

# Battery Boxes

## Series 8316



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10994E00

- > Back-up power supply
- > Maintenance-free batteries
- > Low self-discharge
- > Extremely low gas emissions
- > Electrolyte-tight
- > No acid surface coating
- > Protection against total discharge
- > Leak-proof
- > Stable cycle and durability
- > Long service life
- > Buffer for irregular charging
- > Reliable continuous current output



The battery box of Series 8316 is used as a back-up power supply unit in hazardous areas. The gases formed during charging recombine to form water in the closed battery system within the cells. This ensures extremely clean and safe handling since neither gases nor acid mist are emitted to the outside.

Zone	ATEX					
	0	1	2	20	21	22
For use in		x	x			

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**WebCode 8316A**

## Battery Boxes

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Selection Table

Version	Battery voltage	Rated operational current	Battery capacity Ah	Charging current	Charging voltage	Order number
Modules	12 V	2 A	2	0.2 A	13.8 V	8316/22-12-020
		10 A	10	1.0 A	13.8 V	8316/22-12-100
		25 A	25	2.5 A	13.8 V	8316/22-12-0250-1-086
		40 A	40	4.0 A	13.8 V	8316/22-12-0400-1-086
		63 A	60	6.0 A	13.8 V	8316/22-12-0600-1-086
	24 V	2 A	2	0.2 A	27.6 V	8316/22-24-020
		10 A	10	1.0 A	27.6 V	8316/22-24-100
		25 A	25	2.5 A	27.6 V	8316/22-24-250-000
		40 A	40	4.0 A	27.6 V	8316/22-24-400-000
		63 A	60	6.0 A	27.6 V	8316/22-24-600-000
Complete units with terminal compartment	12 V	2 A	2	0.2 A	13.8 V	8316/22-12-020-000
		10 A	10	1.0 A	13.8 V	8316/22-12-100-000
		25 A	25	2.5 A	13.8 V	8316/22-12-250-000
		40 A	40	4.0 A	13.8 V	8316/22-12-400-000
		63 A	60	6.0 A	13.8 V	8316/22-12-600-000
	24 V	2 A	2	0.2 A	27.6 V	8316/22-24-020-000
		10 A	10	1.0 A	27.6 V	8316/22-24-100-000
		25 A	25	2.5 A	27.6 V	8316/22-24-250-000
		40 A	40	4.0 A	27.6 V	8316/22-24-400-000
		63 A	60	6.0 A	27.6 V	8316/22-24-600-000

#### Explosion Protection

##### Global (IECEX)

Gas

IECEX DEK 13.0081X  
Ex e IIC T6 Gb

##### Europe (ATEX)

Gas

KEMA 04ATEX 2237 X  
Ⓜ II 2 G Ex e II T6 Gb

##### Certifications and certificates

Certificates

IECEX, ATEX

# Battery Boxes

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### Technical Data

#### Electrical data

Terminal compartment Fuse	Battery type	Fuse with characteristic	Fuse type				
	8316/22-...-020	T 2.0 A	8560/51-422				
	8316/22-12-100	B 10.0 A	8562/51-1010-100				
	8316/22-24-100	B 10.0 A	8562/52-2010-100				
	8316/22-12-250	B 25.0 A	8562/51-1010-250				
	8316/22-24-250	B 25.0 A	8562/52-2010-250				
	8316/22-12-400	B 40.0 A	8562/51-1010-400				
	8316/22-24-400	B 40.0 A	8562/52-2010-400				
	8316/22-...-600	gG 63.0 A	8561/02-12				
Battery boxes Rated operational voltage	2.0 ... 24 V DC						
	Rated current	Battery type	Battery voltage	Capacity			
	8316/22-12-020	12 V	2 Ah				
	8316/22-12-100	12 V	10 Ah				
	8316/22-12-250	12 V	25 Ah				
	8316/22-12-400	12 V	40 Ah				
	8316/22-12-600	12 V	60 Ah				
	8316/22-24-020	24 V	2 Ah				
	8316/22-24-100	24 V	10 Ah				
	8316/22-24-250	24 V	25 Ah				
	8316/22-24-400	24 V	40 Ah				
	8316/22-24-600	24 V	60 Ah				
Batteries	Battery type	A 512/...					
		S2	10 S	25 G5	40 A	60 A	
	Nominal voltage	V	12				
	Nominal capacitance $C_{20}$ 1.75 V/Z, 20 °C	Ah	2.0	10.0	25.0	40.0	60.0
	Discharge current $I_{20}$	A	0.050	0.50	1.25	2.00	3.00
	Maximum load <sup>1</sup>	ap-prox. A	40	80	200	400	400
	Internal resistance according to IEC 896-2	m Ω	172.0	66.0	21.3	11.6	6.6
	Short-circuit current according to IEC 896-2	A	73	189	583	1069	1887
	For planning:						
	Max. discharge current	A	40	80	200	400	400
Fuse protection with $I_n$	A	2	10	25	40	63	
<sup>1</sup> with corresponding matching contacts Charging according to IEC/EN 60079-7							
<b>Ambient conditions</b>							
Ambient temperature	Standard device:	- 20 ... + 40 °C					
	Temperature range for charging:	0 ... + 40 °C					
<b>Mechanical data</b>							
Degree of protection Terminal compartment	IP23 according to IEC/EN 60529						

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### Technical Data





Connection cross-section	Battery type	Max. cross-section for connection		
	8316/22-...-020	6 mm <sup>2</sup>		
	8316/22-...-100	6 mm <sup>2</sup>		
	8316/22-...-250	10 mm <sup>2</sup>		
	8316/22-...-400	16 mm <sup>2</sup>		
	8316/22-...-600	35 mm <sup>2</sup>		
Cable glands	Battery type	Cable glands	Cable dia. range	
	8316/22-...-020	1 x M25	7 mm ... 17 mm	
	8316/22-...-100	1 x M20	6 mm ... 13 mm	
	8316/22-...-250	1 x stopping plug M25		
	8316/22-...-400	1 x M32	13 mm ... 21 mm	
	8316/22-...-600	1 x M20 1 x stopping plug M32	6 mm ... 13 mm	
Battery boxes Material Cheese-head screws Available versions	Glass fibre reinforced polyester resin			
	M6 x 28			
	The battery box is available in the following versions:			
	Battery type	Design (i.s. = in series)	Ventilation openings	Battery types
	8316/22-12-020	1 x 12 V battery 2 Ah	1 x size 1	1 x A512/2 S
	8316/22-12-100	1 x 12 V battery 10 Ah	1 x size 1	1 x A512/10 S
	8316/22-12-250	1 x 12 V battery 25 Ah	2 x size 2	1 x A512/25 G5
	8316/22-12-400	1 x 12 V battery 40 Ah	2 x size 2	1 x A512/40 A
	8316/22-12-600	1 x 12 V battery 60 Ah	2 x size 2	1 x A512/60 A
	8316/22-24-020	2 x 12 V battery i.s. 2 Ah	1 x size 1	2 x A512/2 S
	8316/22-24-100	2 x 12 V battery i.s. 10 Ah	2 x size 2	2 x A512/10 S
	8316/22-24-250	2 x 12 V battery i.s. 25 Ah	4 x size 2	2 x A512/25 G5
	8316/22-24-400	1 x 12 V battery 40 Ah each	2 x size 2 each	1 x A512/40 A each
8316/22-24-600	1 x 12 V battery 60 Ah each	2 x size 2 each	1 x A512/60 A each	
Batteries Material	A512/2 S A512/10 S	ABS		
	A512/25 G5 A512/40 A A512/60 A	PP		
	A512/2 S, A512/10 S A512/24 G5 A512/40 A, A512/60 A	mit verlötetem Steckkabelschuh 5 Nm 8 Nm		
	UP-VW1220 SB12/60 A	ABS mit verlötetem Steckkabelschuh 8 Nm		
	Service life	A512	7 Jahre Design Life bei einer Umgebungstemperatur von 20 °C (80% Restkapazität von C <sub>20</sub> )	
		UP-VW1220	3 Jahre bei 25 °C oder 5 Jahre bei 20 °C	
SB 12/60		2 Jahre bei 20 °C		

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### Accessories and Spare Parts

Designation	Illustration	Description	Art. no.	Weight kg	
Batteries		A512 / 2 S	<b>125059</b>	1.000	
		A512 / 10 S	<b>125060</b>	4.000	
		A512 / 25G5	<b>125076</b>	9.650	
		A512 / 40 A	<b>125061</b>	14.600	
		A512 / 60 A	<b>125075</b>	21.700	
Cable glands	 02055E00	of moulded material, series 8161			
		8161/5-M20-13	50 pieces	<b>138454</b>	0.600
		8161/5-M25-17	50 pieces	<b>138456</b>	1.000
		8161/5-M 25-96	50 pieces	<b>138474</b>	1.000
		8161/5-M 32-21	25 pieces	<b>138458</b>	0.789
		8161/5-M 32-97	25 pieces	<b>138478</b>	0.910
Counter nut	 05865E00	To fasten the cable glands at the through drilling For cable glands			
		Type      Thread size      Packaging unit			
		Brass, nickel-plated      M25 x 1.5      50	<b>138389</b>	0.241	
		Brass, nickel-plated      M25 x 1.5      50	<b>138395</b>	0.348	
Fuses	 05736E00	8560/51, 250 V UC			
		$I_N$ [A]	Packaging units [pieces]		
		2.0	1 piece	<b>149112</b>	0.035
2.0	5	<b>149164</b>	0.210		
Back-up fuse	 05162E00	8561/02-12	63 A	<b>111269</b>	0.051

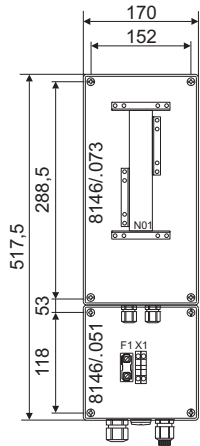
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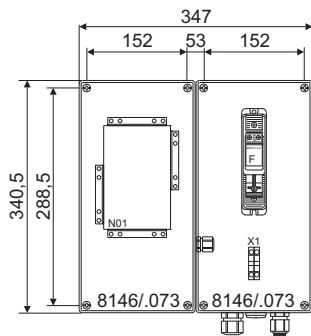
### Dimensional Drawings (All Dimensions in mm) - Subject to Alterations

Complete units with terminal compartment



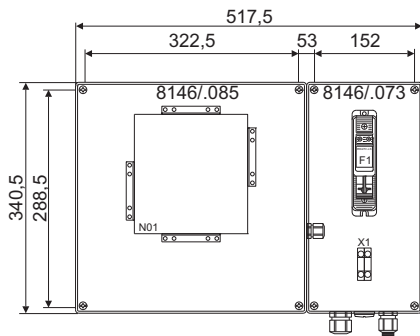
12204E01

Enclosure type 8146/5000-6-12-020



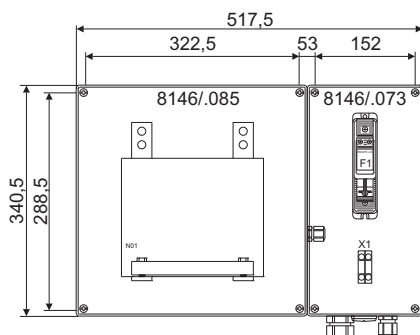
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Enclosure type 8146/5000-6-12-100



12206E01

Enclosure type 8146/5000-6-12-250



12207E01

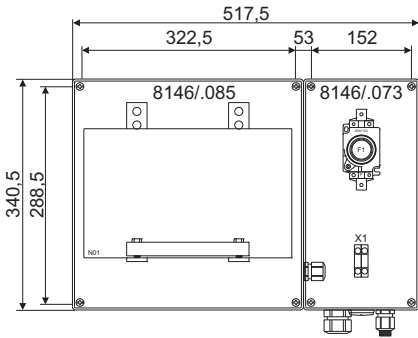
# Battery Boxes

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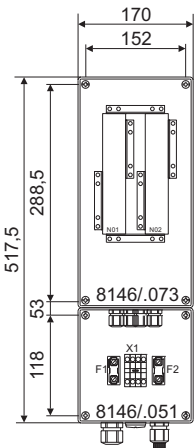
### Dimensional Drawings (All Dimensions in mm) - Subject to Alterations

Enclosure type 8146/5000-6-12-400



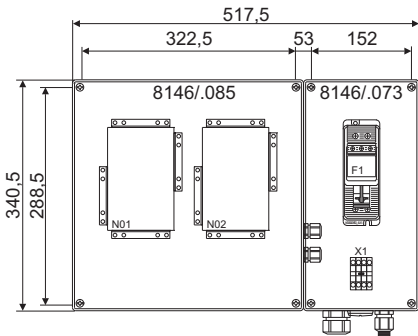
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Enclosure type 8146/5000-6-12-600



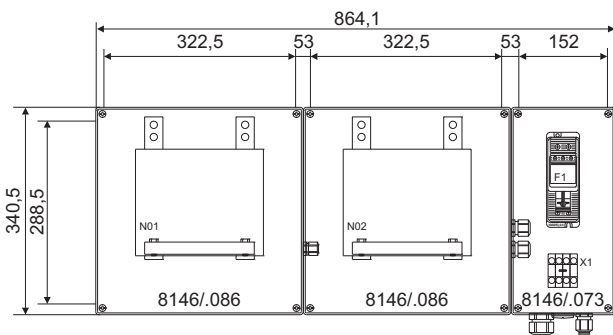
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Enclosure type 8146/5000-6-24-020



12210E01

Enclosure type 8146/5000-6-24-100



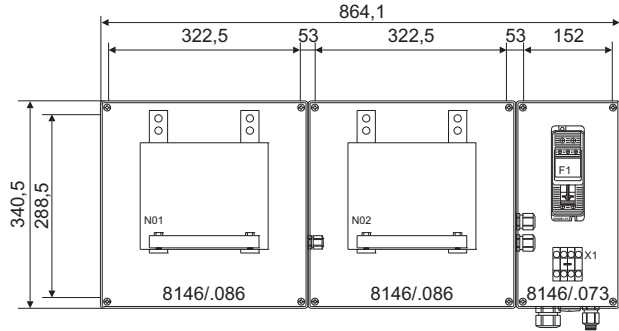
12211E01

# Battery Boxes

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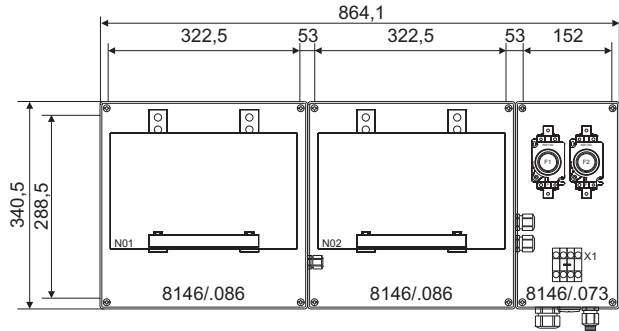
Dimensional Drawings (All Dimensions in mm) - Subject to Alterations

### Enclosure type 8146/5000-6-24-250



12212E01

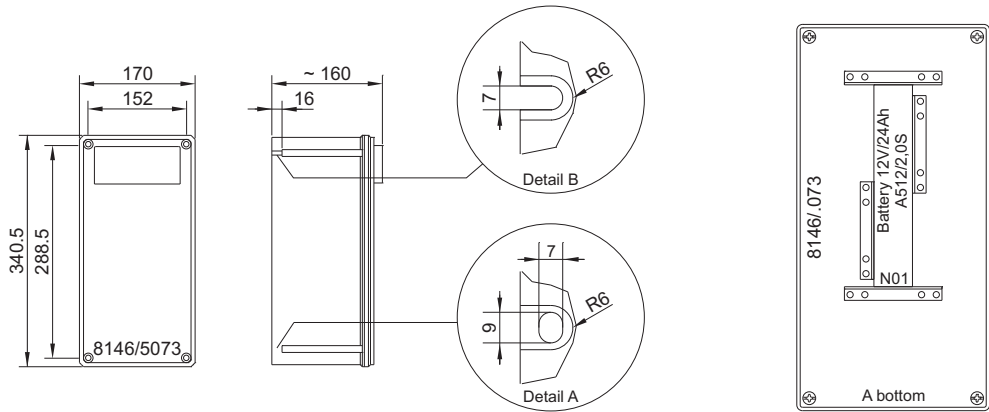
### Enclosure type 8146/5000-6-24-400



12213E01

### Enclosure type 8146/5000-6-24-600

Battery boxes



06263E00

06264E01

Enclosure type 8146/5073 for battery boxes Types 8316/22-12-020 and 8316/22-12-100

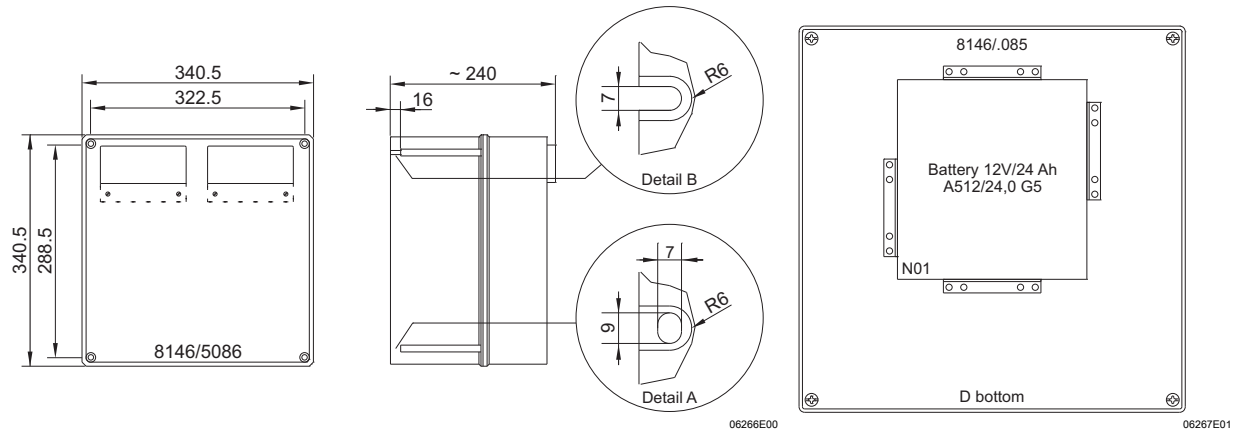


# Battery Boxes

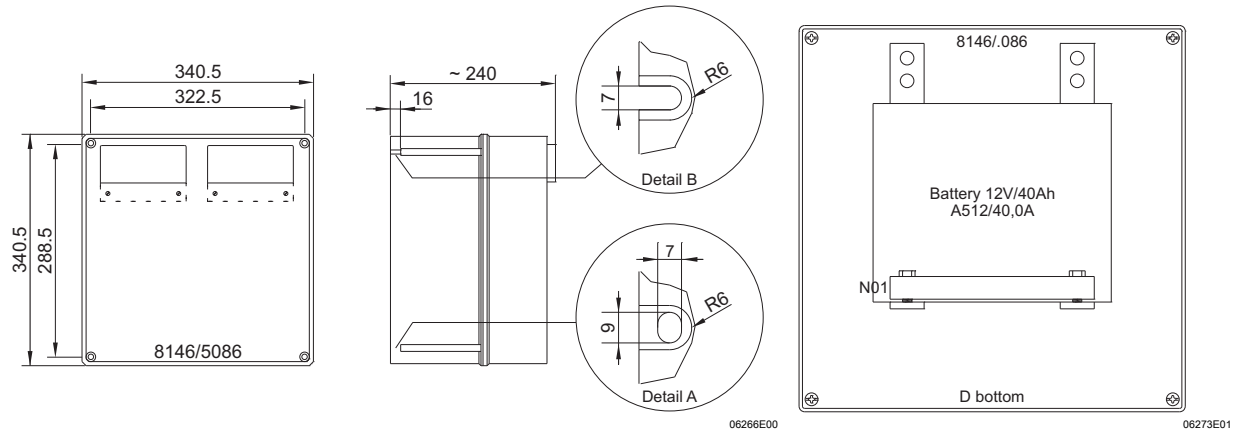
## Series 8316



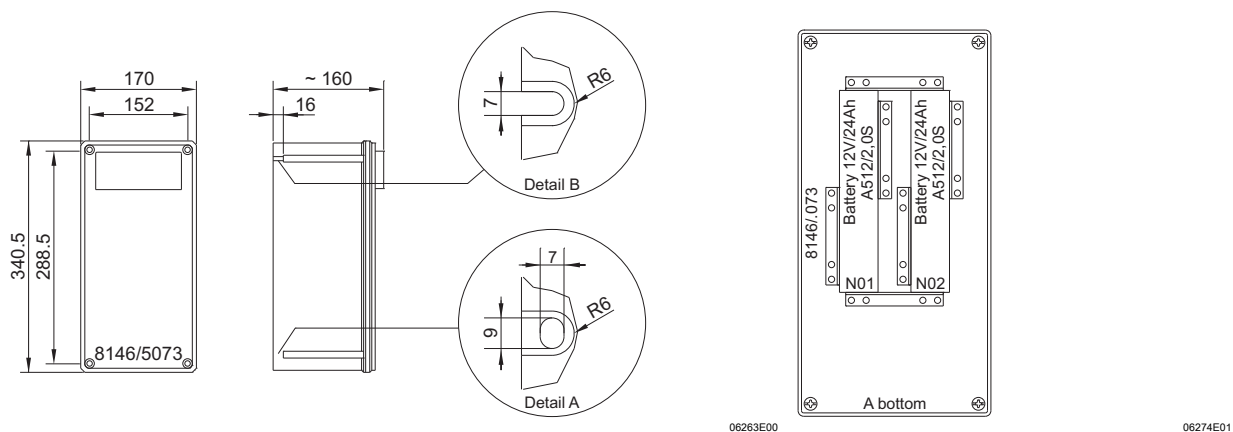
### Dimensional Drawings (All Dimensions in mm) - Subject to Alterations



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Enclosure type **8146/086** for battery boxes Types 8316/22-12-400 and 8316/22-12-600



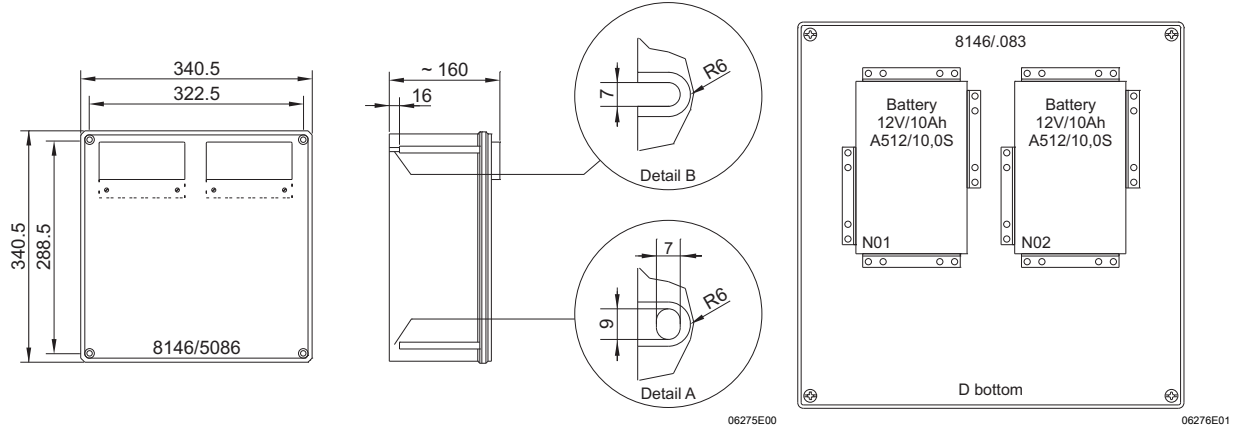
Enclosure type **8146/073** for battery boxes Type 8316/22-24-020

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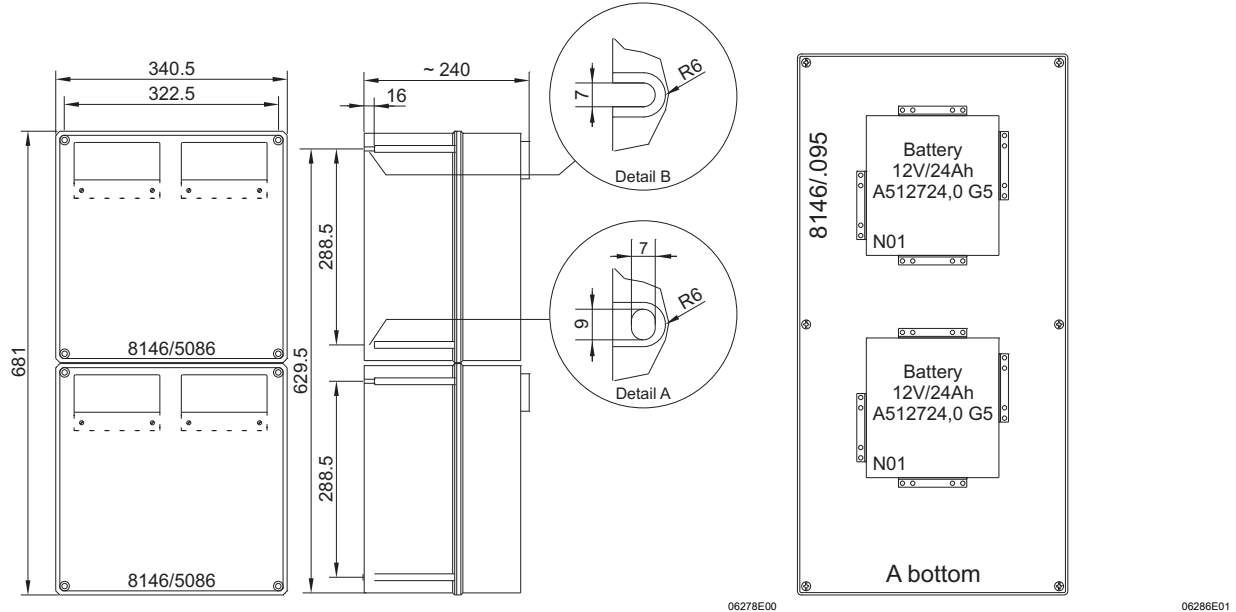
# Battery Boxes

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Dimensional Drawings (All Dimensions in mm) - Subject to Alterations



Enclosure type 8146/5083 for battery boxes Type 8316/22-24-100



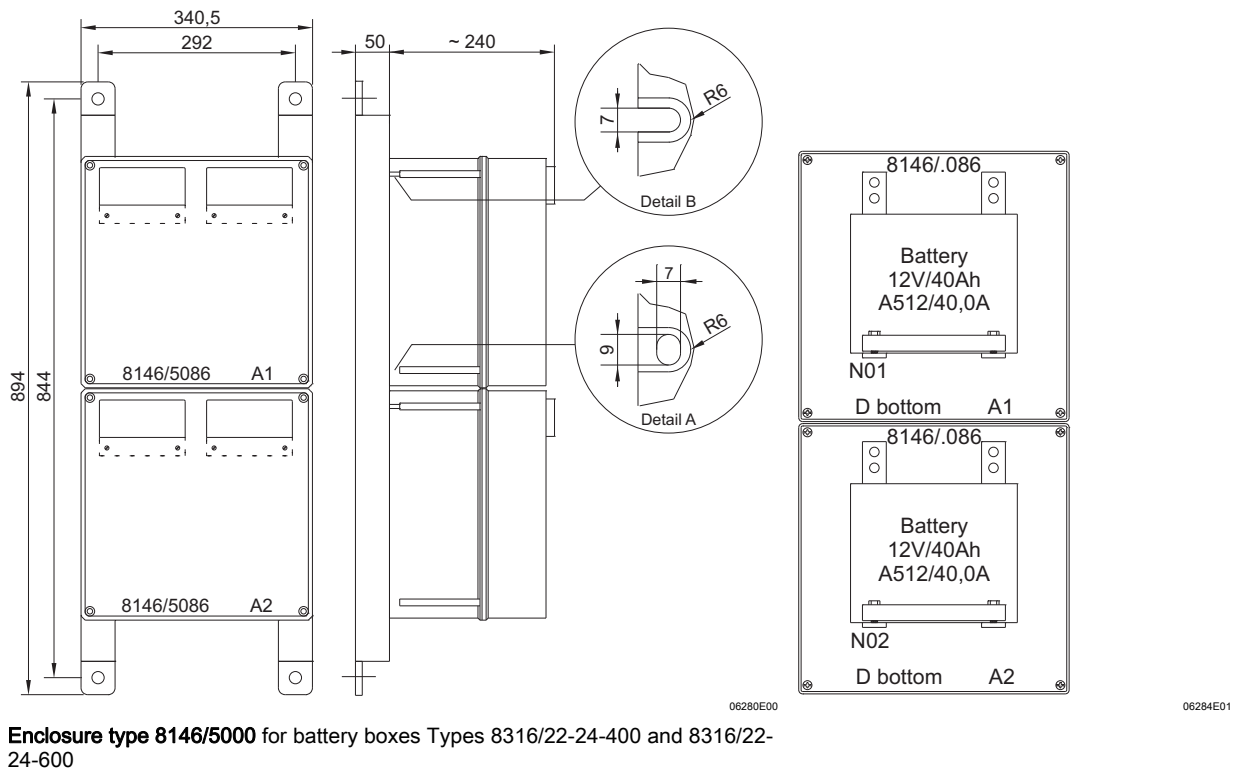
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# Battery Boxes

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### Dimensional Drawings (All Dimensions in mm) - Subject to Alterations



Enclosure type 8146/5000 for battery boxes Types 8316/22-24-400 and 8316/22-24-600

We reserve the right to make alterations to the technical data, dimensions, weights, designs and products available without notice. The illustrations cannot be considered binding.