Low Voltage

EasyPact CVS

Moulded-case circuit breakers
from 100 to 800 A



Catalogue
2011

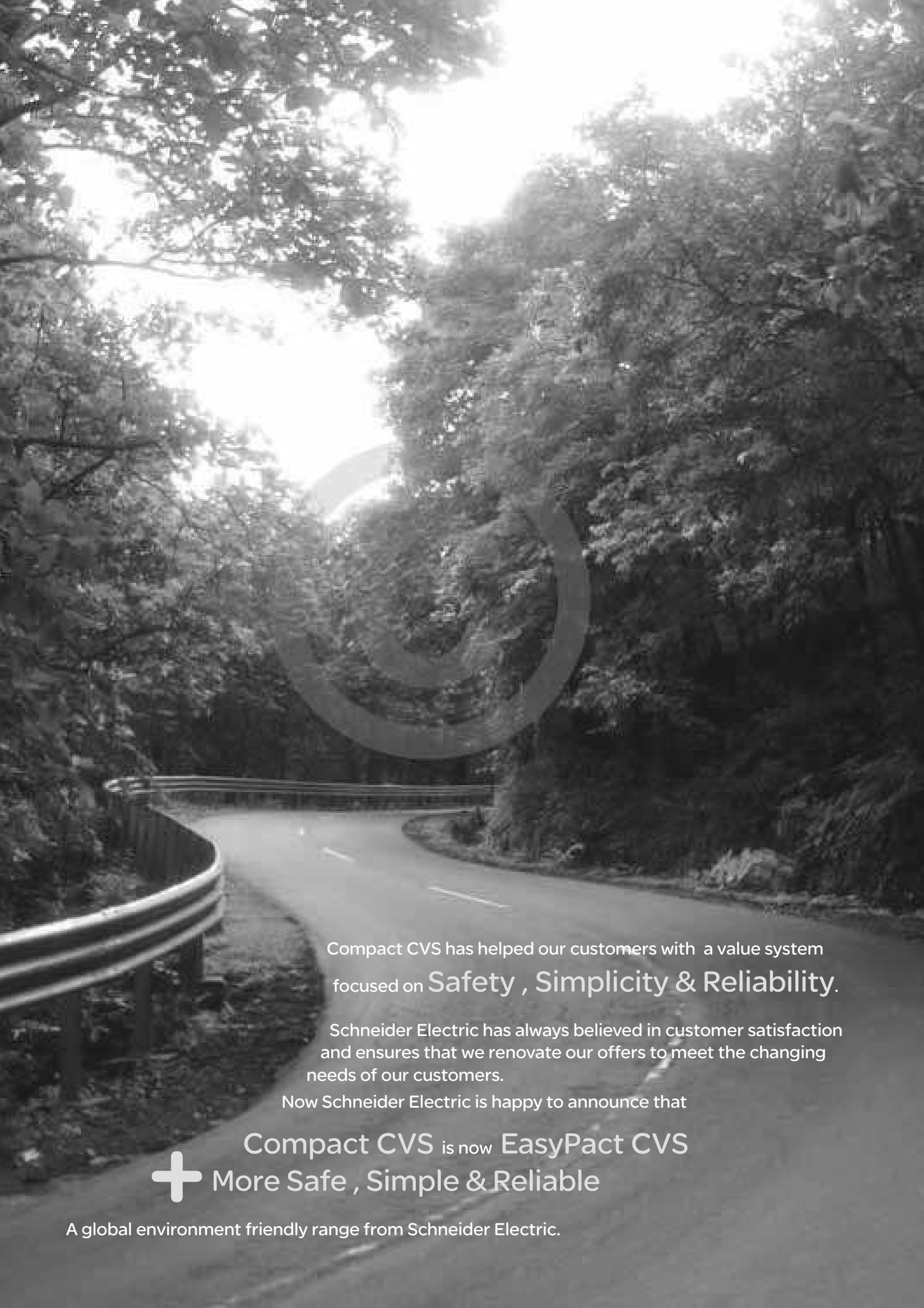
Schneider Electric

- Do you strain to find a high quality circuit breaker that is simple, flexible, and safe?

- Have tight project budgets restricted you from choosing the best technology products?

- Do you need the reach, support and accessibility of a global leader, with the value of a local supplier?





Compact CVS has helped our customers with a value system focused on Safety , Simplicity & Reliability.

Schneider Electric has always believed in customer satisfaction and ensures that we renovate our offers to meet the changing needs of our customers.

Now Schneider Electric is happy to announce that

Compact CVS is now EasyPact CVS

+ More Safe , Simple & Reliable

A global environment friendly range from Schneider Electric.

EasyPact CVS

brings more functionalities, options and features which make it more



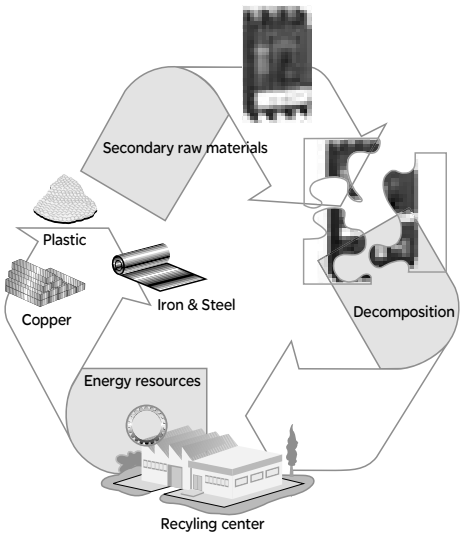


Environmentally responsible

- EasyPact CVS is part of the Schneider Electric energy efficiency approach. Designed for easy disassembly and recycling at end of life, EasyPact CVS complies with environmental directives RoHS* and WEEE**, and with ISO 14001 standards, thanks to non - polluting factories.

  Schneider Electric fully takes into account environmental requirements, starting right from the design phase of every product through to the end of its service life:

- the materials used for EasyPact CVS are not potentially dangerous to the environment
- the production facilities are non-polluting in compliance with the ISO 14001 standard
- the energy dissipated per pole is low, making energy losses insignificant
- the materials are marked to facilitate sorting for recycling at the end of product service life.



EasyPact CVS moulded case circuit breakers and accessories can be recycled and reused optimally.

* RoHS = Restriction of Hazardous Substances
** WEEE = Waste Electrical and Electronic Equipment

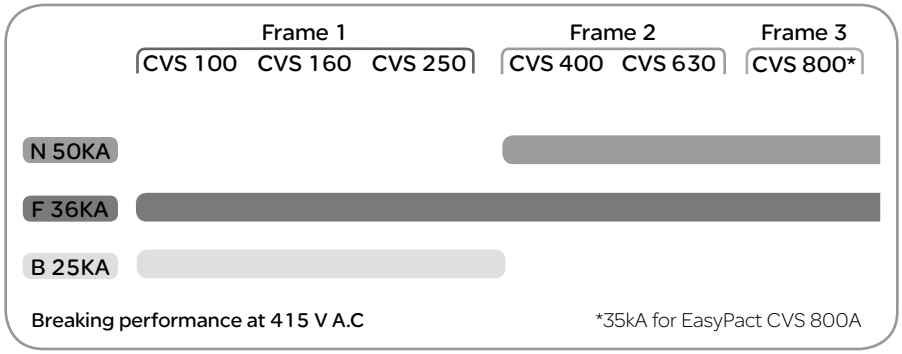
Gain peace of mind and optimized cost for every installation



EasyPact CVS

from 100 to 800A





EasyPact CVS 100 - 800A Adjustable version

- Various breaking capacities level are available as per the need of electrical distribution network 25/36/50kA.
- Available in 3P and 4P Variants.
- Entire range is Ics=100% Icu.

Safe Reliable Simple



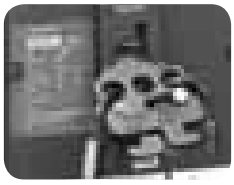
EasyPact CVS is...**Safe**

Isolation

- EasyPact CVS circuit breakers are suitable for Isolation* as defined in IEC standards 60947-2 .The aim of isolation is to separate a circuit or apparatus from the remainder of a system which is energized in order the personnel may carry out work on the isolated part with complete safety.
- MCCB locking with external pad locks* enables user to isolate and undertake maintenance with utmost safety.

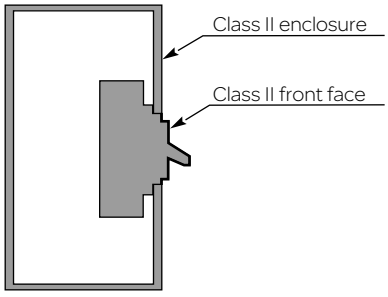


Isolation

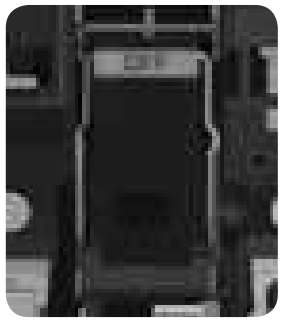


Class II front Face

- All EasyPact CVS* MCCBs are class II Front face devices, they may be installed through the door of class II switchboards without downgrading the switchboard insulation. Installation requires no special operation, even when the Circuit Breaker is equipped with a rotary handle.



Class II panel with circuit breaker having a class II front face



Locking in OFF position

- Key locks enables to lock* the breaker in OFF position ensuring safety and better control on installation.
- It also helps in interlocking multiple circuit breakers in an installation.



* 100 to 630 A



EasyPact CVS is...**Reliable**

IEC 60947-2

Conforms to IEC 60947-2 for circuit breaker

- Tested at renown international laboratories like KEMA
- Complete range with Ics = 100% Icu

High electrical & Mechanical endurance

- 30000 mechanical operations for 100A
- 12000 electrical operations for 100A



Reliable accessories

- Continuous rated shunt coils
- Multifunctional Aux./Alarm contact
- Unique electrical fault trip indication (SDE)

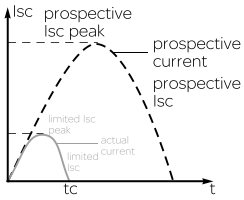


EasyPact CVS offer protection for human as well as Electrical installation

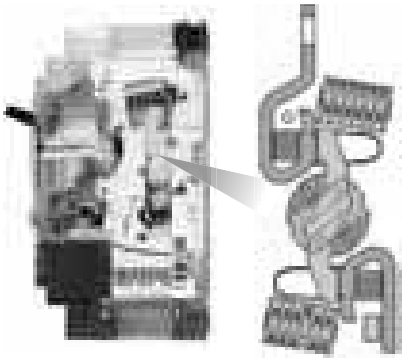
- Earth leakage protection through Vigi Module to protect human against leakage current
- Earth Fault protection (UMGFP) to protect Electrical distribution network against fire

Fault current limitation technology

- EasyPact CVS Double break* mechanism ensures high fault current limitation
  - Reduces thermal stresses on the electrical distribution network
  - Increases the life of cables and installation



Current limitation technology



EasyPact Double break Roto mechanism

* 100 to 630 A



EasyPact CVS is...**Simple**

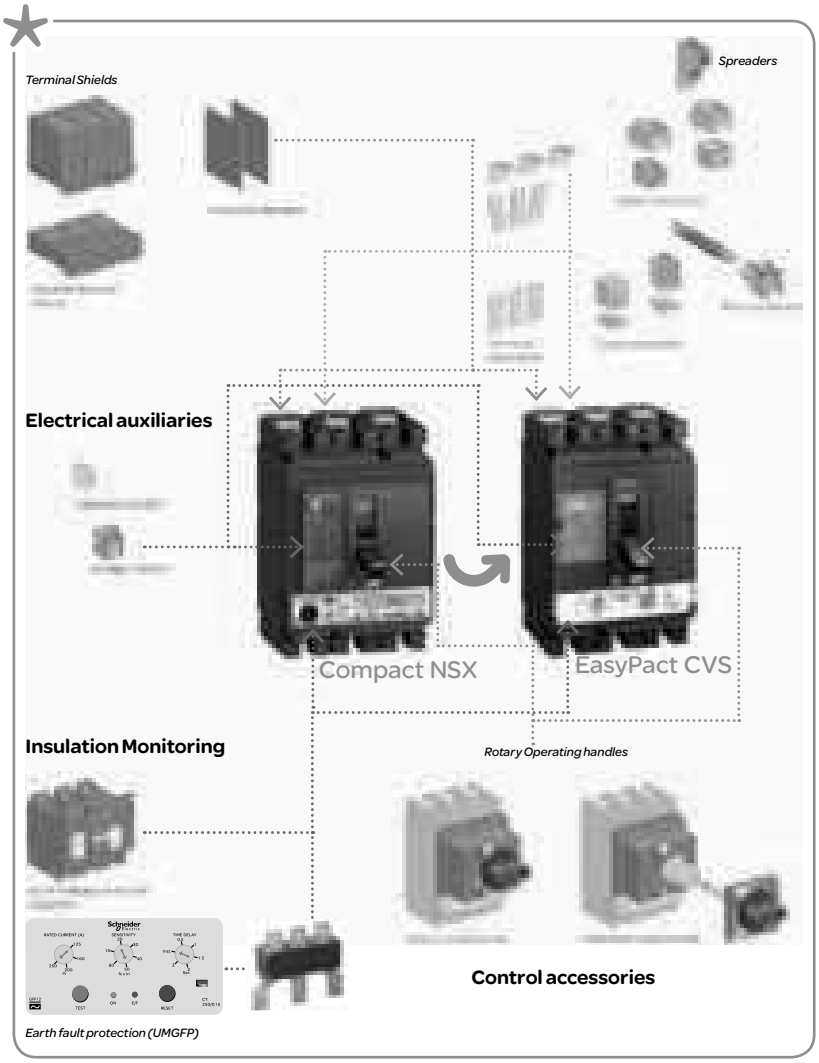
Only three frame sizes

Frame - I	100 - 250 A
Frame – II	400 - 630A
Frame – III	800A

Line load reversibility for entire EasyPact CVS range System upgradeability

- Compact NSX/EasyPact CVS upto 630A have the same foot print & mounting dimensions, helps easy retrofitting and system upgradeability.

* Auxiliaries and accessories are common for MCCBs upto 630A.



CVS Stands for Compact Value System

EasyPact CVS/Compact CVS and Compact NS/NSX MCCBs share the same value system.

Schneider Electric has a rich experience in MCCBs with more than 25 million circuit breakers installed base world wide (more than 100 countries).

EasyPact CVS stands for customer value

EasyPact CVS 100 to 630 A



Panel builders

- Only two frame sizes up to 630A
- Common accessories for complete range (ON/OFF/Trip Auxiliaries/Shunt/UV etc)
- Line load reversibility for entire range
- Suitable for class II switchboards



End Users

- Isolation as a standard feature enhances safety
- Excellent current limiting capability reduces stresses on cables, busbars and loads
- Continuous rated accessories increase system reliability
- Moduler earth leakage and earth fault protection ensure human/installation protection



OEMs

- High endurance's and maintenance free operation assure continuous performance of machines
- Unique common accessories help standardisation of components



Contractors

- Sufficient pole pitch helps to terminate Copper and Aluminum busbars or cables
- Easy availability of the product due to less number of frame size
- Designed to perform in demanding applications

The easy choice for quality and value

EasyPact CVS

LV circuit breakers from 100 to 800A



General contents

Functions and characteristics A-1

Installation recommendations B-1

Dimensions and connection C-1

Additional characteristics D-1

Catalogue numbers E-1

Functions and characteristics

EasyPact CVS

Functions and characteristics

Introduction
General characteristics A-2

Protection of distribution systems
TM-D thermal-magnetic trip units A-3
ETS 2.3 Microprocessor trip unit and accessories A-4

Earth-leakage protection
Add-on protection againes insulation faults using a Vigi module A-5

Ground fault protection
EasyPact CVS A-6

Motor protection
MA instantaneous trip units A-7

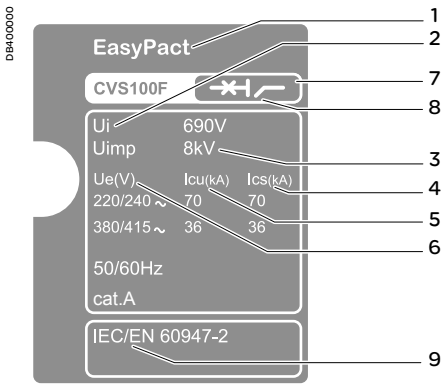
Introduction
Characteristics and performance A-8

Functions & Characteristics
Protection of distribution systems for EasyPact CVS 800 A-10

Accessories and auxiliaries
Overview A-11
Device installation A-12
Connection of devices A-13
Selection of auxiliaries A-14
Indication contacts A-15
Remote tripping A-16
Rotary handles A-17
Locks and sealing accessories A-18

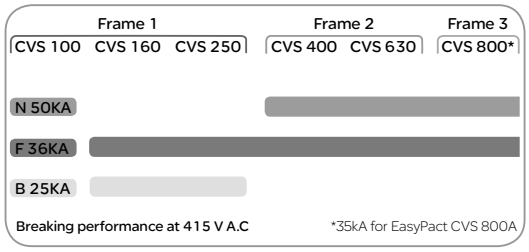
Installation recommendations B-1
Dimensions and connection C-1
Additional characteristics D-1
Catalogue numbers E-1

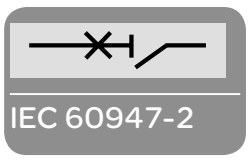
Introduction
General characteristics



Standardised characteristics indicated on the rating plate:
1 Type of device: frame size and breaking capacity class
2 Ui: rated insulation voltage.
3 Uimp: rated impulse withstand voltage.
4 Ics: service breaking capacity.
5 Icu: ultimate breaking capacity for various values of the rated operational voltage Ue
6 Ue: operational voltage.
7 Colour label indicating the breaking capacity class.
8 Suitable for Isolation symbol.
9 Reference standard.

Note: when the circuit breaker is equipped with an extended rotary handle, the door must be opened to access the rating plate.





Compliance with standards
EasyPact CVS circuit breakers and auxiliaries comply with the following international recommendations:
- IEC 60947-1: general rules
- IEC 60947-2: circuit breakers
- IEC 60947-3: switch-disconnectors

Pollution degree
EasyPact CVS circuit breakers are certified for operation in pollution-degree III environments as defined by IEC standards 60947-1 and 60664-1 (industrial environments).

Climatic withstand
EasyPact CVS circuit breakers have successfully passed the tests defined by the following standards for extreme atmospheric conditions:
- IEC 60068-2-1: dry cold (-55°C)
- IEC 60068-2-2: dry heat (+85°C)
- IEC 60068-2-30: damp heat (95 % relative humidity at 55°C)
- IEC 60068-2-52 severity level 2: salt mist.

Environment
EasyPact CVS respects the European environment directive EC/2002/95 concerning the restriction of hazardous substances (RoHS).
All EasyPact CVS production sites have set up an ISO 14001 certified environmental management system.

Ambient temperature
EasyPact CVS circuit breakers can be used between -25°C and +70°C. For temperatures higher than 40°C (65°C for circuit breakers used to protect motor feeders), devices must be derated (see page B-2).
- Circuit breakers should be put into service under normal ambient, operating-temperature conditions. Exceptionally, the circuit breaker can be put into service when the ambient temperature is between -35°C and -25°C.
- The permissible storage-temperature range for EasyPact CVS circuit breakers in the original packing is -50°C and +85°C.

Suitable for isolation with positive contact indication
All EasyPact CVS circuit breakers are suitable for isolation as defined in IEC standard 60947-2:
- The isolation position corresponds to the O (OFF) position.
- The operating handle cannot indicate the OFF position unless the contacts are effectively open.
- Padlocks cannot be installed unless the contacts are open.

Installation of a rotary handle does not alter the reliability of the position-indication system.
The isolation function is certified by tests guaranteeing:
- The mechanical reliability of the position-indication system
- The absence of leakage currents
- Over voltage withstand capacity between upstream and downstream connections.

The tripped position does not ensure isolation with positive contact indication.
Only the OFF position guarantees isolation.

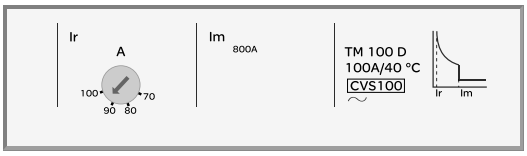
Installation in class II switchboards
All EasyPact CVS circuit breakers are class II front face devices. They can be installed through the door of class II switchboards (as per IEC standards 61140 and 60664-1) without downgrading switchboard insulation. Installation requires no special operations, even when the circuit breaker is equipped with a rotary handle.

Degree of protection
The following indications are in accordance with standards IEC 60529 (IP degree of protection) and IEC 62262 (IK protection against external mechanical impacts).

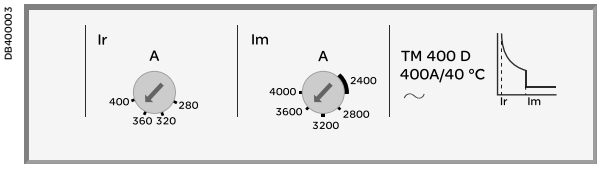
Bare circuit breaker:
- with toggle: IP40, IK07 front face
- with extended rotary handle: IP 55, IK08

Circuit breaker installed in a switchboard:
- with toggle: IP40, IK07 front face
- with extended rotary handle: IP 55, IK08

TM-D thermal-magnetic trip units can be used on EasyPact CVS100-630 circuit breakers with performance levels B/F/N.



TM-D thermal-magnetic trip units



Protection

TM-D trip units are used mainly in electrical distribution applications for protection of cables supplied by transformers.

Thermal protection (Ir)

Thermal protection operates according to:

- **Ir** that can be adjusted in amps from 0.7 to 1 times the rating of the trip unit (16 A to 250 A), corresponding to settings from 11 to 250 A for the range of trip units
- a non-adjustable time delay.

Magnetic protection (Im)

Short-circuit protection with a fixed or adjustable pick-up Im that initiates instantaneous tripping if exceeded.

- TM-D: fixed pick-up, Im, for 16 to 250 A ratings and adjustable from 5 to 10 x In for 400 A ratings, 4 to 8 x In for 600 A rating.

Protection versions

- 3-pole:
  - 3P 3D: 3-pole frame (3P) with detection on all 3 poles (3D)
- 4-pole:
  - 4P 3D: 4-pole frame (4P) with detection on 3 poles (3D).
  - 4P 4D: 4-pole frame (4P) with detection on all 4 poles (same threshold for phases and neutral).

Thermal-magnetic trip units		TM16D to 250D												TM320D to 630D			
Ratings (A)	**In at 40 °C**(1)	**16**	**25**	**32**	**40**	**50**	**63**	**80**	**100**	**125**	**160**	**200**	**250**	**320**	**400**	**500**	**630***
Circuit breaker	CVS100	■	■	■	■	■	■	■	■	-	-	-	-				
	CVS160	-	-	-	-	-	-	-	■	■	■	-	-				
	CVS250	-	-	-	-	-	-	-	-	-	■	■	■				
	CVS400													■	■	-	-
	CVS630													-	-	■	■
Magnetic protection																	
Pick-up (A)	Im	fixed												adjustable			
accuracy ±120 %	CVS100	190	300	400	500	500	500	640	800								
	CVS160/250								800	1250	1250	2000	2500				
	CVS400													5 to 10 x In			
	CVS630													4 to 8 x In			
Thermal protection																	
Pick-up (A) tripping between 1.05 and 1.20 Ir	Ir = In x ...	adjustable in amps from 0.7 to 1 x In															
Neutral protection																	
Unprotected neutral	4P 3D	no detection															
Fully protected neutral	4P 4D	1 x Ir															

(1) For temperatures greater than 40°C, the thermal protection characteristics are modified. See the temperature derating table on page B-2.
* 630 A @ 30°C

Note: All the trip units have a transparent lead-sealable cover that protects access to the adjustment dials.

Protection of distribution systems
ETS 2.3 electronic trip unit and accessories

ETS 2.3 electronic trip unit



Protection

The protection functions can be set using the adjustment dials.

Overload protection

Long-time protection with an adjustable threshold and fixed tripping delay:
- Ir base setting (6-position dial from 0.5 to 1)

Short-circuit protection

Short-time and instantaneous protection:
- short-time protection with an adjustable pick-up and fixed tripping delay
- instantaneous protection with fixed pick-up.

Protection of the fourth pole

On 4-pole circuit breakers, neutral protection is set using a three-position switch to 4P 3D (neutral unprotected), 4P 3D + N/2 (neutral protection at 0.5 In) or 4P 4D (neutral protection at In).

Trip units		ETS 2.3	
Ratings (A) of circuit breaker	**In** 20 to 70 °C	400	630
Circuit breaker	CVS400 F/N	■	-
	CVS630 F/N	-	■
Overload protection (Long time)			
Current setting	**Ir** = In x ...	0.5...1 adj., 6 settings	
Time delay (s)		fixed	
(min....max.)	at 1.5 x Ir	90...180	
	at 6 x Ir	5...7.5	
	at 7.2 Ir	3.2...5.0	
Short-circuit protection (Short time)			
Pick-up (A) accuracy ± 15 %	**Isd** = Ir x ...	2... 10 adj, 8 settings	
Time delay (ms)		fixed	
	max. resettable time	≤ 40	
	max. break time	≤ 60	
Short-circuit protection (instantaneous)			
Pick-up (A)	**Ii** = In x ...	11	
Protection of the fourth pole			
Neutral unprotected	4P 3D	no protection	
Neutral protection at 0.5 In	4P3D + N/2	0.5 x Ir	
Neutral protection at In	4P 4D	1 x Ir	
Thermal memory			
	CVS400 F/N	Yes	
	CVS630 F/N	Yes	

Test equipment for ETS electronic trip unit

Mini test kit

The mini test kit is a portable unit requiring no external power supply, used to check operation of the electronic trip unit and circuit breaker tripping.
It connects to the test connector on the front of the circuit breaker.
Required power source: five 9 V alkaline batteries (not supplied).

Portable test kit

The portable test kit is used to check all aspects of the protection functions:
- long time protection
- short time protection
- instantaneous protection
- earth-fault protection.

Required power source: 110 or 220 V AC, 50/60 Hz.

Spare test plug and wiring kit

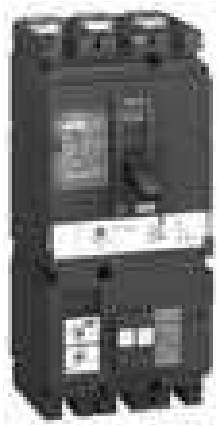
A spare test plug and wiring kit are available for this offer.

Earth-leakage protection

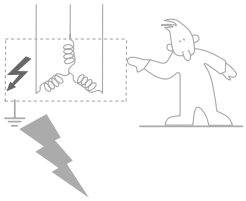
Add-on protection againes insulation faults using a Vigi module

A Vigi module can be added to any three or four-pole CVS100 to 630 circuit breaker to form a Vigi CVS.

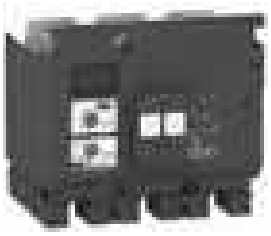
PB106449



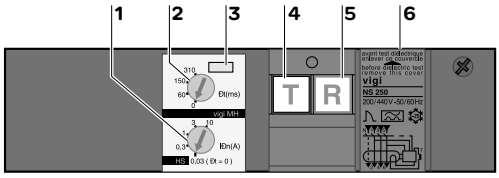
Vigi CVS100 to 630



PB103580-36



DB112147



1 Sensitivity setting
2 Time-delay setting (for selective earth-leakage protection).
3 Lead-seal fixture for controlled access to settings.
4 Test button simulating an earth-fault for regular checks on the tripping function
5 Reset button (reset required after earth-fault tripping).
6 Rating plate

Circuit breaker with add-on Vigi module (Vigi CVS)

- For general characteristics of circuit breakers, see pages A-2 and A-3.
- Add-on Vigi modules: Earth-leakage protection is achieved by installing a Vigi module (characteristics and selection criteria on next page) directly on the circuit breaker terminals. It directly actuates the trip unit (magnetic, thermal-magnetic or ETS).

Vigi CVS100 to 630 circuit breakers with earth-leakage protection

Addition of the Vigi module does not alter circuit-breaker characteristics:

- compliance with standards
- degree of protection, class II front-face insulation
- positive contact indication
- electrical characteristics
- trip-unit characteristics
- installation and connection modes
- indication, measurement and control auxiliaries
- installation and connection accessories.

Dimensions and weights		Vigi CVS100/160/250	Vigi CVS400/630
Dimensions	3-pole	105 x 236 x 86	135 x 355 x 110
W x H x D (mm)	4-pole	140 x 236 x 86	180 x 355 x 110
Weight (kg)	3-pole	2.5	8.8
	4-pole	3.2	10.8

Vigi earth-leakage protection modules

Compliance with standards

- IEC 60947-2, annex B.
- Decree dated 14 November 1988 (for France).
- IEC 60755, class A, immunity to DC components up to 6 mA
- operation down to -25 °C as per VDE 664.

Vigi module selection

Type	Vigi ME	Vigi MH	Vigi MB
Number of poles	3, 4 (1)	3, 4 (1)	3, 4 (1)
CVS100	■	■	-
CVS160	■	■	-
CVS250	-	■	-
CVS400	-	-	■
CVS630	-	-	■
Protection characteristics			
Sensitivity I△n (A)	fixed	adjustable 0.3 0.03 - 0.3 - 1 - 3 - 10	adjustable 0.3 - 1 - 3 - 10 - 30
Time delay	fixed	adjustable	adjustable
Intentional delay (ms)	< 40	0 - 60 (2) - 150 (2) - 310 (2)	0 - 60 - 150 - 310
Max. break time (ms)	< 40	< 40 < 140 < 300 < 800	< 40 < 140 < 300 < 800
Rated voltage V AC 50/60 Hz	200...440	200... 440 - 440...550	200...440 - 440...550

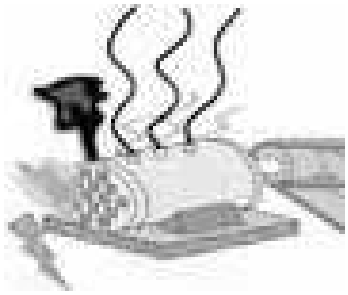
(1) Vigi 3P modules may also be used on 3P circuit breakers used for two-phase protection.
(2) If the sensitivity is set to 30 mA, there is no time delay, whatever the time-delay setting.

Operating safety

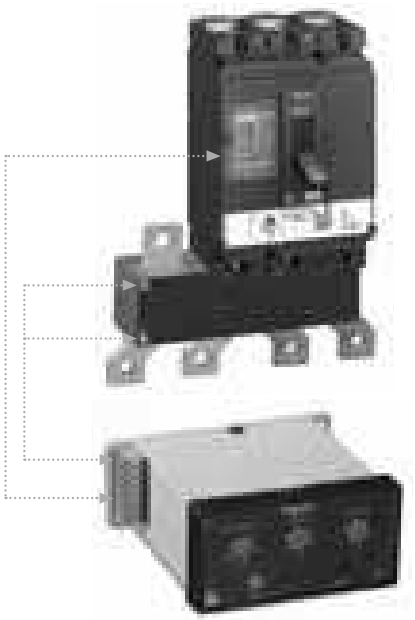
The Vigi module is a user safety device. It must be tested at regular intervals (every 6 months) via the test button.

Ground Fault Protection

EasyPact CVS



Protect electrical distribution network against fire



EasyPact CVS Ground Fault Protection is meant for human safety and to prevent fires due to low level f aults resulting from a deterioration of electrical insulation or high resistive faults.

Ground Fault Protection should be installed in the following installations

- Building housing inflammable or explosive material
- Line voltage to ground exceeds 150V AC
- Electrical equipments like welding sets
- Electrical equipments used in close Proximity of water/other liquids and metallic object
- Cable protection when distance between source and load is high

Selection for Ground Fault Protection is based on following:

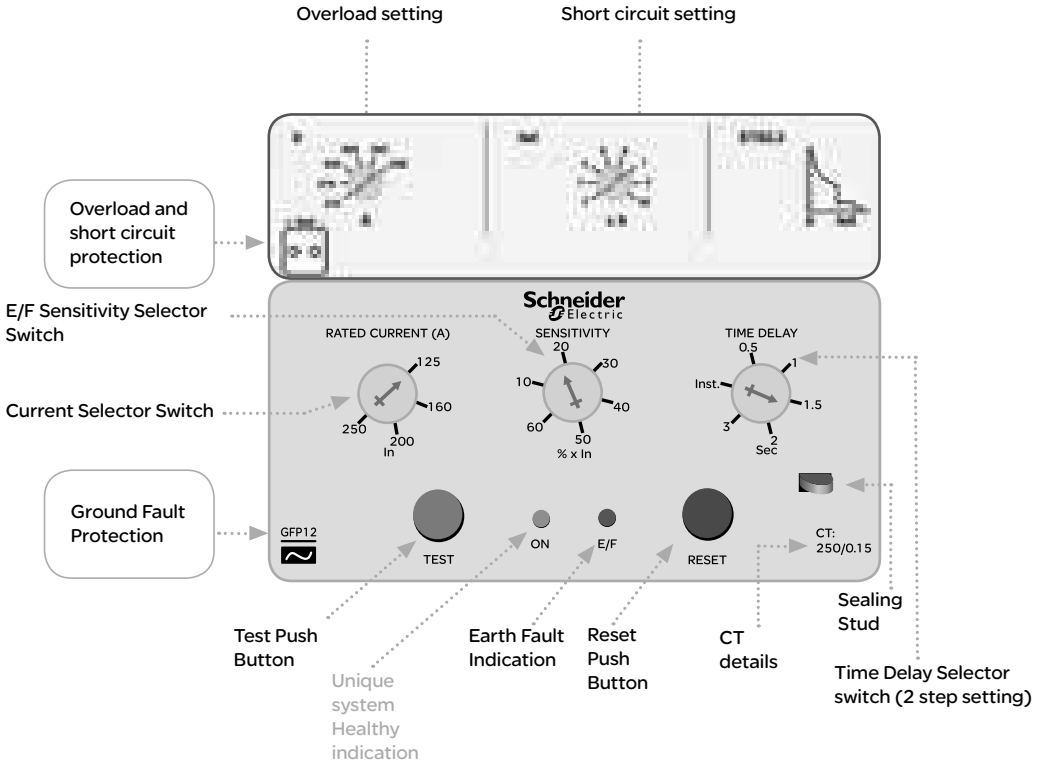
- Current sensitivity required
- Rated voltage, Rated current and frequency
- Operation time
- Detection device and protection device co-ordination

Unique Modular Ground Fault (UMGFP) system is suitable for EasyPact CVS / Compact NSX MCCBs

- Adjustable earth fault sensitivity selection 10 to 60%
- Adjustable time delay Inst / 0.5 - 3 Sec.
- System healthiness check through LED indication
- Individual fault indication for OL, SC, EF when used with Compact NSX (Optional)
- Individual fault indication for OL/SC, EF when used with EasyPact CVS (Optional)
- Test facility to check healthiness of earth fault protection system without tripping MCCB
- Suitable for 3P3W & 3P4W electrical distribution network

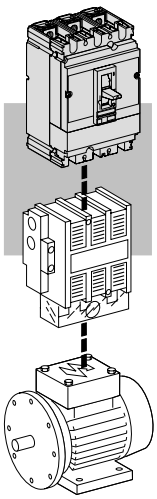
Ground Fault Protection relay setting details

Relay	Ir selection in RM	Sensitivity selection	Time delay selection
GFP11	32, 40, 50, 63, 80, 100	10 - 60% of In	0.5 to 3 Sec. /Instantaneous
GFP12	125, 160, 200, 250	10 - 60% of In	0.5 to 3 Sec. /Instantaneous
GFP13	400, 630	10 - 60% of In	0.5 to 3 Sec. /Instantaneous
GFP14	800	10 - 60% of In	0.5 to 3 Sec. /Instantaneous



Motor protection
MA instantaneous trip units

E26988

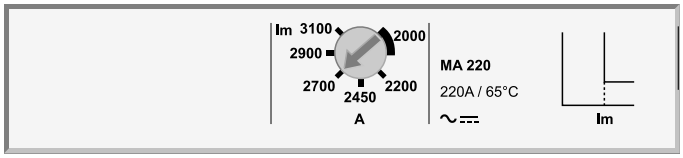


CVS100 to 630 circuit breakers, equipped with an MA magnetic trip unit with adjustable thresholds, offer:
- short-circuit protection
- suitability for isolation.

CVS100 to 630 circuit breakers with trip unit are supplied ready-assembled.

MA magnetic trip units for EasyPact CVS100-630A

DB400006



Circuit breakers with an MA trip unit are combined with a thermal relay and a contactor or a starter.

Protection

Magnetic protection (Im)

Short-circuit protection with an adjustable pick-up Im that initiates instantaneous tripping if exceeded.

- ■ **Im** = In x ... is set on an adjustment dial in multiples of the rating:
- □ 6 to 14 x In (2.5 to 100 A ratings)
- □ 9 to 14 x In (150 to 220 A ratings)
- □ 6 to 13 x In (320 to 500 A ratings)

Protection version

- ■ 3-pole (3P 3D): 3-pole frame (3P) equipped with detection on all 3 poles (3D).

Motor protection up to 250 kW

Motor protection rating (kW)				
CVS 100/160/250		1.1...110		
CVS 400/630		18.5...250		
380/415V N	N	-	-	50

MA trip units											
Ratings (A)	**In at 65 °C**	**2.5**	**6.3**	**12.5**	**25**	**50**	**100**	**150**	**220**	**320**	**500**
Circuit breaker	CVS100	■	■	■	■	■	■	-	-	-	-
	CVS160	-	-	-	-	-	■	■	-	-	-
	CVS250	-	-	-	-	-	-	■	■	-	-
	CVS400	-	-	-	-	-	-	-	-	■	-
	CVS630	-	-	-	-	-	-	-	-	-	■
Short-circuit protection (magnetic)											
Pick-up (A)	**Im** = In x ...	setting						setting		setting	
CVS100		6...14 x In						-		-	
CVS160/250		-						9...14 x In		-	
CVS400/630		-						-		6...13 x In	

Introduction
Characteristics and performance

PB106447



EasyPact CVS100/160/250

PB106448



EasyPact CVS400/630

Common characteristics			
Rated voltages			
Insulation voltage (V)	**Ui**		690
Impulse withstand voltage (kV)	**Uimp**		8
Operational voltage (V)	**Ue**	AC 50/60 Hz	415
Suitability for isolation		IEC/EN 60947-2	yes
Utilisation category			A
Pollution degree		IEC 60664-1	3

Circuit breakers				
Performance				
Electrical characteristics as per IEC 60947-2				
Rated current (A)	**In**	40 °C		
Number of poles				
Breaking capacity levels				
Breaking capacity (kA rms)				
	Icu	AC 50/60 Hz	220/240 V	
			380/415 V	
Service breaking capacity (kA rms)				
	Ics	AC 50/60 Hz	220/240 V	
			380/415 V	
Durability (C-O cycles)		Mechanical		
		Electrical	415V	In/2
				In

Protection			
Short-circuit protection	Magnetic only		
Overload/short-circuit protection	Thermal magnetic electronic		
	Micro processor		
	with neutral protection (Off-0.5-1)		
Earth fault protection	By UMGFP		
Earth-leakage protection	By Vigi module		
Installation/connections			
Dimensions and weights			
Dimensions (mm) W x H x D	Fixed, front connections	3P	
		4P	
Weight (kg)	Fixed, front connections	3P	
		4P	
Connections			
Connection terminals	Pitch	Without/With spreaders	
Large Cu or Al cables	Cross-section	mm^2	

* 630 A @ 30°C

CVS100	CVS160	CVS250	CVS400	CVS630
100	**160**	**250**	**400**	**630**
3, 4	3, 4	3, 4	3, 4	3, 4
B F	**B F**	**B F**	**F N**	**F N**
40 70 25 36	40 70 25 36	40 70 25 36	40 70 36 50	40 70 36 50
40 70 25 36	40 70 25 36	40 70 25 36	40 70 36 50	40 70 36 50
30000	25000	20000	15000	15000
30000 12000	25000 12000	20000 10000	12000 6000	8000 4000
■	■	■	■	■
■	■	■	■	■*
-	-	-	■	■
-	-	-	■	■
■	■	■	■	■
■	■	■	■	■
105 x 161 x 86 140 x 161 x 86	105 x 161 x 86 140 x 161 x 86	105 x 161 x 86 140 x 161 x 86	140 x 255 x 110 185 x 255 x 110	140 x 255 x 110 185 x 255 x 110
2.05 2.4	2.2 2.6	2.4 2.8	6.05 7.90	6.2 8.13
35/45 mm	35/45 mm	35/45 mm	45/52.5 mm 45/70 mm	45/52.5 mm 45/70 mm
300	300	300	4 x 240	4 x 240

Functions & Characteristics

Protection of distribution systems for EasyPact CVS 800





EasyPact CVS 800A MCCBs are available in 3P/4P version with 35/50kA breaking performances with Ics = 100% Icu. EasyPact CVS comes with host of features including adjustable overload, short circuit setting, line load reversibility.

- Ics=100% Icu.
- Adjustable over load setting (0.8 to 1 x In)
- Adjustable short circuit setting for individual phase (3.5 to 10 In)
- Line load reversibility

CVS 800

Overload protection (thermal)	
Tripping threshold (A) In	Adjustable 0.8...1 x In
Short-circuit protection (magnetic)	
Tripping threshold (A) Im	Adjustable
EasyPact CVS 800	3.5...10 In

Accessories and Auxiliaries

- Auxiliary contact with 1C/O & 2 C/O options.
- Alarm contact with 1C/O & 2 C/O options.
- Shunt trip coil.
- Under voltage coil.
- Direct and Extended Rotary Handle.
- Unique modular ground fault protection for 3 phase 3 wire and 3 phase 4 wire systems.

Function and characteristics			**Protection of distribution system EasyPact CVS 800 A**	
EasyPact CVS Circuit breakers			CVS 800	
Number of Poles			3/4	
Control/manual/toggle			■	
	Direct or extended rotary handle		■	
Electrical characteristics as per IEC 60947- 2				
Rated current(A)	In	40°C	800	
Rated insulation voltage(V)	Ui		690	
Impulse withstand voltage(kV)	Uimp		8	
Rated operational voltage(V)	Ue	AC 50/60 Hz	415	
Type of circuit Breaker			**F**	**N**
Ultimate Breaking Capacity(kA)	Icu	AC 415V 50/60HZ	35	50
Service Breaking Capacity (KA)	Ics	%Icu	100%	
Utilisation category			A	
Durability (C-O cycles)	mechanical		8000	
	electrical	In	2500	
Protection			**Thermal Magnetic**	
Overload release setting (A)			■	
		Adjustable Ir(In x ...)	Centralised 0.8.....1	
Short Circuit Protection			■	
Short Circuit Release setting		Isd (Ir x...)	3.5 to 10 (independent adjustment of each phase)	
Earth Fault Protection*	By UMGFP		■	
GFP Release setting = 10-60% of In			■	
Time Delay Setting (0.5 - 3 Sec./Inst.)			■	
Additional indication & control auxiliaries				
Indication Contacts			■	
Alarm Contacts		1 C/O	■	
		2 C/O	■	
Auxiliary Contacts		1 C/O	■	
		2 C/O	■	
Alarm - Auxiliary Contacts		1 C/O each	■	
MX shunt and MN under voltage Release			■	
Installation and Connection				
Bus Bar Max.	width (mm)		40	
Cable Crimped lugs AL/CU (mm)2			300*2	
Installation Accessories				
Spreaders			■	
Phase Barriers			■	
Dimensions & Weight				
Overall dimensions W X H X D	(mm)	3Pole	210 x 274 x 103	
	(mm)	4Pole	280 x 274 x 103	
Weight(kg)	3 /4Pole		10.3/13.7	

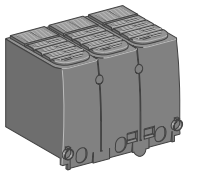
Accessories and auxiliaries

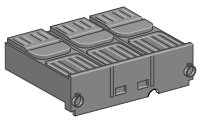
Overview

CVS 100 to 630

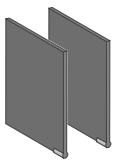
DB400001

Insulation accessories



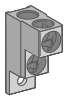


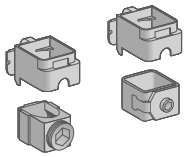
Sealable terminal shields



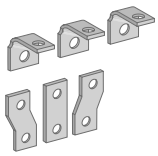
Interphase barriers

Connection



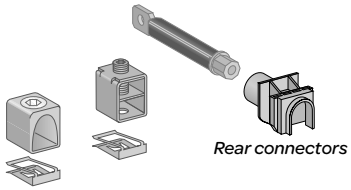


Cable connectors





Terminal extensions



Cable connectors

Rear connectors

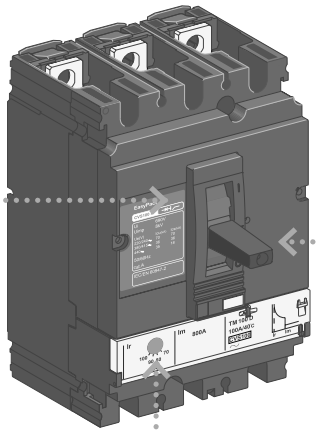
Electrical auxiliaries



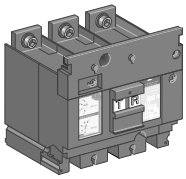
Indication contact



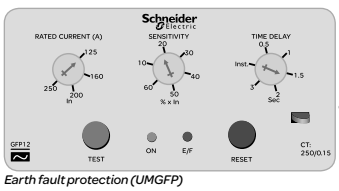
Voltage release



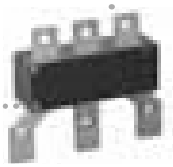
Insulation Monitoring



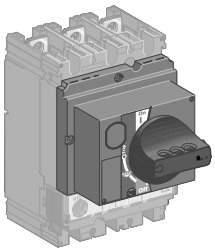
Earth leakage protection (VigiCVS)



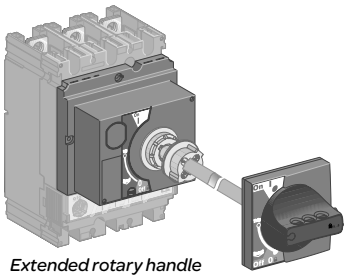
Earth fault protection (UMGFP)



Control accessories



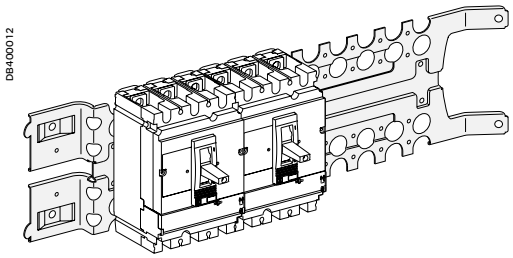
Direct rotary handle



Extended rotary handle

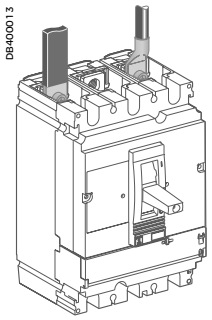
Accessories and auxiliaries
Device installation

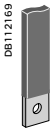
CVS circuit breakers may be installed horizontally, vertically or flat on their back, without derating performance levels.



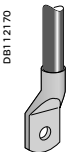
Mounting on a Prisma mounting plate.

Fixed circuit breakers are designed for standard front connection using bars or cables with lugs.
Cable connectors are available for bare cables. Rear connection is also possible.

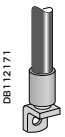




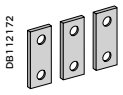
Insulated bar.



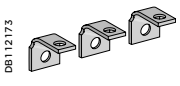
Small lug for copper cables.



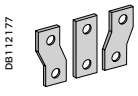
Small lug for Al cables.



Straight terminal extensions.



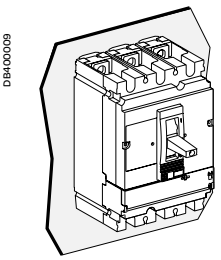
Right-angle terminal extensions



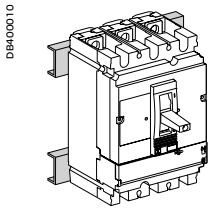
Spreaders.

Fixed circuit breakers

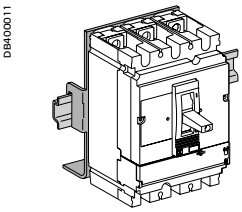
Fixed circuit breakers are designed for standard connection using bars or cables with lugs. Bare-cable connectors are available for connection to bare copper or aluminium cables.



Mounting on a backplate.



Mounting on rails.



Mounting on DIN rail (with adaptor).

Front connection

Bars or cables with lugs

Standard terminals

EasyPact CVS100 to 630 come with terminals comprising snap-in nuts with screws:
- EasyPact CVS100: M6 nuts and screws.
- EasyPact CVS160/250: M8 nuts and screws
- EasyPact CVS400/630: M10 nuts and screws.

These terminals may be used for:
- direct connection of insulated bars or cables with lugs
- terminal extensions.

Interphase barriers or terminal shields are recommended. They are mandatory for certain connection accessories (in which case the interphase barriers are provided).

Bars

When the switchboard configuration has not been tested, insulated bars are mandatory.

Maximum size of bars

EasyPact CVS circuit breaker		100/160/250	400/630
Without spreaders	pitch (mm)	35	45
	maximum bar size (mm)	20 x 2	32 x 6
With spreaders	pitch (mm)	45	52.5
	maximum bar size (mm)	32 x 2	40 x 6

Crimp lugs

There are two modules of lugs, for aluminium and copper cables.
Interphase barriers or long terminal shields must be used with narrow lugs. The lugs are supplied with interphase barriers.

EasyPact CVS circuit breaker		100/160/250	400/630
Copper cables	size (mm^2)	150, 185	240, 300
	crimping	hexagonal barrels or punching	
Aluminium cables	size (mm^2)	150, 185	240, 300
	crimping	hexagonal barrels	

Terminal extensions

Extensions with anti-rotation ribs can be attached to the standard terminals to provide numerous connection possibilities in little space:
- straight terminal extensions
- right-angle terminal extensions

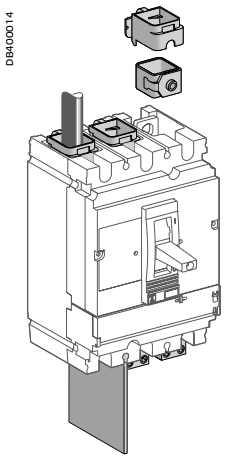
Spreaders

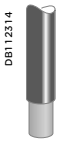
Spreaders may be used to increase the pitch:
- CVS100 to 250: the 35 mm pitch can be increased to 45 mm
- CVS400/630: the 45 mm pitch can be increased to 52 or 70 mm.

Bars, cable lugs or cable connectors can be attached to the ends.

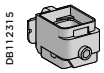
Pitch (mm) depending on the type of spreader

EasyPact CVS circuit breaker	CVS100 to 250	CVS100 to 630
Without spreaders	35	45
With spreaders	45	52.5 or 70





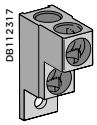
Bare cable.



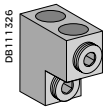
1-cable connector for CVS100 to 250



CVS400/630.



2-cable connector for CVS100 to 250



CVS400/630.

Bare cables

Bare-cable connectors may be used for both copper and aluminium cables.

1-cable connectors for EasyPact CVS100 to 250
The connectors snap directly on to the device terminals or are secured by clips to right-angle and straight terminal extensions as well as spreaders.

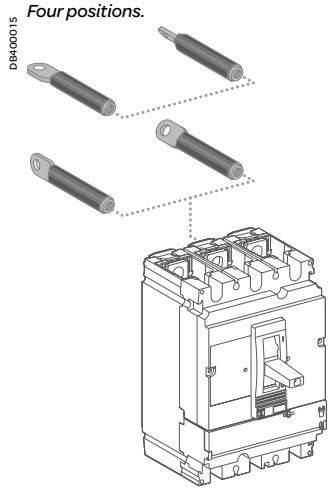
1-cable connectors for EasyPact CVS400 to 630
The connectors are screwed directly to the device terminals.

2-cable connectors for EasyPact CVS100 to 250 and 400/630
The connectors are screwed to device terminals or right-angle terminal extensions.

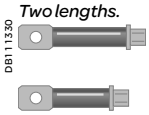
Maximum size of cables depending on the type of connector

EasyPact CVS circuit breaker		100/160	250	400	630
Steel connectors	1.5 to 95 mm²	■			
Aluminium connectors	25 to 95 mm²	■	■		
	120 to 185 mm²	■	■		
	2 cables 50 to 120 mm²	■	■		
	2 cables 35 to 240 mm²			■	■
	35 to 300 mm²			■	■

Four positions.



Two lengths.



Rear connection

Device mounting on a backplate with suitable holes enables rear connection.

Bars or cables with lugs

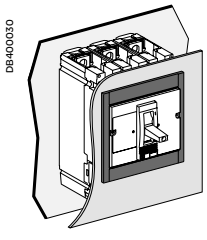
Rear connections for bars or cables with lugs are available in two lengths. Bars may be positioned flat, on edge or at 45° angles depending on how the rear connections are positioned.
The rear connections are simply fitted to the device connection terminals. All combinations of rear connection lengths and positions are possible on a given device.

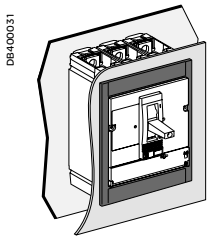
Escutcheons are an optional feature mounted on the switchboard door. They increase the degree of protection to IP40, IK07. Protection collars maintain the degree of protection, whatever the position of the device (connected, disconnected).

IP40 escutcheons for fixed devices

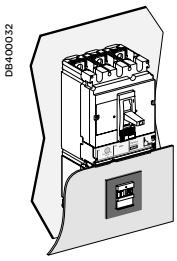
There are three types of escutcheon with a gasket which are screwed to the door cut-out:

- three escutcheons for all control types (toggle, handle or motor mechanism)
- a wide model for Vigi modules that can be combined with the above.





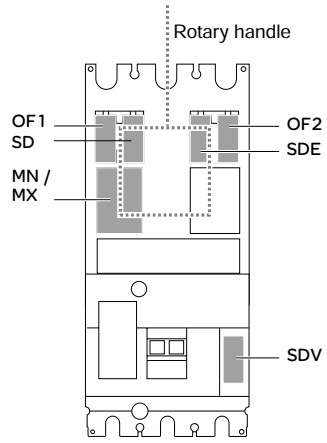
Escutcheon for toggle without and with access to the trip unit.



Escutcheon for Vigi module.

Accessories and auxiliaries
Selection of auxiliaries

DB115583



EasyPact CVS100/160/250

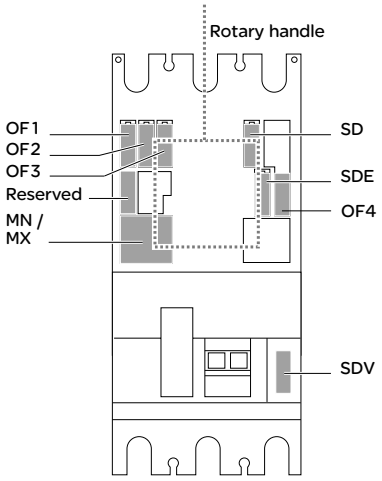
Standard
All EasyPact CVS100/160/250 circuit breakers have slots for the electrical auxiliaries listed below.

5 indication contacts (see page A-15)
- 2 ON/OFF (OF1 and OF2)
- 1 trip indication (SD)
- 1 fault-trip indication (SDE)
- 1 earth-fault indication (SDV), when the device is equipped with a Vigi module.

1 remote-tripping release (see page A-16)
- either 1 MN undervoltage release
- or 1 MX shunt release.

All these auxiliaries can be installed with a rotary handle.
The illustration shown (TMD, MA standard) indicates auxiliary possibilities depending on the type of trip unit.

DB115590



EasyPact CVS400/630

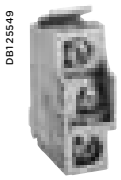
Standard
All EasyPact CVS400/630 circuit breakers have slots for the electrical auxiliaries listed below.

6 indication contacts (see page A-15)
- 4 ON/OFF (OF4)
- 1 trip indication (SD)
- 1 fault-trip indication (SDE)
- 1 earth-fault indication (SDV), when the device is equipped with a Vigi module.

1 remote-tripping release (see page A-16)
- either 1 MN undervoltage release
- or 1 MX shunt release.

All these auxiliaries can be installed with a rotary handle.
The illustration shown (TMD, MA and ETS 2.3 standard) indicates auxiliary possibilities depending on the type of trip unit.

One contact model provides circuit-breaker status indications (OF - SD - SDE - SDV).



Indication contacts.

These common-point changeover contacts provide remote circuit-breaker status information.
They can be used for indications, electrical locking, relaying, etc.
They comply with the IEC 60947-5 international recommendation.

Functions

Breaker-status indications, during normal operation or after a fault
A single type of contact provides all the different indication functions:
■ OF (ON/OFF) indicates the position of the circuit breaker contacts
■ SD (trip indication) indicates that the circuit breaker has tripped due to:
□ an overload
□ a short-circuit
□ an earth fault (Vigi)
□ operation of a voltage release
□ operation of the “push to trip” button
□ disconnection when the device is ON.
The SD contact returns to de-energised state when the circuit breaker is reset.
■ SDE (fault-trip indication) indicates that the circuit breaker has tripped due to:
□ an overload
□ a short-circuit
□ an earth fault (Vigi)
■ SDV indicates that the circuit breaker has tripped due to an earth fault. It returns de-energised state when the Vigi module is reset.

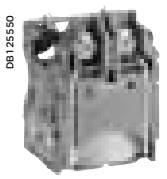
Installation

■ OF, SD, SDE and SDV functions: a single type of contact provides all these different indication functions, depending on where it is inserted in the device. The contacts clip into slots behind the front cover of the circuit breaker (or the Vigi module for the SDV function).
The SDE function on a CVS100 - 630 A equipped with a magnetic, thermal-magnetic or ETS2.3 trip unit requires the SDE adaptor.

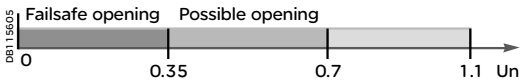
Electrical characteristics of auxiliary contacts

Contacts			**Standard**				**Low level**			
Types of contacts			**All**				**OF, SD, SDE, SDV**			
Rated thermal current (A)			6				5			
Minimum load			100 mA at 24 V DC				1 mA at 4 V DC			
Utilisation cat. (IEC 60947-5-1)			AC12	AC15	DC12	DC14	AC12	AC15	DC12	DC14
Operational current (A)	24 V	AC/DC	6	6	6	1	5	3	5	1
	48 V	AC/DC	6	6	2.5	0.2	5	3	2.5	0.2
	110 V	AC/DC	6	5	0.6	0.05	5	2.5	0.6	0.05
	220/240 V	AC	6	4	-	-	5	2	-	-
	250 V	DC	-	-	0.3	0.03	5	-	0.3	0.03
	380/440 V	AC	6	2	-	-	5	1.5	-	-

Accessories and auxiliaries
Remote tripping



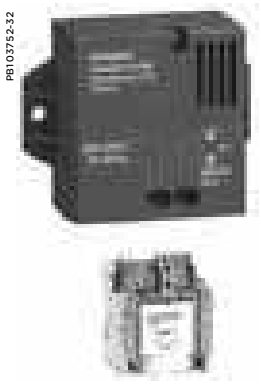
MX or MN voltage release.



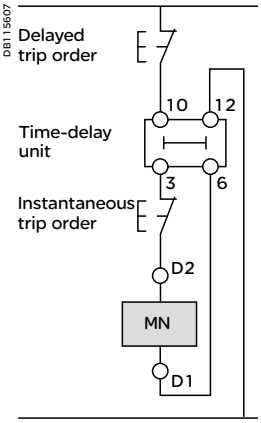
Opening conditions of the MN release.



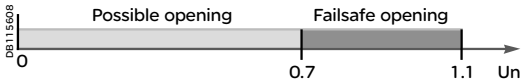
Closing conditions of the MN release.



MN release with a time-delay unit.



Wiring diagram for emergency-off function with MN + time-delay unit.



Opening conditions of the MX release.

MN undervoltage release

- This release trips the circuit breaker when the control voltage drops below a tripping threshold
- The tripping threshold is between 0.35 and 0.7 times the rated voltage
- Circuit breaker closing is possible only if the voltage exceeds 0.85 times the rated voltage.

Characteristics

Power supply	V AC	50/60 Hz: 24 - 48 - 100/130 - 200/240
		50 Hz: 380/415 60 Hz: 208/277
	V DC	12 - 24 - 30 - 48 - 60 - 125 -250
Operating threshold	Opening	0.35 to 0.7 Un
	Closing	0.85 Un
Operating range		0.85 to 1.1 Un
Consumption (VA or W)		Pick-up: 10 - Hold: 5
Response time (ms)		50

Time-delay unit for an MN release

A time delay unit for the MN release eliminates the risk of nuisance tripping due to a transient voltage dip lasting ⩽ 200 ms. For shorter micro-outages, a system of capacitors provides temporary supply to the MN at U > 0.7 to ensure non tripping.
The correspondence between MN releases and time-delay units is shown below.

Power supply	Corresponding MN release
Unit with fixed delay 200 ms	
48 V AC	48 V DC
220 / 240 V AC	250 V DC
Unit with adjustable delay ⩽ 200 ms	
48 - 60 V AC/DC	48 V DC
100 - 130 V AC/DC	125 V DC
220 - 250 V AC/DC	250 V DC

MX shunt release

The MX release opens the circuit breaker via an impulse-type (⩾ 20 ms) or maintained order.

Opening conditions

When the MX release is supplied, it automatically opens the circuit breaker. Opening is ensured for a voltage U ⩾ 0.7 x Un.

Characteristics

Power supply	V AC	50/60 Hz: 24 - 48 - 100/130 - 200/240
		50 Hz: 380/415 60 Hz: 208/277
	V DC	12 - 24 - 30 - 48 - 60 - 125 -250
Operating range		0.7 to 1.1 Un
Consumption (VA or W)		Pick-up: 10
Response time (ms)		50

Circuit breaker control by MN or MX

When the circuit breaker has been tripped by an MN or MX release, it must be reset before it can be reclosed.
MN or MX tripping takes priority over manual closing.
In the presence of a standing trip order, closing of the contacts, even temporary, is not possible.
Connection using wires up to 1.5mm² to integrated terminal blocks.

Note: *circuit breaker opening using an MN or MX release must be reserved for safety functions. This type of tripping increases wear on the opening mechanism. Repeated use reduces the mechanical endurance of the circuit breaker by 50 %.*

There are two types of rotary handle:
- direct rotary handle
- extended rotary handle.

PB106453



EasyPact CVS with a rotary handle.

PB106454

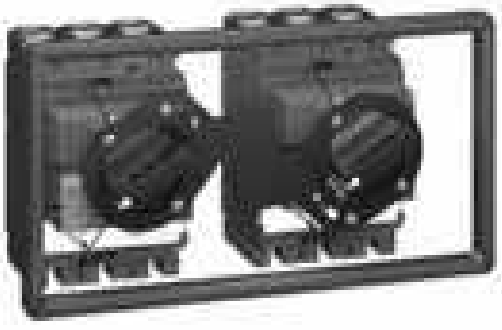


EasyPact CVS with an extended rotary handle installed at the back of a switchboard, with the keylock option and key.

PB106455



PB106456



Direct rotary handle

Standard handle

Degree of protection IP40, IK07.
The direct rotary handle maintains:
- visibility of and access to trip-unit settings
- suitability for isolation
- indication of the three positions O (OFF), I (ON) and tripped
- access to the "push to trip" button.

Device locking

The rotary handle facilitates circuit-breaker locking.
- Padlocking:
  - standard situation, in the OFF position, using 1 to 3 padlocks, shackle diameter 5 to 8 mm, not supplied

Extended rotary handle

Degree of protection IP56, IK08.
The extended rotary handle makes it possible to operate circuit breakers installed at the back of switchboards, from the switchboard front.
It maintains:
- visibility of and access to trip-unit settings
- suitability for isolation
- indication of the three positions O (OFF), I (ON) and tripped.

Device and door padlocking

Padlocking locks the circuit-breaker handle and disables door opening:
- standard situation, in the OFF position, using 1 to 3 padlocks, shackle diameter 5 to 8 mm, not supplied

Parts of the extended rotary handles

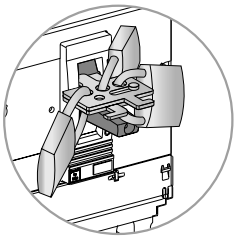
- A unit that replaces the front cover of the circuit breaker (secured by screws).
- An assembly (handle and front plate) on the door that is always secured in the same position, whether the circuit breaker is installed vertically or horizontally.
- An extension shaft that must be adjusted to the distance. The min/max distance between the back of circuit breaker and door is:
  - 185...600 mm for EasyPact CVS100 to 250
  - 209...600 mm for EasyPact CVS 400/630.

Manual source-changeover systems

An additional accessory interlocks two devices with rotary handles to create a source-changeover system. Closing of one device is possible only if the second is open.
This function is compatible with direct or extended rotary handles.
Up to three padlocks can be used to lock in the OFF or ON position.

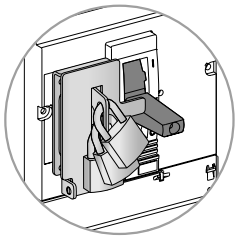
Accessories and auxiliaries
Locks and sealing accessories

DB400025



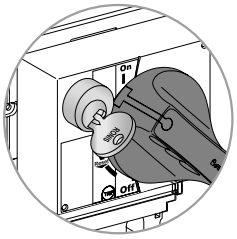
Toggle locking using padlocks and an accessory: Removable device

DB400026



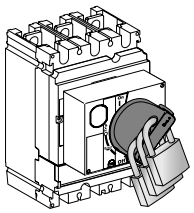
Fixed device attached to the case.

DB400027

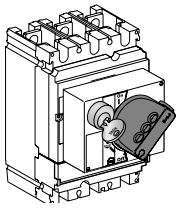


Rotary-handle locking using a keylock.

DB400028

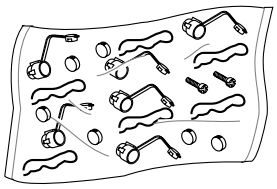


DB400029



Rotary-handle locking using a padlock or a keylock.

DB115033



Sealing accessories.

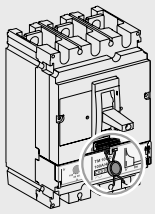
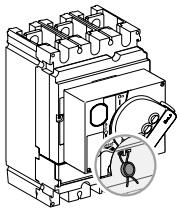
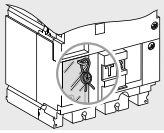
Locks

Locking in the OFF position guarantees isolation as per IEC 60947-2. Padlocking systems can receive up to three padlocks with shackle diameters ranging from 5 to 8 mm (padlocks not supplied). Certain locking systems require an additional accessory.

Control device	Function	Means	Required accessories
Toggle	Lock in OFF position	Padlock	Removable device
	Lock in OFF or ON position	Padlock	Fixed device
Direct rotaryStandard handle	Lock in ■ OFF position ■ OFF or ON position (1)	Padlock	-
		Keylock	Locking device + keylock
Extended rotary handle	Lock in ■ OFF position ■ OFF or ON position (1) with door opening prevented (2)	Padlock	-
	Lock in OFF position	Padlock	UL508 control accessory
	■ OFF or ON position (1) inside the switchboard	Keylock	Locking device + keylock

(1) *Following a simple modification of the mechanism.*
(2) *Unless door locking has been voluntarily disabled.*

Sealing accessories

Toggle control	DB400017 
Rotary handle	DB400018 
Access to Vigi-module settings	DB400019 
Types of seals	**Protection cover for settings**
Protected operations	■ modification of settings.

Installation recommendations

EasyPact CVS

Installation recommendations
Contents

Functions and characteristics *A-1*

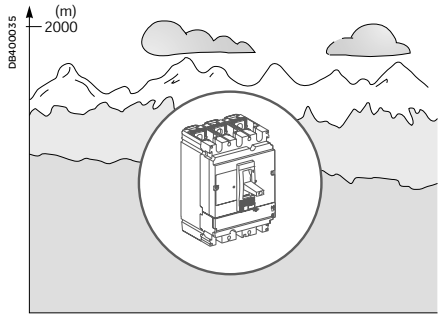
Operating conditions and temperature derating **B-2**

Installation in switchboards
Safety clearances and minimum distances B-3
Installation example B-4

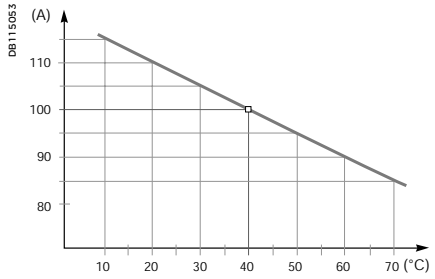
Dimensions and connection *C-1*
Additional characteristics *D-1*
Catalogue numbers *E-1*

Operating conditions and temprature derating

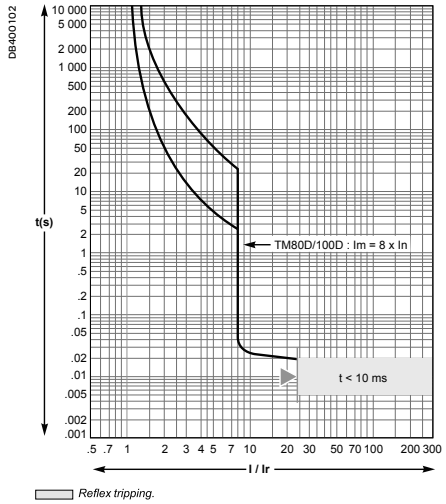
When thermal-magnetic trip units are used at ambient temperatures other than 40 °C, the Ir pick-up is modified.



Electronic trip units are not affected by variations in temperature. If the trip units are used in high-temperature environments, the ETS setting must nevertheless take into account the temperature limits of the circuit breaker.



Temperature derating curve for CVS100.



Reflex tripping.

Thermal-protection curve with minimum and maximum values.

Altitude derating

Altitude does not significantly affect the characteristics of EasyPact CVS circuit breakers up to 2000 m. Above this altitude, it is necessary to take into account the decrease in the dielectric strength and cooling capacity of air.

Vibrations

CVS devices resist electromagnetic or mechanical vibrations.
Tests are carried out in compliance with standard IEC 60068-2-6 for the levels required by merchant-marine inspection organisations (Veritas, Lloyds, etc.):
- 2 to 13.2 Hz: amplitude 11 mm
- 13.2 to 100 Hz: constant acceleration 0.7 g.

Excessive vibration may cause tripping, breaks in connections or damage to mechanical parts.

Degree of protection

CVS circuit breakers have been tested for degree of protection (IP) and mechanical impact protection (IK). See page A-2.

The overload protection is calibrated at 40 °C in the lab. This means that when the ambient temperature is less than or greater than 40 °C, the Ir protection pick-up is slightly modified.
To obtain the tripping time for a given temperature:
- see the tripping curves for 40 °C (see pages D-2 and D-3)
- determine tripping times corresponding to the Ir value (thermal setting on the device), corrected for the ambient temperature as indicated in the tables below.

Settings of CVS100 to 630 equipped with TM-D trip units as a function of the temperature

The table indicates the real Ir (A) value for a given rating and temperature.

Rat. (A)	Temperature (°C)												
	10	15	20	25	30	35	40	45	50	55	60	65	70
16	18.4	18	18	18	17	16.6	16	15.6	15.2	14.8	14.5	14	13.8
25	28.8	28	27.5	27	26.3	25.6	25	24.5	24	23.5	23	22	21
32	36.8	36	35.2	34.4	33.6	32.8	32	31.3	30.5	30	29.5	29	28.5
40	46	45	44	43	42	41	40	39	38	37	36	35	33.5
50	57.5	56	55	54	53	51	50	49	47	46	44	43	41
63	73	72	70	68	67	65	63	61	59	57	55	53	50
80	92	90	88	86	84	82	80	78	75.5	73	70.7	68	65
100	114	112	110	107	105	102.5	100	97	95	92.0	89	86	83
125	144	141	138	134	131	128	125	122	119	116	113	109	106
160	184	180	176	172	168	164	160	156	152	148	144	140	136
200	230	225	220	215	210	205	200	195	190	185	180	175	170
250	288	281	277	269	263	256	250	244	238	231	225	219	213
320	364.9	357.8	350.5	343.2	335.6	327.9	320	311.9	303.6	295	286.2	277.1	267.7
400	456.6	447.7	438.6	429.2	419.7	410	400	390	379.3	368.5	357.3	345.8	333.9
500	558.6	549.2	539.7	530.1	520.3	510.2	500	489.6	478.9	468	456.8	445.4	433.6
600	672	660.5	648.9	637	630	612.6	600	587.2	574	560.6	546.8	532.7	518.2

CVS400 and 630 (equipped with ETS2.3 electronic trip unit)

The table below indicates the maximum long-time (LT) protection setting Ir (A) depending on the ambient temperature.

Type of device	Rating (A)	Temperature (°C)						
		40	45	50	55	60	65	70
CVS400								
Fixed	**400**	400	400	400	390	380	370	360
CVS630								
Fixed	**630**	630	615	600	585	570	550	535

Note: For 800A please contact sales office

General rules

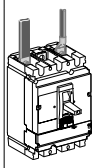
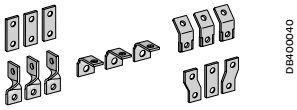
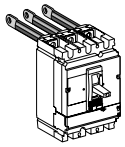
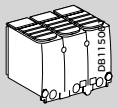
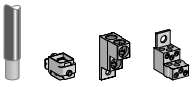
When installing a circuit breaker, minimum distances (safety clearances) must be maintained between the device and panels, bars and other protection devices installed nearby. These distances, which depend on the ultimate breaking capacity, are defined by tests carried out in accordance with standard IEC 60947-2.
If installation conformity is not checked by type tests, it is also necessary to:
- use insulated bars for circuit-breaker connections
- segregate the busbars using insulating screens.

For CVS100 to 630 devices, terminal shields and interphase barriers are recommended and may be mandatory depending on the operating voltage of the device and type of installation (fixed, withdrawable, etc.).

Power connections

The table below indicates the rules to be respected for CVS100 to 630 devices to ensure insulation of live parts for fixed devices.

CVS100 to 630: rules to be respected to ensure insulation of live parts

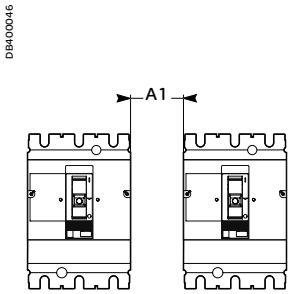
Type of connection		**Fixed, front connection**			**Fixed, rear connection**
		 DB400039  DB400040			
Possible, recommended or mandatory accessories: With:		No insulating accessory DB115059	Interphase barriers  DB115060	Long terminal shields (1)  DB115061	Short terminal shields 
operating voltage	**type of conductor**				
≤ **440 V**	Insulated bars 	Possible	Possible	Possible	Recommended
	Extension terminals Cables + crimp lugs 	No	Mandatory (supplied)	Possible (instead of ph. barriers)	Recommended
	Bare cables + connectors 	Possible for CVS100 to 250	Possible for CVS100 to 250	Possible for CVS100 to 250	Recommended
		No	Mandatory (supplied)	Possible (instead of ph. barriers)	

(1) Long terminal shields provide a degree of protection of IP40 (ingress) and IK07 (mechanical impact).

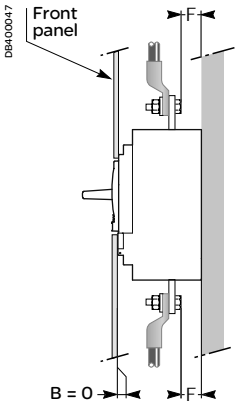
Installation in switchboards
Installation example

Safety clearance

Minimum distance between two adjacent circuit breakers



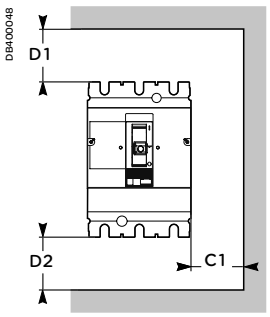
Minimum distance between circuit breaker and front or rear panels

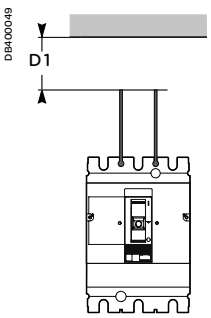


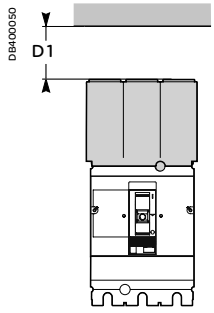
Bare or painted sheet metal

Note: if F < 8 mm: an insulating screen or long terminal shield is mandatory.

Minimum distance between circuit breaker and top, bottom or side panels





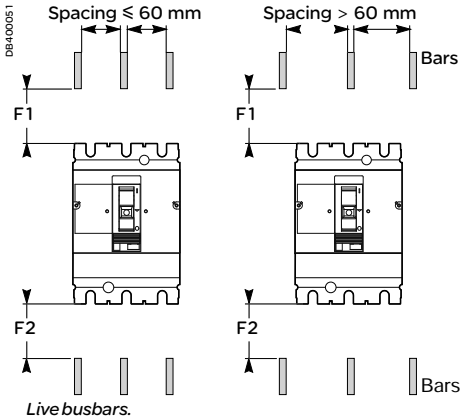


Devices without accessories.

Devices with interphase barriers or long terminal shields.

Minimum safety clearances for CVS100 to 630

Operating voltage	Clearance (mm)						
	Between devices	Between device and sheet metal					
		Painted sheet metal			Bare sheet metal		
	A1	C1	D1	D2	C1	D1	D2
U ≤ 440 V for devices equipped with:							
■ no accessories	0	0	30	30	5	40	40
■ interphase barriers	0	0	0	0	5	0	0
■ long terminal shields	0	0	0	0	0	0	0



Live busbars.

Clearances with respect to live bare busbars

Minimum clearances for CVS100 to 630

Operating voltage	Clearances with respect to live bare busbars			
	spacing ≤ 60 mm		spacing > 60 mm	
	F1	F2	F1	F2
U < 440 V	350	350	80	80

These clearances can be reduced for special installations as long as the configuration is checked by tests.

Dimensions and connection

EasyPact CVS

Dimensions and connection
Contents

Functions and characteristics *A-1*
Installation recommendations *B-1*

Dimensions and mounting
EasyPact CVS100 to 630 C-2
Vigi CVS100 to 630 C-3

Front-panel accessories
EasyPact CVS100 to 630 C-4

Front-panel cutouts
EasyPact CVS100 to 630 C-5

Power connections
EasyPact and Vigi CVS100 to 630 C-6
Connection of insulated bars or cables with lugs to EasyPact and Vigi CVS100 to 630 C-9
Connection of bare cables to EasyPact and Vigi CVS100 to 630 C-10

Dimension & installation recommendation
EasyPact CVS 800 C-11

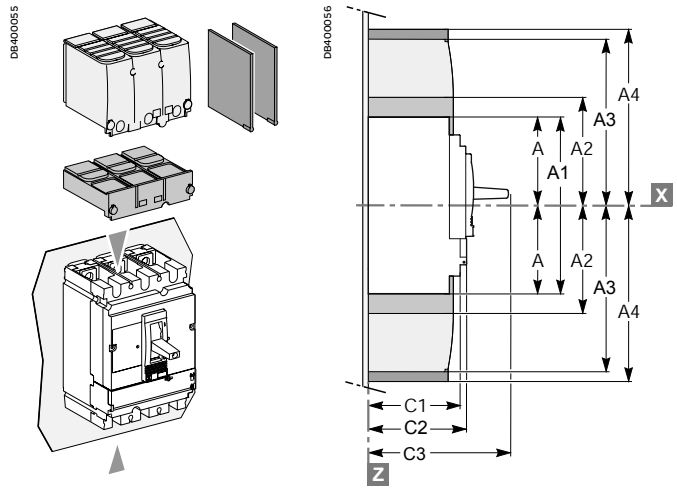
Electrical wiring diagram
EasyPact CVS 3 Phase 3 Wire and 3 Phase 4 Wire operated GFP C-12

Additional characteristics *D-1*
Catalogue numbers *E-1*

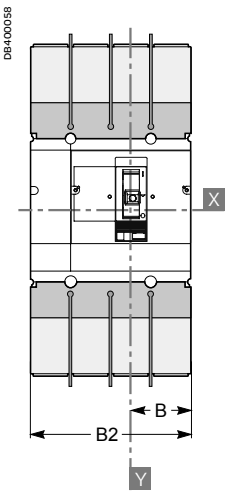
Dimensions and mounting
EasyPact CVS100 to 630

Dimensions

3P



4P



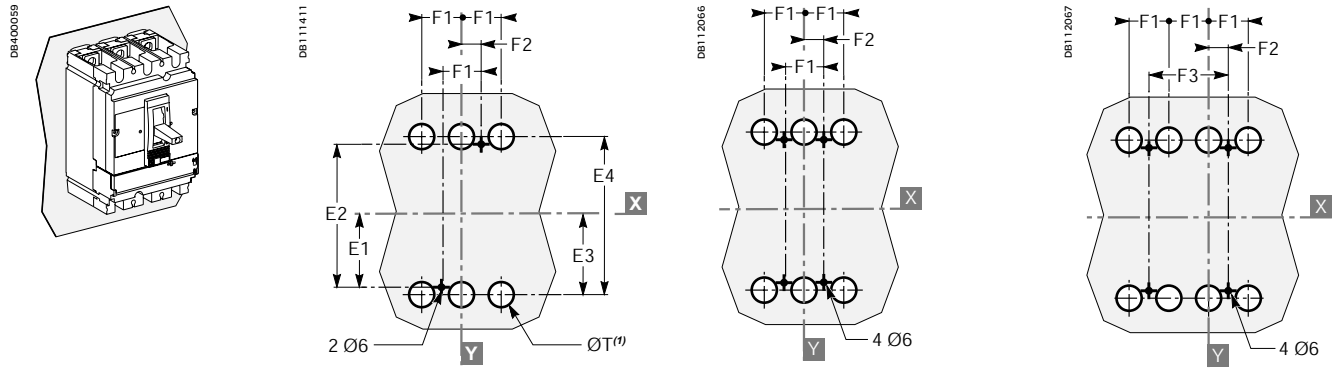
Interphase barriers.
Short terminal shields.

Long terminal shields (also available for CVS400/630 spreaders with 52.5 mm pitch: B1 = 157.5 mm, B2 = 210 mm).

Mounting

On backplate

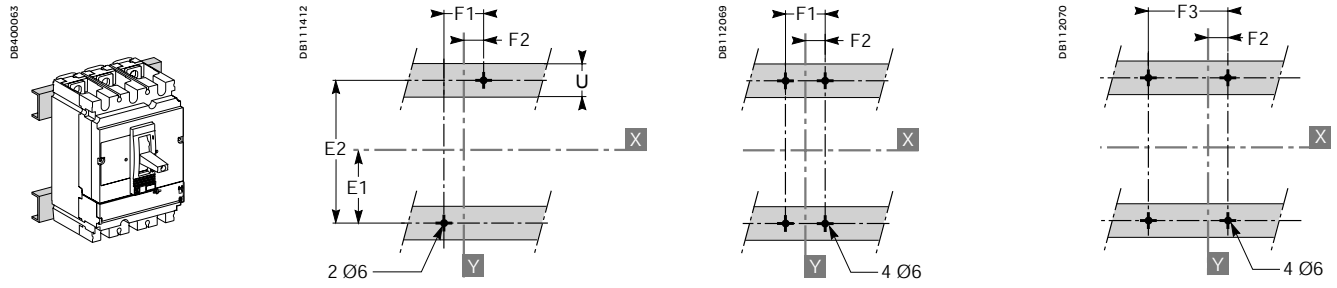
CVS100 to 250	CVS400/630	CVS100 to 630
3P	3P	4P



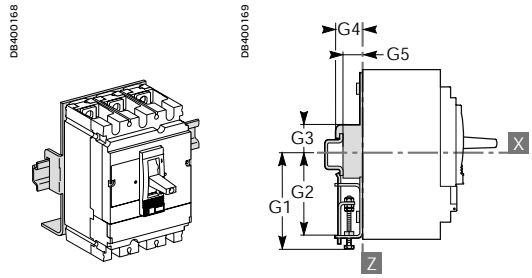
(1) The ØT holes are required for rear connection only.

On rails

CVS100 to 250	CVS400/630	CVS100 to 630
3P	3P	4P



On DIN rail with adaptor plate (CVS100 to 250)



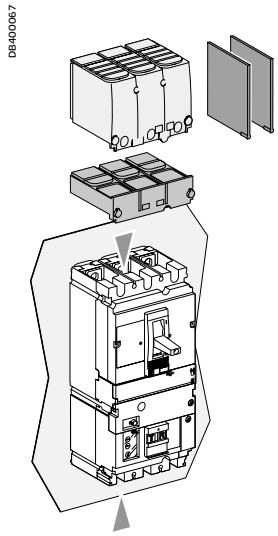
Dimensions and mounting

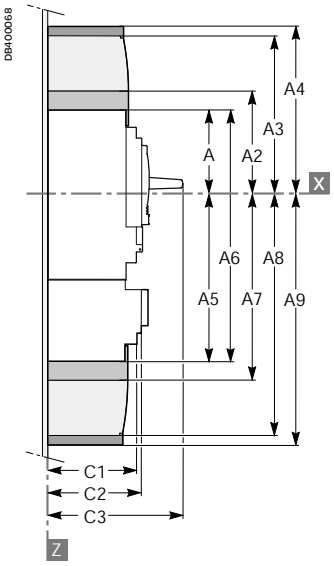
Vigi CVS100 to 630

Dimensions

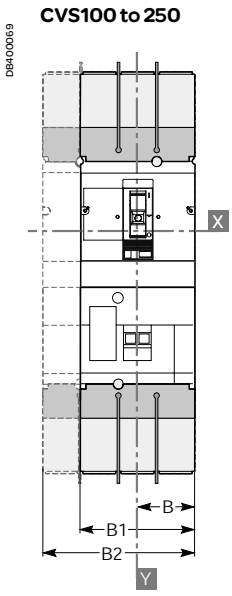
3/4P

3/4P

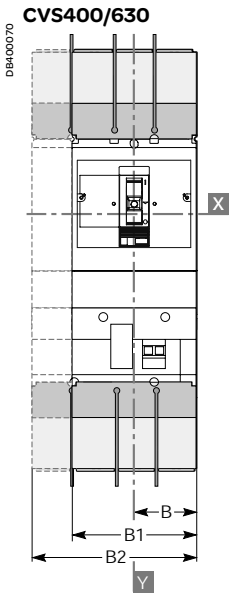




CVS100 to 250



CVS400/630



Mounting

CVS100 to 250

CVS400/630

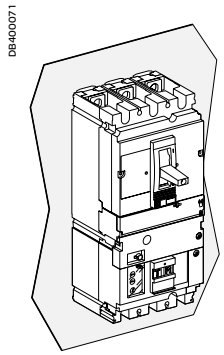
CVS100 to 630

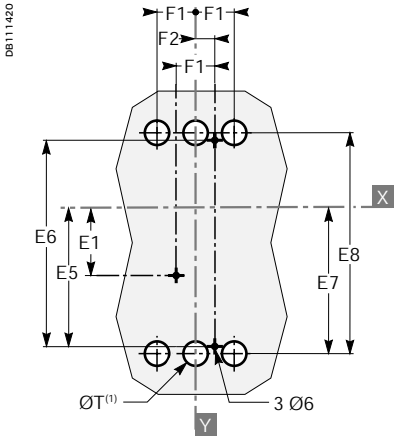
On backplate

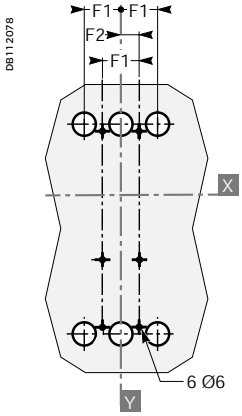
3P

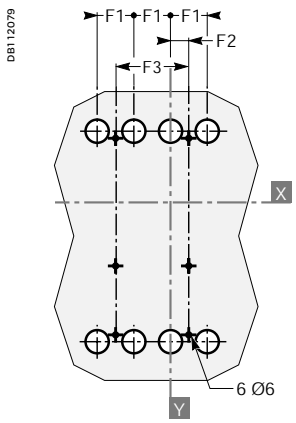
3P

4P









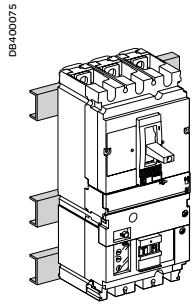
(1) The ØT holes are required for rear connection only.

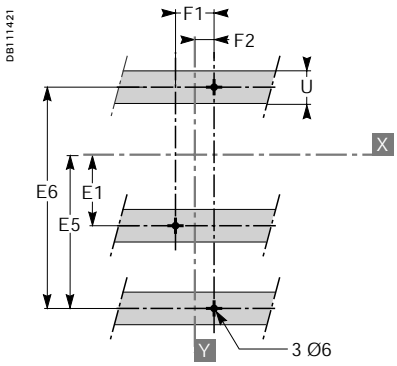
On rails

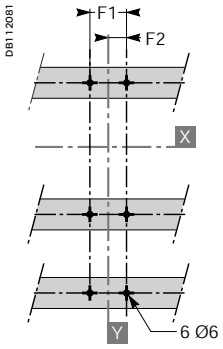
3P

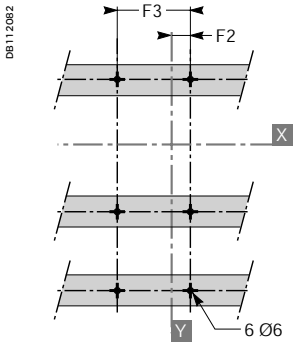
3P

4P









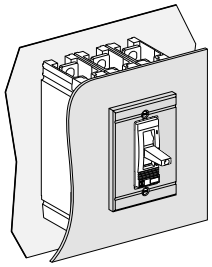
Type	A	A1	A2	A3	A4	A5	A6	A7	A8	A9	B	B1	B2	C1	C2	C3	E1
CVS100/160/250	80.5	161	94	145	178.5	155.5	236	169	220	253.5	52.5	105	140	81	86	126	62.5
CVS400/630	127.5	255	142.5	200	237	227.5	355	242.5	300	337	70	140	185	95.5	110	168	100
Type	**E2**	**E3**	**E4**	**E5**	**E6**	**E7**	**E8**	**F1**	**F2**	**F3**	**G1**	**G2**	**G3**	**G4**	**G5**	**ØT**	**U**
CVS100/160/250	125	70	140	137.5	200	145	215	35	17.5	70	95	75	13.5	23	17.5	24	⩽ 32
CVS400/630	200	113.5	227	200	300	213.5	327	45	22.5	90	-	-	-	-	-	32	⩽ 35

Front-panel accessories
EasyPact CVS100 to 630

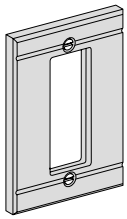
IP40 front-panel escutcheons

For toggle

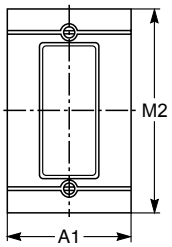
DB400041



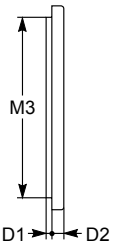
E21641



E21642

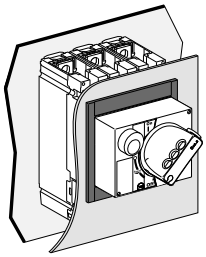


E21643

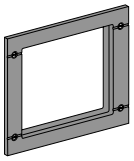


For rotary handle or module and protection collar

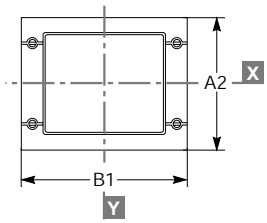
DB400089



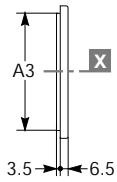
DB115010



DB115011

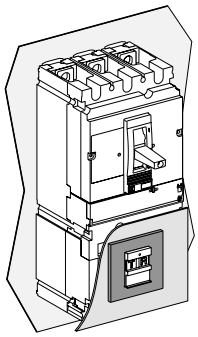


DB115012

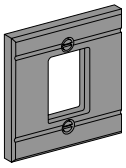


For Vigi

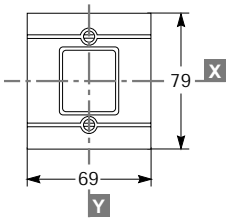
DB400097



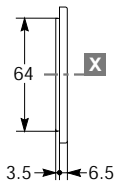
DB115018



DB115019



DB115020

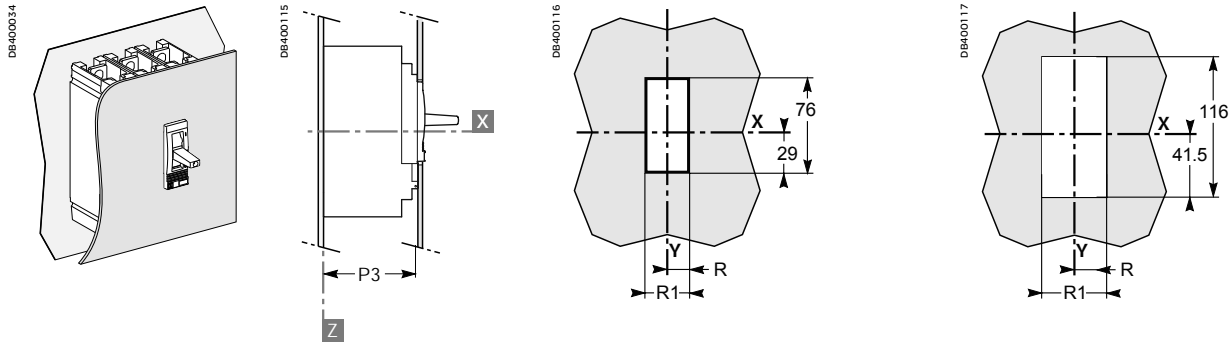


Type	A1	A2	A3	B1	M2	M3
CVS100/160/250	91	114	101	157	115	102
CVS400/630	123	164	151	189	155	142

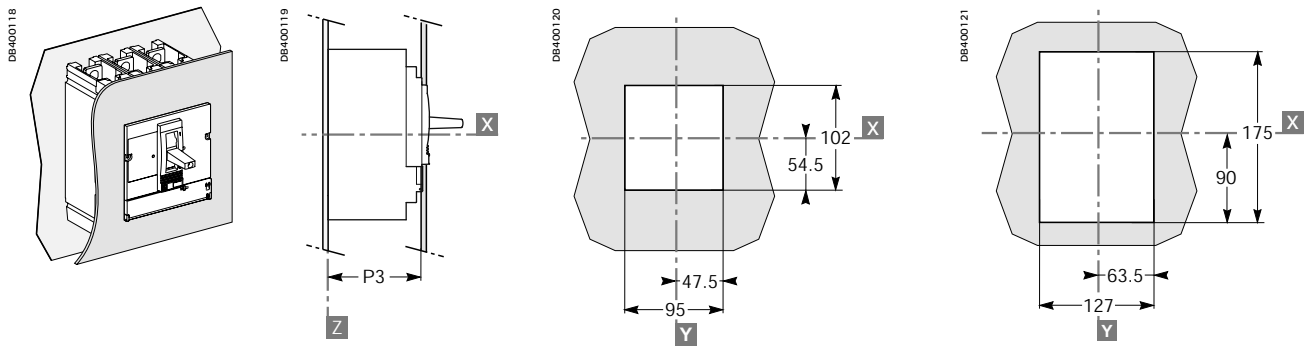
Front-panel cutouts
EasyPact CVS100 to 630

Bare sheet metal — CVS100 to 250 — CVS400/630

For toggle



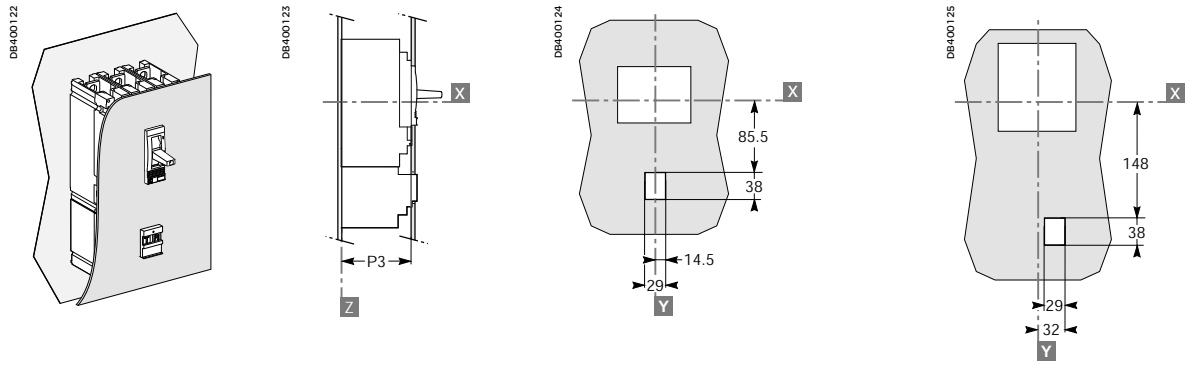
For toggle with access to trip unit



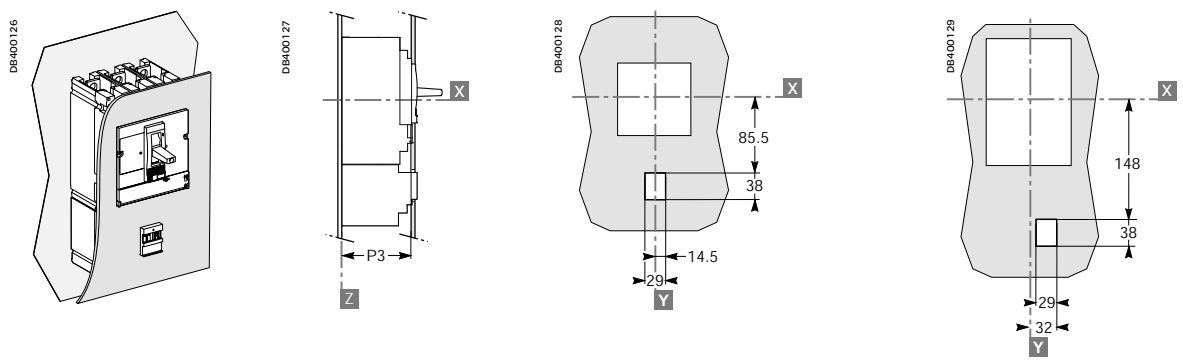
Type	P3	R	R1
CVS100/160/250	88	14.5	29
CVS400/630	112	31.5	63

Bare sheet metal — CVS100 to 250 — CVS400/630

For toggle

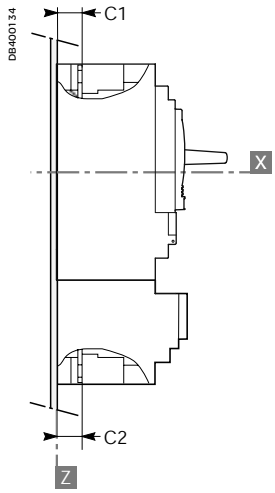


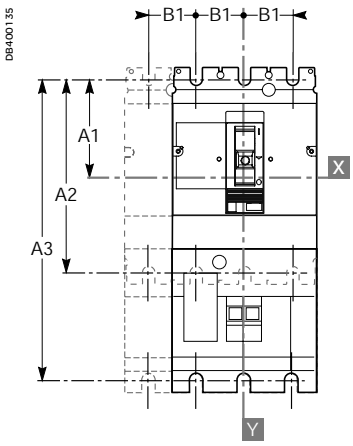
For toggle with access to trip unit



Power connections
EasyPact and Vigi CVS100 to 630

Connection locations

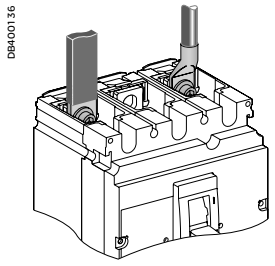




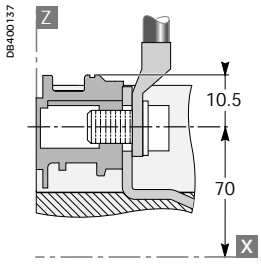
Type	A1	A2	B1	C1	C2
CVS100/160	70	140	35	19.5	19.5
CVS250	70	140	35	21.5	19.5
CVS400/630	113.5	227	45	26	26

Type	A1	A3	B1	C1	C2
CVS100/160 + Vigi	70	215	35	19.5	21.5
CVS250 + Vigi	70	215	35	21.5	21.5
CVS400/630 + Vigi	113.5	327	45	26	26

Front connection without accessories

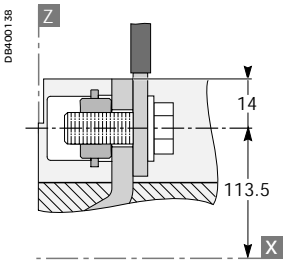


CVS100 to 250



Cables with lugs/bars

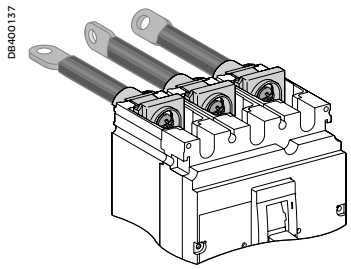
CVS400/630



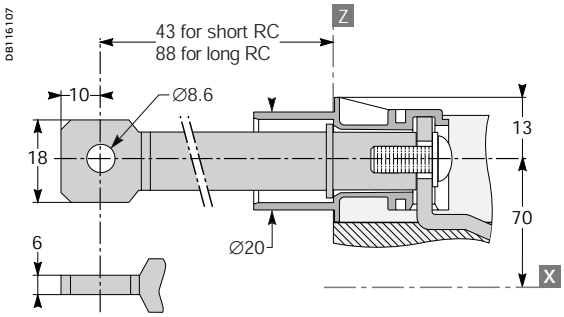
Bars/cables with lugs

Connection with accessories

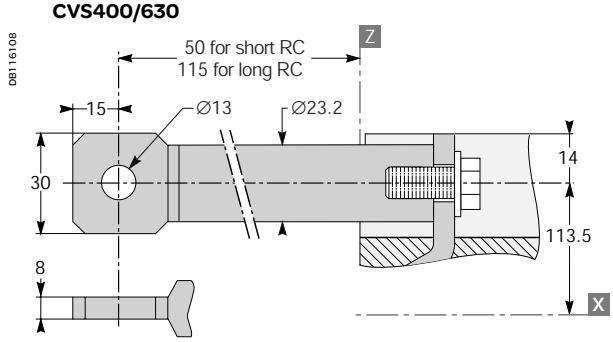
Long and short rear connectors



CVS100 to 250



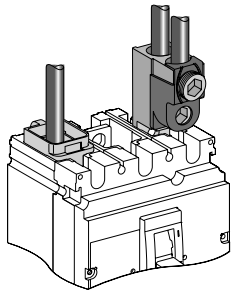
CVS400/630



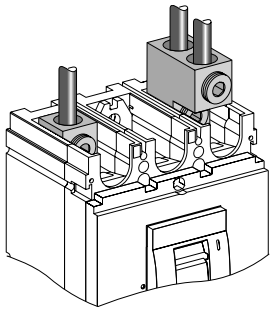
Connection with accessories (cont.)

Bare-cable connectors

DB400138

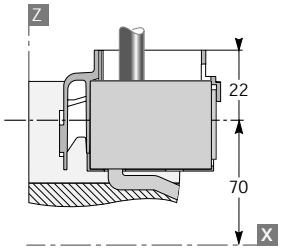


DB400139

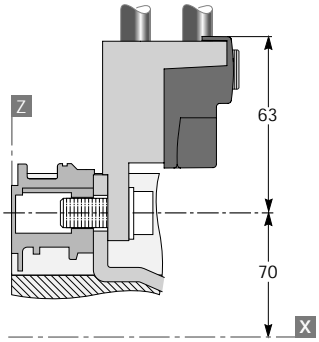


DB115451

CVS100 to 250

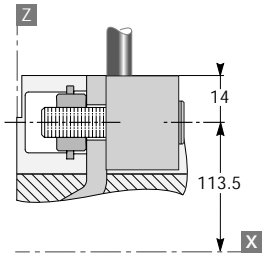


DB115452

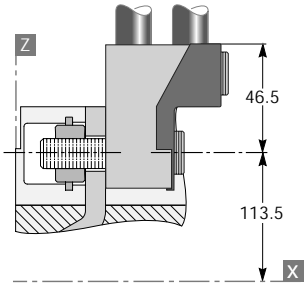


DB115454

CVS400/630

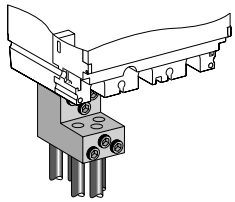


DB115455

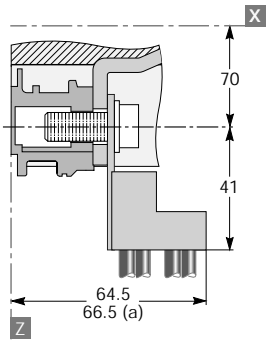


Distribution connectors (for CVS100 to 250 only)

DB115456



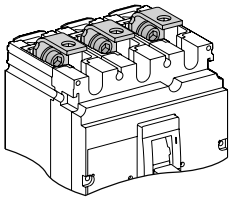
DB115457



(a) Vigi module or CVS250.

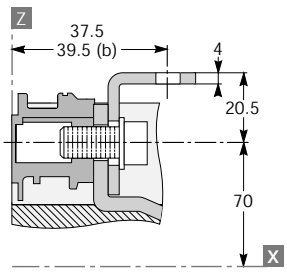
Right-angle terminal extensions (upstream only)

DB400140



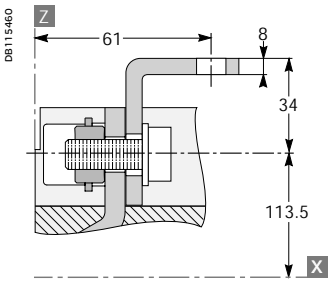
CVS100 to 250

DB115459



CVS400/630

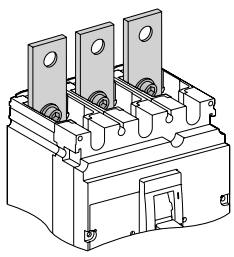
DB115460



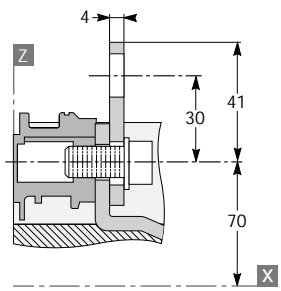
(b) CVS250.

Straight terminal extensions (for CVS100 to 250 only)

DB400141



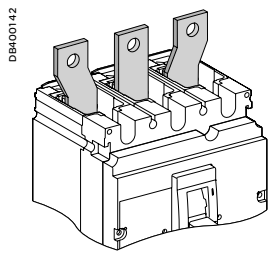
DB115462



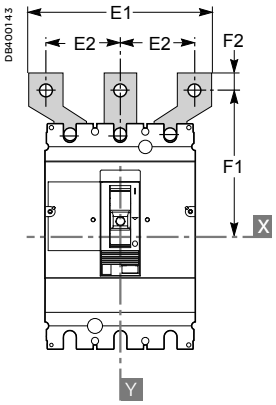
Power connections
EasyPact and Vigi CVS100 to 630

Connection with accessories (cont.)

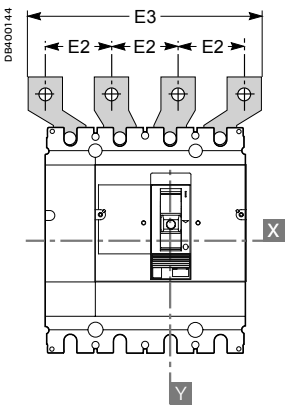
Spreaders



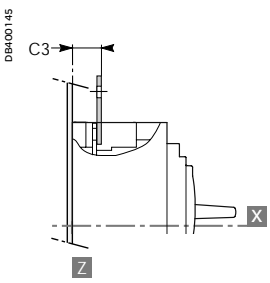
3P



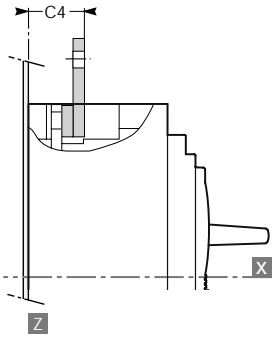
4P



CVS100 to 250



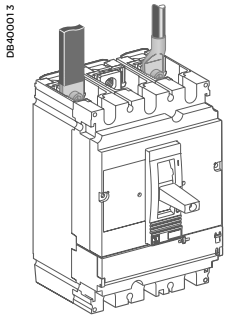
CVS400/630

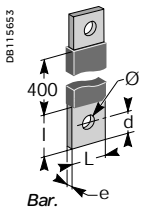


Type	C3	C4	E1	E2	E3	F1	F2
CVS100/160	23.5	-	114	45	159	100	**11**
CVS250	25.5	-	114	45	159	100	**11**
CVS400/630	-	44	135 170	52.5 70	187.5 240	152.5 166	15 15

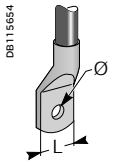
Power connections

Connection of insulated bars or cables with lugs to EasyPact and Vigi CVS100 to 630





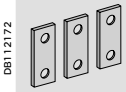
Bar.



Lug.

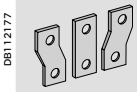
Accessories for CVS100 to 250

Straight terminal extensions



Tinned copper

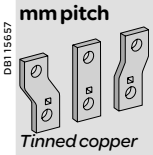
Spreaders: separate parts



Tinned copper

Accessories for CVS400 and 630

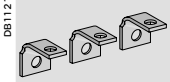
Spreaders made up of separate parts for 52.5 and 70 mm pitch



Tinned copper

Accessories for CVS100 to 630

Right-angle terminal extensions



Tinned copper
To be mounted on upstream side.

Direct connection to CVS100 to 630

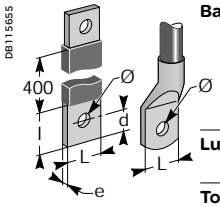
Dimensions		CVS100	CVS160/250	CVS400/630
Bars	L (mm)	⩽ 25	⩽ 25	⩽ 32
	l (mm)	d + 10	d + 10	d + 15
	d (mm)	⩽ 10	⩽ 10	⩽ 15
	e (mm)	⩽ 6	⩽ 6	3 ⩽ e ⩽ 10
	Ø (mm)	6.5	8.5	10.5
Lugs	L (mm)	⩽ 25	⩽ 25	⩽ 32
	Ø (mm)	6.5	8.5	10.5
Torque (Nm) (1)		10	15	50
Torque (Nm) (2)		5/5	5/5	20/11

(1) Tightening torque on the circuit breaker for lugs or bars.
(2) Tightening torque on fixed devices for rear connectors.

Connection with accessories to CVS100 to 250 (IEC 228)

Pole pitch	
Without spreaders	35 mm
With spreaders	45 mm

Dimensions		With spreaders or terminal extensions	
		CVS100	CVS160/250
Bars	L (mm)	⩽ 25	⩽ 25
	l (mm)	20 ⩽ l ⩽ 25	20 ⩽ l ⩽ 25
	d (mm)	⩽ 10	⩽ 10
	e (mm)	⩽ 6	⩽ 6
	Ø (mm)	6.5	8.5
Lugs	L (mm)	⩽ 25	⩽ 25
	Ø (mm)	6.5	8.5
Torque (Nm) (1)		10	15



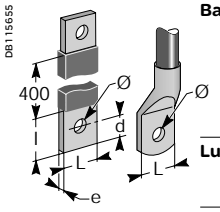
(1) Tightening torque on the circuit breaker for spreaders or terminal extensions.

Spreaders and straight, right-angle, 45°, double-L and edgewise terminal extensions are supplied with flexible interphase barriers.

Connection with accessories to CVS400 and 630 (IEC 228)

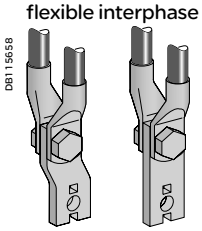
Pole pitch	
Without spreaders	45 mm
With spreaders	52.5 or 70 mm

Dimensions		With spreaders	With terminal extensions
Bars	L (mm)	⩽ 40	⩽ 32
	l (mm)	d + 15	30 ⩽ l ⩽ 34
	d (mm)	⩽ 20	⩽ 15
	e (mm)	3 ⩽ e ⩽ 10	3 ⩽ e ⩽ 10
	Ø (mm)	12.5	10.5
Lugs	L (mm)	⩽ 40	⩽ 32
	Ø (mm)	12.5	10.5
Torque (Nm) (1)		50	50



(1) Tightening torque on the circuit breaker for spreaders or terminal extensions.

Spreaders and right-angle, 45° and edgewise terminal extensions are supplied with flexible interphase barriers.

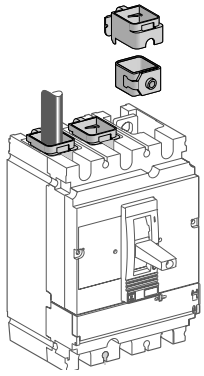


Mounting detail: 2 cables with lugs.

Power connections

Connection of bare cables to EasyPact and Vigi CVS100 to 630

DB400149



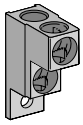
Connection for CVS100 to 250

DB112315



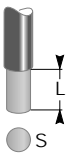
1-cable connector

DB112317



2-cable connector

DB115663



	1-cable connector	Steel ⩽ 160 A	Aluminium ⩽ 250 A		
	L (mm)	25	25		
	S (mm²) Cu/Al	1.5 to 95 (1)	25 to 50	70 to 95	120 to 185 150 max. flex.
	Torque (Nm)	12	20	26	26
	2-cable connector				
	L (mm)	25 or 50			
	S (mm²) Cu/Al	2 x 50 to 2 x 120			
	Torque (Nm)	22			

(1) For flexible cables from 1.5 to 4 mm², connection with crimped or self-crimping ferrules.

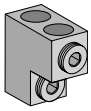
Connection to CVS400 and 630

DB112316



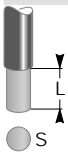
1-cable connector

DB111326



2-cable connector

DB115663



	1-cable connector	2-cable connector
L (mm)	30	30 or 60
S (mm²) Cu/Al	35 to 300 rigid 240 max. flex.	2 x 35 to 2 x 240 rigid 240 max. flex.
Torque (Nm)	31	31

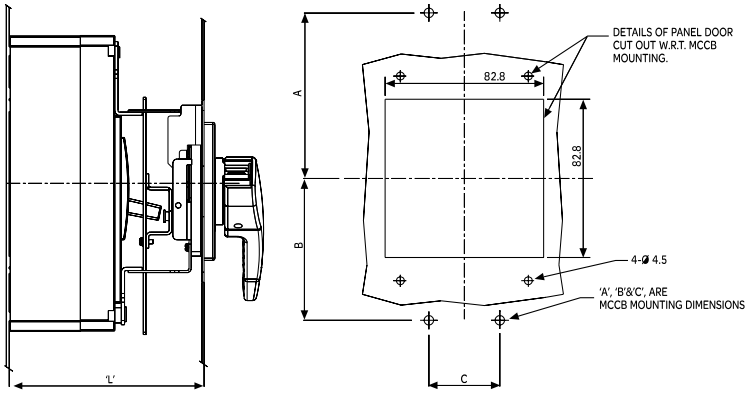
Conductor materials and electrodynamic stresses

EasyPact CVS circuit breakers can be connected indifferently with bare-copper, tinned-copper and tinned-aluminium conductors (flexible or rigid bars, cables).
In the event of a short-circuit, thermal and electrodynamic stresses will be exerted on the conductors. They must therefore be correctly sized and held in place by supports.
Electrical connection points on switchgear devices (switch-disconnectors, contactors, circuit breakers, etc.) should not be used for mechanical support.
Any partition between upstream and downstream connections of the device must be made of non-magnetic material.

Dimension & installation recommendation

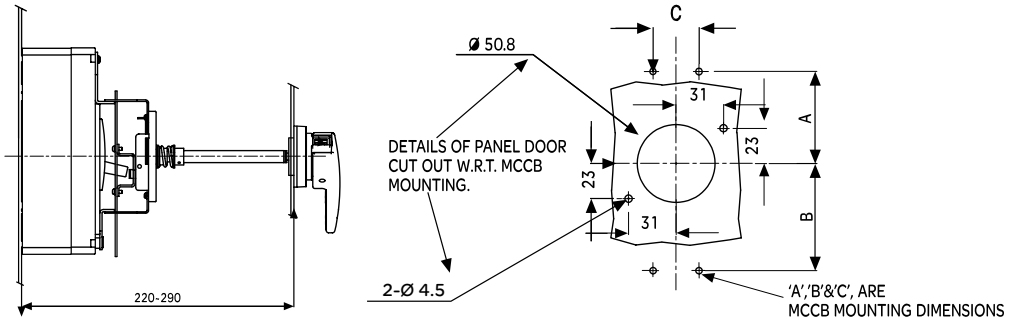
EasyPact CVS 800

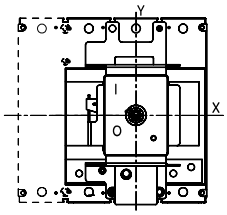
Direct Rotary handle EasyPact CVS 800



MCB Type	Dimension			Panel Depth 'L'
	A	B	C	
CVS 800	129	114	70	179 ±1

Extended rotary Handle

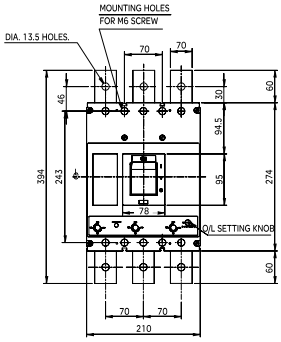




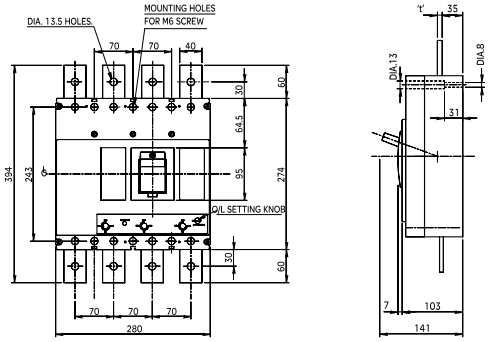
MCB Type	Dimension		
	A	B	C
CVS 800	129	114	70

CVS 800 F/N

3P

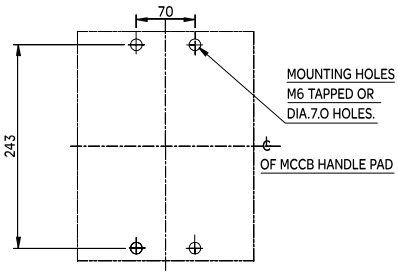


4P

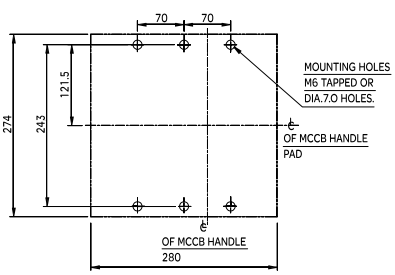


CVS 800 F/N

3P



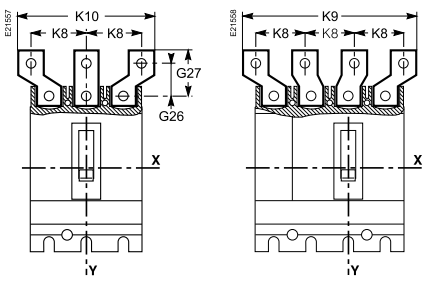
4P



Rating	Dimn. 't'
800 A	8.0 mm

Connection with accessories

Spreader

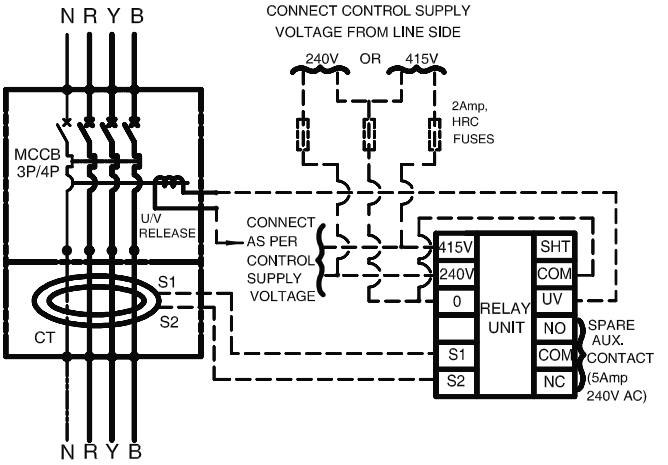


Dimensions (mm)					
Type	G26	G27	K8	K9	K10
CVS100/160/200/250	30	41	45	159	114
CVS400/630	52.5	67.5	70	240	170

Electrical wiring diagram

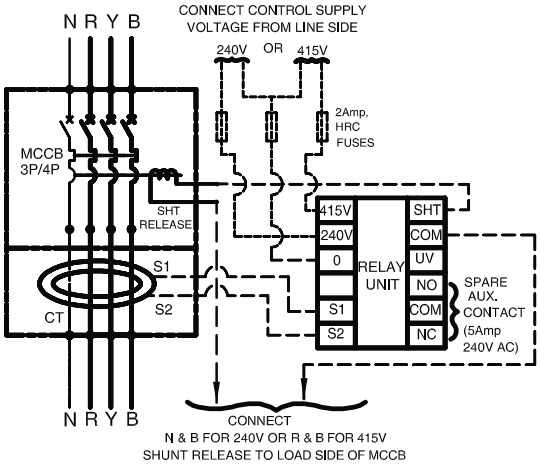
EasyPact CVS
3 Phase 3 Wire and 3 Phase 4 Wire operated GFP

Wiring diagram for under voltage release operated GFP



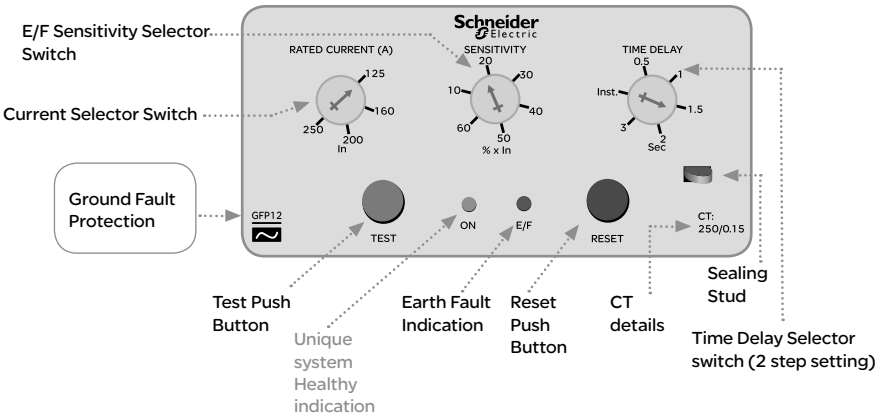
- Supply to RELAY UNIT & UNDER VOLTAGE RELEASE shall be taken from SUPPLY SIDE of MCCB.

Wiring diagram for shunt release operated GFP



- Control Voltage supply to RELAY UNIT shall be taken from LINE SIDE of MCCB.
- Supply to SHUNT RELEASE shall be taken form LOAD SIDE of MCCB.

Notes:
1. Connections shown in dotted lines shall be made by customer.
2. HRC fises are not in SEIPL's scope of supply.
3. Remove BOTTOM SIDE SPREADERS (if Fitted) of MCCB before mounting 'CT' on MCCB.



1. To change any setting switch 'OFF' the MCCB. Remove protective cover from Relay Module. Replace cover after changing setting.
2. To test E/F relay press test Push Button. E/F relay will operate according to the time delay selection. Keep the Test Push Button pressed till the relay trips (indicated by red lamp).

Additional characteristics

EasyPact CVS

Additional characteristics
Contents

Functions and characteristics *A-1*
Installation recommendations *B-1*
Dimensions and connection *C-1*

Tripping curves
EasyPact CVS100 to 800A Protection of distribution systems D-2
EasyPact CVS100 to 250 Motor protection D-5
Current and energy limiting curves D-6

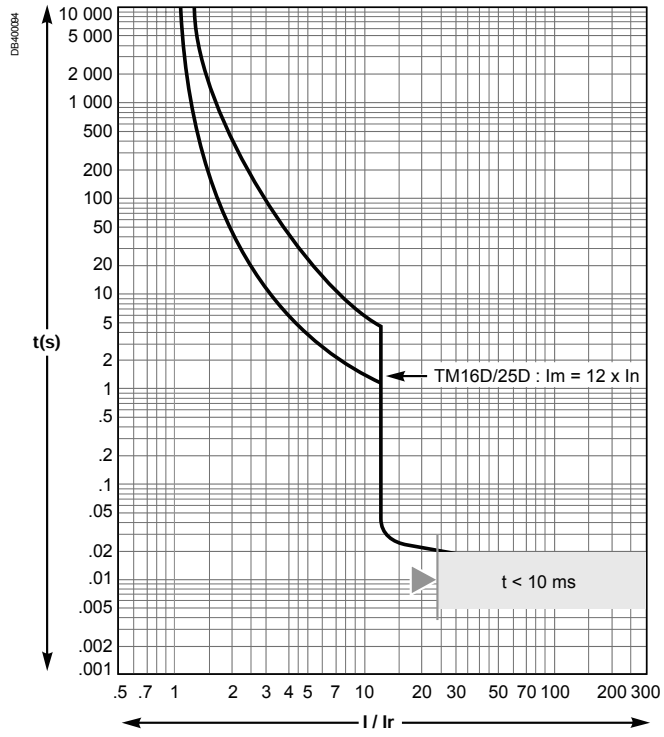
Catalogue numbers *E-1*

Tripping curves

EasyPact CVS 100 to 800A
Protection of distribution systems

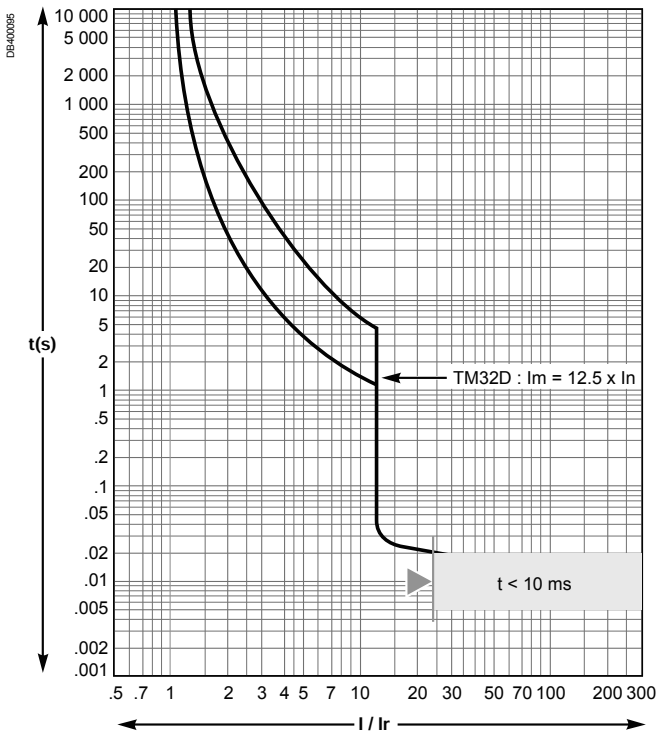
TM magnetic trip units

TM16D/25D



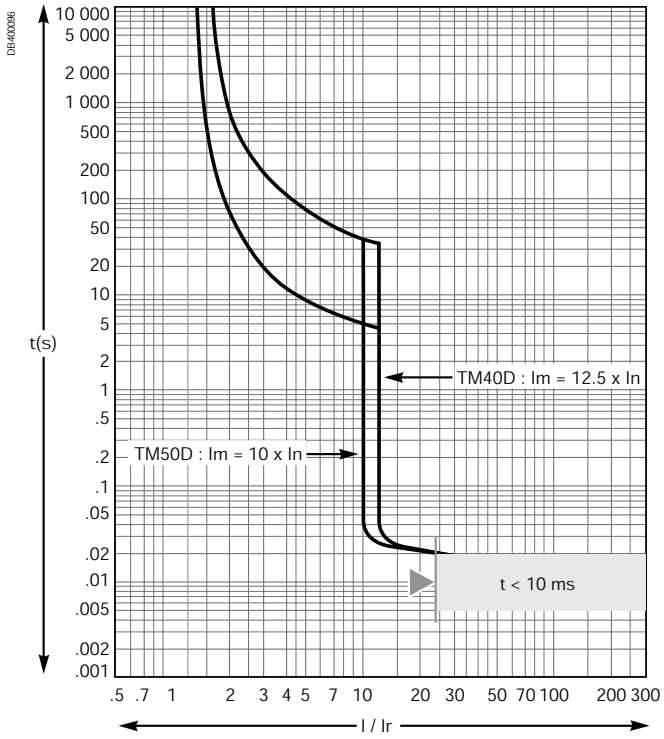
Reflex tripping.

TM32D



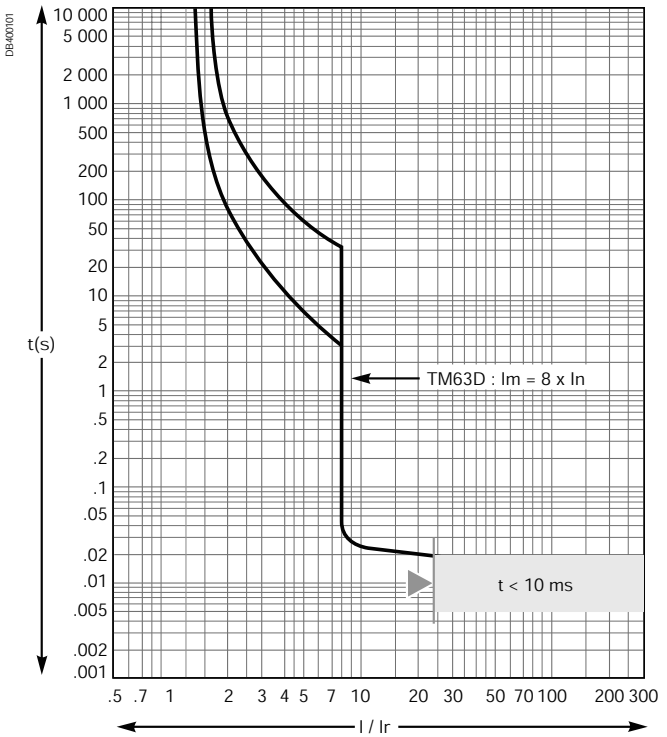
Reflex tripping.

TM40D/50D



Reflex tripping.

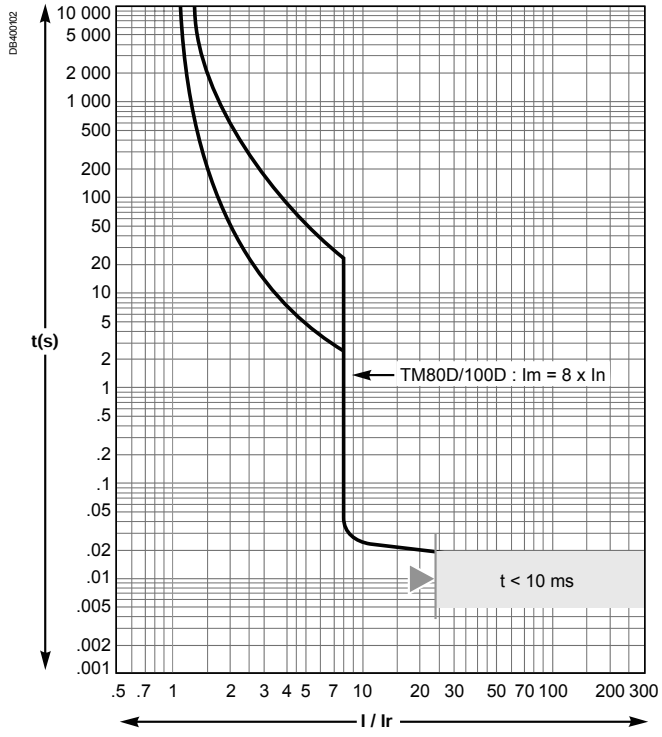
TM63D



Reflex tripping.

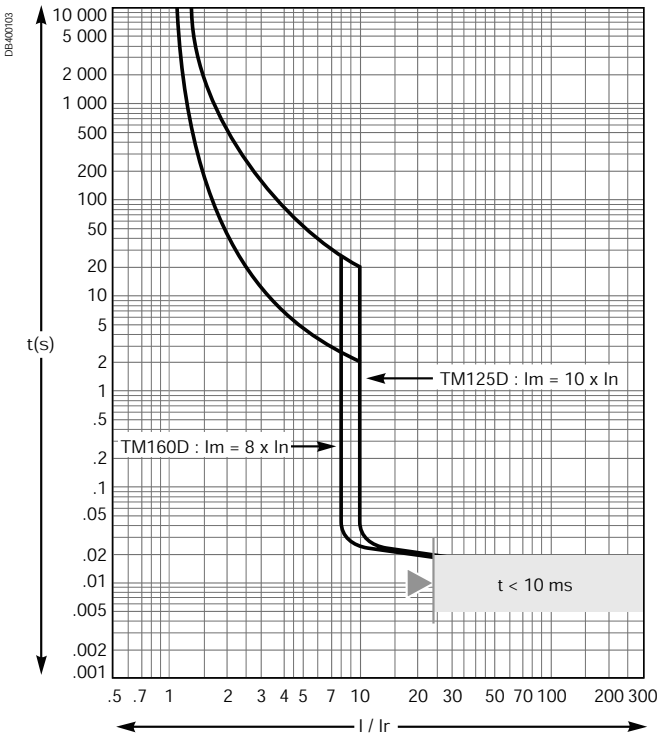
TM magnetic trip units

TM80D/100D



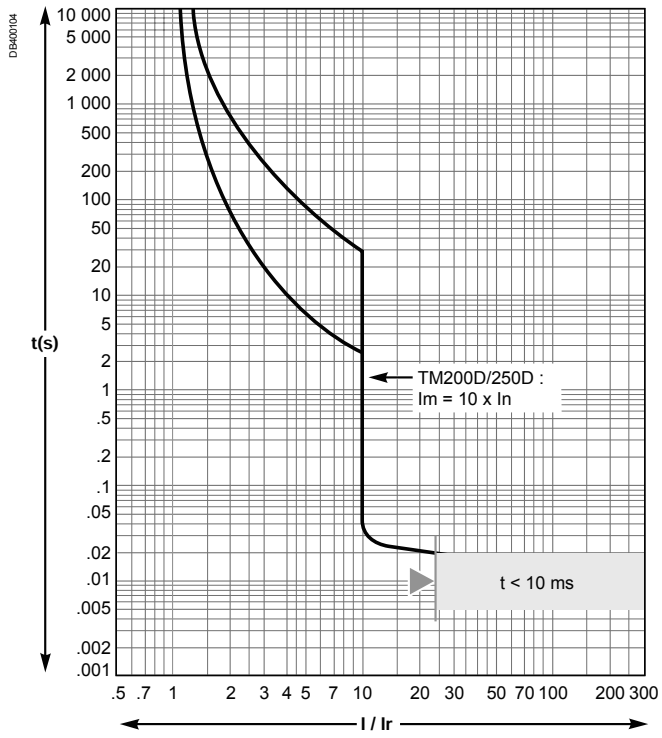
Reflex tripping.

TM125D/160D



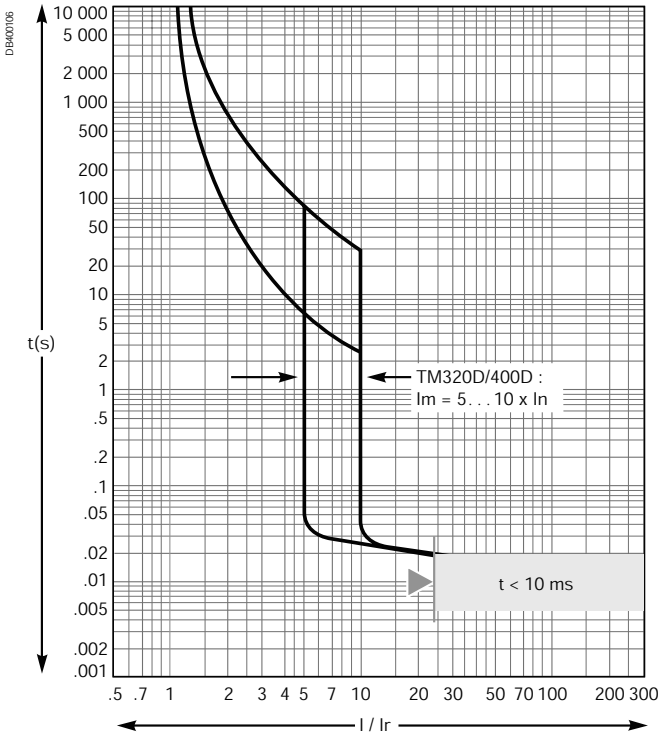
Reflex tripping.

TM200D/250D



Reflex tripping.

TM320D/400D

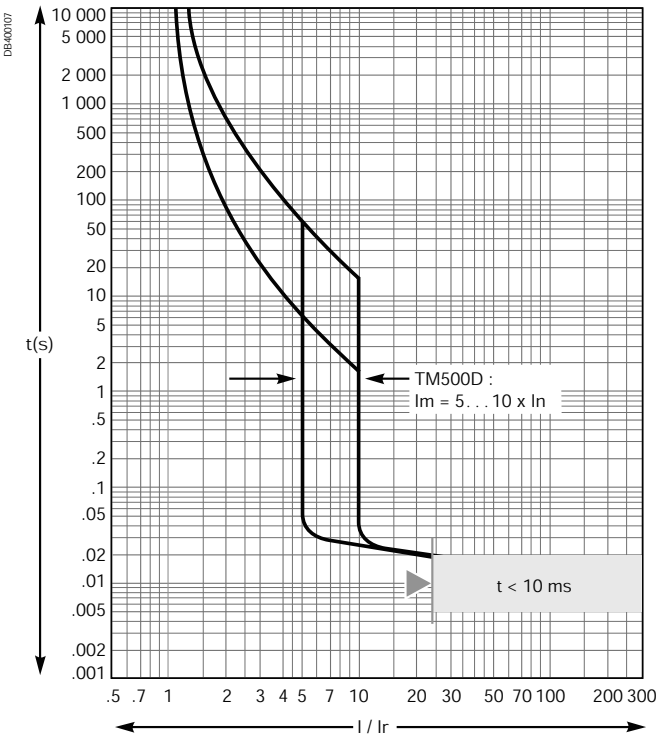


Reflex tripping.

Tripping curves

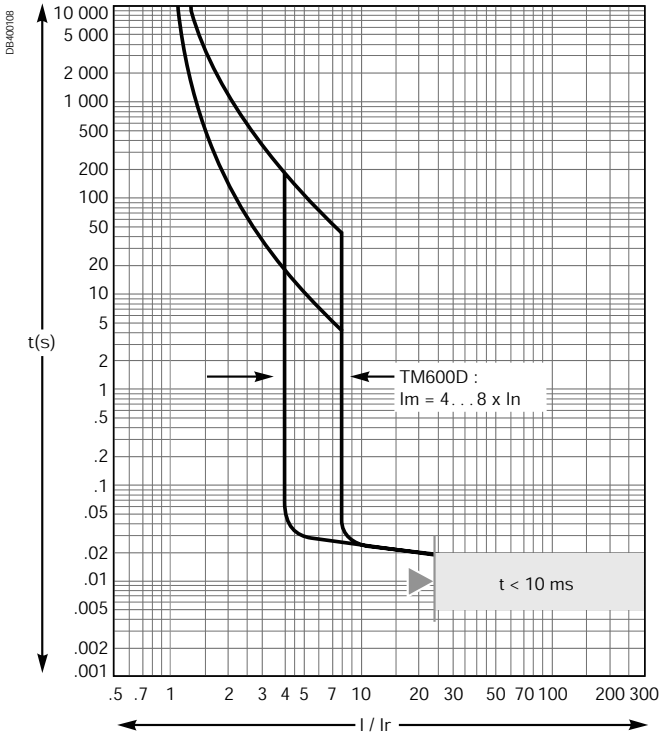
EasyPact CVS 100 to 800A
Protection of distribution systems

TM500D



Reflex tripping.

TM600D

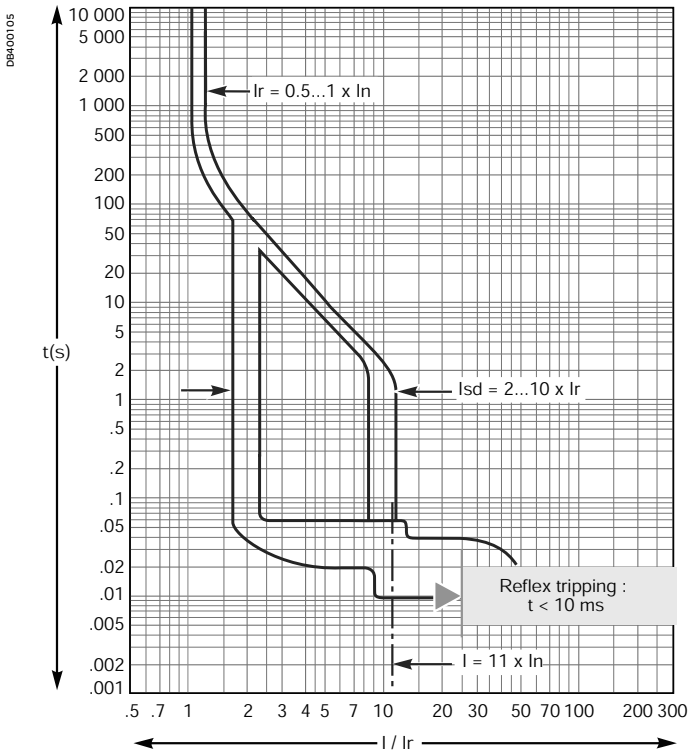


Reflex tripping.

ETS 2.3 electronic trip units

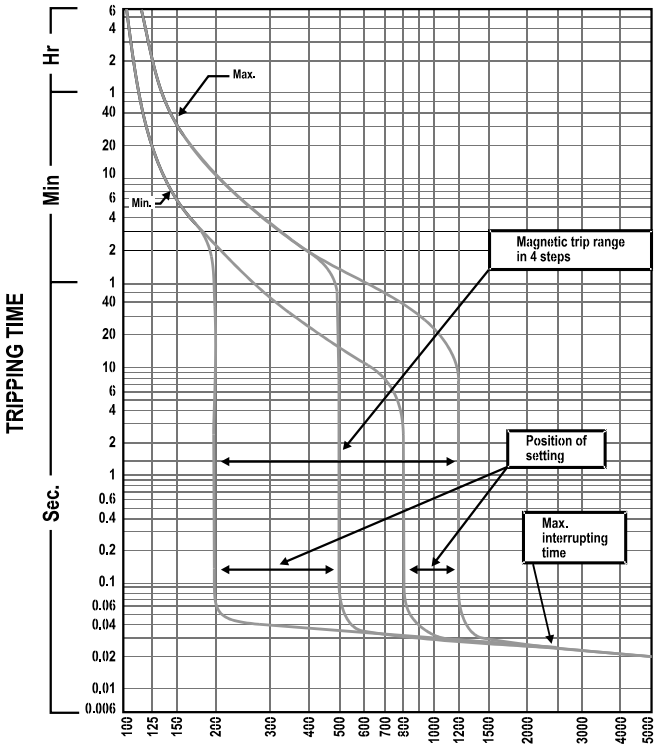
200 - 400A

315 - 630A



TM Magnetic Trip Unit

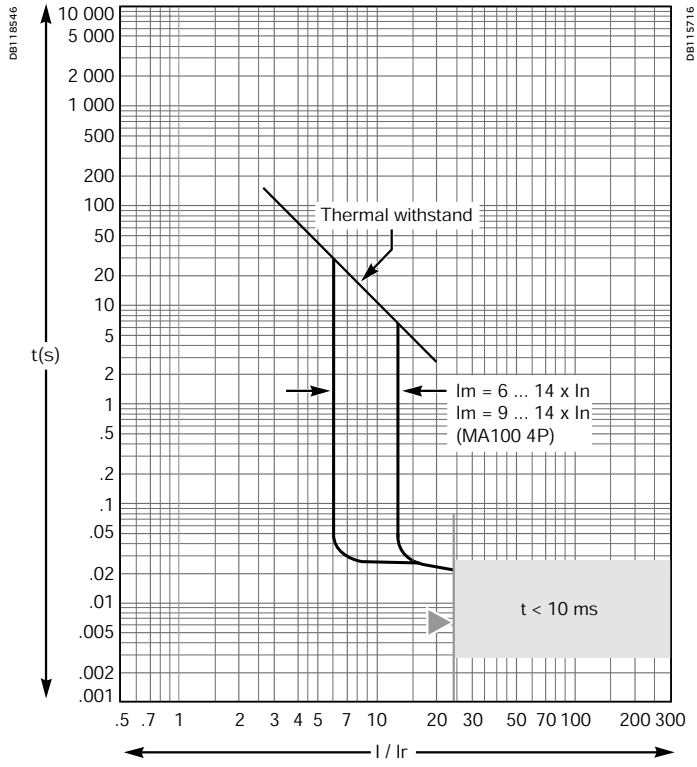
TM800D



Tripping curves
EasyPact CVS100 to 250
Motor protection

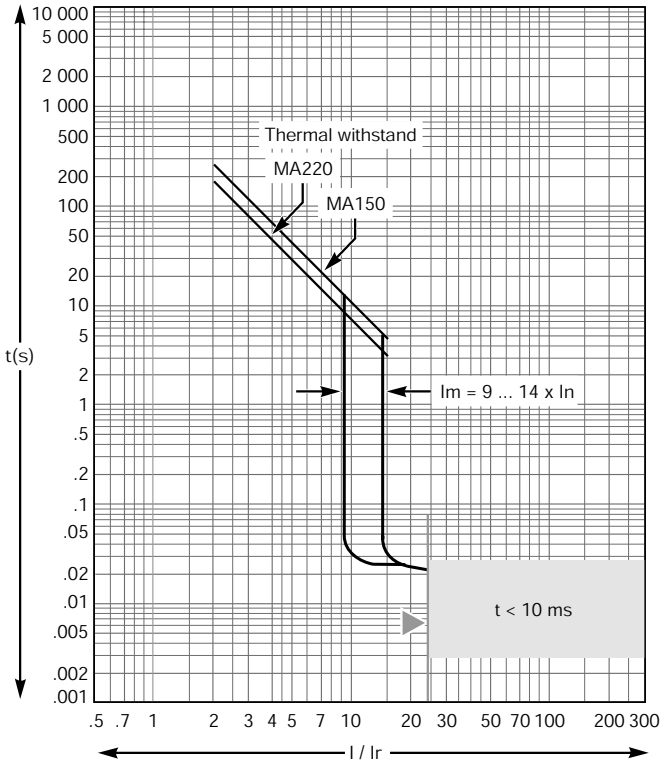
MA magnetic trip units

MA2.5... MA100

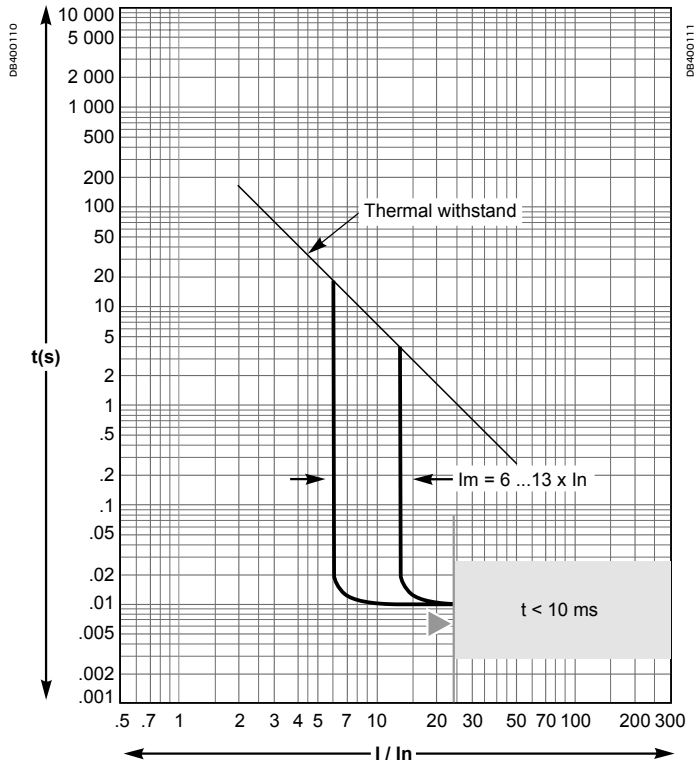


Reflex tripping.

MA150 and MA220

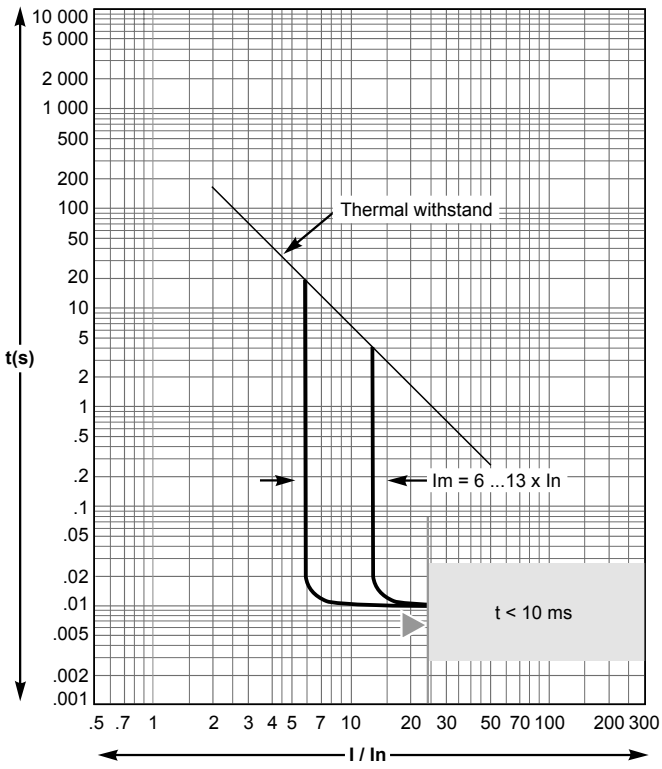


MA320



Reflex tripping.

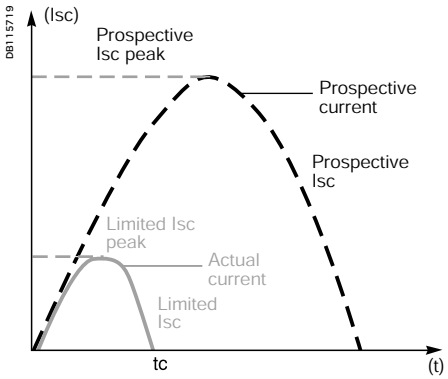
MA500



Reflex tripping.

Tripping curves
Current and energy limiting curves

The limiting capacity of a circuit breaker is its aptitude to let through a current, during a short-circuit, that is less than the prospective short-circuit current.



The exceptional limiting capacity of the EasyPact CVS range is due to the rotating double-break technique (very rapid natural repulsion of contacts and the appearance of two arc voltages in-series with a very steep wave front).

Ics = 100 % Icu

The exceptional limiting capacity of the EasyPact CVS range greatly reduces the forces created by fault currents in devices.
The result is a major increase in breaking performance.
In particular, the service breaking capacity Ics is equal to 100 % of Icu.
The Ics value, defined by IEC standard 60947-2, is guaranteed by tests comprising the following steps:
- ■ break three times consecutively a fault current equal to 100% of Icu
- ■ check that the device continues to function normally, that is:
- □ it conducts the rated current without abnormal temperature rise
- □ protection functions perform within the limits specified by the standard
- □ suitability for isolation is not impaired.

Longer service life of electrical installations

Current-limiting circuit breakers greatly reduce the negative effects of short-circuits on installations.

Thermal effects
Less temperature rise in conductors, therefore longer service life for cables.

Mechanical effects
Reduced electrodynamic forces, therefore less risk of electrical contacts or busbars being deformed or broken.

Electromagnetic effects
Fewer disturbances for measuring devices located near electrical circuits.

Current and energy limiting curves

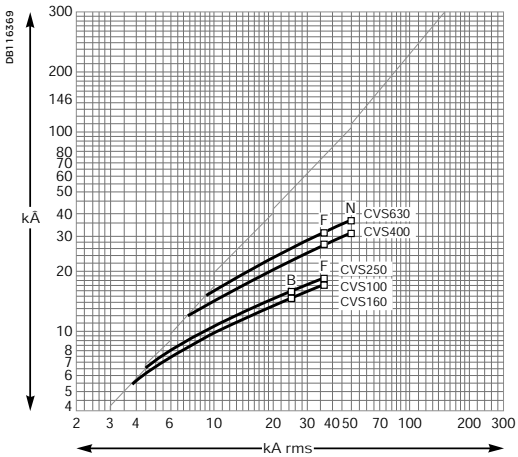
The limiting capacity of a circuit breaker is expressed by two curves which are a function of the prospective short-circuit current (the current which would flow if no protection devices were installed):
- ■ the actual peak current (limited current)
- ■ thermal stress (A^2s), i.e. the energy dissipated by the short-circuit in a conductor with a resistance of 1 µ.

Maximum permissible cable stresses

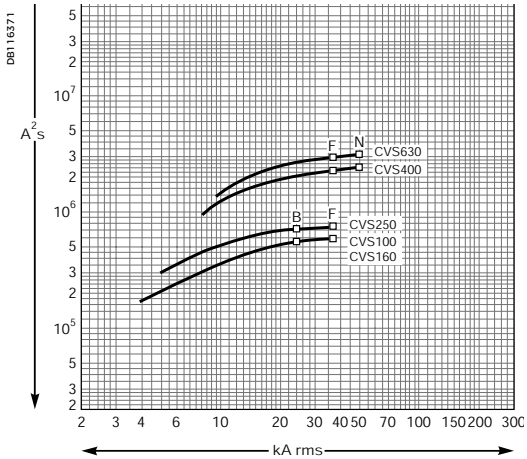
The table below indicates the maximum permissible thermal stresses for cables depending on their insulation, conductor (Cu or Al) and their cross-sectional area (CSA). CSA values are given in mm^2 and thermal stresses in A^2s.

CSA		1.5 mm²	2.5 mm²	4 mm²	6 mm²	10 mm²
PVC	Cu	$2.97x10^4$	$8.26x10^4$	$2.12x10^5$	$4.76x10^5$	$1.32x10^6$
	Al					$5.41x10^5$
PRC	Cu	$4.10x10^4$	$1.39x10^5$	$2.92x10^5$	$6.56x10^5$	$1.82x10^6$
	Al					$7.52x10^5$
CSA		**16 mm²**	**25 mm²**	**35 mm²**	**50 mm²**	
PVC	Cu	$3.4x10^6$	$8.26x10^6$	$1.62x10^7$	$3.31x10^7$	
	Al	$1.39x10^6$	$3.38x10^6$	$6.64x10^6$	$1.35x10^7$	
PRC	Cu	$4.69x10^6$	$1.39x10^7$	$2.23x10^7$	$4.56x10^7$	
	Al	$1.93x10^6$	$4.70x10^6$	$9.23x10^6$	$1.88x10^7$	

Current-limiting curves



Energy-limiting curves



Catalogue numbers

EasyPact CVS

Catalogue numbers
Contents

Functions and characteristics *A-1*
Installation recommendations *B-1*
Dimensions and connection *C-1*
Additional characteristics *D-1*

EasyPact CVS100 to 250 **E-2**

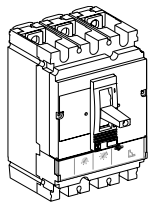
EasyPact CVS400 to 630 **E-9**

EasyPact CVS 800 **E-15**

EasyPact CVS100/160/250B/F: complete fixed/FC device
(25/36 kA 380/415 V)

EasyPact CVS100/160/250B

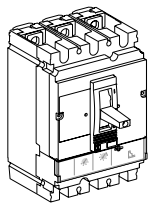
With TM-D thermal-magnetic trip unit



EasyPact CVS100B (25 kA at 380/415 V)		
Rating	**3P**	**4P**
TM16D	LV510300	LV510310
TM25D	LV510301	LV510311
TM32D	LV510302	LV510312
TM40D	LV510303	LV510313
TM50D	LV510304	LV510314
TM63D	LV510305	LV510315
TM80D	LV510306	LV510316
TM100D	LV510307	LV510317
EasyPact CVS160B (25 kA at 380/415 V)		
Rating	**3P**	**4P**
TM100D	LV516301	LV516311
TM125D	LV516302	LV516312
TM160D	LV516303	LV516313
EasyPact CVS250B (25 kA at 380/415 V)		
Rating	**3P**	**4P**
TM160D	LV525301	LV525311
TM200D	LV525302	LV525312
TM250D	LV525303	LV525313

EasyPact CVS100/160/250F

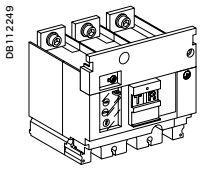
With TM-D thermal-magnetic trip unit



EasyPact CVS100F (36 kA at 380/415 V)		
Rating	**3P**	**4P**
TM16D	LV510330	LV510340
TM25D	LV510331	LV510341
TM32D	LV510332	LV510342
TM40D	LV510333	LV510343
TM50D	LV510334	LV510344
TM63D	LV510335	LV510345
TM80D	LV510336	LV510346
TM100D	LV510337	LV510347
EasyPact CVS160F (36 kA at 380/415 V)		
Rating	**3P**	**4P**
TM100D	LV516331	LV516341
TM125D	LV516332	LV516342
TM160D	LV516333	LV516343
EasyPact CVS250F (36 kA at 380/415 V)		
Rating	**3P**	**4P**
TM160D	LV525331	LV525341
TM200D	LV525332	LV525342
TM250D	LV525333	LV525343

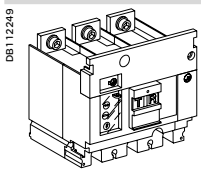
+ Vigi module for insulation monitoring

Vigi module



	3P	4P
ME type for CVS/NSX100/160 (200 to 440 V)	LV429212	LV429213
MH type for CVS/NSX100/160 (200 to 440 V)	LV429210	LV429211
MH type for CVS/NSX250 (200 to 440 V)	LV431535	LV431536
MH type for CVS/NSX100/160 (440 to 550 V)	LV429215	LV429216
MH type for CVS/NSX250 (440 to 550 V)	LV431533	LV431534
Connection for a 4P Vigi on a 3P breaker		LV429214

Insulation monitoring module



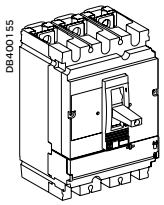
	3P	4P
200 to 440 V AC	LV429459	LV429460
Connection for a 4P insulation monitoring module on a 3P breaker		LV429214

EasyPact CVS100/160/250N: complete fixed/FC device

MA magnetic trip unit (50 kA 380/415 V)

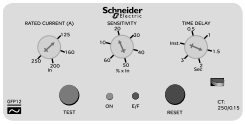
EasyPact CVS100/160/250F

With MA magnetic trip unit



EasyPact CVS100N (50 kA at 380/415 V)	
Rating	**3P**
MA2.5	LV510450
MA6.3	LV510451
MA12.5	LV510452
MA25	LV510453
MA50	LV510454
MA100	LV510455
EasyPact CVS160N (50 kA at 380/415 V)	
Rating	**3P**
MA150	LV516451
EasyPact CVS250N (50 kA at 380/415 V)	
Rating	**3P**
MA220	LV525442

Ground Fault Protection



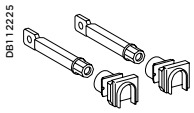
	Ref. 32/40/50/63/80/100	Ref. 125/160/200/250
3 PH 3W	GFP11CT13P	GFP12CT23P
3 PH 4W	GFP11CT14P	GFP12CT24P

Note: Kindly order one nos. shunt coil along with one Ground Fault Protection

Accessories
EasyPact CVS100/160/250

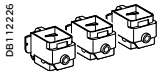
Connection accessories (Cu or Al)

Rear connections

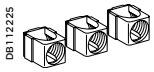

DB112225

2 short			LV429235
2 long			LV429236

Bare cable connectors


DB112226

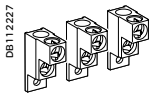
Steel connectors	1 x (1.5 to 95 mm²) ; y 160 A	Set of 3	LV429242
		Set of 4	LV429243


DB112225

Aluminium connectors	1 x (25 to 95 mm²) ; y 250 A	Set of 3	LV429227
		Set of 4	LV429228
	1 x (120 to 185 mm²) ; y 250 A	Set of 3	LV429259
		Set of 4	LV429260


DB112726

Clips for connectors		Set of 10	LV429241

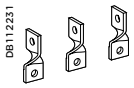

DB112227

Aluminium connectors for 2 cables (1)	2 x (50 to 120 mm²) ; y 250 A	Set of 3	LV429218
		Set of 4	LV429219


DB112724

6.35 mm voltage tap for steel or aluminium connectors		Set of 10	LV429348

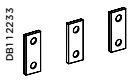
Terminal extensions


DB112231

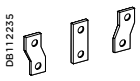
Edgewise terminal extensions (1)		Set of 4	LV429309


DB112232

Right-angle terminal extensions (1)		Set of 3	LV429261
		Set of 4	LV429262


DB112233

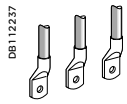
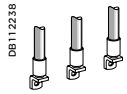
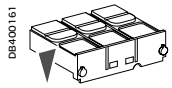
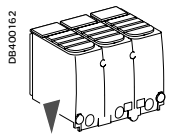
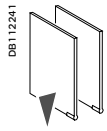
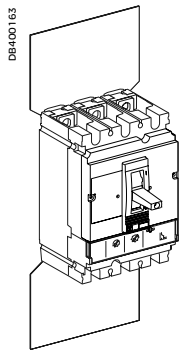
Straight terminal extensions (1)		Set of 3	LV429263
		Set of 4	LV429264


DB112235

Spreaders from 35 to 45 mm pitch (1)		3P	LV431563
		4P	LV431564

(1) Supplied with 2 or 3 interphase barriers.

Accessories
EasyPact CVS100/160/250

Crimp lugs for copper cable (1)			
 DB112237	For cable 120 mm²	Set of 3	LV429252
		Set of 4	LV429256
	For cable 150 mm²	Set of 3	LV429253
		Set of 4	LV429257
	For cable 185 mm²	Set of 3	LV429254
		Set of 4	LV429258
Crimp lugs for aluminium cable (1)			
 DB112238	For cable 150 mm²	Set of 3	LV429504
		Set of 4	LV429505
	For cable 185 mm²	Set of 3	LV429506
		Set of 4	LV429507
Insulation accessories			
 DB400161	1 short terminal shield for breaker	3 P	LV429515
		4 P	LV429516
 DB400162	1 long terminal shield for breaker	3 P	LV429517
		4 P	LV429518
 DB112241	Interphase barriers for breaker	Set of 6	LV429329
 DB400163	2 insulating screens for breaker (45 mm pitch)	3P	LV429330
		4P	LV429331

(1) Supplied with 2 or 3 interphase barriers.

Accessories
EasyPact CVS100/160/250

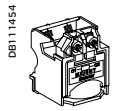
Electrical auxiliaries

Auxiliary contacts (changeover)

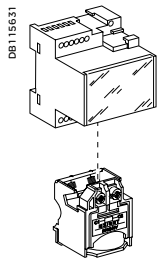


OF or SD or SDE or SDV	29450
OF or SD or SDE or SDV low level	29452
SDE adaptor, mandatory for trip unit TM, MA	LV429451

Voltage releases



	Voltage	MX	MN
AC	24 V 50/60 Hz	LV429384	LV429404
	48 V 50/60 Hz	LV429385	LV429405
	110-130 V 50/60 Hz	LV429386	LV429406
	220-240 V 50/60 Hz and 208-277 V 60 Hz	LV429387	LV429407
	380-415 V 50 Hz and 440-480 V 60 Hz	LV429388	LV429408
DC	12 V	LV429382	LV429402
	24 V	LV429390	LV429410
	30 V	LV429391	LV429411
	48 V	LV429392	LV429412
	60 V	LV429383	LV429403
	125 V	LV429393	LV429413
	250 V	LV429394	LV429414

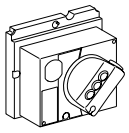


MN 48 V 50/60 Hz with fixed time delay		
Composed of:	MN 48 V DC	LV429412
	Delay unit 48 V 50/60 Hz	LV429426
MN 220-240 V 50/60 Hz with fixed time delay		
Composed of:	MN 250 V DC	LV429414
	Delay unit 220-240 V 50/60 Hz	LV429427

Rotary handles

Direct rotary handle

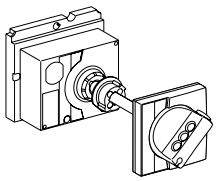
DB112259



With black handle		LV429337

Extended rotary handle

DB112260

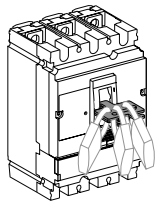


With black handle		LV429338

Locks

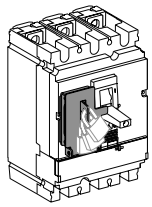
Toggle locking device for 1 to 3 padlocks

DB400164



By removable device		29370

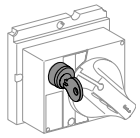
DB400165



By fixed device		29371

Locking of rotary handle

DB112263



Keylock adaptor (keylock not included)		LV429344
Keylock (keylock adaptor not included)	Ronis 1351B.500	41940
	Profalux KS5 B24 D4Z	42888

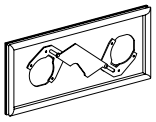
Accessories
EasyPact CVS100/160/250

Interlocking

Mechanical interlocking for circuit breakers

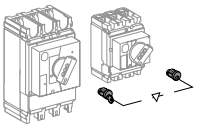


With toggles		29354



With rotary handles		LV429369

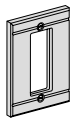
Mechanical interlocking for circuit breakers



Keylock kit (keylock not included) (1)		LV429344
1 set of 2 keylocks	Ronis 1351B.500	41950
(1 key only, keylock kit not included)	Profalux KS5 B24 D4Z	42878

Installation accessories

Front-panel escutcheons



IP40

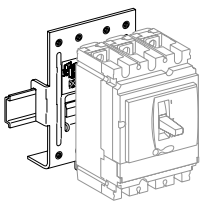
IP40 toogle escutcheon (small cut-out)	29315
IP40 escutcheon for Rotary handle	LV429317
IP40 escutcheon for Vigi module	LV429316

Lead-sealing accessories



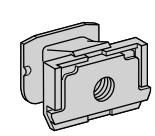
Bag of accessories	LV429375

Din rail adaptor



1 adaptor	LV429305

Spare parts



10 toggle extensions		LV429313
Bag of screws		LV429312
12 snap-in nuts (fixed/FC)	M6 for CVS100B/F	LV510100
	M8 for CVS160/250B/F	LV516060
1 set of 10 identification labels		LV429226

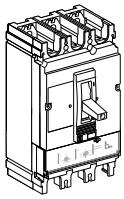
(1) For only 1 device.

CVS400/630:
complete fixed/FC device
EasyPact CVS400/630F/N

EasyPact CVS400/630F

With TM-D thermal-magnetic trip unit

DB400008

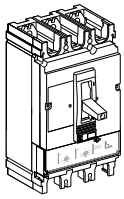


EasyPact CVS400F (36 kA at 380/415 V)		
Rating	**3P**	**4P**
TM320D	LV540305	LV540308
TM400D	LV540306	LV540309
EasyPact CVS630F (36 kA at 380/415 V)		
Rating	**3P**	**4P**
TM500D	LV563305	LV563308
TM600D	LV563306	LV563309

EasyPact CVS400/630N

With TM-D thermal-magnetic trip unit

DB400008

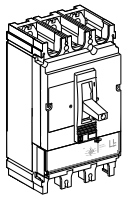


EasyPact CVS400N (50 kA at 380/415 V)		
Rating	**3P**	**4P**
TM320D	LV540315	LV540318
TM400D	LV540316	LV540319
EasyPact CVS630N (50 kA at 380/415 V)		
Rating	**3P**	**4P**
TM500D	LV563315	LV563318
TM600D	LV563316	LV563319

EasyPact CVS400/630N

With MA magnetic trip unit

DB400020

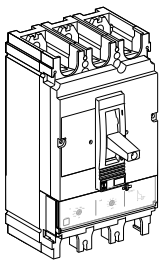


EasyPact CVS400N (50 kA at 380/415 V)	
Rating	**3P**
MA320	LV540552
EasyPact CVS630N (50 kA at 380/415 V)	
Rating	
MA500	LV563552

EasyPact CVS400/630F

ETS 2.3 electronic trip unit (protection)

DB400021

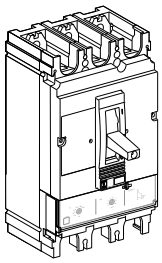


		3P	**4P**
EasyPact CVS400F (36 kA at 380/415 V)	400 A	LV540505	LV540506
EasyPact CVS630F (36 kA at 380/415 V)	630 A	LV563505	LV563506

EasyPact CVS400/630N

ETS 2.3 electronic trip unit (protection)

DB400021



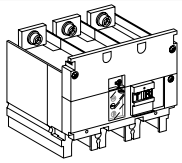
		3P	**4P**
EasyPact CVS400N (50 kA at 380/415 V)	400 A	LV540510	LV540511
EasyPact CVS630N (50 kA at 380/415 V)	630 A	LV563510	LV563511

CVS400/630: complete fixed/FC device

EasyPact CVS400/630N (36 kA 380/415 V)

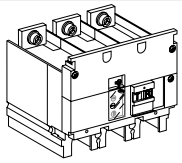
+ Vigi module or insulation monitoring module

Vigi module



		3P	4P
Type MB	200 to 440 V	LV432455	LV432456
	440 to 550 V	LV432453	LV432454
Connection for a 4P Vigi on a 3P breaker			LV432457

Insulation monitoring module



	3P	4P
200 to 440 V AC	LV432659	LV432660
Connection for a 4P insulation monitoring module on a 3P breaker		LV432457

	Ref. 400/630
3 PH 3W	GFP13CT33P
3 PH 4W	GFP13CT34P

Note: Kindly order one nos. shunt coil along with one Ground Fault Protection

Connection accessories (Cu or Al)

Rear connections


DB112225

2 short			LV432475
2 long			LV432476

Cable connectors (1)


E22040

Aluminium connector 1x (35 to 300 mm²)		Set of 3	LV432479
		Set of 4	LV432480


E22041

Aluminium connector 2x (35 to 300 mm²)		Set of 3	LV432481
		Set of 4	LV432482
Voltage plug for aluminium connector 1 or 2 cables		Set of 10	LV429348

Terminal extension (1)



Right-angle terminal extension		Set of 3	LV432484
		Set of 4	LV432485


E21276

Edgewise terminal extensions		Set of 3	LV432486
		Set of 4	LV432487


E21012

Spreaders	52.5 mm	3P	LV432490
		4P	LV432491
	70 mm	3P	32492
		4P	32493

Crimp lugs for copper cable (1)


E18602

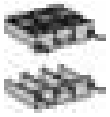
For cable 240 mm²		Set of 3	LV432500
		Set of 4	LV432501
For cable 300 mm²		Set of 3	LV432502
		Set of 4	LV432503
Supplied with 2 (or 3) interphase barriers			

Crimp lugs for aluminium cable (1)


E30908

For cable 240 mm²		Set of 3	LV432504
		Set of 4	LV432505
For cable 300 mm²		Set of 3	LV432506
		Set of 4	LV432507
Supplied with 2 (or 3) interphase barriers			

Insulation accessories


E18618

Short terminal shield, 45 mm (1 piece)		3P	LV432591
		4P	LV432592
Long terminal shield, 45 mm (1 piece)		3P	LV432593
		4P	LV432594
Interphase barriers		Set of 6	LV432570


E18606

2 insulating screens (70 mm pitch)	52,5 mm	3P	LV432595
		4P	LV432596
	70 mm	3P	LV432578
		4P	LV432579

Accessories
EasyPact CVS400/630

Electrical auxiliaries

Auxiliary contacts (changeover)

E18608



OF or SD or SDE or SDV		29450
OF or SD or SDE or SDV low level		29452
SDE adaptor mandatory for trip unit TM, MA and ETS2.3		LV540050

Voltage releases

E18609



	Voltage	MX	MN
AC	24 V 50/60 Hz	LV429384	LV429404
	48 V 50/60 Hz	LV429385	LV429405
	110-130 V 50/60 Hz	LV429386	LV429406
	220-240 V 50/60 Hz and 208-277 V 60 Hz	LV429387	LV429407
	380-415 V 50 Hz and 440-480 V 60 Hz	LV429388	LV429408
DC	Voltage		
	12 V	LV429382	LV429402
	24 V	LV429390	LV429410
	30 V	LV429391	LV429411
	48 V	LV429392	LV429412
	60 V	LV429383	LV429403
	125 V	LV429393	LV429413
	250 V	LV429394	LV429414
MN 48 V 50/60 Hz with fixed time delay			
Composed of:	MN 48 V DC		LV429412
	Delay unit 48 V 50/60 Hz		LV429426
MN 220-240 V 50/60 Hz with fixed time delay			
Composed of:	MN 250 V DC		LV429414
	Delay unit 220-240 V 50/60 Hz		LV429427

Rotary handle

Direct rotary handle

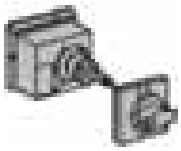
E18611



Standard black handle	LV432597

Extended rotary handle

E18612



Standard extended rotary handle	LV432598

Locks

Toggle locking device for 1 to 3 padlocks

E18621



By removable device	29370

E18613



By fixed device	32631

Locking of the rotary handle

E18620

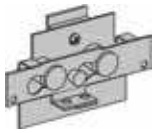


Keylock adaptor (keylock not included)		LV432604
Keylock (keylock adaptor not included)	Ronis 1351B.500	41940
	Profalux KS5 B24 D4Z	42888

Accessories
EasyPact CVS400/630

Interlocking

Mechanical interlocking for circuit breakers

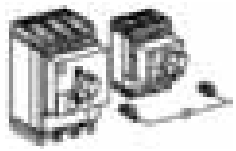
E21288


With toggles — 32614

E18780


With rotary handles — LV432621

Interlocking with key (2 keylocks/1 key) for rotary handles

E26766


Keylock kit (keylock not included)(1)		LV432604
1 set of 2 keylocks (1 key only, keylock kit not included)	Ronis 1351B.500	41950
	Profalux KS5 B24 D4Z	42878

(1) for only 1 device

Installation accessories

Front-panel escutcheons

E21641


IP40 Toggle escutcheon (small cut-out)	32556
IP40 escutcheon for rotary handle	LV432558
IP40 escutcheon for Vigi module	LV429316

Lead-sealing accessories

LV429375

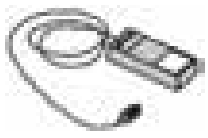
Spare parts

Front-panel escutcheons

Toggle extension	LV432553
Bag of screws	LV432552
1 set of 10 identification labels	LV429226

Test

Test kits

E21290


Mini test kit for STR trip units — 43362

E36271


Portable test kit for STR trip units	34547
Spare test plug for portable test kit 34547	34503
Wiring kit (spare part)	34546

EasyPact CVS MCCBs and accessories catalogue nos.
for 800A

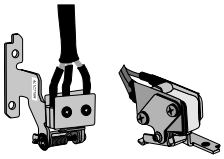
EasyPact CVS 800

With TM-D thermal -magnetic trip unit



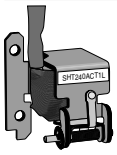
EasyPact CVS 800 (35kA at 380/415 V)		
Rating	**3P**	**4P**
TM800D	LV580300	LV580301
EasyPact CVS 800 (50kA at 380/415 V)		
Rating	**3P**	**4P**
TM800D	LV580302	LV580303

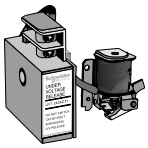
Auxiliary contacts ON/OFF/Trip (change - over)



	Ref.
Auxilary Contact 1 C/O	LV580075
Auxilary Contact 2 C/O	LV580076
Alarm Contact 1 C/O	LV580077
Alarm Contact 2 C/O	LV580078
Alarm Auxilary Contact	LV580079

Shunt/Under voltage coil

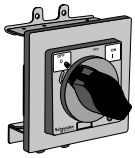




	Shunt/Under voltage	Ref. Shunt (MX)	Ref. Under Voltage (MN)
AC 50Hz	110-130 V	LV580060	LV580070
	220-240 V	LV580061	LV580071
	380-415 V	LV580062	LV580072
	440 V	LV580063	
	voltage	**Reference**	
DC	24 V	LV580064	
	48 V	LV580065	
	110 V	LV580066	
	220 V	LV580067	

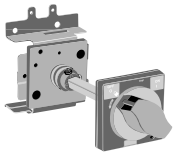
Rotary handles

Direct rotary handles



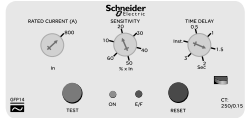
Ref.
LV580080

Extended rotary handle



Ref.
LV580081

Ground Fault Protection



	Ground Fault Relay + CT Ref.
3 Phase 3 Wire	GFP14CT43P
3 Phase 4 Wire	GFP14CT44P

Note: Kindly order one nos. shunt coil along with one Ground Fault Protection
Order one auxilliary contact alongwith shunt coil for CVS800.



Make the most of your energy

For more information visit our website at: www.schneider-electric.co.in
Schneider Electric India Pvt. Ltd. (A 100% subsidiary of Schneider Electric Industries SAS)
Corporate office : 9th Floor, DLF Building No.10, Tower C, DLF Cyber City, Phase II,
Gurgaon - 122002, Haryana, Tel: 0124 3940400, Fax: 0124 4222036
Customer Care Centre : Toll-free numbers: 1800 180 1707, 1800 103 0011,
General number: 0124 4222040, Email: in-care@schneider-electric.com