DATA SHEET
Synchronous Alternator

Customer	: HooverTec LLC	Notes:	
Customer reference	:		
Product line	: AG10 250MI80AI	Product code	: 13943311
Area classification	: Safe		1011327332

General data

Frame (IEC)	: 250	Degree of protection	: IP23
Insulation Class	: 180°C (H)	Mounting style	: B15T
THD (L-L, no load)	: ≤ 3%	Number of poles	: 4
Stator winding pitch	: 2/3	Type of Pole	: Salient
Altitude	: up to 1000 m.a.s.l	Rated speed - 50 Hz	: 1500 rpm
Number of Leads	: 12	Nominal rotation - 60 Hz	: 1800 rpm
Power factor	: 0.8 to 1.0	Overspeed	: 2250 rpm
Excitation system	: Brushless with Auxiliary Coil	Approx. weight	: 917 kg
Cooling	: IC01	Overload	: 1.1x In per 1h each 6h
		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	260	260		150	260	283	302	324	174
	Continuous 105/40	298	298		172	298	324	346	371	200
	Continuous 125/40	**325**	**325**		**188**	**325**	**354**	**377**	**405**	**218**
	Standby 150/40	350	340		202	364	394	412	460	238
	Standby 163/27	360	350		208	380	416	450	470	260
Electrical data (FP=0.8 / Continuous 125/40 (H)) Satured reactances values	Xd(%) Dir. axis synchronous reactance	375.3	297.5		500.4	445.1	383.2	364.8	320.5	486.4
	X'd(%) Dir. axis transient reactance	14.3	11.3		19.1	17.0	14.6	13.9	12.23	18.6
	X"d(%) Dir. axis subtrans. reactance	11.5	9.1		15.3	13.7	11.7	11.1	9.72	14.8
	Xq(%) Quad. axis sync. reactance	123.8	98.1		165.1	146.8	126.4	120.3	105.71	160.4
	X"q(%) Quad. axis subtrans. react.	9.2	7.3		12.3	10.9	19.9	8.9	7.77	11.9
	X2(%) Negative sequence reactance	10.4	8.2		13.8	12.3	15.8	10.0	8.75	13.3
	X0(%) Zero sequence reactance	1.9	1.5		2.6	2.3	1.9	1.9	1.62	2.5
	T'd(ms) Short Circ.Trans.time const.	61.7	48.9		82.3	73.2	63.0	60.0	52.72	80.0
	T"d(ms) Short Circ. Sub. time const.	1.6	1.3		2.2	1.9	1.7	1.6	1.39	2.1
	T'do(ms) Open Circ. time const Trans	1231	976		1642	1460	1257	1197	1051.31	1595
	T"do(ms) Open Circ. time const Subt	2.2	1.8		3.0	2.6	2.3	2.2	1.9	2.9
	Ta(ms) Armature time const.	10	8		14	12	10	10	8.72	13
	uc(V) Full load excitation voltage	63.8	62.7		63.8	50.9	53.3	54.9	57.8	54.9
	ic(A) Full load excitation current	3.8	3.8		3.8	3.1	3.2	3.3	3.48	3.3
	ic(A) No load excitation current	0.8	0.9		1.0	0.6	0.7	0.8	0.88	1.0
	Icc(A) Sustained Short-Circ. Current	1481	1407		1407	1481	1474	1484	1461.42	1362
	Kcc Short-circuit ratio	0.27	0.34		0.2	0.22	0.26	0.27	0.31	0.21

	Power factor	0.8	1.0	0.8	1.0			0.8	1.0	0.8	1.0	0.8	1.0	0.8	1.0	0.8	1.0	0.8	1.0
Efficiency (%)	25% of load	91.8	93.4	91.9	93.5			84.4	85.8	92.3	93.7	92.2	93.7	92.3	93.7	92	93.6	84.9	86.2
	50% of load	92.9	94.4	93	94.6			85.4	86.8	93.4	94.7	93.4	94.8	93.6	94.8	93.4	94.8	86	87.2
	75% of load	92.4	94.2	92.7	94.4			85	86.6	93	94.4	93.1	94.6	93.3	94.7	93.3	94.8	85.8	87.1
	100% of load	91.8	93.7	92	93.9			84.4	86.1	92.2	93.9	92.4	94.1	92.6	94.3	92.8	94.4	85.2	86.7
	125% of load	90.9	93	91.3	93.4			82.6	84.7	91.3	93.2	91.6	93.5	91.8	93.7	92.2	94	84.4	86.2

Other characteristics

Air flow	: 1.84 m³/s
Exciter stator winding resistance at 20ºC	: 12.17 ohm
Stator winding resistance at 20ºC	: 0.00982 ohm
Rotor winding resistance	: 1.74 ohm
Stator winding layers	: 2
Inertia WR²	: 3.53 kgm²
NDE Bearing	: 6314 2RS
DE bearing	
Flange	: SAE 1
Coupling disc	: SAE 14

Automatic voltage regulator

Accuracy (stability)	: +/- 0.5%
Rated current	: 5 A
Analog input	: Yes
Digital input	: No
Peak current	: 7 A/10 s
Droop / TC	: Yes
Dynamic recovery	: 8 to 500 ms
U/F	: Yes
Internal voltage adjustment	: +/- 15%
External voltage adjustment	: +/- 10%
Transient recovery time for ΔU=20%	: 500 ms

According to:

IEC 60034
NBR 5117
NEMA MG1
VDE530
ISO 8528
CSA

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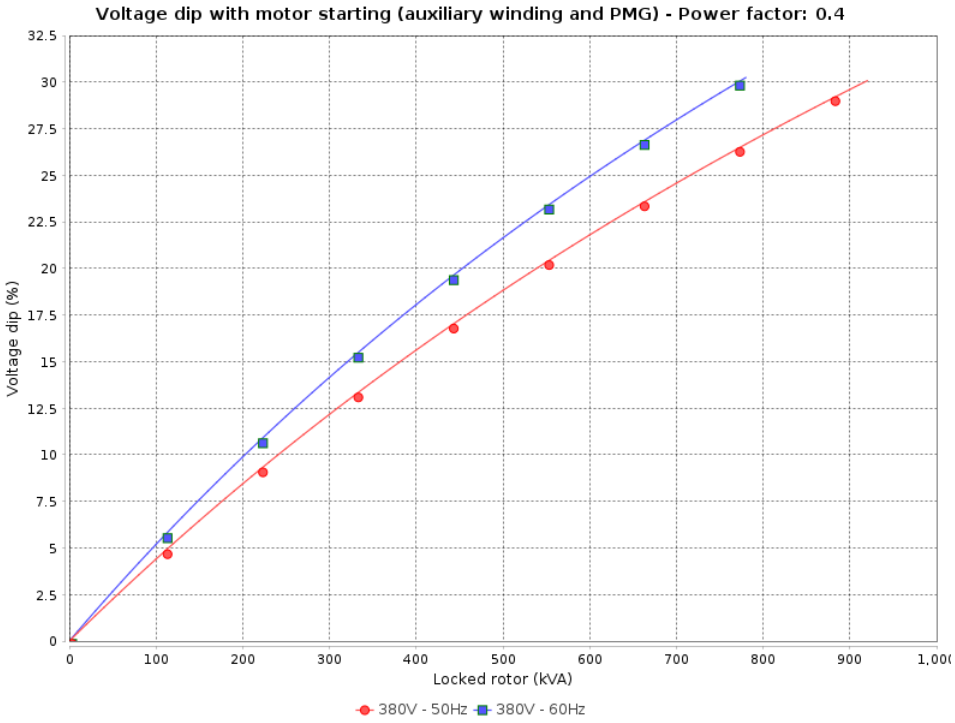
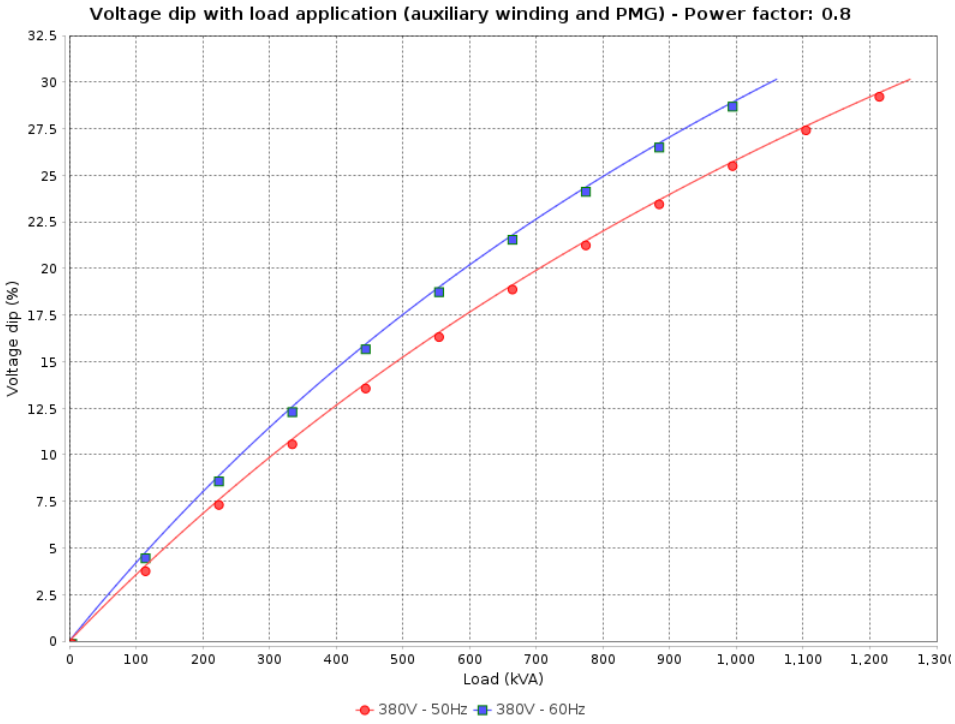
DATA SHEET
Synchronous Alternator





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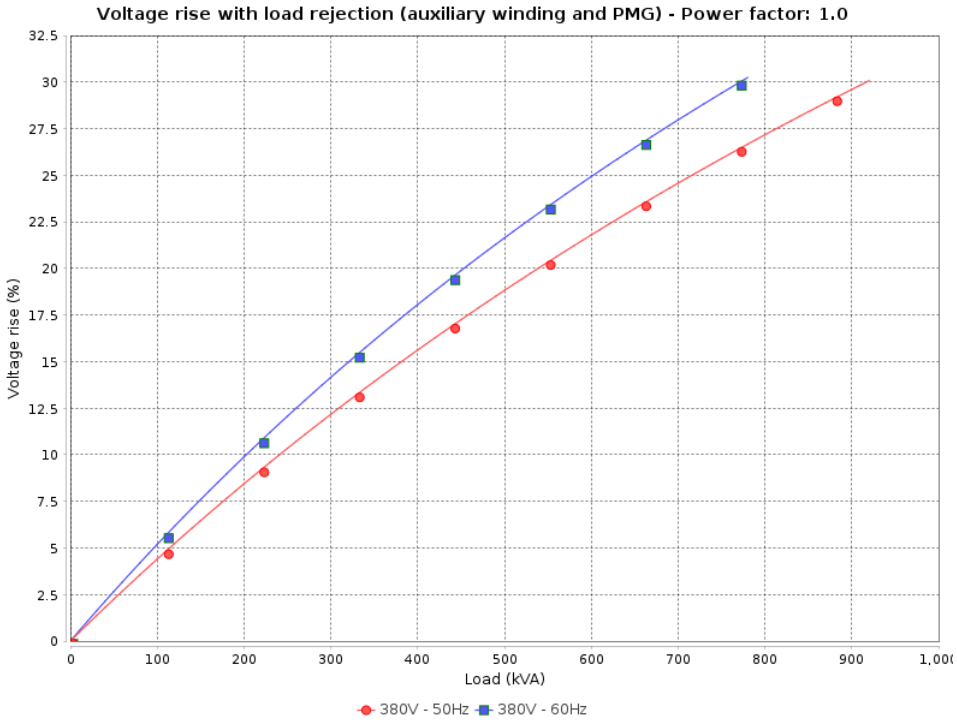

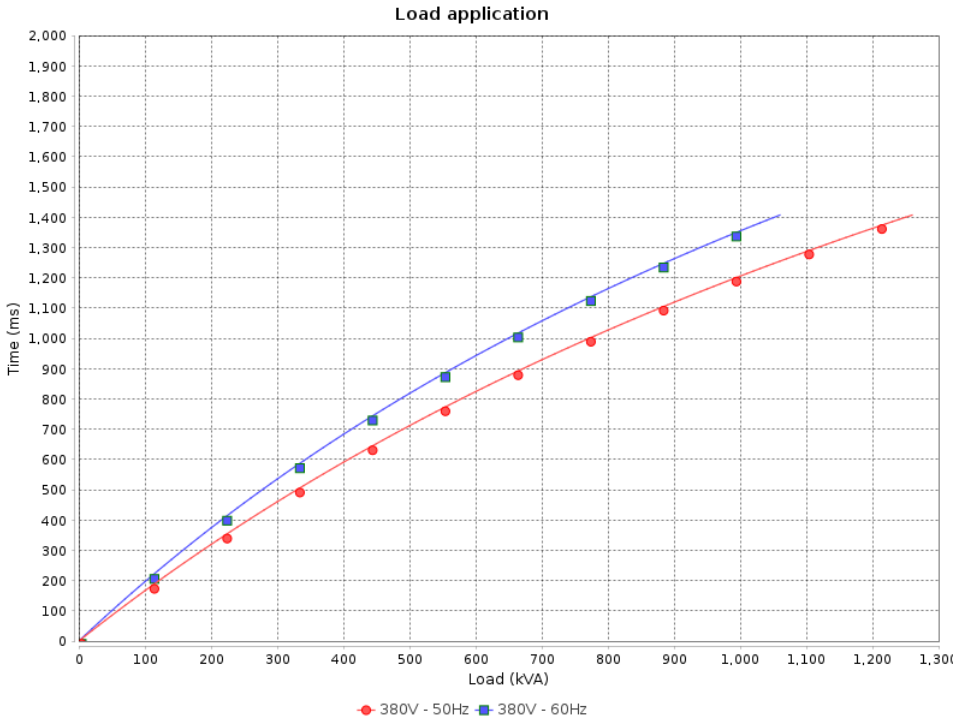

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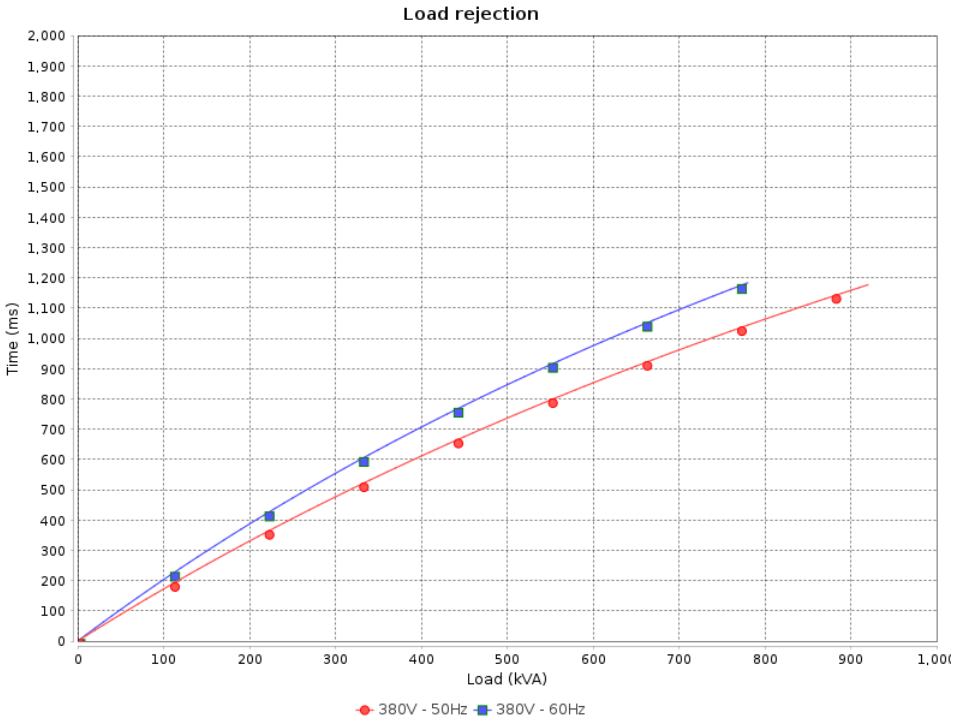

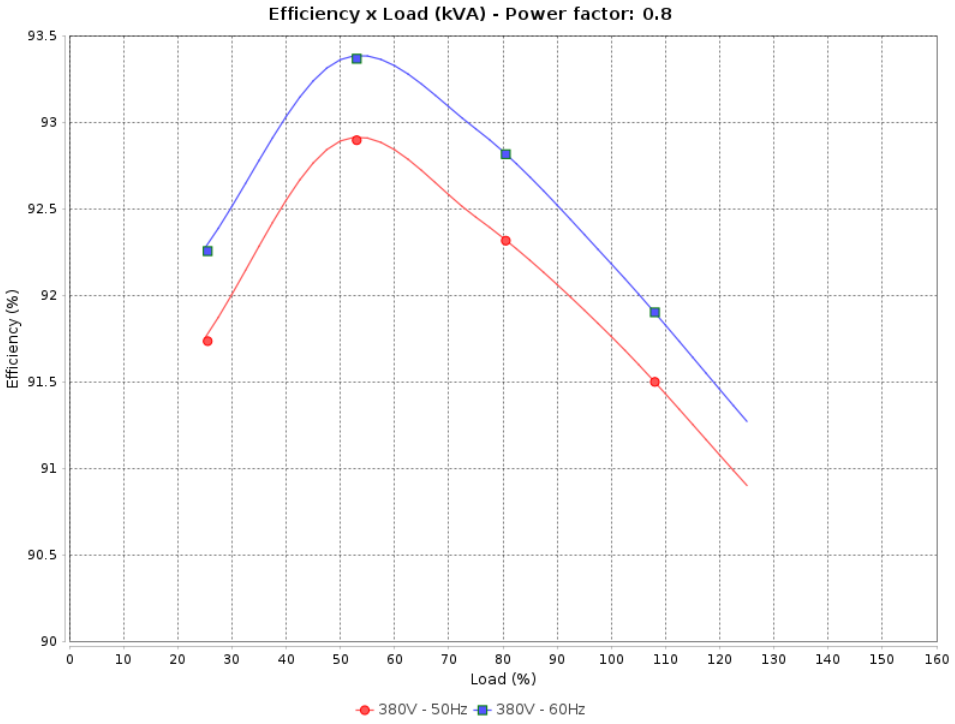

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DATA SHEET
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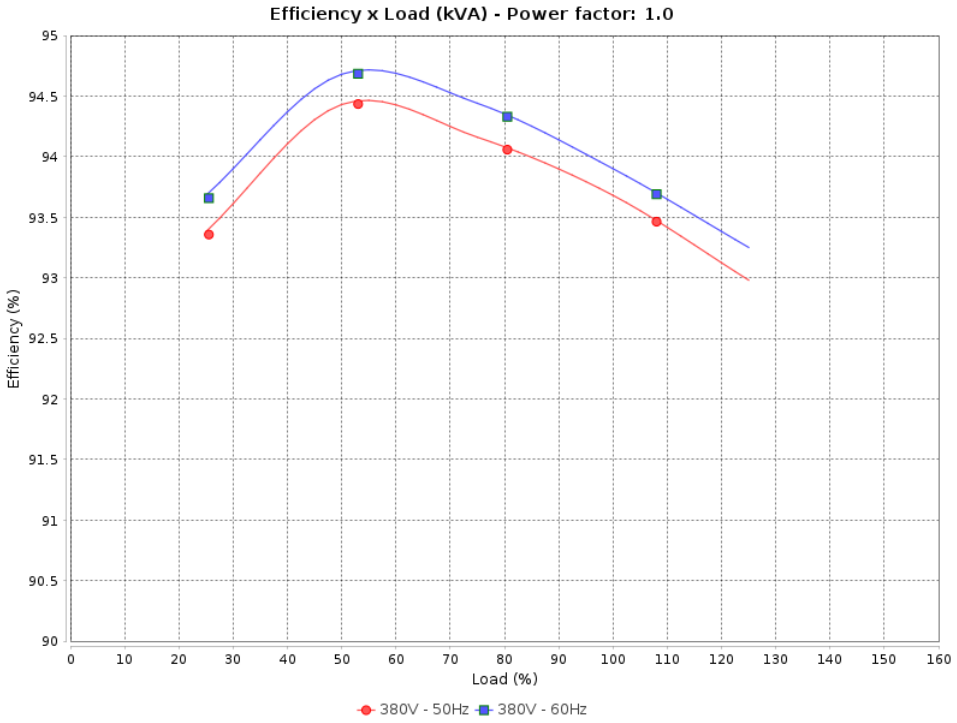

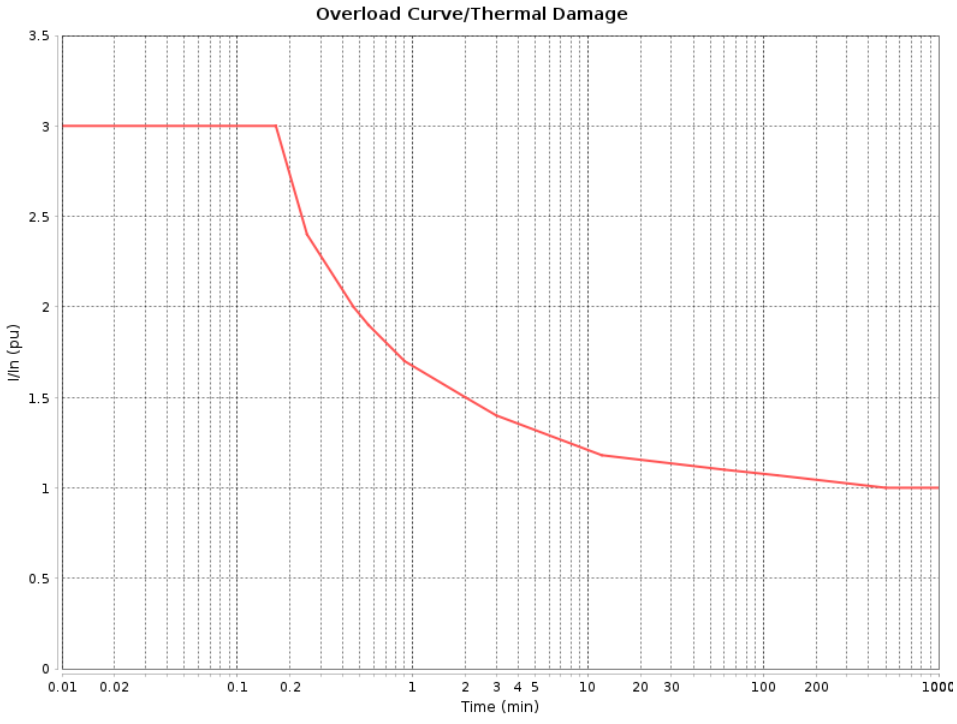

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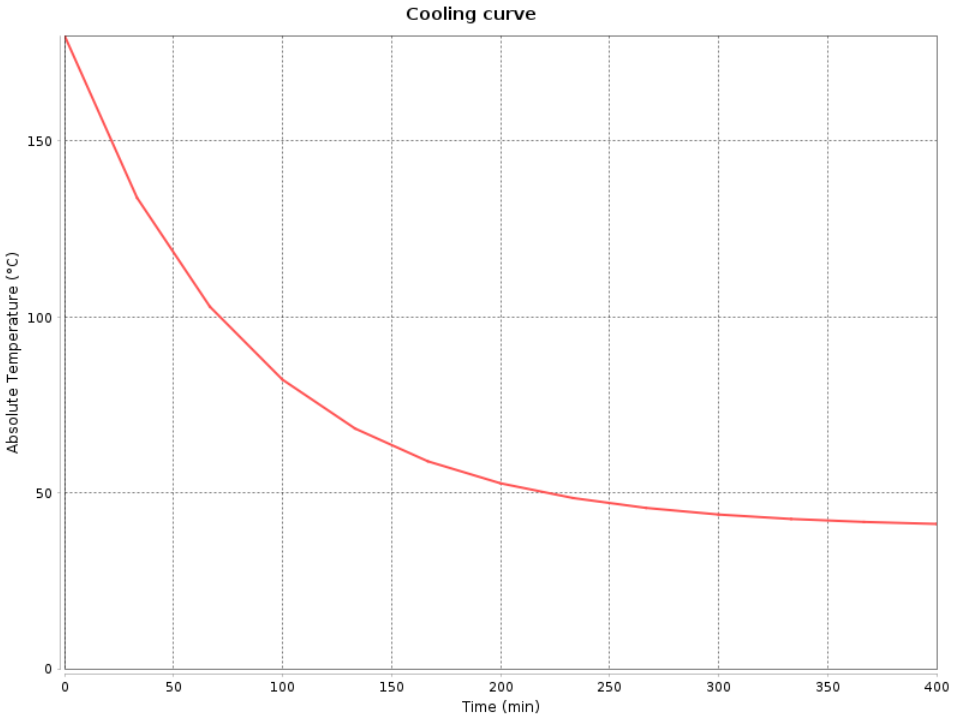

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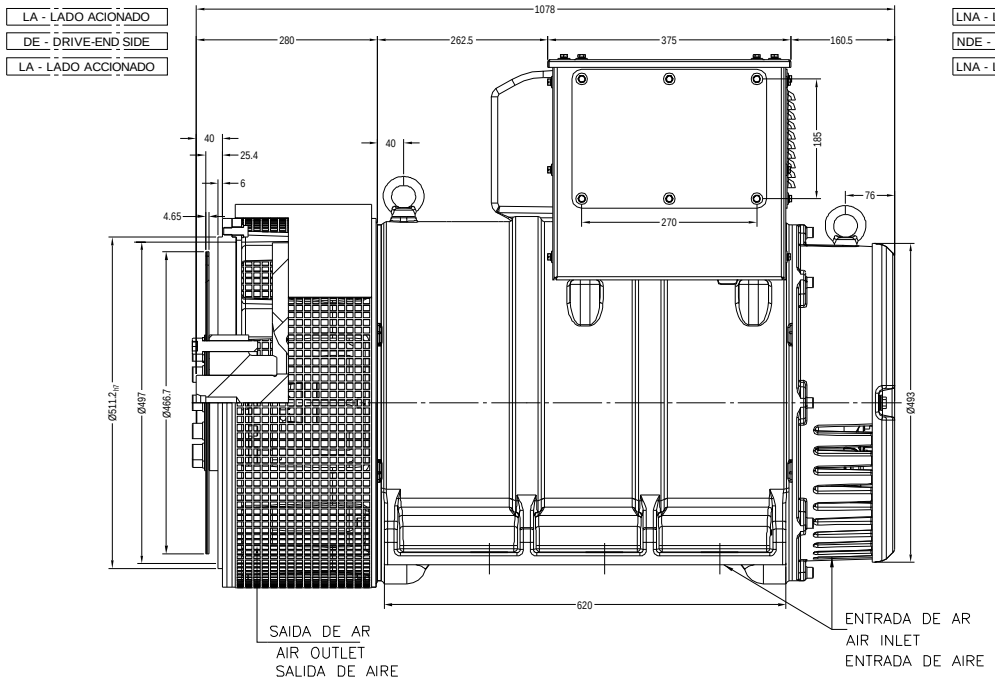
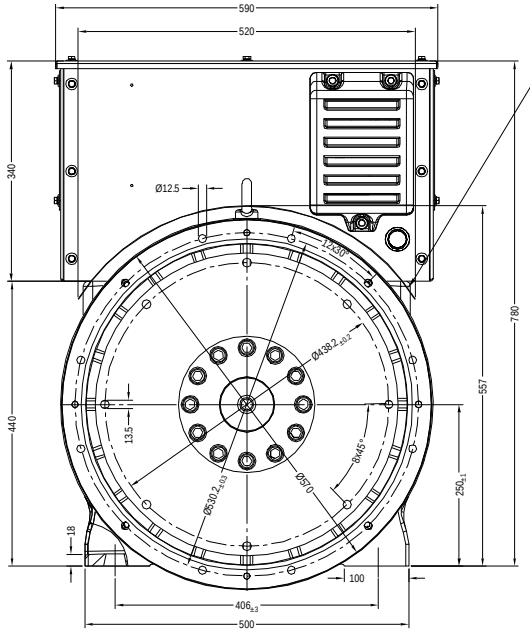
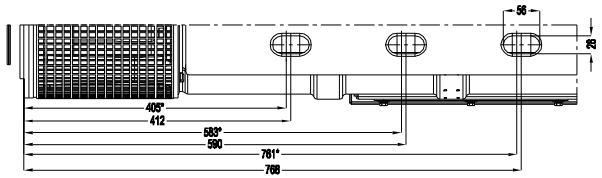
LA - LADO ACIONADO
DE - DRIVE-END SIDE
LA - LADO ACCIONADO

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







Furo para fixação da máquina
(Detalhe fora de escala)
Mounting Hole
(Detail is not in scale)
Agujero para fijación de la máquina
(Detalle fuera de escala)

*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 - B15T
Grau de proteção / Protection / Grado de protección: IP21 / IP23
Flange de acoplamento / Coupling flange / Brida de acoplamiento: SAE 1
Disco de acoplamento / Coupling disc / Disco de acoplamiento: SAE 14

PESO BRUTO / GROSS WEIGHT		PESO LIQUIDO / NET WEIGHT		ESC / SCALE	1:8.00

ECM / ECM	LOC / LOC	RESUMO MODIFICAÇÃO / SUMMARY OF MODIFICATIONS	EXECUTADO / EXECUTED	VERIFICADO / CHECKED	LIBERADO / RELEASED	DATA / DATE	VER / VER

EXEC. / EXECUTED		DIMENSIONAL AG10 250M B15T	10005093836
VERIF. / CHECKED			000 | 01
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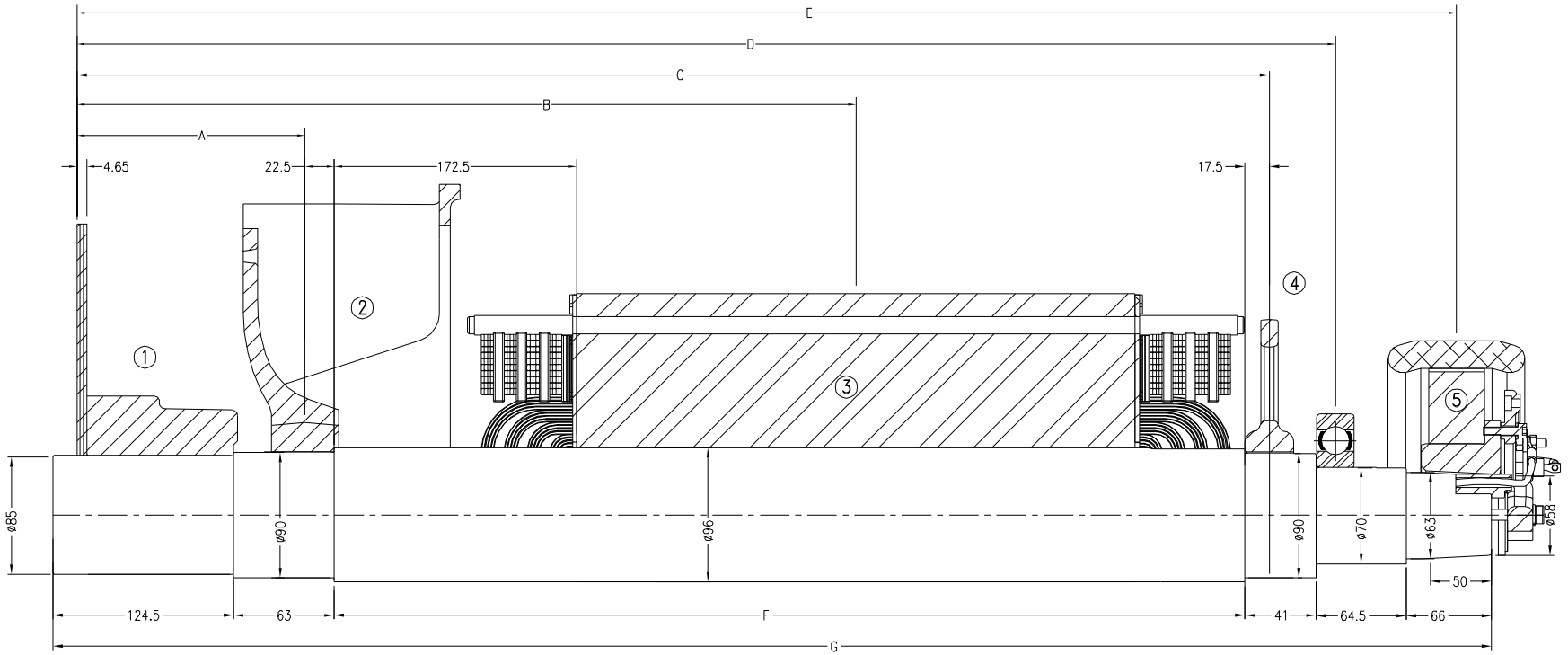
DATA LB / REL DT	10.07.2017		FOLHA / SHEET 01 / 01



TIPO/AG10	DISCO	DIMENSÕES: mm / DIMENSIONS: mm							1		2		3		4		5		Total Weight	Total Mom. Iner.
TYPE/AG10	DISCS	A	B	C	D	E	F	G	WEIGHT kg MASSA	MOMENT kgm² MOMENTO	WEIGHT kg MASSA	MOMENT kgm² MOMENTO	WEIGHT kg MASSA	MOMENT kgm² MOMENTO	WEIGHT kg MASSA	MOMENT kgm² MOMENTO	WEIGHT kg MASSA	MOMENT kgm² MOMENTO	kg	J kgm²
250S_50	SAE 14	150.0	450.0	–	732.0	820.0	501	860.0	23.9	0.276	15.4	0.428	121.8	1.706	–	–	14.0	0.14	175.1	2.550
250M_60			487.5										158.7	2.334					212.0	3.178
250M_70			512.5	–	882.0	970.0	651	1010.0					182.1	2.563					235.4	3.407
250M_80			545.0										213.1	2.863					266.4	3.707

TIPO/AG10	DISCO	DIMENSÕES: mm / DIMENSIONS: mm							1		2		3		4		5		Total Weight	Total Mom. Iner.
TYPE/AG10	DISCS	A	B	C	D	E	F	G	WEIGHT kg MASSA	MOMENT kgm² MOMENTO	WEIGHT kg MASSA	MOMENT kgm² MOMENTO	WEIGHT kg MASSA	MOMENT kgm² MOMENTO	WEIGHT kg MASSA	MOMENT kgm² MOMENTO	WEIGHT kg MASSA	MOMENT kgm² MOMENTO	kg	J kgm²
250S_50	SAE 11.5	150.0	450.0	–	732.0	820.0	501	860.0	21.3	0.162	15.4	0.428	121.8	1.706	–	–	14.0	0.14	172.5	2.436
250M_60			487.5										158.7	2.334					209.4	3.064
250M_70			512.5	–	882.0	970.0	651	1010.0					182.1	2.563					232.8	3.293
250M_80			545.0										213.1	2.863					263.8	3.593

TIPO/AG10	DISCO	DIMENSÕES: mm / DIMENSIONS: mm							1		2		3		4		5		Total Weight	Total Mom. Iner.
TYPE/AG10	DISCS	A	B	C	D	E	F	G	WEIGHT kg MASSA	MOMENT kgm² MOMENTO	WEIGHT kg MASSA	MOMENT kgm² MOMENTO	WEIGHT kg MASSA	MOMENT kgm² MOMENTO	WEIGHT kg MASSA	MOMENT kgm² MOMENTO	WEIGHT kg MASSA	MOMENT kgm² MOMENTO	kg	J kgm²
250S_50	SAE 10	150.0	450.0	–	732.0	820.0	501	860.0	20.5	0.140	15.4	0.428	121.8	1.706	–	–	14.0	0.14	171.7	2.414
250M_60			487.5										158.7	2.334					208.6	3.042
250M_70			512.5	–	882.0	970.0	651	1010.0					182.1	2.563					232.0	3.271
250M_80			545.0										213.1	2.863					263.0	3.571

Nota: Valores sujeitos a alterações sem aviso prévio

Values subject to modifications without previous notice

PESO BRUTO / GROSS WEIGHT — PESO LÍQUIDO / NET WEIGHT — ESC / SCALE

EMISSÃO INICIAL / INITIAL EMISSION

EDV / ISSUED: ECM — LOC: LOC — RESUMO MODIFICAÇÃO / SUMMARY OF MODIFICATIONS — EXECUTADO / EXECUTED — VERIFICADO / CHECKED — LIBERADO / RELEASED — DATA / DATE — VE

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