

# Isobar chassis

## Supporting our Multi 9 range

Providing the highest level of safety



Safety and protection



Reliable power



Minimum downtime

**Schneider**  
Electric

# Isobar PEV - the safest chassis on the market



# Isobar PEV

## Isobar will change the way you look at chassis' and safety

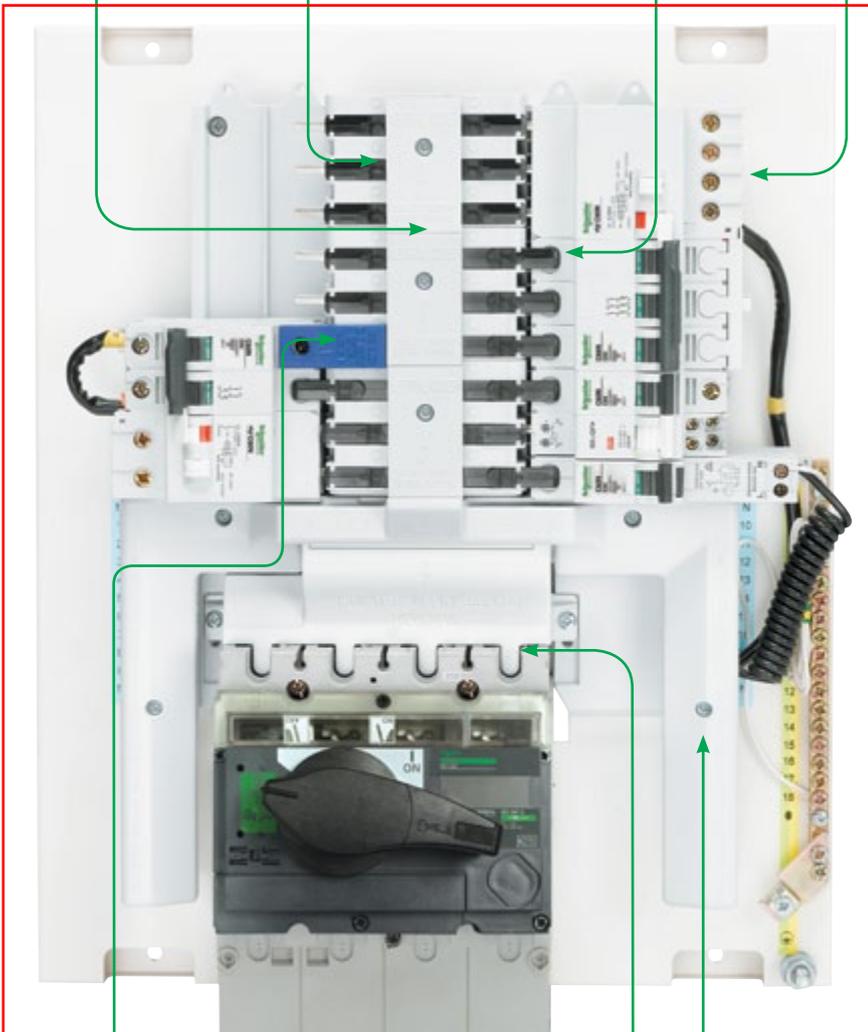
As a result of dedicated research and development, Schneider Electric has ingeniously managed to incorporate a unique busbar disconnection system for unused busbar teeoffs and a switched neutral feature into the Isobar chassis. Combining this with an encapsulated busbar system, shrouding and high levels of performance, the Isobar is undoubtedly the safest chassis in the market for both the installer and end user.



Isobar PEV is ideal for applications which require minimum downtime and maximum safety.

For situations where only the safest chassis will do.

- Fully encapsulated busbar system
- Unique busbar disconnection system. Isolates supply to unused tee-offs. Switches are directly adjacent to breakers.
- Line side connections on outgoing device is shrouded by slider switch
- Wide range of add-on auxiliaries, e.g. shunt trips, auxiliary switches, add-on earth leakage modules, etc



- Patented plug-in adaptor to convert any outgoing poles to a neutral.
- Fully shrouded connections when main switch is fitted
- Fully shrouded neutral bars



### Ideal for hazardous areas

- Service stations
- Car parks
- Aircraft hangers
- Petrochemical Industries
- Flammable gas/liquid areas



### Ideal for critical power applications

- Hospitals
- Data centres
- Telecommunications
- Continuous production plants



Isobar TNA -  
easy upgrade  
to a safer chassis

# 1 Remove existing escutcheon.



# 2 Remove existing MSC chassis.



## Retrofit your existing MSC distribution board with **Isobar TNA**

Existing Schneider Electric distribution boards fitted with MSC chassis' can easily be upgraded with the features of Isobar by installing an Isobar TNA. The Isobar TNA has the same dimension mounting holes as an MSC chassis, allowing easy installation after removing the MSC. The **TNA250CK connection kit allows connection between an INS250 or NSX250 main switch without the need to modify the switchboard.** Note, escutcheon will need to be changed to suit the cutout dimensions of the Isobar TNA.

# 3 Install new Isobar TNA chassis using appropriate connection kit.



TNA CK (connection kit)



TNA Chassis

# 4 Install new Isobar escutcheon.



The upgraded distribution board delivers immediate advantages with Isobar TNA

# Isobar's high levels of performance



The Isobar chassis is available in two types, the TNA and PEV, which come in various sizes from 12 to 72 poles, with numerous accessories and are adaptable to most industrial/commercial applications:

- 250A current carrying capacity of the busbar (180A with neutral kit fitted)
- 100A current carrying capacity of outgoing tee-offs
- 16kA for 200ms withstand rating
- 25kA conditional withstand rating.

## Features

### Safety through a unique Busbar disconnection system:

Isobar's unique Busbar disconnection system permits unused outgoing poles to be electrically isolated from the mains supply via a slider switch. The result is enhanced protection against direct contact with live parts during testing, commissioning and retrofit applications. The slider switch is directly adjacent to the tee-off, ensuring that the correct isolator for that circuit is switched.

### Innovative neutral switching feature:

Isobar chassis' (PEV type) have an option of a patented plug-in neutral adaptor, which can be used to convert any of the outgoing poles to a neutral. This allows 1P & 3P outgoing protection and control devices to be installed adjacent to 2P and 4P devices, without the loss of pole places. In essence, the innovative switched neutral feature makes it possible to protect or isolate any circuit with fast and simple adaptation.

**Note:** The neutral conductor should always be switched where it is considered to be a hazardous area as defined by AS/NZS 2381.1. Examples are petrochemical industries, spray paint applications, car parks, fuel dispensing stations, aircraft hangers, laboratories, land fill gas, sewage treatment, flammable gas & liquid areas.

### Protection against direct contact:

The sliding tee-off disconnection system, enclosed busbars and shrouding of hazardous live parts provide high levels of protection against direct contact. With the tee offs isolated, circuit breakers can be removed or fitted with improved safety. With terminal shields fitted to the incoming and outgoing devices, the Isobar PEV chassis conforms to **Form 4ah** as per AS/NZS 3439.1:2002.

### Incomer connection options:

There is greater flexibility as to the incomers that can be used with Isobar chassis' to suit your needs, including:

- Din mounted incomer. Eg C60 MCB, RCCB, 'I' Isolator or terminal block
- Bare cable connection kit
- Lugged cable connection kit
- Compact NSX MCCB & Interpact INS connection

When used in conjunction with Compact NSX MCCBs as incoming devices, high levels of enhanced discrimination and cascading ensure continuity of supply and an economical installation.

# MB Isobar standard distribution board - IP42

## Features



MB224CM1

- 165A earth & neutral bars with single +/- screw Ø5mm tunnels for outgoing cables up to 16mm<sup>2</sup> & 2 x M8 hex head screws for incoming cables. Earth & neutral bars comply with clause 2.9.3.1 of AS/NZS 3000:2000.
- Pole fillers for auxiliary equipment openings & 30% of board MCB pole capacity.
- Circuit schedule card with transparent plastic protector.
- Removable gland plates - top & bottom.
- 2 keys per lock.
- All enclosures are 580mm wide and 235mm deep.
- Terminal shields provided with main switch
- Isobar type TNA chassis

Main Switch	MCB Pole capacity 18mm	Enclosure Height (mm)	Reference	Reference
			N42 Grey	X15 Orange
160A	24	750	MB224CM1	MB224CM1X15
	36	1000	MB236DM1	MB236DM1X15
	48	1000	MB248DM1	MB248DM1X15
	54	1200	MB254EM1	MB254EM1X15
	72	1200	MB272EM1	MB272EM1X15
250A	24	750	MB224CM2	MB224CM2X15
	36	1000	MB236DM2	MB236DM2X15
	48	1000	MB248DM2	MB248DM2X15
	54	1200	MB254EM2	MB254EM2X15
	72	1200	MB272EM2	MB272EM2X15

# MD Isobar weatherproof distribution board - IP56

## Features



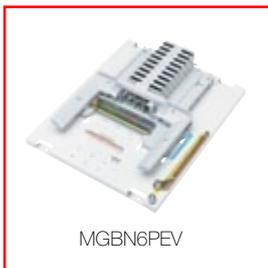
MD224CM1

- 165A earth & neutral bars with single +/- screw Ø5mm tunnels for outgoing cables up to 16mm<sup>2</sup> & 2 x M8 hex head screws for incoming cables. Earth & neutral bars comply with clause 2.9.3.1 of AS/NZS 3000:2000.
- Pole fillers for auxiliary equipment openings & 30% of board MCB pole capacity.
- Circuit schedule card with transparent plastic protector.
- Removable gland plates - top & bottom.
- 2 keys per lock.
- All enclosures are 580mm wide and 225mm deep.
- Terminal shields provided with main switch
- Isobar type TNA chassis

Main Switch	MCB Pole capacity 18mm	Enclosure Height (mm)	Reference	Reference
			N42 Grey	X15 Orange
160A	24	750	MD224CM1	MD224CM1X15
	36	1000	MD236DM1	MD236DM1X15
	48	1000	MD248DM1	MD248DM1X15
	54	1200	MD254EM1	MD254EM1X15
	72	1200	MD272EM1	MD272EM1X15
250A	24	750	MD224CM2	MD224CM2X15
	36	1000	MD236DM2	MD236DM2X15
	48	1000	MD248DM2	MD248DM2X15
	54	1200	MD254EM2	MD254EM2X15
	72	1200	MD272EM2	MD272EM2X15

# References for chassis and accessories

## Isobar PEV - for C60 MCB & RCBOs



Description	Pole Capacity 18mm	Length (mm)	Rating (1)	Reference
3 phase - type PEV suitable for switched neutral (includes steel mounting plate, rail for DIN mounted incomer and earth & neutral bars)	12	346	250A	MGBN4PEV
	18	421	250A	MGBN6PEV
	24	471	250A	MGBN8PEV
	36	571	250A	MGBN12PEV
	48	671	250A	MGBN16PEV
	54	746	250A	MGBN18PEV
	72	896	250A	MGBN24PEV

(1) 180A when distributed neutral fitted



## Isobar TNA - for C60 MCB & RCBOs



Description	Pole Capacity 18mm	Length (mm)	Rating	Reference
3 phase - type TNA NOT suitable for switched neutral (includes steel mounting plate)	12	182	250A	MGBN4TNA
	18	236	250A	MGBN6TNA
	24	290	250A	MGBN8TNA
	36	398	250A	MGBN12TNA
	48	506	250A	MGBN16TNA
	54	560	250A	MGBN18TNA
	72	722	250A	MGBN24TNA



## Accessories



Description		Chassis	Reference
Distributed neutral kit for type PEV Isobar	12 pole	PEV	MGNB4
	18 pole	PEV	MGNB6
	24 pole	PEV	MGNB8
	36 pole	PEV	MGNB12
	48 pole	PEV	MGNB16
	54 pole	PEV	MGNB18
	72 pole	PEV	MGNB24
Phase to neutral conversion kit (pack of 4). Note: One pack is included in a distributed neutral kit		PEV	NKIT
Pack of 50 insulation boots for tee-offs		PEV/TNA	ISOBOOTS
Pole fillers - 1 strip of 5 X 18mm poles			M9PF5

# References for accessories

## Accessories



MGTB1254



MGNPB250TB



MGTB1251N



NSNL250



MSIS95AN



MGTB2253



TNA250CK



MGTB1001



MGBP

Description		Chassis	Reference
Incoming connections	3P 125A I isolator	PEV	15059
	4P 125A I isolator	PEV	15060
	4P 125A terminal block	PEV	MGTB1254
	4P 225A cable connection kit	PEV	MGNPB250TB
	1P 125A neutral block	PEV	MGTB1251N
	1P 250A neutral block	PEV	NSNL250
	4P 250A Compact NS MCCB & Interpact INS load break switch connection kit	PEV	MSIS95AN
	3P 225A Cable connection kit	PEV/TNA	MGTB2253
	3P 250A Compact NS MCCB & Interpact INS load break switch connection kit	TNA	TNA250CK
Outgoing Connections	1P 100A terminal block	PEV/TNA	MGTB1001
	1P Blank terminal block	PEV/TNA	MGBP
	C60 MCBs, C60 RCBOs, ID RCCBs	PEV/TNA	

## Escutcheon for retrofitting existing MB MSC standard distribution boards

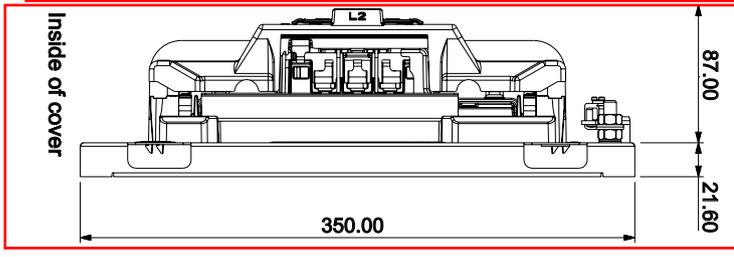
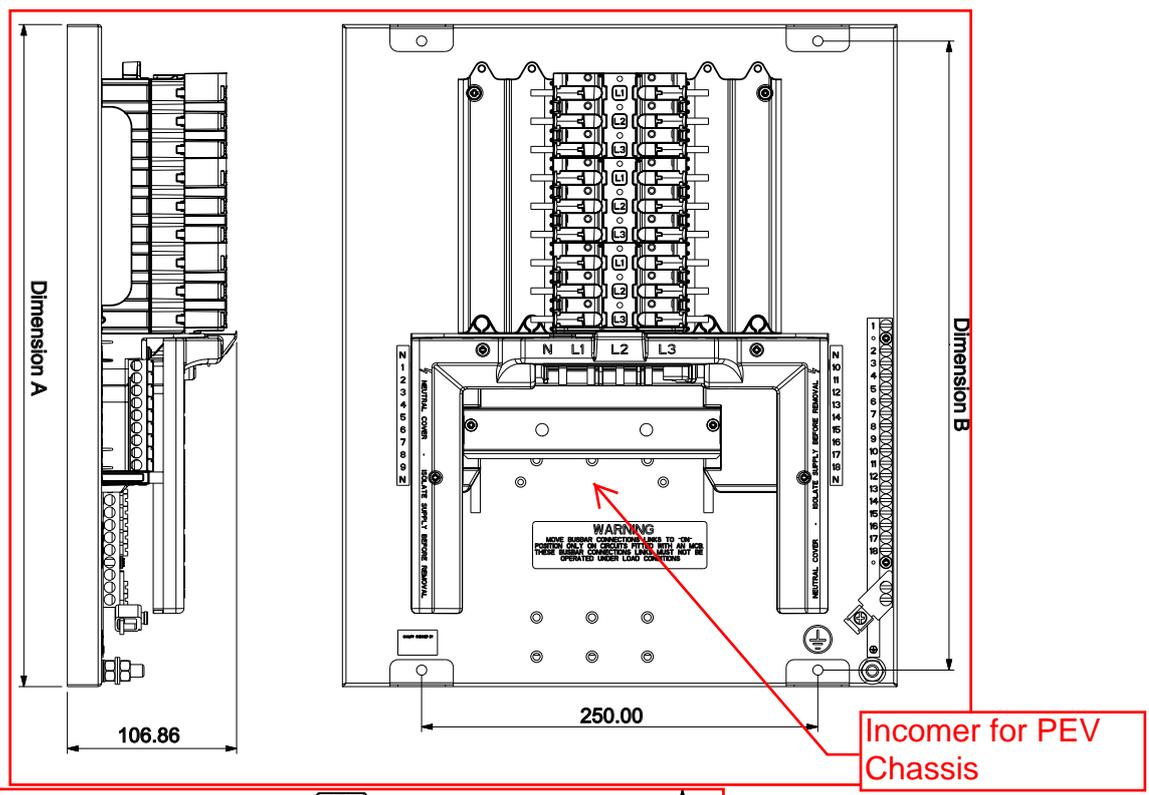
Description	Existing MB MSC Standard Distribution Board				Escutcheon TNA Retrofit
	Reference	Size	Height	Width	Reference
Escutcheon for MB	MB224C3•	C	750	580	EBCTNA
	MB236D3•	D	1000	580	EBDTNA
	MB248D3•	D	1000	580	EBDTNA
	MB260E3•	E	1200	580	EBETNA
	MB272E3•	E	1200	580	EBETNA

## Escutcheon for retrofitting existing MD MSC weatherproof distribution boards

Description	Existing MD MSC Weatherproof Distribution Board				Escutcheon TNA Retrofit
	Reference	Size	Height	Width	Reference
Escutcheon for MD	MD224C3•	C	750	580	EDCTNA
	MD236D3•	D	1000	580	EDDTNA
	MD248D3•	D	1000	580	EDDTNA
	MD260E3•	E	1200	580	EDETNA
	MD272E3•	E	1200	580	EDETNA

Note: '•' complete reference for main switch e.g 1 = 160A, 2 = 250A

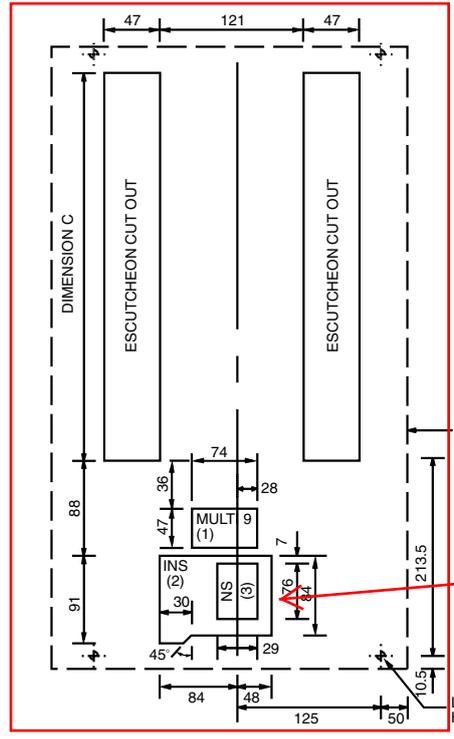
# PEV dimensions



**Dimensions**

Part No.	A	B	No. of Poles
MGBN4PEV	346	325	12
MGBN6PEV	421	400	18
MGBN8PEV	471	450	24
MGBN12PEV	571	550	36
MGBN16PEV	671	650	48
MGBN18PEV	746	725	54
MGBN24PEV	896	875	72

# PEV escutcheon cut out details

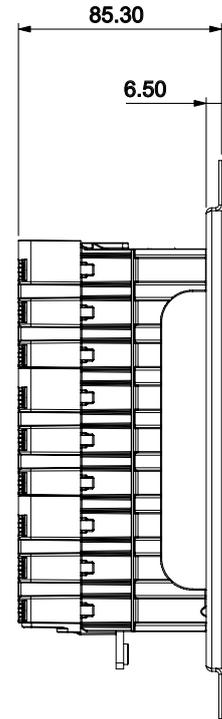
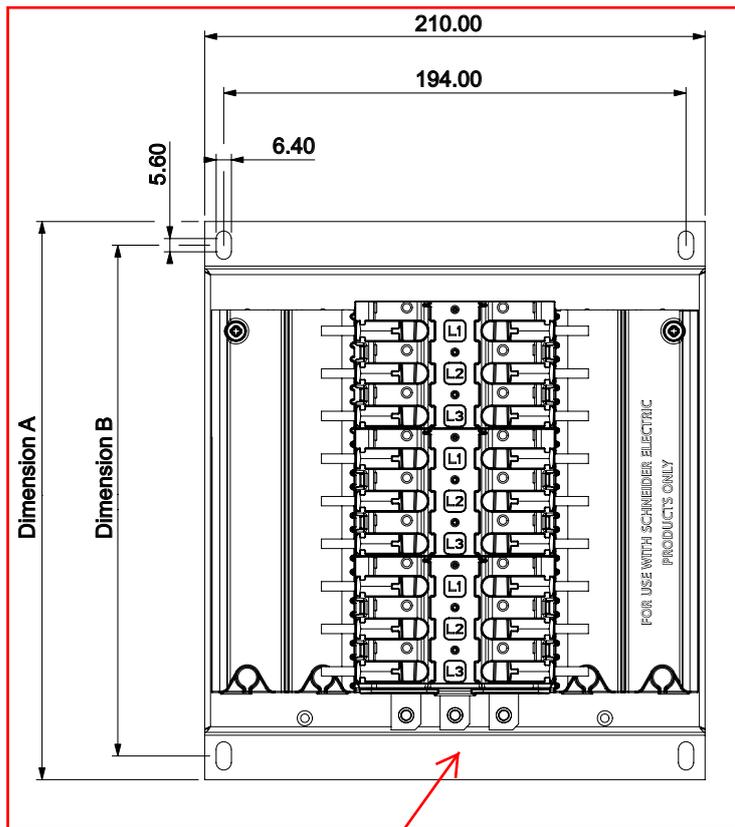


- NOTES:
- 1) CUTOUT FOR MULTI 9 INCOMING DEVICES (1 ISOLATOR, MCB, RCCB, TERMINAL BLOCK).
  - 2) CUTOUT FOR INS250 MAIN SWITCH.
  - 3) CUTOUT FOR COMPACT NSX100/250.
  - 4) ALL DIMENSIONS IN MILLIMETRES.

NO. OF POLES	DIMENSION C
12	110
18	164
24	218
36	326
48	434
54	488
72	650

**Incomer**

## TNA dimensions

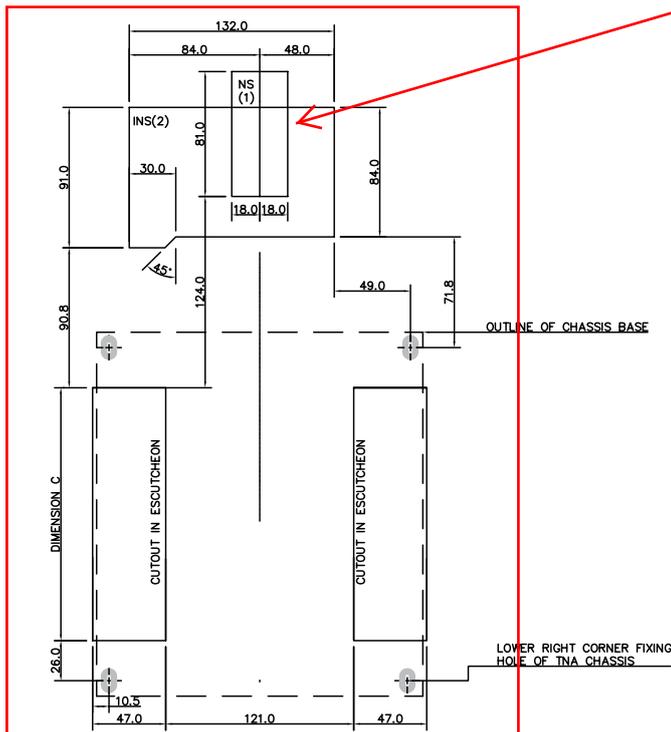


### Dimensions

Part No.	A	B	No. of Poles
MGBN4TNA	182	162	12
MGBN6TNA	236	216	18
MGBN8TNA	290	270	24
MGBN12TNA	398	378	36
MGBN16TNA	506	486	48
MGBN18TNA	560	540	54
MGBN24TNA	722	702	72

Incomer for TNA Chassis

## TNA escutcheon cut out details



Incomer

### NOTES:

- 1) CUTOUT FOR INS250 MAIN SWITCH.
- 2) CUTOUT FOR COMPACT NSX100/250.
- 3) ALL DIMENSIONS IN MILLIMETRES.

NO. OF POLES	DIMENSION C
12	110
18	164
24	218
36	326
48	434
54	488
72	650

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