

Customer	Supplier	Certificate number
<b>Senvion GmbH</b> Überseering 10 22297 Hamburg	<b>Ria Blades,SA</b> Parque Empresarial de Soza Rua da Barreira, nº25 Salgueiro 3840-346 Soza Portugal	<b>IC nº 020_2019</b>
Article	Colour Code	Documents for construction Blade set
<b>Rotor Blade: RE 68.5 MK1</b>	RAL 7035	We confirm that the delivered blade are in accordance with Senvion Specifications and all other documents referred on Doc list 54186
<b>Order nb: 4500459685</b>		
<b>SET NB: 020</b>		

Blade Number	Static Moment referring to the blade flange	Deviation from the average static moment of rotor blade [%]	Balancing masses						
			Total Weigth (Kg)	Center of gravity COG Z[m]	Balancing Chamber Nº1 (Kg)	Balancing Chamber Nº2 (Kg)	Balancing Chamber Nº3 (Kg)	Balancing Chamber Nº4 (Kg)	Extra weight (kg)
RB 059	341856	0,02	17990	19,00	0	0	0	0	0
RB 060	341719	0,02	17946	19,04	0	0	0	25	0
RB 061	341832	0,01	17953	19,04	0	0	0	24	0
Average static moment of the rotor blade set [kgm]			341802						

Lightning protection results	Blade Number	RB 059	RB 060	RB 061
	Receptor 1 --> SS Z= 63,15m (Min:22mΩ - Max:41mΩ)	38	32	33
	Receptor 2 --> SS Z=66,20m (Min:23mΩ - Max:43mΩ)	39	32	34
	Receptor 3 --> SS Z=67,24m (Min:24mΩ - Max:44mΩ)	39	31	34
	Receptor 4 --> PS Z=63,15m (Min:22mΩ - Max:41mΩ)	38	32	34
	Receptor 5 -->PS= Z66,20m (Min23mΩ - Max:43mΩ)	39	31	34
	Receptor 6--> PS Z= 67,24m (Min:24mΩ - Max:44mΩ)	40	30	33
	Tip Z68,5 (Min:24mΩ - Max:44mΩ)	40	32	34

Blade Numbers	Root Inserts Batch number	Root Inserts Supplier	M30 bolts Batch number	M30 bolts Supplier	Jig control
RB 059	BQC BXF BYR BUR	Kleinsorge Verbindungstechnik	BVV BYY	Kleinsorge Verbindungstechnik	OK
RB 060	BYD BRO BNL BXE BXF	Kleinsorge Verbindungstechnik	BYY	Kleinsorge Verbindungstechnik	OK
RB 061	BYR BUR BXF BXE BYD	Kleinsorge Verbindungstechnik	BYY BZO	Kleinsorge Verbindungstechnik	OK

Date:	<b>02-04-2019</b>
Authorized signature: <i>Quality Assurance</i>	<b>Guilherme Teixeira</b>
Stamp:	  <small>Guilherme Teixeira Quality Engineering Coordinator</small>