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Commutatori manuali e by-pass

Manual change-over switches and by-pass

16 ÷ 4000 A

PCMA



GENERALITA' COMMUTATORE SD

I **commutatori manuali SD**, consentono la commutazione di 2 linee elettriche separate di bassa tensione. Sono ottenuti interbloccando due normali interruttori della serie SD (vedi relative sezioni per caratteristiche tecniche pag 3)

CARATTERISTICHE GENERALI

- > alto potere d'interruzione (AC 22 A - AC 23 A)
- > doppia interruzione per ogni polo
- > elevata durata meccanica ed elettrica
- > grado di protezione IP20 (accessori inclusi)
- > esecuzione modulare montaggio su profilato DIN 35 mm e a vite, finestra modulare 45 mm
- > 3 poli
- > 3 poli + N

COMPOSIZIONE DELLA GAMMA

SD1 commutatore con portate da 16 - 25 - 32 - 40 - 63 A
SD2 commutatore con portate da 63 - 80 - 100 - 125 A

COMANDO

Maniglia diretta lucchettabile in posizione di zero.
 Maniglia con e senza blocco porta.
 Grado di protezione IP 65.

CONFORMITA' ALLE NORME

IEC 60947/1-3
 CEI EN 60947/1-3

Codici per l'ordinazione
 Order references



SD1
 commutatore
 change-over

SD2
 commutatore
 change-over

SD CHANGE-OVER SWITCHES GENERALITIES

The **manual change-over switches SD series**, allow the permutating two low voltage electrical circuits. They are made by two standard switches of SD series mechanically interlocked (see relative section for technical characteristics page 3)

GENERAL CHARACTERISTICS

- > high breaking capacity (AC 22 A - AC 23 A)
- > double break contacts
- > high electrical and mechanical endurance
- > IP20 degree of protection (with accessory)
- > modular execution, basic mounting on 35 mm DIN rail and by screws, modular window 45mm
- > 3 poles
- > 3 poles + N

RANGE COMPOSITION

SD1 change-over switches 16 - 25 - 32 - 40 - 63 A
SD2 change-over switches 63 - 80 - 100 - 125 A

OPERATING MECHANISM

Direct handle padlockable in 0 position.
 Handle with and without door interlock handle.
 IP 65 degree of protection.

CONFORMITY TO STANDARDS

IEC 60947/1-3
 CEI EN 60947/1-3

Tipo Type	Corrente nominale Rated current	Maniglia diretta (nera) Direct handle (black)		
		Poli / Poles	Codice / Code	
SD1 commutatore change-over	16A	3P	193003	
		4P	193303	
	25A	3P	193013	
		4P	193313	
	32A	3P	193023	
		4P	193323	
	40A	3P	193033	
		4P	193333	
	63A	3P	193043	
		4P	193343	
	SD2 commutatore change-over	63A	3P	192053
			4P	192353
80A		3P	192063	
		4P	192363	
100A		3P	192073	
		4P	192373	
125A	3P	192083		
	4P	192383		

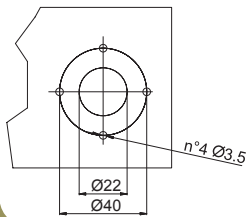
Dati tecnici
Technical data

Caratteristiche Characteristics		16A	25A	SD1 32A	40A	63A	63A	SD2		
		80A	100A	125A						
Tensione nominale d'isolamento Rated insulation voltage	Ui (V)	800	800	800	800	800	800	800	800	800
Tensione nominale tenuta impulso Impulse withstand voltage	Uimp (kV)	8	8	8	8	8	8	8	8	8
Corrente nominale termica a 40°C Rated thermal current at 40°C	Ith/Ithe (A)	16	25	32	40	63	63	80	100	125
Corrente nominale d' impiego Ie / Rated operational current Ie										
AC-21A	415V (A)	16	25	32	40	63	63	80	100	125
	500V (A)	16	25	32	40	63	63	80	100	125
	690V (A)	16	25	32	40	63	63	80	100	125
AC-22A	415V (A)	16	25	32	40	63	63	80	100	125
	500V (A)	16	25	32	40	63	63	80	100	100
	690V (A)	16	25	32	40	40	40	40	40	40
AC-23A	415V (A)	16	25	32	40	40	63	80	100	100
	500V (A)	16	25	32	40	40	63	63	63	63
	690V (A)	16	25	25	25	25	32	32	32	32
Potere di chiusura a 415V AC23 Rated making capacity at 415V AC23	(A)	160	250	320	400	400	630	800	1000	1000
Potere di interruzione a 415V AC23 Rated breaking capacity at 415V AC23	(A)	128	200	256	320	320	504	640	800	800
Potenza nominale di impiego AC23 Rated operational power AC23	415V (kW)	7.5	11	14	15	15	29	37	46	46
	500V (kW)	7.5	11	14	15	18.5	35	35	35	35
	690V (kW)	7.5	11	14	15	18.5	24	24	24	24
Corrente di breve durata per 1 sec Short-circuit withstand current 1 sec	(400V) (kA)	1.1	1.1	1.1	1.1	1.1	1.5	1.5	1.5	1.5
Corrente di corto circuito condizionata da fusibile / Rated fuse short circuit current										
Tipo fusibile gG / Back up fuse gG	(A)	16	25	32	40	63	63	80	100	125
Valore efficace / R.M.S. value	(kA)	50	50	50	50	20	50	50	30	20
Valore di picco / Peak value	(kA)	3.8	4.5	5	5.7	5.7	8	9.9	9.9	9.9
Durata meccanica Mechanical endurance	n.	50000	50000	50000	50000	50000	30000	30000	30000	30000
Durata elettrica / Electrical endurance	n.	3000	3000	3000	3000	3000	3000	1500	1500	1000
Potenza dissipata per polo Power loss per pole	W	0.1	0.1	0.2	0.3	0.8	0.8	1.3	2.0	3.1
Dimensione cavo / Cable section	mmq	16	16	16	16	16-25	*16-50	*16-50	25-50	35-50
Max. torsione terminali Max terminal torque	Nm	2	2	2	2	2	2,5	2,5	2,5	2,5
Sforzi di manovra / Operation torque	Nm	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Contatti ausiliari AC 15/415V Auxiliary contacts AC 15/415V	A	3	3	3	3	3	3	3	3	3
Peso netto 3 poli / Net weight 3 poles	Kg.	0.13	0.13	0.13	0.13	0.13	0.25	0.25	0.25	0.25
Peso netto 4 poli / Net weight 4 poles	Kg.	0.16	0.16	0.16	0.16	0.16	0.32	0.32	0.32	0.32
Peso netto 6 poli / Net weight 6 poles	Kg.	0.30	0.30	0.30	0.30	0.30	0.55	0.55	0.55	0.55
Peso netto 8 poli / Net weight 8 poles	Kg.	0.40	0.40	0.40	0.40	0.40	0.62	0.62	0.62	0.62

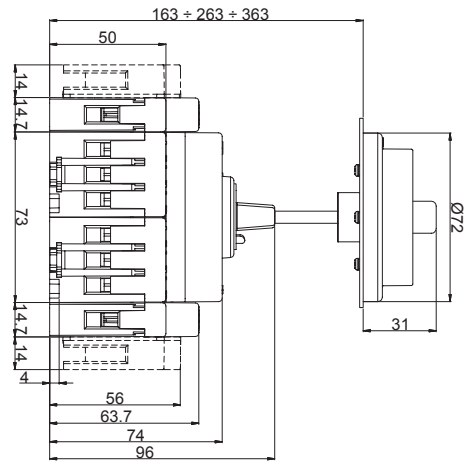
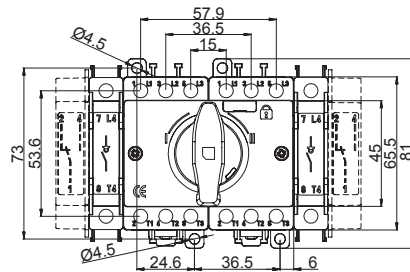
Dimensioni
Dimensions



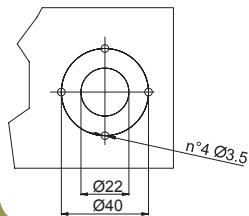
L
L = 13 mm



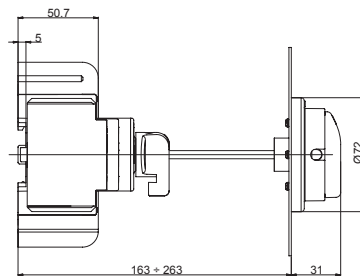
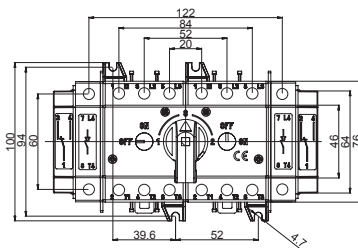
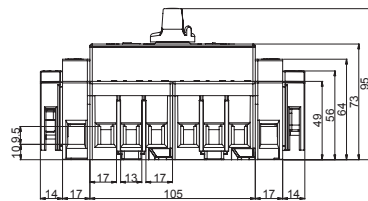
SD1 commutatore / change-over



L
L = 13 mm



SD2 commutatore / change-over



Accessori
Accessories



maniglia blocco porta commutatore
door interlock handle for change-over

Tipo / Type	SD1 - SD2 rotonda nera black square
Codice / Code	19402

Tipo / Type	SD1 - SD2 con ghiera with ring
Codice / Code	19462



maniglia blocco porta commutatore
door interlock handle for change-over

Tipo / Type	SD1 - SD2 quadrata nera black round
Codice / Code	19405

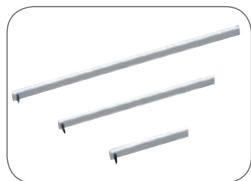
Tipo / Type	SD1 - SD2 con ghiera with ring
Codice / Code	19465



Codici per
l'ordinazione
Order references

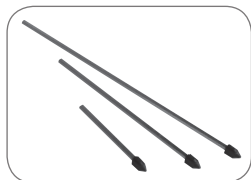
Accessori
Accessories

Codici per
l'ordinazione
Order references



alberi di comando / shaft

Tipo/Type	SD1 - SD2 alluminio / aluminum		SD1 - SD2 acciaio / steel		
mm	100	200	100	200	300
Codice Code	19535-100	19535-200	19534-100	19534-200	19534-300



alberi di comando con puntale / shaft with point

Tipo/Type	SD1 - SD2 alluminio / aluminum		SD1 - SD2 acciaio / steel		
mm	100	200	100	200	300
Codice Code	19535-100P	19535-200P	19534-100P	19534-200P	19534-300P



4° polo / 4th pole

Tipo Type	SD1	SD2
Codice Code	19442	19443



contatti ausiliari 1NA+1NC terminali a vite
auxiliary contacts 1NO+1NC screw terminals

Tipo Type	SD1	SD2
Codice Code	19429	19429

Portata nominale 10A 400V - 16A 250V ca
Apertura anticipata rispetto all'apertura dei contatti principali dell'interruttore.

Rated current 10A 400V - 16A 250V ac - Break before main contacts.



contatti ausiliari 1NA+1NC terminali a Faston
auxiliary contacts 1NO+1NC Faston terminals

Tipo Type	SD1	SD2
Codice Code	19430	19430

Portata nominale 10A 400V - 16A 250V ca
Apertura anticipata rispetto all'apertura dei contatti principali dell'interruttore.

Rated current 10A 400V - 16A 250V ac - Break before main contacts.



kit compriterminali 3 poli / 3 poles terminals cover kit

Tipo Type	SD1	SD2
Codice Code	19424	19425



kit compriterminali 4° polo / 4th pole terminals cover kit

Tipo Type	SD1	SD2
Codice Code	19426	19427

GENERALITA' COMMUTATORE VC

Serie di commutatori ad azionamento manuale che permettono l'apertura e la commutazione di due circuiti elettrici in bassa tensione.

Sono ottenuti interbloccando due normali interruttori sezionatori della serie VISUALCOMPACT (vedi relative sezioni per caratteristiche tecniche pag 12-13).

La posizione sovrapposta dei due interruttori sezionatori rende particolarmente compatta questa soluzione facilitando notevolmente il collegamento a cavi o barre.

CARATTERISTICHE GENERALI

- > 3 posizioni I-O-II
- > versione senza zero con sovrapposizione dei contatti 1, 1+II, II (overlapping) fino a 1250A
- > interruttori-sezionatori interbloccati verticalmente o orizzontalmente
- > visibilità diretta, mediante finestrelle, dei contatti fissi e mobili
- > manovre a scatto rapido indipendente
- > doppia interruzione per ogni polo
- > alto potere di interruzione (cat. AC-23A IEC 60947-3)
- > elevata durata meccanica ed elettrica
- > adatti per utilizzo in climi tropicali (IEC 6068-2)
- > ampia gamma di accessori
- > comando di tipo rotativo frontale a mezzo di:
 - > maniglia esterna a doppio isolamento con dispositivo bloccoporta nelle posizioni I e II
 - > grado di protezione IP65, lucchettabile fino a 3 lucchetti in posizione O
- > possibilità di esecuzione per by-pass fino a 1250A 35kA
- > possibilità di esecuzioni speciali di commutatori a 6-8 poli.

CONDIZIONI NORMALI DI SERVIZIO, MONTAGGIO E TRASPORTO

- > temperatura ambiente di immagazzinamento e trasporto -25°C +55°C
- > temperatura ambiente di funzionamento -20°C +45°C
- > in caso di temperatura ambiente (t_a) superiore, applicare la seguente formula di declassamento:

$$I_{The} = k I_{Th} \text{ dove } K = 1 - \frac{t_a - 45}{100}$$

- > umidità relativa max 95%
- > frequenza nominale 50-60Hz
- > altitudine max 2000 m s.l.m.
- > grado di inquinamento 3 secondo IEC 60947-1
- > tipo di servizio (secondo IEC 60947-1):
 - > servizio 8 ore
 - > servizio ininterrotto
 - > servizio intermittente 60% classe 30
 - > servizio temporaneo
 - > servizio periodico

Per condizioni di impiego diverse consultare il costruttore.

VC CHANGE-OVER SWITCHES GENERALITIES

Change-over switches manually operated suitable for breaking and permutating two low voltage electrical circuits.

They are made by two standard switches of VISUALCOMPACT series (see relative sections for technical characteristics, pages 12-13) mechanically interlocked. The arrangement of two switches mounted one on top of the other makes this execution particularly compact and easy to connect to cables or bus-bars.

GENERAL CHARACTERISTICS

- > 3 positions I-O-II
- > version without 0 Overlapping functions 1, 1+II, II up to 1250A
- > load break switches vertically or horizontally interlocked
- > visibility of fixed and moving contacts by means of windows
- > independent fast action operation
- > double break contacts
- > high breaking capacity (AC-23A IEC 60947-3)
- > high electrical and mechanical endurance
- > resistant to damp heat (IEC 6068-2)
- > wide range of accessories
- > rotary front operation by means of:
 - > external double insulated handle with door-interlock in I and II position
 - > IP65 degree of protection. Padlockable with up to three padlocks in 0 position
- > version for by-pass available only up to 1250A 35kA
- > special executions of 6-8 poles change-over available.

NORMAL SERVICE, MOUNTING AND TRANSPORT CONDITIONS

- > storage and transport ambient temperature -25°C +55°C
- > working ambient temperature -20°C +45°C
- > in case of higher ambient temperature (t_a) consider the following derating formula:

$$I_{The} = k I_{Th} \quad K = 1 - \frac{t_a - 45}{100}$$

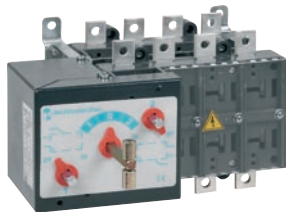
- > relative humidity max 95%
- > rated frequency 50-60Hz
- > altitude max. 2000 m a.s.l.
- > pollution degree 3 according IEC 60947-1
- > duty (IEC 60947-1):
 - > eight-hour duty
 - > uninterrupted duty
 - > intermittent duty 60% class 30
 - > temporary duty
 - > periodic duty

For other operating conditions contact the manufacturer.

Commutatori
sovrapposti
Two layers change-
over switches

CSP

Codici per
l'ordinazione
Order references

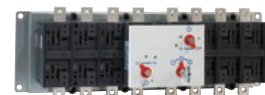


Tipo Type	Corrente nominale Rated current	Senza maniglia Without handle		Maniglia blocco porta Door interlock handle	
		Poli / Poles	Codice / Code	Poli / Poles	Codice / Code
CS1P	32A	3P	110008SM	3P	110008
		4P	110108SM	4P	110108
	45A	3P	110018SM	3P	110018
		4P	110118SM	4P	110118
	63A	3P	110028SM	3P	110028
		4P	110128SM	4P	110128
	80A	3P	110038SM	3P	110038
		4P	110138SM	4P	110138
	100A	3P	110048SM	3P	110048
		4P	110148SM	4P	110148
	125A	3P	110058SM	3P	110058
		4P	110158SM	4P	110158
160A	3P	110068SM	3P	110068	
	4P	110168SM	4P	110168	
CS2P	160A	3P	120018SM	3P	120018
		4P	120118SM	4P	120118
	200A	3P	120028SM	3P	120028
		4P	120128SM	4P	120128
	250A	3P	120038SM	3P	120038
		4P	120138SM	4P	120138
315A	3P	120048SM	3P	120048	
	4P	120148SM	4P	120148	
CS3P	315A	3P	130018SM	3P	130018
		4P	130118SM	4P	130118
	400A	3P	130028SM	3P	130028
		4P	130128SM	4P	130128
500A	3P	130038SM	3P	130038	
	4P	130138SM	4P	130138	
CS4P	630A	3P	140038SM	3P	140038
		4P	140138SM	4P	140138
800A	3P	140048SM	3P	140048	
	4P	140148SM	4P	140148	
CS5P (35kA)	800A	3P	150008SM	3P	150008
		4P	150108SM	4P	150108
	1000A	3P	150018SM	3P	150018
		4P	150118SM	4P	150118
1250A	3P	150028SM	3P	150028	
	4P	150128SM	4P	150128	
CS5P (50kA)	800A	3P	150078SM	3P	150078
		4P	150178SM	4P	150178
	1000A	3P	150088SM	3P	150088
		4P	150188SM	4P	150188
	1250A	3P	150098SM	3P	150098
		4P	150198SM	4P	150198
	1600A	3P	150038SM	3P	150038
		4P	150138SM	4P	150138
	2000A	3P	150048SM	3P	150048
		4P	150148SM	4P	150148
	2500A	3P	150058SM	3P	150058
		4P	150158SM	4P	150158
3150A	3P	150068SM	3P	150068	
	4P	150168SM	4P	150168	
CS6P	1600A	3P	160008SM	3P	160008
		4P	160108SM	4P	160108
	2000A	3P	160018SM	3P	160018
		4P	160118SM	4P	160118
	2500A	3P	160028SM	3P	160028
4P		160128SM	4P	160128	
3150A	3P	160038SM	3P	160038	
	4P	160138SM	4P	160138	

Codici per
l'ordinazione
Order references

Commutatori
orizzontali
Horizontal change-
over switches

COP



Tipo Type	Corrente nominale Rated current	Senza maniglia Without handle		Maniglia blocco porta Door interlock handle	
		Poli / Poles	Codice / Code	Poli / Poles	Codice / Code
CO1P	32A	3P	110003SM	3P	110003
		4P	110103SM	4P	110103
	45A	3P	110013SM	3P	110013
		4P	110113SM	4P	110113
	63A	3P	110023SM	3P	110023
		4P	110123SM	4P	110123
	80A	3P	110033SM	3P	110033
		4P	110133SM	4P	110133
	100A	3P	110043SM	3P	110043
		4P	110143SM	4P	110143
	125A	3P	110053SM	3P	110053
		4P	110153SM	4P	110153
160A	3P	110063SM	3P	110063	
	4P	110163SM	4P	110163	
CO2P	160A	3P	120013SM	3P	120013
		4P	120113SM	4P	120113
	200A	3P	120023SM	3P	120023
		4P	120123SM	4P	120123
	250A	3P	120033SM	3P	120033
		4P	120133SM	4P	120133
315A	3P	120043SM	3P	120043	
	4P	120143SM	4P	120143	
CO3P	315A	3P	130013SM	3P	130013
		4P	130113SM	4P	130113
	400A	3P	130023SM	3P	130023
		4P	130123SM	4P	130123
500A	3P	130033SM	3P	130033	
	4P	130133SM	4P	130133	
CO4P	630A	3P	140033SM	3P	140033
		4P	140133SM	4P	140133
800A	3P	140043SM	3P	140043	
	4P	140143SM	4P	140143	
CO5P (35kA)	800A	3P	150003SM	3P	150003
		4P	150103SM	4P	150103
	1000A	3P	150013SM	3P	150013
		4P	150113SM	4P	150113
	1250A	3P	150023SM	3P	150023
		4P	150123SM	4P	150123
CO5P (50kA)	800A	3P	150073SM	3P	150073
		4P	150173SM	4P	150173
	1000A	3P	150083SM	3P	150083
		4P	150183SM	4P	150183
	1250A	3P	150093SM	3P	150093
		4P	150193SM	4P	150193
	1600A	3P	150033SM	3P	150033
		4P	150133SM	4P	150133
	2000A	3P	150043SM	3P	150043
		4P	150143SM	4P	150143
	2500A	3P	150053SM	3P	150053
		4P	150153SM	4P	150153
3150A	3P	150063SM	3P	150063	
	4P	150163SM	4P	150163	
CO6P	1600A	3P	160003SM	3P	160003
		4P	160103SM	4P	160103
	2000A	3P	160013SM	3P	160013
		4P	160113SM	4P	160113
	2500A	3P	160023SM	3P	160023
		4P	160123SM	4P	160123
	3150A	3P	160033SM	3P	160033
		4P	160133SM	4P	160133

Commutatori
verticali
Vertical change-over
switches

CCP

Codici per
l'ordinazione
Order references



Tipo Type	Corrente nominale Rated current	Senza maniglia Without handle		Maniglia blocco porta Door interlock handle	
		Poli / Poles	Codice / Code	Poli / Poles	Codice / Code
CC1P	32A	3P	110002SM	3P	110002
		4P	110102SM	4P	110102
	45A	3P	110012SM	3P	110012
		4P	110112SM	4P	110112
	63A	3P	110022SM	3P	110022
		4P	110122SM	4P	110122
	80A	3P	110032SM	3P	110032
		4P	110132SM	4P	110132
	100A	3P	110042SM	3P	110042
		4P	110142SM	4P	110142
	125A	3P	110052SM	3P	110052
		4P	110152SM	4P	110152
160A	3P	110062SM	3P	110062	
	4P	110162SM	4P	110162	
CC2P	160A	3P	120012SM	3P	120012
		4P	120112SM	4P	120112
	200A	3P	120022SM	3P	120022
		4P	120122SM	4P	120122
	250A	3P	120032SM	3P	120032
		4P	120132SM	4P	120132
315A	3P	120042SM	3P	120042	
	4P	120142SM	4P	120142	
CC3P	315A	3P	130012SM	3P	130012
		4P	130112SM	4P	130112
	400A	3P	130022SM	3P	130022
		4P	130122SM	4P	130122
500A	3P	130032SM	3P	130032	
	4P	130132SM	4P	130132	
CC4P	630A	3P	140032SM	3P	140032
		4P	140132SM	4P	140132
800A	3P	140042SM	3P	140042	
	4P	140142SM	4P	140142	
CC5P (35kA)	800A	3P	150002SM	3P	150002
		4P	150102SM	4P	150102
	1000A	3P	150012SM	3P	150012
		4P	150112SM	4P	150112
1250A	3P	150022SM	3P	150022	
	4P	150122SM	4P	150122	
CC5P (50kA)	800A	3P	150072SM	3P	150072
		4P	150172SM	4P	150172
	1000A	3P	150082SM	3P	150082
		4P	150182SM	4P	150182
	1250A	3P	150092SM	3P	150092
		4P	150192SM	4P	150192

Per esecuzione quadripolare con neutro passante aggiungere "SN" al termine del codice del corrispondente sezionatore quadripolare.

For solid neutral switches add "SN" to the code of corresponding four pole switch.

Per esecuzione quadripolare con neutro a piena corrente (già di serie fino a 1250A) aggiungere "FN" al termine del codice del corrispondente sezionatore quadripolare da 1600A in poi.

For full current switches (standard until 1250A) add "FN" to the code of corresponding four pole switch from 1600A onward.

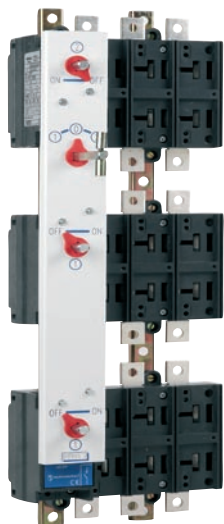
**GENERALITA' BYP VERTICALI -
COMMUTATORI BY-PAS**

I commutatori by-pass sono una combinazione di tre interruttori interbloccati tra loro meccanicamente in modo da costituire un dispositivo in grado di collegare in derivazione parti in manutenzione.
(vedi schema pag 29)

**BYP VERTICAL - BY-PASS CHANGE-OVER
SWITCHES GENERALITIES**

*By-pass change over switches are a combination of three mechanically interlocked switches in order to constitute a device able to shunt sections under maintenance.
(see diagram page 29)*

Codici per
l'ordinazione
Order references



Tipo Type	Corrente nominale Rated current	Senza maniglia Without handle		Maniglia blocco porta Door interlock handle	
		Poli / Poles	Codice / Code	Poli / Poles	Codice / Code
BYP1 VERT.	125A	3P	110057SM	3P	110057
		4P	110157SM	4P	110157
BYP2 VERT.	250A	3P	120037SM	3P	120037
		4P	120137SM	4P	120137
BYP3 VERT.	400A	3P	130027SM	3P	130027
		4P	130127SM	4P	130127
BYP4 VERT.	630A	3P	140037SM	3P	140037
		4P	140137SM	4P	140137
BYP5 VERT.	1250A	3P	150027SM	3P	150027
		4P	150127SM	4P	150127

**GENERALITA' BYP SOVRAPPOSTI -
COMMUTATORI BY-PASS**

I commutatori by-pass sono una combinazione di tre interruttori interbloccati tra loro meccanicamente in modo da costituire un dispositivo in grado di collegare in derivazione parti in manutenzione.
(vedi schemi pag 30)

**BYP TWO LAYERS - BY-PASS CHANGE-
OVER SWITCHES GENERALITIES**

*By-pass change over switches are a combination of three mechanically interlocked switches in order to constitute a device able to shunt sections under maintenance.
(see diagrams page 30)*

Codici per
l'ordinazione
Order references



Tipo Type	Corrente nominale Rated current	Senza maniglia Without handle		Maniglia blocco porta Door interlock handle	
		Poli / Poles	Codice / Code	Poli / Poles	Codice / Code
BYP1 SOVR.	125A	3P	110050SM	3P	110050
		4P	110150SM	4P	110150
BYP2 SOVR.	250A	3P	120030SM	3P	120030
		4P	120130SM	4P	120130
BYP3 SOVR.	400A	3P	130020SM	3P	130020
		4P	130120SM	4P	130120
BYP4 SOVR.	630A	3P	140030SM	3P	140030
		4P	140130SM	4P	140130
BYP5 SOVR.	1250A	3P	150020SM	3P	150020
		4P	150120SM	4P	150120

- > I codici riportati nelle tabelle corrispondono alla portata indicata.
Il codice di un by-pass con valori di portata (Amp.) diversi da quelli riportati nelle tabelle, si ottiene aggiungendo la desinenza **7** per l'esecuzione by-pass **"VERTICALI"** e la desinenza **0** per l'esecuzione by-pass **"SOVRAPPOSTI"** al codice del corrispondente sezionatore.
- > Per caratteristiche tecniche vedi pag 12 - 13
- > Per caratteristiche dimensionali vedi pag 29 - 30 - 31 - 32
- > *By-pass switch disconnectors codes written in the tables corresponding at the specific rated current value.
To order a by-pass switch disconnector, not included in these tables, add **7** for **"VERTICAL"** by-pass and **0** for **"TWO-LAYER"** by-pass at the end of the code of the corresponding switch disconnector.*
- > *For technical data see page 12 - 13*
- > *For dimensions see page 29 - 30 - 31 - 32*

Dati tecnici
Technical data

Tipo / type		CS/CO/BYP - 1P								CS/CO/BYP - 2P			
Corrente nominale Rated current	(In)		32A	45A	63A	80A	100A	125A	160A	160A	200A	250A	315A
Tensione nominale d'isolamento c.a./AC Rated insulation voltage	(Ui) (V)		1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
	c.c./DC (Ui) (V)		1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
Tensione nominale impulso Impulse withstand voltage	(U imp) (kV)		8	8	8	8	8	8	8	12	12	12	12
Corrente nominale termica Rated thermal current	(Ith) (A)		32	45	63	80	100	125	160	160	200	250	315
Corrente nominale d'impiego (Ie) Rated operational current	400V (A)		32	45	63	80	100	125	125/160	160	200	250	250/315
	AC-21A/B 500V (A)		32	45	63	80	100	125	125/160	160	200	250	250/315
	690V (A)		32	45	63	80	100	125	125/160	160	200	250	250/315
	400V (A)		32	45	63	80	100	125	125/160	160	200	250	250/315
	AC-22A/B 500V (A)		32	45	63	80	100	125	125/125	160	200	250	250/250
	690V (A)		32	45	63	80	100	125	125/125	160	200	250	250/250
	400V (A)		32	45	63	80	100	125	125/125	160	200	250	250/250
	AC-23A/B 500V (A)		25	35	45	63	80	100	100/100	125	160	200	200/200
	690V (A)		20	30	35	45	63	80	80/80	100	125	160	160/160
	220V (A)		32	45	63	80	100	125	125/160	160	200	250	250/315
	DC-21A/B(1) 420V (A)		-	-	-	-	-	-	-	160	200	250	250/315
	560V (A)		-	-	-	-	-	-	-	-	-	-	-
	220V (A)		32	45	63	80	100	125	125/125	160	200	250	250/315
	DC-22A/B(1) 420V (A)		-	-	-	-	-	-	-	160	200	250	250/250
	560V (A)		-	-	-	-	-	-	-	-	-	-	-
	220V (A)		20	30	35	45	63	80	80/80	160	200	250	250/250
DC-23A/B(1) 420V (A)		-	-	-	-	-	-	-	160	200	250	250/250	
560V (A)		-	-	-	-	-	-	-	-	-	-	-	
Potere di chiusura a 400V AC23 Rated making capacity at 400V AC23	(A)		320	450	630	800	1000	1250	1250	1600	2000	2500	2500
Potere di interruzione a 400V AC23 Rated breaking capacity at 400V AC23	(A)		256	360	504	640	800	1000	1000	1280	1600	2000	2000
Corrente di breve durata per 1 sec. Short-circuit withstand current 1 sec.	(kA)		5	5	5	5	5	5	5	8	8	8	8
Corrente di breve durata per 0,25 sec. Short-circuit withstand current 0,25 sec.	(kA)		10	10	10	10	10	10	10	16	16	16	16
Potere di chiusura in corto circuito Short-circuit making capacity	(400V) (kA)		7,5	7,5	7,5	7,5	7,5	7,5	7,5	13,5	13,5	13,5	13,5
Potenza nominale d'impiego AC-23A Rated operational power AC-23A	(400V) (Kw)		17	23	33	42	52	65	65	85	105	130	130
Corrente di corto circuito condizionata da fusibile Rated fuse short-circuit current													
Tipo fusibile / Back up fuse	(A)		32	45	63	80	100	125	160	160	200	250	315
Valore efficace / R.M.S. value	(kA)		50	50	50	50	50	50	50	50	50	50	50
Valore di picco / Peak value	(kA)		6	9	10	12	12	15	16	16	20	25	27
Durata meccanica / Mechanical endurance	n°		12000	12000	12000	12000	12000	10000	10000	10000	10000	10000	10000
Durata elettrica / Electrical endurance	n°		3000	3000	3000	3000	3000	2000	2000	2000	2000	2000	2000/200
Potenza condensatori a 400V Rated capacitor power at 400V	kVAR		15	20	30	40	45	50	50	70	90	110	110
Potenza dissipata per polo Power losses for pole	(W)		0,1	0,2	0,4	0,7	1,1	1,7	2,7	1,6	2,4	3,8	6,1
Dimensione cavo / Cable section	mmq		50	50	50	50	50	50	70	120	120	120	185
Dimensione barre / Bars dimension	mm		16x3	16x3	16x3	16x3	16x3	16x3	16x4	20x5	20x5	20x5	20x6

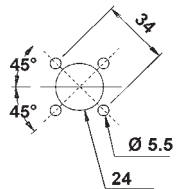
(1) Due poli in serie / Two poles in series

SERIE / SERIES CMA

CS/CO/BYP - 3P			CS/CO/BYP - 4P			CS/CO/BYP - 5P			CS/CO - 5P 50 kA					CS/CO - 6P				
315A	400A	500A	630A	800A	800A	1000A	1250A	800A	1000A	1250A	1600A	2000A	2500A	3150A	1600A	2000A	2500A	3150A
1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	8	8	8
315	400	500	630	800	800	1000	1250	800	1000	1250	1600	2000	2500	3150	1600	2000	2500	3150
315	400	500/500	630	630/800	800	1000	1250	800	1000	1250	1600	2000	2500	3150	1600	2000	2500	3150
315	400	500/500	630	630/800	800	1000	1250	800	1000	1250	1250	1600	2000	2500	1600	2000	2500	3150
315	400	400/500	630	630/800	800	1000	1250	800	1000	1250	1250	1250	1250	1250	1250	1250	1250	1250
315	400	500/500	630	630/800	800	1000	1250	800	1000	1250	1250	1250	-	-	1600	2000	2500	1600
315	400	400/400	630	630/630	800	1000	1250	800	1000	1250	-	-	-	-	1250	1250	1250	-
315	400	400/400	630	630/630	800	1000	1250	800	1000	1250	-	-	-	-	400	400	800	-
315	400	500/500	630	630/630	800	1000	1250	800	1000	1250	-	-	-	-	1250	1250	-	-
250	315	315/315	500	500/500	800	800	800	630	800	1000	-	-	-	-	800	800	-	-
200	250	250/250	400	400/400	400	400	400	500	630	800	-	-	-	-	400	400	-	-
315	400	400/500	630	630/800	800	1000	1250	800	1000	1250	1600	2000	-	-	1600	2000	-	-
315	400	400/500	630	630/800	-	-	-	-	-	-	-	-	-	-	-	-	-	-
315	400	400/500	630	630/800	-	-	-	-	-	-	-	-	-	-	-	-	-	-
315	400	400/500	630	630/800	800	1000	1250	800	1000	1250	-	-	-	-	-	-	-	-
315	400	400/400	630	630/630	-	-	-	-	-	-	-	-	-	-	-	-	-	-
315	400	400/400	630	630/630	-	-	-	-	-	-	-	-	-	-	-	-	-	-
315	400	400/400	630	630/630	500	630	800	500	630	800	-	-	-	-	-	-	-	-
315	400	400/400	630	630/630	-	-	-	-	-	-	-	-	-	-	-	-	-	-
315	400	400/400	630	630/630	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3150	4000	5000	6300	6300	8000	10000	12500	8000	10000	12500	-	-	-	-	12500	12500	-	-
2520	3200	4000	5040	5040	6400	8000	10000	6400	8000	10000	-	-	-	-	10000	10000	-	-
13	13	13	26,5	26,5	35	35	35	50	50	50	50	50	50	50	60	60	70	70
26	26	26	53	53	70	70	70	100	100	100	100	100	100	100	120	120	140	140
26	26	26	30	30	73,5	73,5	73,5	105	105	105	105	105	105	105	105	105	105	105
165	210	210	330	330	420	525	630	420	525	630	630	630	-	-	630	630	-	-
315	400	500	630	800	800	1000	1250	800	1000	1250	-	-	-	-	-	-	-	-
50	50	50	50	50	100	100	100	100	100	100	-	-	-	-	-	-	-	-
27	30	37	40	50	50	60	70	50	60	70	-	-	-	-	-	-	-	-
8000	8000	8000	8000	8000	7000	7000	7000	4000	4000	4000	4000	4000	2000	2500	4000	2500	2500	2500
1500	1500	1500/200	1500	1500/200	1000	1000	1000	1000	1000	1000	500	500	500	500	1000	500	500	500
140	180	180	300	300	380	475	600	380	475	600	-	-	-	-	780	850	1100	1250
5,9	9,4	14,8	15,6	25,7	17,5	27,3	42,7	15,6	24,3	38,0	38,3	61,3	91,7	145,5	47,8	74,7	85,4	118,1
185	2x150	2x150	2x185	2x240	2x240	-	-	2x240	-	-	-	-	-	-	-	-	-	-
2x25x42x25x5	2x25x5	2x32x6	2x40x6	2x50x5	2x50x6	2x50x8	2x50x5	2x50x6	2x50x8	3x50x8	3x50x12	4x50x12	6x50x12	2x80x10	2x80x10	3x80x10	3x100x10	

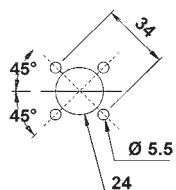
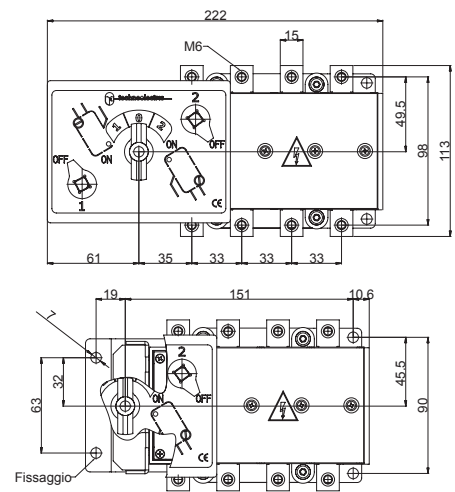
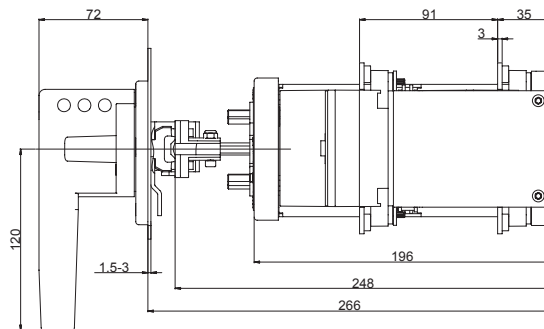
Dimensioni
Dimensions

Commutatori
sovrapposti
Two layers change-
over switches



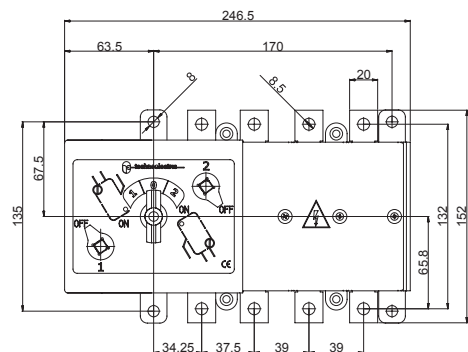
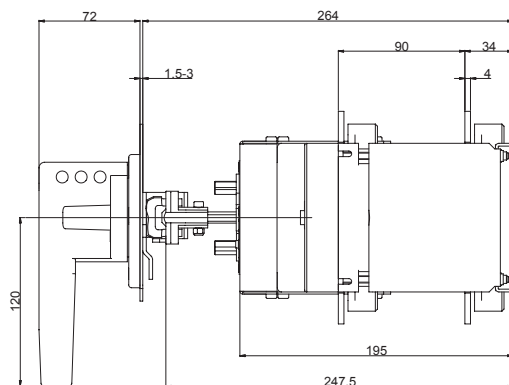
Foratura portella
Door drilling

CS1P



Foratura portella
Door drilling

CS2P

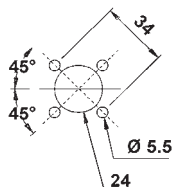
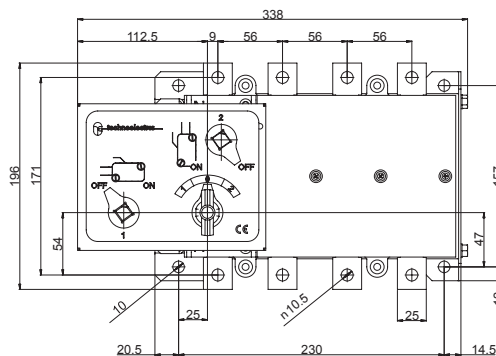
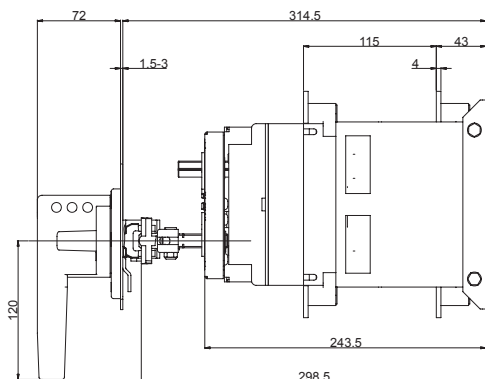


Dimensioni
Dimensions

Commutatori
sovrapposti
Two layers change-
over switches



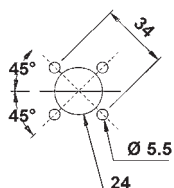
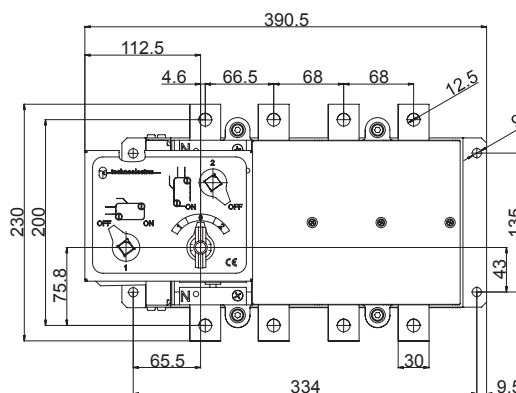
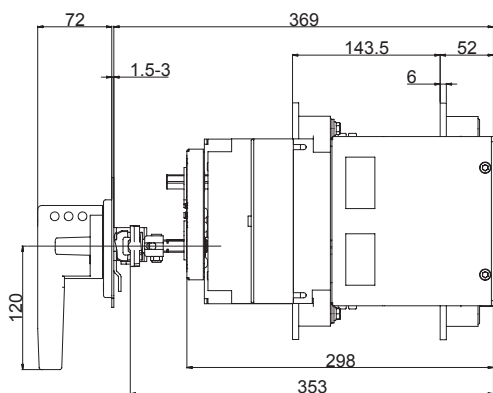
CS3P



Foratura portella
Door drilling



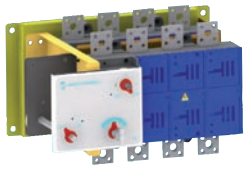
CS4P



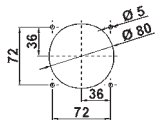
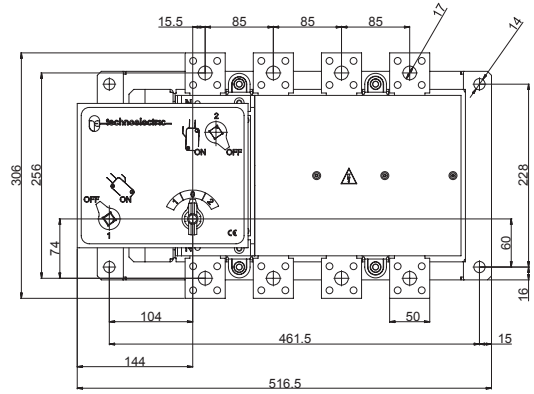
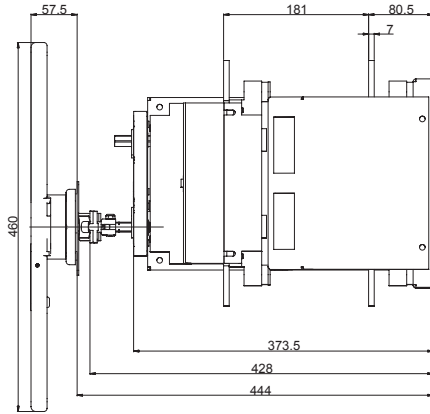
Foratura portella
Door drilling

Dimensioni
Dimensions

Commutatori
sovrapposti
Two layers change-
over switches



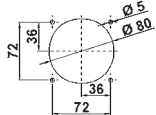
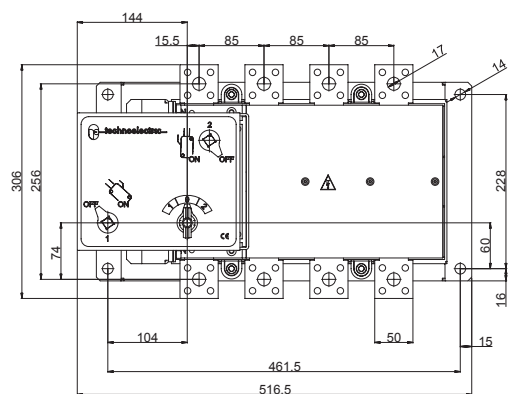
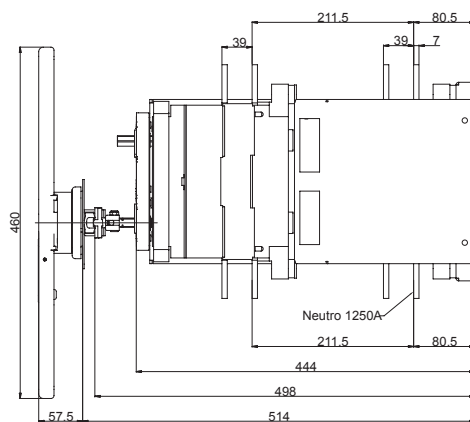
CS5P 800 ÷ 1250A



Foratura portella
Door drilling



CS5P 1600 ÷ 2000A

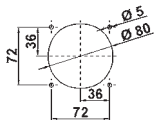


Foratura portella
Door drilling

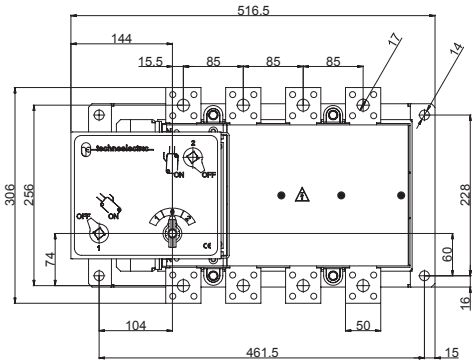
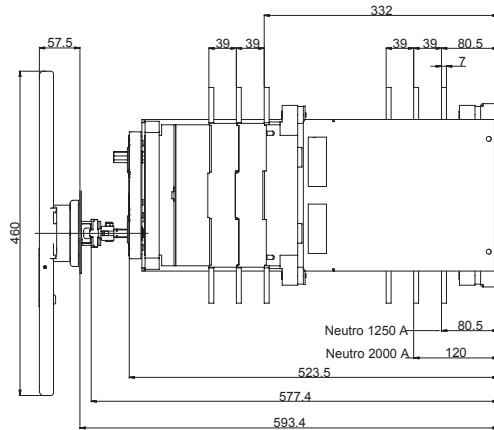
Dimensioni
Dimensions

Commutatori
sovrapposti
Two layers change-
over switches

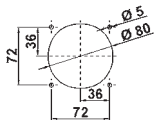
CS5P 2500 ÷ 3150A



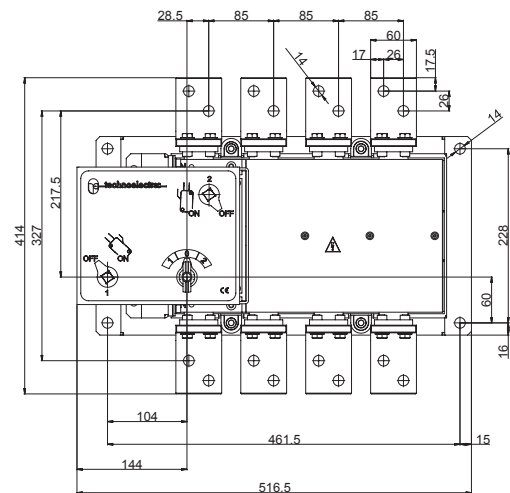
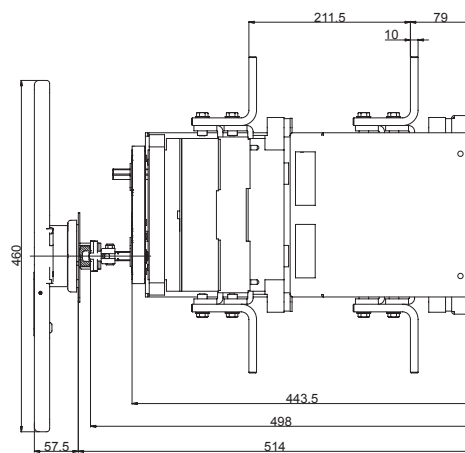
Foratura portella
Door drilling



CS6P FN 1600A

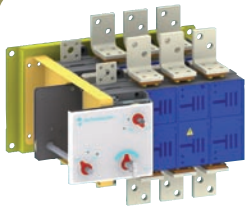


Foratura portella
Door drilling

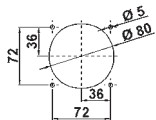
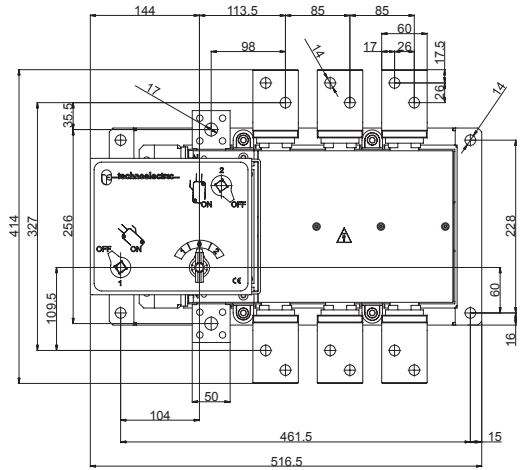
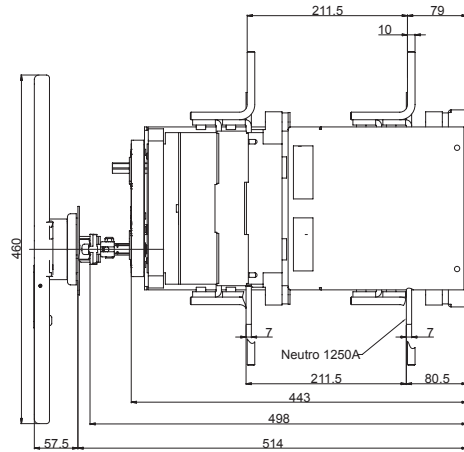


Dimensioni
Dimensions

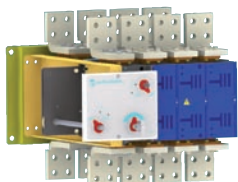
Commutatori
sovrapposti
Two layers change-
over switches



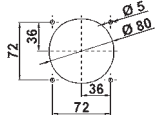
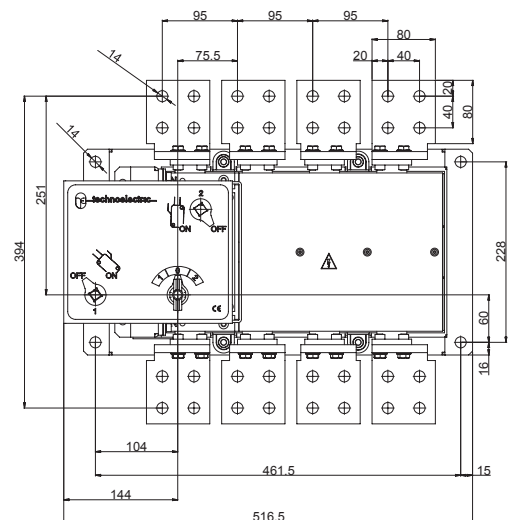
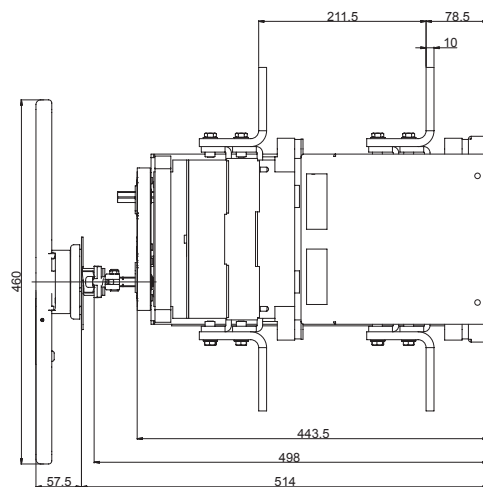
CS6P 1600A N 1250A



Foratura portella
Door drilling



CS6P FN 2000A



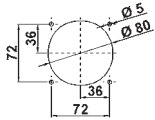
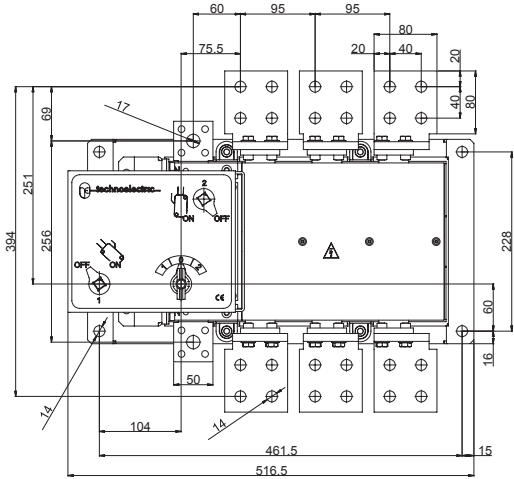
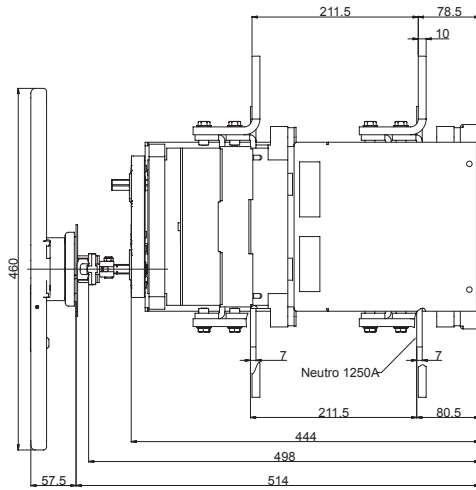
Foratura portella
Door drilling

Dimensioni
Dimensions

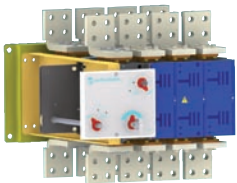
Commutatori
sovrapposti
Two layers change-
over switches



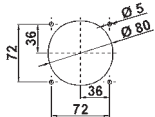
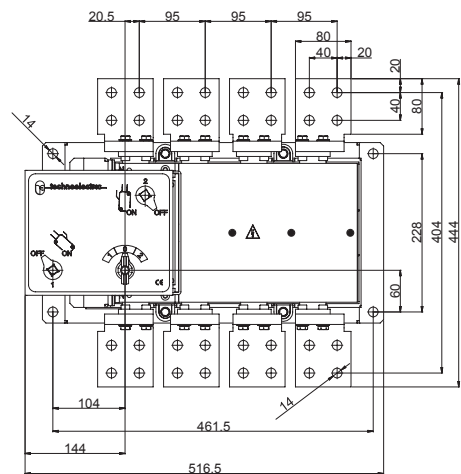
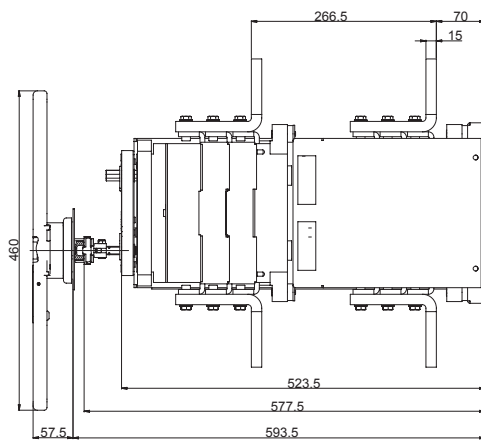
CS6P 2000A N 1250A



Foratura portella
Door drilling



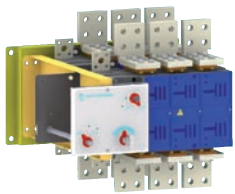
CS6P FN 2500A



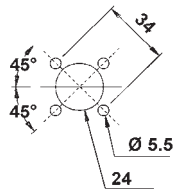
Foratura portella
Door drilling

Dimensioni
Dimensions

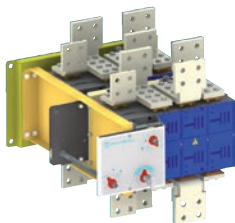
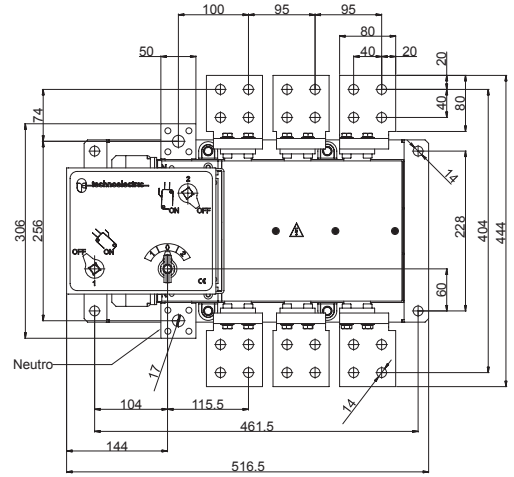
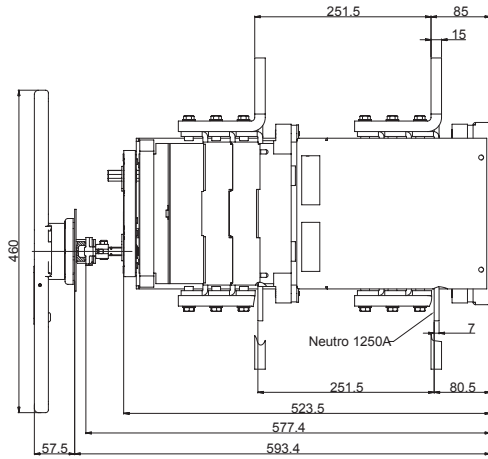
Commutatori
sovrapposti
Two layers change-
over switches



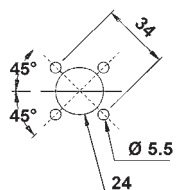
CS6P 2500A N 1250A



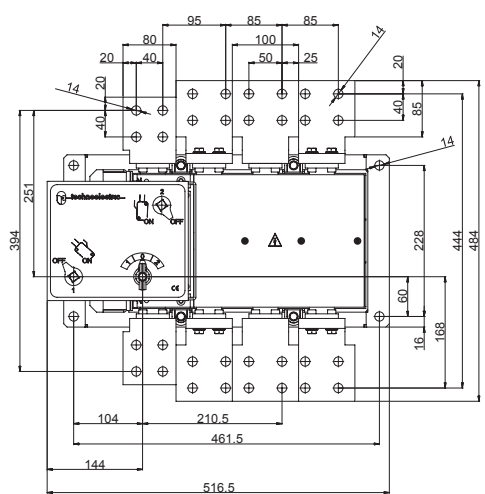
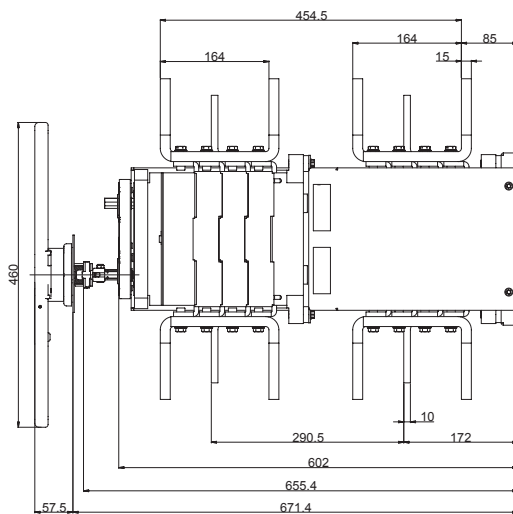
Foratura portella
Door drilling



CS6P 3150A



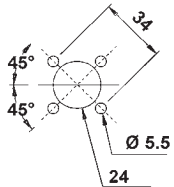
Foratura portella
Door drilling



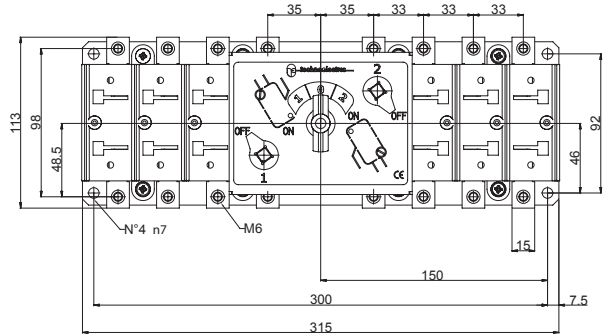
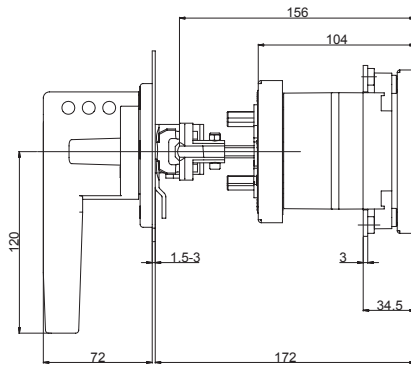
Dimensioni
Dimensions

Commutatori
orizzontali
Horizontal change-
over switches

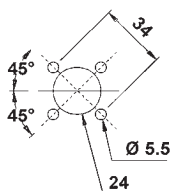
CO1P



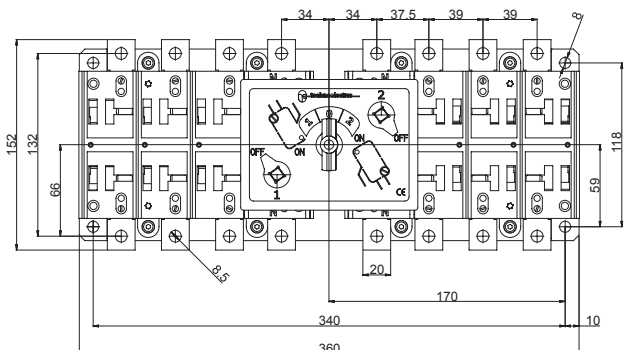
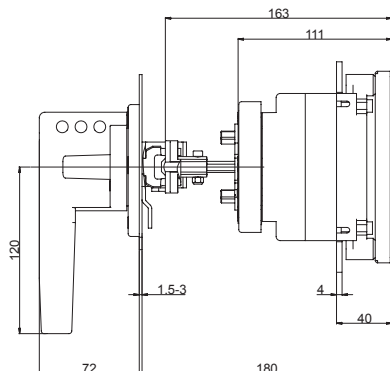
Foratura portella
Door drilling



CO2P



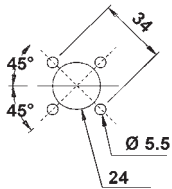
Foratura portella
Door drilling



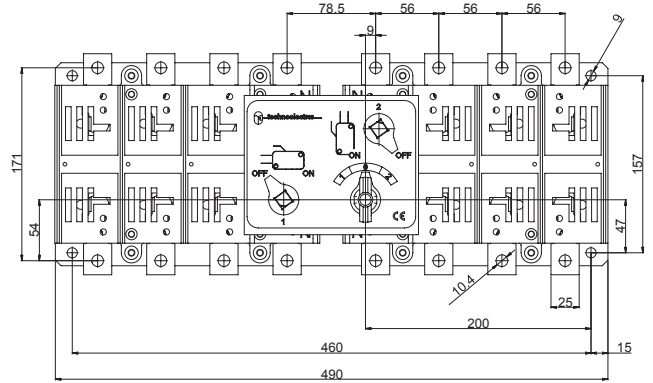
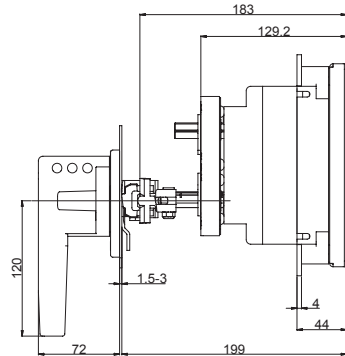
Dimensioni
Dimensions

Commutatori
orizzontali
Horizontal change-
over switches

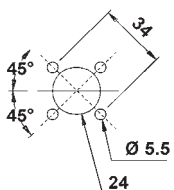
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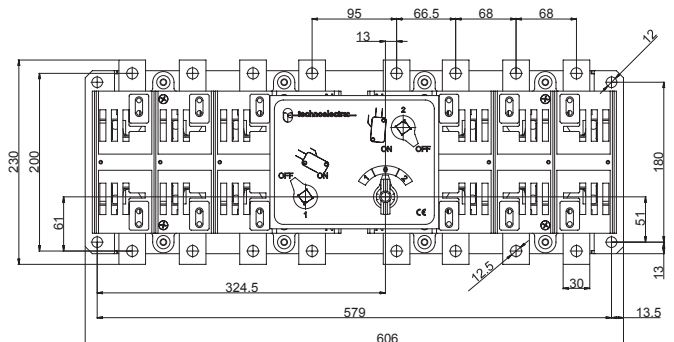
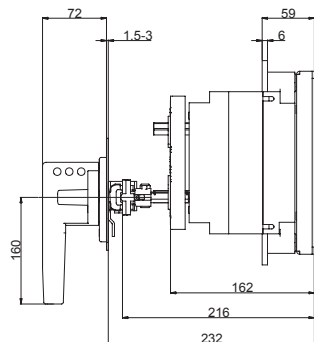
Foratura portella
Door drilling



CO4P



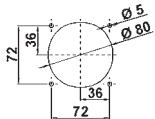
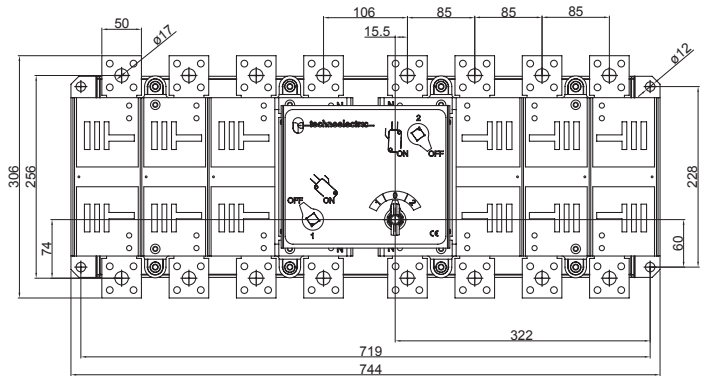
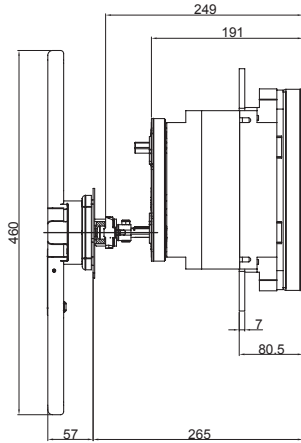
Foratura portella
Door drilling



Dimensioni
Dimensions

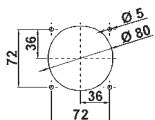
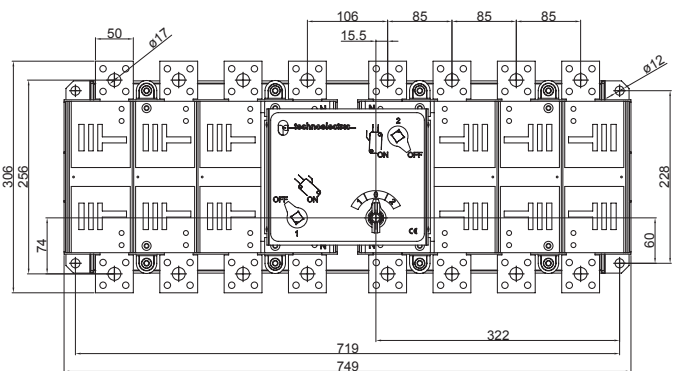
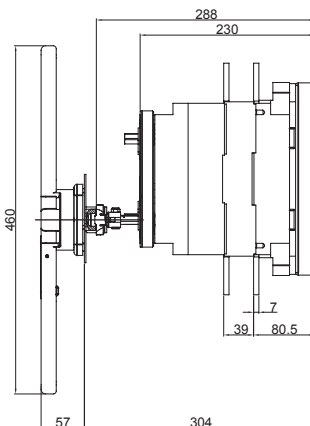
Commutatori
orizzontali
Horizontal change-
over switches

CO5P 800 ÷ 1250A



Foratura portella
Door drilling

CO5P 1600 ÷ 2000A



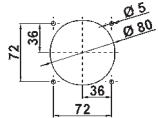
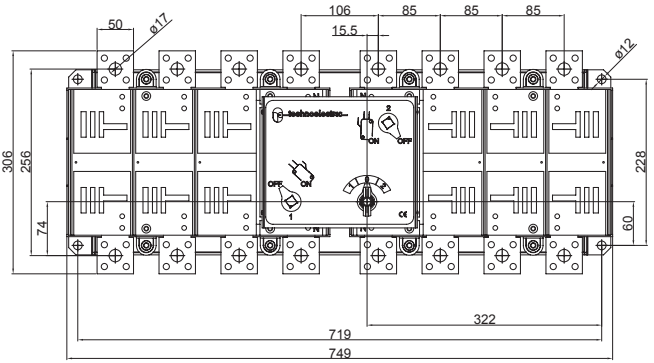
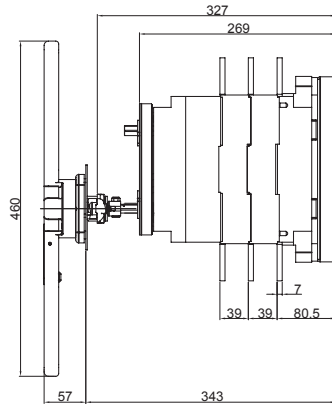
Foratura portella
Door drilling

Dimensioni
Dimensions

Commutatori
orizzontali
Horizontal change-
over switches



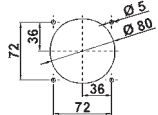
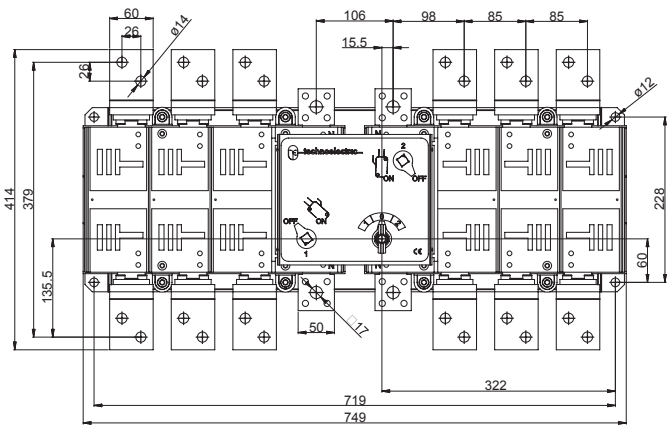
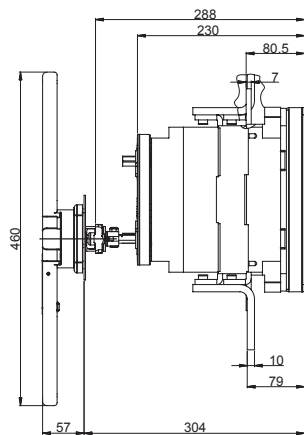
CO5P 2500 + 3150A



Foratura portella
Door drilling



CO6P 1600A N 1250A



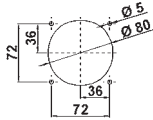
Foratura portella
Door drilling

Dimensioni
Dimensions

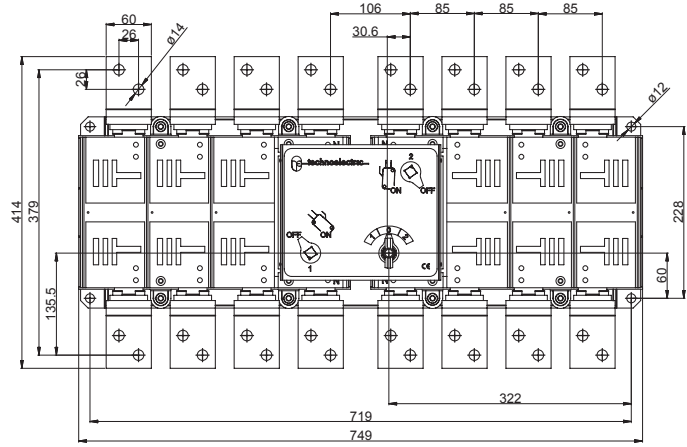
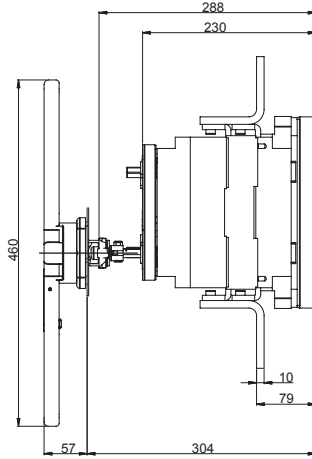
Commutatori
orizzontali
Horizontal change-
over switches



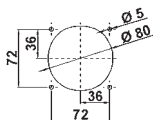
CO6P FN 1600A



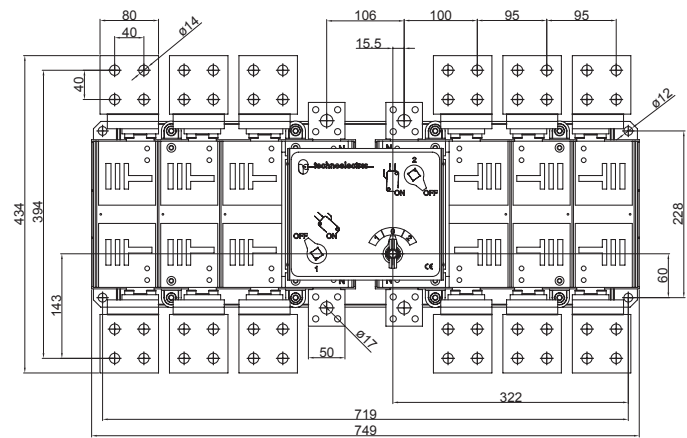
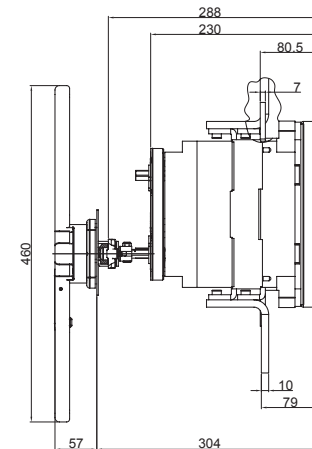
Foratura portella
Door drilling



CO6P 2000A N 1250A

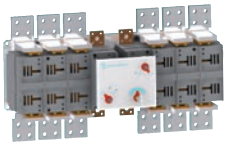


Foratura portella
Door drilling

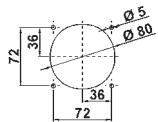
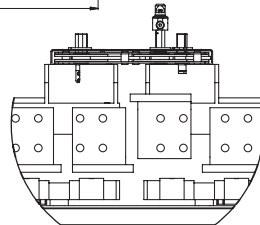
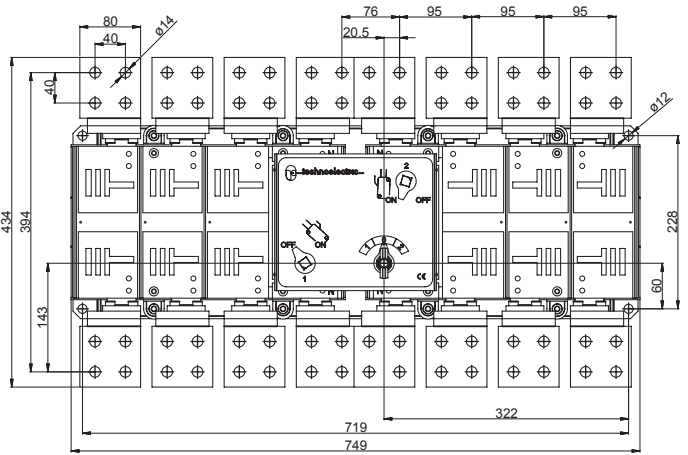
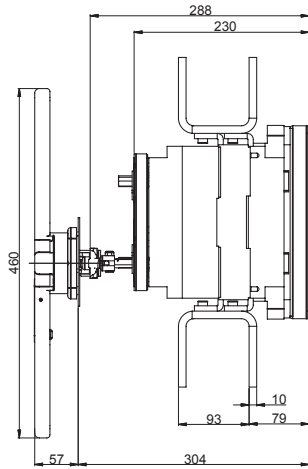


Dimensioni
Dimensions

Commutatori
orizzontali
Horizontal change-
over switches



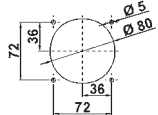
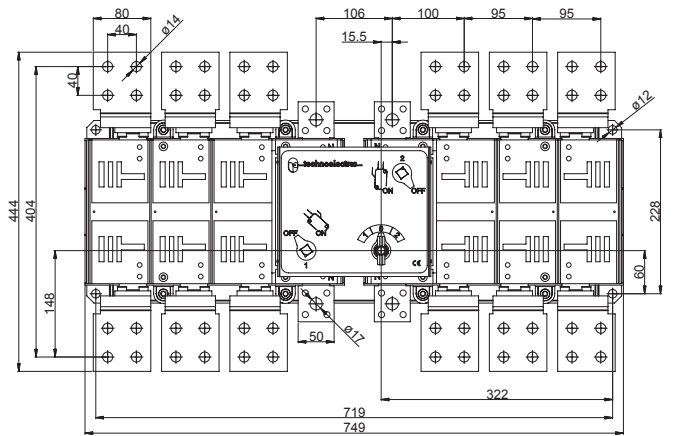
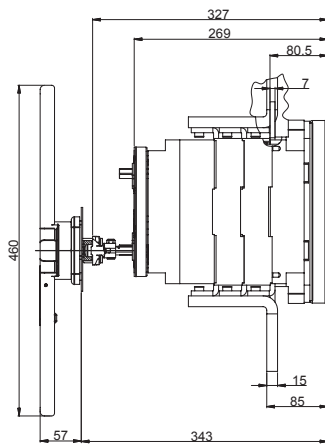
CO6P FN 2000A



Foratura portella
Door drilling



CO6P 2500A N 1250A

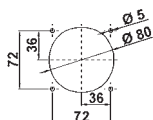
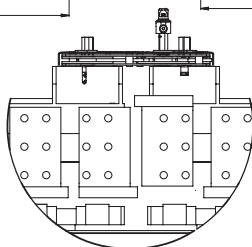
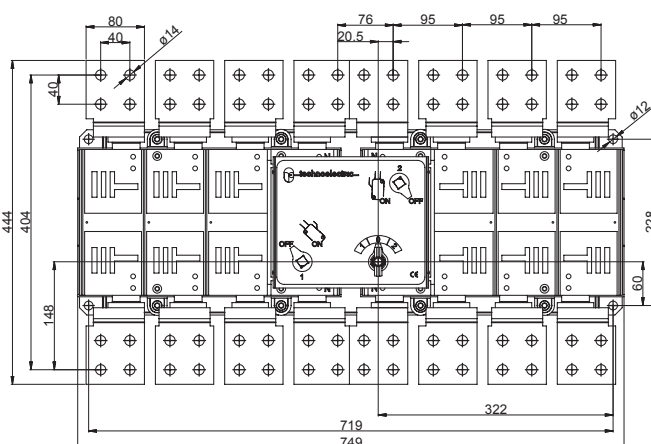
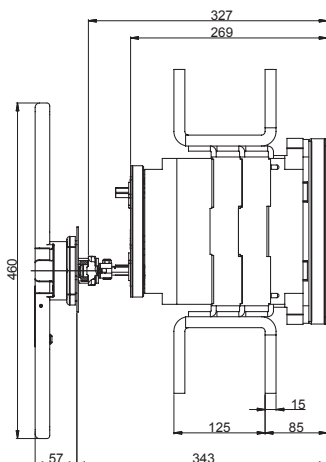


Foratura portella
Door drilling

Dimensioni
Dimensions

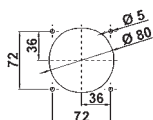
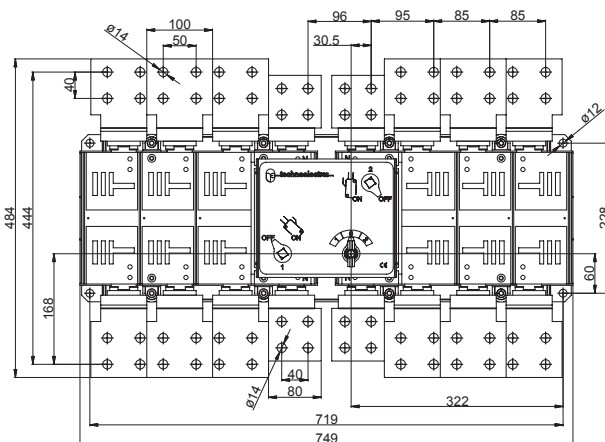
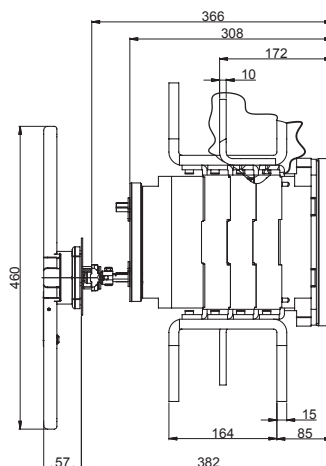
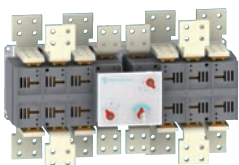
Commutatori
orizzontali
Horizontal change-
over switches

CO6P FN 2500A



Foratura portella
Door drilling

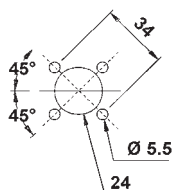
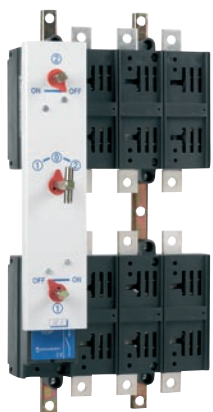
CO6P 3150A



Foratura portella
Door drilling

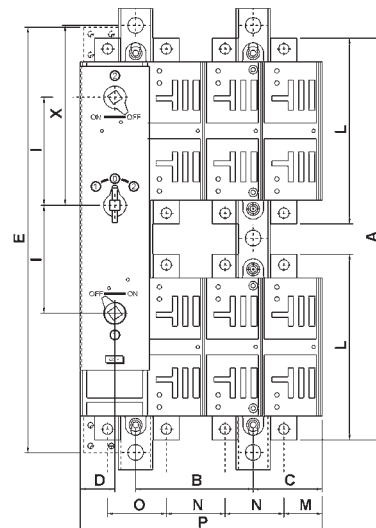
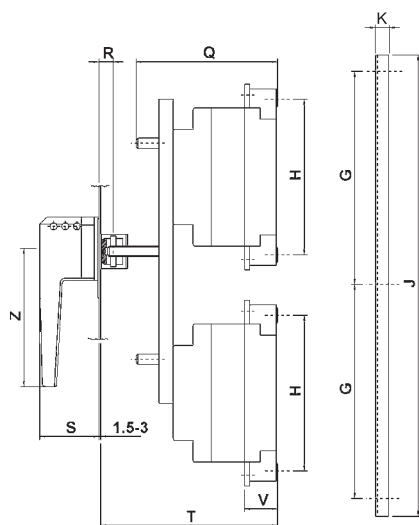
Dimensioni
Dimensions

Commutatori
verticali
Vertical change-over
switches



Foratura portella
Door drilling

CCP



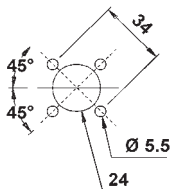
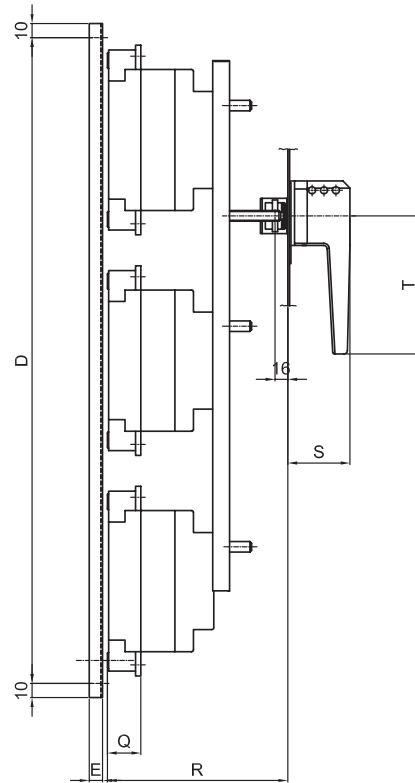
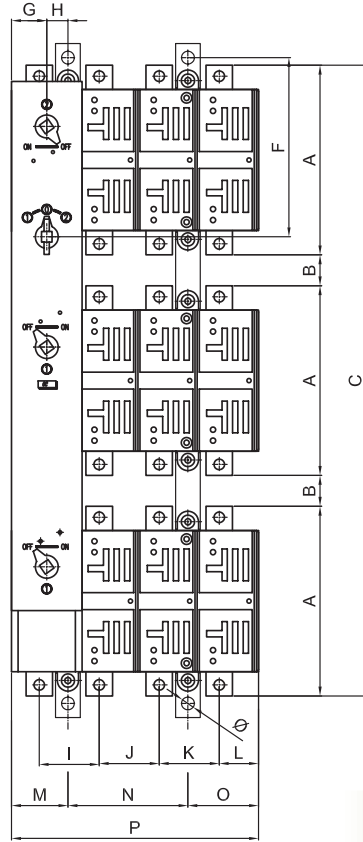
tipo / type	A	B	C	D	E	G	H	K	I	J	L	M	N	O	P	Q	R	S	T	V	X	Z
CC1P 32 ÷ 160A	253	66	40,5	25	-	131	88	10	70	282	113	24	33	33	145,5	110	16	71	174	21	106,5	120
CC2P 160 ÷ 315A	317	78	49,5	26	-	157,5	118	10	85	335	147	30	39	37,5	168	116	16	71	182	29,5	125	120
CC3P 315 ÷ 500A	436	114	68	35	-	230	157	10	120	480	196	38	56	56	243,5	140	16	71	202,5	61	201	120
CC4P 630 ÷ 800A	480	136	80	40	-	235	180	15	125	490	215	46	68	66,5	280	161	16	71	226	42	193	160
CC5P 800 ÷ 1250A	676	170	106,5	50,5	686	319	228	15	185	658	286	64	85	85	356	199,5	16	71	253	52,5	257	130X2

Dimensioni
Dimensions

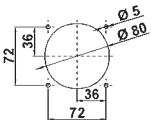
Commutatori
by-pass verticali
Vertical by-pass change-over switches



BYP verticali



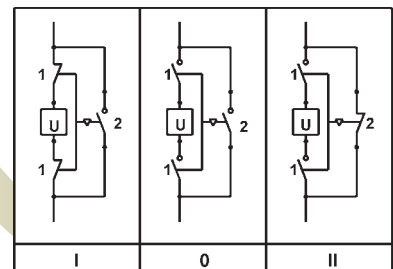
Foratura portella
Door drilling



Foratura portella
per BYP vert. 5P
BYP vert. 5P
Door drilling

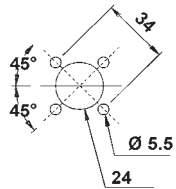
tipo / type	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	ø
BYP VERT 1P 32 ÷ 160A	113	30	399	422	10	110	25	14	33	33	33	24	39	66	40,5	145	22,5	161	41	120	9
BYP VERT 2P 160 ÷ 315A	152	18	492	422	10	140	26	14,5	37,5	39	39	30	40,5	78	49,5	168	27,5	170	71	120	9
BYP VERT 3P 315 ÷ 500A	196	44	676	697	10	187	35	35	56	56	56	38	70	114	68	235	29	183,5	71	160	11
BYP VERT 4P 630 ÷ 800A	230	20	730	940	15	196	40	24	66,5	68	68	46	64	136	80	280	38	207	71	230X2	11
BYP VERT 5P 800 ÷ 1250A	306	64	1046	1028	15	265	50,5	29	85	85	85	64	79,5	170	106,5	356	55	236	88	230X2	11

schema elettrico
electrical diagram



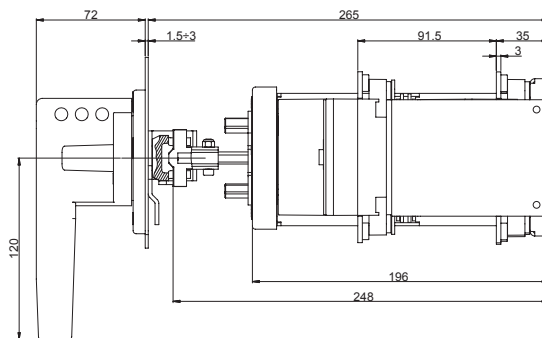
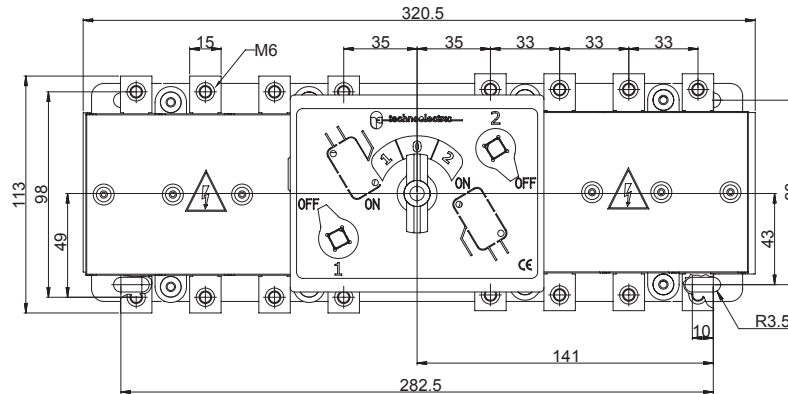
Dimensioni
Dimensions

Commutatori
by-pass sovrapposti
Two-layers by pass
change-over switches

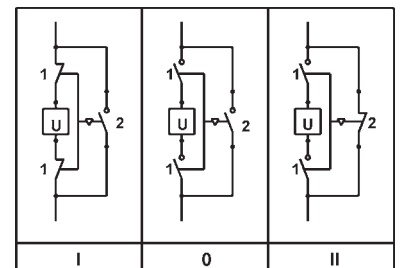


Foratura portella
Door drilling

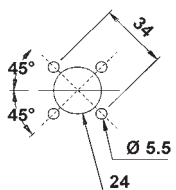
BYP 1P 32 ÷ 160A



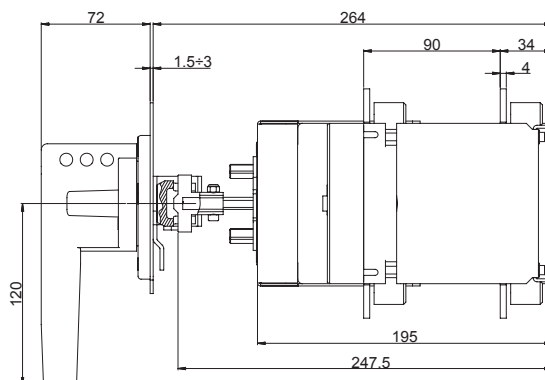
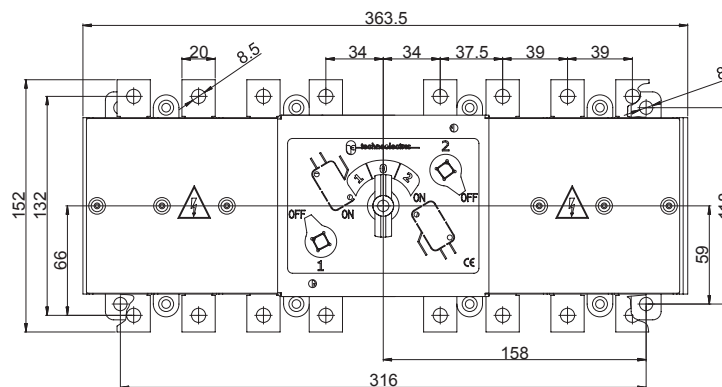
schema elettrico
electrical diagram



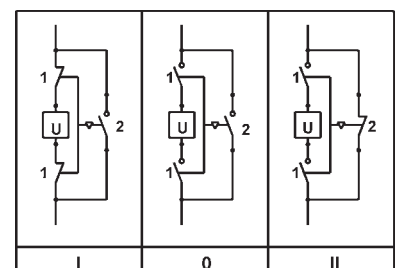
BYP 2P 160 ÷ 315A



Foratura portella
Door drilling



schema elettrico
electrical diagram

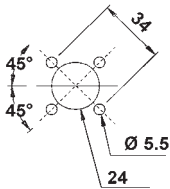
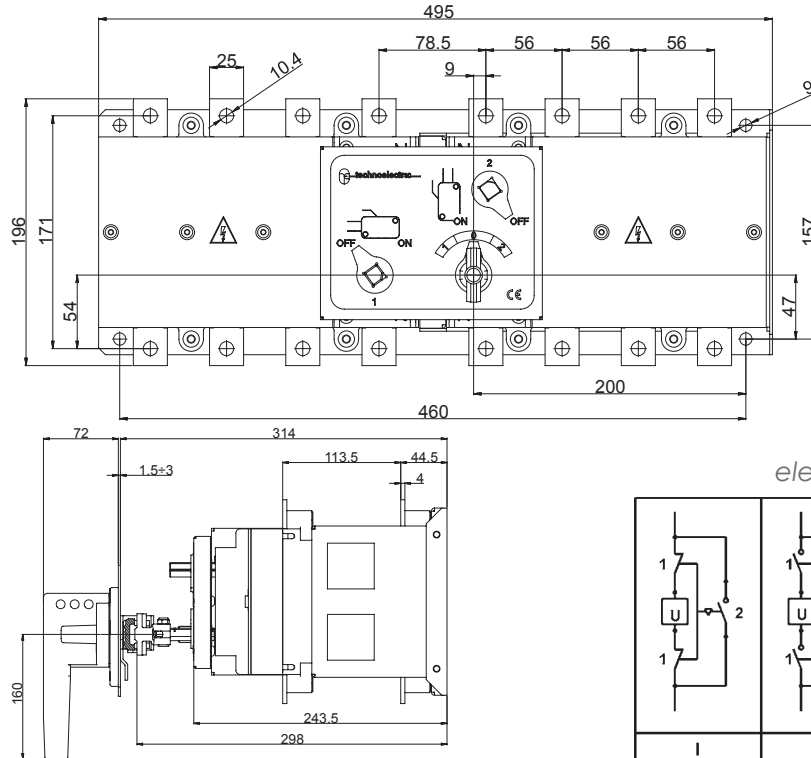


Dimensioni
Dimensions

Commutatori
by-pass sovrapposti
Two-layers by pass
change-over switches

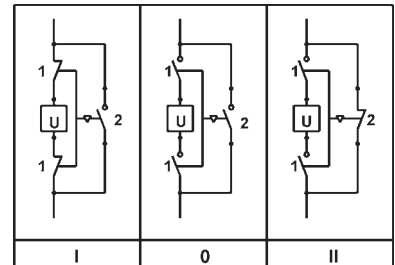


BYP 3P 315 + 500A

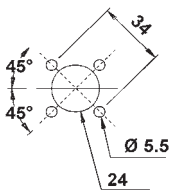
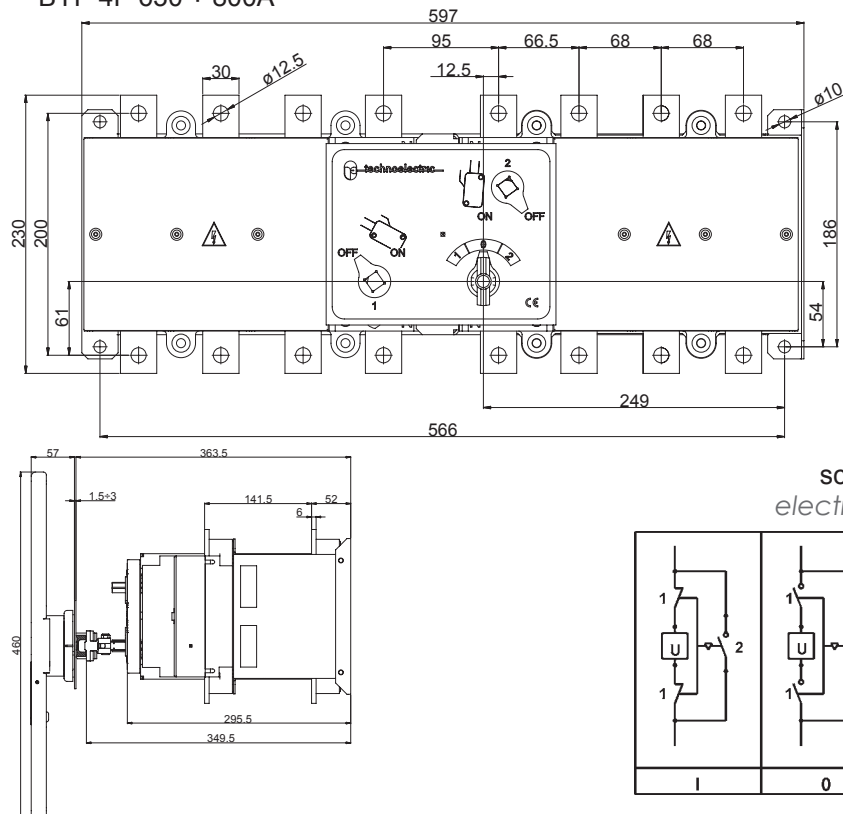


Foratura portella
Door drilling

schema elettrico
electrical diagram

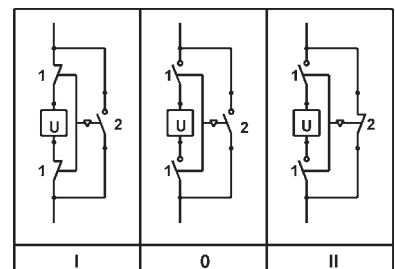


BYP 4P 630 ÷ 800A



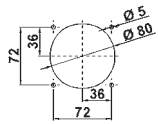
Foratura portella
Door drilling

schema elettrico
electrical diagram



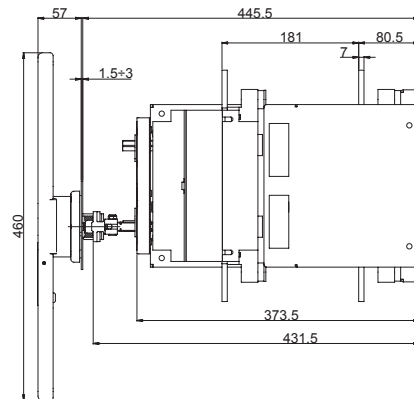
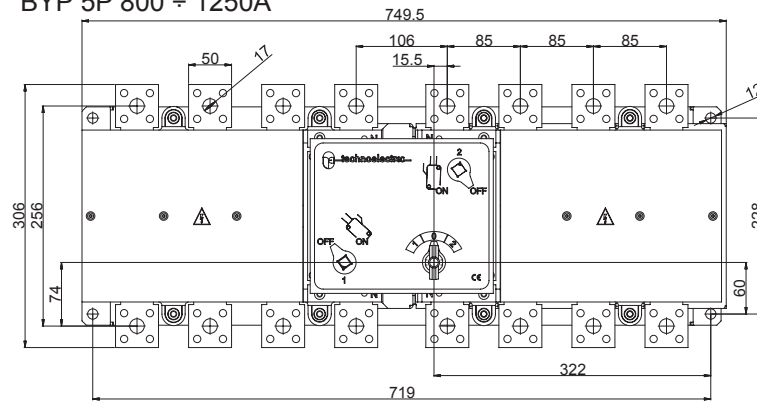
Dimensioni
Dimensions

Commutatori
by-pass sovrapposti
Two-layers by pass
change-over switches

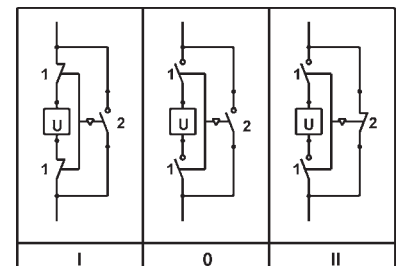


Foratura portella
Door drilling

BYP 5P 800 ÷ 1250A



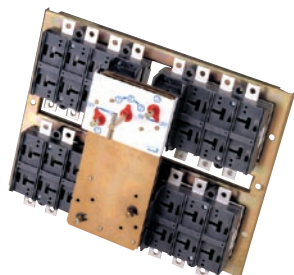
schema elettrico
electrical diagram



Commutatori
6-8 poli
6-8 poles change-
over switches

COP

Codici per
l'ordinazione
Order references



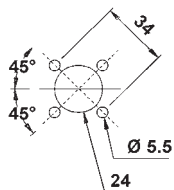
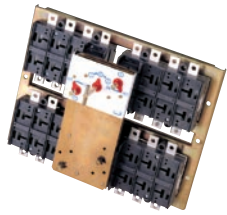
Tipo Type	Corrente nominale Rated current	Senza maniglia Without handle		Maniglia blocco porta Door interlock handle		
		Poli / Poles	Codice / Code	Poli / Poles	Codice / Code	
CO1P	32A	6P	110032SM	6P	1100032	
		8P	1101032SM	8P	1101032	
	45A	6P	1100132SM	6P	1100132	
		8P	1101132SM	8P	1101132	
	63A	6P	1100232SM	6P	1100232	
		8P	1101232SM	8P	1101232	
	80A	6P	1100332SM	6P	1100332	
		8P	1101332SM	8P	1101332	
	100A	6P	1100432SM	6P	1100432	
		8P	1101432SM	8P	1101432	
	125A	6P	1100532SM	6P	1100532	
		8P	1101532SM	8P	1101532	
160A	6P	1100632SM	6P	1100632		
	8P	1101632SM	8P	1101632		
CO2P	160A	6P	1200132SM	6P	1200132	
		8P	1201132SM	8P	1201132	
	200A	6P	1200232SM	6P	1200232	
		8P	1201232SM	8P	1201232	
	250A	6P	1200332SM	6P	1200232	
		8P	1201332SM	8P	1201332	
	315A	6P	1200432SM	6P	1200432	
		8P	1201432SM	8P	1201432	
	CO3P	315A	6P	1300132SM	6P	1300132
			8P	1301132SM	8P	1301132
400A		6P	1300232SM	6P	1300232	
		8P	1301232SM	8P	1301232	
500A		6P	1300332SM	6P	1300332	
		8P	1301332SM	8P	1301332	
CO4P	630A	6P	1400332SM	6P	1400332	
		8P	1401332SM	8P	1401332	
	800A	6P	1400432SM	6P	1400432	
		8P	1401432SM	8P	1401432	
CO5P (35kA)	800A	6P	1500032SM	6P	1500032	
		8P	1501032SM	8P	1501032	
	1000A	6P	1500132SM	6P	1500132	
		8P	1501132SM	8P	1501132	
	1250A	6P	1500232SM	6P	1500232	
		8P	1501232SM	8P	1501232	

Per caratteristiche tecniche vedi pag 8-9
For technical data see pages 8-9

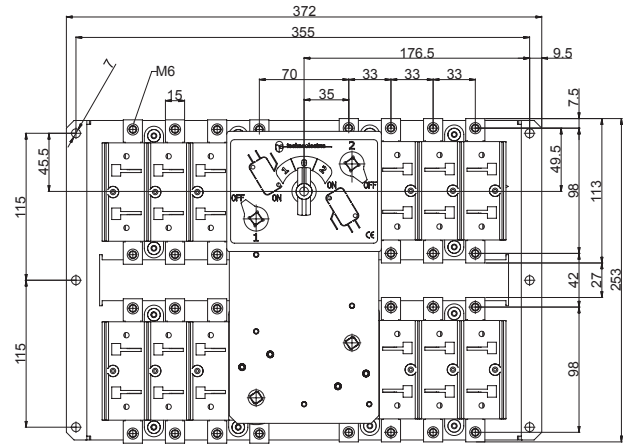
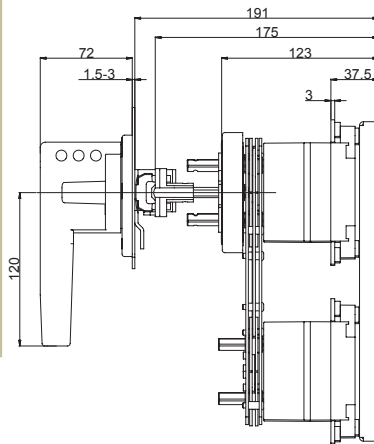
Dimensioni
Dimensions

Commutatori
6-8 poli
6-8 poles change-over
switches

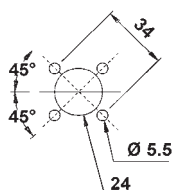
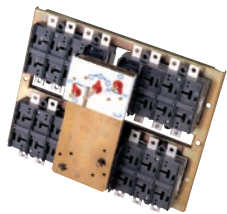
CO1P 32 ÷ 160A 6-8 poli/poles



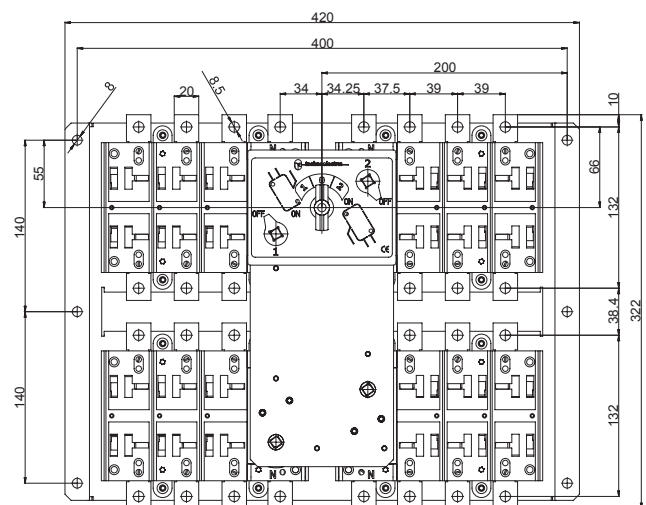
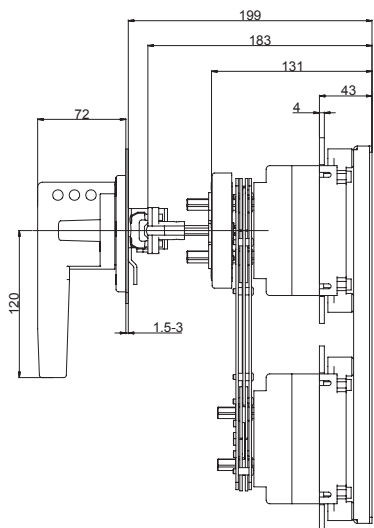
Foratura portella
Door drilling



CO2P 160 ÷ 315A 6-8 poli/poles



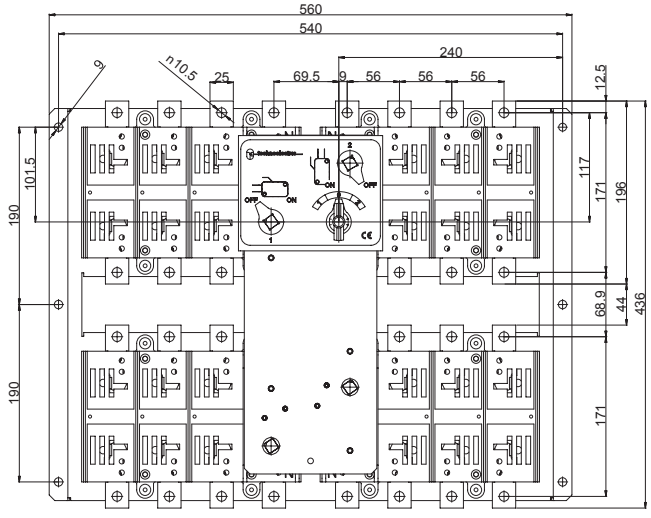
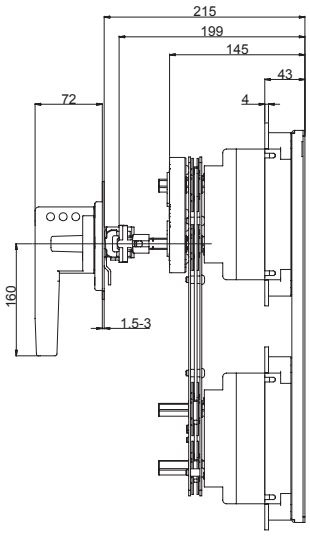
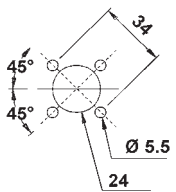
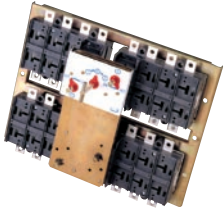
Foratura portella
Door drilling



Dimensioni
Dimensions

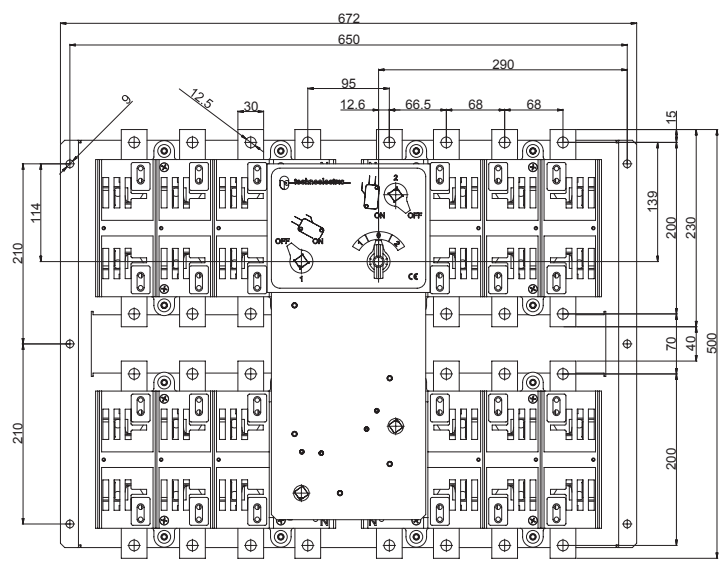
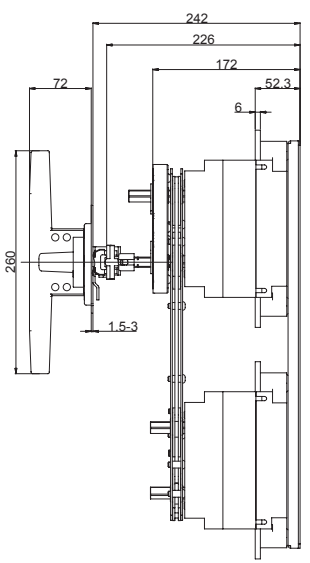
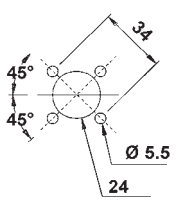
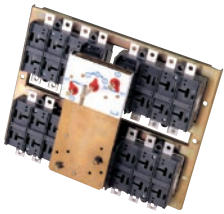
Commutatori
6-8 poli
6-8 poles change-over
switches

CO3P 315 ÷ 500A 6-8 poli/poles



Foratura portella
Door drilling

CO4P 630 ÷ 800A 6-8 poli/poles

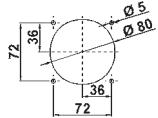
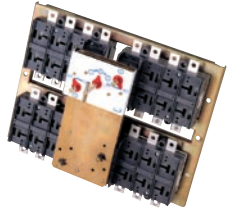


Foratura portella
Door drilling

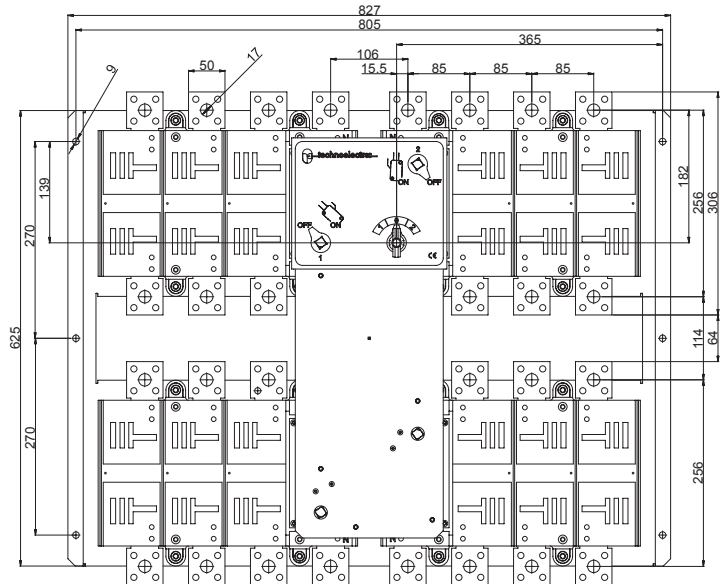
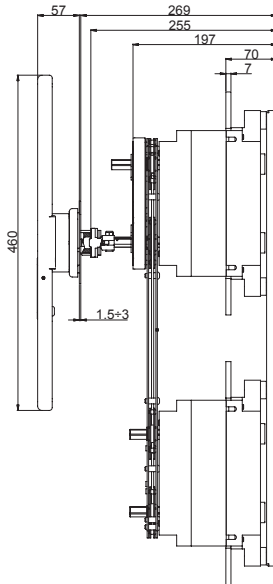
Dimensioni
Dimensions

Commutatori
6-8 poli
6-8 poles change-over
switches

CO5P 800 ÷ 1250A 6-8 poli/poles



Foratura portella
Door drilling



Commutatori
senza zero orizzontali
overlapping
Overlapping without
zero change-over
switches horizontal
execution

COP overlapping

Codici per
l'ordinazione
Order references



Tipo Type	Corrente nominale Rated current	Maniglia blocco porta Door interlock handle	
		Poli / Poles	Codice / Code
CO1P	32A	3P	110003OL
		4P	110103OL
	45A	3P	110013OL
		4P	110113OL
	63A	3P	110023OL
		4P	110123OL
	80A	3P	110033OL
		4P	110133OL
	100A	3P	110043OL
		4P	110143OL
	125A	3P	110053OL
		4P	110153OL
	160A	3P	110063OL
		4P	110163OL
CO2P	160A	3P	120013OL
		4P	120113OL
	200A	3P	120023OL
		4P	120123OL
	250A	3P	120033OL
		4P	120133OL
315A	3P	120043OL	
	4P	120143OL	
CO3P	315A	3P	130013OL
		4P	130113OL
	400A	3P	130023OL
		4P	130123OL
500A	3P	130033OL	
	4P	130133OL	
CO4P	630A	3P	140033OL
	800A	4P	140133OL
800A		3P	140043OL
	1000A	4P	140143OL
1250A		3P	150003OL
	1000A	4P	150103OL
1250A		3P	150013OL
	1500A	4P	150113OL
1750A		3P	150023OL
	2000A	4P	150123OL
2250A		3P	150033OL
	2500A	4P	150133OL
2750A		3P	150043OL
	3000A	4P	150143OL
3250A		3P	150053OL
	3500A	4P	150153OL
3750A		3P	150063OL
	4000A	4P	150163OL
CO6P		1600A	3P
	4P		160103OL
2000A	3P	160013OL	
	4P	160113OL	
2500A	3P	160023OL	
	4P	160123OL	
3150A	3P	160033OL	
	4P	160133OL	

Codici per
l'ordinazione
Order references

Commutatori
senza zero
sovrapposti overlapping
Overlapping without zero
change-over switches
two layers execution

CSP overlapping

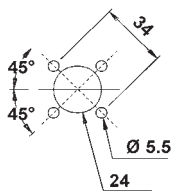
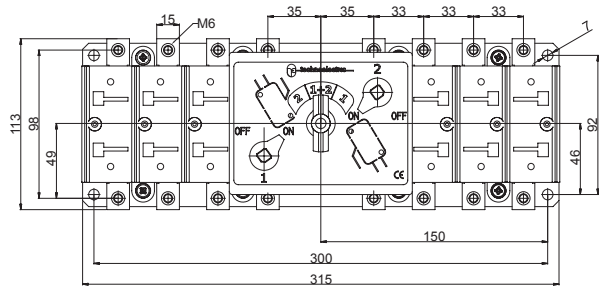
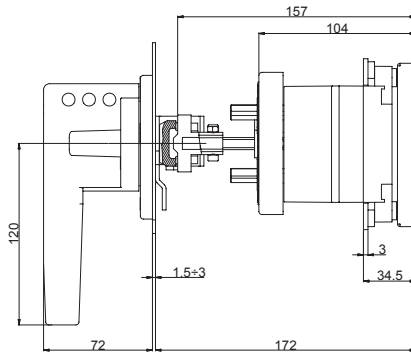


Tipo Type	Corrente nominale Rated current	Maniglia blocco porta Door interlock handle	
		Poli / Poles	Codice / Code
CS1P	32A	3P	110008OL
		4P	110108OL
	45A	3P	110018OL
		4P	110118OL
	63A	3P	110028OL
		4P	110128OL
	80A	3P	110038OL
		4P	110138OL
	100A	3P	110048OL
		4P	110148OL
	125A	3P	110058OL
		4P	110158OL
160A	3P	110068OL	
	4P	110168OL	
CS2P	160A	3P	120018OL
		4P	120118OL
	200A	3P	120028OL
		4P	120128OL
	250A	3P	120038OL
		4P	120138OL
315A	3P	120048OL	
	4P	120148OL	
CS3P	315A	3P	130018OL
		4P	130118OL
	400A	3P	130028OL
		4P	130128OL
CS4P	500A	3P	130038OL
		4P	130138OL
	630A	3P	140038OL
		4P	140138OL
CS5P (35kA)	800A	3P	140048OL
		4P	140148OL
	1000A	3P	150008OL
		4P	150108OL
CS5P (50kA)	1250A	3P	150018OL
		4P	150118OL
	800A	3P	150028OL
		4P	150128OL
	1000A	3P	150078OL
		4P	150178OL
	1250A	3P	150088OL
		4P	150188OL
	1600A	3P	150098OL
		4P	150198OL
	2000A	3P	150038OL
		4P	150138OL
2500A	3P	150048OL	
	4P	150148OL	
3150A	3P	150058OL	
	4P	150158OL	
CS6P	1600A	3P	150068OL
		4P	150168OL
	2000A	3P	160008OL
		4P	160108OL
	2500A	3P	160018OL
		4P	160118OL
	3150A	3P	160028OL
		4P	160128OL
3150A	3P	160038OL	
	4P	160138OL	

Dimensioni
Dimensions

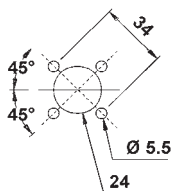
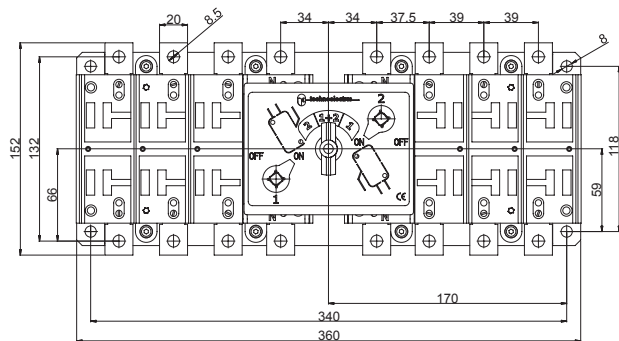
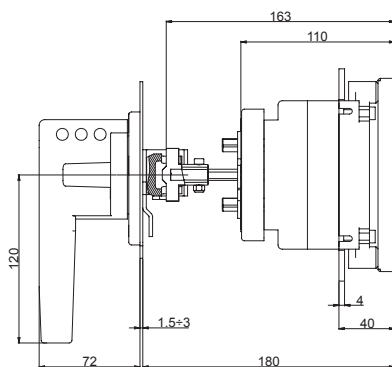
Commutatori senza zero
overlapping orizzontali
Overlapping without zero change-
over switches horizontal execution

CO1P OL



Foratura portella
Door drilling

CO2P OL

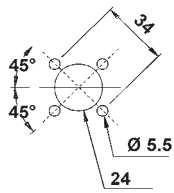


Foratura portella
Door drilling

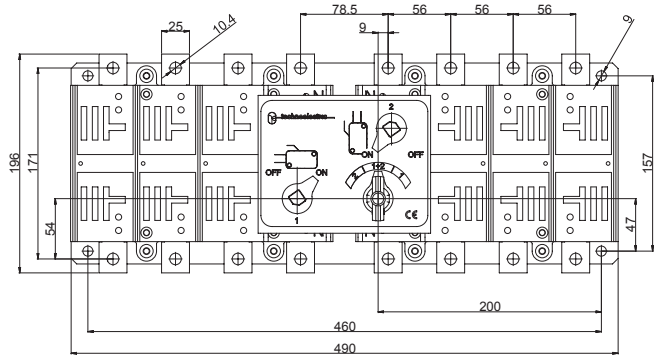
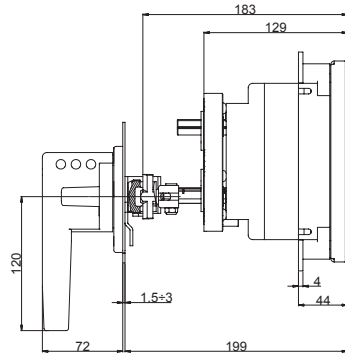
Dimensioni
Dimensions

Commutatori senza zero
overlapping orizzontali
Overlapping without zero change-
over switches horizontal execution

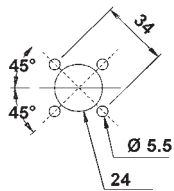
CO3P OL



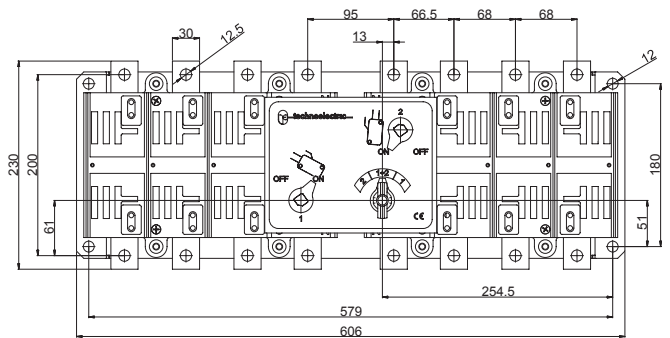
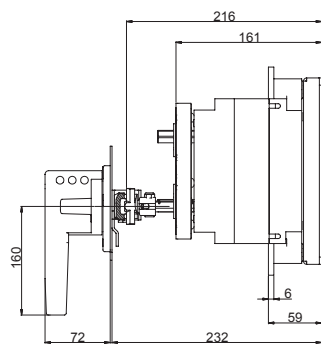
Foratura portella
Door drilling



CO4P OL



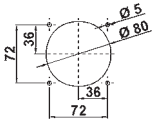
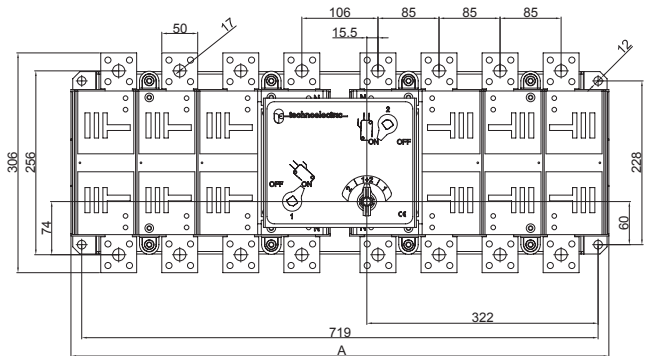
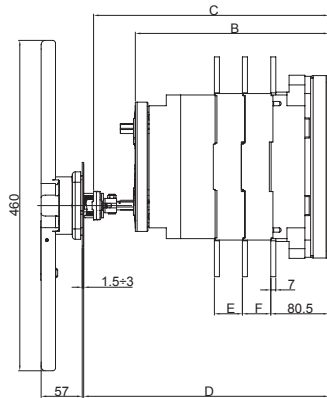
Foratura portella
Door drilling



Dimensioni
Dimensions

Commutatori senza zero
overlapping orizzontali
Overlapping without zero change-
over switches horizontal execution

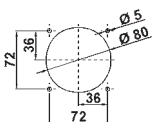
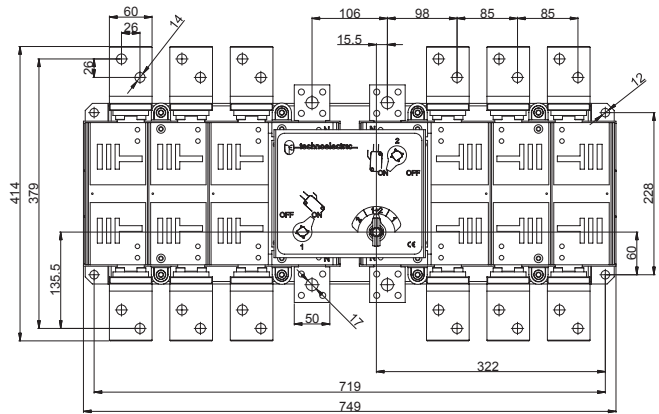
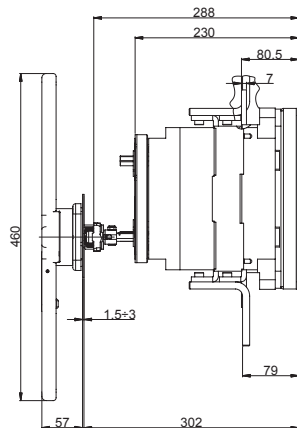
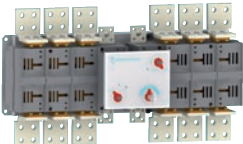
CO5P OL



TIPO / TYPE	A	B	C	D	E	F
CO5 OL 800*1250A	744	191	249	263		
CO5 OL 1250*2000A	749	230	288	302	39	
CO5 OL 2500*3150A	749	269	327	341	39	39

Foratura portella
Door drilling

CO6P OL 1600A

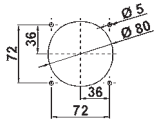
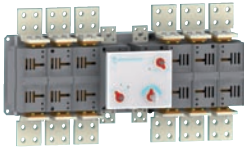


Foratura portella
Door drilling

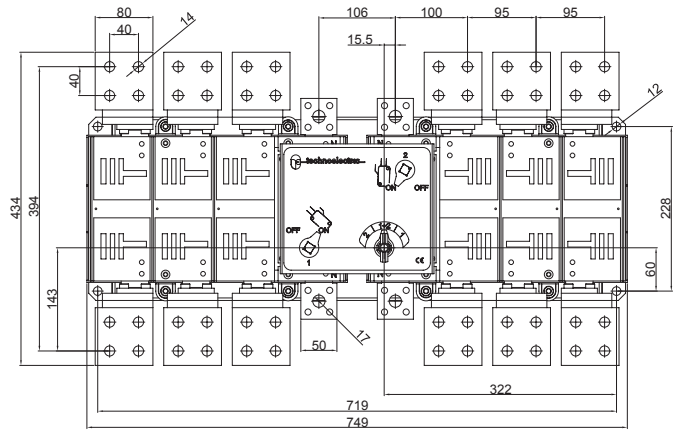
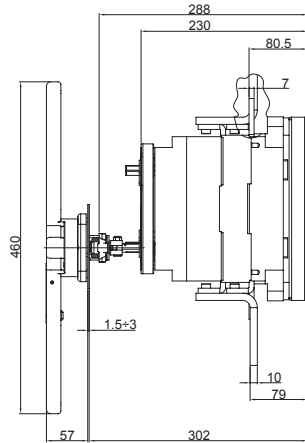
Dimensioni
Dimensions

Commutatori senza zero
overlapping orizzontali
Overlapping without zero change-
over switches horizontal execution

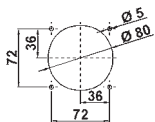
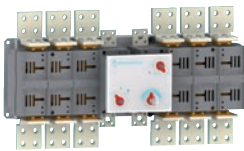
CO6P OL 2000A



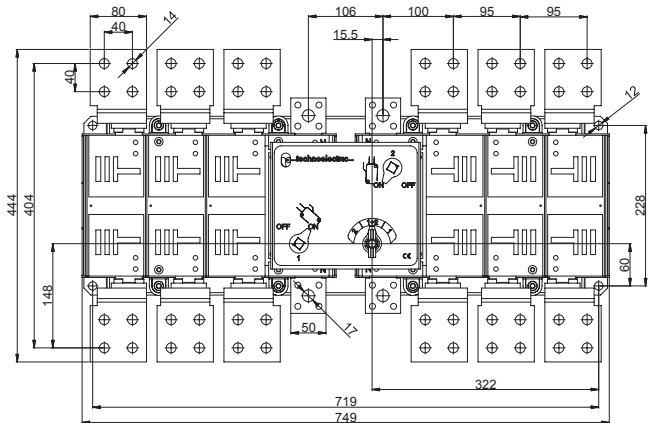
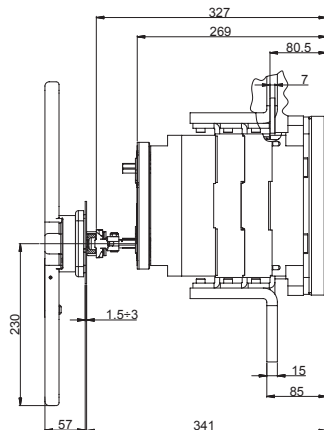
Foratura portella
Door drilling



CO6P OL 2500A



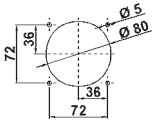
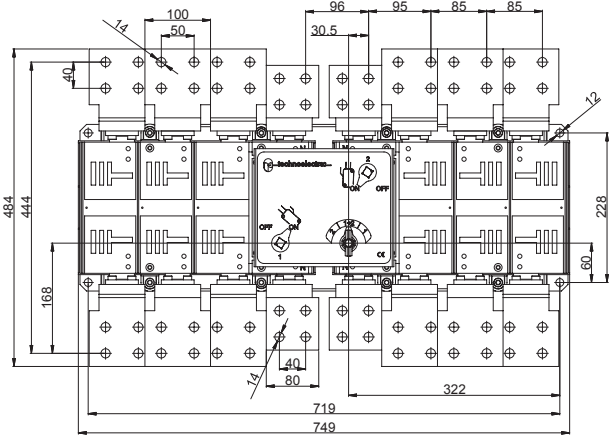
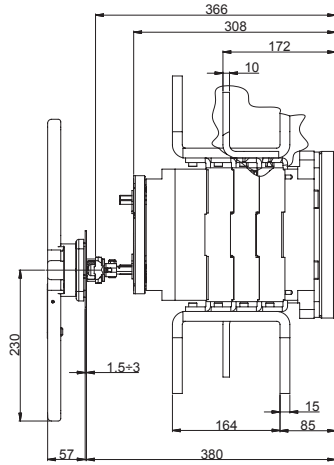
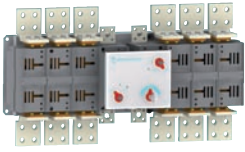
Foratura portella
Door drilling



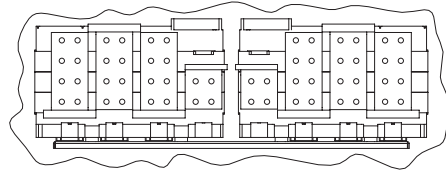
Dimensioni
Dimensions

Commutatori senza zero
overlapping orizzontali
Overlapping without zero change-
over switches horizontal execution

CO6P OL 3150A

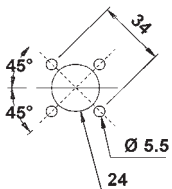
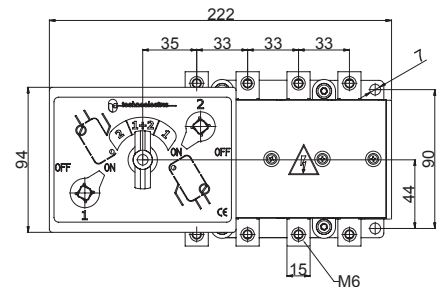
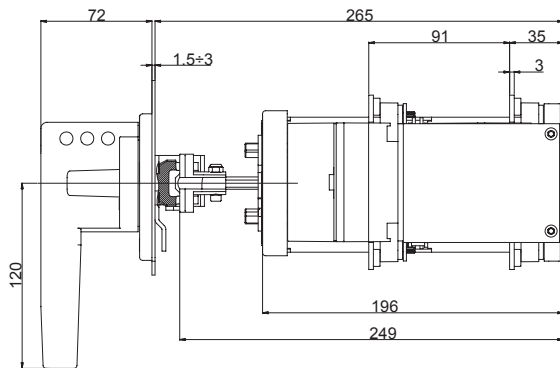
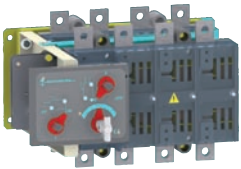


Foratura portella
Door drilling

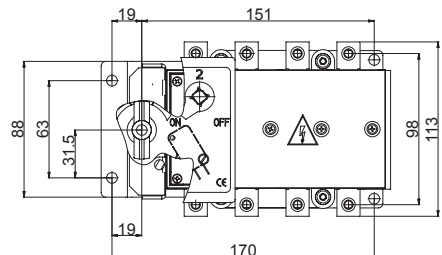


Commutatori senza zero
overlapping sovrapposti
Overlapping without zero change-
over switches two-layers execution

CS1 OL



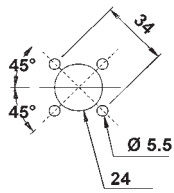
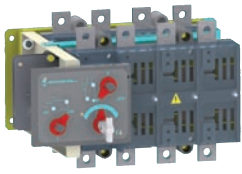
Foratura portella
Door drilling



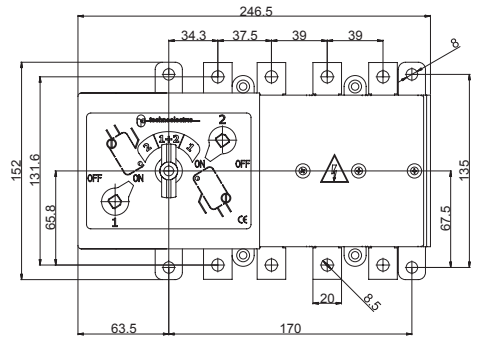
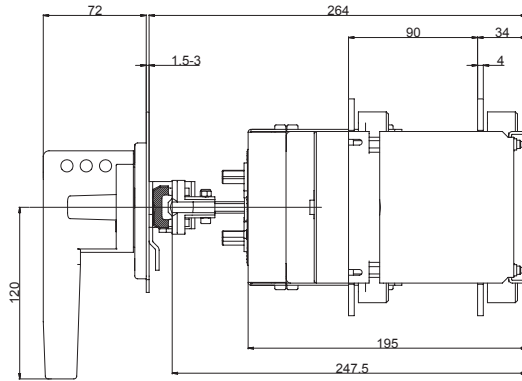
Dimensioni
Dimensions

Commutatori senza zero
overlapping sovrapposti
Overlapping without zero change-
over switches two-layers execution

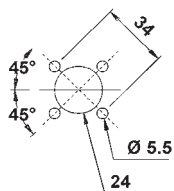
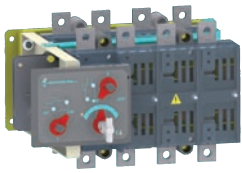
CS2 OL



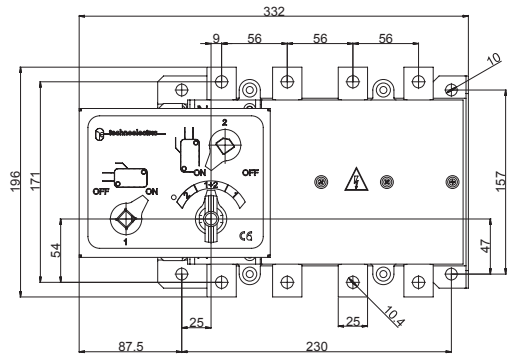
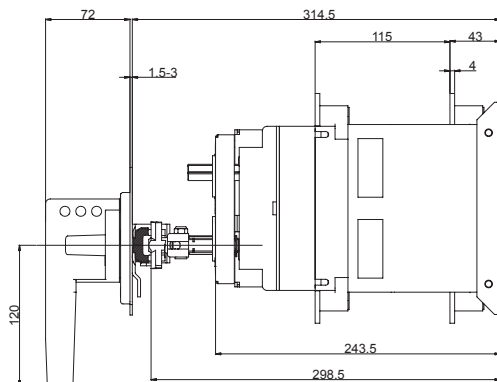
Foratura portella
Door drilling



CS3 OL



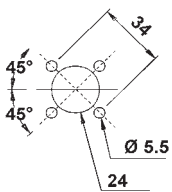
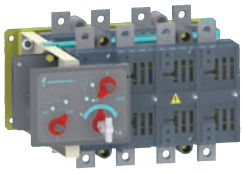
Foratura portella
Door drilling



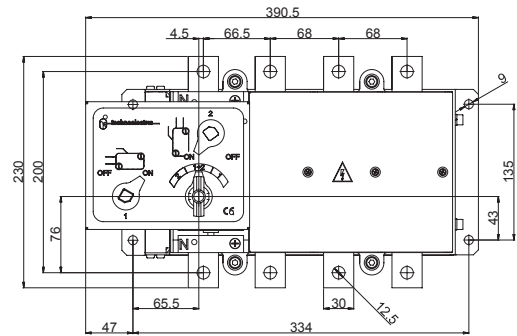
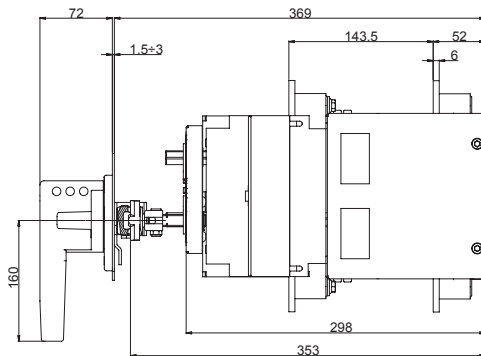
Dimensioni
Dimensions

Commutatori senza zero
overlapping sovrapposti
Overlapping without zero change-
over switches two-layers execution

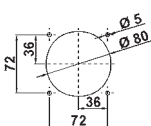
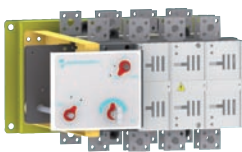
CS4 OL



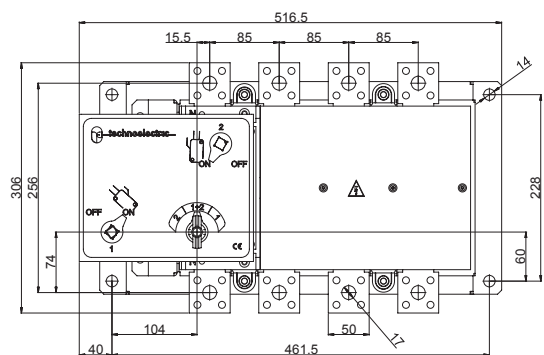
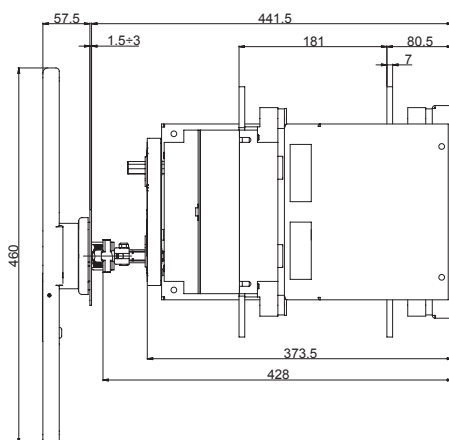
Foratura portella
Door drilling



CS5 OL 800 ÷ 1250A



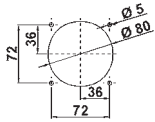
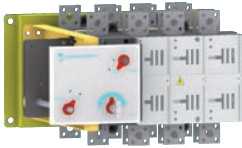
Foratura portella
Door drilling



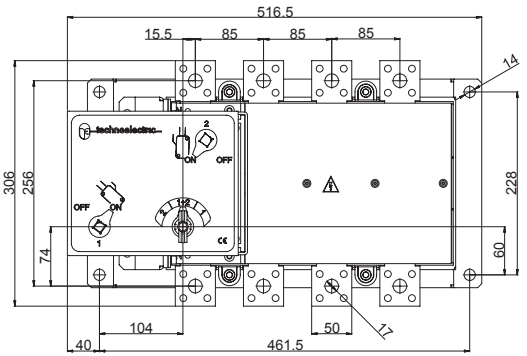
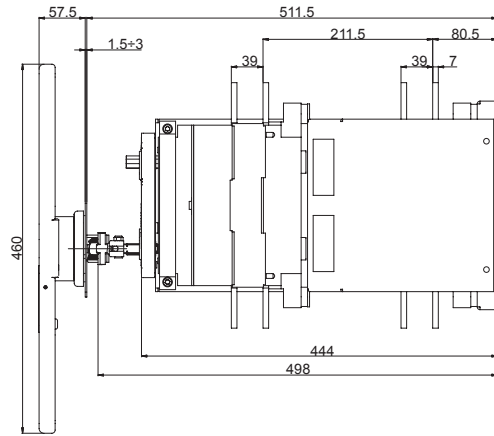
Dimensioni
Dimensions

Commutatori senza zero
overlapping sovrapposti
Overlapping without zero change-
over switches two-layers execution

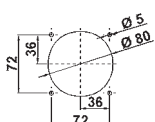
CS5 OL 1600 ÷ 2000A



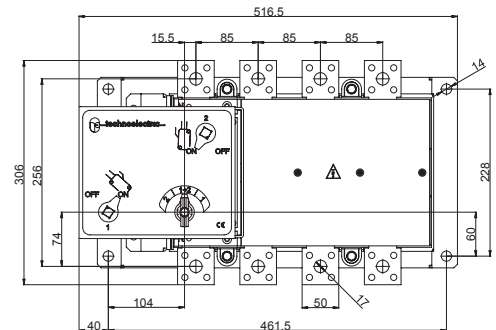
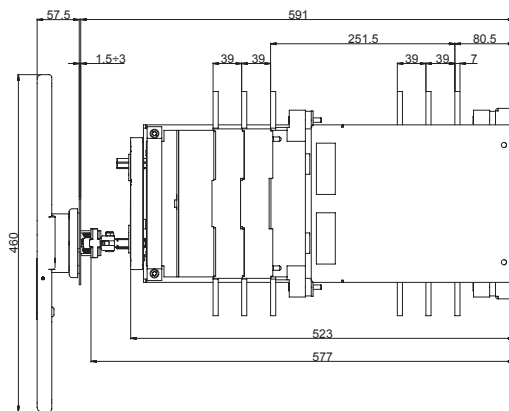
Foratura portella
Door drilling



CS5P OL 2500 ÷ 3150A



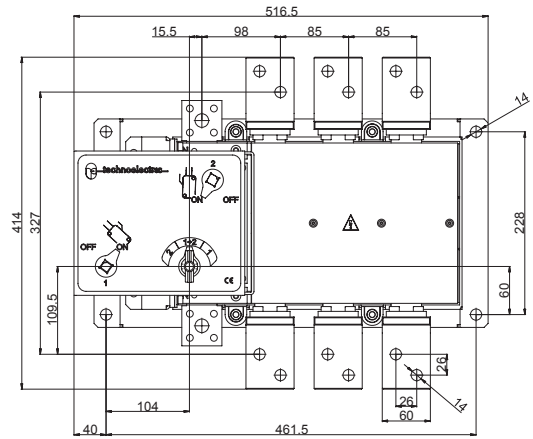
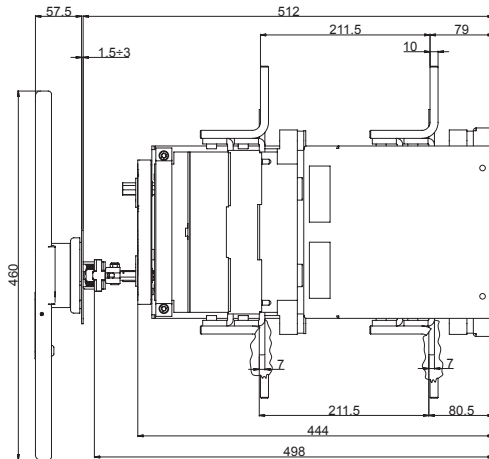
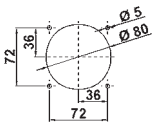
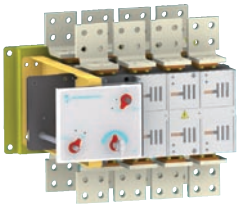
Foratura portella
Door drilling



Dimensioni
Dimensions

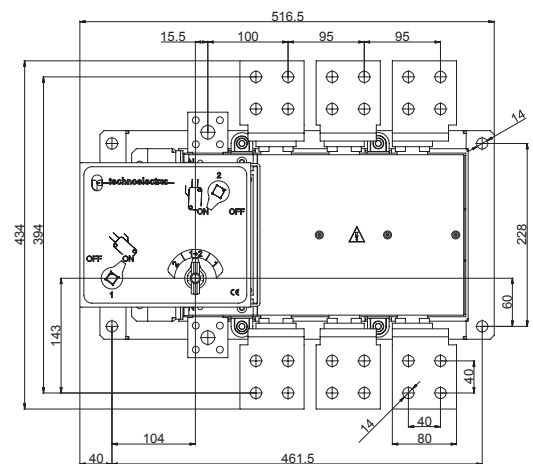
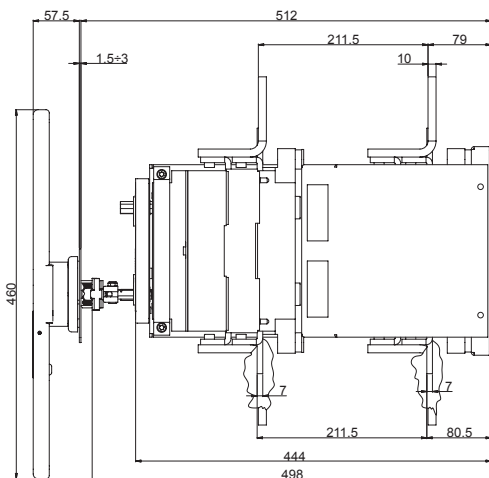
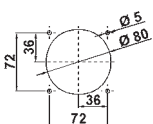
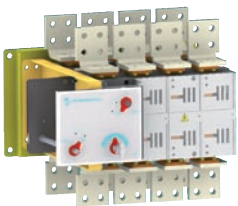
Commutatori senza zero
overlapping sovrapposti
Overlapping without zero change-
over switches two-layers execution

CS6 OL 1600A



Foratura portella
Door drilling

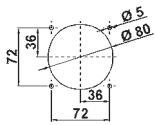
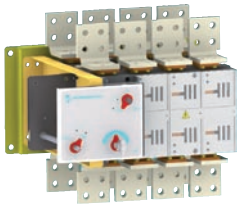
CS6 OL 2000A



Foratura portella
Door drilling

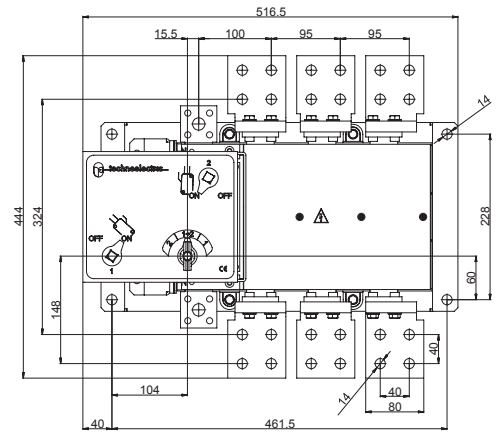
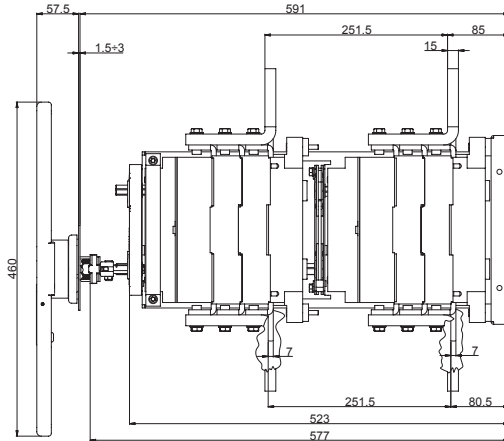
Dimensioni
Dimensions

Commutatori senza zero
overlapping sovrapposti
Overlapping without zero change-
over switches two-layers execution

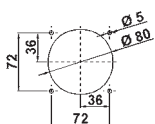
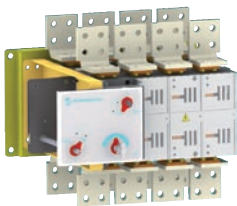


Foratura portella
Door drilling

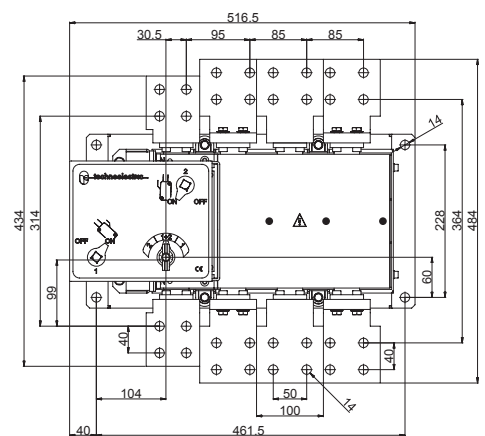
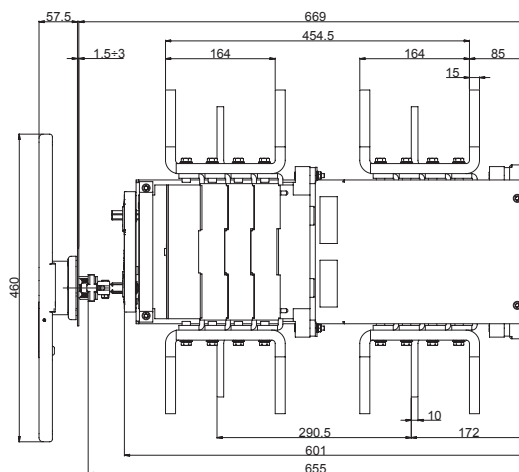
CS6P OL 2500A



CS6P OL 3150A



Foratura portella
Door drilling



Accessori
Accessories

Codici per
l'ordinazione
Order references

maniglia blocco porta / door interlock handle

Tipo Type	CO - CS - CC - BYP 1 / 2 / 3	CO - CS - CC - BYP 4	CO - CS - CC - BYP 5 35 kA	CO - CS - CC 5 50kA	CO - CS 6
Codice Code	18582	18583	18584	18838	18838

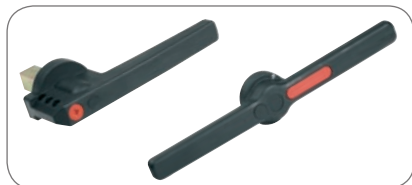



maniglia diretta con schermi / direct handle with covers

Tipo Type	CO1P	CO2P	CO3P	CO4P	CO5P	CO6P
Codice Code	18588	18589	18590	18591	18853	

Fornita completa di due schermi copricontatti principali per interruttori di tipo P
Versione lucchettabile fornibile a richiesta

With two cover main contacts over shields.
Patlockable version on request




maniglia diretta senza schermi / direct handle without covers

Tipo Type	CS1 - CS2	CS3	CS4	CS5 35 kA	CS5 50 kA - CS6
Codice Code	18187	18083	18084	18188	18189

maniglia blocco porta con blocco chiave in posizione 0 / door interlock handle with key lock 0 position

Tipo Type	CO - CS - CC - BYP 1 / 2 / 3	CO - CS - CC - BYP 4	CO - CS - CC - BYP 5 35 kA
Codice Code	18500	18501	18502




prolunga albero comando 100 mm / extension shaft 100 mm

Tipo Type	CO - CS - CC - BYP 1 / 2	CO - CS - CC - BYP 3 / 4 / 5 CO - CS 6
Codice Code	18571	18573

prolunga albero comando 200 mm / extension shaft 200 mm

Tipo Type	CO - CS - CC - BYP 1 / 2	CO - CS - CC - BYP 3 / 4 / 5 CO - CS 6
Codice Code	18574	18576

prolunga albero comando 300 mm / extension shaft 300 mm

Tipo Type	CO - CS - CC - BYP 1 / 2	CO - CS - CC - BYP 3 / 4 / 5 CO - CS 6
Codice Code	18577	18579

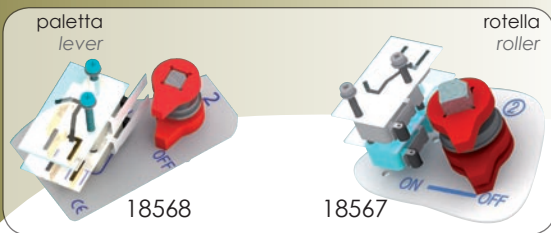
Accessori
Accessories

Codici per
l'ordinazione
Order references



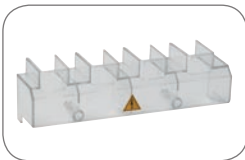
contatti ausiliari 1NA + 1NC / auxiliary contacts 1NO + 1NC

Tipo Type	CO - CS 1 / 2	CO - CS 3 / 4 / 5 / 6 CC - BYP 1 / 2 / 3 / 4 / 5
Codice Code	18566	18560



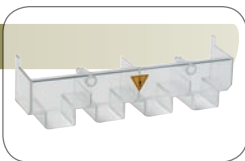
contatti ausiliari 2NA + 2NC / auxiliary contacts 2NO + 2NC

Tipo Type	CO - CS 1 / 2	CO - CS 3 / 4 / 5 / 6 CC - BYP 1 / 2 / 3 / 4 / 5
Codice Code	18568	18567



calotta protezione terminali superiori / upper terminal cover

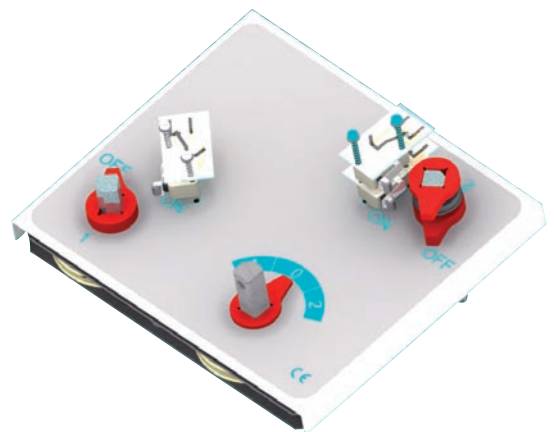
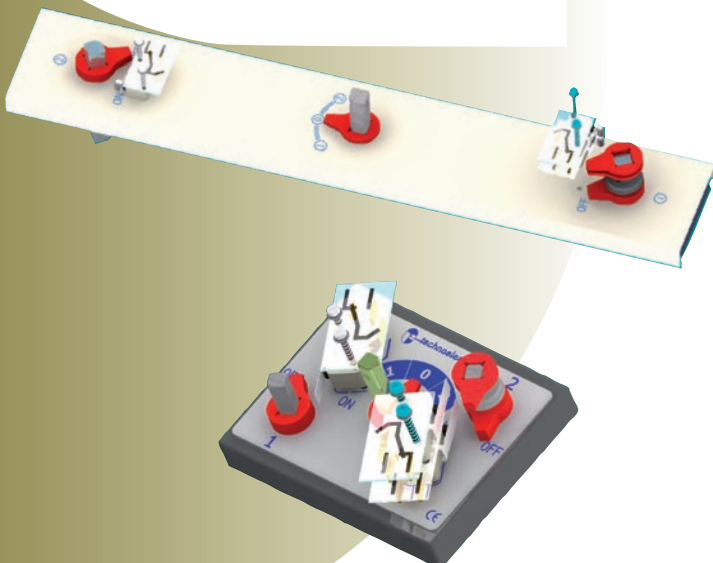
Tipo / Type	CO1P	CO2P	CO3P	CO4P	CO5P	CO5P 1600A
Codice / Code	18050	18052	18350	18054	18056	18058



calotta protezione terminali inferiori / lower terminal cover

Tipo / Type	CO1P	CO2P	CO3P	CO4P	CO5P	CO5P 1600A
Codice / Code	18051	18053	18351	18055	18057	18059

Esempi di montaggio
Mounting example



Accessori
Accessories

Codici per
l'ordinazione
Order references

Codice cavo/sbarra
Code cable/bar

Connessioni a ponte / Connecting bridges

tipo/type	CS1 32-160A		CS2 160-315A		CS3 315-500A		CS4 630-800A	
poli/poles	3P	4P	3P	4P	3P	4P	3P	4P
Codice Code	18411	18410	18408	18409	18419	18412	18423	18413

tipo / type	CS4 630-800A		CS5 800-1250A	
poli / poles	3P	4P	3P	4P
Codice Code	18427	18428	18424	18414

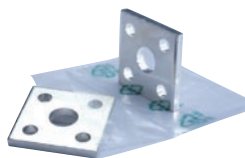
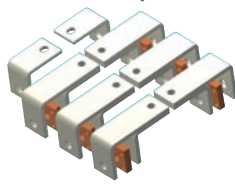
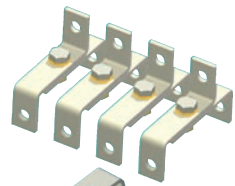
Codice sbarra
Code bar

tipo / type	CS5 1600-2000A		CS5 1600-2000A	
poli / poles	3P	4P	4P FN	
Codice Code	18438	18439	18440	

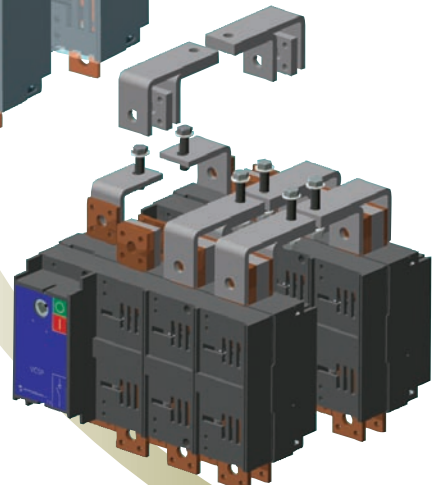
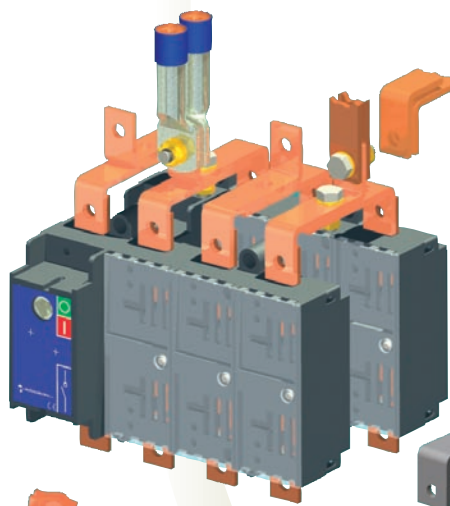
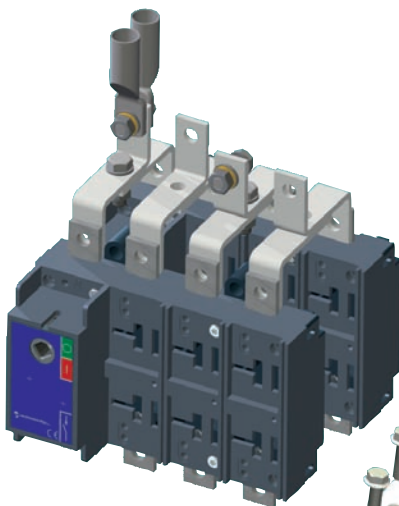
Codice sbarra
Code bar

piatti per terminali sezionatori / terminal plates for switches

Tipo/Type piatto/plate	CO - CS 5 4 mm	CO - CS 5 6 mm
Codice Code	18138	18139



Esempi di montaggio
Mounting example



Codici per
l'ordinazione
Order references

Commutatori
orizzontali con fusibili
Horizontal change-
over switch fuses

COF



Tipo Type	Corrente nominale Rated current	Poli Poles	Senza maniglia Without handle			Maniglia blocco porta Door interlock handle			
			NFC	DIN	BS	NFC	DIN	BS	
Codice / Code									
CO1F	32A	3P	110203SM	110403SM	110603SM	110203	110403	110603	
		4P	110303SM	110503SM	110703SM	110303	110503	110703	
	45A	3P	110213SM	110413SM	110613SM	110213	110413	110613	
		4P	110313SM	110513SM	110713SM	110313	110513	110713	
	63A	3P	110223SM	110423SM	110623SM	110223	110423	110623	
		4P	110323SM	110523SM	110723SM	110323	110523	110723	
	80A	3P	110233SM	110433SM	110633SM	110233	110433	110633	
		4P	110333SM	110533SM	110733SM	110333	110533	110733	
	100A	3P	110243SM	110443SM	110643SM	110243	110443	110643	
		4P	110343SM	110543SM	110743SM	110343	110543	110743	
	CO2F	100A	3P	120213SM	120413SM	120603SM	120213	120413	120603
			4P	120313SM	120513SM	120703SM	120313	120513	120703
125A		3P	120223SM	120423SM	120613SM	120223	120423	120613	
		4P	120323SM	120523SM	120713SM	120323	120523	120713	
160A		3P	-	120433SM	120623SM	-	120433	120623	
		4P	-	120533SM	120723SM	-	120533	120723	
CO3F	200A	3P	-	130413SM	130613SM	-	130413	130613	
		4P	-	130513SM	130713SM	-	130513	130713	
	250A	3P	-	130423SM	130623SM	-	130423	130623	
		4P	-	130523SM	130723SM	-	130523	130723	
CO4F	315A	3P	-	140223SM	140423SM	-	140223	140423	
		4P	-	140323SM	140523SM	-	140323	140523	
	400A	3P	-	140233SM	140433SM	-	140233	140433	
		4P	-	140333SM	140533SM	-	140333	140533	
CO5F	630A	3P	-	150203SM	150403SM	-	150203	150403	
		4P	-	150303SM	150503SM	-	150303	150503	
	800A	3P	-	-	150413SM	-	-	150413	
		4P	-	-	150513SM	-	-	150513	

Commutatori
verticali con fusibili
Vertical change-
over switch fuses

CCF

Codici per
l'ordinazione
Order references



Tipo Type	Corrente nominale Rated current	Poli Poles	Senza maniglia Without handle			Maniglia blocco porta Door interlock handle			
			NFC	DIN	BS	NFC	DIN	BS	
Codice / Code									
CC1F	32A	3P	110202SM	110402SM	110602SM	110202	110402	110602	
		4P	110302SM	110502SM	110702SM	110302	110502	110702	
	45A	3P	110212SM	110412SM	110612SM	110212	110412	110612	
		4P	110312SM	110512SM	110712SM	110312	110512	110712	
	63A	3P	110222SM	110422SM	110622SM	110222	110422	110622	
		4P	110322SM	110522SM	110722SM	110322	110522	110722	
	80A	3P	110232SM	110432SM	110632SM	110232	110432	110632	
		4P	110332SM	110532SM	110732SM	110332	110532	110732	
	100A	3P	110242SM	110442SM	110642SM	110242	110442	110642	
		4P	110342SM	110542SM	110742SM	110342	110542	110742	
	CC2F	100A	3P	120212SM	120412SM	120602SM	120212	120412	120602
			4P	120312SM	120512SM	120702SM	120312	120512	120702
125A		3P	120222SM	120422SM	120612SM	120222	120422	120612	
		4P	120322SM	120522SM	120712SM	120322	120522	120712	
160A		3P	-	120432SM	120622SM	-	120432	120622	
		4P	-	120532SM	120722SM	-	120532	120722	
CC3F	200A	3P	-	130412SM	130612SM	-	130412	130612	
		4P	-	130512SM	130712SM	-	130512	130712	
	250A	3P	-	130422SM	130622SM	-	130422	130622	
		4P	-	130522SM	130722SM	-	130522	130722	
CC4F	315A	3P	-	140222SM	140422SM	-	140222	140422	
		4P	-	140322SM	140522SM	-	140322	140522	
	400A	3P	-	140232SM	140432SM	-	140232	140432	
		4P	-	140332SM	140532SM	-	140332	140532	
CC5F	630A	3P	-	150202SM	150402SM	-	150202	150402	
		4P	-	150302SM	150502SM	-	150302	150502	
	800A	3P	-	-	150412SM	-	-	150412	
		4P	-	-	150512SM	-	-	150512	

Dati tecnici
Technical data

Tipo / Type		CO/CC-1F				CO/CC-2F				CO/CC-3F		CO/CC-4F		CO/CC-5F		
Corrente nominale Rated current	(In)	32A	45A	63A	80A	100A	100A	125A	160A	200A	250A	315A	400A	630A	800A	
Tensione nominale d'isolamento Rated insulation voltage	c.a./AC (Ui) (V)	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
	c.c./DC (Ui) (V)	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	
Tensione nominale impulso Impulse withstand voltage	(U imp) (kV)	8	8	8	8	8	12	12	12	12	12	12	12	12	12	
Corrente nominale termica Rated thermal current	(Ith) (A)	32	45	63	80	100	100	125	160	200	250	315	400	630	800	
Corrente nominale d'impiego (Ie) Rated operational current	AC-21A	400V (A)	32	45	63	80	100	100	125	160	200	250	315	400	630	800
		500V (A)	32	45	63	80	100	100	125	160	200	250	315	400	630	800
		690V (A)	32	45	63	80	100	100	125	160	200	250	315	400	630	800
	AC-22A	400V (A)	32	45	63	80	80	100	125	160	200	250	315	400	630	800
		500V (A)	32	45	63	80	80	100	125	160	200	250	315	400	630	800
		690V (A)	32	45	63	80	80	100	125	160	200	250	315	400	630	800
	AC-23A	400V (A)	32	45	63	80	80	100	125	160	200	250	315	400	630	800
		500V (A)	25	32	45	63	63	80	100	125	160	200	250	315	500	630
		690V (A)	20	25	32	45	45	63	80	100	125	160	200	250	400	500
	DC-21A(I)	48V (A)	32	50	63	80	100	100	125	160	200	250	315	400	630	800
		110V (A)	32	50	63	80	100	100	125	160	200	250	315	400	630	800
		220V (A)	32	50	63	80	100	100	125	160	200	250	315	400	630	800
	DC-22A(I)	400V (A)	-	-	-	-	-	100	125	160	-	-	-	-	-	-
		48V (A)	32	50	63	80	80	100	125	160	200	250	315	400	630	800
		110V (A)	32	50	63	80	80	100	125	160	200	250	315	400	630	800
	DC-23A(I)	220V (A)	32	50	63	80	80	100	125	160	200	250	315	400	630	800
		400V (A)	-	-	-	-	-	100	125	160	-	-	-	-	-	-
		48V (A)	32	50	63	80	80	100	125	160	200	250	315	400	630	800
	DC-23A(I)	110V (A)	32	50	50	63	80	100	125	160	160	200	315	315	500	630
		220V (A)	32	50	50	50	63	100	125	160	160	250	250	250	400	500
		400V (A)	-	-	-	-	-	100	125	160	-	-	-	-	-	-
	Potenza nominale d'impiego 400V Rated operational power 400V	AC-23A (kW)	17	23	33	42	42	52	65	85	105	130	165	210	330	420
	Corrente di corto circuito condizionata da fusibile Rated fuse short-circuit current															
	Tipo fusibile / Back up fuse	(A)	32	45	63	80	80	100	125	160	200	250	315	400	630	800
Valore efficace / R.M.S. value	(kA)	100	100	100	100	100	50	50	50	50	50	50	50	50	50	
Valore di picco / Peak value	(kA)	6	9	10	12	12	12	15	15	20	25	25	30	40	40	
Potere di chiusura nominale 420V c.a. cosφ 0,35 (0,45*) Rated making capacity at 420V AC cosφ 0,35 (0,45*)	(A)	320*	450*	630*	800*	800*	1000*	1250	1600	2000	2500	3150	4000	6300	8000	
Potere di interruzione nominale 420V cosφ 0,35 (0,45*) Rated breaking capacity at 420V cosφ 0,35 (0,45*)	(A)	256*	360*	504*	640*	640*	800*	1000	1280	1600	2000	2520	3200	5040	6400	
Potere di chiusura, interruzione nominale c.c. (3) Rated making and breaking capacity DC (3)	(A)	80	120	140	180	180	252	320	400	500	640	800	1000	1600	2000	
Potenza condensatori a 400V Rated capacitor power at 400V	kVAR	15	20	30	40	45	45	50	70	90	110	140	180	300	370	
Durata meccanica / Mechanical endurance	n.	10000	10000	10000	10000	10000	8000	8000	8000	7000	7000	7000	7000	4000	4000	
Durata elettrica / Electrical endurance	n.	1500	1500	1500	1500	1500	1000	1000	1000	1000	1000	1000	1000	1000	1000	
Potenza dissipata per polo (2) Power losses for pole (2)	(W)	0,3	0,6	1,2	2,0	3,1	2,1	3,3	5,5	11,7	17,5	12,9	20,8	52,9	85,3	
Dimensione cavo / Cable section	mmq	25	25	25	25	35	70	70	70	120	120	240	240	2x185	2x185	
Dimensione barre / Bars dimension	mm	12x3	12x3	12x3	12x3	16x3	16x4	16x4	16x4	25x4	25x4	32x5	32x5	2x40x6	2x40x6	

(1) Due poli in serie / Two poles in series

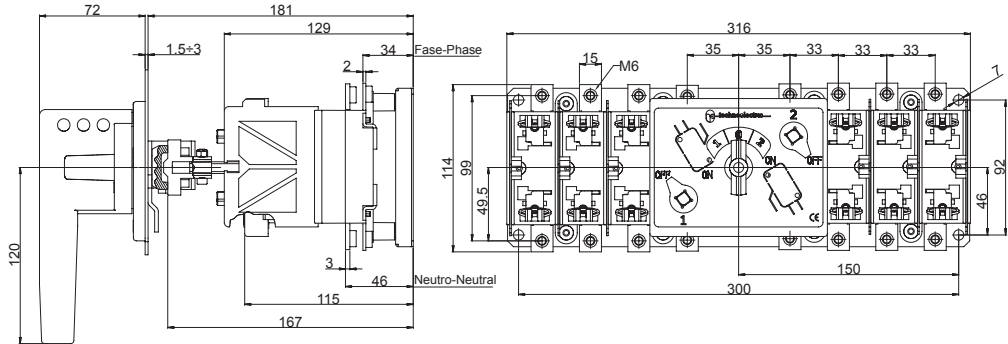
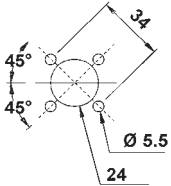
(3) 230V L/R = 15

(2) Escluso fusibile / Fuse not considered

Dimensioni
Dimensions

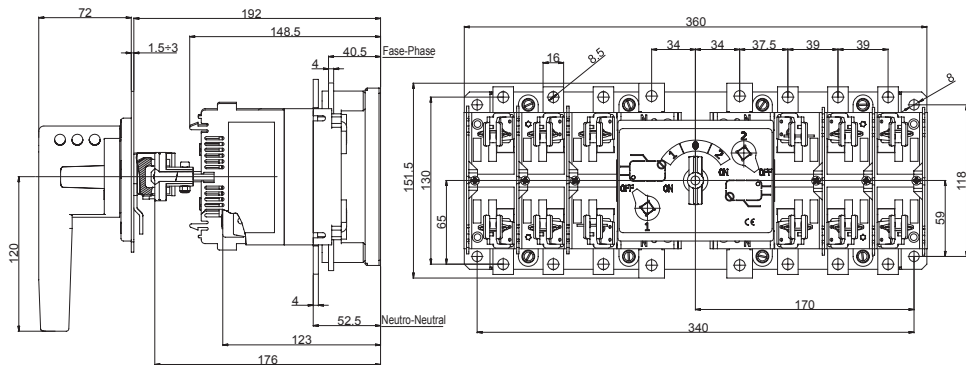
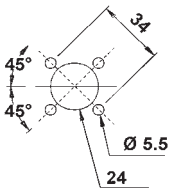
Commutatori
orizzontali con fusibili
Horizontal change-
over switch fuses

CO1F



Foratura portella
Door drilling

CO2F

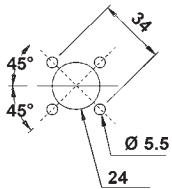


Foratura portella
Door drilling

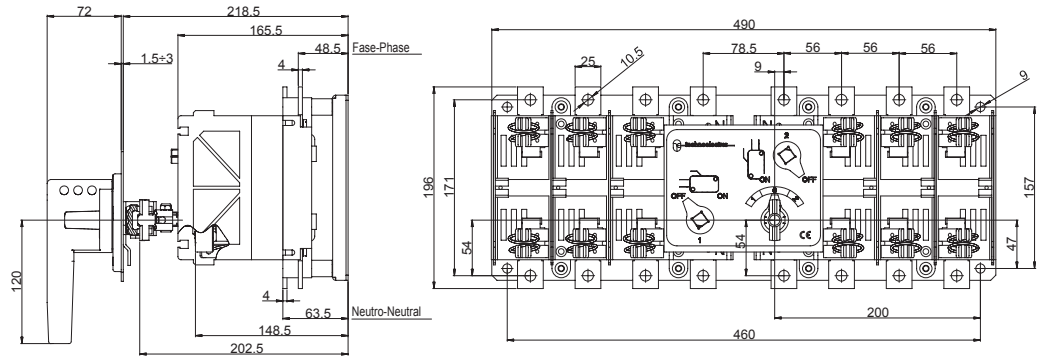
Dimensioni
Dimensions

Commutatori
orizzontali con fusibili
Horizontal change-
over switch fuses

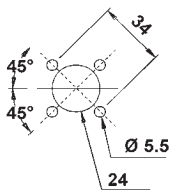
CO3F



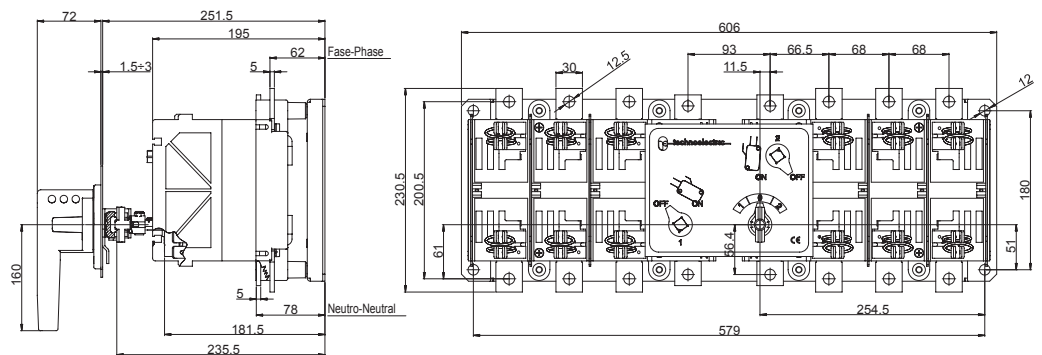
Foratura portella
Door drilling



CO4F



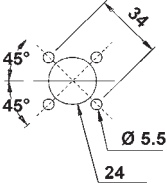
Foratura portella
Door drilling



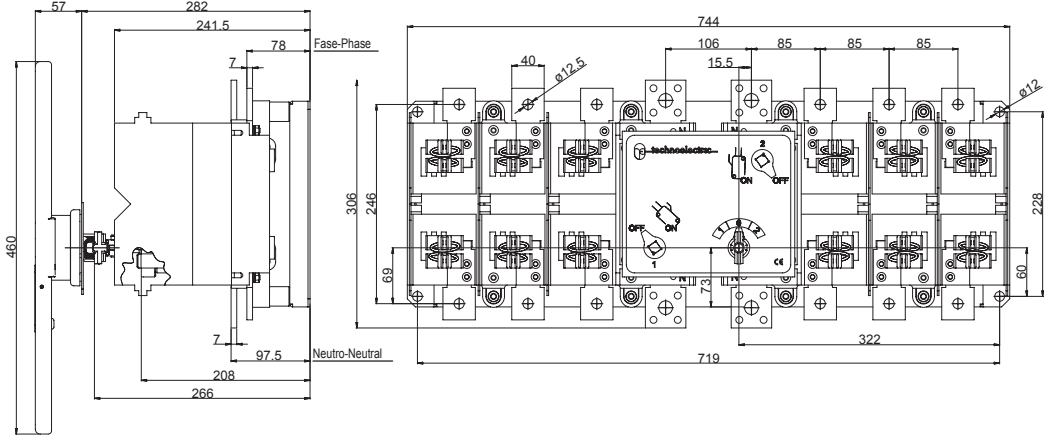
Dimensioni
Dimensions

Commutatori
orizzontali con fusibili
Horizontal change-
over switch fuses

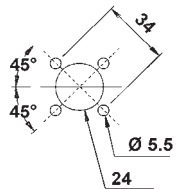
CO5F



Foratura portella
Door drilling

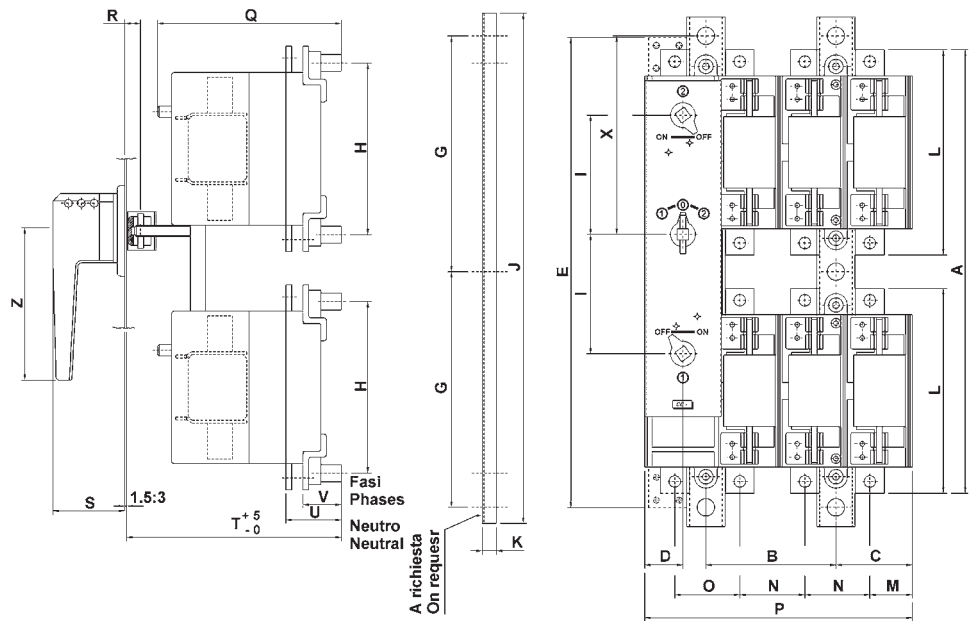


Dimensioni
Dimensions



Foratura portella
Door drilling

CCF



tipo / type	A	B	C	D	E	G	H	K	I	J	L	M	N	O	P	Q	R	S	T	U	V	X	Z
CC1F 32 ÷ 100A	253	66	40,5	25	-	131	88	10	70	282	113	24	33	33	145,5	151,5	16	41	174	34	21	106,5	70
CC2F 100 ÷ 160A	317	78	49,5	26	-	157,5	118	10	85	335	147	30	39	37,5	168	159,5	16	41	182	41	29,5	125	70
CC3F 200 ÷ 250A	436	114	68	35	-	230	157	10	120	480	196	38	56	56	243,5	178	16	71	202,5	48	31	201	120
CC4F 315 ÷ 400A	480	136	80	40	-	235	180	15	125	490	215	46	68	68	280	208	16	71	226	58	42	193	160
CC5F 630 ÷ 800A	676	170	106,5	50,5	686	319	228	15	185	658	286	64	85	85	356	246,5	16	71	253	72	52,5	257	130X2

Accessori
Accessories

Codici per
l'ordinazione
Order references

maniglia blocco porta / door interlock handle

Tipo Type	CO/CC - 1F	CO/CC - 2F	CO/CC - 3F	CO/CC - 4F	CO/CC - 5F
Codice Code		18582		18583	18584




maniglia diretta / direct handle


Tipo Type	CO/CC - 1F	CO/CC - 2F	CO/CC - 3F	CO/CC - 4F	CO/CC - 5F
Codice Code	18594	18595	18597	18598	18599

Fornita completa di due schermi copricontatti principali per interruttori di tipo F.
Versione lucchettabile fornibile a richiesta.

Supplied with two main contacts cover shields for switches type F.
Padlockable version on request.

maniglia blocco porta con blocco chiave
door interlock handle with key lock

Tipo Type	CO/CC - 1F	CO/CC - 2F	CO/CC - 3F	CO/CC - 4F	CO/CC - 5F
Codice Code		18500		18501	18502




schermo protezione fusibili / fuse cover

Tipo Type	CO/CC - 1F	CO/CC - 2F	CO/CC - 3F	CO/CC - 4F	CO/CC - 5F
Codice Code	18660	18661	18663	18664	18665



prolunga albero comando 100 mm / extension shaft 100 mm

Tipo Type	COF - CCF 1 / 2	COF - CCF 3 / 4 / 5
Codice Code	18571	18573

prolunga albero comando 200 mm / extension shaft 200 mm

Tipo Type	COF - CCF 1 / 2	COF - CCF 3 / 4 / 5
Codice Code	18574	18576

prolunga albero comando 300 mm / extension shaft 300 mm

Tipo Type	COF - CCF 1 / 2	COF - CCF 3 / 4 / 5
Codice Code	18577	18579

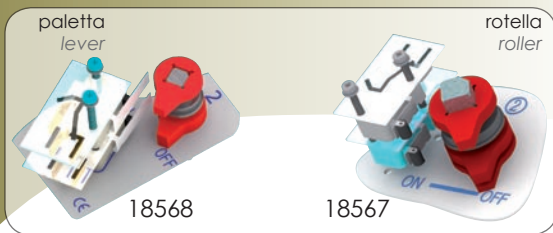
Accessori
Accessories

Codici per
l'ordinazione
Order references



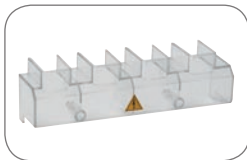
contatti ausiliari 1NA + 1NC / auxiliary contacts 1NO + 1NC

Tipo / Type	COF 1 / 2	COF 3 / 4 / 5 - CCF 1 / 2 / 3 / 4 / 5
Codice / Code	18566	18560



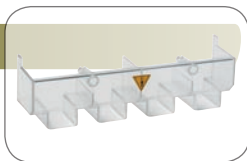
contatti ausiliari 2NA + 2NC / auxiliary contacts 2NO + 2NC

Tipo / Type	COF 1 / 2	COF 3 / 4 / 5 - CCF 1 / 2 / 3 / 4 / 5
Codice / Code	18568	18567



calotta protezione terminali superiori / upper terminal cover

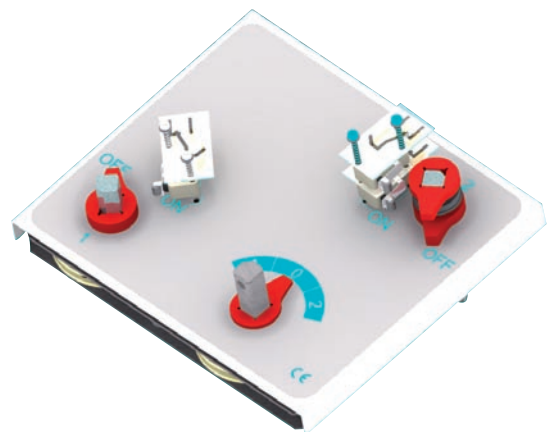
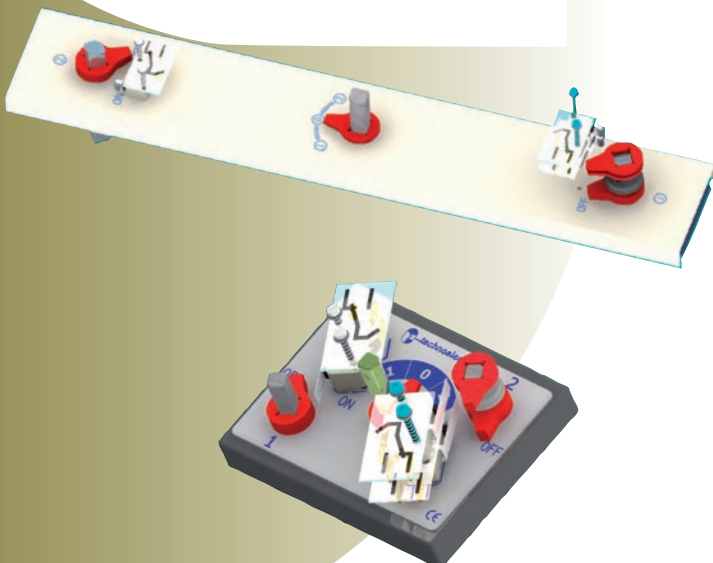
Tipo / Type	CO1P	CO2P	CO3P	CO4P	CO5P	CO6P
Codice / Code	18050	18052	18350	18054	18056	18058



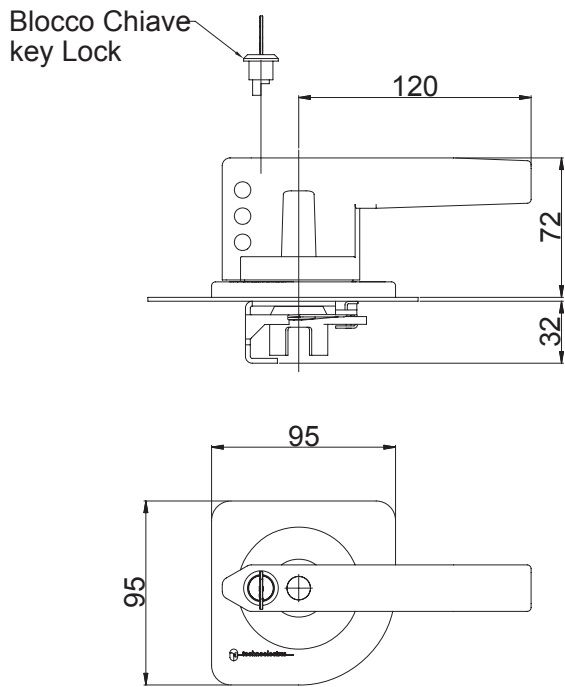
calotta protezione terminali inferiori / lower terminal cover

Tipo / Type	CO1P	CO2P	CO3P	CO4P	CO5P	CO6P
Codice / Code	18051	18053	18351	18055	18057	18059

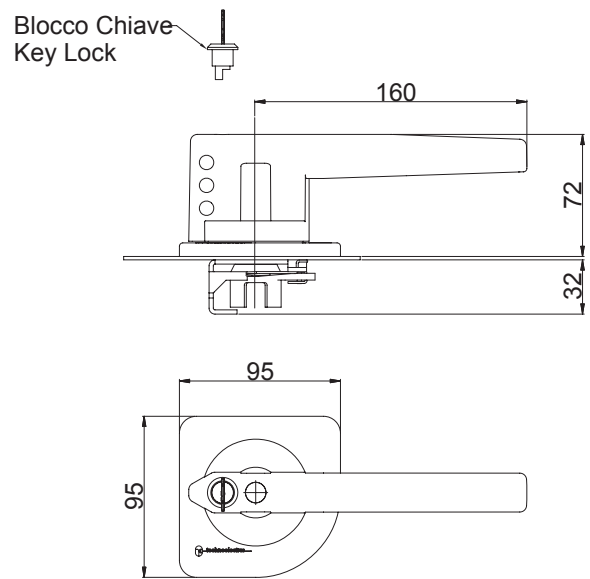
Esempi di montaggio
Mounting example



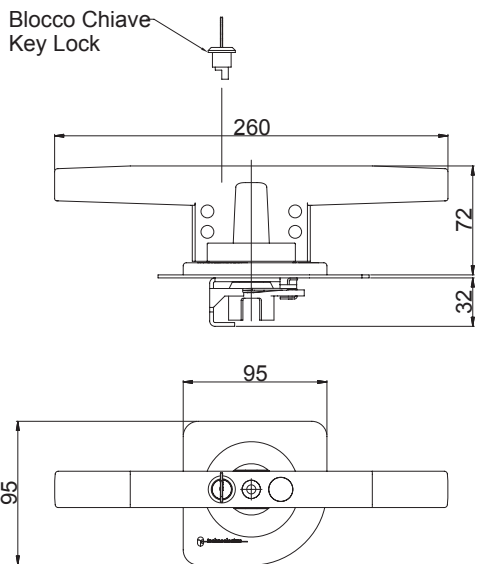
Dimensioni
Dimensions



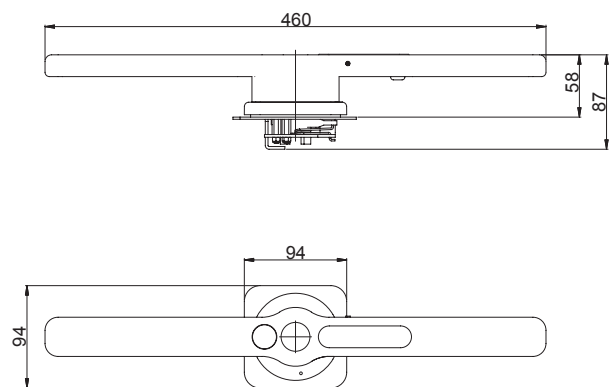
maniglia nera / black handle 18068 - 18500 - 18582



maniglia nera / black handle 18067 - 18501 - 18583

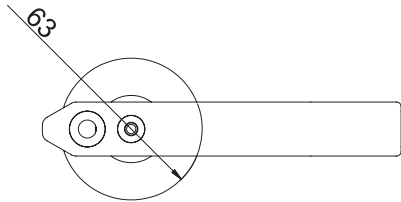
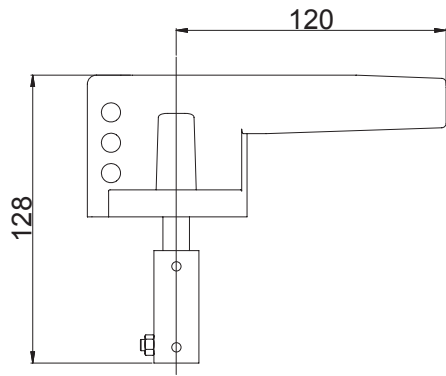


maniglia nera / black handle 18502 - 18584

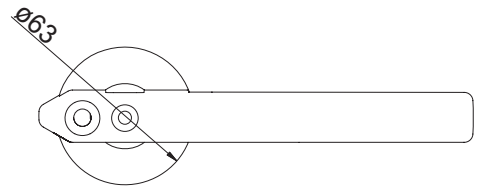
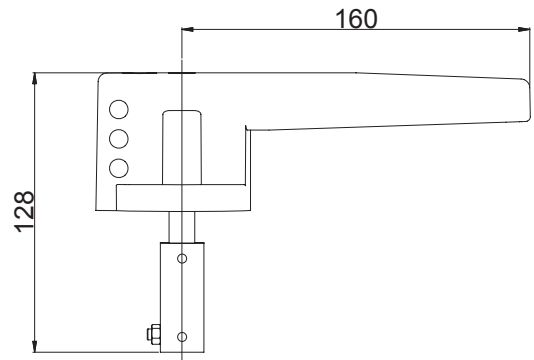


maniglia nera / black handle 18066 - 18838

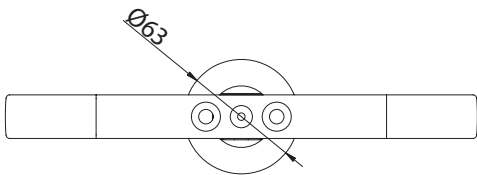
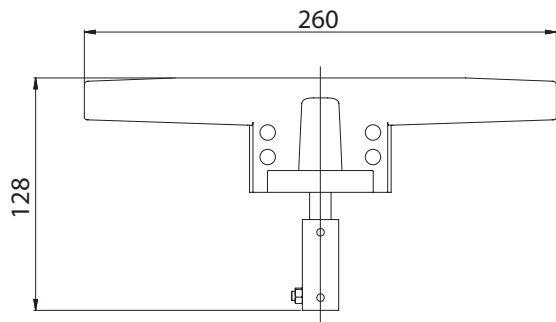
Dimensioni
Dimensions



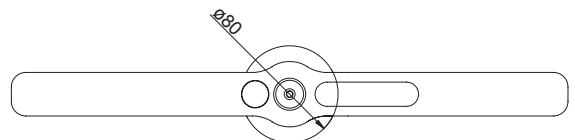
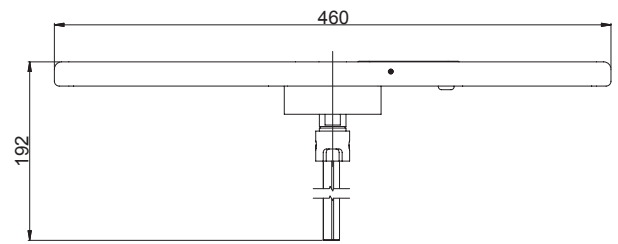
maniglia nera / black handle 18083 - 18187 - 18588 - 18589 - 18590
- 18594 - 18595 - 18597



maniglia nera / black handle 18084 - 18591 - 18598



maniglia nera / black handle 18188 - 18592 - 18599



maniglia nera / black handle 18189 - 18853

GENERALITA' COMMUTATORE GT

Serie di commutatori ad azionamento manuale che permettono l'apertura e la commutazione di due circuiti elettrici in bassa tensione. Sono ottenuti interbloccando due normali interruttori sezionatori della serie **GT** (vedi relative sezioni per caratteristiche tecniche a pag 64).

CARATTERISTICHE GENERALI

- > 3 posizioni I-O-II
- > visibilità diretta, mediante finestrelle, dei contatti fissi e mobili
- > manovre a scatto rapido indipendente
- > doppia interruzione per ogni polo
- > elevata durata meccanica ed elettrica
- > adatti per utilizzo in climi tropicali (IEC 6068-2)
- > comando di tipo rotativo frontale a mezzo di:
 - > maniglia esterna a doppio isolamento con dispositivo bloccoporta nelle posizioni I e II

CONDIZIONI NORMALI DI SERVIZIO, MONTAGGIO E TRASPORTO

- > temperatura ambiente di immagazzinamento e trasporto -25°C +55°C
- > temperatura ambiente di funzionamento -20°C +45°C
- > in caso di temperatura ambiente (t_a) superiore, applicare la seguente formula di declassamento:

$$I_{The} = k I_{Th} \quad \text{dove } K = 1 - \frac{t_a - 45}{100}$$

- > umidità relativa max 95%
- > frequenza nominale 50-60Hz
- > altitudine max 2000 m s.l.m.
- > grado di inquinamento 3 secondo IEC 60947-1
- > tipo di servizio (secondo IEC 60947-1):
 - > servizio 8 ore
 - > servizio ininterrotto
 - > servizio intermittente 60% classe 30
 - > servizio temporaneo
 - > servizio periodico

Per condizioni di impiego diverse consultare il costruttore.

GT CHANGE-OVER SWITCHES GENERALITIES

*Change-over switches manually operated suitable for breaking and permutating two low voltage electrical circuits. They are made by two standard switches of **GT** series mechanically interlocked (see relative section for technical characteristics page 64).*

GENERAL CHARACTERISTICS

- > 3 positions I-O-II
- > visibility of fixed and moving contacts by means of windows
- > independent fast action operation
- > double break contacts
- > high electrical and mechanical endurance
- > resistant to damp heat (IEC 6068-2)
- > rotary front operation by means of:
 - > external double insulated handle with door-interlock in I and II position

NORMAL SERVICE, MOUNTING AND TRANSPORT CONDITIONS

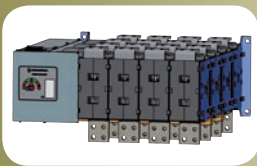
- > storage and transport ambient temperature -25°C +55°C
- > working ambient temperature -20°C +45°C
- > in case of higher ambient temperature (t_a) consider the following derating formula:

$$I_{The} = k I_{Th} \quad K = 1 - \frac{t_a - 45}{100}$$

- > relative humidity max 95%
- > rated frequency 50-60Hz
- > altitude max. 2000 m a.s.l.
- > pollution degree 3 according IEC 60947-1
- > duty (IEC 60947-1):
 - > eight-hour duty
 - > uninterrupted duty
 - > intermittent duty 60% class 30
 - > temporary duty
 - > periodic duty

For other operating conditions contact the manufacturer.

Codici per
l'ordinazione
Order references



Tipo Type	Corrente nominale Rated current	Poli / Poles	Codice / Code
GT6	3150A	3P	GT60038
		4P	GT60138
	4000A	3P	GT60048
		4P	GT60148

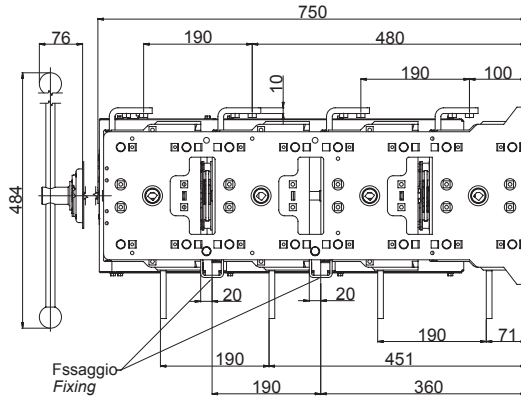
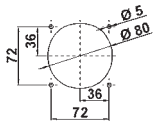
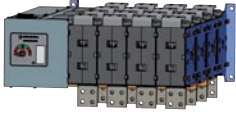
Dati tecnici
Technical data

Tipo / Type			GT 3150	GT 4000
Corrente nominale Rated current		(In) (A)	3150A	4000A
Tensione nominale d'isolamento Rated insulation voltage	c.a./AC	(Ui) (V)	1000	1000
	c.c./DC	(Ui) (V)	1500	1500
Corrente nominale termica Rated thermal current		(Ith) (A)	3150	4000
Corrente nominale d'impiego (Ie) Rated operational current	AC-21A	420V (A)	3150	4000
		500V (A)	3150	4000
		690V (A)	-	-
	AC-22A	420V (A)	-	-
		500V (A)	-	-
		690V (A)	-	-
AC-23A	420V (A)	-	-	
	500V (A)	-	-	
	690V (A)	-	-	
Corrente di breve durata per 1 sec Short withstand current 1 sec		(kA)	50	50
Potere di chiusura in corto circuito Making capacity in short circuit		(kA)	105	105
Corrente di corto circuito condizionata da fusibile Rated fuse short circuit current				
Tipo fusibile / Back up fuse		(A)	-	-
Valore efficace / R.M.S. value		(kA)	-	-
Valore di picco / Peak value		(kA)	-	-
Durata meccanica Mechanical endurance		n°	2500	2500
Durata elettrica Electrical endurance		n°	500	500
Potenza dissipata per polo Power losses per pole		(W)	170	272
Potenza condensatori a 400 V Rated capacitor power at 400 V		kVAR	1250	1600
Peso netto Net weight	3P	Kg	84	84
	4P		108	108

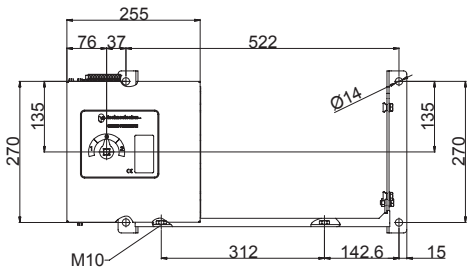
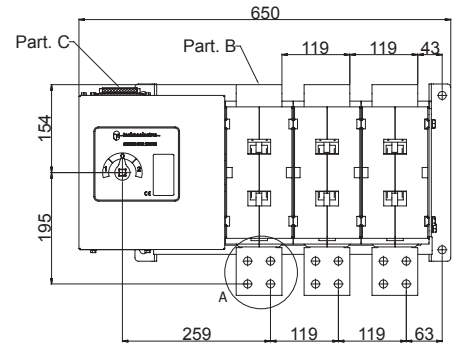
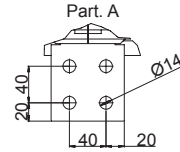
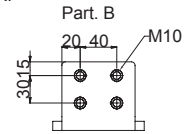
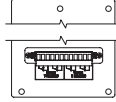
Dimensioni
Dimensions

Commutatori
sovrapposti
Two layers change-
over switches

GT 3150 ÷ 4000A 3P

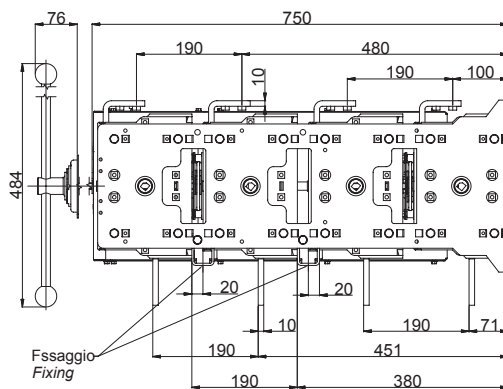
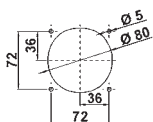
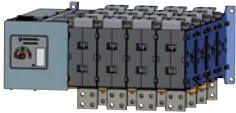


Part. C
Morsettiera CONT. AUX.

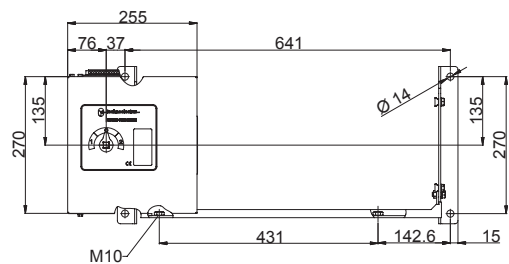
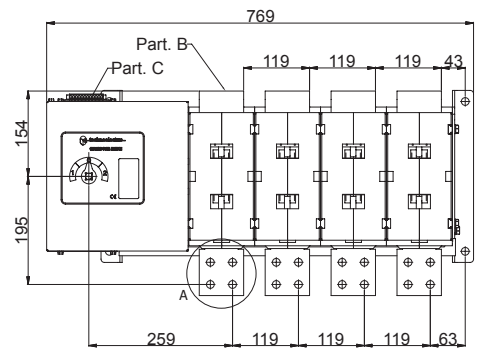
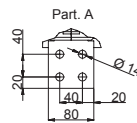
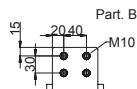
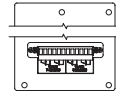


Foratura portella
Door drilling

GT 3150 ÷ 4000A 4P



Part. C
Morsettiera CONT. AUX.



Foratura portella
Door drilling

