DATA SHEET
Synchronous Alternator

Customer	: Abadiesel	Notes:	abadiesel.com
Customer reference	:		
Product line	: AG10-400MI90EI	Product code	: 14625056
Area classification	: Safe		1051975506

General data

Frame (IEC)	: 400	Degree of protection	: IP23
Insulation Class	: 180°C (H)	Mounting style	: B3T
THD (L-L, no load)	: ≤ 3%	Number of poles	: 4
Stator winding pitch	: 5/6	Type of Pole	: Salient
Altitude	: up to 1000 m.a.s.l	Rated speed - 50 Hz	: 1500 rpm
Number of Leads	: ALTERNADOR_QTDE_CABOS_LIGACAO_ESTATOR	Nominal rotation - 60 Hz	: 1800 rpm
		Overspeed	: 2250 rpm
Power factor	: 0.8 to 1.0	Approx. weight	: 4060 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	**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	1400										1720									
	Continuous 105/40	1604										1971									
	Continuous 125/40	**1750**										**2150**									
	Standby 150/40	1900										2355									
	Standby 163/27	1950										2455									
Electrical data (PF=0.8 / Continuous 125/40 (H)) Satured reactances values	Xd(%) Dir. axis synchronous reactance	365.6										385.3									
	X'd(%) Dir. axis transient reactance	23.0										24.3									
	X"d(%) Dir. axis subtrans. reactance	14.3										15.0									
	Xq(%) Quad. axis sync. reactance	109.5										115.5									
	X"q(%) Quad. axis subtrans. react.	13.9										14.6									
	X2(%) Negative sequence reactance	14.1										14.8									
	X0(%) Zero sequence reactance	2.4										2.5									
	T'd(ms) Short Circ.Trans.time const.	237.5										237.5									
	T"d(ms) Short Circ. Sub. time const.	1.9										1.9									
	T'do(ms) Open Circ. time const Trans	3853										3853									
	T"do(ms) Open Circ. time const Subt	5.2										5.2									
	Ta(ms) Armature time const.	37										39									
	uc(V) Full load excitation voltage	52.5										54.6									
	ic(A) Full load excitation current	4.4										4.5									
	ic(A) No load excitation current	0.9										0.9									
	Icc(A) Sustained Short-Circ. Current	6134										7758									
	Kcc Short-circuit ratio	0.27										0.26									
Efficiency (%)	Power factor	0.8	1.0									0.8	1.0								
	25% of load	92.2	93.8									93	94.4								
	50% of load	95	96.1									95.3	96.4								
	75% of load	95.6	96.7									95.8	96.8								
	100% of load	95.6	96.7									95.7	96.8								
	125% of load	95.4	96.6									95.4	96.6								

Rev.	Changes Summary	Performed	Checked	Date

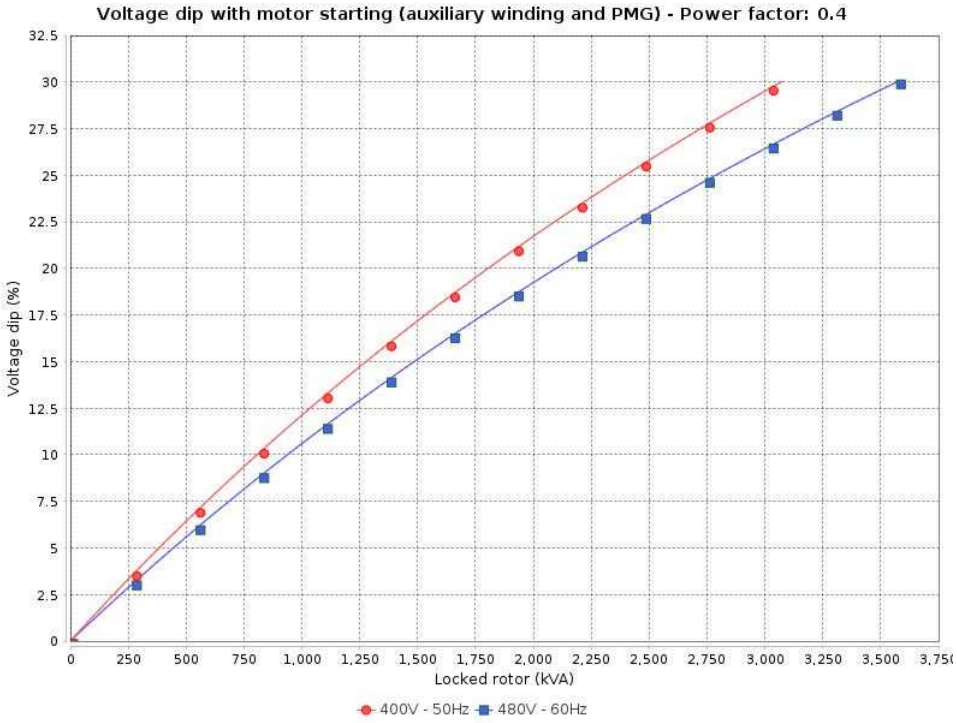
Performed by			
Checked by		Page	Revision
Date	21/02/2024	1 / 7	

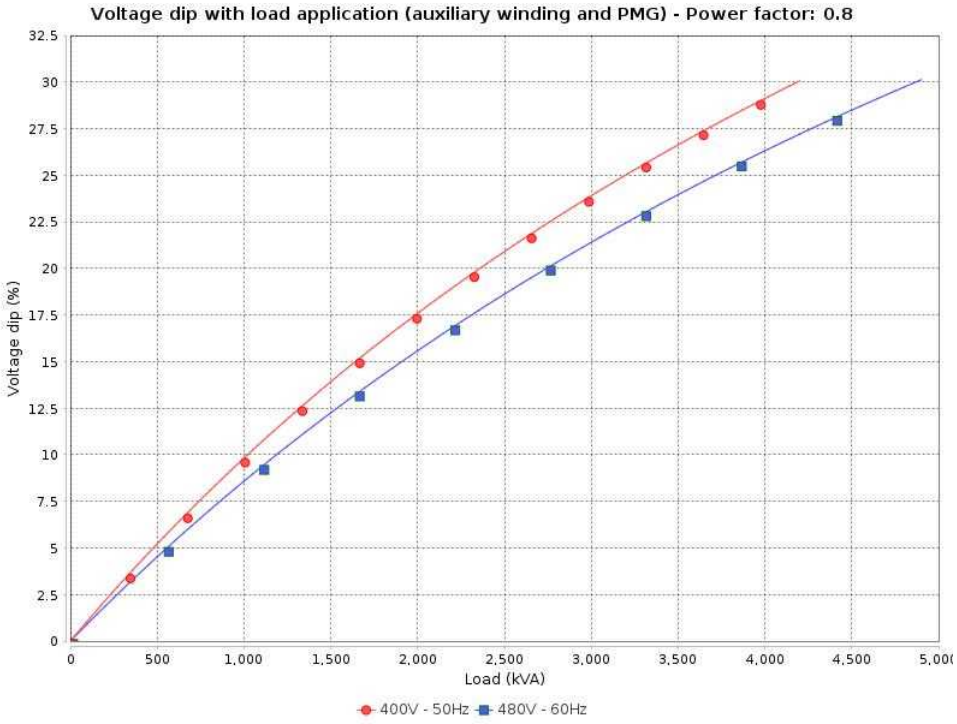
DATA SHEET
Synchronous Alternator

Other characteristics		**Automatic voltage regulator**		**According to:**
Air flow	: 2.42 m³/s	Accuracy (stability)	: +/- 0.5%	IEC 60034
Exciter stator winding resistance at 20ºC	: 11.7 ohm	Rated current	: 7 A	NBR 5117
Stator winding resistance at 20ºC	: 7.8E-4 ohm	Analog input	: Yes	NEMA MG1
Rotor winding resistance	: 1.79 ohm	Digital input	: No	VDE530
Stator winding layers	: 2	Peak current	: 10 A/10 s	ISO 8528
Inertia WR²	: 0.0 kgm²	Droop / TC	: Yes	CSA
NDE Bearing	: 6319 C3	Dynamic recovery	: 8 to 500 ms	
DE bearing	: 6326 C3	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

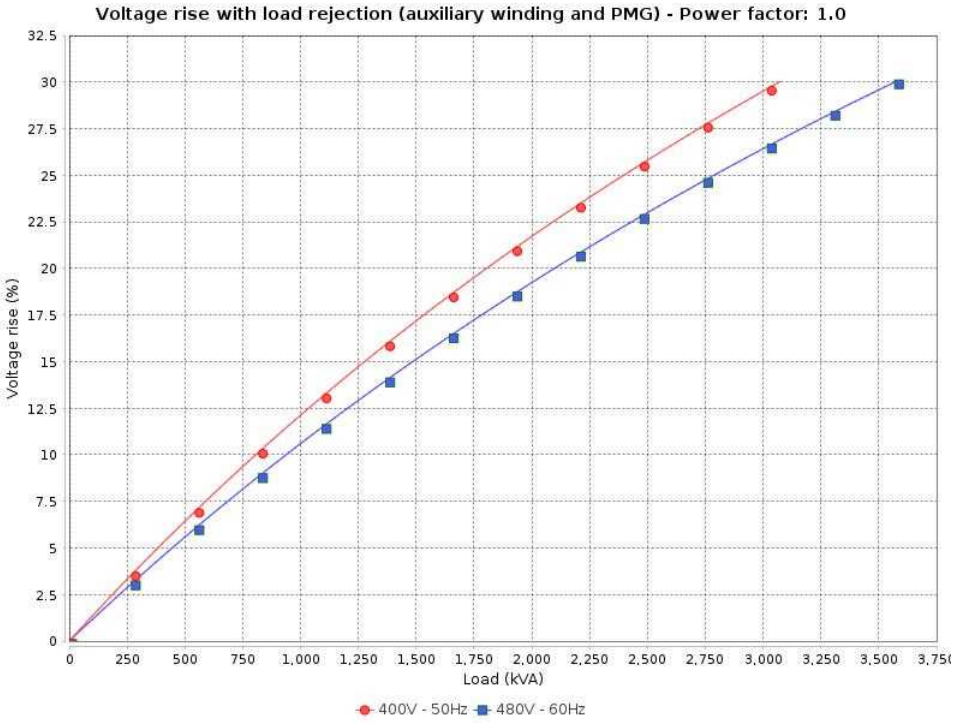
Performed by				
Checked by			Page	Revision
Date	21/02/2024		2 / 7	

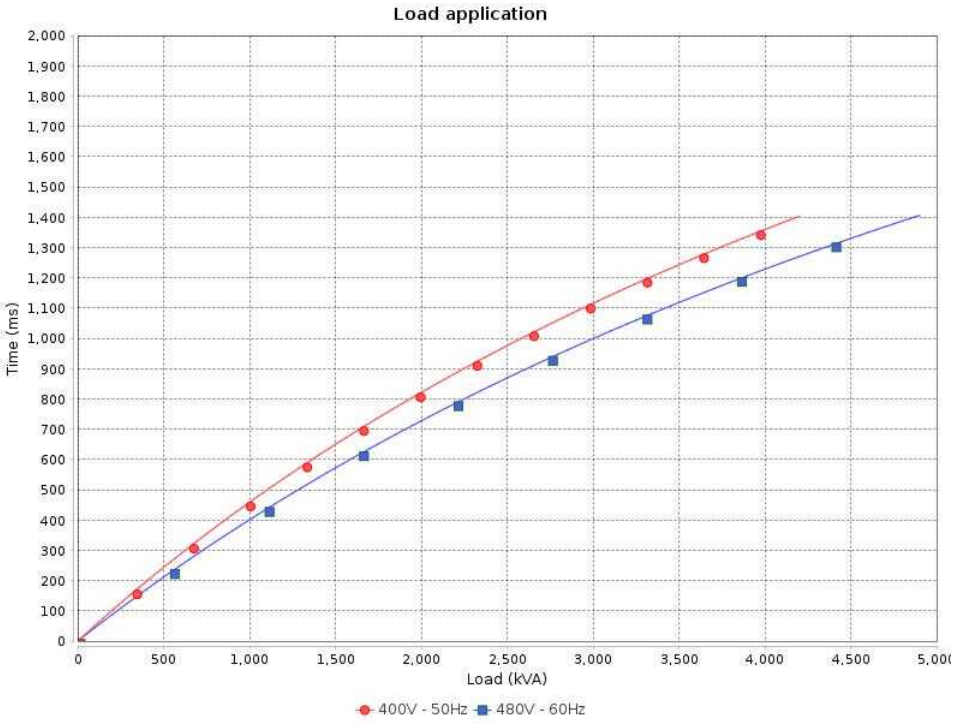




Rev.	Changes Summary	Performed	Checked	Date

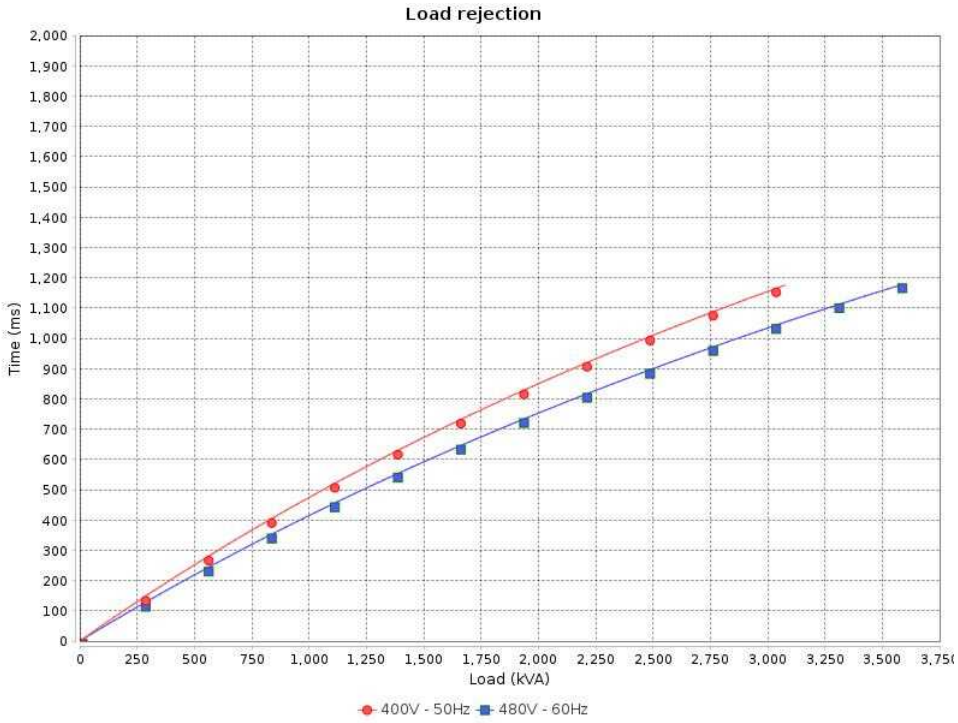
Performed by				
Checked by			Page	Revision
Date	21/02/2024		3 / 7	

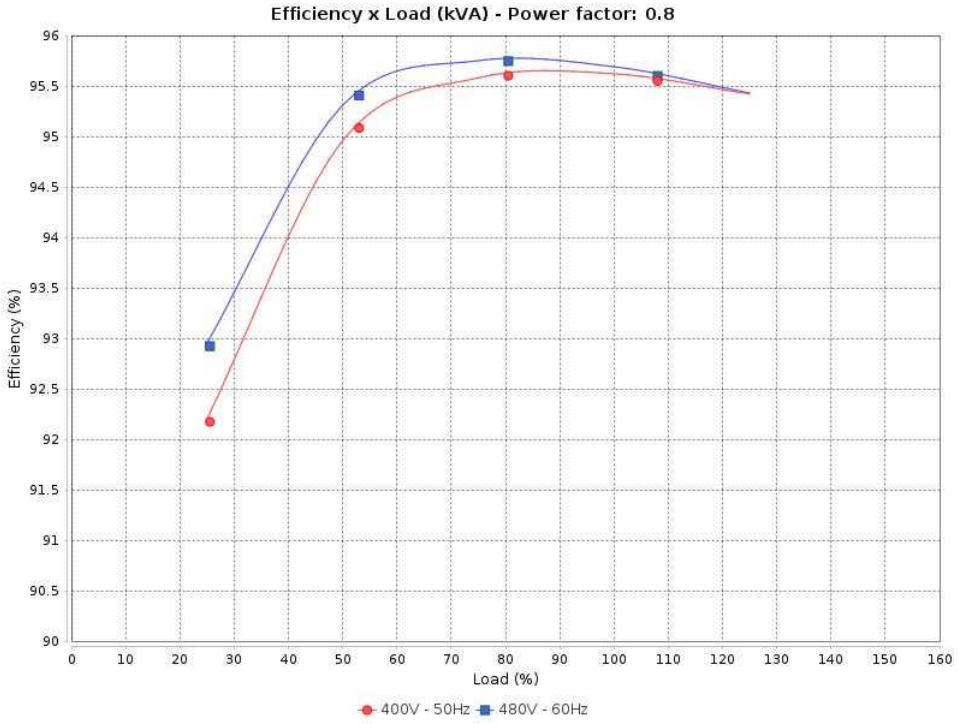




Rev.	Changes Summary	Performed	Checked	Date

Performed by				
Checked by			Page	Revision
Date	21/02/2024		4 / 7	

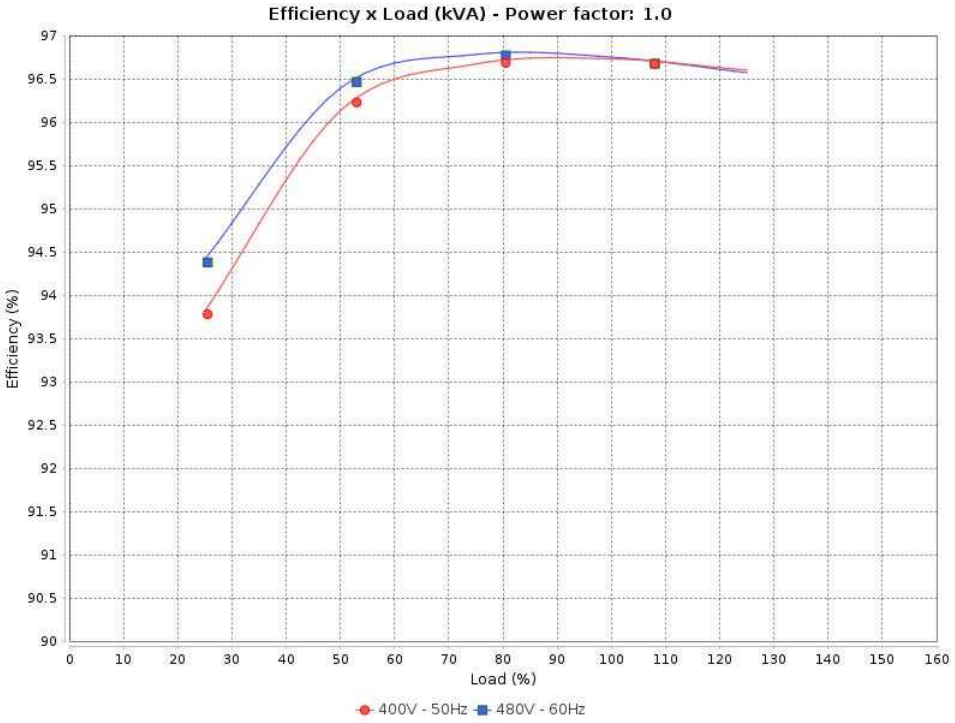


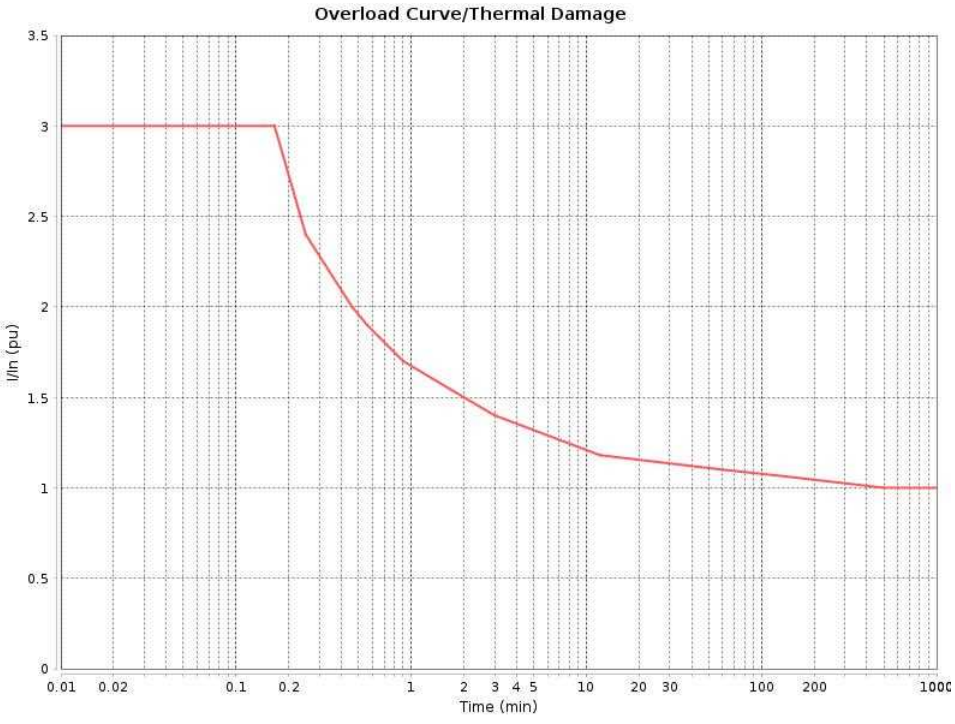


Rev.	Changes Summary	Performed	Checked	Date

Performed by				
Checked by			Page	Revision
Date	21/02/2024		5 / 7	

DATA SHEET
Synchronous Alternator

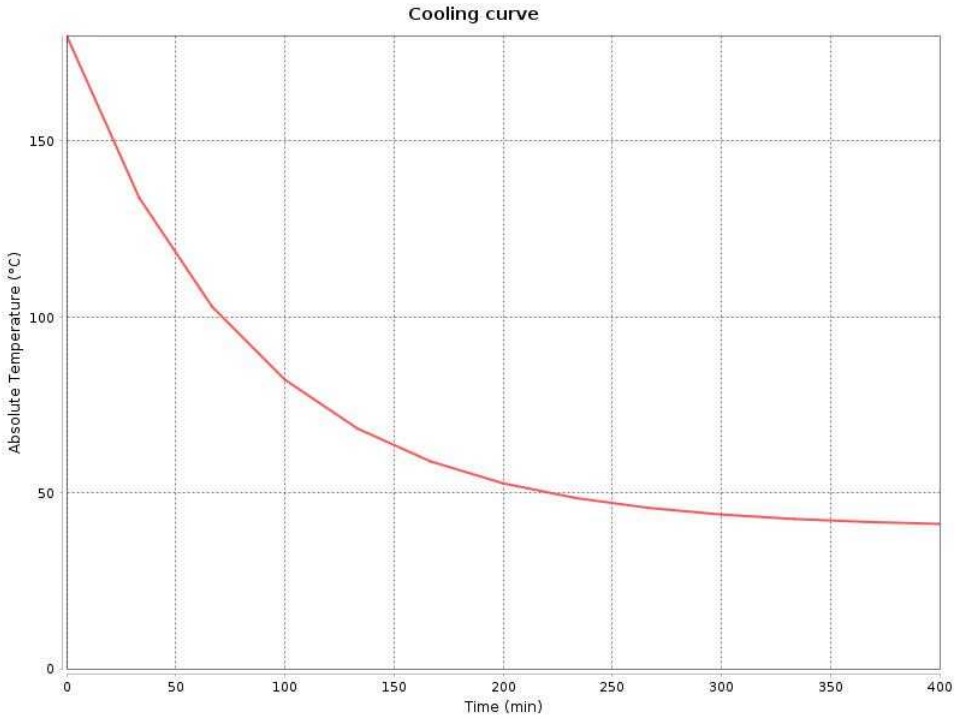




Rev.	Changes Summary	Performed	Checked	Date

Performed by				
Checked by			Page	Revision
Date	21/02/2024		6 / 7	

DATA SHEET
Synchronous Alternator



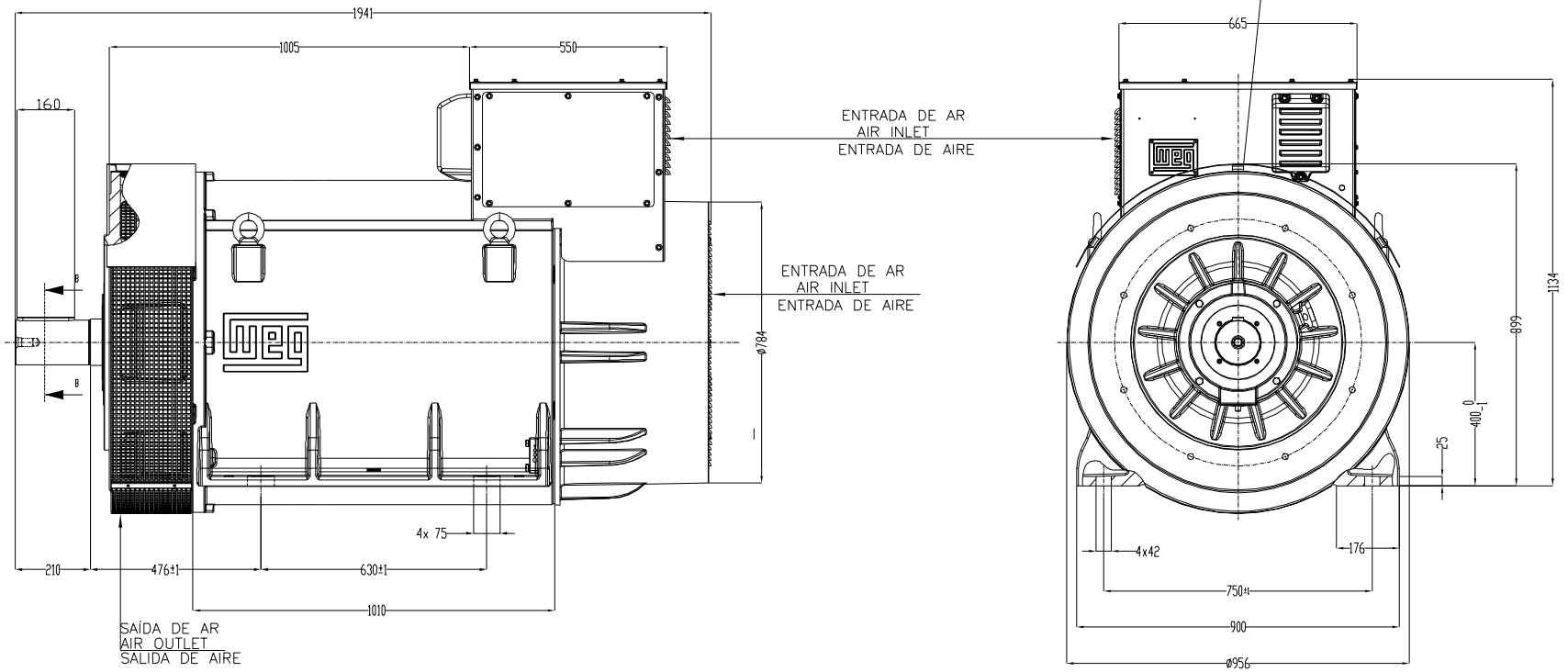
Rev.	Changes Summary	Performed	Checked	Date

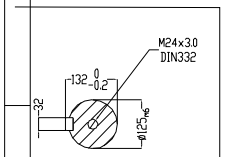
Performed by				
Checked by			Page	Revision
Date	21/02/2024		7 / 7	

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.





Ponta de eixo (LA)
(Detalhe fora de escala)
Shaft end (DE)
(Detail is not in scale)
Punta de eje (LA)
(Detalle fuera de escala)

NOTAS / NOTES / NOTAS

Máquina / Machine / Máquina : AG10 400 - 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*	LIBERADO *RELEASED*	DATA *DATE*	VER *VER*

EXEC. / *EXECUTED*	
VERIF. / *CHECKED*	
LIBER. / *RELEASED*	
DATA LB / *REL DT*	24/04/2018

DIMENSIONAL AG10 400 B3T

10005703760
000 | 00

FOLHA / *SHEET* 01 / 01