

NIRAPOD 5

Vacuum Circuit Breaker



an innovative user friendly circuit breaker

safe, reliable and economical design
Power Ratings: 630 - 3150A, 7.2kV-24kV
20kA-25kA-31.5kA

suitable for all applications in:

- > Industry
- > Infrastructures
- > Constructions
- > Utility

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Adex NIRAPOD 5 series of vacuum circuit breaker is designed & made in conformity to IEC 62271-100 standards for system voltages from 7.2kV to 12kV.

Adex vacuum circuit breaker is available in two main versions:

- fixed versions
- draw-out version

Adex NIRAPOD 5 series of vacuum circuit breaker is designed for indoor applications and to protect & control MV public & industrial distribution network.

Key Features

- Complete switching device for distribution switchgear
- Made for integration in the Bitoron-12 range switchgears and in the switchgears of other manufacturers
- Available in a great spectrum of possibilities
- Vacuum interrupters of the latest generation
- Withstand extreme temperatures
- Long life of mechanical spring drive
- Maintenance free

Common characteristics according to IEC 62271-100

rated frequency	fr	(Hz)	50 & 60
short-time withstand current	Ik for tk = 3s	(kA) rms	Ik = Isc
rated peak withstand current	Ip	peak (kA)	Ip = 2.5 & 2.6 Ik
rated short circuit making current		peak (kA)	= 2.5 & 2.6 Isc
operating sequence			O-3 mn - CO - 3 mn - CO
			O-0.3s - CO - 3 mn - CO
			O-0.3s - CO - 15s - CO
operating time	opening	ms	<50
	breaking	ms	<60
	closing	ms	<65
mechanical endurance	class		M2 M1
	number of operations		20000
electrical endurance	class		E2
	number of operations	20 kA	20/30/50/100
		25 kA	20/30/50/100
31.5 kA		30/50	
capacitive current breaking			C1 class

Characteristics data

Electrical characteristics according to IEC 62271-100

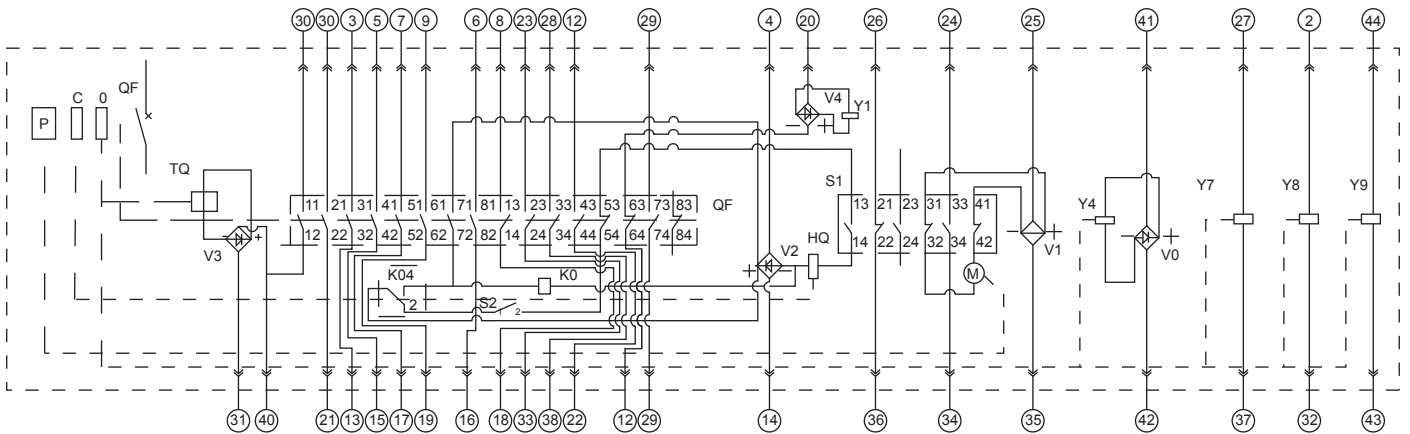
circuit breaker type		7AV204	7AV204	7AV204	7AV204	7AV204	7AV205	7AV205
		630	1250	1600	2000	2500	630	1250
rated voltage	Ur (kV) rms	7.2	7.2	7.2	7.2	7.2	7.2	7.2
rated insulation voltage	Ud (kV) rms	20	20	20	20	20	20	20
rated insulation voltage	Up (kV) peak	60	60	60	60	60	60	60
rated short-circuit breaking current	Isc (kA) rms	20	20	20	20	20	25	25
rated normal current (-25°C + 40°C)	Ir (A) rms	630	1250	1600	2000	2500	630	1250
climatic version	-25°C + 40°C	■	■	■	■	■	■	■

Installation and connections

dimensions CB (mm)		640	640	640	640	640	640	640
width (W)		640	640	640	640	640	640	640
depth (D)		590	590	590	590	590	590	590
height (H)		630	630	630	630	630	630	630

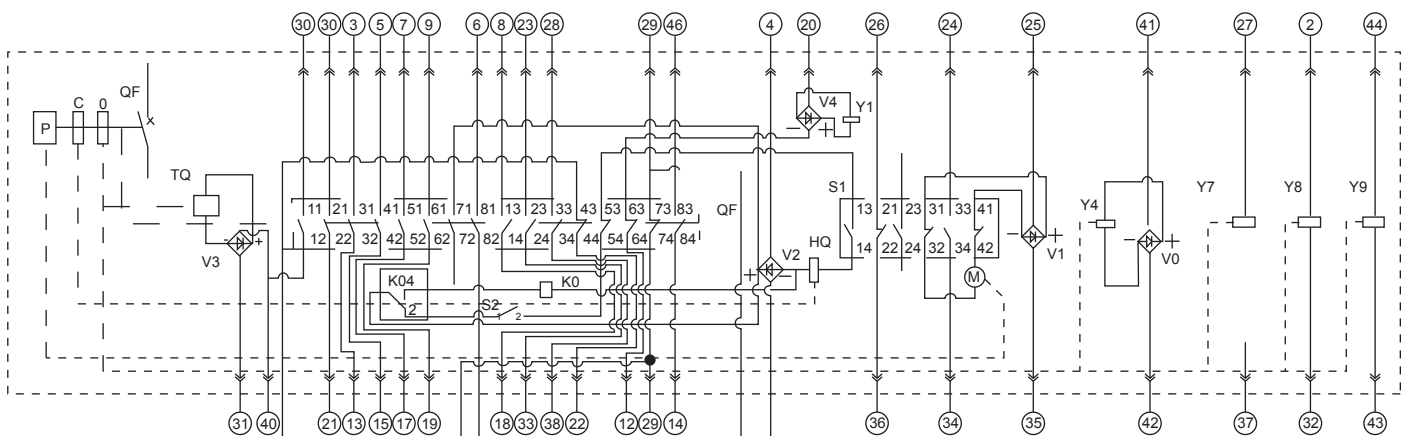
NB: Data & characteristics mentioned above are subject to change due to development / design modifications.

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Electric connection diagram of fixed circuit breaker

N0.	Code	Name	Remark
1	QF	Auxiliary switch of circuit breaker main contact	
2	S1	Sensitive switch for energy storage	
3	S2	Auxiliary switch of latching electromagnet	Optional
4	M	Energy-storage motor	
5	TQ	Opening electromagnet	
6	HQ	Closing electromagnet	
7	Y1	Latching electromagnet	Optional
8	P	Manual operating mechanism	
9	K0	Inner anti-trip relay mechanism	
10	V0-V4	Rectifier element	
11	Y4	Low voltage release	Optional
12	Y7-Y9	Indirect over current release	Optional



Electric connection diagram of draw-out circuit breaker

No.	Code	Name	Remark
1	QF	Auxiliary switch of circuit breaker main contact	
2	S1	Sensitive switch for energy storage	
3	S2	Auxiliary switch of latching electromagnet	Optional
4	S8	Auxiliary switch for testing position	
5	S9	Auxiliary switch for working position	
6	M	Energy - storage motor	
7	TQ	Opening electromagnet	
8	HQ	Closing electromagnet	
9	Y1	Latching electromagnet	Optional
10	P	Manual operating mechanism	
11	K0	Inner anti - trip relay mechanism	
12	V0 - V4	Rectifier element	
13	Y7 - Y9	Indirect over current release	Optional
14	Y4	Low voltage release	Optional

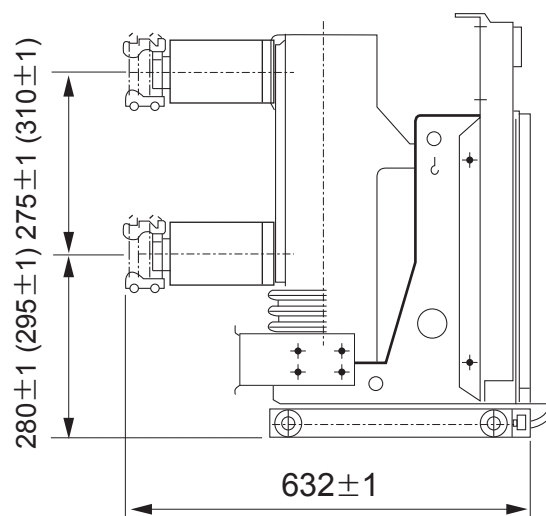
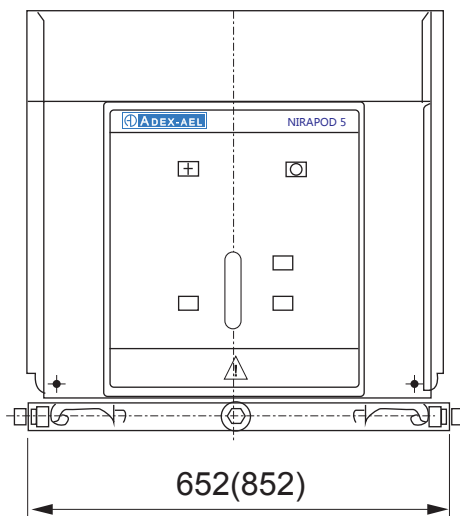
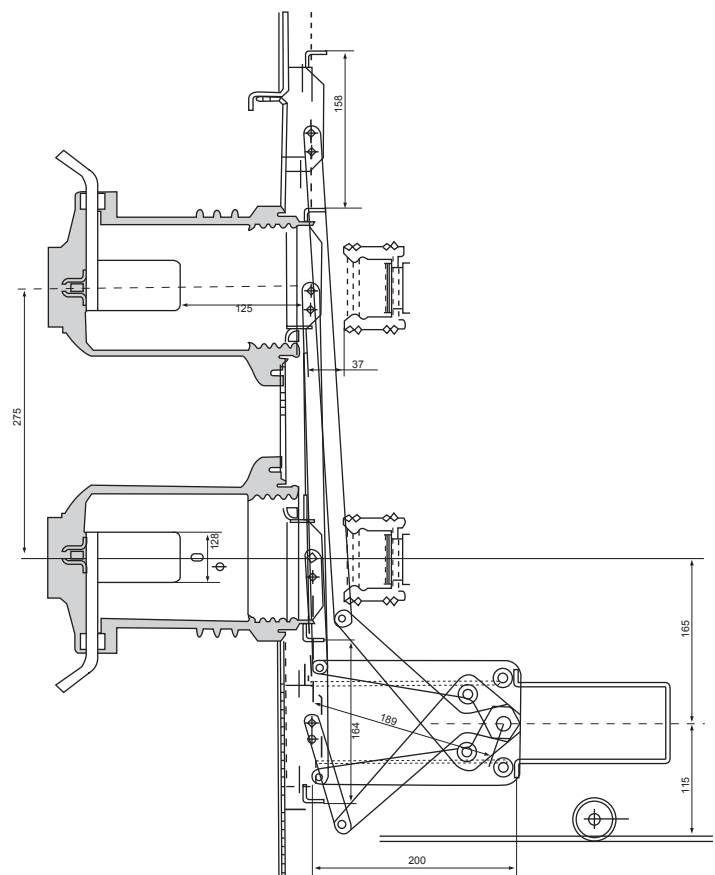
Test position
Working position

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Dimension of circuit breaker and cabinet of 800 width

Rated current (A)	Rated short-circuit breaking current KA	Applicable static contact size (mm)
630A	20, 25KA	φ 35 mm
1250A	20, 25, 31.5KA	φ 49 mm
1600A	31.5KA	φ 55 mm



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