

# Adex MCB : NIRAPOD 1

High performance circuit breaker

mcb and combined mcb with remote controls

## LV Distribution Products

6A - 63A, 4kA - 10kA



## NIRAPOD 1

Miniature circuit breakers

Model: X60S

IEC 947-2 : 4KA

type	width in mod. of 9 mm	rat. (A)	Product	Product
			ref.	ref.

		B curve		C curve	
	1P	3	2	3603102	3613102
			6	3603106	3613106
			10	3603110	3613110
			16	3603116	3613116
			20	3603120	3613120
			25	3603125	3613125
			32	3603132	3613132
			40	3603140	3613140
			50	3603150	3613150
			63	3603163	3613163



1 protected pole

### Application:

- control and protection of circuits against overloads and short-short-circuits in residential/commercial distribution system.

### Technical data:

- current rating : 2-63A
- voltage rating : 230/400V ~
- breaking capacity : 4kA to IEC 947-2
- number of operating cycles (O-C) : 20000
- tripping characteristics : B & C curve

- positive contact indication
- fast closing

### ■ tripping characteristics:

**B type** : magnetic setting between 3 and 5I<sub>n</sub>

**C type** : magnetic setting between 5 and 10I<sub>n</sub>

- **tropicalization** : treatment 2 (relative humidity 95% at 55 °C).

- weight (g):

type	1P	2P	3P	4P
	180	360	540	720

- connections : tunnel terminals for rigid cables up to:  
25 mm<sup>2</sup> for rating ≤ 25A  
35 mm<sup>2</sup> for rating ≤ 63A

	2P	6	2	3603202	3613202
			6	3603206	3613206
			10	3603210	3613210
			16	3603216	3613216
			20	3603220	3613220
			25	3603225	3613225
			32	3603232	3613232
			40	3603240	3613240
			50	3603250	3613250
			63	3603263	3613263



2 protected poles

	3P	9	2	3603302	3613302
			6	3603306	3613306
			10	3603310	3613310
			16	3603316	3613316
			20	3603320	3613320
			25	3603325	3613325
			32	3603332	3613332
			40	3603340	3613340
			50	3603350	3613350
			63	3603363	3613363



3 protected pole

	4P	12	2	3603402	3613402
			6	3603406	3613406
			10	3603410	3613410
			16	3603416	3613416
			20	3603420	3613420
			25	3603425	3613425
			32	3603432	3613432
			40	3603440	3613440
			50	3603450	3613450
			63	3603463	3613463





4 protected poles

## NIRAPOD 1

Miniature circuit breakers

Model: X60N

IEC 947-2 : 6KA

Type	Width in mod. of 9 mm	In (A)	Product ref. B curve	Product ref. C curve
 	2	2	3604102	3614102
		6	3604106	3614106
		10	3604110	3614110
		16	3604116	3614116
		20	3604120	3614120
		25	3604125	3614125
		32	3604132	3614132
		40	3604140	3614140
		50	3604150	3614150
		63	3604163	3614163

1 protected pole

### Function:

Adex circuit breaker combines the following functions :

- protection of circuit against short-circuit current.
- protection of circuit against overload current.
- complete isolation.

### Application:



Specially suitable for residential /commercial and industrial installations.

### Technical data:


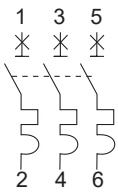
- current rating : 2-63A
- voltage rating : 230/400V ~
- breaking capacity : 6kA to IEC 947-2
- number of operating cycles (O-C) : 20000
- tripping characteristics : B & C curve

**connection:** Tunnel terminals for cables up to 25mm<sup>2</sup>


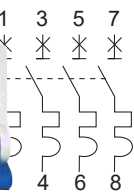
**installation:** standard 35 mm DIN rail mounted.

 	4	2	3604202	3614202
		6	3604206	3614206
		10	3604210	3614210
		16	3604216	3614216
		20	3604220	3614220
		25	3604225	3614225
		32	3604232	3614232
		40	3604240	3614240
		50	3604250	3614250
		63	3604263	3614263

2 protected poles

 	6	2	3604302	3614302
		6	3604306	3614306
		10	3604310	3614310
		16	3604316	3614316
		20	3604320	3614320
		25	3604325	3614325
		32	3604332	3614332
		40	3604340	3614340
		50	3604350	3614350
		63	3604363	3614363

3 protected pole

 	6	2	3604402	3614402
		6	3604406	3614406
		10	3604410	3614410
		16	3604416	3614416
		20	3604420	3614420
		25	3604425	3614425
		32	3604432	3614432
		40	3604440	3614440
		50	3604450	3614450
		63	3604463	3614463

4 protected poles

## NIRAPOD 1

### Remote controlled circuit breaker

The **combin-P** or **combin-T** are circuit breakers which combine overload functions with contactor functions in the same equipment.

The **combin-T** version also includes two auxiliary contacts which show the status of the remote control input and the overload input.

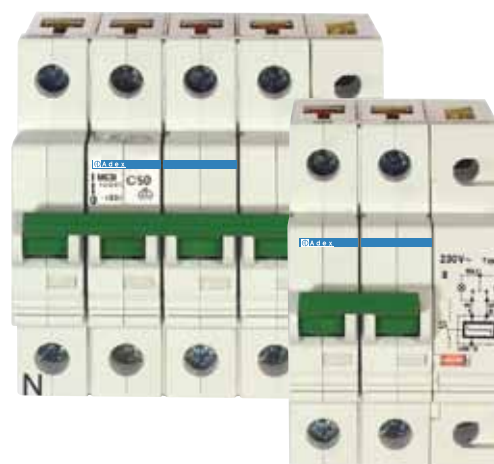
Both the **combin-P** and the **combin-T** version include an ordinary contact to indicate a trip from an overload device or from the manual action of the circuit breaker.

There are two trip conditions for the circuit breaker:

- Tripping from overheating, delayed, (overload protection)
- Rapid tripping, electromagnetic (protection against short-circuiting)

Remote-control operates on the same contacts as the overload device. It guarantees disconnection for any event by remote control after manual or overload device tripping. The remote control operates electro-magnetically, applying a control voltage lasting 20 ms, to the ON terminals (Terminals 1-3) and OFF terminals (Terminals 2-3).

It includes an optical displays of the system status (red = ON, green = OFF), regardless of the cause of the trip.



In (A)	2 Poles				4 Poles			
	Combin - P		Combin - T		Combin - P		Combin - T	
	Type	Code	Type	Code	Type	Code	Type	Code
6	Combin-PC-2P/6A	RC-P20210	Combin-TC-2P/6A	RC-P20310	-	-	-	-
10	Combin-PC-2P/10A	RC-P20211	Combin-TC-2P/10A	RC-P20311	Combin-PC-3P+N/10A	RC-P20221	Combin-TC-3P+N/10A	RC-P20321
16	Combin-PC-2P/16A	RC-P20213	Combin-TC-2P/16A	RC-P20313	Combin-PC-3P+N/16A	RC-P20223	Combin-TC-3P+N/16A	RC-P20323
20	Combin-PC-2P/20A	RC-P20214	Combin-TC-2P/20A	RC-P20314	Combin-PC-3P+N/20A	RC-P20224	Combin-TC-3P+N/20A	RC-P20324
25	Combin-PC-2P/25A	RC-P20215	Combin-TC-2P/25A	RC-P20315	Combin-PC-3P+N/25A	RC-P20225	Combin-TC-3P+N/25A	RC-P20325
32	Combin-PC-2P/32A	RC-P20216	Combin-TC-2P/32A	RC-P20316	Combin-PC-3P+N/32A	RC-P20226	Combin-TC-3P+N/32A	RC-P20326
40	Combin-PC-2P/40A	RC-P20217	Combin-TC-2P/40A	RC-P20317	Combin-PC-3P+N/40A	RC-P20227	Combin-TC-3P+N/40A	RC-P20327
50	Combin-PC-2P/50A	RC-P20218	Combin-TC-2P/50A	RC-P20318	Combin-PC-3P+N/50A	RC-P20228	Combin-TC-3P+N/50A	RC-P20328
63	Combin-PC-2P/63A	RC-P20219	Combin-TC-2P/63A	RC-P20319	Combin-PC-3P+N/63A	RC-P20229	Combin-TC-3P+N/63A	RC-P20329

### FEATURES

	2 Poles	4 Poles
Overload		
Rating $I_n$ (A)	6-10-16-20-25-32-40-50-63	
Rated cut off power (IEC 947-2)	6...16 A: 20 kA	20...63 A: 15 kA
Characteristic curve	C or D according to type	
Rated operating voltage	230 / 400 V a.c.	
Operating frequency range	50...60 Hz	
Operating temperature	- 25 ... +55 °C	
Storage temperature	- 40 ... +70 °C	

### FEATURES

	2 Poles	4 Poles
Motor		
Rated voltage	230 V a.c.	
Activation impulse	< 20 ms	
Deactivation impulse	< 20 ms	
Mechanical features		
Mounting	DIN rail	
Dimensions	3 modules	5 modules
Mechanical life	20 000 operations	
Weight	375 g	615 g
Protection degree	IP 20 (DIN 40050)	
Standards	IEC 947-2, IEC 60898	

# NIRAPOD 1

## Mini motorized circuit breaker

The mini-series of motorized circuit breakers operates both locally & with remote control. The mini-series circuit breakers are rated maximum up to 63A and have 2-pole and 4 pole versions. It gives protection against short-circuit and overloads. Also used as a breaking element. Includes auxiliary contacts for indicating overload status.

After a disconnection from short-circuit, overload or manual disconnection, the overload switch may be connected again using an electrical order with the sequence

"CONNECTION (1) - DISCONNECTION (0)"



In	2 Poles				4 Poles			
	Curve C		Curve D		Curve C		Curve D	
	Type	Code	Type	Code	Type	Cede	Type	Code
6	mini-MCC-E62/6A	MC-P20110	mini-MCD-E62/6A	MC-P20130	mini-MCC-E62/6A	MC-P20120	mini-MCD-E62/6A	MC-P20140
10	mini-MCC-E62/10A	MC-P20111	mini-MCD-E62/10A	MC-P20131	mini-MCC-E62/10A	MC-P20121	mini-MCD-E62/10A	MC-P20141
16	mini-MCC-E62/16A	MC-P20112	mini-MCD-E62/16A	MC-P20132	mini-MCC-E62/16A	MC-P20122	mini-MCD-E62/16A	MC-P20142
20	mini-MCC-E62/20A	MC-P20113	mini-MCD-E62/20A	MC-P20133	mini-MCC-E62/20A	MC-P20123	mini-MCD-E62/20A	MC-P20143
25	mini-MCC-E62/25A	MC-P20114	mini-MCD-E62/25A	MC-P20134	mini-MCC-E62/25A	MC-P20124	mini-MCD-E62/25A	MC-P20144
32	mini-MCC-E62/32A	MC-P20115	mini-MCD-E62/32A	MC-P20135	mini-MCC-E62/32A	MC-P20125	mini-MCD-E62/32A	MC-P20145
40	mini-MCC-E62/40A	MC-P20116	mini-MCD-E62/40A	MC-P20136	mini-MCC-E62/40A	MC-P20126	mini-MCD-E62/40A	MC-P20146
50	mini-MCC-E62/50A	MC-P20117	mini-MCD-E62/50A	MC-P20137	mini-MCC-E62/50A	MC-P20127	mini-MCD-E62/50A	MC-P20147
63	mini-MCC-E62/63A	MC-P20118	mini-MCD-E62/63A	MC-P20138	mini-MCC-E62/63A	MC-P20128	mini-MCD-E62/63A	MC-P20148

### FEATURES

	2 Poles	4 Poles
Overload		
Rating $I_n$ (A)	6-10-16-20-25-32-40-50-63	
Number de Poles	2	4
Rated cut off power	10 kA	
Characteristic curve	C or D according to type	
Rated operating voltage	240 / 415 V a.c.	
Operating frequency range	50...60 Hz	
Operating temperature	-25 ... +55 °C	
Storage temperature	-55 ... +55 °C	

### FEATURES


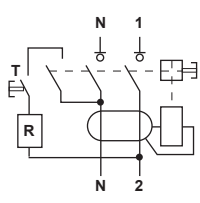
	2 Poles	4 Poles
Motor		
Rated voltage	230 V a.c.	
Minimum voltage	210 V a.c.	
Activation impulse	50 ms	
Deactivation impulse	50 ms	
Mechanical features		
Mounting	Panel (base + pluggable base)	
Dimensions	3 Poles: 81 x 130 x 185	
Mechanical life	4 Poles 108 x 130 x 185	
Weight	According to type	
Protection degree	IP 40 (DIN 40050)	
Standards	IEC 947-2, IEC 60898	

## NIRAPOD 1

Residual current circuit breaker (rccb)

10/30/100/300/500mA

100/300 mA time delayed

	type	width in mod. of 9 mm	rat. (A)	sens. (mA) 50 Hz	BS4293 240V Cat. No
 	2P			10	366213
				30	366214
				300	366216
				40	366231
				300	366236
				300 (S)	366237
				63	366241
				100	366243
				300	366246
				300 (S)	366247
				80	366249
				100	366251
				300	366253
				300 (S)	366254
				100	366259
				100	366261
300	366262				
300 (S)	366263				

### Application:

The rccb residual current devices provide the functions of isolation, switching and earth leakage protection of electrical circuits.

They have a residual current operated electromechanical release which operates without any auxiliary source of supply to open a circuit automatically in the case of an earth leakage fault between phase and earth greater than or equal to a threshold of 10, 30, 100, 300 or 500 mA.

#### ■ rccb time-delayed versions

- 100 mA : provides discrimination with down stream 10mA and 30 mA sensitivity instantaneous residual current devices.
- 300 mA : provides discrimination with down stream 30mA and 100 mA sensitivity instantaneous residual current devices.

Technical data

#### ■ unwanted tripping

All rccb incorporate a filtering device preventing the risks of unwanted tripping due to transient voltages (lightning, line disturbances on other equipment and transient currents (from high capacitive circuits).

#### ■ isolation and switching

#### ■ positive contact indication :

in accordance with 15th Edition of the IEE wiring regulations (Regs 537-5, 537-9).

#### ■ trip indication on the front face by red flag.

#### ■ compliance with standards

rcd: BS 4293: 1983 or CEE 27

#### ■ current ratings: 16A to 100A.

#### ■ voltage ratings:

2 poles: 240V AC +10 -20%

4 poles: 415V AC +10 -20%

#### ■ sensitivities (non-adjustable)

■ operating temperature: -5 to +60 °C (-25°C : consult us).

#### ■ connections

tunnel terminals for cables up to 35 mm<sup>2</sup>


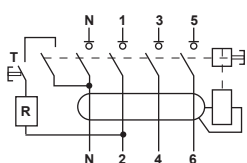
■ number of operating cycles (on load) 20000 cycles (O-C).

■ tropicalization: treatment 2 (relative humidity 95% at 55 °C.

#### ■ weight (g)

2P 230

4P 450

	type	width in mod. of 9 mm	rat. (A)	sens. (mA) 50 Hz	BS4293 415V Cat. No
 	4P			25	366414
				300	366416
				40	366431
				100	366433
				300	366436
				300(S)	366437
				500	366438
				63	366441
				100	366443
				300	366446
				300 (S)	366447
				80	366453
				300 S	366456
				100	366462
				300 S	366463

## Bitoron- 400

LV power distribution system

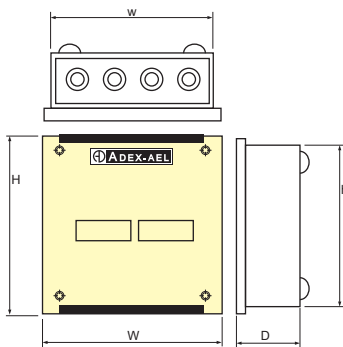


### Specifications

- bitoron - 400 flush/surface mounting modular enclosures compliance with IEC 60439-1
- bitoron-400 enclosures are made of 1.6 mm sheet metal anti-rust conditioning phosphatized & thermal polymerized polyester-epoxy powder paint or thermal stove enamel paint coated
- detachable gland plates(top & Bottom) for incoming and outgoing cables
- painting colour bitoron beige (others on request)
- DIN rail, neutral link earth bar and busbar
- 1, 2, 3, 4 poles breaker rating 2 to 63 A
- MCB's can be fitted conveniently at site on DIN rail
- suitable for use on 240/415V, 50/60Hz system
- degree of protection IP31
- 1 front plate with holes for circuit breaker's knob
- single door with lock

## bitoron 400-D

suitable for 1/2 poles mcb



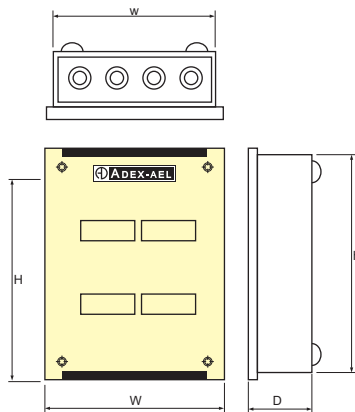
No of rows	No of mcb	Dimension W x H x D	Part No.
1	1P-12	230x200x96	407-232009-00A

## Bitoron- 400

LV power distribution system

### Bitoron 400-F

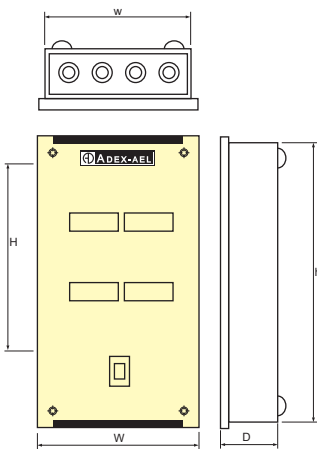
suitable for 1/2/3 poles mcb



No of rows	No of mcb	Dimension W x H x D	Part No.
1	1P-12	400x200x96	407-402009-00A
2	1P-24	400x400x96	407-404009-00A

### Bitoron 400-M

Suitable for mccb as incomer & 1/2/3 poles mcb as outgoer



Type of Incomer mccb	Vert. mod for incomer of 50mm	No of rows	No of mcb	Dimension W x H x D	Part No.
362437-100A	6	1	1P-12	400x500x125	407-402011-00A
362441-160A	6	2	1P-24	400x700x125	407-404011-00A
362445-200A	6	3	1P-36	400x900x125	407-406011-00A

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