



Ringmaster

Catalogue 2024
Medium Voltage Distribution



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Life Is On

Schneider
Electric™

General contents



General contents

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Overview

Overview

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Field of application

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.

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 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.



Field of application

Building and Industries

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.

PE58312



PE57098



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 enhance people & equipment protection.

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.

Field of application

Energy and infrastructure

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.

PIE8315



PIE8316



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.

Schneider Electric is involved in the entire electrical distribution chain from power plants to end users. Customer demand for complete availability, enhance quality & safety has made the search for excellence our key mission.

Field of application

Mining

PM119800



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 improved with an advanced design fully compliant to the latest internal arc classification as per IEC62271-200.

Over 5000 functions of Ringmaster enhance mine networks worldwide protection

- BHP Billiton, Rio Tinto, Gold Fields, Alcoa, CSA Global, Newcrest, Xstrata, Gloucester Coal, Aditya Birla Group, AngloGold Ashanti, Anglo Coal, ASSMANG.

PES9318



Field of application

Package substations

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 offered 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 provided 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 minimalised 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.



The diversity of configurations range from compact design, unit, in-line or specialised systems dependent on application requirement.

Transformers can be either free breathing, conservator or hermetically sealed type.

Substations can have remote control and automation.

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-optimal
- 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 requirement. 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.

Advantages

Ringmaster is a range of SF6 Insulated ring main units and the ideal choice for all your MV applications.

PE0438



From simple transformer protection, or sectionalizing 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 12 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**
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.

EcoStruxure™ ready solutions

What is EcoStruxure™?

500 000

EcoStruxure™ has been deployed in almost 500 000 sites with the support of some 20 000 developers, 650 000 service providers and partners, and 3 000 utilities, and connects over 2 million assets under management.

EcoStruxure™ ready



Efficient asset management

Greater efficiency with **predictive maintenance** helping to reduce downtime.



24/7 connectivity

Real-time data **everywhere anytime** to make better informed decisions.



Increased protection

Proven design and experience combined with **internal arc designs** to enhance people and equipment protection.

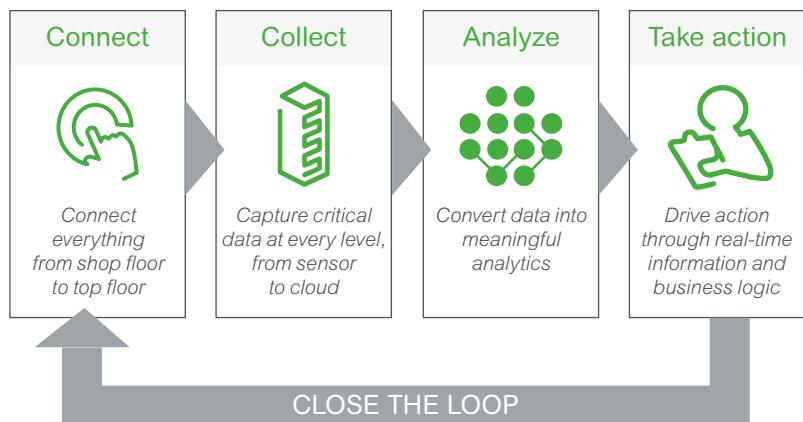
EcoStruxure™ is our open, interoperable, IoT-enabled system architecture and platform. EcoStruxure delivers enhanced value around **safety**, **reliability**, **efficiency**, **sustainability**, and **connectivity** for our customers. EcoStruxure leverages advancements in IoT, mobility, sensing, cloud, analytics, and cybersecurity to deliver Innovation at Every Level. This includes Connected Products, Edge Control, and Apps, Analytics & Services, which are supported by Customer Lifecycle Software.

Turn data into action

EcoStruxure™ architecture lets customers maximize the value of data.

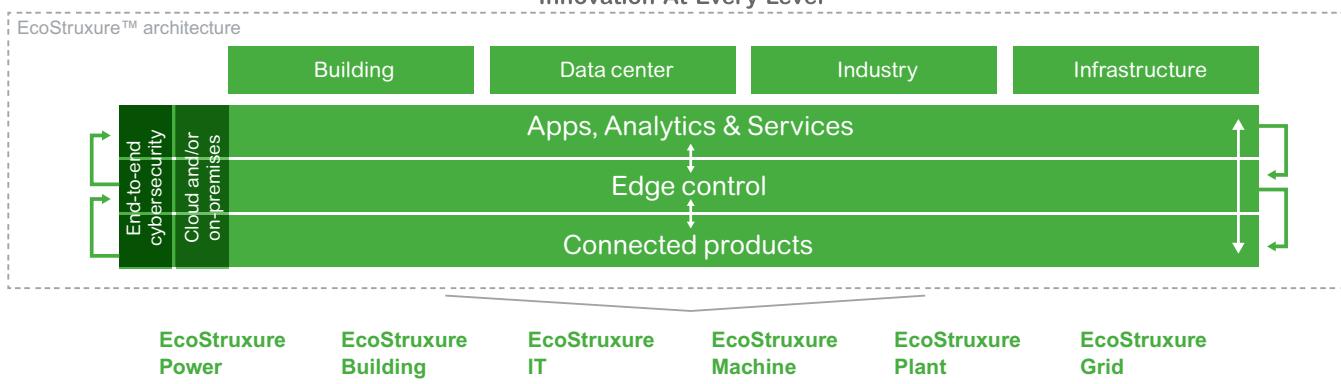
Specifically, it helps them:

- Translate data into actionable intelligence and better business decisions
- Take informed decisions to maximize uptime and operational efficiency thanks to real-time control platforms
- Gain visibility to their electrical distribution by measuring, collecting, aggregating, and communicating data



DM109917

EcoStruxure™ Innovation At Every Level

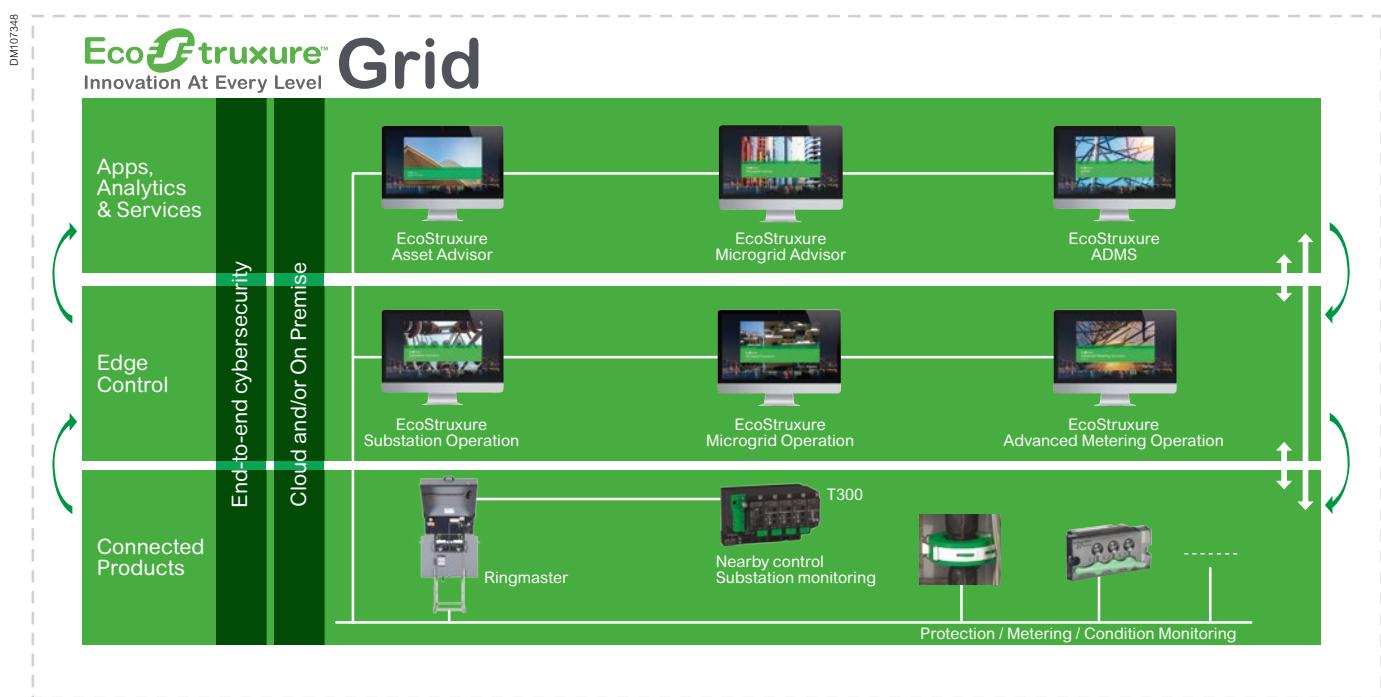


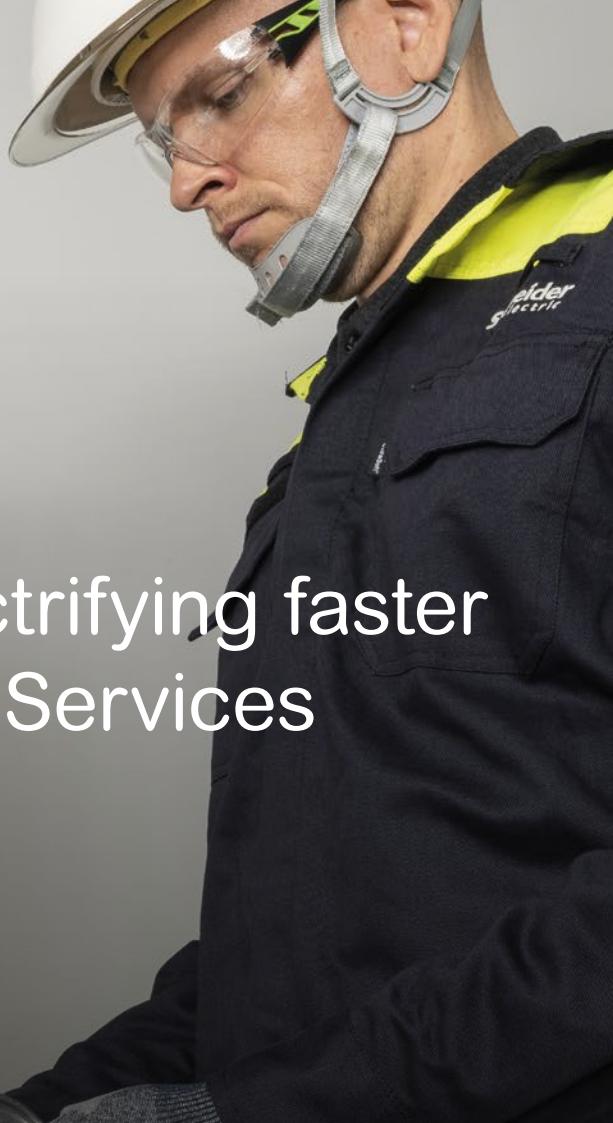
Connected - EcoStruxure™ ready solutions

RN2d Active Plus

Enable nearby control, maximize uptime

All the protection, measurement devices and special sensors can be connected through our connected Ringmaster solution.





Decarbonizing and electrifying faster with Schneider Electric Services

Service Lifecycle Management

Our passionate Service Experts and partners are dedicated to extend the life of assets and systems while making your operations safe, efficient and resilient everyday.

EcoConsult

- ⌚ EcoConsult Audit
- ⌚ EcoConsult Electrical Digital Twin
- EcoConsult System Studies
- EcoConsult Design

Consult & Audit

- Start your assessment journey to discover the untapped efficiencies that lie into your installations.
- Release the potential of Electrical Digital Twin for safer and more reliable operations.
- Provide actionable insights to address the safety, resiliency and sustainability of your electrical network.
- Enjoy the enhanced expertise of our design consultant for your installations.

EcoCare Membership ⌚

Next generation service plan

EcoCare membership is a next-generation services plan which offers exclusive benefits and faster access to our experts, on-site and remotely, empowered by advanced analytics to help you minimize electrical failure by up to 75%, reduce on-site activities (planned downtime) and related costs by up to 40% and extend equipment lifespan, helping you avoid carbon emissions.

Members also benefit from faster access to our technical expertise and reduce Mean-time-to-repair, plus leverage our dedicated Customer Success Management team to you achieve your business goals.

EcoFit™ Circularity & Repairability Innovative Modernization Services

EcoFit™ offers an innovative approach to your electrical, critical power, cooling and automation system modernization, focusing on Circularity & Repairability. By embracing this concept, your business can thrive in the circular economy, reducing carbon footprint.

Life Extension Essential

- We help extend the lifetime of your equipment by up to 25% with sensors, advanced monitoring and condition-based maintenance.

Life Extension Advanced

- We only replace the core components of your equipment, avoiding the manufacturing of new products to reduce waste by up to 90%.

Replacement

- We assist you in achieving environmental compliance by efficiently recovering SF6 gas and recycling raw materials from your end-of-life equipment.

Recovery

- We take back and refurbish products at the same level of performance requested by market standards.

Ringmaster meets the following standards: IEC 62271-100, IEC 62271-103, IEC 62271-200, BS EN 62271-103 and ENA TS 41-36.

Manufactured to BS EN ISO 9001.

Environmental Management System
BS EN ISO 14001 OHSAS 18001
Management of Health and Safety.

PES8325



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, sectionalizing, insulation)
- Current and voltage transformers
- Low voltage switchgear
- SF6 gas
- Cables and conductors
- Graphs and diagrams
- Tests
- International electro-technical vocabulary.

Enhanced quality and safety approach

Leeds site in UK for many years, been committed to a global quality approach and are certified:

- ISO 9001: 2015
- ISO 14001: 2015
- ISO 45001: 2018
- ISO 50001: 2018.

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.

Range description

Range description

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Standards	23

We are proud to present the new Ringmaster RN2d, built on its predecessor RN2c. RN2d is an SF6 insulated Ring Main Unit (RMU) for medium voltage networks up to 12 kV with improvements guided by customer feedback and Design Failure Mode Effect Analysis (DFMEA).

The RN2d has enhanced 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, 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.

PM10890



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

- Outdoor design, IP54 enclosure
- Earth screened cast-resin gas module
- Resin encapsulated busbars in air bus chamber for extensible version
- Simple to follow mimic providing user-friendly operation
- Type C or short type bushing offers flexibility wide choice of 3rd party screened or unscreened termination system
- Interlocked MV cable test access, no need to remove cable terminations or use loose earthing devices
- Integral self-powered protection for transformer or network sensationalizing
- Direct coupling to transformers or cable connection

Optional

- Facilities for electrical operation
- Electrical tripped on-fault indication
- Range of dry type metering units
- Remote monitoring & control through Easergy T300 range of FRTUs



A multitude of configurations



DM109893

Free standing,
non-extensible,
cable connected
ring main unit.



PE57054

Transformer mounted,
non-extensible ring main unit,
incorporated in a packaged
substation.



DM109894

Free standing,
extensible
cable connected
ring main unit



PE57055

Transformer mounted,
extensible ring main unit,
incorporated in a packaged
substation.



DM109895

Free standing,
non-extensible circuit breaker.



PE57066

Cable connected
extensible switchboard.

Key to product references

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

Example

RN2d-T1S: non-extensible transformer mounted ring main unit with 2 nos load break switch and 1 no 200 A circuit breaker with protection by time limit fuse (TLF), rated voltage 12 kV, 28/75 kV, 21 kA 3s with short bushing of cable connection.

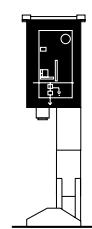
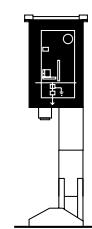
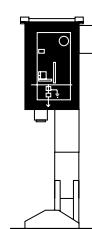
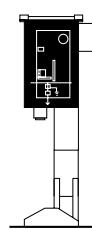
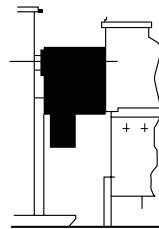
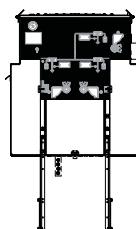
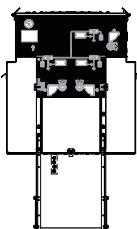
R	Ring main unit
C	Circuit breaker
S	Load break switch
N	Non-Extensible
E	Extensible
MU	Metering unit
2d or 2	200 A
6d or 6	630 A
T1 (1)	Circuit breaker with time limit fuse (TLF) (2)
T2 (1)	Circuit breaker with VIP400 relay
T3	Circuit breaker with VIP410 relay
T4	Circuit breaker with VIP45 relay
T5	Circuit breaker with SC160 and integrated T300
S	Short bushing
C	Type C bushing

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.

(1) RN6d-T1 / RE6d-T1 circuit breaker with VIP400, and TLF is not available for RN6d/RE6d.
(2) TLF: Time limit fuse

DM107425



RN2d or RN6d	RE2d or RE6d	MU2d or MU6d	CN2	SN6	CE2 or CE6	SE6
200 A or 630 A non extensible ring main unit	200 A or 630 A extensible ring main unit	200 A or 630 A feeder metering unit	200 A non extensible circuit breaker	630 A non extensible switch	200 A or 630 A extensible circuit breaker	630 A extensible switch

Need more information?

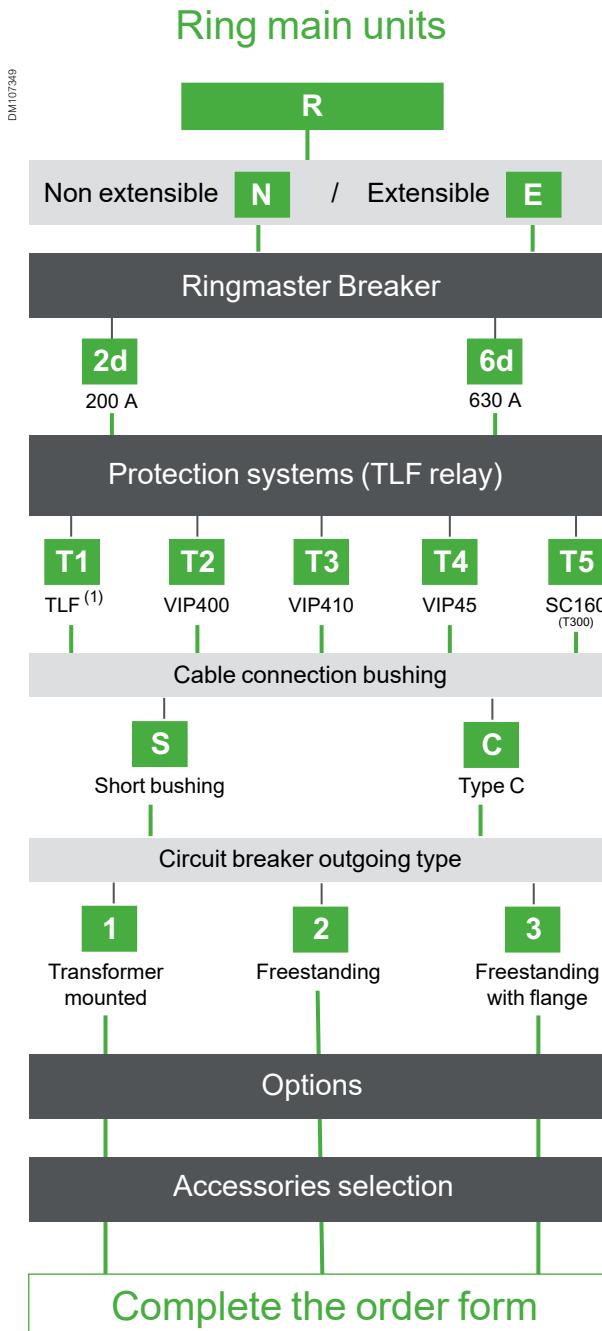
If your requirements are not listed, please contact your local Schneider Electric representative at: www.schneider-electric.com/b2b/en/support/

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: MVSswitchgearGB@schneider-electric.com

Range selection process

Selection Matrix



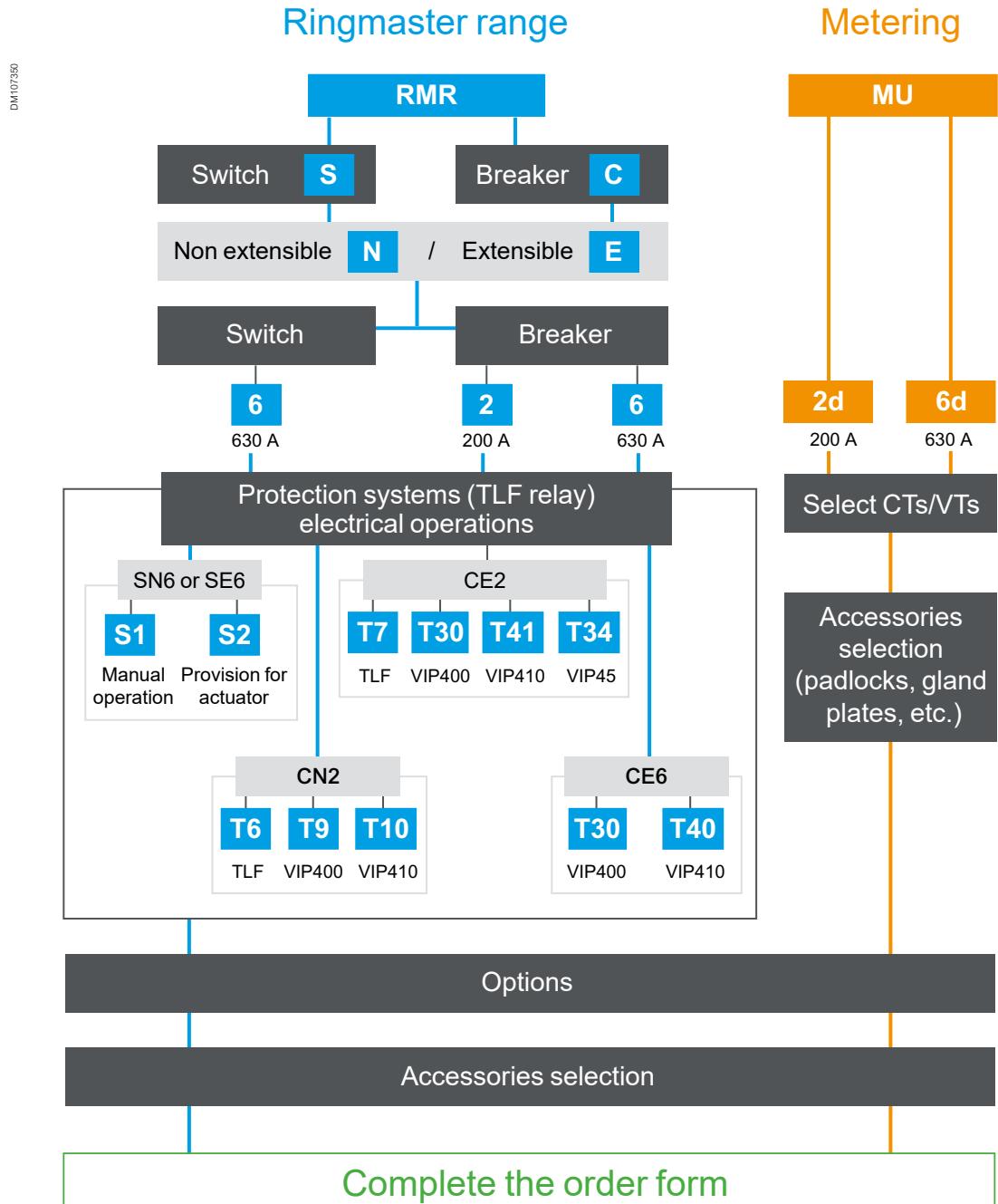
⁽¹⁾ TLF only available for RN2d, RE2d.

Note: RN6d-T1/RE6d-T1 includes VIP400 & RN6d-T3/RE6d-T3 includes VIP410, TLF is not available on RN6d/RE6d.

Note: Only type C bushing option available on Circuit Breaker when VIP protection is selected..

Range selection process

Selection Matrix



(1) TLF only available for CN2 or CE2.

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

Description	IEC standard	IEC classes	EN standard
Switchboard	IEC 62271-200:2021 IEC 62271-1:2017	LSC partition class PM Continuity of service of the cable connection and fuse compartments: LSC2A (1)	EN IEC 62271-200:2021 EN IEC 62271-1:2017
Behaviour in the event of internal faults	IEC 62271-200:2021		EN IEC 62271-200:2021
Earthing switch	IEC 62271-102:2018	E2	EN IEC 62271-102:2018
Ring switch	IEC 62271-103:2021	M2, E3(1), C1	EN IEC 62271-103:2021
Circuit-breaker	IEC 62271-100:2021	M1, E2	EN IEC 62271-100:2021
Current transformer	IEC 61869-2:2012 ISH2022		IEC 61869-2:2011
Voltage transformer	IEC 61869-3		IEC 61869-3
Voltage presence indicators	IEC 61958		EN 61958
Voltage detection systems	IEC 61243-5		EN 61243-5
Protection against accidental contact, foreign bodies and ingress of water	IEC 60529:1999 AMD2013		EN IEC 60529.1:1999 AMD2013
Installation			HD637S:1999
Operation of the electrical equipment			EN 50110

(1) For RMR ranges: E2

Function/modules description

- Ring main units

Function/modules description

Ring main units

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Non-extensible ring main unit 200 A	31
RN2d-T1 (TLF)	31
RN2d-T2 (with VIP400 relay)	32
RN2d-T3 (with VIP410 relay)	33
RN2d-T4 (with VIP45 relay)	34
RN2d-T5 (with integrated T300)	35
Non-extensible ring main unit 630 A	36
RN6d-T1 (with VIP400 relay)	36
RN6d-T3 (with VIP410 relay)	37
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Extensible ring main units 200 A	41
RE2d-T1 (TLF)	41
RE2d-T2 (with VIP400 relay)	42
RE2d-T3 (with VIP410 relay)	43
RE2d-T4 (with VIP45 relay)	44

Characteristics - Electrical and Mechanical

Characteristics of Ringmaster

Rated voltage (Ur)	kV	12
Rated frequency (fr)	Hz	50/60
Rated lightning impulse withstand voltage (Up)	kV	75 (1)
Rated power frequency withstand voltage (Ud)	kV	28 (1)

Rated current

Ring switches (Ir)	A	630
Circuit breaker (Ir)	A	200/630
Ring switch rated short time withstand, 3 s (Ik)	kA	21
Ring switch earth short time withstand, 3 s (Ik)	kA	21
Ring switch peak making current (Ip)	kA	52.5
Ring switch earth peak making current (Ip)	kA	52.5
Circuit breaker short time withstand, 3 s (Ik)	kA	21
Circuit breaker earth short time withstand, 3 s (Ik)	kA	21
Circuit breaker peak making current (Ip)	kA	52.5
Circuit breaker earth peak making current (Ip)	kA	52.5
Internal arc withstand - gas enclosure (1 s)	kA	21 kA (AF) (2)
Internal arc withstand - cable box (1 s)	kA	13.1 kA (AF) (3)

Number of operating cycles

Mechanical

Ring switch (main)	5 000
Ring switch (earth)	1 000
Circuit breaker (main)	2 000
Circuit breaker (earth)	1 000

Electrical

Circuit breaker (at rated short circuit breaking current)	10
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SF6 gas

Pressure	bar G	0.55
Weight (RN2d / RN6d)	g	592
Weight (RE2d / RE6d)	g	703

(1) Ud=38 kV or Up=95 kV BIL as option, the offer is available, please contact us

(2) 21 kA (AFLR) as option, the offer is available, please contact us

(3) 21 kA (AF) as option, the offer is available, please contact us

Non-extensible ring main units

Specification

Ring main units

	RN2d-T1 TLF	RN2d-T2 VIP400	RN2d-T3 VIP410	RN2d-T4 VIP45	RN6d-T1 VIP400	RN6d-T3 VIP410	RN2d - T5 T300	
Ratings								
12 kV 21 kA 3 s 75 kV BIL, busbar 630 A	●	●	●	●	●	●	●	
Switch normal rated current 630 A	●	●	●	●	●	●	●	
Circuit breaker normal rated current 200 A	●	●	●	●				
Circuit breaker normal rated current 630 A					●	●	●	
Circuit breaker earth switch	●	●	●	●	●	●	●	
IP54	●	●	●	●	●	●	●	
Application								
Transformer mounted	●	●	●	●			●	
Free standing	○	○	○	○	●	●	○	
Free standing with flange	○	○	○	○	○	○	○	
Mechanism								
Independent manual operation	●	●	●	●	●	●	●	
Provision for motorised 24 Vdc mechanism LH Ring switch	○	○	○	○	○	○	●	
Provision for motorised 24 Vdc mechanism RH Ring switch	○	○	○	○	○	○	●	
Provision for motorised 24 Vdc mechanism circuit breaker	○	○	○	○	●	●	●	
Motor kit of 24 Vdc	○	○	○	○	○	○	●	
Protection & control - circuit breaker								
CT's dual ratio - 100/50/5 A class X	●							
CT- C Ga: Ipr 0-200 A, Us 22.5 mV, 5P30		●	●	●				
CT- C Gb: Ipr 0-630 A, Us 22.5 mV, 5P30					●	●		
Core balance CT for VIP410 relay for sensitive earth fault				○		○		
200/100/1 5P20							●	
Time limit fuse (1)	○							
Multi voltage shunt trip coil	○	●	●	●	●	●		
VIP additional test winding kit		○	○	○	○	○		
Indication								
SF6 gas gauge	●	●	●	●	●	●	●	
Mechanical tripped on fault	●	●	●	●	●	●	●	
Mechanism ON/OFF	●	●	●	●	●	●	●	
Mechanism EARTH/MAIN	●	●	●	●	●	●	●	
VPIS indication	○	○	○	○	○	○	●	
VPIS indication -with voltage output	○	○	○	○	○	○	●	
RSW auxiliary contacts 1NO & 1NC	○	○	○	○	○	○	○	
Tripped on fault contact	○	○	○	○	○	○	○	
Low gas pressure indicator (-25°C to +55°C)	○	○	○	○	○	○	○	
Emergency circuit breaker trip push button	○	○	○	○	○	○	○	
Test facility								
Integral ring switch cable test facility	●	●	●	●	●	●	●	
Integral circuit breaker test facility	○	○	○	○	●	●	○	
Standard features								
Operation handle	●	●	●	●	●	●	●	
Cable connection bushing type of Ring switch								
Short bushing	●	●	●	●	●	●	○	
Type C bushing	○	○	○	○	○	○	●	
Metering option								
Metering on circuit breaker	○	○	○	○	○	○	○	
Cable (See available cable kit accessories)								
Bottom entry up 1 x 3C (up to 300 mm ²)	●	●	●	●	●	●	●	
Bottom entry up 3 x 1C (up to 630 mm ²)	○	○	○	○	○	○	○	
Top entry cable (indoor only)	○	○	○	○	○	○	○	
Order codes								
12 kV, 21 kA, 75 kV BIL with short bushing	TX mounted	RN2d-T1S1	RN2d-T2S1	RN2d-T3S1	RN2d-T4S1	RN6d-T1S1	RN6d-T3S1	RN2d-T5S1
	FS wo flange	RN2d-T1S2	RN2d-T2S2	RN2d-T3S2	RN2d-T4S2	RN6d-T1S2	RN6d-T3S2	RN2d-T5S2
	FS with flange	RN2d-T1S3	RN2d-T2S3	RN2d-T3S3	RN2d-T4S3	RN6d-T1S3	RN6d-T3S3	RN2d-T5S3
12 kV, 21 kA, 75 kV BIL with type C bushing	TX mounted	RN2d-T1C1	RN2d-T2C1	RN2d-T3C1	RN2d-T4C1	RN6d-T1C1	RN6d-T3C1	RN2d-T5C1
	FS wo flange	RN2d-T1C2	RN2d-T2C2	RN2d-T3C2	RN2d-T4C2	RN6d-T1C2	RN6d-T3C2	RN2d-T5C2
	FS with flange	RN2d-T1C3	RN2d-T2C3	RN2d-T3C3	RN2d-T4C3	RN6d-T1C3	RN6d-T3C3	RN2d-T5C3

● Standard feature / ○ Optional feature

(1) Specify rating and kit number, refer to page 117

Non-extensible ring main units

Accessories

Ring main units

	RN2d-T1 TLF	RN2d-T2 VIP400	RN2d-T3 VIP410	RN2d-T4 VIP45	RN2d-T5 T300	RN6d-T1 VIP400	RN6d-T3 VIP410	Kit no. for short bushing	Kit no. for type C bushing
Cable box									
Ring switch	Bottom cable entry with IAC A-F 13.1 kA 1s (1)	●	●	●	●	●	●	●	
	Top cable entry with IAC A-F 13.1 kA 1s (1)	□	□	□	□	□	□	RMD-F302M	RMD-F302
	Top entry cable LH cable box (indoor only)	□	□	□	□	□	□	RMD-F303M	RMD-F303
Circuit breaker (CB)	Bottom cable entry with IAC A-F 13.1 kA 1s (1)	□	□	□	□	□	□	RMD-F47-BTM	RMD-F47-BTM
	CB cable box	□	□	□	□	□	□	RMD-F47-BTM	RMD-F47-BTM
	CB cable box Integral cable test facility	□	□	□	□	●	●	RMD-F325	RMD-F325 (3)
	Top cable entry with IAC A-F 13.1 kA 1s (1)	□	□	□	□	□	□	RMD-F47-TOP	RMD-F47-TOP
	Circuit breaker cable box	□	□	□	□	□	□	Refer to MU2d/MU6d part, page 56	
Gland plate & Gland for switch & CB (free standing without flange)									
For 1x3 core cable									
Type 1: large	Gland plate	Gland plate for 1x3C cable	●	●	●	●	●	RMD-F316M-CB RMD-F316-RSW RMD-F316-TOP	RMD-F316-CB RMD-F316-RSW RMD-F316-TOP
	Gland	Split gland plate for 1x3C cable	□	□	□	□	□	RMD-F318M	RMD-F318
	Gland	Angled gland plate for 1x3C plate	□	□	□	□	□	RMD-F317	RMD-F317
	Gland	Galvanised stell wiping gland for 1x3C cable	□	□	□	□	□	RMD-F10	RMD-F10
Type 2: small	Gland	Tubular gland for 1x3C cable	□	□	□	□	□	RMD-F12	RMD-F12
	Gland plate	Small gland plate for 1x3C cable	□	□	□	□	□	RMD-F322M-CB RMD-F322M-RSW	RMD-F322-CB RMD-F322-RSW
	Gland	Small Tubular gland	□	□	□	□	□	RMD-F106	RMD-F106
Type 3: CES5	Gland plate	CES5 gland plate for 1x3C cable	□	□	□	□	□	RMD-F321M-CB RMD-F321M-RSW	RMD-F321-CB RMD-F321-RSW RMD-F321-TOP
	Gland	CES5 gland	□	□	□	□	□	RMD-F120	RMD-F120
For 3 single core cable									
	Gland plate	Gland plate for 3x1C cable	□	□	□	□	□	RMD-F319M	RMD-F319
	Gland	Galvanised stell wiping gland for 3x1C cable	□	□	□	□	□	RMD-F11	RMD-F11
	Gland	Tubular gland for 3x1C cable	□	□	□	□	□	RMD-F13	RMD-F13
For no cable									
	Blank galvanised gland plate		□	□	□	□	□	RMD-F320	RMD-F320
Gland plate & Gland for CB (free standing with flange)									
For 1x3 core cable									
	Gland plate	Gland plate for CB free standing with flange	□	□	□	□	□	RMD-F48	RMD-F48
	Gland	Galvanised stell wiping plate for 1x3C cable	□	□	□	□	□	RMD-F10	RMD-F10
	Gland	Tubular gland for 1x3C cable	□	□	□	□	□	RMD-F12	RMD-F12
For 3 single core cable									
	Gland plate	For CB free standing with flange	□	□	□	□	□	RMD-F49	RMD-F49
	Gland	Galvanised stell wiping plate for 3x1C cable	□	□	□	□	□	RMD-F11	RMD-F11
	Gland	Tubular gland for 3x1C cable	□	□	□	□	□	RMD-F13	RMD-F13
For no cable									
	Blank galvanised gland plate		□	□	□	□	□	RMD-F52	RMD-F52
Earth bar									
In Aluminium		●	●	●	●	●	●	RMD-F65 RMD-F65-E RMD-F65-RN6	RMD-F65 RMD-F65-E RMD-F65-RN6
		□	□	□	□	□	□	RMD-F66 RMD-F66-E RMD-F66-RN6	RMD-F66 RMD-F66-E RMD-F66-RN6

Non-extensible ring main units

Accessories

IAC deflector (2)

Connect with USS Style TX	●	●	●	●	RMD-F323	RMD-F323
Connect with ground mounted Style Tx	□	□	□	□	RMD-F885	RMD-F885

Accessories

Anti-vandal fixings, including tool	◊	◊	◊	◊	◊	◊	RMD-A344	RMD-A344
Transformer mounted kit (2)	●	●	●	●	◊	◊	RMD-F461	RMD-F461

● Standard feature / □ Factory fitted accessory / ◊ Loose accessory, assembled on site / (1) For cable box with IAC A-F 21 kA 1s, the offer is available, please contact us / (2) only use when transformer mounted application / (3) this kit is only for RN2d, and kit includes cable box

Ring main units

Operational items	RN2d-T1 TLF	RN2d-T2 VIP400	RN2d-T3 VIP410	RN2d-T4 VIP45	RN2d-T5 T300	RN6d-T1 VIP400	RN6d-T3 VIP410	Kit no. for short bushing	Kit no. for type C bushing
LH ring switch control auxiliary sw for motorised mechanism provision	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	RMD-F328	RMD-F328				
LH ring switch termination block for motorised mechanism provision (wo FRTU)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	RMD-F363	RMD-F363
RH ring switch control auxiliary sw for motorised mechanism provision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F329	RMD-F329
RH ring switch termination block for motorised mechanism provision (wo FRTU)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	RMD-F364	RMD-F364
Provision for motorised mechanism of circuit breaker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			RMD-F543	RMD-F543
Motor kit for RS1 24 Vdc	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F507-RS1	RMD-F507-RS1
Motor kit for RS2 24 Vdc	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F507-RS2	RMD-F507-RS2
Motor kit for circuit breaker 24 Vdc	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F507-CB	RMD-F507-CB
Shunt trip coil (20-250 Vdc, 110-250 Vac) for TLF	<input type="checkbox"/>				<input checked="" type="checkbox"/>			RMD-F581	RMD-F581
Ring switch (LH & RH) cable voltage present indication system									
VPIS without voltage output - 3.3 kV to 7.2 kV	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	RMD-F941M	RMD-F941
VPIS without voltage output - 11 kV to 12 kV	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	RMD-F938M	RMD-F938
VPIS-VO with voltage output - 3.3 kV to 7.2 kV	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	RMD-F913M	RMD-F913
VPIS-VO with voltage output - 11 kV to 12 kV	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	RMD-F910M	RMD-F910
Circuit breaker cable voltage present indication system									
VPIS without voltage output - 3.3 kV to 6.6 kV	<input type="checkbox"/>	RMD-F940M	RMD-F940						
VPIS without voltage output - 11 kV to 12 kV	<input type="checkbox"/>	RMD-F939M	RMD-F939						
VPIS-VO with voltage output - 3.3 kV to 7.2 kV	<input type="checkbox"/>	RMD-F912M	RMD-F912						
VPIS-VO with voltage output - 11 kV to 12 kV	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F911M	RMD-F911
Phase indication device	<input checked="" type="checkbox"/>	RMD-A374	RMD-A374						
Tripped on fault contact	<input type="checkbox"/>	RMD-F495	RMD-F495						
Low gas pressure indicator (-25°C to +55°C)	<input type="checkbox"/>	RMD-F368	RMD-F368						
Emergency circuit breaker trip push button	<input type="checkbox"/>	RMD-F339	RMD-F339						
Mechanical interlocks (1)									
Switch - key free, SWITCH OFF LH	<input type="checkbox"/>	RMD-F335	RMD-F335						
Switch - key free, SWITCH OFF RH	<input type="checkbox"/>	RMD-F336	RMD-F336						
Circuit breaker - key free, EARTH ON	<input type="checkbox"/>	RMD-F337	RMD-F337						
Circuit breaker - key free, MAIN OFF	<input type="checkbox"/>	RMD-F338	RMD-F338						
Earth fault passage indication (EFPI) (2)									
500/1A indication CT for Easergy T300	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F310-RS1	RMD-F310-RS1
500/1A indication CT for Easergy T300	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	RMD-F310-RS2	RMD-F310-RS2				
EFPI provision kit, inside cable box	<input checked="" type="checkbox"/>	RMD-F304-RS1	RMD-F304-RS1						
EFPI provision kit, inside cable box	<input checked="" type="checkbox"/>	RMD-F304-RS2	RMD-F304-RS2						
EFPI provision kit, CT outside cable box	<input checked="" type="checkbox"/>	RMD-A305	RMD-A305						
EFPI provision kit, inside cable box, top entry	<input checked="" type="checkbox"/>	RMD-A308	RMD-A308						
EFPI provision kit, outside cable box, top entry	<input checked="" type="checkbox"/>	RMD-A309	RMD-A309						
Bowden "RR" EFPI	<input checked="" type="checkbox"/>	RMD-A422-RS1	RMD-A422-RS1						
Bowden STD EFPI type NB	<input checked="" type="checkbox"/>	RMD-A277	RMD-A277						
Bowden LV reset EFPI type NB1	<input checked="" type="checkbox"/>	RMD-A278	RMD-A278						
Bowden LV reset & alarm type NB2	<input checked="" type="checkbox"/>	RMD-A279	RMD-A279						
Note: above CT's are ring type for split core - please consult Schneider Electric									
Core balance CT for VIP410 relay for sensitive earth fault									
	<input checked="" type="checkbox"/>	RMD-F756M (3)	RMD-F756M (3)						
VIP relay test device									
Pocket battery for VIP relay	<input checked="" type="checkbox"/>	RMD-A202	RMD-A202						

● Standard feature / □ Factory fitted accessory / ◊ Loose accessory, assembled on site

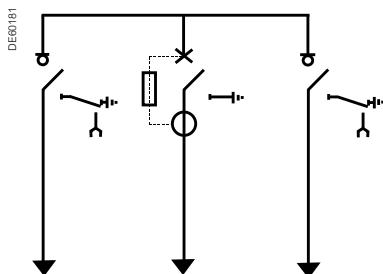
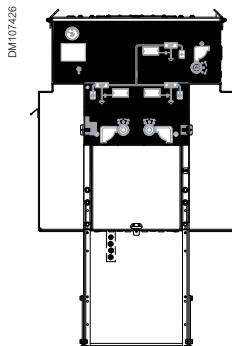
(1) Specify lock symbol at time of ordering (3 digits max), not available with motor mechanisms

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

(3) Including gland plate and it is 1x3C cable

Non-extensible ring main unit 200 A RN2d-T1 (TLF)

Transformer protection up to 1.6 MVA at 11 kV



Basic equipment

Indoor / Outdoor design IP54, 12 kV, 21 kA 3s
Two load break switches rated current 630 A with short bushing
One circuit breaker rated current is 200 A with short bushing
Protection CT's - 100/50/5A class X
Overscurrent and earth fault protection using CT operated trip coils with provision for time limit fuses
630 A busbar
Internal arc class: IAC AF 12.5 kA/1s for indoor installation or IAC AF 21 kA 1s for outdoor installation (1)
Internal arc class: IAC AF 13.1 kA 1s for cable boxes (2)
Independent manual operation mechanism
Mechanical tripped on fault flag indication
Mechanical ON/OFF indicator
Mechanical earth/main indicator
SF6 gas gauge
CB auxiliary contacts 1NO+1NC
CB earth position selected: 1NO
CB earth ON: 1NO
Integral ring switch cable test facility
Gland plate for 1 x 3C 300 mm ² for ring switch
Transformer mounted kit
Anti-reflex operating handle
Aluminium earth bar

Options

Indication & operation

Cable voltage present indication (VPIS)
Cable voltage present indication (VPIS) with voltage output
Ring switch position indication: 1NO+1NC
Ring switch earth ON: 1NO
Provision for motorised mechanism of ring switch with plug interface
Provision for motorised mechanism of circuit breaker
Motor kit for ring switch and circuit breaker
Multi voltage shunt tripping coil 20-250 Vdc, 110-250 Vac
Tripped on fault contact
Low gas pressure indicator (-25°C to +55°C)
Emergency circuit breaker trip push button

Test facility

Integral circuit breaker cable test facility
--

Cable connection

Type C bushing (instead short bushing of ring switch and circuit breaker)
Gland for 1 x 3C 300 mm ² for ring switch
Gland plate for 3 x 1C 630 mm ² for ring switch
Gland for 3 x 1C 630 mm ² for ring switch
Inverted cable boxes (indoor only) for freestanding with flange, cable bottom entry with IAC A-F 13.1 kA (2)
Circuit breaker cable box for freestanding without flange, cable bottom entry with IAC A-F 13.1 kA (2)
Ring switch and circuit breaker cable box for cable top entry with IAC A-F-13.1 kA (2)

Earth bar

Copper earth bar

Keylock

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

Earth fault passage indication (EFPI) & Remote control unit (FRTU)

500/1 A indication CT for Easergy T300
EFPI provision kit
EFPI (Earth Fault Passage Indication)
FRTU: Easergy T300

Metering option

Metering on circuit breaker, refer to MU2d part, page 56
--

Accessories

Time Limit Fuse- refer to page 112 selection table
Anti-vandal fixings, including tool
Phase indication device

Order information

Rating	Code
12 kV, 21 kA, 75 kV BIL with short bushing	TX mounted RN2d-T1S1
	FS wo flange RN2d-T1S2
	FS with flange RN2d-T1S3
12 kV, 21 kA, 75 kV BIL with type C bushing	TX mounted RN2d-T1C1
	FS wo flange RN2d-T1C2
	FS with flange RN2d-T1C3

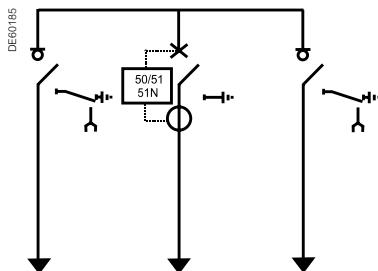
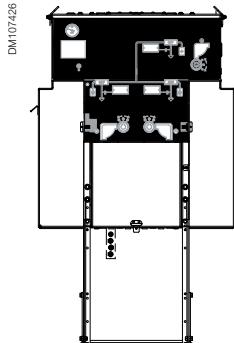
(1) For gas enclosure IAC AFLR 12.5 kA or AF 21 kA 1s or AFLR 21 kA 1s indoor installation offer is available, please consult SE for details. For AFLR 21 kA 1s outdoor installation, the offer is available, please refer to page 127.

(2) For cable box with IAC AF 21 kA 1s, the offer is available, please contact us.

Non-extensible ring main unit 200 A

RN2d-T2 (with VIP400 relay)

Transformer protection up to 3.5 MVA at 11 kV



Basic equipment

Indoor / Outdoor design IP54, 12 kV, 21 kA 3s

Two load break switches rated current 630 A with short bushing

One circuit breaker rated current is 200 A with type C bushing

Self powered IDMT overcurrent and earth fault relay VIP400 in accordance with IEC 60255 and BS142

Overcurrent: 20-200 A, earth fault: 10 - 200 A

Protection CT - C Ga: Ipr: 0-200 A, Us 22.5 mV, 5P30

Trip coil: Mitop

630 A busbar

Internal arc class: IAC AF 12.5 kA/1s for indoor installation or IAC AF 21 kA 1s for outdoor installation (1)

Internal arc class: IAC AF 13.1 kA 1s for cable boxes (2)

Independent manual operation mechanism

Mechanical tripped on fault flag indication

Mechanical ON/OFF indicator

Mechanical earth/main indicator

SF6 gas gauge

CB auxiliary contacts 1NO+1NC

CB earth position selected: 1NO

CB earth ON: 1NO

Integral ring switch cable test facility

Gland plate for 1 x 3C 300 mm² for ring switch

Transformer mounted kit

Anti-reflex operating handle

Aluminium earth bar

Options

Indication & operation

Cable voltage present indication (VPIS)

Cable voltage present indication (VPIS) with voltage output

Ring switch position indication: 1NO+1NC

Ring switch earth ON: 1NO

Provision for motorised mechanism of ring switch with plug interface

Provision for motorised mechanism of circuit breaker

Motor kit for ring switch and circuit breaker

Tripped on fault contact

Low gas pressure indicator (-25°C to +55°C)

Emergency circuit breaker trip push button

Test facility

Integral circuit breaker cable test facility

Cable connection

Type C bushing (instead short bushing of ring switch)

Gland for 1 x 3C 300 mm² for ring switch

Gland plate for 3 x 1C 630 mm² for ring switch

Gland for 3 x 1C 630 mm² for ring switch

Inverted cable boxes (indoor only) for freestanding with flange, cable bottom entry with IAC A-F 13.1 kA (2)

Circuit breaker cable box for freestanding without flange, cable bottom entry with IAC A-F 13.1 kA (2)

Ring switch and circuit breaker cable box for cable top entry with IAC A-F-13.1 kA (2)

Earth bar

Copper earth bar

Keylock

Switch - key free, SWITCH OFF LH

Switch - key free, SWITCH OFF RH

Circuit breaker - key free, EARTH ON

Circuit breaker - key free, MAIN OFF

Earth fault passage indication (EFPI) & Remote control unit (FRTU)

500/1 A indication CT for Easergy T300

EFPI provision kit

EFPI (Earth Fault Passage Indication)

FRTU: Easergy T300

Metering option

Metering on circuit breaker, refer to MU2d part, page 56

Accessories

Anti-vandal fixings, including tool

Phase indication device

Pocket battery for VIP relay

Order information

Rating

12 kV, 21 kA, 75 kV BIL with short bushing

TX mounted

RN2d-T2S1

FS wo flange

RN2d-T2S2

FS with flange

RN2d-T2S3

TX mounted

RN2d-T2C1

FS wo flange

RN2d-T2C2

FS with flange

RN2d-T2C3

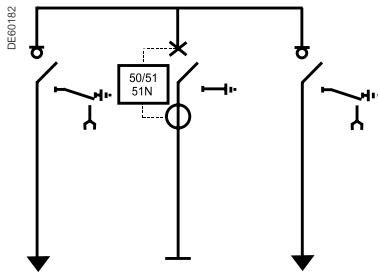
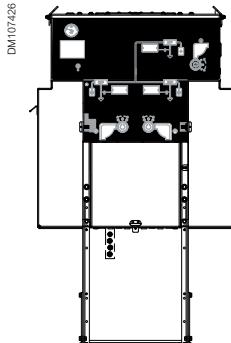
(1) For gas enclosure IAC AFLR 12.5 kA or AF 21 kA 1s or AFLR 21 kA 1s indoor installation offer is available, please consult SE for details. For AFLR 21 kA 1s outdoor installation, the offer is available, please refer to page 127.

(2) For cable box with IAC AF 21 kA 1s, the offer is available, please contact us.

Non-extensible ring main unit 200 A

RN2d-T3 (with VIP410 relay)

MV transformer protection up to 3.5 MVA at 11 kV



Basic equipment

Indoor / Outdoor design IP54, 12 kV, 21 kA 3s
Two load break switches rated current 630 A with short bushing
One circuit breaker rated current is 200 A with type C bushing
Self powered IDMT overcurrent and earth fault relay VIP410 in accordance with IEC 60255 and BS142 Dual supply for communication or sensitive earth fault
Overcurrent: 20-200A, earth fault: 1- 240 A (with Core balance CT)
Protection CT - C Ga: Ipr: 0-200 A, Us 22.5 mV, 5P30
Trip coil: Mitop
630 A busbar
Internal arc class: IAC AF 12.5 kA/1s for indoor installation or IAC AF 21 kA 1s for outdoor installation (1)
Internal arc class: IAC AF 13.1 kA 1s for cable boxes (2)
Independent manual operation mechanism
Mechanical tripped on fault flag indication
Mechanical ON/OFF indicator
Mechanical earth/main indicator
SF6 gas gauge
CB auxiliary contacts: 1NO+1NC
CB earth position selected: 1NO
CB earth ON: 1NO
Integral ring switch cable test facility
Gland plate for 1 x 3C 300 mm ² for ring switch
Transformer mounted kit
Anti-reflex operating handle
Aluminium earth bar

(1) For gas enclosure IAC AFLR 12.5 kA or AF 21 kA 1s or AFLR 21 kA 1s indoor installation offer is available, please consult SE for details. For AFLR 21 kA 1s outdoor installation, the offer is available, please refer to page 127.

(2) For cable box with IAC AF 21 kA 1s, the offer is available, please contact us.

Options

Indication & operation

Cable voltage present indication (VPIS)
Cable voltage present indication (VPIS) with voltage output
Ring switch position indication: 1NO+1NC
Ring switch earth ON: 1NO
Provision for motorised mechanism of ring switch with plug interface
Provision for motorised mechanism of circuit breaker
Motor kit for ring switch and circuit breaker
Tripped on fault contact
Low gas pressure indicator (-25°C to +55°C)
Emergency circuit breaker trip push button

Test facility

Integral circuit breaker cable test facility
--

Cable connection

Type C bushing (instead short bushing of ring switch)
Gland for 1 x 3C 300 mm ² for ring switch
Gland plate for 3 x 1C 630 mm ² for ring switch
Gland for 3 x 1C 630 mm ² for ring switch
Inverted cable boxes (indoor only) for freestanding with flange, cable bottom entry with IAC A-F 13.1 kA (2)
Circuit breaker cable box for freestanding without flange, cable bottom entry with IAC A-F 13.1 kA (2)
Ring switch and circuit breaker cable box for cable top entry with IAC A-F-13.1 kA (2)

Earth bar

Copper earth bar

Keylock

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

Earth fault passage indication (EFPI) & Remote control unit (FRTU)

500/1A indication CT for Easergy T300
EFPI provision kit
EFPI (Earth Fault Passage Indication)
FRTU: Easergy T300
Core balance CT for detecting sensitive earth fault

Metering option

Metering on circuit breaker, refer to MU2d part, page 56
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Accessories

Anti-vandal fixings, including tool
Phase indication device
Pocket battery for VIP relay

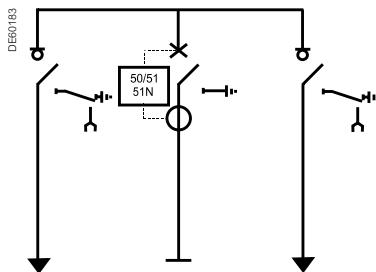
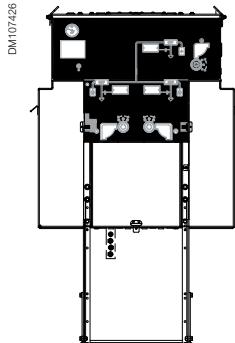
Order information

Rating	Code
12 kV, 21 kA, 75 kV BIL with short bushing	TX mounted RN2d-T3S1
	FS wo flange RN2d-T3S2
	FS with flange RN2d-T3S3
12 kV, 21 kA, 75 kV BIL with type C bushing	TX mounted RN2d-T3C1
	FS wo flange RN2d-T3C2
	FS with flange RN2d-T3C3

Non-extensible ring main unit 200 A

RN2d-T4 (with VIP45 relay)

MV transformer protection up to 2.5 MVA at 11 kV



Basic equipment

Indoor / Outdoor design IP54, 12 kV, 21 kA 3s

Two load break switches rated current 630 A with short bushing

One circuit breaker rated current is 200 A with type C bushing

Self powered overcurrent and earth fault relay VIP45

Setting range: Overcurrent: 5-200 A, earth fault: 5-200 A

Setting range: Overcurrent: 5-100 A, earth fault: 5-100 A

Protection CT - C Ga: Ipr: 0-200 A, Us 22.5mV, 5P30

Trip coil: Mitop

630 A busbar

Internal arc class: IAC AF 12.5 kA/1s for indoor installation or IAC AF 21kA 1s for outdoor installation (1)

Internal arc class: IAC AF 13.1kA 1s for cable boxes (2)

Independent manual operation mechanism

Mechanical tripped on fault flag indication

Mechanical ON/OFF indicator

Mechanical earth/main indicator

SF6 gas gauge

CB auxiliary contacts: 1NO+1NC

CB earth position selected: 1NO

CB earth ON: 1NO

Integral ring switch cable test facility

Gland plate for 1 x 3C 300 mm² for ring switch

Transformer mounted kit

Anti-reflex operating handle

Aluminium earth bar

Options

Indication & operation

Cable voltage present indication (VPIS)

Cable voltage present indication (VPIS) with voltage output

Ring switch position indication: 1NO+1NC

Ring switch earth ON: 1NO

Provision for motorised mechanism of ring switch with plug interface

Provision for motorised mechanism of circuit breaker

Motor kit for ring switch and circuit breaker

Tripped on fault contact

Low gas pressure indicator (-25°C to +55°C)

Emergency circuit breaker trip push button

Test facility

Integral circuit breaker cable test facility

Cable connection

Type C bushing (instead short bushing of ring switch)

Gland for 1 x 3C 300 mm² for ring switch

Gland plate for 3 x 1C 630 mm² for ring switch

Gland for 3 x 1C 630 mm² for ring switch

Inverted cable boxes (indoor only) for freestanding with flange, cable bottom entry with IAC A-F 13.1 kA (2)

Circuit breaker cable box for freestanding without flange, cable bottom entry with IAC A-F 13.1 kA (2)

Ring switch and circuit breaker cable box for cable top entry with IAC A-F-13.1 kA (2)

Earth bar

Copper earth bar

Keylock

Switch - key free, SWITCH OFF LH

Switch - key free, SWITCH OFF RH

Circuit breaker - key free, EARTH ON

Circuit breaker - key free, MAIN OFF

Earth fault passage indication (EFPI) & Remote control unit (FRTU)

500/1A indication CT for Easergy T300

EFPI provision kit

EFPI (Earth Fault Passage Indication)

FRTU: Easergy T300

Metering option

Metering on circuit breaker, refer to MU2d part, page 56

Accessories

Anti-vandal fixings, including tool

Phase indication device

Pocket battery for VIP relay

Order information

Rating	Code
12 kV, 21 kA, 75 kV BIL with short bushing	TX mounted RN2d-T4S1 FS wo flange RN2d-T4S2 FS with flange RN2d-T4S3
12 kV, 21 kA, 75 kV BIL with type C bushing	TX mounted RN2d-T4C1 FS wo flange RN2d-T4C2 FS with flange RN2d-T4C3

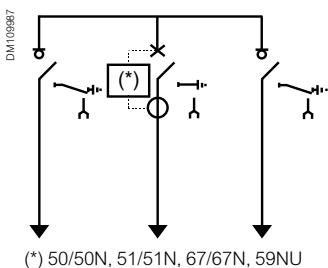
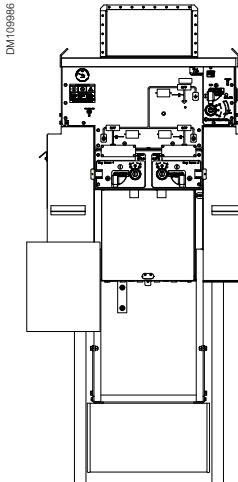
(1) For gas enclosure IAC AFLR 12.5 kA or AF 21 kA 1s or AFLR 21 kA 1s indoor installation offer is available, please consult SE for details. For AFLR 21 kA 1s outdoor installation, the offer is available, please refer to page 127.

(2) For cable box with IAC AF 21 kA 1s, the offer is available, please contact us.

Non-extensible ring main unit 200 A

RN2d-T5 (with integrated T300)

Transformer protection up to 3.5 MVA at 11 kV



(*) 50/50N, 51/51N, 67/67N, 59NU

Basic equipment

Indoor / Outdoor design IP54, 12 kV, 21 kA 3s

Two load break switches rated current 630 A with short bushing

One circuit breaker rated current is 200 A with type C bushing

Integrated T300 with 2 ring switch controllers and 1 circuit breaker controller with over current and earth fault protection in accordance with IEC

Protection CT - 200/100/1 A 5P20

Trip coil

630 A busbar

Internal arc class: IAC AF 12.5 kA/1s for indoor installation or IAC AF 21 kA 1s for outdoor installation (1)

Internal arc class: IAC AF 13.1 kA 1s for cable boxes (2)

Independent manual operation mechanism

Mechanical tripped on fault flag indication

Mechanical ON/OFF indicator

Mechanical earth/main indicator

SF6 gas gauge

CB auxiliary contacts: 1NO+1NC

CB earth position selected: 1NO

CB earth ON: 1NO

Integral ring switch cable test facility

Gland plate for 1 x 3C 300mm² for ring switch

Transformer mounted kit

Anti-reflex operating handle

Aluminium earth bar

Options

Indication & operation

Cable voltage present indication (VPIS)

Cable voltage present indication (VPIS) with voltage output

Ring switch position indication: 1NO+1NC

Ring switch earth ON: 1NO

Provision for motorised mechanism of ring switch with plug interface

Provision for motorised mechanism of circuit breaker

Motor kit for ring switch and circuit breaker

Tripped on fault contact

Low gas pressure indicator (-25°C to +55°C)

Emergency circuit breaker trip push button

Test facility

Integral circuit breaker cable test facility

Cable connection

Type C bushing (instead short bushing of ring switch)

Gland for 1 x 3C 300 mm² for ring switch

Gland plate for 3 x 1C 630 mm² for ring switch

Gland for 3 x 1C 630 mm² for ring switch

Inverted cable boxes (indoor only) for freestanding with flange, cable bottom entry with IAC A-F 13.1 kA (2)

Circuit breaker cable box for freestanding without flange, cable bottom entry with IAC A-F 13.1 kA (2)

Ring switch and circuit breaker cable box for cable top entry with IAC A-F-13.1 kA (2)

Earth bar

Copper earth bar

Keylock

Switch - key free, SWITCH OFF LH

Switch - key free, SWITCH OFF RH

Circuit breaker - key free, EARTH ON

Circuit breaker - key free, MAIN OFF

Earth fault passage indication (EFPI) & Remote control unit (FRTU)

500/1A indication CT for Easergy T300

EFPI

EFPI (Earth Fault Passage Indication)

Integrated Easergy T300

Metering option

Metering on circuit breaker, refere to MU6d part, page 59

Accessories

Anti-vandal fixings, including tool

Phase indication device

Order information

Rating	Code
TX mounted	RN2d-N10 C1
FS wo flange	RN2d-N10 C2
FS with flange	RN2d-N10 C3

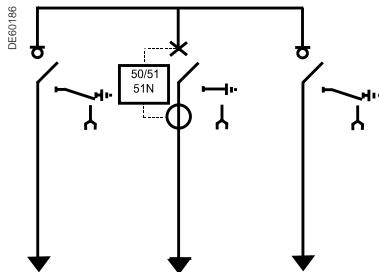
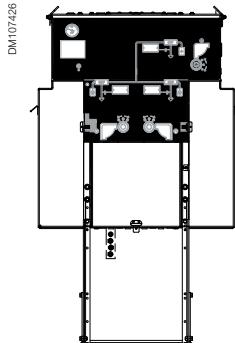
(1) For gas enclosure IAC AFLR 12.5 kA or AF 21 kA 1s or AFLR 21 kA 1s indoor installation offer is available, please consult SE for details. For AFLR 21 kA 1s outdoor installation, the offer is available, please refer to page 127.

(2) For cable box with IAC AF 21 kA 1s, the offer is available, please contact us.

Non-extensible ring main unit 630 A

RN6d-T1 (with VIP400 relay)

Network sectionalising up to 12 MVA at 11 kV



Basic equipment

- Indoor / Outdoor design IP54, 12 kV, 21 kA 3s
- Two load break switches rated current 630 A with short bushing
- One circuit breaker rated current is 630 A with type C bushing
- Self powered IDMT overcurrent and earth fault relay VIP400 in accordance with IEC 60255 and BS142
- Setting range: Overcurrent: 31.5-1250 A, earth fault: 63 - 630 A
- Protection CT - C Ga: Ipr: 0-630 A, Us 22.5 mV, 5P30
- Trip coil: Mitop
- 630 A busbar
- Internal arc class: IAC AF 12.5 k A/1s for indoor installation or IAC AF 21 kA 1s for outdoor installation (1)
- Internal arc class: IAC AF 13.1 kA 1s for cable boxes (2)
- Independent manual operation mechanism
- Provision for motorised mechanism of circuit breaker
- Mechanical tripped on fault flag indication
- Mechanical ON/OFF indicator
- Mechanical earth/main indicator
- SF6 gas gauge
- CB auxiliary contacts: 1NO+1NC
- CB earth position selected: 1NO
- CB earth ON: 1NO
- Integral ring switch cable test facility
- Circuit breaker cable box Integral cable test facility
- Gland plate for 1 x 3C 300 mm² for ring switch
- Anti-reflex operating handle
- Aluminium earth bar

Options

Indication & operation

- Cable voltage present indication (VPIS)
- Cable voltage present indication (VPIS) with voltage output
- Ring switch position indication: 1NO+1NC
- Ring switch earth ON: 1NO
- Provision for motorised mechanism of ring switch with plug interface
- Motor kit for ring switch and circuit breaker
- Tripped on fault contact
- Low gas pressure indicator (-25°C to +55°C)
- Emergency circuit breaker trip push button

Cable connection

- Type C bushing (instead short bushing of ring switch)
- Gland for 1 x 3C 300 mm² for ring switch
- Gland plate for 3 x 1C 630 mm² for ring switch
- Gland for 3 x 1C 630 mm² for ring switch
- Inverted cable boxes (indoor only) for freestanding with flange, cable bottom entry with IAC A-F 13.1 kA (2)
- Circuit breaker cable box for freestanding without flange, cable bottom entry with IAC A-F 13.1 kA (2)
- Ring switch and circuit breaker cable box for cable top entry with IAC A-F-13.1 kA (2)

Earth bar

- Copper earth bar

Keylock

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

Earth fault passage indication (EFPI) & Remote control unit (FRTU)

- 500/1 A indication CT for Easergy T300
- EFPI provision kit
- EFPI (Earth Fault Passage Indication)
- FRTU: Easergy T300

Metering option

- Metering on circuit breaker, refere to MU6d part, page 59

Accessories

- Anti-vandal fixings, including tool
- Phase indication device
- Pocket battery for VIP relay

Order information

Rating	Code
TX mounted	RN6d-T1S1
FS wo flange	RN6d-T1S2
FS with flange	RN6d-T1S3
TX mounted	RN6d-T1C1
FS wo flange	RN6d-T1C2
FS with flange	RN6d-T1C3

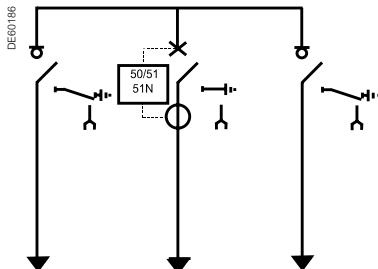
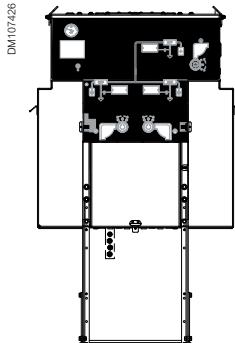
(1) For gas enclosure IAC AFLR 12.5 kA or AF 21 kA 1s or AFLR 21 kA 1s indoor installation offer is available, please consult SE for details. For AFLR 21 kA 1s outdoor installation, the offer is available, please refer to page 127.

(2) For cable box with IAC AF 21 kA 1s, the offer is available, please contact us.

Non-extensible ring main unit 630 A

RN6d-T3 (with VIP410 relay)

Network sectionalising up to 12 MVA at 11 kV



Basic equipment

Indoor / Outdoor design IP54, 12 kV, 21 kA 3s
Two load break switches rated current 630 A with short bushing
One circuit breaker rated current is 630 A with type C bushing
Self powered IDMT overcurrent and earth fault relay VIP410 in accordance with IEC 60255 and BS142
Setting range: Overcurrent: 31.5-1250 A, earth fault: 1-240 A (with Core balance CT)
Protection CT - C Ga: Ipr: 0-630 A, Us 22.5 mV, 5P30
Trip coil: Mitop
630 A busbar
Internal arc class: IAC AF 12.5 kA/1s for indoor installation or IAC AF 21 kA 1s for outdoor installation (1)
Internal arc class: IAC AF 13.1 kA 1s for cable boxes (2)
Independent manual operation mechanism
Provision for motorised mechanism of circuit breaker
Mechanical tripped on fault flag indication
Mechanical ON/OFF indicator
Mechanical earth/main indicator
SF6 gas gauge
CB auxiliary contacts: 1NO+1NC
CB earth position selected: 1NO
CB earth ON: 1NO
Integral ring switch cable test facility
Circuit breaker cable box Integral cable test facility
Gland plate for 1 x 3C 300mm ² for ring switch
Anti-reflex operating handle
Aluminium earth bar

Options

Indication & operation

Cable voltage present indication (VPIS)	<input type="checkbox"/>
Cable voltage present indication (VPIS) with voltage output	<input type="checkbox"/>
Ring switch position indication: 1NO+1NC	<input type="checkbox"/>
Ring switch earth ON: 1NO	<input type="checkbox"/>
Provision for motorised mechanism of ring switch with plug interface	<input type="checkbox"/>
Motor kit for ring switch and circuit breaker	<input type="checkbox"/>
Tripped on fault contact	<input type="checkbox"/>
Low gas pressure indicator (-25°C to +55°C)	<input type="checkbox"/>
Emergency circuit breaker trip push button	<input type="checkbox"/>

Cable connection

Type C bushing (instead short bushing of ring switch)	<input type="checkbox"/>
Gland for 1 x 3C 300 mm ² for ring switch	<input type="checkbox"/>
Gland plate for 3 x 1C 630 mm ² for ring switch	<input type="checkbox"/>
Gland for 3 x 1C 630 mm ² for ring switch	<input type="checkbox"/>
Inverted cable boxes (indoor only) for freestanding with flange, cable bottom entry with IAC A-F 13.1 kA (2)	<input type="checkbox"/>
Circuit breaker cable box for freestanding without flange, cable bottom entry with IAC A-F 13.1 kA (2)	<input type="checkbox"/>
Ring switch and circuit breaker cable box for cable top entry with IAC A-F-13.1 kA (2)	<input type="checkbox"/>

Earth bar

Copper earth bar	<input type="checkbox"/>
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Keylock

Switch - key free, SWITCH OFF LH	<input type="checkbox"/>
Switch - key free, SWITCH OFF RH	<input type="checkbox"/>
Circuit breaker - key free, EARTH ON	<input type="checkbox"/>
Circuit breaker - key free, MAIN OFF	<input type="checkbox"/>

Earth fault passage indication (EFPI) & Remote control unit (FRTU)

500/1A indication CT for Easergy T300	<input type="checkbox"/>
EFPI provision kit	<input type="checkbox"/>
EFPI (Earth Fault Passage Indication)	<input type="checkbox"/>
FRTU: Easergy T300	<input type="checkbox"/>
Core balance CT for detecting sensitive earth fault	<input type="checkbox"/>

Metering option

Metering on circuit breaker, refere to MU6d part, page 59	<input type="checkbox"/>
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Accessories

Anti-vandal fixings, including tool
Phase indication device
Pocket battery for VIP relay

Order information

Rating	Code
12 kV, 21 kA, 75 kV BIL with short bushing	TX mounted RN6d-T3S1
	FS wo flange RN6d-T3S2
	FS with flange RN6d-T3S3
12 kV, 21 kA, 75 kV BIL with type C bushing	TX mounted RN6d-T3C1
	FS wo flange RN6d-T3C2
	FS with flange RN6d-T3C3

(1) For gas enclosure IAC AFLR 12.5 kA or AF 21 kA 1s or AFLR 21 kA 1s indoor installation offer is available, please consult SE for details. For AFLR 21 kA 1s outdoor installation, the offer is available, please refer to page 127.

(2) For cable box with IAC AF 21 kA 1s, the offer is available, please contact us.

Extensible ring main units

Specification

	RE2d-T1 TLF	RE2d-T2 VIP400 *	RE2d-T3 VIP410 *	RE2d-T4 VIP45	
Ratings					
12 kV 21 kA 3s 75 kV BIL, busbar 630 A	●	●	●	●	
Switch normal rated current 630 A	●	●	●	●	
Circuit breaker normal rated current 200 A	●	●	●	●	
Circuit breaker earth switch	●	●	●	●	
IP54	●	●	●	●	
Application					
Transformer mounted	●	●	●	●	
Free standing	○	○	○	○	
Free standing with flange	○	○	○	○	
Mechanism					
Independent manual operation	●	●	●	●	
Provision for motorised 24 Vdc mechanism LH Ring switch	○	○	○	○	
Provision for motorised 24 Vdc mechanism RH Ring switch	○	○	○	○	
Provision for motorised 24 Vdc mechanism circuit breaker	○	○	○	○	
Motor kit of 24 Vdc	○	○	○	○	
Protection & control - circuit breaker					
CT's dual ratio - 100/50/5 A class X	●				
CT-C Ga: Ipr 0-200 A, Us 22.5 mV, 5P30		●	●	●	
Core balance CT for VIP410 relay for sensitive earth fault			○		
Time limit fuse (1)	○				
Multi voltage shunt trip coil	○	●	●	●	
Indication					
SF6 gas gauge	●	●	●	●	
Mechanical tripped on fault	●	●	●	●	
Mechanism ON/OFF	●	●	●	●	
Mechanism EARTH/MAIN	●	●	●	●	
VPIS indication	○	○	○	○	
VPIS indication with voltage output	○	○	○	○	
RSW auxiliary contacts 1NO & 1NC	○	○	○	○	
Tripped on fault contact	○	○	○	○	
Low gas pressure indicator (-25°C to +55°C)	○	○	○	○	
Emergency circuit breaker trip push button	○	○	○	○	
Test facility					
Integral ring switch cable test facility	●	●	●	●	
Integral circuit breaker test facility	○	○	○	○	
Standard features					
Operation handle	●	●	●	●	
Cable connection bushing type of Ring switch					
Short bushing	●	●	●	●	
Type C bushing	○	○	○	○	
Metering option					
Metering on circuit breaker	○	○	○	○	
Cable (See available cable kit accessories)					
Bottom entry up 1 x 3C (up to 300 mm ²)	●	●	●	●	
Bottom entry up 3 x 1C (up to 630 mm ²)	○	○	○	○	
Top entry cable (indoor only)	○	○	○	○	
Extensible (RHS)	●	●	●	●	
Blanking kit (for future extensible)	●	●	●	●	
Extensible kit	○	○	○	○	
Order codes					
12 kV, 21 kA, 75 kV BIL with short bushing	TX mounted FS wo flange FS with flange	RE2d-T1S1 RE2d-T1S2 RE2d-T1S3	RE2d-T2S1 RE2d-T2S2 RE2d-T2S3	RE2d-T3S1 RE2d-T3S2 RE2d-T3S3	RE2d-T4S1 RE2d-T4S2 RE2d-T4S3
12 kV, 21 kA, 75 kV BIL with type C bushing	TX mounted FS wo flange FS with flange	RE2d-T1C1 RE2d-T1C2 RE2d-T1C3	RE2d-T2C1 RE2d-T2C2 RE2d-T2C3	RE2d-T3C1 RE2d-T3C2 RE2d-T3C3	RE2d-T4C1 RE2d-T4C2 RE2d-T4C3

● Standard feature / ○ Optional feature

(1) Specify rating and kit number, refer to page 117

* 630 A extensible RMU is available please contact Schneider Electric

Extensible ring main units

Accessories

Ring main units

		RE2d-T1 TLF	RE2d-T2 VIP400	RE2d-T3 VIP410	RE2d-T4 VIP45	Kit no. for short bushing	Kit no. for type C bushing		
Cable box									
Ring switch	Bottom cable entry with IAC A-F 13.1 kA 1s (1)	●	●	●	●				
Bottom cable entry with IAC A-F 13.1kA 1s (1)									
Circuit breaker	Circuit breaker cable box	□	□	□	□	RMD-F47-BTM	RMD-F47-BTM		
	Integral cable test facility	□	□	□	□	RMD-F325	RMD-F325		
	Metering on circuit breaker	□	□	□	□	Details refer to MU2d part, page 56			
Gland plate & Gland for switch & CB (free standing without flange)									
For 1x3 core cable									
Type 1: large	Gland plate	Gland plate for 1x3C cable	●	●	●	●	RMD-F316M	RMD-F316	
		Split gland plate for 1x3C cable	□	□	□	□	RMD-F318M	RMD-F318	
		Angled gland plate for 1x3C plate	□	□	□	□	RMD-F317	RMD-F317	
Type 2: small	Gland	Galvanised stell wiping gland for 1 x 3C cable	□	□	□	□	RMD-F10	RMD-F10	
		Tubular gland for 1 x 3C cable	□	□	□	□	RMD-F12	RMD-F12	
Type 3:	Gland plate	Small gland plate for 1x3C cable	□	□	□	□	RMD-F322M	RMD-F322	
CES5	Gland	Small Tubular gland	□	□	□	□	RMD-F106	RMD-F106	
Type 3: CES5	Gland plate	CES5 gland plate for 1x3C cable	□	□	□	□	RMD-F321M	RMD-F321	
	Gland	CES5 gland	□	□	□	□	RMD-F120	RMD-F120	
For 3 single core cable									
	Gland plate	Gland plate for for 3 x 1C cable	□	□	□	□	RMD-F319M	RMD-F319	
	Gland	Galvanised stell wiping gland for 3 x 1C cable	□	□	□	□	RMD-F11	RMD-F11	
		Tubular gland for 3 x 1C cable	□	□	□	□	RMD-F13	RMD-F13	
For no cable									
		Blank galvanised gland plate	□	□	□	□	RMD-F320	RMD-F320	
Gland plate & Gland for CB (free standing with flange)									
For 1x3 core cable									
	Gland plate	Gland plate for CB free standing with flange	□	□	□	□	RMD-F48	RMD-F48	
	Gland	Galvanised stell wiping plate for 1 x 3C cable	□	□	□	□	RMD-F10	RMD-F10	
		Tubular gland for 1 x 3C cable	□	□	□	□	RMD-F12	RMD-F12	
For 3 single core cable									
	Gland plate	for CB free standing with flange	□	□	□	□	RMD-F49	RMD-F49	
	Gland	Galvanised stell wiping plate for 3 x 1C cable	□	□	□	□	RMD-F11	RMD-F11	
		Tubular gland for 3 x 1C cable	□	□	□	□	RMD-F13	RMD-F13	
For no cable									
		Blank galvanised gland plate	□	□	□	□	RMD-F52	RMD-F52	
Extension option									
Blanking kit (for future extension)									
	Busbar blanking kit	●	●	●	●	RMD-F420	RMD-F420		
Extensible kit (need choose hereafter 2 kits as the same time)									
	Extensible trunking	□	□	□	□	RMD-F369	RMD-F369		
	CE/SE busbar blanking kit for extensible trunking	□	□	□	□	RMD-F463	RMD-F463		
Earth bar									
	In Aluminium	●	●	●	●	RMD-F65 RMD-F65-E RMD-F65-RN6	RMD-F65 RMD-F65-E RMD-F65-RN6		
	In copper	□	□	□	□	RMD-F66 RMD-F66-E RMD-F66-RN6	RMD-F66 RMD-F66-E RMD-F66-RN6		
IAC deflector (2)									
	Connect with USS Style TX	●	●	●	●	RMD-F323	RMD-F323		
	Connect with ground mounted Style Tx	□	□	□	□	RMD-F885	RMD-F885		
Accessories									
	Anti-vandal fixings, including tool	◊	◊	◊	◊	RMD-A344	RMD-A344		
	Transformer mounted kit (2)	●	●	●	●	RMD-F461	RMD-F461		

● Standard feature / □ Factory fitted accessory / ◊ Loose accessory, assembled on site

(1) For cable box with IAC A-F 21kA 1s, the offer is available, please contact us / (2) Only for transformer mounted application

Extensible ring main units

Accessories

Ring main units

	RN2d-T1 TLF	RN2d-T2 VIP400	RN2d-T3 VIP410	RN2d-T4 VIP45	Kit no. for short bushing	Kit no. for type Cbushing
Operational items						
LH ring switch control auxiliary sw for motorised mechanism provision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F328	RMD-F328
LH ring switch termination block for motorised mechanism provision (wo FRTU)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F363	RMD-F363
RH ring switch control auxiliary sw for motorised mechanism provision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F329	RMD-F329
RH ring switch termination block for motorised mechanism provision (wo FRTU)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F364	RMD-F364
Provision for motorised mechanism of circuit breaker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F543	RMD-F543
Motor kit for RS1 24 Vdc	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F507-RS1	RMD-F507-RS1
Motor kit for RS2 24 Vdc	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F507-RS2	RMD-F507-RS2
Motor kit for circuit breaker 24 Vdc	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F507-CB	RMD-F507-CB
Shunt trip coil (20-250 Vdc, 110-250 Vac) for TLF	<input type="checkbox"/>				RMD-F581	RMD-F581
Ring switch (LH & RH) cable voltage present indication system						
VPIS without voltage output - 3.3 kV to 7.2 kV	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F941M	RMD-F941
VPIS without voltage output - 11 kV to 12 kV	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F938M	RMD-F938
VPIS-VO with voltage output - 3.3 kV to 7.2 kV	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F913M	RMD-F913
VPIS-VO with voltage output - 11 kV to 12 kV	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F910M	RMD-F910
Circuit breaker cable voltage present indication system						
VPIS without voltage output - 3.3 kV to 6.6 kV	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F940M	RMD-F940
VPIS without voltage output - 11 kV to 12 kV	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F939M	RMD-F939
VPIS-VO with voltage output - 3.3 kV to 7.2 kV	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F912M	RMD-F912
VPIS-VO with voltage output - 11 kV to 12 kV	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F911M	RMD-F911
Phase indication device	<input type="diamond"/>	<input type="diamond"/>	<input type="diamond"/>	<input type="diamond"/>	RMD-A374	RMD-A374
Tripped on fault contact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F495	RMD-F495
Low gas pressure indicator (-25°C to +55°C)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F368	RMD-F368
Emergency trip push button	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F339	RMD-F339
Mechanical interlocks (1)						
Switch - key free, SWITCH OFF LH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F335	RMD-F335
Switch - key free, SWITCH OFF RH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F336	RMD-F336
Circuit breaker - key free, EARTH ON	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F337	RMD-F337
Circuit breaker - key free, MAIN OFF	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F338	RMD-F338
Earth fault passage indication (EFPI) (2)						
500/1A indication CT for Easergy T300	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F310-RS1	RMD-F310-RS1
500/1A indication CT for Easergy T300	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RMD-F310-RS2	RMD-F310-RS2
EFPI provision kit, inside cable box	<input type="diamond"/>	<input type="diamond"/>	<input type="diamond"/>	<input type="diamond"/>	RMD-A304	RMD-A304
EFPI provision kit, CT outside cable box	<input type="diamond"/>	<input type="diamond"/>	<input type="diamond"/>	<input type="diamond"/>	RMD-A305	RMD-A305
Bowden "RR" EFPI	<input type="diamond"/>	<input type="diamond"/>	<input type="diamond"/>	<input type="diamond"/>	RMD-A422	RMD-A422
Bowden STD EFPI type NB	<input type="diamond"/>	<input type="diamond"/>	<input type="diamond"/>	<input type="diamond"/>	RMD-A277	RMD-A277
Bowden LV reset EFPI type NB1	<input type="diamond"/>	<input type="diamond"/>	<input type="diamond"/>	<input type="diamond"/>	RMD-A278	RMD-A278
Bowden LV reset & alarm type NB2	<input type="diamond"/>	<input type="diamond"/>	<input type="diamond"/>	<input type="diamond"/>	RMD-A279	RMD-A279
Note: above CT's are ring type for split core - please consult Schneider Electric						
Core balance CT for VIP410 relay for sensitive earth fault				<input type="diamond"/>	RMD-F756M (3)	RMD-F756M (3)
VIP relay test device						
Pocket battery for VIP relay				<input type="diamond"/>	RMD-A202	RMD-A202

● Standard feature / □ Factory fitted accessory / ◊ Loose accessory, assembled on site

(1) Specify lock symbol at time of ordering (3 digits max), not available with motor mechanisms

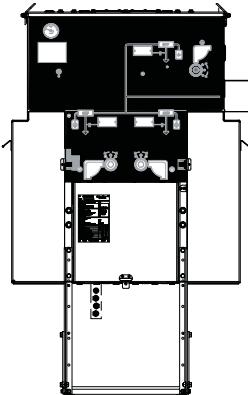
(2) Choose provision kit and an EFPI required if not using Easergy T300

(3) Including gland plate and it is 1x3C cable

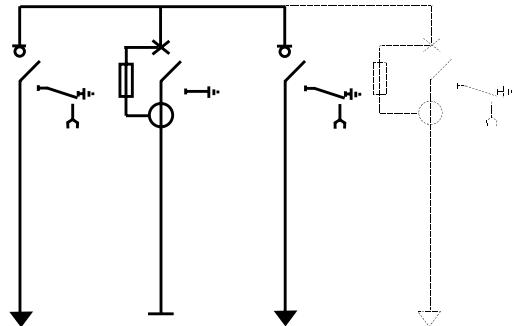
Extensible ring main units 200 A RE2d-T1 (TLF)

Multiple transformer feeders or network switching points up to 1.6 MVA at 11 kV

DE02211



DE0187



Basic equipment

- Indoor / Outdoor design, IP54, 12 kV, 21 kA 3 s
- Two load break switches rated current 630 A with short bushing
- One circuit breaker rated current is 200 A with short bushing
- Protection CT's - 100/50/5 A class X
- Overcurrent and earth fault protection using CT operated trip coils with provision for TLF
- 630 A busbar
- Internal arc class: IAC AF 12.5 kA/1s for indoor installation or IAC AF 21 kA 1s for outdoor installation (1)
- Internal arc class: IAC AF 13.1 kA 1s for cable boxes (2)
- Independent manual operation mechanism
- Mechanical tripped on fault flag indication
- Mechanical ON/OFF indicator
- Mechanical earth/main indicator
- SF6 gas gauge
- CB auxiliary contacts: 1NO+1NC
- CB earth position selected: 1NO
- CB earth ON: 1NO
- Integral ring switch cable test facility
- Gland plate for 1 x 3C 300 mm² for ring switch
- Transformer mounted kit
- Anti-reflex operating handle
- Aluminium earth bar
- Extensible (RHS)

Options

Indication & operation

- Cable voltage present indication (VPIS)
- Cable voltage present indication (VPIS) with voltage output
- Ring switch position indication: 1NO+1NC
- Ring switch earth ON: 1NO
- Provision for motorised mechanism of ring switch with plug interface
- Provision for motorised mechanism of circuit breaker
- Motor kit for ring switch and circuit breaker
- Multi voltage shunt tripping coil 20-250 Vdc, 110-250 Vac
- Tripped on fault contact
- Low gas pressure indicator (-25°C to +55°C)
- Emergency circuit breaker trip push button

Test facility

- Integral circuit breaker cable test facility

Cable connection

- Type C bushing (instead short bushing of ring switch and circuit breaker)
- Gland for 1 x 3C 300 mm² for ring switch
- Gland plate for 3 x 1C 630 mm² for ring switch
- Gland plate for 3 x 1C 630 mm² for ring switch
- Inverted cable boxes (indoor only) for freestanding with flange, cable bottom entry with IAC A-F 13.1 kA (2)
- Circuit breaker cable box for freestanding without flange, cable bottom entry with IAC A-F 13.1 kA (2)

Earth bar

- Copper earth bar

Keylock

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

Earth fault passage indication (EFPI) & Remote control unit (FRTU)

- 500/1 A indication CT for Easergy T300
- EFPI provision kit
- EFPI (Earth Fault Passage Indication)
- FRTU: Easergy T300

Metering option

- Metering on circuit breaker, refer to MU2d part, page 56

Accessories

- Time Link Fuse - refer to page 112 selection table
- Anti-vandal fixings, including tool
- Phase indication device

Order information

Rating	Code
12 kV, 21 kA, 75 kV BIL with short bushing	TX mounted RE2d-T1S1 FS wo flange RE2d-T1S2 FS with flange RE2d-T1S3
12 kV, 21 kA, 75 kV BIL with type C bushing	TX mounted RE2d-T1C1 FS wo flange RE2d-T1C2 FS with flange RE2d-T1C3

(1) For gas enclosure IAC AFLR 12.5 kA or AF 21 kA 1s or AFLR 21 kA 1s indoor installation offer is available, please consult SE for details. For AFLR 21 kA 1s outdoor installation, the offer is available, please refer to page 127.

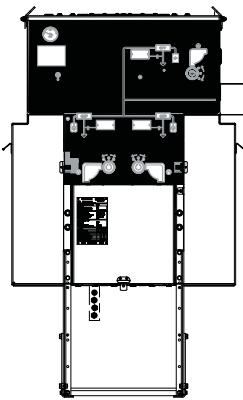
(2) For cable box with IAC AF 21 kA 1s, the offer is available, please contact us.

Extensible ring main units 200 A*

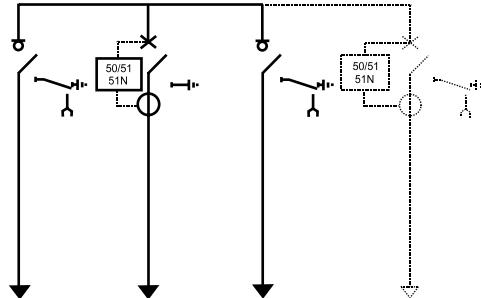
RE2d-T2 (with VIP400 relay)

Multiple transformer feeders or network switching points up to 3.5 MVA at 11 kV

DE60211



DE60188



Basic equipment

Indoor / Outdoor design, IP54, 12 kV, 21 kA 3 s

Two load break switches rated current 630 A with short bushing

One circuit breaker rated current is 200 A with type C bushing

Self powered IDMT overcurrent and earth fault relay VIP400 in accordance with IEC 60255 and BS142

Overcurrent: 20-200 A, earth fault: 10-200 A

Protection CT - C Ga: Ipr: 0-200 A, Us 22.5 mV, 5P30

Trip coil: Mitop

630 A busbar

Internal arc class: IAC AF 12.5 kA/1s for indoor installation or IAC AF 21 kA 1s for outdoor installation (1)

Internal arc class: IAC AF 13.1 kA 1s for cable boxes (2)

Independent manual operation mechanism

Mechanical tripped on fault flag indication

Mechanical ON/OFF indicator

Mechanical earth/main indicator

SF6 gas gauge

CB auxiliary contacts: 1NO+1NC

CB earth position selected: 1NO

CB earth ON: 1NO

Integral ring switch cable test facility

Gland plate for 3 x 1C 630 mm² for ring switch

Transformer mounted kit

Anti-reflex operating handle

Aluminium earth bar

Extensible (RHS)

Options

Indication & operation

Cable voltage present indication (VPIS)

Cable voltage present indication (VPIS) with voltage output

Ring switch position indication: 1NO+1NC

Ring switch earth ON: 1NO

Provision for motorised mechanism of ring switch with plug interface

Provision for motorised mechanism of circuit breaker

Motor kit for ring switch and circuit breaker

Tripped on fault contact

Low gas pressure indicator (-25°C to +55°C)

Emergency circuit breaker trip push button

Test facility

Integral circuit breaker cable test facility

Cable connection

Type C bushing (instead short bushing of ring switch)

Gland for 3 x 1C 630 mm² for ring switch

Gland plate for 1 x 3C 300 mm² for ring switch

Gland for 1 x 3C 300 mm² for ring switch

Inverted cable boxes (indoor only) for freestanding with flange, cable bottom entry with IAC A-F 13.1 kA (2)

Circuit breaker cable box for freestanding without flange, cable bottom entry with IAC A-F 13.1 kA (2)

Earth bar

Copper earth bar

Keylock

Switch - key free, SWITCH OFF LH

Switch - key free, SWITCH OFF RH

Circuit breaker - key free, EARTH ON

Circuit breaker - key free, MAIN OFF

Earth fault passage indication (EFPI) & Remote control unit (FRTU)

500/1 A indication CT for Easergy T300

EFPI provision kit

EFPI (Earth Fault Passage Indication)

FRTU: Easergy T300

Metering option

Metering on circuit breaker, refer to MU2d part, page 56

Accessories

Anti-vandal fixings, including tool

Phase indication device

Pocket battery for VIP relay

Order information

Rating	Code
12 kV, 21 kA, 75 kV BIL with short bushing	TX mounted RE2d-T2S1
	FS wo flange RE2d-T2S2
	FS with flange RE2d-T2S3
12 kV, 21 kA, 75 kV BIL with type C bushing	TX mounted RE2d-T2C1
	FS wo flange RE2d-T2C2
	FS with flange RE2d-T2C3

(1) For gas enclosure IAC AFLR 12.5 kA or AF 21 kA 1s or AFLR 21 kA 1s indoor installation offer is available, please consult SE for details. For AFLR 21 kA 1s outdoor installation, the offer is available, please refer to page 127. (2) For cable box with IAC AF 21 kA 1s, the offer is available, please contact us.

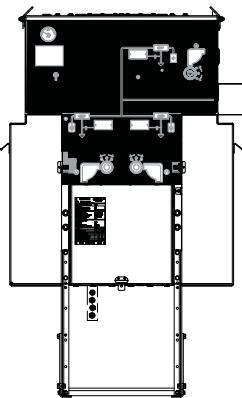
(*) Extensible 630 A ring main units are available, please contact SE for more details.

Extensible ring main units 200 A*

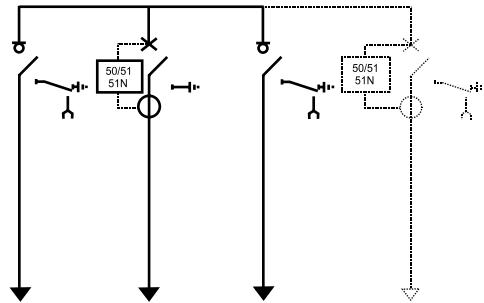
RE2d-T3 (with VIP410 relay)

Multiple transformer feeders or network switching points up to 3.5 MVA at 11 kV

DE0211



DE0169



Basic equipment

Indoor / Outdoor design, IP54, 12 kV, 21 kA 3 s

Two load break switches rated current 630 A with short bushing

One circuit breaker rated current is 200 A with type C bushing

Self powered IDMT overcurrent and earth fault relay VIP410 in accordance with IEC60555 and BS142 Dual supply for communication or sensitive earth fault

Overcurrent: 20-200 A, earth fault: 1-240 A (with Core balance CT)

Protection CT - C Ga: Ipr: 0-200 A, Us 22.5 mV, 5P30

Trip coil: Mitop

630 A busbar

Internal arc class: IAC AF 12.5 kA/1s for indoor installation or IAC AF 21 kA 1s for outdoor installation (1)

Internal arc class: IAC AF 13.1 kA 1s for cable boxes (2)

Independent manual operation mechanism

Mechanical tripped on fault flag indication

Mechanical ON/OFF indicator

Mechanical earth/main indicator

SF6 gas gauge

CB auxiliary contacts: 1NO+1NC

CB earth position selected: 1NO

CB earth ON: 1NO

Integral ring switch cable test facility

Gland plate for 3 x 1C 630 mm² for ring switch

Transformer mounted kit

Anti-reflex operating handle

Aluminium earth bar

Extensible (RHS)

Options

Indication & operation

Cable voltage present indication (VPIS)

Cable voltage present indication (VPIS) with voltage output

Ring switch position indication: 1NO+1NC

Ring switch earth ON: 1NO

Provision for motorised mechanism of ring switch with plug interface

Provision for motorised mechanism of circuit breaker

Motor kit for ring switch and circuit breaker

Tripped on fault contact

Low gas pressure indicator (-25°C to +55°C)

Emergency circuit breaker trip push button

Test facility

Integral circuit breaker cable test facility

Cable connection

Type C bushing (instead short bushing of ring switch)

Gland for 3 x 1C 630 mm² for ring switch

Gland plate for 1 x 3C 300 mm² for ring switch

Gland for 1 x 3C 300 mm² for ring switch

Inverted cable boxes (indoor only) for freestanding with flange, cable bottom entry with IAC A-F 13.1 kA (2)

Circuit breaker cable box for freestanding without flange, cable bottom entry with IAC A-F 13.1 kA (2)

Earth bar

Copper earth bar

Keylock

Switch - key free, SWITCH OFF LH

Switch - key free, SWITCH OFF RH

Circuit breaker - key free, EARTH ON

Circuit breaker - key free, MAIN OFF

Earth fault passage indication (EFPI) & Remote control unit (FRTU)

500/1 A indication CT for Easergy T300

EFPI provision kit

EFPI (Earth Fault Passage Indication)

FRTU: Easergy T300

Core balance CT for detecting sensitive earth fault

Metering option

Metering on circuit breaker, refer to MU2d part, page 56

Accessories

Anti-vandal fixings, including tool

Phase indication device

Pocket battery for VIP relay

Order information

Rating	Code
12 kV, 21 kA, 75 kV BIL with short bushing	TX mounted RE2d-T3S1
	FS wo flange RE2d-T3S2
	FS with flange RE2d-T3S3
12 kV, 21 kA, 75 kV BIL with type C bushing	TX mounted RE2d-T3C1
	FS wo flange RE2d-T3C2
	FS with flange RE2d-T3C3

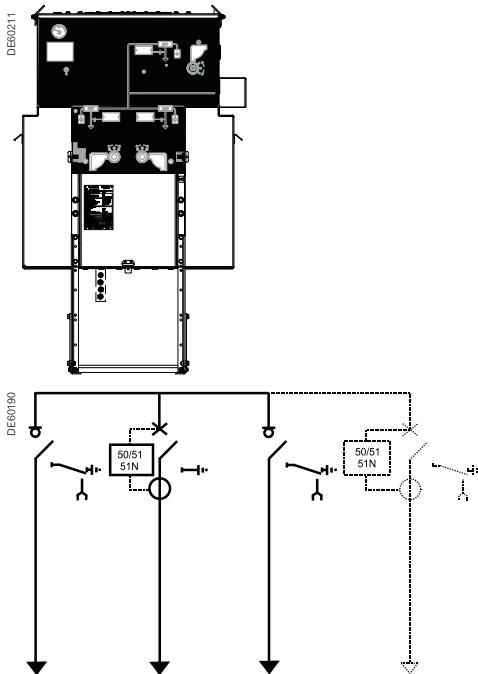
(1) For gas enclosure IAC AFLR 12.5 kA or AF 21 kA 1s or AFLR 21 kA 1s indoor installation offer is available, please consult SE for details. For AFLR 21 kA 1s outdoor installation, the offer is available, please refer to page 127. (2) For cable box with IAC AF 21 kA 1s, the offer is available, please contact us.

(*) Extensible 630 A ring main units are available, please contact SE for more details.

Extensible ring main units 200 A*

RE2d-T4 (with VIP45 relay)

Multiple transformer feeders or network switching points up to 2.5 MVA at 11 kV



Basic equipment

Indoor / Outdoor design, IP54, 12 kV, 21 kA 3 s
Two load break switches rated current 630 A with short bushing
One circuit breaker rated current is 200 A with type C bushing
Self powered overcurrent and earth fault relay VIP45
Setting range: Overcurrent: 20-200 A, earth fault: 25-300 A
Setting range: Overcurrent: 8-80 A, earth fault: 10-120 A
Protection CT - C Ga: Ipr: 0-200 A, Us 22.5 mV, 5P30
Trip coil: Mitop
630 A busbar
Internal arc class: IAC AF 12.5 kA/1s for indoor installation or IAC AF 21 kA 1s for outdoor installation (1)
Internal arc class: IAC AF 13.1 kA 1s for cable boxes (2)
Independent manual operation mechanism
Mechanical tripped on fault flag indication
Mechanical ON/OFF indicator
Mechanical earth/main indicator
SF6 gas gauge
CB auxiliary contacts: 1NO+1NC
CB earth position selected: 1NO
CB earth ON: 1NO
Integral ring switch cable test facility
Gland plate for 3 x 1C 630 mm² for ring switch
Transformer mounted kit
Anti-reflex operating handle
Aluminium earth bar
Extensible (RHS)

Options

Indication & operation

Cable voltage present indication (VPIS)
Cable voltage present indication (VPIS) with voltage output
Ring switch position indication: 1NO+1NC
Ring switch earth ON: 1NO
Provision for motorised mechanism of ring switch with plug interface
Provision for motorised mechanism of circuit breaker
Motor kit for ring switch and circuit breaker
Tripped on fault contact
Low gas pressure indicator (-25°C to +55°C)
Emergency circuit breaker trip push button

Test facility

Integral circuit breaker cable test facility
--

Cable connection

Type C bushing (instead short bushing of ring switch)
Gland for 3 x 1C 630 mm² for ring switch
Gland plate for 1 x 3C 300 mm² for ring switch
Gland for 1 x 3C 300 mm² for ring switch
Inverted cable boxes (indoor only) for freestanding with flange, cable bottom entry with IAC A-F 13.1 kA (2)
Circuit breaker cable box for freestanding without flange, cable bottom entry with IAC A-F 13.1 kA (2)

Earth bar

Copper earth bar

Keylock

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

Earth fault passage indication (EFPI) & Remote control unit (FRTU)

500/1 A indication CT for Easergy T300
EFPI provision kit
EFPI (Earth Fault Passage Indication)
FRTU: Easergy T300

Metering option

Metering on circuit breaker, refer to MU2d part, page 56
--

Accessories

Anti-vandal fixings, including tool
Phase indication device
Pocket battery for VIP relay

Order information

Rating	Code
12 kV, 21 kA, 75 kV BIL with short bushing	TX mounted RE2d-T4S1 FS wo flange RE2d-T4S2 FS with flange RE2d-T4S3
12 kV, 21 kA, 75 kV BIL with type C bushing	TX mounted RE2d-T4C1 FS wo flange RE2d-T4C2 FS with flange RE2d-T4C3

(1) For gas enclosure IAC AFLR 12.5 kA or AF 21 kA 1s or AFLR 21 kA 1s indoor installation offer is available, please consult SE for details. For AFLR 21 kA 1s outdoor installation, the offer is available, please refer to page 127. (2) For cable box with IAC AF 21 kA 1s, the offer is available, please contact us.

(*) Extensible 630 A ring main units are available, please contact SE for more details.

Notes

Function/modules description

- Ringmaster range

Function/modules description



Ringmaster range

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Characteristics - Electrical and Mechanical

Characteristics of RMR switch

Rated voltage (Ur)	kV	12
Rated frequency (fr)	Hz	50/60
Rated lightning impulse withstand voltage (Up)	kV	75 (1)
Rated power frequency withstand voltage (Ud)	kV	28 (1)

Rated current

Switches (Ir)	A	630
Switch rated short time withstand, 3 s (Ik)	mA	21
Switch earth short time withstand, 3 s (Ik)	mA	21
Switch peak making current (Ip)	mA	52.5
Switch earth peak making current (Ip)	mA	52.5
Internal arc withstand	mA	21 kA (AF)

Number of operating cycles

Mechanical

Switch (main)		2 000
Switch (earth)		1 000

SF6 gas

Pressure	bar G	0.35
Weight	g	493

Characteristics of RMR circuit breaker

Rated voltage (Ur)	kV	12
Rated frequency (fr)	Hz	50/60
Rated lightning impulse withstand voltage (Up)	kV	75 (1)
Rated power frequency withstand voltage (Ud)	kV	28 (1)

Rated current

Circuit breaker (Ir)	A	200/630
Circuit breaker short time withstand, 3 s (Ik)	mA	21
Circuit breaker earth short time withstand, 3 s (Ik)	mA	21
Circuit breaker peak making current (Ip)	mA	52.5
Circuit breaker earth peak making current (Ip)	mA	52.5
Internal arc withstand	mA	21 kA (AF)

Number of operating cycles

Mechanical

Circuit breaker (main)		2 000
Circuit breaker (earth)		1 000

Electrical

Circuit breaker (at rated short circuit breaking current)		10
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SF6 gas

Pressure	bar G	0.55
Weight	g	493

(1) Ud = 38 kV or Up = 95 kV BIL as option, the offer is available, please contact us.

Non-extensible circuit breakers 200 A

Specification

	CN2-T6 TLF	CN2-T9 VIP 400	CN2-T10 VIP 410	CN2-T11 VIP 400
Ratings				
12 kV 21 kA 3s 75 kV BIL, busbar 630 A	●	●	●	●
Circuit breaker normal rated current 200 A	●	●	●	●
Cable earth switch 21 kA 3s	●	●	●	●
Transformer earth switch 3.15 kA 3s	●	●	●	●
IP54	●	●	●	●
Mechanism				
Independent manual operation	●	●	●	●
Provision for motorised 24 Vdc mechanism circuit breaker				●
Motor kit of 24 Vdc				○
Protection & control - circuit breaker				
CT's dual ratio - 100/50/5A class X	●			
CT- C Ga: Ipr 0-200 A, Us 22.5 mV, 5P30		●	●	●
Core balance CT for VIP410 relay for sensitive earth fault			○	
Time limit fuse (1)	○			
Multi voltage shunt trip coil	●	●	●	●
Indication				
SF6 gas gauge	●	●	●	●
Mechanical tripped on fault	●	●	●	●
Mechanism ON/OFF	●	●	●	●
Mechanism EARTH/MAIN	●	●	●	●
VPIS indication	○	○	○	○
VPIS indication with voltage output	○	○	○	○
Tripped on fault contact	○	○	○	○
Low gas pressure indicator (-25°C to +55°C)	○	○	○	○
Emergency circuit breaker trip push button	○	○	○	○
CB auxiliary contacts 1NO & 2NC	●	●	●	●
Test facility				
Integral cable test facility	●	●	●	●
Standard features				
Operation handle	●	●	●	●
Cable connection bushing type of Ring switch				
Short bushing	●	●	●	●
Metering				
Metering on circuit breaker	○	○	○	○
Main cable box				
Cable box	Bottom entry Top entry cable (indoor only)	● ○	● ○	● ○
Gland plate (2)	For cable 1 x 3C (up to 300 mm ²) For cable 3 x 1C (up to 630 mm ²) Blank	● ○ ○	● ○ ○	● ○ ○
Tee-off				
TX mounted	Transformer mounted Bottom entry cable box	● ○	● ○	● ○
Free standing (3)	Top entry cable (indoor only) For cable 1 x 3C (up to 300 mm ²) For cable 3 x 1C (up to 630 mm ²) Blank	○ ○ ○ ○	○ ○ ○ ○	○ ○ ○ ○
Order codes				
12 kV, 21 kA, 75 kV BIL	CN2-T6	CN2-T9	CN2-T10	CN2-T9

● Standard feature / ○ Optional feature

(1) Specify rating and kit number, refer to page 112

(2) Gland plate is only for free standing

(3) Installation dimension drawing refer to page 128

Non-extensible circuit breakers 200 A

Accessories

Cable box		CN2-T6 TLF	CN2-T9 VIP 400	CN2-T10 VIP 410	CN2-T11 VIP 400	Kit no.
Main cable box						
	Bottom entry	●	●	●	●	
	Top entry	□	□	□	□	RMR-F93
Tee-off						
TX mounted	Transformer mounted kit	●	●	●	●	RMR-F95
Free standing	Bottom entry cable box	□	□	□	□	RMR-F47
	Top entry cable box	□	□	□	□	RMR-F180
Metering option	Metering on circuit breaker	□	□	□	□	Details refer to MU2d part, page 56
Gland plate & Gland						
For 1x3 core cable						
Gland plate	Gland plate for 1x3C cable	●	●	●	●	RMR-F48
	Angled gland plate for 1x3C plate	□	□	□	□	RMR-F50
Gland	Brass wiping gland for 1 x 3C cable	□	□	□	□	RMR-F10
	Tubular gland for 1 x 3C cable	□	□	□	□	RMD A12
For 3 single core cable						
Gland plate	Gland plate for for 3 x 1C cable	□	□	□	□	RMR-F49
Gland	Brass wiping gland for 3 x 1C cable	□	□	□	□	RMR-F11
	Tubular gland for 3 x 1C cable	□	□	□	□	RMD A13
Without cable type						
Gland plate	Alluminum blank gland plate	□	□	□	□	RMR-F52
Gland	Brass wiping gland for 3 x 1C cable	□	□	□	□	RMR-F11
	Tubular gland for 3 x 1C cable	□	□	□	□	RMD A13
	Brass wiping gland for 1 x 3C cable	□	□	□	□	RMR-F10
	Tubular gland for 1 x 3C cable	□	□	□	□	RMD A12
	CES5 gland	□	□	□	□	RMD-F120
Operational items						
Motor kit for circuit breaker 24 Vdc					□	RMR-F67
Circuit breaker cable voltage present indication system						
VPIS without voltage output - 6.6 kV to 12 kV for switch or CB-TLF	□					RMR-F903
VPIS without voltage output - 6.6 kV to 12 kV for CB - VIP relay	□	□	□	□		RMR-F904
VPIS-VO with voltage output - 6.6 kV to 12 kV for switch or CB-TLF	□					RMR-F927
VPIS-VO with voltage output - 6.6 kV to 12 kV for CB-VIP relay	□	□	□	□		RMR-F928
Phase indication device	◊	◊	◊	◊		RMD-A374
Tripped on fault contact	□	□	□	□		RMD-F495
Low gas pressure indicator (-25°C to +55°C)	□	□	□	□		RMR-F467/21KA
Emergency circuit breaker trip push button	□	□	□	□		RMR-F648
Mechanical interlocks (1)						
Circuit breaker - key free, EARTH ON	□	□	□	□		RMR-F85
Circuit breaker - key free, MAIN OFF	□	□	□	□		RMR-F86
Transformer earth switch- key free, EARTH ON	□	□	□	□		RMR-F110
Core balance CT for VIP410 relay for sensitive earth fault						
Accessories				◊		RMR-F755 (2)
Pocket battery for VIP relay test			◊	◊	◊	RMD-A202
Anti-vandal fixings, including tool		◊	◊	◊	◊	RMR-A19

● Standard feature / □ Factory fitted accessory / ◊ Loose accessory, assembled on site

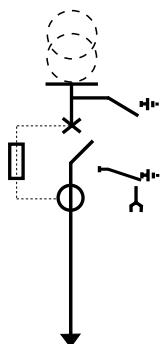
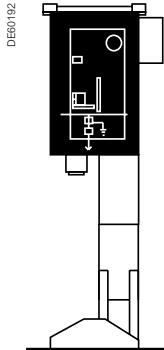
(1) Specify lock symbol at time of ordering (3 digits max), not available with motor mechanisms

(2) Including gland plate and it is 1x3C cable

Non-extensible circuit breakers 200 A

CN2-T6 (TLF)

Transformer protection up to 1.6 MVA at 11 kV



Basic equipment

- Indoor / Outdoor design, IP54, 12 kV, 21 kA 3s
- One circuit breaker rated current is 200 A with short bushing
- Overcurrent and earth fault protection using CT operated trip coils with provision for time limit fuse
- Protection CT's - 100/50/5 A class X
- Multi voltage shunt tripping coil 20-250 Vdc, 110-250 Vac
- 630 A busbar
- Internal arc class: IAC AF 12.5 kA/1s for indoor installation or IAC AF 21 kA 1s for outdoor installation (1)
- Cable earth switch 21 kA 3s
- Transformer earth switch 3.15 kA 3s
- Independent manual operation mechanism
- Mechanical tripped on fault flag indication
- Mechanical ON/OFF indicator
- Mechanical earth/main indicator
- SF₆ gas gauge
- CB auxiliary contacts 1NO 2NC
- Integral cable test facility
- Main cable box for cable bottom entry
- Gland plate for 1 x 3C 300 mm²
- Anti-reflex operating handle

Options

Indication & operation

- Cable voltage present indication (VPIS)
- Cable voltage present indication (VPIS) with voltage output
- Tripped on fault contact
- Low gas pressure indicator (-25°C to +55°C)
- Emergency circuit breaker trip push button

Cable connection

- Gland plate for 3 x 1C 630 mm²
- Aluminium blank gland plate
- Gland for 3 x 1C 630 mm²
- Gland for 1 x 3C 300 mm²
- Circuit breaker top entry cable boxes (indoor only) for free standing
- Circuit breaker bottom entry cable box for free standing
- Main cable box for cable top entry (indoor only)

Keylock

- Circuit breaker - key free, EARTH ON
- Circuit breaker - key free, MAIN OFF
- Transformer earth switch- key free, EARTH ON

Metering option

- Metering on circuit breaker, refer to MU2d part, page 56

Accessories

- Time Limit Fuse - refer to page 112 selection table
- Anti-vandal fixings, including tool
- Phase indication device

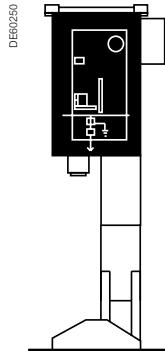
Order information

Rating	Code
12 kV, 21 kA, 75 kV BIL	CN2-T6

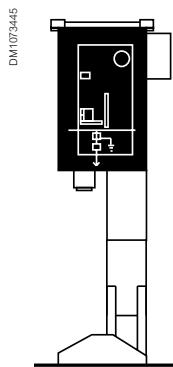
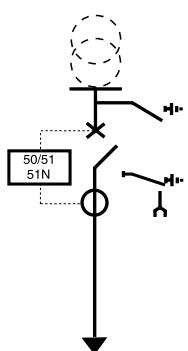
Non-extensible circuit breakers 200 A

CN2-T9/CN2-T11 (with VIP410 relay)

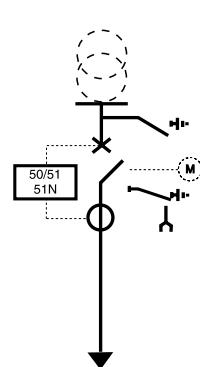
Transformer protection up to 3.5 MVA at 11 kV



CN2-T9 manual operation



CN2-T11 motorisation provision



Order information

Rating	Code
12 kV, 21 kA, 75 kV BIL	CN2-T9
	CN2-T11

Basic equipment

- Indoor / Outdoor design, IP54, 12 kV, 21 kA 3s
- One circuit breaker rated current is 200 A with short bushing
- Self powered IDMT overcurrent and earth fault relay VIP400 in accordance with IEC 60255 and BS142
- Overcurrent: 20-200 A, earth fault: 10 - 200 A
- Protection CT - C Ga: Ipr: 0-200 A, Us 22.5 mV, 5P30
- Trip coil: Mitop
- 630 A busbar
- Internal arc class: IAC AF 12.5 kA/1s for indoor installation or IAC AF 21 kA 1s for outdoor installation (1)
- Cable earth switch 21 kA 3s
- Transformer earth switch 3.15 kA 3s
- Independent manual operation mechanism
- Mechanical tripped on fault flag indication
- Mechanical ON/OFF indicator
- Mechanical earth/main indicator
- Provision for motorised mechanism of circuit breaker (only for T11)
- SF6 gas gauge
- CB auxiliary contacts 1NO 2NC
- Integral cable test facility
- Main cable box for cable bottom entry
- Gland plate for 1 x 3C 300 mm²
- Anti-reflex operating handle

Options

Indication & operation

- Cable voltage present indication (VPIS)
- Cable voltage present indication (VPIS) with voltage output
- Tripped on fault contact
- Low gas pressure indicator (-25°C to +55°C)
- Emergency circuit breaker trip push button
- Motor kit for circuit breaker 24 Vdc (only for T11)

Cable connection

- Gland plate for 3 x 1C 630 mm²
- Aluminium blank gland plate
- Gland for 3 x 1C 630 mm²
- Gland for 1 x 3C 300 mm²
- Circuit breaker top entry cable boxes (indoor only) for free standing
- Circuit breaker bottom entry cable box for free standing
- Main cable box for cable top entry (indoor only)

Keylock

- Circuit breaker - key free, EARTH ON
- Circuit breaker - key free, MAIN OFF
- Transformer earth switch- key free, EARTH ON

Metering option

- Metering on circuit breaker, refer to MU2d part, page 56

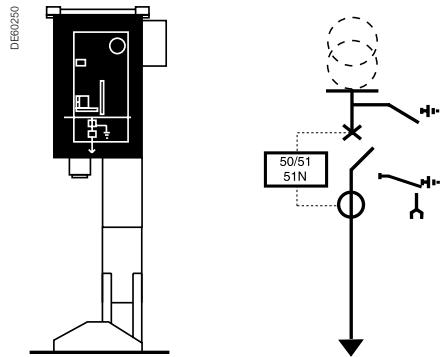
Accessories

- Anti-vandal fixings, including tool
- Phase indication device
- Pocket battery for VIP relay

Non-extensible circuit breakers 200 A

CN2-T10 (with VIP410 relay)

Transformer protection up to 3.5 MVA at 11 kV



DEB250

Basic equipment

- Indoor / Outdoor design, IP54, 12 kV, 21 kA 3s
- One circuit breaker rated current is 200 A with short bushing
- Self powered IDMT overcurrent and earth fault relay VIP410 in accordance with IEC 60255 and BS142 Dual supply for communication or sensitive earth fault
- Overcurrent: 20-200 A, earth fault: 1- 240 A (with Core balance CT)
- Protection CT - C Ga: Ipr: 0-200 A, Us 22.5 mV, 5P30
- Trip coil: Mitop
- 630 A busbar
- Internal arc class: IAC AF 12.5 kA/1s for indoor installation or IAC AF 21 kA 1s for outdoor installation (1)
- Cable earth switch 21 kA 3s
- Transformer earth switch 3.15 kA 3s
- Independent manual operation mechanism
- Mechanical tripped on fault flag indication
- Mechanical ON/OFF indicator
- Mechanical earth/main indicator
- SF6 gas gauge
- CB auxiliary contacts 1NO 2NC
- Integral cable test facility
- Main cable box for cable bottom entry
- Gland plate for 1 x 3C 300 mm²
- Anti-reflex operating handle

Options

Indication & operation

- Cable voltage present indication (VPIS)
- Cable voltage present indication (VPIS) with voltage output
- Tripped on fault contact
- Low gas pressure indicator (-25°C to +55°C)
- Emergency circuit breaker trip push button

Cable connection

- Gland plate for 3 x 1C 630 mm²
- Aluminium blank gland plate
- Gland for 3 x 1C 630 mm²
- Gland for 1 x 3C 300 mm²
- Circuit breaker top entry cable boxes (indoor only) for free standing
- Circuit breaker bottom entry cable box for free standing
- Main cable box for cable top entry (indoor only)

Keylock

- Circuit breaker - key free, EARTH ON
- Circuit breaker - key free, MAIN OFF
- Transformer earth switch- key free, EARTH ON

Metering option

- Metering on circuit breaker, refer to MU2d part, page 56

Order information

Rating	Code
12 kV, 21 kA, 75 kV BIL	CN2-T10

Accessories

- Anti-vandal fixings, including tool
- Phase indication device
- Pocket battery for VIP relay
- Core balance CT for detect sensitive earth fault

Non-extensible switches 630 A

Specification

	SN6-S1 Manual operation	SN6-S2 Provision for actuator
Ratings		
12 kV 21 kA 3s 75 kV BIL, busbar 630 A	●	●
Load break switch normal rated current 630 A	●	●
Cable earth switch 21 kA 3s	●	●
Transformer earth switch 3.15 kA	●	●
IP54	●	●
Mechanism		
Independent manual operation	●	●
Provision for motorised 24 Vdc mechanism		●
Motor kit of 24 Vdc		○
Indication		
SF6 gas gauge	●	●
Mechanism ON/OFF	●	●
Mechanism EARTH/MAIN	●	●
Auxiliary contact switch 1NO 2NC		●
VPIS indication	○	○
VPIS indication -with voltage output	○	○
Low gas pressure indicator (-25°C to +55°C)	○	○
500/1A indication CT for Easergy T300	○	●
Provision for earth fault passage indicator	○	○
Test facility		
Integral cable test facility	●	●
Standard features		
Operation handle	●	●
Cable connection bushing		
Short bushing	●	●
Cable (See available cable kit accessories)		
Metering option:		
Metering on circuit breaker	○	○
Main cable box		
Cable box	Bottom entry	●
	Top entry cable (indoor only)	○
Gland plate (1)	For cable 1 x 3C (up to 300 mm ²)	●
	For cable 3 x 1C (up to 630 mm ²)	○
	Blank	○
Tee-off		
TX mounted	Transformer mounted	●
Free standing	Bottom entry cable box	○
	Top entry cable (indoor only)	○
Gland plate (1)	For cable 1 x 3C (up to 300 mm ²)	○
	For cable 3 x 1C (up to 630 mm ²)	○
	Blank	○
Order codes		
12 kV, 21 kA, 75 kV BIL	SN6-S1	SN6-S2

● Standard feature / ○ Optional feature

(1) Gland plate is only for free standing

Non-extensible switches 630 A

Accessories

Cable box		SN6-S1 Manual operation	SN6-S2 Provision for actuator	Kit no.
Main cable box				
	Bottom entry	●	●	
	Top entry	□	□	RMR-F93
Tee-off				
TX mounted	Transformer mounted kit	●	●	RMR-F95
Free standing	Bottom entry cable box	□	□	RMR-F47
	Top entry cable box	□	□	RMR-F180
Metering option	Metering on circuit breaker	□	□	Details refer to MU2d part, page 56
Gland plate & Gland				
For 1x3 core cable				
Gland plate	Gland plate for 1x3C cable	●	●	RMR-F48
	Angled gland plate for 1x3C plate	□	□	RMR-F50
Gland	Brass wiping gland for 1 x 3C cable	□	□	RMR-F10
	Tubular gland for 1 x 3C cable	□	□	RMD A12
For 3 single core cable				
Gland plate	Gland plate for for 3 x 1C cable	□	□	RMR-F49
Gland	Brass wiping gland for 3 x 1C cable	□	□	RMR-F11
	Tubular gland for 3 x 1C cable	□	□	RMD A13
Without cable type				
Gland plate	Aluminium blank gland plate	□	□	RMR-F52
	Brass wiping gland for 3 x 1C cable	□	□	RMR-F11
Gland	Tubular gland for 3 x 1C cable	□	□	RMD A13
	Brass wiping gland for 1 x 3C cable	□	□	RMR-F10
	Tubular gland for 1 x 3C cable	□	□	RMD A12
	CES5 gland	□	□	RMD-F120
Installation items	Anti-vandal fixings, including tool	◊	◊	RMR-A19
Operational items				
Motor kit for circuit breaker 24 Vdc		□	□	RMR-F67
Circuit breaker cable voltage present indication system				
VPIS without voltage output 6.6 kV to 12 kV for switch or CB-TLF		□	□	RMR-F903
VPIS-VO with voltage output 6.6 kV to 12 kV for switch or CB-TLF		□	□	RMR-F927
Phase indication device		◊	◊	RMD-A374
Low gas pressure indicator (-25°C to +55°C)		□	□	RMR-F467/21KA
Mechanical interlocks (1)				
Circuit breaker - key free, EARTH ON		□		RMR-F85
Circuit breaker - key free, MAIN OFF		□		RMR-F86
Transformer earth switch- key free, EARTH ON		□	□	RMR-F110

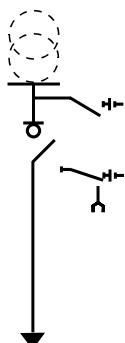
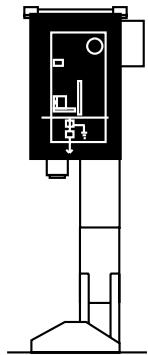
● Standard feature / □ Factory fitted accessory / ◊ Loose accessory, assembled on site

(1) Specify lock symbol at time of ordering (3 digits max), not available with motor mechanisms

Non-extensible switches 630 A

SN6-S1 (Manual operation)

DE0193



Switch disconnector

Basic equipment

- Indoor / Outdoor design, IP54, 12 kV, 21 kA 3s
- One load break switches rated current 630 A with short bushing
- 630 A busbar
- Internal arc class: IAC AF 12.5 kA/1s for indoor installation or IAC AF 21 kA 1s for outdoor installation (1)
- Cable earth switch 21 kA 3s
- Transformer earth switch 3.15 kA 3s
- Independent manual operation mechanism
- SF6 gas gauge
- Mechanical ON/OFF indicator
- Mechanical earth/main indicator
- Switch auxiliary contacts 1NO 2NC
- Integral ring switch cable test facility
- Main cable box for cable bottom entry
- Gland plate for 1 x 3C 300 mm²
- Anti-reflex operating handle

Options

Indication & operation

- Cable voltage present indication (VPIS)
- Cable voltage present indication (VPIS) with voltage output
- Low gas pressure indicator (-25°C to +55°C)
- Phase and earth fault detection CTs for Easergy T300
- Provision for earth fault passage indicator

Cable connection

- Gland plate for 3 x 1C 630 mm²
- Aluminium blank gland plate
- Gland for 3 x 1C 630 mm²
- Gland for 1 x 3C 300 mm²
- Load break switch top entry cable boxes (indoor only) for free standing
- Load break switch bottom entry cable box for free standing
- Main cable box for cable top entry (indoor only)

Keylock

- Load break switch - key free, EARTH ON
- Load break switch - key free, MAIN OFF
- Transformer earth switch- key free, EARTH ON

Metering option

- Metering on circuit breaker, refer to MU6d part, page 59

Order information

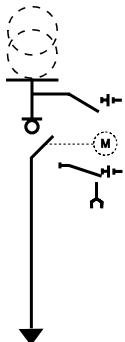
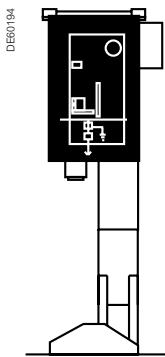
Rating	Code
12 kV, 21 kA, 75 kV BIL	SN6-S1

Accessories

- Anti-vandal fixings, including tool
- Phase indication device

Non-extensible switches 630 A

SN6-S2 (Provision for actuator)



Switch disconnector

Basic equipment

- Indoor / Outdoor design, IP54, 12 kV, 21 kA 3s
- One load break switches rated current 630 A with short bushing
- 630 A busbar
- Internal arc class: IAC AF 12.5 kA/1s for indoor installation or IAC AF 21 kA 1s for outdoor installation (1)
- Cable earth switch 21 kA 3s
- Transformer earth switch 3.15 kA 3s
- Independent manual operation mechanism
- SF6 gas gauge
- Provision for motorised 24 Vdc mechanism
- 500/1A indication CT for Easergy T300
- Mechanical ON/OFF indicator
- Mechanical earth/main indicator
- Switch auxiliary contacts 1NO 2NC
- Integral ring switch cable test facility
- Main cable box for cable bottom entry
- Gland plate for 1 x 3C 300 mm²
- Anti-reflex operating handle

Options

Indication & operation

- Cable voltage present indication (VPIS)
- Cable voltage present indication (VPIS) with voltage output
- Low gas pressure indicator (-25°C to +55°C)
- Provision for earth fault passage indicator

Cable connection

- Gland plate for 3 x 1C 630 mm²
- Aluminium blank gland plate
- Gland for 3 x 1C 630 mm²
- Gland for 1 x 3C 300 mm²
- Load break switch top entry cable boxes (indoor only) for free standing
- Load break switch bottom entry cable box for free standing
- Main cable box for cable top entry (indoor only)

Keylock

- Load break switch - key free, EARTH ON
- Load break switch - key free, MAIN OFF
- Transformer earth switch- key free, EARTH ON

Metering option

- Metering on circuit breaker, refer to MU6d part, page 59

Order information

Rating	Code
12 kV, 21 kA, 75 kV BIL	SN6-S2

Accessories

- Anti-vandal fixings, including tool
- Phase indication device

Metering unit 200 A

Specification

	MU2d-M1	MU2d-M2	MU2d-M3	MU2d-M12
Ratings				
12 kV 16 kA 1s 75 kV BIL, busbar 200 A (1)	●	●	●	●
Busbar rated current 200 A	●	●	●	●
IP54	●	●	●	●
Current transformer (2)				
2 CTs: 50/25/5 A 7.5 VA Cl 0.5 s	●	●	●	●
2 CTs: 100/50/5 A 10 VA Cl 0.5 s	●	●	●	●
2 CTs: 200/100/5 A 10 VA Cl 0.5 s	●	●	●	●
Voltage transformer				
2 ph-ph VTs: 11 kV/110 V 50 VA Cl 0.5	●	●	●	●
3 ph-earth VTs (optional): 11 kV/110 V 50 VA Cl 0.5 & 20 VA suitable for naural voltage protection	○	○	○	○
Connection				
Connected with CN2/SN6				
MU2d and CN2/SN6 connected kit	●	●	●	●
Outgoing kit	●	●	●	●
TX mounted kit	○	○	○	○
Connection with RMU: RN2d, RE2d				
MU2d and RMU (RN2d/RE2d) connected kit	●	●	●	●
Outgoing kit	●	●	●	●
TX mounted kit	○	○	○	○
Free standing --- 2 sets Tee-off cable box				
Tee-off cable box (2 sets)	Bottom entry	●	●	●
	Top entry cable (indoor only)	○	○	○
Gland plate (2 sets)	Gland plate 1 x 3C (up to 300 mm ²)	●	●	●
	Gland plate 3 x 1C (up to 630 mm ²)	○	○	○
Gland (2 sets)	Blank gland plate	○	○	○
	Gland 1 x 3C (up to 300 mm ²)	○	○	○
	Gland 3 x 1C (up to 630mm ²)	○	○	○
Order codes				
12 kV, 16 kA 1s, 75 kV BIL	MU2d-M1	MU2d-M2	MU2d-M3	MU2d-M12

● Standard feature / ○ Optional feature

(1) For 7.2 kV metering cubicle, the offer is available, please contact Schneider Electric

(2) CT install phase 1 and phase 3 (L1 & L3)

Metering unit 200 A

Accessories

Connection	MU2d-M1	MU2d-M2	MU2d-M3	MU2d-M12	Kit no.			
	RN2d/RE2d TLF with short bushing	RN2d/RE2d (except TLF with short bushing)	RN2c/RE2c	CN2/SN6				
Connected with CN2/SN6 For transformer mounted								
MU2d and CN2/SN6 connected kit	●	●	●	●				RMR-A852
Outgoing kit								Refer to hereafter outgoing kit choice
Connected with CN2/SN6 For transformer mounted								
RMU & MU2d connected kit	●	●	●	●	RMR-A850	RMR-A846 (1)	RMR-A850	
Outgoing kit								Refer to hereafter outgoing kit choice
Free standing								
Tee-off cable box (2sets)	●	●	●	●				Refer to hereafter outgoing free standing kit choice
Outgoing kit								
Transformer mounted (when MU2d connected with CN2/SE6 or RN2d/RE2d)								
TransFormer mounted kit	□	□	□	□	RMR-A580	RMR-A580	RMR-A580	RMR-A580
Free standing								
Tee-off cable box	Bottom entry	●	●	●	●	RMR-F47	RMR-F47	RMR-F47
	Top entry cable (indoor only)	□	□	□	□	RMR-F47-TOP	RMR-F47-TOP	RMR-F47-TOP
Gland plate	For 1 x 3C (up to 300 mm ²)	●	●	●	●			Refer to hereafter <Gland plate & Gland> part
	For 3 x 1C (up to 630 mm ²)	□	□	□	□			Refer to hereafter <Gland plate & Gland> part
	Blank	□	□	□	□			Refer to hereafter <Gland plate & Gland> part
Gland		□	□	□	□			Refer to hereafter <Gland plate & Gland> par
Gland plate & Gland								
For 1 x3 core cable								
Gland plate	Gland plate for 1x3C cable	●	●	●	●	RMR-F48	RMR-F48	RMR-F48
	Angled gland plate for 1x3C plate	□	□	□	□	RMR-F50	RMR-F50	RMR-F50
Gland	Brass wiping gland for 1 x 3C cable	□	□	□	□	RMR-F10	RMR-F10	RMR-F10
	Tubular gland for 1 x 3C cable	□	□	□	□	RMD A12	RMD A12	RMD A12
For 3 single core cable								
Gland plate	Gland plate for 3 x 1C cable	□	□	□	□	RMR-F49	RMR-F49	RMR-F49
Gland	Brass wiping gland for 3 x 1C cable	□	□	□	□	RMR-F11	RMR-F11	RMR-F11
	Tubular gland for 3 x 1C cable	□	□	□	□	RMD A13	RMD A13	RMD A13
Without cable type								
Gland plate	Aluminium blank gland plate	□	□	□	□	RMR-F52	RMR-F52	RMR-F52
Gland	Brass wiping gland for 3 x 1C cable	□	□	□	□	RMR-F11	RMR-F11	RMR-F11
	Tubular gland for 3 x 1C cable	□	□	□	□	RMD A13	RMD A13	RMD A13
	Brass wiping gland for 1 x 3C cable	□	□	□	□	RMR-F10	RMR-F10	RMR-F10
	Tubular gland for 1 x 3C cable	□	□	□	□	RMD A12	RMD A12	RMD A12
	CES5 gland	□	□	□	□	RMD-F120	RMD-F120	RMD-F120
Installation items	Anti-vandal fixings, including tool	◊	◊	◊	◊	RMR-A19	RMR-A19	RMR-A19

● Standard feature / □ Factory fitted accessory / ◊ Loose accessory, assembled on site

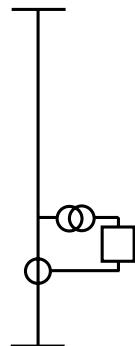
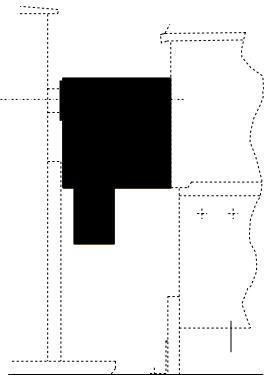
(1) If RN2d/RE2d (except RN2d/RE2d TLF with short bushing) is connected with MU2, please choose kit: RMR-A848

(1) If RN2d/RE2d TLF with short bushing is connected with MU2, please choose kit: RMR-A350

Metering unit 200 A

MU2d-M1, MU2d-M2, MU2d-M3, MU2d-M12

DEB210



Non-extensible metering unit

Basic equipment

Indoor / Outdoor design, IP54, 12 kV, 16 kA 1s

Busbar rated 200 A

2 no CTs installed in L1 & L3 phases (Cl 0.5s)

2 no ph-ph VT or 3 no ph-earth VT

11 kA/110 V 50 VA Cl 0.5"

Connect kit: between Ringmaster range (CN2/SN6) and MU2d

Outgoing: Tee-off cable box for cable bottom entry

Gland plate for 1 x 3C 300 mm²

	12 kV, 75 kV BIL, 16 kA 1 s	M1	M2	M3	M12
CT	50/25/5 A 7.5 VA Cl 0.5s	●			
	100/50/5 A 10 VA Cl 0.5 s,		●		
	200/100/5 A 10 VA Cl 0.5 s			●	●
VT	11 kV/110 V ph-ph 50 VA Cl 0.5	●	●	●	
	11 kV/110 V ph-earth 50 VA Cl 0.5				●

Options

Installation kit

Connected kits:

Connected kit between MU2d and RN2d/RE2d

Tee-off cable box (only for MU2d free standing)

Outgoing kits:

Transformer mounted kit (only MU2d connected with CN2/SN6 or RN2d/RE2d)

Tee-off cable box & accessories

Tee-off cable box for cable top entry (indoor only)

Gland plate for 3 x 1C 630 mm²

Aluminium blank gland plate

Gland for 3 x 1C 630 mm²

Gland for 1 x 3C 300 mm²

Accessories

Anti-vandal fixings, including tool

Order information

Rating	Code
	MU2d-M1
	MU2d-M2
	MU2d-M3
	MU2d-M12
12 kV, 16 kA 1s, 75 kV BIL	

Metering unit 630 A

Specification

	MU6d-N1	MU6d-N2	MU6d-N3	MU6d-N5
Ratings				
12 kV 21 kA 3s 75 kV BIL, busbar 630 A (1)	●	●	●	●
Busbar rated current 630 A	●	●	●	●
IP54	●	●	●	●
Current transformer (2)				
2 CTs: 400/200/5 A 10 VA Cl 0.5 s	●			
2 CTs: 600/5 A 10 VA Cl 0.5 s		●		
2 CTs: 400/5 A 10 VA Cl 0.5 s			●	
2 CTs: 600/300/5 A 10 VA Cl 0.5 s				●
Voltage transformer				
2 ph-ph VTs: 11 kV/110 V 50 VA Cl 0.5	●	●	●	
2 ph-ph VTs: 6.6 kV/110 V 50 VA Cl 0.5				●
Connection				
Between CN2/SN6 and transformer				
MU6d and CN2/SN6 connected kit	●	●	●	●
Outgoing kit	Free standing	●	●	●
	TX mounted kit	○	○	○
Connection with RMU: RN6d				
MU6d and RMU (RN6d) connected kit	●	●	●	●
Outgoing kit	Free standing	●	●	●
	TX mounted kit	○	○	○
Free standing --- 2 sets Tee-off cable box				
Tee-off cable box (2 sets)	Bottom entry	●	●	●
	Top entry cable (indoor only)	○	○	○
Gland plate (2 sets)	Gland plate 1 x 3C (up to 300 mm ²)	●	●	●
	Gland plate 3 x 1C (up to 630 mm ²)	○	○	○
	Blank gland plate	○	○	○
Gland (2 sets)	Gland 1 x 3C (up to 300 mm ²)	○	○	○
	Gland 3 x 1C (up to 630mm ²)	○	○	○
Order codes				
12 kV, 21 kA 1s to 3s, 75 kV BIL	MU6d-N1	MU6d-N2	MU6d-N3	MU6d-N5

● Standard feature / ○ Optional feature

(1) For the other type VT metering cubicle, the offer is available, please contact Schneider Electric

(2) CT install phase 1 and phase 3 (L1 & L3)

Metering unit 630 A

Accessories

Ringmaster range

	MU6d-N1	MU6d-N2	MU6d-N3	MU6d-N5	Kit no.		
Connection					For RN6d	For RN6c	For SN6
Between CN2/SE6 and transFormer							
MU6d and SE6 connected kit	●	●	●	●		RMR-A852	
Outgoing kit						Refer to hereafter outgoing kit choice	
Connection with RMU: RN6d							
MU6d and RMU(RN6d) mounted kit	●	●	●	●	RMR-A846 (1)	RMR-A851	
Outgoing kit						Refer to hereafter outgoing kit choice	
Free standing							
Tee-off cable box (2sets)	●	●	●	●		Refer to hereafter outgoing free standing kit choice	
Outgoing kit							
TransFormer mounted (when MU2d connected with CN2/SE6 or RN2d/RE2d)							
TX mounted kit	□	□	□	□	RMR-A580	RMR-A580	RMR-A580
Free standing							
Tee-off cable box	Bottom entry	●	●	●	RMR-F47	RMR-F47	RMR-F47
	Top entry cable (indoor only)	□	□	□	RMR-F47-TOP	RMR-F47-TOP	RMR-F47-TOP
Gland plate	For 1 x 3C (up to 300 mm ²)	●	●	●	Refer to hereafter <Gland plate & Gland> part		
	For 3 x 1C (up to 630 mm ²)	□	□	□	Refer to hereafter <Gland plate & Gland> part		
	Blank	□	□	□	Refer to hereafter <Gland plate & Gland> part		
Gland		□	□	□	Refer to hereafter <Gland plate & Gland> par		
Gland plate & Gland							
For 1 x3 core cable							
Gland plate	Gland plate for 1x3c cable	●	●	●	RMR-F48	RMR-F48	RMR-F48
	Angled gland plate for 1x3C plate	□	□	□	RMR-F50	RMR-F50	RMR-F50
Gland	Brass wiping gland for 1 x 3C cable	□	□	□	RMR-F10	RMR-F10	RMR-F10
	Tubular gland for 1 x 3C cable	□	□	□	RMD A12	RMD A12	RMD A12
For 3 single core cable							
Gland plate	Gland plate for 3 x 1c cable	□	□	□	RMR-F49	RMR-F49	RMR-F49
Gland	Brass wiping gland for 3 x 1C cable	□	□	□	RMR-F11	RMR-F11	RMR-F11
	Tubular gland for 3 x 1C cable	□	□	□	RMD A13	RMD A13	RMD A13
Without cable type							
Gland plate	Aluminium blank gland plate	□	□	□	RMR-F52	RMR-F52	RMR-F52
	Brass wiping gland for 3 x 1C cable	□	□	□	RMR-F11	RMR-F11	RMR-F11
	Tubular gland for 3 x 1C cable	□	□	□	RMD A13	RMD A13	RMD A13
Gland	Brass wiping gland for 1 x 3C cable	□	□	□	RMR-F10	RMR-F10	RMR-F10
	Tubular gland for 1 x 3C cable	□	□	□	RMD A12	RMD A12	RMD A12
	CES5 gland	□	□	□	RMD-F120	RMD-F120	RMD-F120
Installation items	Anti-vandal fixings, including tool	◊	◊	◊	RMR-A19	RMR-A19	RMR-A19

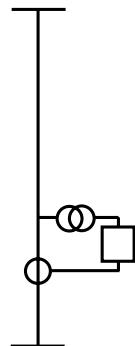
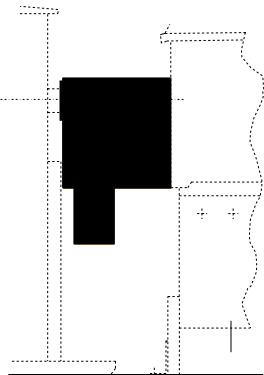
● Standard feature / □ Factory fitted accessory / ◊ Loose accessory, assembled on site

(1) If RN6d is connected with MU6, please choose kit: RMR-A849

Metering unit 630 A

MU6d-N1, MU6d-N2, MU6d-N3, MU6d-N5

DEB210



Non-extensible metering unit

Basic equipment

Indoor / Outdoor design, IP54, 12 kV, 75 kV BIL, 21 kA 3s

Busbar rated 630 A

2 no CTs installed in L1 & L3 phases (Cl 0.5s)

2 no ph-ph VT or 3 no ph-earth VT

11 kA/110 V 50 VA Cl 0.5"

Connect kit: between Ringmaster range (CN2/SN6) and MU2d

Outgoing: Tee-off cable box for cable bottom entry

Gland plate for 1 x 3C 300 mm²

	12 kV, 75 kV BIL, 21 kA 3 s	N1	N2	N3	N5
CT	400/200/5 A 10 VA Cl 0.5 s	●			
	600/5 A 10 VA Cl 0.5 s		●		
	400/5 A 10 VA Cl 0.5 s			●	
	600/300/5 A 10 VA Cl 0.5 s				●
VT	11 kV/110 V ph-ph 50 VA Cl 0.5	●	●	●	
	6.6 kV/110 V ph-ph 50 VA Cl 0.5				●

Options

Installation kit

Connected kits:

Connected kit between MU6d and RN6d

Tee-off cable box (only for MU6d free standing)

Outgoing kits:

Transformer mounted kit (only MU6d connected with SN6 or RN6d)

Tee-off cable box & accessories

Tee-off cable box for cable top entry (indoor only)

Gland plate for 3 x 1C 630 mm²

Aluminium blank gland plate

Gland for 3 x 1C 630 mm²

Gland for 1 x 3C 300 mm²

Order information

Rating	Code
	MU6d-N1
	MU6d-N2
	MU6d-N3
12 kV, 21 kA 3s, 75 kV BIL	MU6d-N5

Accessories

Anti-vandal fixings, including tool



Extensible circuit breakers

200 A (Without metering)

Specification

	Manual				Provision of motorisation
	CE2-T7 TLF	CE2-T34 VIP 45	CE2-T30 VIP 400	CE2-T41 VIP 410	CE2-T31 VIP 400
Ratings					
12 kV 21 kA 3 s 75 kV BIL, busbar 630 A	●	●	●	●	●
Busbars 630 A	●	●	●	●	●
Circuit breaker normal rated current 200 A	●	●	●	●	●
Cable earth switch 21 kA 3 s	●	●	●	●	●
IP54	●	●	●	●	●
Mechanism					
Independent manual operation	●	●	●	●	●
Provision for motorised 24 Vdc mechanism circuit breaker					○
Motor kit of 24 Vdc					○
Protection & control - circuit breaker					
CT's dual ratio - 100/50/5A class X	●				
CT-C Ga: Ipr 0-200 A, Us 22.5 mV, 5P30		●	●	●	●
Core balance CT for VIP410 relay for sensitive earth fault					○
Time limit Fuse (1)	●				
Multi voltage shunt trip coil	●	●	●	●	●
Indication					
SF6 gas gauge	●	●	●	●	●
Mechanical tripped on fault indication	●	●	●	●	●
Mechanism ON/OFF	●	●	●	●	●
Mechanism EARTH/MAIN	●	●	●	●	●
VPIIS indication	○	○	○	○	○
VPIIS indication -with voltage output	○	○	○	○	○
CB auxiliary contacts 1NO & 2NC	●	●	●	●	●
Low gas pressure indicator (-25°C to +55°C)	○	○	○	○	○
Tripped on fault contact	○	○	○	○	○
Earth selected auxiliary contact 1NO					●
Emergency circuit breaker trip push button	○	○	○	○	○
Test facility					
Integral cable test facility	●	●	●	●	●
Standard features					
Operation handle	●	●	●	●	●
Cable connection bushing type of Ring switch					
Short bushing	●	●	●	●	●
Cable (See available cable kit accessories)					
Main cable box					
Cable box	Bottom entry	●	●	●	●
	Top entry cable (indoor only)	○	○	○	○
Gland plate (2)	For cable 1 x 3C (up to 300 mm ²)	●	●	●	●
	For cable 3 x 1C (up to 630 mm ²)	○	○	○	○
	Blank	○	○	○	○
Busbar end cable box					
Extensible	Extensible kit	●	●	●	●
Rear cable box	Bottom entry cable box	○	○	○	○
	Top entry cable (indoor only)	○	○	○	○
Gland plate	For cable 1 x 3C (up to 300 mm ²)	○	○	○	○
	For cable 3 x 1C (up to 630 mm ²)	○	○	○	○
	Blank	○	○	○	○
Order codes					
12 kV, 21 kA, 75 kV BIL	CE2-T7	CE2-T34	CE2-T30	CE2-T41	CE2-T31

● Standard feature / ○ Optional feature

(1) Specify rating and kit number, refer to page 112

Extensible circuit breakers

200 A (With metering)

Specification

	Provision of motorisation			Manual		
	CE2-T36 VIP 400	CE2-T35 VIP 400	CE2-T39 VIP 400	CE2-T32 VIP 400	CE2-T38 VIP 400	CE2-T37 VIP 400
Ratings						
12 kV 21 kA 3 s 75 kV BIL, busbar 630 A	●	●	●	●	●	●
Busbars 630 A	●	●	●	●	●	●
Circuit breaker normal rated current 200 A	●	●	●	●	●	●
Cable earth switch 21 kA 3 s	●	●	●	●	●	●
IP54	●	●	●	●	●	●
Mechanism						
Independent manual operation	●	●	●	●	●	●
Provision for motorised 24 Vdc mechanism circuit breaker	●	●	●			
Motor kit of 24 Vdc	○	○	○			
Protection & control - circuit breaker						
CT's dual ratio - 100/50/5 A class X	●	●	●	●	●	●
CT- C Ga: Ipr 0-200 A, Us 22.5 mV, 5P30	●	●	●	●	●	●
Core balance CT for VIP410 relay for sensitive earth fault	●	●	●	●	●	●
Time limit fuse (1)	●	●	●	●	●	●
Multi voltage shunt trip coil	●	●	●	●	●	●
Metering						
CTs	2 CTs: 200/100/5 A 10 VA Cl 0.5s 6.6 kV/110 V 50 VA Cl 0.5	● ●	●	●	●	●
2 ph-ph	11 kV/110 V 50 VA Cl 0.5		●			
VTs	12 kV/110 V 50 VA Cl 0.5 6.6 kV/110 V 50 VA Cl 0.5			●		
3 ph-earth	11 kV/110 V 50 VA Cl 0.5 12 kV/110 V 50 VA Cl 0.5				●	●
Indication						
SF6 gas gauge	●	●	●	●	●	●
Mechanical tripped on fault indication	●	●	●	●	●	●
Mechanism ON/OFF	●	●	●	●	●	●
Mechanism EARTH/MAIN	●	●	●	●	●	●
VPIIS indication	○	○	○	○	○	○
VPIIS indication -with voltage output	○	○	○	○	○	○
CB auxiliary contacts 1NO & 2NC	●	●	●	●	●	●
Low gas pressure indicator (-25°C to +55°C)	○	○	○	○	○	○
Tripped on fault contact	○	○	○	○	○	○
Earth selected auxiliary contact 1NO	●	●	●	●		
Emergency circuit breaker trip push button	○	○	○	○	○	○
Test facility	Integral cable test facility	●	●	●	●	●
Standard features	Operation handle	●	●	●	●	●
Cable connection bushing type of Ring switch						
Short bushing	●	●	●	●	●	●
Cable (See available cable kit accessories)						
Main cable box						
Cable box	Bottom entry Top entry cable (indoor only)	● ○	● ○	● ○	● ○	● ○
Gland plate (2)	For cable 1 x 3C (up to 300 mm²) For cable 3 x 1C (up to 630 mm²) Blank	● ○ ○	● ○ ○	● ○ ○	● ○ ○	● ○ ○
Busbar end cable box						
Extensible	Extensible kit	●	●	●	●	●
Rear cable box	Bottom entry cable box Top entry cable (indoor only)	○ ○	○ ○	○ ○	○ ○	○ ○
Gland plate	For cable 1 x 3C (up to 300 mm²) For cable 3 x 1C (up to 630 mm²) Blank	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○
Order codes						
12 kV, 21 kA, 75 kV BIL	CE2-T36	CE2-T35	CE2-T39	CE2-T32	CE2-T38	CE2-T37

● Standard feature / ○ Optional feature

(1) Specify rating and kit number, refer to page 117

Extensible circuit breakers 200 A (Without metering) Accessories

Cable box	Provision of motorisation					Kit no.
	CE2-T7 TLF	CE2-T34 VIP 45	CE2-T30 VIP 400	CE2-T41 VIP 410	CE2-T31 VIP 400	
Main cable box						
Cable box	Bottom entry	●	●	●	●	●
Cable box	Top entry cables standard panels	□	□	□	□	RMR-F93
	Top entry cable with MU2d/MU6d					RMR-F94
Busbar end cable box						
Extensible	Extensible kit	●	●	●	●	●
Rear cable box	Bottom entry cable box	□	□	□	□	RMR-F47
	Top entry cable box	□	□	□	□	RMR-F47-TOP
Gland plate & Gland						
For 1x3 core cable						
Gland plate	Gland plate for 1x3c cable	●	●	●	●	RMR-F48
	Angled gland plate for 1x3C plate	□	□	□	□	RMR-F50
Gland	Brass wiping gland for 1 x 3C cable	□	□	□	□	RMR-F10
	Tubular gland for 1 x 3C cable	□	□	□	□	RMD A12
For 3 single core cable						
Gland plate	Gland plate for 3 x 1c cable	□	□	□	□	RMR-F49
Gland	Brass wiping gland for 3 x 1C cable	□	□	□	□	RMR-F11
	Tubular gland for 3 x 1C cable	□	□	□	□	RMD A13
Without cable type						
Gland plate	Aluminium blank gland plate	□	□	□	□	RMR-F52
	Brass wiping gland for 3 x 1C cable	□	□	□	□	RMR-F11
Gland	Tubular gland for 3 x 1C cable	□	□	□	□	RMD A13
	Brass wiping gland for 1 x 3C cable	□	□	□	□	RMR-F10
	Tubular gland for 1 x 3C cable	□	□	□	□	RMD A12
	CES5 gland	□	□	□	□	RMD-F120
Installation items						
3 phase busbar 630 A	◊	◊	◊	◊	◊	RMR-A14
Busbar end kit	◊	◊	◊	◊	◊	RMR-A15
Anti-vandal fixings, including tool	◊	◊	◊	◊	◊	RMR-A19
Operational items						
Motor kit for circuit breaker 24 Vdc						□ RMR-F67
Polarity conv. Kit (1)						□ RMR-F391
Circuit breaker cable voltage present indication system						
VPIS without voltage output - 6.6 kV to 12 kV for switch or CB-TLF	□					RMR-F903
VPIS without voltage output - 6.6 kV to 12 kV for CB - VIP relay		□	□	□	□	RMR-F904
VPIS-VO with voltage output - 6.6 kV to 12 kV for switch or CB-TLF	□					RMR-F927
VPIS-VO with voltage output - 6.6kV to 12 kV for CB-VIP relay		□	□	□	□	RMR-F928
Phase indication device						
Tripped on fault contact	◊	◊	◊	◊	◊	RMD-A374
Low gas pressure indicator (-25°C to +55°C)	□	□	□	□	□	RMR-F467
Emergency circuit breaker trip push button	□	□	□	□	□	RMR-F648
Mechanical interlocks (2)						
Circuit breaker - key free, EARTH ON	□	□	□	□		RMR-F85
Circuit breaker - key free, MAIN OFF	□	□	□	□		RMR-F86
Core balance CT for VIP410 relay for sensitive earth fault						◊ RMR-F755 (3)
VIP relay test device	Pocket battery for VIP relay		◊	◊	◊	◊ RMD-A202

● Standard feature / □ Factory fitted accessory / ◊ Loose accessory, assembled on site

(1) Only required when unit is used with RE2d Ring main unit and automation

(2) Specify lock symbol at time of ordering (3 digits max), not available with motor mechanisms / (3) Including gland plate and it is 1x3c cable

Extensible circuit breakers 200 A (With metering) Accessories

Cable box	Provision of motorisation			Manual			Kit no.
	CE2-T36 VIP 400	CE2-T35 VIP 400	CE2-T39 VIP 400	CE2-T32 VIP 400	CE2-T38 VIP 400	CE2-T37 VIP 400	
Main cable box							
Cable box	Bottom entry	●	●	●	●	●	
Cable box	Top entry cables standard panels	□					RMR-F93
	Top entry cable whith MU2d/MU6d		□	□	□	□	RMR-F94
Busbar end cable box							
Extensible	Extensible kit	●	●	●	●	●	
Rear cable box	Bottom entry cable box	□	□	□	□	□	RMR-F47
	Top entry cable box	□	□	□	□	□	RMR-F47-TOP
Gland plate & Gland							
For 1x3 core cable							
Gland plate	Gland plate for 1x3c cable	●	●	●	●	●	RMR-F48
	Angled gland plate for 1x3C plate	□	□	□	□	□	RMR-F50
Gland	Brass wiping gland for 1 x 3C cable	□	□	□	□	□	RMR-F10
	Tubular gland for 1 x 3C cable	□	□	□	□	□	RMD A12
For 3 single core cable							
Gland plate	Gland plate for 3 x 1c cable	□	□	□	□	□	RMR-F49
Gland	Brass wiping gland for 3 x 1C cable	□	□	□	□	□	RMR-F11
	Tubular gland for 3 x 1C cable	□	□	□	□	□	RMD A13
Without cable type							
Gland plate	Aluminium blank gland plate	□	□	□	□	□	RMR-F52
	Brass wiping gland for 3 x 1C cable	□	□	□	□	□	RMR-F11
Gland	Tubular gland for 3 x 1C cable	□	□	□	□	□	RMD A13
	Brass wiping gland for 1 x 3C cable	□	□	□	□	□	RMR-F10
	Tubular gland for 1 x 3C cable	□	□	□	□	□	RMD A12
	CES5 gland	□	□	□	□	□	RMD-F120
Installation items							
3 phase busbar 630 A	◊	◊	◊	◊	◊	◊	RMR-A78
Busbar end kit	◊	◊	◊	◊	◊	◊	RMR-A15
Anti-vandal fixings, including tool	◊	◊	◊	◊	◊	◊	RMR-A19
Operational items							
Motor kit for circuit breaker 24 Vdc	□	□	□				RMR-F67
Polarity conv. Kit (1)	□	□	□				RMR-F391
Circuit breaker cable voltage present indication system							
VPIS without voltage output - 6.6 kV to 12 kV for CB - VIP relay	□	□	□	□	□	□	RMR-F904
VPIS-VO with voltage output - 6.6 kV to 12 kV for CB-VIP relay	□	□	□	□	□	□	RMR-F928
Phase indication device	◊	◊	◊	◊	◊	◊	RMD-A374
Tripped on fault contact	□	□	□	□	□	□	RMD-F495
Low gas pressure indicator (-25°C to +55°C)	□	□	□	□	□	□	RMR-F467
Emergency circuit breaker trip push button	□	□	□	□	□	□	RMR-F648
Mechanical interlocks (2)							
Circuit breaker - key free, EARTH ON				□	□	□	RMR-F85
Circuit breaker - key free, MAIN OFF				□	□	□	RMR-F86
Core balance CT for VIP410 relay for sensitive earth fault							
VIP relay test device	Pocket battery for VIP relay	◊	◊	◊	◊	◊	RMD-A202

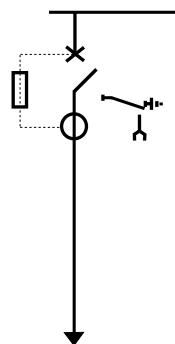
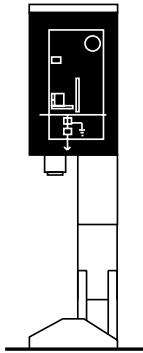
● Standard feature / □ Factory fitted accessory / ◊ Loose accessory, assembled on site

(1) Only required when unit is used with RE2d Ring main unit and automation

(2) Specify lock symbol at time of ordering (3 digits max), not available with motor mechanisms / (3) Including gland plate and it is 1x3c cable

Extensible circuit breakers 200 A (Without metering) CE2-T7 (TLF)

DE0196



Transformer protection up to 1.6 MVA at 11 kV

Basic equipment

- Indoor / Outdoor design, IP54, 12 kV, 21 kA 3 s
- One circuit breaker rated current is 200 A with short bushing
- Overcurrent and earth fault protection using CT operated trip coils with provision for time limit fuse
- Protection CT's - 100/50/5 A class X
- Multi voltage shunt tripping coil 20-250 Vdc, 110-250 Vac
- 630 A busbar
- Internal arc class: IAC AF 12.5 kA/1s for indoor installation or IAC AF 21 kA 1s for outdoor installation (1)
- Cable earth switch 21 kA 3s
- Independent manual operation mechanism
- Mechanical tripped on fault flag indication
- Mechanical ON/OFF indicator
- Mechanical earth/main indicator
- SF6 gas gauge
- CB auxiliary contacts 1NO 2NC
- Integral cable test facility
- Main cable box for cable bottom entry
- Gland plate for 1 x 3C 300 mm²
- Busbar end: extensible type
- Anti-reflex operating handle

Options

Indication & operation

- Cable voltage present indication (VPIS)
- Cable voltage present indication (VPIS) with voltage output
- Tripped on fault contact
- Low gas pressure indicator (-25°C to +55°C)
- Emergency circuit breaker trip push button

Cable connection

- Gland plate for 3 x 1C 630 mm²
- Aluminium blank gland plate
- Gland for 3 x 1C 630 mm²
- Gland for 1 x 3C 300 mm²
- Busbar end: future extensible kit
- Busbar end cable box: top entry cable boxes (indoor only)
- Busbar end cable box: bottom entry cable box
- Main cable box for cable top entry (indoor only)

Keylock

- Circuit breaker - key free, EARTH ON
- Circuit breaker - key free, MAIN OFF

Accessories

- Time Limit Fuse - refer to page 112 selection table
- Anti-vandal fixings, including tool
- Phase indication device

Order information

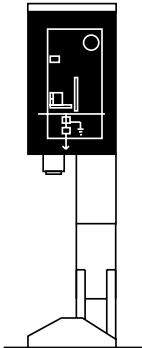
Rating	Code
12 kV, 21 kA 1s, 75 kV BIL	CE2-T7

Extensible circuit breakers

200 A (Without metering)

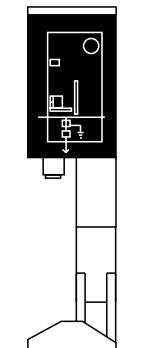
CE2-T30, CE2-T31 (with VIP400 relay)

DE60251



CE2-T30 (VIP400 & manual operation)

DE60253



CE2-T31 (VIP400 & provision motorisation)

Feeder protection up to 3.5 MVA at 11 kV

Basic equipment

- Indoor / Outdoor design, IP54, 12 kV, 21 kA 3 s
- One circuit breaker rated current is 200 A with short bushing
- Self powered IDMT overcurrent and earth fault relay VIP400 in accordance with IEC 60255 and BS142 Dual supply for communication or sensitive earth fault
- Overcurrent: 20-200 A, earth fault: 10 - 200 A
- Protection CT - C Ga: Ipr: 0-200 A, Us 22.5 mV, 5P30
- Trip coil: Mitop
- 630 A busbar
- Internal arc class: IAC AF 12.5 kA/1 s for indoor installation or IAC AF 21 kA 1 s for outdoor installation (1)
- Cable earth switch 21 kA 3 s
- Independent manual operation mechanism
- Provision for motorised mechanism of circuit breaker (only for T31)
- Mechanical tripped on fault flag indication
- Mechanical ON/OFF indicator
- Mechanical earth/main indicator
- SF6 gas gauge
- CB auxiliary contacts 1NO 2NC
- Integral cable test facility
- Main cable box for cable bottom entry
- Gland plate for 3 x 1C 630 mm²
- Busbar end: extensible type
- Anti-reflex operating handle

Options

Indication & operation

- Cable voltage present indication (VPIS)
- Cable voltage present indication (VPIS) with voltage output
- Tripped on fault contact
- Low gas pressure indicator (-25°C to +55°C)
- Emergency circuit breaker trip push button
- Motor kit for circuit breaker 24 Vdc (only for T31)

Cable connection

- Gland plate for 3 x 1C 630 mm²
- Aluminium blank gland plate
- Gland for 3 x 1C 630 mm²
- Gland for 1 x 3C 300 mm²
- Busbar end: future extensible kit
- Busbar end cable box: top entry cable boxes (indoor only)
- Busbar end cable box: bottom entry cable box
- Main cable box for cable top entry (indoor only)

Keylock

- Circuit breaker - key free, EARTH ON
- Circuit breaker - key free, MAIN OFF

Order information

Rating	Code
12 kV, 21 kA 1s, 75 kV BIL	CE2-T30
	CE2-T31

Accessories

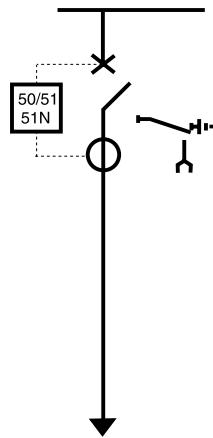
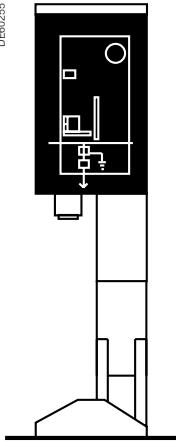
- Anti-vandal fixings, including tool
- Phase indication device
- Pocket battery for VIP relay

Extensible circuit breakers

200 A (Without metering)

CE2-T41 (with VIP410 relay)

DE60255



Feeder protection up to 3.5 MVA at 11 kV

Basic equipment

- Indoor / Outdoor design, IP54, 12 kV, 21 kA 3 s
- One circuit breaker rated current is 200 A with short bushing
- Self powered IDMT overcurrent and earth fault relay VIP410 in accordance with IEC 60255 and BS142 Dual supply for communication or sensitive earth fault
- Overcurrent: 20-200 A, earth fault: 1- 240 A (with Core balance CT)
- Protection CT - C Ga: Ipr: 0-200 A, Us 22.5 mV, 5P30
- Trip coil: Mitop
- 630 A busbar
- Internal arc class: IAC AF 12.5 kA/1 s for indoor installation or IAC AF 21 kA 1 s for outdoor installation (1)
- Cable earth switch 21 kA 3 s
- Independent manual operation mechanism
- Mechanical tripped on fault flag indication
- Mechanical ON/OFF indicator
- Mechanical earth/main indicator
- SF6 gas gauge
- CB auxiliary contacts 1NO 2NC
- Integral cable test facility
- Main cable box for cable bottom entry
- Gland plate for 1 x 3C 300 mm²
- Busbar end: extensible type
- Anti-reflex operating handle

Options

Indication & operation

- Cable voltage present indication (VPIS)
- Cable voltage present indication (VPIS) with voltage output
- Tripped on fault contact
- Low gas pressure indicator (-25°C to +55°C)
- Emergency circuit breaker trip push button

Cable connection

- Gland plate for 3 x 1C 630 mm²
- Aluminium blank gland plate
- Gland for 3 x 1C 630 mm²
- Gland for 1 x 3C 300 mm²
- Busbar end: future extensible kit
- Busbar end cable box: top entry cable boxes (indoor only)
- Busbar end cable box: bottom entry cable box
- Main cable box for cable top entry (indoor only)

Keylock

- Circuit breaker - key free, EARTH ON
- Circuit breaker - key free, MAIN OFF

Accessories

- Anti-vandal fixings, including tool
- Phase indication device
- Pocket battery for VIP relay
- Core balance CT for detect sensitive earth fault

Order information

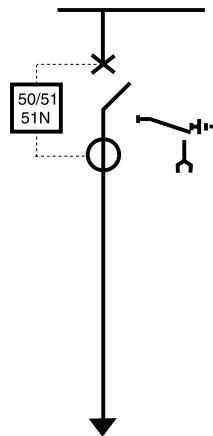
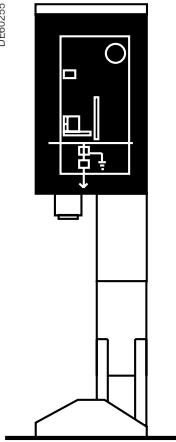
Rating	Code
12 kV, 21 kA 1s, 75 kV BIL	CE2-T41

Extensible circuit breakers

200 A (Without metering)

CE2-T34 (with VIP45 relay)

DE60255



Feeder protection up to 2.5 MVA at 11 kV

Basic equipment

- Indoor / Outdoor design, IP54, 12 kV, 21 kA 3 s
- One circuit breaker rated current is 200 A with short bushing
- Self powered overcurrent and earth fault relay VIP45
- Setting range: Overcurrent: 5-200 A, earth fault: 5- 200 A
- Setting range: Overcurrent: 5-100 A, earth fault: 5-100 A
- Protection CT - C Ga: Ipr: 0-200 A, Us 22.5 mV, 5P30
- Trip coil: Mitop
- 630 A busbar
- Internal arc class: IAC AF 12.5 kA/1 s for indoor installation or IAC AF 21 kA 1 s for outdoor installation (1)
- Cable earth switch 21 kA 3 s
- Independent manual operation mechanism
- Mechanical tripped on fault flag indication
- Mechanical ON/OFF indicator
- Mechanical earth/main indicator
- SF6 gas gauge
- CB auxiliary contacts 1NO 2NC
- Integral cable test facility
- Main cable box for cable bottom entry
- Gland plate for 1 x 3C 300mm²
- Busbar end: extensible type
- Anti-reflex operating handle

Options

Indication & operation

- Cable voltage present indication (VPIS)
- Cable voltage present indication (VPIS) with voltage output
- Tripped on fault contact
- Low gas pressure indicator (-25°C to +55°C)
- Emergency circuit breaker trip push button

Cable connection

- Gland plate for 3 x 1C 630 mm²
- Aluminium blank gland plate
- Gland for 3 x 1C 630 mm²
- Gland for 1 x 3C 300 mm²
- Busbar end: future extensible kit
- Busbar end cable box: top entry cable boxes (indoor only)
- Busbar end cable box: bottom entry cable box
- Main cable box for cable top entry (indoor only)

Keylock

- Circuit breaker - key free, EARTH ON
- Circuit breaker - key free, MAIN OFF

Order information

Rating	Code
12 kV, 21 kA 1s, 75 kV BIL	CE2-T34

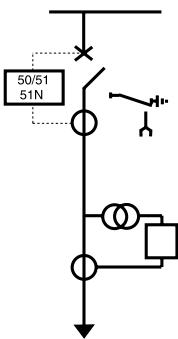
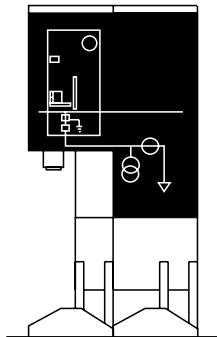
Accessories

- Anti-vandal fixings, including tool
- Phase indication device
- Pocket battery for VIP relay

Extensible circuit breakers 200 A (With metering options) CE2-T** (with VIP400 relay)

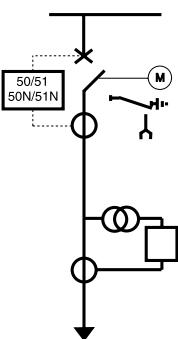
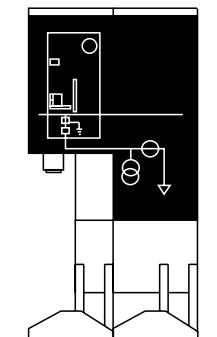
Feeder protection up to 3.5 MVA at 11 kV

DE60252



CE2-T32/T37/T38/T40 (VIP400, manual operation)

DE60254



CE2-T35/T36/T39 (VIP400, provision of motorisation)

Order information

Rating	Code
	CE2-T35
	CE2-T36
	CE2-T39
12 kV, 21 kA 1s, 75 kV BIL	CE2-T32
	CE2-T37
	CE2-T38

Basic equipment

Indoor / Outdoor design, IP54, 12 kV, 21 kA 3 s
One circuit breaker rated current is 200 A with short bushing
Self powered IDMT overcurrent and earth fault relay VIP400 in accordance with IEC 60255 and BS142 Dual supply for communication or sensitive earth fault
Overcurrent: 20-200 A, earth fault: 10 - 200 A
Protection CT - C Ga: Ipr: 0-20 0 A, Us 22.5 mV, 5P30
Trip coil: Mitop
630 A busbar
Internal arc class: IAC AF 12.5 kA/1 s for indoor installation or IAC AF 21 kA 1 s for outdoor installation (1)
Cable earth switch 21 kA 3 s
Independent manual operation mechanism
Provision for motorised mechanism of circuit breaker (only for T35/T36/T39)
Mechanical tripped on fault flag indication
Mechanical ON/OFF indicator
Mechanical earth/main indicator
SF6 gas gauge
CB auxiliary contacts 1NO 2NC
Integral cable test facility
Main cable box for cable bottom entry
Gland plate for 1 x 3C 300 mm ²
Busbar end: extensible type
Anti-reflex operating handle
2no Metering CTs: install on L1 & L3 phases: 200/100/5 A Cl 0.5 s, 10 VA
2no ph-ph VT or 3no ph-earth VT, details information see below table

	CE2-						
	T36 VIP 400	T35 VIP 400	T39 VIP 400	T32 VIP 400	T40 VIP 400	T38 VIP 400	T37 VIP 400
2 ph-ph VT	●	●	●	●	●		
3 ph-earth VT						●	●
6.6 kV/110 V 50 VA Cl 0.5	●			●			
11 kV/110 V 50 VA Cl 0.5					●	●	
12 kV/110 V 50 VA Cl 0.5			●				●
Operation	Motorisation provision			Manual operation			

Extensible circuit breakers

200 A (With metering options)

CE2-T** (with VIP400 relay)

Options

Indication & operation

Cable voltage present indication (VPIS)

Cable voltage present indication (VPIS) with voltage output

Tripped on fault contact

Low gas pressure indicator (-25°C to +55° C)

Emergency circuit breaker trip push button

Motor kit for circuit breaker 24 Vdc (only for T35/T36/T39)

Cable connection

Gland plate for 3 x 1C 630 mm²

Aluminium blank gland plate

Gland for 3 x 1C 630 mm²Gland for 1 x 3C 300 mm²

Busbar end: future extensible kit

Busbar end cable box: top entry cable boxes (indoor only)

Busbar end cable box: bottom entry cable box

Main cable box for cable top entry (indoor only)

Keylock (only for CE2-T32/T37/T38/T40)

Circuit breaker - key free, EARTH ON

Circuit breaker - key free, MAIN OFF

Accessories

Anti-vandal fixings, including tool

Phase indication device

Pocket battery for VIP relay

● Standard feature / □ Factory fitted accessory / ♦ Loose accessory, assembled on site.

Extensible circuit breakers

630 A (Without metering)

Specification

	Manual		Provision of motorisation
	CE6-T30 VIP 400	CE6-T40 VIP 410	CE6-T31 VIP 400
Ratings			
12 kV 21 kA 3 s 75 kV BIL, busbar 630 A	●	●	●
Busbars 630 A	●	●	●
Circuit breaker normal rated current 630 A	●	●	●
Cable earth switch 21 kA 3 s	●	●	●
IP54	●	●	●
Mechanism			
Independent manual operation	●	●	●
Provision for motorised 24 Vdc mechanism circuit breaker			○
Motor kit of 24 Vdc			○
Protection & control - circuit breaker			
CT- C Gb: Ipr 0-630 A, Us 22.5 mV, 5P30	●	●	●
Core balance CT for VIP410 relay for sensitive earth fault		○	
Multi voltage shunt trip coil - Mitop	●	●	●
Indication			
SF6 gas gauge	●	●	●
Mechanical tripped on fault indication	●	●	●
Mechanism ON/OFF	●	●	●
Mechanism EARTH/MAIN	●	●	●
VPIIS indication	○	○	○
VPIIS indication -with voltage output	○	○	○
CB auxiliary contacts 1NO & 2NC	●	●	●
Earth selected auxiliary contact 1NO			●
Low gas pressure indicator (-25°C to +55°C)	○	○	○
Tripped on fault contact	○	○	○
Emergency circuit breaker trip push button	○	○	○
Indication CT: 600/5 A (L2 phase), 5 VA, Cl 1.0	●	●	●
Ammeter (0-600 A)	●	●	●
Test facility		Integral cable test facility	●
Standard features		Operation handle	●
Cable connection bushing		Short bushing	●
Cable (See available cable kit accessories)			
Main cable box			
Cable box	Bottom entry	●	●
	Top entry cable (indoor only)	○	○
	For cable 1 x 3C (up to 300 mm ²)	●	●
Gland plate (1)	For cable 3 x 1C (up to 630 mm ²)	○	○
	Blank	○	○
Busbar end cable box			
Extensible	Extensible kit	●	●
Rear cable box	Bottom entry cable box	○	○
	Top entry cable (indoor only)	○	○
	For cable 1 x 3C (up to 300 mm ²)	○	○
Gland plate (1)	For cable 3 x 1C (up to 630 mm ²)	○	○
	Blank	○	○
Order codes			
12 kV, 21 kA, 75 kV BIL	CE6-T30	CE6-T40	CE6-T31

● Standard feature / ○ Optional feature

(1) Gland is only for free standing

Extensible circuit breakers

630 A (With metering)

Specification

	Provision of motorisation			Manual			
	CE6-T35 VIP 400	CE6-T34 VIP 400	CE6-T38 VIP 400	CE6-T39 VIP 400	CE6-T33 VIP 400	CE6-T37 VIP 400	CE6-T36 VIP 400
Ratings							
12 kV 21 kA 3 s 75 kV BIL, busbar 630 A	●	●	●	●	●	●	●
Busbars 630 A	●	●	●	●	●	●	●
Circuit breaker normal rated current 630 A	●	●	●	●	●	●	●
Cable earth switch 21 kA 3 s	●	●	●	●	●	●	●
IP54	●	●	●	●	●	●	●
Mechanism							
Independent manual operation	●	●	●	●	●	●	●
Provision for motorised 24 Vdc mechanism circuit breaker	●	●	●				
Motor kit of 24 Vdc	○	○	○				
Protection & control - circuit breaker							
CT- C Gb: Ipr 0-630 A, Us 22.5 mV, 5P30	●	●	●	●	●	●	●
Time limit fuse (1)							
Multi voltage shunt trip coil - Mitop	●	●	●	●	●	●	●
Metering							
CTs 2 CTs: 400/200/5 A 10 VA Cl 0.5s	●	●	●	●	●	●	●
6.6 kV/110 V 50 VA Cl 0.5	●			●			
2 ph-ph	11 kV/110 V 50 VA Cl 0.5		●		●		
VTs	12 kV/110 V 50 VA Cl 0.5						
6.6 kV/110 V 50 VA Cl 0.5							
3 ph-earth	11 kV/110 V 50 VA Cl 0.5					●	
	12 kV/110 V 50 VA Cl 0.5			●			●
Indication							
SF6 gas gauge	●	●	●	●	●	●	●
Mechanical tripped on fault indication	●	●	●	●	●	●	●
Mechanism ON/OFF	●	●	●	●	●	●	●
Mechanism EARTH/MAIN	●	●	●	●	●	●	●
VPIS indication	○	○	○	○	○	○	○
VPIS indication -with voltage output	○	○	○	○	○	○	○
CB auxiliary contacts 1NO & 2NC	●	●	●	●	●	●	●
Earth selected auxiliary contact 1NO	●	●	●				
Low gas pressure indicator (-25°C to +55°C)	○	○	○	○	○	○	○
Tripped on fault contact	○	○	○	○	○	○	○
Emergency circuit breaker trip push button	○	○	○	○	○	○	○
Indication CT: 600/5 A (L2 phase), 5 VA, Cl 1.0	●	●	●	●	●	●	●
Ammeter (0-600 A)	●	●	●	●	●	●	●
Test facility							
Standard features							
Cable connection bushing							
Cable (See available cable kit accessories)							
Main cable box							
Cable box	Bottom entry	●	●	●	●	●	●
	Top entry cable (indoor only)	○	○	○	○	○	○
Gland plate (2)	For cable 1 x 3C (up to 300 mm ²)	●	●	●	●	●	●
	For cable 3 x 1C (up to 630 mm ²)	○	○	○	○	○	○
	Blank	○	○	○	○	○	○
Busbar end cable box							
Extensible	Extensible kit	●	●	●	●	●	●
Rear cable box	Bottom entry cable box	○	○	○	○	○	○
	Top entry cable (indoor only)	○	○	○	○	○	○
Gland plate (2)	For cable 1 x 3C (up to 300 mm ²)	○	○	○	○	○	○
	For cable 3 x 1C (up to 630 mm ²)	○	○	○	○	○	○
	Blank	○	○	○	○	○	○
Order codes							
12 kV, 21 kA, 75 kV BIL	CE6-T35	CE6-T34	CE6-T38	CE6-T39	CE6-T33	CE6-T37	CE6-T38

● Standard feature / ○ Optional feature / (1) Specify rating and kit number, refer to page 117 / (2) Gland is only for free standing

Extensible circuit breakers

630 A (Without metering)

Accessories

Cable box	Manual			Provision of motorisation	Kit no.
	CE6-T30 VIP 400	CE6-T40 VIP 410	CE6-T31 VIP 400		
Main cable box					
Cable box	Bottom entry	●	●	●	
	Top entry cables standard panels	□	□	□	RMR-F93
	Top entry cable whith MU2d/MU6d				RMR-F94
Busbar end cable box					
Extensible	Extensible kit	●	●	●	
	Bottom entry cable box	□	□	□	RMR-F47
Rear cable box	Top entry cable box	□	□	□	RMR-F47-TOP
Gland plate & Gland					
For 1x3 core cable					
Gland plate	Gland plate for 1 x 3C cable	●	●	●	RMR-F48
	Angled gland plate for 1 x 3C plate	□	□	□	RMR-F50
Gland	Brass wiping gland for 1 x 3C cable	□	□	□	RMR-F10
	Tubular gland for 1 x 3C cable	□	□	□	RMD A12
For 3 single core cable					
Gland plate	Gland plate for 3 x 1C cable	□	□	□	RMR-F49
	Brass wiping gland for 3 x 1C cable	□	□	□	RMR-F11
Gland	Tubular gland for 3 x 1C cable	□	□	□	RMD A13
Without cable type					
Gland plate	Aluminium blank gland plate	□	□	□	RMR-F52
	Brass wiping gland for 3 x 1C cable	□	□	□	RMR-F11
	Tubular gland for 3 x 1C cable	□	□	□	RMD A13
Gland	Brass wiping gland for 1 x 3C cable	□	□	□	RMR-F10
	Tubular gland for 1 x 3C cable	□	□	□	RMD A12
	CES5 gland	□	□	□	RMD-F120
Installation items					
3 phase busbar 630 A	◊	◊	◊		RMR-A14
Busbar end kit	◊	◊	◊		RMR-A15
Anti-vandal fixings, including tool	◊	◊	◊		RMR-A19
Operational items					
Motor kit for circuit breaker 24 Vdc					□ RMR-F67
Polarity conv. Kit (1)				□	RMR-F391
Circuit breaker cable voltage present indication system					
VPIS without voltage output - 6.6 kV to 12 kV for CB - VIP relay	□	□	□		RMR-F904
VPIS-VO with voltage output - 6.6 kV to 12 kV for CB-VIP relay	□	□	□		RMR-F928
Phase indication device					
Tripped on fault contact	◊	◊	◊		RMD-A374
Low gas pressure indicator (-25°C to +55°C)	●	●	●		RMR-F467/21kA
Emergency circuit breaker trip push button	□	□	□		RMR-F648
Mechanical interlocks (2)					
Circuit breaker - key free, EARTH ON	□	□	□		RMR-F85
Circuit breaker - key free, MAIN OFF	□	□	□		RMR-F86
Core balance CT for VIP410 relay for sensitive earth fault					
VIP relay test device	Pocket battery for VIP relay	◊	◊	◊	RMD-A202

● Standard feature /□ Factory fitted accessory /◊ Loose accessory, assembled on site

(1) Only required when unit is used with RE2d Ring main unit and automation

(2) Specify lock symbol at time of ordering (3 digits max), not available with motor mechanisms

(3) Including gland plate and it is 1x3C cable

Extensible circuit breakers 630 A (With metering) Accessories

Cable box	Provision of motorisation			Manual				Kit no.
	CE6-T35 VIP 400	CE6-T34 VIP 400	CE6-T38 VIP 400	CE6-T39 VIP 400	CE6-T33 VIP 400	CE6-T37 VIP 400	CE6-T36 VIP 400	
Main cable box								
Cable box	Bottom entry	●	●	●	●	●	●	RMR-F93
Cable box	Top entry cables standard panels							
	Top entry cable whith MU2d/MU6d	□	□	□	□	□	□	RMR-F94
Busbar end cable box								
Extensible	Extensible kit	●	●	●	●	●	●	
Rear cable box	Bottom entry cable box	□	□	□	□	□	□	RMR-F47
	Top entry cable box	□	□	□	□	□	□	RMR-F47-TOP
Gland plate & Gland								
For 1x3 core cable								
Gland plate	Gland plate for 1x3C cable	●	●	●	●	●	●	RMR-F48
	Angled gland plate for 1x3C plate	□	□	□	□	□	□	RMR-F50
Gland	Brass wiping gland for 1 x 3C cable	□	□	□	□	□	□	RMR-F10
	Tubular gland for 1 x 3C cable	□	□	□	□	□	□	RMD A12
For 3 single core cable								
Gland plate	Gland plate for for 3 x 1C cable	□	□	□	□	□	□	RMR-F49
Gland	Brass wiping gland for 3 x 1C cable	□	□	□	□	□	□	RMR-F11
	Tubular gland for 3 x 1C cable	□	□	□	□	□	□	RMD A13
Without cable type								
Gland plate	Aluminium blank gland plate	□	□	□	□	□	□	RMR-F52
	Brass wiping gland for 3 x 1C cable	□	□	□	□	□	□	RMR-F11
Gland	Tubular gland for 3 x 1C cable	□	□	□	□	□	□	RMD A13
	Brass wiping gland for 1 x 3C cable	□	□	□	□	□	□	RMR-F10
	Tubular gland for 1 x 3C cable	□	□	□	□	□	□	RMD A12
	CES5 gland	□	□	□	□	□	□	RMD-F120
Installation items								
3 phase busbar 630 A	◊	◊	◊	◊	◊	◊	◊	RMR-A78
Busbar end kit	◊	◊	◊	◊	◊	◊	◊	RMR-A15
Anti-vandal fixings, including tool	◊	◊	◊	◊	◊	◊	◊	RMR-A19
Operational items								
Motor kit for circuit breaker 24 Vdc	□	□	□					RMR-F67
Polarity conv. Kit (1)	□	□	□					RMR-F391
Circuit breaker cable voltage present indication system								
VPIS without voltage output - 6.6 kV to 12 kV for CB - VIP relay	□	□	□	□	□	□	□	RMR-F904
VPIS-VO with voltage output - 6.6 kV to 12 kV for CB-VIP relay	□	□	□	□	□	□	□	RMR-F928
Phase indication device								
Tripped on fault contact	◊	◊	◊	◊	◊	◊	◊	RMD-F495
Low gas pressure indicator (-25°C to +55°C)	□	□	□	□	□	□	□	RMR-F467/21kA
Emergency circuit breaker trip push button	□	□	□	□	□	□	□	RMR-F648
Mechanical interlocks (2)								
Circuit breaker - key free, EARTH ON				□	□	□	□	RMR-F85
Circuit breaker - key free, MAIN OFF				□	□	□	□	RMR-F86
Core balance CT for VIP410 relay for sensitive earth fault								RMR-F755 (3)
VIP relay test device	Pocket battery for VIP relay	◊	◊	◊	◊	◊	◊	RMD-A202

● Standard feature / □ Factory fitted accessory / ◊ Loose accessory, assembled on site

(1) Only required when unit is used with RE2d Ring main unit and automation

(2) Specify lock symbol at time of ordering (3 digits max), not available with motor mechanisms

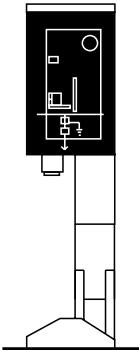
(3) Including gland plate and it is 1x3C cable

Extensible circuit breakers

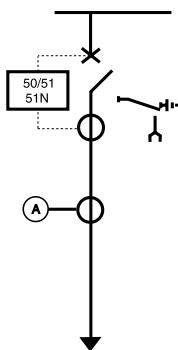
630 A (Without metering)

CE6-T30, CE6-T31 (with VIP400 relay)

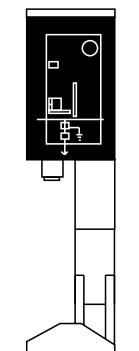
DE60256



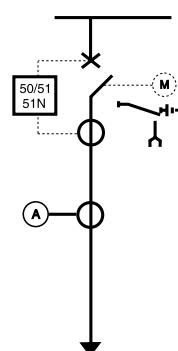
CE6-T30 (VIP400 & manual operation)



DE60257



CE6-T31 (VIP400 & provision motorisation)



Order information

Rating	Code
12 kV, 21 kA 3s, 75 kV BIL	CE2-T35
	CE2-T36

Feeder protection up to 12 MVA at 11 kV

Basic equipment

Indoor / Outdoor design, IP54, 12 kV, 21 kA 3 s

One circuit breaker rated current is 630 A with short bushing

Self powered IDMT overcurrent and earth fault relay VIP400 in accordance with IEC 60255 and BS142

Setting range: Overcurrent: 31.5-1250 A, earth fault: 63 - 630 A

CT- C Gb: Ipr 0-630 A, Us 22.5 mV, 5P30

Trip coil: Mitop

630 A busbar

Internal arc class: IAC AF 12.5 kA/1 s for indoor installation or IAC AF 21 kA 1 s for outdoor installation (1)

Cable earth switch 21 kA 3 s

Independent manual operation mechanism

Provision for motorised mechanism of circuit breaker (only for T31)

Mechanical tripped on fault flag indication

Mechanical ON/OFF indicator

Mechanical earth/main indicator

SF6 gas gauge

CB auxiliary contacts 1NO 2NC

Integral cable test facility

Main cable box for cable bottom entry

Gland plate for 1 x 3C 300 mm²

Busbar end: extensible type

Anti-reflex operating handle

Ammeter (0-600 A)

Indication CT L2 phase - 600/5 A Cl 1.0 5 VA

Options

Indication & operation

Cable voltage present indication (VPIS)

Cable voltage present indication (VPIS) with voltage output

Tripped on fault contact

Low gas pressure indicator (-25°C to +55°C)

Emergency circuit breaker trip push button

Motor kit for circuit breaker 24 Vdc (only for T31)

Cable connection

Gland plate for 3 x 1C 630 mm²

Aluminium blank gland plate

Gland for 3 x 1C 630 mm²

Gland for 1 x 3C 300 mm²

Busbar end: future extensible kit

Busbar end cable box: top entry cable boxes (indoor only)

Busbar end cable box: bottom entry cable box

Main cable box for cable top entry (indoor only)

Keylock

Circuit breaker - key free, EARTH ON

Circuit breaker - key free, MAIN OFF

Accessories

3 phase busbar 630 A

Busbar end kit (1 end kit required per switchboard)

Anti-vandal fixings, including tool

Phase indication device

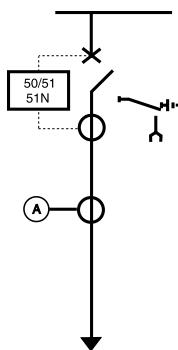
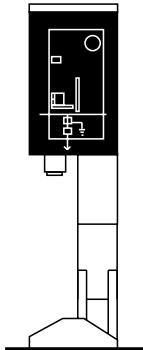
Pocket battery for VIP relay

Extensible circuit breakers

630 A (Without metering)

CE6-T40 (with VIP410 relay)

DEG0256



Feeder protection up to 12 MVA at 11 kV

Basic equipment

Indoor / Outdoor design, IP54, 12 kV, 21 kA 3 s

One circuit breaker rated current is 630 A with short bushing

Self powered IDMT overcurrent and earth fault relay VIP410 in accordance with IEC 60255 and BS142

Overcurrent: 20-200 A, earth fault: 1-240 A (with Core balance CT)

CT- C Gb: Ipr 0-630 A, Us 22.5 mV, 5P30

Trip coil: Mitop

630 A busbar

Internal arc class: IAC AF 12.5 kA/1 s for indoor installation or IAC AF 21 kA 1 s for outdoor installation (1)

Cable earth switch 21 kA 3 s

Independent manual operation mechanism

Mechanical tripped on fault flag indication

Mechanical ON/OFF indicator

Mechanical earth/main indicator

SF6 gas gauge

CB auxiliary contacts 1NO 2NC

Integral cable test facility

Main cable box for cable bottom entry

Gland plate for 1 x 3C 300 mm²

Busbar end: extensible type

Anti-reflex operating handle

Ammeter (0-600 A)

Indication CT L2 phase - 600/5 A Cl 1.0 5 VA

Options

Indication & operation

Cable voltage present indication (VPIS)

Cable voltage present indication (VPIS) with voltage output

Tripped on fault contact

Low gas pressure indicator (-25°C to +55°C)

Emergency circuit breaker trip push button

Cable connection

Gland plate for 3 x 1C 630 mm²

Aluminium blank gland plate

Gland for 3 x 1C 630 mm²

Gland for 1 x 3C 300 mm²

Busbar end: future extensible kit

Busbar end cable box: top entry cable boxes (indoor only)

Busbar end cable box: bottom entry cable box

Main cable box for cable top entry (indoor only)

Keylock

Circuit breaker - key free, EARTH ON

Circuit breaker - key free, MAIN OFF

Accessories

3 phase busbar 630 A

Busbar end kit (1 end kit required per switchboard)

Anti-vandal fixings, including tool

Phase indication device

Pocket battery for VIP relay

Core balance CT for detect sensitive earth fault

Order information

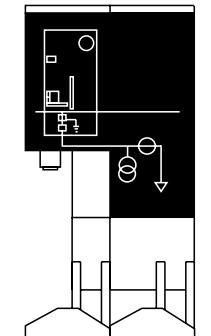
Rating	Code
12 kV, 21 kA 3s, 75 kV BIL	CE6-T40

Extensible circuit breakers

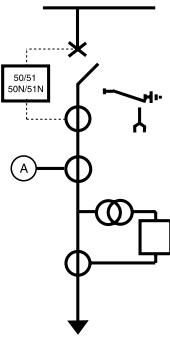
630 A (With metering options)

CE6-T* (with VIP400 relay)

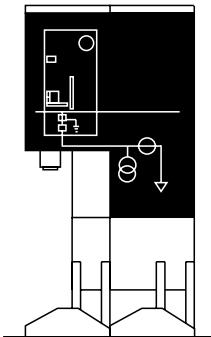
DE60197



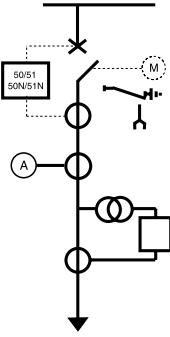
CE2-T33/T36/T37/T39 (VIP400, manual operation)



DE60199



CE2-T34/T35/T38 (VIP400, provision of motorisation)



Order information

Rating	Code
	CE6-T34
	CE6-T35
	CE6-T38
	CE6-T33
	CE6-T36
	CE6-T37
	CE6-T39

12 kV, 21 kA 3s, 75 kV BIL

Feeder protection up to 12 MVA at 11 kV

Basic equipment

Indoor / Outdoor design, IP54, 12 kV, 21 kA 3 s

One circuit breaker rated current is 630 A with short bushing

Self powered IDMT overcurrent and earth fault relay VIP400 in accordance with IEC60255 and BS142

Setting range: Overcurrent: 31.5-1250 A, earth fault: 63 - 630 A

CT-C Gb: Ipr 0-630 A, Us 22.5 mV, 5P30

Trip coil: Mitop

630 A busbar

Internal arc class: IAC AF 12.5 kA/1 s for indoor installation or IAC AF 21 kA 1 s for outdoor installation (1)

Cable earth switch 21 kA 3 s

Independent manual operation mechanism

Provision for motorised mechanism of circuit breaker (only for T34/T35/T38)

Mechanical tripped on fault flag indication

Mechanical ON/OFF indicator

Mechanical earth/main indicator

SF6 gas gauge

CB auxiliary contacts 1NO 2NC

Integral cable test facility

Main cable box for cable bottom entry

Gland plate for 1 x 3C 300 mm²

Busbar end: extensible type

Anti-reflex operating handle

2no Metering CTs: install on L1 & L3 phases: 400/200/5 A Cl 0.5s, 10 VA

2no ph-ph VT or 3no ph-earth VT, details information see below table

Ammeter (0-600 A)

Indication CT L2 phase - 600/5 A Cl 1.0 5 VA

	CE6-						
	T35 VIP400	T34 VIP 400	T38 VIP400	T39 VIP400	T33 VIP 400	T37 VIP400	T36 VIP 400
2 ph-ph VT	●	●		●	●		
3 ph-earth VT			●			●	●
6.6 kV/110 V 50 VA Cl 0.5	●			●			
11 kV/110 V 50 VA Cl 0.5		●			●	●	
12 kV/110 V 50 VA Cl 0.5			●				●
Operation	Motorisation provision			Manual operation			

Extensible circuit breakers

630 A (With metering options)

CE6-T* (with VIP400 relay)

Options
Indication & operation
Cable voltage present indication (VPIS)
Cable voltage present indication (VPIS) with voltage output
Tripped on fault contact
Low gas pressure indicator (-25°C to +55°C)
Emergency circuit breaker trip push button
Motor kit for circuit breaker 24 Vdc (only for T34/T35/T38)
Cable connection
Gland plate for 3 x 1C 630 mm ²
Aluminium blank gland plate
Gland for 3 x 1C 630 mm ²
Gland for 1 x 3C 300 mm ²
Busbar end: future extensible kit
Busbar end cable box: top entry cable boxes (indoor only)
Busbar end cable box: bottom entry cable box
Main cable box for cable top entry (indoor only)
Keylock
Circuit breaker - key free, EARTH ON (only for CE2-T33/T36/T37/T39)
Circuit breaker - key free, MAIN OFF (only for CE2-T33/T36/T37/T39)

Accessories
3 phase busbar 630 A
Busbar end kit (1 end kit required per switchboard)
Anti-vandal fixings, including tool
Phase indication device
Pocket battery for VIP relay

Extensible switches 630 A

Specification

	Manual operation	Provision for actuator	Busbar earth-switch manual operation
	SE6-S1	SE6-S2	SE6-E1
Ratings			
12 kA 21 kA 3 s 75 kV BIL, busbar 630 A	●	●	●
Load breaker switch normal rated current 630 A	●	●	●
Busbar 630 A	●	●	●
Cable earth switch 21 kA 3 s	●	●	●
Transformer earth switch 3.15 kA	●	●	●
IP54	●	●	●
Mechanism			
Independent manual operation	●	●	●
Provision for motorised 24 Vdc mechanism circuit breaker		●	
Motor kit of 24 Vdc		○	
Indication			
SF6 gas gauge	●	●	●
Mechanism ON/OFF	●	●	●
Mechanism EARTH/MAIN	●	●	●
Auxiliary contact switch 1NO 2NC		●	●
VPIS indication	○	○	○
VPIS indication -with voltage output	○	○	○
Low gas pressure indicator (-25°C to +55°C)	○	○	○
Phase and earth fault detection CTs for Easergy T300		●	
Provision for earth fault passage indicator	○	○	○
Test facility			
Integral cable test facility	●	●	●
RH/LH busbar earthing			●
Standard features		●	●
Cable connection bushing		●	●
Cable (See available cable kit accessories)			
Main cable box			
Cable box	Bottom entry	●	●
	Top entry cable (indoor only)	○	○
Gland plate (2)	For cable 1 x 3C (up to 300 mm ²)	●	●
	For cable 3 x 1C (up to 630 mm ²)	○	○
	Blank	○	○
Busbar end cable box			
Extensible	Extensible kit	●	●
Rear cable box	Bottom entry cable box	○	○
	Top entry cable (indoor only)	○	○
Gland plate (2)	For cable 1 x 3C (up to 300 mm ²)	○	○
	For cable 3 x 1C (up to 630 mm ²)	○	○
	Blank	○	○
Order codes			
12 kV, 21 kA, 75 kV BIL	SE6-S1	SE6-S2	SE6-E1

● Standard feature / ○ Optional feature / * Gland plate is only for free standing

Extensible switches 630 A

Accessories

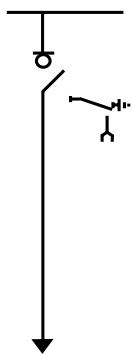
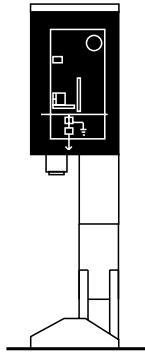
		Manual operation	Provision for actuator	Busbar earth-switch manual operation	
		SE6-S1	SE6-S2	SE6-E1	Kit no.
Cable box					
Main cable box					
Cable box	Bottom entry	●	●	●	
	Top entry	□	□	□	RMR-F93
Busbar end cable box					
Extensible	Extensible kit	●	●	●	
Rear cable box	Bottom entry cable box	□	□	□	RMR-F47
	Top entry cable box	□	□	□	RMR-F47-TOP
Gland plate & Gland					
For 1x3 core cable					
Gland plate	Gland plate for 1x3C cable	●	●	●	RMR-F48
	Angled gland plate for 1x3C plate	□	□	□	RMR-F50
Gland	Brass wiping gland for 1 x 3C cable	□	□	□	RMR-F10
	Tubular gland for 1 x 3C cable	□	□	□	RMD A12
For 3 single core cable					
Gland plate	Gland plate for for 3 x 1C cable	□	□	□	RMR-F49
Gland	Brass wiping gland for 3 x 1C cable	□	□	□	RMR-F11
	Tubular gland for 3 x 1C cable	□	□	□	RMD A13
Without cable type					
Gland plate	Aluminium blank gland plate	□	□	□	RMR-F52
	Brass wiping gland for 3 x 1C cable	□	□	□	RMR-F11
	Tubular gland for 3 x 1C cable	□	□	□	RMD A13
Gland	Brass wiping gland for 1 x 3C cable	□	□	□	RMR-F10
	Tubular gland for 1 x 3C cable	□	□	□	RMD A12
	CES5 gland	□	□	□	RMD-F120
Installation items					
3 phase busbar 630 A	◊	◊	□		RMR-A14
Busbar end kit	◊	◊	◊		RMR-A15
Multicore pilot glands		◊			RMR-A16
Anti-vandal fixings, including tool	◊	◊	◊		RMR-A19
Operational items					
Motor kit for circuit breaker 24 Vdc		□			RMR-F67
Polarity conv. Kit (1)		□			RMR-F391
Switch cable voltage present indication system					
VPIS without voltage output - 6.6 kV to 12 kV for switch or CB - TLF	□	□	□		RMR-F903
VPIS-VO with voltage output - 6.6 kV to 12 kV for switch or CB - TLF	□	□	□		RMR-F927
Phase indication device		◊	◊	◊	RMD-A374
Low gas pressure indicator (-25°C to +55°C)	□	□	□		RMR-F467/21 KA
Mechanical interlocks (2)					
Switch - key free, EARTH ON	□		□		RMR-F85
Switch breaker - key free, MAIN OFF	□		□		RMR-F86
Indication					
500/1 A Indication CT for Easergy T300	◊	◊			RMR-A30-P
Bowden STD EFPI NB	◊	◊			RMR-A277
Bowden LV reset EFPI type NB1	◊	◊			RMR-A278
Bowden LV reset & alam type NB2	◊	◊			RMR-A279
Bowden "RR" EFPI	◊	◊			RMR-A56
Fundamental ER "FIND" EFPI and CT	◊	◊			RMR-A57
Ancillary item					
Tool box	◊	◊	◊		RMR-A80

● Standard feature / □ Factory fitted accessory / ◊ Loose accessory, assembled on site / * Gland plate is only for free standing

Extensible switches 630 A

SE6-S1 (Manual operation)

DE6/201



Order information

Rating	Code
12 kV, 21 kA 3s, 75 kV BIL	SE6-S1

Switch disconnector

Basic equipment

One load break switches rated current 630 A with short bushing

Indoor / Outdoor design, IP54, 12 kV, 21 kA 3 s

630 A busbar

Internal arc class: IAC AF 12.5 kA/1 s for indoor installation or IAC AF 21 kA 1 s for outdoor installation (1)

Cable earth switch 21 kA 3 s

Independent manual operation mechanism

SF6 gas gauge

Mechanical ON/OFF indicator

Mechanical earth/main indicator

Switch auxiliary contacts 1NO 2NC

Integral ring switch cable test facility

Main cable box for cable bottom entry

Gland plate for 1 x 3C 300 mm²

Busbar end: extensible type

Anti-reflex operating handle

Options

Indication & operation

Cable voltage present indication (VPIS)

Cable voltage present indication (VPIS) with voltage output

Low gas pressure indicator (-25°C to +55°C)

Provision for earth fault passage indicator

500/1 A Indication CT for Easergy T300

Bowden STD EFPI NB

Bowden LV reset EFPI type NB1

Bowden LV reset & alam type NB2

Bowden "RR" EFPI

Fundamental ER "FIND" EFPI and CT

Cable connection

Gland plate for 3 x 1C 630 mm²

Aluminium blank gland plate

Gland for 3 x 1C 630 mm²

Gland for 1 x 3C 300 mm²

Busbar end: future extensible kit

Busbar end cable box: top entry cable boxes (indoor only)

Busbar end cable box: bottom entry cable box

Main cable box for cable top entry (indoor only)

Keylock

Load break switch - key free, EARTH ON

Load break switch - key free, MAIN OFF

Accessories

3 phase busbar 630 A

Busbar end kit (1 end kit required per switchboard)

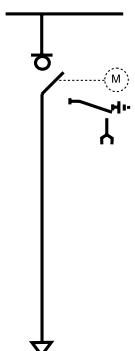
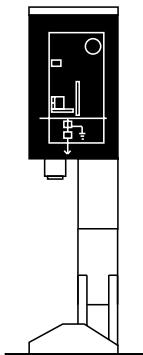
Phase indication device

Tool box

Extensible switches 630 A

SE6-S2 (Provision for motorisation)

DE00202



Order information

Rating	Code
12 kV, 21 kA 3s, 75 kV BIL	SE6-S2

Switch disconnector

Basic equipment

One load break switches rated current 630 A with short bushing

Indoor / Outdoor design, IP54, 12 kV, 21 kA 3 s

630 A busbar

Internal arc class: IAC AF 12.5 kA/1 s for indoor installation or IAC AF 21 kA 1 s for outdoor installation (1)

Cable earth switch 21 kA 3 s

Independent manual operation mechanism

SF6 gas gauge

Provision for motorised 24 Vdc mechanism

Mechanical ON/OFF indicator

Mechanical earth/main indicator

Integral ring switch cable test facility

Main cable box for cable bottom entry

Phase and earth fault detection CTs for Easergy T300

Gland plate for 1 x 3C 300 mm²

Busbar end: extensible type

Anti-reflex operating handle

Options

Indication & operation

Switch auxiliary contacts 1NO 2NC

Cable voltage present indication (VPIS)

Cable voltage present indication (VPIS) with voltage output

Busbar voltage present indication (VPIS)

Busbar voltage present indication (VPIS) with voltage output

Motor kit for circuit breaker 24 Vdc

Low gas pressure indicator (-25°C to +55°C)

Provision for earth fault passage indicator

500/1 A Indication CT for Easergy T300

Bowden STD EFPI NB

Bowden LV reset EFPI type NB1

Bowden LV reset & alam type NB2

Bowden "RR" EFPI

Fundamental ER "FIND" EFPI and CT

Cable connection

Gland plate for 3 x 1C 630 mm²

Aluminium blank gland plate

Gland for 3 x 1C 630 mm²

Gland for 1 x 3C 300 mm²

Busbar end: future exensible kit

Busbar end cable box: top entry cable boxes (indoor only)

Busbar end cable box: bottom entry cable box

Main cable box for cable top entry (indoor only)

Accessories

3 phase busbar 630 A

Busbar end kit (1 end kit required per switchboard)

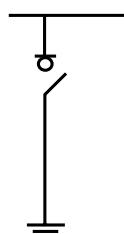
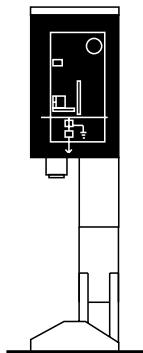
Phase indication device

Tool box

Extensible switches 630 A

SE6-E1 (Manual operation)

DE602033



Busbar earthing switch

Basic equipment

Indoor / Outdoor design, IP54, 12 kV, 21 kA 3s

One load break switches rated current 630 A with short bushing

630 A Busbar

Internal arc class: IAC AF 12.5 kA/1 s for indoor installation or IAC AF 21 kA 1 s for outdoor installation (1)

Integral RH/LH Busbar earthing

SF6 gas gauge

Independent manual operation mechanism

Mechanical earth/main indicator

Main cable box for cable bottom entry

Blank gland plate

Busbar end: extensible type

Anti-reflex operating handle

Order information

Rating	Code
12 kV, 21 kA 3s, 75 kV BIL	SE6-E1

Options

Indication & operation

Low gas pressure indicator (-25°C to +55°C)

Keylock

Load break switch - key free, EARTH ON

Accessories

3 phase Busbar 630 A

Busbar end kit (1 end kit required per switchboard)

Phase indication device

Tool box

Extensible bus-section 630 A

Specification

	Metering				
	Manual operation	Manual operation	Provision for motorization		
	SE6-B1 / Bus-section	CE6-B9 / Bus-section	CE6-B10 / Bus-section		
Ratings					
12 kV 21 kA 3 s 75 kV BIL, busbar 630 A	●	●	●		
Busbars 630 A	●	●	●		
Circuit breaker normal rated current 630 A		●	●		
Load break switch normal rated current 630 A	●				
Cable earth switch 21 kA 3 s	●	●	●		
IP54	●	●	●		
Mechanism					
Independent manual operation	●	●	●		
Provision for motorized 24 Vdc mechanism circuit breaker			●		
Motor kit of 24 Vdc			○		
Protection & control - circuit breaker					
CT- C Gb: Ipr 0-630 A, Us 22.5 mV, 5P30		●	●		
Multi voltage shunt trip coil - Mitop		●	●		
Protection relay VIP400		●	●		
Metering					
2 CTs: 400/200/5 A 10 VA Cl 0.5 s (L1 & L3 phases)		●	●		
2 ph-ph: 11 kA/110 V 50 VA Cl 0.5 s (L1 & L3 phases)		●	●		
Indication					
SF6 gas gauge	●	●	●		
Mechanical tripped on fault indication		●	●		
Mechanism ON/OFF	●	●	●		
Mechanism EARTH/MAIN	●	●	●		
RH busbar VPIS indication	○	○	○		
RH busbar VPIS indication -with voltage output	○	○	○		
CB auxiliary contacts 1NO & 2NC		●	●		
Low gas pressure indicator (-25°C to +55°C)	○	○	○		
Tripped on fault contact		○	○		
Earth selected auxiliary contact 1NO			○		
Emergency circuit breaker trip push button		○	○		
Indication CT: 600/5 A (L2 phase), 5 VA, Cl 1.0		●	●		
Ammeter (0-600 A)		●	●		
Integral test facility					
RH busbar earthing	●	●	●		
LH busbar earthing	○	○	○		
Standard features		Operation handle			
Cable connection bushing		Short bushing			
Cable (See available cable kit accessories)					
Order codes					
12 kV, 21 kA, 75 kV BIL	SE6-B1	CE6-B9	CE6-B10		

● Standard feature / ○ Optional feature

Extensible bus-section 630 A

Accessories

	Metering			Kit no.
	Manual operation	Manual operation	Provision for motorization	
Cable box	SE6-B1 Bus-section	CE6-B9 Bus-section	CE6-B10 Bus-section	
Installation items				
3 phase busbar 630 A	◊	◊	◊	RMR-A14
3 phase busbar 630 A (Joggle metering)				RMR-A78
3 phase busbar 630 A double width (metering)				RMR-A79
Busbar end kit	◊	◊	◊	RMR-A15
Anti-vandal fixings, including tool	◊	◊	◊	RMR-A19
Operational items				
Motor kit for circuit breaker 24 Vdc			□	RMR-F67
Polarity conv. Kit (1)			□	RMR-F391
LH and RH busbar VPIS indication				
VPIS without voltage output - 6. 6 kV to 12 kV for switch or CB-TLF	□			RMR-F903
VPIS without voltage output - 6.6 kV to 12 kV for CB - VIP relay		□	□	RMR-F904
VPIS-VO with voltage output - 6.6 kV to 12 kV for switch or CB-TLF	□			RMR-F927
VPIS-VO with voltage output - 6.6 kV to 12 kV for CB-VIP relay		□	□	RMR-F928
Phase indication device				
Tripped on fault contact		□	□	RMD-F495
Low gas pressure switch for remote indication				
Emergency circuit breaker trip push button		□	□	RMR-F339
Mechanical interlocks (2)				
Circuit breaker - key free, EARTH ON	□	□		RMR-F85
Circuit breaker - key free, MAIN OFF	□	□		RMR-F86
VIP relay test device				
Pocket battery for VIP relay	◊	◊	◊	RMD-A202

● Standard feature / □ Factory fitted accessory / ◊ Loose accessory, assembled on site

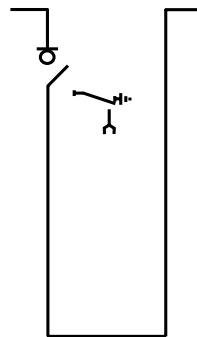
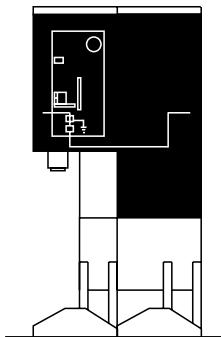
(1) Only required when unit is used with RE2d Ring main unit and automation

(2) Specify lock symbol at time of ordering (3 digits max), not available with motor mechanisms

Extensible bus-section 630 A

SE6-B1

DE6204



Order information

Rating	Code
12 kV, 21 kA 3s, 75 kV BIL	SE-B1

Bus-section disconnector

Basic equipment

One load break switch's rated current 630 A with short bushing

630 A busbar

Internal arc class: IAC AF 12.5 kA/1 s for indoor installation or IAC AF 21 kA 1 s for outdoor installation (1)

Earth switch 21 kA 3 s

Independent manual operation mechanism

SF6 gas gauge

Mechanical ON/OFF indicator

Mechanical earth/main indicator

Integral RH busbar earthing

Busbar end: extensible type

Anti-reflex operating handle

Options

Indication & operation

RH busbar voltage present indication (VPIS)

RH busbar voltage present indication (VPIS) with voltage output

Low gas pressure indicator (-25°C to +55°C)

LH busbar earthing

Keylock

Load break switch - key free, EARTH ON

Load break switch - key free, MAIN OFF

Accessories

3 phase busbar 630 A

Busbar end kit (1 end kit required per switchboard)

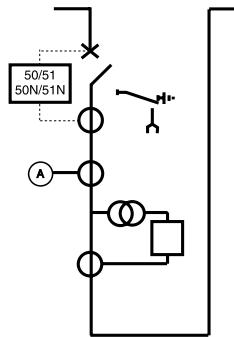
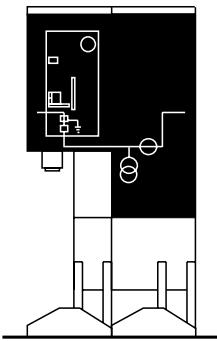
Anti-vandal fixings, including tool

Phase indication device

Extensible bus-section 630 A

CE6-B9

DE62258



Order information

Rating	Code
12 kV, 21 kA 3s, 75 kV BIL	CE-B9

Bus-section circuit breaker

Basic equipment

One circuit breaker rated current is 630 A with short bushing

Self powered IDMT overcurrent and earth fault relay VIP400 in accordance with IEC 60255 and BS142

Setting range: Overcurrent: 31.5-1 250 A, earth fault: 63 - 630 A

CT- C Gb: Ipr 0-630 A, Us 22.5 mV, 5P30

Trip coil: Mitop

630 A Busbar

Internal arc class: IAC AF 12.5 kA/1 s for indoor installation or IAC AF 21 kA 1 s for outdoor installation (1)

Earth switch 21 kA 3 s

Independent manual operation mechanism

Mechanical tripped on fault flag indication

Mechanical ON/OFF indicator

Mechanical earth/main indicator

SF6 gas gauge

CB auxiliary contacts 1NO 2NC

Integral RH Busbar earthing

Busbar end: extensible type

Anti-reflex operating handle

2no Metering CTs: install on L1 & L3 phases: 400/200/5 A 10 VA Cl 0.5 s

2no ph-ph VTs install on L1 & L3 phases: 11 kA/110 V 50 VA Cl 0.5 s

Ammeter (0-600 A)

Indication CT L2 phase - 600/5 A Cl 1.0 5 VA

Options

Indication & operation

RH Busbar voltage present indication (VPIS)

RH Busbar voltage present indication (VPIS) with voltage output

Tripped on fault contact

Low gas pressure indicator (-25°C to +55°C)

Emergency circuit breaker trip push button

Keylock

Circuit breaker - key free, EARTH ON

Circuit breaker - key free, MAIN OFF

Accessories

3 phase Busbar 630 A

Busbar end kit (1 end kit required per switchboard)

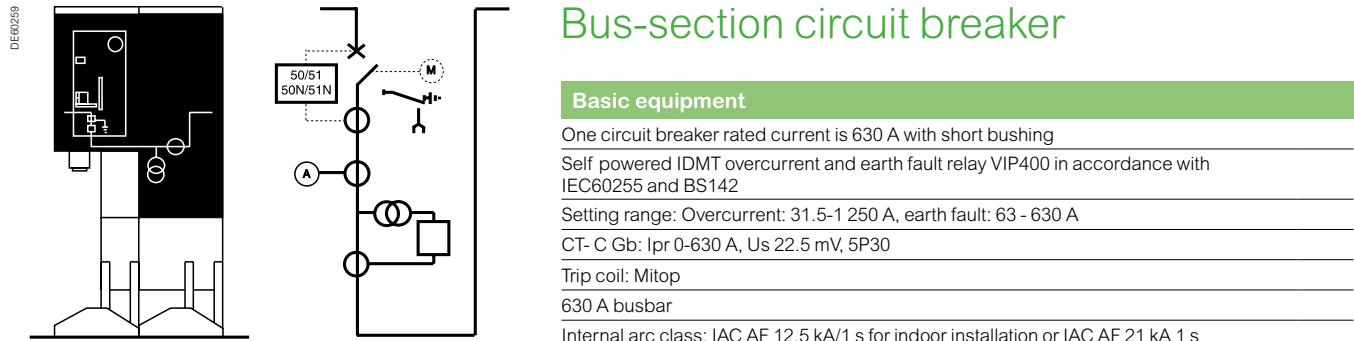
Anti-vandal fixings, including tool

Phase indication device

Pocket battery for VIP relay

Extensible bus-section 630 A

CE6-B10



Order information

Rating	Code
12 kV, 21 kA 3s, 75 kV BIL	CE-B10

Bus-section circuit breaker

Basic equipment

One circuit breaker rated current is 630 A with short bushing
Self powered IDMT overcurrent and earth fault relay VIP400 in accordance with IEC60255 and BS142

Setting range: Overcurrent: 31.5-1 250 A, earth fault: 63 - 630 A

CT- C Gb: Ipr 0-630 A, Us 22.5 mV, 5P30

Trip coil: Mitop

630 A busbar

Internal arc class: IAC AF 12.5 kA/1 s for indoor installation or IAC AF 21 kA 1 s for outdoor installation (1)

Earth switch 21 kA 3 s

Independent manual operation mechanism

Provision for motorized mechanism of circuit breaker

Mechanical tripped on fault flag indication

Mechanical ON/OFF indicator

Mechanical earth/main indicator

SF6 gas gauge

CB auxiliary contacts 1NO 2NC

Integral RH busbar earthing

Busbar end: extensible type

Anti-reflex operating handle

2no Metering CTs: install on L1 & L3 phases: 400/200/5 A 10 VA Cl 0.5 s

2no ph-ph VTs install on L1 & L3 phases: 11 kA/110 V 50 VA Cl 0.5

Ammeter (0-600 A)

Indication CT L2 phase - 600/5 A Cl 1.0 5 VA

Options

Indication & operation

RH Busbar voltage present indication (VPIS)

RH Busbar voltage present indication (VPIS) with voltage output

Tripped on fault contact

Low gas pressure indicator (-25°C to +55°C)

Emergency circuit breaker trip push button

Motor kit for circuit breaker 24/30 Vdc

Accessories

3 phase busbar 630 A

Busbar end kit (1 end kit required per switchboard)

Anti-vandal fixings, including tool

Phase indication device

Pocket battery for VIP relay

Components and accessories

Components and accessories

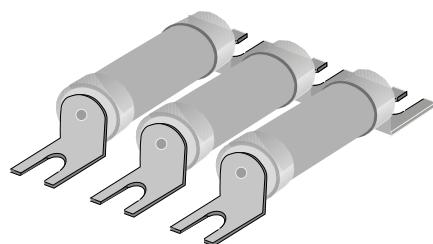
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Protection

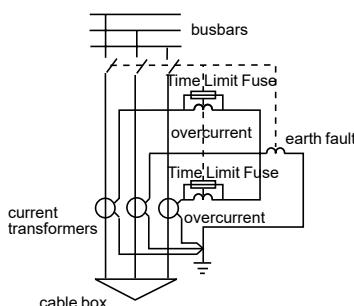
Time Limit Fuse (TLF)

- 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

DE0245-1



DM110031



TLF protection

An effective low cost option without compromising reliability.

CT operated trip coils (with TLF) provides phase overcurrent and earth fault inverse time protection, the characteristic being given by a Time Limit Fuse (TLF). This option is suitable for transformer protection up to 1600 kVA.

Recommended Time Limit Fuse (TLF) settings to ESI 12-6

	(kV)	Voltage Transformer rated power (kVA)							
		200	315	500	800	1000	1250	1600	
CT ratio = 50/5	3.3	10 A							TLF
		150 A							LV fuse
Earth fault setting = 25 A (instantaneous trip)	6.6	5 A	10 A	15 A					TLF
		150 A	250 A	400 A					LV fuse
	11	3 A	5 A	10 A	15 A				TLF
		200 A	300 A	400 A	560 A				LV fuse
	12	3 A	5 A	10 A	15 A				TLF
		200 A	300 A	400 A	560 A				LV fuse
CT ratio = 100/5	3.3	5 A	10 A	15 A					TLF
		150 A	250 A	400 A					LV fuse
Earth fault setting = 30 A (instantaneous trip)	6.6		5 A	7.5 A	12.5 A	15 A			TLF
			250 A	400 A	560 A	560 A			LV fuse
	11			5 A	7.5 A	10 A	12.5 A	15 A	TLF
				400 A	560 A	630 A	630 A	630 A	LV fuse
	12			5 A	7.5 A	10 A	12.5 A	15 A	TLF
				400 A	560 A	630 A	630 A	630 A	LV fuse

The current transformer feeds a trip coil that is normally shunted by a time limit fuse. 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

Product	CE2, CN2, RN2d, RE2d		CE6, RN6d		
	Transformers	Ring feeders	Transformers	Ring feeders	Incomers
Application	200-1 600 kVA	400-3 800 kVA	1 900-12 000 kVA	1 900-12 000 kVA	1 900-120 00 kVA
Time Limit fuse	●				
IDMT VIP 400		●	●	●	●

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

Primary current (A)	10	20	80	100	125	200	630
Equivalent transformer rating at 11 kV	200 kVA	400 kVA	1 600 kVA	1 900 kVA	2 400 kVA	3 800 kVA	12 000 kVA
Application	Panel	Protection					
Transformer protection	CE2/CN2	Time Limit Fuse	●	●	●		
	RE2d/RN2d	IDMT-VIP 40/45	●	●	●	●	
	RE2d/RN2d	IDMT - VIP 400	●	●	●	●	●
Feeder protection	CE6/RN6d	IDMT - VIP 400		●	●	●	●

VIP series					
Integrated self-powered protection optimised for Ringmaster					
	Transformer protection		General protection		
	VIP 40	VIP 45	VIP 400	VIP 410	SC160
Protection functions					
Phase overcurrent (ANSI 50-51)	●	●	●	●	●
Earth fault phase (ANSI 51N)	Standard (sum of current method)	●	●	●	●
	High sensitivity (earth fault CTs)			●	●
Thermal overload (ANSI 49)			●	●	●
Cold load pick-up				●	●
Protection	Directional phase current (ANSI 67) Directional earth phase (ANSI 67N) Neutral voltage displacement (ANSI 59NU)				
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) Remote (one contact)	●	●	●	●
	Output relays			● (1)	
Trip circuit supervision (ANSI 74TC)	●	●	●	●	●
Time-tagged events	Local on display (5 last trips) Remote, via communication		●	●	●
External tripping input				●	●
Overcurrent and breaking profile	Number of phase and earth trips (2)		●	●	●
Serial communication port	Modbus RS485			●	●
Power supply					
Type of supply	Self-powered or auxiliary Minimum 3 phase load currents to activate the VIP	Self 4 A	Self 4 A	Self 7 A (4)	Dual (3) —
					Auxiliary —

(1) Signalling relays: (use of output relays may be change):

O1 = phase fault ($I_>$, $I_{>>}$, $I_{>>>}$)O2 = earth fault ($I_{o>}$, $I_{o>>}$)

O3 = thermal overload alarm.

(2) The number of trips is displayed in 4 levels:

For RN2d and RE2d: < 200 A, < 2 kA, < 8 kA, > 8 kA

For RN6d: < 630 A, < 10 kA, < 20 kA, > 20 kA.

(3) The protection is self-powered. Auxiliary power is used only for communication and high sensitivity earth fault protection.

(4) 14 A with 630 A CBs.

Ringmaster ring main unit offers circuit breaker protection with self powered VIP relay.

Advantages:

- Easy to set
- Better discrimination with other MV and LV protection devices
- Improved protection performance for inrush currents, overloads, low magnitude phase faults and earth faults
- Greater harsh climate withstand
- Reduced maintenance and spare parts
- Availability of additional functions such as measurement, diagnostics and remote monitoring

And with the recent development of low cost circuit breakers and self-powered relays, life time costs are now equivalent to those of traditional MV switch fuse solutions.



Application

- Entry level MV/LV transformer protection
- Dependent-time phase overcurrent tripping curve dedicated to MV/LV transformer protection
- Definite-time earth fault protection
- Phase current and peak demand current measurement

Main features

Self-powered operation

- Energised by the CTs: no auxiliary power needed

Complete pre-tested protection system

- Functional block ready to be integrated

Designed to help protect transformers

- Designed for circuit breakers to replace fuse-switch solutions
- Setting is as simple as fuse selection
- Maximum setting possibilities consistent with circuit breaker characteristics

Phase overcurrent protection

- Tripping curve optimised for MV/LV transformer protection
- Protection against overloads and secondary and primary short-circuits
- Second harmonic restraint filtering
- Only one setting ($I >$)
- Discrimination with LV circuit breakers or LV fuses
- Compliant with TLF (Time Limit Fuse) operating criteria

Earth fault protection

- Definite-time tripping curve
- Settings: $Io >$ (phase current sum method) and $to >$
- Second harmonic restraint element

Measurement

- Load current on each phase
- Peak demand current.

Front panel and settings

- Current measurements displayed on a 3 digit LCD
- Settings with 3 dials ($I >$, $Io >$, $to >$) covered by a lead-sealable cover
- Trip indication powered by dedicated integrated battery with reset by pushbutton or automatically

Phase overcurrent protection

Use the Operating Current Setting Tables and the available settings to define the protection setpoint.

Typically, the set point is defined at the setting immediately above the rated current for the MV/LV transformer.

Example:

For a transformer 1 MVA - 11 kV/0.4 kV where $I_n = 52.5 \text{ A}$:

- With the VIP 100 A, $I>$ is set at 60 A.
- With the VIP 200 A, $I>$ is set at 55 A.

Operating Current Setting Table

VIP 40/45 100 A Version																		
Operating Voltage (kV)	Transformer Power (kVA)																	
	50	75	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3000
3	10	15	21	25	35	40	50	70	80	100								
3.3	10	15	18	25	30	35	50	60	70	100								
4.2	7	12	15	18	25	30	35	50	60	70	100							
5.5	6	8	12	15	18	21	30	35	50	60	70	100						
6	5	8	10	15	18	21	25	35	40	50	70	80	100					
6.6	5	7	10	12	15	18	25	30	35	50	60	70	100					
10	5	5	6	8	10	12	15	21	25	30	40	50	60	80	100			
11	5	5	6	7	10	12	15	18	21	30	35	50	60	70	100			
13.8	5	5	5	6	7	10	12	15	18	21	30	35	50	60	70	100		
15	5	5	5	5	7	8	10	15	18	21	25	35	40	50	70	80	100	

VIP 40/45 200 A Version																			
Operating Voltage (kV)	Transformer Power (kVA)																		
	50	75	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3000	3800
3	10	15	20	25	35	45	55	70	85	105	130	160	200						
3.3	10	15	20	25	30	35	45	70	70	105	130	160	200						
4.2	8	12	15	20	25	30	35	45	55	70	105	130	160	200					
5.5	6	8	12	15	20	25	30	35	45	55	70	85	105	160	200				
6	5	8	10	15	20	25	35	48	88	10	85	105	130	160	200				
6.6	5	8	10	12	15	20	25	30	35	45	70	70	105	130	160	200			
10	5	5	6	8	10	12	15	20	25	30	45	55	70	85	105	130	160	200	
11	5	5	6	8	10	12	15	20	25	30	35	45	55	70	85	105	160	200	
13.8	5	5	5	6	8	10	12	15	20	25	30	35	45	55	70	85	105	130	160
15	5	5	5	5	8	8	10	15	20	20	25	35	45	55	70	85	105	130	160

- VIP 400 is a self-powered relay energised by the CTs; it does not require an auxiliary power supply to operate
- VIP 410 is a dual powered relay offering self-powered functions and additional functions powered by an AC or DC auxiliary supply

Applications

- MV distribution substation incomm or feeder protection relay
- MV/LV transformer protection.

VIP 410 ready for smart grids

Dual supply for communication with:

- DMS and RTUs
- Remote alarming
- Time stamped events
- Measurements of current, load history, overcurrent and breaking profile

Dedicated to intelligent MV loops with automation:

- Remote configuration
- Setting groups selectable according to the configuration of the MV loop
- Remote asset management
- Plug and play system with Easergy T300 to integrate all protocols (IEC 60870-104, DNP3, IEC 61850) and remote Web pages



Main features

VIP 400: Self-powered protection relay

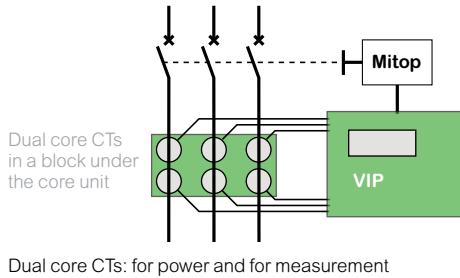
This version is energised by the current transformers (CTs). It does not require an auxiliary power supply to operate.

- Overcurrent and earth fault protection
- Thermal overload protection
- Current measurement functions

VIP 410: Dual powered protection relay

- Offers the same self-powered functions as the VIP 400
- In addition, the VIP 410 has an AC or DC auxiliary supply to power certain
 - Additional functions that cannot be self-powered
 - Sensitive earth fault protection
 - External tripping input
 - Cold load pick-up
 - Communication (Modbus RS485 port)
 - Signalling
- If the auxiliary power fails during an MV short-circuit, the protection functions are maintained

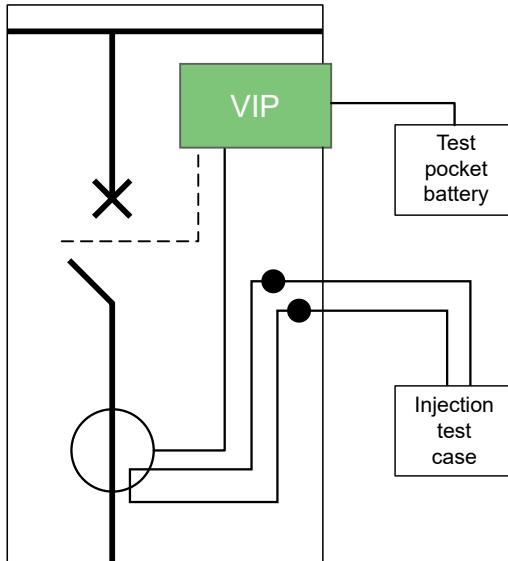
DM109868



Other features

- Complete pre-tested solution that helps eliminate complicated CT selection
- Complies with MV protection relay standard IEC 60255
- No PC or specific tool required for setting or commissioning
- Maximum setting possibilities consistent with circuit breaker features
- Self-powered by dual core CTs: CuA
- Environment: -40°C / +70°C.

DM110032



Primary injection test

A primary injection circuit may be permanently installed (option) through the CTs, inside the ringmaster switchgear, to test the physical integrity of the complete protection system including the CTs.

- The test is carried out without disconnecting the CTs and the VIP relay displays the injected current during testing
- If required, a temporary VIP test mode can be activated to test the tripping of the circuit breaker by pressing a test pushbutton

Test with the pocket battery module

- This accessory can be connected on the VIP 40 and VIP 45 front plate to energize the relay to carry out a quick test even when the relay is not powered (the temporary "VIP 40/45 test mode" can be activated for the circuit breaker).

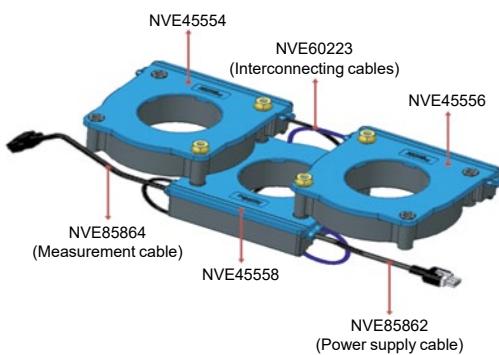
Protection

Transformer protection by circuit breaker VIP integrated system

The VIP series is an integrated protection system:

- Dedicated sensors located under the core unit provide protection and measurement outputs
- Optional additional earth fault sensors are available
- Actuators are low power tripping coils (Mitop)

PM119802



High sensitivity sensors

VIP integrated protection system

The VIP integrated protection system is composed of sensors, a processing unit and an actuator, designed together to provide the highest level of reliability and sensitivity from 0.2 A to 20 In for VIP 400, VIP 410 and 5 A to 20 In for VIP 40 and VIP 45.

Sensors: CGa/CGb

VIP 4X Protection relay operate exclusively with dual core Sensors CGa (200 A primary) and CGb (630 A primary) current sensors.

- These sensors provide:
- The VIP power supply

Metering of all 3 phase currents and the earth fault current

The use of dedicated sensors means the complete protection chain performance (sensor, VIP, Mitop trip unit) can work.

The CGa and CGb current sensors are over molded in epoxy resin each phase is interconnected by screened wires. It consist of 2 windings per phase, one winding providing the VIP power supply, the other winding enabling the VIP to measure the phase currents. The earth fault current is measured by measuring the sum of the 3 phase currents inside the sensor.

The measurement sensor is based on a Low Power Current transformer (LPCT) technology according to IEC60044-8 standard, which provides an excellent accuracy:

- 5P20 for protection
- Class 1 for measurement
- The power supply winding enables calibrated self-powering of the relay even for currents of just a few Amperes
 - e.g. 7 A is sufficient for operation of the VIP 400 with a 200 A circuit breaker, up to its saturation level
 - e.g. 4 A is for operation of the VIP 40 up to its saturation level.
- Optionally, the VIP 410 can be associated with an earth fault current transformer (a single zero-sequence CT) dedicated to sensitive earth fault protection with a low threshold down to 0.2A.

Actuators

- The actuator is a dedicated low power tripping coil (Mitop) specifically designed to operate with the sensors and the processing unit with minimum energy.
- The integrity of the Mitop circuit is continuously supervised (Trip Circuit Supervision function).

Protection

Transformer protection by circuit breaker VIP integrated system

DM107356

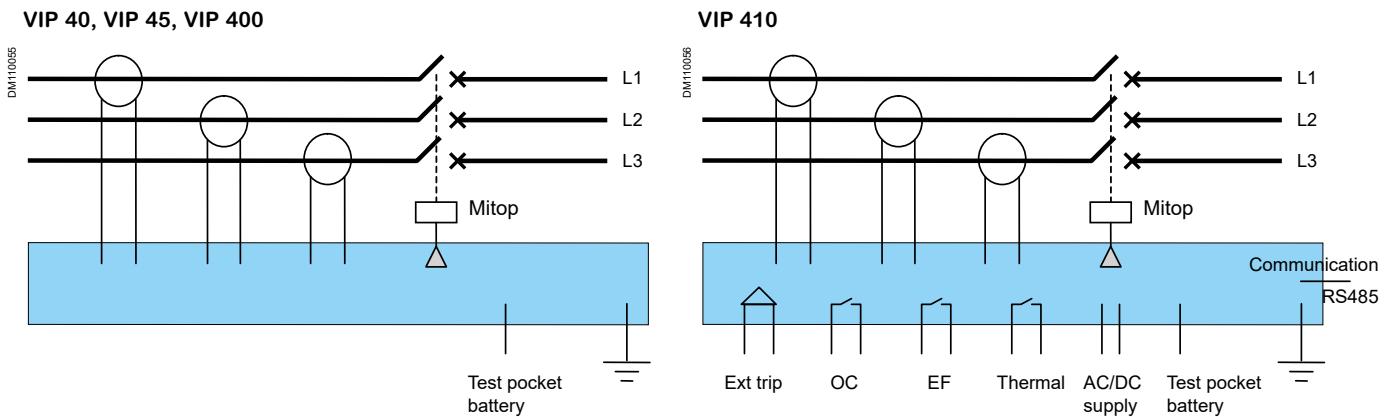


CSH120
Optional zero sequence sensor
for high sensitive earthing fault protection

Core balance CT: CSH120

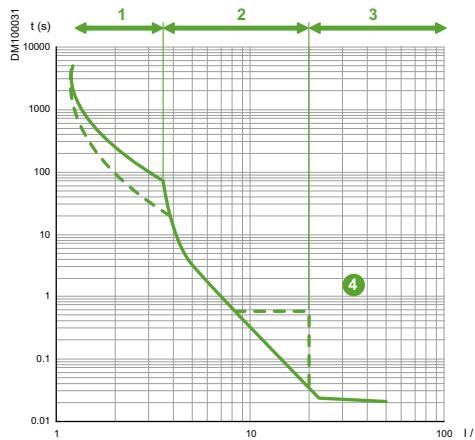
- If the sensitive earth fault protection is required, an earth fault toroidal CT of the CSH120 type around the cables should be installed.
- CSH120 core balance CT's, provide more sensitive protection by the direct measurement of earth fault currents.
- CSH120 - 120 mm internal diameter

Connection diagrams



Protection

VIP40, VIP45, VIP400 and VIP410 tripping curves

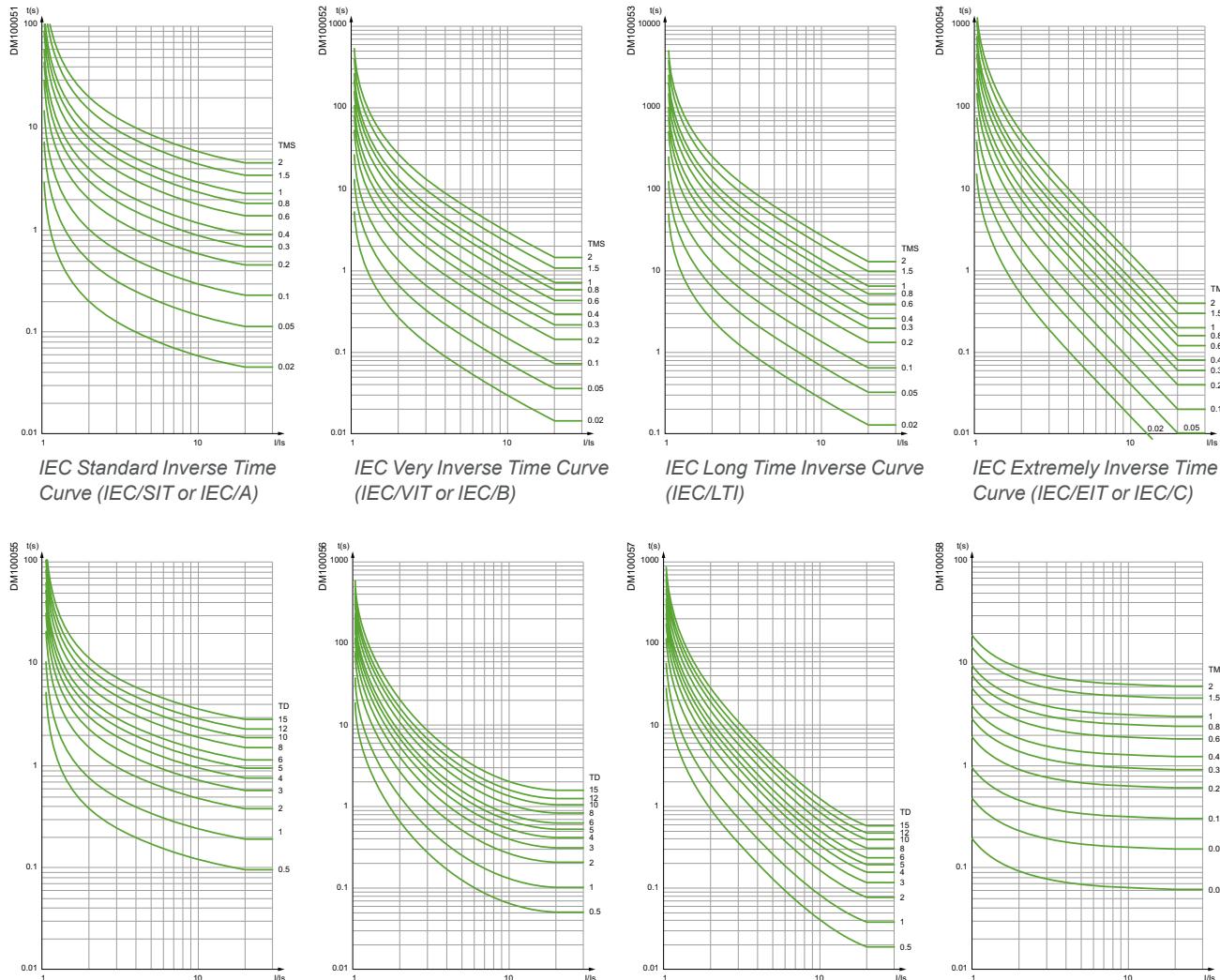


VIP40, VIP45

Phase overcurrent protection (ANSI 50-51).

1. Overload
2. Secondary short-circuit
3. Primary short-circuit
4. Activation of discrimination with a Low Voltage circuit breaker

VIP400, VIP410



IEEE Moderately Inverse Curve
(IEEE/MI or IEC/D)

IEEE Very Inverse Curve
(IEEE/VI or IEC/E)

IEEE Extremely Inverse Curve
(IEEE/EI or IEC/F)

RI Curve

Note: Please contact us for protection required low earth faults

Flair 21D, 22D, 23DM 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
- Comprehensive, the Flair 23DM version incorporates a highly sophisticated voltage presence/absence relay function with RJ45 Modbus communication.

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
- Fault passage indication and voltage detection combination (Flair 23DM)
- RJ45 communication (Flair 23DM only).

These fault passage indicators are 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 or 23DM 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 and Flair 23DM: 8 detection thresholds from 100 A to 800 A, in 50 A increments, configurable via the front panel keypad.
- Fault acknowledge time:
 - Flair 21D: 60 ms
 - Flair 22D and Flair 23DM (configurable via the front panel keypad)
 - from 40 to 100 ms in 20 ms increments
 - 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 and Flair 23DM (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: Obstructs 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 and 23DM.

- Earth fault sensitivity as low as 5 A
- Display of settings and faulty phase
- Automatic reset

PM108331



Flair 21D

PM108332



Flair 22D

PM108982



Flair 23DM

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 resetting upon load current recovery or on voltage return if VPIS-VO option present (configurable time on Flair22D, Flair23DM)
- 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 (1 hr to 24 hr) for Flair 22D and Flair 23DM.
- Reset via the communication (Flair 23DM)

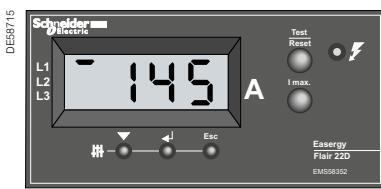
Fault passage indicators

Flair 21D, 22D and 23DM

Sensors

The Flair 21D, 22D, 23DM range uses an integrated detection system composed of indicators and dedicated CTs.

Integrated sensors are normally placed around the bushings. Split CTs can be placed around cables for retrofit purposes.



Clear, comprehensive display

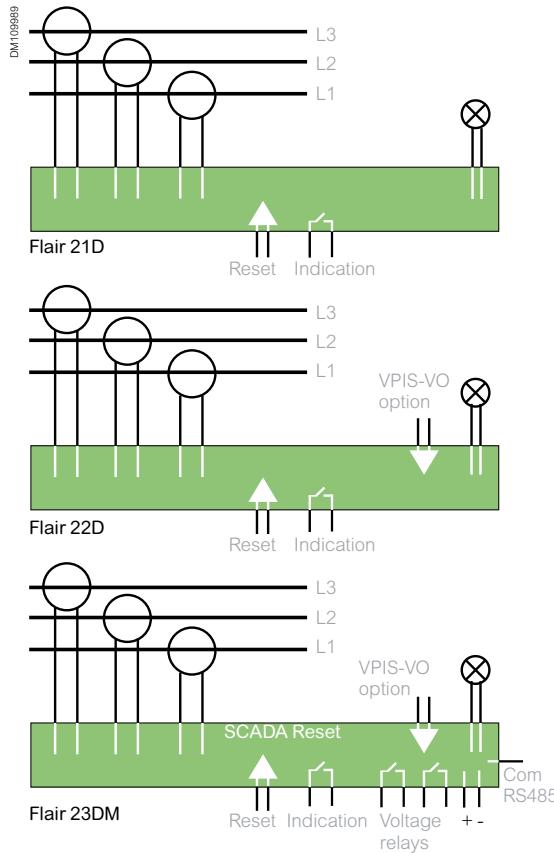
Display principle

- 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.

	Flair		
	21D	22D	23DM
Power supply	Self-powered	●	●
	Dual-powered	● (1)	●
Detection	Overcurrent	●	●
	Earth-fault	●	●
Display	Ammeter (4 digit LCD)	●	●
	Maximeter	●	●
Options	SCADA interface (relay)	●	●
	External lamp	●	●
	External reset	●	●
	Extended setting (keypad)	●	●
Communication	2-voltage output relays	●	
	Serial communication port	●	

(1) By lithium battery

Connection diagrams



Characteristics per product

Model	Description
Fault passage indicator with single power supply (self-powered)	
Flair 21D	<ul style="list-style-type: none"> Detector with autonomous power supply External indicator lamp output powered by battery (BVP)
Fault passage indicator with dual power supply	
Flair 22D	<ul style="list-style-type: none"> Detector with autonomous power supply and lithium battery External indicator lamp output powered by the Flair (BVE) Interface with VPIS-VO (version 2) possible to confirm the fault by voltage absence Service life: 15 years
Fault passage indicator with dual power supply and voltage presence/absence	
Flair 23DM	<ul style="list-style-type: none"> Detector with 24-48 Vdc external and autonomous power supply External indicator lamp output powered by the Flair (BVE) Voltage presence and absence detector (same as for VD23) Interface with VPIS-VO (version 2) needed for the voltage presence Communication on an RS485 serial link with Modbus protocol with access to states and measurements and remote parameter-setting
Standard applications	
Flair 21D	Maintenance-free, adjustment-free fault detector
Flair 22D	Fault detector for networks with very low load current (< 2 A) with possibility of manual adjustments.
Flair 23DM	<ul style="list-style-type: none"> Adapted to Feeder Automation. Forwarding of current measurement, fault passage indication and voltage outage information to the SCADA via a serial communication port. Combination fault passage indicator and voltage detector, ideal for use with an Automatic Transfer System.

PM106733



VPIS

Voltage presence indicators

A voltage presence indicating device can be integrated in all the functional units. It can be used to check whether or not a voltage is present across the cables.

VPIS: Voltage Presence Indicator System, as defined by standard IEC 62271-206, can be fitted with a voltage output (VPIS-VO) dedicated to various voltage detection applications such as automatic transfer switches, voltage absence or presence contacts, live-cable earthing switch lockout, etc.

Voltage sensors

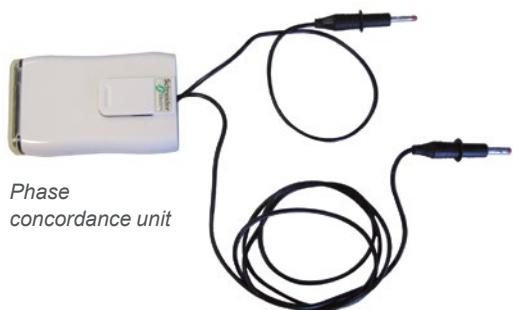
A voltage sensor is integrated in all the functional units. It provides a signal to the VPIS through a capacitive divider.

The sensor is integrated in the the cable bushings. The voltage can be detected on the cable side.

Phase concordance unit

This unit is used to check phase concordance.

PE56830



Voltage indicator and relay

VD23 voltage relay

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.

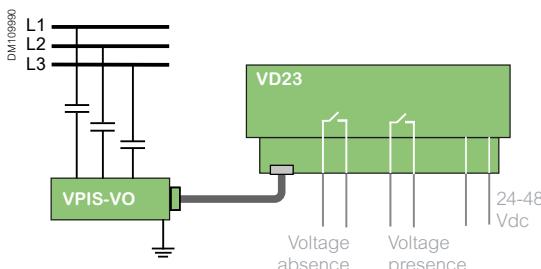
Easy to install:

- Compact 96 x 48 mm DIN format
- Terminal connection for VPIS-VO
- No need for HV transformer
- Hot installation
- Auto-adaptation of nominal voltage.
- Optional communication port and fault detector (Flair 23DM)

PES57787



VD23



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.

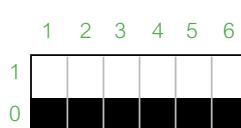
Display principle

- 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 backup operation for each combination

6 microswitches:



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 backup operation for each combination.

Remote control

Easergy T300

Remote Terminal Unit

Easergy T300 web server pages

Home / Information

MySubstation
Substation MV/LV, 6

Misc.

- Description:** Substation MV/LV, 6
- Owner:** Customer company
- Primary operator:** Olivier Thomas
- Secondary operator:** Jean-Pierre Gembler

Notes

admin
2 messages ago
and notes per... 111

Location

Place: SET, Beynost, France
Latitude: 45.62556
Longitude: 4.98746
Altitude: 45

Home page

Data Status

Point Name	Description	Value	Quality	Locking
HU01_L100_CpHealth_stVal_Fail	Head unit configuration error	0 (v Normal)	■	■
HU01_L100_EnvHealth_stVal_Fail	Head unit error	1 (OK/Fault)	■	■
HU01_L100_Health_stVal_Fail	General health error	1 (OK/Fault)	■	■
HU01_L100_Health_stVal_Harm	General health warning	0 (v Normal)	■	■
HU01_L100_CommHealth_stVal_Fail	Internet communication fail	0 (v Normal)	■	■
HU01_GenGATE_Health_stVal_Warn	PLC warning	0 (v Normal)	■	■
HU01_GenGATE_Health_stVal_Fail	PLC error	0 (v Normal)	■	■
HU01_LTMO1_TmchMtr_stVal	Time synchronization failure source 1	1 (OK/Fault)	■	■
HU01_LTMO2_TmchMtr_stVal	Time synchronization failure source 2	0 (v Normal)	■	■
HU01_VPFECCH_Online_stVal	VPF on/off status	0 (OFF)	■	■

Monitoring / Data / Status

Diagnostic Events log

Date	Description	Level	Name	Value	QF	Source
2015-05-26T21:14:4...		N	SCDI_FewGGD01_Bn...	1	0x00000000	SCDI
2015-05-26T21:14:4...		N	SCDI_FewGGD01_Bn...	1	0x00000000	SCDI
2015-05-26T21:14:4...		N	SCDI_FewGGD01_Bn...	1	0x00000000	SCDI
2015-05-26T21:15:0...		N	SCDI_FewGGD01_Bn...	1	0x00000000	SCDI
2015-05-26T21:15:0...		N	SCDI_FewGGD01_Bn...	1	0x00000000	SCDI
2015-05-26T21:15:1...		N	SCDI_FewGGD01_Bn...	1	0x00000000	SCDI
2015-05-26T21:15:1...		N	SCDI_FewGGD01_Bn...	1	0x00000000	SCDI
2015-05-26T21:15:1...		N	SCDI_FewGGD01_Bn...	1	0x00000000	SCDI
2015-05-26T21:15:2...		N	SCDI_FewGGD01_Bn...	1	0x00000000	SCDI

Diagnostic / Events

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.



Ringmaster RN2d with Easergy T300

Remote control

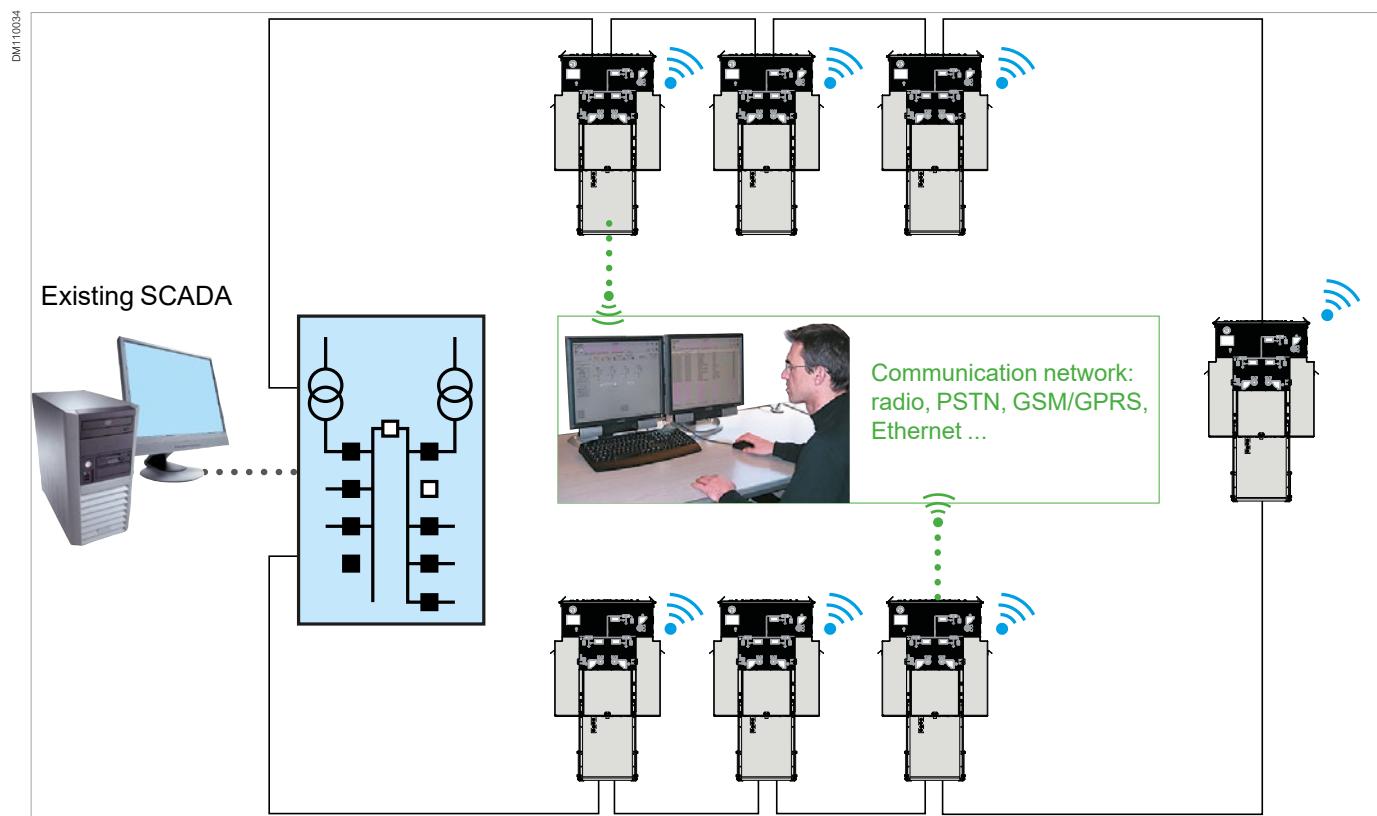
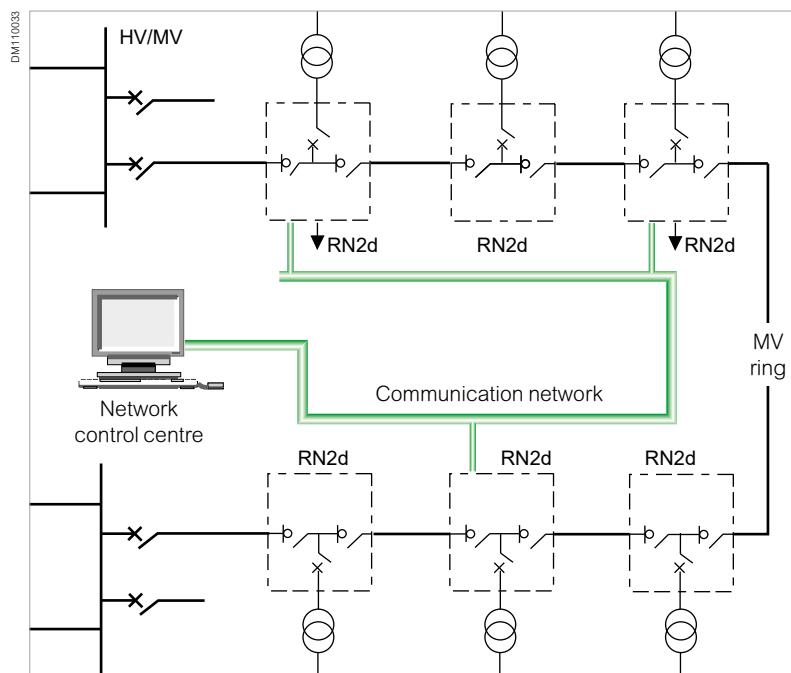
SCADA

Network remote control

Schneider Electric offers you
a complete solution, including:

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

Continuity of service through modular,
modern feeder automation solution



Remote control

Easergy T300

Telecontrol cabinet (FRTU)



Easergy T300-OVR

PM106928

Ready-to-use cabinet solution

- A selection of ready-to-use cabinets is available off-the-shelf for fast delivery and installation.
- Cabinets are also modular and flexible in order to offer a just-right solution
- The web configurator allows you to quickly build your configuration (hardware and software)

T300 is offered as a compact Feeder RTU solution standardized in a complete cabinet build and corresponding to the standard requirements of an MV/LV substation. These solutions are modular and can be adapted to the specific requirements.

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

Two types of enclosure are available as standard, depending on the installation environment:

- Indoor controller cabinet
- Outdoor controller cabinet, wall-mounted or pole-mounted

Two types of enclosure are offered as standard:

- T300-IV1: Vertical wall-mounted cabinet for indoor applications
- T300-OVR: Vertical wall-mounted cabinet for outdoor applications, this version is used by Ringmaster

For further details on Easergy T300, please refer to:
T300 Catalog ref NRJED314621EN

Remote control

Easergy T300 - OVR

Telecontrol cabinet

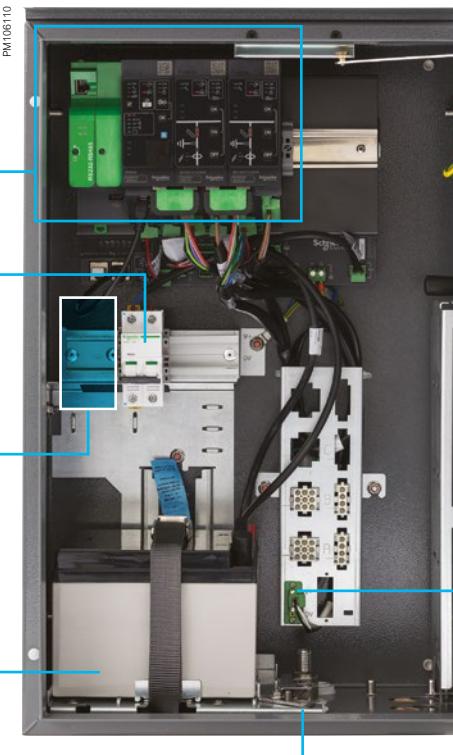
Modules assembled on a DIN rail including:

- 1 Power Supply PS50
- 1 Front Head Unit HU250
- 1 to 4 modules Switch Controller SC150

1 AC 1Ph+N breaker



1 battery 24 Ah or 38 Ah



T300-OVR cabinet
Outdoor Vertical version

Opened door contact

Connected internally to a digital input, it enables remote indications of the door status (open/closed).

Ringmaster specific AMP switch and current transformer connectors

Antenna surge arrestor (optional accessory)

For GSM/3G or radio purposes, it helps prevent surge and deterioration due to antenna overvoltage.



Connection

- All cable access is located on the lower part of the enclosure
- An adjustable sliding plate at the lower part of the enclosure facilitates entry to the switch and current cables and also locks the cable glands
- All switch and current cable connections are compatible with the Ringmaster standard

T300-OVR Characteristics

• Dimensions

Basic enclosure:

H 380 x W 600 x D 275 mm

• Weight:

40 kg

• Material:

Metallic

• Mounting:

Wall-mounted, vertically

– The enclosure can be attached to the Ringmaster using the standard T200E mounting kit

• Protection indice:

IP54 - IK09

• Paint color reference: RAL 7012

Order code: Please contact us

Remote control

Easergy T300 - OVR

Telecontrol cabinet

	Easergy T300 OVR-2 SW	Easergy T300 OVR-3 SW	Easergy T300 OVR-4 SW
Environment			
Indoor / outdoor	●	●	●
IP54	●	●	●
Communication			
Modbus master	●	●	●
IEC 870-5-101 and IEC 870-5-104	●	●	●
DNP3	●	●	●
RS232 modem box	●	●	●
3G/4G modem box (it's compatible with 2G)	●	●	●
Standard features			
Freestanding/wall mounted/ switchgear mounted	●	●	●
Removable radio bracket (no radio supplied)	●	●	●
Inputs to cabinet			
Switch open - per switch	●	●	●
Switch closed - per switch	●	●	●
Earth selector earth/mains - per switch	●	●	●
2 spare per switch	●	●	●
Control output to switchgear			
Open switch	●	●	●
To switch	Close switch	●	●
	Reset external FPI	●	●
Output to SCADA			
Switch open	●	●	●
Switch closed	●	●	●
Earth selector earth/mains	●	●	●
Fault passage	Phase and/or Earth fault	●	●
indication	Directional fault detection / MV broken conductor detection / Voltage measurement	■	■
From cabinet	Local/remote failure	●	●
	Mains/equipment failure	●	●
	Battery and charger alarms	●	●

- Standard feature
- With VPIS-VO (V3)

Remote control

Easergy T300 - OVR

Telecontrol cabinet

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

● Standard feature

■ With VPIS-VO (V3)

**RN2d-T5
with T300**

		RN2d-T5 with T300
Environment		
Indoor / outdoor		●
IP54		●
Communication		
Modbus master		●
IEC 870-5-101 and IEC 870-5-104		●
DNP3		●
RS232 modem box		●
3G/4G modem box (it's compatible with 2G)		●
Standard features		
Freestanding/wall mounted/ switchgear mounted		●
Removable radio bracket (no radio supplied)		●
Inputs to cabinet		
Switch open - per switch		●
Switch closed - per switch		●
Earth selector earth/mains - per switch		●
2 spare per switch		●
Control output to switchgear		
Open switch		●
To switch Close switch		●
Reset external FPI		●
Output to SCADA		
Switch open		●
Switch closed		●
Earth selector earth/mains		●
Fault passage indication	Phase and/or Earth fault	●
	Directional fault detection / MV broken conductor detection / Voltage measurement	●
From cabinet		
Local/remote failure		●
Mains/equipment failure		●
Battery and charger alarms		●

● Standard feature

**RN2d-T5
with T300**

	RN2d-T5 with T300
Local control	
Push button open/close switch	●
Local/remote selector	●
Reset/test integral FPI	●
Automation ON/OFF	●
Test LEDs	●
Local indication	
HU250 heartbeat status	●
T300 equipment status	●
Wi-fi status	●
Communication status with modules	●
Automation status ON/OFF	●
Automation locked status	●
AC supply ON/OFF	●
Voltage output for switchgear motor - ON/OFF	●
Voltage output for transmission - devices ON/OFF	●
Battery fault	●
Local/Remote Status	●
Main switch position (open, closed, intermediate)	●
Earth switch position	●
Fault detection status with direction	●
Measurement	
Current measurement: RMS, average, min max	●
Voltage measurement: RMS, average	●
Battery and charger	
AC voltage input: 90 to 264 Vac - 50/60 Hz single phase	●
DC voltage input: 110 to 220 Vdc	●
12 Vdc IEDs – 36 W	●
12 Vdc telecom – 18 W	●
24 Vdc switchgear	●
10 kV insulation and 20 kV surge	●
Operating temperature range: -40°C to 70°C	●
Storage temperature range: -40°C to 70°C	●
Battery 24 AH Autonomy on 20 degrees C, without sleep mode 3 hours after loss of supply with 10 c/o switch operations	●

● Standard feature

Simple, fast and efficient motorization 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 motorized, 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 motorize either switch or circuit breaker.

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

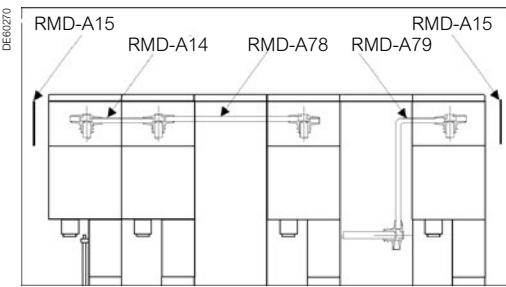


Schneider Electric are able to provide a number of accessories to enhance the basic unit specifications. These accessories are detailed within the panel type specifications

Accessories

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.

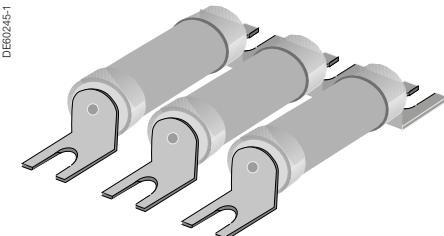


RMD-A14/A15/A78/A79

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 Limit Fuse

- 2 off time limit fuse for overcurrent protection

Kit number	Time Limit Fuse (TLF)	For
RMD-A17-3	2 no 3.5 A TLF	RN2d-T1
RMD-A17-5	2 no 5 A TLF	RE2d-T1
RMD-A17-7	2 no 7.5 A TLF	CN2-T6
RMD-A17-10	2 no 10 A TLF	CE2-T7
RMD-A17-12	2 no 12.5 A TLF	
RMD-A17-15	2 no 15 A TLF	

Ringmaster cabling options

Ring main unit RN2d/RE2d/RN6d

The circuit breaker has 3 types of connections:

- Transformer mounted
- Cable box with flange
- Cable box without flange



Transformer mounted



Free standing:
cable box with flange



Free standing:
cable box without flange

Ringmaster RMU has different connection choices:

- Bottom entry
- Top entry

	Kit no. for short bushing	Kit no. for type C bushing
Cable bottom entry		
Ring switch LH cable box	RMD-F444M-RS1	RMD-F444-RS1
Ring switch RH cable box	RMD-F444M-RS2	RMD-F444-RS2
Circuit breaker cable box with flange	RMD-F47M-BTM	RMD-F47-BTM
Circuit breaker cable box without flange	RMD-F324M	RMD-F324
Cable top entry*		
Ring switch LH cable box	RMD-F302M	RMD-F302
Ring switch RH cable box	RMD-F303M	RMD-F303
Circuit breaker cable box **	RMD-F47M-TOP	RMD-F47-TOP

* The option is only available for RN2d and RN6d / ** The top entry cable box is only available with flange



Ring main unit:
Free standing non-extensible,
bottom entry cable connection

Ringmaster cabling options

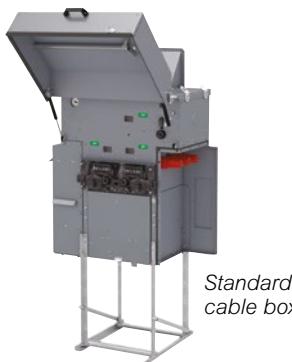
Ring main unit RN2d/RE2d/RN6d

Cable box of ring switch has two different lengths:

- Standard
- Extended*

Standard cable box	Kit no. for 13.1kA / IAC	Kit no. for 21kA / IAC
Ring switch LH cable box	RMD-F444M-RS1	RMD-F444-RS1
Ring switch RH cable box	RMD-F444M-RS2	RMD-F444-RS2

DM107361



Standard
cable box

DM107362



Extended
cable box

*Please contact Schneider Electric
for extended cable box option.

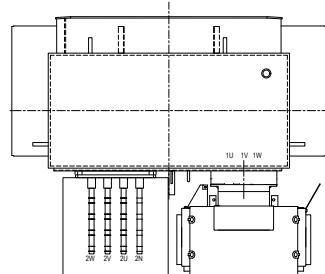
Deflector for transformer mounted RMU:

For transformer mounted RMU, the deflector will change according to the transformer type and the RMU installation position.

Deflector kit for different transformer mounted type

	Kit no. for short bushing	Kit no. for type C bushing
Unit substation type	RMD-F323M	RMD-F323
Ground mounted type	RMD-F885M	RMD-F885

DM107352

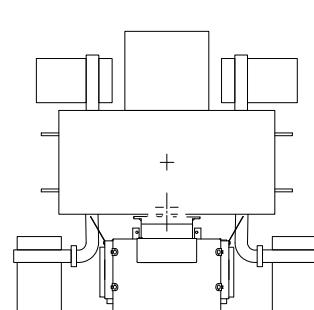


Unit susbtation + RN2d

DM107353

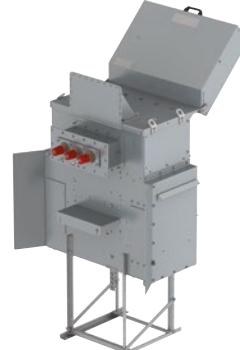


DM107352



Ground mounted + RN2d

DM107354



Ringmaster cabling options

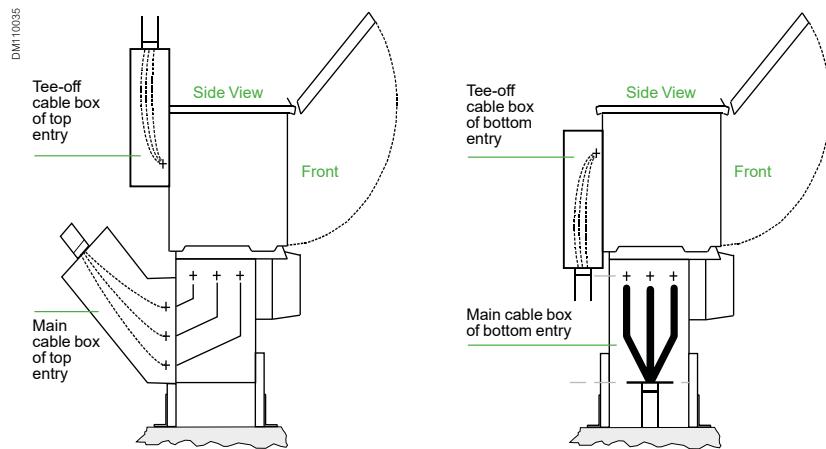
Ringmaster range

CN2/SN6/CE2/CE6/SE6 /MU2d/MU6d

Ringmaster range has different cable connection choices:

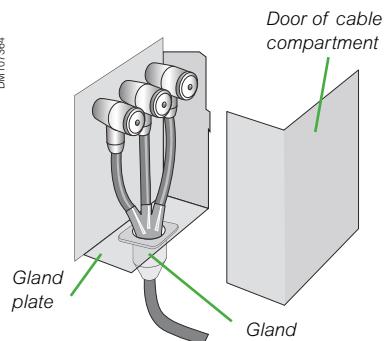
- Top entry
- Bottom entry

	CN2/SN6	CE2/CE6/SE6	MU2d/MU6d
Main cable box			
Cable box	Bottom entry		RMR-F47
	Top entry without bus section/metering	RMR-F93	RMR-F47-TOP
	Top entry with bus section/metering		RMR-F94
Tee-off			
TX mounted	Transformer mounted kit	RMR-F95	RMR-A580
Free standing	Bottom entry cable box	RMR-F47	RMR-F47
	Top entry cable box	RMR-F180	RMR-F47-TOP

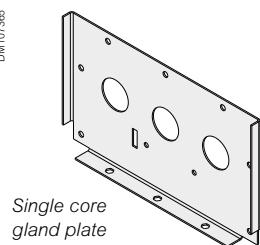


Cable box accessories

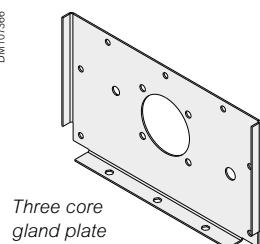
DM107364



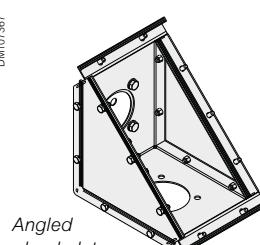
DM107365



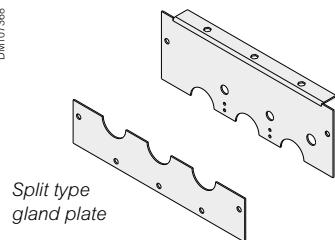
DM107366



DM107367



DM107388



Ring main unit - RN2d/RE2d/RN6d

Gland plate and gland for switch and CB (free standing without flange)		Kit no. for short bushing	Kit no. for type C bushing
For 1x3 core cable			
Type 1: large	Gland plate	Gland plate for 1x3C cable	RMD-F316M RMD-F316
	Gland	Split gland plate for 1x3C cable	RMD-F318M RMD-F318
	Gland	Angled gland plate for 1x3C plate	RMD-F317M RMD-F317
	Gland	Galvanised stell wiping gland for 1x3C cable	RMD-F10 RMD-F10
Type 2: small	Gland plate	Tubular gland for 1x3C cable	RMD-F12 RMD-F12
	Gland	Small gland plate for 1x3C cable	RMD-F322M RMD-F322
Type 3: CES5	Gland plate	Small Tubular gland	RMD-F106 RMD-F106
	Gland plate	CES5 gland plate for 1x3C cable	RMD-F321M-CB/RMD-F321M-RSW RMD-F321-TOP
	Gland	CES5 gland	RMD-F120 RMD-F120
For 3 single core cable			
Gland	Gland plate	Gland plate for 3x1C cable	RMD-F319M RMD-F319
	Gland	Galvanised stell wiping gland for 3x1C cable	RMD-F11M RMD-F11
	Gland	Tubular gland for 3x1C cable	RMD-F13 RMD-F13
For no cable			
Blank galvanised gland plate		RMD-F320	RMD-F320

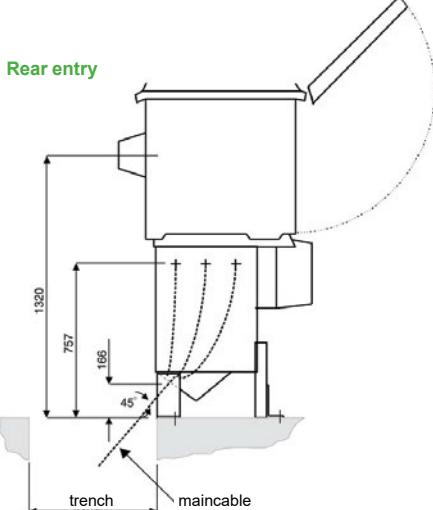
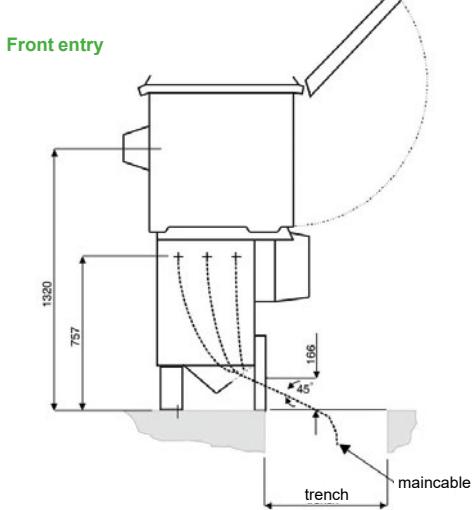
Ring main unit - RN2d/RE2d/RN6d

Gland plate and gland for switch and CB (free standing with flange)		Kit no. for short bushing	Kit no. for type C bushing
For 1x3 core cable			
Gland	Gland plate	Gland plate for CB free standing with flange	RMD-F48M RMD-F48
	Gland	Galvanised stell wiping plate for 1 x 3C cable	RMD-F10 RMD-F10
	Gland	Tubular gland for 1 x 3C cable	RMD-F12 RMD-F12
For 3 single core cable			
Gland	Gland plate	For CB free standing with flange	RMD-F49M RMD-F49
	Gland	Galvanised stell wiping plate for 3 x 1C cable	RMD-F11M RMD-F11
	Gland	Tubular gland for 3 x 1C cable	RMD-F13 RMD-F13
For no cable			
Blank galvanised gland plate		RMD-F52	RMD-F52

Cable box accessories

Cable bottom entry with angled gland plate

DM10036



Ringmaster range - CN2/SN6/CE2/CE6/SE6 /MU2d/MU6d

Gland plate and gland	Kit number
For 1x3 core cable	
Gland plate	Gland plate for 1 x 3C cable RMR-F48
	Angled gland plate for 1 x 3C plate RMR-F50
Gland	Brass wiping gland for 1 x 3C cable RMR-F10
	Tubular gland for 1 x 3C cable RMD A12
For 3 single core cable	
Gland plate	Gland plate for 1 x 3C cable
	Brass wiping gland for 1 x 3C cable
Gland	Tubular gland for 3 x 1C cable
Without cable type	
Aluminium blank gland plate	RMR-F49
Brass wiping gland for 3 x 1C cable	RMR-F11
Tubular gland for 3 x 1C cable	RMD A13
Brass wiping gland for 1 x 3C cable	RMR-F10
Tubular gland for 1 x 3C cable	RMD A12
CES55 gland	RMD-F120

Notes

Installation and connection

Installation and connection

Cable connections	126
Selecting bushings and connectors	126
Installation	127
Civil works and installation conditions	127
Dimensions	129
Typical switchboard	129
Extensible switch and circuit breaker SE6-B1, CE6-B9, CE6-B10	130
Extensible circuit breaker	131
Extensible switch and circuit breaker	132
Non-Extensible switch and circuit breaker	133
Extensible Ring main unit	134
Non-Extensible Ring main unit	137
Non-Extensible Metering unit	143
Telecontrol cabinet	144
RN2d-T5 with T300	145
Tee-off cable box	146

Cable connections

Selecting bushings and connectors

The bushings carry the electrical current from the outside to the inside of the enclosure, which is filled with SF₆ gas, providing insulation between the live conductors and the frame.

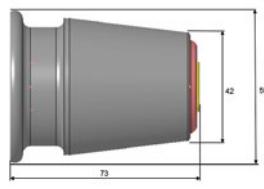
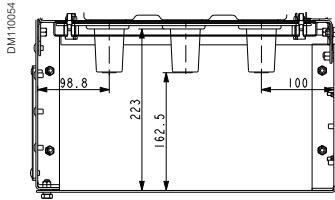
There are 2 types of bushing for Ring main units:

- Short bushing
- and Type C bushing

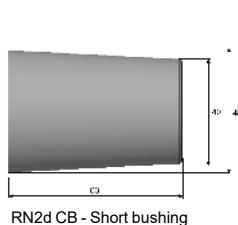
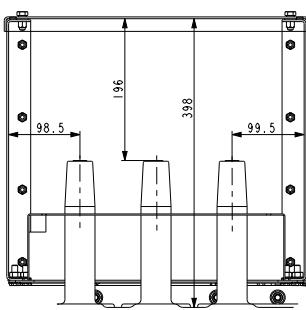
Both types can carry 630 A, withstand short current 21 kA 3 s and 52.5 kA peak

100% of the cast resin cable bushings undergo power frequency and partial discharge tests

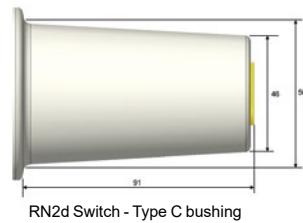
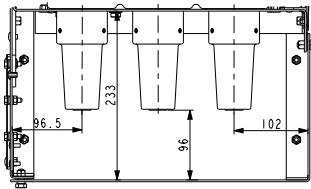
Switch with short bushing



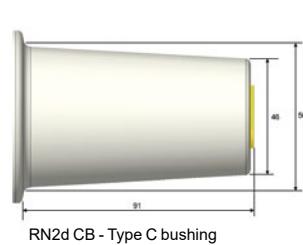
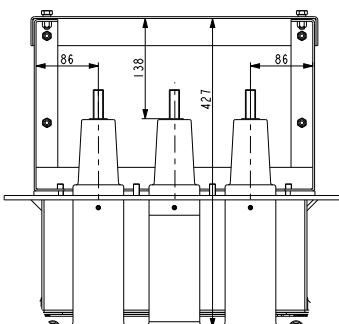
Circuit breaker with short bushing



Switch with type C bushing



Switch with type C bushing



There are 3 possible combinations:

12 kV, 75 kVBIIL, 21 kA 3s, Transformer mounted

RMU type	Bushing type	Ring switch	Circuit breaker	CB Protection	Order reference
RN2d	Short bushing	Short bushing	Short bushing	TLF	RN2d-T1S1
			Type C bushing	VIP relay	RN2d-T2S1 / RN2d-T3S1 / RN2d-T4S1
RE2d	Type C	Type C bushing	Type C bushing	TLF or VIP relay	RN2d-T1C1 / RN2d-T2C1 / RN2d-T3C1 / RN2d-T4C1
RN6d	Short bushing	Short bushing	Short bushing	TLF	RE2d-T1S1
	Type C	Type C bushing	Type C bushing	VIP relay	RE2d-T2S1 / RE2d-T3S1 / RE2d-T4S1
RN6d	Short bushing	Short bushing	Type C bushing	VIP relay	RN6d-T1S1 / RN6d-T3S1
	Type C	Type C bushing	Type C bushing	VIP relay	RN6d-T1C1 / RN6d-T3C1

For Ringmaster Range, the bushing is only short busing

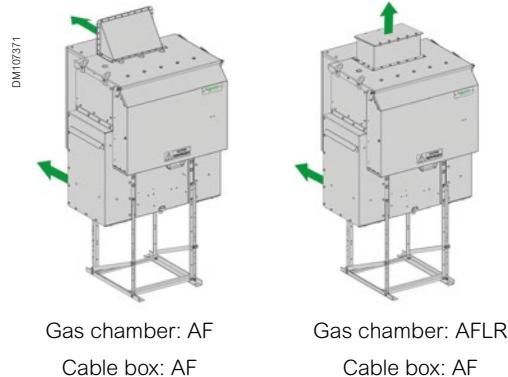
Installation conditions with respect to Internal Arc Classification

General

Kits that help to securely divert the flow of gases outside the substation are not part of the supply of equipment. If required, kits will need to be adapted to each situation.

Internal Arc Classification (refer to the below table)

- Minimum room dimensions stated below must be achieved, if not possible please refer [MDS Catalog](#)
- For ground mount style transformers please refer to page 119 for RMU internal arc kit.



3 Function RMU		Substation type	Fault rating for 1 sec	Minimum distance		Minimum substation dimensions			Recommended kits
				A (m)	B (m)	C (m)	D (m)	E (m³)	
Indoor freestanding (Substation is simulated according to IEC standards)	12.5 kA AF	1	1	3	2.1	6	-		RMD-F664/RMD-F500 Cable box AF 13.1 kA, RMD-F444M-RS1, RMD-F444M-RS2
	21 kA AF	1.5	2	3.9	4	31	-		Angled deflector RMD-F664 (Angled deflector) Cable box AF 21 kA, RMD-F444-RS1 RMD-F444-RS2
	21 kA AF	1	1.55	3	2.1	9	-		For lower room volume, RMD-F675 arc filter (Arc filter on the lid) Cable box AF 21 kA, RMD-F444-RS1 , RMD-F444-RS2
EN 41-36 style unit sub (Test arrangement for enclosed secondary substation are as per ENA 41-36 figure 1.13) ⁽¹⁾	12.5 kA AF	0.1 to TX	0.6 to TX	3	2.1	4	1.85 ⁽²⁾		Angled deflector RMR-F500 Cable box AF 13.1 kA, RMD-F444M-RS1, RMD-F444M-RS2
	21 kA AF	0.3 to TX	0.55 to TX	3	2.1	4	1.72 ⁽²⁾		RMD-F675 arc filter (Arc filter on the lid) Cable box rated for AF 13.1 kA only RMD-F444M-RS1, RMD-F444M-RS2
Free standing outdoor (Simulated according to IEC standards)	21 kA AF	1.5	2	-	-	-	-		Angled deflector RMD-F664 (Angled deflector) Cable box AF 21 kA, RMD-F444-RS1, RMD-F444-RS2
	21 kA AFLR	0.3	0.3	-	-	-	-		RMD-F863 (AFLR arc filter) Cable box AFLR not available

Notes:

(1) For ENA TS 41-36, maximum width of transformer can be 2.3 m

(2) For transformer's higher than max specified, please contact

Schneider electric

A Minimum distance from Left side walls in m (when viewed from front)

B Minimum distance from rear Wall in m

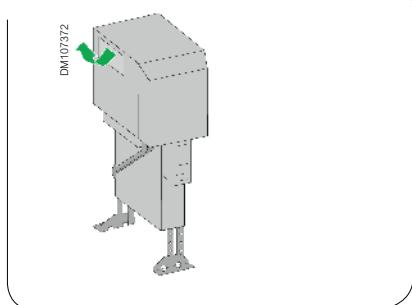
C Substation Width in m

D Substation Ceiling height in m

E Minimum free exhaust volume behind RMU m³

F Max. Transformer height in m

Typical flow of gases in a RMR unit



Installation conditions with respect to internal arc classification

Single function RMR		Fault rating for 1 sec	Minimum distance		Minimum substation dimensions				Recommended kits
Substation type			A (m)	B (m)	C (m)	D (m)	E (m³)	F (m)	
Indoor/Outdoor⁽³⁾ Free standing (Simulated according to IEC standards)	12.5 kA AF	1	1	3	3	9	-	For gas enclosure no deflector needed ⁽⁴⁾	
	21 kA AF	0.36	1.45	2.45	2.25	8	-	For gas enclosure RMR-F933 (Arc filter) ⁽⁴⁾	

Notes:

(3) For Single function Outdoor free standing 12.5 kA AF or 21 kA AF, mentioned room dimensions will not be applicable

(4) For Single function cable box, please contact Schneider Electric

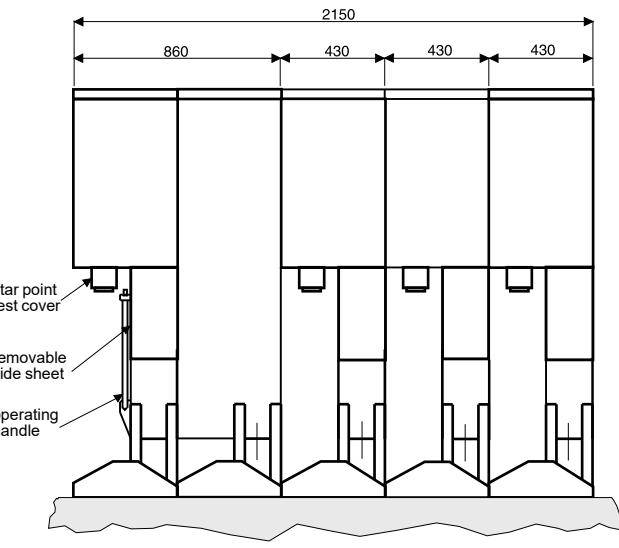
Dimensions

Typical switchboard

DM110837

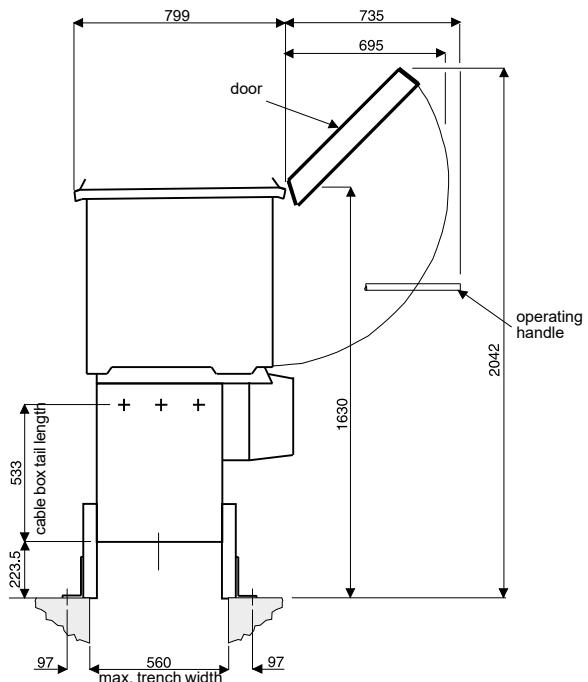
Front view

Note: door shown closed

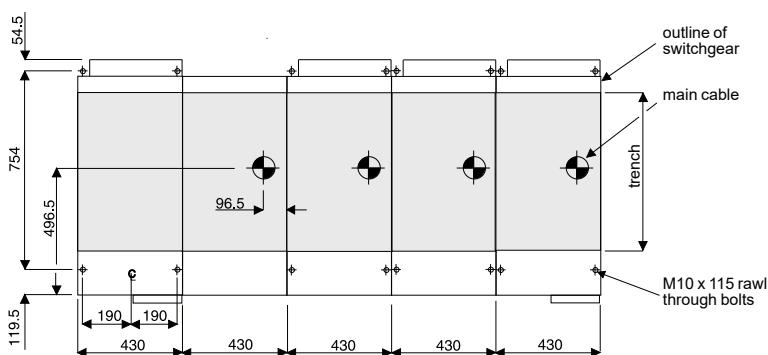


Side view

Note: door shown open



Plan



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

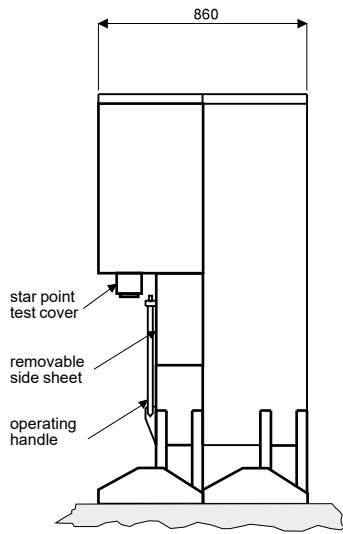
Dimensions

Extensible switch and circuit breaker
SE6-B1, CE6-B9, CE6-B10

Front view

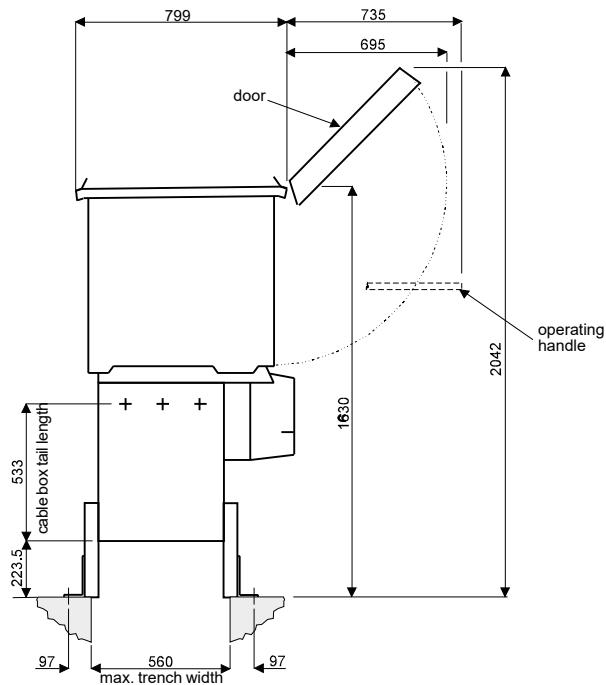
Note: door shown closed

DM110038

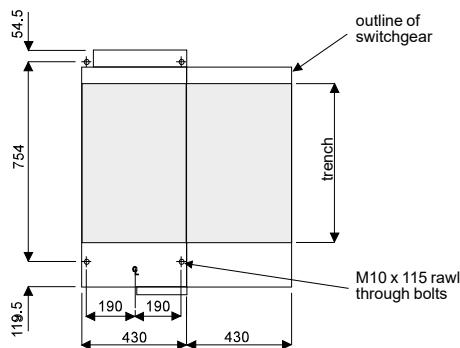


Side view

Note: door shown open



Plan



Panel type	Page number
SE6-B1	89
CE6-B9	90
CE6-B10	91

Approximate weight: 520 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

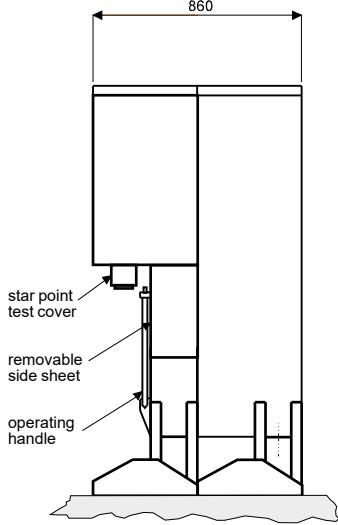
Dimensions

Extensible circuit breaker With metering

DM10039

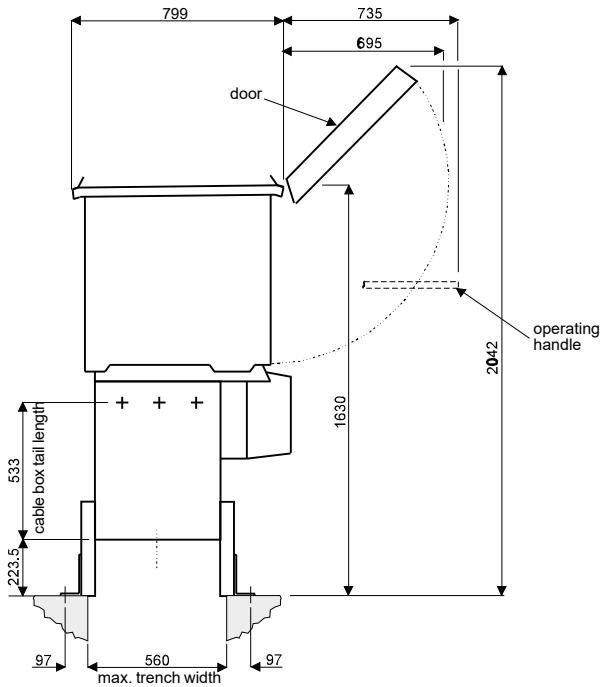
Front view

Note: door shown closed

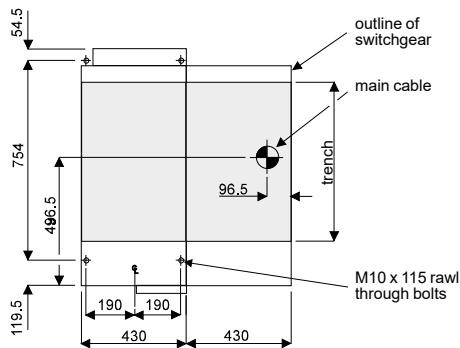


Side view

Note: door shown open



Plan



Panel type	Page number
CE2-T32	
CE2-T35	
CE2-T36	
CE2-T37	
CE2-T38	
CE2-T39	
CE6-T33	
CE6-T34	
CE6-T35	
CE6-T36	
CE6-T37	
CE6-T38	
CE6-T39	
Approximate weight: 520 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

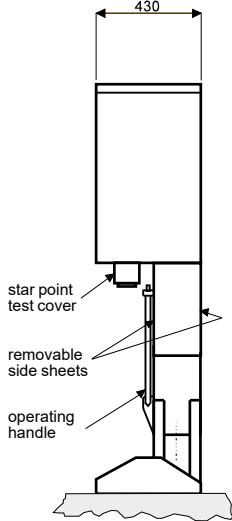
Dimensions

Extensible switch and circuit breaker

DM110040

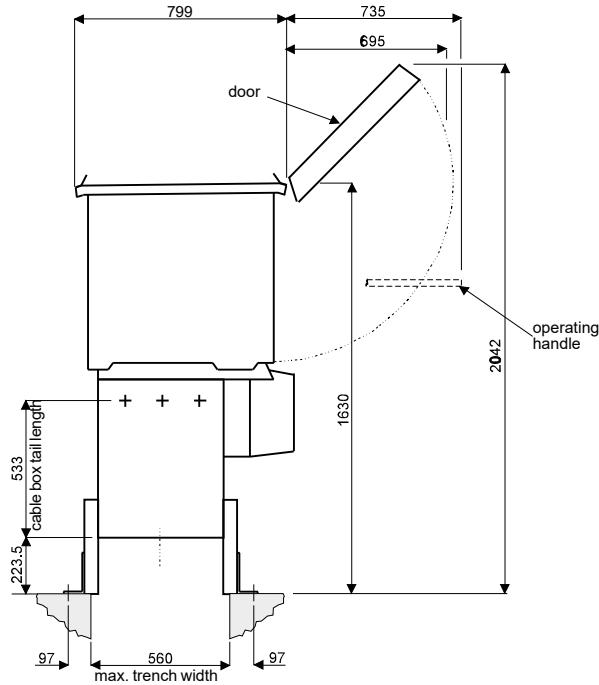
Front view

Note: door shown closed

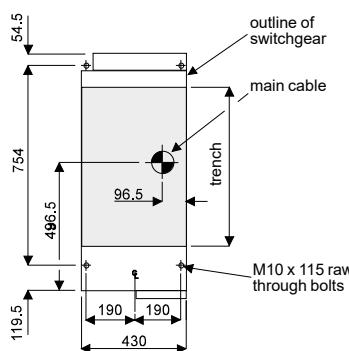


Side view

Note: door shown open



Plan



Panel type	Page number
CE2-T7	68
CE2-T30	69
CE2-T31	69
CE2-T34	71
CE2-T41	70
CE6-T30	78
CE6-T31	78
CE6-40	79
SE6-S1	84
SE6-S2	85
SE6-E1	86
Approximate weight: 280 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

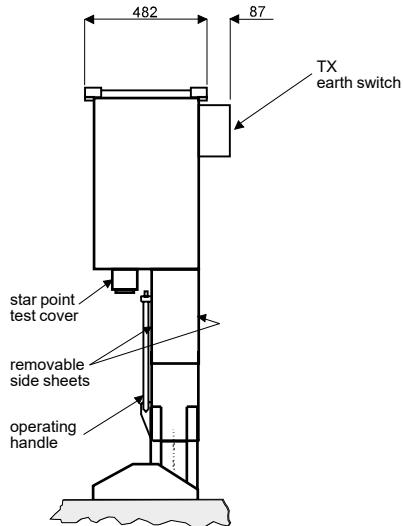
Dimensions

Non-Extensible switch and circuit breaker

DM110041

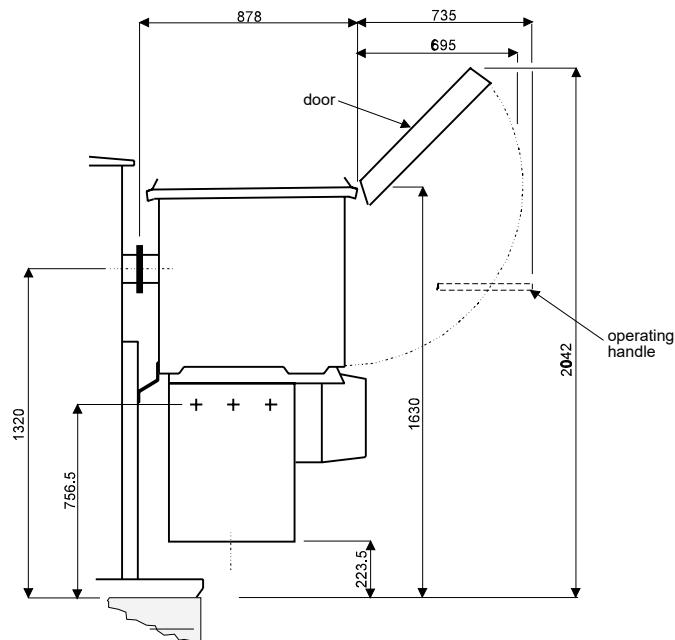
Front view

Note: door shown closed

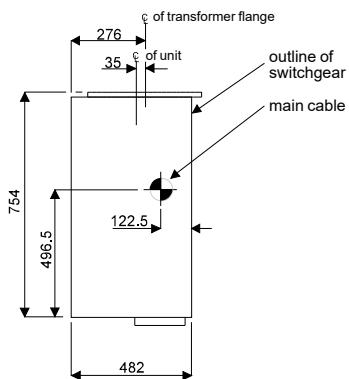


Side view

Note: door shown open



Plan



Panel type	Page number
CN2-T6	51
CN2-T9	52
CN2-T10	53
CN2-T11	52
SN6-S1	56
SN6-S2	57

Approximate weight: 280 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

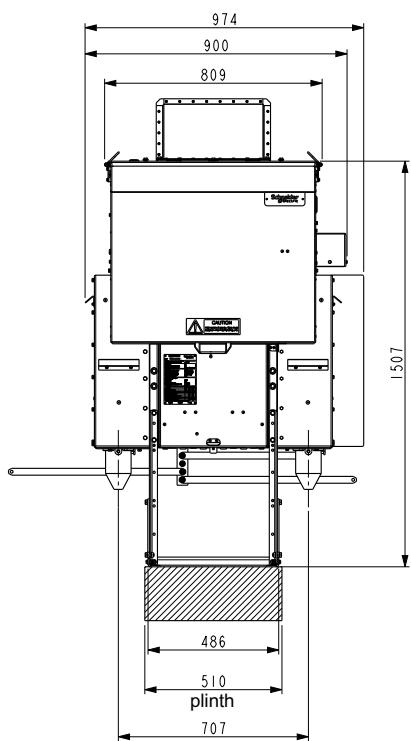
Dimensions

Extensible Ring main unit

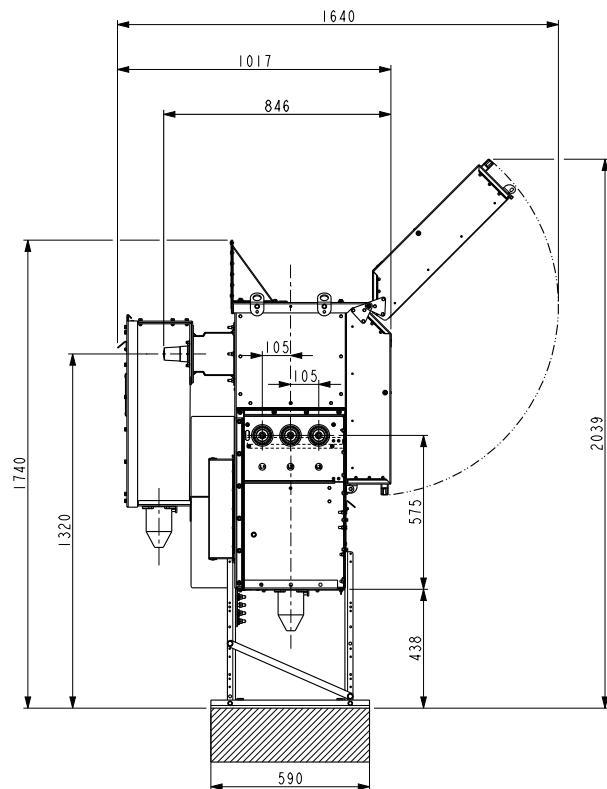
RE2d Free standing (flange and tee off cable box) Type C Bushing with TLF or VIP relay

Front view

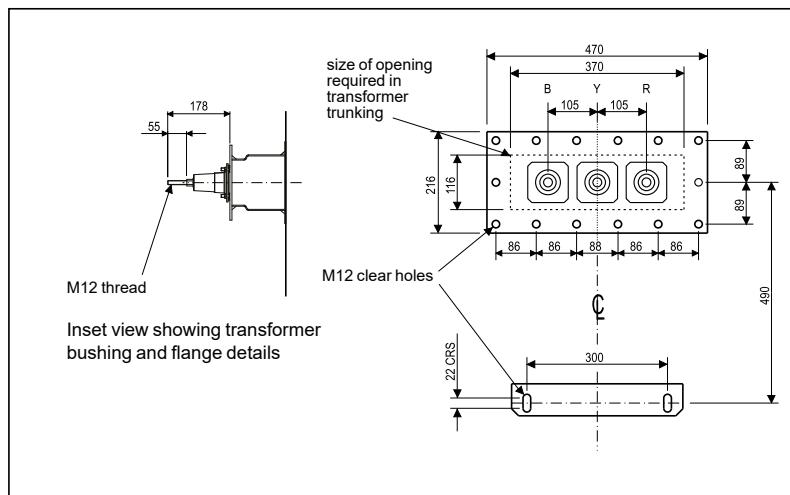
DM109991



Side view



DM110042



Panel type	Page number
RE2d-T1	41
RE2d-T2	42
RE2d-T3	43
RE2d-T4	44
Approximate weight: 385 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.

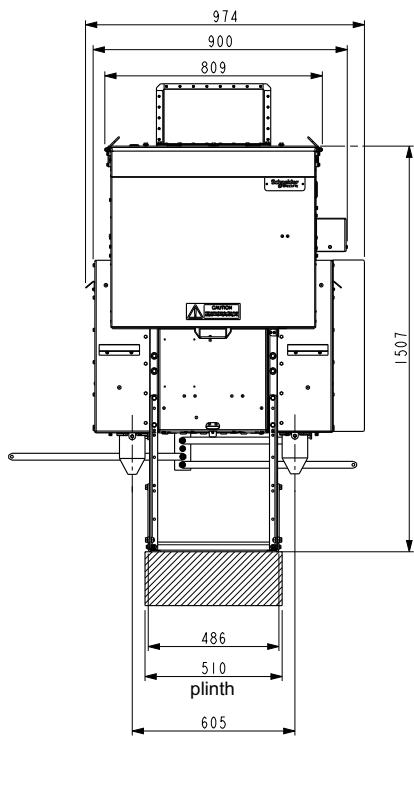
Dimensions

Extensible Ring main unit

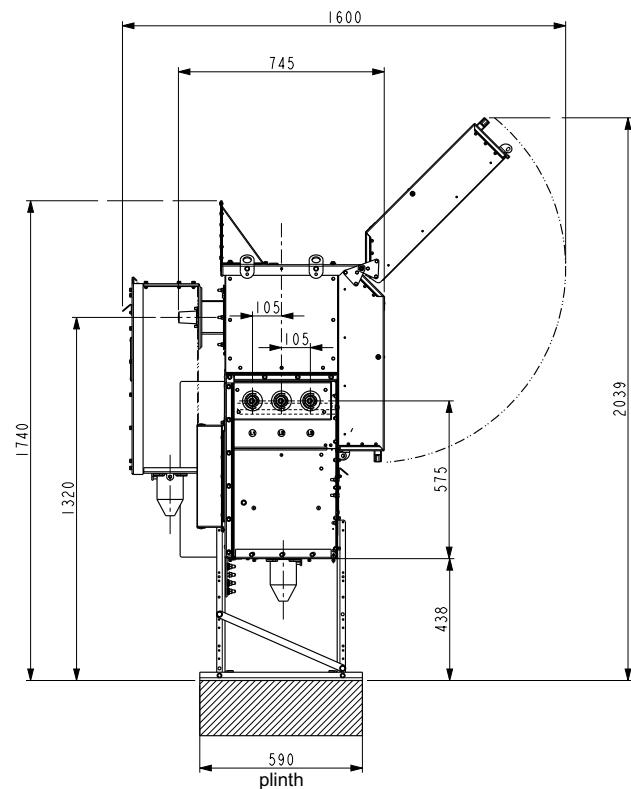
RE2d Free standing (flange and tee off cable box) Short Bushing with TLF protection

Front view

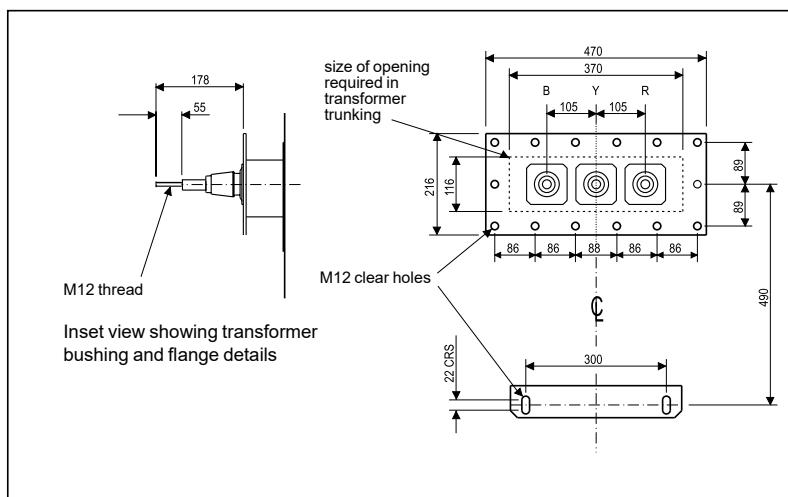
DM109992



Side view



DM10043



Panel type	Page number
RE2d-T1	41
RE2d-T2	42
RE2d-T3	43
RE2d-T4	44
Approximate weight: 385 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.

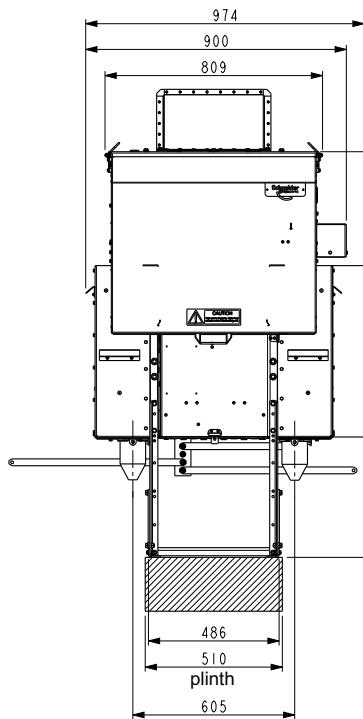
Dimensions

Extensible Ring main unit

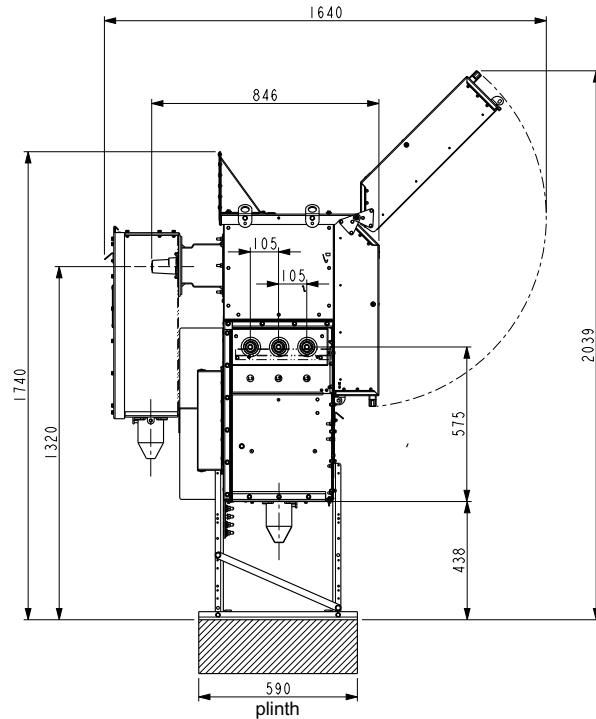
RE2d Free standing (flange and tee off cable box) Short bushing (only for SW)

Front view

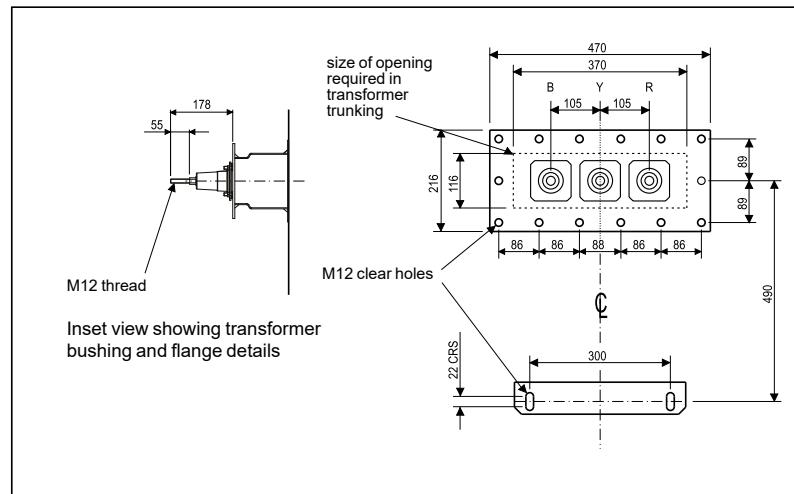
DM109963



Side view



DM110042



Panel type	Page number
RE2d-T1	41
RE2d-T2	42
RE2d-T3	43
RE2d-T4	44

Approximate weight: 385 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.

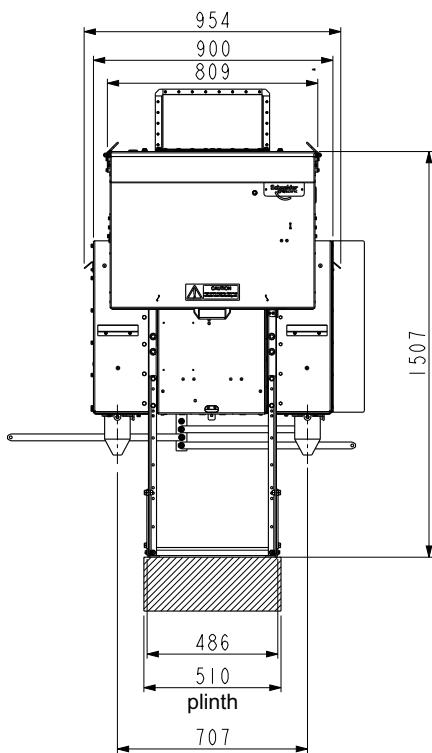
Dimensions

Non-Extensible Ring main unit

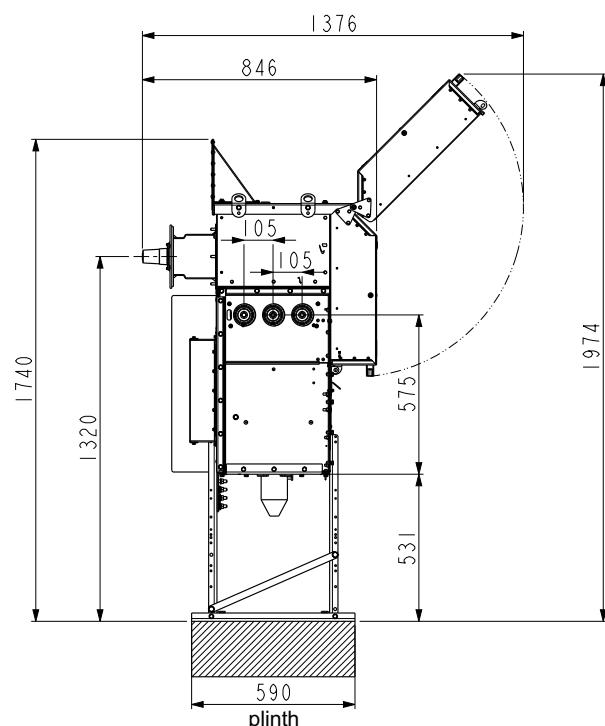
RN2d Tx mounted Type C bushing with
TLF or VIP relay

Front view

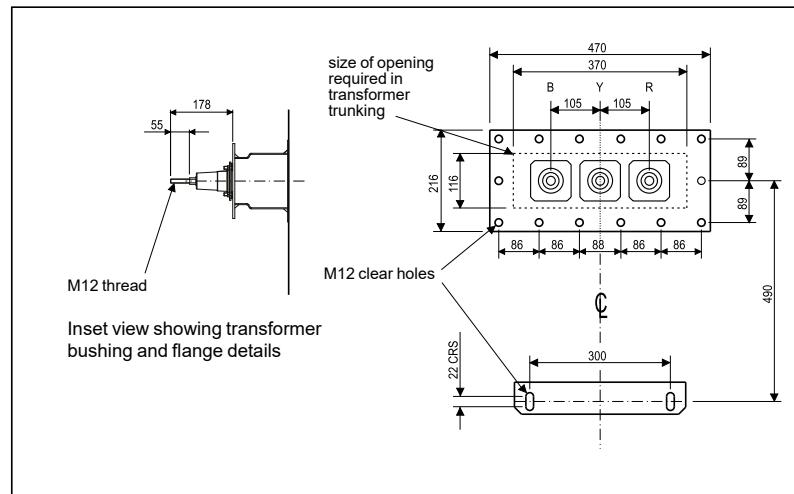
DM109864



Side view



DM110042



Panel type	Page number
RN2d-T1	31
RN2d-T2	32
RN2d-T3	33
RN2d-T4	34

Approximate weight: 380 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.

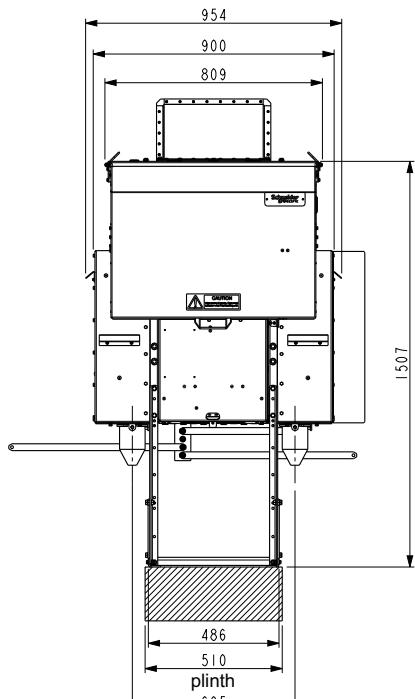
Dimensions

Non-Extensible Ring main unit

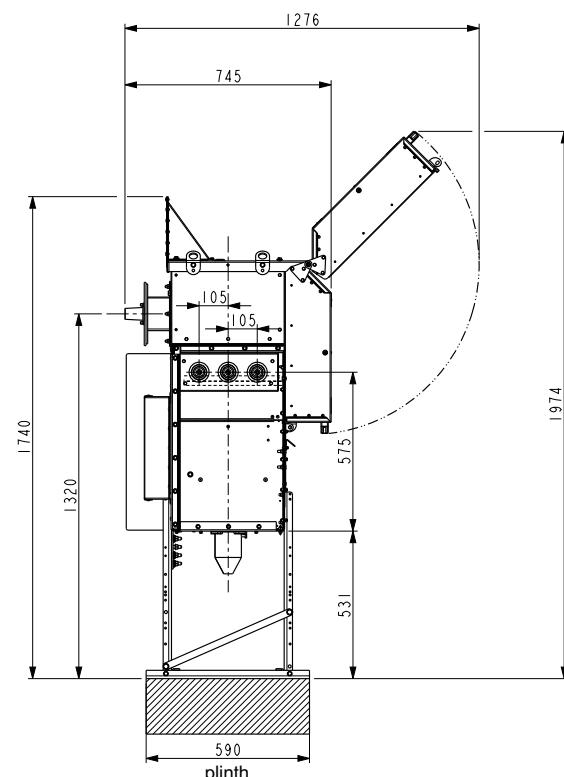
RN2d Tx mounted Short bushing with TLF

Front view

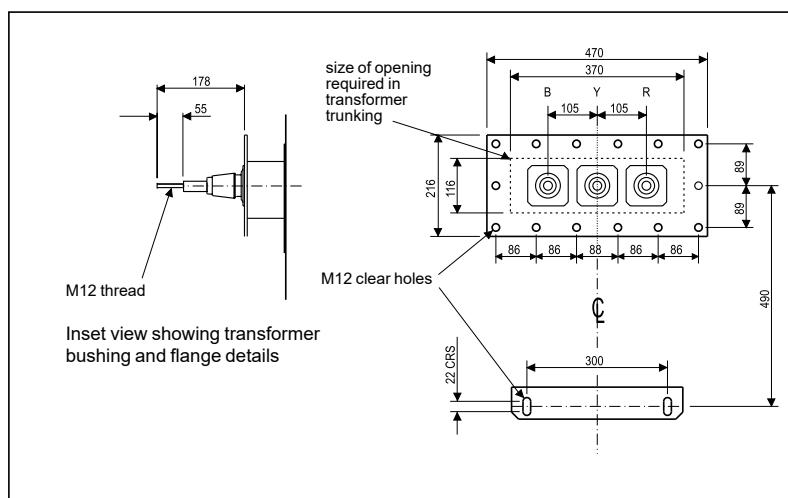
DM109985



Side view



DM10043



Panel type	Page number
RN2d-T1	31
RN2d-T2	32
RN2d-T3	33
RN2d-T4	34
Approximate weight: 380 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.

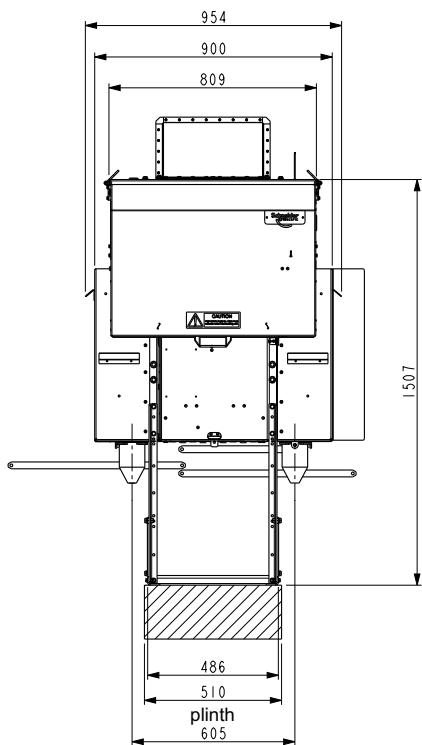
Dimensions

Non-Extensible Ring main unit

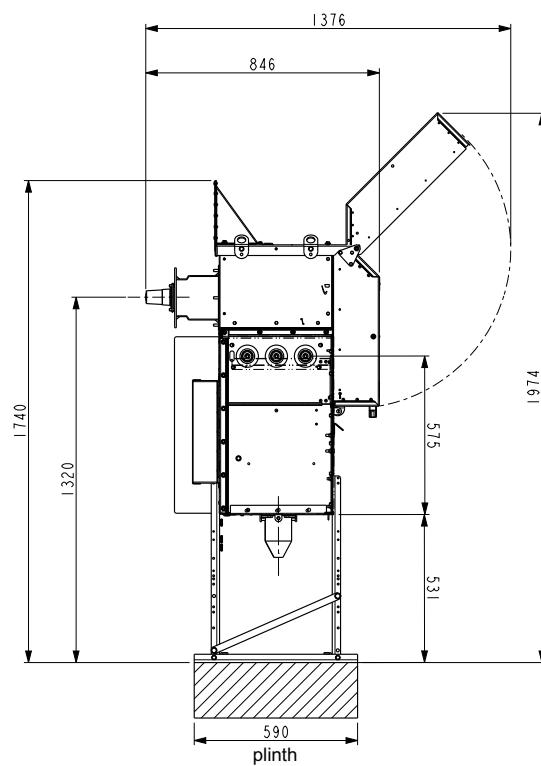
RN2d Tx mounted Short bushing with VIP relay

Front view

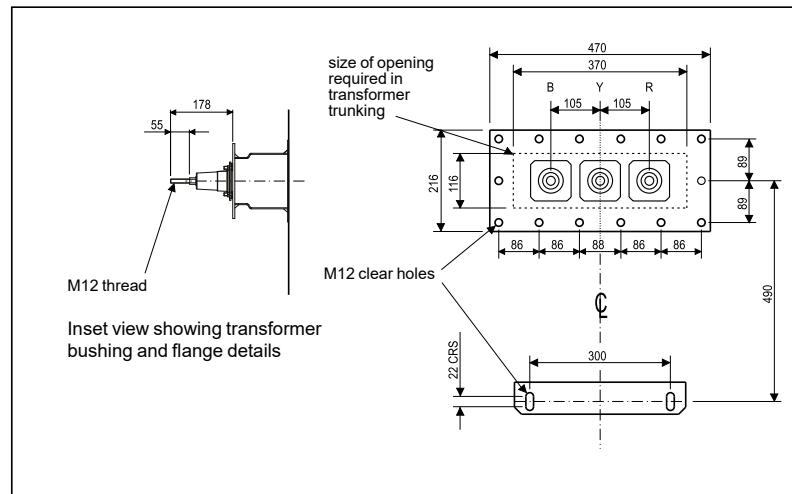
DM109966



Side view



DM110042



Panel type	Page number
RN2d-T1	31
RN2d-T2	32
RN2d-T3	33
RN2d-T4	34

Approximate weight: 380 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.

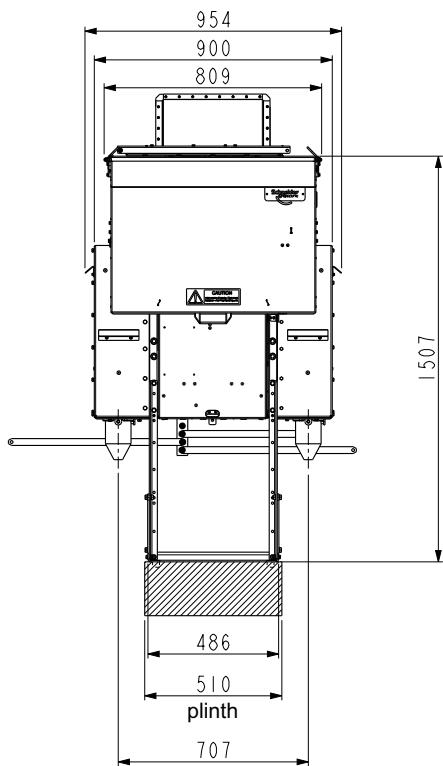
Dimensions

Non-Extensible Ring main unit

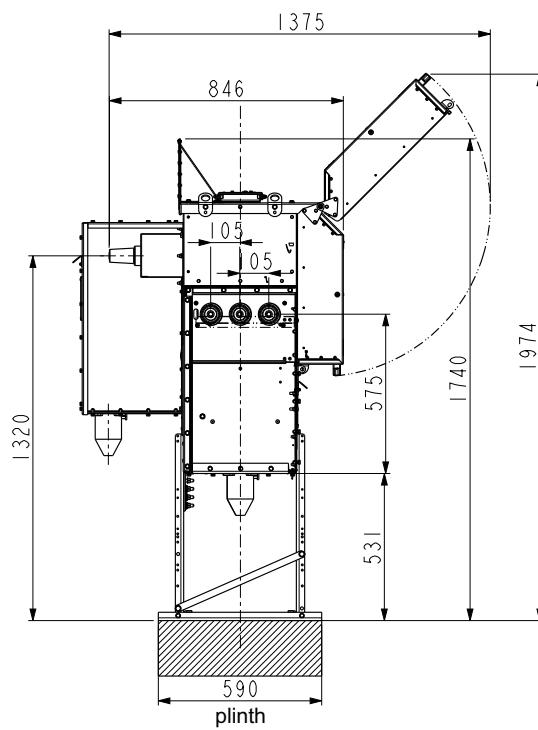
RN6d Free Standing (Tee off cable box without flange) Type C bushing with VIP relay

Front view

DM1099867



Side view



Panel type	Page number
RN6d-T1	36
RN6d-T3	37

Approximate weight: 380 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.

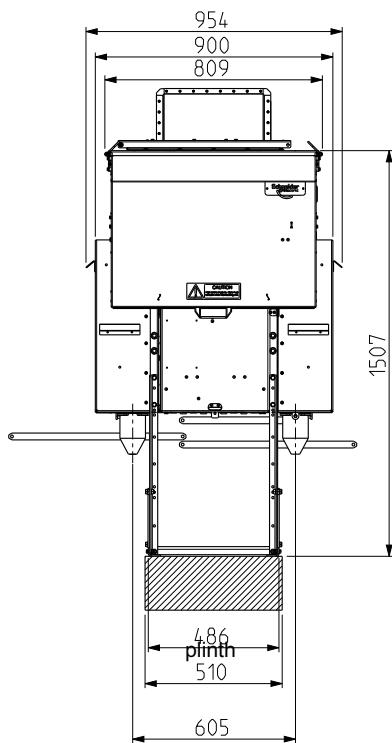
Dimensions

Non-Extensible Ring main unit

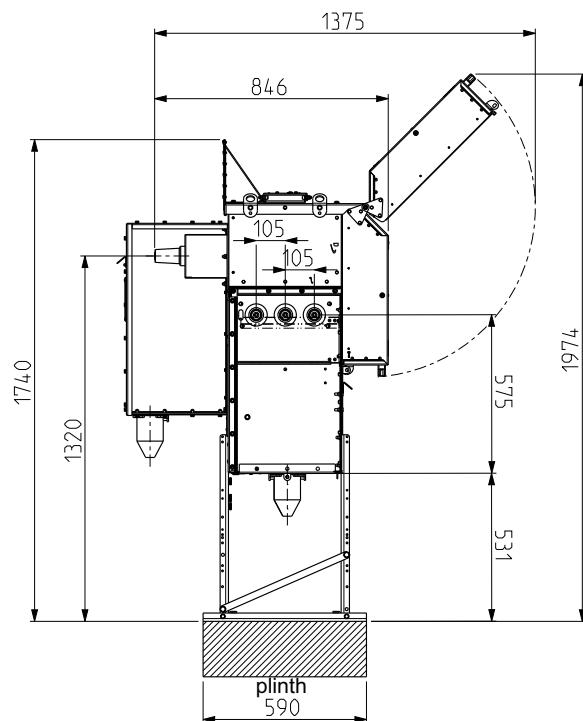
RN6d Free Standing (Tee off cable box without flange) Short bushing with VIP relay

Front view

DM109968



Side view



Panel type	Page number
RN6d-T1	36
RN6d-T3	37
Approximate weight: 380 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.

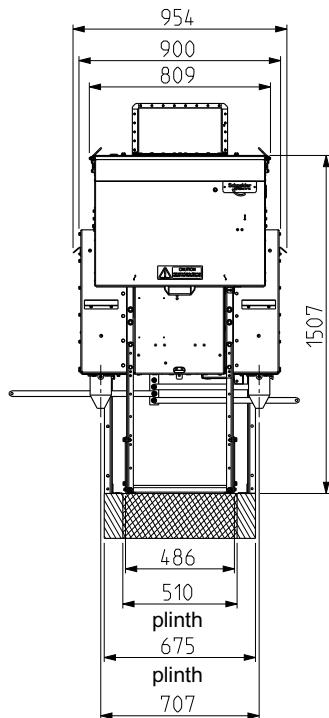
Dimensions

Non-Extensible Ring main unit
c/w MU2d metering unit & tee off cable box

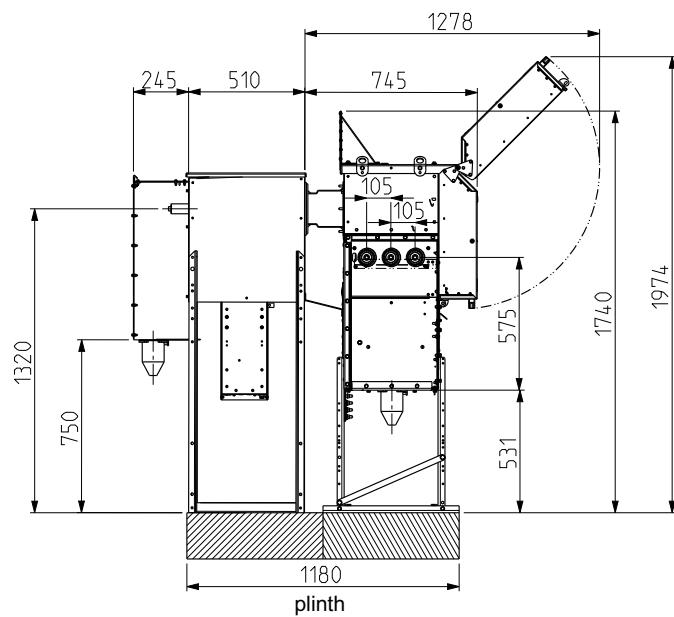
RN2d with MU2d free standing (with tee off cable box)

Front view

DM109869



Side view



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.

Dimensions

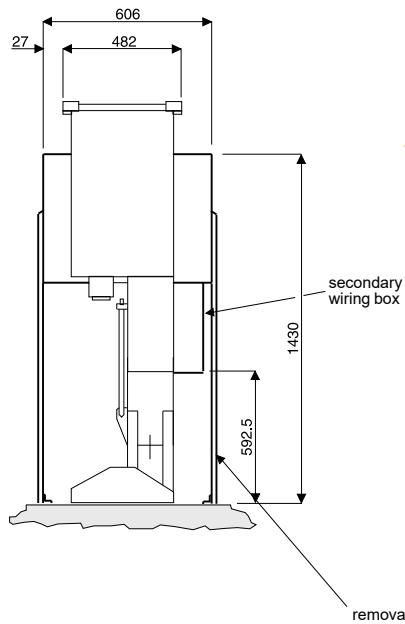
Non-Extensible Metering unit

CN2 with MU2d TX mounted

Front view

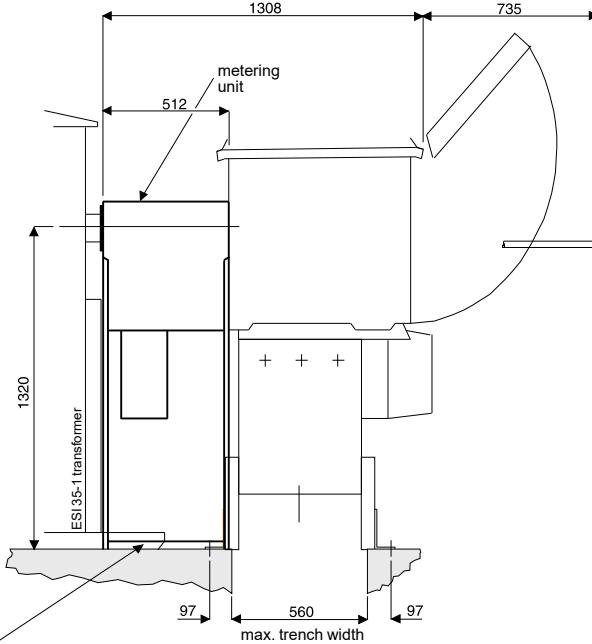
Note: door shown closed

DM10044

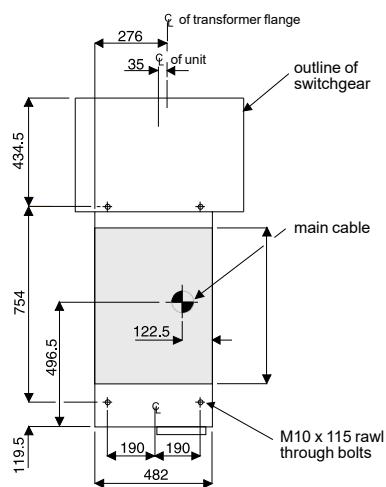


Side view

Note: door shown open



Plan



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

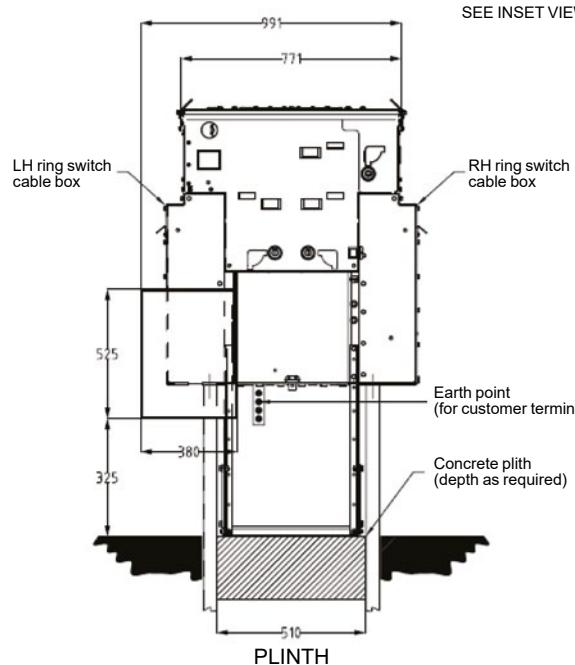
Note: for civil engineering and recommendations for internal arc clearances please consult our installation and maintenance instructions or contact Schneider Electric.

Dimensions

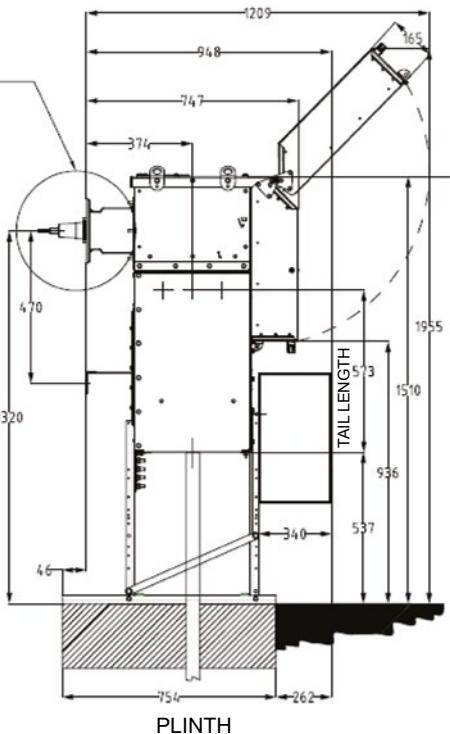
Telecontrol cabinet

PM110803

Front view



Side view



Panel type	Page number
Easergy T300	108
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*

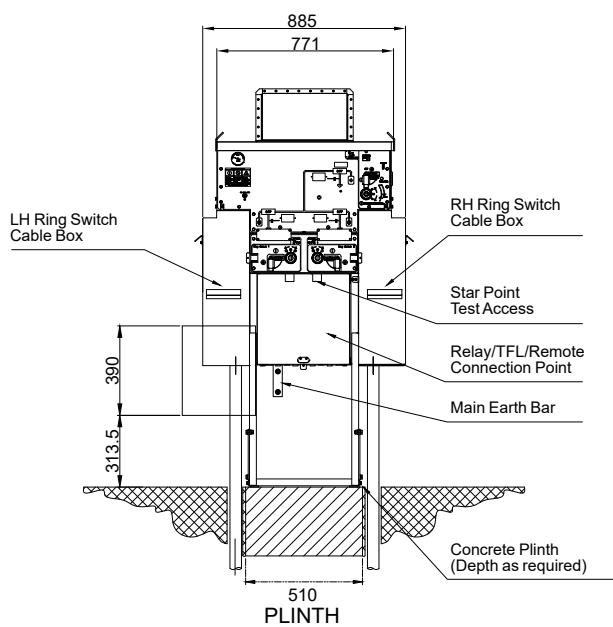
Dimensions

RN2d-T5 with T300

DM110000

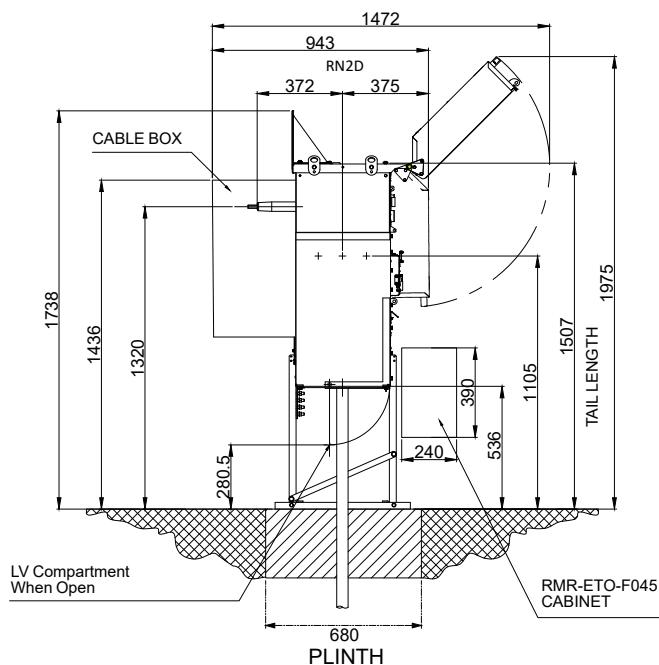
Front view

Note: Door shown open



Side view

Note: Door shown open



Panel type	Page number
RN2d-N10	108

Approximate weight: 400 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*

Dimensions

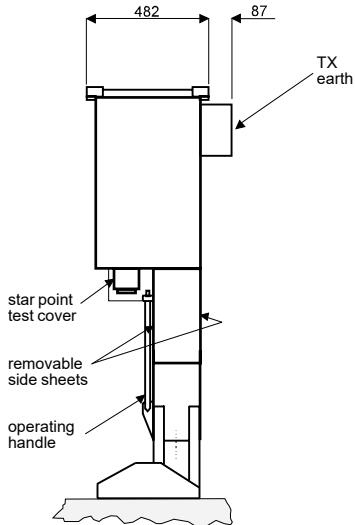
Tee-off cable box

Fitted for CN2/SN6/CE2/CE6/SE6

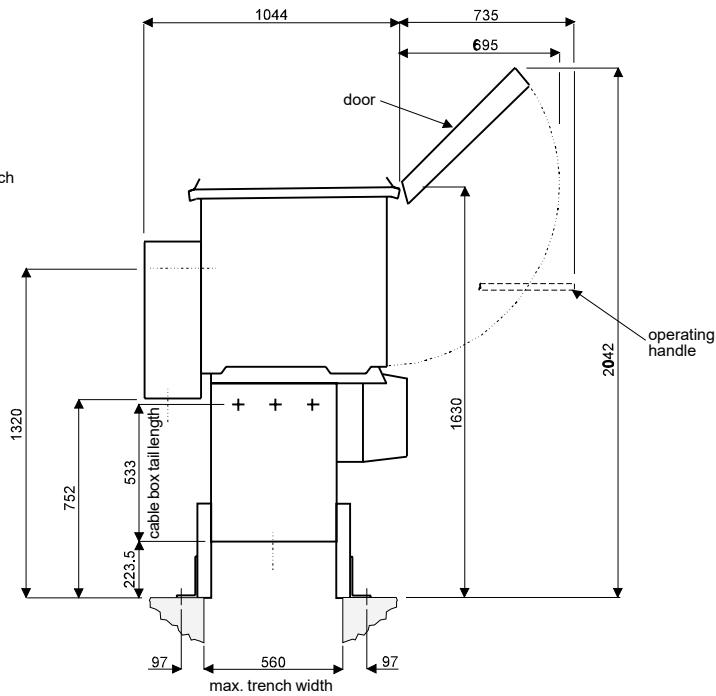
DM110045

Front view

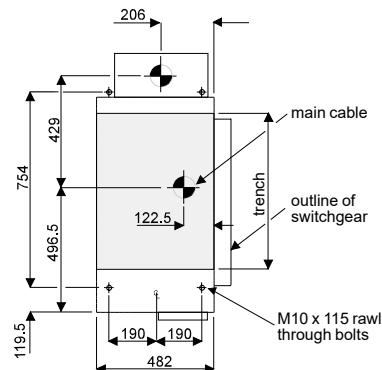
Note: Door shown open



Side view



Plan



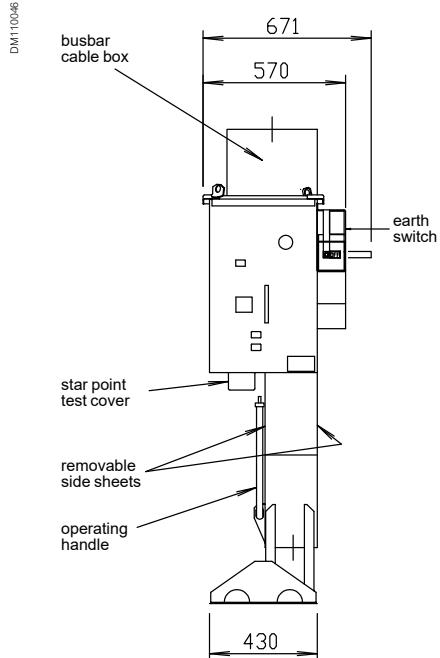
*Note: for installation where overpressure relief of the equipment is required please contact Schneider Electric
Tel: +44 (0)113 290 3500*

Dimensions

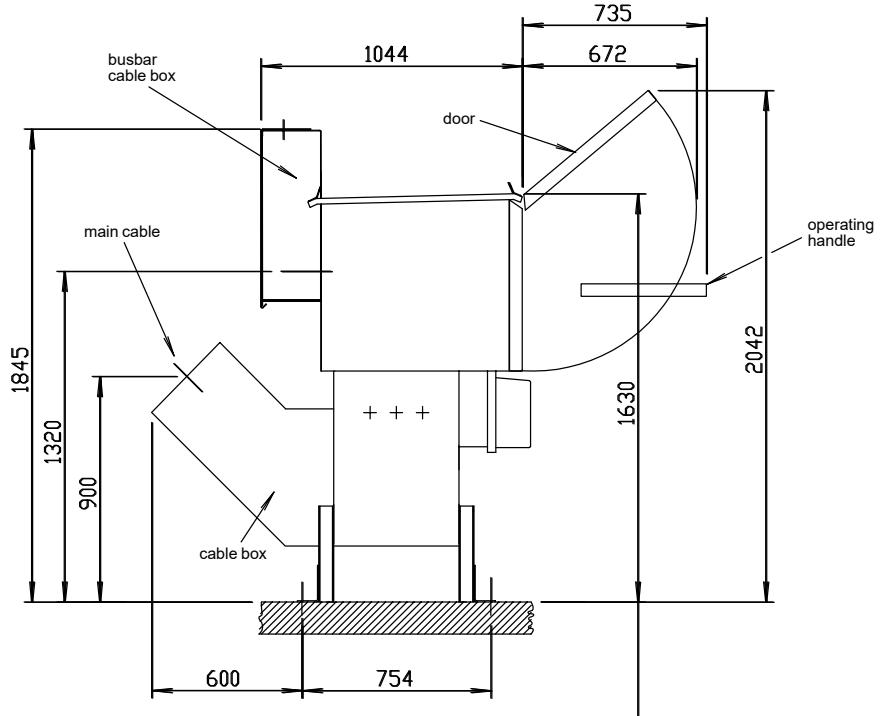
Tee-off cable box

Fitted for CN2/SN6/CE2/CE6/SE6

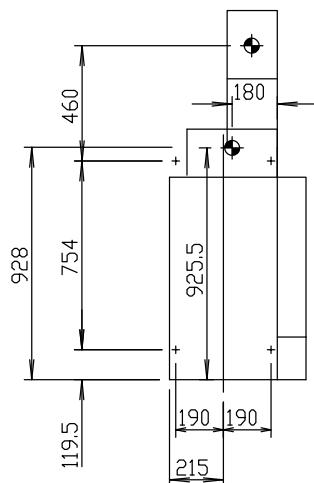
Front view



Side view



Plan



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

Technical appendix

Technical appendix

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CE6-B9	186
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Schematic legends

Specification

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Non-extensible / extensible ring main unit RN2d/RE2d	
RN2d-T1/RE2d-T1	TLF
RN2d-T2/RE2d-T2	VIP400
RN2d-T3/RE2d-T3	VIP410
RN2d-T4/RE2d-T4	VIP45
RN2d-T5	SC160
Non-extensible ring main unit RN6d	
RN6d-T1	VIP400
RN6d-T3	VIP410
Non-extensible metering unit MU2d/MU6d	
MU2d-M1/MU2d-M2/MU2d-M3/MU6d-N1/MU6d-N2/MU6d-N3/MU6d-N5	ph-ph VT
MU2d-M12	ph-earth VT
Non-extensible circuit breaker unit CN2	
CN2-T6	TLF
CN2-T9	VIP400
CN2-T10	VIP410
CN2-T11	VIP400
Extensible circuit breaker CE2/CE6	
CE2-T7	TLF
CE2-T30	VIP400
CE2-T41	VIP410
CE2-T34	VIP45
CE2-T31	VIP400 with motorization provision
CE2-T35, CE2-T36, CE2-T39	VIP 400 with motorization provision & metering
CE2-T32	VIP 400 with metering ph-ph
CE2-T37, CE2-T38	VIP 400 with metering ph-earth VT
CE6-T30	VIP 400
CE6-T40	VIP410
CE6-T31	VIP400 with motorization provision
CE6-T34, CE6-T35	VIP400 with motorization provision & metering ph-ph
CE6-T38	VIP400 with motorization prov. & metering ph-earth
CE6-T33, CE6-T39	VIP400 with metering ph-ph
CE6-T36, CE6-T37	VIP400 with metering ph-earth
Non-extensible switch unit SN6	
SN6-S2	motorization provision & EFPI CT
Extensible switch unit SE6	
SE6-S2	motorization provision & EFPI CT
Bus section	
CE6-B9	coupler with metering
CE6-B10	coupler with motorization provision & metering

Schematic legends

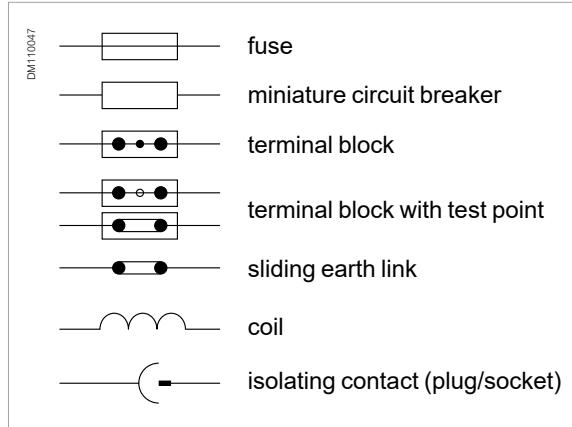
Specification

Fuse schedule

- F1** VT secondary 16 A/link metering
- F2** VT secondary 2 A/link metering

Legends

- EPS** earth position selected auxiliary
- MR** mechanism reset switch
- RL1** close relay
- RL2** open relay
- 52** circuit breaker
- 89** switch
- 96** direct acting trip coil
- TLF** time limit fuse
- /b** normally closed auxiliary contact
- /a** normally open auxiliary contact
- /c** normally open make auxiliary contact
- A** ammeter
- STC** shunt trip coil
- ITC** integral trip coil
- 50** instantaneous overcurrent
- 51** time delayed overcurrent
- 50N** instantaneous earth fault
- 51N** time delayed earth fault
- INC** minimum operating current
- M** actuator
- EFPI** earth fault passage indicator
- EPSR** earth position selector right
- EPSL** earth position selector left
- ESR** earth switch right
- ESL** earth switch left
- TRS** trip reset spring



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

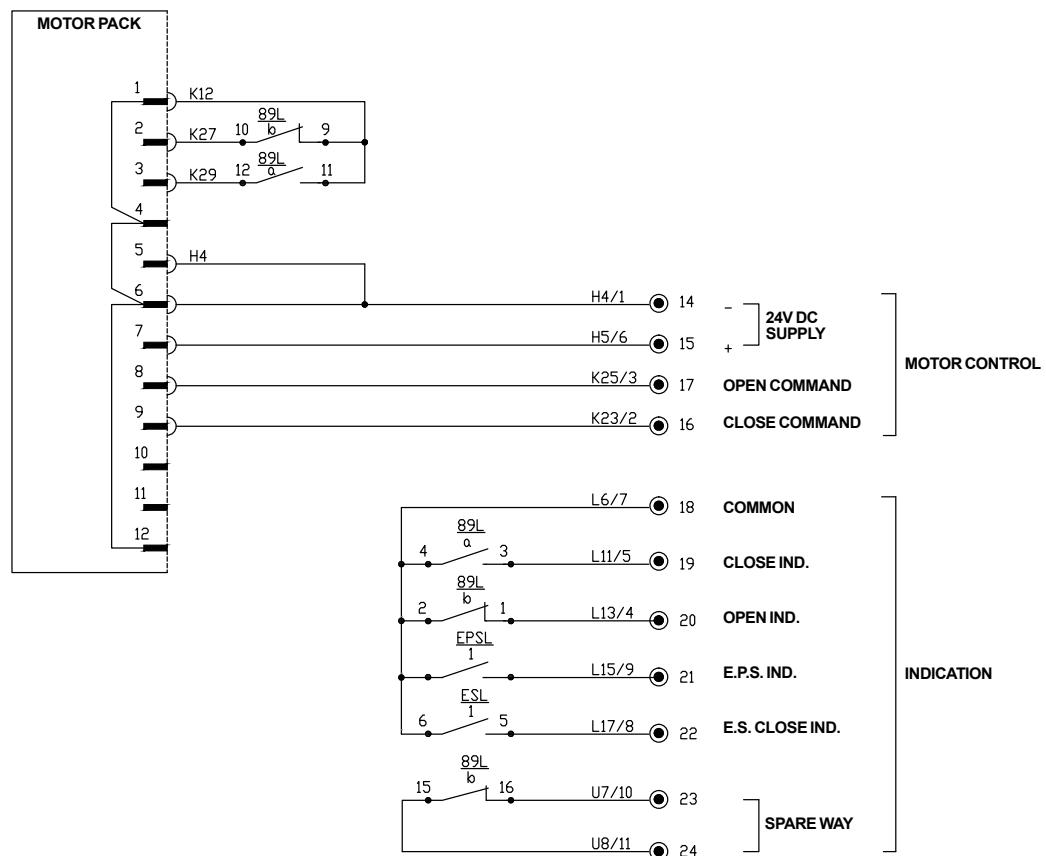
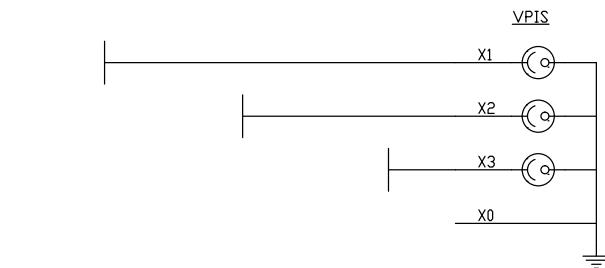
- CT1** 3 phase protection CT's
- CT2** 1 phase indication CT
- CT3** 2 phase metering CT
- CT4** Easergy T300 phase & earth fault Ct
- VT1** Ph-Ph metering VT (2 phases)
- VT2** Ph-E metering VT (3 phases)

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

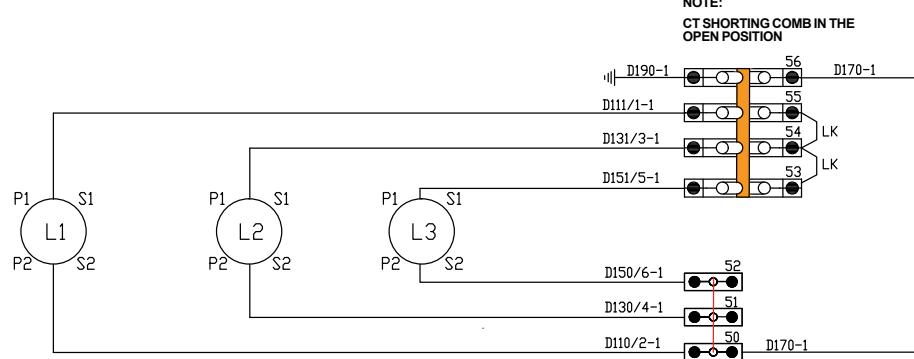
Ring main units accessories

Ringswitch 1

DM10048



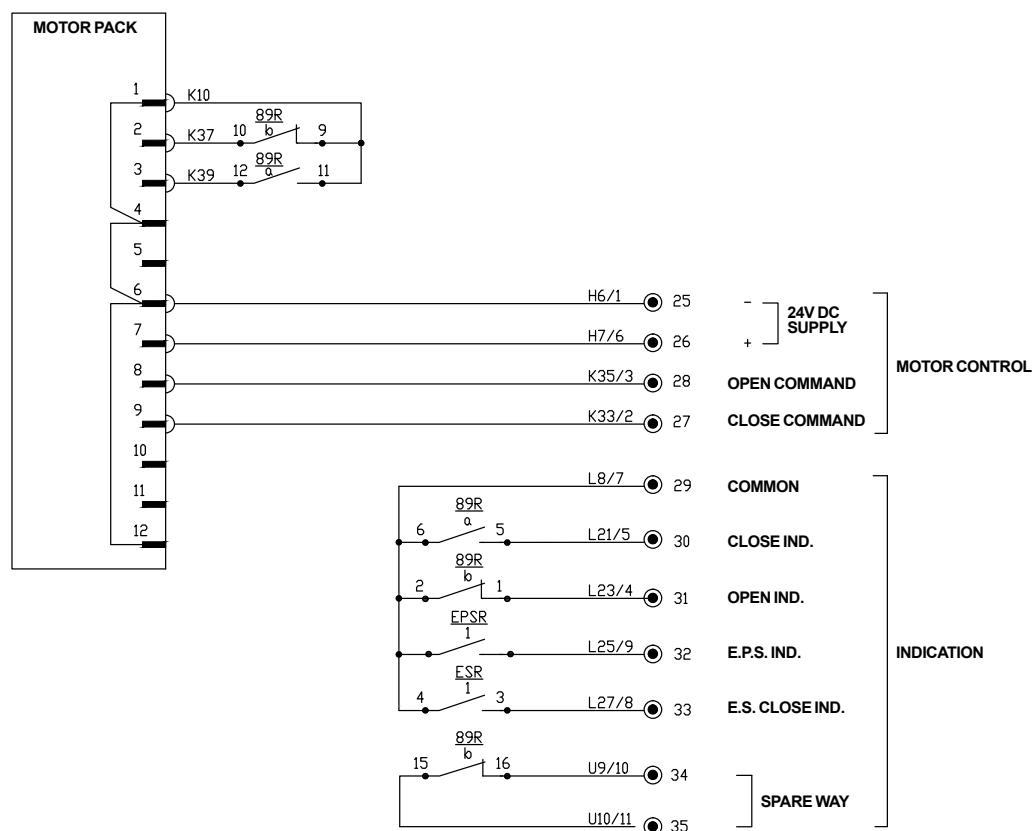
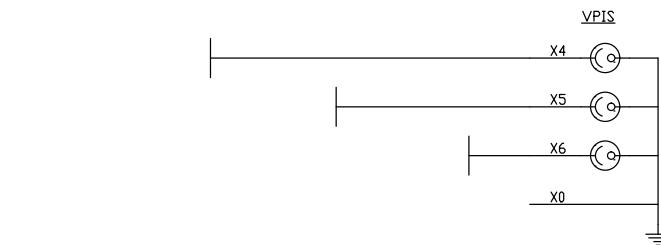
EFPI CT's
RATIO: 500/1A
CLASS: X



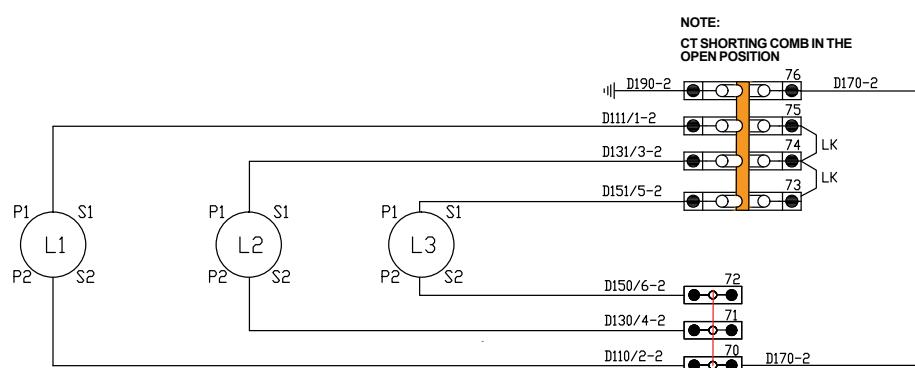
Ring main units accessories

Ringswitch 2

DM10049



EFPI CT's
RATIO: 500/1A
CLASS: X

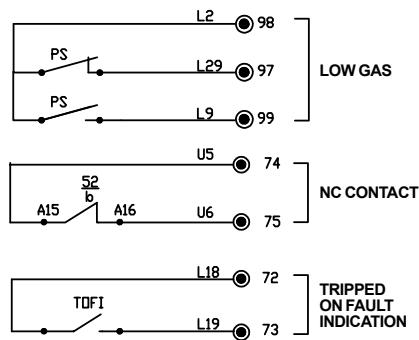
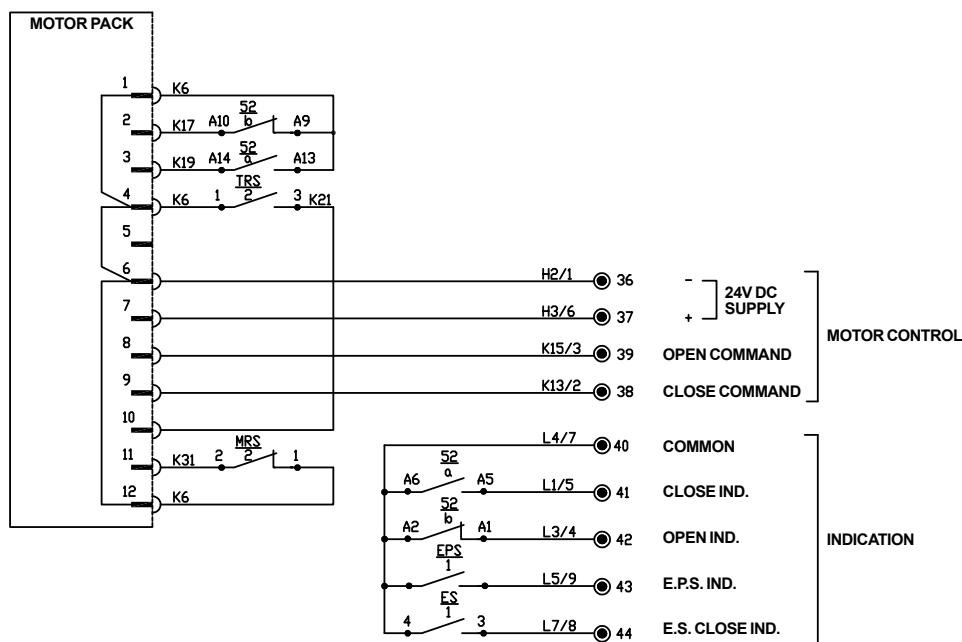
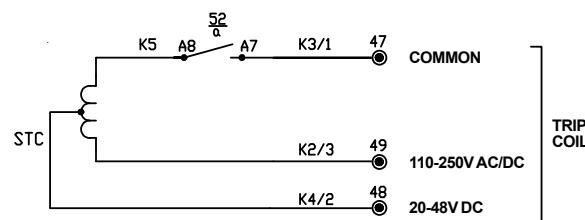
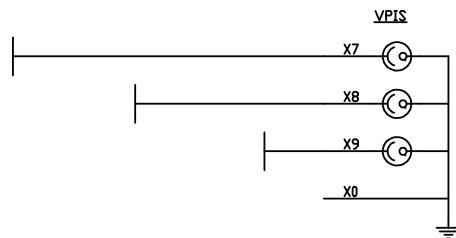


Ring main units accessories

Circuit breaker

CIRCUIT BREAKER

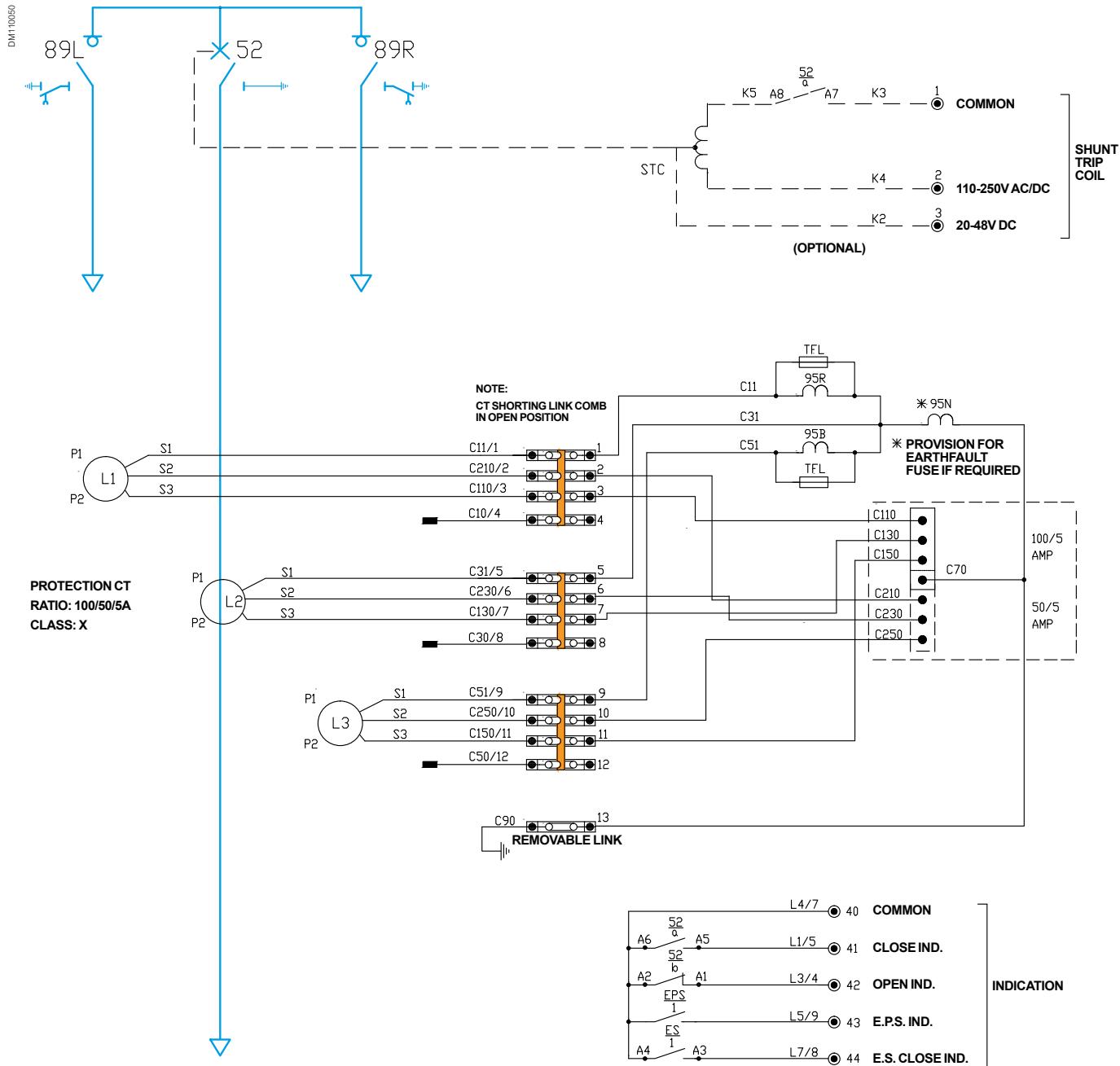
DM110001



Non-extensible / extensible ring main units

RN2d / RE2d

RN2d-T1, RE2d-T1 / TLF

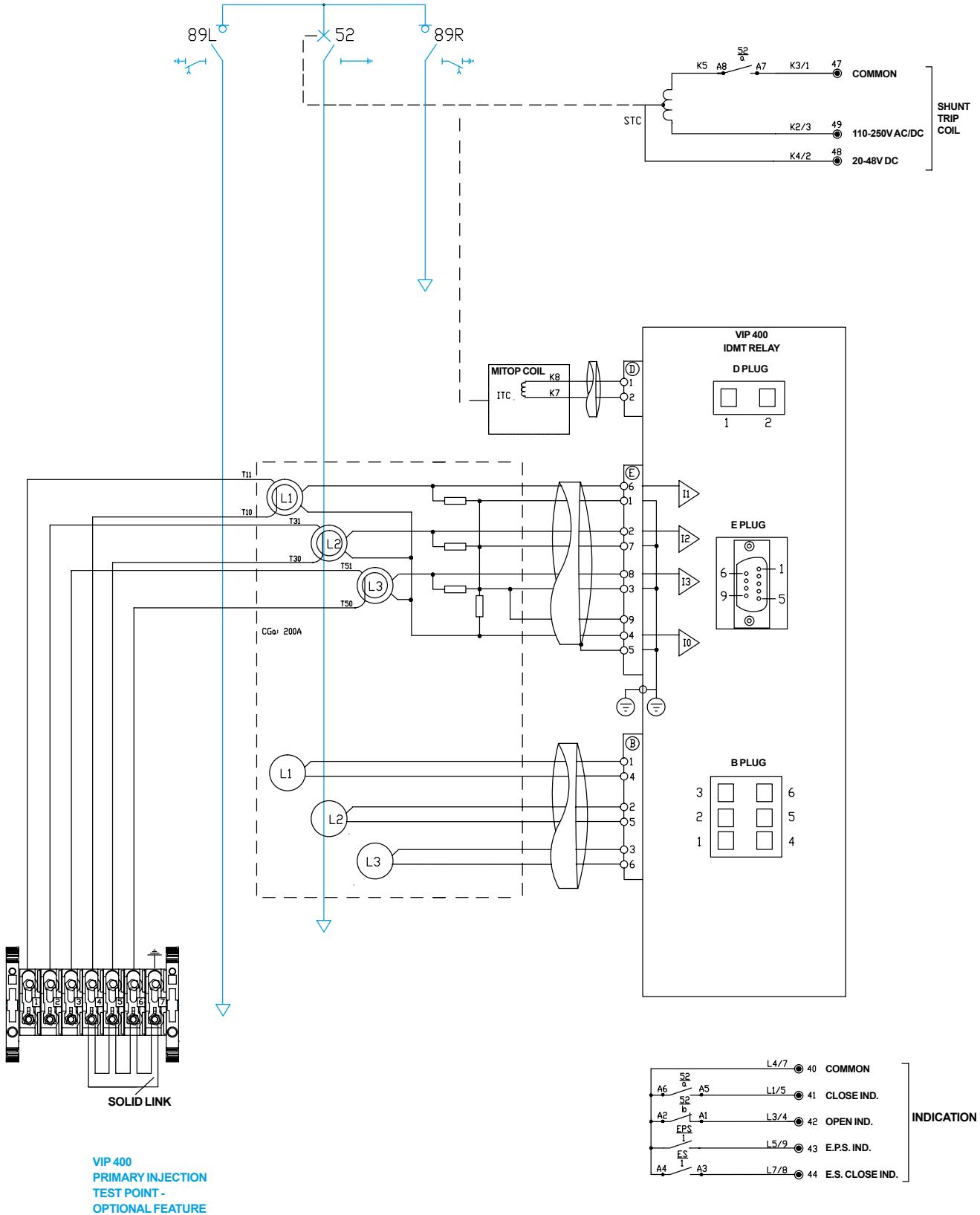


Non-extensible / extensible ring main units

RN2d / RE2d

RN2d-T2, RE2d-T2 / VIP400

DM10002

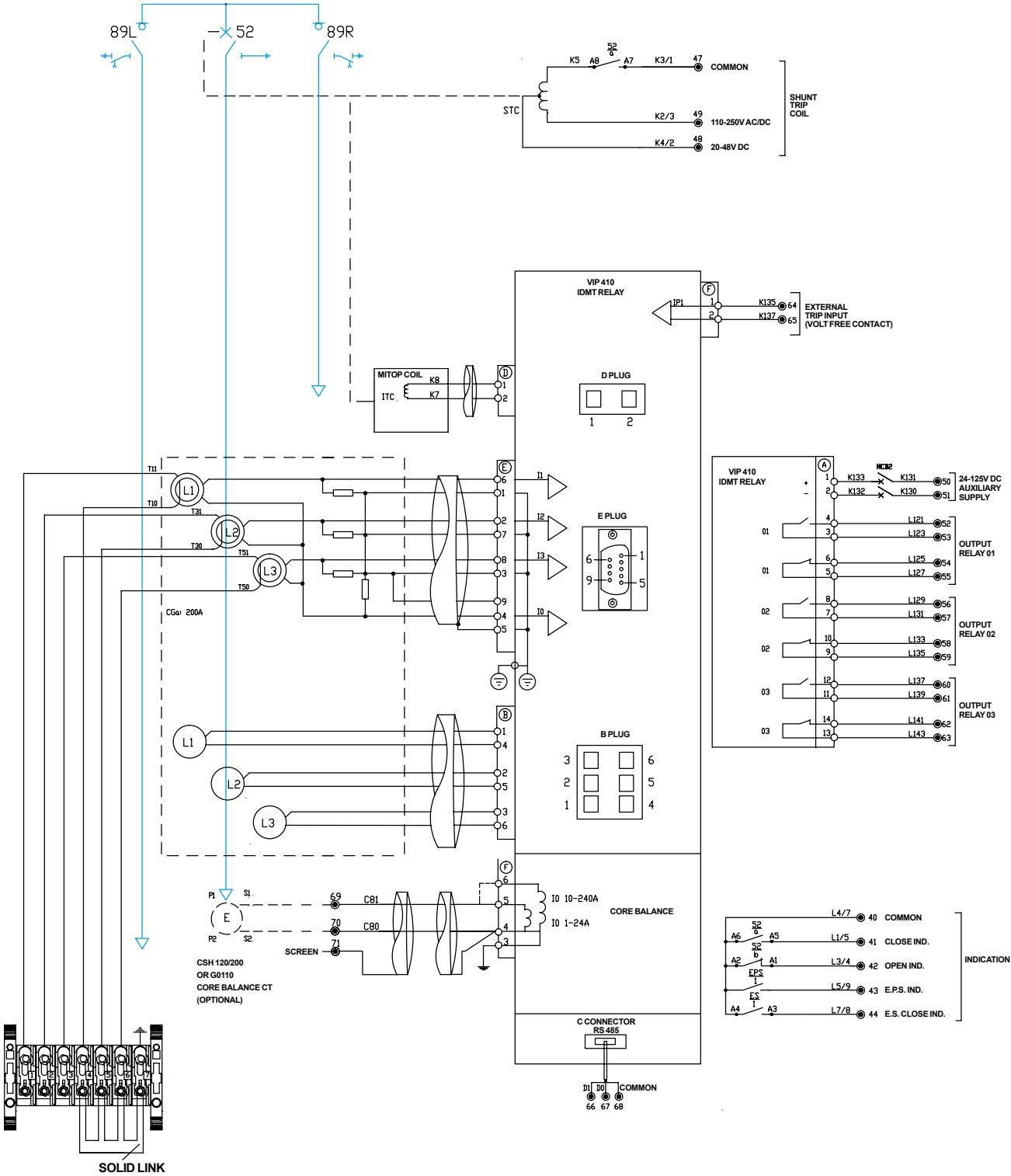


Non-extensible / extensible ring main units

RN2d / RE2d

RN2d-T3, RE2d-T3 / VIP410

DM10003

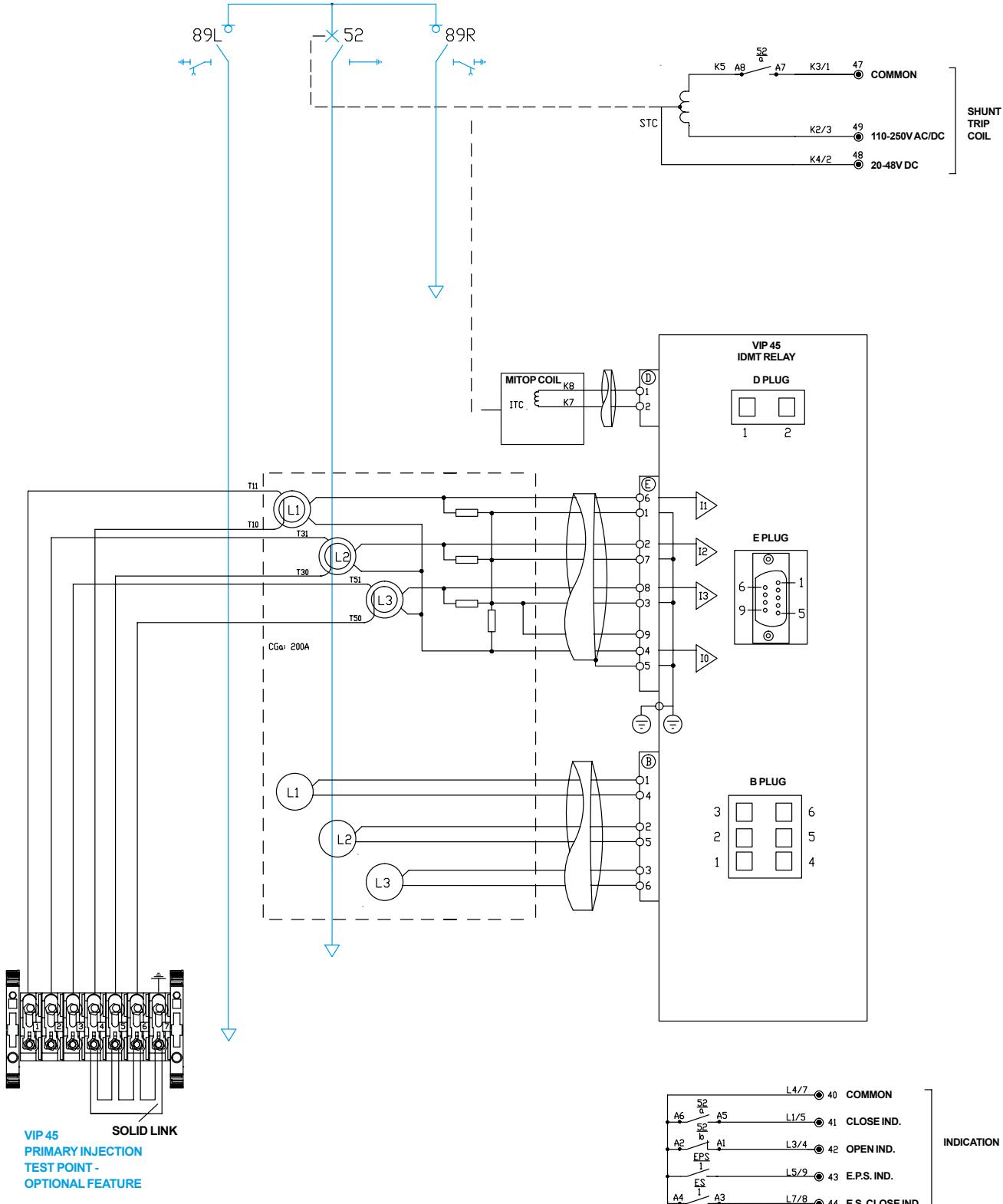


VIP 410
PRIMARY INJECTION
TEST POINT -
OPTIONAL FEATURE

Non-extensible / extensible ring main units

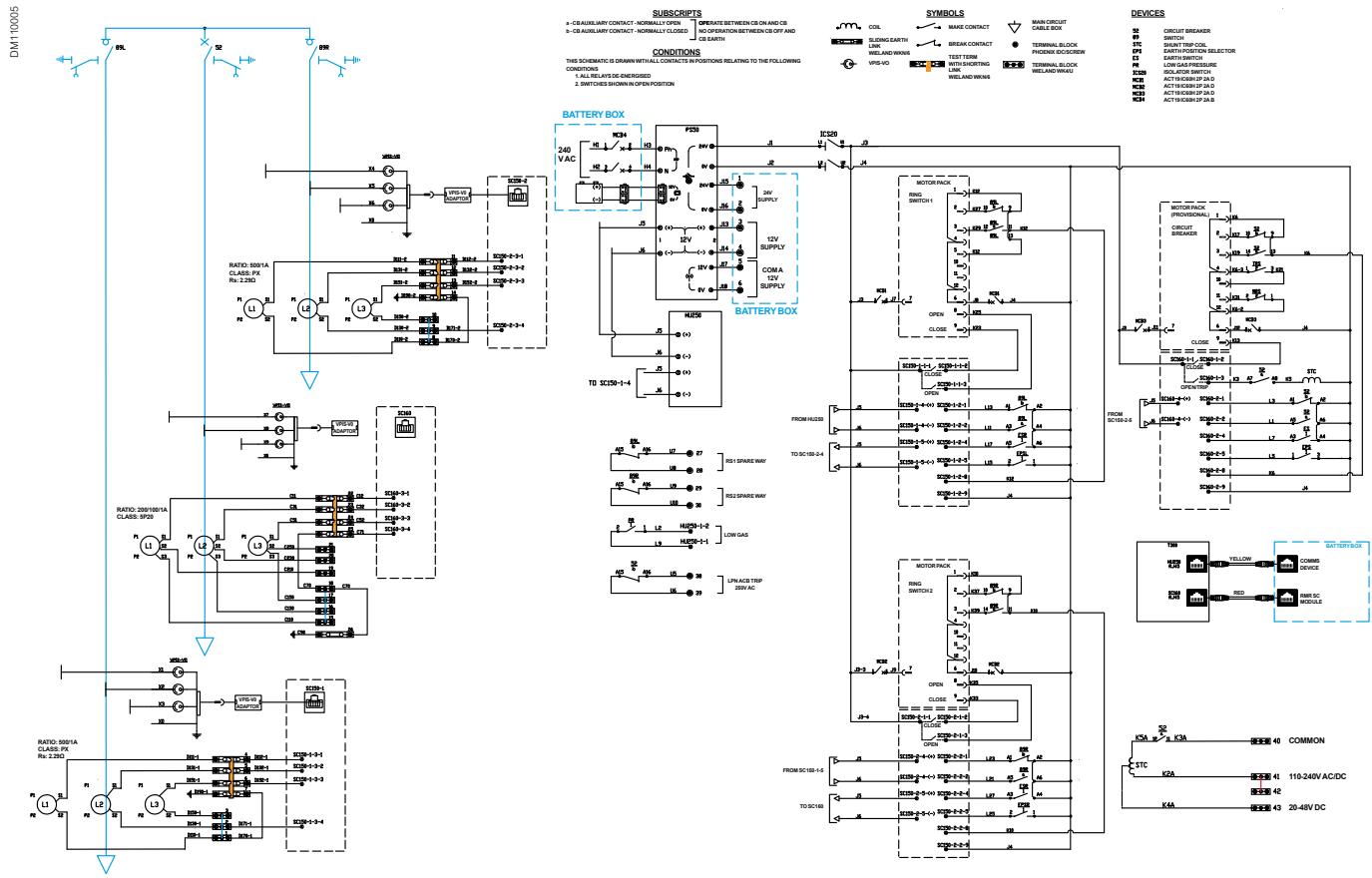
RN2d / RE2d RN2d-T4, RE2d-T4 / VIP45

DM10004



Non-extensible / extensible ring main units

RN2d-T5 with T300

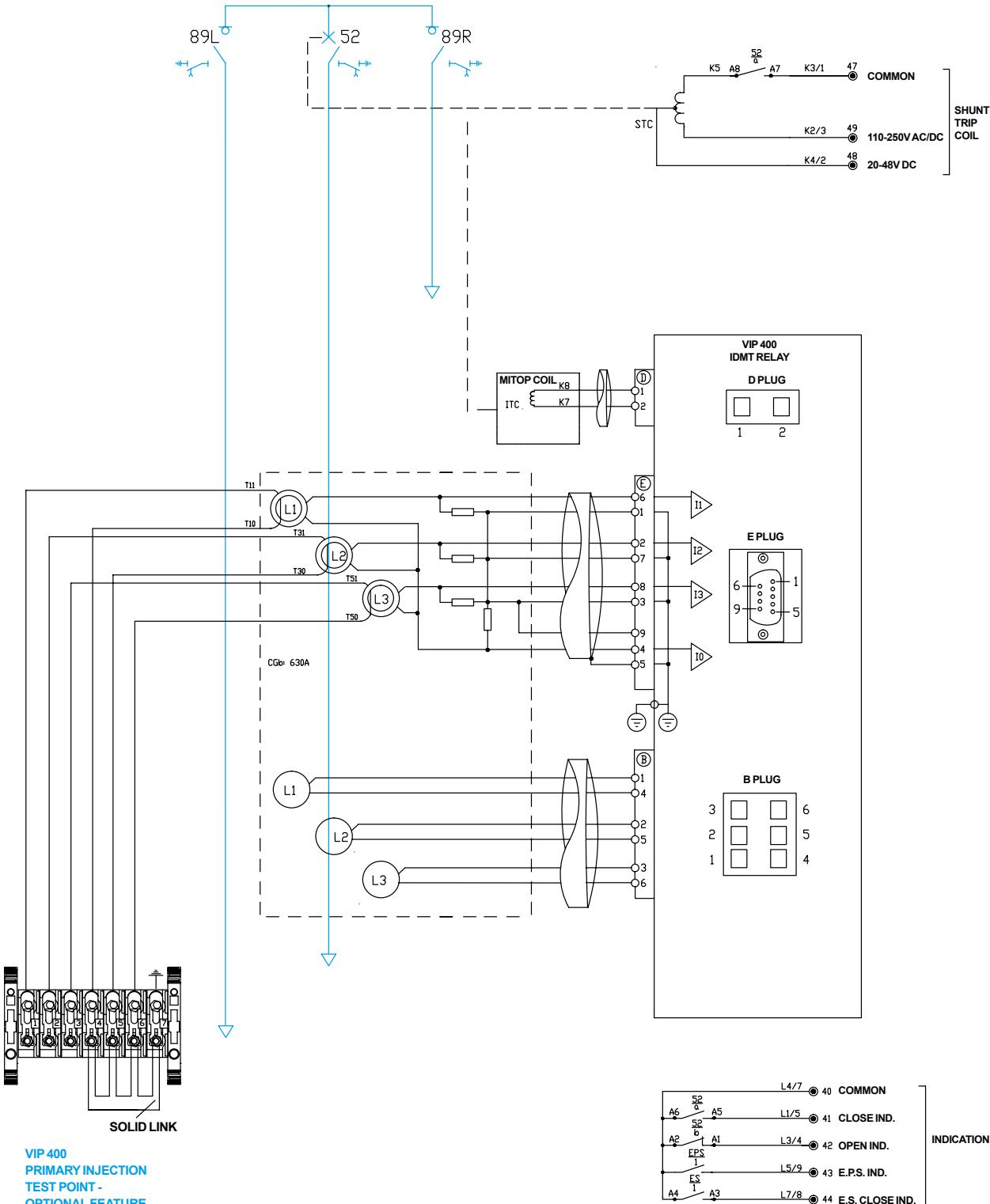


Non-extensible ring main unit

RN6d

RN6d-T1 / VIP400

DM110096

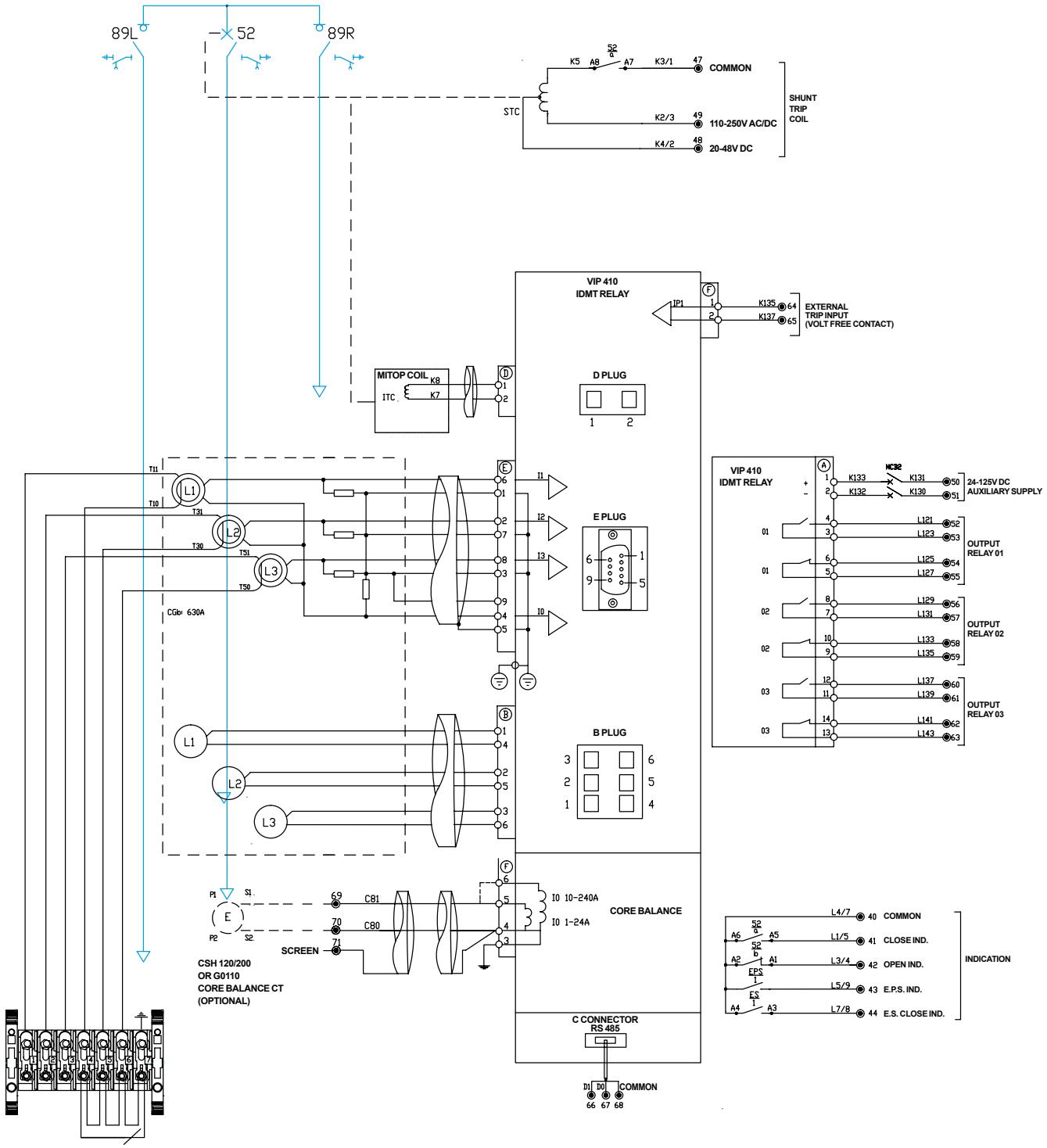


Non-extensible ring main unit

RN6d

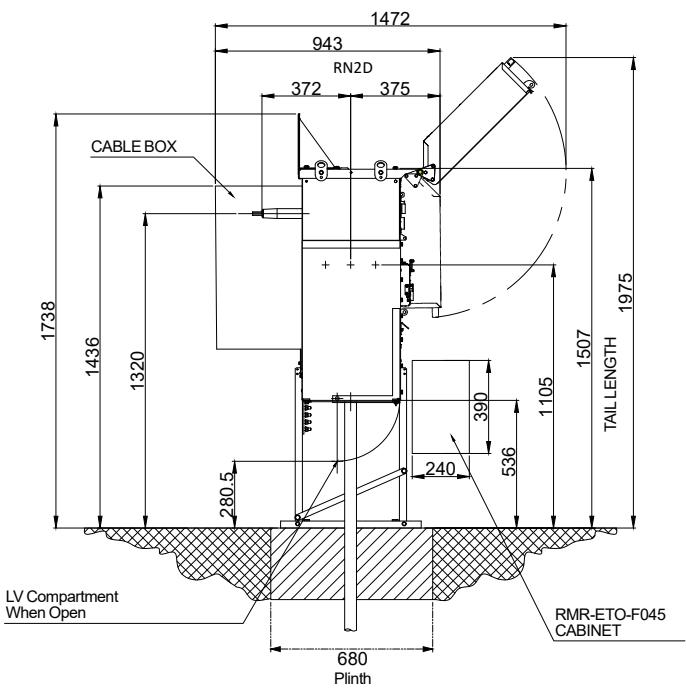
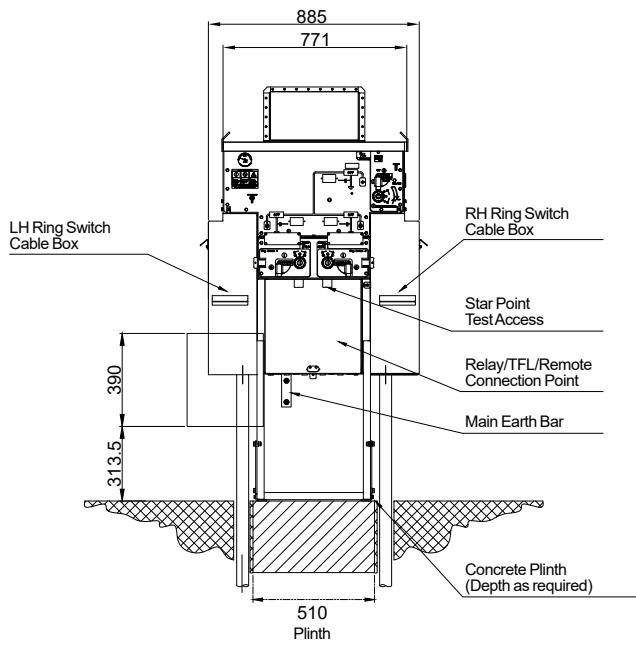
RN6d-T3 / VIP410

DM110007



Non-extensible ring main unit RN2d

DM10008

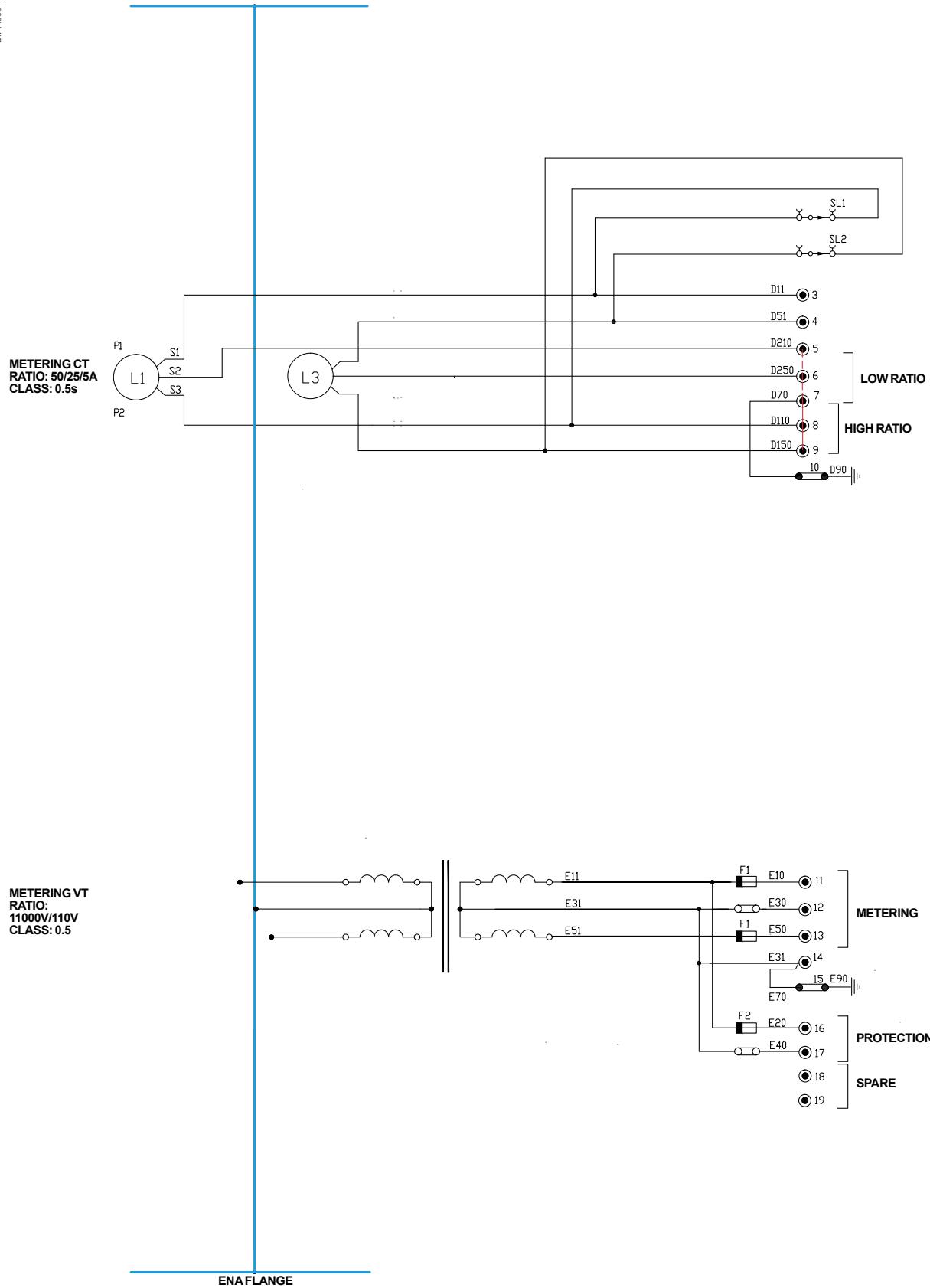


Non-extensible metering units

MU2d / MU6d

MU2d-M1, MU2d-M2, MU2d-M3 / MU6d-N1, MU6d-N2, MU6d-N3, MU6d-N5 / Ph-ph VT

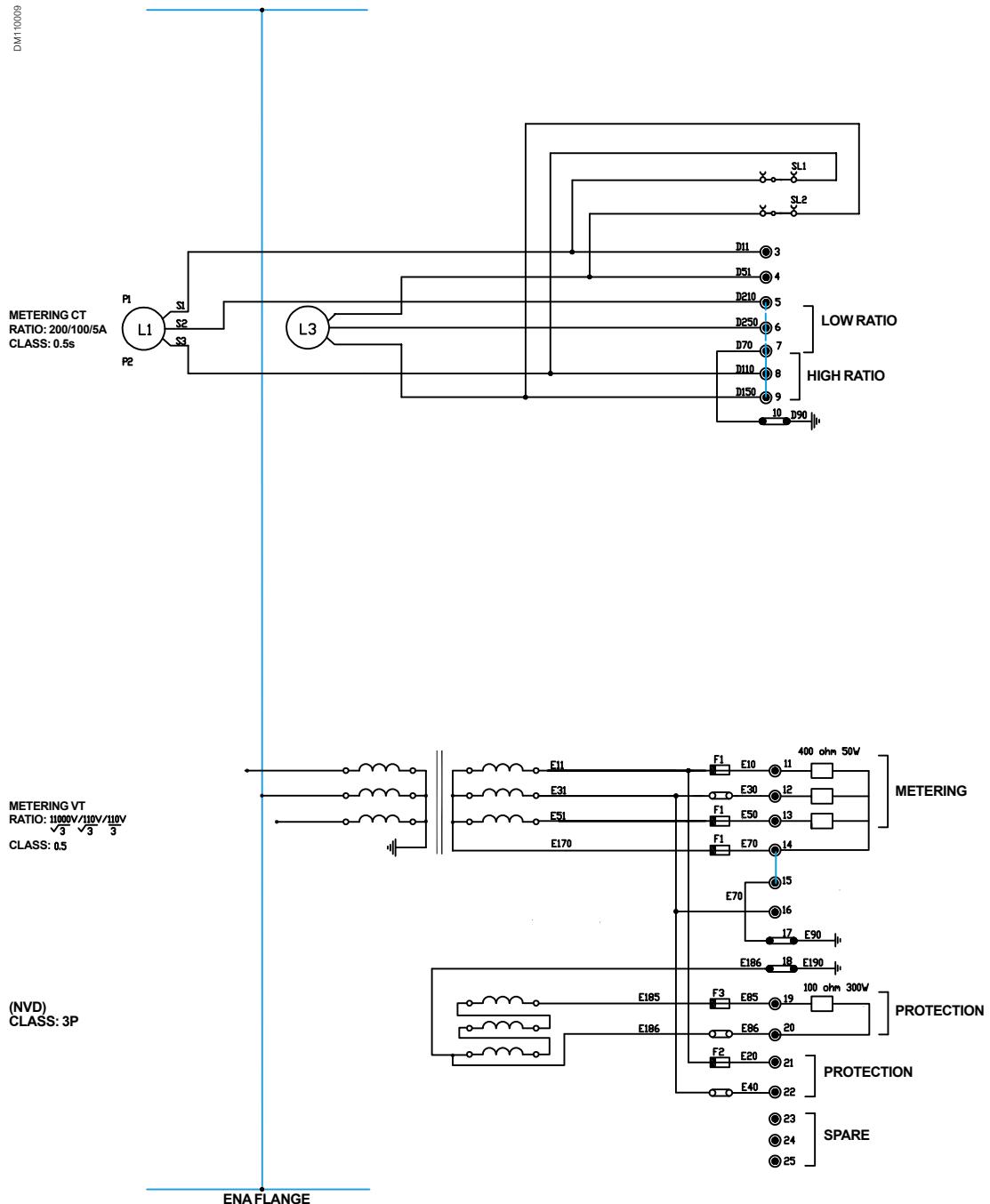
DM10051



Non-extensible metering units

MU2D / MU6d

MU2d-M12 / Ph-earth VT

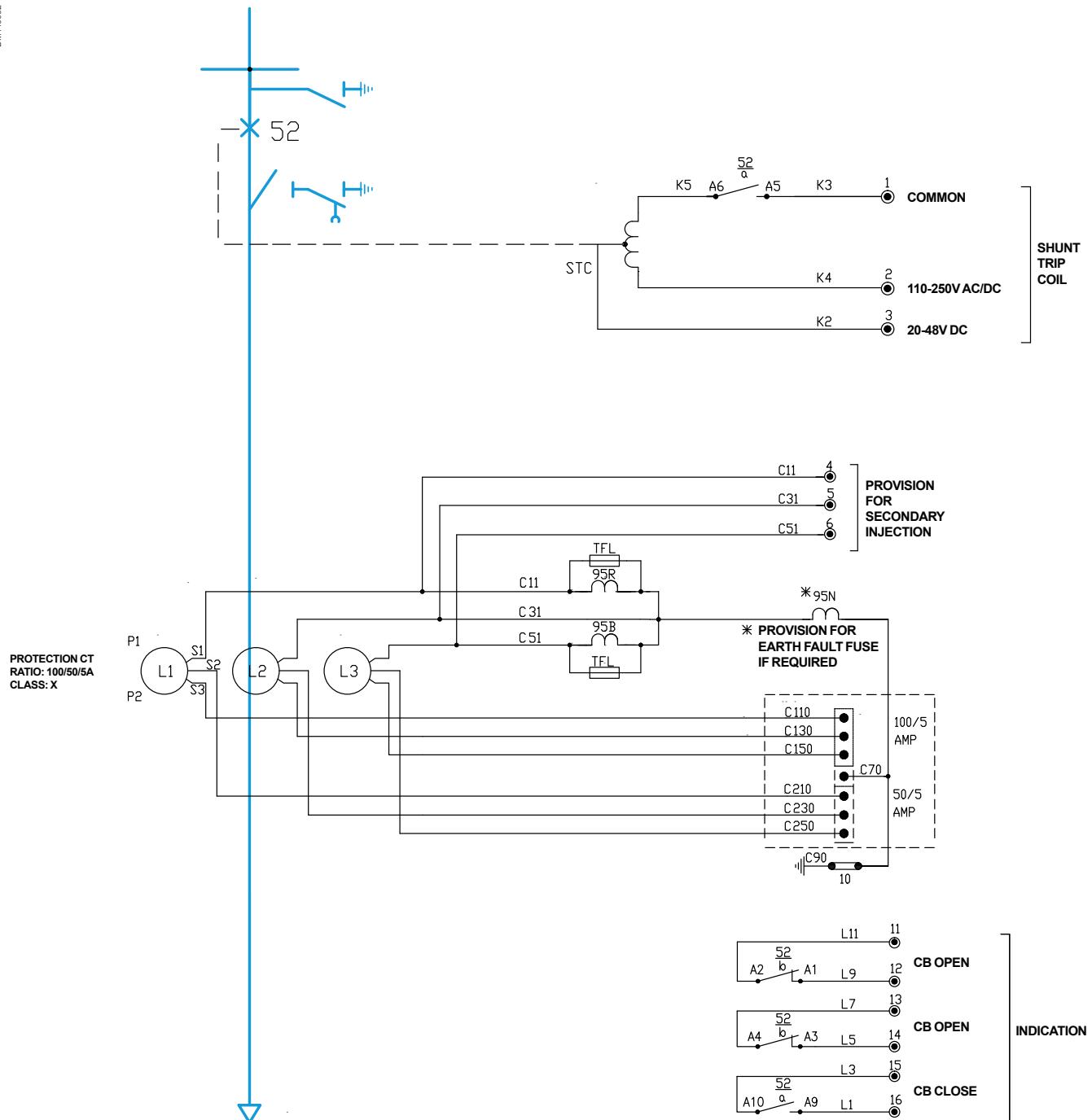


Non-extensible CB units

CN2

CN2-T6 / TLF

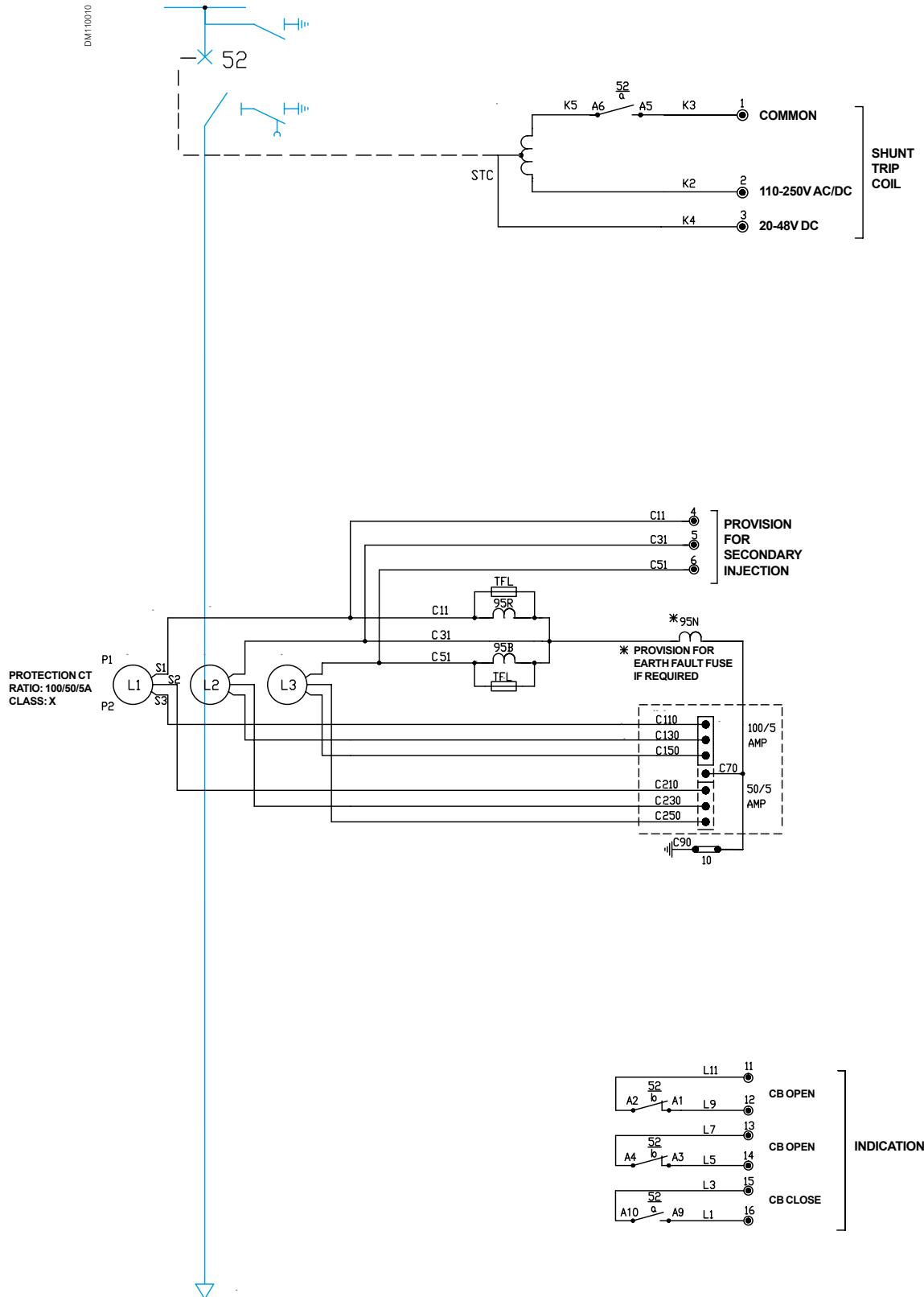
DM10052



Non-extensible CB units

CN2

CN2-T9 / VIP400

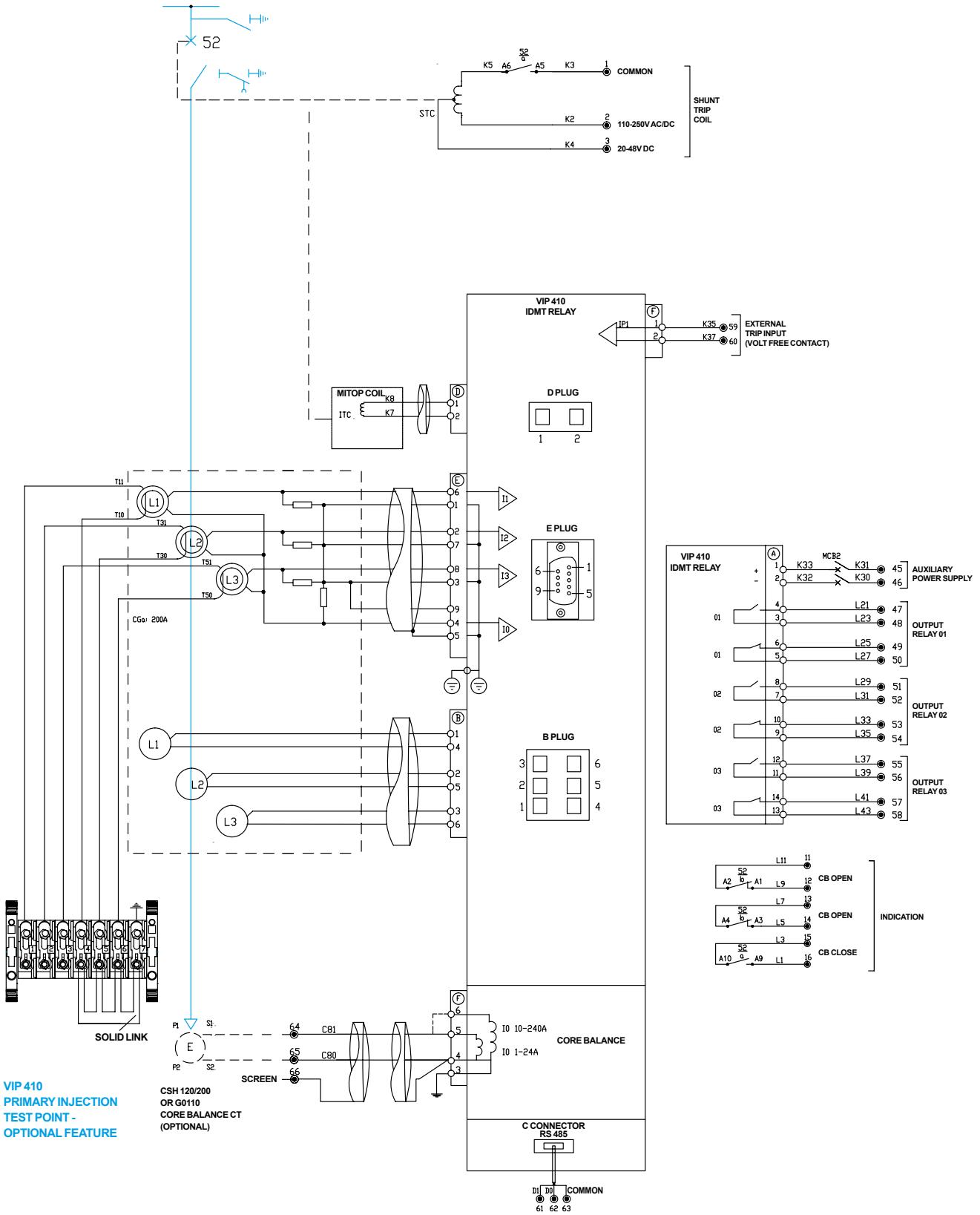


Non-extensible CB units

CN2

CN2-T10 / VIP410

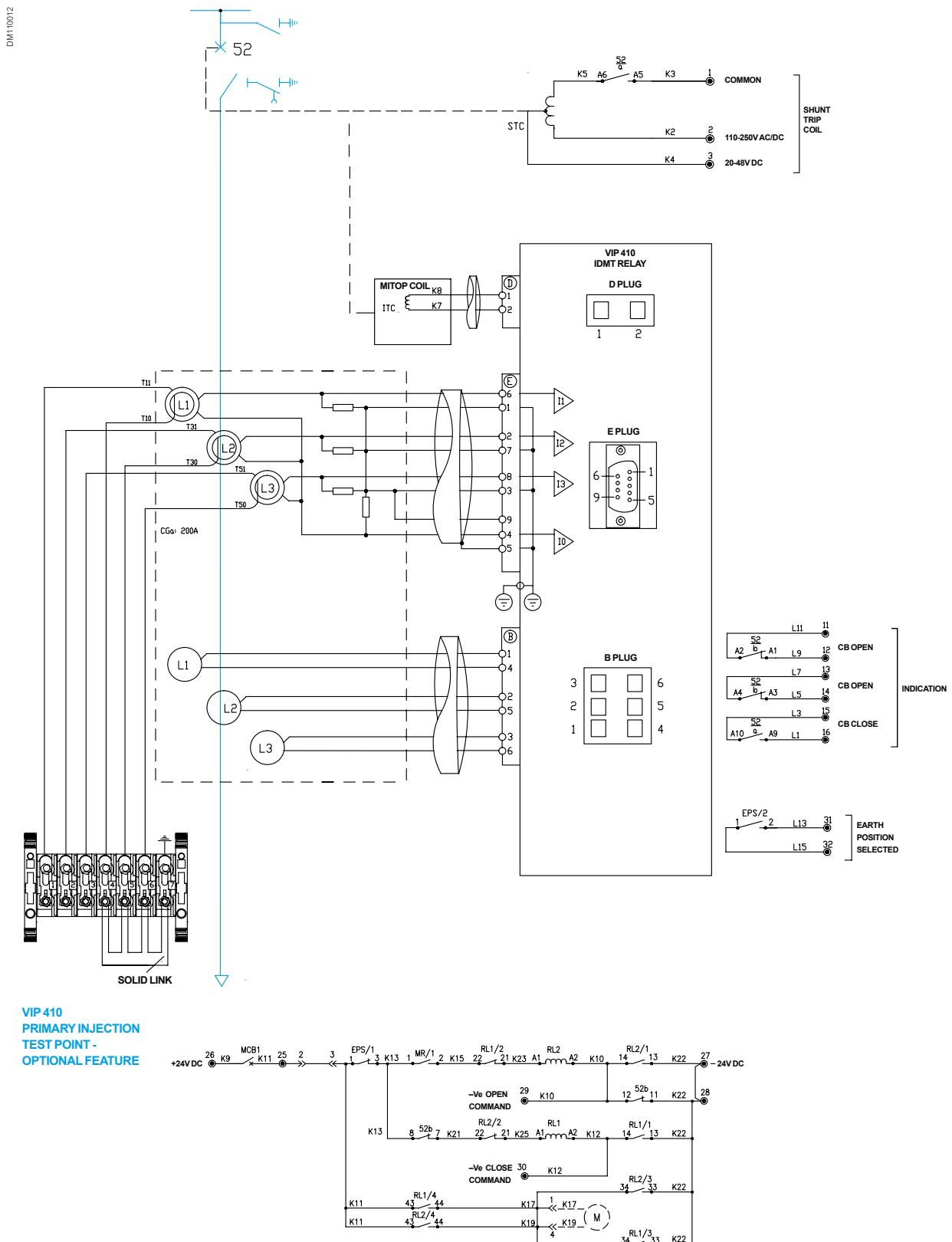
DM10011



Non-extensible CB units

CN2

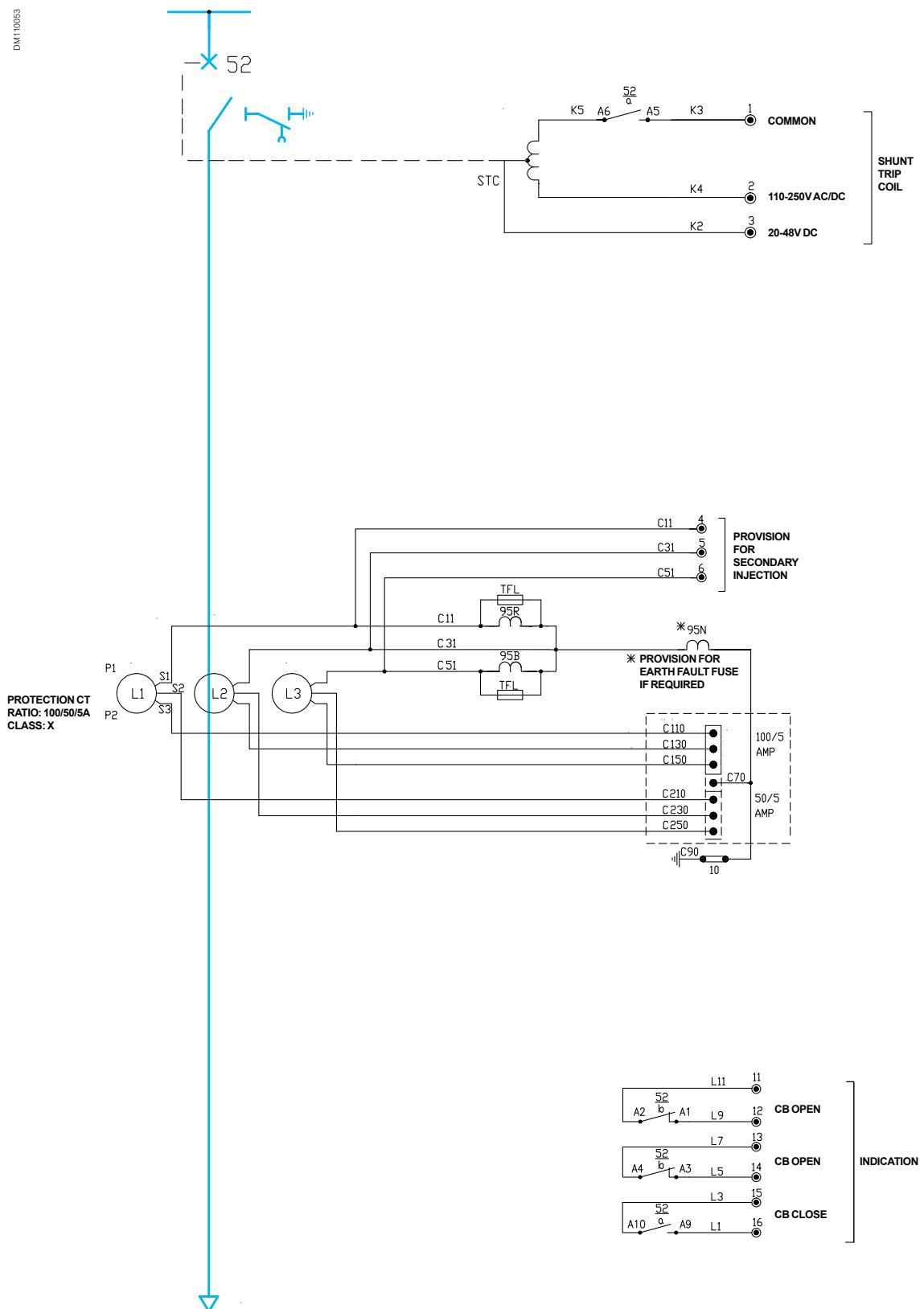
CN2-T11 / VIP400 with motor provision



Extensible circuit breaker units

CE2

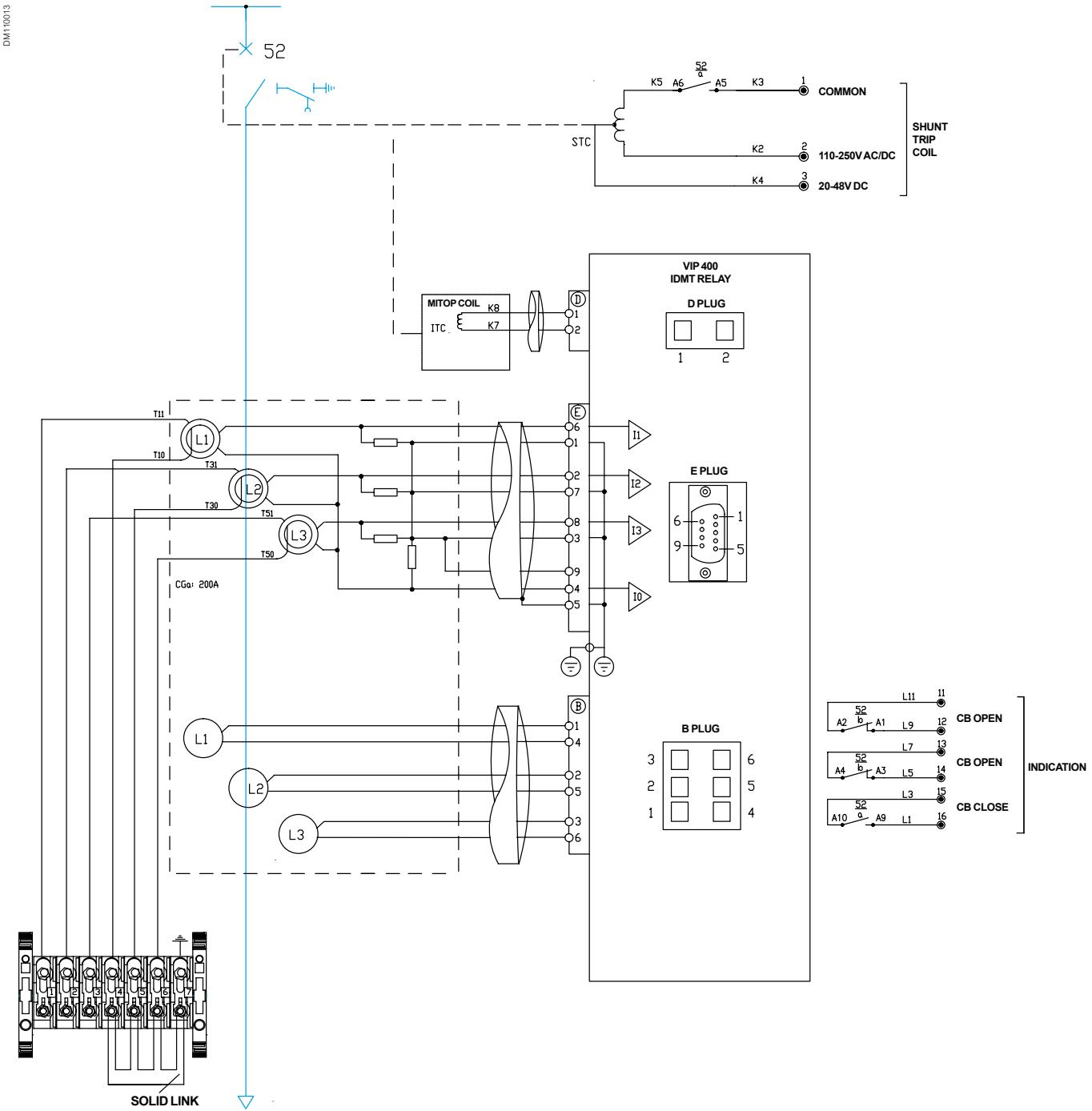
CE2-T7 / TLF



Extensible circuit breaker units

CE2

CE2-T30 / VIP400



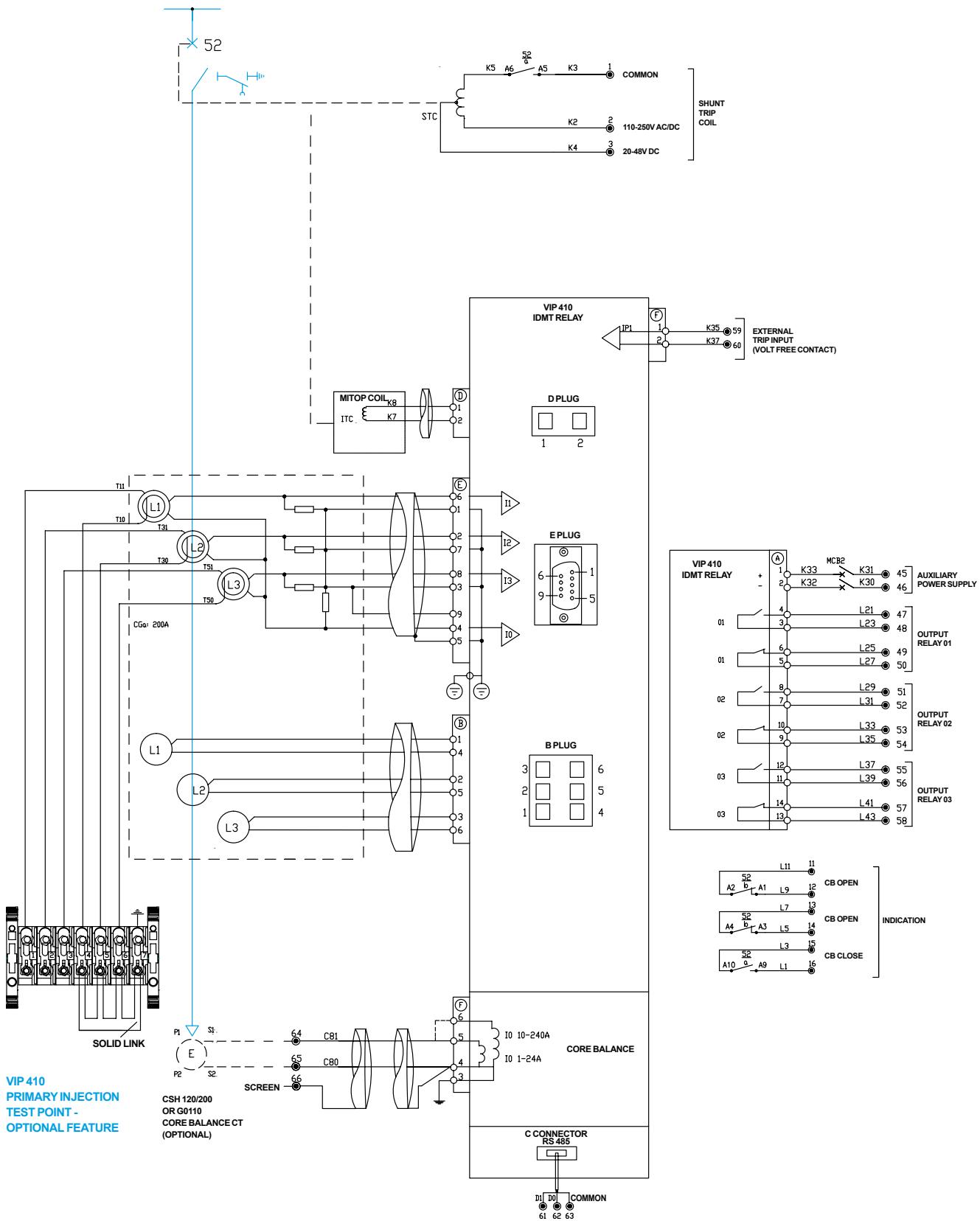
VIP 400
PRIMARY INJECTION
TEST POINT -
OPTIONAL FEATURE

Extensible circuit breaker units

CE2

CE2-T41 / VIP410

DM10014

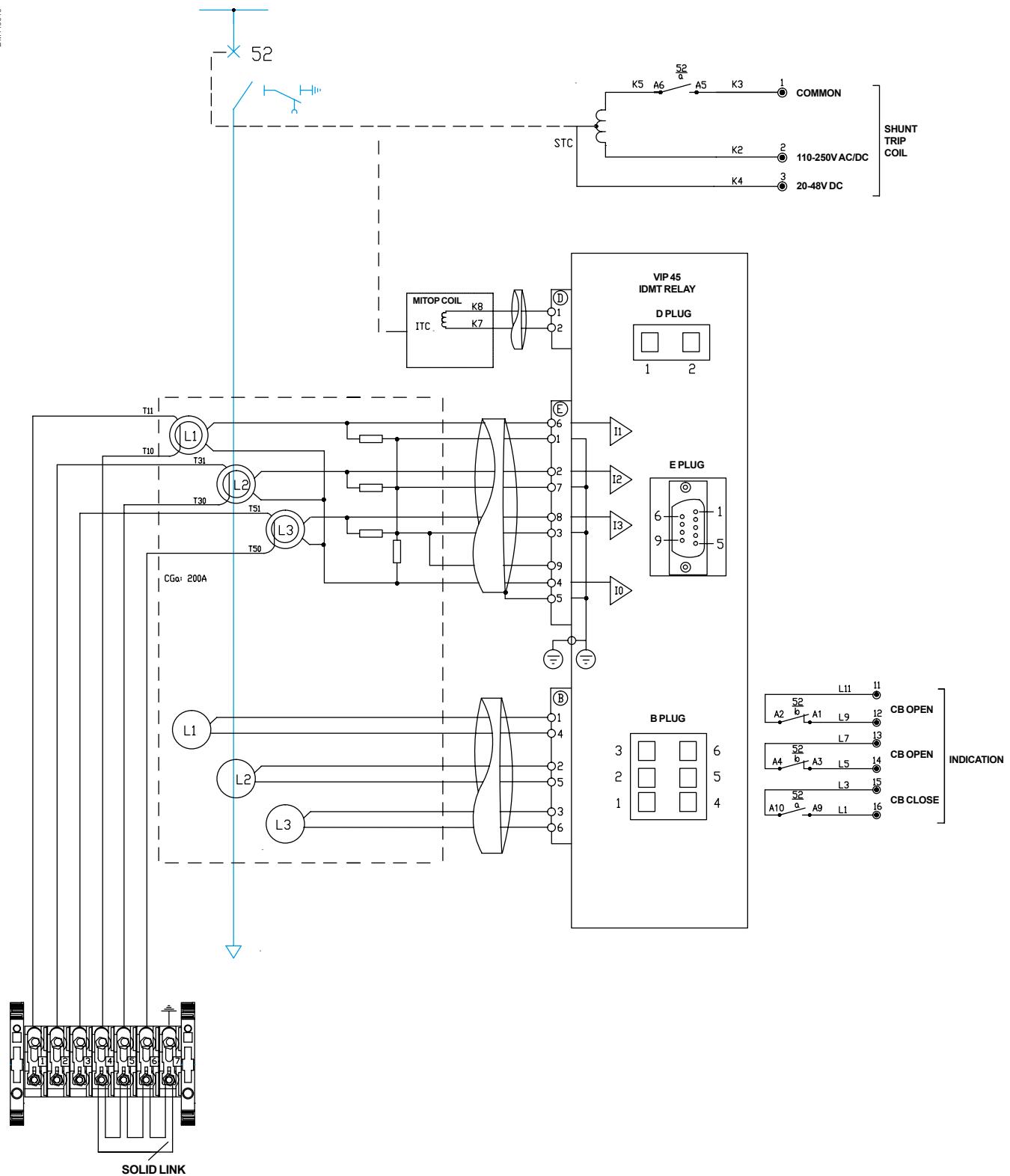


Extensible circuit breaker units

CE2

CE2-T34 / VIP45

DM10015

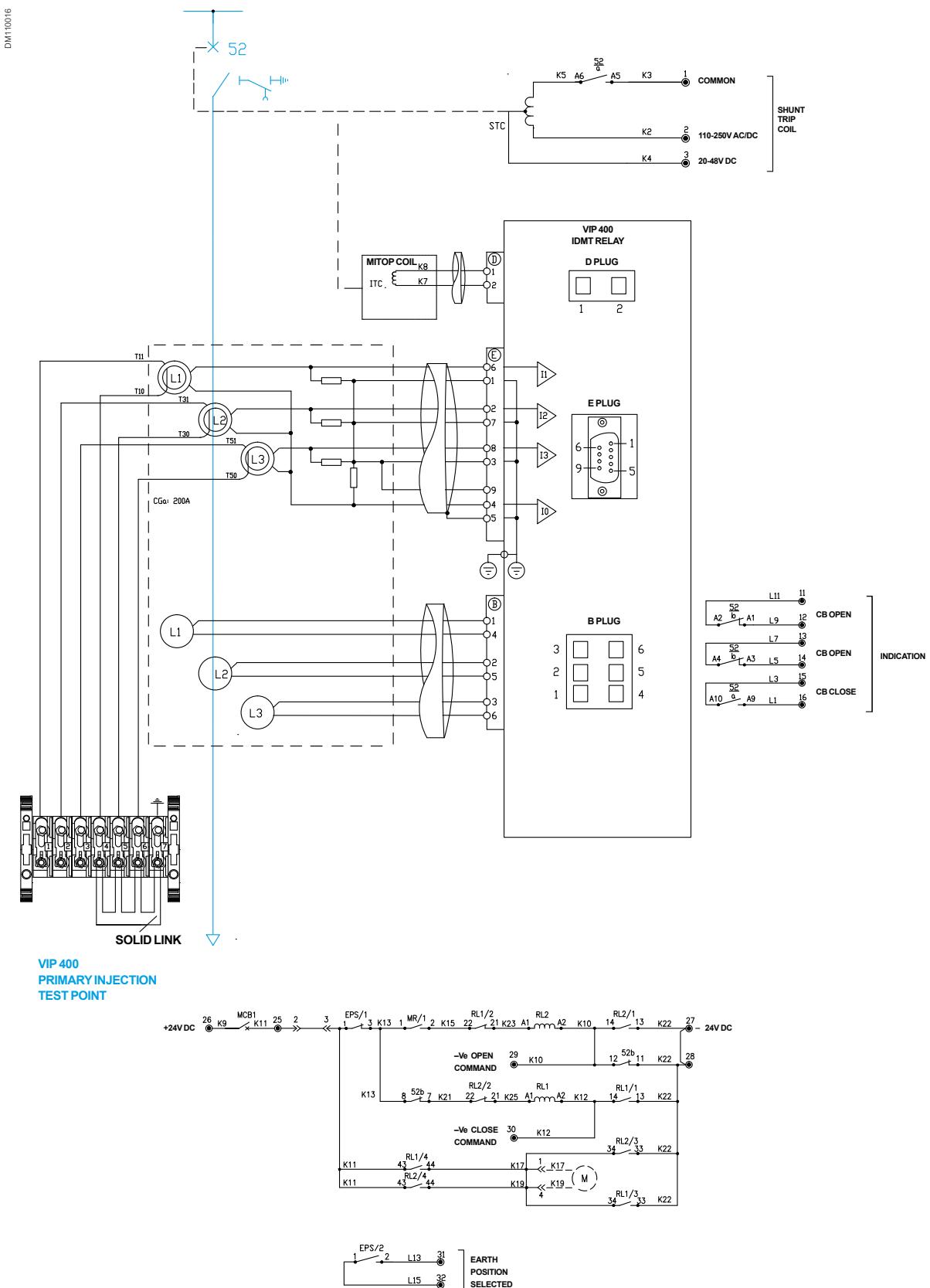


VIP 45
PRIMARY INJECTION
TEST POINT -
OPTIONAL FEATURE

Extensible circuit breaker units

CE2

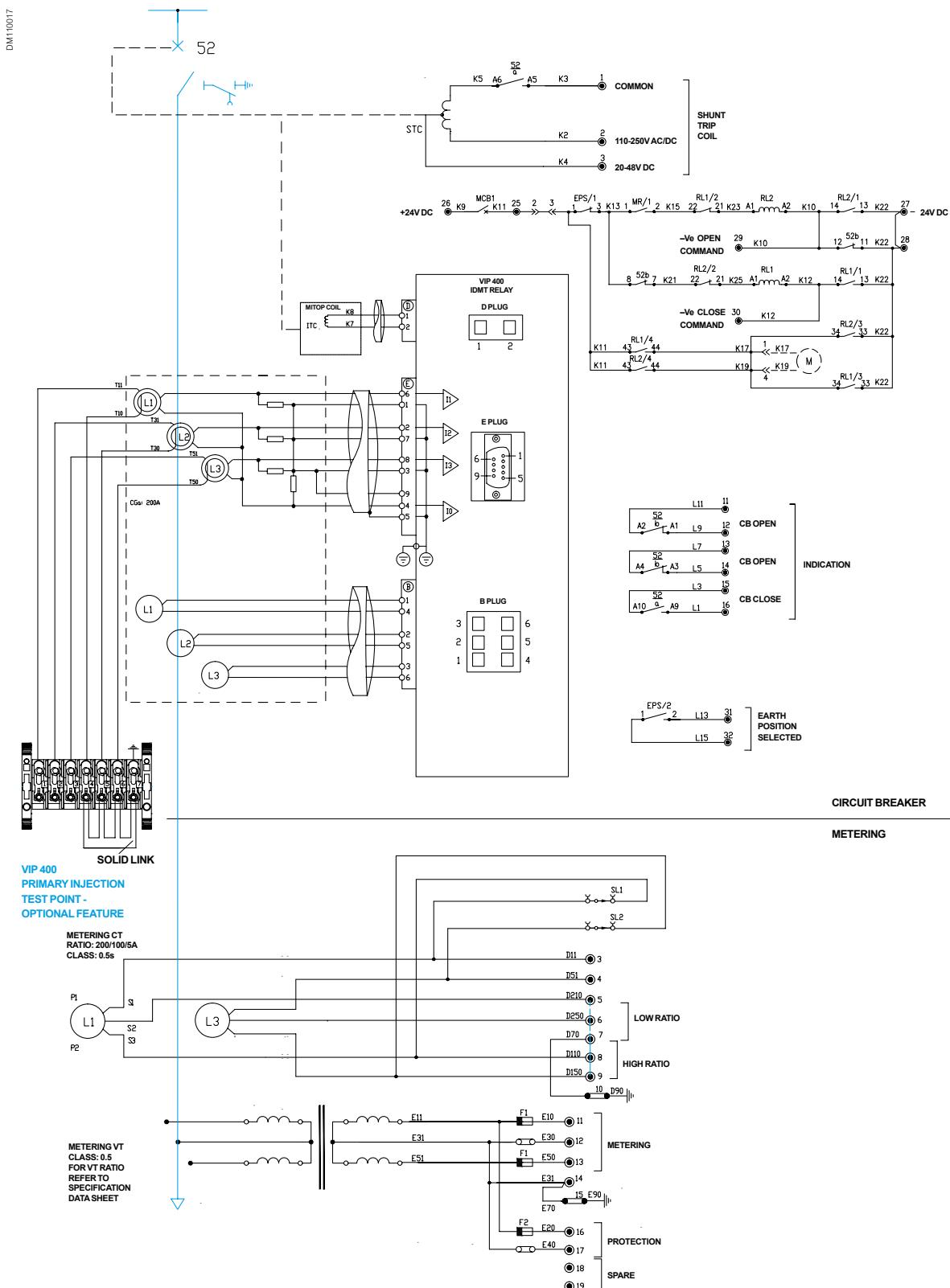
CE2-T31 / VIP400 with motor provision



Extensible circuit breaker units

CE2

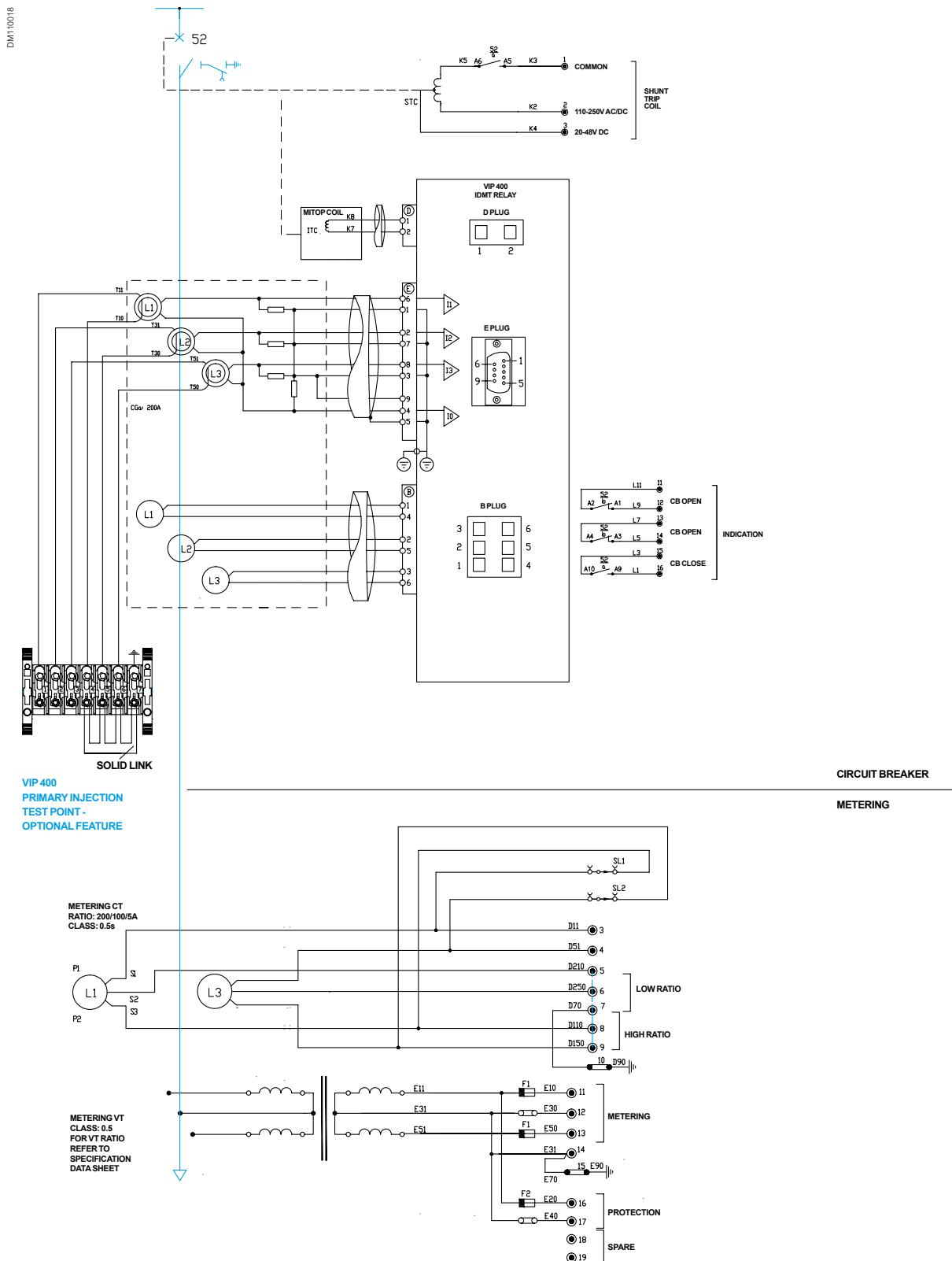
CE2-T36, CE2-T35, CE2-T39 / VIP 400 with motor provision & metering ph-ph VT



Extensible circuit breaker units

CE2

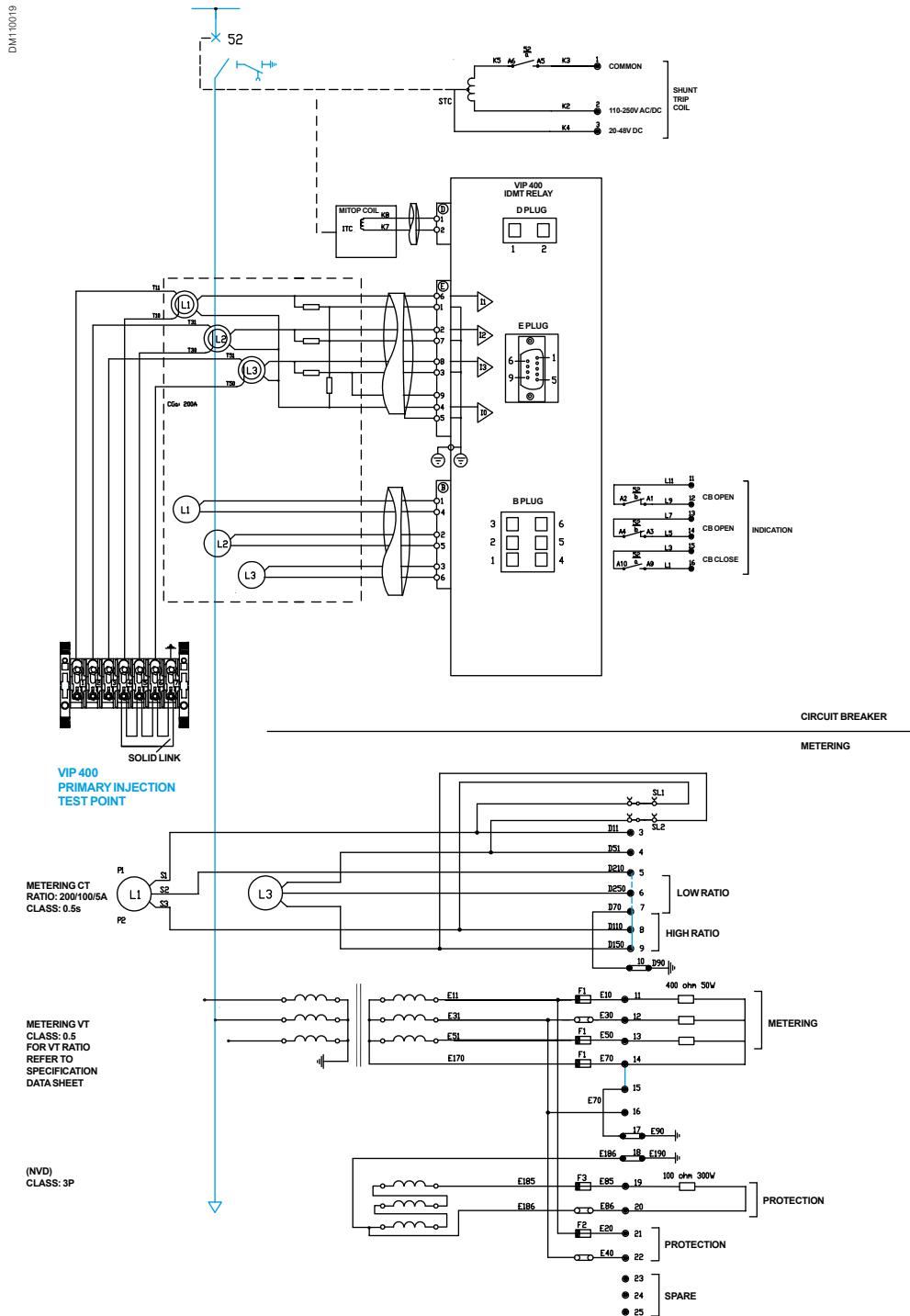
CE2-T32 / VIP 400 with metering ph-ph VT



Extensible circuit breaker units

CE2

**CE2-T37, CE2-T38 / VIP 400 with metering
ph-earth VT**



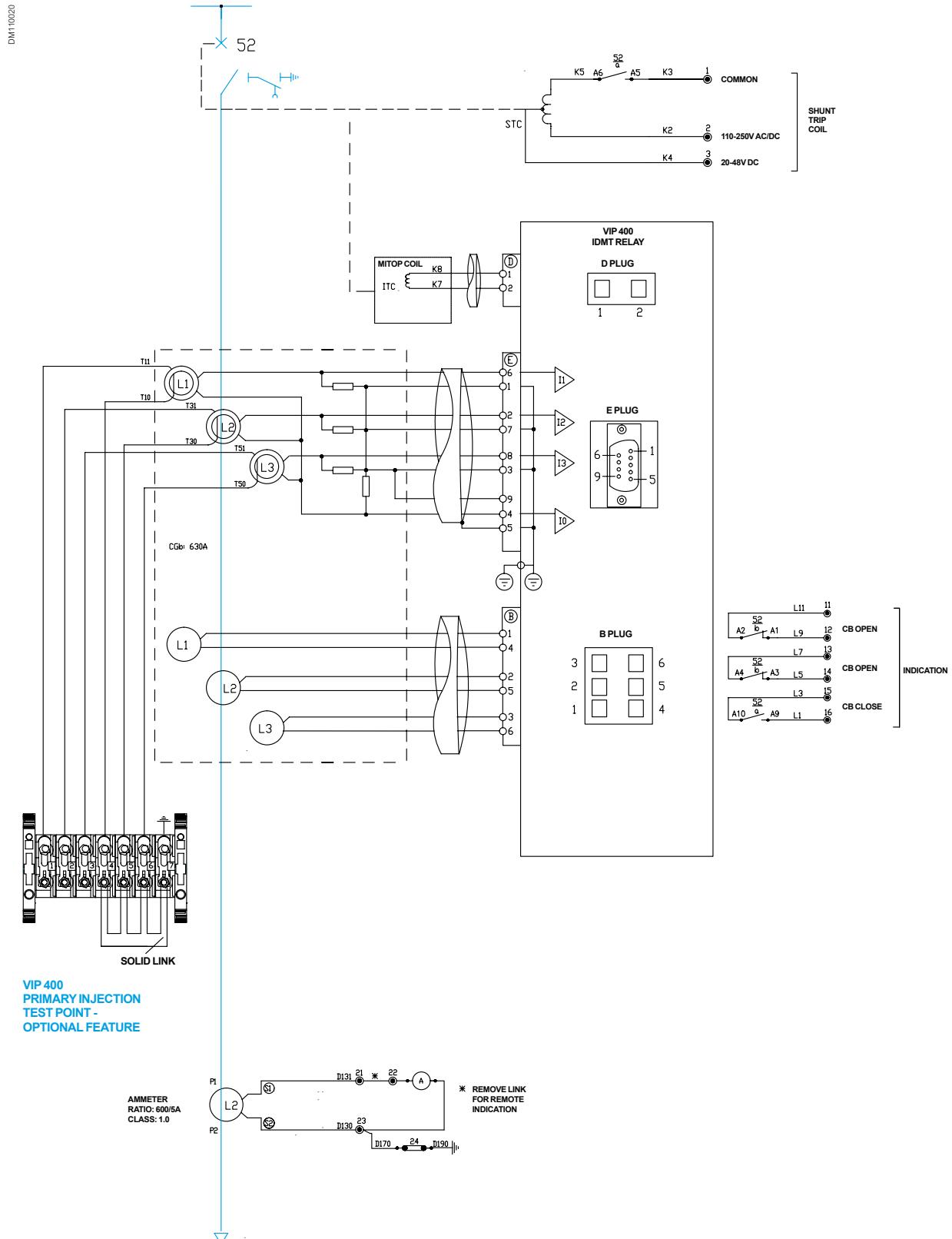
Note:

Note: To mitigate the affects of ferroresonance on the VT and strikethrough that the VT's are working inside the accuracy class it is recommended that the main secondary winding is loaded to a minimum of 20% full load current. If a high impedance meter is used then the 20% load can be achieved by connecting a 400Ω 50W resistor to each phase across terminals 11, 12 & 13, these should be connected in star with the star point connected to terminal 14. It is also recommended to fit a 100Ω 300W resistor directly across the open delta secondary winding (terminals 19 – 20).

Extensible circuit breaker units

CE6

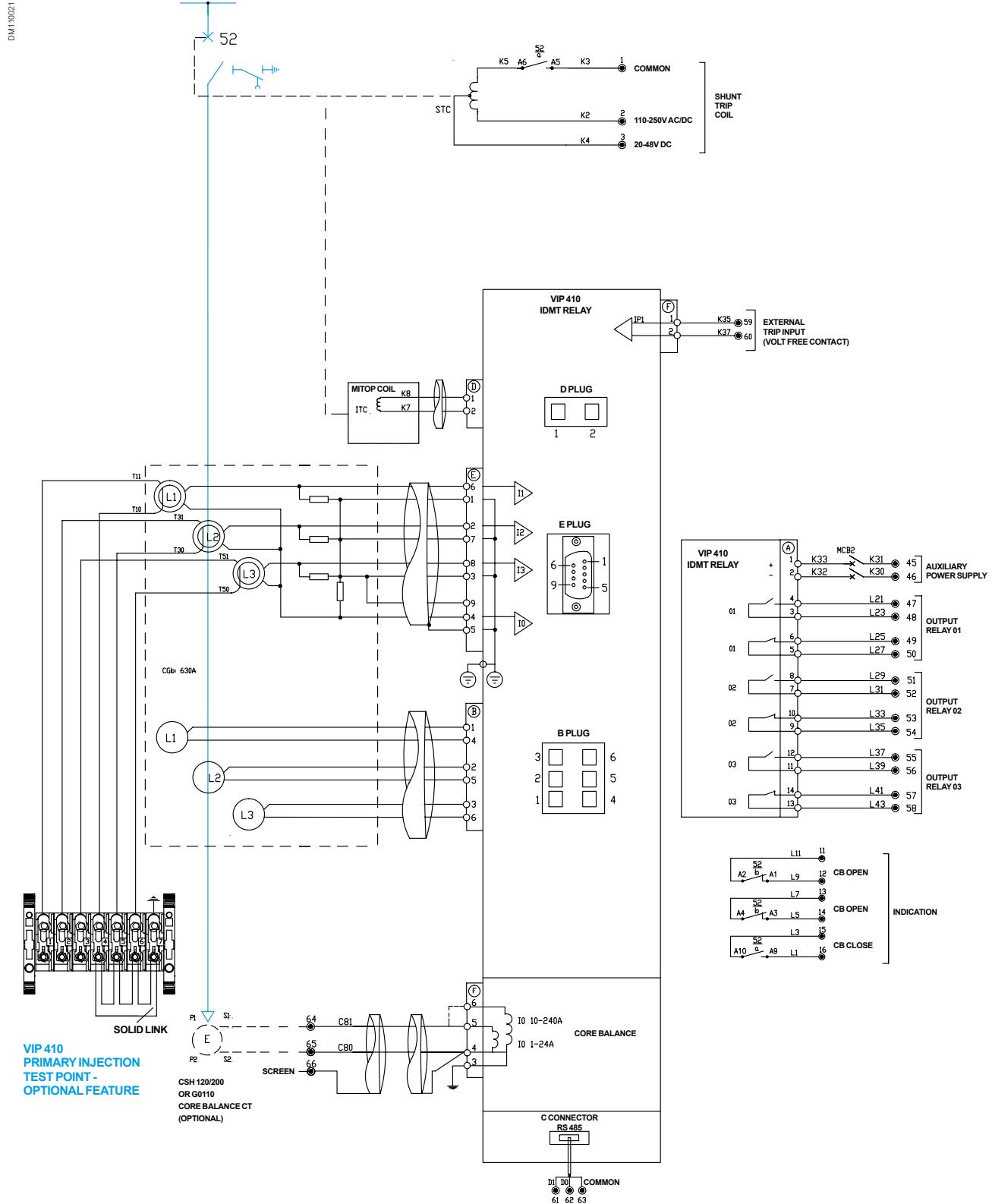
CE6-T30 / VIP 400



Extensible circuit breaker units

CE6

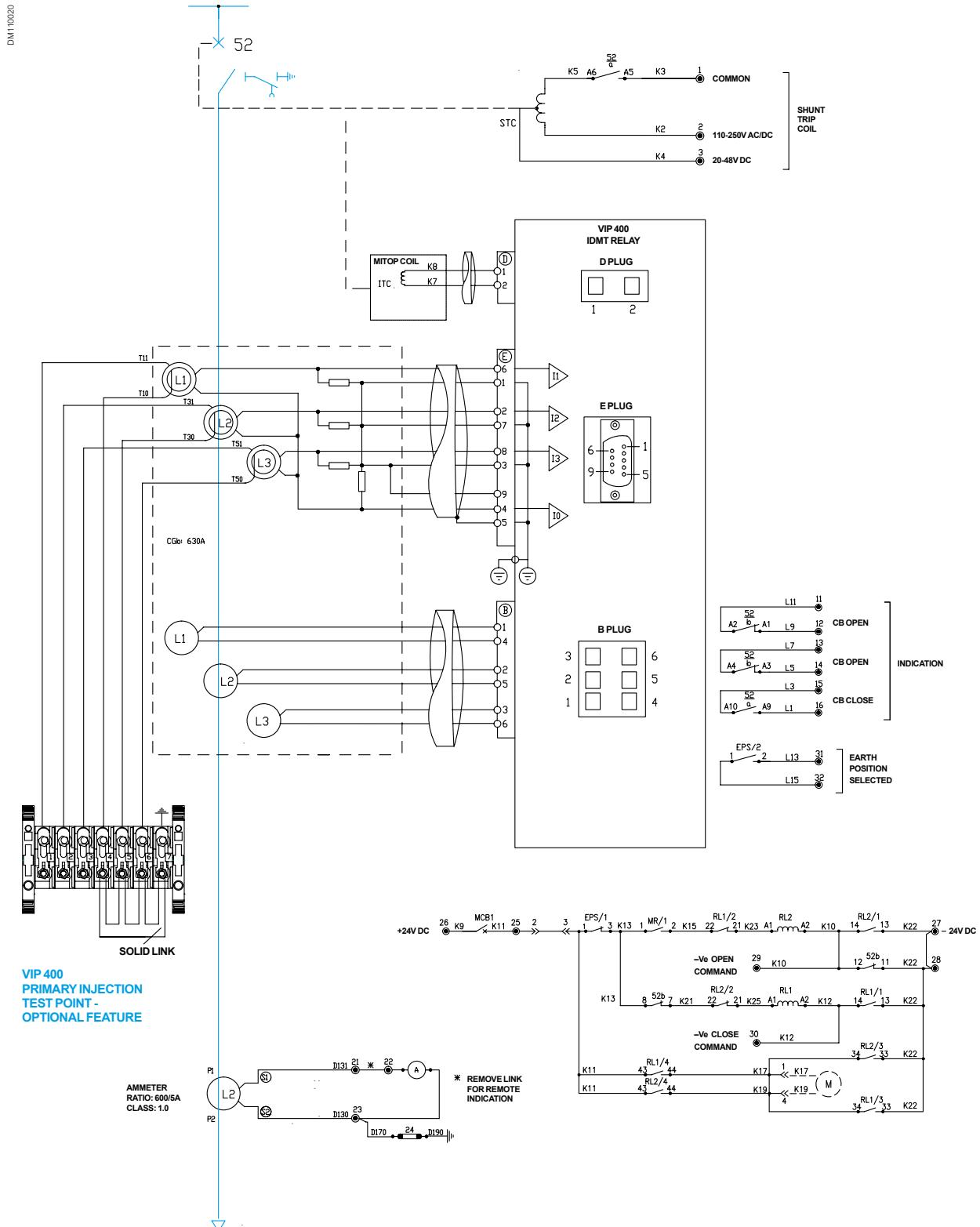
CE6-T40 / VIP 410



Extensible circuit breaker units

CE6

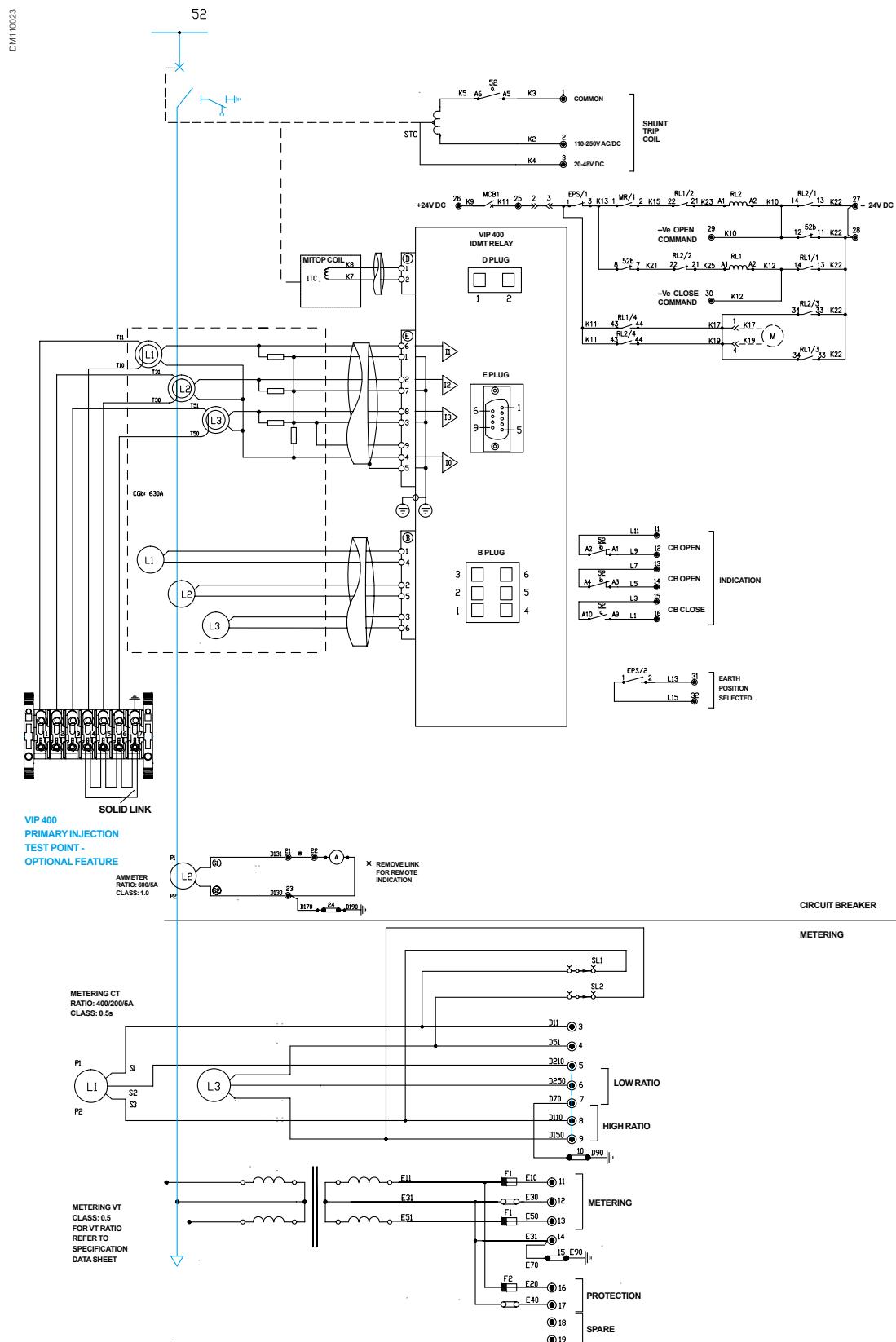
CE6-T31 / VIP 400 with motor provision



Extensible circuit breaker units

CE6

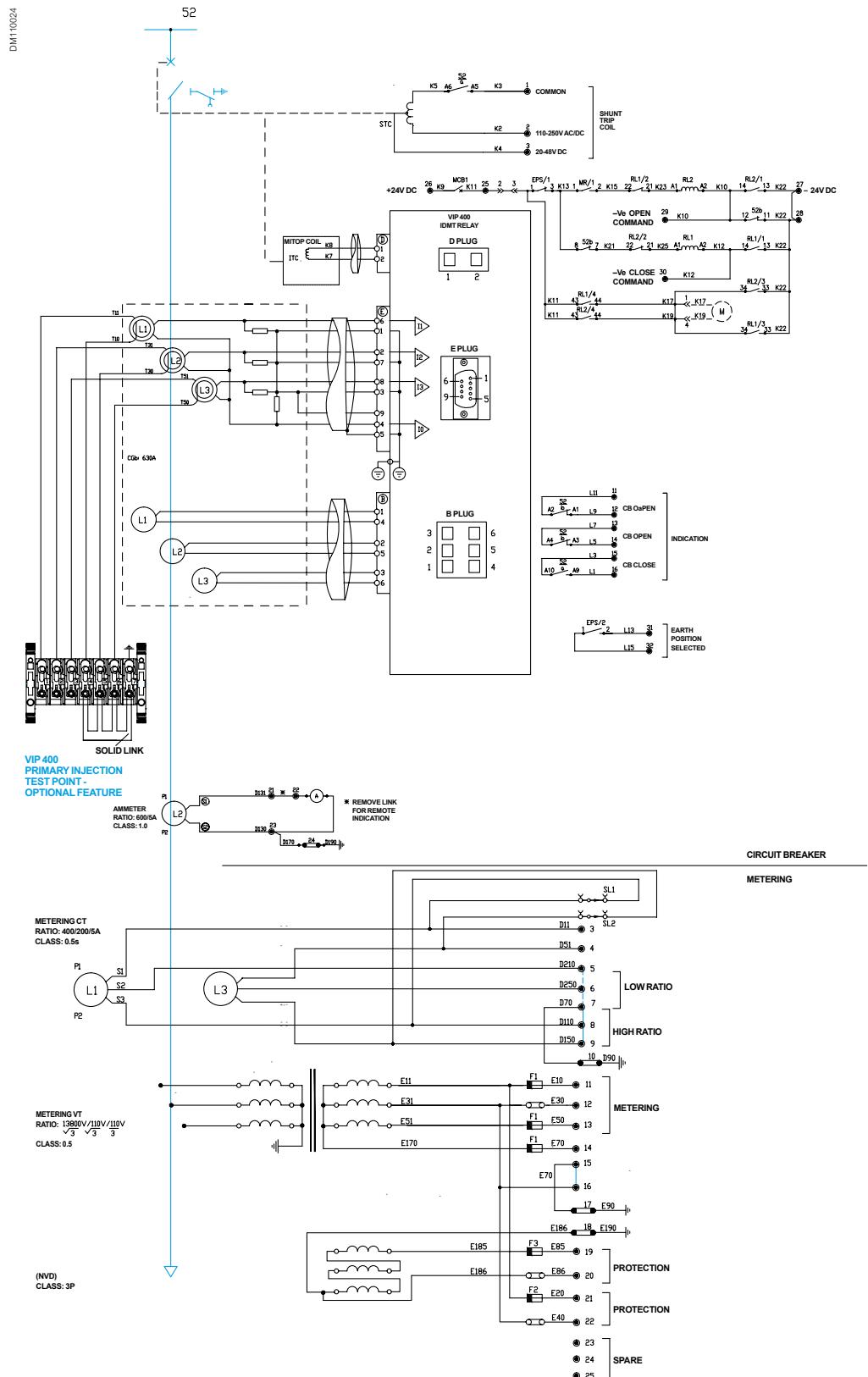
CE6-T35, CE6-T34 / VIP 400 with motor provision & metering ph-ph VT



Extensible circuit breaker units

CE6

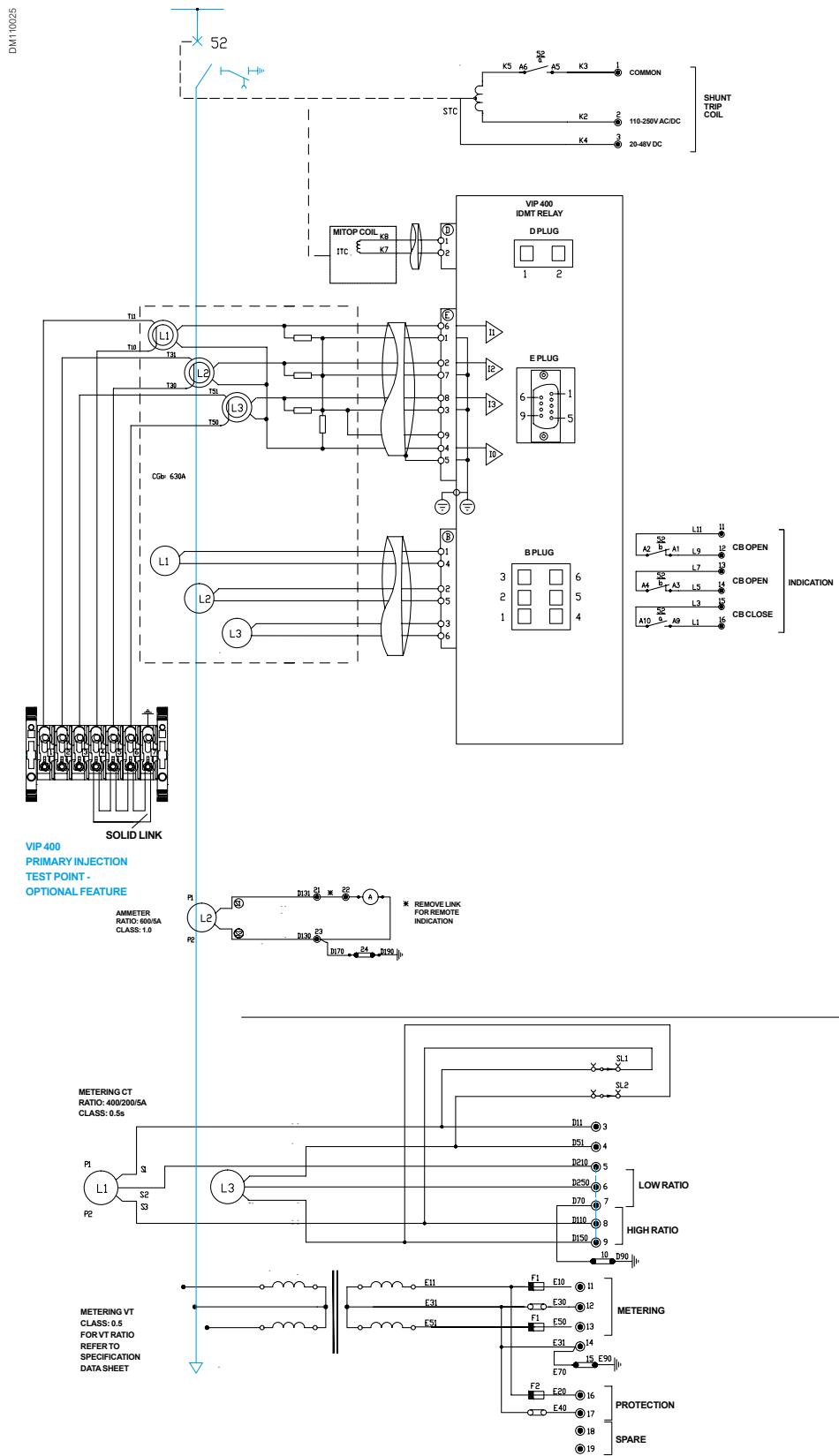
CE6-T38 / VIP 400 with motor provision & metering ph-earth VT



Extensible circuit breaker units

CE6

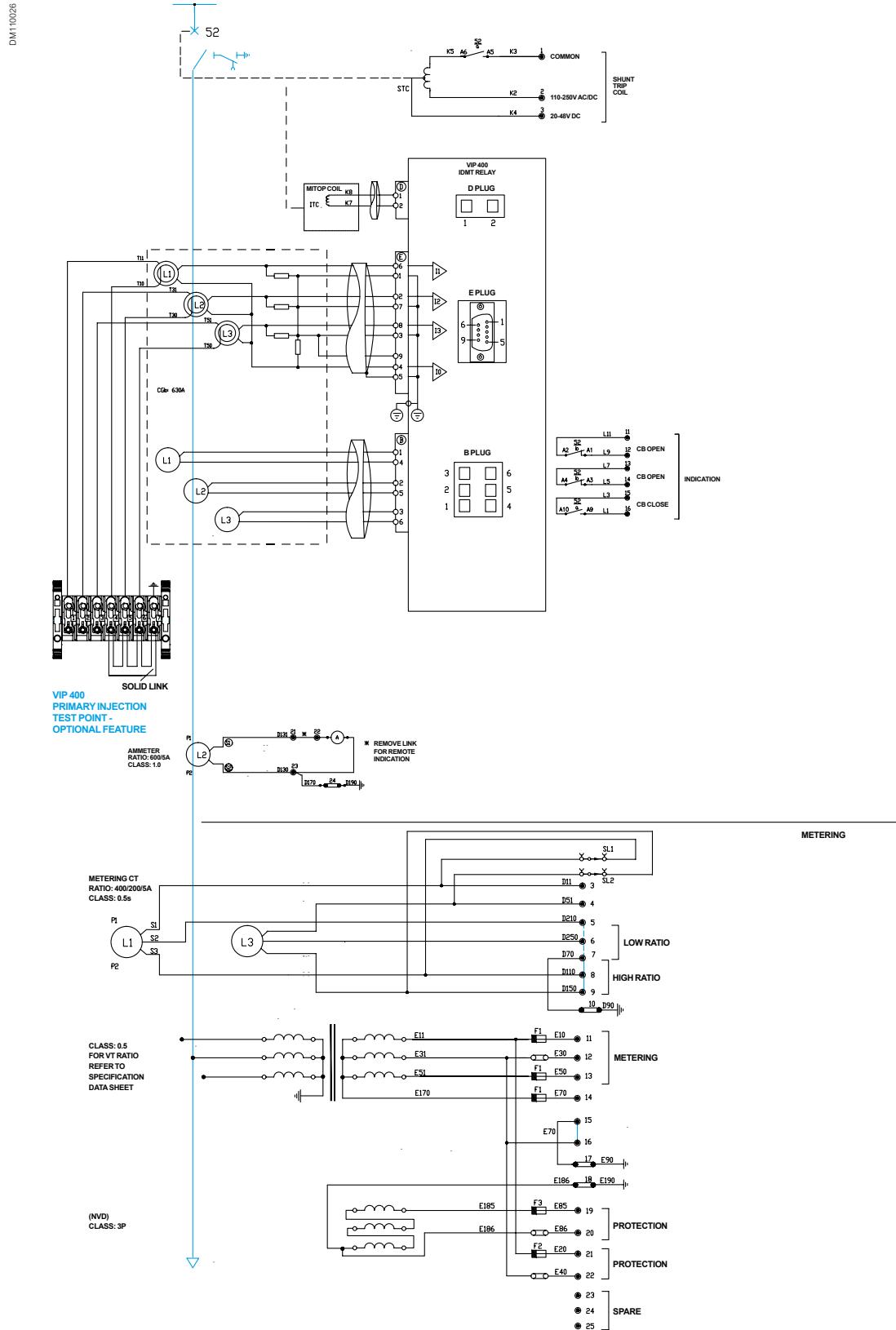
CE6-T33, CE6-T39 / VIP 400 with metering ph-ph VT



Extensible circuit breaker units

CE6

CE6-T36, CE6-T37 / VIP 400 with metering ph-earth VT

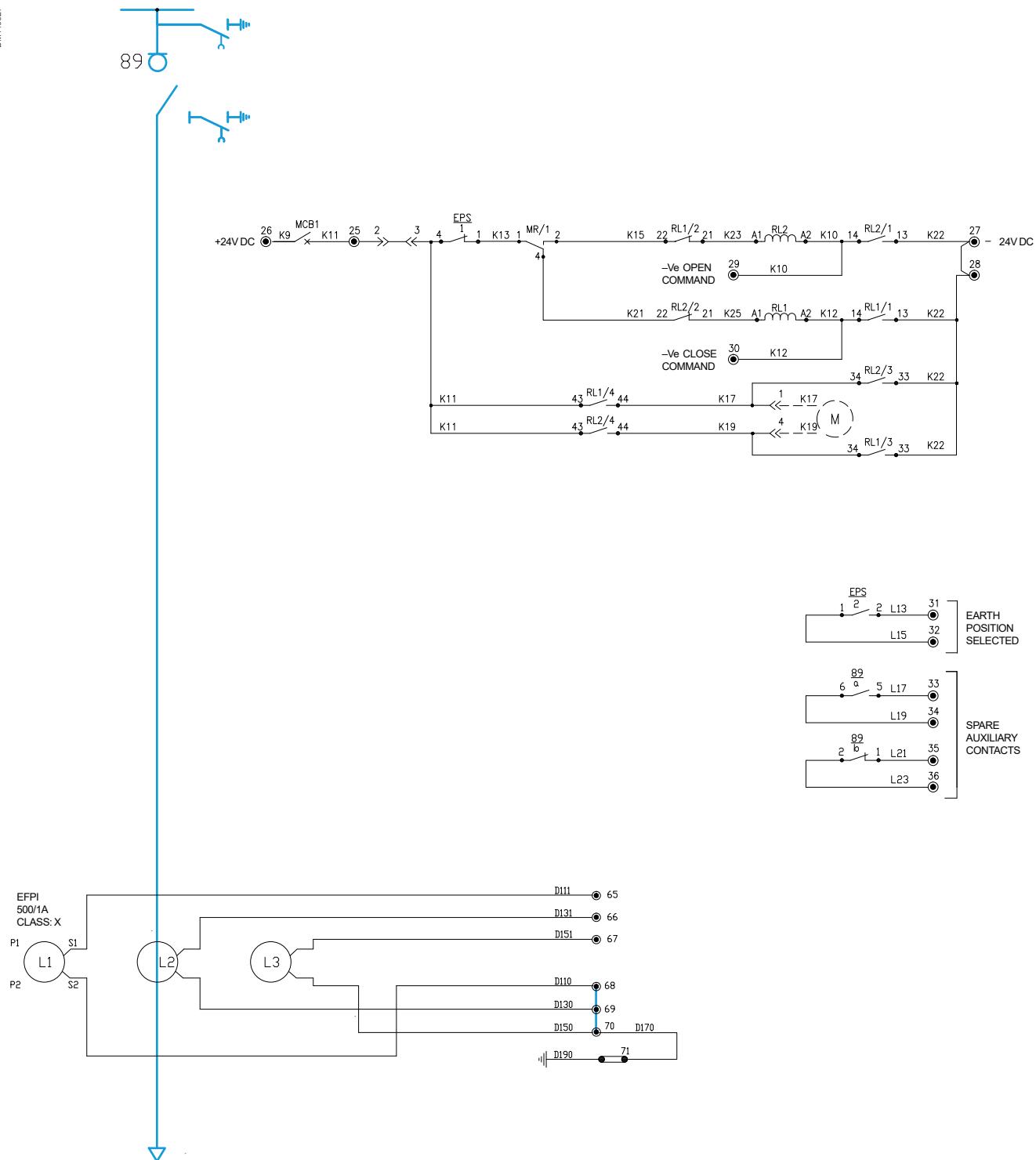


Non-extensible switch unit

SN6

SN6-S2 with motorised provision & EFPI CT

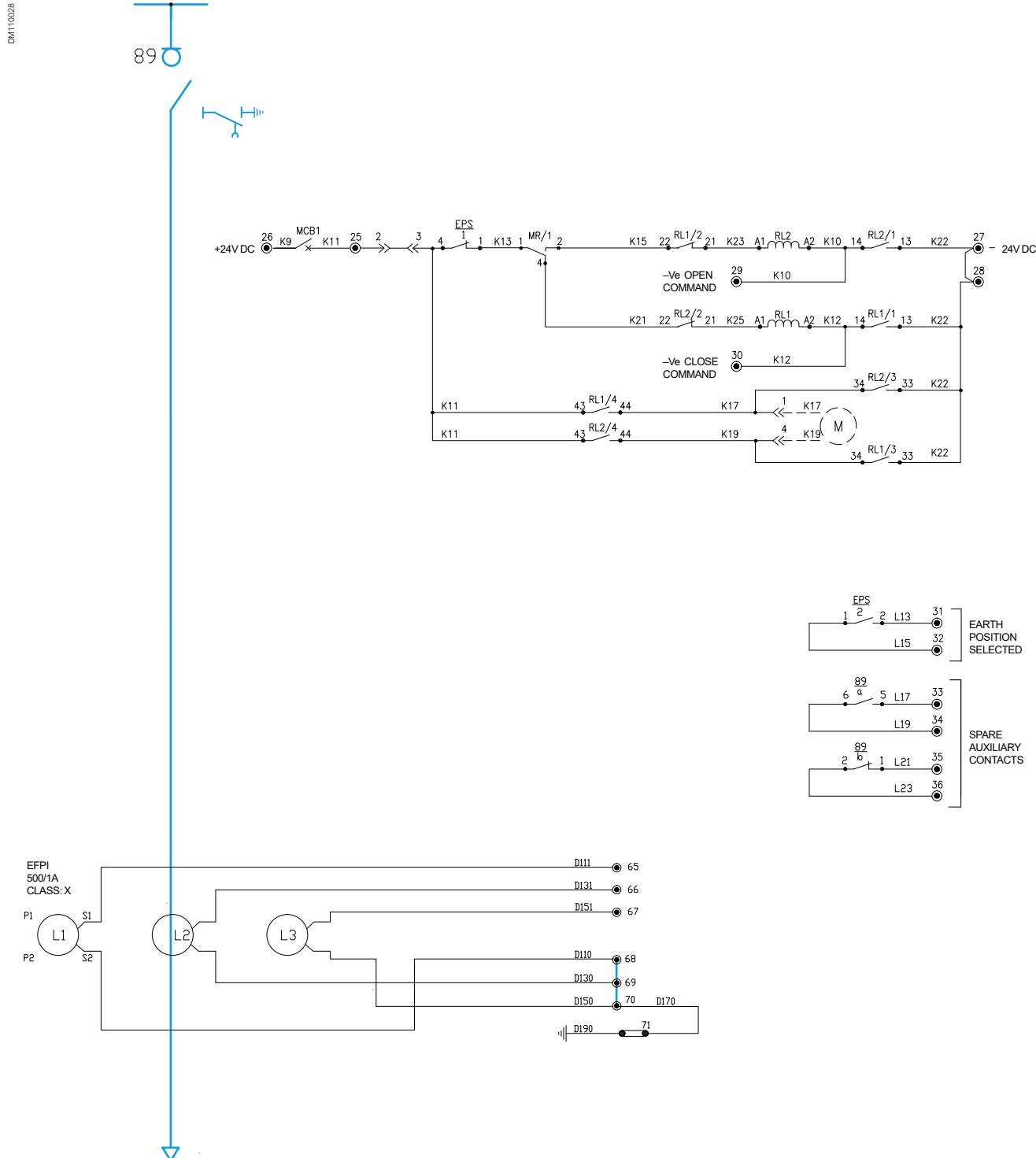
DM10027



Extensible switch unit

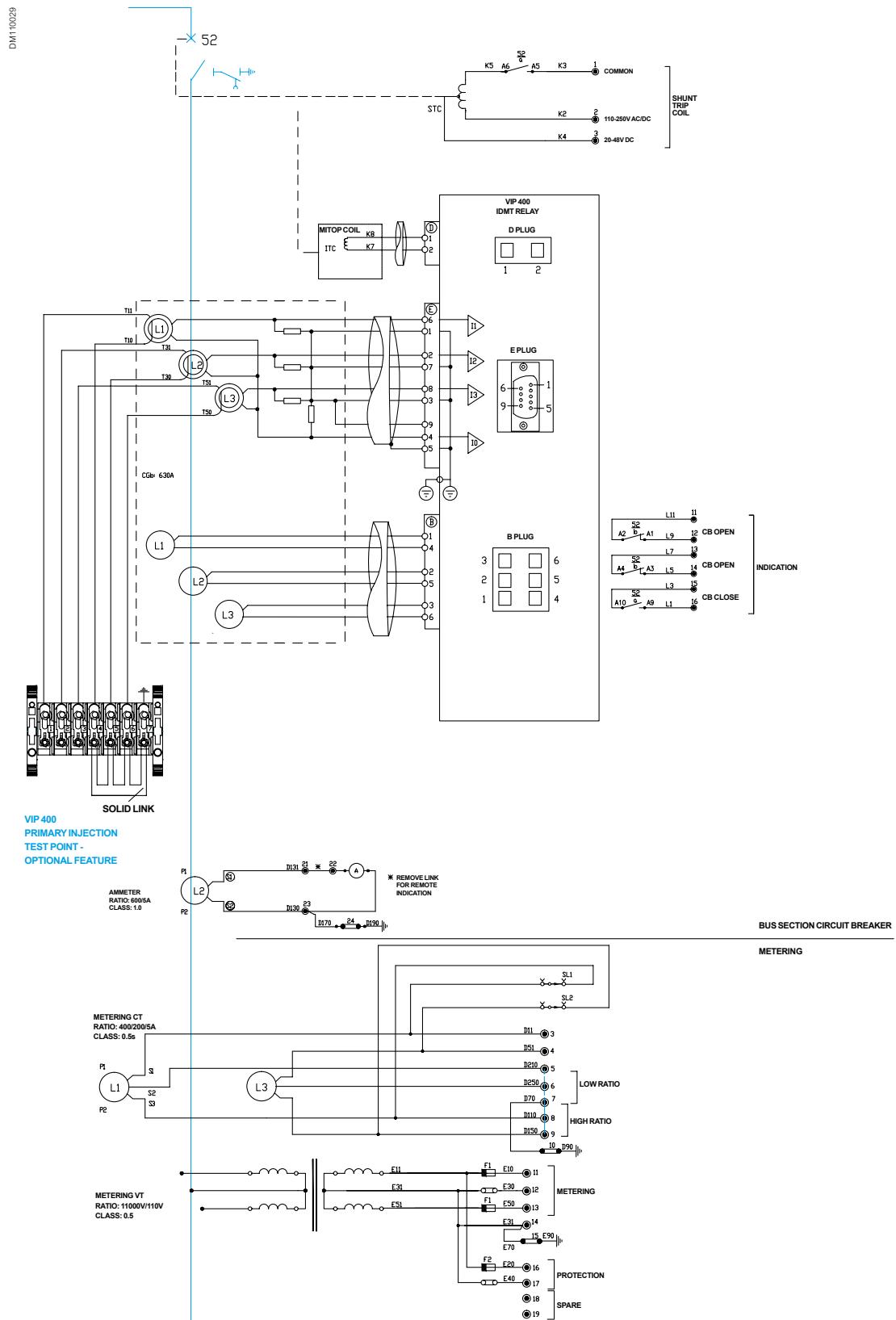
SE6

SE6-S2 with motorised provision & EFPI CT



Bus section CE6-B9

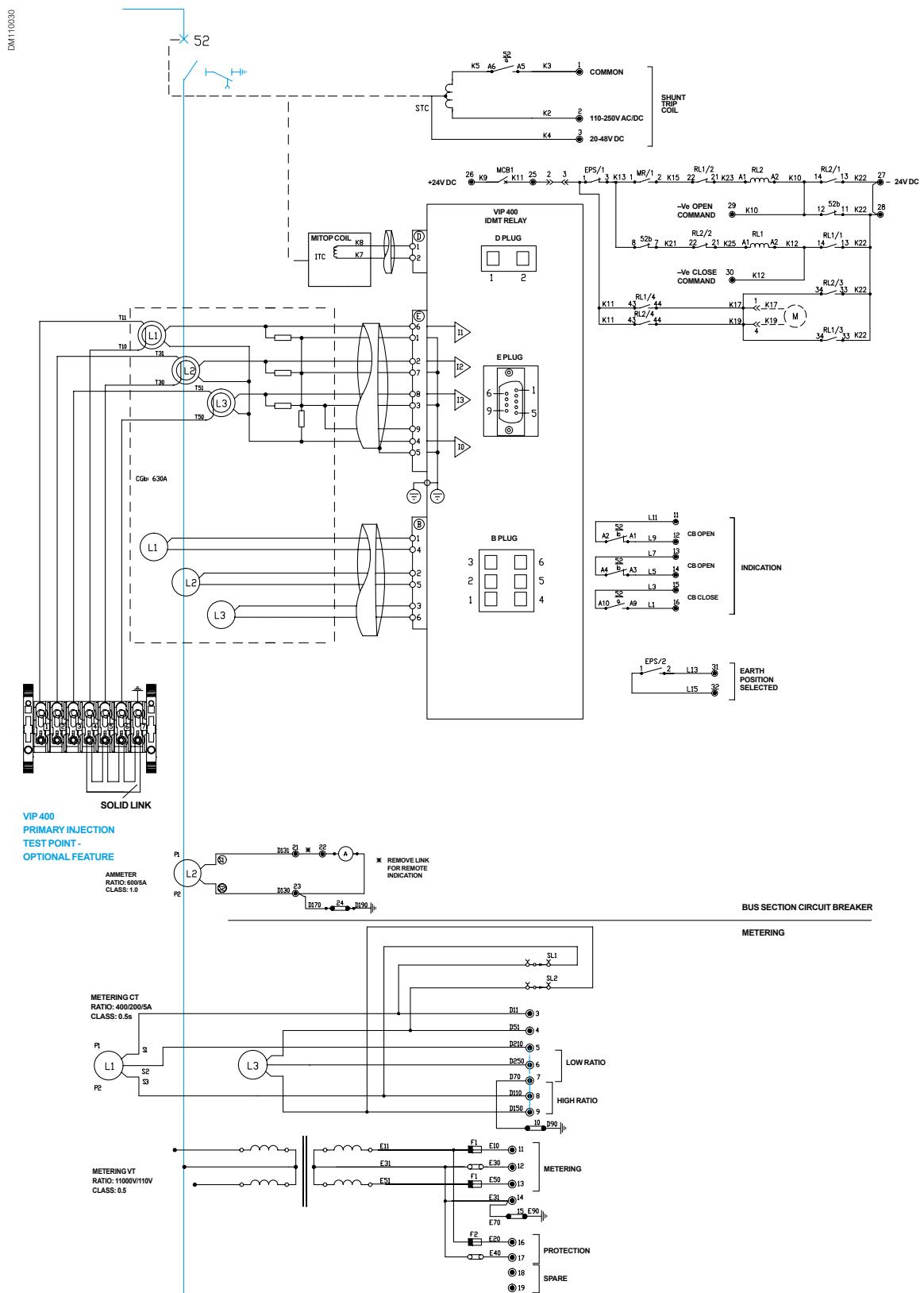
Coupler with metering



Bus section

CE6-B10

Coupler with motorisation provision & metering ph-ph VT



References

List of main configurations of Ringmaster

Panel type	CT1 (protection CT)	CT4 EFPI CT	Measurement 1CT in L2	Metering CT 2 CTs (L1 & L3)
RN2d-T1	100/50/5A class X			
RN2d-T2	C Ga: Ipr 0-200 A, Us 22.5 mV, 5P30			
RN2d-T3	C Ga: Ipr 0-200 A, Us 22.5 mV, 5P30			
RN2d-T4	C Ga: Ipr 0-200 A, Us 22.5 mV, 5P30			
RN2d-T5	200/100/1A 5P20			
RN6d-T3	C Gb: Ipr 0-630 A, Us 22.5 mV, 5P30			
RN6d-T1	C Gb: Ipr 0-630 A, Us 22.5 mV, 5P30			
RE2d-T1	100/50/5 A class X			
RE2d-T2	C Ga: Ipr 0-200 A, Us 22.5 mV, 5P30			
RE2d-T3	C Ga: Ipr 0-200 A, Us 22.5 mV, 5P30			
RE2d-T4	C Ga: Ipr 0-200 A, Us 22.5 mV, 5P30			
MU2d-M1			50/25/5 A, Cl 0.5 s, 7.5 VA	
MU2d-M2			100/50/5 A, Cl 0.5 s, 10 VA	
MU2d-M3			200/100/5 A, Cl 0.5 s, 10 VA	
MU2d-M12			200/100/5 A, Cl 0.5 s, 10 VA	
MU6d-N1			400/200/5 A, Cl 0.5 s, 10 VA	
MU6d-N2			600/5 A, Cl 0.5 s, 10 VA	
MU6d-N3			400/5 A, Cl 0.5 s, 10 VA	
MU6d-N5			600/300/5 A, Cl 0.5 s, 10 VA	
CN2-T6	100/50/5A class X			
CN2-T9	C Ga: Ipr 0-200 A, Us 22.5 mV, 5P30			
CN2-T10	C Ga: Ipr 0-200 A, Us 22.5 mV, 5P30			
CN2-T11	C Ga: Ipr 0-200 A, Us 22.5 mV, 5P30			
CE2-T7	100/50/5 A class X			
CE2-T30	C Ga: Ipr 0-200 A, Us 22.5 mV, 5P30			
CE2-T31	C Ga: Ipr 0-200 A, Us 22.5 mV, 5P30			
CE2-T32	C Ga: Ipr 0-200A, Us 22.5 mV, 5P30		200/100/5 A, Cl 0.5 s, 10 VA	
CE2-T34	C Ga: Ipr 0-200A, Us 22.5 mV, 5P30			
CE2-T35	C Ga: Ipr 0-200 A, Us 22.5 mV, 5P30		200/100/5 A, Cl 0.5 s, 10 VA	
CE2-T36	C Ga: Ipr 0-200 A, Us 22.5 mV, 5P30		200/100/5 A, Cl 0.5 s, 10 VA	
CE2-T37	C Ga: Ipr 0-200 A, Us 22.5 mV, 5P30		200/100/5 A, Cl 0.5 s, 10 VA	
CE2-T38	C Ga: Ipr 0-200 A, Us 22.5 mV, 5P30		200/100/5 A, Cl 0.5 s, 10 VA	
CE2-T39	C Ga: Ipr 0-200 A, Us 22.5 mV, 5P30		200/100/5 A, Cl 0.5 s, 10 VA	
CE2-T40	C Ga: Ipr 0-200 A, Us 22.5 mV, 5P30			
CE2-T41	C Ga: Ipr 0-200 A, Us 22.5 mV, 5P30			
CE6-T30	C Gb: Ipr 0-630 A, Us 22.5 mV, 5P30	600/5 A, 5 VA, Cl 1.0 (L2 phase)		
CE6-T31	C Gb: Ipr 0-630 A, Us 22.5 mV, 5P30	600/5 A, 5 VA, Cl 1.0 (L2 phase)		
CE6-T33	C Gb: Ipr 0-630 A, Us 22.5 mV, 5P30	600/5 A, 5 VA, Cl 1.0 (L2 phase)	400/200/5 A, Cl 0.5s, 10 VA	
CE6-T34	C Gb: Ipr 0-630 A, Us 22.5 mV, 5P30	600/5 A, 5 VA, Cl 1.0 (L2 phase)	400/200/5 A, Cl 0.5s, 10 VA	
CE6-T35	C Gb: Ipr 0-630 A, Us 22.5 mV, 5P30	600/5 A, 5 VA, Cl 1.0 (L2 phase)	400/200/5 A, Cl 0.5s, 10 VA	
CE6-T36	C Gb: Ipr 0-630 A, Us 22.5 mV, 5P30	600/5 A, 5 VA, Cl 1.0 (L2 phase)	400/200/5 A, Cl 0.5s, 10 VA	
CE6-T37	C Gb: Ipr 0-630 A, Us 22.5 mV, 5P30	600/5 A, 5 VA, Cl 1.0 (L2 phase)	400/200/5 A, Cl 0.5s, 10 VA	
CE6-T38	C Gb: Ipr 0-630 A, Us 22.5 mV, 5P30	600/5 A, 5 VA, Cl 1.0 (L2 phase)	400/200/5 A, Cl 0.5s, 10 VA	
CE6-T39	C Gb: Ipr 0-630 A, Us 22.5 mV, 5P30	600/5 A, 5 VA, Cl 1.0 (L2 phase)	400/200/5 A, Cl 0.5s, 10 VA	
CE6-T40	C Gb: Ipr 0-630 A, Us 22.5 mV, 5P30	600/5 A, 5 VA, Cl 1.0 (L2 phase)		
SN6-S1				
SN6-S2		500/1A Class X		
SE6-S1				
SE6-S2		500/1A Class X		
SE6-E1				
SE6-B1				
CE6-B9	C Gb: Ipr 0-630 A, Us 22.5 mV, 5P30	600/5 A, 5 VA, Cl 1.0 (L2 phase)	400/200/5 A, Cl 0.5s, 10 VA	
CE6-B10	C Gb: Ipr 0-630 A, Us 22.5 mV, 5P30	600/5 A, 5 VA, Cl 1.0 (L2 phase)	400/200/5 A, Cl 0.5s, 10 VA	

References

List of main configurations of Ringmaster

Metering VT (ph-ph or ph-earth)	CB protection	Motor provision	Dimension page	Schematic page	Details description Page	Panel type
	TLF		137, 138	155	31	RN2d-T1
	VIP400		137, 139	156	32	RN2d-T2
	VIP410		137, 139	157	33	RN2d-T3
	VIP45		137, 139	158	34	RN2d-T4
	SC160		145	159	35	RN2d-T5
	VIP410		140, 141	161	37	RN6d-T3
	VIP400		140, 141	160	36	RN6d-T1
	TLF		134, 135, 136	155	41	RE2d-T1
	VIP400		134, 135, 136	156	42	RE2d-T2
	VIP410		134, 135, 136	157	43	RE2d-T3
	VIP45		134, 135, 136	158	44	RE2d-T4
11 kV/110 V ph-ph 50 VA Cl 0.5	-		143	163	60	MU2d-M1
11 kV/110 V ph-ph 50 VA Cl 0.5	-		134, 135, 136	163	60	MU2d-M2
11 kV/110 V ph-ph 50 VA Cl 0.5	-		134, 135, 136	163	60	MU2d-M3
11 kV/110 V ph-earth 50 VA Cl 0.5	-		134, 135, 136	164	60	MU2d-M12
11 kV/110 V ph-ph 50 VA Cl 0.5	-		134, 135, 136	163	63	MU6d-N1
11 kV/110 V ph-ph 50 VA Cl 0.5	-		134, 135, 136	163	63	MU6d-N2
11 kV/110 V ph-ph 50 VA Cl 0.5	-		134, 135, 136	163	63	MU6d-N3
6.6 kV/110 V ph-ph 50 VA Cl 0.5	-		134, 135, 136	163	63	MU6d-N5
	TLF		132	159	51	CN2-T6
	VIP400		132	160	52	CN2-T9
	VIP410		132	161	53	CN2-T10
	VIP400		132	162	52	CN2-T11
	TLF		128	169	68	CE2-T7
	VIP400		128	170	69	CE2-T30
	VIP400	yes	128	173	69	CE2-T31
6.6 kV/110 V ph-ph 50 VA Cl 0.5	VIP400		131	175	72	CE2-T32
	VIP45		128	180	71	CE2-T34
11 kV/110 V ph-ph 50 VA Cl 0.5	VIP400	yes	131	180	72	CE2-T35
6.6 kV/110 V ph-ph 50 VA Cl 0.5	VIP400	yes	131	183	72	CE2-T36
12 kV/110 V ph-earth 50 VA Cl 0.5	VIP400		131	183	72	CE2-T37
11 kV/110 V ph-earth 50 VA Cl 0.5	VIP400		131	176	72	CE2-T38
12 kV/110 V ph-ph 50 VA Cl 0.5	VIP400	yes	131	182	72	CE2-T39
	VIP400		131	170	72	CE2-T40
	VIP410		128	171	70	CE2-T41
	VIP400		128	170	78	CE6-T30
	VIP400	yes	128	173	78	CE6-T31
11 kV/110 V ph-ph 50 VA Cl 0.5	VIP400		131	182	80	CE6-T33
11 kV/110 V ph-ph 50 VA Cl 0.5	VIP400	yes	131	180	80	CE6-T34
6.6 kV/110 V ph-ph 50 VA Cl 0.5	VIP400	yes	131	174	80	CE6-T35
12 kV/110 V ph-earth 50 VA Cl 0.5	VIP400		131	174	80	CE6-T36
11 kV/110 V ph-earth 50 VA Cl 0.5	VIP400		131	176	80	CE6-T37
12 kV/110 V ph-earth 50 VA Cl 0.5	VIP400	yes	131	176	80	CE6-T38
6.6 kV/110 V ph-ph 50 VA Cl 0.5	VIP400		131	182	80	CE6-T39
	VIP410		128	178	79	CE6-T40
			132		56	SN6-S1
			132	184	57	SN6-S2
			128		84	SE6-S1
		yes	128	185	85	SE6-S2
			128		86	SE6-E1
			130		89	SE6-B1
11 kV/110 V ph-ph 50 VA Cl 0.5	VIP400		130	186	90	CE6-B9
11 kV/110 V ph-ph 50 VA Cl 0.5	VIP400	yes	130	187	91	CE6-B10

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