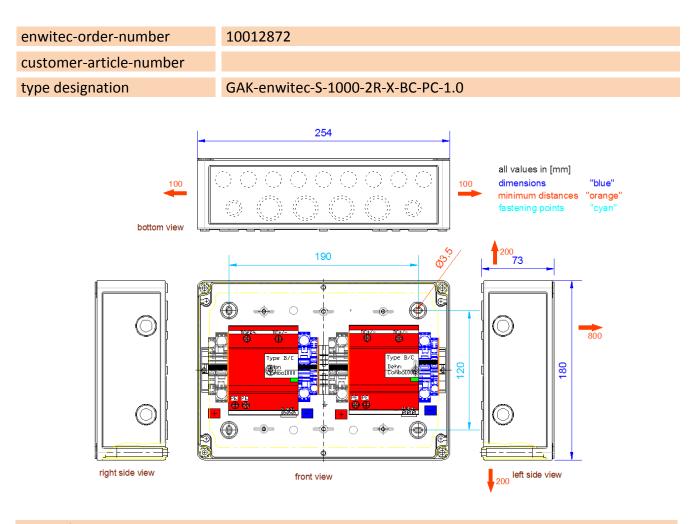
Data sheet Rev1.0 DC - generator junction box





scope of	fdelivery
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description	order-nr.	pcs	comment
general installation instructions for GAK	10011928	1	
Cable Gland M20x1.5	10000737	4	
Locknut M20x1.5	10000722	4	
Multiple sealing insert MFD 20/02/065	10007322	3	Sealing insert with two openings
Cable Gland M16x1.5	10000736	6	
Locknut M16x1.5	10000721	6	
Pressure compensation element	10001971	1	Installation is 1 x on the left side
Locknut M12x1.5	10001476	1	
Blind plug BS 13	10010585	1	for unused M20 cable glands
Blind plug BS 10	10010584	2	for unused M16 cable glands

File: Data sheet_10012872_EN_V1.0

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Data sheet Rev1.0 DC - generator junction box



technical specification

rated insulation voltage U _i	[VDC]		1000)	
number of isolated MPP-input(s)	[n]	1	2	3	
rated operating voltage U _e	[VDC]	1000	1000		
rated operating current I _{nA}	[ADC]	20	20		
max. number of PV-strings	[n]	2	2		
rated operating current per string I_{nc}	[ADC]	10	10		
string fuse in the "+" potential	•/-	-	-		
string fuse in the "-" potential	•/-	-	-		
fuse is inserted at factory setting	•/-	-	-		
rated current value at factory setting	[A]	-	-		
surge protective device (SPD)					
test category acc. EN 61643-11 (type)			1+2		
max. continuous operating voltage U_{cpv}	[VDC]		1000)	
only type 1: impulse current max. I_{imp} 10,	/350 [kA]	6.	25 per	pole	
<u>input (for pv-generator)</u>					
cable entry					
cable glands (EN 50262)	•/-		•		
clamping range	[Ømm]		6x 5-6	.5	
			2x 4.5-	10	
DV / second second	,				
PV-connectors	•/-		-		
PV-connectors PV-connectors - manufacturer/type-desi	•		-		
	•		-		
PV-connectors - manufacturer/type-desi	•	+plu	- - S	-minus	
PV-connectors - manufacturer/type-designed terminals	•	+plu Sprin		-minus Spring	
PV-connectors - manufacturer/type-designed terminals "+" potential / "-" potential	•		g		
PV-connectors - manufacturer/type-designed terminals "+" potential / "-" potential screw terminal/spring clamp	gnation	Sprin	g	Spring	
PV-connectors - manufacturer/type-designed terminals "+" potential / "-" potential screw terminal/spring clamp insulation stripping length	gnation [mm]	Sprin	g	Spring 1315	
PV-connectors - manufacturer/type-designed terminals "+" potential / "-" potential screw terminal/spring clamp insulation stripping length tightening torque	gnation [mm] [Nm] Al/Cu	Sprin 131	g	Spring 1315 -	
PV-connectors - manufacturer/type-designed terminals "+" potential / "-" potential screw terminal/spring clamp insulation stripping length tightening torque appropriate conductor material	[mm] [Nm] Al/Cu [mm ²]	Sprin 131	g .5	Spring 1315 -	
PV-connectors - manufacturer/type-designed terminals "+" potential / "-" potential screw terminal/spring clamp insulation stripping length tightening torque appropriate conductor material wire cross section	[mm] [Nm] Al/Cu [mm ²] [mm ²]	Sprin 131 - Cu	g .5	Spring 1315 - Cu	
PV-connectors - manufacturer/type-designed terminals "+" potential / "-" potential screw terminal/spring clamp insulation stripping length tightening torque appropriate conductor material wire cross section Cu-finely stranded with end sleeve	[mm] [Nm] Al/Cu [mm ²]	Sprin 131 - Cu From 2	g 5 1.5 0	Spring 1315 - Cu From 1.5	
PV-connectors - manufacturer/type-designed terminals "+" potential / "-" potential screw terminal/spring clamp insulation stripping length tightening torque appropriate conductor material wire cross section Cu-finely stranded with end sleeve Cu-finely stranded without end sleeve	[mm] [Nm] Al/Cu [mm ²] [mm ²]	Sprin 131 - Cu From 2 0.5-1	g 5 1.5 0	Spring 1315 - Cu From 1.5 0.5-10	
PV-connectors - manufacturer/type-designed terminals "+" potential / "-" potential screw terminal/spring clamp insulation stripping length tightening torque appropriate conductor material wire cross section Cu-finely stranded with end sleeve Cu-finely stranded without end sleeve Cu-solid or stranded output (for pv-inverter)	[mm] [Nm] Al/Cu [mm ²] [mm ²]	Sprin 131 - Cu From 2 0.5-1	g 5 1.5 0	Spring 1315 - Cu From 1.5 0.5-10	
PV-connectors - manufacturer/type-designed terminals "+" potential / "-" potential screw terminal/spring clamp insulation stripping length tightening torque appropriate conductor material wire cross section Cu-finely stranded with end sleeve Cu-finely stranded without end sleeve Cu-solid or stranded output (for pv-inverter) cable entry	[mm] [Nm] Al/Cu [mm ²] [mm ²] [mm ²]	Sprin 131 - Cu From 1 0.5-1 1-10	g 5 1.5 0	Spring 1315 - Cu From 1.5 0.5-10 1-10	
PV-connectors - manufacturer/type-designed terminals "+" potential / "-" potential screw terminal/spring clamp insulation stripping length tightening torque appropriate conductor material wire cross section Cu-finely stranded with end sleeve Cu-finely stranded without end sleeve Cu-solid or stranded <u>output (for pv-inverter)</u> cable entry cable glands (EN 50262)	[mm] [Nm] Al/Cu [mm ²] [mm ²] [mm ²]	Sprin 131 - Cu From 1 0.5-1 1-10	g 5 1.5 0)	Spring 1315 - Cu From 1.5 0.5-10 1-10	

screw terminal/spring clampSpringinsulation stripping length[mm]1820tightening torque[Nm]-appropriate conductor materialAl/CuCuwire cross sectionCu-finely stranded with end sleeve [mm²]From 2.5Cu-finely stranded with end sleeve [mm²]0.525Cu-solid or stranded[mm²]0.516Alu - round, solid[mm²]-Alu - round, stranded[mm²]-Alu - sector, solid[mm²]-Alu - sector, stranded[mm²]-connection to groundcable entrycable glands (EN 50262)•/-•/-clamping range[Ømm]6-13terminalsscrew terminal/spring clampScrewMin. insulation stripping length[mm]12tightening torque[Nm]4appropriate conductor materialAl/CuCuwire cross sectionCu-finely stranded with end sleeve[mm²]-Cu-solid or stranded[mm²]-Cu-solid or stranded[mm²]-Alu - round, solid[mm²]-Alu - round, stranded[mm²]-Alu - round, stranded[mm²]-Alu - round, stranded[mm²]- </th <th>terminals</th> <th></th> <th></th>	terminals		
tightening torque [Nm] - appropriate conductor material Al/Cu Cu wire cross section Cu-finely stranded with end sleeve [mm ²] From 2.5 Cu-finely stranded without end sleeve [mm ²] 0.525 Cu-solid or stranded [mm ²] 0.516 Alu - round, solid [mm ²] - Alu - round, stranded [mm ²] - Alu - sector, solid [mm ²] - Alu - sector, stranded [mm ²] - Alu - sector, stranded [mm ²] - Connection to ground cable entry cable glands (EN 50262) •/- clamping range [Ømm] 6-13 terminals screw terminal/spring clamp Screw Min. insulation stripping length [mm] 12 tightening torque [Nm] 4 appropriate conductor material Al/Cu Cu wire cross section Cu-finely stranded with end sleeve [mm ²] Max. 25 Cu-finely stranded without end sleeve [mm ²] Alax. 25 Alu - round, solid [mm ²] -	screw terminal/spring clamp		Spring
appropriate conductor materialAI/CuCuappropriate conductor materialAI/CuCuwire cross sectionFrom 2.5Cu-finely stranded with end sleeve [mm²]0.525Cu-solid or stranded[mm²]0.516Alu - round, solid[mm²]-Alu - round, stranded[mm²]-Alu - sector, solid[mm²]-Alu - sector, stranded[mm²]-Alu - sector, stranded[mm²]-connection to groundcable entry-•/-cable glands (EN 50262)•/-•clamping range[Ømm]6-13terminalsscrew terminal/spring clampScrewMin. insulation stripping length[mm]12tightening torque[Nm]4appropriate conductor materialAI/CuCuwire cross sectionCu-finely stranded with end sleeve[mm²]-Cu-solid or stranded[mm²]-Alu - round, solid[mm²]-	insulation stripping length	[mm]	1820
wire cross sectionCu-finely stranded with end sleeve [mm²]From 2.5Cu-finely stranded without end sleeve [mm²]0.525Cu-solid or stranded[mm²]0.516Alu - round, solid[mm²]-Alu - round, stranded[mm²]-Alu - sector, solid[mm²]-Alu - sector, stranded[mm²]-Alu - sector, stranded[mm²]-Connection to ground[mm²]-cable entry-•/-cable glands (EN 50262)•/-•clamping range[Ømm]6-13terminals[Min. insulation stripping length[mm]screw terminal/spring clampScrewMin. insulation stripping length[mm]4appropriate conductor materialAl/CuCuwire cross sectionCu-finely stranded with end sleeve[mm²]-Cu-solid or stranded[mm²]-Alu - round, solid[mm²]-	tightening torque	[Nm]	-
Cu-finely stranded with end sleeve $[mm^2]$ From 2.5Cu-finely stranded without end sleeve $[mm^2]$ 0.525Cu-solid or stranded $[mm^2]$ 0.516Alu - round, solid $[mm^2]$ -Alu - round, stranded $[mm^2]$ -Alu - sector, solid $[mm^2]$ -Alu - sector, stranded $[mm^2]$ -Alu - sector, stranded $[mm^2]$ -Connection to groundcable entrycable entrycable glands (EN 50262)•/-•clamping range[Ømm]6-13terminalsscrew terminal/spring clampScrewMin. insulation stripping length[mm]12tightening torque[Nm]4appropriate conductor materialAl/CuCuwire cross sectionCu-finely stranded with end sleeve[mm²]-Cu-solid or stranded[mm²]-Alu - round, solid[mm²]-	appropriate conductor material	Al/Cu	Cu
Cu-finely stranded without end sleeve $[mm^2]$ 0.525Cu-solid or stranded $[mm^2]$ 0.516Alu - round, solid $[mm^2]$ -Alu - round, stranded $[mm^2]$ -Alu - sector, solid $[mm^2]$ -Alu - sector, stranded $[mm^2]$ -Alu - sector, stranded $[mm^2]$ -Connection to groundcable entry-•cable glands (EN 50262)•/-•clamping range[Ømm]6-13terminalsscrew terminal/spring clampScrewMin. insulation stripping length[mm]12tightening torque[Nm]4appropriate conductor materialAl/CuCuwire cross sectionCu-finely stranded with end sleeve $[mm^2]$ Max. 25Cu-finely stranded without end sleeve $[mm^2]$ -Alu - round, solid $[mm^2]$ -	wire cross section		
Cu-solid or stranded[mm²]0.516Alu - round, solid[mm²]-Alu - round, stranded[mm²]-Alu - sector, solid[mm²]-Alu - sector, stranded[mm²]-Alu - sector, stranded[mm²]-Connection to ground[mm²]-cable entry•/-•cable glands (EN 50262)•/-•clamping range[Ømm]6-13terminals[Ømm]12screw terminal/spring clampScrewMin. insulation stripping length[mm]12tightening torque[Nm]4appropriate conductor materialAl/CuCuwire cross section-Cu-finely stranded with end sleeve[mm²]Max. 25Cu-finely stranded without end sleeve[mm²]Alax. 25Alu - round, solid[mm²]-	Cu-finely stranded with end sleeve	[mm ²]	From 2.5
Alu - round, solid $[mm^2]$ -Alu - round, stranded $[mm^2]$ -Alu - sector, solid $[mm^2]$ -Alu - sector, stranded $[mm^2]$ -Alu - sector, stranded $[mm^2]$ -Connection to ground $[mm^2]$ -cable entrycable glands (EN 50262)•/-•clamping range $[\emptysetmm]$ 6-13terminalsscrew terminal/spring clampScrewMin. insulation stripping length[mm]12tightening torque[Nm]4appropriate conductor materialAl/CuCuwire cross sectionCu-finely stranded with end sleeve $[mm^2]$ Max. 25Cu-finely stranded of stranded $[mm^2]$ -Alu - round, solid $[mm^2]$ -	Cu-finely stranded without end sleeve	e [mm²]	0.525
Alu - round, stranded $[mm^2]$ Alu - sector, solid $[mm^2]$ Alu - sector, stranded $[mm^2]$ Alu - sector, stranded $[mm^2]$ Alu - sector, stranded $[mm^2]$ Connection to groundcable entrycable glands (EN 50262)•/-clamping range $[\emptysetmm]$ 6-13terminalsscrew terminal/spring clampScrewMin. insulation stripping length[mm]12tightening torque[Nm]4appropriate conductor materialAl/CuWire cross section Cu -Cu-finely stranded with end sleeve $[mm^2]$ Cu-solid or stranded $[mm^2]$ Alu - round, solid $[mm^2]$ -	Cu-solid or stranded	[mm ²]	0.516
Alu - sector, solid $[mm^2]$ -Alu - sector, stranded $[mm^2]$ -Connection to ground cable entrycable glands (EN 50262)•/clamping range $[Ømm]$ 6-13terminals-Screwscrew terminal/spring clampScrewMin. insulation stripping length[mm]12tightening torque[Nm]4appropriate conductor materialAl/CuCuwire cross section-Cu-finely stranded with end sleeve $[mm^2]$ Cu-finely stranded without end sleeve $[mm^2]$ -Alu - round, solid $[mm^2]$ -	Alu - round, solid	[mm ²]	-
Alu - sector, stranded $[mm^2]$ -connection to groundcable entrycable glands (EN 50262)•/-clamping range $[Ømm]$ 6-13terminalsscrew terminal/spring clampScrewMin. insulation stripping length[mm]12tightening torque[Nm]4appropriate conductor materialAl/CuWire cross sectionCu-finely stranded with end sleeve $[mm^2]$ Cu-solid or stranded $[mm^2]$ Alu - round, solid $[mm^2]$	Alu - round, stranded	[mm ²]	-
connection to ground cable entrycable glands (EN 50262)•/-cable glands (EN 50262)•/-clamping range[Ømm]clamping range[Ømm]terminalsscrew terminal/spring clampScrewMin. insulation stripping length[mm]12tightening torque[Nm]4appropriate conductor materialAl/CuWire cross sectionCu-finely stranded with end sleeve[mm²]Max. 25Cu-solid or stranded[mm²]Alu - round, solid[mm²]	Alu - sector, solid	[mm ²]	-
cable entrycable glands (EN 50262)•/-clamping range[Ømm]clamping range[Ømm]ferminalsScrewscrew terminal/spring clampScrewMin. insulation stripping length[mm]12tightening torque[Nm]4appropriate conductor materialAl/CuWire cross sectionCuCu-finely stranded with end sleeve[mm²]Max. 25Cu-finely strandedCu-solid or stranded[mm²]Alu - round, solid[mm²]	Alu - sector, stranded	[mm ²]	-
cable glands (EN 50262)•/-clamping range[Ømm]6-13terminalsscrew terminal/spring clampScrewMin. insulation stripping length[mm]12tightening torque[Nm]4appropriate conductor materialAl/CuWire cross sectionCu-finely stranded with end sleeve[mm²]Max. 25Cu-solid or stranded[mm²]Alu - round, solid[mm²]	connection to ground		
clamping range[Ømm]6-13terminalsscrew terminal/spring clampScrewMin. insulation stripping length[mm]12tightening torque[Nm]4appropriate conductor materialAl/CuCuwire cross sectionCu-finely stranded with end sleeve[mm²]Max. 25Cu-finely stranded without end sleeve[mm²]Aax. 25Alu - round, solid[mm²]-	cable entry		
terminalsscrew terminal/spring clampScrewMin. insulation stripping length[mm]12tightening torque[Nm]4appropriate conductor materialAl/CuCuwire cross sectionCu-finely stranded with end sleeve[mm²]Max. 25Cu-finely stranded without end sleeve[mm²]-Cu-solid or stranded[mm²]-Alu - round, solid[mm²]-			
screw terminal/spring clampScrewMin. insulation stripping length[mm]12tightening torque[Nm]4appropriate conductor materialAl/CuCuwire cross sectionUCuCu-finely stranded with end sleeve[mm²]Max. 25Cu-finely stranded without end sleeve[mm²]-Cu-solid or stranded[mm²]Aax. 25Alu - round, solid[mm²]-	cable glands (EN 50262)	•/-	•
Min. insulation stripping length[mm]12tightening torque[Nm]4appropriate conductor materialAl/CuCuwire cross sectionCu-finely stranded with end sleeve[mm²]Max. 25Cu-finely stranded without end sleeve[mm²]-Cu-solid or stranded[mm²]Max. 25Alu - round, solid[mm²]-	U (<i>i</i>	,	
tightening torque[Nm]4appropriate conductor materialAl/CuCuwire cross sectionCu-finely stranded with end sleeve[mm²]Cu-finely stranded without end sleeve[mm²]-Cu-solid or stranded[mm²]Max. 25Alu - round, solid[mm²]-	clamping range	,	
appropriate conductor material Al/Cu Cu wire cross section Cu-finely stranded with end sleeve [mm ²] Max. 25 Cu-finely stranded without end sleeve [mm ²] - Cu-solid or stranded [mm ²] Max. 25 Alu - round, solid [mm ²] -	clamping range terminals	,	6-13
wire cross sectionCu-finely stranded with end sleeve [mm²]Max. 25Cu-finely stranded without end sleeve [mm²]-Cu-solid or stranded[mm²]Max. 25Alu - round, solid[mm²]-	clamping range terminals screw terminal/spring clamp	, [Ømm]	6-13 Screw
Cu-finely stranded with end sleeve [mm²]Max. 25Cu-finely stranded without end sleeve [mm²]-Cu-solid or stranded[mm²]Max. 25Alu - round, solid[mm²]-	clamping range terminals screw terminal/spring clamp Min. insulation stripping length	, [Ømm] [mm]	6-13 Screw 12
Cu-finely stranded without end sleeve [mm²]-Cu-solid or stranded[mm²]Max. 25Alu - round, solid[mm²]-	clamping range terminals screw terminal/spring clamp Min. insulation stripping length tightening torque	, [Ømm] [mm] [Nm]	6-13 Screw 12 4
Cu-solid or stranded[mm²]Max. 25Alu - round, solid[mm²]-	clamping range terminals screw terminal/spring clamp Min. insulation stripping length tightening torque appropriate conductor material	, [Ømm] [mm] [Nm]	6-13 Screw 12 4
Alu - round, solid [mm ²] -	clamping range terminals screw terminal/spring clamp Min. insulation stripping length tightening torque appropriate conductor material wire cross section	[Ømm] [Mm] [Nm] Al/Cu	6-13 Screw 12 4 Cu
,	clamping range terminals screw terminal/spring clamp Min. insulation stripping length tightening torque appropriate conductor material wire cross section Cu-finely stranded with end sleeve	[Ømm] [Mm] [Nm] Al/Cu [mm ²]	6-13 Screw 12 4 Cu
Alu - round, stranded [mm ²] -	clamping range terminals screw terminal/spring clamp Min. insulation stripping length tightening torque appropriate conductor material wire cross section Cu-finely stranded with end sleeve Cu-finely stranded without end sleeve	[Ømm] [Mm] [Nm] Al/Cu [mm ²] e [mm ²]	6-13 Screw 12 4 Cu Max. 25 -
	clamping range terminals screw terminal/spring clamp Min. insulation stripping length tightening torque appropriate conductor material wire cross section Cu-finely stranded with end sleeve Cu-finely stranded without end sleeve Cu-solid or stranded	[Ømm] [Mm] [Nm] Al/Cu [mm ²] e [mm ²] [mm ²]	6-13 Screw 12 4 Cu Max. 25 -
Alu - sector, solid [mm ²] -	clamping range terminals screw terminal/spring clamp Min. insulation stripping length tightening torque appropriate conductor material wire cross section Cu-finely stranded with end sleeve Cu-finely stranded without end sleeve Cu-solid or stranded Alu - round, solid	[Ømm] [Mm] [Nm] Al/Cu [mm ²] [mm ²] [mm ²]	6-13 Screw 12 4 Cu Max. 25 -
Alu - sector, stranded [mm ²] -	clamping range terminals screw terminal/spring clamp Min. insulation stripping length tightening torque appropriate conductor material wire cross section Cu-finely stranded with end sleeve Cu-finely stranded without end sleeve Cu-solid or stranded Alu - round, solid Alu - round, stranded	[Ømm] [Mm] [Nm] Al/Cu [mm ²] e [mm ²] [mm ²] [mm ²] [mm ²]	6-13 Screw 12 4 Cu Max. 25 -

Page -2- of -3-

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Data sheet Rev1.0 DC - generator junction box



general data

<u>general data</u>		
dimensions (WxHxD)	[mm]	254x180x111
weight	[kg]	-
operating temperature range	[°C]	-25°C - + 35
derating above temperature	[°C]	-
transport + storage temperature	[°C]	-25°C - + 35
humidity - condensing permitted	•/-	•
humidity within the range of	[%]	595
max. altitude above sea level NN	[m]	2000
protection class IP	(EN 60529)	65
outdoor-application permitted	•/-	-
exposure to <u>direct</u> weathering	•/-	-
protection against electric shock (EN 61140)		II
cabinet material		PC Polycarbonate
RoHS-conformity (2011/65/EU)	•/-	•
colour of cabinet		similar to RAL7035
way of mounting		wall mounting
quantity of expanded clay (only ground mounting)	[1]	-
locking system		Transparent cover
relevant standards		
switching devices		EN 61439-1 EN 61439-2
surge/overvoltage protection		DIN EN 62305-3 supplementary sheet 5
PV power supply systems		DIN IEC 60364-7-712
miscellaneous		
customs tariff number		85371098
spare parts		order-nr.
Dehn DCB YPV SCI 1000		10010504
		10010304

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