

Customer	Supplier	Certificate number
Senvion GmbH Überseering 10 22297 Hamburg	Ria Blades,SA Parque Empresarial de Soza Rua da Barreira, nº25 Salgueiro 3840-346 Soza Portugal	IC nº 011_2019
Article	Colour Code	Documents for construction Blade set
Rotor Blade: RE 68.5 MK1	COL 043	We confirm that the delivered blade are in accordance with Senvion Specifications and all other documents referred on Doc list 52955
Order nb: 4500457045		
SET NB: 011		

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 031	344639	0,02	18053	19,09	0	0	0	31	0
RB 033	344406	0,05	18010	19,12	0	0	9	31	0
RB 034	344706	0,04	18062	19,08	20	15	0	0	0
Average static moment of the rotor blade set [kgm]			344584						

Lightning protection results	Blade Number	RB 031	RB 033	RB 034
	Receptor 1 --> SS Z= 63,15m (Min:22mΩ - Max:41mΩ)	36	28	35
	Receptor 2 --> SS Z=66,20m (Min:23mΩ - Max:43mΩ)	37	29	36
	Receptor 3 --> SS Z=67,24m (Min:24mΩ - Max:44mΩ)	37	29	37
	Receptor 4 --> PS Z=63,15m (Min:22mΩ - Max:41mΩ)	39	28	35
	Receptor 5 -->PS= Z66,20m (Min23mΩ - Max:43mΩ)	37	29	37
	Receptor 6--> PS Z= 67,24m (Min:24mΩ - Max:44mΩ)	37	29	37
	Tip Z68,5 (Min:24mΩ - Max:44mΩ)	37	29	37

Blade Numbers	Root Inserts Batch number	Root Inserts Supplier	M30 bolts Batch number	M30 bolts Supplier	Jig control
RB 031	BVI BWJ BUR BXC	Kleinsorge Verbindungstechnik	BVF BWM	Kleinsorge Verbindungstechnik	OK
RB 033	BUS BXC	Kleinsorge Verbindungstechnik	BVF	Kleinsorge Verbindungstechnik	OK
RB 034	BXF BUR	Kleinsorge Verbindungstechnik	BVF	Kleinsorge Verbindungstechnik	OK

Date:	24-01-2019
Authorized signature: <i>Quality Assurance</i>	Guilherme Teixeira
Stamp:	  <small>Guilherme Teixeira Quality Engineering Coordinator</small>