
</tr>
<tr>
<td>Indoor / outdoor</td>
<td>✔</td>
</tr>
<tr>
<td>IP54</td>
<td>✔</td>
</tr>
<tr>
<td><strong>Ratings</strong></td>
<td></td>
</tr>
<tr>
<td>Busbars 630 A</td>
<td>✔</td>
</tr>
<tr>
<td>Circuit breaker normal rated current 630 A</td>
<td>✔</td>
</tr>
<tr>
<td>12 kV 16 kA 3 seconds 75 kV BIL</td>
<td>✔</td>
</tr>
<tr>
<td>13.8 kV 21 kA 3 seconds 95 kV BIL</td>
<td>✔</td>
</tr>
<tr>
<td>Cable earth switch 16 kA 3 seconds</td>
<td>✔</td>
</tr>
<tr>
<td>Cable earth switch 21 kA 3 seconds</td>
<td>✔</td>
</tr>
<tr>
<td><strong>Mechanism</strong></td>
<td></td>
</tr>
<tr>
<td>Independent manual</td>
<td>✔</td>
</tr>
<tr>
<td>Provision for actuator 24 V DC</td>
<td>✔</td>
</tr>
<tr>
<td>Actuator 24 V DC</td>
<td>✔</td>
</tr>
<tr>
<td>Operating handle</td>
<td>✔</td>
</tr>
<tr>
<td><strong>Protection system</strong></td>
<td></td>
</tr>
<tr>
<td>CT ratio - 800/1 A class X</td>
<td>✔</td>
</tr>
<tr>
<td>CT dual ratio 800/400/1 A 5P20</td>
<td>✔</td>
</tr>
<tr>
<td>IDMT overcurrent &amp; earth fault relay - VIP 400</td>
<td>✔</td>
</tr>
<tr>
<td>20 V-250 V shunt trip coil</td>
<td>✔</td>
</tr>
<tr>
<td>Auxiliary switch 1NO 2NC</td>
<td>✔</td>
</tr>
<tr>
<td><strong>Metering</strong></td>
<td></td>
</tr>
<tr>
<td>CT's - 400/200/5 A 0.5s 10 VA</td>
<td>✔</td>
</tr>
<tr>
<td>VT's - 13.8 kV/110 V/110 V/ 0.5 50 VA 3P 20 VA</td>
<td>✔</td>
</tr>
<tr>
<td>VT's - 11 V/110 V/5 50 VA</td>
<td>✔</td>
</tr>
<tr>
<td>VT's - 6.6 kV/110 V/0.5 50 VA</td>
<td>✔</td>
</tr>
<tr>
<td>VT's - phase - phase, CT's L1 &amp; L3</td>
<td>✔</td>
</tr>
<tr>
<td>VT's phase - earth, CT's L1, L2 &amp; L3</td>
<td>✔</td>
</tr>
<tr>
<td><strong>Indication</strong></td>
<td></td>
</tr>
<tr>
<td>Mechanical ON/OFF</td>
<td>✔</td>
</tr>
<tr>
<td>Mechanical EARTH/MAIN</td>
<td>✔</td>
</tr>
<tr>
<td>Cable VPIS indication (6.6 - 13.8 kV)</td>
<td>✔</td>
</tr>
<tr>
<td>Auxiliary switch contacts 1NO 2NC</td>
<td>✔</td>
</tr>
<tr>
<td>Indication CT 600/5 A 5 VA CLS 1 L2 ph</td>
<td>✔</td>
</tr>
<tr>
<td>Ammeter 0-600 A</td>
<td>✔</td>
</tr>
<tr>
<td>Earth selected auxiliary contacts 1NO</td>
<td>✔</td>
</tr>
<tr>
<td>Gas pressure indicator</td>
<td>✔</td>
</tr>
<tr>
<td><strong>Test facility</strong></td>
<td></td>
</tr>
<tr>
<td>Integral cable test facility</td>
<td>✔</td>
</tr>
<tr>
<td><strong>Cable</strong></td>
<td></td>
</tr>
<tr>
<td>Bottom entry up to 300 mm² 1 x 3C</td>
<td>✔</td>
</tr>
<tr>
<td>Bottom entry up to 630 mm² 3 x 1C</td>
<td>✔</td>
</tr>
<tr>
<td>Top entry cables</td>
<td>✔</td>
</tr>
</tbody>
</table>

Key: ✔ Standard feature  ○ Optional feature

(*) Complete titles: CE6-T30-VIP400 --> CE6-T30/400
### Extensible circuit breakers

#### 630 A

**Specification**

<table>
<thead>
<tr>
<th>(*) See complete titles footer</th>
<th>CE6-T30</th>
<th>CE6-T33</th>
<th>CE6-T39</th>
<th>CE6-T31</th>
<th>CE6-T34</th>
<th>CE6-T35</th>
<th>CE6-T36</th>
<th>CE6-T38</th>
<th>CE6-T37</th>
<th>Kit no.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cable kits</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gland plate 1 x 3C</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A48</td>
</tr>
<tr>
<td>Gland plate 3 x 1C</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A49</td>
</tr>
<tr>
<td>Angled gland plates (RMR)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A50</td>
</tr>
<tr>
<td>Blank aluminium gland plate</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A62</td>
</tr>
<tr>
<td>Brass wiping gland 1 x 3C</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A10</td>
</tr>
<tr>
<td>Brass wiping gland 3 x 1C</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A11</td>
</tr>
<tr>
<td>Tubular gland 1 x 3C</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A12</td>
</tr>
<tr>
<td>Tubular gland 3 x 1C</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A13</td>
</tr>
<tr>
<td>CE65 gland plate 1 x 3C</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A132</td>
</tr>
<tr>
<td>Top entry cables standard panels</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMR-F93</td>
</tr>
<tr>
<td>Top entry cables MU6 only</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMR-F94</td>
</tr>
<tr>
<td><strong>Installation items</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 phase busbars 630 A</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A14</td>
</tr>
<tr>
<td>3 phase busbars 630 A</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A78</td>
</tr>
<tr>
<td>Busbar end kit</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A15</td>
</tr>
<tr>
<td>Set of padlocks - 6 no</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A18/6</td>
</tr>
<tr>
<td>Foundation bolts (not required for transformer mounting)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A22</td>
</tr>
<tr>
<td>Multicore pilot glands</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A16</td>
</tr>
<tr>
<td><strong>Operational items</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating handle</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A23</td>
</tr>
<tr>
<td>Cable VPIS indication (6.6 - 13.8 kV)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A108</td>
</tr>
<tr>
<td>Neon lamp test unit (including lamp)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A24</td>
</tr>
<tr>
<td>Neon lamp</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A81</td>
</tr>
<tr>
<td>Actuator 24 V DC</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMR-F67</td>
</tr>
<tr>
<td>Polarity conversion kit (1)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMR-F391</td>
</tr>
<tr>
<td><strong>Mechanical interlocks</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Key free, EARTH ON</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMR-F85</td>
</tr>
<tr>
<td>Key free, MAIN OFF</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMR-F86</td>
</tr>
<tr>
<td><strong>Ancillary items</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tool box</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>RMR-A80</td>
</tr>
<tr>
<td><strong>Order code</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 kV, 16 kA, 75 kV BIL</td>
<td>CE6-T4/16</td>
<td>CE6-T5/16</td>
<td>CE6-T6/16</td>
<td>CE6-T8/16</td>
<td>CE6-T9/16</td>
<td>CE6-T10/16</td>
<td>N/A</td>
<td>N/A</td>
<td>CE6-T24/16</td>
<td></td>
</tr>
<tr>
<td>13.8 kV, 21 kA, 95 kV BIL</td>
<td>CE6-T4/21</td>
<td>CE6-T5/21</td>
<td>CE6-T6/21</td>
<td>CE6-T8/21</td>
<td>CE6-T9/21</td>
<td>CE6-T10/21</td>
<td>CE6-T22/21</td>
<td>CE6-T23/21</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

Key:
- ☐: Standard feature
- ☐: Factory fitted accessory
- ☐: Loose accessory, assembled on site

(1) Only required when unit is used with RE2d ring main units and automation.

(*) Complete titles:
CE6-T30-VIP400 --> CE6-T30/400
Extensible circuit breaker
630 A
CE6-T30

Feeder protection up to 12 MVA at 11 kV

Protection & control - CB
Self powered IDMT overcurrent and earth fault relay, VIP 400. In accordance with IEC 60255 and BS142.
Protection CT’s - 800/1 A class X
Shunt trip coil, 20 V DC-250 V AC
- Setting range:
  - Overcurrent: 80-800 A
  - Earth fault: 8-640 A

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 16/21 kA 3 s
Internal arc 16/21 kA 1 s IAC class AF, A-FLR available on gas enclosure only
Normal current rating 630 A
Normal rated voltage 12/13.8 kV
Normal rated BIL 75/95 kV

Operating mechanism
Independent manual

Standard features
Cable earth switch, 16/21 kA 3 s
Anti-reflex operating handle

Indication
Mechanical tripped on fault flag indicator
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Auxiliary contacts, 1NO 2 NC
Ammeter 0-600 A
Indication CT L2 ph - 600/5 A class 1.0, 5 VA
Gas pressure indicator

Test facility
Integral cable test facility

Cable
Bottom entry up to 300 mm² 1 x 3C
Bottom entry up to 630 mm² 3 x 1C

Accessories
VPIS indication
Glands and plates
Interlocks
Busbar kit
Top entry cables

Please refer to accessories list.

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE6-T30/16</td>
<td>16 kA, 12 kV, 75 kV BIL</td>
</tr>
<tr>
<td>CE6-T30/21</td>
<td>21 kA, 13.8 kV, 95 kV BIL</td>
</tr>
</tbody>
</table>
**Extensible circuit breaker**

**630 A**

**CE6-T***

Feeder protection up to 12 MVA at 11 kV

**Protection & control - CB**

Self powered IDMT overcurrent and earth fault relay, VIP 400. In accordance with IEC 60255 and BS142.

Protection CT’s - 800/1 A class X

Shunt trip coil, 20 V DC-250 V AC

- Setting range:
  - Overcurrent: 80-800 A
  - Earth fault: 8-640 A

**Metering transformers**

- Metering CT’s
  - 400/200/5 A
  - 10 VA class 0.5s

- Metering VT
  - see below

**Environment**

Indoor/outdoor

IP54

**Ratings**

- Busbars 630 A
- Short time withstand 16/21 kA 3 s
- Internal arc 16/21 kA 1 s IAC class AF, A-FLR available on gas enclosure only
- Normal current rating 630 A
- Normal rated voltage 12/13.8 kV
- Normal rated BIL 75/95 kV

**Operating mechanism**

Independent manual

**Standard features**

- Cable earth switch, 16/21 kA 3 s
- Anti-reflex operating handle

**Indication**

- Mechanical tripped on fault flag indicator
- Mechanical ON/OFF indicator
- Mechanical earth/main indicator
- Auxiliary contacts, 1NO 2 NC
- Ammeter 0-600 A
- Indication CT L2 ph - 600/5 A class 1.0, 5 VA
- Gas pressure indicator

**Test facility**

Integral cable test facility

**Cable**

- Bottom entry up to 300 mm² 1 x 3C
- Bottom entry up to 630 mm² 3 x 1C

---

**Accessories**

- Actuator, 24 V DC
- VPIS indication
- Glands and plates
- Interlocks
- Busbar kit
- Top entry cables
- Please refer to accessories list.

**Order information**

<table>
<thead>
<tr>
<th>16 kA, 12 kV, 75 kV BIL</th>
<th>CE6-T 33/16</th>
<th>CE6-T 39/16</th>
<th>N/A</th>
<th>CE6-T 37/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 kA, 13.8 kV, 95 kV BIL</td>
<td>CE6-T 33/21</td>
<td>CE6-T 39/21</td>
<td>CE6-T 36/21</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Metering VT information:**

- Phase to phase
- Phase to earth
- 6.6 kV/110 V
- 11 kV/110 V

(1) Please consult Schneider Electric when ordering units with 95 kV BIL voltage

Tel: +44 (0)113 290 3500

---

(Select VT rating and switchgear rating from table below.)
Extensible circuit breaker
630 A
CE6-T31

Feeder protection up to 12 MVA at 11 kV

Protection & control - CB
Self powered IDMT overcurrent and earth fault relay, VIP 400. In accordance with IEC 60255 and BS142.
Protection CT's - 800/1 A class X
Shunt trip coil, 20 V DC-250 V AC
• Setting range:
  - Overcurrent: 80-800 A
  - Earth fault: 8-640 A

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 16/21 kA 3 s
Internal arc 16/21 kA 1 s IAC class AF; A-FLR available on gas enclosure only
Normal current rating 630 A
Normal rated voltage 12/13.8 kV
Normal rated BIL 75/95 kV

Operating mechanism
Independent manual
Provision for actuator, 24 V DC

Standard features
Cable earth switch, 16/21 kA 3 s
Anti-reflex operating handle

Indication
Mechanical tripped on fault flag indicator
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Auxiliary contacts, 1NO 2 NC
Earth selected auxiliary contact 1NO
Ammeter 0-600 A
Indication CT L2 ph - 600/5 A class 1.0, 5 VA
Gas pressure indicator

Test facility
Integral cable test facility

Cable
Bottom entry up to 300 mm² 1 x 3C
Bottom entry up to 630 mm² 3 x 1C

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE6-T31/16</td>
<td>16 kA, 12 kV, 75 kV BIL</td>
</tr>
<tr>
<td>CE6-T31/21</td>
<td>21 kA, 13.8 kV, 95 kV BIL</td>
</tr>
</tbody>
</table>

Accessories
Actuator, 24 V DC
VPIS indication
Glands and plates
Interlocks
Busbar kit
Top entry cables

Please refer to accessories list.
Extensible circuit breaker
630 A
CE6-T**

Feeder protection up to 12 MVA at 11 kV

Protection & control - CB
Self powered IDMT overcurrent and earth fault relay, VIP 400. In accordance with IEC 60255 and BS142.
Protection CTs - 800/1 A class X
Shunt trip coil, 20 V DC-250 V AC
- Setting range:
  - Overcurrent: 80-800 A
  - Earth fault: 8-640 A

Metering transformers
- Metering CTs:
  - 400/200/5 A
  - 10 VA class 0.5s
- Metering VT:
  - see below

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 16/21 kA 3 s
Internal arc 16/21 kA 1 s IAC class AF, A-FLR available on gas enclosure only
Normal current rating 630 A
Normal rated voltage 12/13.8 kV
Normal rated BIL 75/95 kV

Operating mechanism
Independent manual

Standard features
Cable earth switch, 16/21 kA 3 s
Anti-reflex operating handle

Indication
Mechanical tripped on fault flag indicator
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Auxiliary contacts, 1NO 2 NC
Earth selected auxiliary contacts
Ammeter 0-600 A

Gas pressure indicator

Test facility
Integral cable test facility

Cable
Bottom entry up to 300 mm² 1 x 3C
Bottom entry up to 630 mm² 3 x 1C

(1) Please consult Schneider Electric when ordering units with 95 kV BIL voltage
Tel: +44 (0)113 290 3500

16 kA, 12 kV, 75 kV BIL

<table>
<thead>
<tr>
<th>21 kA, 13.8 kV, 95 kV BIL</th>
<th>CE6-T34/16</th>
<th>CE6-T35/16</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metering VT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase to phase</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase to earth</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.6 kV/110 V</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 kV/110 V</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.8 kV/110 V</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1) Please consult Schneider Electric when ordering units with 95 kV BIL voltage

Order information

Accessories
VPIS indication
Glands and plates
Interlocks
Busbar kit
Top entry cables
Please refer to accessories list.

Circuit breaker, metering and switches

(Select VT rating and switchgear rating from table below).
## Extensible switches 630 A
### Specification

<table>
<thead>
<tr>
<th></th>
<th>SE6-S1 Manual operation</th>
<th>SE6-S2 Provision for actuator</th>
<th>SE6-E1 Busbar earth-switch manual operation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Environment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indoor / outdoor</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>IP54</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td><strong>Ratings</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Busbars 630 A</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Switch normal rated current 630 A</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>13.8 kV 21 kA 3 seconds 95 kV BIL</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Cable earth switch 21 kA 3 seconds</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td><strong>Mechanism</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent manual</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Provision for actuator 24 V DC</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Actuator 24 V DC</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Operating handle</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td><strong>Indication</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical ON/OFF</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Mechanical EARTH/MAIN</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Cable VPIS indication (6.6-13.8 kV)</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Busbar VPIS indication (6.6-13.8 kV)</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Auxiliary switch contacts1NO 1 NC</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Phase and earth fault detection CT's for Easergy T300</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>EFPI provision only CT inside box</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Gas pressure indicator</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td><strong>Test facility</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integral cable test facility</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td><strong>Integral test facility</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RH/LH busbar earthing</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td><strong>Cable (see available cable kit accessories)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bottom entry up to 300 mm² 1 x 3C</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Bottom entry up to 630 mm² 3 x 1C</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Top entry cables</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
</tbody>
</table>

**Key:** ■ Standard feature   ○ Factory fitted accessory   ○ Loose accessory, assembled on site
# Extensible switches 630 A

**Accessories**

<table>
<thead>
<tr>
<th>Cable kits</th>
<th>SE6-S1 Manual operation</th>
<th>SE6-S2 Provision for actuator</th>
<th>SE6-E1 Busbar earth-switch manual operation</th>
<th>Kit no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gland plate 1 x 3C</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>RMR-A48</td>
</tr>
<tr>
<td>Gland plate 3 x 1C</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>RMR-A49</td>
</tr>
<tr>
<td>Angled gland plates (RMR)</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>RMR-A50</td>
</tr>
<tr>
<td>Blank aluminium gland plate</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>RMR-A52</td>
</tr>
<tr>
<td>Galvanised steel wiping gland 1 x 3C</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>RMR-A10</td>
</tr>
<tr>
<td>Galvanised steel wiping gland 3 x 1C</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>RMR-A11</td>
</tr>
<tr>
<td>Tubular gland 1 x 3C</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>RMR-A12</td>
</tr>
<tr>
<td>Tubular gland 3 x 1C</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>RMR-A13</td>
</tr>
<tr>
<td>CES5 gland plate 1 x 3C</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>RMR-A132</td>
</tr>
<tr>
<td>Top entry cables</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>RMR-F93</td>
</tr>
</tbody>
</table>

**Installation items**

| 3 phase busbars 630 A | [ ] | [ ] | [ ] | RMR-A14 |
| Set of padlocks - 6 no | [ ] | [ ] | [ ] | RMR-A18/6 |
| Busbar end kit (1 end kit required per switchboard) | [ ] | [ ] | [ ] | RMR-A15 |
| Foundation bolts (not required for transformer mounting) | [ ] | [ ] | [ ] | RMR-A22 |

**Multicore pilot glands**

| [ ] | RMR-A16 |

**Operational items**

| Operating handle | [ ] | [ ] | [ ] | RMR-A23 |
| Cable VPIS indication (6.6-13.8 kV) | [ ] | [ ] | [ ] | RMR-F108 |
| Cable and busbar VPIS indication (6.6-13.8 kV) | [ ] | [ ] | [ ] | RMR-F92 |
| Neon lamp test unit (including lamp) | [ ] | [ ] | [ ] | RMR-A24 |
| Neon lamp | [ ] | [ ] | [ ] | RMR-A81 |
| Actuator 24 V DC | [ ] | [ ] | [ ] | RMR-F67 |
| Polarity conversion kit (1) | [ ] | [ ] | [ ] | RMR-F391 |

**Mechanical interlocks**

| Key free, earth ON | [ ] | [ ] | [ ] | RMR-F85 |
| Key free, main OFF | [ ] | [ ] | [ ] | RMR-F86 |

N. B. specify lock symbol at time of ordering (3 digits max) not available with motor mechanisms.

**Indication**

| EFPI provision kit, inside cable box | [ ] | [ ] | RMR-F30 |
| Bowden STD EFPI NB | [ ] | [ ] | RMR-A277 |
| Bowden LV reset EFPI type NB1 | [ ] | [ ] | RMR-A278 |
| Bowden LV reset & alarm type NB2 | [ ] | [ ] | RMR-A279 |
| Bowden “RR” EFPI and CT | [ ] | [ ] | RMR-A56 |
| Fundamentals ER “FIND” EFPI and CT | [ ] | [ ] | RMR-A57 |

**Ancillary items**

| Tool box | [ ] | [ ] | [ ] | RMR-A80 |

**Order code**

| 13.8 kV, 21 kA, 95 kV BIL, 0.55bG | SE6-S1/21 | SE6-S2/21 | SE6-E1/21 |

Key: ■ Standard feature ○ Factory fitted accessory ○ Loose accessory, assembled on site

(1) Only required when unit is used with RE2d ring main units and automation.
Extensible switch 630 A
SE6-S1

Switch disconnector

Protection & control - CB
Non-automatic

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 21 kA 3 s
Internal arc 16/21 kA 1 s IAC class AF, A-FLR available on gas enclosure only
Normal current rating 630 A
Normal rated voltage 13.8 kV
Normal rated BIL 95 kV

Operating mechanism
Independent manual

Standard features
Cable earth switch, 21 kA 3 s
Anti-reflex operating handles

Indication
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Gas pressure indicator

Test facility
Integral cable test facility

Cable
Bottom entry up to 300 mm² 1 x 3C
Bottom entry up to 630 mm² 3 x 1C

Accessories
VPIS indication
Glands and plates
Interlocks
Busbar kit
Top entry cables
Please refer to accessories list.

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE6-S1/21</td>
<td>21 kA, 13.8 kV, 95 kV/95 BIL</td>
</tr>
</tbody>
</table>
Switch disconnector

Protection & control - CB
Non-automatic

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 21 kA 3 s
Internal arc 16/21 kA 1 s IAC class AF, A-FLR available on gas enclosure only
Normal current rating 630 A
Normal rated voltage 13.8 kV
Normal rated BIL 95 kV

Operating mechanism
Independent manual
Provision for actuator, 24 V DC

Standard features
Cable earth switch, 21 kA 3 s
Anti-reflex operating handle

Indication
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Auxiliary contacts, 1NO 2NC
Earth selected auxiliary contact 1NO
Gas pressure indicator

Test facility
Integral cable test facility

Cable
Bottom entry up to 300 mm² 1 x 3C
Bottom entry up to 630 mm² 3 x 1C

Accessories
Actuator, 24 V DC
VPIS indication
Glands and plates
Interlocks
Busbar kit
Top entry cables
Please refer to accessories list.

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE6-S2/21</td>
<td>21 kA, 13.8 kV, 95 kV BIL</td>
</tr>
</tbody>
</table>
Extensible switch 630 A
SE6-E1

Busbar earthing switch

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 21 kA 3 s
Internal arc 16/21 kA 1 s IAC class AF; A-FLR available on gas enclosure only
Normal current rating 630 A
Normal rated voltage 13.8 kV
Normal rated BIL 95 kV

Operating mechanism
Independent manual

Standard features
Cable earth switch, 21 kA 3 s
Anti-reflex operating handle

Indication
Mechanical earth/main indicator
Gas pressure indicator

Test facility
N/A

Cable
N/A

Accessories
Interlocks
Busbar kit
Please refer to accessories list.

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE6-E1/21</td>
<td>21 kA, 13.8 kV, 95 kV BIL</td>
</tr>
</tbody>
</table>
## Extensible bus-section 630 A
### Specification

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Indoor / outdoor</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>IP54</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td><strong>Ratings</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Busbars 630 A</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Circuit breaker normal rated current 630 A</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Switch normal rated current 630 A</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>12 kV 16 kA 3 seconds 75 kV BIL</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>13.8 kV 21 kA 3 seconds 95 kV BIL</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>RH busbar earth switch 16 kA 3 seconds</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>RH busbar earth switch 21 kA 3 seconds</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td><strong>Mechanism</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent manual</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Provision for actuator 24 V DC</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Actuator 24 V DC</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Operating handle</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td><strong>Protection system</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CT ratio - 800/1 A class X</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>IDMT overcurrent &amp; earth fault relay - VIP 400</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>20- 250 V shunt trip coil</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Auxiliary switch1NO 2 NC</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td><strong>Metering</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CT’s - 400/200/5 A 0.5s 10 VA</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>VT’s - 11 kA/10 V 0.5 50 VA</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>VT’s phase - phase, CT’s L1 &amp; L3</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td><strong>Indication</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical ON/OFF</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Mechanical EARTH/MAIN</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Earth selected auxiliary contact1NO</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>RH busbar VPIS indication</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Auxiliary switch contacts1NO 2NC</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Indication CT 600/5 A 5 VA CLS 1 L2 phase</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Ammeter 0-600 A</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Gas pressure indicator</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td><strong>Interal test facility</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RH busbar earthing</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>LH busbar earthing ( using SE6-E1)</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

**Key:** ■ Standard feature  O Optional feature
### Extensible bus-section 630 A

#### Accessories

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3 phase busbars 630 A</td>
<td></td>
<td></td>
<td></td>
<td>RMR-A14</td>
</tr>
<tr>
<td>3 phase busbars 630 A (Joggle metering)</td>
<td></td>
<td></td>
<td></td>
<td>RMR-A79</td>
</tr>
<tr>
<td>3 phase busbars 630 A double width (metering)</td>
<td></td>
<td></td>
<td></td>
<td>RMR-A78</td>
</tr>
<tr>
<td>Set of padlocks - XX no</td>
<td></td>
<td></td>
<td></td>
<td>RMR-A18/6</td>
</tr>
<tr>
<td>Busbar end kit (1 end kit required per switchboard)</td>
<td></td>
<td></td>
<td></td>
<td>RMR-A15</td>
</tr>
<tr>
<td>Foundation bolts (not required for transformer mounting)</td>
<td></td>
<td></td>
<td></td>
<td>RMR-A22</td>
</tr>
<tr>
<td>Multicore pilot glands</td>
<td></td>
<td></td>
<td></td>
<td>RMR-A16</td>
</tr>
</tbody>
</table>

#### Operational items

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LH and RH busbar VPIS indication</td>
<td></td>
<td></td>
<td></td>
<td>RMR-A23</td>
</tr>
<tr>
<td>Neon lamp test unit (including lamp)</td>
<td></td>
<td></td>
<td></td>
<td>RMR-A24</td>
</tr>
<tr>
<td>Neon lamp</td>
<td></td>
<td></td>
<td></td>
<td>RMR-A81</td>
</tr>
<tr>
<td>Actuator 24 VDC</td>
<td></td>
<td></td>
<td></td>
<td>RMR-F67</td>
</tr>
<tr>
<td>Polarity conversion kit (1)</td>
<td></td>
<td></td>
<td></td>
<td>RMR-F391</td>
</tr>
</tbody>
</table>

#### Mechanical interlocks

<table>
<thead>
<tr>
<th>Key free, earth ON</th>
<th>SE6-B1 Bus-section manual</th>
<th>CE6-B9 Bus-section manual</th>
<th>CE6-B10 Bus-section manual Metering Provision for actuator</th>
<th>Kit no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key free, main OFF</td>
<td></td>
<td></td>
<td></td>
<td>RMR-F85</td>
</tr>
</tbody>
</table>

**N. B.** specify lock symbol at time of ordering (3 digits max) not available with motor mechanisms

#### Ancillary items

|---------------------------------------|---------------------------|---------------------------|------------------------------------------------------------|---------|

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12 kV, 16 kA, 75 kV BIL</td>
<td>SE6-B1/16</td>
<td>CE6-B9/16</td>
<td>CE6-B10/16</td>
<td></td>
</tr>
<tr>
<td>13.8 kV, 21 kA, 95 kV BIL</td>
<td>SE6-B1/21</td>
<td>CE6-B9/21</td>
<td>CE6-B10/21</td>
<td></td>
</tr>
<tr>
<td>General arrangement drawing</td>
<td>RMINST-01 Page 95</td>
<td>RMINST-01 Page 95</td>
<td>RMINST-01 Page 95</td>
<td></td>
</tr>
<tr>
<td>Schematic drawing</td>
<td>N/A</td>
<td>RMSCH-21 Page 125</td>
<td>RMSCH-22 Page 126</td>
<td></td>
</tr>
</tbody>
</table>

**Key:** ■ Standard feature   ○ Factory fitted accessory   ◯ Loose accessory, assembled on site

(1) Only required when unit is used with RE2d ring main units and automation.
Extensible bus-section 630 A
SE6-B1

Bus-section disconnector

Protection & control
Non-automatic

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 21 kA 3 s
Internal arc 16/21 kA 1 s IAC class AF; A-FLR available on gas enclosure only
Normal current rating 630 A
Normal rated voltage 13.8 kV
Normal rated BIL 95 kV

Operating mechanism
Independent manual

Standard features
RH busbar earth switch, 21 kA 3 s
Anti-reflex operating handle

Indication
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Gas pressure indicator

Test facility
Integral RH busbar test facility

Cable
N/A

Accessories
VPIS indication
Interlocks
Busbars
Please refer to accessories list.

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE6-B1/21</td>
<td>21 kA, 13.8 kV, 95 kV BIL</td>
</tr>
</tbody>
</table>
Extensible bus-section 630 A
CE6-B9

Bus-section circuit breaker

Protection & control - CB
Self powered IDMT overcurrent and earth fault relay, VIP 400. In accordance with IEC 60255 and BS142.
Protection CT's - 800/1 A class X
Shunt trip coil, 20 V DC-250 V AC
• Setting range:
  - Overcurrent: 80-800 A
  - Earth fault: 8-640 A

Metering transformers
• Metering CT's
  - 400/200/5 A
  - 10 VA class 0.5s
• Metering VT ph-ph
  - 11 kV/110 V 50 VA
  - class 0.5

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 16/21 kA 3 s
Internal arc 16/21 kA 1 s IAC class AF, A-FLR available on gas enclosure only
Normal current rating 630 A
Normal rated voltage 13.8 kV
Normal rated BIL 75/95 kV

Operating mechanism
Independent manual

Standard features
RH busbar earth switch, 16/21 kA 3 s
Anti-reflex operating handle

Indication
Mechanical tripped on fault flag indicator
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Auxiliary contacts 1NO 2 NC
Ammeter 0-600 A
Indication CT L2 ph- 600/5 A class 1.0 5 VA
Gas pressure indicator

Test facility
Integral RH busbar test facility

Cable
N/A

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE6-B9/16</td>
<td>16 kA, 12 kV, 75 kV BIL</td>
</tr>
<tr>
<td>CE6-B9/21</td>
<td>21 kA, 13.8 kV, 95 kV BIL</td>
</tr>
</tbody>
</table>

Accessories
VPIS indication
Interlocks
Busbars
Please refer to accessories list.
Extensible bus-section 630 A
CE6-B10

Bus-section circuit breaker

Protection & control - CB
Self powered IDMT overcurrent and earth fault relay, VIP 400. In accordance with IEC 60255 and BS142.
Protection CT's - 800/1 A class X
Shunt trip coil, 20 V DC-250 V AC
• Setting range:
  - Overcurrent: 80-800 A
  - Earth fault: 8-640 A

Metering transformers
• Metering CT's
  - 400/200/5 A
  - 10 VA class 0.5s
• Metering VT ph-ph
  - 11 kV/110 V 50 VA
  - class 0.5

Environment
Indoor/outdoor
IP54

Ratings
Busbars 630 A
Short time withstand 16/21 kA 3 s
Internal arc 16/21 kA 1 s IAC class AF; A-FLR available on gas enclosure only
Normal current rating 630 A
Normal rated voltage 13.8 kV
Normal rated BIL 75/95 kV

Operating mechanism
Independent manual
Provision for actuator, 24 V DC

Standard features
RH busbar earth switch, 16/21 kA 3 s
Anti-reflex operating handle

Indication
Mechanical tripped on fault flag indicator
Mechanical ON/OFF indicator
Mechanical earth/main indicator
Auxiliary contacts, 1NO 2 NC
Earth selected auxiliary contacts 1NO
Ammeter 0-600 A
Indication CT L2 ph- 600/5 A class 1.0 5 VA
Gas pressure indicator

Test facility
Integral RH busbar test facility

Cable
N/A

Order information

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE6-B10/16</td>
<td>16 kA, 12 kV, 75 kV BIL</td>
</tr>
<tr>
<td>CE6-B10/21</td>
<td>21 kA, 13.8 kV, 95 kV BIL</td>
</tr>
</tbody>
</table>
Remote control
Remote control

<table>
<thead>
<tr>
<th>Telecontrol cabinet</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Easergy T300 - General description</td>
<td>88</td>
</tr>
<tr>
<td>Easergy T300 - OVR</td>
<td>89</td>
</tr>
<tr>
<td>Easergy T300 - OVR - Datasheet</td>
<td>89</td>
</tr>
</tbody>
</table>
Remote control
Easergy T300 telecontrol cabinet (FRTU)

Information presented in front panel of modules is visible through a window, without opening the door.

Ready-to-use Panel Solution

A ready to use panel catalog is available off-the-shelf for fast delivery and installation.

The panel catalog is also modular and flexible in order to offer the just enough solution.

The web configurator allows you to build your configuration (hardware and software) in one click.

T300 is offered as a compact Feeder RTU solution standardised in a complete panel build and corresponds to the standard requirements of the MV/LV substation. Therefore, this solution is modular and can be adapted to the requirements of the customer.

All configurations can be extended on site with different Easergy T300 modules. You can consult our Engineering centers to design or customise a dedicated solution.

Three types of enclosure are available in standard, depending on the environmental installation:

- Indoor controller panel
- Outdoor controller panel, wall mounting or pole mounting
- Indoor and outdoor monitoring, wall mounting or pole mounting

Three types of enclosure are offered in standard:

- T300-IV1: Vertical wall mounting cabinet for indoor application
- T300-OVR: Vertical wall mounting cabinet for outdoor application
- T300-OM1: Indoor and outdoor medium monitor panel

Note:
For further details on Easergy T300, please refer:
T300 Catalog ref NRJED314621EN
Remote control

Telecontrol cabinet
Easergy T300 - OVR

Modules assembled on a DIN rail including:
1 Power Supply PS50
1 Front Head Unit HU250
1 to 4 modules Switch Controller SC150

1 LV150 module
1 AC 1Ph+N breaker
1 Battery 24 Ah or 38 Ah

Ringmaster specific AMP switch and current transformer connectors

Antenna surge arrester (optional accessory)
For GSM/3G or radio purpose. Avoid surge and deterioration due to antenna overvoltage.

T300-OVR Characteristics

- **Dimensions**
  Basic enclosure:
  L380 x H600 x P275 mm

- **Weight**: 40 kg

- **Material**: Metallic

- **Mounting**:
  - Wall mounting - vertically
  - The enclosure can be attached to the Ringmaster using the standard T300 fixing kit

- **Protection indice**: IP54 - IK09

- **Paint color reference**: RAL 7012

Order code:
(Please contact us)
Remote control

**Telecontrol cabinet**

Easergy T300 - OVR datasheet

<table>
<thead>
<tr>
<th></th>
<th>Easergy T300 OVR-2 SW</th>
<th>Easergy T300 OVR-3 SW</th>
<th>Easergy T300-OVR-4 SW</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Environment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indoor / outdoor</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>IP54</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Communication</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modbus master</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>IEC 870-5-101 and IEC 870-5-104</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>DNP3</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>RS232 modem box</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2G/3G modem box</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3G/4G modem box</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Standard features</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freestanding/wall mounted/ switchgear mounted</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Removable radio bracket ( no radio supplied)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Inputs to cabinet</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Switch open - per switch</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Switch closed - per switch</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Earth selector earth/mains - per switch</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2 spare per switch</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Control output to switchgear</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To switch</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open switch</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Close switch</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Reset external FPI</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Output to SCADA</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Switch open</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Switch closed</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Earth selector earth/mains</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Fault passage indication - phase and/or earth fault</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Fault passage indication – directional phase and/or earth fault</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>From cabinet</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local/remote failure</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Mains/equipment failure</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Battery and charger alarms</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
## Telecontrol cabinet
### Easergy T300 - OVR datasheet

<table>
<thead>
<tr>
<th>Local control</th>
<th>Easergy T300 OVR-2 SW</th>
<th>Easergy T300 OVR-3 SW</th>
<th>Easergy T300-OVR-4 SW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Push button open/close switch</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local/remote selector</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reset/test integral FPI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automation ON/OFF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test LEDs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Local indication</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HU250 heartbeat status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T300 equipment status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wi-fi status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication status with modules</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automation status ON/OFF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automation locked status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC supply ON/OFF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voltage output for switchgear motor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ON/OFF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voltage output for transmission</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>devices ON/OFF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Battery fault</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local/Remote Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Main switch position</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(open, closed, intermediate)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Earth switch position</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fault detection status with direction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voltage presence status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Battery and charger</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC voltage input: 90 to 264 Vac - 50/60 Hz single phase</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DC voltage input: 110 to 220 Vdc</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 Vdc IEDs – 36W</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 Vdc telecom – 18W</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24 Vdc switchgear</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 kV insulation and 20 kV surge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating temperature range: -40°C to 70°C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage temperature range: -40°C to 70°C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Battery 24 AH Autonomy on 20 degrees C, without sleep mode 3 hours after loss of supply with 10 c/o switch operations</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Key: ■ Standard feature ○ Optional feature
Installation drawing
Installation drawings

- Typical switchboard
- Extensible units
- Non-extensible unit
- Extensible ring main unit
  c/w tee off cable box
- Non-extensible ring main units
  for transformer mounting unit
  c/w MU2 metering unit & tee off cable box
- Non-extensible metering unit
- Telecontrol cabinet
Typical switchboard

Note: for installation where overpressure relief of the equipment is required please contact Schneider Electric.

Note: for civil engineering and recommendations for internal arc clearances please consult our installation and maintenance instructions or contact Schneider Electric.
Extensible unit
Switch & Circuit breaker
(SE6-B1, CE6-B3, CE6-B5)

Panel type | Page number
---------- |----------
SE6-B1     | 83       
CE6-B9     | 84       
CE6-B10    | 85       

Approximate weight: 450 kg

Note: for installation where overpressure relief of the equipment is required please contact Schneider Electric.

Note: for civil engineering and recommendations for internal arc clearances please consult our installation and maintenance instructions or contact Schneider Electric.
Installation drawings

Extensible unit
Circuit breaker

Panel type | Page number
---|---
CE2-T40 | 64
CE2-T32 | 64
CE2-T35 | 67
CE2-T36 | 66
CE2-T37 | 64
CE2-T38 | 66
CE6-T33 | 73
CE6-T39 | 73
CE6-T34 | 75
CE6-T35 | 75
CE6-T36 | 73
CE6-T38 | 75
CE6-T37 | 73

Approximate weight: 450 kg

Note: For installation where overpressure relief of the equipment is required please contact Schneider Electric.

Note: For civil engineering and recommendations for internal arc clearances please consult our installation and maintenance instructions or contact Schneider Electric.
Installation drawings

Extensible unit
Switch & circuit breaker

Panel type | Page number
---|---
CE2-T30 | 62
CE2-T7 | 63
CE2-T31 | 65
CE6-T30 | 72
CE6-T31 | 74
SE6-S1 | 78
SE6-S2 | 79
SE6-E1 | 80

Approximate weight: 250 kg

Note: for installation where overpressure relief of the equipment is required please contact Schneider Electric.

Note: for civil engineering and recommendations for internal arc clearances please consult our installation and maintenance instructions or contact Schneider Electric.
Installation drawings

Non-extensible unit
Switch & circuit breaker

Panel type | Page number
---|---
CN2-T9 | 45
CN2-T6 | 46
SN6-S1 | 49
SN6-S2 | 50

Approximate weight: 250 kg

Note: For installation where overpressure relief of the equipment is required, please contact Schneider Electric Tel: +44 (0)113 290 3500

Note: For civil engineering and recommendations for internal arc clearances, please consult our installation and maintenance instructions Ref: SE 6251 or contact Schneider Electric Tel: +44 (0)113 290 3500
Extensible ring main unit
c/w tee off cable box

Panel type | Page number
---|---
RE2d-T1 | 35
RE2d-T2 | 36
RE2d-T3 | 37
RE2d-T4 | 38

Approximate weight: 300 kg

Note: for installation where overpressure relief of the equipment is required please contact Schneider Electric.

Note: for civil engineering and recommendations for internal arc clearances please consult our installation and maintenance instructions or contact Schneider Electric.
Non-extensible ring main unit
for transformer mounting unit

Panel type | Page number
---|---
RN2d-T1 | 26
RN2d-T2 | 27
RN2d-T3 | 28
RN2d-T4 | 29
RN2d-T5 | 30
RN6d-T1 | 31

Approximate weight: 300 kg

Note: for installation where overpressure relief of the equipment is required please contact Schneider Electric.

Note: for civil engineering and recommendations for internal arc clearances please consult our installation and maintenance instructions or contact Schneider Electric.
Non-extensible ring main unit
c/w MU2d metering unit & tee off cable box

Panel type          Page number
MU2d-M1             53
MU2d-M2             54
MU2d-M3             55
MU6d-N1             58
MU6d-N2             58
MU6d-N3             58
MU6d-N5             58

Approximate weight: 200 kg (MU2d only)
MU2d shown connected to a non-extensible ring main unit

Note: for installation where overpressure relief of the equipment is required please contact Schneider Electric

Note: for civil engineering and recommendations for internal arc clearances please consult our installation and maintenance instructions or contact Schneider Electric.
## Non-extensible metering unit

### Installation drawings

#### Front
- Note: door shown closed

#### Side
- Note: door shown open

### Plan
- Outline of switchgear
- Main cable

### Panel type and page numbers

<table>
<thead>
<tr>
<th>Panel type</th>
<th>Page number</th>
</tr>
</thead>
<tbody>
<tr>
<td>MU2d-M1</td>
<td>53</td>
</tr>
<tr>
<td>MU2d-M2</td>
<td>54</td>
</tr>
<tr>
<td>MU2d-M3</td>
<td>55</td>
</tr>
<tr>
<td>MU6d-N1</td>
<td>58</td>
</tr>
<tr>
<td>MU6d-N2</td>
<td>58</td>
</tr>
<tr>
<td>MU6d-N3</td>
<td>58</td>
</tr>
<tr>
<td>MU6d-N5</td>
<td>58</td>
</tr>
</tbody>
</table>

Approximate weight: 450 kg

Note: for installation where overpressure relief of the equipment is required please contact Schneider Electric.

Note: for civil engineering and recommendations for internal arc clearances please consult our installation and maintenance instructions or contact Schneider Electric.
Installation drawings

Telecontrol cabinet

Panel type | Page number
--- | ---
Easergy T300 | 89

Approximate weight: 30 kg (Easergy only)

Note: for installation where overpressure relief of the equipment is required please contact Schneider Electric
Tel: +44 (0)113 290 3500

Note: for civil engineering and recommendations for internal arc clearances please consult our installation and maintenance instructions Ref: SE 6251 or contact Schneider Electric
Tel: +44 (0)113 290 3500
Schematic diagrams
## Schematic diagrams

### Schematic legends
- Specification

### Ring main units accessories

### Non-extensible / extensible ring main units

### Non-extensible ring main unit

### Non-extensible metering unit

### Non-extensible / extensible circuit breaker units

### Non-extensible circuit breaker units

### Extensible circuit breaker units

### Non-extensible switch units

### Telecontrol unit block diagram
### Schematic legends

#### Specification

#### Fuse schedule

<table>
<thead>
<tr>
<th>Fuse</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td>VT secondary 16 A/link metering</td>
</tr>
<tr>
<td>F2</td>
<td>VT secondary 2 A/link metering</td>
</tr>
</tbody>
</table>

#### Legends

<table>
<thead>
<tr>
<th>Legend</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPS</td>
<td>Earth position selected auxiliary</td>
</tr>
<tr>
<td>MR</td>
<td>Mechanism reset switch</td>
</tr>
<tr>
<td>RL1</td>
<td>Close relay</td>
</tr>
<tr>
<td>RL2</td>
<td>Open relay</td>
</tr>
<tr>
<td>52</td>
<td>Circuit breaker</td>
</tr>
<tr>
<td>89</td>
<td>Switch</td>
</tr>
<tr>
<td>96</td>
<td>Direct acting trip coil</td>
</tr>
<tr>
<td>TFL</td>
<td>Time fuse link</td>
</tr>
<tr>
<td>/b</td>
<td>Normally closed auxiliary contact</td>
</tr>
<tr>
<td>/a</td>
<td>Normally open auxiliary contact</td>
</tr>
<tr>
<td>/c</td>
<td>Normally open make auxiliary contact</td>
</tr>
<tr>
<td>A</td>
<td>Ammeter</td>
</tr>
<tr>
<td>STC</td>
<td>Shunt trip coil</td>
</tr>
<tr>
<td>ITC</td>
<td>Integral trip coil</td>
</tr>
<tr>
<td>50</td>
<td>Instantaneous overcurrent</td>
</tr>
<tr>
<td>51</td>
<td>Time delayed overcurrent</td>
</tr>
<tr>
<td>50N</td>
<td>Instantaneous earth fault</td>
</tr>
<tr>
<td>51N</td>
<td>Time delayed earth fault</td>
</tr>
<tr>
<td>M</td>
<td>Minimum operating current</td>
</tr>
<tr>
<td>EFPI</td>
<td>Earth fault passage indicator</td>
</tr>
<tr>
<td>EPSR</td>
<td>Earth position selector right</td>
</tr>
<tr>
<td>EPSL</td>
<td>Earth position selector left</td>
</tr>
<tr>
<td>ESR</td>
<td>Earth switch right</td>
</tr>
<tr>
<td>ESL</td>
<td>Earth switch left</td>
</tr>
<tr>
<td>TRS</td>
<td>Trip reset spring</td>
</tr>
</tbody>
</table>

#### CT & VT Ratios

<table>
<thead>
<tr>
<th>Panel type</th>
<th>CT1</th>
<th>CT2</th>
<th>CT3</th>
<th>CT4</th>
<th>VT1</th>
<th>VT2</th>
</tr>
</thead>
<tbody>
<tr>
<td>RN2d-T1</td>
<td>100/50/5 A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RN2d-T2</td>
<td>200/1 A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RN2d-T3</td>
<td>500/200/1 A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RN2d-T4</td>
<td>500/200/1 A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RN6d-T1</td>
<td>800/400/1 A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RE2d-T1</td>
<td>100/50/5 A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RE2d-T2</td>
<td>200/1 A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RE2d-T3</td>
<td>500/200/1 A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RE2d-T4</td>
<td>500/200/1 A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MU2d-M1</td>
<td></td>
<td></td>
<td>60/25/5 A</td>
<td>11000/110 V</td>
<td>50 VA Class 0.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Class X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MU2d-M2</td>
<td></td>
<td></td>
<td>100/50/5 A</td>
<td>11000/110 V</td>
<td>50 VA Class 0.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Class X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MU2d-M3</td>
<td></td>
<td>200/100/5 A</td>
<td>11000/110 V</td>
<td>50 VA Class 0.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Class X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CN2-T1</td>
<td>200/1 A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CN2-T6</td>
<td>100/50/5 A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CE2-T7</td>
<td>100/50/5 A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CE2-T30</td>
<td>200/1 A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CE2-T31</td>
<td>200/1 A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CE2-T33</td>
<td>200/1 A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CE2-T34</td>
<td>200/1 A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Note:

Please contact Schneider Electric for schematics not covered in this catalogue.
**Conditions**
1. All relays de-energised
2. Switches shown in open position
3. Auxiliary switch only operated between main ‘ON’ and main ‘OFF’ position (i.e. does not operate in earth position).

**CT and VT types**
- CT1 3 phase protection CT's
- CT2 1 phase indication CT
- CT3 2 phase metering CT
- CT4 Easergy T300 phase & earth fault Ct
- VT1 Ph-Ph metering VT (2 phases)
- VT2 Ph-E metering VT (3 phases)

**CT & VT Ratios**

<table>
<thead>
<tr>
<th>Panel type</th>
<th>CT1</th>
<th>CT2</th>
<th>CT3</th>
<th>CT4</th>
<th>VT1</th>
<th>VT2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE6-T30</td>
<td>850/1 A</td>
<td>600/5 A</td>
<td>5 VA Class 1.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CE6-T31</td>
<td>850/1 A</td>
<td>600/5 A</td>
<td>5 VA Class 1.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE6-S2</td>
<td>850/1 A</td>
<td>600/5 A</td>
<td>5 VA Class 1.0</td>
<td>500/1 A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SN6-S2</td>
<td>850/1 A</td>
<td>600/5 A</td>
<td>5 VA Class 1.0</td>
<td>500/1 A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:**
Please contact Schneider Electric for schematics not covered in this catalogue
Schematic diagrams

Ring main units accessories

Ringswitch 1

VPIs INDICATION

Ringswitch 2

VPIs INDICATION

EASERGY T300 CT's FOR INTERNAL FAULT
PASSAGE INDICATOR RMD-F310
Schematic diagrams

Non-extensible / extensible ring main unit

Panel type | Page number
---|---
RN2d-T1 | 26
RE2d-T1 | 35

For explanation of symbols see page 106
Non-extensible / extensible ring main unit

Panel type | Page number
---|---
RN2d-T3 | 28
RE2d-T3 | 37

For explanation of symbols see page 106
Non-extensible / extensible ring main unit

Panel type | Page number
---|---
RN2d-T2 | 27
RE2d-T2 | 36

For explanation of symbols see page 106
Non-extensible / extensible ring main unit

<table>
<thead>
<tr>
<th>Panel type</th>
<th>Page number</th>
</tr>
</thead>
<tbody>
<tr>
<td>RN2d-T4</td>
<td>29</td>
</tr>
<tr>
<td>RE2d-T4</td>
<td>38</td>
</tr>
</tbody>
</table>

For explanation of symbols see page 106
Non-extensible ring main unit

Panel type | Page number
---|---
RN6d-T1 | 31

For explanation of symbols see page 106
**Schematic diagrams**

**Non-extensible metering unit**

<table>
<thead>
<tr>
<th>Panel type</th>
<th>Page number</th>
</tr>
</thead>
<tbody>
<tr>
<td>MU2d-M1</td>
<td>53</td>
</tr>
<tr>
<td>MU2d-M2</td>
<td>54</td>
</tr>
<tr>
<td>MU2d-M3</td>
<td>55</td>
</tr>
<tr>
<td>MU6d-N1</td>
<td>58</td>
</tr>
<tr>
<td>MU6d-N2</td>
<td>58</td>
</tr>
<tr>
<td>MU6d-N3</td>
<td>58</td>
</tr>
<tr>
<td>MU6d-N5</td>
<td>58</td>
</tr>
</tbody>
</table>

For explanation of symbols see page 106

---

For explanation of symbols see page 106

---

*Insert link to short RΩ.*

*Insert link to short BΩ.*

*Link to VT primary winding as standard.*

Fuses available as option for indoor applications only.
Non-extensible circuit breaker units

Panel type | Page number
---|---
CN2-T6 | 46

For explanation of symbols see page 106
Schematic diagrams

Extensible circuit breaker units

Panel type | Page number
------------|------------
CE2-T7      | 63

For explanation of symbols see page 106
Schematic diagrams

Extensible circuit breaker units

Panel type | Page number
--- | ---
CE6-T30 | 72

For explanation of symbols see page 106
Schematic diagrams

Extensible circuit breaker units

For explanation of symbols see page 106

Panel type | Page number
---|---
CE2-T33 | 68

For explanation of symbols see page 106
Extensible circuit breaker units

Panel type | Page number
---|---
CE2-T34 | 69

For explanation of symbols see page 106
Extensible circuit breaker units

Panel type | Page number
---|---
CE2-T31 | 65

For explanation of symbols see page 106
Non-extensible switch units

Panel type | Page number
---|---
SN6-S2 | 50

For explanation of symbols see page 106
Schematic diagrams

Non-extensible switch units

Panel type  Page number
SE6-S2  79

For explanation of symbols see page 106
Accessories & options
Accessories & options

Accessories description
MV substation remote monitoring unit - Flair 200C
Voltage indicator and relay - VD23
Fault passage indicators - Flair 21D and 22D
Motorisation
Other accessories

Tee-off cable box fitted to SN6/CN2

Ringmaster range cabling accessories
 MV substation remote monitoring unit
Flair 200C

A product dedicated to remote monitoring of MV substations with a high level of function integration

Easergy Flair 200C is a remote monitoring unit designed to be installed in the MV substations of a public-private distribution network or in customers’ substations. Easergy Flair 200C is a tool that complements control units for MV substations (Easergy T300) and conventional fault passage indicators (Easergy Flair).

Easergy Flair 200C is specially designed to meet customers’ requirements for the management of MV substations. It provides compact, open solutions:

• Fault passage indicator compatible with any type of earthing system
• Substation monitoring: sending of an alarm in the event of an incident in the substation for efficient maintenance
• Power monitoring unit on the MV and LV network for improved monitoring of load curves and improved power distribution efficiency
• Substation digital concentrator for interfacing between the substation’s communicating equipment and the control centre
• Communication with the remote control centre with call management upon alarm.

The Flair 200C is an efficient tool for reducing repair and fault finding times. It improves quality of service and operation for power supply companies.
The VD23 is a voltage detecting system for automatic transfer system or interlock applications.

- Various combinations:
  - presence or absence voltage relay
  - zero sequence voltage relay
  - phase-to-neutral or phase-to-phase voltage
  - phase selection.
- Easy to install:
  - compact 96 x 48 mm DIN format
  - terminal connection for VPIS-VO
  - no need for HV transformer
  - hot installation
  - auto-adaptation of nominal voltage.

Features
The VD23 is a compact voltage relay for 3 kV to 36 kV, 50/60 Hz medium voltage networks. It is associated with a capacitive divider and a VPIS-VO.

- 2 output relays based on 2 functional modes:
  - R1 = Voltage presence (typically used for automatic transfer switching)
  - R2 = Voltage absence (typically used for interlocking of earthing switch).
- Thresholds can be set as a percent of phase-to-neutral voltage (V), phase-to-phase voltage (U) or residual voltage (VO)
- All combinations of voltage conditions are possible:
  - 3 phases and residual: V1+V2+V3+VO
  - 3 phases: V1+V2+V3 or U12+U13+U23
  - single phase: Vo, V1, V2, V3, U12, U13 or U23
- Output is a tripping order via two output relays with a normal or inverse active position
- Signalling and tripping outputs may be set with a delay.

Display principle
- Voltage value (% of Un) of L1, L2 and L3 shown on the display
- Voltage presence/absence indication via LED
- Settings by front pushbuttons and LCD
  - thresholds, delays and smart parameters
  - display of all settings on LCD.
- Auto-adaptation of the nominal system voltage
- Check on voltage status.

Advanced settings
All the combinations can be set with microswitches on the rear of the device. The use of two relays provides safety backup operation for each combination.

1: Ph-N voltage(V) / Ph-Ph voltage(U)
2: Direct / inverse action on output relays
3: Phase 1 used / not used
4: Phase 2 used / not used
5: Phase 3 used / not used
6: Residual voltage used / not used

Wiring (with VPIS-VO)
All the combinations can be set with microswitches on the rear of the device. The use of two relays provides safety backup operation for each combination.
Fault passage indicators
Flair 21D and Flair 22D

Flair 21D, 22D is a family of DIN format fault passage indicators. They are small in size, self-powered and adapt automatically to the network.

These devices use cutting-edge technology to detect earth faults on underground MV networks with isolated, resistor-earthed or directly earthed neutral and overcurrents on all networks.

- Self-powered, the fault current passage detection and indication system operates continuously
- Adjustment-free, they are immediately operational (numerous manual adjustments are however possible)
- Compact, their DIN format easily fits in MV cubicles
- Smart, they offer an ammeter/digital maximeter function.

Applications and main features
The Flair range increases your power availability by providing indicators suitable for fault locating and MV network load management.

- Indication of phase-phase and phase-earth faults
- Display of settings
- Indication of the faulty phase
- Display of the load current including peak demand and frequency.

These fault passage indicators are reliable and easy to use.

- Automatic setting on the site
- Fault indication with LED or outdoor lamp
- 15-year battery life for Flair 22D
- More accurate fault detection if Flair 22D is connected to voltage presence indication system (VPIS) voltage output
- Can be factory-mounted in Premset cubicles or added on the site
- Easy on-site addition without removing MV cables using split-type current sensor.

Fault detection functions

Overcurrent detection
- Automatic mode for adjustment-free calibration of detection thresholds
- Manual mode for special override settings:
  - Flair 21D: 4 detection thresholds from 200 A to 800 A, in 200 A increments, selectable via microswitches
  - Flair 22D: 8 detection thresholds from 100 A to 800 A, in 50 A increments, configurable via the front panel keypad.
- Fault acknowledge time:
  - Flair 21D: 40 ms
  - Flair 22D (configurable via the front panel keypad)
  - Type A from 40 to 100 ms in 20 ms increments
  - Type B from 100 to 300 ms in 50 ms increments.

Earth fault detection
The detector checks the 3 phases for current variations (di/dt). A time delay of 70 s is applied for fault confirmation by the upstream protective device.

- Automatic mode for adjustment-free calibration of detection thresholds
- Manual mode for special override settings:
  - Flair 21D: 6 detection thresholds from 40 to 160 A, via microswitches
  - Flair 22D (configurable via the front panel keypad):
    - Type A from 20 to 200 A, in 10 A increments
    - Type B from 5 to 30 A in 5 A increments and 30 to 200 A in 10 A.
- Inrush function prevents unnecessary detection in the event of load switch-on. Incorporates a 3 s time delay for fault filtering at network power up.

The Inrush function can be disabled via configuration on Flair 22D.

Fault indication function

Signalling
As soon as a fault is confirmed, the indication device is activated.

- Fault indication via a red LED on the front panel
- Indication of the faulty phase (earth fault) on LCD display
- Optional remoting of indication to external flashing lamp
- Activation of a contact for retransmission to the SCADA system.

Indication reset
- Automatic reset upon load current recovery (configurable time delay on Flair 22D)
- Manual reset via front panel button
- Reset via external Reset input
- Reset by time delay: fixed (4 hr) for Flair 21D and adjustable using front panel keypad (2 hr to 16 hr) for Flair 22D.
Display principle

- The load current is displayed continuously
- When a fault is detected, the faulty phase is indicated
- Use the buttons on the front panel to scroll through settings and measurements.

<table>
<thead>
<tr>
<th></th>
<th>Flair 21D</th>
<th>Flair 22D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power supply</td>
<td>Self-powered</td>
<td>Dual-powered</td>
</tr>
<tr>
<td>Detection</td>
<td>Overcurrent</td>
<td>Earth-fault</td>
</tr>
<tr>
<td>Display</td>
<td>Ammeter</td>
<td>Maximeter</td>
</tr>
<tr>
<td>(4 digit LCD)</td>
<td>Ammeter</td>
<td>Maximeter</td>
</tr>
<tr>
<td>Options</td>
<td>SCADA interface (relay)</td>
<td>External lamp</td>
</tr>
<tr>
<td></td>
<td>External reset</td>
<td>Extended setting (keypad)</td>
</tr>
<tr>
<td>Communication</td>
<td>2-voltage output relays</td>
<td>Serial communication port</td>
</tr>
</tbody>
</table>

(1) By lithium battery

Characteristics per product

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fault passage indicator with single power supply (self-powered)</td>
<td>Flair 21D Detector with autonomous power supply</td>
</tr>
<tr>
<td></td>
<td>External indicator lamp output powered by battery (BVP)</td>
</tr>
<tr>
<td>Fault passage indicator with dual power supply</td>
<td>Flair 22D Detector with autonomous power supply and lithium battery</td>
</tr>
<tr>
<td></td>
<td>External indicator lamp output powered by the Flair (BVE)</td>
</tr>
<tr>
<td></td>
<td>Zero sequence CT option (type B setup)</td>
</tr>
<tr>
<td></td>
<td>Interface with VPIS-VO possible to confirm the fault by voltage absence</td>
</tr>
</tbody>
</table>

Standard applications

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flair 21D</td>
<td>Maintenance-free, adjustment-free fault detector</td>
</tr>
<tr>
<td>Flair 22D</td>
<td>Fault detector for networks with very low load current (&lt; 2 A) with possibility of manual adjustments.</td>
</tr>
</tbody>
</table>
Accessories & options

Accessories description
Motorisation

Simple, fast and efficient motorisation solution

As the world moves towards more smart networks, the remote operation of RMUs will become more necessary.

Ringmaster with its “Plug-in” motor design offers customers to convert their pre-wired manual operated RMUs to motorised, remotely controlled in a couple of minutes.

The plug-in motor-gear assembly, called as “Motor-pack” can be directly plugged on to the mechanism on site, in live or dead condition of the Ring Main Unit. Providing customer the benefit of enormous time saving, easiness and flexibility.

This “Motorpack” is universal in nature as the same Motorpack can be used to motorise either switch or circuit breaker.

The whole motor unit just needs a screw to secure it in position once fitted on the Ring Main Unit.
Accessories

These are dispatched either:
• Fitted to the unit within the works - these are accessories that are either too bulky, or need testing prior to despatch; tee-off cable box
• Loose, boxed, for you to assemble on site. These items are either those that need to be supplied loose to ease installation: ie a gland plate, or test equipment.

RMD-A14/A15/A78/A79

Busbar assemblies
• Each kit comprises a three phase set of busbars, 630 A
• Specify at time of ordering:
  - 1 off RMD-A15 - end panel kit, plus busbar kits
  - Quantity required = No. of panels - 1
Note: Different busbar kits are required for metering units and bus-sections
Busbars are dispatched loose.

RMD-A17

Time Fuse Links
• 2 off time fuse links for overcurrent protection

<table>
<thead>
<tr>
<th>Order code</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMD-A17/3</td>
<td>3 amp</td>
</tr>
<tr>
<td>RMD-A17/5</td>
<td>5 amp</td>
</tr>
<tr>
<td>RMD-A17/7</td>
<td>7.5 amp</td>
</tr>
<tr>
<td>RMD-A17/10</td>
<td>10 amp</td>
</tr>
<tr>
<td>RMD-A17/12</td>
<td>12.5 amp</td>
</tr>
<tr>
<td>RMD-A17/15</td>
<td>15 amp</td>
</tr>
</tbody>
</table>

Schneider Electric are able to provide a number of accessories to enhance the basic unit specifications. These accessories are detailed within the panel type specifications.
Accessories & options

Tee-off cable box fitted to SN6/CN2

Panel type | Page number
--- | ---
CN2-T1 | 45
CN2-T6 | 46
SN6-S1 | 49
SN6-S2 | 50

Note: for installation where overpressure relief of the equipment is required please contact
Schneider Electric Tel: +44 (0) 113 290 3500
Panel type | Page number
---|---
CE2 | 59-60-61
CE6 | 70-71
SE6 | 76-77
CN2 | 43-44
SN6 | 47-48

Approximate weight: 250 kg
Order form
Order form

Guide Metering & Bus section
## Guide Metering & Bus section

<table>
<thead>
<tr>
<th>Panel types</th>
<th>Motor provision</th>
<th>VT Configuration</th>
<th>Service voltage</th>
<th>Rated voltage</th>
<th>VT output/class</th>
<th>CT primary/secondary current</th>
<th>CT output/class</th>
</tr>
</thead>
<tbody>
<tr>
<td>MU2d-M1</td>
<td>NA</td>
<td>2 ph - ph</td>
<td>11 kV</td>
<td>12 kV</td>
<td>110 V</td>
<td>50 VA Class 0.5</td>
<td>50/25/5 7.5 VA Class 0.5s</td>
</tr>
<tr>
<td>MU2d-M2</td>
<td>NA</td>
<td>2 ph - ph</td>
<td>11 kV</td>
<td>12 kV</td>
<td>110 V</td>
<td>50 VA Class 0.5</td>
<td>100/50/5 10 VA Class 0.5s</td>
</tr>
<tr>
<td>MU2d-M3</td>
<td>NA</td>
<td>2 ph - ph</td>
<td>11 kV</td>
<td>12 kV</td>
<td>110 V</td>
<td>50 VA Class 0.5</td>
<td>200/100/5 10 VA Class 0.5s</td>
</tr>
<tr>
<td>MU2d-M12</td>
<td>NA</td>
<td>3 ph - earth</td>
<td>11 kV</td>
<td>13.8 kV</td>
<td>110 V</td>
<td>50 VA Class 0.5 + 20 VA Neutral voltage protection</td>
<td>200/100/5 10 VA Class 0.5s</td>
</tr>
<tr>
<td>CE2-T32</td>
<td>No motor</td>
<td>2 ph - ph</td>
<td>6.6</td>
<td>12</td>
<td>110 V</td>
<td>50 VA Class 0.5</td>
<td>200/100/5 A 10 VA class 0.5s</td>
</tr>
<tr>
<td>CE2-T36</td>
<td>Motor fittable</td>
<td>2 ph - ph</td>
<td>6.6</td>
<td>12</td>
<td>110 V</td>
<td>50 VA Class 0.5</td>
<td>200/100/5 A 10 VA class 0.5s</td>
</tr>
<tr>
<td>CE2-T40</td>
<td>No motor</td>
<td>2 ph - ph</td>
<td>11</td>
<td>12</td>
<td>110 V</td>
<td>50 VA Class 0.5</td>
<td>200/100/5 A 10 VA class 0.5s</td>
</tr>
<tr>
<td>CE2-T35</td>
<td>Motor fittable</td>
<td>2 ph - ph</td>
<td>11</td>
<td>12</td>
<td>110 V</td>
<td>50 VA Class 0.5</td>
<td>200/100/5 A 10 VA class 0.5s</td>
</tr>
<tr>
<td>CE2-T38</td>
<td>No motor</td>
<td>3 ph - earth</td>
<td>11</td>
<td>17.5</td>
<td>110 V</td>
<td>50 VA Class 0.5 + 20 VA Neutral voltage protection</td>
<td>200/100/5 A 10 VA class 0.5s</td>
</tr>
<tr>
<td>CE2-T37</td>
<td>No motor</td>
<td>3 ph - earth</td>
<td>13.8</td>
<td>17.5</td>
<td>110 V</td>
<td>50 VA Class 0.5 + 20 VA Neutral voltage Protection</td>
<td>200/100/5 A 10 VA class 0.5s</td>
</tr>
<tr>
<td>CE2-T39</td>
<td>Motor fittable</td>
<td>3 ph - earth</td>
<td>13.8</td>
<td>17.5</td>
<td>110 V</td>
<td>50 VA Class 0.5 + 20 VA Neutral voltage protection</td>
<td>200/100/5 A 10 VA class 0.5s</td>
</tr>
<tr>
<td>CE6-T39</td>
<td>No motor</td>
<td>2 ph - ph</td>
<td>6.6</td>
<td>12</td>
<td>110 V</td>
<td>50 VA Class 0.5</td>
<td>400/200/5 A 10 VA class 0.5s</td>
</tr>
<tr>
<td>CE6-T35</td>
<td>Motor fittable</td>
<td>2 ph - ph</td>
<td>6.6</td>
<td>12</td>
<td>110 V</td>
<td>50 VA Class 0.5</td>
<td>400/200/5 A 10 VA class 0.5s</td>
</tr>
<tr>
<td>CE6-T33</td>
<td>No motor</td>
<td>2 ph - ph</td>
<td>11</td>
<td>12</td>
<td>110 V</td>
<td>50 VA Class 0.5</td>
<td>400/200/5 A 10 VA class 0.5s</td>
</tr>
<tr>
<td>CE6-T34</td>
<td>Motor fittable</td>
<td>2 ph - ph</td>
<td>11</td>
<td>12</td>
<td>110 V</td>
<td>50 VA Class 0.5</td>
<td>400/200/5 A 10 VA class 0.5s</td>
</tr>
<tr>
<td>CE6-T36</td>
<td>No motor</td>
<td>3 ph - earth</td>
<td>13.8</td>
<td>17.5</td>
<td>110 V</td>
<td>50 VA Class 0.5</td>
<td>400/200/5 A 10 VA class 0.5s</td>
</tr>
<tr>
<td>CE6-T38</td>
<td>Motor fittable</td>
<td>3 ph - earth</td>
<td>13.8</td>
<td>17.5</td>
<td>110 V</td>
<td>50 VA Class 0.5</td>
<td>400/200/5 A 10 VA class 0.5s</td>
</tr>
<tr>
<td>CE6-T37</td>
<td>No motor</td>
<td>3 ph - earth</td>
<td>11</td>
<td>17.5</td>
<td>110 V</td>
<td>50 VA Class 0.5 + 20 VA Neutral voltage protection</td>
<td>400/200/5 A 10 VA class 0.5s</td>
</tr>
<tr>
<td>CE6-B9</td>
<td>No motor</td>
<td>2 ph - ph</td>
<td>11</td>
<td>12</td>
<td>110 V</td>
<td>50 VA Class 0.5</td>
<td>400/200/5 A 10 VA class 0.5s</td>
</tr>
<tr>
<td>CE6-B10</td>
<td>Motor fittable</td>
<td>2 ph - ph</td>
<td>11</td>
<td>12</td>
<td>110 V</td>
<td>50 VA Class 0.5</td>
<td>400/200/5 A 10 VA class 0.5s</td>
</tr>
<tr>
<td>SE6-B1</td>
<td>No motor</td>
<td>No VT</td>
<td>No VT</td>
<td>No VT</td>
<td>No VT</td>
<td>No CT</td>
<td>No CT</td>
</tr>
<tr>
<td>SE6-E1</td>
<td>No motor</td>
<td>No VT</td>
<td>No VT</td>
<td>No VT</td>
<td>No VT</td>
<td>No CT</td>
<td>No CT</td>
</tr>
</tbody>
</table>
Order form

Notes
About Schneider Electric

Schneider Electric is leading the Digital Transformation of Energy Management and Automation in Homes, Buildings, Data Centers, Infrastructure and Industries.

With global presence in over 100 countries, Schneider is the undisputable leader in Power Management – Medium Voltage, Low Voltage and Secure Power, and in Automation Systems. We provide integrated efficiency solutions, combining energy, automation and software.

In our global Ecosystem, we collaborate with the largest Partner, Integrator and Developer Community on our Open Platform to deliver real-time control and operational efficiency.

We believe that great people and partners make Schneider a great company and that our commitment to Innovation, Diversity and Sustainability ensures that Life Is On everywhere, for everyone and at every moment. www.schneider-electric.com