### **DATA SHEET**

### DC - generator junction box

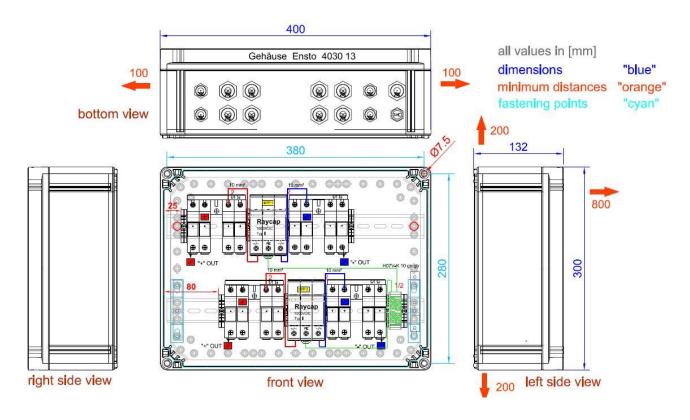


enwitec-order-number

Customer-article-number

Type designation

GAK-enwitec-S-1000-2x4(2x)S-X-Y-PC-1.1



Scope of delivery			
Description	Order-nr.	Pcs	Comment
general installation instructions for GJB	10011928	1	
Cable Gland M20x1.5	10000737	9	
Locknut M20x1.5	10000722	9	
Multiple sealing insert MFD 20/02/065	10007322	8	Sealing insert with two openings
Cable Gland M16x1.5	10000736	4	
Locknut M16x1.5	10000721	4	
Pressure compensation element	10001971	1	Installation is 1 x on the left side
Locknut M12x1.5	10001476	1	

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# DC - generator junction box

### **TECHNICAL DATA**

• applicable / - not applicable

Rated insulation voltage U,   VPC    1000   Cu - finely stranded with out end sleeve   fmm²    0.525					Wire cross-section (from-to)		
Rated operating vortage U,	Rated insulation voltage U <sub>i</sub>	[VDC]	1000		Cu - finely stranded with end sleeve	[mm <sup>2</sup> ]	From 2.5
Rated operating current	Number of isolated MPP-input(s)	[n]			Cu - finely stranded without end sleev	e [mm²]	0.525
Dimensioning value	Rated operating voltage U <sub>e</sub>	[VDC]	1000		Cu - solid or stranded	[mm <sup>2</sup> ]	0.516
Max. number of PV-strings	Rated operating current $I_{nA}$ (= $\sum I_{SC STC}$ )	[ADC]	48		Alu - round, solid	[mm²]	-
Max. number of PV-strings	Dimensioning value* I <sub>SC MAX</sub> (=∑ I <sub>SC STC</sub> x 1,25)	[ADC]	60		Alu - round, stranded	[mm²]	-
Per string   Rated operating current   Im,   =	Max. number of PV-strings	[n]			· · · · · · · · · · · · · · · · · · ·	•	-
Dimensioning value*	Per string				Alu - sector, stranded	[mm <sup>2</sup> ]	-
Cable entry	Rated operating current I <sub>nc</sub> (=I <sub>SC STC</sub> )	[ADC]	12		Connection to ground		
Fuse in the "-" potential   • /-   -     -	Dimensioning value* I <sub>SC MAX</sub> (=I <sub>SC STC</sub> x 1,25)	[ADC]	15		-		
Fuse inte he" potential	Fuse in the "+" potential	•/-		-	·	•/-	•
Fuse inserted at factory setting	Fuse in the "-" potential	•/-		-			1xM20(6-13)
Screw terminal/spring clamp   Screw   Screw terminal/spring clamp   Imm   19	Fuse inserted at factory setting	•/-		-	,	[5]	2/11/120(0 25)
Surge protective device (SPD)   1	Rated current value at factory setting	[A]	-				Screw
test category	Surge protective device (SPD)					[mm]	
max. continuous operating voltage U <sub>cpv</sub> (VDC)         1000	<del>-</del> ,	L1 (type)		2			
Only type 1: impulse current max. I <sub>imp</sub> 10/350 [kA]         Wire cross section           Input (for PV-generator)         Cu-finely stranded with end sleeve [mm²] [mm²]         Max. 25           Cable entry         Cu-finely stranded without end sleeve [mm²] [mm²]         Max. 25           Clamping range [Ømm] 8x2openings M2O (5-6.5)         Alu - cound, stranded [mm²] [mm²] [-2]         Alu - round, stranded [mm²] [mm²] [-2]           PV-connectors - manufacturer/type-designation         +PLUS   -MINUS   -M			1				
Cu-finely stranded with end sleeve   mm²			1000			,, Gu	ou.
Cable entry Cable glands (EN 50262)	·	50 [iu ij			Cu-finely stranded with end sleeve	[mm²]	Max. 25
Cable glands (EN 50262)         •/-          Cu-solid or stranded         [mm²]         Max. 25           Clamping range         [ømm]         8x2openings M20 (5-6.5)         Alu - round, solid         [mm²]         -           PV-connectors         •/-          Alu - sector, solid         [mm²]         -           PV-connectors - manufacturer/type-designation          Alu - sector, solid         [mm²]            Terminals           Alu - sector, solid         [mm²]            "+" potential / "-" potential         +PLUS         -MINUS         SCFW         SCFW         SCFW         SCFW         SCFW         SCFW         SCFW         Weight         [kg]						-	
Cabe gands (EN 50262)	,	,			,		Max. 25
Alu - round, stranded   [mm²]   -		•	0.2		Alu - round, solid		-
PV-connectors	Clamping range	[Ømm]			·		-
PV-connectors - manufacturer/type-designation   FPU-connectors   FPU-connectors - manufacturer/type-designation   FPU-connectors   FPU-conne	PV-connectors	•/-	-		Alu - sector, solid	•	-
Terminals         FPLUS PUNION         GENERAL DATA           "+" potential / "-" potential         +PLUS PUNION         Dimension (WXHXD)         [mm] 400x300x132           Screw terminal/spring clamp         Screw Screw         Weight         [kg]         -           Insulation stripping length         [mm]         12         12         Operating temperature range         [°C]         -25°C-+35           Tightening torque         [mm]         12         2.2         Derating above temperature         [°C]         -25°C-+35           Wire cross-section (from-to)         "From 0.75-10"         From 0.75-10"         Humidity - condensing permitted         •/-         • <t< td=""><td></td><td>•</td><td colspan="2">-</td><td>Alu - sector, stranded</td><td>[mm<sup>2</sup>]</td><td>-</td></t<>		•	-		Alu - sector, stranded	[mm <sup>2</sup> ]	-
"+" potential / "-" potential         +PLUS         -MINUS         Dimension (WxHxD)         [mm]         400x300x132           Screw terminal/spring clamp         Screw         Screw         Weight         [kg]         -           Insulation stripping length         [mm]         12         12         Operating temperature range         [°C]         -25°C - + 35           Tightening torque         [Nm]         2.2         2.2         Derating above temperature         [°C]         -25°C - + 35           Wire cross-section (from-to)         From 0.75-10         From 0.75-10         Humidity - condensing permitted         •/-         •         •           Cu - finely stranded with end sleeve         [mm²]         1-16         1-16         Humidity - condensing permitted         •/-         •         •           Cu - solid or stranded         [mm²]         1-16         1-16         1-16         Humidity - condensing permitted         •/-         •					GENERAL DATA		
Screw terminal/spring clamp    Screw   Screw   Weight   [kg]   -	"+" potential / "-" potential		+PLUS	-MINUS		[mm]	400x300x132
Insulation stripping length [mm] 12 12 Operating temperature range [°C] -25°C - + 35 Tightening torque [Nm] 2.2 2.2 Derating above temperature [°C] - Wire cross-section (from-to)  Cu - finely stranded with end sleeve [mm²] From 0.75-10 0.75-10  Cu - finely stranded without end sleeve [mm²]				Screw			-
Tightening torque [Nm] 2.2 2.2 Derating above temperature [°C] - Wire cross-section (from-to)  Cu - finely stranded with end sleeve [mm²] From 0.75-10 0.75-10  Cu - finely stranded without end sleeve [mm²]  Cu - solid or stranded [mm²] 1-16 1-16  Output (for PV-inverter)  Cable entry  Cable glands (EN 50262) •/-  Clamping range [Ømm] 4xM16(4.5-10)  PV-connectors - manufacturer/type-designation  Terminals  Screw terminal/spring clamp  Screw terminal/spring length [mm] 18-20    Wire cross-section (from-to)  Transport and storage temperature [°C] -25°C - + 35  Humidity - condensing permitted •/-  Humidity - condensing permitted •/-  Max. altitude above sea level NN [m] 2000  Protection class IP (EN 60529) 65  Outdoor-application permitted •/-  Protection against electric shock (EN 61140) II  Cabinet material  ROHS-conformity (2011/65/EU) •/-  Colour of cabinet  Way of mounting  Way of mounting  Wall mounting  Tightening torque [Nm] 18-20 (only ground mounting)  Tightening torque [Nm] - Locking system Screw lock		[mm]					-25°C - + 35
Wire cross-section (from-to)  Cu - finely stranded with end sleeve [mm²] From 0.75-10  Cu - finely stranded without end sleeve [mm²]			2.2	2.2			
Cu - finely stranded with end sleeve [mm²] From 0.75-10 0.75-10  Cu - finely stranded without end sleeve [mm²]							
Cu - finely stranded without end sleeve [mm²]  Cu- solid or stranded [mm²] 1-16 1-16  Output (for PV-inverter) Cable entry Cable glands (EN 50262) •/ PV-connectors - manufacturer/type-designation PV-connectors - manufacturer/type-designation Screw terminal/spring clamp  Screw terminal/spring clamp  Tightening torque  Output (for PV-inverter)  Cable glands (EN 50262) •/ Protection class IP (EN 60529) 65  Outdoor-application permitted •/ Protection against electric shock (EN 61140) II  Cabinet material RoHS-conformity (2011/65/EU) •/- • Colour of cabinet  Way of mounting  Quantity of expanded clay [I] (only ground mounting)  Tightening torque  Nax. altitude above sea level NN [m] 2000  Max. altitude above sea level NN [m] 2000  Protection class IP (EN 60529) 65  Outdoor-application permitted •/ Protection against electric shock (EN 61140) II  Cabinet material  RoHS-conformity (2011/65/EU) •/- •  Colour of cabinet  Way of mounting  Quantity of expanded clay [I] (only ground mounting)  Tightening torque  Nax. altitude above sea level NN [m]  Countity of EN 60529)  Max. altitude above sea level NN [m]  Countdoor-application permitted  •/- Protection class IP (EN 60529)  65  Outdoor-application permitted  •/- Protection class IP (Cabinet material  RoHS-conformity (2011/65/EU)  •/- • Colour of cabinet  Similar to RAL7035  Way of mounting  Quantity of expanded clay (only ground mounting)  Tightening torque  Colour of cabinet  Similar to Similar to Colour of cabinet  Colour of cabinet  Colour of cabinet  Similar to Colour of cabinet  Colour of cabinet  Similar to Colour of cabinet  Colour of cabin	Cu - finely stranded with end sleeve	[mm <sup>2</sup> ]	From	From			
Cu - finely stranded without end sleeve [mm²]	·		0.75-10	0.75-10	,		
Cu-solid or stranded [mm²] 1-16 1-16  Output (for PV-inverter) Cable entry  Cable glands (EN 50262)	Cu - finely stranded without end sleeve	[mm <sup>2</sup> ]	-	-	, .		
Output (for PV-Inverter)       Cable entry     Outdoor-application permitted     -/-       Cable glands (EN 50262)     •/-     •       Clamping range     [Ømm]     4xM16(4.5-10)       PV-connectors     •/-     -       PV-connectors - manufacturer/type-designation     -     Colour of cabinet     Similar to RAL7035       Terminals     Way of mounting     wall mounting       Screw terminal/spring clamp     Screw     Quantity of expanded clay (only ground mounting)     [I]       Snsulation stripping length     [Nm]     -     Locking system     Screw lock	Cu- solid or stranded	[mm²]	1-16	1-16			
Cable glands (EN 50262)  Clamping range  [Ømm] 4xM16(4.5-10)  PV-connectors  PV-connectors - manufacturer/type-designation  Terminals  Screw terminal/spring clamp  Screw terminal/spring length  [mm] 18-20  Protection against electric shock (EN 61140)  II  Cabinet material  ROHS-conformity (2011/65/EU)  •/-  Colour of cabinet  Way of mounting  Quantity of expanded clay (only ground mounting)  [I] (only ground mounting)  Screw lock	Output (for PV-inverter)						
Cable glands (EN 50262)  Clamping range  [Ømm] 4xM16(4.5-10)  PV-connectors  PV-connectors - manufacturer/type-designation  Terminals  Screw terminal/spring clamp  Screw terminal/spring length  [mm] 18-20  Cabinet material  ROHS-conformity (2011/65/EU)  */-  Colour of cabinet  Way of mounting  Wall mounting  Quantity of expanded clay (only ground mounting)  Locking system  Screw lock	Cable entry				· · · · · · · · · · · · · · · · · · ·	-	
Clamping range [Ømm] 4xM16(4.5-10)  PV-connectors •/-  PV-connectors - manufacturer/type-designation -  Terminals  Screw terminal/spring clamp  Screw terminal/spring length [mm] 18-20  Tightening torque [Nm] -  AxM16(4.5-10)  RoHS-conformity (2011/65/EU)  •/-  Colour of cabinet  Way of mounting  Wall mounting  Quantity of expanded clay (only ground mounting)  Locking system  Screw lock	Cable glands (EN 50262)	•/-	•				
PV-connectors  PV-connectors - manufacturer/type-designation  Terminals  Screw terminal/spring clamp  Screw terminal/spring length  [mm]  Screw  Quantity of expanded clay (only ground mounting)  Tightening torque  [Nm]  Colour of cabinet  Similar to RAL7035  Way of mounting  Quantity of expanded clay (only ground mounting)  - Locking system  Screw lock	Clamping range	[Ømm]	4xM16(4.5-10)			•/	· · · · · · · · · · · · · · · · · · ·
PV-connectors - manufacturer/type-designation - RAL7035  Terminals Way of mounting wall mounting  Screw terminal/spring clamp Screw  Snsulation stripping length [mm] 18-20 Quantity of expanded clay (only ground mounting)  Tightening torque [Nm] - Locking system Screw lock	PV-connectors	•/-	-			•/-	
Terminals  Screw terminal/spring clamp  Screw Snsulation stripping length  [mm]  Screw Snsulation stripping length  [mm]  Screw Snsulation stripping length  [mm]  Screw Screw Screw (only ground mounting)  Locking system  Screw lock	PV-connectors - manufacturer/type-designat	ion	-		Colour of Cabinet		
Screw terminal/spring clamp     Screw     Quantity of expanded clay (only ground mounting)     [I]       Snsulation stripping length     [mm]     18-20     (only ground mounting)     -       Tightening torque     [Nm]     -     Locking system     Screw lock	Terminals				Way of mounting		
Snsulation stripping length [mm] 18-20 (only ground mounting)  Tightening torque [Nm] - Locking system Screw lock	Screw terminal/spring clamp		Screw		,		3
	Snsulation stripping length	[mm]	18-20			[-]	-
Appropriate conductor material Al/Cu Cu	Tightening torque	[Nm]	-		Locking system		Screw lock
	Appropriate conductor material	Al/Cu	Cu				

the dimensioning value  $I_{SC\,MAX},$  acc. to VDE 0100-712:2016-10, implies the factor 1,25 for  $I_{SC\,STC}$  of the PV module, or of the PV string.

## **DATA SHEET**

# DC - generator junction box



Relevant standards	
Switching devices	EN 61439-1 EN 61439-2
PV power supply systems	DIN IEC 60364-7- 712
<u>Miscellaneous</u>	
Customs tariff number	85371098
Spare parts	Order-nr.