

Technical Data Ex9A32

Air Circuit Breakers up to 3200 A

General parameters

Air circuit breakers up to 3200 A
Breaking capacity I_{cu} 65, 85 and 100 kA
Arbitrary choice of tripping unit SU

Electrical parameters

	Ex9A32Q	Ex9A32R	Ex9A32H
Tested according to	IEC / EN 60947-2		
Rated operational voltage U_e	380 / 400 / 415 / 660 / 690 V AC		
Rated insulation voltage U_i	1000 V		
Rated impulse withstand voltage U_{imp}	12 kV		
Rated current I_n at 40°C	1600 / 2000 / 2500 / 2900 / 3200 A		
Rated frequency f	50 / 60 Hz		
Rated ultimate short-circuit breaking capacity I_{cu}	65 kA / 415 V 50 kA / 690 V	85 kA / 415 V 65 kA / 690 V	100 kA / 415 V 75 kA / 690 V
Rated service short-circuit breaking capacity I_{cs}	65 kA / 415 V 50 kA / 690 V	85 kA / 415 V 65 kA / 690 V	100 kA / 415 V 75 kA / 690 V
Rated short-circuit making capacity I_{cm}	143 kA / 415 V 105 kA / 690 V	187 kA / 415 V 143 kA / 690 V	220 kA / 415 V 165 kA / 690 V
Rated short-circuit withstand current I_{cw} for 1s	50 kA / 415 V 32 kA / 690 V	65 kA / 415 V 40 kA / 690 V	85 kA / 415 V 50 kA / 690 V
Internal resistance per pole	0.025 mΩ (fixed) 0.038 mΩ (withdrawable)		
Poles	3P / 4P		
Breaking operation time	20 — 30 ms		
Closing operation time	< 70 ms		
Electrical service life	5000 operation cycles / 415 V 1500 operation cycles / 690 V		
Mechanical service life	10000 operation cycles without maintenance 15000 operation cycles with maintenance		
Utilization category	B		
Line voltage connection	arbitrary above or below (with external power supply for SU)		

Mechanical parameters

	fixed	withdrawable
Device width (3P / 4P)	424 mm / 539 mm	437 mm / 552 mm
Device height	353 mm	430 mm
Device depth	304 mm	401 mm
Degree of protection	IP40	
Ambient temperature	-25°C — +60°C	
Storage temperature	-40°C — +85°C (without Smart Unit) -25°C — +85°C (with Smart Unit)	
Altitude	< 2000 m	
Relative humidity	< 90 %	
Installation category	IV (main circuit) / III (secondary circuit)	
Pollution degree	3	
Main terminals surface coating	silver	
Weight (3P / 4P)	52.5 kg / 66.5 kg	98 kg / 121 kg (including cassette)

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Power dissipation at 3P connection

Rated current [A]	Fixed version	Withdrawable version
1600 A	170 W	390 W
2000 A	250 W	470 W
2500 A	260 W	600 W
2900 A	260 W	600 W
3200 A	420 W	670 W

Temperature derating

T [°C]	$I_u(T)$ [A]				
	$I_n = 1600$ A	$I_n = 2000$ A	$I_n = 2500$ A	$I_n = 2900$ A	$I_n = 3200$ A
-5 — +45	1600	2000	2500	2900	3200
50	1600	2000	2500	2900	3100
55	1600	2000	2450	2800	3000
60	1600	1900	2350	2700	2900

Altitude derating

Altitude	2000 m	3000 m	4000 m	5000 m
Impulse withstand voltage U_{imp}	3500 V	3000 V	2500 V	2000 V
Insulation voltage U_i	1000 V AC	800 V AC	700 V AC	600 V AC
Rated voltage U_o	690 V AC	580 V AC	500 V AC	400 V AC
Rated uninterrupted current I_u	$1 \times I_u(T)$	$0.96 \times I_u(T)$	$0.91 \times I_u(T)$	$0.87 \times I_u(T)$

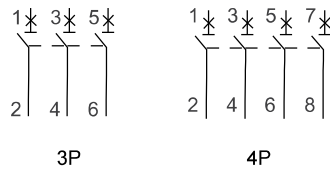
Secondary terminals

Secondary terminals	screwless
Terminals capacity	0.5 — 1.2 mm ²

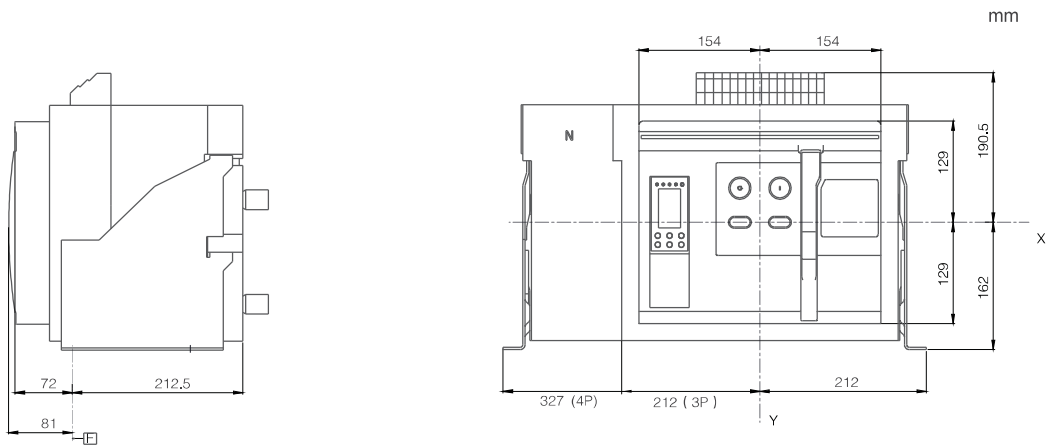
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Main terminals wiring diagrams

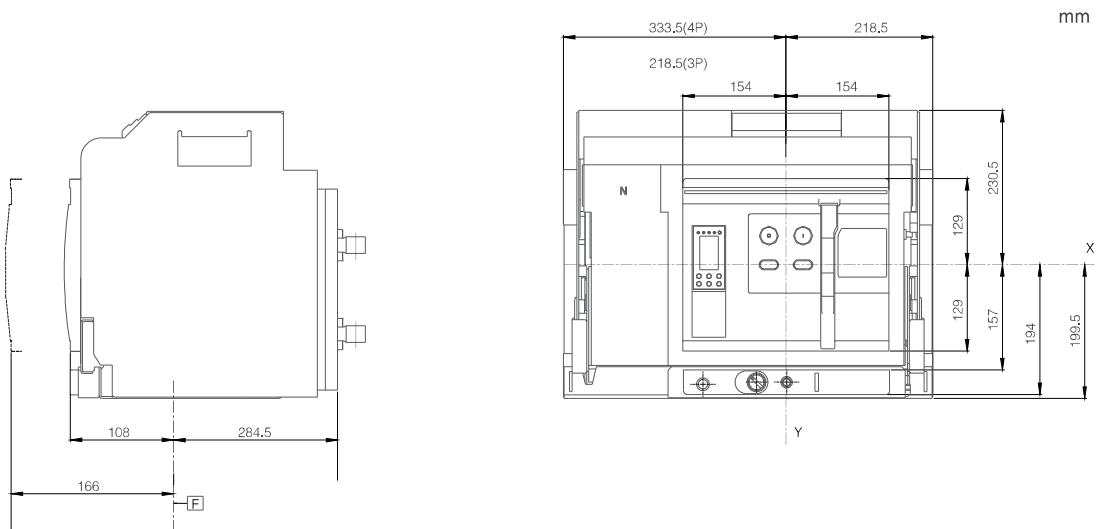


Dimensions - fixed version



X, Y - door cut-out centering
F - minimum depth of mounting support panel

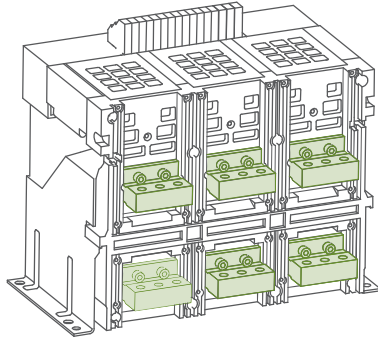
Dimensions - withdrawable version



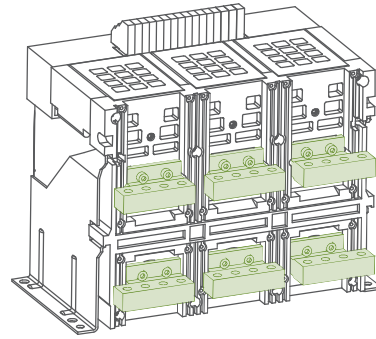
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Horizontal connection - fixed version

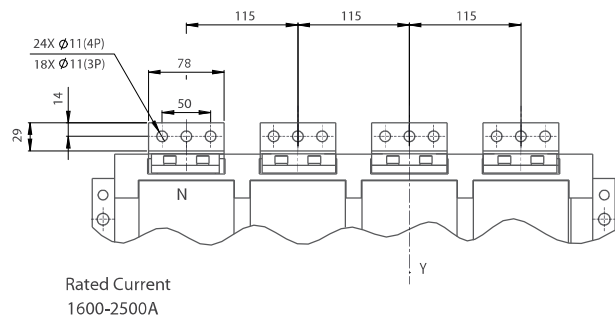
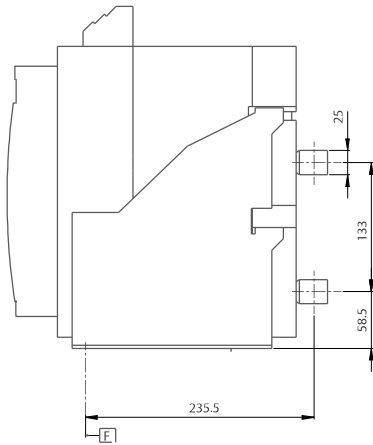


1600A - 2500A

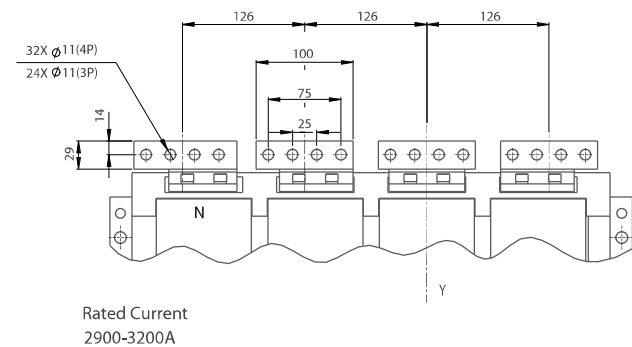


2900A - 3200A

[mm]



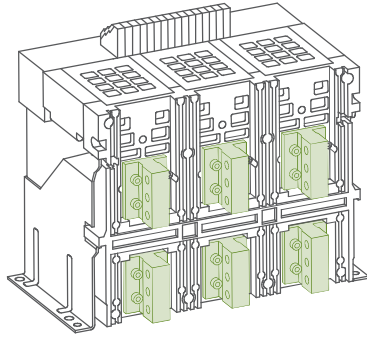
X, Y - door cut-out centering
F - minimum depth of mounting support panel



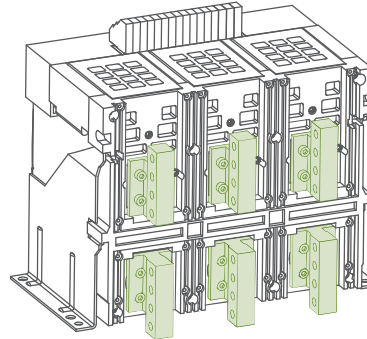
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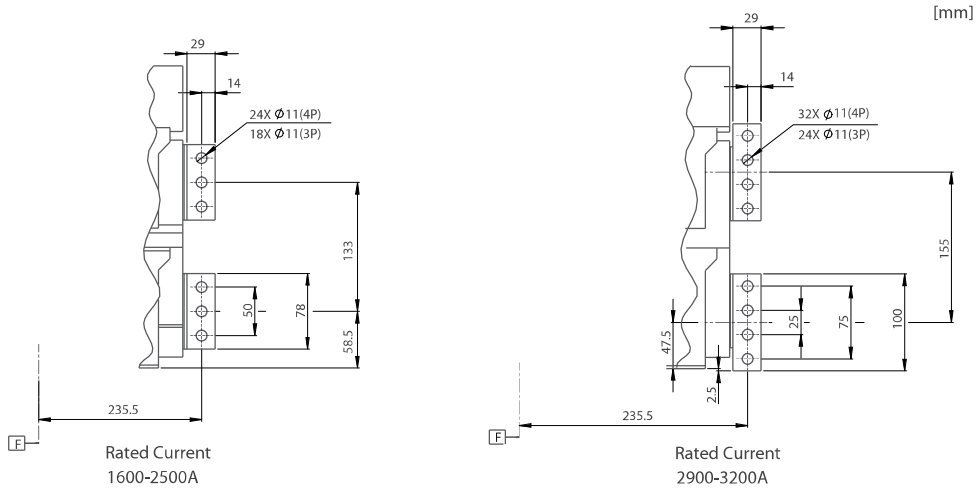
Vertical connection VCP - fixed version



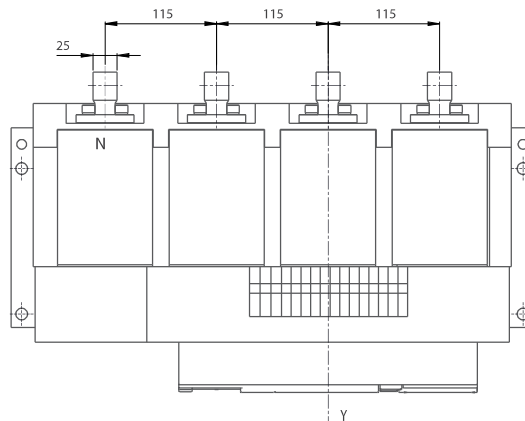
1600A - 2500A



2900A - 3200A



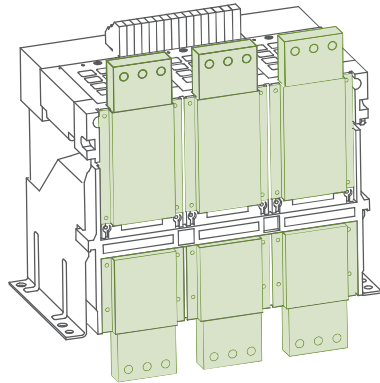
X, Y - door cut-out centering
F - minimum depth of mounting support panel



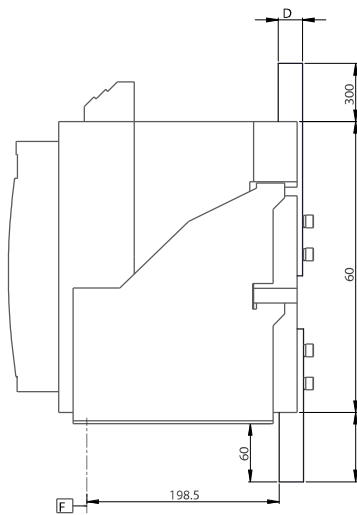
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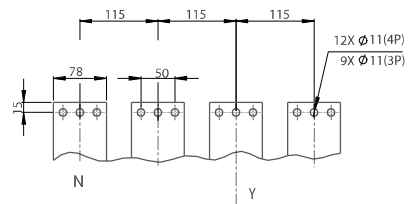
Front connection ACP - fixed version



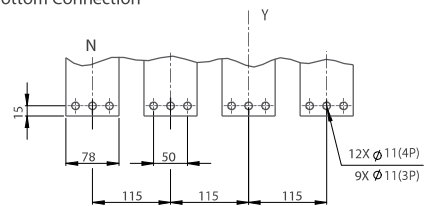
[mm]



Top Connection



Bottom Connection



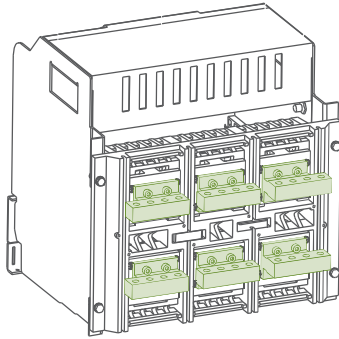
X, Y - door cut-out centering
F - minimum depth of mounting support panel

Rated current	Thickness
1600A-2000A	20
2500A	25
2900A-3200A	30

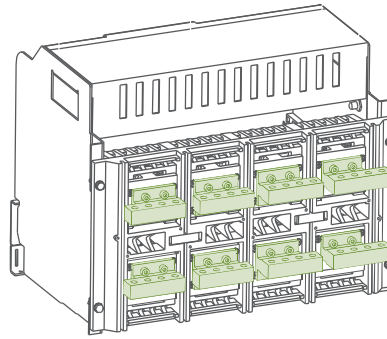
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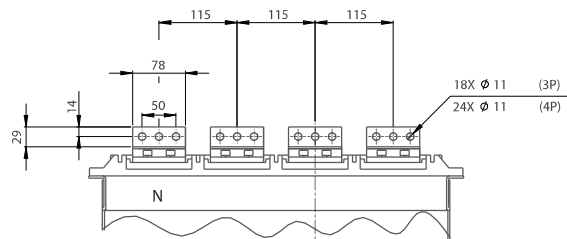
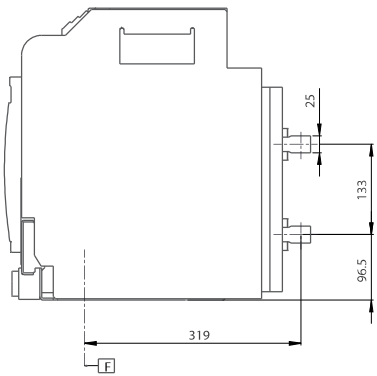
Horizontal connection - withdrawable version



3P

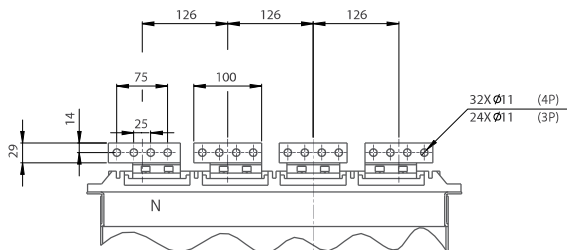


4P



Rated Current
1600-2500A

X, Y - door cut-out centering
F - minimum depth of mounting support panel



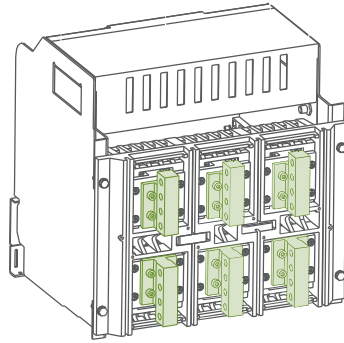
Rated Current
2900-3200A

[mm]

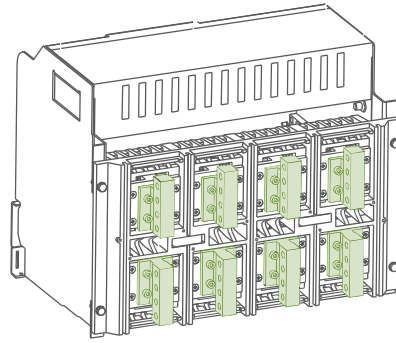
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Vertical connection VCP - withdrawable version

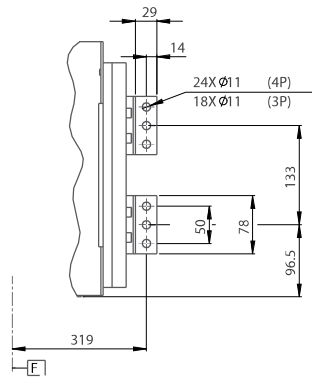


3P

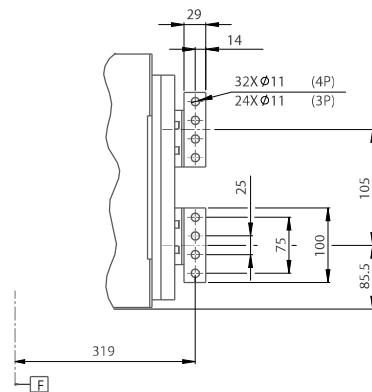


4P

[mm]

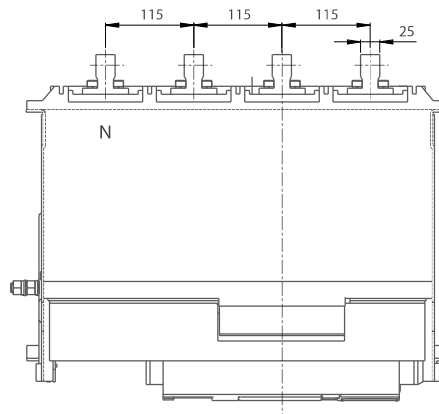


Rated Current
1600-2500A



Rated Current
2900-3200A

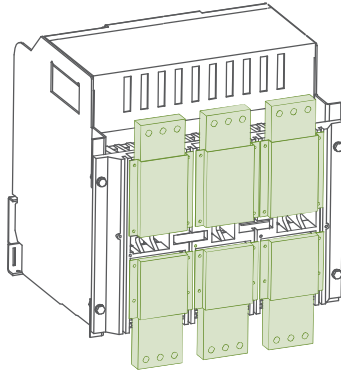
X, Y - door cut-out centering
F - minimum depth of mounting support panel



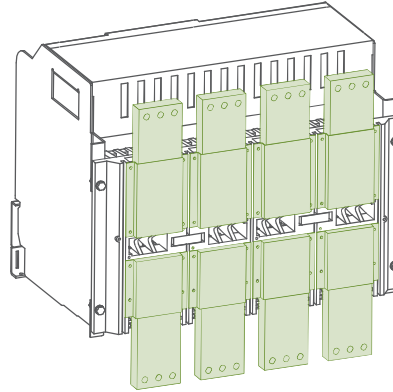
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Front connection ACP - withdrawable version



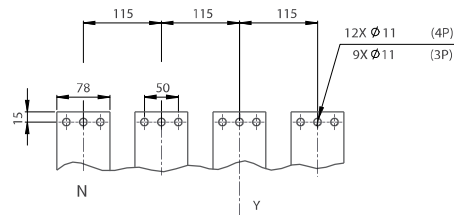
3P



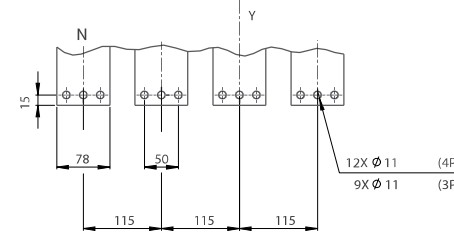
4P

[mm]

Top Connection

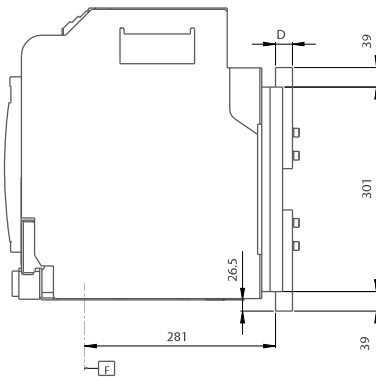


Bottom Connection



X, Y - door cut-out centering

F - minimum depth of mounting support panel



Rated current	Thickness
1600-2000A	20
2500A	25
2900-3200A	30