

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase Product code : 14503931
Catalog # : 04018OT3E324TC-W40G

Frame : 324TC	Cooling method : IC01 - ODP
Insulation class : F	Mounting : F-1
Duty cycle : Cont.(S1)	Rotation ¹ : Both (CW and CCW)
Ambient temperature : -20°C to +40°C	Starting method : Direct On Line
Altitude : 1000 m.a.s.l.	Approx. weight ² : 465 lb
Protection degree : IP23	Moment of inertia (J) : 5.69 sq.ft.lb
Design : B	

Output [HP]	40	30	30	30
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	95.2/47.6	43.3	42.2	41.7
L. R. Amperes [A]	590/295	290	283	313
LRC [A]	6.2x(Code G)	6.7x(Code H)	6.7x(Code H)	7.5x(Code J)
No load current [A]	37.0/18.5	18.3	20.3	22.1
Rated speed [RPM]	1775	1475	1480	1480
Slip [%]	1.39	1.67	1.33	1.33
Rated torque [ft.lb]	118	107	106	106
Locked rotor torque [%]	200	229	260	280
Breakdown torque [%]	240	270	300	330
Service factor	1.25	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	23s (cold) 13s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)	25s (cold) 14s (hot)
Noise level ²	66.0 dB(A)			
Efficiency (%)	25%	93.5	92.4	92.5
	50%	93.6	92.6	92.5
	75%	94.1	93.0	93.0
	100%	94.1	93.0	93.0
Power Factor	25%	0.44	0.42	0.38
	50%	0.70	0.68	0.63
	75%	0.80	0.78	0.75
	100%	0.84	0.83	0.81

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6312 Z C3	6211 Z C3	Max. traction
Sealing :	Without	Without	Max. compression
	Bearing Seal	Bearing Seal	
Lubrication interval :	20000 h	20000 h	
Lubricant amount :	21 g	11 g	
Lubricant type :	Mobil Polyrex EM		

Notes
USABLE @208V 105A SF 1.15 SFA 121A

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).
(3) Approximate weight subject to changes after manufacturing process.
(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	11/04/2020			

Page 1 / 21
Revision

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

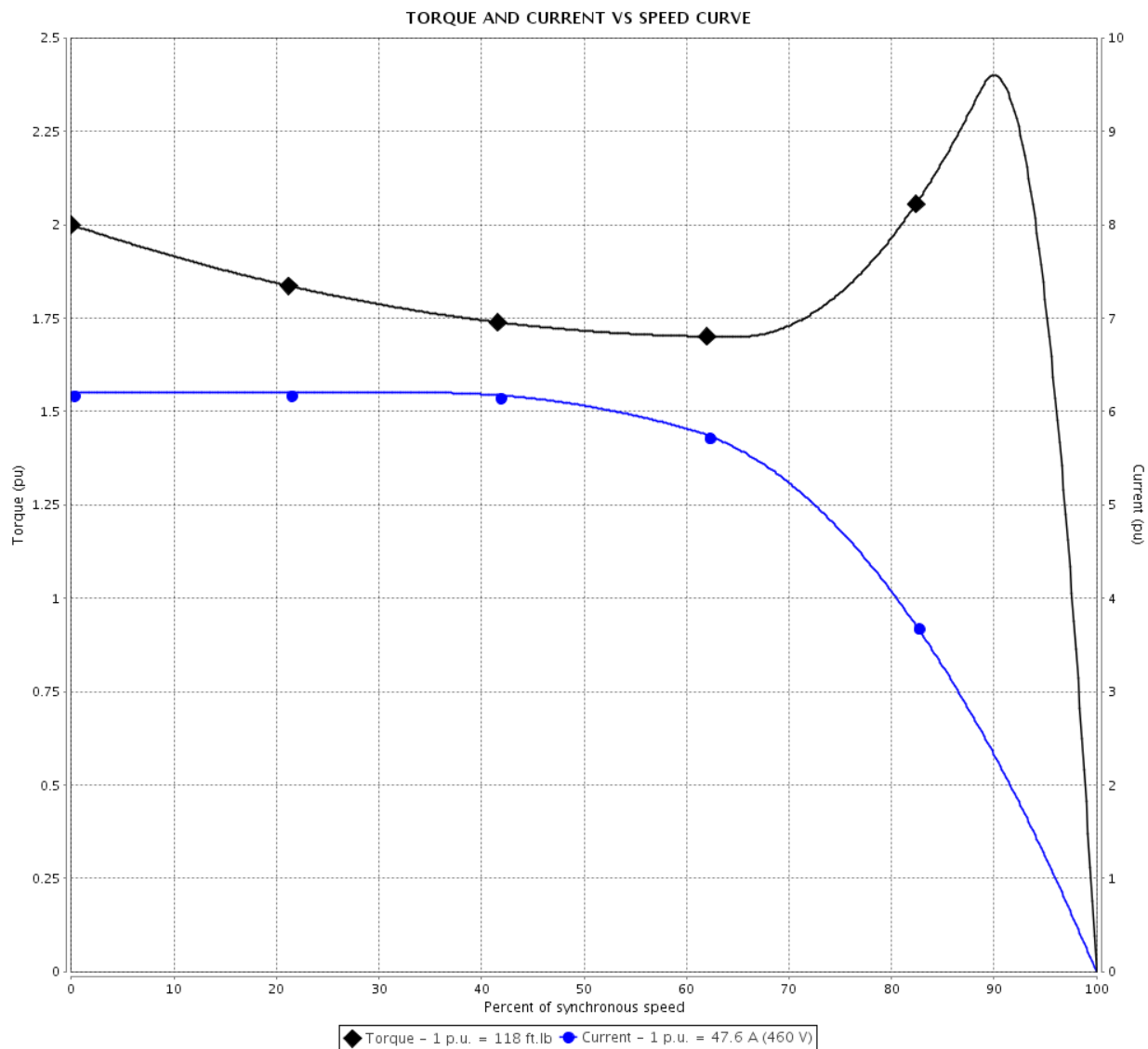


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14503931

Catalog # : 04018OT3E324TC-W40G



Performance : 230/460 V 60 Hz 4P

Rated current : 95.2/47.6 A
LRC : 6.2
Rated torque : 118 ft.lb
Locked rotor torque : 200 %
Breakdown torque : 240 %
Rated speed : 1775 rpm

Moment of inertia (J) : 5.69 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Locked rotor time : 23s (cold) 13s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by		<div>Page 2 / 21</div> <div>Revision</div>		
Checked by				
Date	11/04/2020			

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

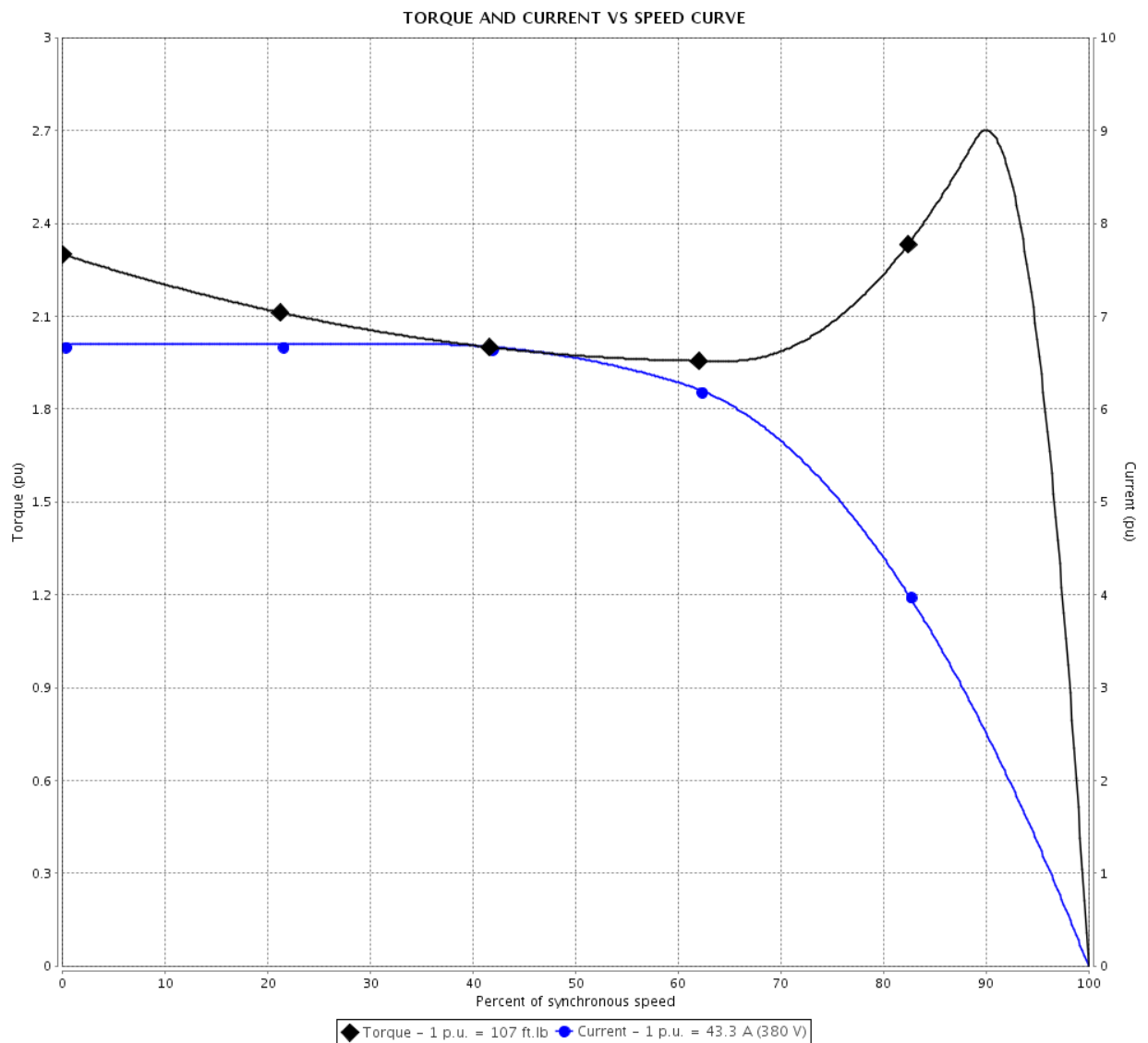


Customer :

Product line : W40 NEMA Premium Efficiency
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Product code : 14503931

Catalog # : 04018OT3E324TC-W40G



Performance : 380 V 50 Hz 4P IE3

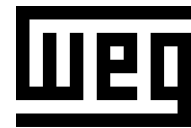
Rated current	: 43.3 A	Moment of inertia (J)	: 5.69 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 107 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1475 rpm	Design	: B

Locked rotor time : 30s (cold) 17s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 3 / 21		
Checked by				
Date	11/04/2020			
		Revision		

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

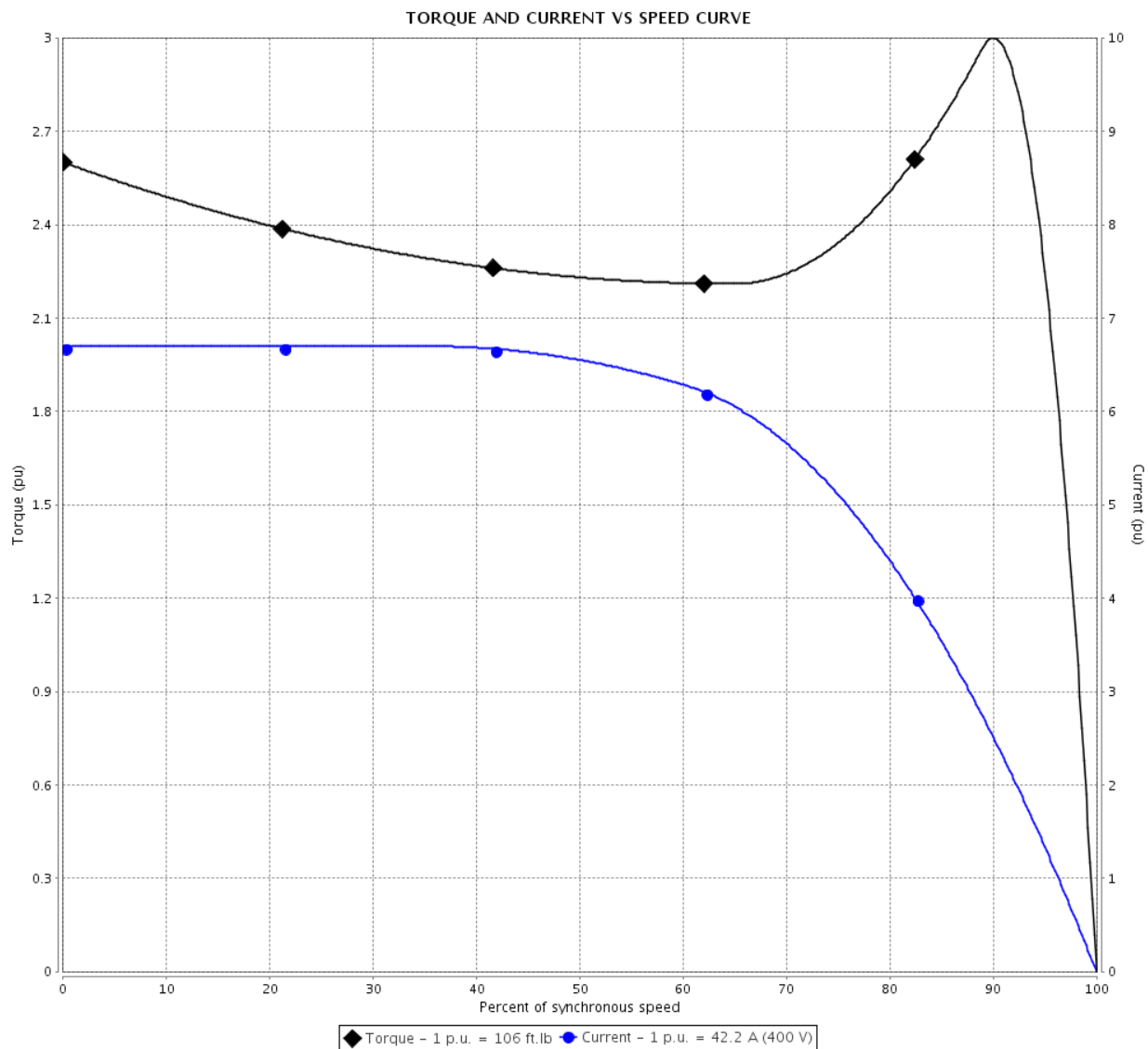


Customer :

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Product code : 14503931

Catalog # : 04018OT3E324TC-W40G



Performance : 400 V 50 Hz 4P IE3

Rated current	: 42.2 A	Moment of inertia (J)	: 5.69 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 106 ft.lb	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

Locked rotor time : 30s (cold) 17s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by		<div style="display: flex; justify-content: space-between;"> <div>Page 4 / 21</div> <div>Revision</div> </div>		
Checked by				
Date	11/04/2020			

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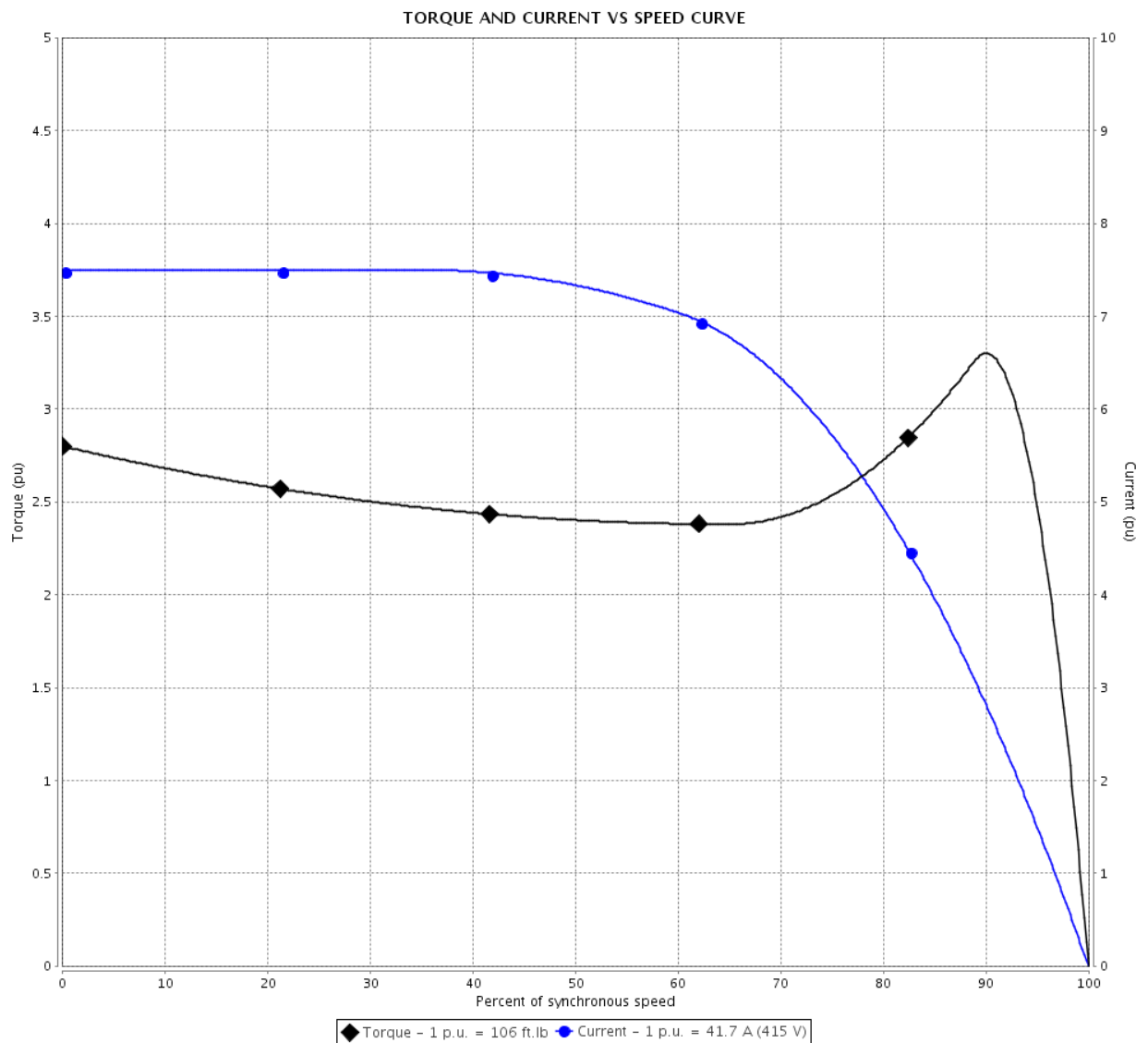


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Performance : 415 V 50 Hz 4P IE3

Rated current	: 41.7 A	Moment of inertia (J)	: 5.69 sq.ft.lb
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 106 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

Locked rotor time : 25s (cold) 14s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 5 / 21		
Checked by				
Date	11/04/2020			
		Revision		

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

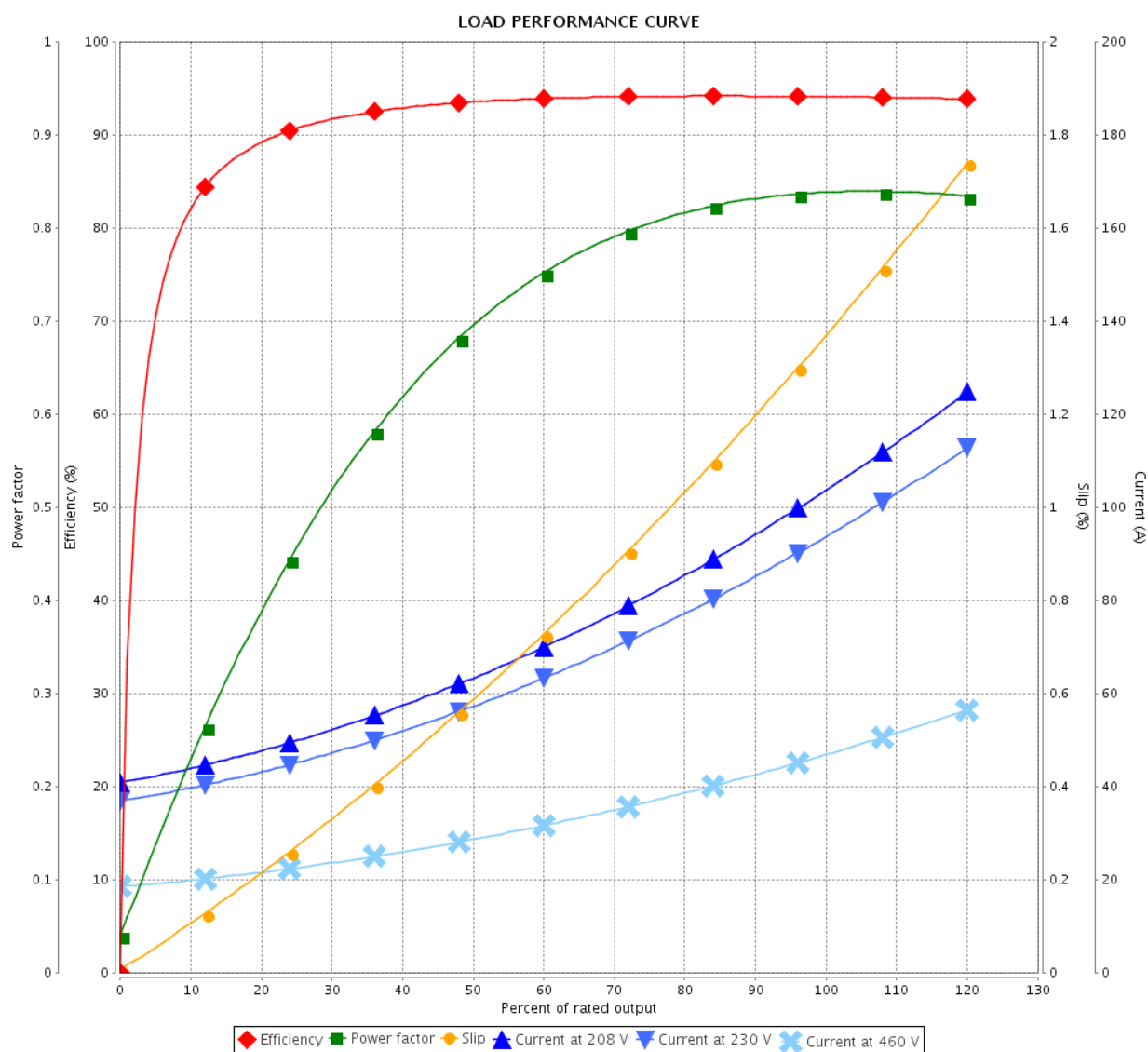


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Product code : 14503931

Catalog # : 04018OT3E324TC-W40G



Performance : 230/460 V 60 Hz 4P

Rated current : 95.2/47.6 A
LRC : 6.2
Rated torque : 118 ft.lb
Locked rotor torque : 200 %
Breakdown torque : 240 %
Rated speed : 1775 rpm

Moment of inertia (J) : 5.69 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page	Revision
Checked by				6 / 21	
Date					

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

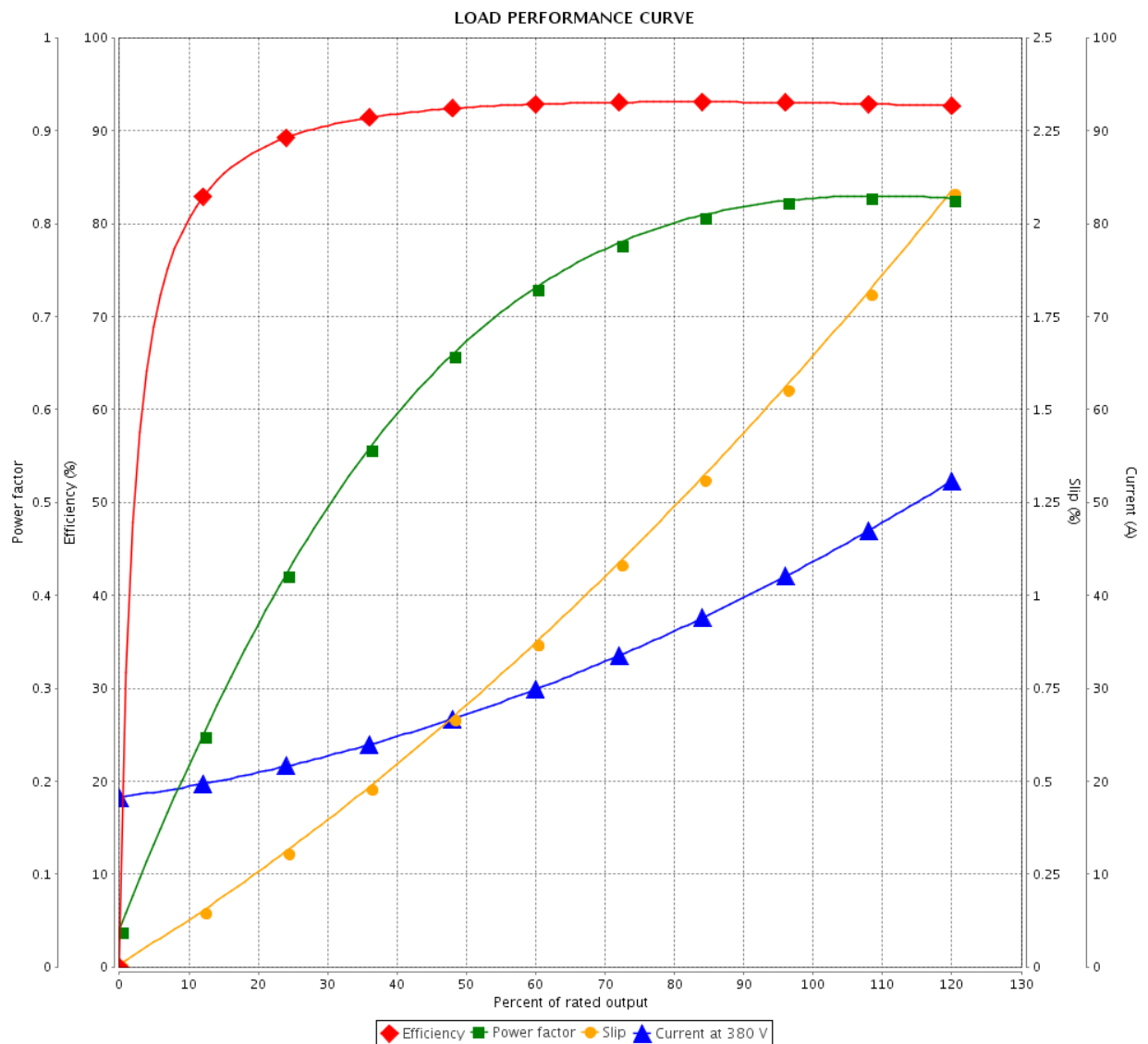


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Performance : 380 V 50 Hz 4P IE3

Rated current : 43.3 A
LRC : 6.7
Rated torque : 107 ft.lb
Locked rotor torque : 229 %
Breakdown torque : 270 %
Rated speed : 1475 rpm

Moment of inertia (J) : 5.69 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 7 / 21		
Checked by				
Date	11/04/2020			
		Revision		

LOAD PERFORMANCE CURVE

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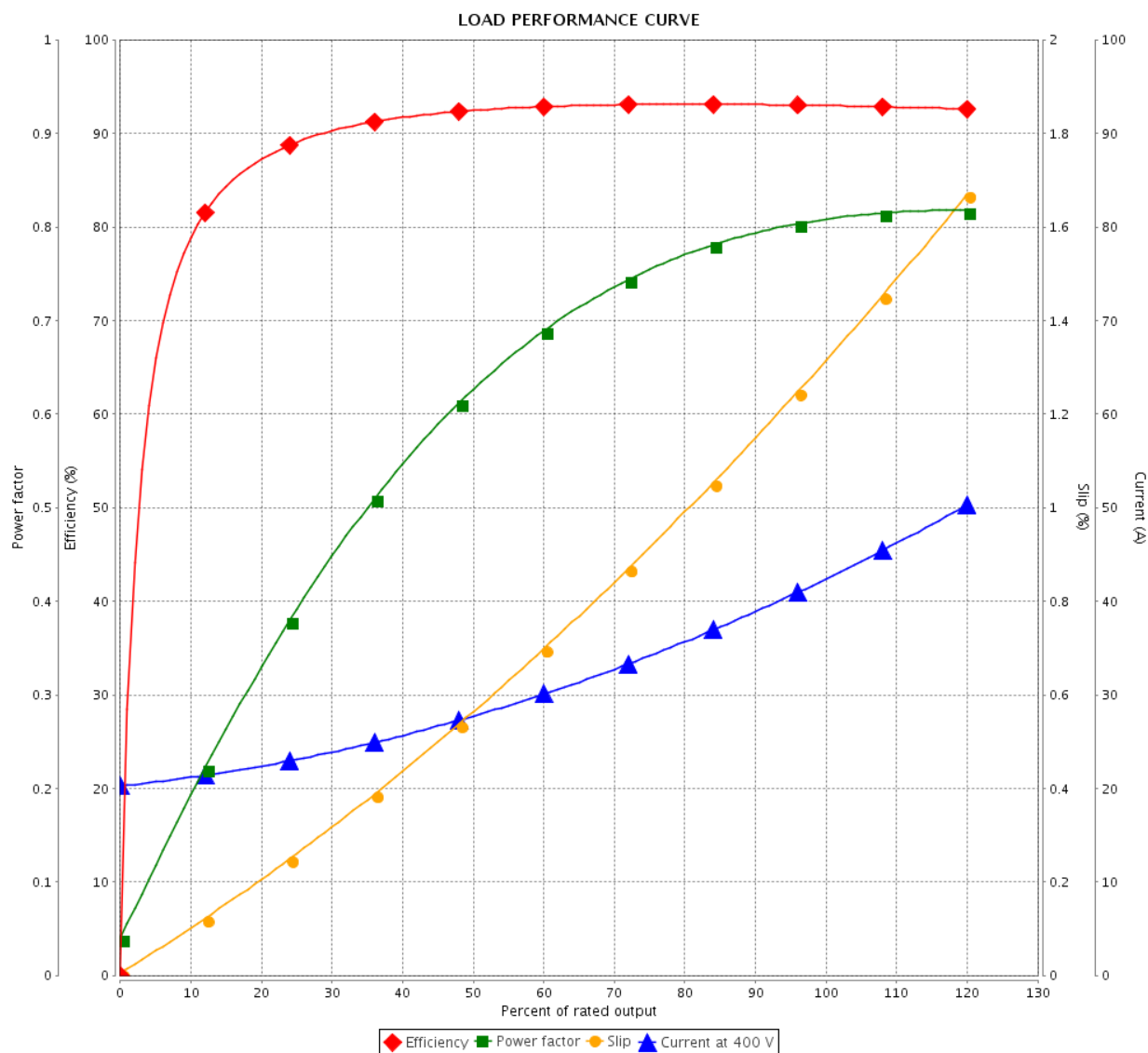


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Performance : 400 V 50 Hz 4P IE3

Rated current : 42.2 A
LRC : 6.7
Rated torque : 106 ft.lb
Locked rotor torque : 260 %
Breakdown torque : 300 %
Rated speed : 1480 rpm

Moment of inertia (J) : 5.69 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 8 / 21Revision		
Checked by				
Date	11/04/2020			

LOAD PERFORMANCE CURVE

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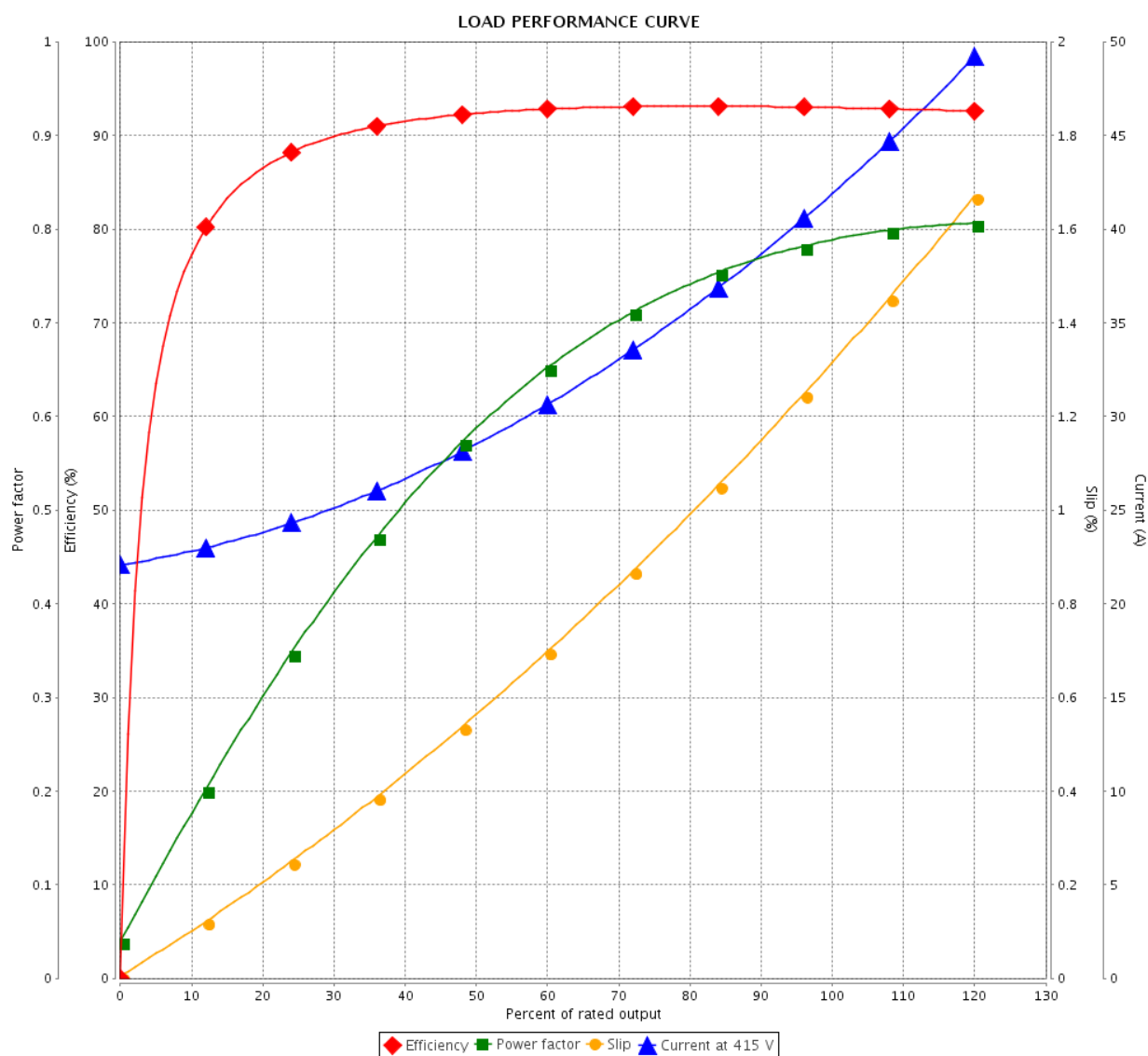


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Performance : 415 V 50 Hz 4P IE3

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Locked rotor torque : 280 %
Breakdown torque : 330 %
Rated speed : 1480 rpm

Moment of inertia (J) : 5.69 sq.ft.lb
Duty cycle : Cont.(S1)
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Service factor : 1.00
Temperature rise : 80 K
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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 9 / 21		
Checked by				
Date	11/04/2020			
			Revision	

THERMAL LIMIT CURVE

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Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

Rev.

Changes Summary

Performed

Checked

Date

Performed by

Checked by

Date

11/04/2020

Page

10 / 21

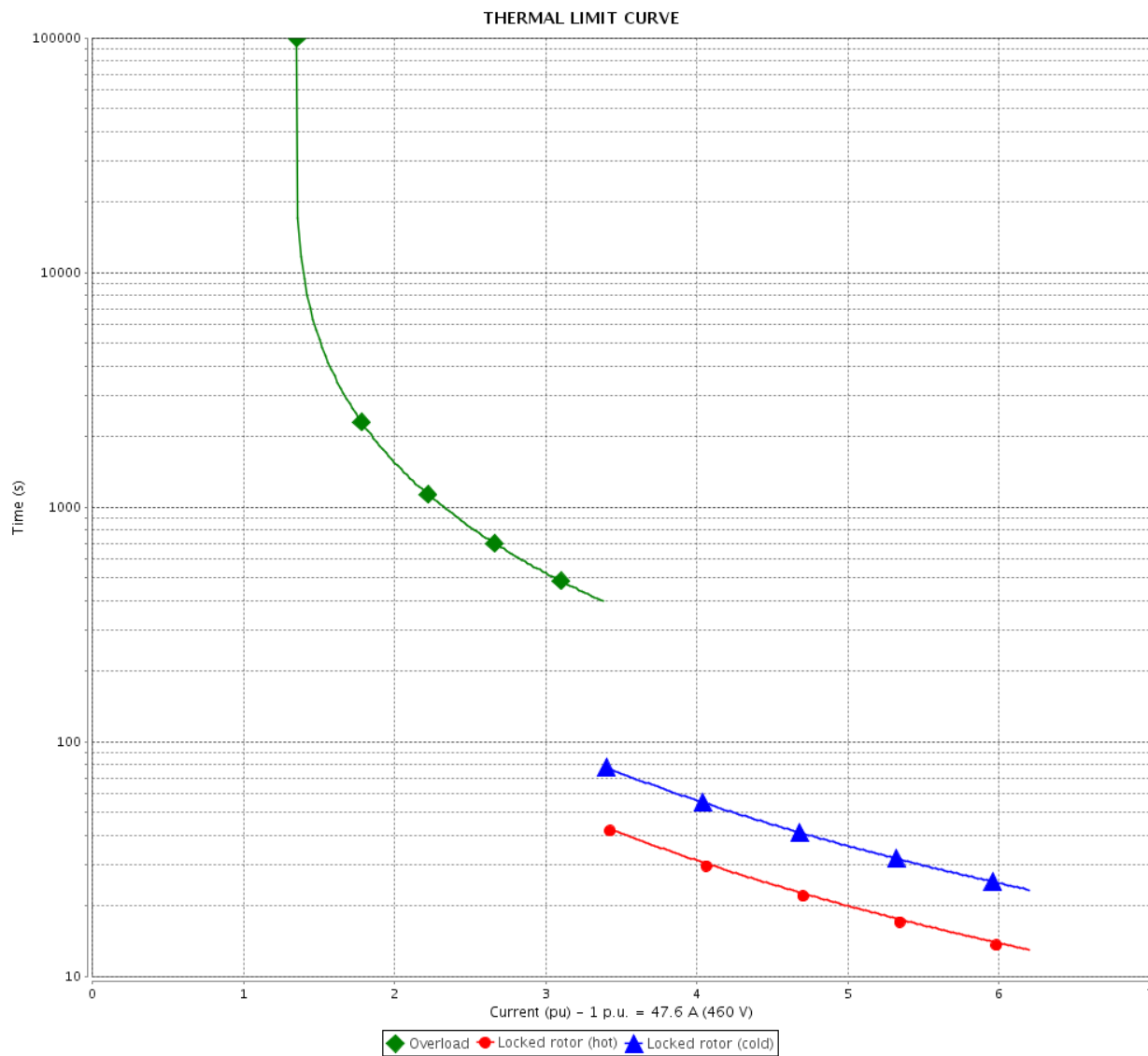
Revision

THERMAL LIMIT CURVE

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Customer : _____



Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 11 / 21	Revision
Checked by					
Date	11/04/2020				

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Rated current	: 43.3 A	Moment of inertia (J)	: 5.69 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 107 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1475 rpm	Design	: B

Heating constant

Cooling constant

Rev.

Changes Summary

Performed

Checked

Date

Performed by

Checked by

Date

11/04/2020

Page

12 / 21

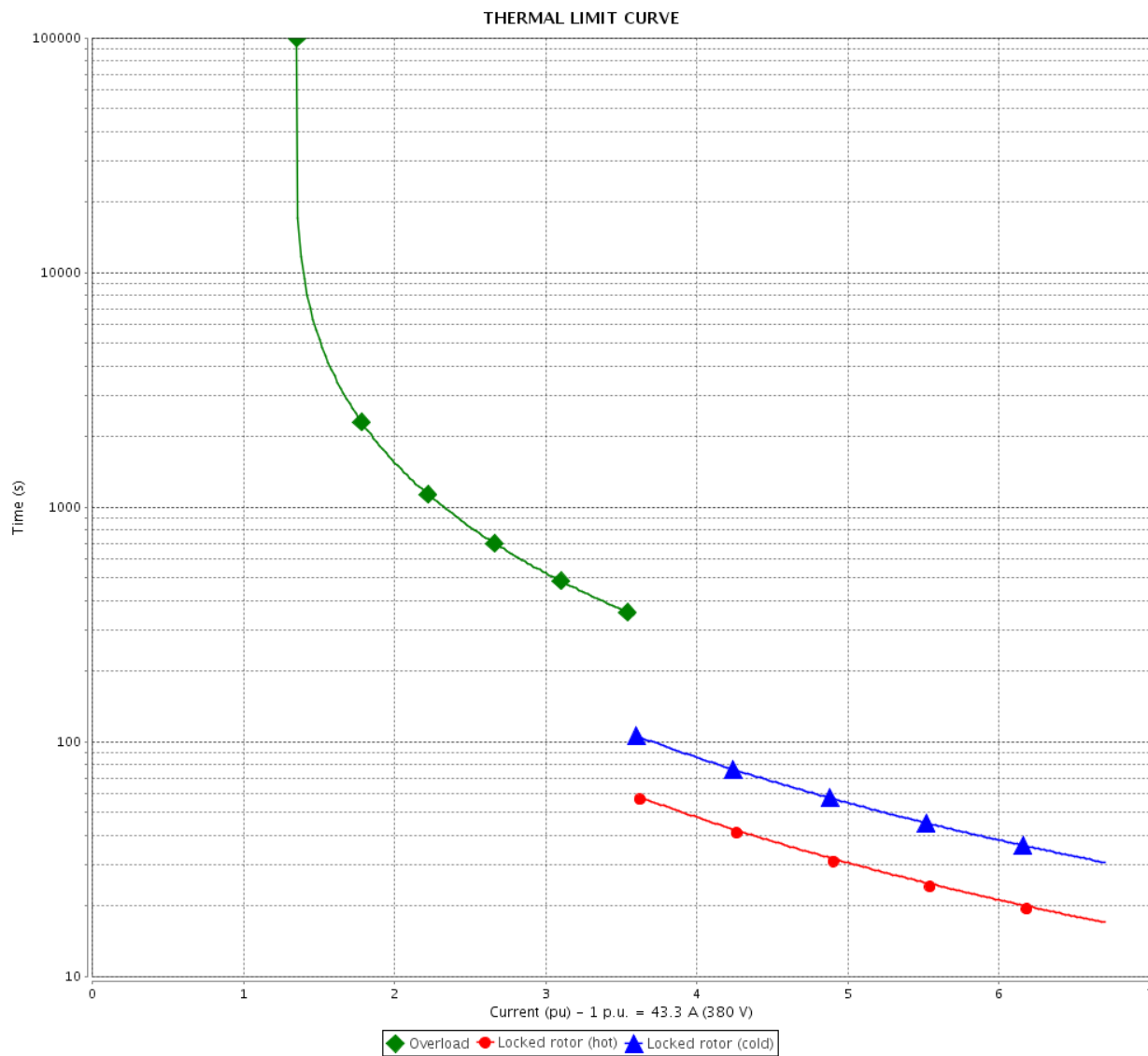
Revision

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Rev.	Changes Summary		Performed	Checked	Date
Performed by					
Checked by					
Date	11/04/2020				
			Page 13 / 21	Revision	

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Performance : 400 V 50 Hz 4P IE3

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LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 106 ft.lb	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

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Rev.

Changes Summary

Performed

Checked

Date

Performed by

Checked by

Date

11/04/2020

Page

14 / 21

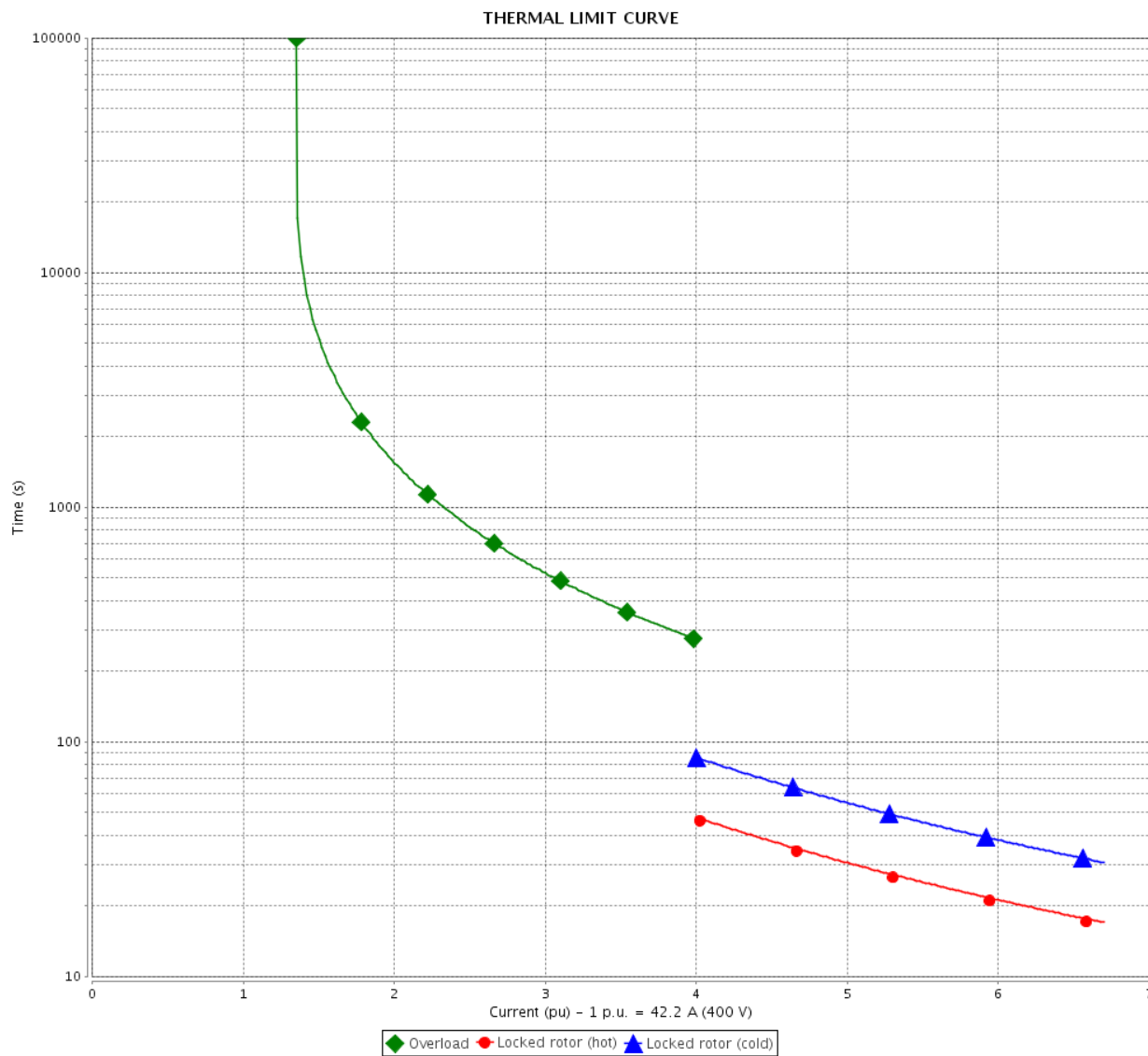
Revision

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Three Phase Induction Motor - Squirrel Cage



Customer : _____



Rev.	Changes Summary		Performed	Checked	Date
Performed by					
Checked by					
Date	11/04/2020				
			Page 15 / 21	Revision	

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Product code :

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Catalog # :

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Performance : 415 V 50 Hz 4P IE3

Rated current

: 41.7 A

LRC

: 7.5

Rated torque

: 106 ft.lb

Locked rotor torque

: 280 %

Breakdown torque

: 330 %

Rated speed

: 1480 rpm

Moment of inertia (J)

: 5.69 sq.ft.lb

Duty cycle

: Cont.(S1)

Insulation class

: F

Service factor

: 1.00

Temperature rise

: 80 K

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Rev.

Changes Summary

Performed

Checked

Date

Performed by

Checked by

Date

11/04/2020

Page

16 / 21

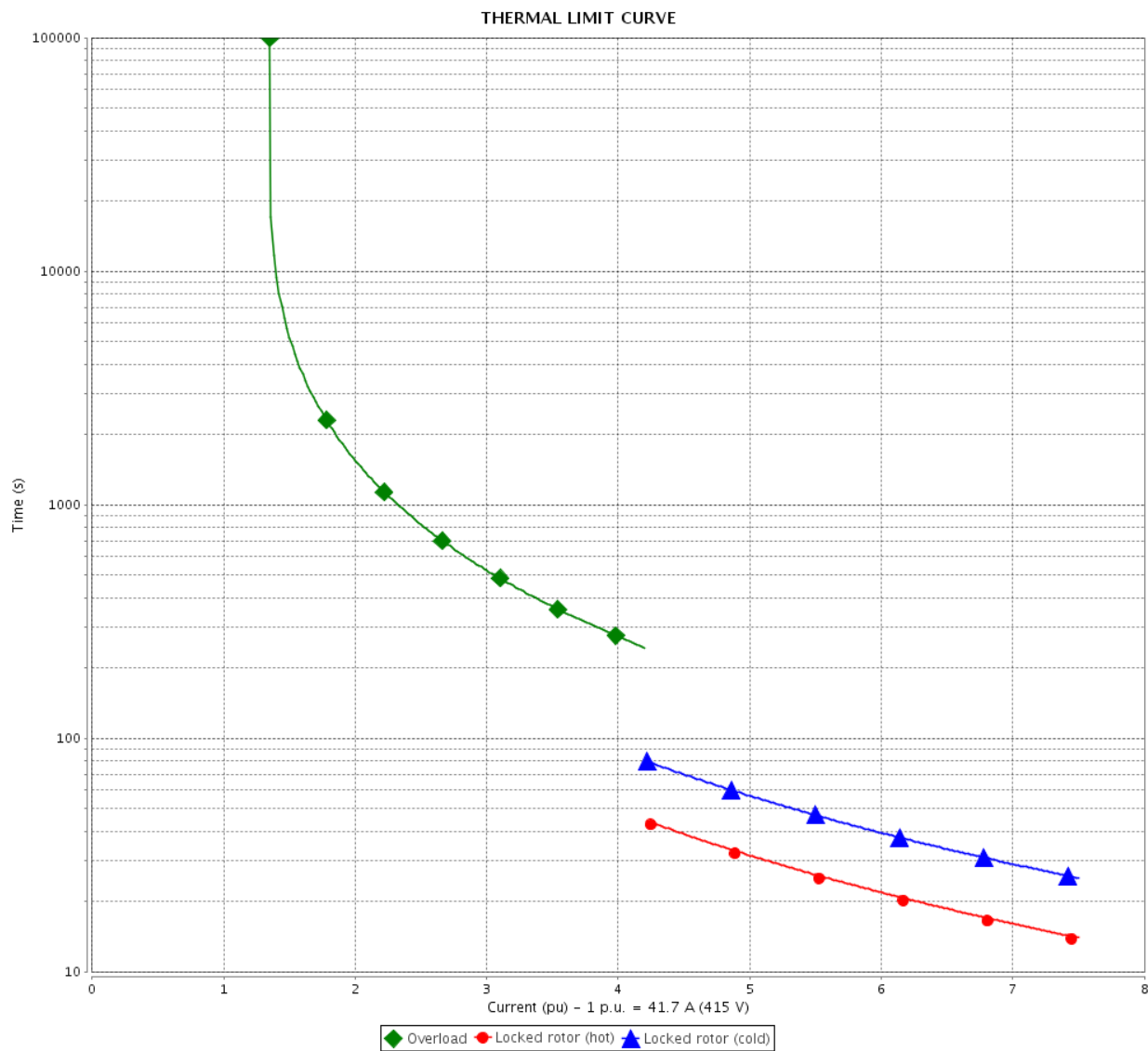
Revision

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Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 17 / 21	Revision
Checked by					
Date	11/04/2020				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



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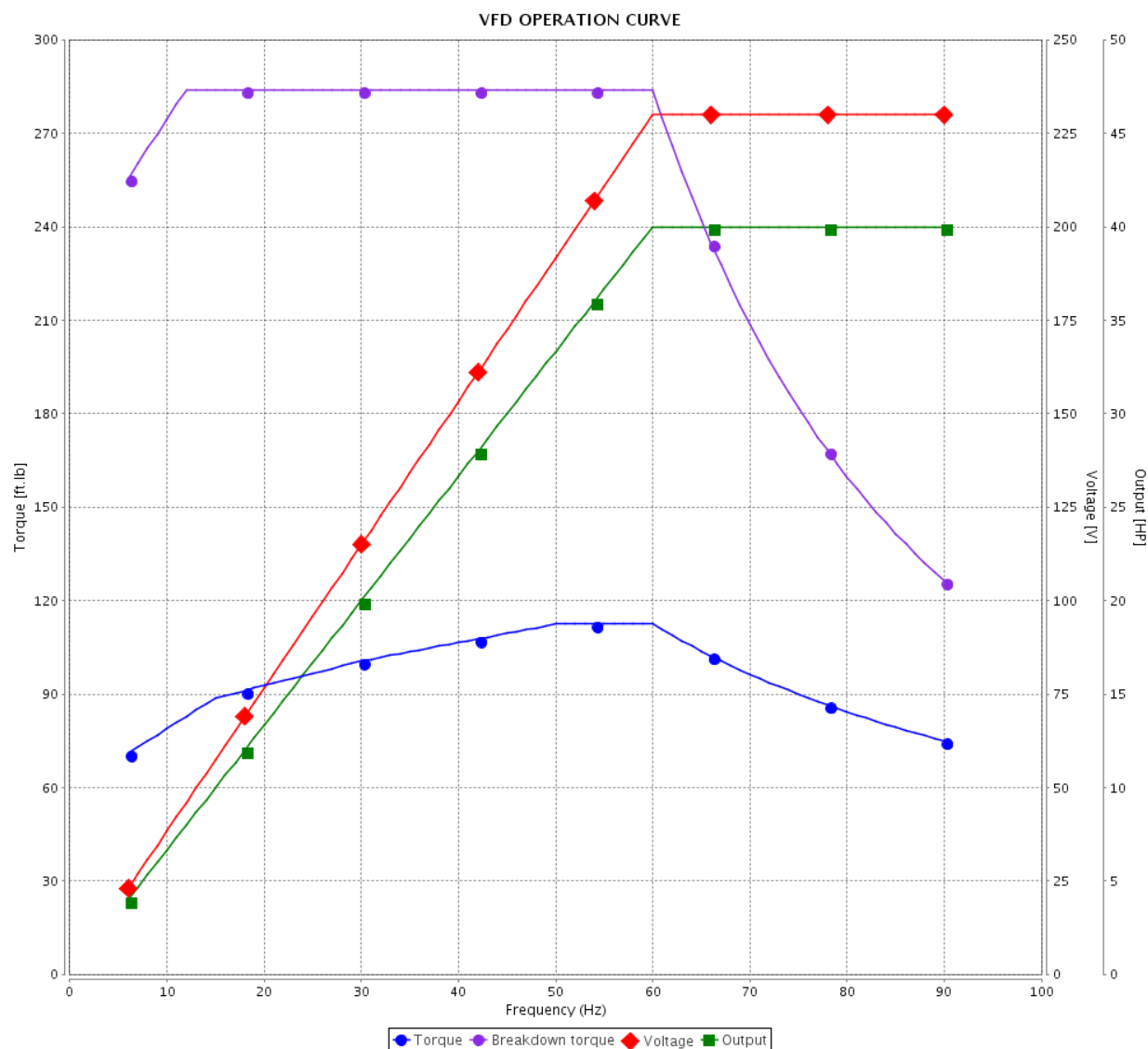
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Rated speed : 1775 rpm

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Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
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Rev.	Changes Summary	Performed	Checked	Date
Performed by				Page 18 / 21
Checked by				
Date				
	11/04/2020			Revision

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

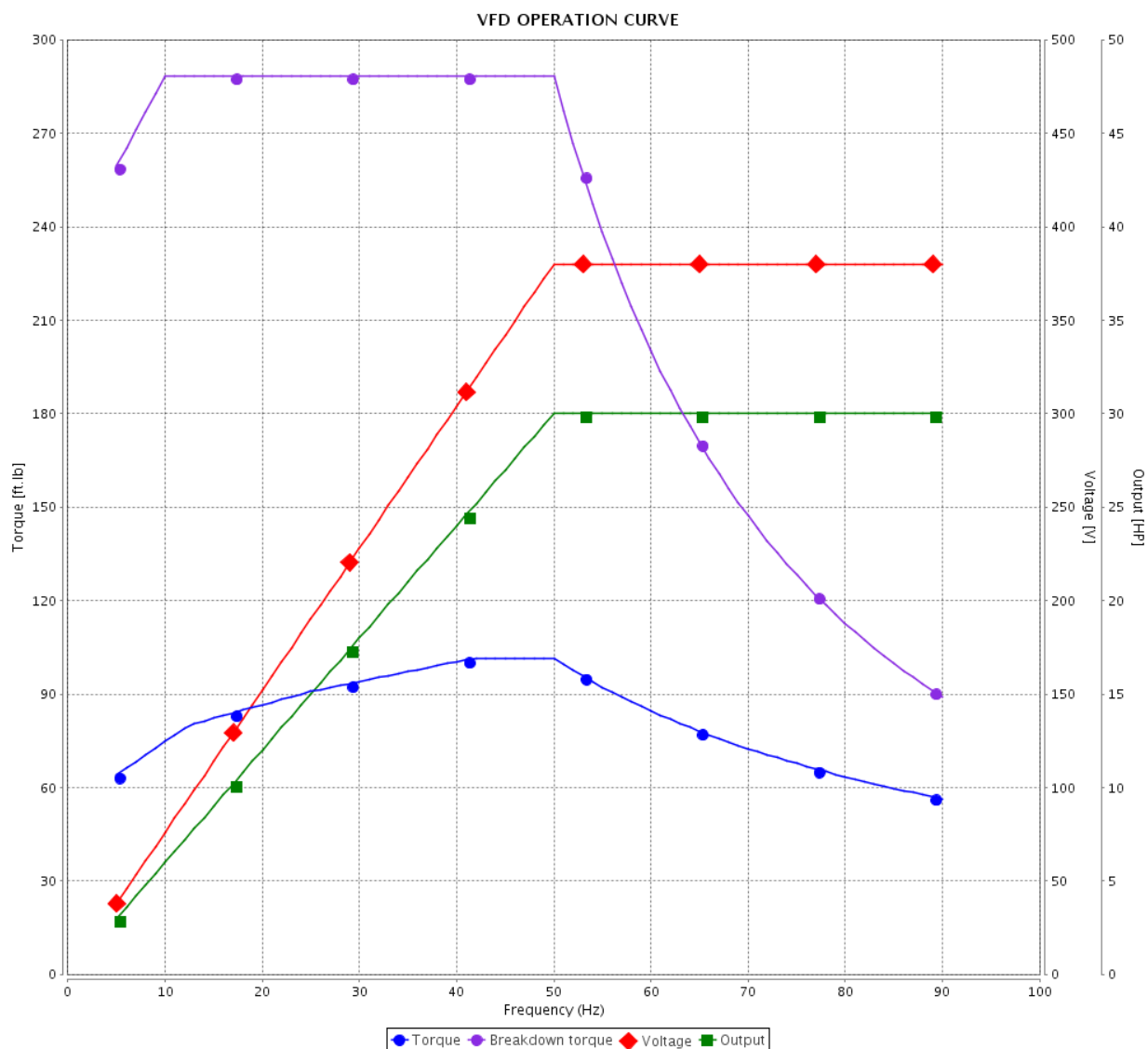


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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 19 / 21		
Checked by				
Date	11/04/2020			
		Revision		

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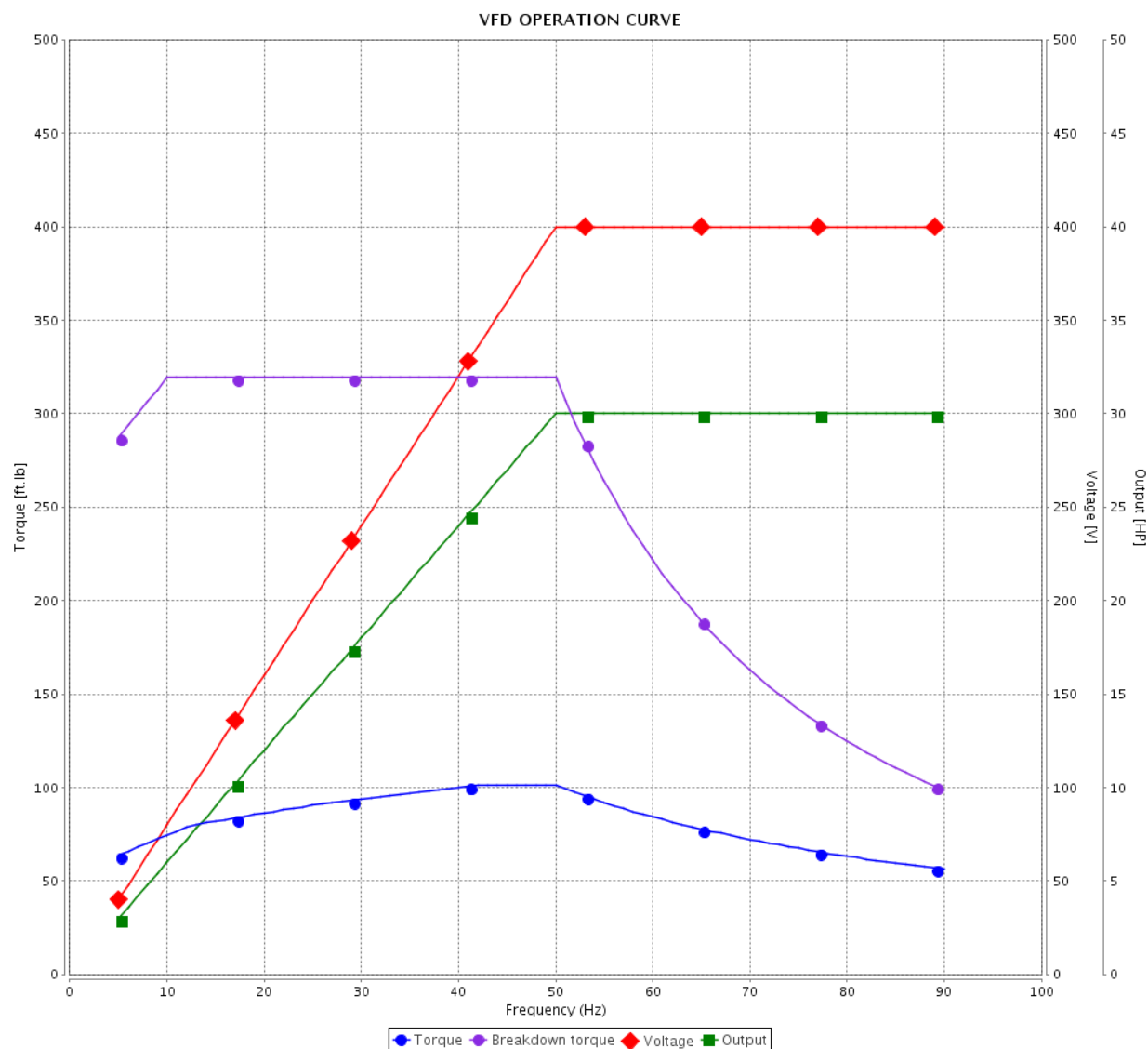


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Performed by		Page 20 / 21 Revision		
Checked by				
Date	11/04/2020			

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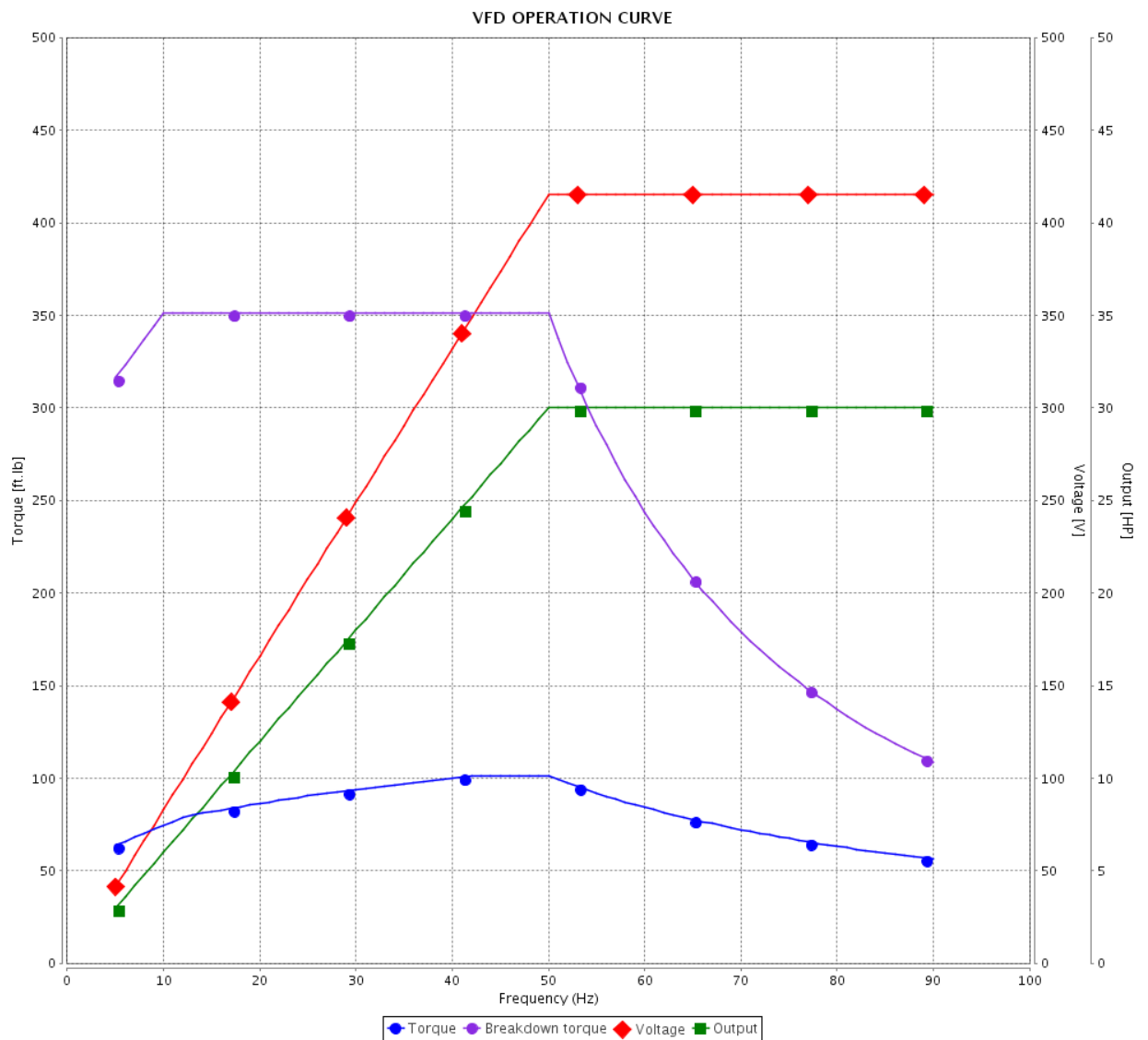


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Performed by		Page 21 / 21		
Checked by				
Date	11/04/2020			
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