


DATA SHEET


Synchronous Alternator



Customer	 : Abadiesel	Notes:	abadiesel.com
Customer reference	:		
Product line	: AG10-400MI85EI	Product code	: 14625049
Area classification	: Safe		1051998713

General data		Degree of protection	: IP23
Frame (IEC)	: 400	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	: 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	:	Overspeed	: 2250 rpm
	ALTERNADOR_QTDE_CABOS_LIGACAO_ESTATOR	Approx. weight	: 4001 kg
Power factor	: 0.8 to 1.0	Overload	: 1.1x In per 1h each 6h
Excitation system	: Brushless with Auxiliary Coil	Momentary Overload	: 1.5x In per 30s
Cooling	: IC01		

Frequency and number of phases		50 Hz				60 Hz					
		3ph		1ph		3ph		1ph			
Voltages (V)	Y (series star) connection	400			-	480					
	YY (parallel star) connection				-						
	Δ (series delta) connection	230			-	277					
	ΔΔ (parallel delta) connection				-						
	Zig-zag or single phase delta	-	-	-	-	-	-	-	-	-	-
Output power (kVA)	Continuous 80/40	1320				1632					
	Continuous 105/40	1512				1870					
	Continuous 125/40	1650				2040					
	Standby 150/40	1720				2100					
	Standby 163/27	1800				2200					
Electrical data (PF=0.8 / Continuous 125/40 (H)) Saturated reactances values	Xd(%) Dir. axis synchronous reactance	323.7				333.5					
	X'd(%) Dir. axis transient reactance	21.7				22.3					
	X''d(%) Dir. axis subtrans. reactance	13.4				13.8					
	Xq(%) Quad. axis sync. reactance	92.1				94.9					
	X''q(%) Quad. axis subtrans. react.	13.1				13.5					
	X2(%) Negative sequence reactance	13.2				13.6					
	X0(%) Zero sequence reactance	2.2				2.3					
	T'd(ms) Short Circ. Trans. time const.	236.6				236.6					
	T''d(ms) Short Circ. Sub. time const.	1.7				1.7					
	T'do(ms) Open Circ. time const Trans	3614				3614					
	T''do(ms) Open Circ. time const Subt	5.2				5.2					
	Ta(ms) Armature time const.	35				36					
	uc(V) Full load excitation voltage	51.5				52.6					
	ic(A) Full load excitation current	4.3				4.4					
	ic(A) No load excitation current	0.9				0.9					
Icc(A) Sustained Short-Circ. Current	5954				7361						
Kcc Short-circuit ratio	0.31				0.3						
Efficiency (%)	Power factor	0.8	1.0			0.8	1.0				
	25% of load	91.9	93.5			92.5	94.1				
	50% of load	94.8	96			95.1	96.3				
	75% of load	95.5	96.6			95.7	96.7				
	100% of load	95.6	96.7			95.7	96.8				
	125% of load	95.4	96.6			95.5	96.6				

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Other characteristics

Air flow	: 2.3 m ³ /s
Exciter stator winding resistance at 20°C	: 11.7 ohm
Stator winding resistance at 20°C	: 7.8E-4 ohm
Rotor winding resistance	: 1.76 ohm
Stator winding layers	: 2
Inertia WR ²	: 0.0 kgm ²
NDE Bearing	: 6319 C3
DE bearing	: 6326 C3
Flange	: NOT APPLICABLE
Coupling disc	: NOT APPLICABLE

Automatic voltage regulator

Accuracy (stability)	: +/- 0.5%
Rated current	: 7 A
Analog input	: Yes
Digital input	: No
Peak current	: 10 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

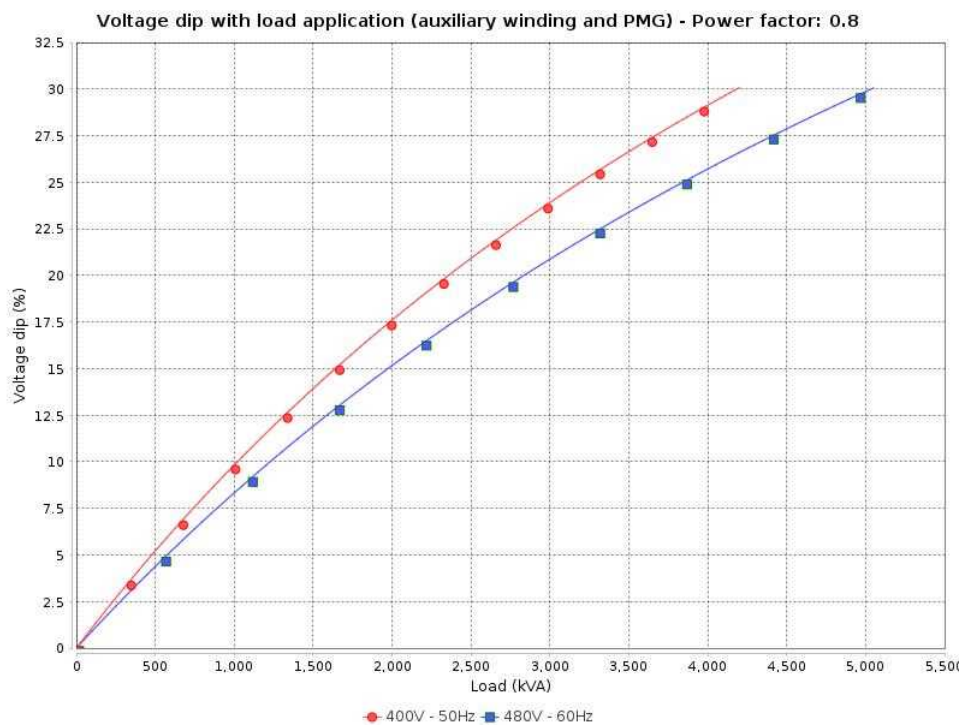
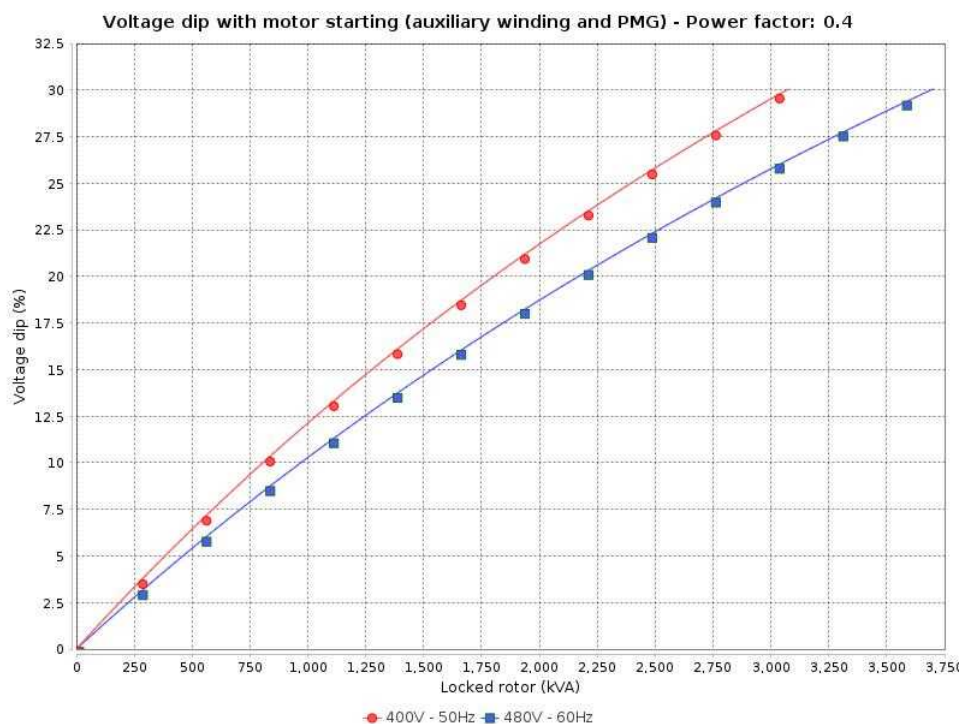
According to:

IEC 60034
NBR 5117
NEMA MG1
VDE530
ISO 8528
CSA

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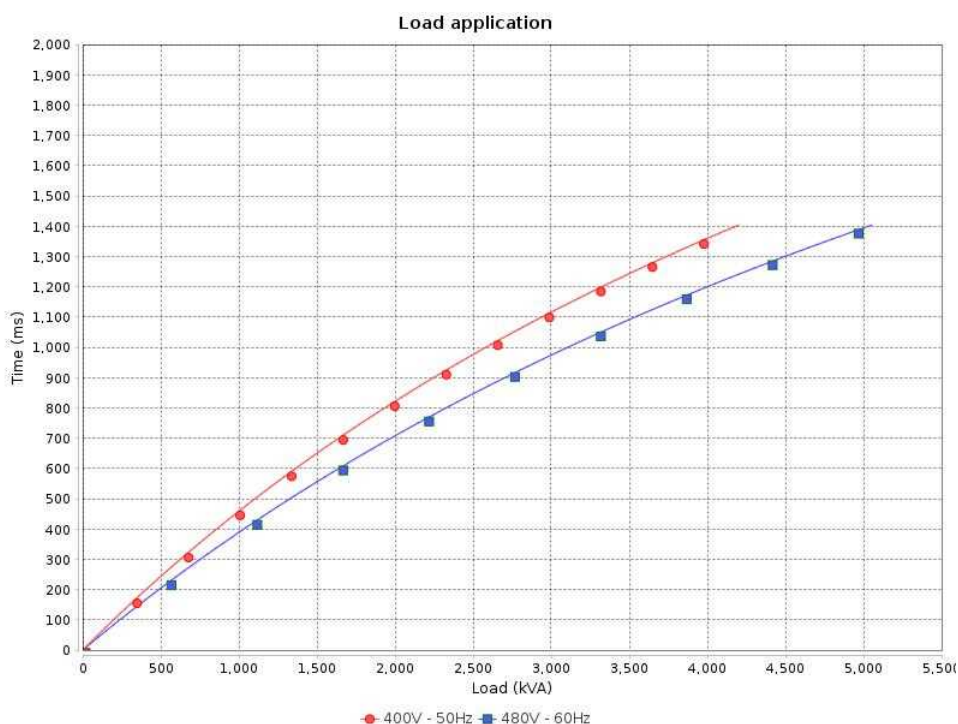
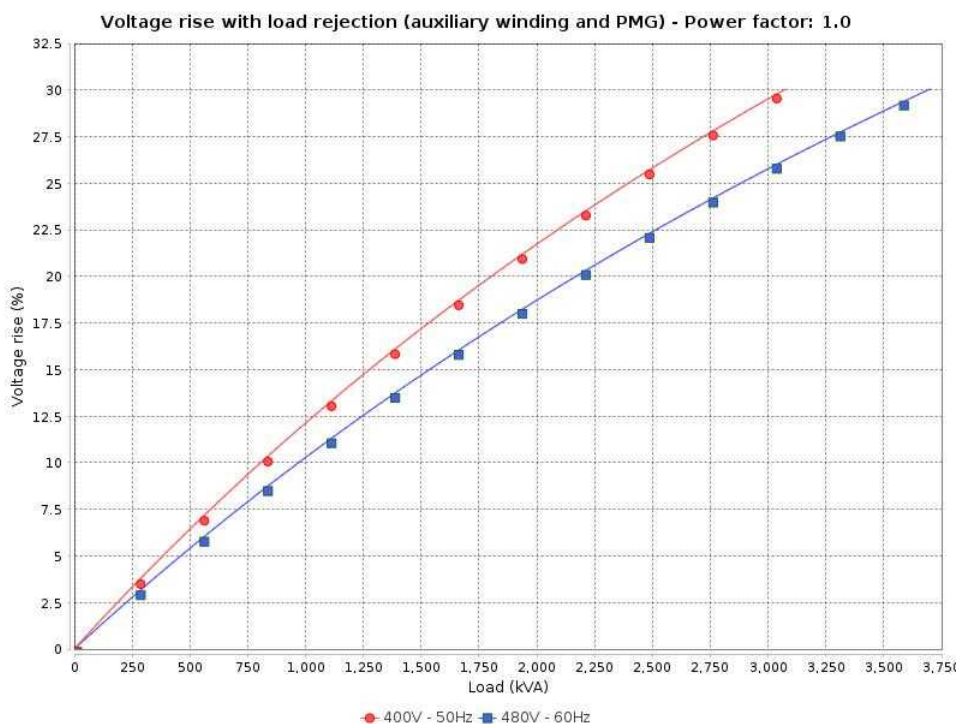
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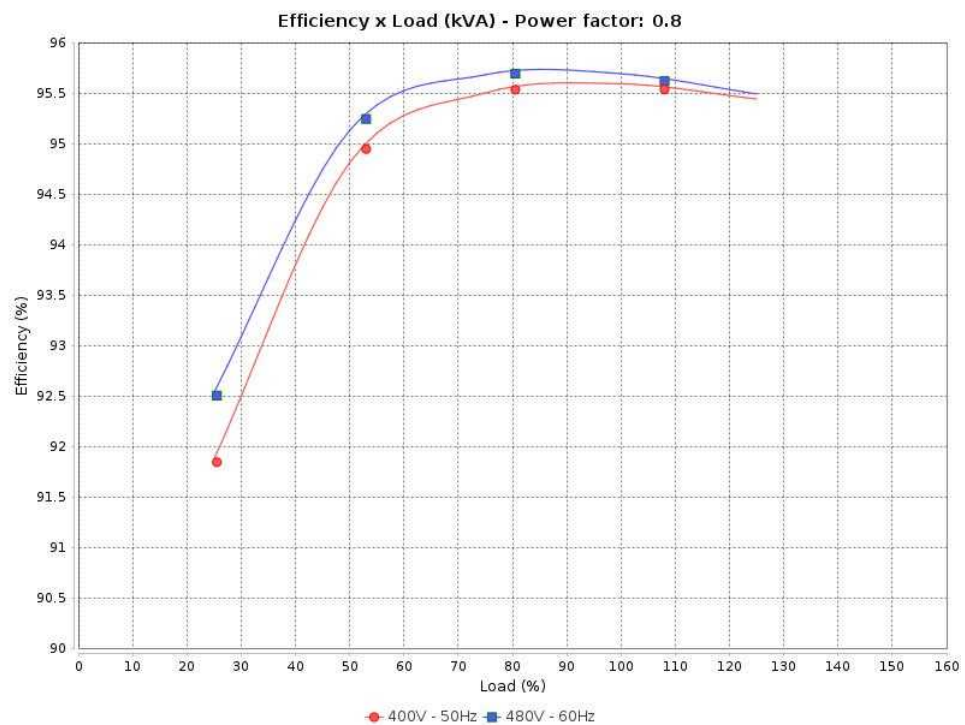
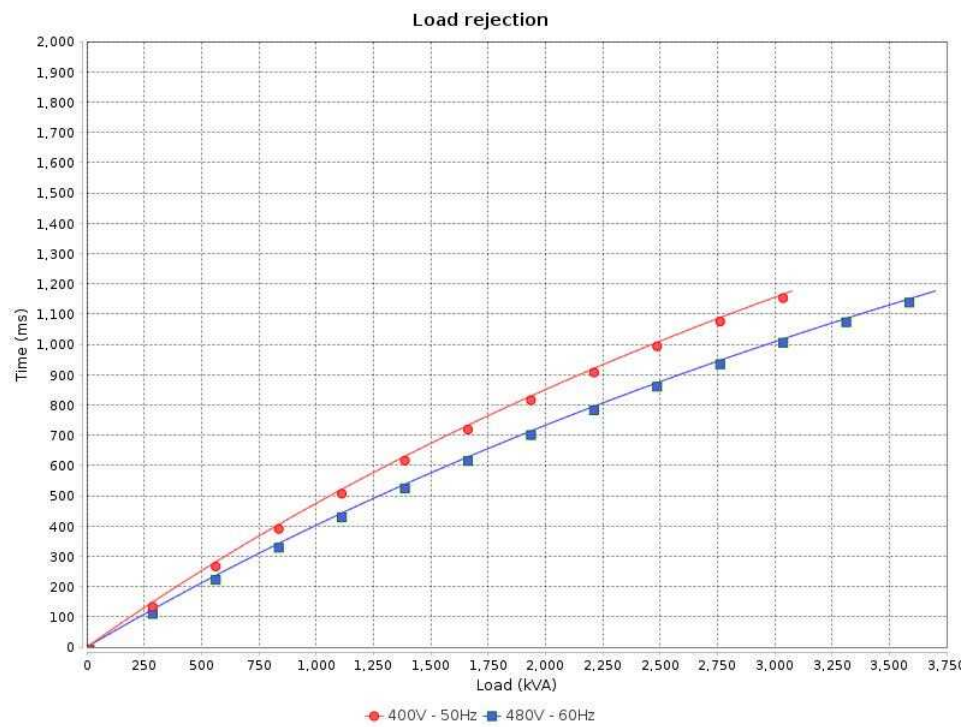
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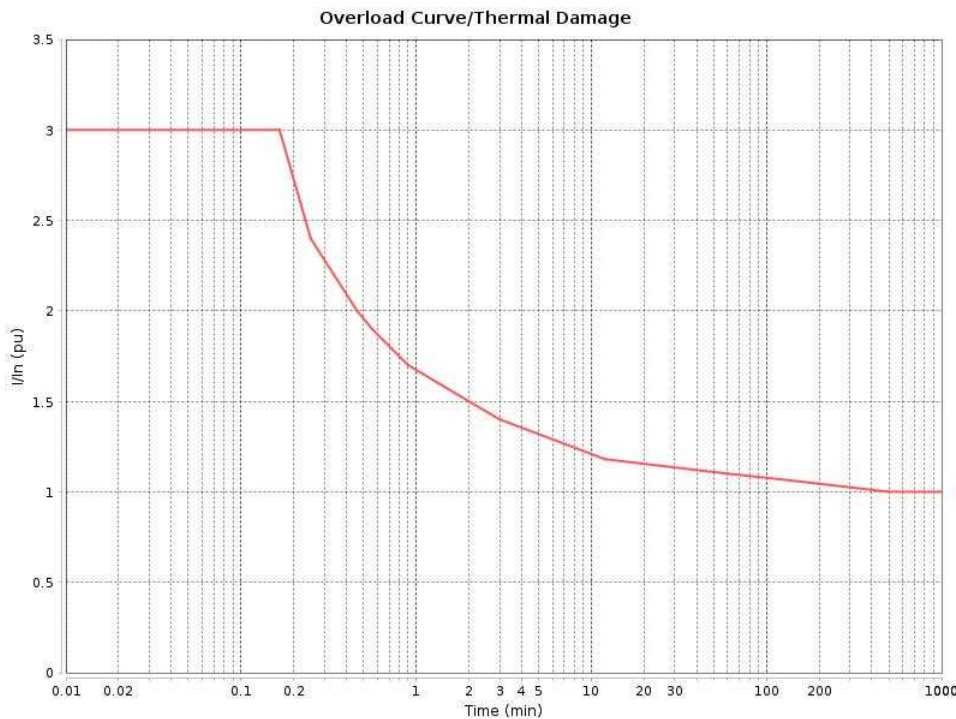
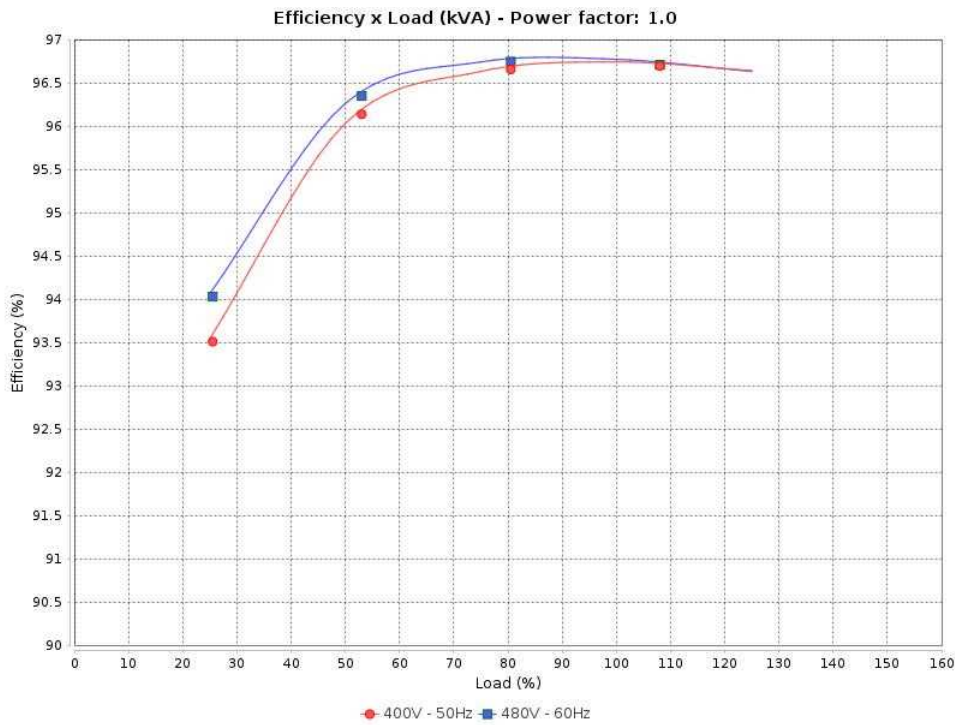
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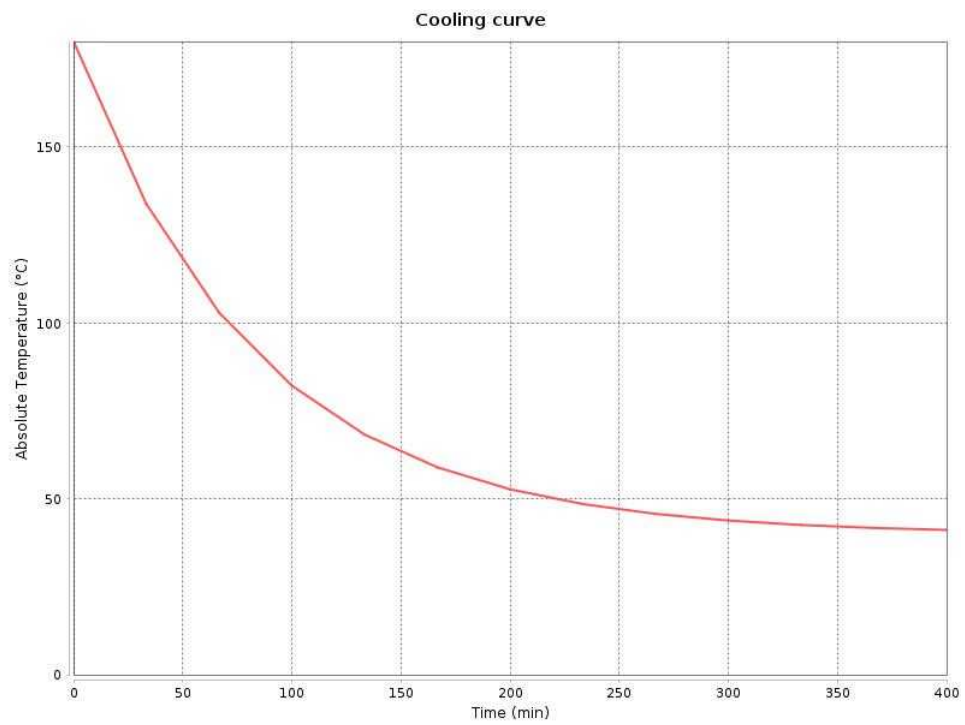
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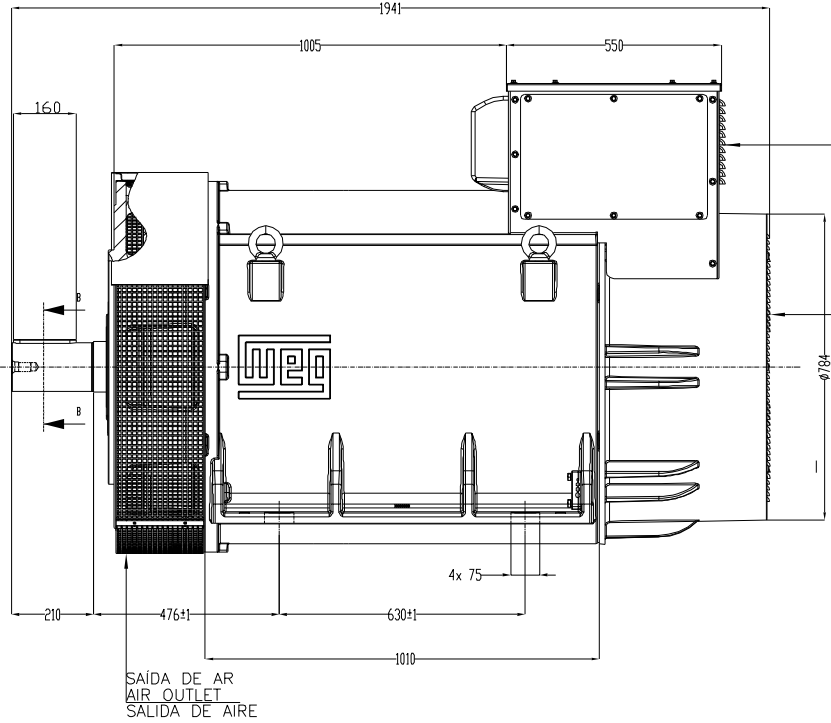


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LA - LADO ACIONADO
 DE - DRIVE-END SIDE
 LA - LADO ACCIONADO

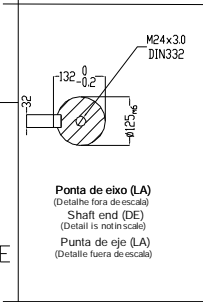
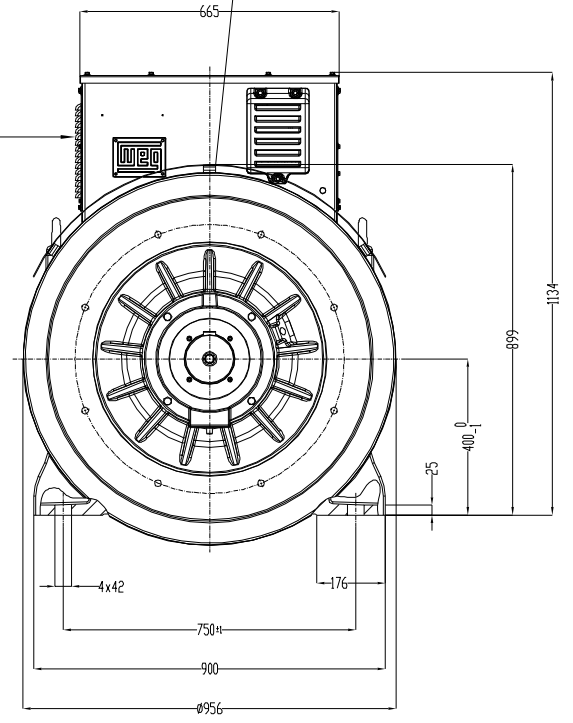
LNA - LADO NÃO ACIONADO
 NDE - NON DRIVE-END SIDE
 LNA - LADO NO ACCIONADO

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



ENTRADA DE AR
 AIR INLET
 ENTRADA DE AIRE

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 AIR INLET
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NOTAS / NOTES / NOTAS										
Máquina / Machine / Máquina : AG10 400 - B3T Grau de proteção / Protection / Grado de protección: IP21 / IP23										
PESO BRUTO / GROSS WEIGHT		PESO LÍQUIDO / NET WEIGHT		ESC / SCALE						
EXEC / EXECUTED	VERIF. / CHECKED	LIBER. / RELEASED	DATA LB / REL. DT	RESUMO MODIFICAÇÃO / SUMMARY OF MODIFICATIONS			EXECUTADO / EXECUTED	VERIFICADO / CHECKED	LIBERADO / RELEASED	VER / VER
				DIMENSIONAL AG10 400 B3T						
							10005703760			
							000	00		
			24/04/2018				FOLHA / SHEET	01 / 01		