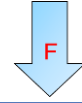


GC180A_F

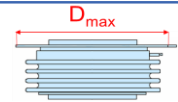
BAR CLAMP FOR HOCKEY PUK DEVICES



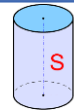
$F = 70 \text{ kN} \div 110 \text{ kN}$



$D_{max} = 163 \text{ mm}$



$S = 43,5 \div 191,5 \text{ mm}$



$T_{op} = -30 \div 230 \text{ }^{\circ}\text{C}$



Scan this QR code to download this datasheet

To display 3D images correctly, please use last version of Acrobat PDF Reader <https://get.adobe.com/it/reader/>
 (Once the application has started, click the Options button and then select: "Trust this document one time only", then click on the 3D image and wait until the upload is complete)

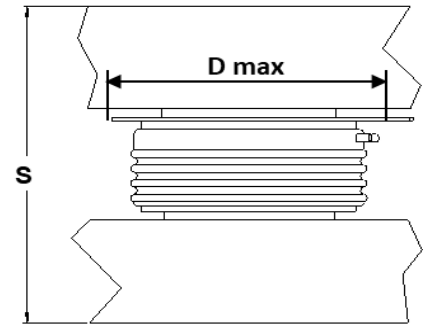
Characteristic	Unit	Types	Testing conditions	Values		
				Min	Typ	Max
F	Clamping Force	kN		70		110
ΔF	Clamping Force tolerance	%				$\pm 10\%$
V _{INS}	Insulation Voltage	V	50 Hz, RMS, 60 s		3000	
D _s	Surface creepage distance	mm			28	
D _a	Air strike distance	mm			20,3	
m	Mass	g	GC180AB...F		4500	
	Insulating Material		GPO3 and G11			
	UL Files		GPO3			E81893
			G11			E249605
T _{op}	Operating temperature range	$^{\circ}\text{C}$	GPO3 and G11	-30		110
CTI	Comparative Tracking Index	V	GP03	According to UL746	500,0	
			G11	According to IEC112/3rd	500,0	
	Flammability	mm	GP03	UL94 V-0 Flame class rating	V-0	
				UL94 V-0 Flame class rating	H-B	

ORDERING INFORMATION TABLE

Use this part numbering system to order:

GC180A	B	N	085	F	070	F	X
	(1)	(2)	(3)	(4)	(5)		(8)

(1) Construction type:	B = with reaction bar S = without reaction bar
(2) Insulator position:	N = on load bar R = on reaction bar
(3) Insulator code:	_ = no insulating tube 3 digit (example: Insulator Length 85 mm => digit 085)
(4) Bolt code:	_ = no bolt 1 = only D12 washers, no bolts other: see table below
(5) Clamping force (in kN):	70 kN ÷ 110 kN, with step of 1 kN (3 digit)
(6) Bolt steel type	0 = standard 8.8 steel bolts X = A2 stainless steel bolts (**)


S : Total thickness of the assembly to be clamped

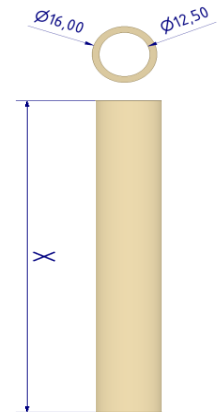
D max : Max inner diameter allowable

 (*) Needed to reduce S_{Min} if a lower allowed clearance is required

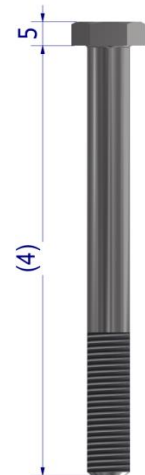
(**) Suggested for high current applications, magnetic sensitive applications or any application working in very high E.M. fields

Type GC180ABN...F: suggested insulator/bolt types

Allowed clearance S		Insulator Choice (3) Ins. Length [mm]	Bolt choice		Max height T [mm]
S_{Min} [mm]	S_{Max} [mm]		(4)	Bolt Length [mm]	
43,5	61,5	85	F	160	186
53,5	71,5	95	G	170	196
63,5	81,5	105	H	180	206
73,5	91,5	115	I	190	216
83,5	101,5	125	J	200	226
93,5	111,5	135	K	210	236
103,5	121,5	145	L	220	246
113,5	131,5	155	M	230	256
123,5	141,5	165	N	240	266
133,5	151,5	175	O	250	276
143,5	161,5	185	P	260	286
153,5	171,5	195	Q	270	296
163,5	181,5	205	R	280	306

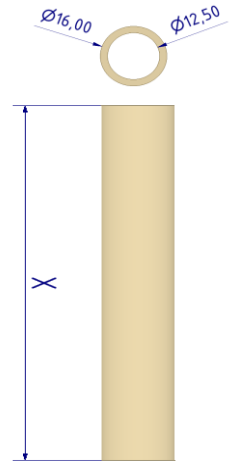

Type GC180ABR...F: suggested insulator/bolt types

Allowed clearance S		Insulator Choice (3) Ins. Length [mm]	Bolt choice		Max height T [mm]
S_{Min} [mm]	S_{Max} [mm]		(4)	Bolt Length [mm]	
43,5	71,5	85	F	160	206
53,5	81,5	95	G	170	216
63,5	91,5	105	H	180	226
73,5	101,5	115	I	190	236
83,5	111,5	125	J	200	246
93,5	121,5	135	K	210	256
103,5	131,5	145	L	220	266
113,5	141,5	155	M	230	276
123,5	151,5	165	N	240	286
133,5	161,5	175	O	250	296
143,5	171,5	185	P	260	306
153,5	181,5	195	Q	270	316
163,5	191,5	205	R	280	326



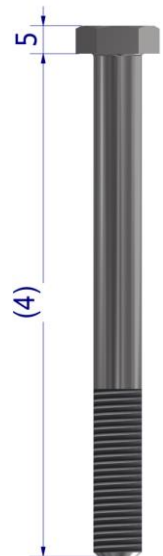
Type GC180ASN...F: suggested insulator/bolt types

Allowed clearance S		Insulator choice (3)	Bolt choice		Max height
S _{Min} [mm]	S _{Max} [mm]	Ins. Length [mm]	(4)	Bolt Length [mm]	T [mm]
43,5	61,5	85	F	160	186
53,5	71,5	95	G	170	196
63,5	81,5	105	H	180	206
73,5	91,5	115	I	190	216
83,5	101,5	125	J	200	226
93,5	111,5	135	K	210	236
103,5	121,5	145	L	220	246
113,5	131,5	155	M	230	256
123,5	141,5	165	N	240	266
133,5	151,5	175	O	250	276
143,5	161,5	185	P	260	286
153,5	171,5	195	Q	270	296
163,5	181,5	205	R	280	306

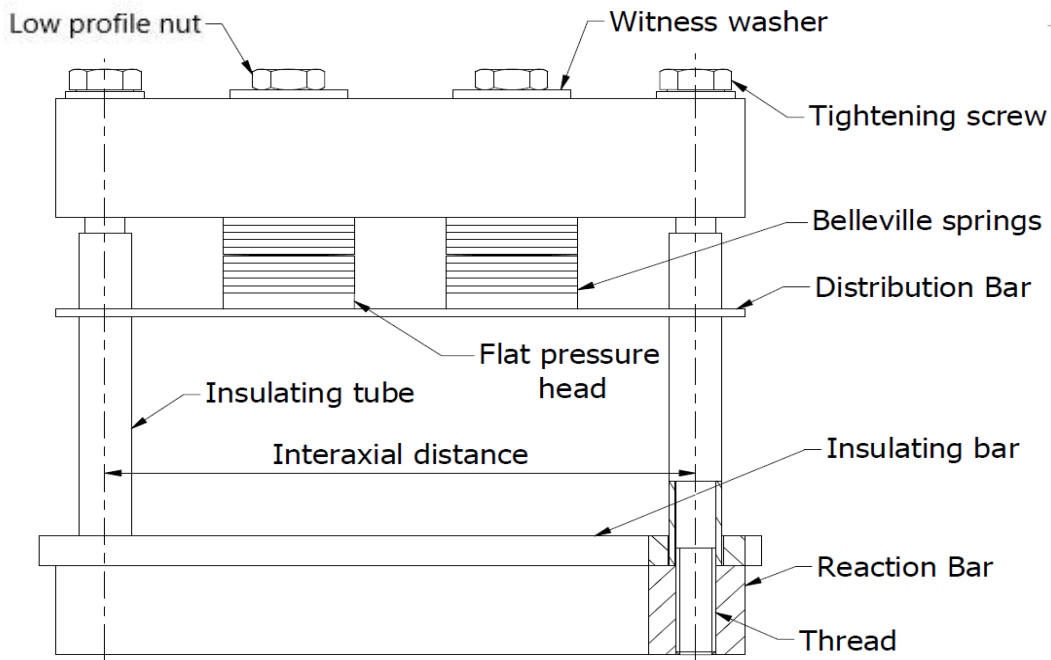


Type GC180ASR...F: suggested insulator/bolt types

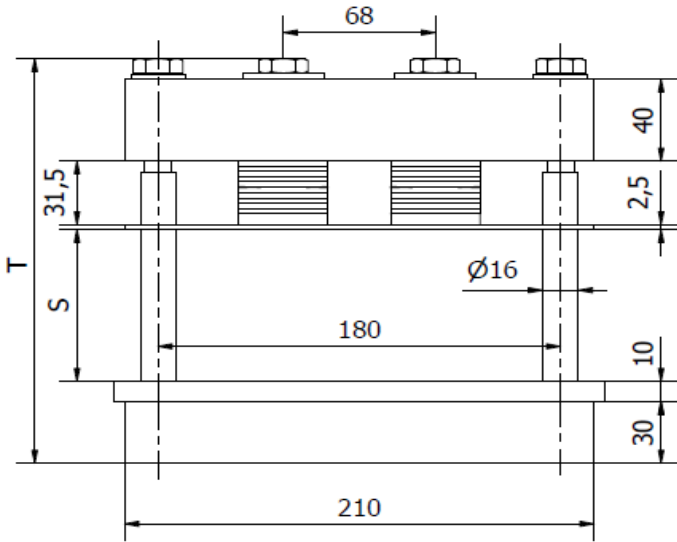
Allowed clearance S		Insulator choice (3)	Bolt choice		Max height
S _{Min} [mm]	S _{Max} [mm]	Ins. Length [mm]	(4)	Bolt Length [mm]	T [mm]
43,5	71,5	85	F	160	206
53,5	81,5	95	G	170	216
63,5	91,5	105	H	180	226
73,5	101,5	115	I	190	236
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153,5	181,5	195	Q	270	316
163,5	191,5	205	R	280	326



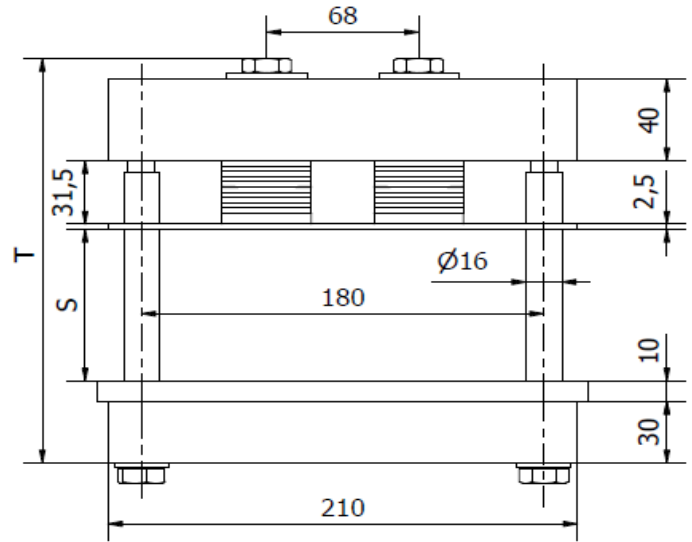
BAR CLAMP COMPONENTS LEGEND



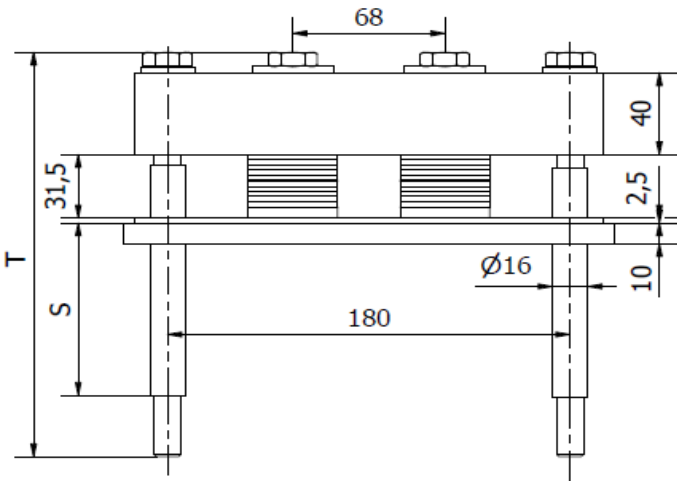
BAR CLAMP OUTLINES



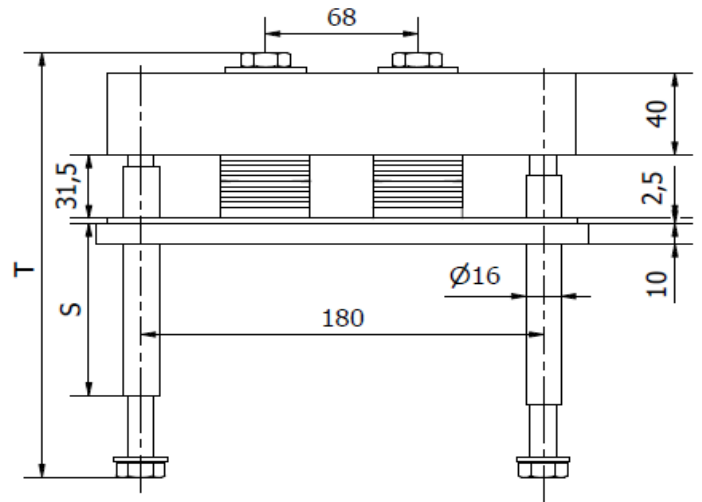
GC180ABN



GC180ABR



GC180ASN



GC180ASR

In the interest of product improvement Green Power Solutions reserves the right to change any specification given in this data sheet without notice.

Dimensions in mm - Tolerances according to ISO 2768 MK

Step files of clamp structures may be downloaded at [www.gpsemi.it/stepfiles/GC180A_F\(file step\).zip](http://www.gpsemi.it/stepfiles/GC180A_F(file step).zip) or using this QR

