

Operation Curves

Motor Type 电机型号

MotorCode = "UL-T4-40-0.06A"

Document 文档编号

DocNum = "55464n-0-c-m"

Maximum drive voltage 驱动器最高输入电压

Vdrive = 190·V

Driver current limit

驱动器最高输出电流

CurS1

Vdc = 269·V

Curmax

altitude = 1000m = 3281·ft

derateT = 0 K

Chopper frequency

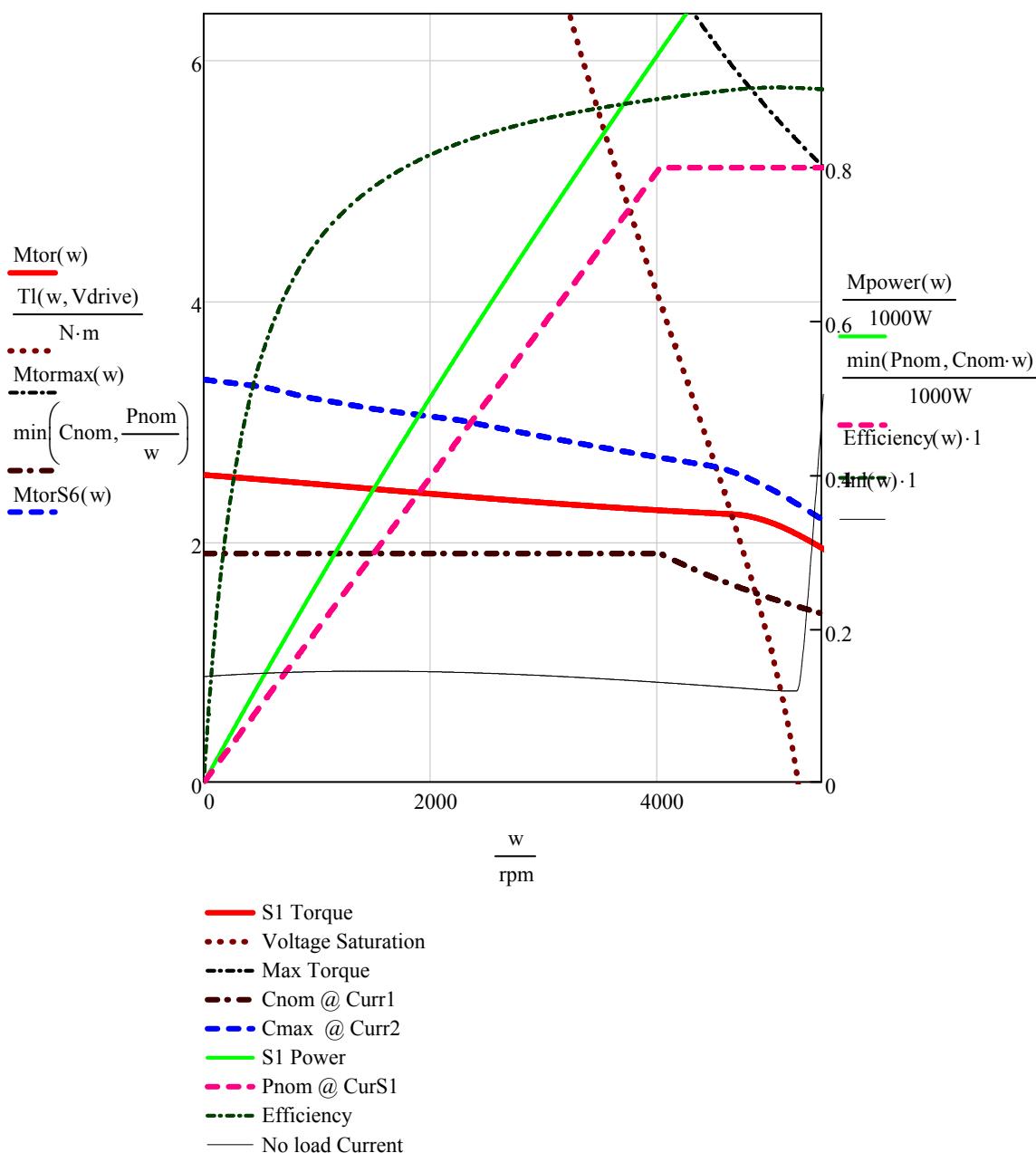
驱动器斩波频率

Chfreq = 8kHz

Ripplepk = 0.55·A

Series Inductance

Lseries = 0·mH



Technical Data Summary

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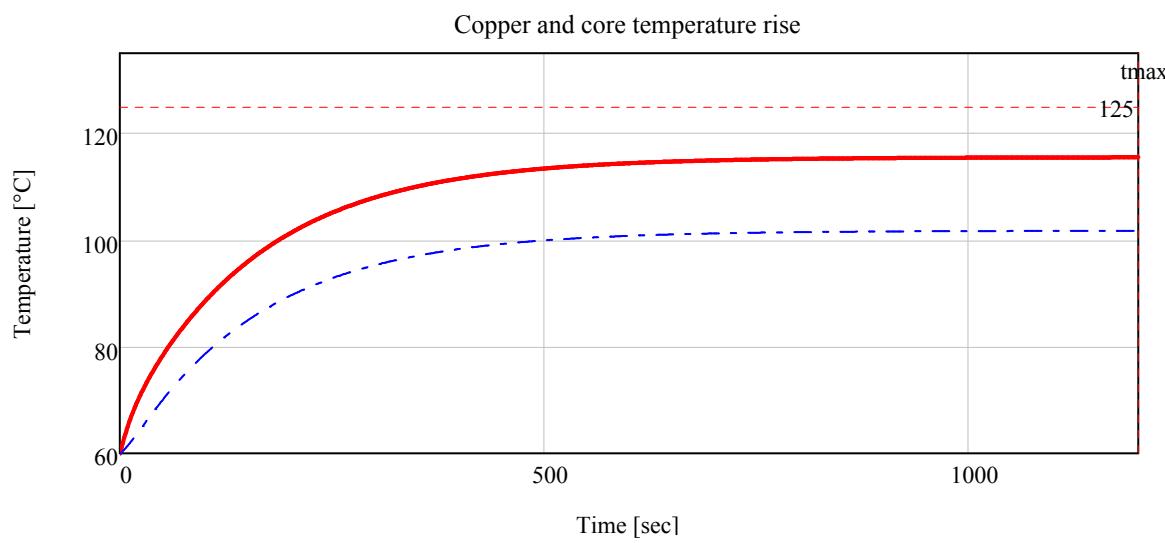
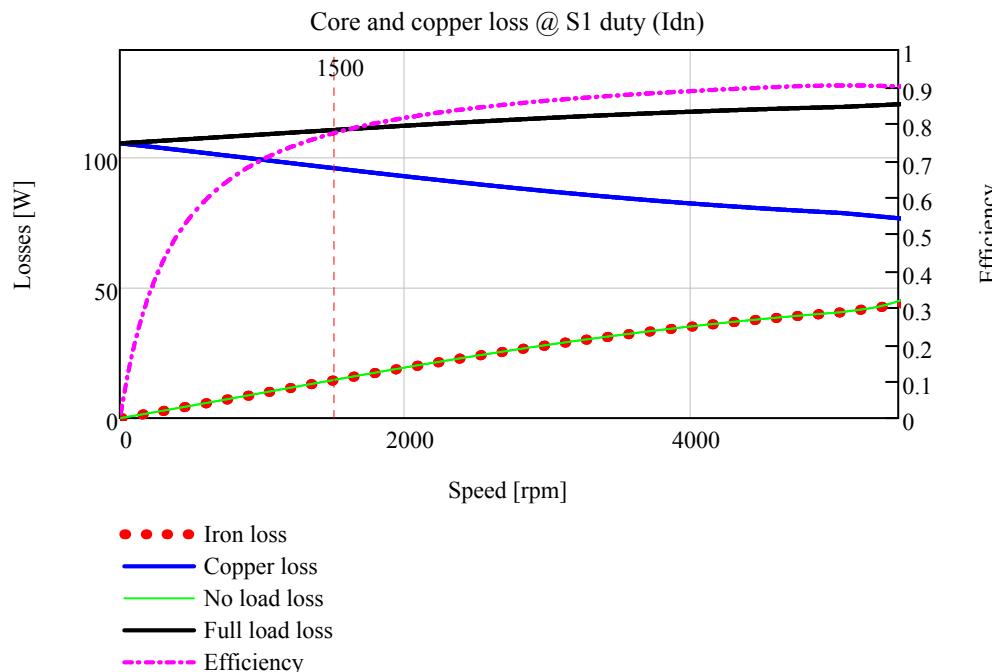
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Reference data

Maximum drive voltage 1)	Vdrive = 190·V		
Ambiental Temperature	Tamb = 30K		
Winding Temperature	Tcumax = 125 K	Knee speed	wknee1 = 4667·rpm
Rated Speed	nn = 4000·rpm	Max speed (DEFLUX)	ω_1
Stall Torque	Md0 = 2.55·N·m	Frequency @ max speed	Fn = 266.7·Hz
Current @ stall torque	Id0 = 4.27·A	Deflux ratio	$\frac{nn}{wknee1} = 0.8572$
Number of poles	Pn = 8		
Rated Torque	Mdn = 2.26·N·m		
Rated Current	Idn = 3.78·A		
Rated Power	Pdn = 0.95·kW		
Voltage Constant @ Tamb	Ke = $39.1 \cdot V \cdot (1000\text{rpm})^{-1}$		
Torque constant	Kt = $0.647 \cdot N \cdot m \cdot A^{-1}$		
Torque Constant @Tcumax	Kt100 = $0.6 \cdot N \cdot m \cdot A^{-1}$		
Winding Resistance	Rw = 2.716·ohm		
Winding Inductance	Lc = 8.81·mH		
Max. Torque	Mmax = 12·N·m	=====	
Max. Current	Imax = 24·A	All data are reffered to ambiental temperature	
Max. Speed	nmax = 5237·rpm	(Tamb), except where different specified	
Inertia	Jm = $1.544 \cdot kg \cdot cm^2$	除特殊标示外, 所有数据均基于环境温	
Losses	Mlos = 0.12·kW	度 (Tamb) 给定.	
Cooling version	Coolant = "Flanged"	fluidtype = "air"	
Minimum Flow (DT 10C)	Fl = "na" · L · min ⁻¹		
Coolant Temperature	TempCool = "Tflange 60K"	Flange dimension 250*250*10	
Efficiency	Eff = 88.9·%		
Voltage @ nominal speed	Vnom = 161.39·V		
Brake power	Pbrk = 0·W	(Or pump losses)	

Customer Operation Data

Operation torque	Tor(currq1, ω3) = 2.01·N·m	Tor(currq2, ω2) = 0·N·m
Nominal Speed	ω3 ≡ 4000rpm	ω2 ≡ 0rpm
Operation Current	Curr1 = 3.5·A	Curr2 = 0·A
Operation Power	Pow(currq1, ω3) = 0.8·kW	Pow(currq2, ω2) = 0·kW
Iq current	currq1 ≡ 3.5A	currq2 ≡ 0.001A
Id Current	Id(currq1, ω3) = 0·A	Id(currq2, ω2) = 0·A
Efficiency	Eff1(currq1, ω3) = 94·%	Eff1(currq2, ω2) = 0·%



Time 1	time1 = 20min
Time 2	time2 = 0 s
Duty cycle	duty1 = 116.%
Max copper temperature	Tcop1(t1)·K = 116 K
Cycle time	tmax = 20 $\frac{\text{min}}{\text{s}}$
Number of interactions	kk = 1

