

Junction Boxes & Enclosures

JBEP and ECEP Series: Undrilled Fiberglass Reinforced Polyester Enclosures – Increased Safety



CSPe Type – Small Version



CAe Type – Non-Hinged Version



CAe Type – Hinged Versions

Compliance Data:

ATEX - IECEx:



Zone 1 & 2 – 21 & 22	ATEX	II 2 GD	IECEx	CE
Ex e II Ex ia IIC; Ex ib IIC Ex de IIC; Ex demb IIC	T6 to T2	Ex tD A21	T75°C to T295°C	IP66 – IK10

Operating Temperatures:

-55°C to +60°C (CSPe Type)

-40°C to +55°C (CAe Type)

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Zone 1 & 2 – 21 & 22

II 2 GD

ATEX / IECEx

IP66 – IK10

Applications:

- Designed for use in Zone 1 or 2 areas, where flammable gases or vapors are present either continuously or intermittently.
- Ideal for wet or corrosive atmospheres.
- Petroleum, chemical, refineries and other industrial process facilities.
- Designed for use in Zone 21 or 22 areas, where flammable dusts are present either continuously or intermittently. Food processing, dairy, brewing and other commercial facilities.

JBEP Series:

- Terminal junction boxes for electrical low voltage and instrumentation connections in hazardous areas.
- Refer to technical data to define permitted number of terminal blocks and cable entries on selected junction boxes.

ECEP Series:

- Enclosure for distribution and control applications. Can be modified at our manufacturing facility to house a large range of components; i.e. control units, switches, breakers, transformers, meters, etc.

Features:

- Static resistant black fiberglass reinforced polyester enclosure.
- Available in a wide range of sizes.
- Operating temperature -55°C to +60°C (CSPe) and -40°C to +55°C (CAe).
- Stainless steel hardware.
- Hinges standard on all sizes above 400 x 300 mm.

Hinged enclosures:

- Reversible door opening 180°.
- Door with double bar lock.
- Key locking facility.
- Protective flange at top and bottom.

Standard Materials of Fixtures:

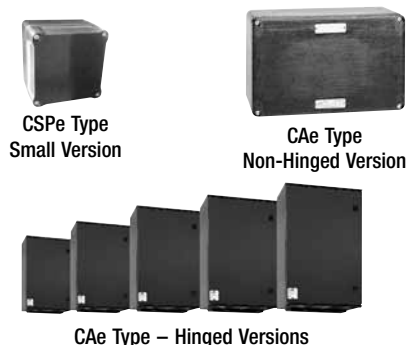
- Static resistant carbon filled fiberglass reinforced polyester (FRP) enclosures.
- Stainless steel hardware.

Accessories:

- Mounting pan.
- Rail mounting.
- Padlocking device.
- Inside pocket for documents.
- Refer to technical data to define permitted number and size of terminals and cable entries.

Options:

- Removable gland plates.
- Nameplates.
- Consult factory for custom drilling and assembly requirements.
- Empty enclosure with Ex “U” component marking for re-certification by notified body for CAe type.



Catalog Number Logic:

JBEP	XX	XX	XX	X	X
Series	Dimensions	Dimensions	Dimensions	Gland Plates (1):	Options:
ATEX / IEC Certified:	Length (mm):	Width (mm):	Depth (mm):	0 = None	(options must be listed alphabetically)
EC = Enclosure & Controls	12 = 120	12 = 120	09 = 91	1 = One Bottom	E = Earth Continuity Brass Plate
JB = Junction Box	17 = 170	20 = 200	15 = 150	2 = One Top and Bottom	M = Mounting Pan
E = Increased Safety	21 = 215	30 = 300	20 = 200	3 = Two Sides and Bottom	U = Component Certification “U”
I = Intrinsic Safety	23 = 230	40 = 400	25 = 200	4 = All Sides	# = Customized at Factory
P = Polyester	32 = 320	60 = 600	30 = 300		
	40 = 400	80 = 800			
	42 = 425				
	50 = 500				
	57 = 575				
	60 = 600				
	80 = 800				
	10 = 1000				

(1) Gland plate for hinged enclosures only.

#: 6 Digit number will be assigned at time of order placement.

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Zone 1 & 2 – 21 & 22

Ex II 2 GD

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Ordering Information:

JBEP Series Exe II Small Polyester Junction Boxes

For use with Ex certified terminals only (not supplied).

Mounting rails supplied.

Yellow laminated plastic label with black lettering.



Type	Dimensions L x W x D (mm)	Rail Length (mm)	Weight (kg)	Volume (dm³)	Catalog Number	Old Catalog Number
CSPe1	120 x 120 x 91	62	0.8	4	JBEP 121209 0	–
CSPe2	170 x 120 x 91	112	1	4	JBEP 171209 0	–
CSPe3	230 x 120 x 91	172	1.2	4	JBEP 231209 0	–

Exe II Non-Hinged Junction Boxes

For use with Ex terminals only (not supplied).

Mounting rails to be ordered separately.

Yellow laminated plastic label with black lettering.



Type	Dimensions L x W x D (mm)	Rail Length (mm)	Weight (kg)	Volume (dm³)	Catalog Number	Old Catalog Number
CAe1	215 x 200 x 150	191	3	13	JBEP 212015 0	095953
CAe2	320 x 200 x 150	293	3.8	23	JBEP 322015 0	095954
CAe3	425 x 200 x 150	400	4.9	26	JBEP 422015 0	095955
CAe4	575 x 200 x 150	554	6.2	33	JBEP 572015 0	095956

Exe II Hinged Junction Boxes without Gland Plate

For use with Ex terminals only (not supplied).

Mounting pan and rails to be ordered separately.



Type	Dimensions L x W x D (mm)	Rail Length (mm)	Weight (dm³)	Volume Number	Catalog Number	Old Catalog Number
CAe6	400 x 300 x 206	243	4.4	33	JBEP 403020 0	095957
CAe7	500 x 400 x 206	343	5.3	47	JBEP 504020 0	–
CAe8	610 x 400 x 257	343	7.7	84	JBEP 604025 0	–
CAe10	820 x 610 x 300	543	18.3	190	JBEP 806030 0	096473
CAe11	1020 x 810 x 300	743	23.6	313	JBEP 108030 0	096474

Exe II Hinged Junction Boxes with Bottom Opening for Gland Plate

For use with Ex terminals only (not supplied).

Opening at bottom 114 x 322 mm.

Mounting pan, rails and gland plate to be ordered separately.



Type	Dimensions L x W x D (mm)	Rail Length (mm)	Weight (kg)	Volume (dm³)	Catalog Number	Old Catalog Number
CAe7	500 x 400 x 206	343	5.3	47	JBEP 504020 1	096465
CAe8	610 x 400 x 257	343	7.7	84	JBEP 604025 1	096471

Removable Gland Plate



Description	Size (mm)	Drilling	Weight (kg)	Volume (dm³)	Catalog Number	Old Catalog Number
Gland Plate	114 x 322	Blank	1.4	0.4	JBEPGP400	096485
Gland Plate	114 x 322	Clearance holes for 17 x M20 + 3 x M25	1.4	0.4	JBEPGP400 D12	096486
Gland Plate	130 x 264 (1)	Blank	1.3	0.3	JBEPGP300	096490

(1) To be used with customized enclosure CAe6.

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Ordering Information – Continued:

Coupling Flange

Description	Size (mm)	Weight (kg)	Volume (dm ³)	Catalog Number	Old Catalog Number
Coupling Flange	114 x 322	1.3	0.2	JBEP CF1	–

ECEP Series:

Polyester Enclosure for Distribution and Control Applications

Designed to house a large range of components; i.e. control units, switches, breakers, transformers, meters, etc.

Must be customized at our workshop. Order using the following catalog number:

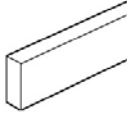
Replace “JB” with “EC” and add # as last digit for customized enclosure.

Example: JBEP 403020 0 becomes ECEP 403020 0 #. At time of order, # will be replaced by a 6 digit number.

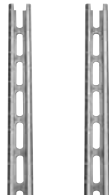
Mounting Accessories:

Enclosure Type	Rail Length (mm)	Catalog Number	Old Catalog Number	Pack
Zinc Plated Symmetrical Steel Rail For direct fixing. Set of two 60 mm height spacers supplied.				
CAe1	191	JBEP DR215	–	1
CAe2	293	JBEP DR320	–	1
CAe3	400	JBEP DR425	–	1
CAe4	554	JBEP DR575	–	1

Description	Catalog Number	Old Catalog Number	Pack
 Insulated Side Support – Set of Two For mounting symmetrical, assymetrical rails and copper bar 12 x 2 mm or 12 x 4 mm. See dimensional data page for more details.	096115	–	1

Description	Bar Length (mm)	Catalog Number	Pack
Copper Bar (12 x 4 mm) Copper bar not perforated for cable clamps.			
	160	097270	1
	200	097271	1
	310	097272	1
	500	097273	1
	690	097274	1
	1070	097275	1

Description	Catalog Number	Pack
 Cable Clamp for Copper Bar (12 x 4 mm) 1.5 mm ² to 4 mm ² capacity. 6 mm ² to 16 mm ² capacity.	097203 097204	1 1

Enclosure Type		Rail Length (mm)	Catalog Number	Old Catalog Number	Pack
	Zinc Plated Steel Uprights – Set of Two				
	“C” profile supplied with hardware.				
	CAe6	337	JBEP SR400	096475	1
	CAe7	437	JBEP SR500	096476	1
	CAe8	537	JBEP SR600	096477	1
	CAe10	737	JBEP SR800	096478	1
	CAe11	937	JBEP SR100	096479	1

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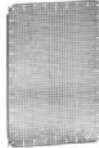
Zone 1 & 2 – 21 & 22

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Mounting Accessories – Continued:

Enclosure Type	Rail Length (mm)	Catalog Number	Old Catalog Number	Pack	
Zinc Plated Symetrical Steel Rail For fixing onto uprights with clip nut supplied.					
	CAe6	243	JBEP DR300	096481	1
	CAe7 / CAe8	343	JBEP DR400	096482	1
	CAe10	543	JBEP DR600	096483	1
	CAe11	743	JBEP DR800	096484	1
Enclosure Type	Dimensions (mm)		Catalog Number	Pack	
Mounting Pan Perforated mounting pan "Telequick".					
	CAe6	350 x 250	JBEPMP400	096452	1
	CAe7	450 x 350	JBEPMP500	096453	1
	CAe8	550 x 350	JBEPMP600	096454	1
	CAe10	750 x 550	JBEPMP800	096455	1
	CAe11	950 x 750	JBEPMP100	096456	1
Description			Catalog Number	Pack	
Self Adhesive Pocket for Drawings					
	External dimensions: 260 x 165 mm. Internal dimensions: 230 x 130 x 18 mm.		097263	1	
	External dimensions: 340 x 235 mm. Internal dimensions: 310 x 200 x 18 mm.		097264	1	
Padlocking Device					
	Takes 3 safety padlocks shackle dia. 6 mm maximum.		JBEPPL	1	

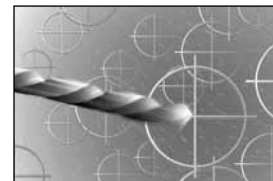
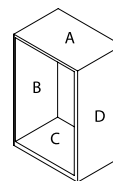
Technical Data:

JBEP Series for Terminal Junction Box Application Only.

The size of junction box needed to meet your requirements can be selected based upon the table show below. We also offer you the possibility to drill and equip using guides G0002 & G0003 available online at www.egsatx.com

- 1) Define maximum cable entries according to number of modules available per side.

Cable Entry Metric Thread	Number of Modules
M20	1
M25	1
M32	1
M40	2
M50	3



Type	Dimensions (mm)			Number of Modules			Allowable Max.
	Length	Width	Depth	B/D	A/C	A'/C' (1)	Size
CSPe1	120	120	91	2	2	—	M25
CSPe2	170	120	91	3	2	—	M32
CSPe3	230	120	91	4	2	—	M32
CAe1	215	200	150	11	8	—	M50
CAe2	320	200	150	18	8	—	M50
CAe3	425	200	150	26	8	—	M50
CAe4	575	200	150	38	8	—	M50
CAe6	400	300	206	18	18	—	M50
CAe7	500	400	206	24	10	10	M50
CAe8	610	400	257	48	10	10	M75
CAe10	820	610	300	72	54	—	M100
CAe11	1020	810	300	96	78	—	M100

(1) Enclosure with removable gland plate

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Zone 1 & 2 – 21 & 22

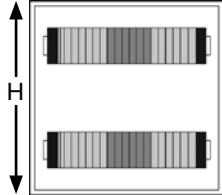
II 2 GD

ATEX / IECEx

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Technical Data – Continued:

2) Maximum rail arrangement according to physical dimensions.



		Maximum Quantity of Horizontal Rails Per Quantity						
		Terminal Capacity (mm ²)						
	H (mm)	2.5	4	6	10	16	35	50
CSPe1/2/3	120	1	1	1	1	0	0	0
CAe1/2/3/4	200	1	1	1	1	1	1	0
CAe6	400	3	3	3	2	2	2	1
CAe7	500	4	4	3	3	3	2	1
CAe8	610	4	4	4	4	3	3	2
CAe10	820	6	6	5	5	5	4	3
CAe11	1020	8	8	7	7	6	5	3

3) Define maximum terminal block quantity according to power dissipation:

Junction boxes used for instrumentation applications have very low current levels, therefore there is no risk of overheating whatever the number of terminals inside the box.

For applications other than instrumentation, the following tables allow you to define your junction box depending on the number of terminals and the maximum authorized current being carried with feed-through terminals.

For single feed terminals using cross connection, please consult factory for calculation.

Small Junction Boxes

T rating: T6		Type		
		CSPe1	CSPe2	CSPe3
		120 x 120 x 91 mm	170 x 120 x 91 mm	230 x 120 x 91 mm
2.5 mm ²	Qty. I Max.	12 15 A	22 13 A	33 12 A
4 mm ²	Qty. I Max.	10 20 A	18 19 A	28 16 A
6 mm ²	Qty. I Max.	7 32 A	14 27 A	21 24 A
10 mm ²	Qty. I Max.	4 50 A	6 50 A	8 50 A

Non-Hinged Junction Boxes

T Rating: T6 @ Ta +40°C T5 @ Ta +55°C		Type			
		CAe1	CAe2	CAe3	CAe4
		215 x 200 x 150 mm	320 x 200 x 150 mm	425 x 200 x 150 mm	575 x 200 x 150 mm
2.5 mm ²	Qty. I Max.	20 16 A	21 16 A	23 16 A	29 14 A
4 mm ²	Qty. I Max.	19 20 A	20 20 A	23 20 A	33 16 A
6 mm ²	Qty. I Max.	12 32 A	13 32 A	14 32 A	18 28 A
10 mm ²	Qty. I Max.	10 40 A	11 40 A	18 32 A	22 28 A
16 mm ²	Qty. I Max.	8 28 A	10 27 A	13 25 A	15 26 A
25 mm ²	Qty. I Max.	8 67 A	8 73 A	10 69 A	10 70 A
35 mm ²	Qty. I Max.	8 79 A	8 86 A	10 80 A	10 80 A

For other terminal block configurations please consult our guide G0002 available online at www.egsatx.com

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Technical Data – Continued:

Hinged Junction Boxes

T Rating: T6 @ Ta +40°C T5 @ Ta +55°C		Type				
		CAe6	CAe7	CAe8	CAe10	CAe11
		400 x 300 x 206 mm	500 x 400 x 206 mm	610 x 400 x 257 mm	820 x 610 x 300 mm	1020 x 810 x 300 mm
35 mm ²	Qty. I Max.	12 100 A	16 100 A	16 100 A		
50 mm ²	Qty. I Max.	8 125 A	12 125 A	16 125 A		
70 mm ²	Qty. I Max.	8 160 A	10 160 A	12 160 A		
95 mm ²	Qty. I Max.	8 200 A	10 200 A	12 200 A		
120 mm ²	Qty. I Max.		8 250 A	8 250 A	12 200 A	16 150 A
150 mm ²	Qty. I Max.			6 250 A	9 250 A	12 190 A
185 mm ²	Qty. I Max.				8 300 A	10 240 A

For other terminal block configurations please consult our guide G0003 available online at www.egsatx.com

Compliances:

Hazardous Area	Gas	Dust
Certification Type	CSPe	
Zones	1–2	21–22
Conforming to ATEX 94/9/CE	CE 0081⊕ II 2 G	CE 0081⊕ II 2 D
Symbol of Protection ATEX	Ex e II Ex ia IIC Ex ib IIC	Ex tD A21
Symbol of Protection IEC	Ex de IIC Ex demb IIC	
T Rating	T6	NA
Surface Temperature	NA	T75°C
Ambient Temperature	-55°C to +60°C	
CE Declaration of Conformity	50284	
ATEX Certificate	LCIE 09 ATEX 3032X	
IECEx Certificate	IECEx LCI 09.0016X	
Other Certifications	GOST	
Index of Protection (solid and liquid)	IP66	
Impact resistance (shock)	IK10	

Hazardous Area	Gas	Dust
Certification Type	CAe	
Zones	1–2	21–22
Conforming to ATEX 94/9/CE	CE 0081⊕ II 2 G	CE 0081⊕ II 2 D
Symbol of Protection ATEX	Ex e II Ex ia IIC Ex ib IIC	Ex tD A21
Symbol of Protection IEC	Ex de IIC Ex demb IIC	
T Rating	T6 to T2	NA
Surface Temperature	NA	T80°C to T295°C
Ambient Temperature	-40°C to +55°C	
CE Declaration of Conformity	50235	
ATEX Certificate	LCIE 02 ATEX 6248X	
IECEx Certificate	IECEx LCI 04.0016X	
Other Certifications	GOST	
Index of Protection (solid and liquid)	IP66	
Impact resistance (shock)	IK10	

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Compliances – Continued:

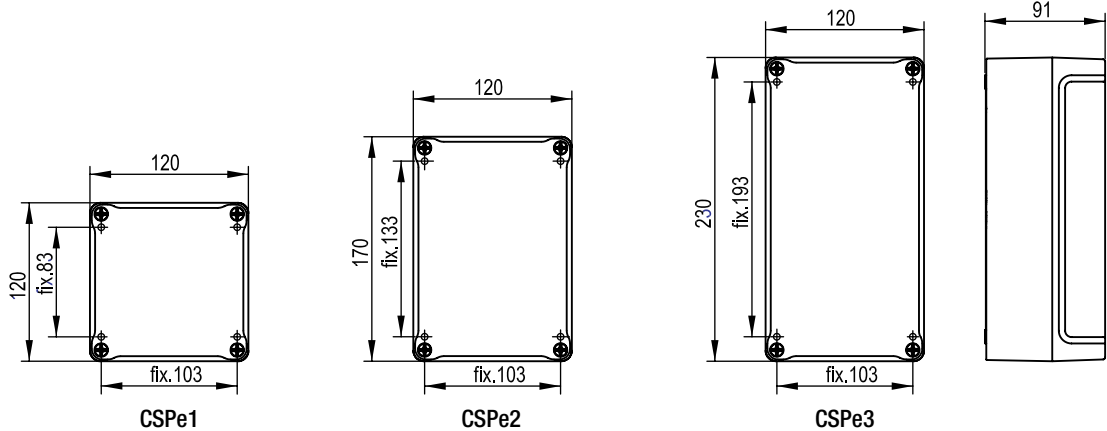
Hazardous Area	Gas	Dust
Certification Type	CAe U	
Zones	1–2	21–22
Conforming to ATEX 94/9/CE	0081II 2 G	0081II2 D
Symbol of Protection ATEX	Ex e II	Ex tD A21
Symbol of Protection IEC		
T Rating	NA	NA
Surface Temperature	NA	NA
Ambient Temperature	-40°C to +55°C	
CE Declaration of Conformity	5C241	
ATEX Certificate	LCIE 09 ATEX 3036 U	
IEC Certificate	LCIE Ex 09.002 U	
Other Certifications	–	
Index of Protection (solid and liquid)	IP66	
Impact resistance (shock)	IK10	

Standards:

Ex Standards	EN / IEC 60079-0; 60079-1; 60079-7; 60079-11; 61241-0; 61241-1; 61241-11
Product Standards	–
EMC Standards	–
Other Standards	EN / IEC 60529 (IP); 62262 (IK)

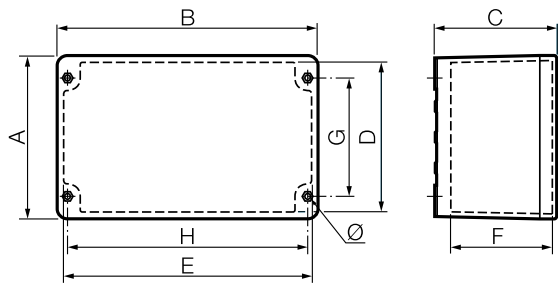
Dimensions (mm):

CSPe1 to CSPe3



Fixing details for above boxes: four holes Ø 5

CAe1 to CAe4



Type	External			Internal			Fixings			
	A	B	C	D	E	F	G	H	Thick	Ø
CAe1	200	215	150	185	200	125	146	189	6	6.5
CAe2	200	320	150	185	305	125	146	294	6	6.5
CAe3	200	425	150	185	410	125	146	399	6	6.5
CAe4	200	575	150	185	560	125	146	548	6	6.5

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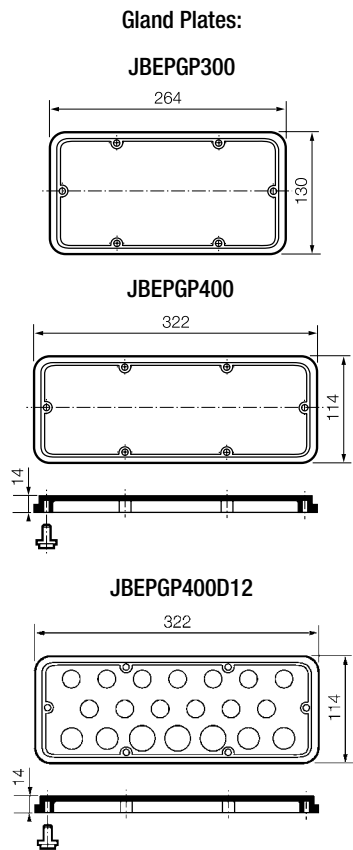
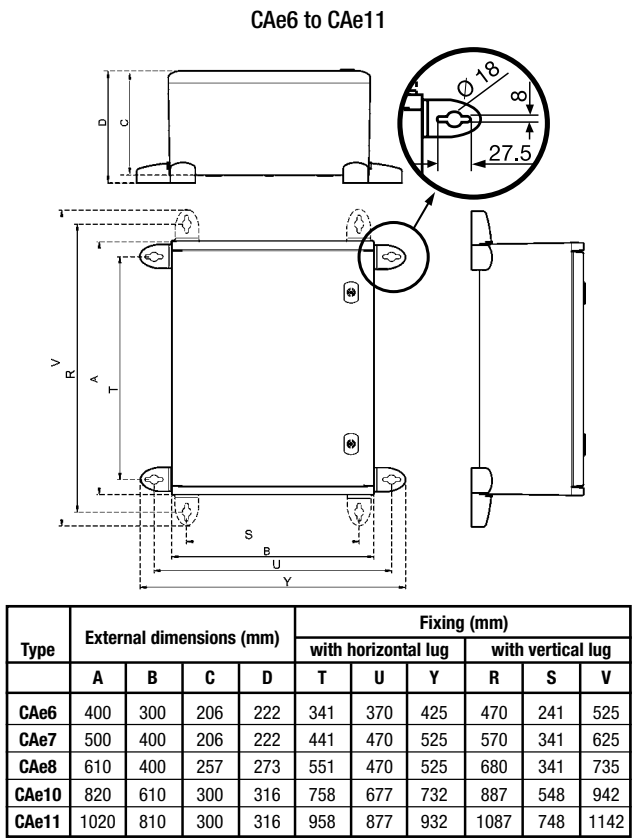
Zone 1 & 2 – 21 & 22

II 2 GD

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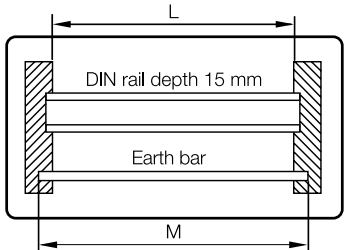
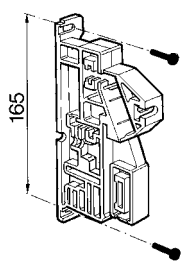
IP66 – IK10

Dimensions (mm) – Continued:



JUNCTION BOXES & ENCLOSURES

Insulated Side Support (Rail Holder) 096115



Equipment Capacity		
Type	L(mm)	M (mm)
CAe1	105	129
CAe2	206	234
CAe3	310	339
CAe4	315	345

Example of Customized Enclosure ECEP Series

