

DATA SHEET

Synchronous Alternator



Customer	:	Notes:
Customer reference	:	
Product line	: AG10-355MI90EI	Product code : 14624941
Area classification	: Safe	1051936607

General data		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	:	Overspeed	: 2250 rpm
ALTERNADOR_QTDE_CABOS_LIGACAO_ESTATOR		Approx. weight	: 2731 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	1200				1440			
	Continuous 105/40	1375				1650			
	Continuous 125/40	1500				1800			
	Standby 150/40	1600				1950			
	Standby 163/27	1650				2000			
Electrical data (FP=0.8 / Continuous 125/40 (H))	Xd(%) Dir. axis synchronous reactance	329.9				320.7			
	X'd(%) Dir. axis transient reactance	21.6				21.0			
	X" d(%) Dir. axis subtrans. reactance	15.6				15.2			
	Xq(%) Quad. axis sync. reactance	123.0				119.6			
	X" q(%) Quad. axis subtrans. react.	16.4				16.0			
	X2(%) Negative sequence reactance	16.0				15.6			
	X0(%) Zero sequence reactance	2.6				2.5			
	T'd(ms) Short Circ. Trans.time const.	163.2				163.2			
	T"d(ms) Short Circ. Sub. time const.	1.3				1.3			
	T'do(ms) Open Circ. time const Trans	2519				2519			
	T"do(ms) Open Circ. time const Subt	2.0				2.0			
	Ta(ms) Armature time const.	43				41			
	uc(V) Full load excitation voltage	59.0				48.1			
	ic(A) Full load excitation current	4.9				4.0			
	ic(A) No load excitation current	1.2				1.0			
Efficiency (%)	Icc(A) Sustained Short-Circ. Current	5413				6315			
	Kcc Short-circuit ratio	0.3				0.31			
	Power factor	0.8	1.0			0.8	1.0		
	25% of load	91.8	93.5			92.4	94		
	50% of load	94	95.4			94.6	95.9		
	75% of load	94.2	95.6			94.9	96.1		
	100% of load	93.9	95.3			94.8	96		
	125% of load	93.4	94.9			94.4	95.7		

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Other characteristics

Air flow	: 2.42 m³/s
Exciter stator winding resistance at 20°C	: 11.0 ohm
Stator winding resistance at 20°C	: 0.00121 ohm
Rotor winding resistance	: 3.61 ohm
Stator winding layers	: 2
Inertia WR²	: 0.0 kgm²
NDE Bearing	: 6318 C3
DE bearing	
Flange	: SAE 0
Coupling disc	: SAE 14

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

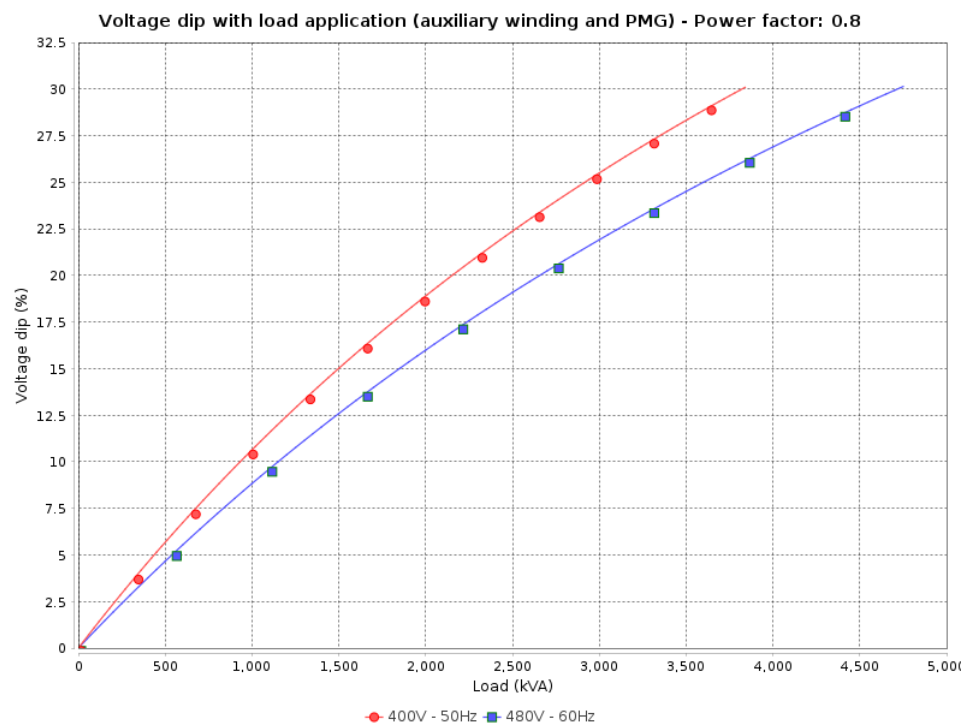
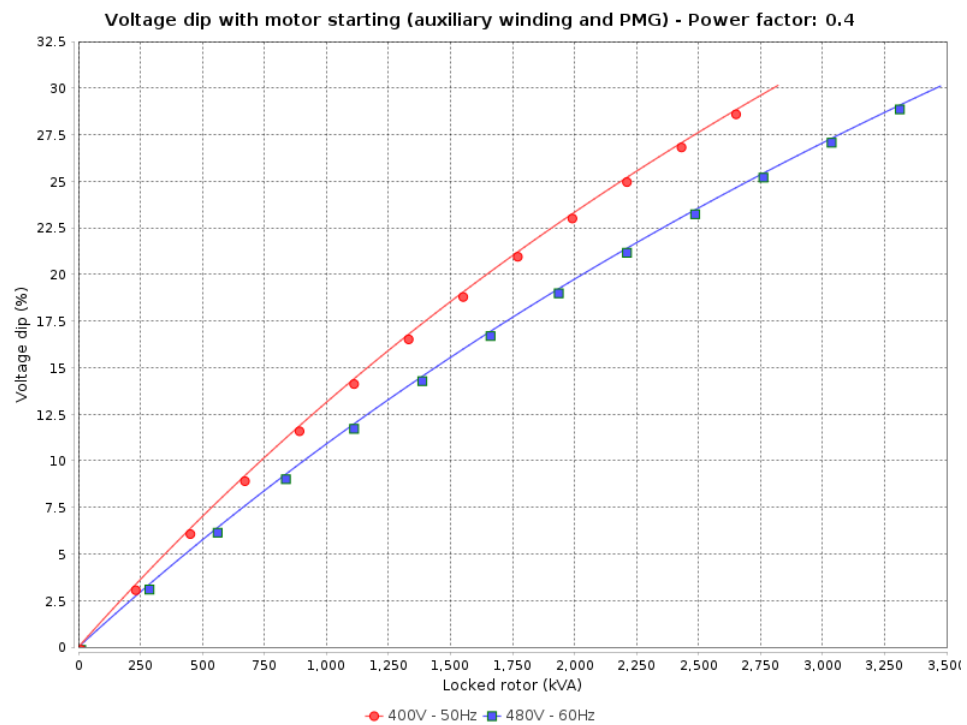
According to:

IEC 60034
NBR 5117
NEMA MG1
VDE530
ISO 8528
CSA

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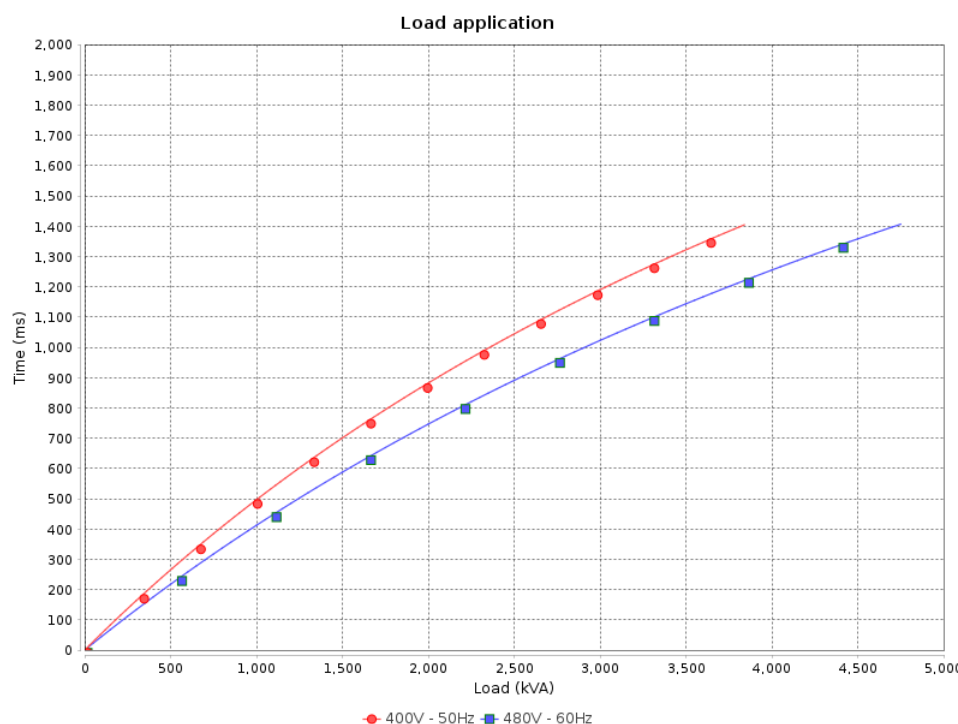
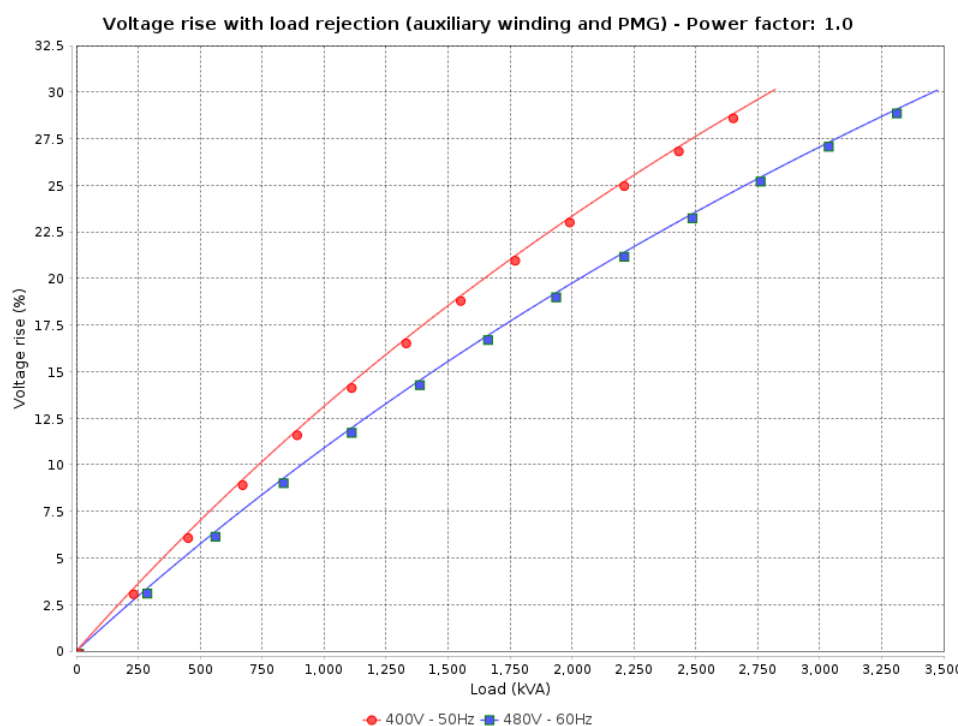


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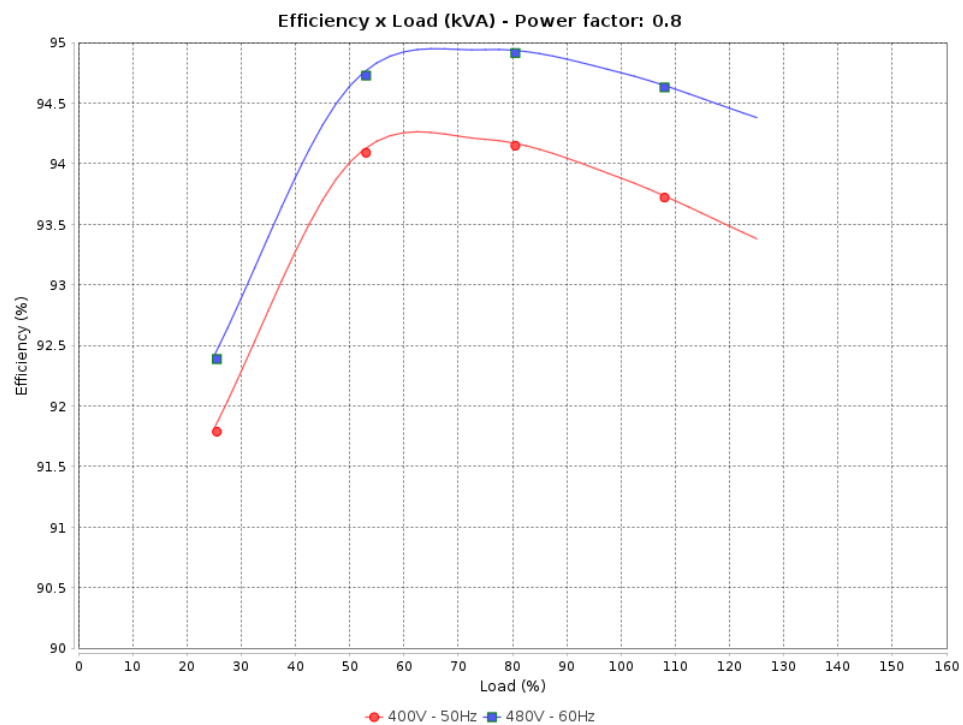
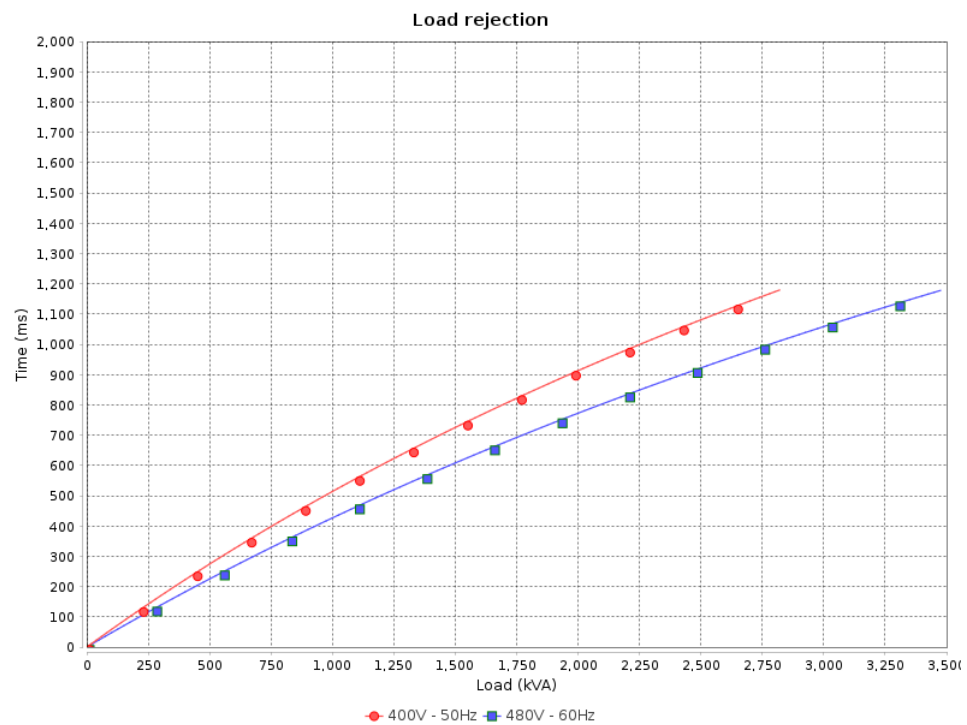


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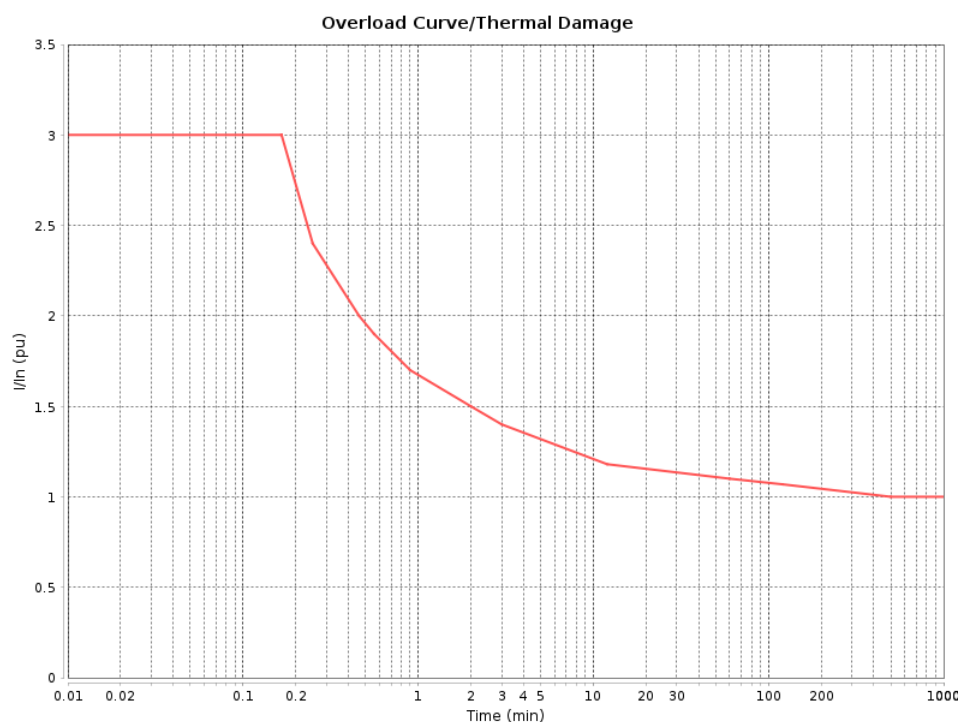
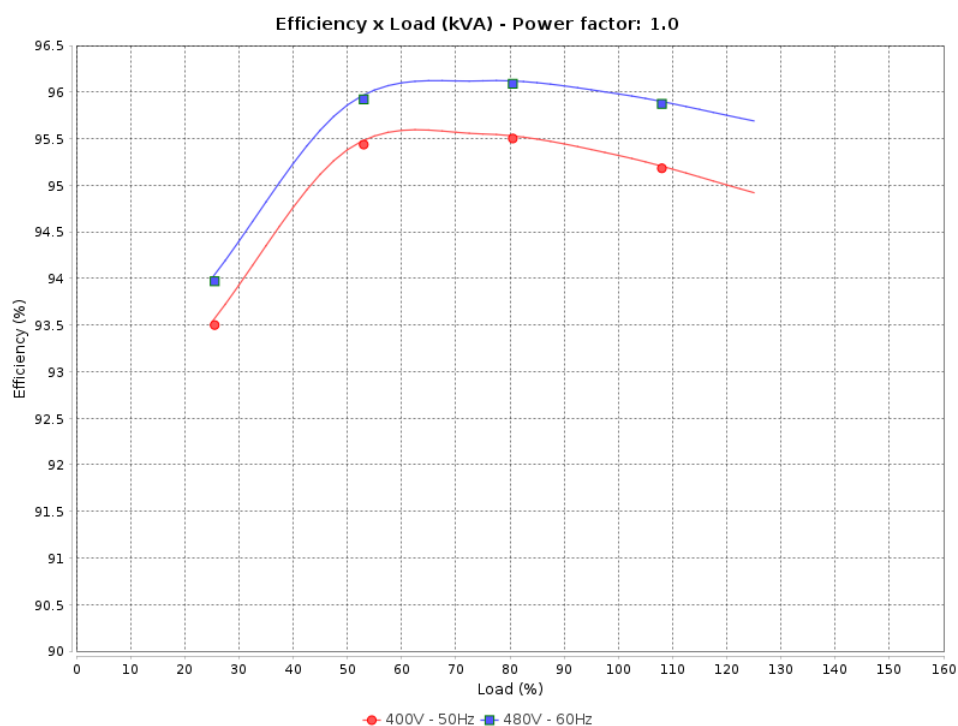


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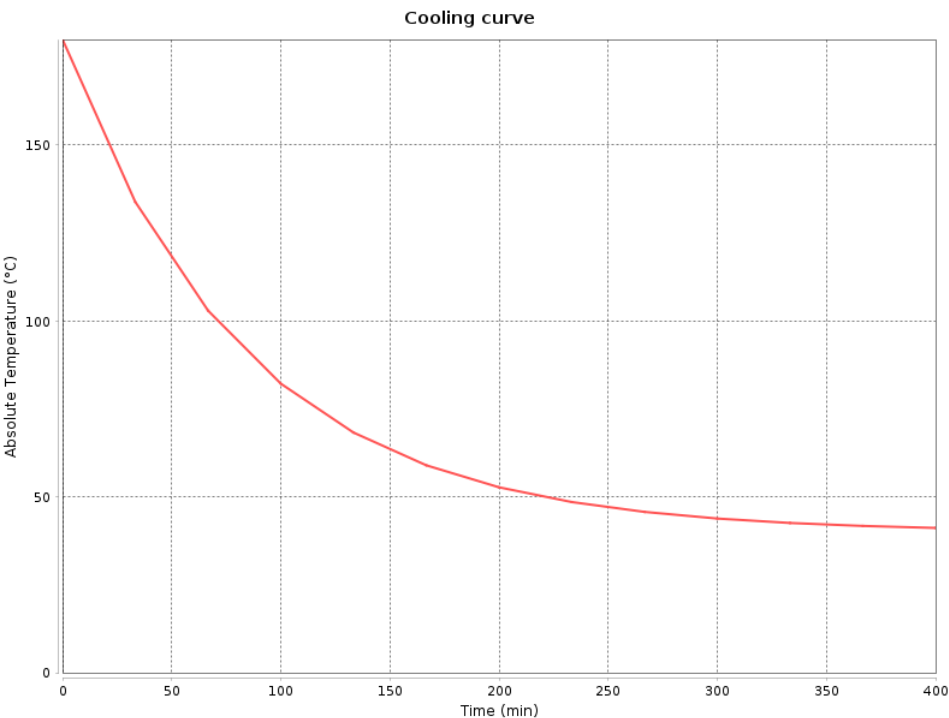


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