

# Betagard Distributions Boards

**Proven reliability now  
with enhanced aesthetics**

54 Betagard 8GB32 SPN & TPN DBs

68 Betagard 4in1 Appliance  
Protector and Industrial Plug  
and Socket DBs

72 Betagard 8GB31 DBs

87 Simbox WP



# Betagard Distributions Boards

## Betagard 8GB32 SPN & TPN DBs

### Overview:

Siemens introduces the all new Range of Betagard SPN and TPN Distribution Boards. Synonymous to BETAGARD – “Inspiring Safety” Distribution Boards are studded with various features for safety and aesthetics; providing

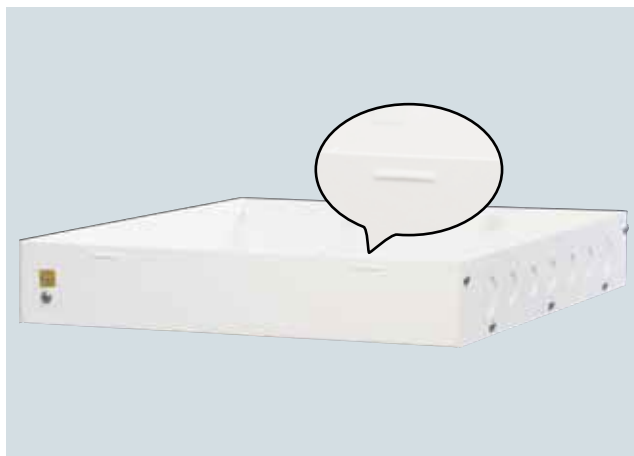
numerous benefits to users. With new design, great features, and high aesthetic appeal Siemens offers a highly reliable, safe and a user friendly Distribution board to its users.

### Features / Benefits:

The new Range of Siemens Betagard SPN and TPN DBs are ergonomically designed to deliver a high aesthetic appeal post installation. DBs with it's unique features offer great benefits to it's users with respect to safety and ease of use during installation and maintenance.



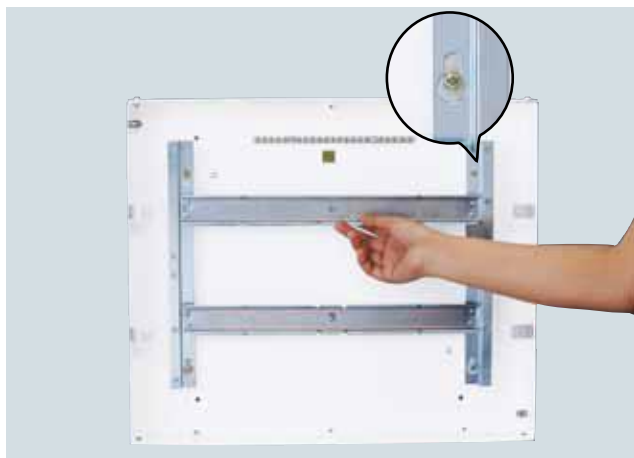
- DBs are stylish and suit any décor. It gels well with any wall color and is a natural choice for top architects, builders and also the modern residential user.



- A unique flush level marking is provided on the U box which guides the installer on the adequate mounting depth during installation.



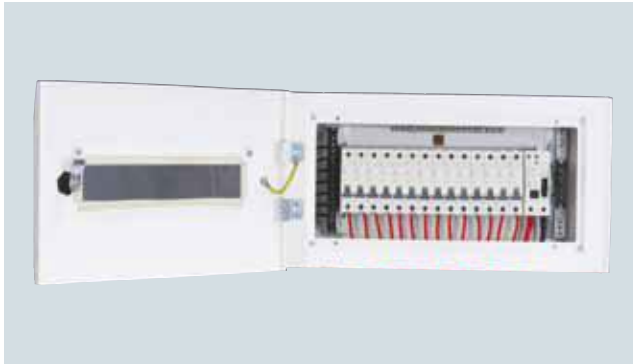
- Adequate number of knock-outs of various size are provided on detachable gland plates both at the top and at the bottom side of the U plate, this enables easy connection of conduits of all sizes into the DB.



- The DIN rail assembly is easily removable with a keyhole arrangement; thereby it helps in faster assembly and wiring of the devices to be mounted in the DB. The design also offers a uniform look of the components when the door is opened.

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## Betagard 8GB32 SPN & TPN DBs



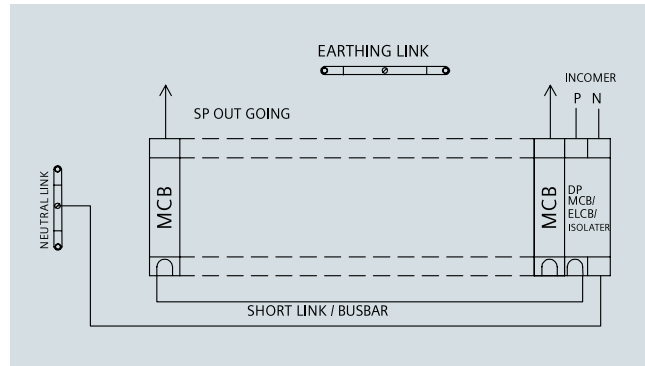
- The optimum space provided in the DB ensures clean installation of the components with the neat wiring.



- A 4sq mm insulated colored wire provides the door earthing, ensuring safety against electrical shocks for the user and operator.



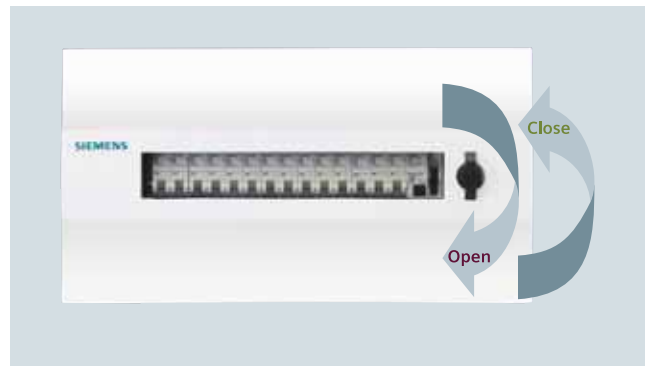
- Shrouded Neutral Link with Terminal Cover ensures safe wiring. Shorting Links are insulated for enhanced safety.



- The wiring diagram inside the door helps during Assembly, Modifications and maintenance of the DB.



- An unique detachable IP Cover facilitates easy maintenance without dismantling an assembled DB and thus results in low downtime.



- For total ease of operation and protection the door is secured to the housing by means of a Quarter turn Knob.

### Construction:

To blend style, flexibility and safety, the Betagard distribution boards are manufactured with high precision extra thick, fine quality CRCA steel sheet for long lasting strength.

The Distribution Boards have been treated with premier quality powder coating using latest techniques. The enclosures are subjected to the seven tank process to ensure smooth finish and protection against corrosive atmosphere.









### Certifications:

The Betagard SPN and TPN Distribution Boards are designed to sustain harsh electrical and mechanical conditions. DBs are type tested at internal and external third party laboratories as per IEC 61439 – 1/2 for conditional Short Circuit, Ingress Protection (IP 20 and IP 43), Impact Resistance (IK) and various other parameters. Equipment with a depth of 55 to 70 mm conforming to DIN rails (35mm X 7.5mm) conforming to DIN EN 50022 can be installed in the DBs.

# Betagard Distributions Boards

## Betagard 8GB32 SPN & TPN DBs






### Selection and Ordering Data:

	Item Description	Incoming Slots	Outgoing Slots	Total Slots	Reference No	Std Pkg Nos
<b>Plastic Enclosure, IP20:</b>						
	1/2 Way	–	–	2	8GB0002	1/100
	3/4 Way	–	–	4	8GB0004	1/50
	6 Way	–	–	6	8GB0006	1/25
<b>Retail Segment Single Door DBs, IP20:</b>						
	1 Module	–	–	1	8GB32100RC01	1/50
	2 Module	–	–	2	8GB32100RC02	1/50
	3 Module	–	–	3	8GB32100RC03	1/50
	4 Module	–	–	4	8GB32100RC04	1/50
	6 Module	–	–	6	8GB32100RC06	1/50
	8 Module	–	–	8	8GB32100RC08	1/10
<b>SPN Single Door DBs, IP20:</b>						
	6 Module	2	4	6	8GB32101RC06	1/5
	8 Module	2	6	8	8GB32101RC08	1/5
	10 Module	2	8	10	8GB32101RC10	1/5
	12 Module	2	10	12	8GB32101RC12	1/5
	14 Module	2	12	14	8GB32101RC14	1/5
	16 Module	2	14	16	8GB32101RC16	1/5
<b>SPN Metal Double Door DBs, IP 43:</b>						
	6 Module	2	4	6	8GB32102RC06	1/20
	8 Module	2	6	8	8GB32102RC08	1/15
	10 Module	2	8	10	8GB32102RC10	1/15
	12 Module	2	10	12	8GB32102RC12	1/15
	14 Module	2	12	14	8GB32102RC14	1/10
	16 Module	2	14	16	8GB32102RC16	1/10
<b>SPN Acrylic Double Door DBs, IP 43:</b>						
	6 Module	2	4	6	8GB32103RC06	1/20
	8 Module	2	6	8	8GB32103RC08	1/15
	10 Module	2	8	10	8GB32103RC10	1/15
	12 Module	2	10	12	8GB32103RC12	1/15
	14 Module	2	12	14	8GB32103RC14	1/10
	16 Module	2	14	16	8GB32103RC16	1/10
<b>Wire Way Box For SPN Single Door IP 20 DBs:</b>						
	For 6 MOD SPN Single door DB	–	–	–	8GB32106RC06	1/5
	For 8 MOD SPN Single door DB	–	–	–	8GB32106RC08	1/5
	For 10 MOD SPN Single door DB	–	–	–	8GB32106RC10	1/5
	For 12 MOD SPN Single door DB	–	–	–	8GB32106RC12	1/5
	For 14 MOD SPN Single door DB	–	–	–	8GB32106RC14	1/5
	For 16 MOD SPN Single door DB	–	–	–	8GB32106RC16	1/5
<b>Wire Way Box For SPN Double Door IP 43 DBs:</b>						
	For 6 MOD SPN Single door DB	–	–	–	8GB32107RC06	1/5
	For 8 MOD SPN Single door DB	–	–	–	8GB32107RC08	1/5
	For 10 MOD SPN Single door DB	–	–	–	8GB32107RC10	1/5
	For 12 MOD SPN Single door DB	–	–	–	8GB32107RC12	1/5
	For 14 MOD SPN Single door DB	–	–	–	8GB32107RC14	1/5
	For 16 MOD SPN Single door DB	–	–	–	8GB32107RC16	1/5
<b>Single Door TPN DBs, IP20:</b>						
	4 way	8	12	20	8GB32201RC04	1/5
	6 way	8	18	26	8GB32201RC06	1/5
	8 way	8	24	32	8GB32201RC08	1/5
	10 way	8	30	38	8GB32201RC10	1/5
	12 way	8	36	44	8GB32201RC12	1/5
	14 way	8	42	50	8GB32201RC14	1/5
	16 way	8	48	56	8GB32201RC16	1/5

# Betagard Distributions Boards

## Betagard 8GB32 SPN & TPN DBs

### Selection and Ordering Data:

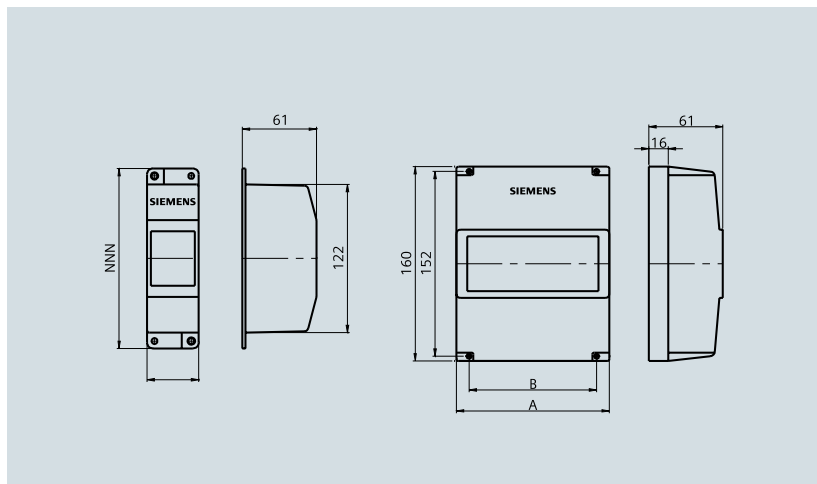
	Item Description	Incoming Slots	Outgoing Slots	Total Slots	Reference No	Std Pkg Nos
<b>Metal Double Door TPN DBs, IP 43</b>						
	4 way	8	12	20	8GB32202RC04	1
	6 way	8	18	26	8GB32202RC06	1
	8 way	8	24	32	8GB32202RC08	1
	10 way	8	30	38	8GB32202RC10	1
	12 way	8	36	44	8GB32202RC12	1
	14 way	8	42	50	8GB32202RC14	1
	16 way	8	48	56	8GB32202RC16	1
<b>Acrylic Double Door TPN DBs, IP 43</b>						
	4 way	8	12	20	8GB32203RC04	1
	6 way	8	18	26	8GB32203RC06	1
	8 way	8	24	32	8GB32203RC08	1
	10 way	8	30	38	8GB32203RC10	1
	12 way	8	36	44	8GB32203RC12	1
	14 way	8	42	50	8GB32203RC14	1
	16 way	8	48	56	8GB32203RC16	1
<b>TPN to PPI Conversion Kit</b>						
	To convert 6 way TPN DB to 4 way TPN PPI DB				8GB32205RC04	1
	To convert 8 way TPN DB to 6 way TPN PPI DB				8GB32205RC06	1
	To convert 10 way TPN DB to 8 way TPN PPI DB				8GB32205RC08	1
	To convert 12 way TPN DB to 10 way TPN PPI DB				8GB32205RC10	1
	To convert 14 way TPN DB to 12 way TPN PPI DB				8GB32205RC12	1
	To convert 16 way TPN DB to 14 way TPN PPI DB				8GB32205RC14	1
<b>Wire Way Box For TPN Single Door IP 20 DBs</b>						
	For 4 Way TPN Single door DB	-	-	-	8GB32206RC04	1/5
	For 6 Way TPN Single door DB	-	-	-	8GB32206RC06	1/5
	For 8 Way TPN Single door DB	-	-	-	8GB32206RC08	1/5
	For 10 Way TPN Single door DB	-	-	-	8GB32206RC10	1/5
	For 12 Way TPN Single door DB	-	-	-	8GB32206RC12	1/5
	For 14 Way TPN Single door DB	-	-	-	8GB32206RC14	1/5
	For 16 Way TPN Single door DB	-	-	-	8GB32206RC16	1/5
<b>Wire Way Box For TPN Double Door IP 43 DBs</b>						
	For 4 Way TPN Single door DB	-	-	-	8GB32207RC04	1/5
	For 6 Way TPN Single door DB	-	-	-	8GB32207RC06	1/5
	For 8 Way TPN Single door DB	-	-	-	8GB32207RC08	1/5
	For 10 Way TPN Single door DB	-	-	-	8GB32207RC10	1/5
	For 12 Way TPN Single door DB	-	-	-	8GB32207RC12	1/5
	For 14 Way TPN Single door DB	-	-	-	8GB32207RC14	1/5
	For 16 Way TPN Single door DB	-	-	-	8GB32207RC16	1/5
<b>Double Door, Phase Segregated TPN DBs (7 segment), IP42:</b>						
	4 Way	12	12+12	36	8GB0504	1
	6 Way	12	12+18	42	8GB0506	1
	8 Way	12	12+24	48	8GB0508	1
	12 Way	12	12+36	60	8GB0512	1

# Betagard Distributions Boards

## Betagard 8GB32 SPN & TPN DBs

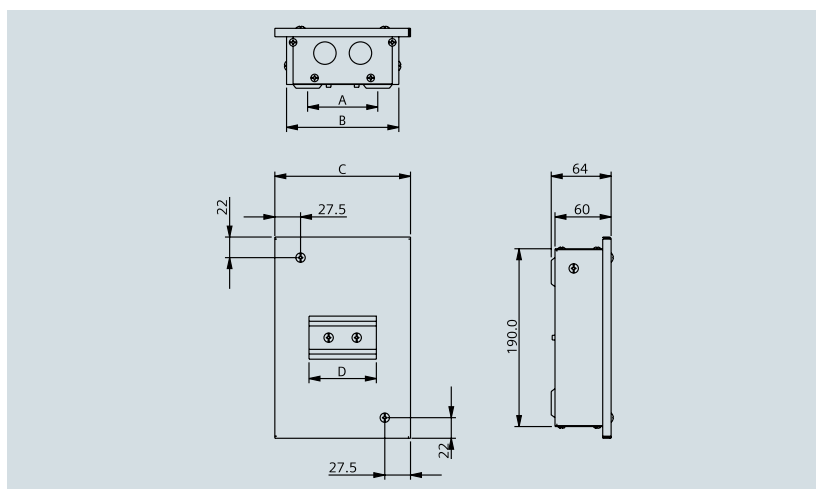
### Dimensional drawings:

#### Plastic Enclosure (8GB000)



Model	A	B
8GB0002	40	30
8GB0004	90	80
8GB0006	126	105

#### Retail Segment Metal Enclosures



Note:

- 1) Powder Coating  $80 \pm 20 \mu$
- 2) Colour Ivory White RAL 9016
- 3) All dimensions are in mm

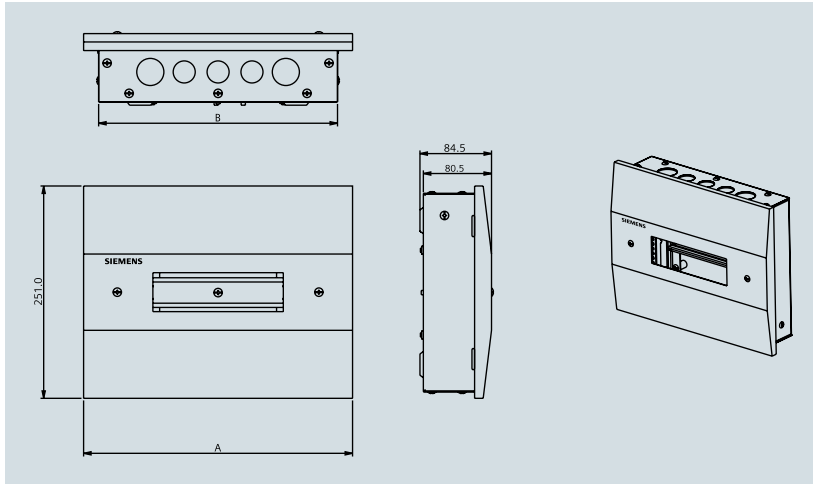
Model	A	B	C	D	Knockouts Per Side (Top & Bottom) Ø 26
8GB32100RC01	35	80	105	18	1
8GB32100RC02	60	105	130	36	2
8GB32100RC03				54	
8GB32100RC04	75	120	145	72	2
8GB32100RC06	145	190	215	108	4
8GB32100RC08				144	

# Betagard Distributions Boards

## Betagard 8GB32 SPN & TPN DBs

### Dimensional drawings:

#### SPN Single Door DBs

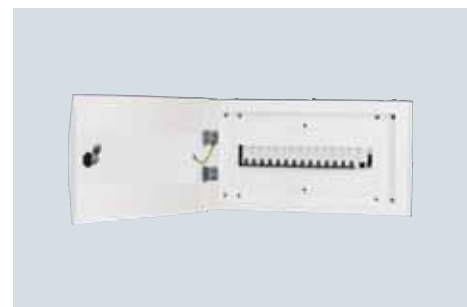
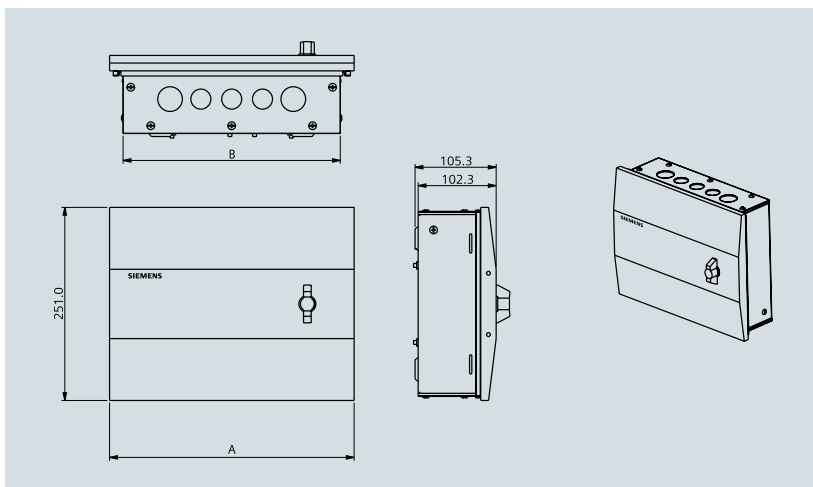


Note:

- 1) Powder coating  $80\pm 20\mu$
- 2) Colour ivory white RAL-9016 shade
- 3) All dimensions are in mm.

Model	A	B	Knockouts Per Side (Top & Bottom)	
			Ø 26	Ø 32
8GB32101RC06	317.5	282	3	2
8GB32101RC08				
8GB32101RC10	389.5	354	4	2
8GB32101RC12				
8GB32101RC14	461.5	426	5	2
8GB32101RC16				

#### SPN Metal Double Door DBs



Note:

- 1) Powder coating  $80\pm 20\mu$
- 2) Colour ivory white RAL-9016 shade
- 3) All dimensions are in mm.

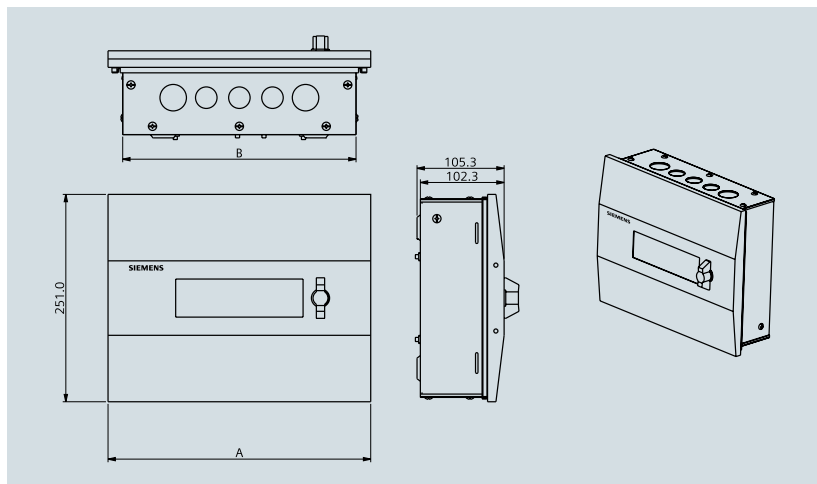
Model	A	B	Knockouts Per Side (Top & Bottom)	
			Ø 26	Ø 32
8GB32102RC06	317.5	282	3	2
8GB32102RC08				
8GB32102RC10	389.5	354	4	2
8GB32102RC12				
8GB32102RC14	461.5	426	5	2
8GB32102RC16				

# Betagard Distributions Boards

## Betagard 8GB32 SPN & TPN DBs

### Dimensional drawings:

#### SPN Acrylic Double Door DBs

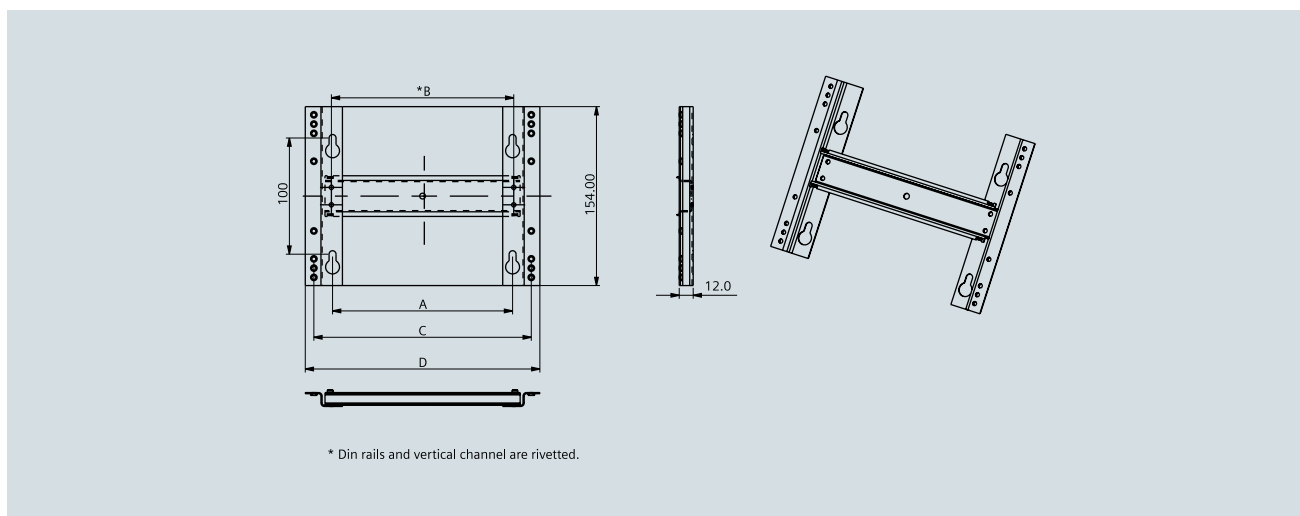


Note:

- 1) Powder coating  $80 \pm 20 \mu$
- 2) Colour ivory white RAL-9016 shade
- 3) All dimensions are in mm.

Model	A	B	Knockouts Per Side (Top & Bottom)	
			Ø 26	Ø 32
8GB32103RC06	317.5	282	3	2
8GB32103RC08				
8GB32103RC10	389.5	354	4	2
8GB32103RC12				
8GB32103RC14	461.5	426	5	2
8GB32103RC16				

#### PAN assembly complete - SPN MCB DB



Model	A	B	C	D
8GB321-01/02/03-RC06	155	157	187.2	202
8GB321-01/02/03-RC08				
8GB321-01/02/03-RC10	227	229	259.2	274
8GB321-01/02/03-RC12				
8GB321-01/02/03-RC14	299	301	331.2	346
8GB321-01/02/03-RC16				

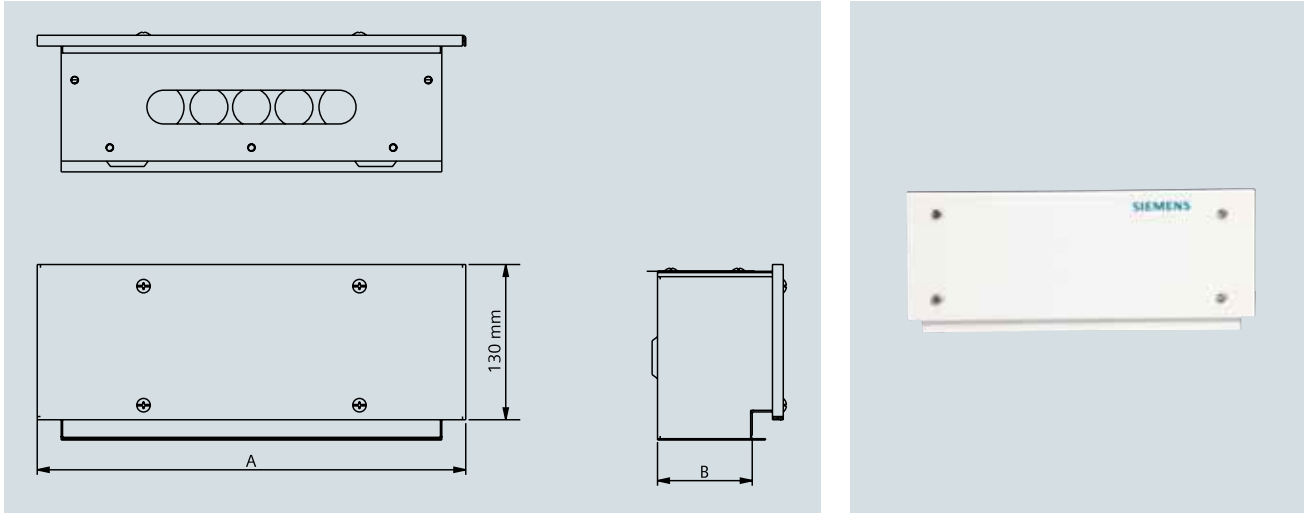


# Betagard Distributions Boards

## Betagard 8GB32 SPN & TPN DBs

### Dimensional drawings:

#### Wire Way Boxes for SPN Single Door and Double Door DBs



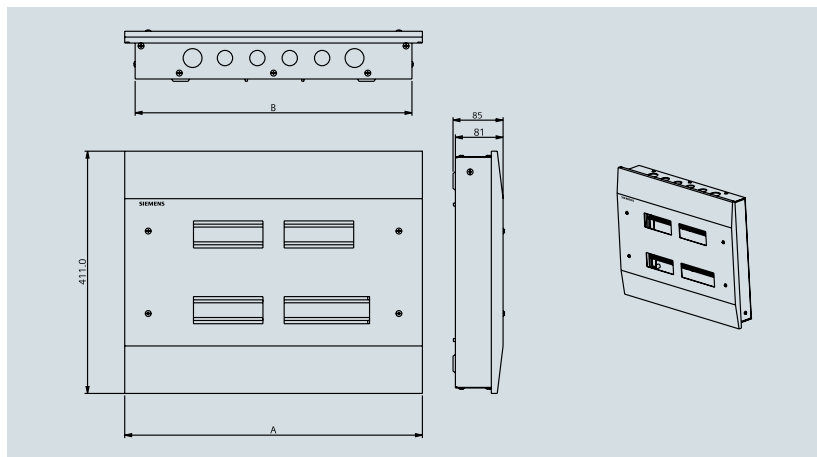
Model	A	B	Knock outs On the Gland Plate	
			Ø 26	Ø 32
8GB32106RC06	317.5	55	3	2
8GB32106RC08				
8GB32106RC10	389.5		4	2
8GB32106RC12				
8GB32106RC14	461.5		5	2
8GB32106RC16				
8GB32107RC06	317.5	70.2	3	2
8GB32107RC08				
8GB32107RC10	389.5		4	2
8GB32107RC12				
8GB32107RC14	461.5		5	2
8GB32107RC16				

# Betagard Distributions Boards

## Betagard 8GB32 SPN & TPN DBs

### Dimensional drawings:

#### Single Door TPN DBs

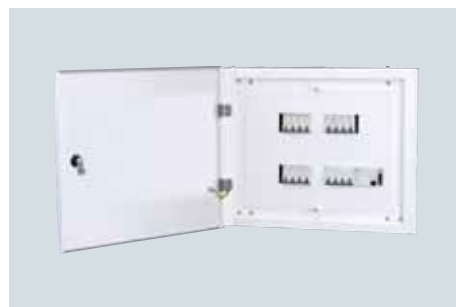
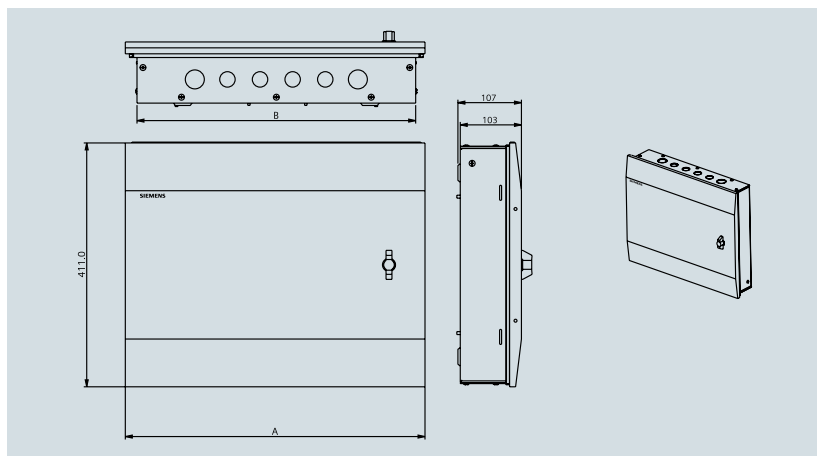


Note:

- 1) Powder coating  $80\pm 20\mu$
- 2) Colour ivory white RAL-9016 shade
- 3) All dimensions are in mm.

Model	A	D	Knock out Per side (Top & Bottom)	
			Ø 26	Ø 32
8GB32201RC04	506	470	5	2
8GB32201RC06				
8GB32201RC08	604.4	569	6	2
8GB32201RC10				
8GB32201RC012	748.4	713	8	2
8GB32201RC14				
8GB32201RC16	811.4	776	8	2

#### Metal Double Door TPN DBs



Note:

- 1) Powder coating  $80\pm 20\mu$
- 2) Colour ivory white RAL-9016 shade
- 3) All dimensions are in mm.

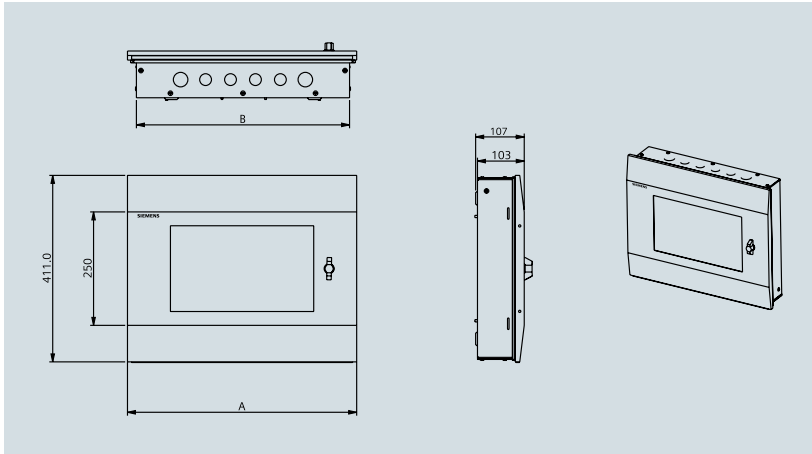
ML FB	A	B	Knockouts Per Side (Top & Bottom)	
			Ø 26	Ø 32
8GB32202RC04	506	470	5	2
8GB32202RC06				
8GB32202RC08	604.4	569	6	2
8GB32202RC10				
8GB32202RC12	748.4	713	8	2
8GB32202RC14				
8GB32202RC16	811.4	776	8	2

# Betagard Distributions Boards

## Betagard 8GB32 SPN & TPN DBs

### Dimensional drawings:

#### Acrylic Double Door TPN DBs

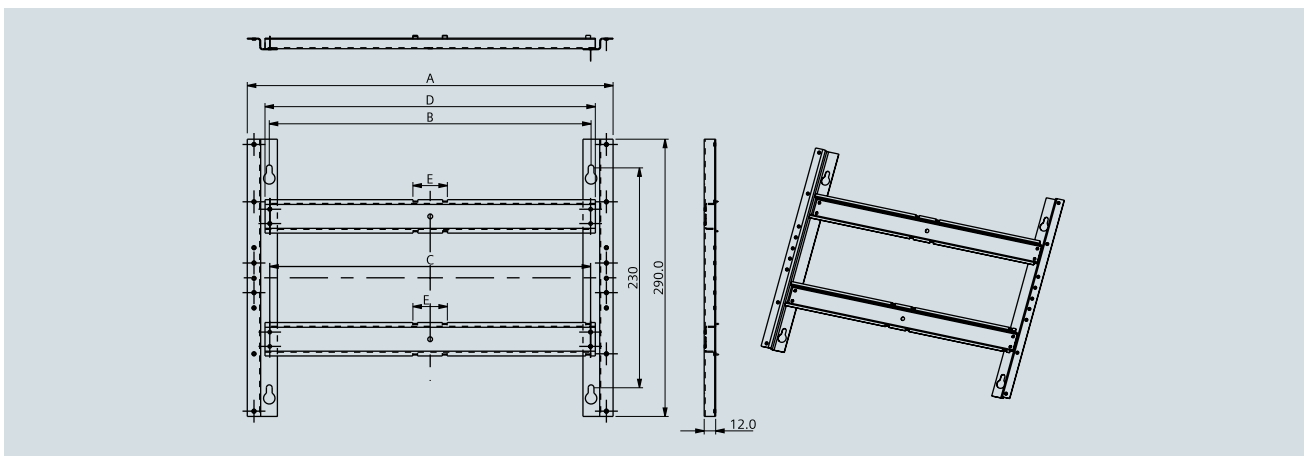


Note:

- 1) Powder coating  $80\pm 20\mu$
- 2) Colour ivory white RAL-9016 shade
- 3) All dimensions are in mm.

Model	A	B	Knockouts Per Side (Top & Bottom)	
			Ø 26	Ø 32
8GB32203RC04	506	470	5	2
8GB32203RC06				
8GB32203RC08	604.4	569	6	2
8GB32203RC10				
8GB32203RC12	748.4	713	8	2
8GB32203RC14				
8GB32203RC16	811.4	776	8	2

#### PAN assembly - TPN MCB DB



MLFB	Type	A	B	C	D	E
8GB322-01/02/03-RC04	4 Way	380.7	336.7	335.6	345.6	36
8GB322-01/02/03-RC06	6 Way					
8GB322-01/02/03-RC08	8 Way	479.7	435.7	434.6	444.6	45
8GB322-01/02/03-RC10	10 Way					
8GB322-01/02/03-RC12	12 Way	623.7	579.7	578.6	588.6	45
8GB322-01/02/03-RC14	14 Way					
8GB322-01/02/03-RC16	16 Way	686.7	642.7	641.6	651.6	36

Note:

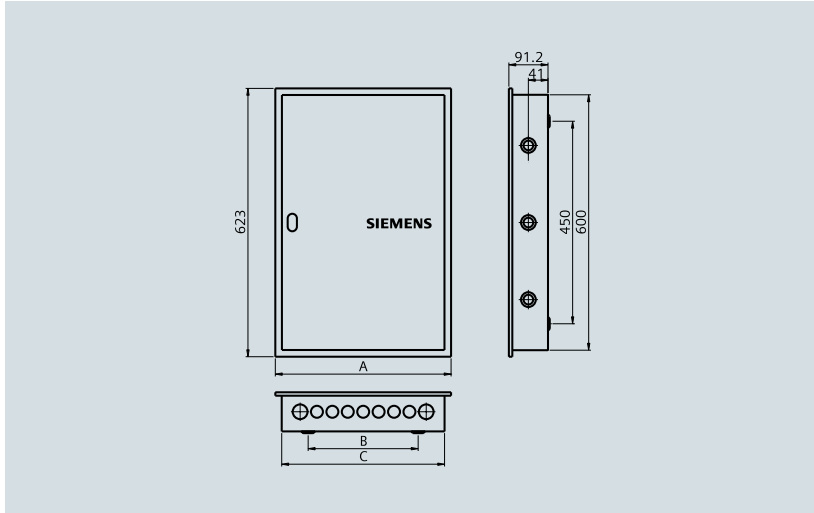
- 1) Plating: FeZn 10 Micron, Blue Passivation

# Betagard Distributions Boards

## Betagard 8GB32 SPN & TPN DBs

### Dimensional drawings:

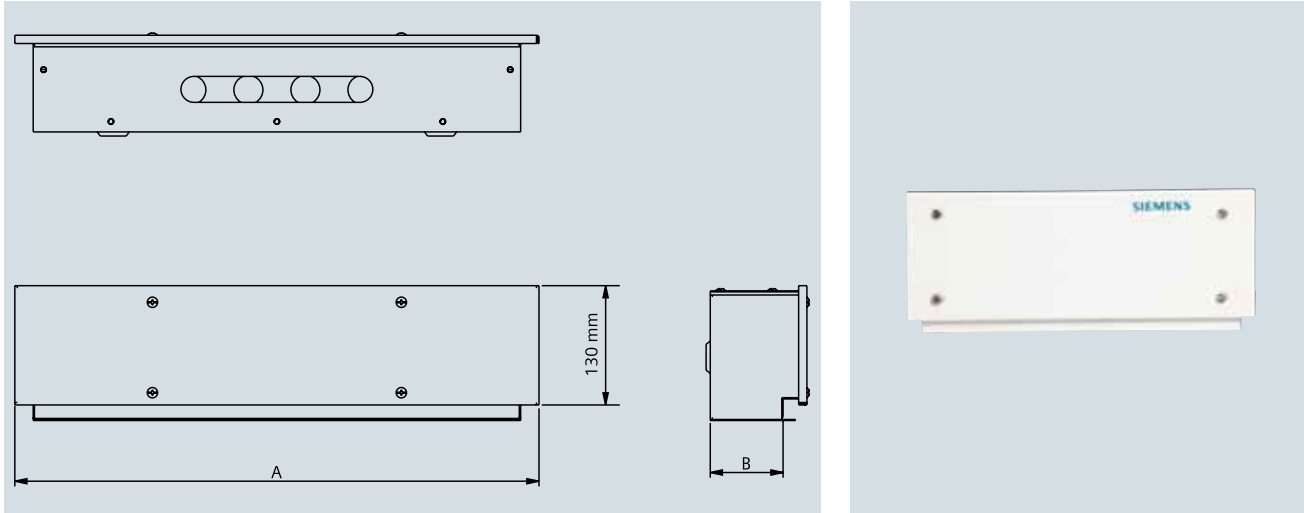
#### DD Phase Segregated 7 Segment TPN DB (8GB05)



Model	A	B	C	Knock out		
				Per side (Top & Bottom)		Per side flap Ø32 & Ø21
				Ø32	Ø40	
8GB0504	451	324	424	-	6	3
8GB0506	559	432	532	-	6	3
8GB0508	667	540	640	-	6	3
8GB0512	883	756	856	-	6	3

### Dimensional drawings:

#### Wire Way Boxes for TPN Single Door and Double Door DBs



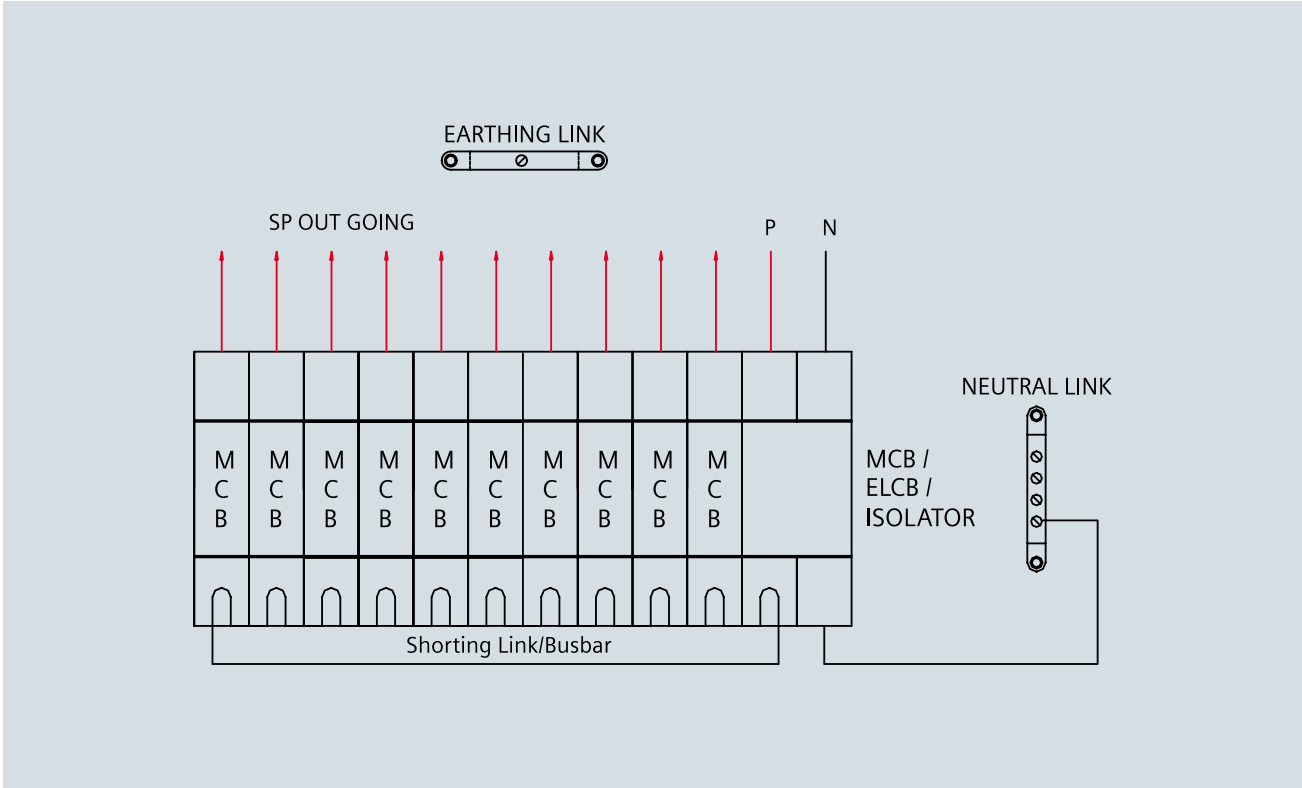
Model	A	B	Knock outs On the Gland Plate	
			Ø 26	Ø 32
8GB32206RC04	505.4	55	5	2
8GB32206RC06				
8GB32206RC08	604.4	55	6	2
8GB32206RC10				
8GB32206RC12	748.4	55	8	2
8GB32206RC14				
8GB32206RC16	811.4	55	8	2
8GB32207RC04	505.4	70.2	5	2
8GB32207RC06				
8GB32207RC08	604.4	70.2	6	2
8GB32207RC10				
8GB32207RC12	748.4	70.2	8	2
8GB32207RC14				
8GB32207RC16	811.4	70.2	8	2

# Betagard Distributions Boards

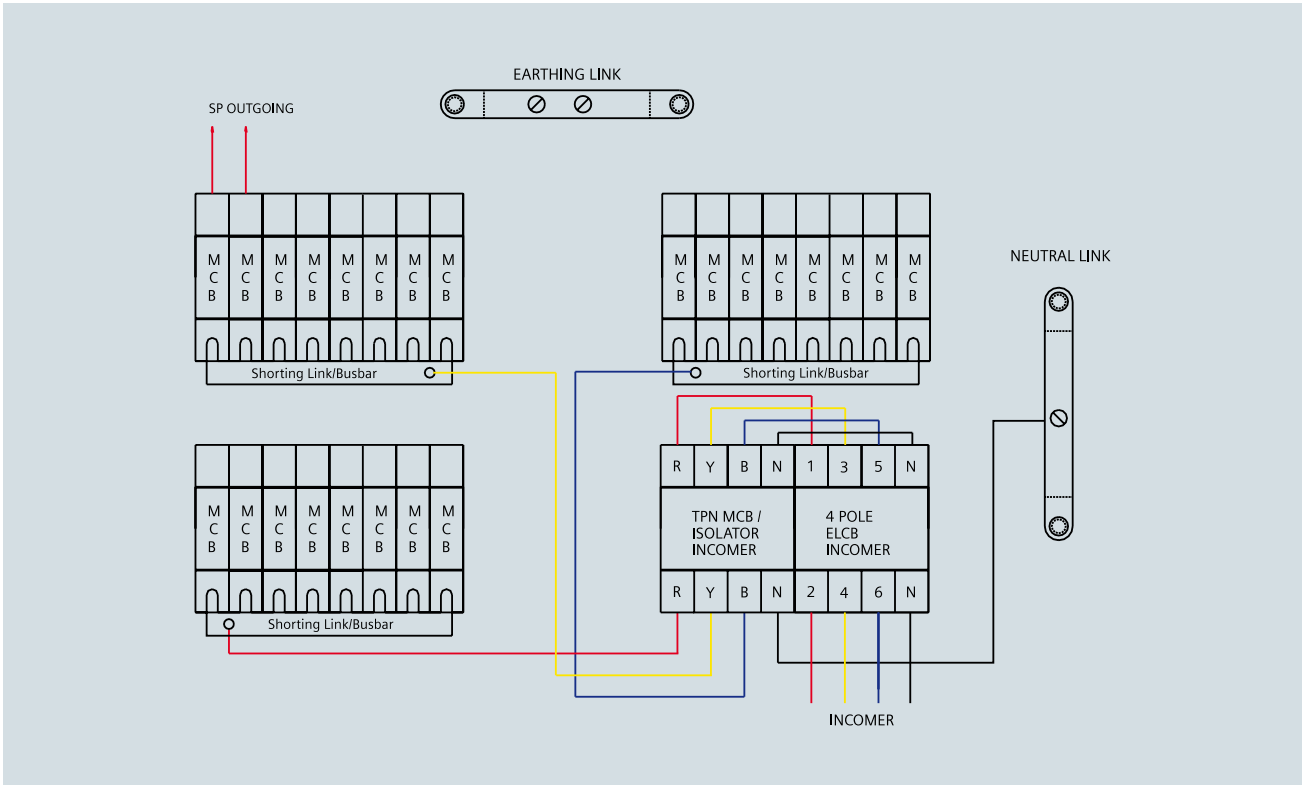
## Betagard 8GB32 SPN & TPN DBs

### Wiring Diagram:

#### SPN DB



#### TPN DB

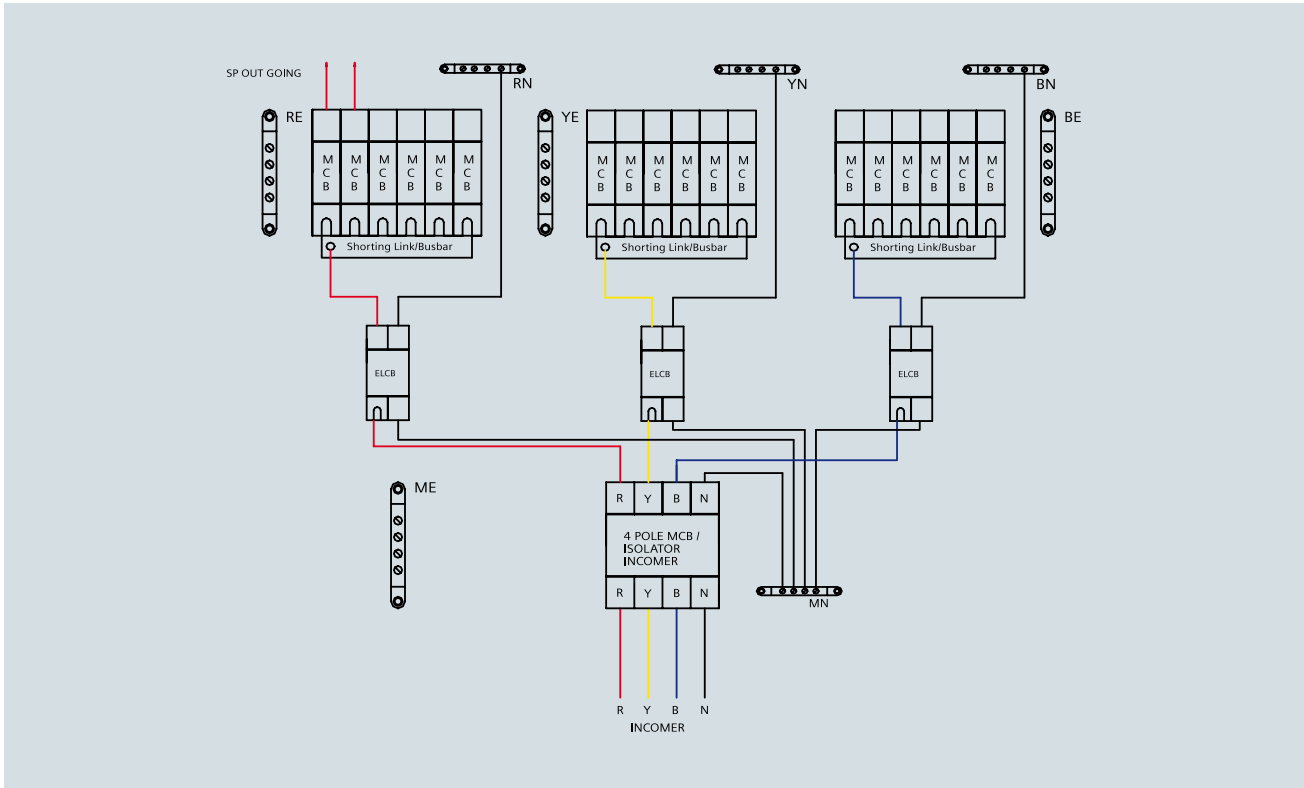


# Betagard Distributions Boards

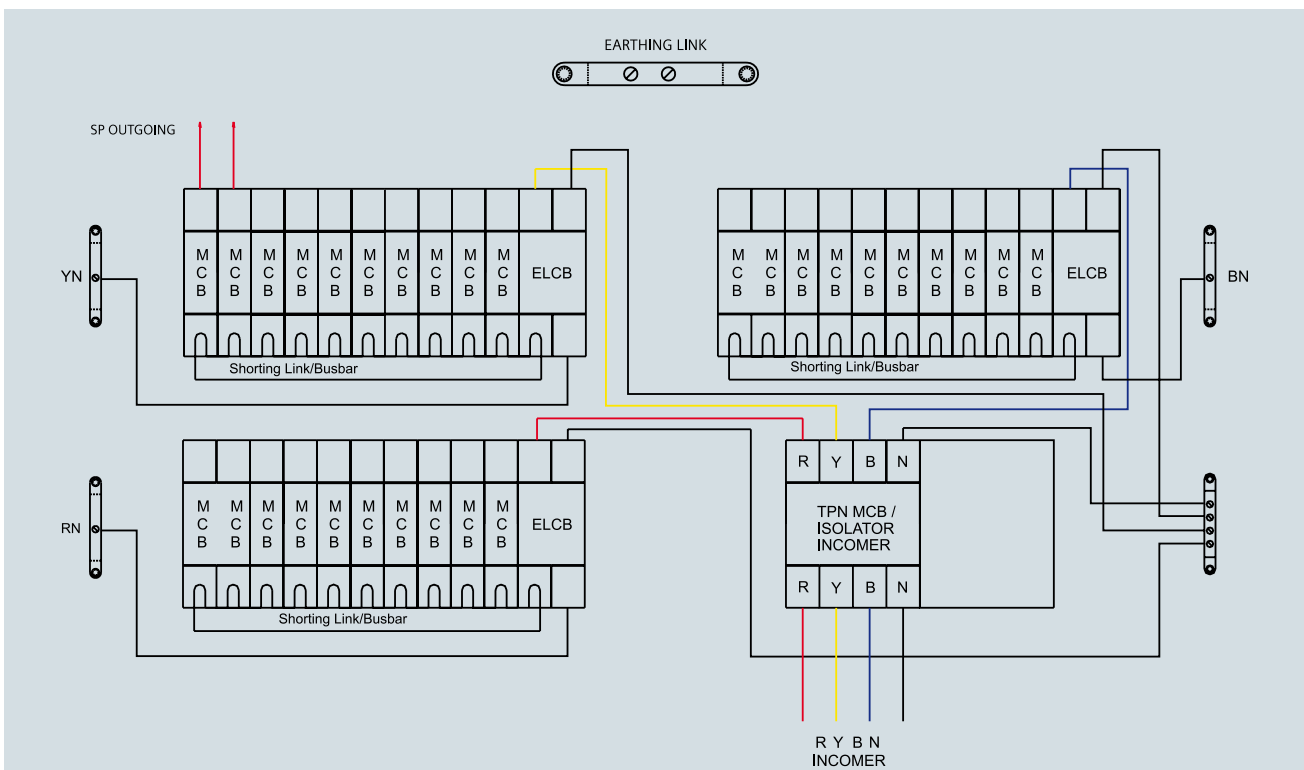
## Betagard 8GB32 SPN & TPN DBs

### Wiring Diagram:

#### TPN Phase Segregated



#### TPN PPI DB



# Betagard Distributions Boards

## Betagard 4in1 Appliance Protector and Industrial Plug and Socket DBs

### Concept:

1. Shock proof ABS enclosure
2. 3pin Delta vega socket with safety shutter
3. Over load and short circuit protection for connected equipment and cables
4. Power ON indication to indicate status of equipment

### Design and construction:

Electrical equipment makes an important contribution to the amenities in terms of aesthetic look, apart from protecting electrical equipments. In certain cases, the effect of these amenities is perceived directly. e.g.: matching decor with elegant Air conditioner

In residence. Siemens Betagard 4 in 1 protective device is made in completely ABS material which is non-corrosive and shock proof.

The flush design of 4 in 1 comes with sheet steel base (which goes in side the wall) and thermoplastic aesthetic front cover with SP/DP MCB with socket.

### Installation:

Betagard 4 in 1 protective device is available in flush as well as surface mounting versions.

All versions of 4 in 1 are supplied with factory fitted and calibrated MCB and pre wired which eventually in ready to use condition. However depending on the application the rating of MCBs has to be selected. The recommendations are given below for selecting the right MCB for right appliances.

Appliance	Capacity (Watts)	MCB current ratings (Amps)	
Iron	1200	6	
Mixer/Juicer	200	2	
Microwave oven	750	6	
Hot plate	2000	10	
Electrical kettle	1500	10	
T.V./VCR/Audio system	200	2	
Refrigerator 165 liters	400	2	
Refrigerator 350 liters	750	4	
Geyser	1000	10	
	2000	16	
	3000	20	
Air conditioners	1 ton	1500	10
	1.5 ton	2500	16
	2.5 ton	3500	20

Due to elegant look and compact design these products are highly recommended for following home appliances.

1. Air conditioners
2. Geysers
3. Kitchen equipment like refrigerators, micro ovens, water filters
4. Washing machine

Apart from residential equipment protection these devices are also can safely used to protect following expensive equipments in commercial segment.

1. Hospital equipment
2. Studio equipment
3. Commercial shops
4. Multiplexes and shopping malls

### Unique features:

1. Socket life of 4in1 is enhanced since the making / breaking of circuit is done by MCB which has a built-in arc quenching mechanism.
2. Total safety due to thermo plastic design and ideal for installations in bathrooms, kitchen and club houses etc.
3. The aesthetic ivory white ABS enclosure matches all kind of decor.









# Betagard Distributions Boards

## Betagard 4in1 Appliance Protector and Industrial Plug and Socket DBs

### Selection and Ordering Data:

	Item Description	Total Slots	Reference No	Std Pkg Nos
<b>Plug &amp; Socket, IP20 with provision for MCB mounting :</b>				
 	1 Phase 20A, 1P MCB	1	■ 8GB0501RC	1/20
	1 Phase 20A, 2P MCB	2	■ 8GB0501SRC	1/20
	3 Phase 32A, 3P MCB	3	■ 8GB0502	1/15
	3 Phase 32A, 3P+N MCB	4	8GB0502S	1/15
	5 Pin (3P+N+PE) 3 Phase 32A MCB 3P+N MCB	8	■ 8GB050332	1/15
	5 Pin (3P+N+PE) 3 Phase 63A MCB 3P+N MCB	8	8GB050363	1/5
<b>4 in 1 Appliance Protector Pre Wired, IP 20 with factory fitted Betagard 5SL MCB :</b>				
<b>New!!</b>				
<b>Flush Mounting</b>				
	4in1, FM with 16A, 1P MCB and 10/16A socket	1	8GB11611RC	1/20
	4in1, FM with 16A, 2P MCB and 10/16A socket	2	8GB11612RC	1/20
	4in1, FM with 25A, 1P MCB and 25A socket	1	8GB11621RC	1/20
	4in1, FM with 25A, 2P MCB and 25A socket	2	8GB11622RC	1/20
<b>Surface Mounting</b>				
	4in1, SM with 6A, 1P MCB and 6A socket	1	8GB13601RC	1/20
	4in1, SM with 6A, 2P MCB and 6A socket	2	8GB13602RC	1/20
	4in1, SM with 16A, 1P MCB and 10/16A socket	1	8GB13611RC	1/20
	4in1, SM with 16A, 2P MCB and 10/16A socket	2	8GB13612RC	1/20
	4in1, SM with 25A, 1P MCB and 25A socket	1	8GB13621RC	1/20
	4in1, SM with 25A, 2P MCB and 25A socket	2	8GB13622RC	1/20

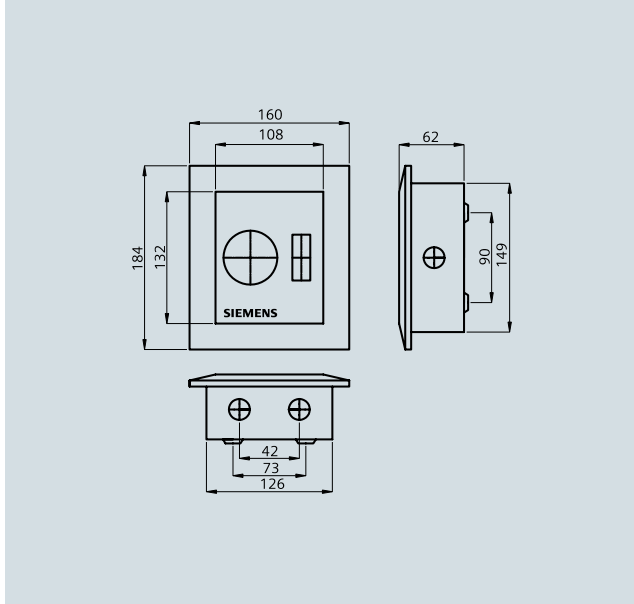


# Betagard Distributions Boards

## Betagard 4in1 Appliance Protector and Industrial Plug and Socket DBs

### Dimensional drawings:

#### Single Phase Plug and Socket (8GB0501)



Model	Cutout Width
8GB0501RC	18
8GB0501SRC	36

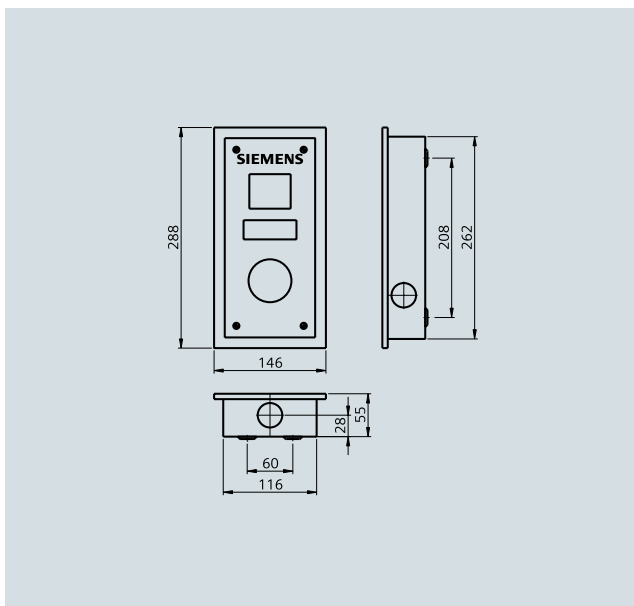
Note:

\* 2 Pin Plug

2 Knock outs of Ø21 on Top & Bottom

1 Knock out of Ø21 on per Side flap

#### Three Phase Plug and Socket (8GB0502)



Model	Cutout Width
8GB0502RC	54
8GB0502SRC	72

Note:

\* 3 Pin Plug

1 Knock outs of Ø32 on Top & Bottom

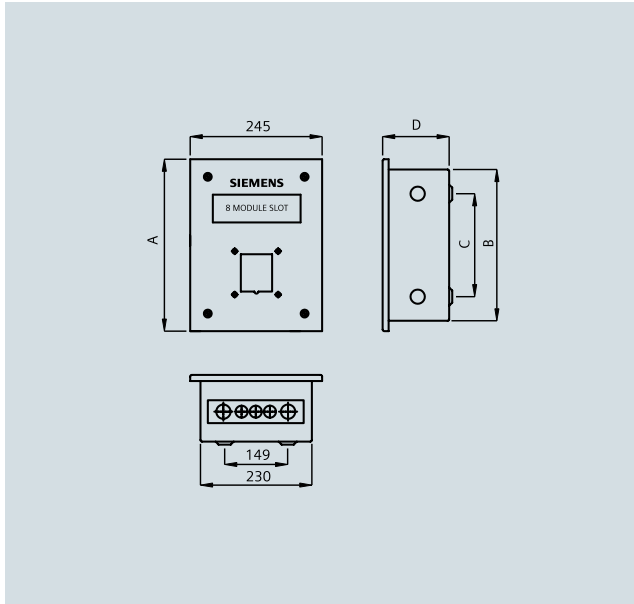
1 Knock out of Ø32 on per Side flap

# Betagard Distributions Boards

## Betagard 4in1 Appliance Protector and Industrial Plug and Socket DBs

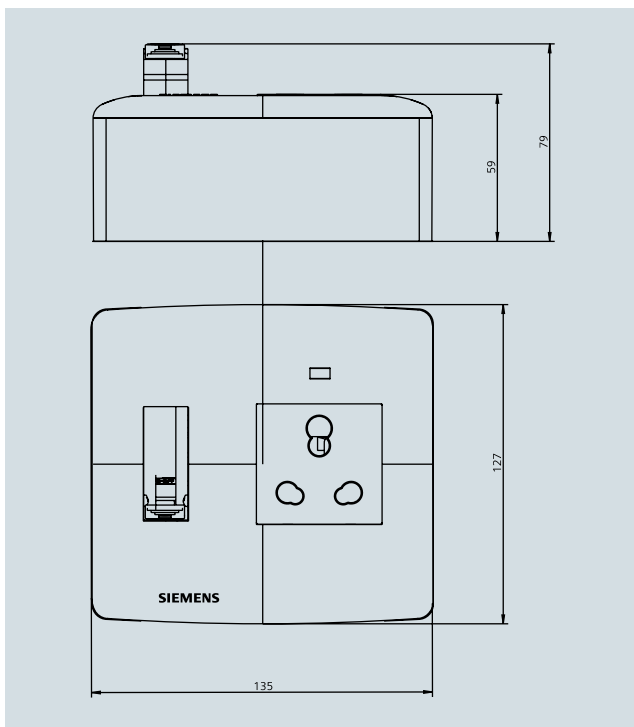
### Dimensional drawings:

#### 5 Pin Three Phase+N+PE Industrial Plug and Socket (8GB0503)

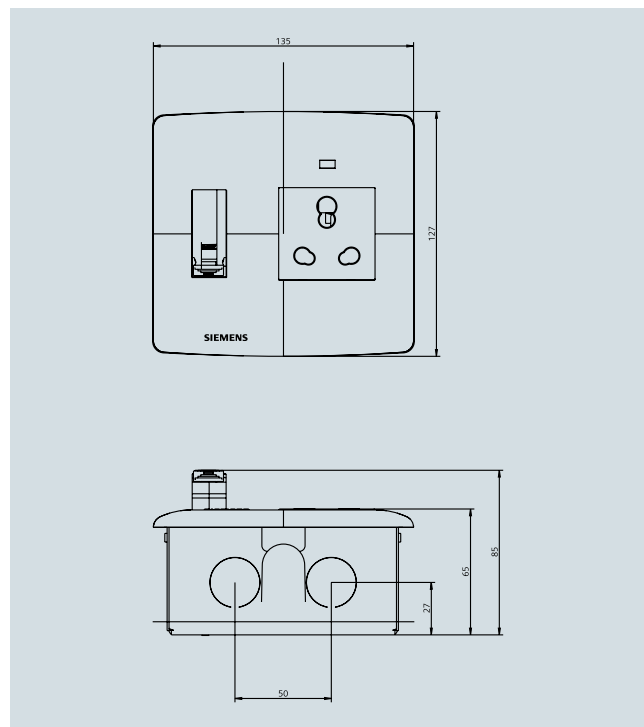


Model	A	B	C	D
8GB050332	265	247	182	91.5
8GB050363	290	272	207	121.5

#### Betagard 4 in 1 Protector Device



Surface mounting



Flush / Concealed mounting

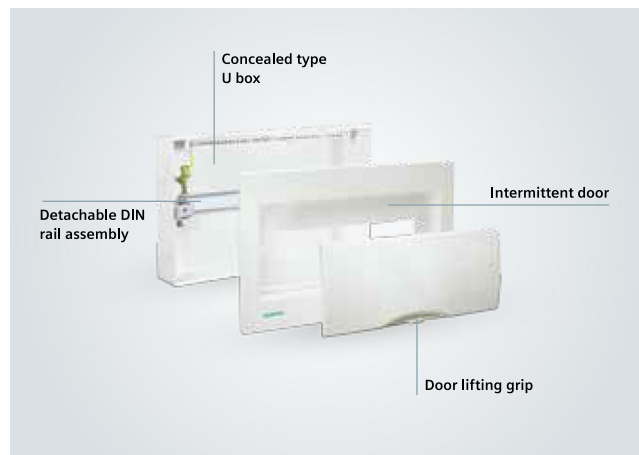
# Betagard Distributions Boards

## Betagard 8GB31 DBs

Betagard MB distribution boards have been made from special EDD (extra deep drawing) quality steel for better strength. The attractive convex shape design has been achieved by innovative deep drawn technology.

A unique top hung flap type door design shall facilitate easy removal of door for accessing the components. A 15 deg correction factor is possible at the concealed U-box of distribution boards if the same is not installed properly.

- Detachable din rail for neat and hassle-free wiring
- Insulated N and PE links ensures safe installation complaint Hardware
- Deep drawn design, the overall strength of DB has been enhanced & possibility of transit damage has been totally eliminated
- The detachable door can be installed after completion of the project which helps in retaining the aesthetics of the DB



# Betagard Distributions Boards

## Betagard 8GB31 DBs

Beta distribution boards are suitable as sub distribution boards in all commercial and industrial applications. Owing to their small overall depth, they can be used in both commercial and industrial complexes and are usually installed in the vicinity of respective load centers.

Beta distribution boards are connected down stream of the meter cabinet and the main or storey distribution board.

Equipment with a depth of 55 to 70 mm conforming to DIN rails (35mm X 7.5mm) conforming to DIN EN 50022 can be installed in the units.

In order to cater to various complex configurations in modern electric installation, we are glad to introduce following 5 new generations DBs. Flush as well as surface type distribution boards are available from 4 ways to 12 ways in double door version.

Beta DBs range offers only double door version with IP 42 protection.

- **Beta Flex DBs** are offered in row system and are available in 12 & 16 Mod/Row designs. Presently these DBs are being offered in 2 Rows & 4 Rows configuration.
- **Beta Bus DBs** are designed with vertical readymade insulated bus bar and are available with 4W/6W/8W and 12WAY TP/SP configuration.
- **Beta Bus Plus DBs** are also having special feature of accommodating Siemens 3VT MCCB as I/C up to 160A apart from featured offered in Beta Bus.
- **Beta Multi DBs** are having a special feature of accommodating TV Splitter and Telephone crone connector apart from LV power distribution.
- **Beta change over DBs** are designed to cater to few specific requirements of regions where-in the consistent availability 3 phase supplies are not reliable.

These DBs have provision of fixing 40/63A change over switch in order to shift the phase in the event of failure of any one phase in 3 phase network.

### Design:

Siemens Betagard distribution boards are manufactured in sheet steel and have been specially designed, keeping in view the interiors of modern day houses and commercial establishments.

### Installation:

Betagard distribution boards are suitable for both in flush as well as surface mounting applications.

These distribution boards are provided with removable top and bottom gland plates with adequate number of knock outs, enabling easy installation and connection of conduits of all sizes for top and bottom entry of cables.

Double door construction of DBs facilitates easy removal of inspection window mounted on intermediate plate.

A 15 deg correction factor is possible if the U plate of distribution boards is wrongly installed.

### Construction:

Blending style, flexibility and safety, the Betagard distribution boards are manufactured with high precision extra thick and fine quality CRCA steel sheet for long lasting strength.

These DBs undergo a seven tank phosphating process to ensure anti rust conditioning and superior finish.

### Double door concept for aesthetic and safety:

To ensure total safety, an intermediate plate has been introduced so that when the door is opened, no live parts are exposed. The door is earthed through a copper braid for total safety.

1. **Removable intermittent window.....** For easy in maintenance / installation
2. **Removable intermittent door.....** Ivory-white in color to match any décor
3. **Magnetic latch.....** For firm door latching and comforts in opening and closing of DB doors
4. **Vertical insulated busbar.....** Total safety and flexibility in mounting TP/SP MCBs











# Betagard Distributions Boards

## Betagard 8GB31 DBs



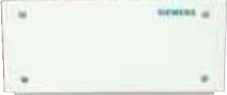

### Selection and Ordering Data:

	Item Description	Incoming Slots	Outgoing Slots	Total Slots	Reference No	Std Pkg Nos
<b>Betagard MB (Ivory White):</b>						
	1 Row, 6 Mod	2	4	6	8GB31810RC01	1/10
	1 Row, 8 Mod	2	6	8	8GB31811RC01	1/10
	1 Row, 10 Mod	2	8	10	8GB31812RC01	1/10
	1 Row, 12 Mod	2	10	12	8GB31813RC01	1/10
	1 Row, 14 Mod	2	12	14	8GB31814RC01	1/10
	1 Row, 16 Mod	2	14	16	8GB31815RC01	1/10
<b>Betagard MB (Metallic Grey):</b>						
	1 Row, 6 Mod	2	4	6	8GB31810RC02	1/10
	1 Row, 8 Mod	2	6	8	8GB31811RC02	1/10
	1 Row, 10 Mod	2	8	10	8GB31812RC02	1/10
	1 Row, 12 Mod	2	10	12	8GB31813RC02	1/10
	1 Row, 14 Mod	2	12	14	8GB31814RC02	1/10
	1 Row, 16 Mod	2	14	16	8GB31815RC02	1/10
<b>Betagard MB (Metallic Carbon):</b>						
	1 Row, 6 Mod	2	4	6	8GB31810RC03	1/10
	1 Row, 8 Mod	2	6	8	8GB31811RC03	1/10
	1 Row, 10 Mod	2	8	10	8GB31812RC03	1/10
	1 Row, 12 Mod	2	10	12	8GB31813RC03	1/10
	1 Row, 14 Mod	2	12	14	8GB31814RC03	1/10
	1 Row, 16 Mod	2	14	16	8GB31815RC03	1/10
<b>Betaflex (Flexi DBs), IP42:</b>						
	2Row x 12Mod	—	—	24	8GB31424RC	1/5
	2Row x 16Mod	—	—	32	8GB31426RC	1/5
	4Row x 8Mod	—	—	32	8GB31442RC	1/5
	4Row x 12Mod	—	—	48	8GB31444RC	1/5
	4Row x 16Mod	—	—	64	8GB31446RC	1/5
<b>Betabus (Vertical Busbar DBs with MCB as an incomer), IP42: (Suitable for 5SX/5SJ/5SP MCBs, upto 125A as an incomer)</b>						
	4 way	12	12	24	8GB31471RC	1/5
	6 way	12	18	30	8GB31473RC	1/5
	8 way	12	24	36	8GB31474RC	1/5
	12 way	12	36	48	8GB31477RC	1/5
<b>Betabusplus (Vertical Busbar DBs with MCCB as an incomer), IP42: (Suitable for 3VT1 MCCBs, upto 160A as an incomer)</b>						
	4 way	12	12	24	8GB31571RC	1/5
	6 way	12	18	30	8GB31572RC	1/5
	8 way	12	24	36	8GB31573RC	1/5
	12 way	12	36	48	8GB31574RC	1/5

# Betagard Distributions Boards

## Betagard 8GB31 DBs

### Selection and Ordering Data:


	Item Description	Incoming Slots	Outgoing Slots	Total Slots	Reference No	Std Pkg Nos
<b>BetaMulti (DBs for power &amp; communication), IP42:</b>						
	12way SPN, provision	2	12	14	8GB31215RC	1/5
	6way TPN, provision	8	18	26	8GB31221RC	1/5
	12way SPN, built-in	2	12	14	8GB31315RC	1/5
	6way TPN, built-in	8	18	26	8GB31321RC	1/5
<b>Beta CO (DBs for phase changeover), IP42:</b>						
	4 Way, With Provision	8	12	20	8GB31840RC	1/5
	6 way, with provision	8	18	26	8GB31841RC	1/5
	8 way, with provision	8	24	32	8GB31842RC	1/5
	12 way, with provision	8	36	44	8GB31844RC	1/5
<b>Wire Way Boxes (WWB)</b>						
	WWB for Flexi DB, 8Mod	—	—	—	8GB9908FWWNT	1/5
	WWB for Flexi DB, 12Mod	—	—	—	8GB9912FWWNT	1/5
	WWB for Flexi DB, 16Mod	—	—	—	8GB9916FWWNT	1/5
	WWB for Bus DB	—	—	—	8GB99BUSWWNT	1/5
	WWB for Bus Plus DB	—	—	—	8GB99BPLUSWWNT	1/5
<b>Modular Device Boxes (MDB)</b>						
	MDB for Flexi DB, 8Mod/Row	—	—	8	8GB9908FMDTC	1/5
	MDB for Flexi DB, 12Mod/Row	—	—	12	8GB9912FMDTC	1/5
	MDB for Flexi DB, 16Mod/Row	—	—	16	8GB9916FMDTC	1/5
	MDB for Bus DB	—	—	12	8GB99BUSMBTC	1/5
	MDB for Bus Plus DB	—	—	12	8GB99BPLUSMBTC	1/5

### 3VT1 MCCB with thermal magnetic trip unit (overload and short circuit protection)

Breaking capacity, Icu = 25kA at 415V AC, 50Hz.

Standards: IS 13947-2 / IEC 60947-2

“with CE marking”

	Rated Current	3P Type Reference	4P Type Reference
	63A	3VT17062DA360AA0	3VT17062EA460AA0
	80A	3VT17082DA360AA0	3VT17082EA460AA0
	100A	3VT17102DA360AA0	3VT17102EA460AA0
	125A	3VT17122DA360AA0	3VT17122EA460AA0
	160A	3VT17162DA360AA0	3VT17162EA460AA0

Note:

■ Stock Items








# 1MW (Module Width) = 18mm

For insulated shorting links for Betagard Distribution Boards, please refer page 8

# Betagard Distributions Boards

## Betagard 8GB31 DBs

### Accessories

	Item Description	Reference No	Std. Pkg. (Nos.)
<b>Blanking Plate</b>			
	1 MW	8GB9901	25
	1.5 MW	8GB9902	25
<b>Insulated Shorting Links</b>			
<b>Suitable For SPN and TPN PPI DBs</b>			
	5 Leg SP Shorting Link (For 4 Way SPN DB and 4 Way PPI DB)	8GB9905LSP	10
	7 Leg SP Shorting Link (For 6 Way SPN DB and 6 Way PPI DB)	8GB9907LSP	10
	9 Leg SP Shorting Link (For 8 Way SPN DB and 8 Way PPI DB)	8GB9909LSP	10
	11 Leg SP Shorting Link (For 10 Way SPN DB and 10 Way PPI DB)	8GB9911LSP	10
	13 Leg SP Shorting Link (For 12 Way SPN DB and 12 Way PPI DB)	8GB9913LSP	10
	15 Leg SP Shorting Link (For 14 Way SPN DB and 14 Way PPI DB)	8GB9915LSP	10
	17 Leg SP Shorting Link (For 16 Way SPN DB and 16 Way PPI DB)	8GB9917LSP	10
<b>Single Phase (Hole at last Tooth) (For shorting 1P MCBs in TPN DBs)</b>			
	4 Leg SP Shorting Link (For 4 Way TPN DB)	8GB9904LSP	10
	6 Leg SP Shorting Link (For 6 Way TPN DB)	8GB9906LSP	10
	8 Leg SP Shorting Link (For 8 Way TPN DB)	8GB9908LSP	10
	10 Leg SP Shorting Link (For 10 Way TPN DB)	8GB9910LSP	10
	12 Leg SP Shorting Link (For 12 Way TPN DB)	8GB9912LSP	10
	14 Leg SP Shorting Link (For 14 Way TPN DB)	8GB9914LSP	10
	16 Leg SP Shorting Link (For 16 Way TPN DB)	8GB9916LSP	10
<b>Two Phase (For shorting 2P MCBs)</b>			
	4 Way DP Shorting Link (For Shorting 4 Nos of 2P MCBs)	8GB9904LDP	5
	6 Way DP Shorting Link (For Shorting 6 Nos of 2P MCBs)	8GB9906LDP	5
	8 Way DP Shorting Link (For Shorting 8 Nos of 2P MCBs)	8GB9908LDP	5
<b>Three Phase (For shorting 3P MCBs)</b>			
	4 Way TP Shorting Link (For Shorting 4 Nos of 3P MCBs)	8GB9904LTP	5
	6 Way TP Shorting Link (For Shorting 6 Nos of 3P MCBs)	8GB9906LTP	5
	8 Way TP Shorting Link (For Shorting 8 Nos of 3P MCBs)	8GB9908LTP	5
<b>Three Phase Neutral</b>			
	4 Way TPN Shorting Link (For Shorting 4 Nos of 4P MCBs)	8GB9904LTPN	5
	6 Way TPN Shorting Link (For Shorting 6 Nos of 4P MCBs)	8GB9906LTPN	5
	8 Way TPN Shorting Link (For Shorting 8 Nos of 4P MCBs)	8GB9908LTPN	5
<b>Neutral Terminals</b>			
<b>Neutral Terminals For 8GB31 DBs</b>			
	Neutral Terminals for 4 Way Circuits	8GB9904NSPE	10
	Neutral Terminals for 6 Way Circuits	8GB9906NSPE	10
	Neutral Terminals for 8 Way Circuits	8GB9908NSPE	10
	Neutral Terminals for 12 Way Circuits	8GB9912NSPE	10
	Neutral Terminals for 14 Way Circuits	8GB9914NSPE	10
<b>Neutral Terminals For 8GB32 DBs (With Terminal Shroud and Cover)</b>			
	Neutral Terminal 5 Holes	8GB9905NPE	10
	Neutral Terminal 11 Holes	8GB9911NPE	10
	Neutral Terminal 13 Holes	8GB9913NPE	10
	Neutral Terminal 15 Holes	8GB9915NPE	10

Note: # Way - Denotes No of MCBs at the Outgoing

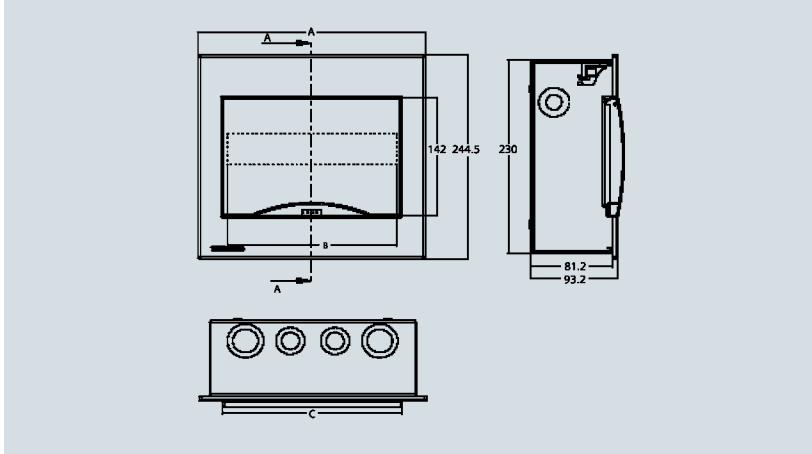


# Betagard Distributions Boards

Betagard 8GB31 DBs

## Dimensional drawings:

### Betagard MB



Model	A	B	C	Knock out Per side (Top & Bottom)	
				Ø32	Ø40
8GB31810RC..	253	108	200	2	2
8GB31811RC..		144			
8GB31812RC..	325	180	272	3	2
8GB31813RC..		216			
8GB31814RC..	397	252	344	5	2
8GB31815RC..		288			

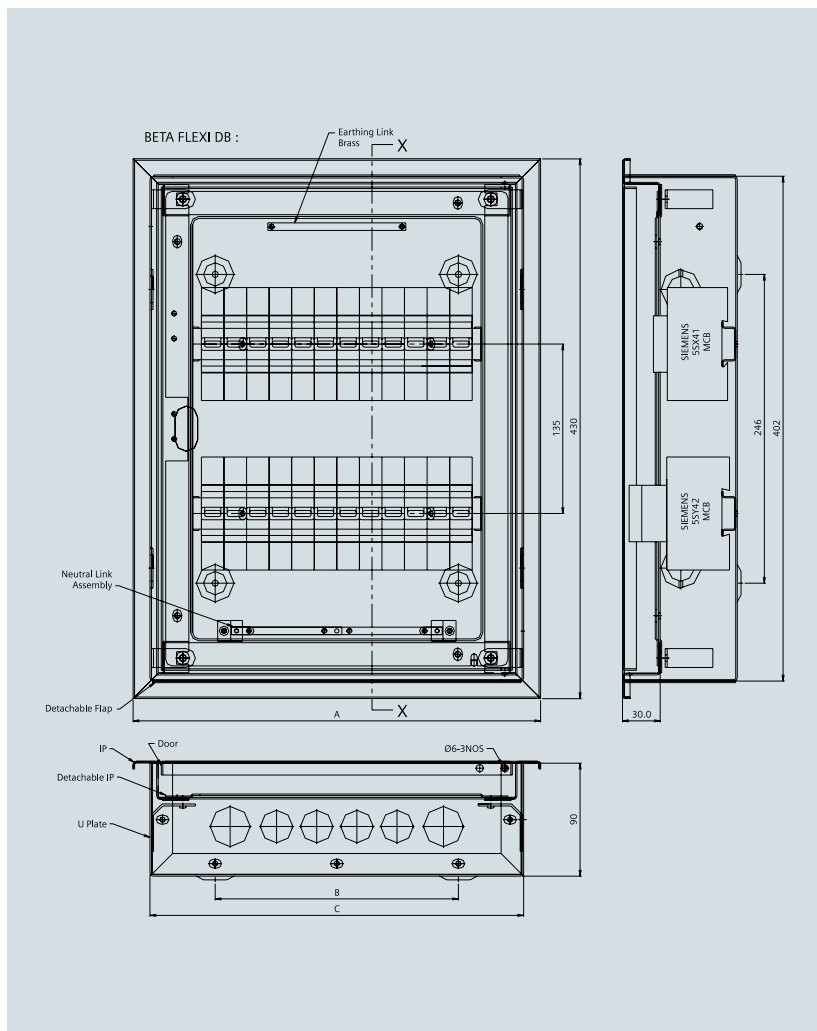


# Betagard Distributions Boards

## Betagard 8GB31 DBs

### Dimensional drawings:

#### Beta Flex DB (8GB31) - 2 rows system



Note:

- 1) Powder coating 100±25µ
- 2) Colour ivory white RAL-9016 shade
- 3) All dimensions are in mm.

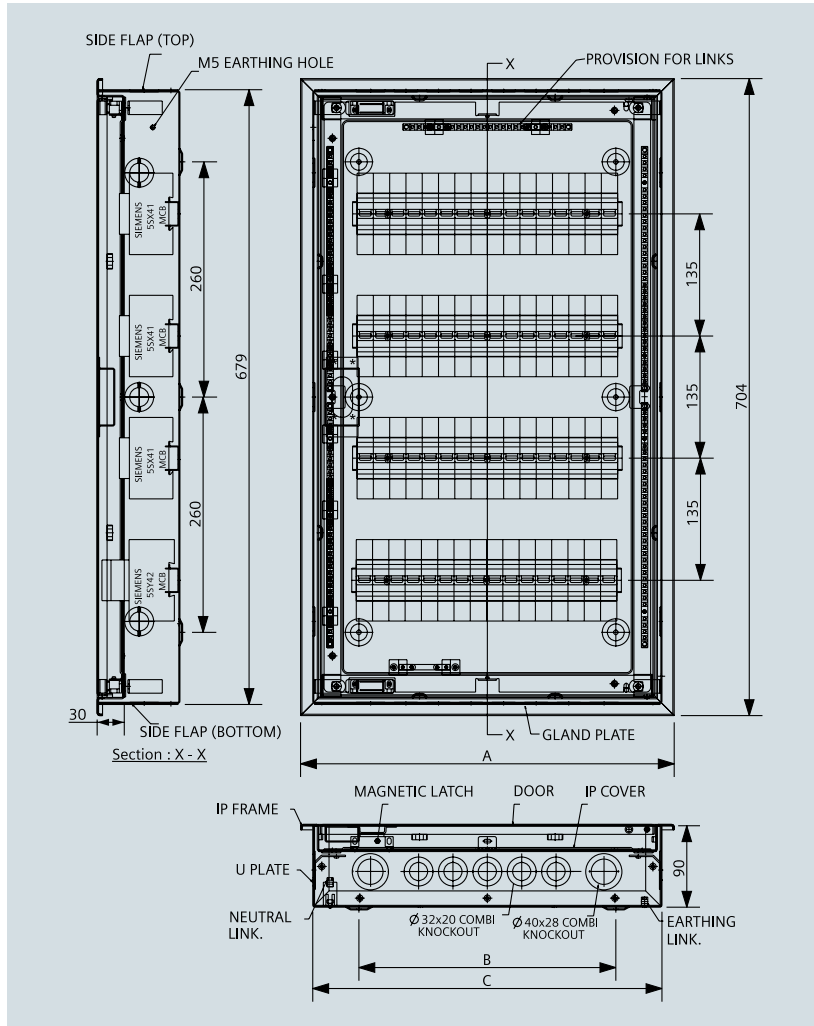
### Dimension (mm)

Model	A	B	C	Knockout		
				Per side (top & bottom)		Per side flap combination Ø32/Ø21 combi
				Combi Ø40/Ø28	Combi Ø32/Ø20	
12 x 2 Rows	345	194	318	2	3	2
16 x 2 Rows	433	282	406		5	

**Application:** Recommended for residential and commercial buildings where-in mounting of modular devices like timers, ammeters, and TP MCBs are to be connected in the outgoing circuits.

### Dimensional drawings:

#### Beta Flex DB (8GB31) - 4 rows system



Note:

- 1) Powder coating 100±25μ
- 2) Colour ivory white RAL-9016 shade
- 3) All dimensions are in mm.

#### Dimension (mm)

Model	A	B	C	Knockout		
				Per side (top & bottom)		Per side flap combination Ø32/Ø21 combi
				Combi Ø40/Ø28	Combi Ø32/Ø20	
8 x 4 Rows	273	124	246	2	1	3
12 x 4 Rows	345	196	318		3	
16 x 4 Rows	433	284	406		5	

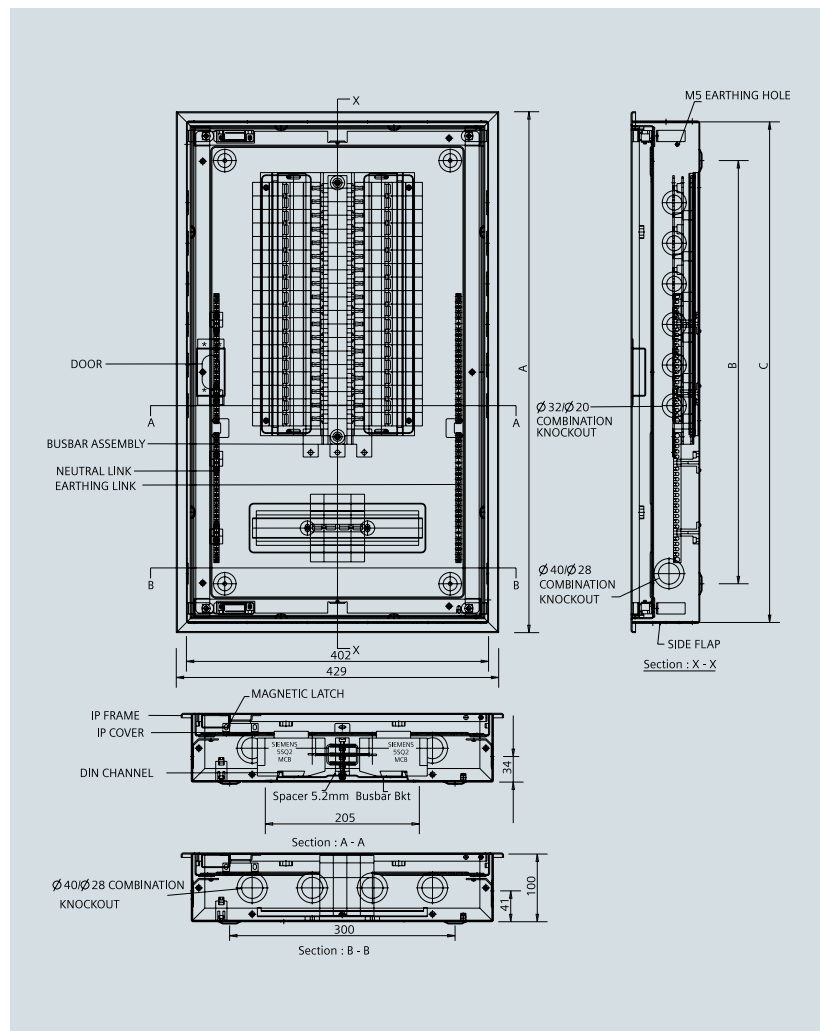
**Application:** Highly recommended for commercial buildings where-in the total number of circuits are considerably more. Beta flex can offer 16 module X 4 rows design DB which can accommodate 64 modules in total of 55/70mm depth.

# Betagard Distributions Boards

## Betagard 8GB31 DBs

### Dimensional drawings:

#### Beta Bus DB (8GB31)



#### Note:

- 1) Powder coating 100±25µ
- 2) Colour ivory white RAL-9016 shade
- 3) All dimensions are in mm.

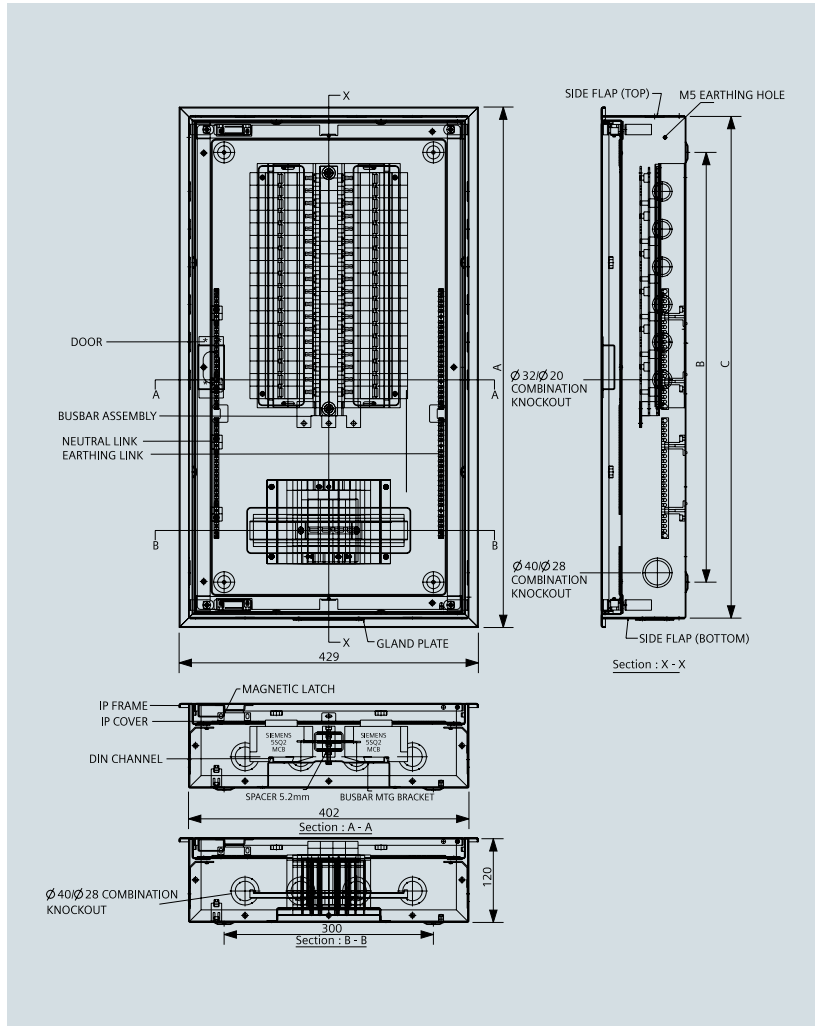
#### Dimension (mm)

Model	A	B	C	Knockout			
				Top & bottom combination Ø42 & Ø35	Bottom slit	Per side flap combination Ø32 & Ø20	Per side flap combination Ø40 & Ø28
4 Way	477	347	450	4	72 X 46	2	1
6 Way	531	401	504		72 X 46	3	
8 Way	585	455	558	4	72 X 46	4	1
12 Way	693	563	666		72 X 46	6	

**Application:** Recommended where ever TP/SP MCBS are to be mounted in the outgoing circuits. The ready made insulated vertical bus bar will simplify the wiring job apart from giving total safety.

### Dimensional drawings:

#### Beta Bus plus DB with verical Bus Bar (8GB31)



Note:

- 1) Powder coating  $100\pm 25\mu$
- 2) Colour ivory white RAL-9016 shade
- 3) All dimensions are in mm.

#### Dimension (mm)

Model	A	B	C	Knockout			
				Top & bottom combination Ø40/Ø28 (with gland plate)	Bottom slit	Per side flap combination Ø32/Ø20	Per side flap combination Ø40/Ø28
4 Way	530	400	503	4 / 2	72 X 46	2	1
6 Way	584	454	557		72 X 46	3	
8 Way	638	508	611	4 / 2	72 X 46	4	1
12 Way	746	616	719		72 X 46	6	

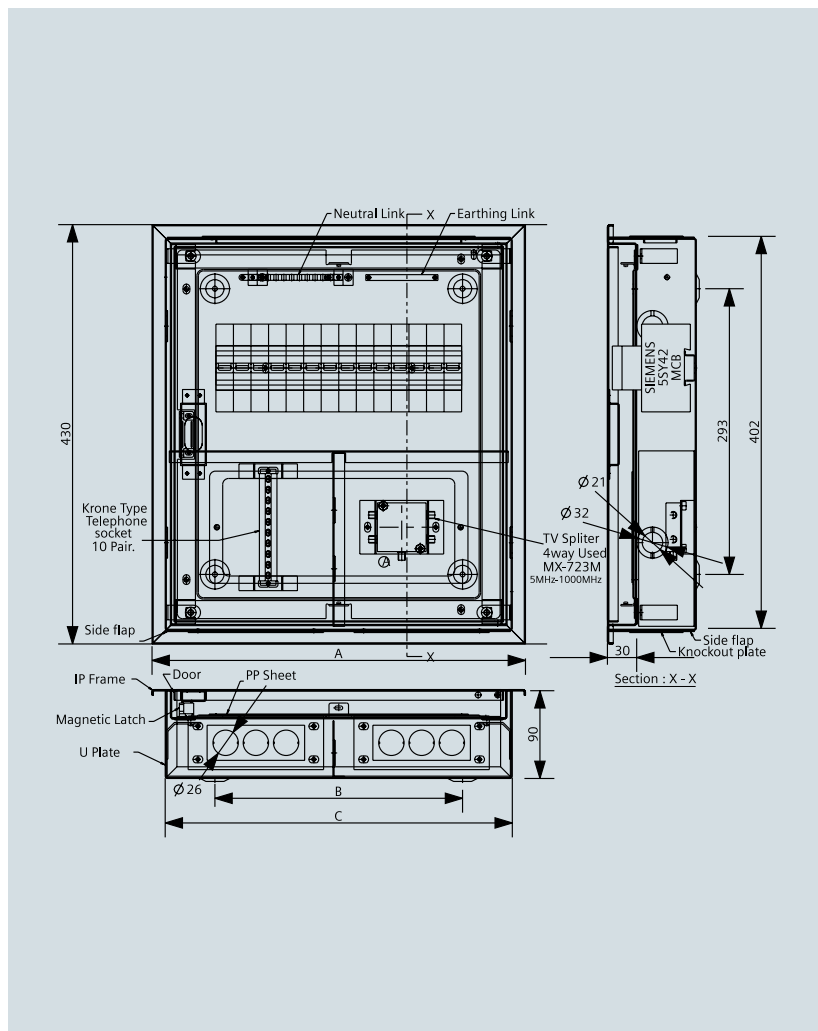
**Application:** Highly Recommended where ever MCCB as incoomer up to 160A and TP/SP MCBS are to be mounted in the outgoing circuits. The ready made insulated vertical bus bar will simplify the wiring job apart from giving total safety.

# Betagard Distributions Boards

## Betagard 8GB31 DBs

### Dimensional drawings:

#### Betagard SPN DB (8GB31) with or without TV splitter and krone type telephone socket



#### Note:

- 1) Powder coating 100±25µ
- 2) Colour ivory white RAL-9016 shade
- 3) All dimensions are in mm.

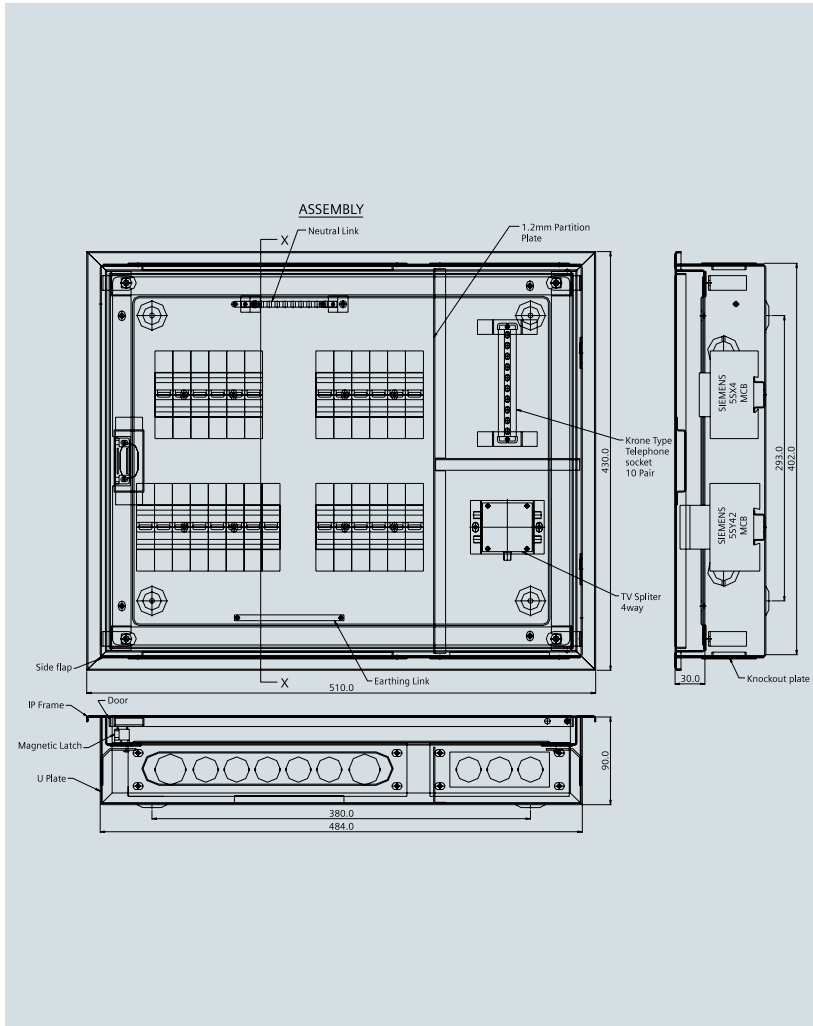
#### Dimension (mm)

Model	A	B	C	Knockout		
				Per side (top & bottom)		Per side flap combination Ø32/Ø21 combi
				Combi Ø40/Ø28	Combi Ø32/Ø20	
8GB31215RC	383	254	356	2	11	2
8GB31315RC						

**Application:** Recommended for single phase power distribution network + TV & telephone connection in one location in order to give better aesthetics and neat wiring.

### Dimensional drawings:

#### Betagard TPN DB (8GB31) with or without TV splitter and krone type telephone socket



#### Note:

- 1) Powder coating 100±25µ
- 2) Colour ivory white RAL-9016 shade
- 3) All dimensions are in mm.

#### Dimension (mm)

Model	A	B	C	Knockout		
				Per side (top & bottom)		Per side flap size Ø32 & Ø21 combination
				Ø32	Ø26	
8GB31221RC	510	380	484	2	8	2
8GB31321RC						

**Application:** Recommended for three phase power distribution network + TV & telephone connection in one location in order to give better aesthetics and neat wiring.

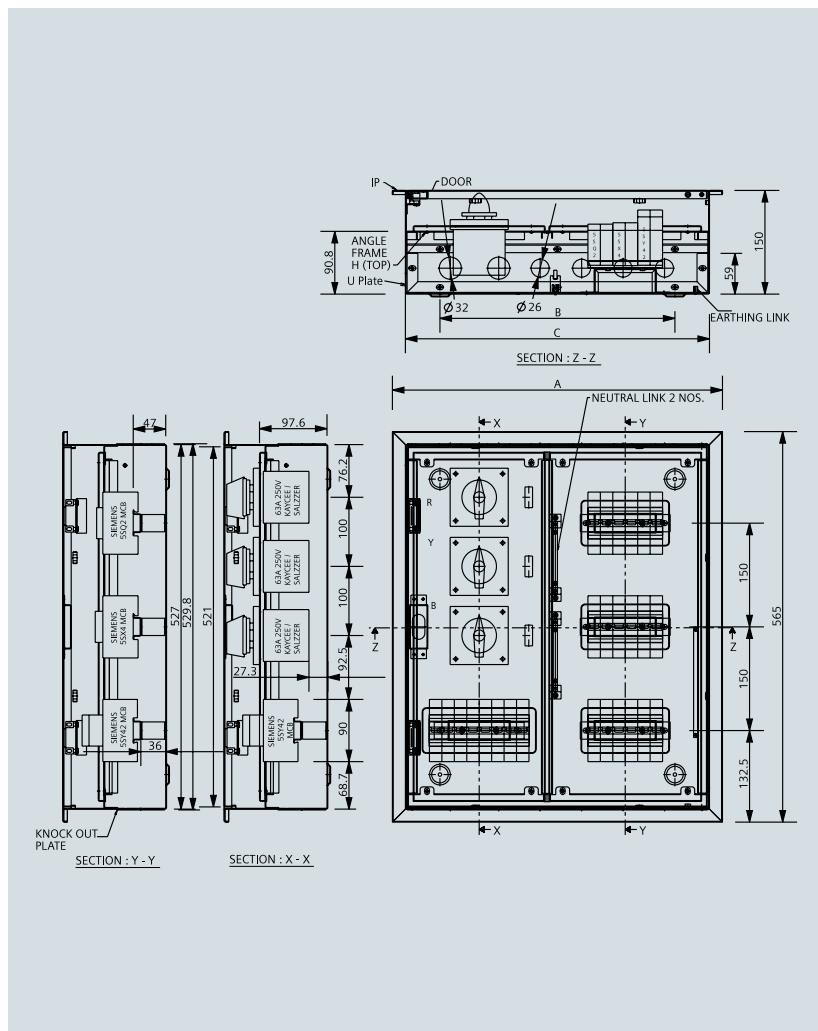


# Betagard Distributions Boards

## Betagard 8GB31 DBs

### Dimensional drawings:

#### Beta phase change over DB (8GB31)



Note:

- 1) Powder coating 100±25μ
- 2) Colour ivory white RAL-9016 shade
- 3) All dimensions are in mm.

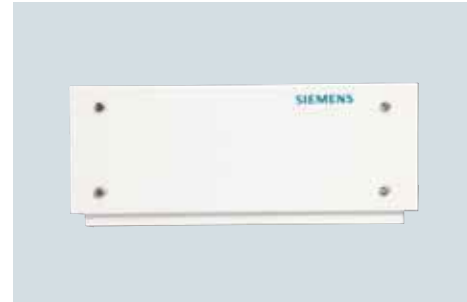
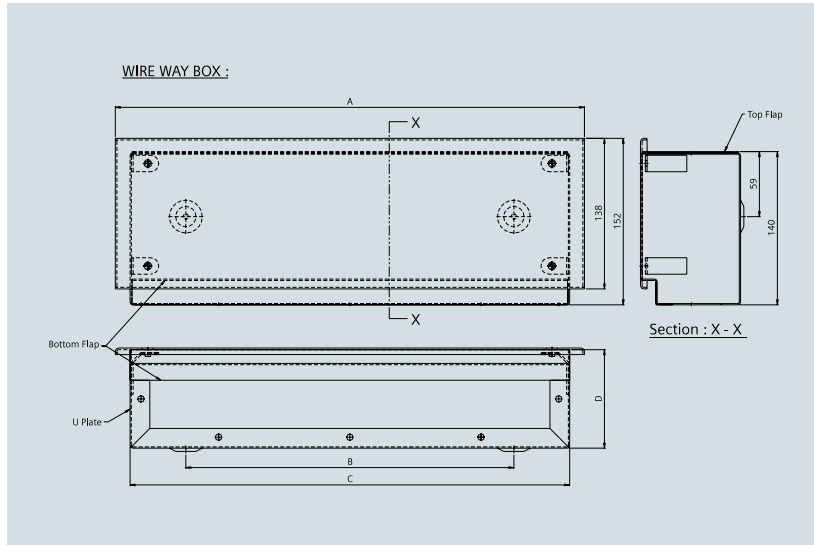
MLFB	Type	A	B	C
8GB3184 0RC	4 way	442	313	415
8GB3184 1RC	6 way	477	348	450
8GB3184 2RC	8 way	512	383	485
8GB3184 4RC	12 way	587	458	560

**Application:** Recommended where ever the reliability of 3 phase supplies are not dependable. Beta change over DB will have a feature to shift the load connected to the dead phase to a live one whenever there is a failure of any one phase.



### Dimensional drawings:

#### Beta Bus plus DB with vertical Bus Bar (8GB31)

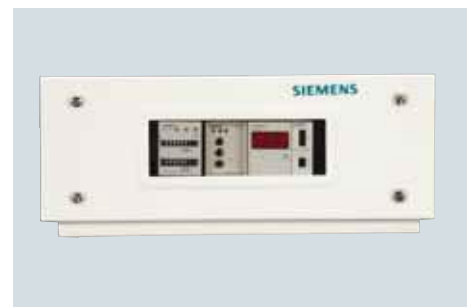
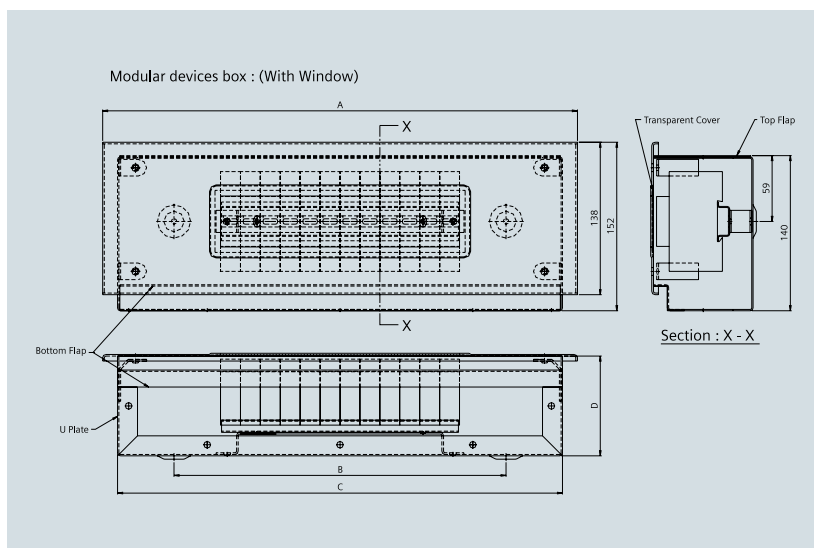


Note:

- 1) Powder coating 100±25μ
- 2) Colour ivory white RAL-9016 shade
- 3) All dimensions are in mm.

Suitable for	Config.	Type	A	B	C	D	Nos of MCB Slot
Flexi DB	12 X 2R & 12 X 4R	8GB9912FWWNT	325	226	298	90	12
	8 X 4R	8GB9908FWWNT	253	154	226		08
	16 X 2R & 16 X 4R	8GB9916FWWNT	413	314	386		16
Beta Bus DB	—	8GB99BUSWWNT	430	300	402	90	12
Beta Bus Plus DB	—	8GB99PLUSWWNT				120	

#### Betagard modular device boxes



Note:

- 1) Powder coating 100±25μ
- 2) Colour ivory white RAL-9016 shade
- 3) All dimensions are in mm.

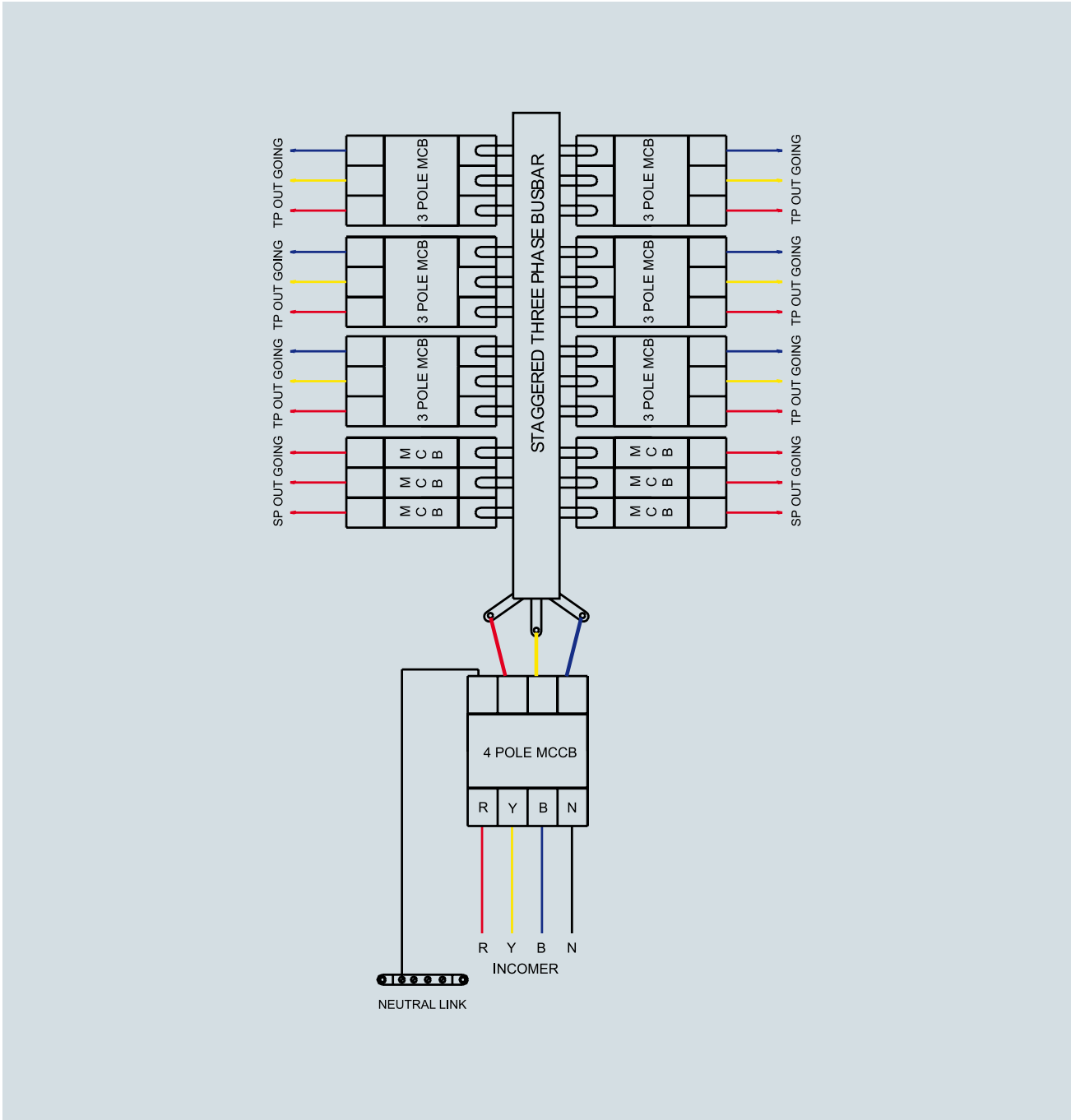
Suitable for	Config.	Type	A	B	C	D	Nos of MCB slot
Flexi DB	12 X 2R & 12 X 4R	8GB9912FMDTC	325	226	298	90	12
	8 X 4R	8GB9908FMDTC	253	154	226		08
	16 X 2R & 16 X 4R	8GB9916FMDTC	413	314	386		16
Beta Bus DB	-	8GB99BUSMBTC	430	300	402	90	12
Beta Bus Plus DB	-	8GB99PLUSMBTC				120	

# Betagard Distributions Boards

## Betagard 8GB31 DBs

### Wiring Diagram:

#### Three Phase Incoming & TP/SP outgoing with vertical busbar system



Beta Bus: 125A 5SP4, 63A 5SX4, 5SJ4 and 5SQ2 as an incomer and SP/TP MCB upto 63A 5SX4 and 5SQ2 as an outgoing  
Beta Bus Plus: 160A 3VT1 MCCB as incomer and SP/TP MCB upto 63A 5SX4 and 5SQ2 as outgoing

# Betagard Distributions Boards

SIMBOX WP

Simbox WP DBs are designed to withstand harsh ambient conditions in both indoor and outdoor areas and comply with IP 65. Their resistance to dust and splashing water makes them ideal for use in a range of different application areas, such as car washes, farms, joiners' workshops, etc.

Due to their large temperature operating range (-25°C to +60°C) UV radiation resistance and resistance to dust and splashing water, this distribution board range is especially suitable for harsh ambient conditions.

## Design:

### Equipment

The distribution boards can be equipped with modular installation devices, such as MCBs and RCCBs with 63 A and a mounting depth of 55 mm up to 70 mm, by snapping onto the standard mounting rails 35 mm x 7.5 mm to EN 60715.

Depending on the selection, the small distribution boards can be equipped with devices of 12 to 18 modular widths.

## Technical specifications:

Rated current in A	Up to 63
Rated voltage in V AC	400
Degree of protection	IP65
Safety class	2 (total insulation)
Color	Light gray RAL 7035

## Standards:

The SIMBOX WP small distribution boards comply with EN 60439-3 and IEC 60439-3.

## Benefits:


- The wiring space behind the standard mounting rail is 15 mm and 48 mm, ensuring fast and easy wiring.
- The extremely robust transparent door can also be equipped with a lock, which can be ordered from the range of accessories. The door can be hinged on the right or left without tools; its opening angle is 180°.
- The withdraw able equipment rack ensures easy and fast assembly. The generous wiring space and clearly arranged modular design reduce assembly time by approx. 20%.
- The plastic materials used can be recycled.



# Betagard Distributions Boards

## SIMBOX WP

### Selection and Ordering Data:

	Item Description	Incoming Slots	Outgoing slots	Total slots	Reference No.	Std Pkg Nos.
<b>Simbox WP (IP65 DBs)</b>						
	1 Row, 4Mod	—	—	4	8GB13710	1
	1 Row 8Mod	—	—	8	8GB13711	1
	1 Row 12Mod	—	—	12	8GB13712	1
	1 Row 18Mod	—	—	18	8GB13713	1
	2 Row 2 x 12Mod	—	—	24	8GB13722	1
	2 Row, 2 x 18Mod	—	—	36	8GB13723	1
	3 Row, 3 x 18Mod	—	—	54	8GB13733	1
	4 Row 4 x 18Mod	—	—	72	8GB13743	1

### Accessories for Simbox WP

	Coupling covers, 12M				8GB20510	1
	Coupling covers, 18M				8GB20511	1
	Insulated N/PE terminals, 8MW				8GB20520	1
	Insulated N/PE terminals, 12MW				8GB20521	1
	Insulated N/PE terminals, 18MW				8GB20522	1
	Cylindrical security lock				8GB20550	1
	Interchangeable flange				8GB20500	1

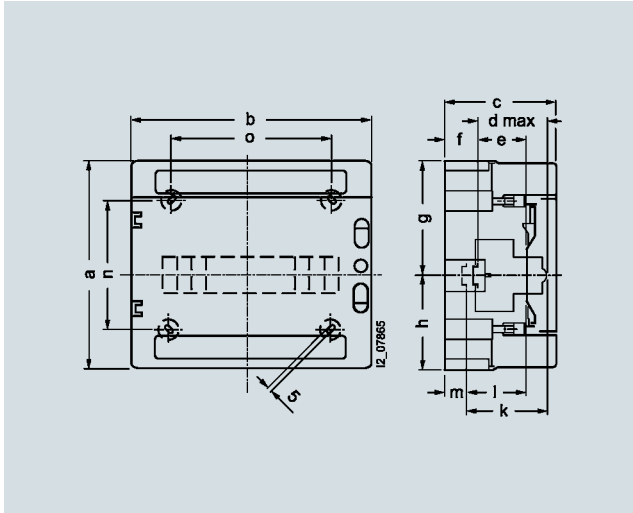
Note:

- Stock Items # 1MW (Module Width) = 18mm

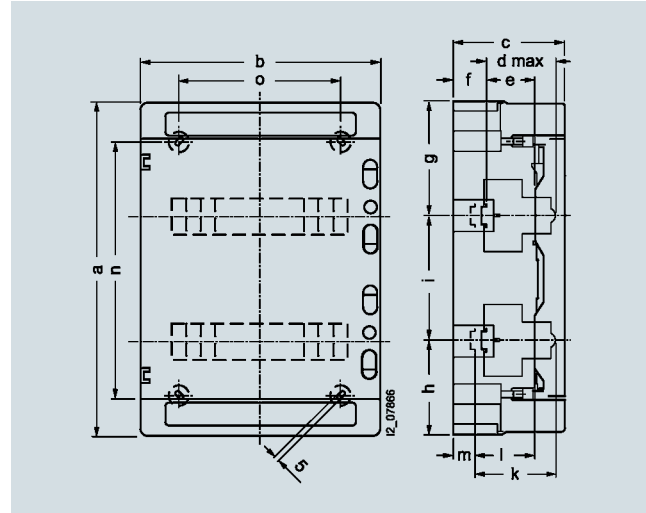


### Dimensional drawings:

#### Simbox WP



1-tier 8GB1 371-0, 8GB1 371-1, 8GB1 371-2, 8GB1 371-3



2-tier 8GB1 372-2, 8GB1 372-3 (3- and 4-tier versions not shown)

MW	Type	Dimensions													
		a	b	c	d <sub>max</sub>	e	f	g	h	i	k	l	m	n	o
1 x 4	8GB1 371-0	210	148	100	75	48	15	105	105	-	-	-	-	156	87
1 x 8	8GB1 371-1		215											110	
1 x 12	8GB1 371-2	260	298	140	75	48	48	117.5	142.5	-	102	75	21	161	200
1 x 18	8GB1 371-3	285	410											185	310
2 x 12	8GB1 372-2	420	298	140	75	48	48	147.5	122.5	150	102	75	21	320	200
2 x 18	8GB1 372-3	463	410					155.5	131.5					210	293
3 x 18	8GB1 373-3	655	410	140	75	48	48	162.5	142.5	175	102	75	21	363	319
4 x 18	8GB1 374-3	878						175	155.5					394	

a = Distribution board height  
g = Device mounting depth

b = Distribution board width  
h = Wiring space behind the standard mounting rail

c = Distribution board depth



# Betagard Distributions Boards

Notes