

Air Circuit Breakers Ex9A25HU up to 1150 VAC



- Air circuit breakers, frame size A25
- Rated current up to 2500 A
- Rated operating voltage 800 / 1000 / 1150 V AC
- Breaking capacity Icu 65 kA
- Fixed and withdrawable versions
- Utilization category B acc. to EN 60947-2
- Compact and modular design
- Wide range of accessories

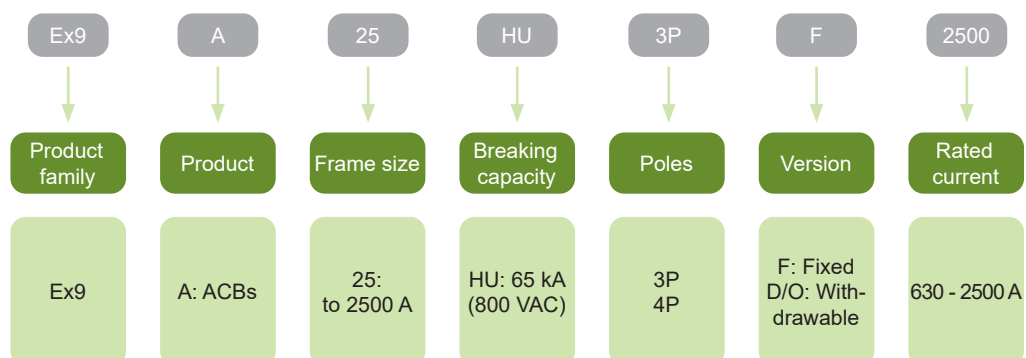
Air Circuit Breakers from Ex9A series are designed for power distribution protection on high demand installations such as industrial and commercial among others. Testing according IEC / EN 60947-2 standards ensures the required functionality and reliability for the higher power applications.

The Ex9A25-HU version has been developed to fit into the newest demands of the PV applications on which the nominal voltage keeps increasing. These products has been rated from 800 VAC up to 1150 VAC.

In order to provide the best control and monitoring features, the Ex9A25HU is offered with the most advanced SU4.0H, capable of detecting ground leakages and able to react to current, voltages, powers and harmonics failures by disconnecting the breaker or alerting to the system via programmable DO or Modbus.

Utilization category B circuit breakers.

Type Key



Air Circuit Breakers Ex9A25HU up to 1150 VAC

- Fixed version
- Frame size A25
- Rated current up to 2500 A
- Rated short-circuit breaking capacity I_{cu} 65 kA
- Device body only, tripping unit must be selected separately
- In the scope of delivery: fixed Air Circuit Breaker body, full set of secondary terminals, tripping unit (SU4.0H only), door frame, main terminals mounted in horizontal position, alarm contacts
- Basic parameter setting range of tripping units SU:

$$I_r = 0.4 - 1 \times I_n$$

$$I_{sd} = 1.5 - 10 \times I_r$$

$$I_i = 2 - 15 \times I_n$$

Fixed version, $I_{cu} = 65$ kA at 800 V AC



Poles	Rated current I_n	Overcurrent release I_r	Instant. release I_i	Article No.	Type	Packing
3P	630 A	252-630 A	1260-9450 A	113866	Ex9A25HU 3P F 630	1
3P	800 A	320-800 A	1600-12000 A	113867	Ex9A25HU 3P F 800	1
3P	1000 A	400-1000 A	2000-15000A	113868	Ex9A25HU 3P F 1000	1
3P	1250 A	500-1250 A	2500-18750 A	113869	Ex9A25HU 3P F 1250	1
3P	1600 A	640-1600 A	3200-24000 A	113870	Ex9A25HU 3P F 1600	1
3P	2000 A	800-2000 A	4000-30000 A	113871	Ex9A25HU 3P F 2000	1
3P	2500 A	1000-2500 A	5000-37500 A	113872	Ex9A25HU 3P F 2500	1
4P	630 A	252-630 A	1260-9450 A	113880	Ex9A25HU 4P F 630	1
4P	800 A	320-800 A	1600-12000 A	113881	Ex9A25HU 4P F 800	1
4P	1000 A	400-1000 A	2000-15000 A	113882	Ex9A25HU 4P F 1000	1
4P	1250 A	500-1250 A	2500-18750 A	113883	Ex9A25HU 4P F 1250	1
4P	1600 A	640-1600 A	3200-24000 A	113884	Ex9A25HU 4P F 1600	1
4P	2000 A	800-2000 A	4000-30000 A	113885	Ex9A25HU 4P F 2000	1
4P	2500 A	1000-2500 A	5000-37500 A	113886	Ex9A25HU 4P F 2500	1

Air Circuit Breakers Ex9A25HU up to 1150 VAC

- Withdrawable version
- Frame size A25
- Rated current up to 2500 A
- Rated short-circuit breaking capacity I_{cu} 65 kA
- Device body only, tripping unit must be selected separately
- In the scope of delivery: withdrawable Air Circuit Breaker body, cassette, tripping unit (SU4.0H Only), door frame, alarm contacts, phase barriers
- Cassette to be selected separately (ordered as premounted or separate delivery)
- Cassette equipped with full set of secondary terminals, mechanical device position indicator, safety shutters of main terminals
- Basic parameter setting range of tripping units SU:

$$I_r = 0.4 - 1 \times I_n$$

$$I_{sd} = 1.5 - 10 \times I_r$$

$$I_i = 2 - 15 \times I_n$$

Withdrawable version, $I_{cu} = 65$ kA at 800 V AC



Poles	Rated current I_n	Overcurrent release I_r	Instant. release I_i	Article No.	Type	Packing
3P	630 A	252-630 A	1260-9450 A	113859	Ex9A25HU 3P D/O 630	1
3P	800 A	320-800 A	1600-12000 A	113860	Ex9A25HU 3P D/O 800	1
3P	1000 A	400-1000 A	2000-15000 A	113861	Ex9A25HU 3P D/O 1000	1
3P	1250 A	500-1250 A	2500-18750 A	113862	Ex9A25HU 3P D/O 1250	1
3P	1600 A	640-1600 A	3200-24000 A	113863	Ex9A25HU 3P D/O 1600	1
3P	2000 A	800-2000 A	4000-30000 A	113864	Ex9A25HU 3P D/O 2000	1
3P	2500 A	1000-2500 A	5000-37500 A	113865	Ex9A25HU 3P D/O 2500	1
4P	630 A	252-630 A	1260-9450 A	113873	Ex9A25HU 4P D/O 630	1
4P	800 A	320-800 A	1600-12000 A	113874	Ex9A25HU 4P D/O 800	1
4P	1000 A	400-1000 A	2000-15000 A	113875	Ex9A25HU 4P D/O 1000	1
4P	1250 A	500-1250 A	2500-18750 A	113876	Ex9A25HU 4P D/O 1250	1
4P	1600 A	640-1600 A	3200-24000 A	113877	Ex9A25HU 4P D/O 1600	1
4P	2000 A	800-2000 A	4000-30000 A	113878	Ex9A25HU 4P D/O 2000	1
4P	2500 A	1000-2500 A	5000-37500 A	113879	Ex9A25HU 4P D/O 2500	1

Air Circuit Breakers Ex9A25HU up to 1150 VAC

Cassette for Ex9A25 withdrawable ACBs

- Safety shutters of main terminals connectors in the scope of delivery
- Equipped with full set of secondary terminals and mechanical device position indicator
- Delivered with main terminals in horizontal position



Version	Poles	Rated current I_n	Article No.	Type	Packing
Premounted	3P	1600 A	112204	+CAS 12 3P 1000-1600	1
Premounted	3P	2500 A	112205	+CAS 12 3P 2000-2500	1
Premounted	4P	1600 A	112206	+CAS 12 4P 1000-1600	1
Premounted	4P	2500 A	112207	+CAS 12 4P 2000-2500	1
Separately orderable	3P	1600 A	112208	CAS 12 3P 1000-1600	1
Separately orderable	3P	2500 A	112209	CAS 12 3P 2000-2500	1
Separately orderable	4P	1600 A	112210	CAS 12 4P 1000-1600	1
Separately orderable	4P	2500 A	112211	CAS 12 4P 2000-2500	1

Technical Data Ex9A25HU

Air Circuit Breakers up to 2500 A and 1150 VAC

General parameters

Available with +SU40H type only

Suitable for commercial as well as industrial applications

I_r can be set in range $(0.4 - 1.0) \times I_n$

I_{sd} can be set in range $(1.5 - 10) \times I_r$

I_i can be set in range $(2 - 15) \times I_n$

Internal accessories

Smart Unit - Advanced analysis Current, voltage, power, Harmonics analyzer	+SU40H	112303 — 112395
Auxiliary contact unit	AX12	112400 — 112403
Signal contact unit	Premounted	Premounted
Closing releases	XF12	112432 — 112437
Shunt trip releases	SHT12	112418 — 112423
Undervoltage releases	UVT12	112446 — 112451
Motor drive operator	MD12	112460 — 112465
Key lock	KLK12	112475 — 112477
Position indicator	+EF12	112508
Pushbutton lock	+VBP12	112510

External accessories

Phase barriers - Fixed	PHS12	112496, 112497
Phase barriers - Withdrawable	DPS12	112490, 112491
Mechanical interlocks	IPA12	112502, 112505

Accessories marked with " + " in this list must be preordered together with the circuit breaker, since separate purchase is not allowed due to mechanical / software adaptation requirements

In any case, it is recommended to directly communicate with the technical +Support or your representative sales engineer in order to confirm all the possible configurations and additional personalizations of the selected product

Technical Data Ex9A25HU

Air Circuit Breakers up to 2500 A and 1150 VAC

Electrical parameters

	Ex9A25HU
Tested according to	IEC / EN 60947-2
Rated operational voltage U_e	800 / 1000 / 1150 V AC
Rated insulation voltage U_i	1500 V
Rated impulse withstand voltage U_{imp}	12 kV
Rated current I_n at 40°C	630 / 800 / 1000 / 1250 / 1600 / 2000 / 2500 A
Rated frequency f	50 / 60 Hz
Rated ultimate short-circuit breaking capacity I_{cu}	65 kA / 800 V 55 kA / 1000 — 1150 V
Rated service short-circuit breaking capacity I_{cs}	65 kA / 800 V 55 kA / 1000 — 1150 V
Rated short-circuit withstand current I_{cw} for 1s	65 kA / 800 V 55 kA / 1000 — 1150 V
Individual pole short circuit I_{IT}	12 In for 800 V AC
Poles	3P / 4P
Breaking operation time	20 — 30 ms
Closing operation time	< 70 ms
Electrical service life	2 000 @ 1150 V AC
Mechanical service life	15 000 operation cycles without 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)	364 mm / 459 mm	377 mm / 472 mm
Device height	393.5 mm	430 mm
Device depth	298 mm	406 mm
Degree of protection	IP40	
Ambient temperature	-25°C — +60°C	
Storage temperature	-40°C — +85°C (without SU) -25°C — +75°C (with SU)	
Altitude without derating	< 2000 m	
Relative humidity	< 50 %	
Average relative humidity	< 90 %	
Installation category	IV (main circuit) / III (secondary circuit)	
Pollution degree	3	
Weight (3P / 4P)	42 kg / 55 kg	86 kg / 106 kg (including cassette)

Technical Data Ex9A25HU

Air Circuit Breakers up to 2500 A and 1150 VAC

Power dissipation at 3P device

Rated current [A]	Fixed version	Withdrawable version
630 A	104 W	178 W
800 A	113 W	190 W
1000 A	124 W	237 W
1250 A	161 W	293 W
1600 A	232 W	435 W
2000 A	266 W	500 W
2500 A	300 W	560 W

Temperature derating

T [°C]	$I_u(T)$ [A]						
	$I_n = 630$ A	$I_n = 800$ A	$I_n = 1000$ A	$I_n = 1250$ A	$I_n = 1600$ A	$I_n = 2000$ A	$I_n = 2500$ A
-25 — +40	630	800	1000	1250	1600	2000	2500
45	630	800	1000	1250	1600	2000	2500
50	630	800	1000	1250	1600	2000	2400
55	630	800	1000	1200	1500	1900	2350
60	630	800	950	1150	1400	1750	2250

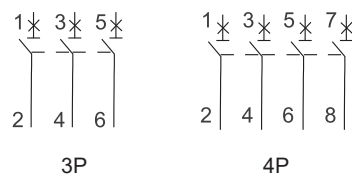
Altitude derating

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	1500 V AC	1350 V AC	1200 V AC	1000 V AC
Rated voltage U_e	1150 V AC	965 V AC	865 V AC	765 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	screw type
Terminals capacity	0.5 — 1.2 mm ²

Main terminals wiring diagrams



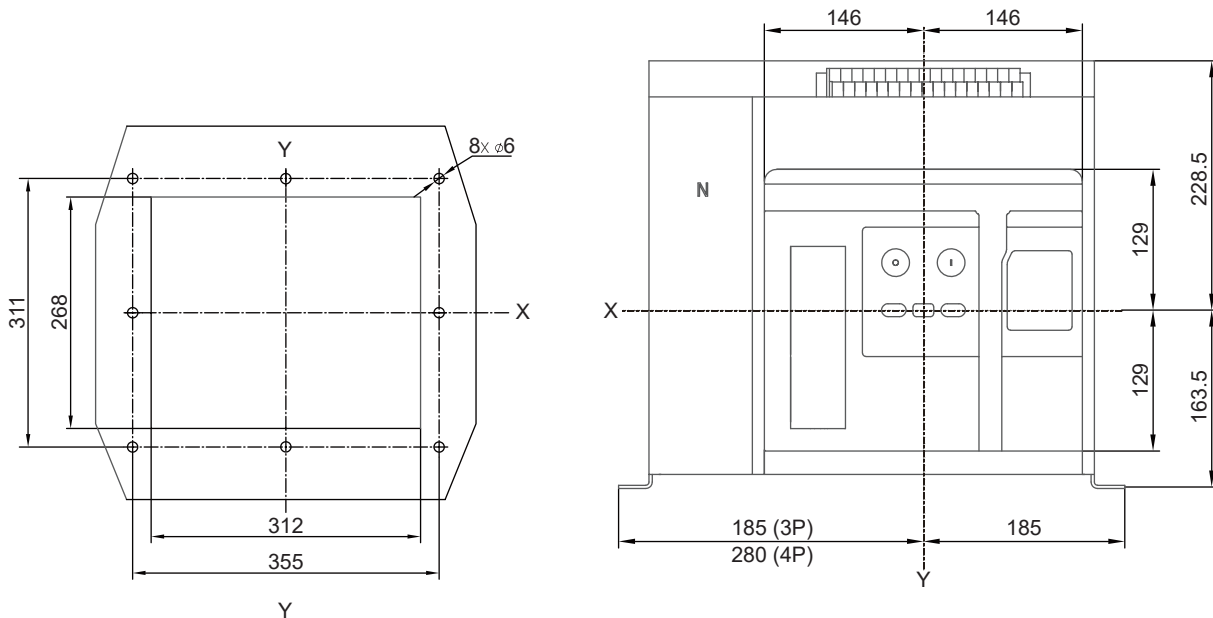
Technical Data Ex9A25HU

Air Circuit Breakers up to 2500 A and 1150 VAC

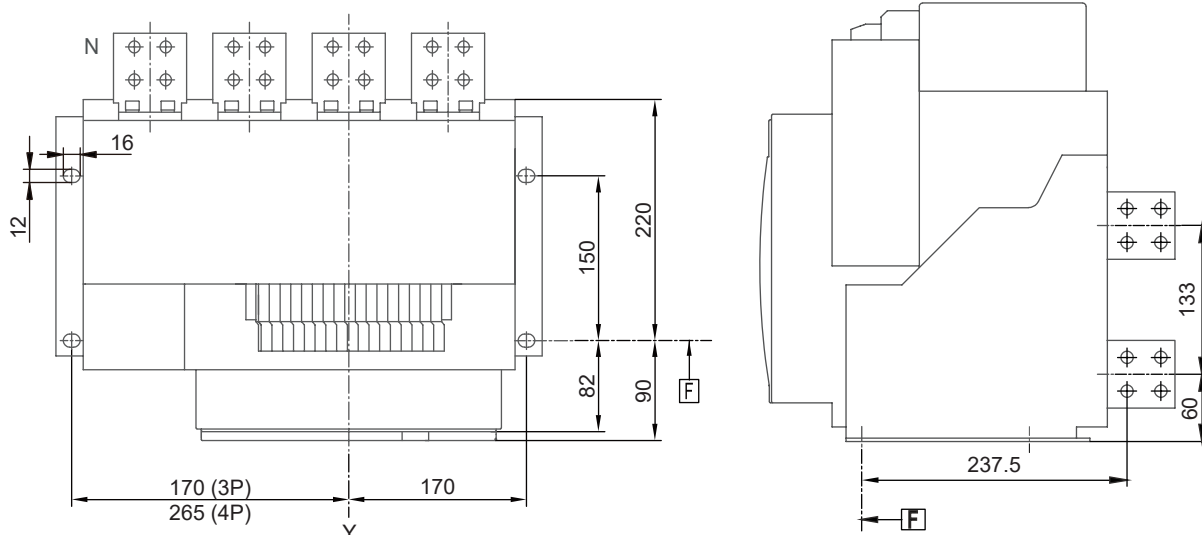
Dimensions - fixed version

Front dimensions

mm



Installation dimensions



X, Y - door cut-out centering
F - Mounting screw reference point

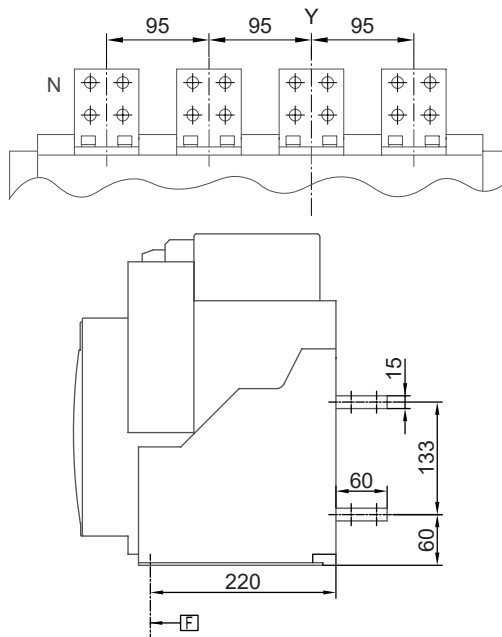
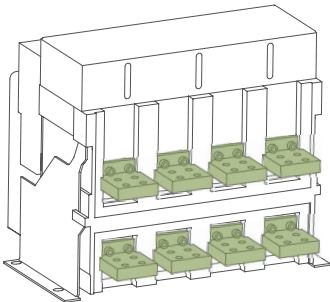
Technical Data Ex9A25HU

Air Circuit Breakers up to 2500 A and 1150 VAC

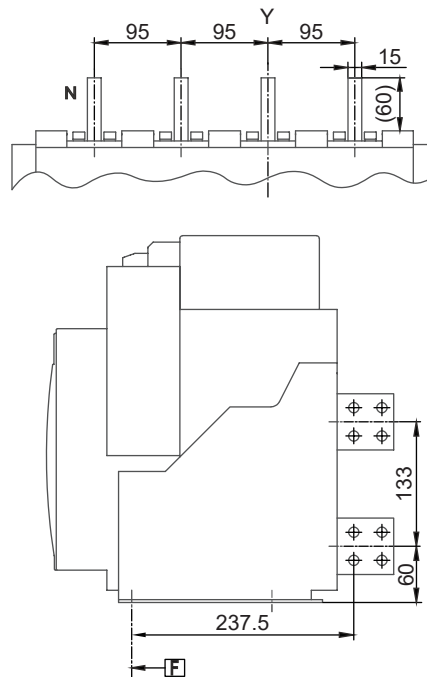
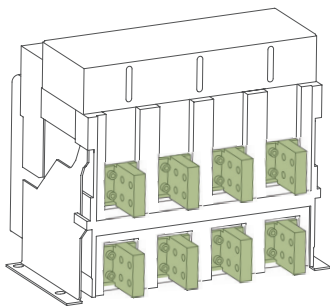
Power connectors dimensions 630 — 1600 A (Fixed)

Horizontal connection

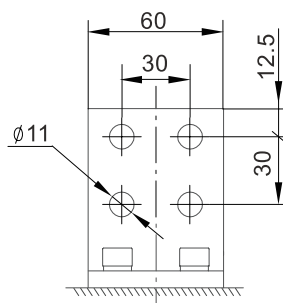
mm



Vertical connection



Horizontal / Vertical Power connector

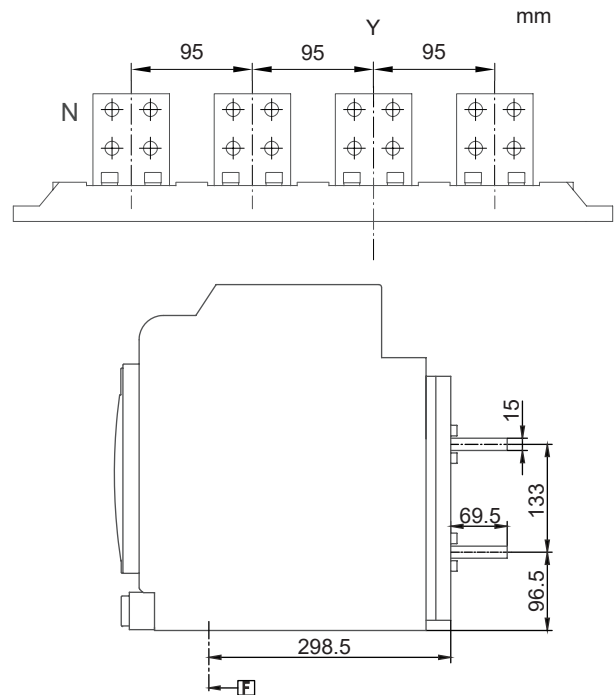
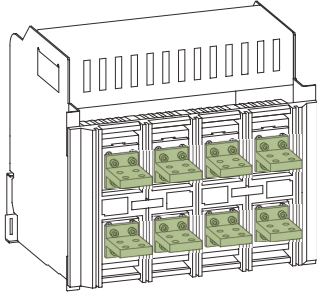


Technical Data Ex9A25HU

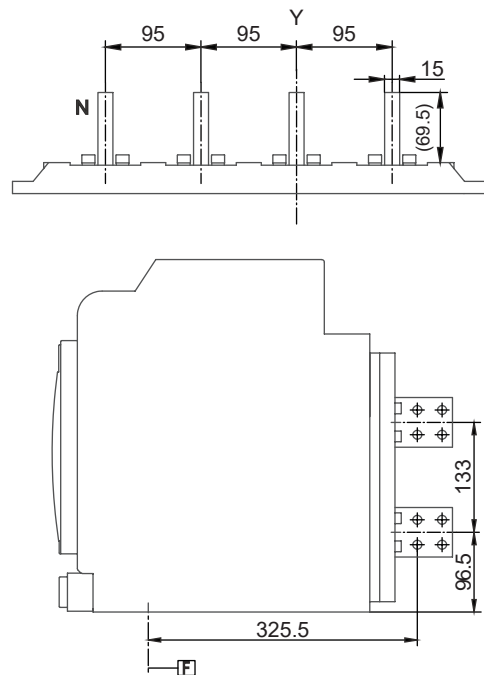
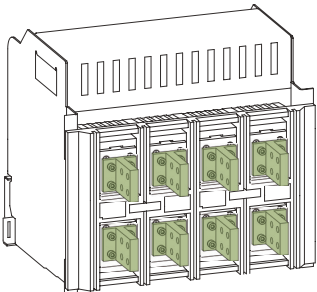
Air Circuit Breakers up to 2500 A and 1150 VAC

Power connectors dimensions 630 — 1600 A (Withdrawable)

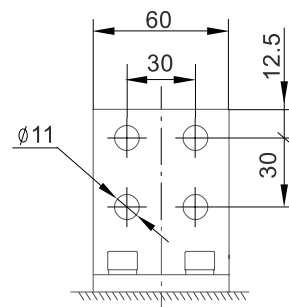
Horizontal connection



Vertical connection



Horizontal / Vertical Power connector



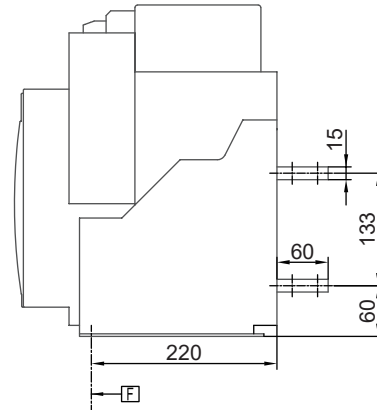
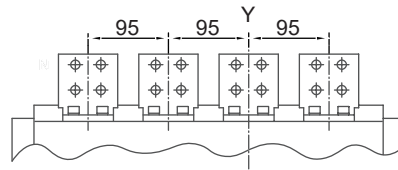
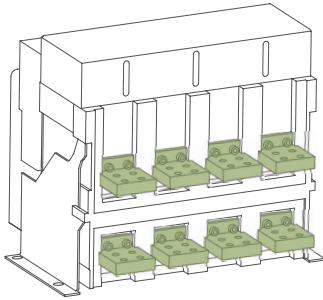
Technical Data Ex9A25HU

Air Circuit Breakers up to 2500 A and 1150 VAC

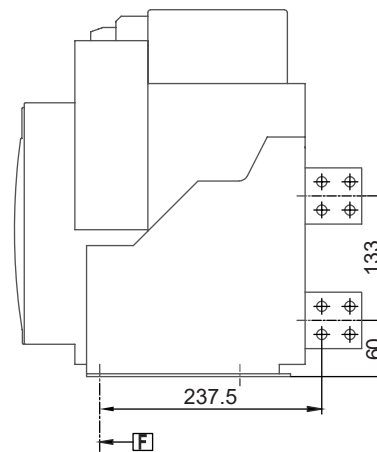
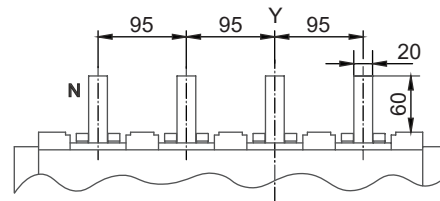
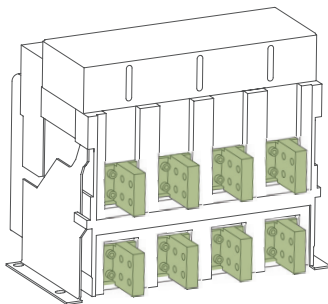
Power connectors dimensions 2000 — 2500 A (Fixed)

Horizontal connection

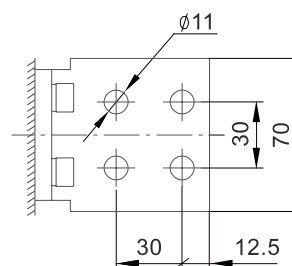
mm



Vertical connection



Horizontal / Vertical Power connector

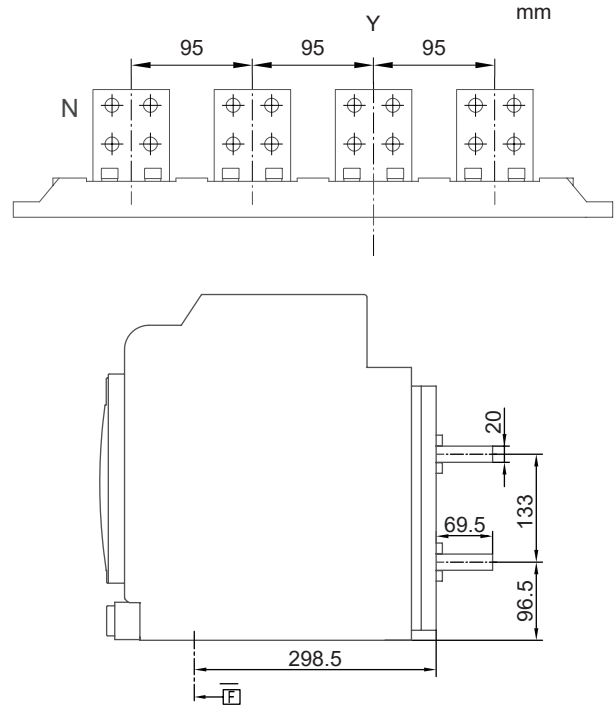
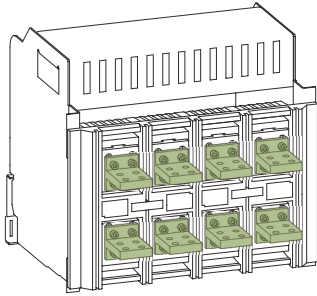


Technical Data Ex9A25HU

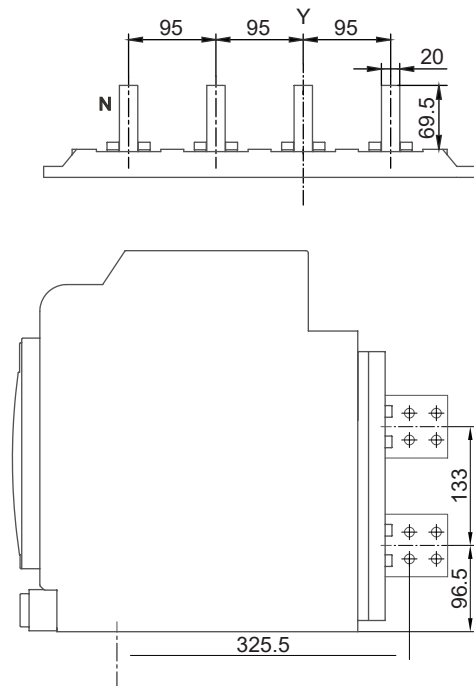
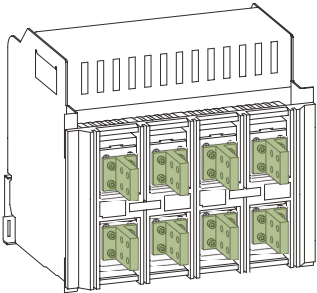
Air Circuit Breakers up to 2500 A and 1150 VAC

Power connectors dimensions 2000 — 2500 A (Withdrawable)

Horizontal connection



Vertical connection



Horizontal / Vertical Power connector

