

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer : WEG GERMANY GMBH

Product line : W50Xec Increased Safety - Voltage Class AT - 5.1kV to 6.6kV

Frame	: W50 315H/G	Locked rotor time	: 18 s (hot) 32 s (cold)
Output	: 200 kW (270 HP)	Temperature rise <sup>4</sup>	: 65 K
Poles	: 4	Duty cycle	: S1
Frequency	: 50 Hz	Ambient temperature	: -20 °C to +55 °C
Rated voltage	: 6000 V	Altitude	: 1000 m.a.s.l
Rated current	: 26.3 A	Degree of protection	: IP55
L. R. Amperes	: 224 A	Cooling method	: IC411 - TEFC
LRC (p.u.)	: 8.5	Mounting	: B3R(E)
No load current	: 11.6 A	Direct of rotation <sup>1</sup>	: Both
Rated speed	: 1490 rpm	Noise level <sup>2</sup>	: 75.0 dB(A)
Slip	: 0.67 %	Starting method	: Direct On Line
Rated torque	: 1282 Nm	Approx. weight <sup>3</sup>	: 1800 kg
Locked rotor torque	: 235 %		
Pull up torque	: 200 %		
Breakdown torque	: 295 %		
Insulation class	: F		
Service factor	: 1.00		
Moment of inertia (J)	: 6.21 kgm <sup>2</sup>		

Output	Start	50%	75%	100%	Load type	: Constant torque
Efficiency (%)	-	92.0	93.4	93.8	Load torque	: 1285 Nm
Power factor	0.27	0.62	0.72	0.78	Load inertia (J=GD <sup>2</sup> /4)	: 5.17 kgm <sup>2</sup>

	Drive end	Non drive end
Bearing type	NU-320-C3	6316-C3
Lubrication interval	2752 h	4500 h
Lubricant amount	51 g	34 g
Lubricant type	MOBIL POLYREX EM	

### Notes:

ATEX: II 3G Ex ec IIC T3 Gc

The vibration and noise level informed are valid when motor is operating with roller bearings respect to the rated load. Thus, WEG reserves the right to test the motor with ball bearings.

### FOR APPROVAL

( ) Approved  
( ) Approved with comments  
( ) Not approved

Standards	Specification	: IEC 60034-1	Vibration	: IEC 60034-14
	Tests	: IEC 60034-2	Tolerance	: IEC 60034-1
	Noise	: IEC 60034-9		

This revision replaces and cancels the previous one, which must be eliminated.

(1) When viewed from the drive end.

(2) Measured at 1m and with tolerance of +3dB(A).

(3) Approximate weight subject to changes after manufacturing process.

(4) At the rated point.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in IEC 60034-1.

Rev.	Summary of changes		Performed	Checked	Date
Performed by	hsteinebach		439771/2023		
Checked by	mhensen		Page Revision		
Date	19/07/2023		1/5 0		

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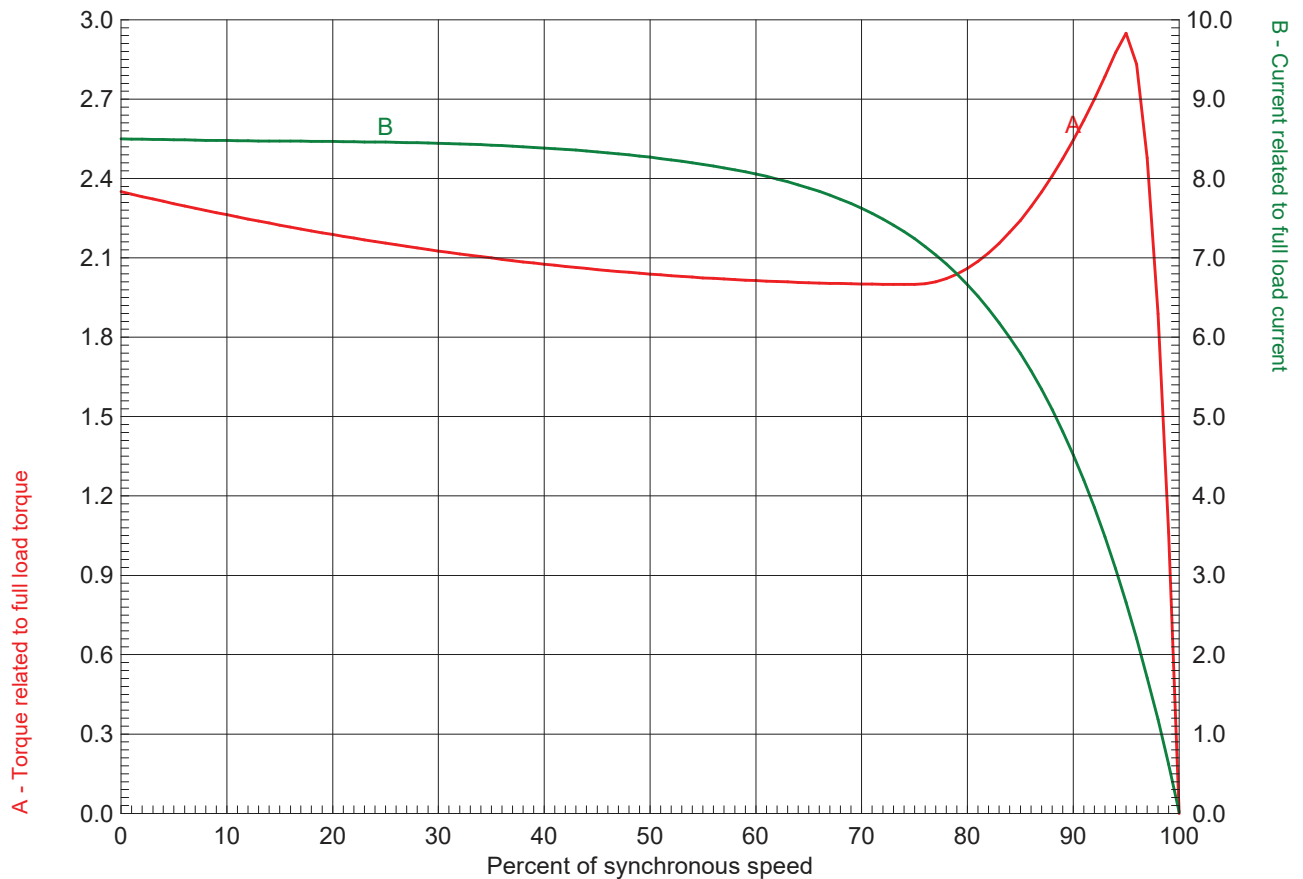
# TORQUE AND CURRENT X SPEED CURVE



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Performance : 200 kW (270 HP) 6000 V 50 Hz 4P W50 315H/G

Rated current	: 26.3 A	Moment of inertia (J)	: 6.21 kgm <sup>2</sup>
LRC (p.u.)	: 8.5	Duty cycle	: S1
Rated torque	: 1282 Nm	Insulation class	: F
Locked rotor torque	: 235 %	Service factor	: 1.00
Breakdown torque	: 295 %	Temperature rise	: 65 K
Rated speed	: 1490 rpm		

Locked rotor time 100%	: 18 s (hot) 32 s (cold)	Run-up time 100%	: 1.0 s
Allowable run up time 100%	: 14 s (hot) 26 s (cold)		
Load inertia (J=GD <sup>2</sup> /4)	: 5.17 kgm <sup>2</sup>		

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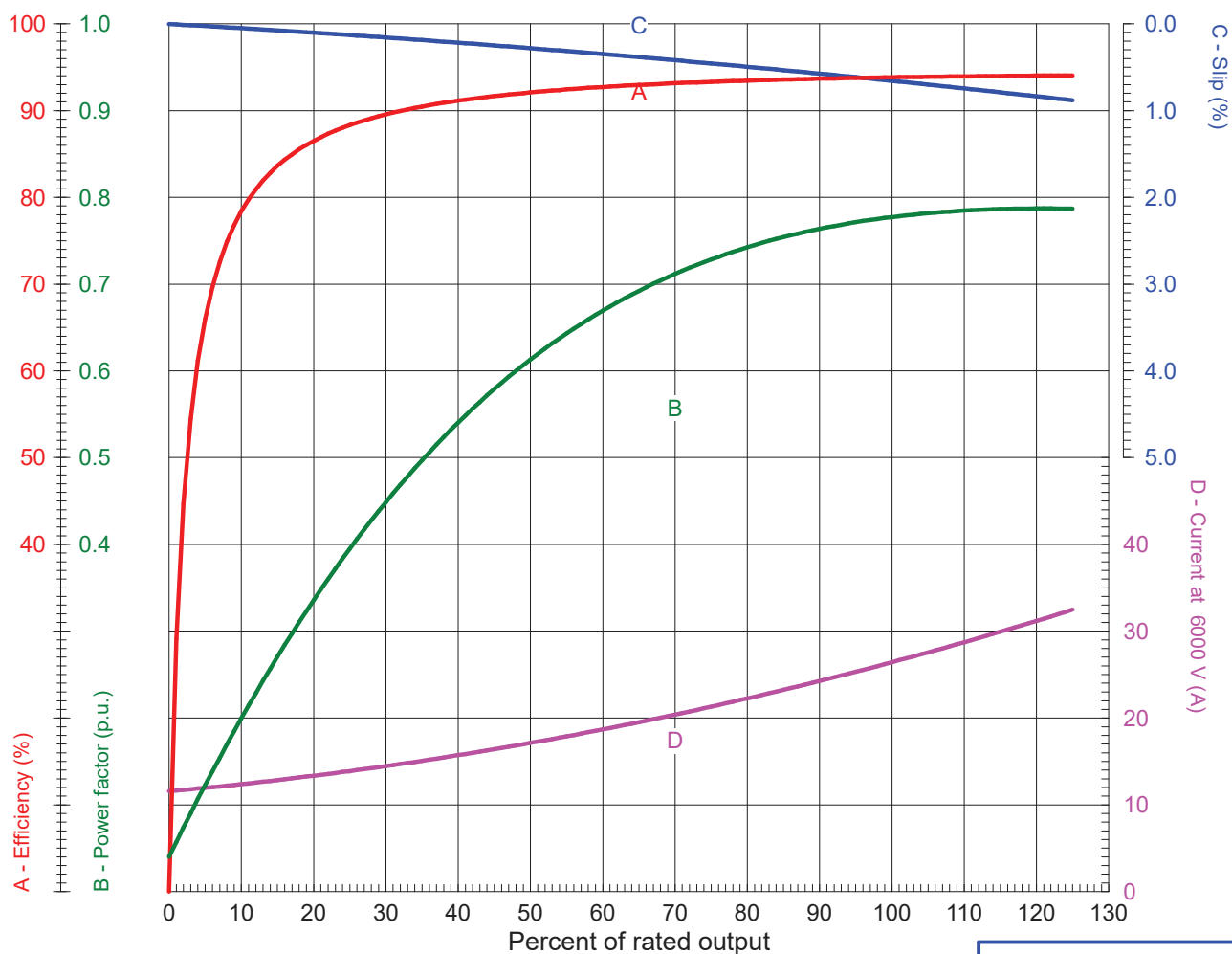
# LOAD PERFORMANCE CURVE



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Performance : 200 kW (270 HP) 6000 V 50 Hz 4P W50 315H/G

Rated current : 26.3 A  
LRC (p.u.) : 8.5  
Rated torque : 1282 Nm  
Locked rotor torque : 235 %  
Breakdown torque : 295 %  
Rated speed : 1490 rpm

Moment of inertia (J) : 6.21 kgm<sup>2</sup>  
Duty cycle : S1  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 65 K

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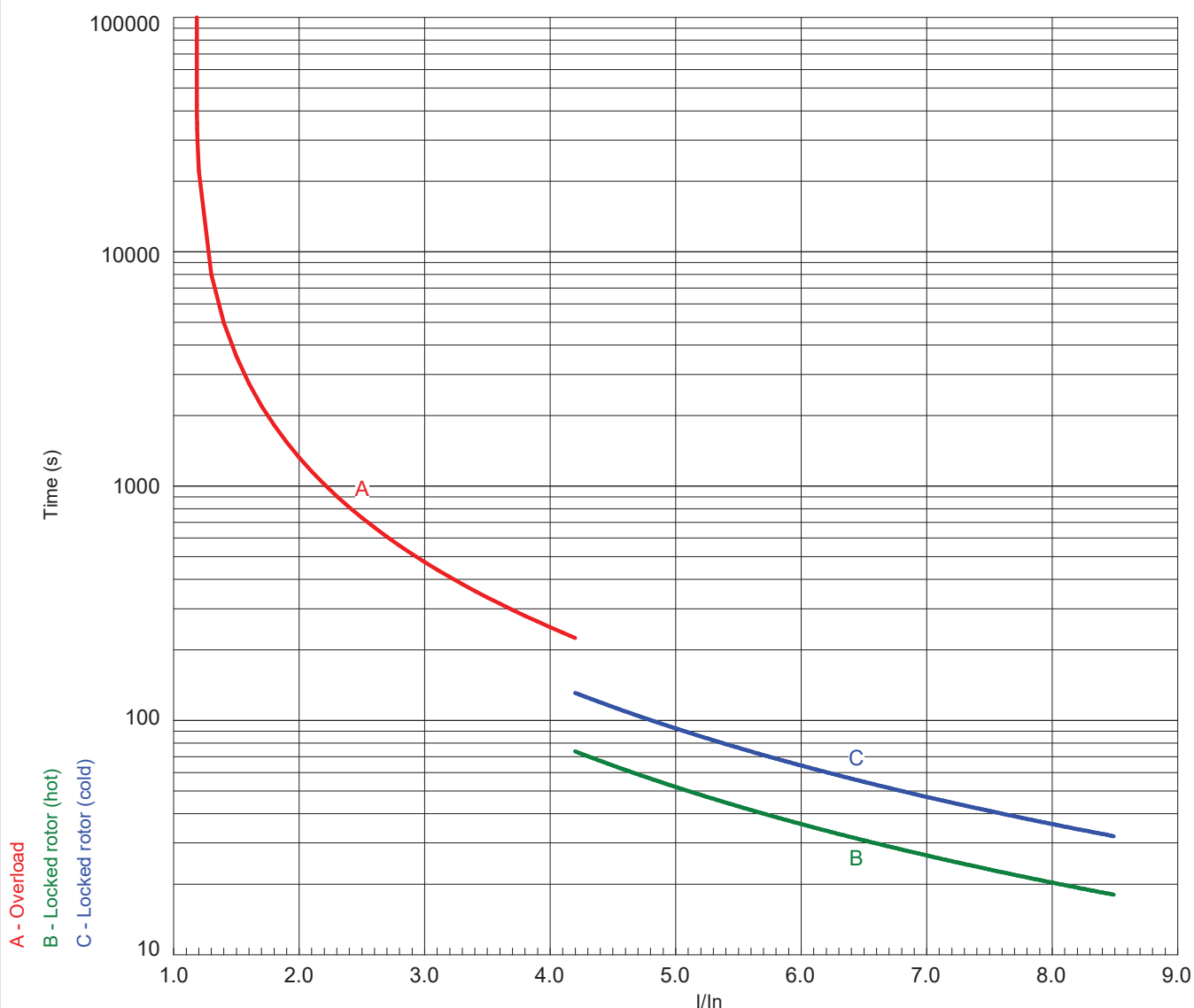
# THERMAL LIMIT CURVE



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Performance : 200 kW (270 HP) 6000 V 50 Hz 4P W50 315H/G

Rated current : 26.3 A	Moment of inertia (J) : 6.21 kgm <sup>2</sup>
LRC (p.u.) : 8.5	Duty cycle : S1
Rated torque : 1282 Nm	Insulation class : F
Locked rotor torque : 235 %	Service factor : 1.00
Breakdown torque : 295 %	Temperature rise : 65 K
Rated speed : 1490 rpm	

Heating constant : 51.4 min  
Cooling constant : 154.2 min

**FOR APPROVAL**

( ) Approved  
( ) Approved with comments  
( ) Not approved

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