

DATA SHEET

Synchronous Alternator



Customer	: HooverTec LLC	Notes:	
Customer reference	:		
Product line	: AG10 250MI60AI	Product code	: 14416005
Area classification	: Safe		1010294113

General data		Degree of protection	: IP23
Frame (IEC)	: 250	Mounting style	: B3T
Insulation Class	: 180°C (H)	Number of poles	: 4
THD (L-L, no load)	: ≤ 3%	Type of Pole	: Salient
Stator winding pitch	: 2/3	Rated speed - 50 Hz	: 1500 rpm
Altitude	: up to 1000 m.a.s.l	Nominal rotation - 60 Hz	: 1800 rpm
Number of Leads	: 12	Overspeed	: 2250 rpm
Power factor	: 0.8 to 1.0	Approx. weight	: 806 kg
Excitation system	: Brushless with Auxiliary Coil	Overload	: 1.1x In per 1h each 6h
Cooling	: IC01	Momentary Overload	: 1.5x In per 30s

Frequency and number of phases		50 Hz				60 Hz			
		3ph		1ph	3ph		1ph		
Voltages (V)	Y (series star) connection	380	400	-	380	416	440	480	-
	YY (parallel star) connection	190	200	-	190	208	220	240	-
	Δ (series delta) connection	220	230	-	220	240	254	277	-
	ΔΔ (parallel delta) connection	110	115	-	110	120	127	138	-
	Zig-zag or single phase delta	-	-	-	190 - 200	-	-	-	220 - 240
Output power (kVA)	Continuous 80/40	200	200	115.5	205	223	234	250	135.0
	Continuous 105/40	229	229	132.2	235	255	268	288	155
	Continuous 125/40	250	250	144.3	260	278	292	312	169
	Standby 150/40	260	260	150	275	298	315	345	182
	Standby 163/27	277	277	160	290	312	330	360	188
Electrical data (FP=0.8 / Continuous 125/40 (H))	Xd(%) Dir. axis synchronous reactance	490.0	415.6	653.3	593.3	513.4	482.0	428.29	642.7
	X'd(%) Dir. axis transient reactance	18.7	15.9	24.93	22.6	19.6	18.4	16.34	24.5
	X''d(%) Dir. axis subtrans. reactance	13.5	11.4	18.0	16.4	14.1	13.2	11.68	17.6
	Xq(%) Quad. axis sync. reactance	135.5	114.9	180.65	164.1	142.0	133.3	118.43	177.7
	X''q(%) Quad. axis subtrans. react.	10.8	9.2	14.4	13.1	24.5	10.6	9.35	14.1
	X2(%) Negative sequence reactance	17.5	14.9	23.38	21.2	19.3	17.2	15.27	23.0
	X0(%) Zero sequence reactance	2.2	1.9	3.0	2.7	2.4	2.2	1.95	2.9
	T'd(ms) Short Circ. Trans. time const.	67.6	57.3	90.09	81.8	70.8	66.5	59.06	88.6
	T''d(ms) Short Circ. Sub. time const.	1.8	1.5	2.37	2.1	1.9	1.8	1.55	2.3
	T'do(ms) Open Circ. time const Trans	1347	1143	1796.6	1632	1412	1326	1177.8	1767
	T''do(ms) Open Circ. time const Subt	2.4	2.1	3.25	3.0	2.6	2.4	2.13	3.2
	Ta(ms) Armature time const.	11	9	14.91	14	12	11	9.77	15
	uc(V) Full load excitation voltage	61.3	63.0	68.1	53.3	54.9	55.8	58.15	55.8
	ic(A) Full load excitation current	3.7	3.8	4.09	3.2	3.3	3.4	3.5	3.4
ic(A) No load excitation current	0.7	0.8	0.95	0.6	0.7	0.7	0.87	0.9	
Icc(A) Sustained Short-Circ. Current	1140	1083	1082.53	1185	1157	1149	1125.83	1056	
Kcc Short-circuit ratio	0.2	0.24	0.15	0.17	0.19	0.21	0.23	0.16	
Efficiency (%)	Power factor	0.8	1.0	0.8	1.0	0.8	1.0	0.8	1.0
	25% of load	91.4	93.2	91.6	93.4	84.1	85.7	91.9	93.4
	50% of load	92.7	94.4	92.8	94.5	85.2	86.8	93.1	94.6
	75% of load	92.2	94.1	92.4	94.3	84.8	86.5	92.6	94.3
	100% of load	91.3	93.4	91.7	93.8	83.9	85.9	91.7	93.6
	125% of load	90.3	92.6	90.8	93.1	80.9	83.4	90.6	92.9

Other characteristics		Automatic voltage regulator		According to:	
Air flow	: 1.55 m³/s	Accuracy (stability)	: +/- 0.5%	IEC 60034	
Exciter stator winding resistance at 20°C	: 12.17 ohm	Rated current	: 5 A	NBR 5117	
Stator winding resistance at 20°C	: 0.01616 ohm	Analog input	: Yes	NEMA MG1	
Rotor winding resistance	: 1.28 ohm	Digital input	: No	VDE530	
Stator winding layers	: 2	Peak current	: 7 A/10 s	ISO 8528	
Inertia WR²	: 2.78 kgm²	Droop / TC	: Yes	CSA	
NDE Bearing	: 6314 2RS	Dynamic recovery	: 8 to 500 ms		
DE bearing	: 6316 2RS	U/F	: Yes		
Flange	: NOT APPLICABLE	Internal voltage adjustment	: +/- 15%		
Coupling disc	: NOT APPLICABLE	External voltage adjustment	: +/- 10%		
		Transient recovery time for ΔU=20%	: 500 ms		

Rev.	Changes Summary			Performed	Checked	Date
Performed by						
Checked by					Page	Revision
Date	12/09/2023				1 /	

1 2 3 4 5 6

LA - LADO ACIONADO
DE - DRIVE-END SIDE
LA - LADO ACCIONADO

LNA - LADO NÃO ACIONADO
NDE - NON DRIVE-END SIDE
LNA - LADO NO ACCIONADO

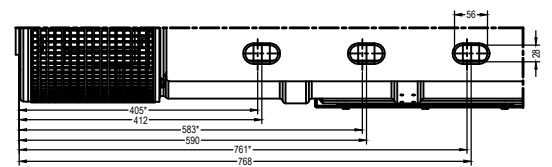
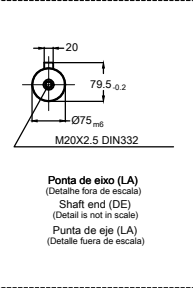
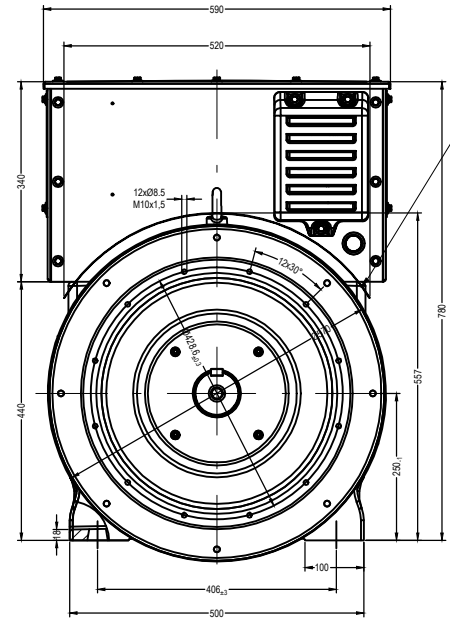
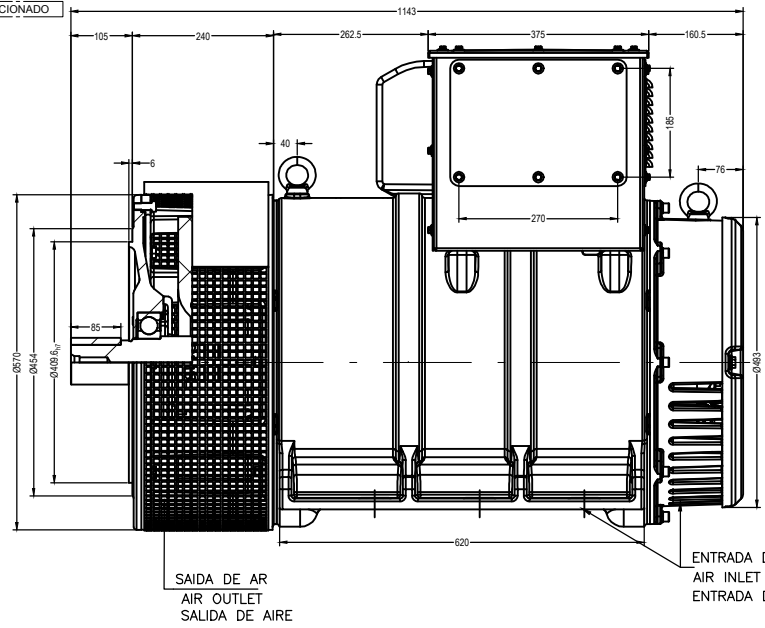
A

B

C

D

E

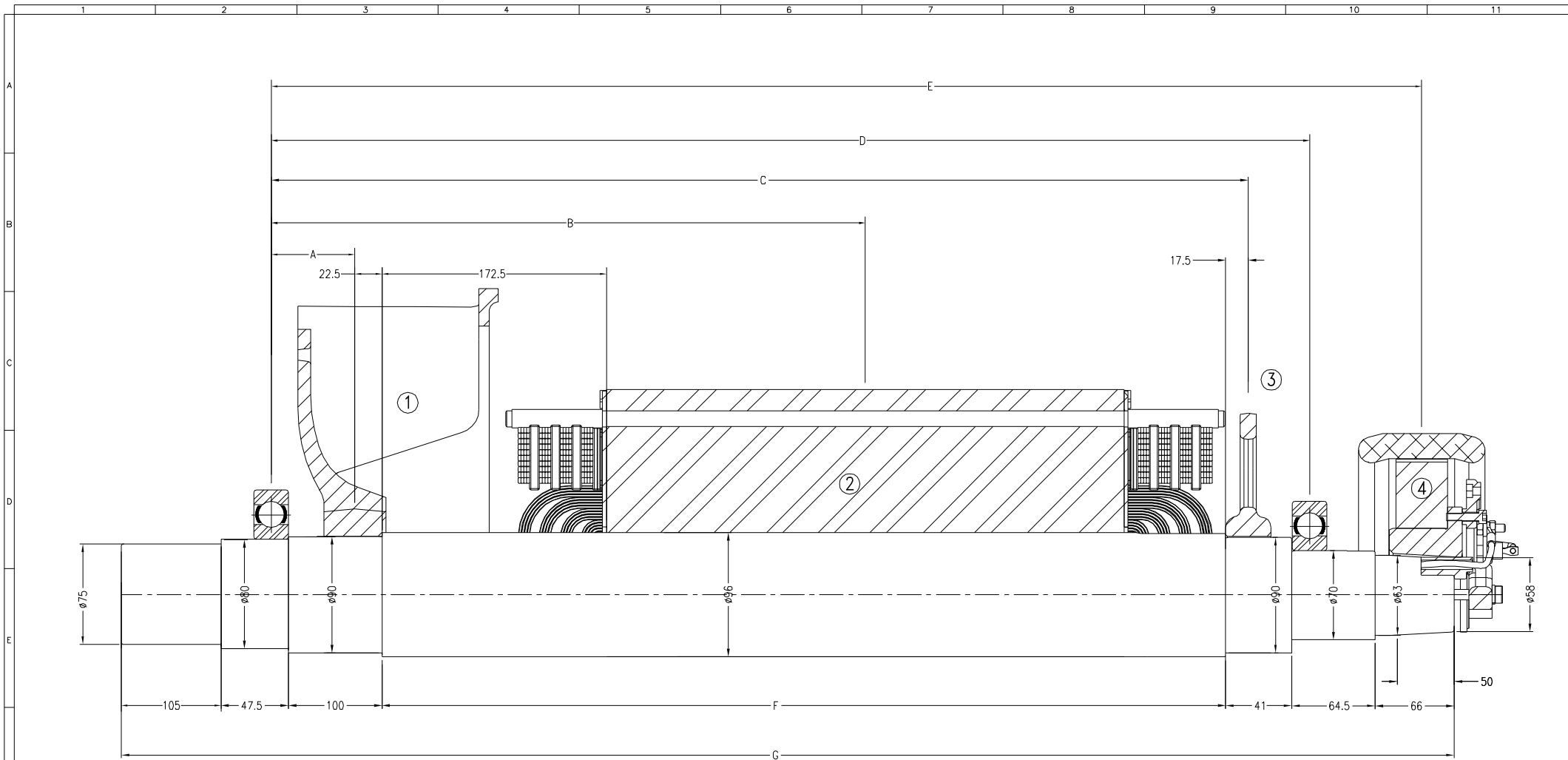


*Dimensão recomendada pela WEG para a furação no skid
*Recommended dimension for mounting hole position on the skid
*Dimensión recomendada para el montaje del agujero sobre el skid

NOTAS / NOTES / NOTAS
Máquina / Machine / Máquina : AG10250M - B3T
Grau de proteção / Protection / Grado de protección: IP21 / IP23

PESO BRUTO / GROSS WEIGHT		PESO LIQUIDO / NET WEIGHT		ESC / SCALE	
ECM ECM	LOC LOC	RESUMO MODIFICAÇÃO SUMMARY OF MODIFICATIONS		EXECUTADO EXECUTED	VERIFICADO CHECKED
EXEC. / EXECUTED		DIMENSIONAL AG10 250M B3T		LIBERADO RELEASED	DATA DATE
VERIF. / CHECKED				000	01
LIBER. / RELEASED				FOLHA / SHEET 01 / 01	
DATA LB / REL DT	10.07.2017				





TIPO/AG10 TYPE/AG10	DIMENSÕES: mm / DIMENSIONS: mm							1		2		3		4		Total Weight kg	Total Mom. Iner. J kgm ²
	A	B	C	D	E	F	G	WEIGHT MASSA kg	MOMENT MOMENTO kgm ²	WEIGHT MASSA kg	MOMENT MOMENTO kgm ²	WEIGHT MASSA kg	MOMENT MOMENTO kgm ²	WEIGHT MASSA kg	MOMENT MOMENTO kgm ²		
250S_50	97	382.5	—	664.5	752.5	501	925.0	15.4	0.428	121.8	1.706	—	—	14.0	0.14	151.2	2.274
250M_60		420.0	—	814.5	902.5	651	1075.0			158.7	2.334					188.1	2.902
250M_70		445.0	—	814.5	902.5	651	1075.0			182.1	2.563					211.5	3.131
250M_80		477.5	—	814.5	902.5	651	1075.0			213.1	2.863					242.5	3.431

Nota: Valores sujeitos a alterações sem aviso prévio
 Values subject to modifications without previous notice

PESO BRUTO / GROSS WEIGHT		kg	PESO LÍQUIDO / NET WEIGHT		kg	SIC		NDL		
ESM	LOC	EMISSÃO RENCAL / INITIAL EMISSION				E RECALIBRADO / RECALIBRATED	VERIFICADO / CHECKED	LIBERADO / RELEASED	DATA / DATE	VE
SEC	LOC	RECALIBRAÇÃO / RECALIBRATION				EXCETO / EXCEPT	VERIFICADO / CHECKED	LIBERADO / RELEASED	DATA / DATE	VE
NUM. / NUMBER	LOC	SERIAL / SERIAL				EXCETO / EXCEPT	VERIFICADO / CHECKED	LIBERADO / RELEASED	DATA / DATE	VE
NUM. / NUMBER	LOC	SERIAL / SERIAL				EXCETO / EXCEPT	VERIFICADO / CHECKED	LIBERADO / RELEASED	DATA / DATE	VE
NUM. / NUMBER	LOC	SERIAL / SERIAL				EXCETO / EXCEPT	VERIFICADO / CHECKED	LIBERADO / RELEASED	DATA / DATE	VE

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