

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W50 Three-Phase

Product code : 13304192  
Catalog # : 25012ET3X5009-W50MV

Frame : 5009/10  
Insulation class : F  
Duty cycle : Cont.(S1)  
Ambient temperature : -20°C to +40°C  
Altitude : 1000 m.a.s.l.  
Protection degree : IP55  
Design : A

Cooling method : IC411 - TEFC  
Mounting : F-1  
Rotation<sup>1</sup> : Both (CW and CCW)  
Starting method : Direct On Line  
Approx. weight<sup>3</sup> : 4081 lb  
Moment of inertia (J)

Output [HP]	250	250
Poles	6	6
Frequency [Hz]	60	60
Rated voltage [V]	2300	4160
Rated current [A]	61.9	34.6
L. R. Amperes [A]	353	221
LRC [A]	5.7x(Code G)	6.4x(Code H)
No load current [A]	25.4	16.1
Rated speed [RPM]	1188	1189
Slip [%]	1.00	0.92
Rated torque [ft.lb]	1110	1100
Locked rotor torque [%]	140	160
Breakdown torque [%]	210	220
Service factor	1.00	1.00
Temperature rise	80 K	80 K
Locked rotor time	37s (cold) 21s (hot)	37s (cold) 21s (hot)
Noise level <sup>2</sup>	77.0 dB(A)	77.0 dB(A)
Efficiency (%)	25%	93.0
	50%	93.6
	75%	94.5
	100%	95.0
Power Factor	25%	0.42
	50%	0.66
	75%	0.76
	100%	0.79

### Notes

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

- (1) Looking the motor from the shaft end.
- (2) Measured at 1m and with tolerance of +3dB(A).
- (4) At 100% of full load.

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

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date	10/04/2020			

Page 1 / 9  
Revision

# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

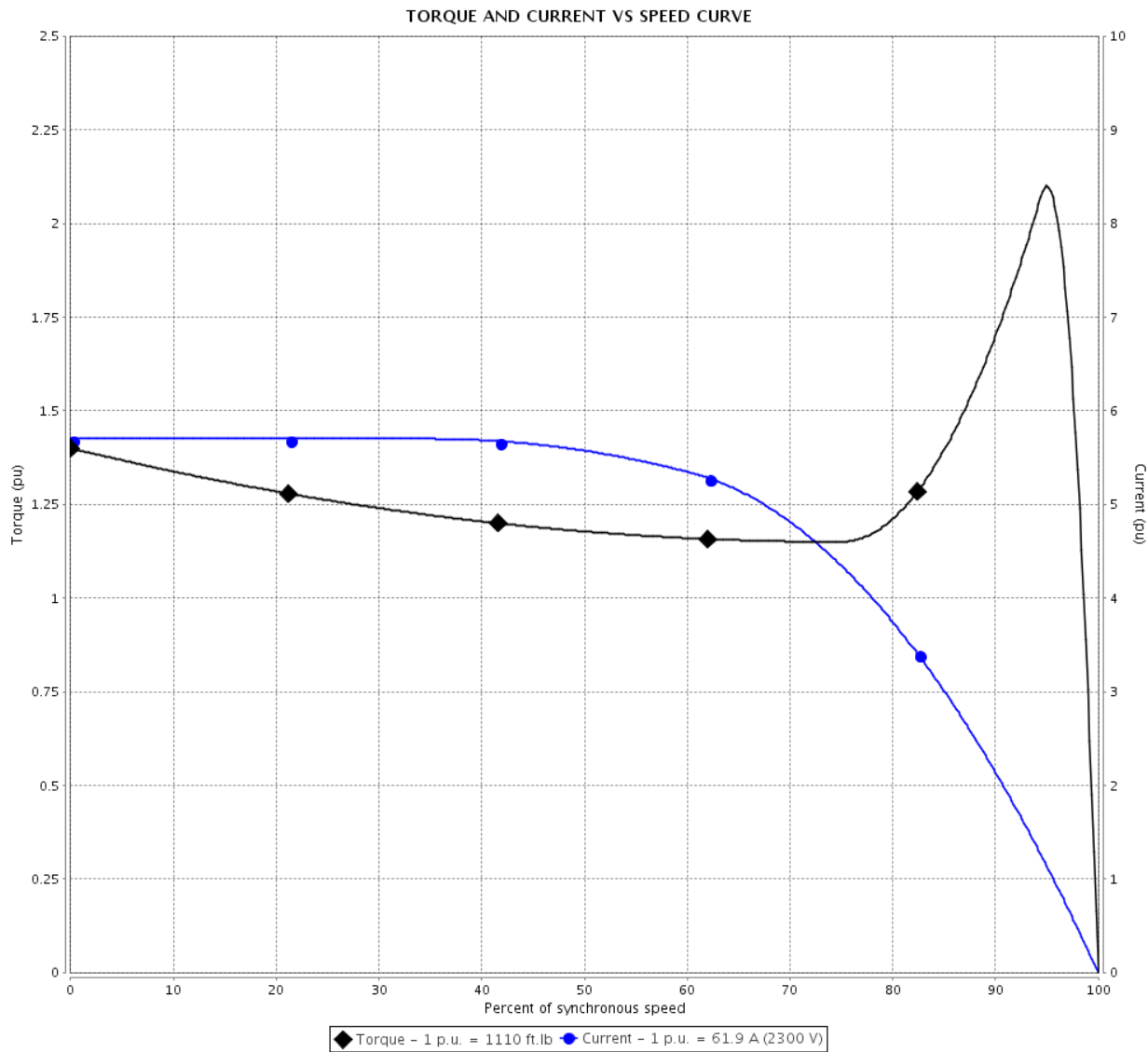
Product line : W50 Three-Phase

Product code :

13304192

Catalog # :

25012ET3X5009-W50MV



Performance : 2300 V 60 Hz 6P

Rated current : 61.9 A  
LRC : 5.7  
Rated torque : 1110 ft.lb  
Locked rotor torque : 140 %  
Breakdown torque : 210 %  
Rated speed : 1188 rpm

Moment of inertia (J)  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : A

Locked rotor time : 37s (cold) 21s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 2 / 9Revision		
Checked by				
Date	10/04/2020			

# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

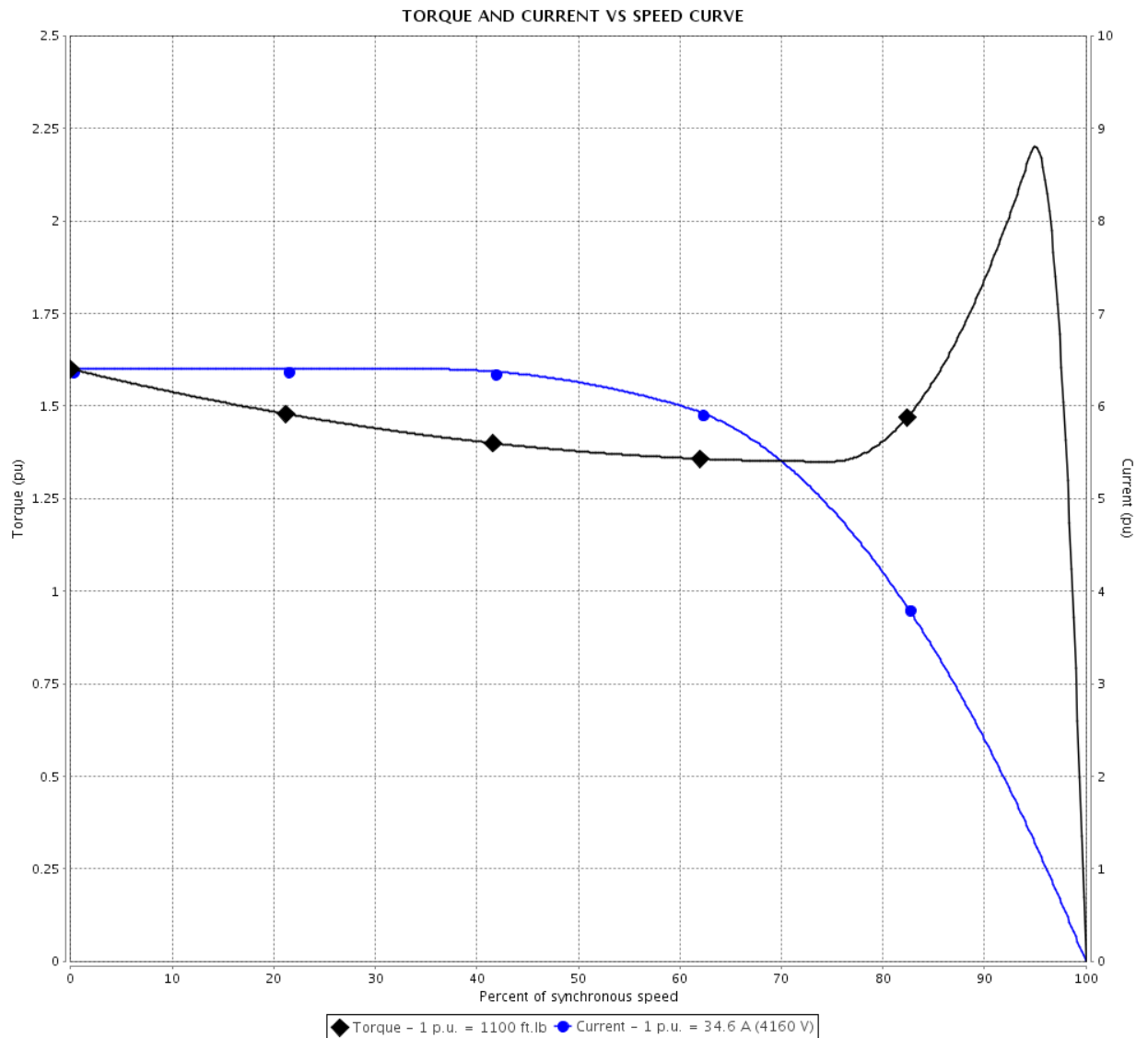
Product line : W50 Three-Phase

Product code :

13304192

Catalog # :

25012ET3X5009-W50MV



Performance : 4160 V 60 Hz 6P

Rated current	: 34.6 A	Moment of inertia (J)	
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 1100 ft.lb	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 1189 rpm	Design	: A

Locked rotor time : 37s (cold) 21s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 3 / 9		
Checked by				
Date	10/04/2020			
		Revision		

# LOAD PERFORMANCE CURVE

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Customer :

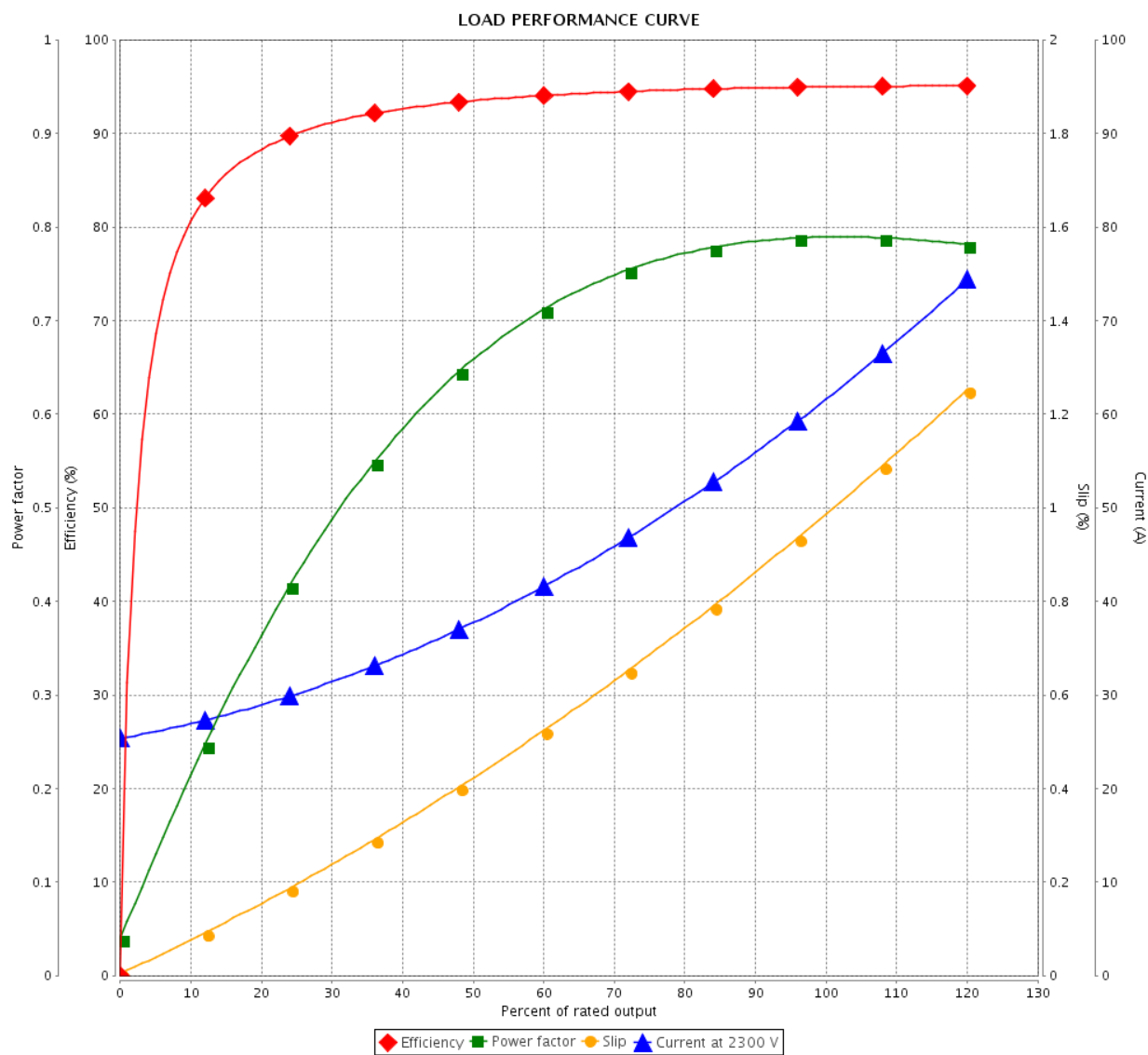
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 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : A

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 4 / 9	Revision
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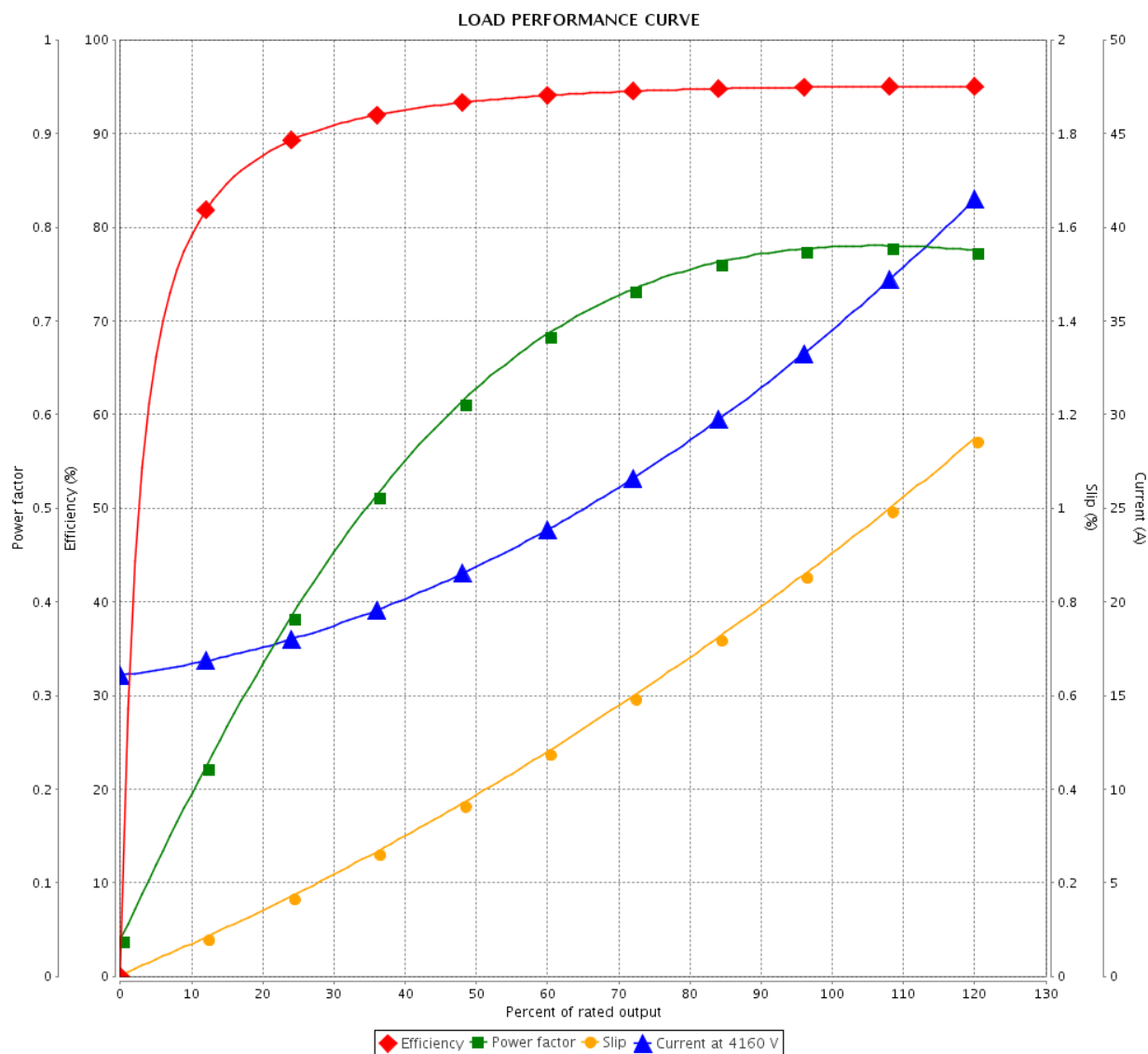
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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 5 / 9		
Checked by				
Date	10/04/2020			
		Revision		

# THERMAL LIMIT CURVE

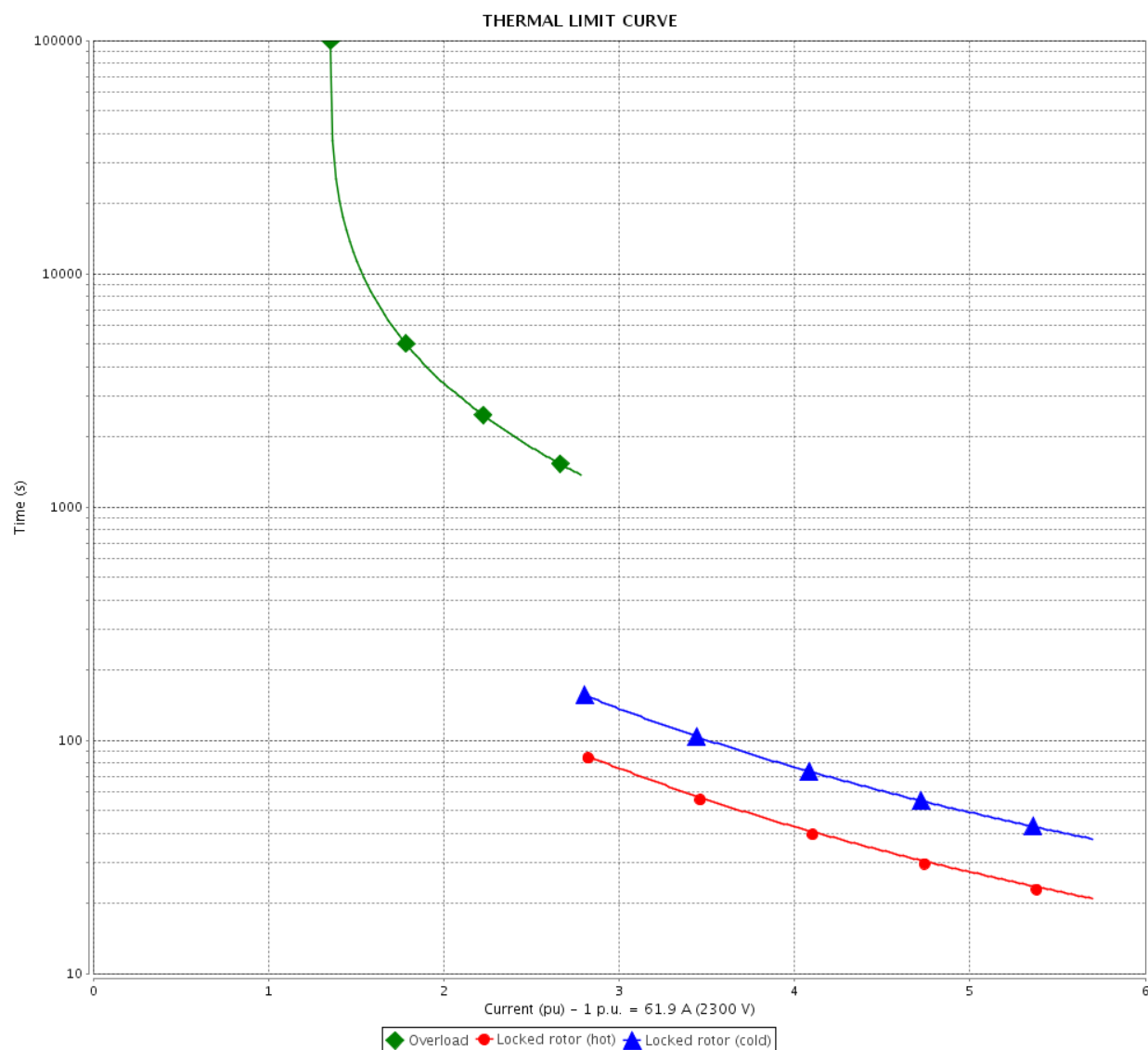
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Rated speed	: 1188 rpm	Design	: A

Heating constant

Cooling constant

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 6 / 9		
Checked by				
Date	10/04/2020			
		Revision		

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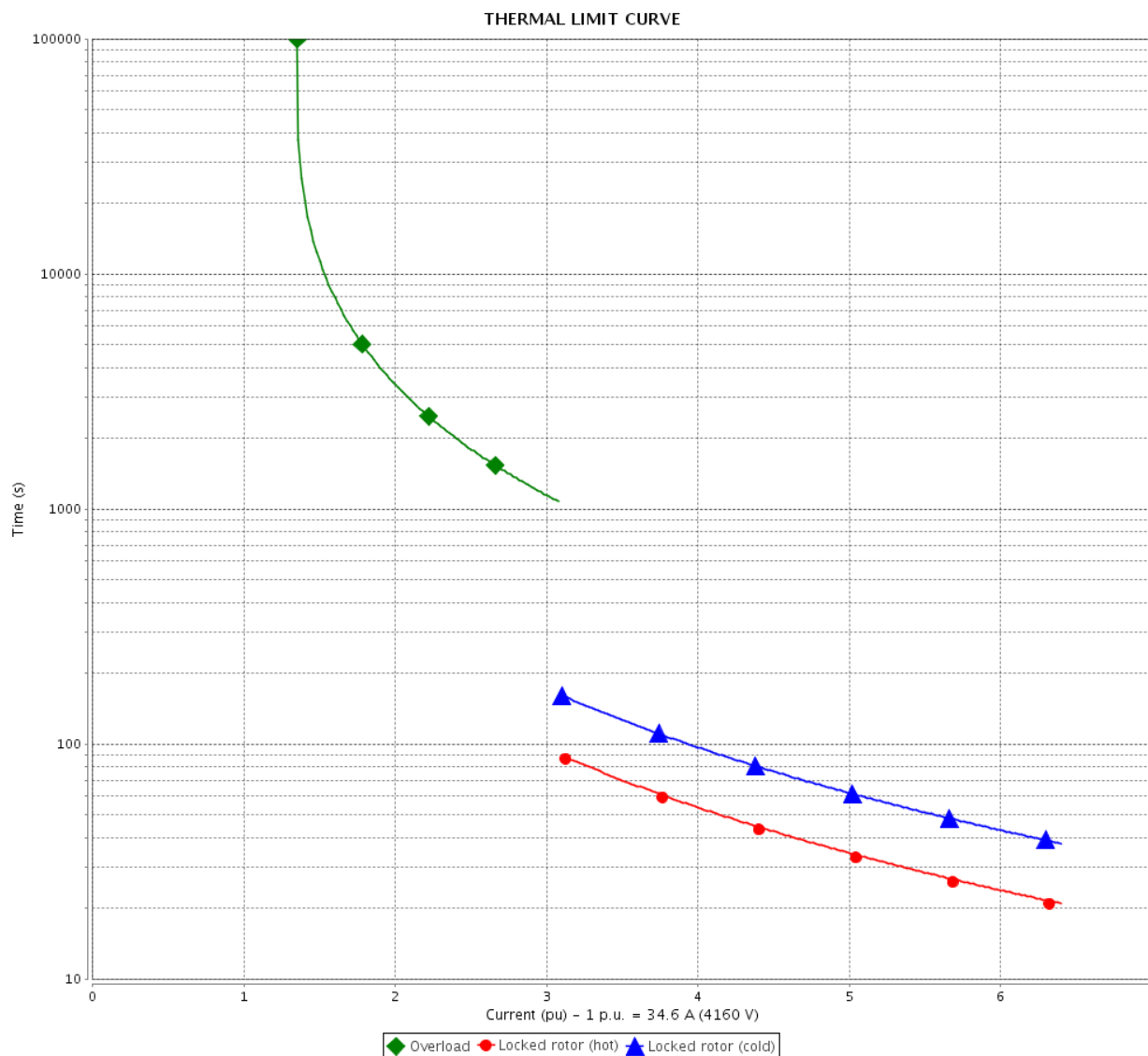
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Rev.	Changes Summary	Performed	Checked	Date
Performed by				Page 7 / 9
Checked by				
Date				
10/04/2020				Revision

# VFD OPERATION CURVE

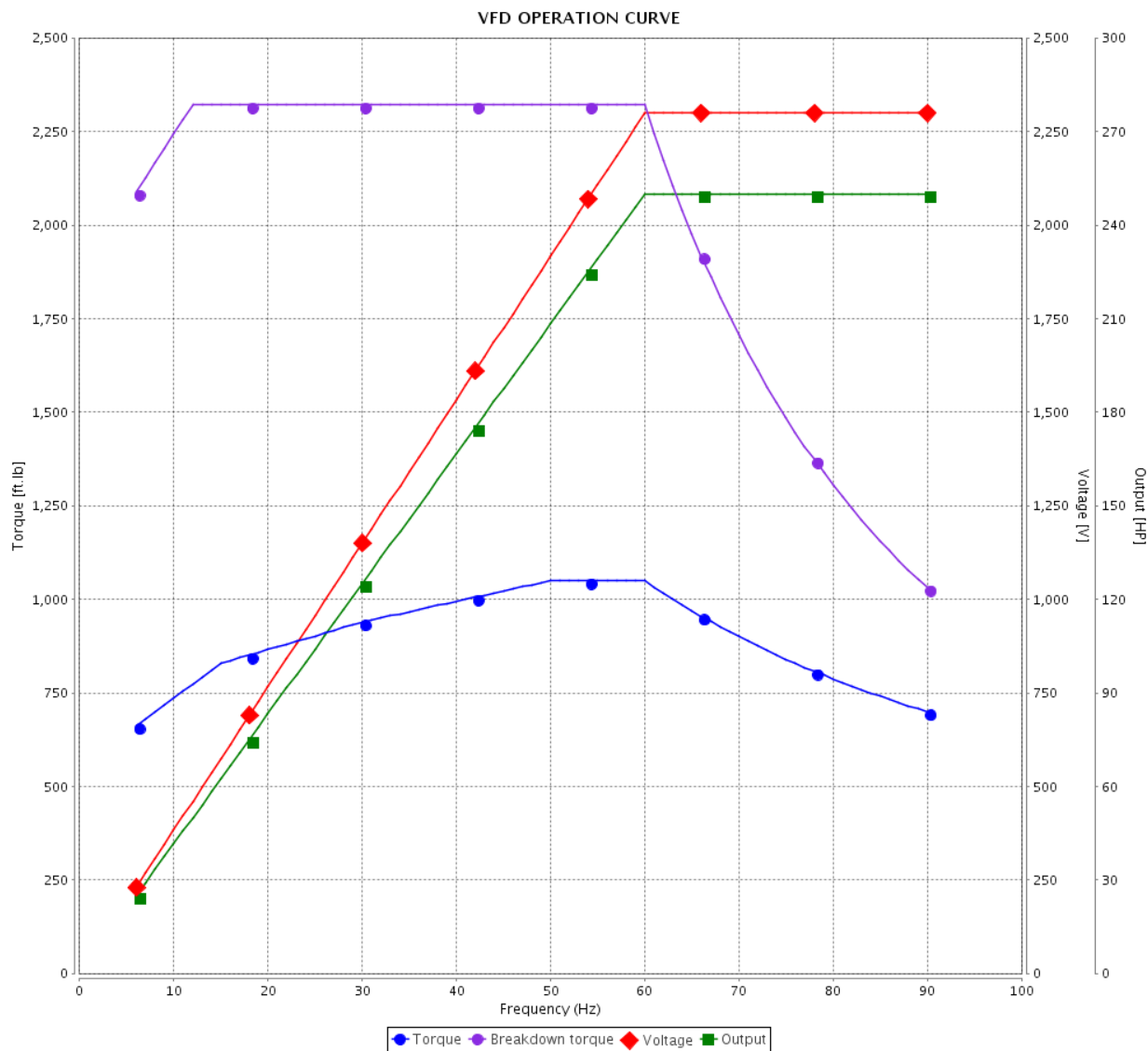
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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 8 / 9		
Checked by				
Date	10/04/2020			
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# VFD OPERATION CURVE

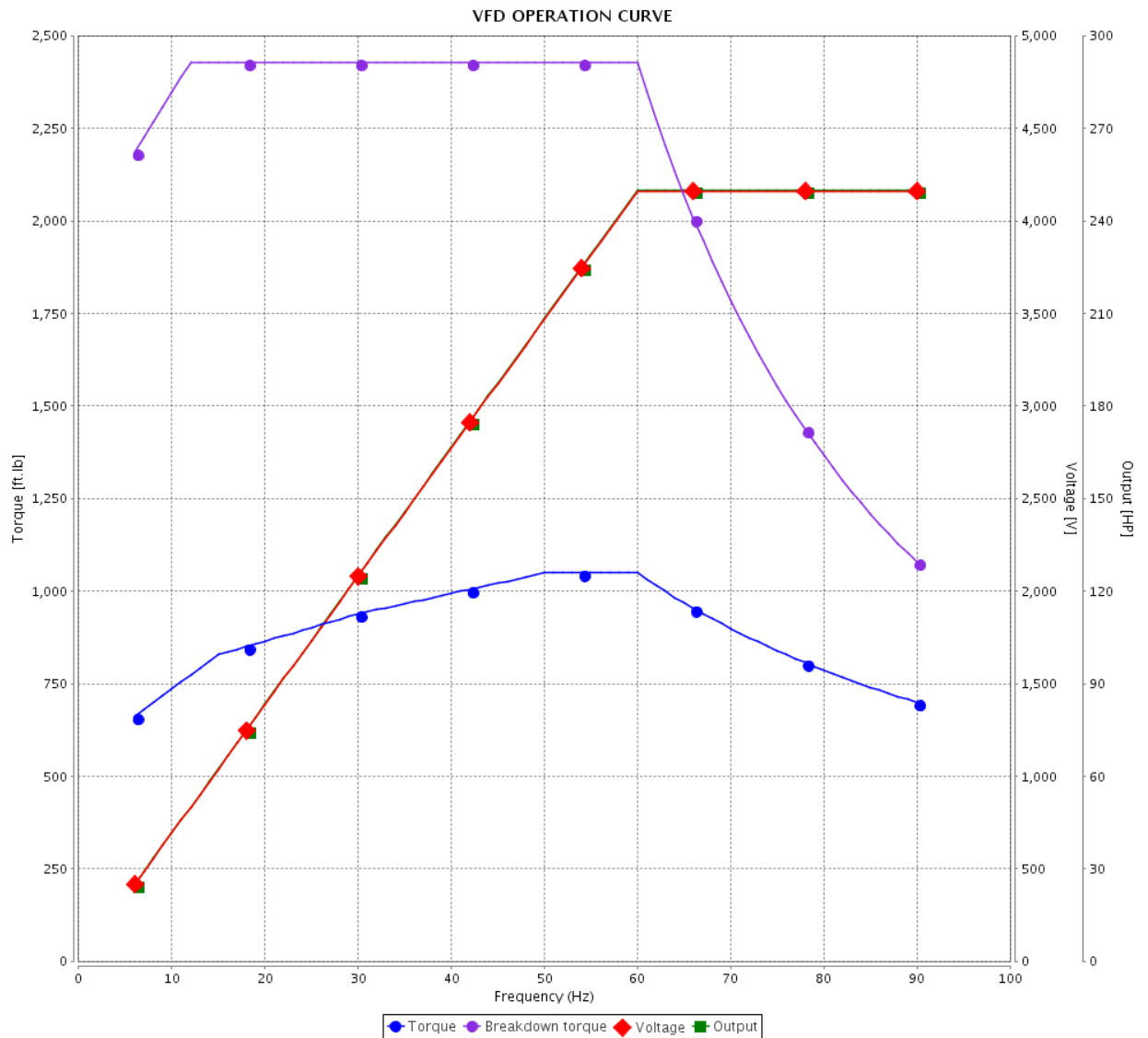
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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 9 / 9		
Checked by				
Date	10/04/2020			
		Revision		

1 2 3 4 5 6 7 8 9 10

EIXO/SHAFT

PADRÃO/STANDARD

OPCIONAL/OPTIONAL

ESPECIAL/SPECIAL

Dimensões em polegadas

Dimensions in inches

Center Hole

DUNC 7/8"–9 WEG TBG–12

Terminal box for accessories

3xNPT 3/4"

Grounding for leads 25–185mm<sup>2</sup>

Accessories terminal box detail

Space heaters terminal box detail

Scale 1:5

Temperature detector–02 per phase (PT100–03 leads)

130°C – Alarm

155°C – Switch Off

Bearing (PT100 – 3 Leads) DE

Bearing (PT100 – 3 Leads) NDE

110°C – Alarm

120°C – Switch Off

Grounding for leads 25–185mm<sup>2</sup>

View X

Space heaters connection diagram

CERTIFIED WEG MOTORES

Certified document.

Not subject to changes.

THIS IS AN UPDATED REVISION, THE PREVIOUS ONE MUST BE DISREGARDED.

Stator terminal box 1xNPT 3"

3xSPM Nipple

2xSPM Nipple

Grounding for leads 25–185mm<sup>2</sup>

250 HP

06 Poles

60Hz

2300/4160V

413621270

ELET/MEC

A

10003176846

000

04

1

1

WEG

13304192

MADE IN BRAZIL



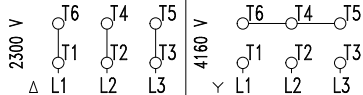
W50



MODEL 25012ET3X5009-W50MV



3 ~ 5009/10		250(185) HP(kW)	
2300/4160	V	SF 1.00	60 Hz
61.9/34.6	A	INS. CL. F	$\Delta T$ 80 K
RPM 1188/1189	NEMA NOM. EFF. 95.0 %		
DUTY CONT.	P.F.0.79/0.78		IP55
CODE H	ENCL. TEFC	AMB 40°C	
DES	ALT 1000 m.a.s.l.	WEIGHT 4107 Lbs	



→ 6320-C3(51g)  
→ 6316-C3(34g)

MOBIL POLYREX EM  
4500 h