SWITCH DISCONNECTORS

VCP 32 ÷ 3150 A

Vector Energy

_GENERALITIES

VISUALCOMPACT P is a range of switch disconnectors suitable for making and breaking on load and disconnecting low voltage electrical circuits. They are commonly used for the following purposes:
Main switch
Switch for motors
Disconnector
Safety switch

They are available in 6 sizes and 20 current ratings.

_GENERAL CHARACTERISTICS

Rated insulation voltage 1500 v ac and 1500 v dc
3 - 4 - 6 - 8 Poles available
High breaking capacity (AC-22, AC-23, IEC 60947-3)
High electrical and mechanical endurance
Double break contacts
Self cleaning contacts
Contact position positively reliable indicated by the handle
Visibility of fixed and moving contacts by means of windows
Independent manual operation
Neutral contact makes earlier and opens later than the phase contacts
Solid neutral version available
Neutral at full current until 1250 a, standard, 1600 a ÷ 3150 a on request
Suitable protection to prevent accidental touching of live parts
Casing in self-extinguishing (v0), low hygroscopic and high mechanical resistance
Isolating material resistant to damp heat
Wide range of accessories
Rotary front operation by means of: external double insulated handle with door-interlock in ON position, IP65 degree of protection. Padlockable with three padlocks in OFF position
Direct handle (padlockable in off position on request)

_NORMAL SERVICE, MOUNTING AND TRANSPORT CONDITIONS

Storage and transport ambient temperature - 25°c + 55°c
Working ambient temperature - 20°c + 40°c
In case of higher ambient temperature (t_a) consider the following derating formula:

$I_{the} = k\, i_{th}$ where $\quad k = 1 - \frac{t_a - 40}{100}$

Relative humidity max 95%
Rated frequency 50 - 60 hz
Altitude max 2000 m a.S.L.
Pollution degree 3 according IEC 60947-1
Can be mounted in any position, for what concerns the positioning, please refer to the installation instructions
Mounting in enclosure: in case of utilisation at full load and without adequate ventilation, ensure a volume of about 5 times the volume of the switch
Duty (IEC 60947-1): 8 hours; uninterrupted; intermittent 60% class 30; temporary; periodic.

For different operating conditions, please contact the manufacturer.

_CONFORMITY TO STANDARDS

IEC 60947-1|IEC 60947-3|UNI EN 60947-1|UNI EN 60947-3

_CERTIFICATES AND APPROVALS

KEMA | RINA | ENEL code 13.32.23 | A2A | CESI | IENGF | EAC

Standard shaft length 200 mm included in the package.

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

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

Caratteristiche tecniche _Technical Features	Tipo _Type		VC1P							VC2P			
Corrente nominale _Rated current	In	A	32	45	63	80	100	125	160	160	200	250	315
Tensione nominale d'isolamento _Rated insulation voltage	Ui	V	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
Tensione nominale impulso _Shock resistance	U imp	kV	8	8	8	8	8	8	8	12	12	12	12
Corrente nominale termica _Thermal current	Ith	A	32	45	63	80	100	125	160	160	200	250	315
Corrente nominale d' impiego _Rated operational current													
AC-21A/B	400V	A	32	45	63	80	100	125	125/160	160	200	250	250/315
	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
AC-22A/B	400V	A	32	45	63	80	100	125	125/160	160	200	250	250/315
	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
AC-23A/B	400V	A	32	45	63	80	100	125	125/160	160	200	250	250/315
	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
DC-21A/B*	220V	A	32	45	63	80	100	125	125/160	160	200	250	250/315
	420V	A	-	-	-	-	-	-	-	160	200	250	250/315
	560V	A	-	-	-	-	-	-	-	60	60	60	60
DC-22A/B*	220V	A	32	45	63	80	100	125	125/160	160	200	250	250/315
	420V	A	-	-	-	-	-	-	-	160	200	250	250/250
	560V	A	-	-	-	-	-	-	-	40/60	40/60	40/60	40/60
DC-23A/B*	220V	A	20	30	35	45	63	80	80/80	160	200	250	250/250
	420V	A	-	-	-	-	-	-	-	160	200	250	250/250
	560V	A	-	-	-	-	-	-	-	-	-	-	-
Potere di chiusura _Rated making capacity	400V AC23	A	320	450	630	800	1000	1250	1250	1600	2000	2500	2500
Potere di interruzione _Breaking capacity	400V AC23	A	256	360	504	640	800	1000	1000	1280	1600	2000	2000
Corrente di breve durata _Short-circuit withstand current	1 sec	kA	5	5	5	5	5	5	5	8	8	8	8
Corrente di breve durata _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 _Rated operational power	400V AC23	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 _Backup 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	6,0
Dimensione cavo _Cable section		mm^2	10	10	16	25	35	50	70	70	95	120	185
Dimensione barre _Bars dimension		mm	10x2	10x2	12x3	12x3	14x3	16x3	16x4	20x4	20x5	20x6	22x8
Sforzi di manovra _Operating torque		Nm	8	8	8	8	8	8	8	12	12	12	12
Peso netto _Net weight	3P	Kg	0,9	0,9	0,9	0,9	0,9	0,9	0,9	1,5	1,5	1,5	1,5
	4P		1	1	1	1	1	1	1	1,6	1,6	1,6	1,6

*Due poli in serie _Two poles in series

Caratteristiche tecniche _Technical Features	Tipo _Type		VC3P			VC4P	
Corrente nominale _Rated current	In	A	315	400	500	630	800
Tensione nominale d'isolamento _Rated insulation voltage	Ui	V	1500	1500	1500	1500	1500
Tensione nominale impulso _Shock resistance	U imp	kV	12	12	12	12	12
Corrente nominale termica _Thermal current	Ith	A	315	400	500	630	800
Corrente nominale d' impiego _Rated operational current							
AC-21A/B	400V	A	315	400	400/500	630	630/800
	500V	A	315	400	400/500	630	630/800
	690V	A	315	400	400/500	630	630/800
AC-22A/B	400V	A	315	400	400/500	630	630/800
	500V	A	315	400	400/400	630	630/630
	690V	A	315	400	400/400	630	630/630
AC-23A/B	400V	A	315	400	400/400	630	630/630
	500V	A	250	315	315/315	630	500/500
	690V	A	200	250	250/250	630	400/400
DC-21A/B*	220V	A	315	400	400/500	630	630/800
	420V	A	315	400	400/500	630	630/800
	560V	A	315	400	400/500	630	630/800
DC-22A/B*	220V	A	315	400	400/500	630	630/800
	420V	A	315	400	400/400	630	630/630
	560V	A	315	400	400/400	630	630/630
DC-23A/B*	220V	A	315	400	400/400	630	630/630
	420V	A	315	400	400/400	630	630/630
	560V	A	315	400	400/400	630	630/630
Potere di chiusura _Rated making capacity	400V AC23	A	3150	4000	4000	6300	6300
Potere di interruzione _Breaking capacity	400V AC23	A	2520	3200	3200	5040	5040
Corrente di breve durata _Short-circuit withstand current	1 sec	kA	13	13	13	26,5	26,5
Corrente di breve durata _Short-circuit withstand current	0,25 sec	kA	26	26	26	53	53
Potere di chiusura in corto circuito _Short-circuit making capacity	400V	kA	26	26	26	30	30
Potenza nominale d'impiego _Rated operational power	400V AC23	kW	165	210	210	330	330
Corrente di corto circuito condizionata da fusibile _Rated fuse short-circuit current							
Tipo fusibile _Backup fuse		A	315	400	500	630	800
Valore efficace _R.M.S. value		kA	50	50	50	50	50
Valore di picco _Peak value		kA	27	30	37	40	40
Durata meccanica _Mechanical endurance		n.	8000	8000	8000	8000	8000
Durata elettrica _Electrical endurance		n.	1500	1500	1500/200	1500	1500/200
Potenza condensatori a 400V _Rated capacitor power at 400V		kVAR	140	180	180	300	300
Potenza dissipata per polo _Power losses for pole		W	5,9	9,4	14,8	15,6	25,7
Dimensione cavo _Cable section		mm^2	185	2x120	2x150	2x185	2x240
Dimensione barre _Bars dimension		mm	30x6	2x25x5	2x25x5	2x40x5	2x40x6
Sforzi di manovra _Operating torque		Nm	18	18	18	34	34
Peso netto _Net weight	3P	Kg	3,5	3,5	3,5	5,5	5,5
	4P		3,8	3,8	3,8	6	6

*Due poli in serie _Two poles in series

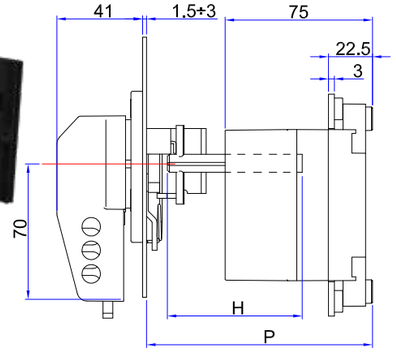
Caratteristiche tecniche _Technical Features	Tipo _Type		VC5P			VC5P 50kA						
Corrente nominale _Rated current	In	A	800	1000	1250	800	1000	1250	1600	2000	2500	3150
Tensione nominale d'isolamento _Rated insulation voltage	Ui	V	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
Tensione nominale impulso _Shock resistance	U imp	kV	12	12	12	12	12	12	12	12	12	12
Corrente nominale termica _Thermal current	Ith	A	800	1000	1250	800	1000	1250	1600	2000	2500	3150
Corrente nominale d' impiego _Rated operational current												
AC-21A/B	400V	A	800	1000	1250	800	1000	1250	1600	2000	2500	3150
	500V	A	800	1000	1250	800	1000	1250	1600	2000	2500	3150
	690V	A	800	1000	1250	800	1000	1250	1250	1250	1250	1250
AC-22A/B	400V	A	800	1000	1250	800	1000	1250	1250	1250	-	-
	500V	A	800	1000	1250	800	1000	1250	-	-	-	-
	690V	A	800	1000	1250	800	1000	1250	-	-	-	-
AC-23A/B	400V	A	800	1000	1250	800	1000	1250	-	-	-	-
	500V	A	800	800	800	630	800	1000	-	-	-	-
	690V	A	400	400	400	500	630	800	-	-	-	-
DC-21A/B*	220V	A	800	1000	1250	800	1000	1250	1600	2000	-	-
	420V	A	-	-	-	-	-	-	-	-	-	-
	560V	A	-	-	-	-	-	-	-	-	-	-
DC-22A/B*	220V	A	800	1000	1250	800	1000	1250	-	-	-	-
	420V	A	-	-	-	-	-	-	-	-	-	-
	560V	A	-	-	-	-	-	-	-	-	-	-
DC-23A/B*	220V	A	500	630	800	500	630	800	-	-	-	-
	420V	A	-	-	-	-	-	-	-	-	-	-
	560V	A	-	-	-	-	-	-	-	-	-	-
Potere di chiusura _Rated making capacity	400V AC23	A	8000	10000	12500	8000	10000	12500	-	-	-	-
Potere di interruzione _Breaking capacity	400V AC23	A	6400	8000	10000	6400	8000	10000	-	-	-	-
Corrente di breve durata _Short-circuit withstand current	1 sec	kA	35	35	35	50	50	50	50	50	50	50
Corrente di breve durata _Short-circuit withstand current	0,25 sec	kA	70	70	70	100	100	100	100	100	100	100
Potere di chiusura in corto circuito _Short-circuit making capacity	400V	kA	73,5	73,5	73,5	105	105	105	105	105	105	105
Potenza nominale d'impiego _Rated operational power	400V AC23	kW	420	525	630	420	525	630	630	630	-	-
Corrente di corto circuito condizionata da fusibile _Rated fuse short-circuit current												
Tipo fusibile _Backup fuse		A	800	1000	1250	800	1000	1250	-	-	-	-
Valore efficace _R.M.S. value		kA	100	100	100	100	100	100	-	-	-	-
Valore di picco _Peak value		kA	50	60	70	50	60	70	-	-	-	-
Durata meccanica _Mechanical endurance		n.	7000	7000	7000	4000	4000	4000	4000	4000	2000	2500
Durata elettrica _Electrical endurance		n.	1000	1000	1000	1000	1000	1000	500	500	500	500
Potenza condensatori a 400V _Rated capacitor power at 400V		kVAR	380	475	600	380	475	600	-	-	-	-
Potenza dissipata per polo _Power losses for pole		W	17,5	27,3	42	15,6	24,6	38,0	38,3	61,3	91,7	145,5
Dimensione cavo _Cable section		mm^2	2x240	-	-	2x240	-	-	-	-	-	-
Dimensione barre _Bars dimension		mm	2x40x5	2x40x6	2x40x8	2x40x5	2x40x6	2x40x8	3x40x8	3x50x12	4x50x12	6x50x12
Sforzi di manovra _Operating torque		Nm	45	45	45	70	70	70	70	70	70	70
Peso netto _Net weight	3P	Kg	11	11	11	11	11	11	18	18	25	25
	4P		12	12	12	12	12	12	19,2	19,2	26,5	26,5

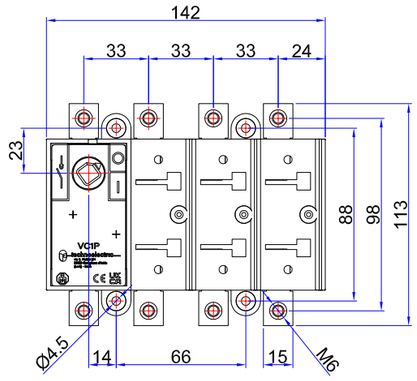
*Due poli in serie _Two poles in series

Caratteristiche tecniche _Technical Features	Tipo _Type		VC6P			
Corrente nominale _Rated current	In	A	1600	2000	2500	3150
Tensione nominale d'isolamento _Rated insulation voltage	Ui	V	1500	1500	1500	1500
Tensione nominale impulso _Shock resistance	U imp	kV	12	8	8	8
Corrente nominale termica _Thermal current	Ith	A	1600	2000	2500	3150
Corrente nominale d' impiego _Rated operational current						
AC-21A/B	400V	A	1600	2000	2500	3150
	500V	A	1600	2000	2500	3150
	690V	A	1250	1250	1250	1250
AC-22A/B	400V	A	1600	2000	2500	1600
	500V	A	1250	1250	1250	-
	690V	A	400	400	800	-
AC-23A/B	400V	A	1250	1250	-	-
	500V	A	800	800	-	-
	690V	A	400	400	-	-
DC-21A/B*	220V	A	1600	2000	-	-
	420V	A	-	-	-	-
	560V	A	-	-	-	-
DC-22A/B*	220V	A	-	-	-	-
	420V	A	-	-	-	-
	560V	A	-	-	-	-
DC-23A/B*	220V	A	-	-	-	-
	420V	A	-	-	-	-
	560V	A	-	-	-	-
Potere di chiusura _Rated making capacity	400V AC23	A	12500	12500	-	-
Potere di interruzione _Breaking capacity	400V AC23	A	10000	10000	-	-
Corrente di breve durata _Short-circuit withstand current	1 sec	kA	60	60	70	70
Corrente di breve durata _Short-circuit withstand current	0,25 sec	kA	120	120	140	140
Potere di chiusura in corto circuito _Short-circuit making capacity	400V	kA	105	105	105	105
Potenza nominale d'impiego _Rated operational power	400V AC23	kW	630	630	-	-
Corrente di corto circuito condizionata da fusibile _Rated fuse short-circuit current						
Tipo fusibile _Backup fuse		A	-	-	-	-
Valore efficace _R.M.S. value		kA	-	-	-	-
Valore di picco _Peak value		kA	-	-	-	-
Durata meccanica _Mechanical endurance		n.	2500	2500	2500	2500
Durata elettrica _Electrical endurance		n.	500	500	500	500
Potenza condensatori a 400V _Rated capacitor power at 400V		kVAR	780	850	1.100	1250
Potenza dissipata per polo _Power losses for pole		W	47,8	74,7	85,4	118,1
Dimensione cavo _Cable section		mm^2	-	-	-	-
Dimensione barre _Bars dimension		mm	2x80x10	2x80x10	3x80x10	32x100x10
Sforzi di manovra _Operating torque		Nm	70	70	70	70
Peso netto _Net weight	3P	Kg	17	19	27	40
	4P		19	20	30	41

*Due poli in serie _Two poles in series

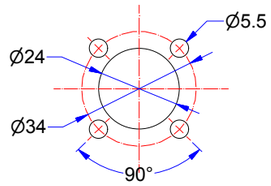
VC1P



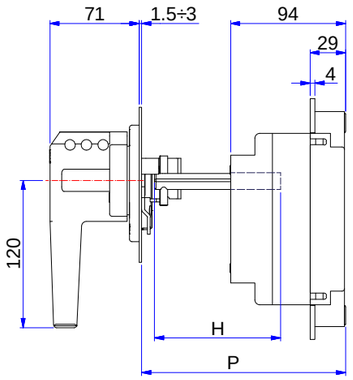


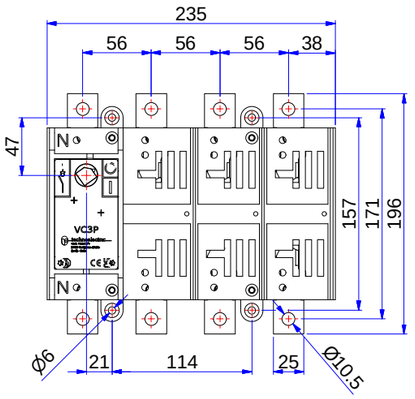
Legenda _caption			
VC1P 32 ÷ 160A			
P		C	H
min	max		
116	247	47	P-C
C= costante _constant			

Foratura portella _Door drilling



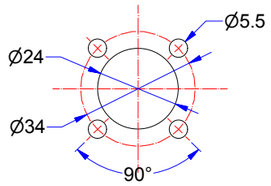
VC3P



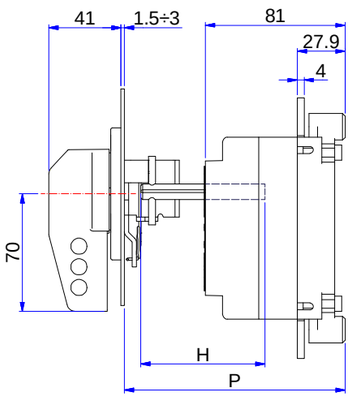


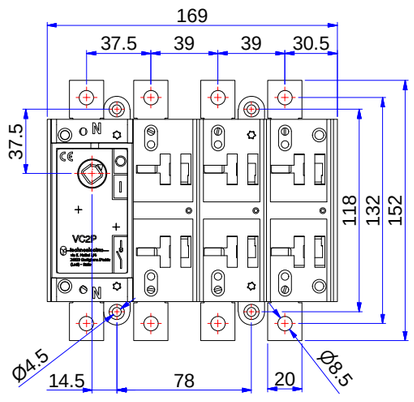
Legenda _caption			
VC3P 315 ÷ 500A			
P		C	H
min	max		
148	261,5	51,5	P-C
C= costante _constant			

Foratura portella _Door drilling



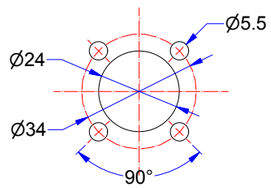
VC2P



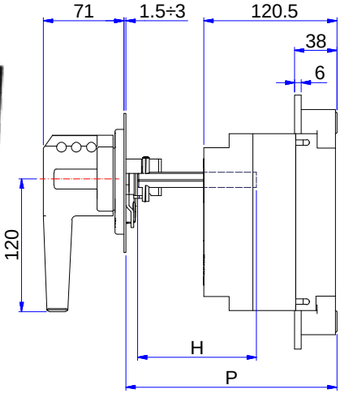


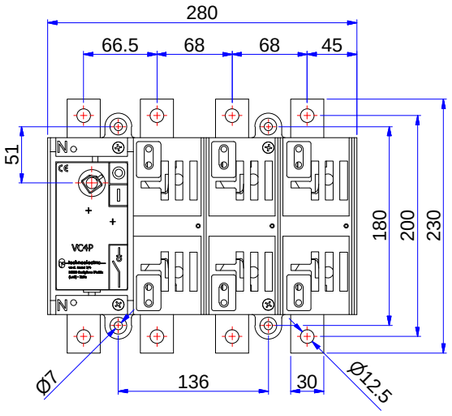
Legenda _caption			
VC2P 160 ÷ 315A			
P		C	H
min	max		
124	255	55	P-C
C= costante _constant			

Foratura portella _Door drilling



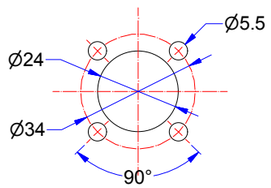
VC4P



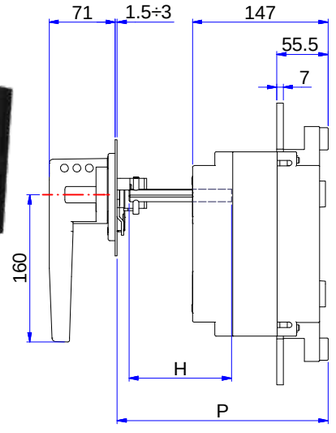


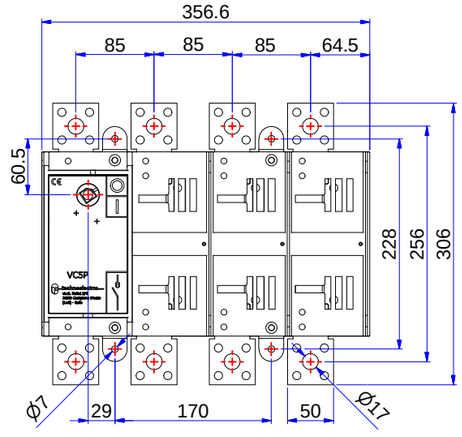
Legenda _caption			
VC4P 630 ÷ 800A			
P		C	H
min	max		
174	276	76	P-C
C= costante _constant			

Foratura portella _Door drilling



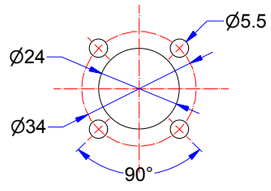
VC5P



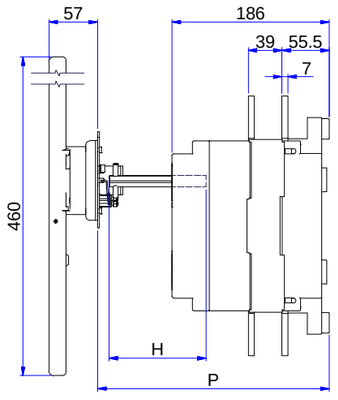


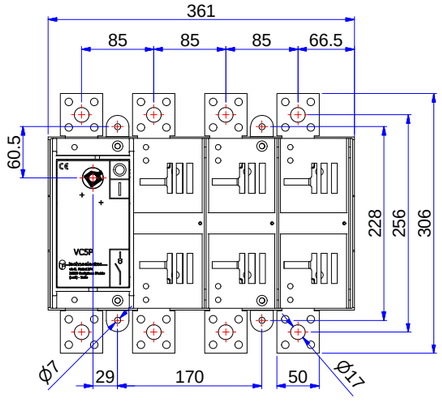
Legenda _caption VC5P 800 ÷ 1250 A 35 kA			
P		C	H
min	max		
215	296	96	P-C
C= costante _constant			

Foratura portella _Door drilling



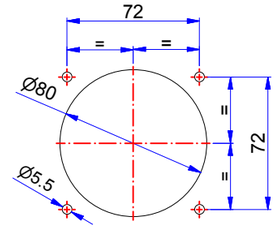
VC5P 1600 ÷ 2000 50 kA



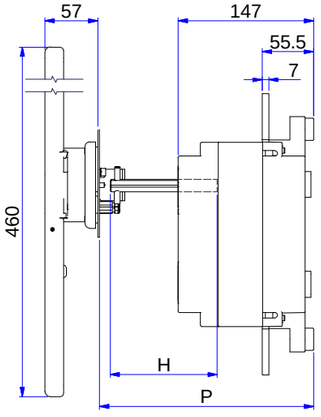


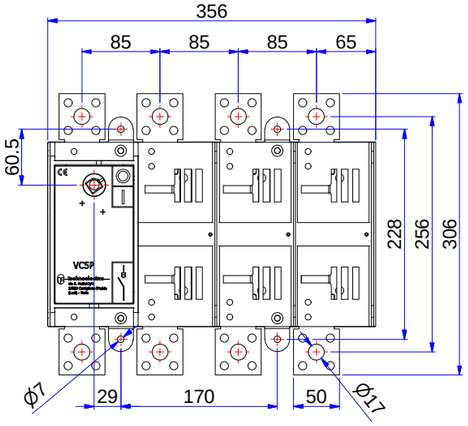
Legenda _caption VC5P 1600 ÷ 2000A			
P		C	H
min	max		
252	345	145	P-C
C= costante _constant			

Foratura portella _Door drilling



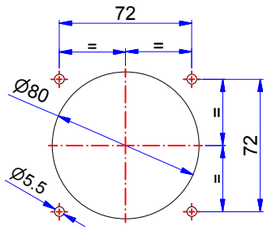
VC5P 800 ÷ 1250 50 kA



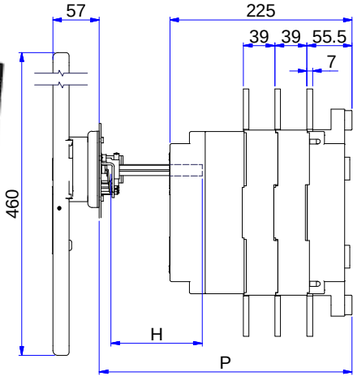


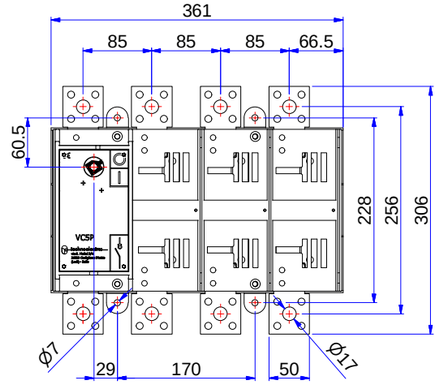
Legenda _caption VC5P 800 ÷ 1250 A 50 kA			
P		C	H
min	max		
213	306	106	P-C
C= costante _constant			

Foratura portella _Door drilling



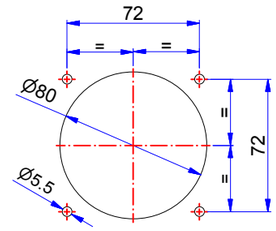
VC5P 2500 ÷ 3150 50 kA



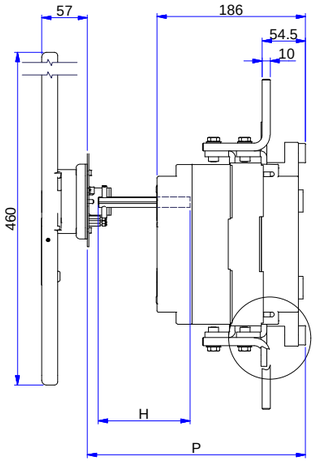


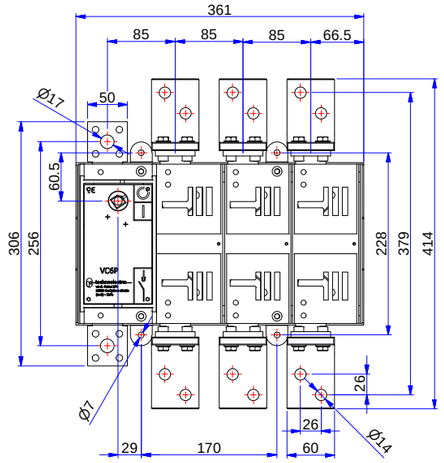
Legenda _caption VC5P 2500 ÷ 3150A			
P		C	H
min	max		
291	384	184	P-C
C= costante _constant			

Foratura portella _Door drilling



VC6P





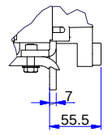
Legenda _caption

VC6P 1600 A

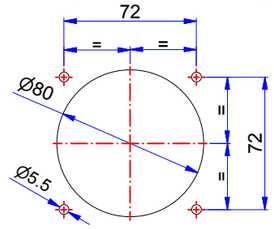
P		C	H
min	max		
252	345	145	P-C

C= costante _constant

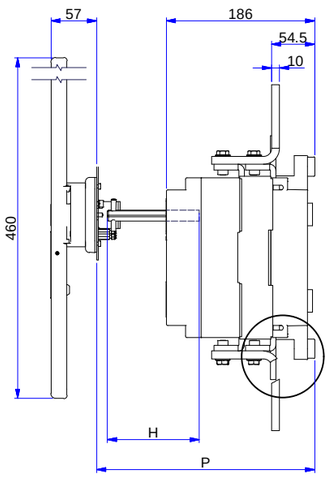
Neutral

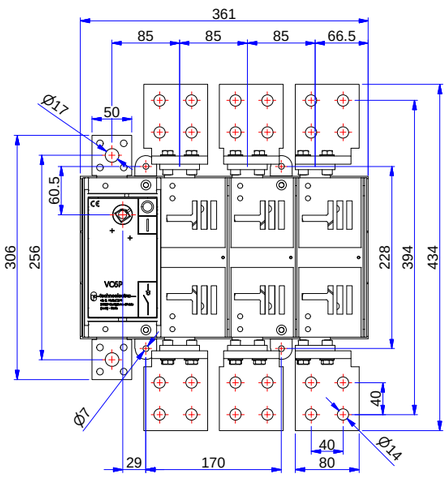


Foratura portella _Door drilling



VC6P





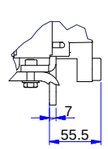
Legenda _caption

VC6P 2000 A

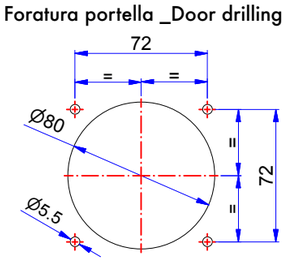
P		C	H
min	max		
252	345	145	P-C

C= costante _constant

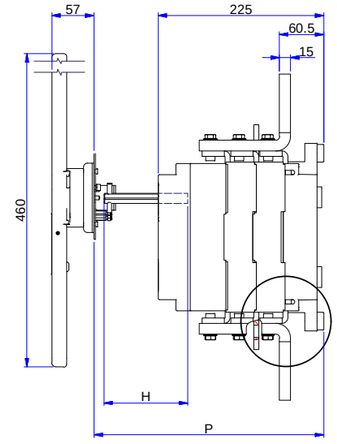
Neutral

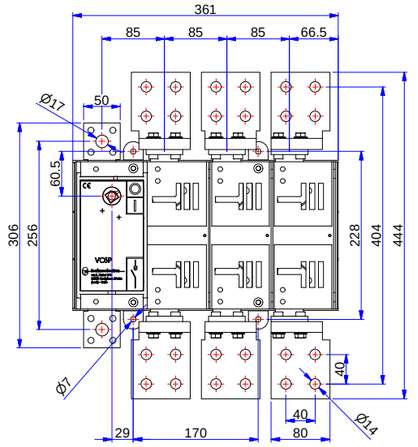


Foratura portella _Door drilling



VC6P





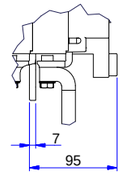
Legenda _caption

VC6P 2500 A

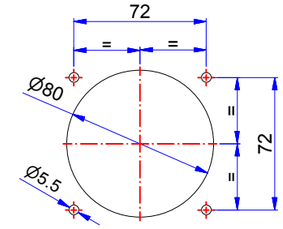
P		C	H
min	max		
291	384	184	P-C

C= costante _constant

Neutral



Foratura portella _Door drilling



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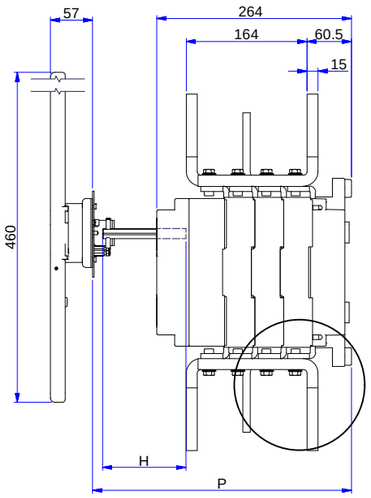
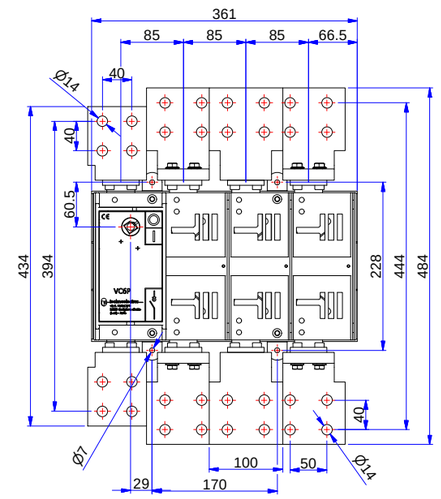




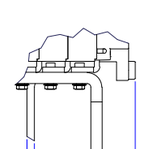
Legenda _caption

VC6P 3150 A

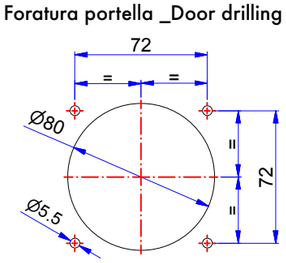
P		C	H
min	max		
330	423	223	P-C

C= costante _constant

Neutral



Foratura portella _Door drilling



VISUALCOMPACT VCP MS motorized load break switches

GENERALITIES

The Visual Compact MS Series are motorized Switch Disconnectors and Fuse switch disconnectors, that can be remotely operated.

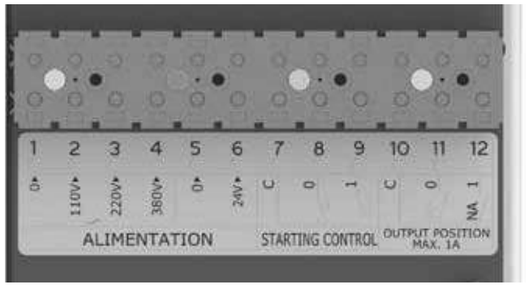
GENERAL CHARACTERISTICS

The technical characteristics of the load break switches used in the VISUALCOMPACT P MS are correspondent to as shown in the chapter of VISUALCOMPACT P series.
Direct handle for manual emergency operations
Emergency padlockable mechanical block of electrical and manual operations.
Position 0 and 1 are mechanically and elettronically (LED) indicated
External Imput position through auxiliary contacts (see terminal board diagram)
0-1 or 1-0 operating time 1,5 sec.
Voltages 12/24V DC, 110/220/380V AC
Working ambient temperature from - 20°C + 45°C padlock in 0 position.

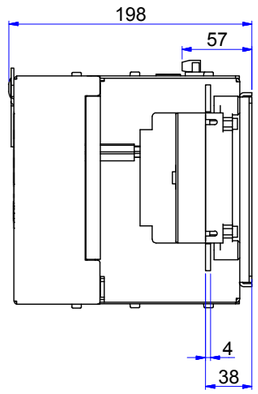
CONFORMITY TO STANDARDS

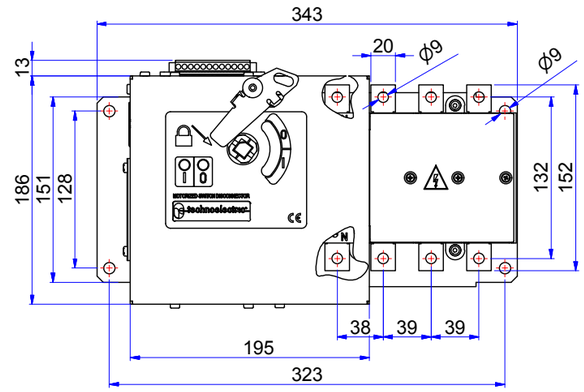
IEC 60947-1|IEC 60947-3|UNI EN 60947-1|UNI EN 60947-3|IEC 439-1|UNI EN 60439-1|IEC 204-1|UNI EN 60204-1 | EAC

Schema morsettiera MS
_MS terminal block diagram

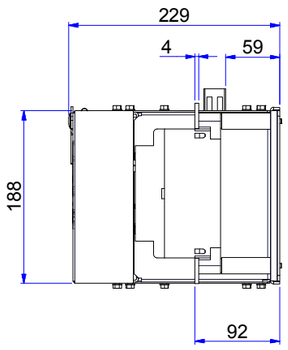


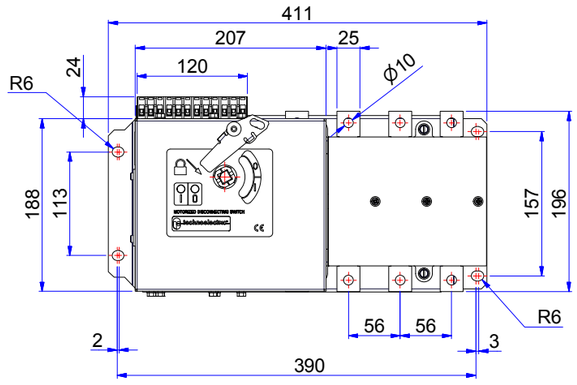
VC2P MS 160 ÷ 250A



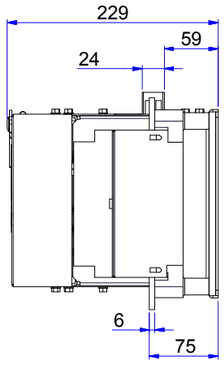


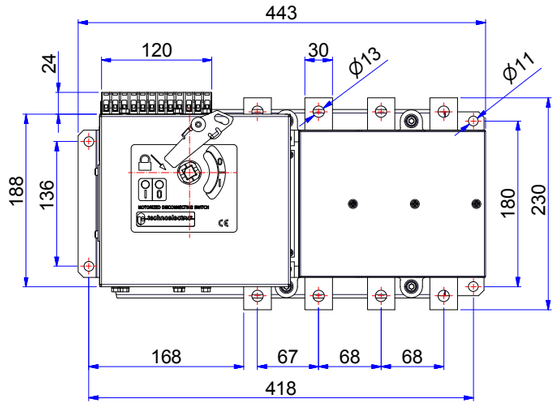
VC3P MS 315 ÷ 400 A



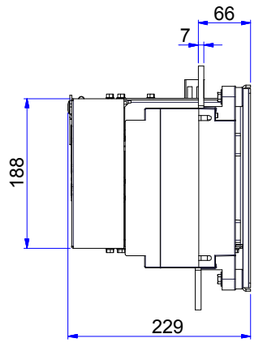


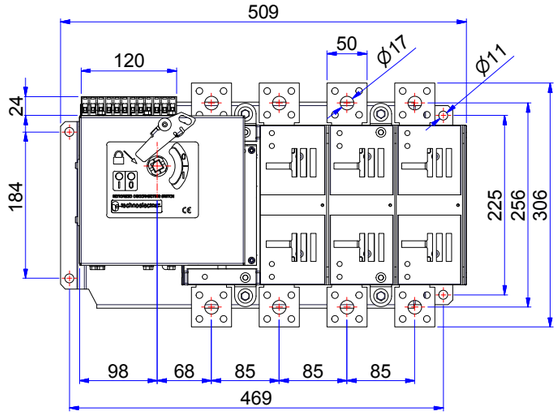
VC4P MS 630 ÷ 800A



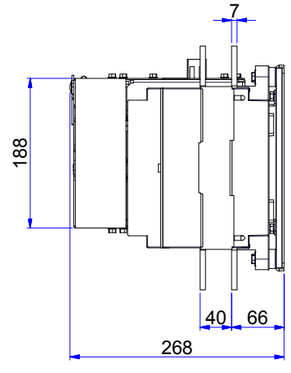


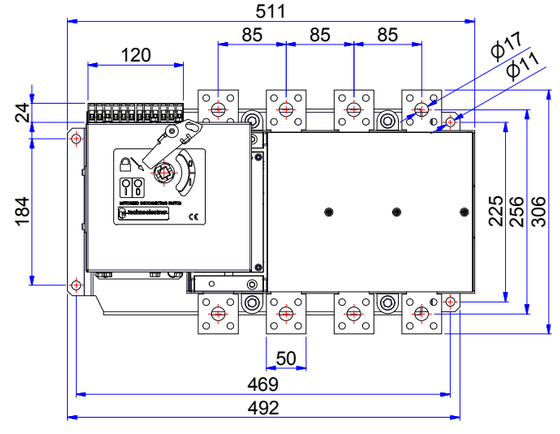
VC5P MS 800 ÷ 1250A



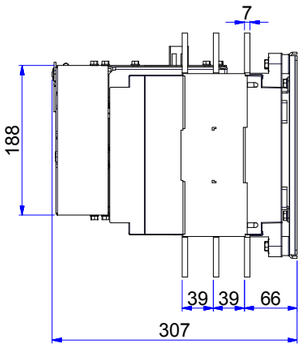


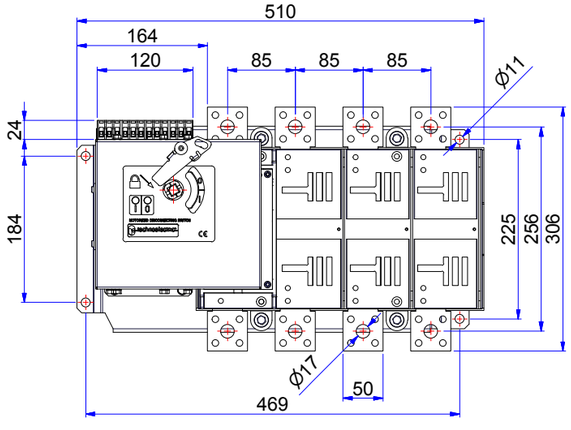
VC5P MS 1600 ÷ 2000A



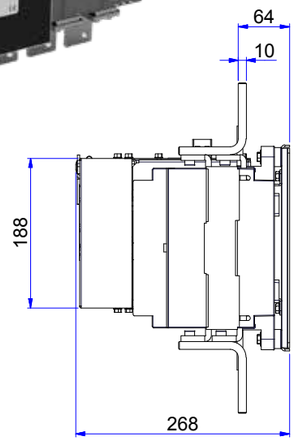


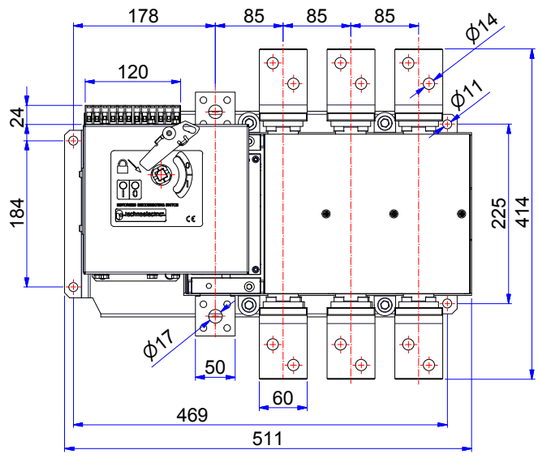
VC5P MS 2500 ÷ 3150A



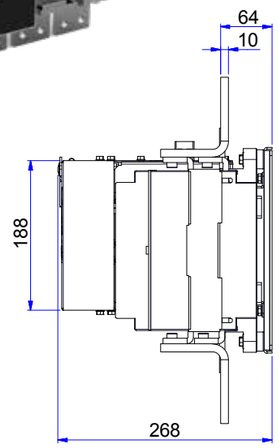


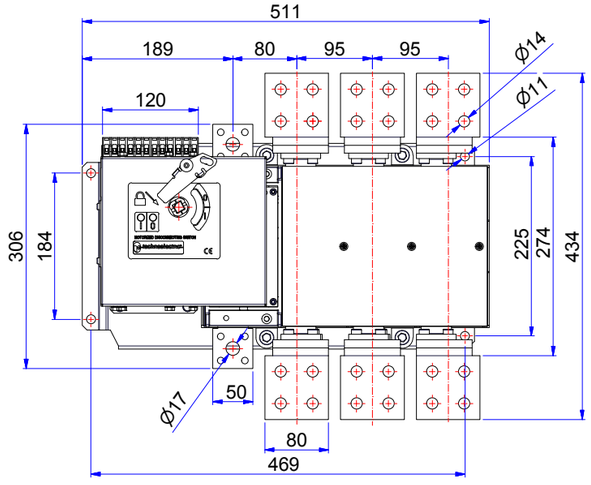
VC6P MS 1600A



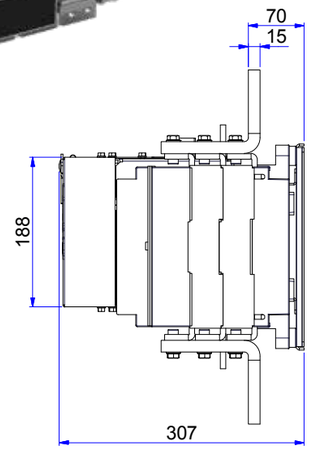


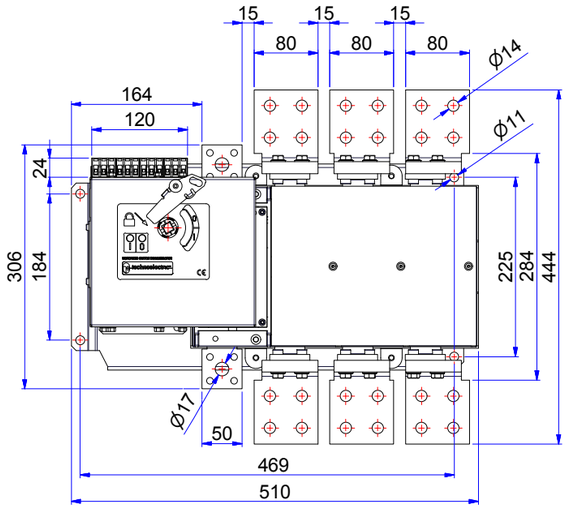
VC6P MS 2000A





VC6P MS 2500A





VC6P MS 3150A