

# DATA SHEET

## Synchronous Alternator



Customer	: HooverTec LLC	Notes:	
Customer reference	:		
Product line	: AG10 355MI65AI	Product code	: 14416985
Area classification	: Safe		1010964994

<b>General data</b>		Degree of protection	: IP23
Frame (IEC)	: 355	Mounting style	: B15T
Insulation Class	: 180°C (H)	Number of poles	: 4
THD (L-L, no load)	: ≤ 3%	Type of Pole	: Salient
Stator winding pitch	: 5/6	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	: 2494 kg
Excitation system	: Brushless with Auxiliary Coil	Overload	: 1.1x In per 1h each 6h
Cooling	: IC01	Momentary Overload	: 1.5x In per 30s

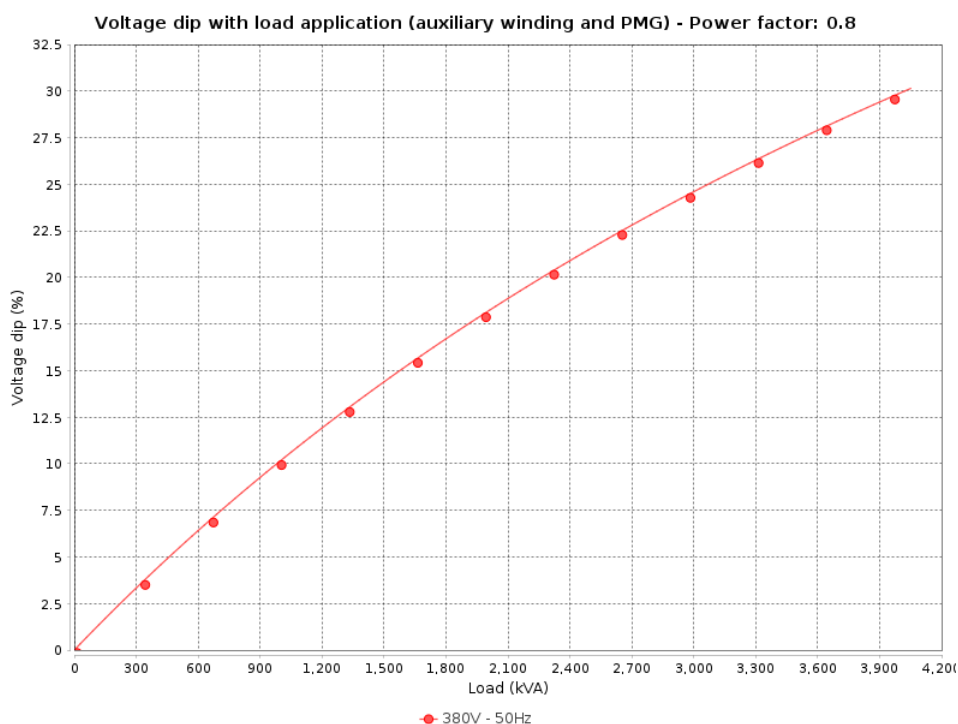
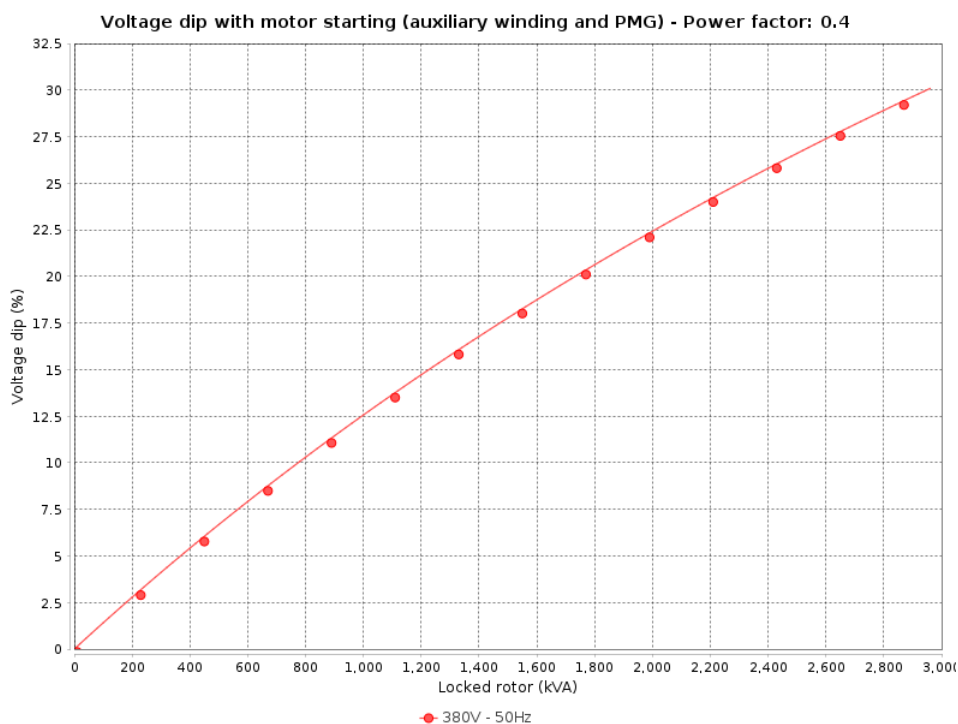
Frequency and number of phases		50 Hz				60 Hz			
		3ph		1ph	3ph		1ph		
Voltages (V)	Y (series star) connection	380	400	-	380	416	440	480	-
	YY (parallel star) connection	190	200	-	190	208	220	240	-
	Δ (series delta) connection	220	230	-	220	240	254	277	-
	ΔΔ (parallel delta) connection	110	115	-	110	120	127	138	-
	Zig-zag or single phase delta	-	-	-	-	-	-	-	-
Output power (kVA)	Continuous 80/40	760	800		800	869	920	1000	
	Continuous 105/40	871	917		917	995	1054	1146	
	<b>Continuous 125/40</b>	<b>950</b>	<b>1000</b>		<b>1000</b>	<b>1086</b>	<b>1150</b>	<b>1250</b>	
	Standby 150/40	1000	1050		1050	1137	1200	1310	
	Standby 163/27	1050	1100		1100	1205	1300	1380	
Electrical data (FP=0.8 / Continuous 125/40 (H))	Xd(%) Dir. axis synchronous reactance	185.0	161.5		263.8	219.3	207.6	168.26	
	X'd(%) Dir. axis transient reactance	13.0	12.2		17.3	15.3	14.4	12.76	
	X''d(%) Dir. axis subtrans. reactance	9.0	8.8		12.4	11.0	10.4	9.19	
	Xq(%) Quad. axis sync. reactance	65.0	54.6		103.4	84.3	75.0	56.84	
	X''q(%) Quad. axis subtrans. react.	10.0	9.3		13.0	19.1	10.9	9.71	
	X2(%) Negative sequence reactance	10.0	9.1		12.7	15.7	10.6	9.45	
	X0(%) Zero sequence reactance	2.0	1.5		2.1	1.8	1.7	1.53	
	T'd(ms) Short Circ.Trans.time const.	162.0	161.3		163.8	163.1	162.8	161.3	
	T''d(ms) Short Circ. Sub. time const.	1.0	1.0		1.4	1.3	1.2	1.0	
	T'do(ms) Open Circ. time const Trans	2297	2147		2525	2405	2362	2146.8	
	T''do(ms) Open Circ. time const Subt	2.0	2.0		2.1	2.0	2.0	2.0	
	Ta(ms) Armature time const.	26	24		34	30	28	25.05	
	uc(V) Full load excitation voltage	40.0	42.7		33.7	35.5	36.4	39.48	
	ic(A) Full load excitation current	3.0	3.6		2.8	3.0	3.0	3.29	
ic(A) No load excitation current	1.0	1.4		0.8	0.9	1.0	1.23		
Icc(A) Sustained Short-Circ. Current	4330	4330		4558	4520	4527	4510.55		
Kcc Short-circuit ratio	0.54	0.62		0.38	0.44	0.48	0.59		
Efficiency (%)	Power factor	0.8	1.0	0.8	1.0	0.8	1.0	0.8	1.0
	25% of load	88.3	90.6	88.1	90.5	89.9	91.9	89.7	91.7
	50% of load	92.6	94.2	92.5	94.1	93.4	94.8	93.4	94.9
	75% of load	93.7	95.1	93.6	95.1	94.2	95.5	94.3	95.6
	100% of load	93.9	95.4	94	95.4	94.4	95.6	94.5	95.8
	125% of load	93.9	95.4	94	95.4	94.2	95.5	94.4	95.7

<b>Other characteristics</b>		<b>Automatic voltage regulator</b>		<b>According to:</b>	
Air flow	: 1.5 m³/s	Accuracy (stability)	: +/- 0.5%	IEC 60034	
Exciter stator winding resistance at 20°C	: 10.5 ohm	Rated current	: 7 A	NBR 5117	
Stator winding resistance at 20°C	: 0.00142 ohm	Analog input	: Yes	NEMA MG1	
Rotor winding resistance	: 3.66 ohm	Digital input	: No	VDE530	
Stator winding layers	: 2	Peak current	: 10 A/10 s	ISO 8528	
Inertia WR²	: 20.1 kgm²	Droop / TC	: Yes	CSA	
NDE Bearing	: 6318 C3	Dynamic recovery	: 8 to 500 ms		
DE bearing		U/F	: Yes		
Flange	: SAE 0	Internal voltage adjustment	: +/- 15%		
Coupling disc	: SAE 18	External voltage adjustment	: +/- 10%		
		Transient recovery time for ΔU=20%	: 500 ms		

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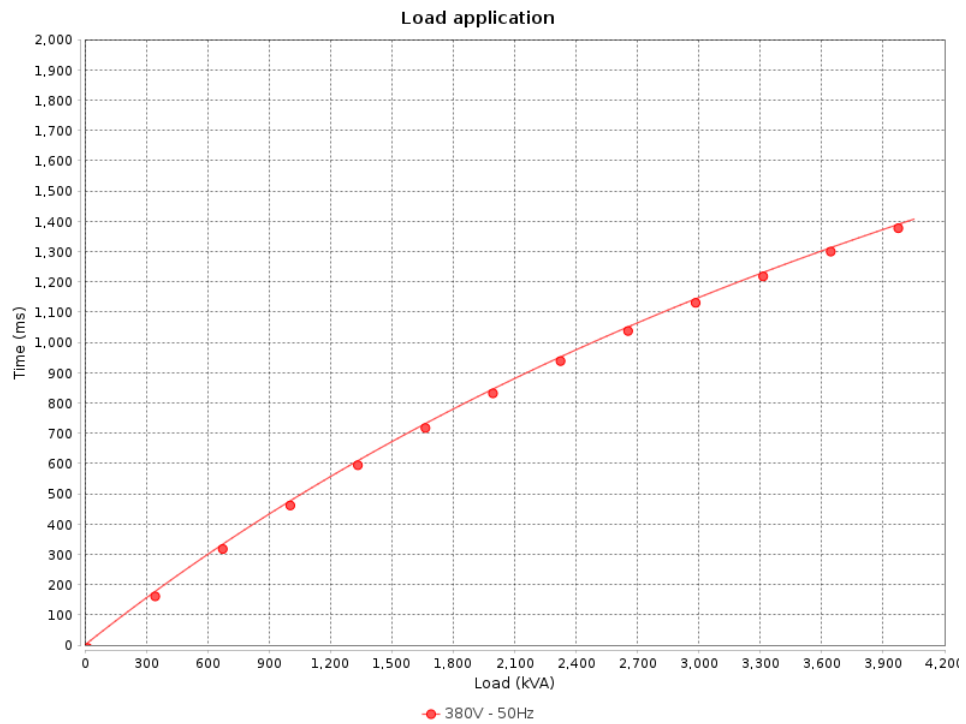
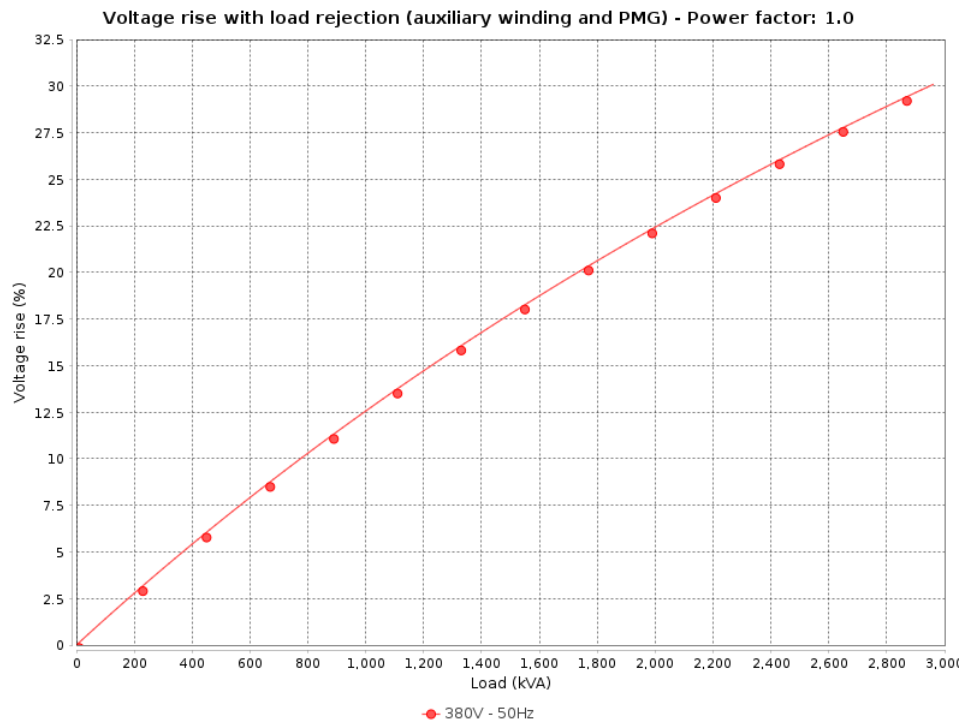
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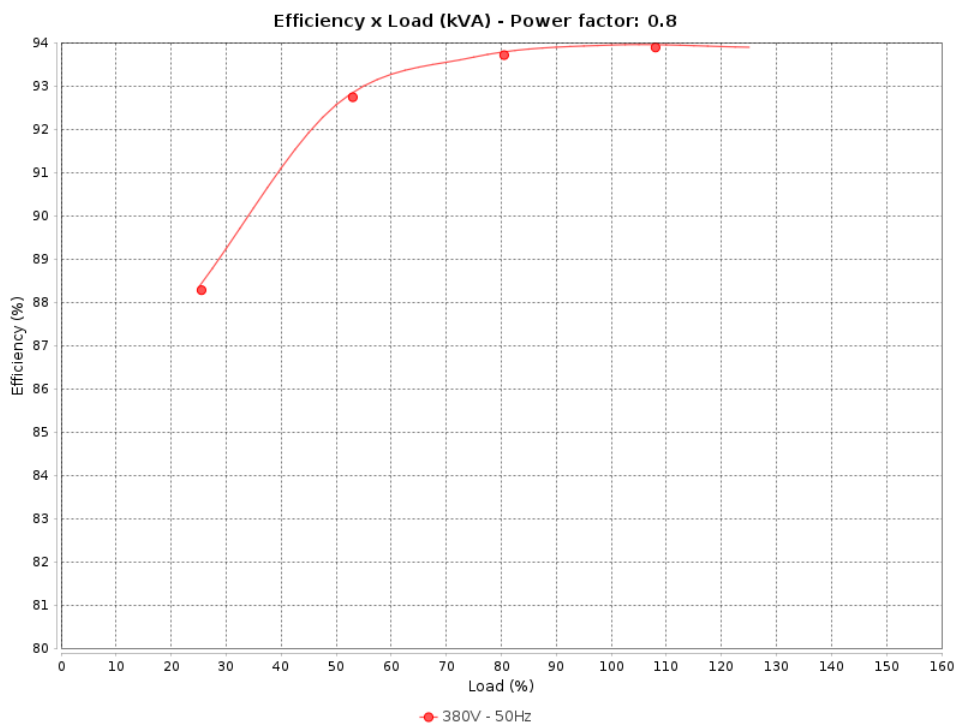
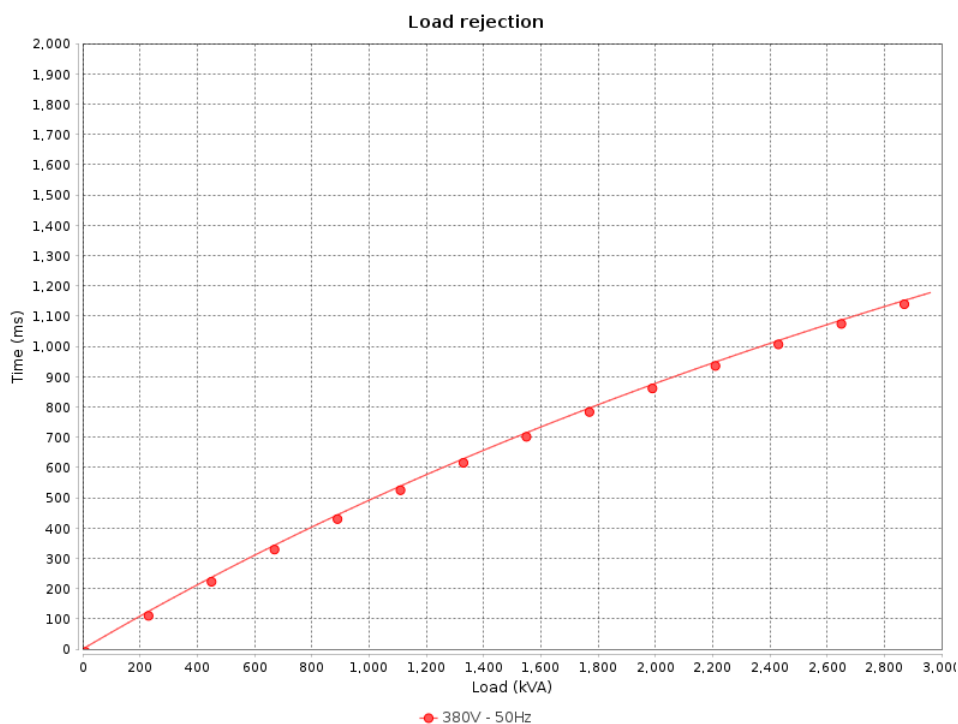
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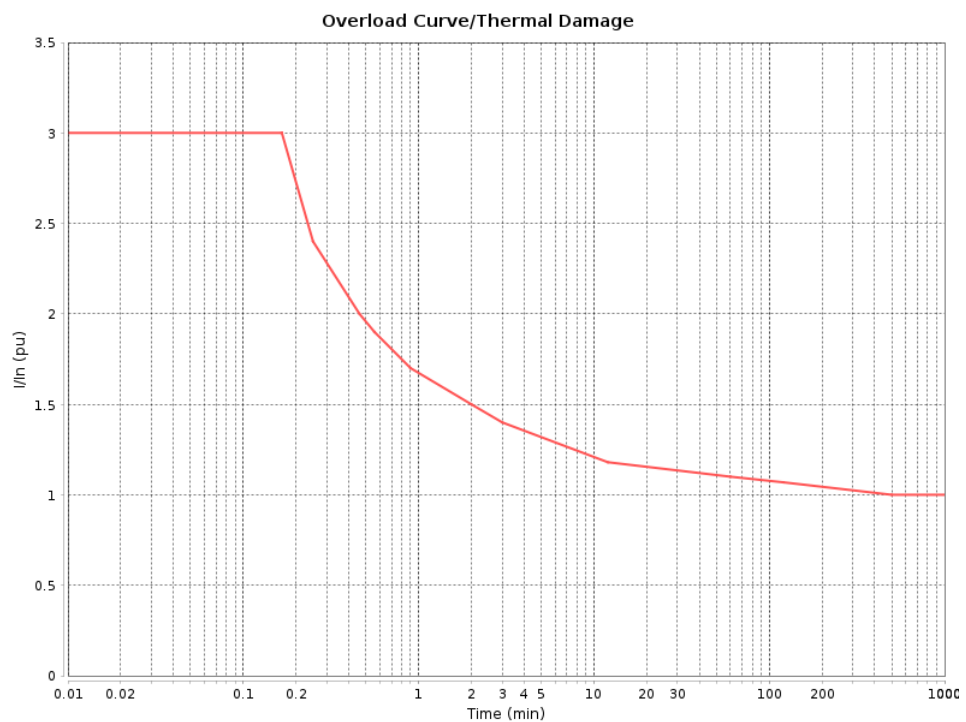
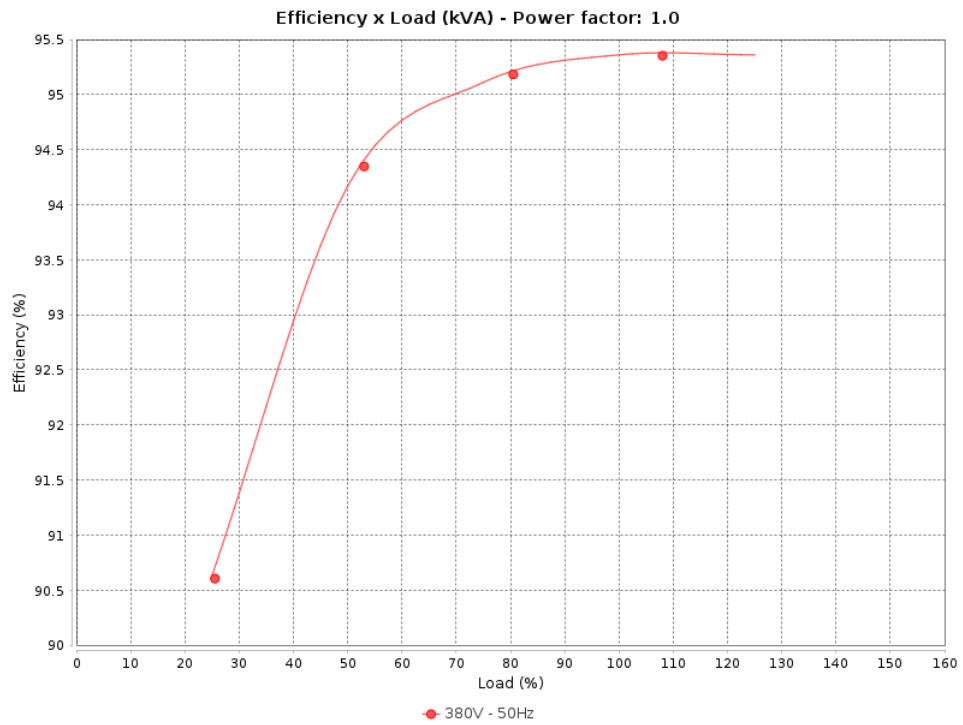
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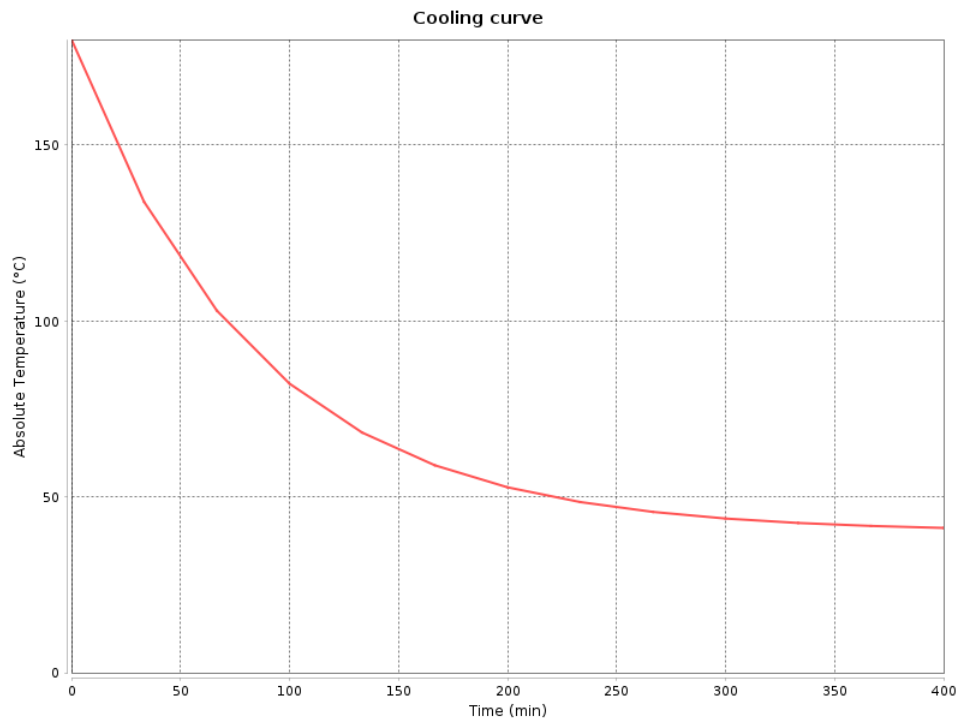
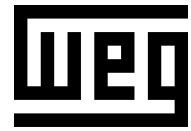
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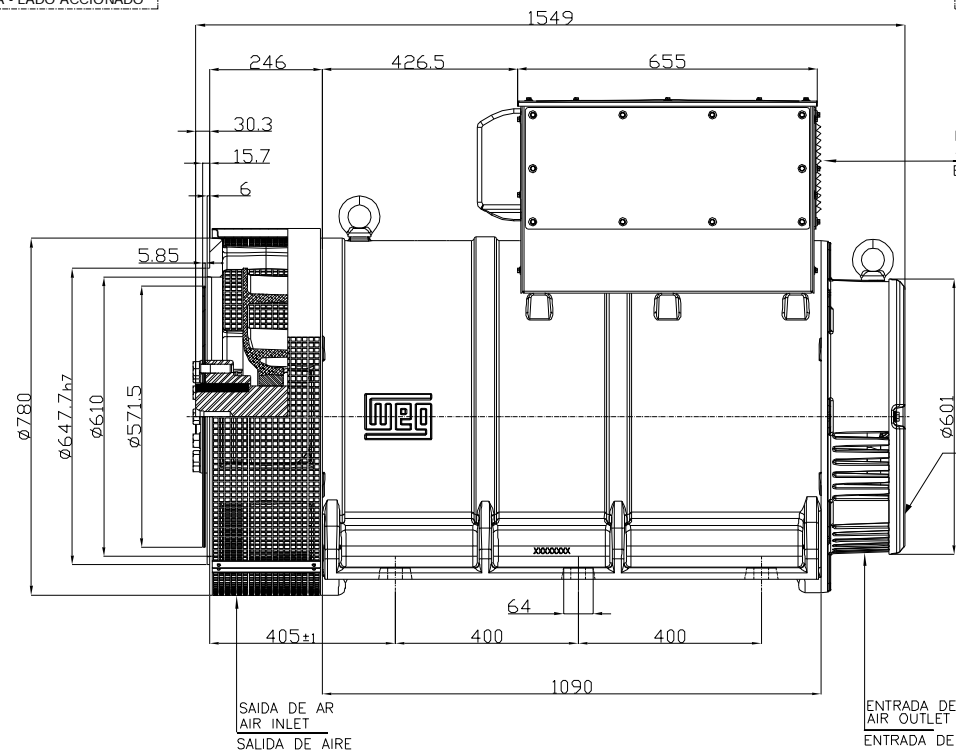
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LA - LADO ACIONADO  
 DE - DRIVE-END SIDE  
 LA - LADO ACCIONADO

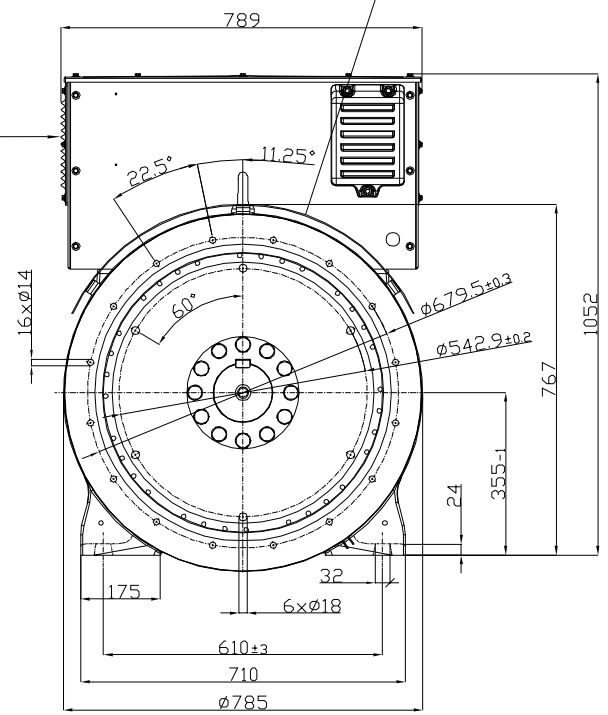
LNA - LADO NÃO ACIONADO  
 NDE - NON DRIVE-END SIDE  
 LNA - LADO NO ACCIONADO

APENAS PARA O GRAU DE PROTEÇÃO IP23.  
 ONLY FOR IP23 PROTECTION.  
 SOLAMENTE PARA EL GRADO DE PROTECCIÓN IP23.



ENTRADA DE AR AIR OUTLET  
 ENTRADA DE AIRE

ENTRADA DE AR AIR INLET  
 ENTRADA DE AIRE



A

B

C

D

E

						NOTAS / NOTES / NOTAS Máquina / Machine / Máquina : AG10 355 - B15T Grau de proteção / Protection / Grado de protección: IP21 / IP23 Flange de acoplamento / Coupling flange / Brida de acoplamiento: SAE 0 Disco de acoplamento / Coupling disc / Disco de acoplamiento: SAE 18				
PESO BRUTO / GROSS WEIGHT		PESO LÍQUIDO / NET WEIGHT		ESC / SCALE						
ECM	LOC	RESUMO MODIFICAÇÃO / SUMMARY OF MODIFICATIONS				EXECUTADO	VERIFICADO	LIBERADO	DATA	VER
EXEC. / EXECUTED	LOC	DIMENSIONAL AG10 355 B15T				EXECUTED	CHECKED	RELEASED	DATE	VER
VERIF. / CHECKED						10005703748				
LIBER. / RELEASED						000	00			
DATA LB / REL DT	24/04/2018					FOLHA / SHEET	01	/ 01		

