

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase Product code : 14270659
Catalog # : 04012OT3E364T-W40

Frame : 364/5T	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 : 746 lb
Protection degree : IP23	Moment of inertia (J) : 21.8 sq.ft.lb
Design : B	

Output [HP]	40	30	30	30
Poles	6	6	6	6
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	94.2/47.1	42.7	41.0	40.0
L. R. Amperes [A]	603/301	295	287	320
LRC [A]	6.4x(Code G)	6.9x(Code H)	7.0x(Code H)	8.0x(Code J)
No load current [A]	31.6/15.8	15.6	16.7	17.6
Rated speed [RPM]	1185	985	985	985
Slip [%]	1.25	1.50	1.50	1.50
Rated torque [ft.lb]	177	160	160	160
Locked rotor torque [%]	200	200	229	250
Breakdown torque [%]	229	260	290	310
Service factor	1.25	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	39s (cold) 22s (hot)	45s (cold) 25s (hot)	50s (cold) 28s (hot)	41s (cold) 23s (hot)
Noise level ²	68.0 dB(A)			
Efficiency (%)	25%	93.5	91.7	91.7
	50%	93.6	91.8	91.8
	75%	94.1	92.2	92.2
	100%	94.1	92.2	92.2
Power Factor	25%	0.49	0.47	0.43
	50%	0.74	0.72	0.69
	75%	0.82	0.82	0.79
	100%	0.85	0.85	0.84

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6314 C3	6212 Z C3	Max. traction : 1326 lb
Sealing :	Without	Without	Max. compression : 2072 lb
	Bearing Seal	Bearing Seal	
Lubrication interval :	20000 h	20000 h	
Lubricant amount :	27 g	13 g	
Lubricant type :	Mobil Polyrex EM		

Notes
USABLE @208V 104A SF 1.15 SFA 120A

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

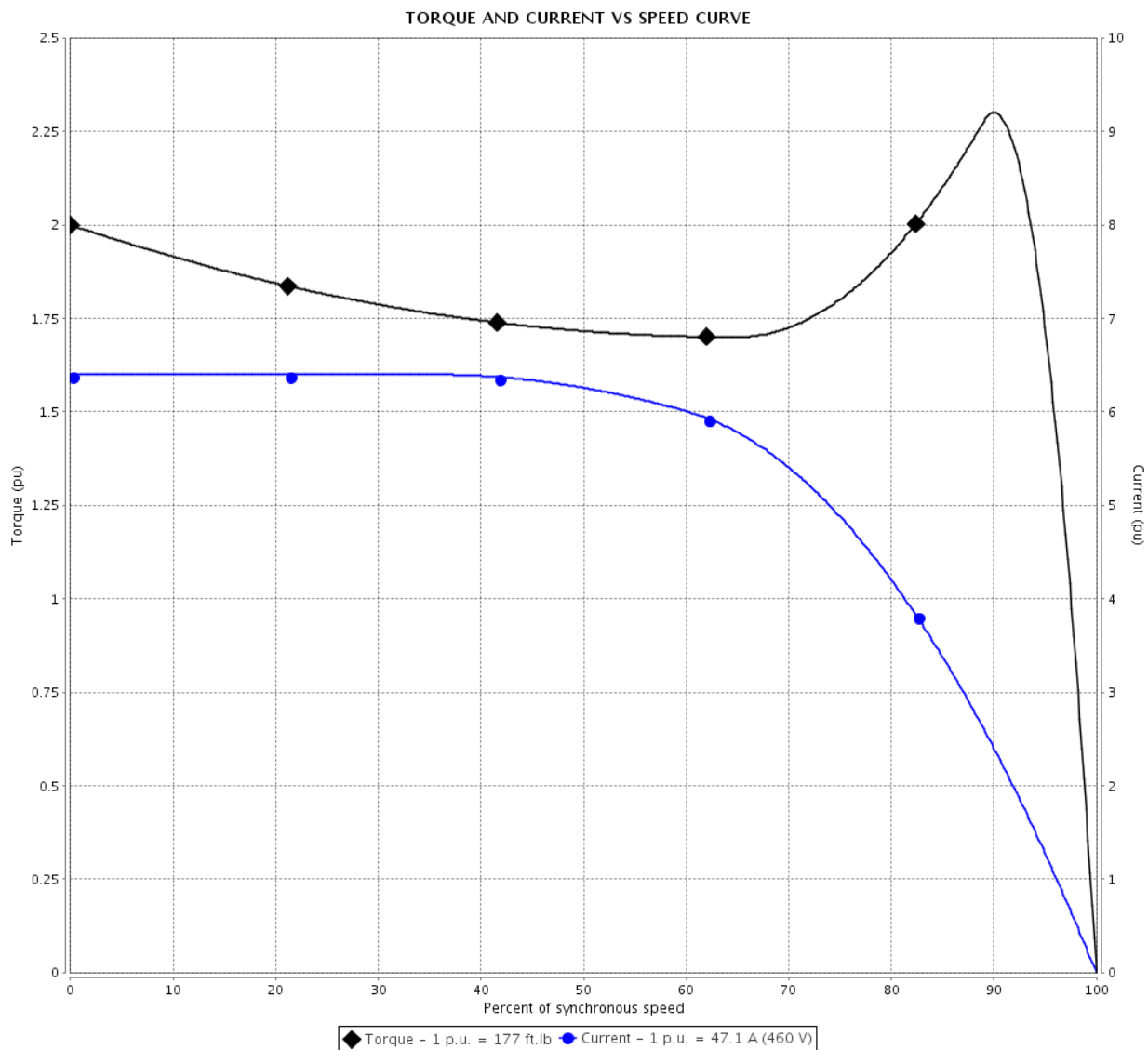


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14270659

Catalog # : 040120T3E364T-W40



Performance : 230/460 V 60 Hz 6P

Rated current : 94.2/47.1 A
LRC : 6.4
Rated torque : 177 ft.lb
Locked rotor torque : 200 %
Breakdown torque : 229 %
Rated speed : 1185 rpm

Moment of inertia (J) : 21.8 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Locked rotor time : 39s (cold) 22s (hot)

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

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Three Phase Induction Motor - Squirrel Cage

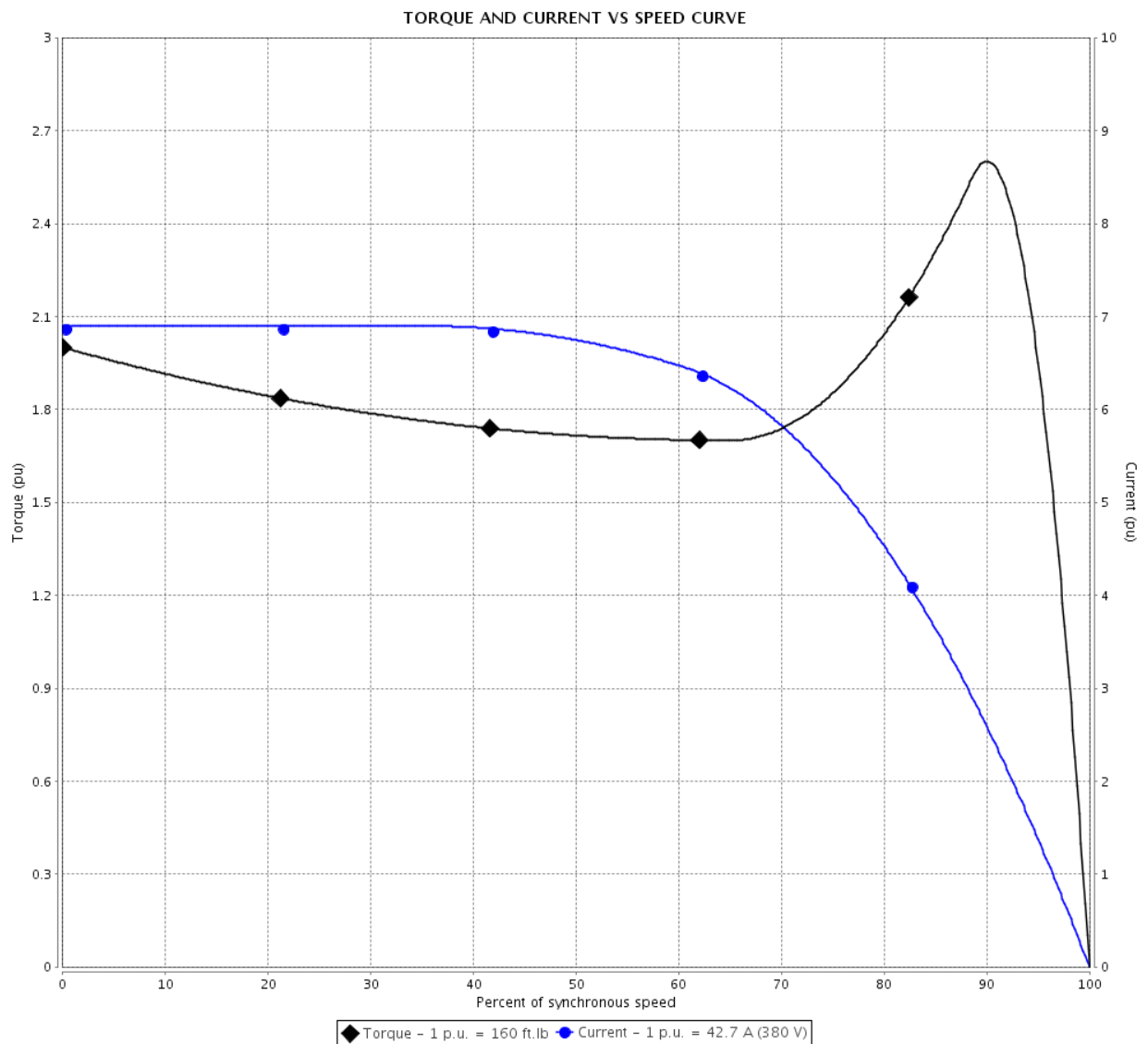


Customer :

Product line : W40 NEMA Premium Efficiency
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Product code : 14270659

Catalog # : 04012OT3E364T-W40



Performance : 380 V 50 Hz 6P IE3

Rated current	: 42.7 A	Moment of inertia (J)	: 21.8 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 160 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

Locked rotor time : 45s (cold) 25s (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

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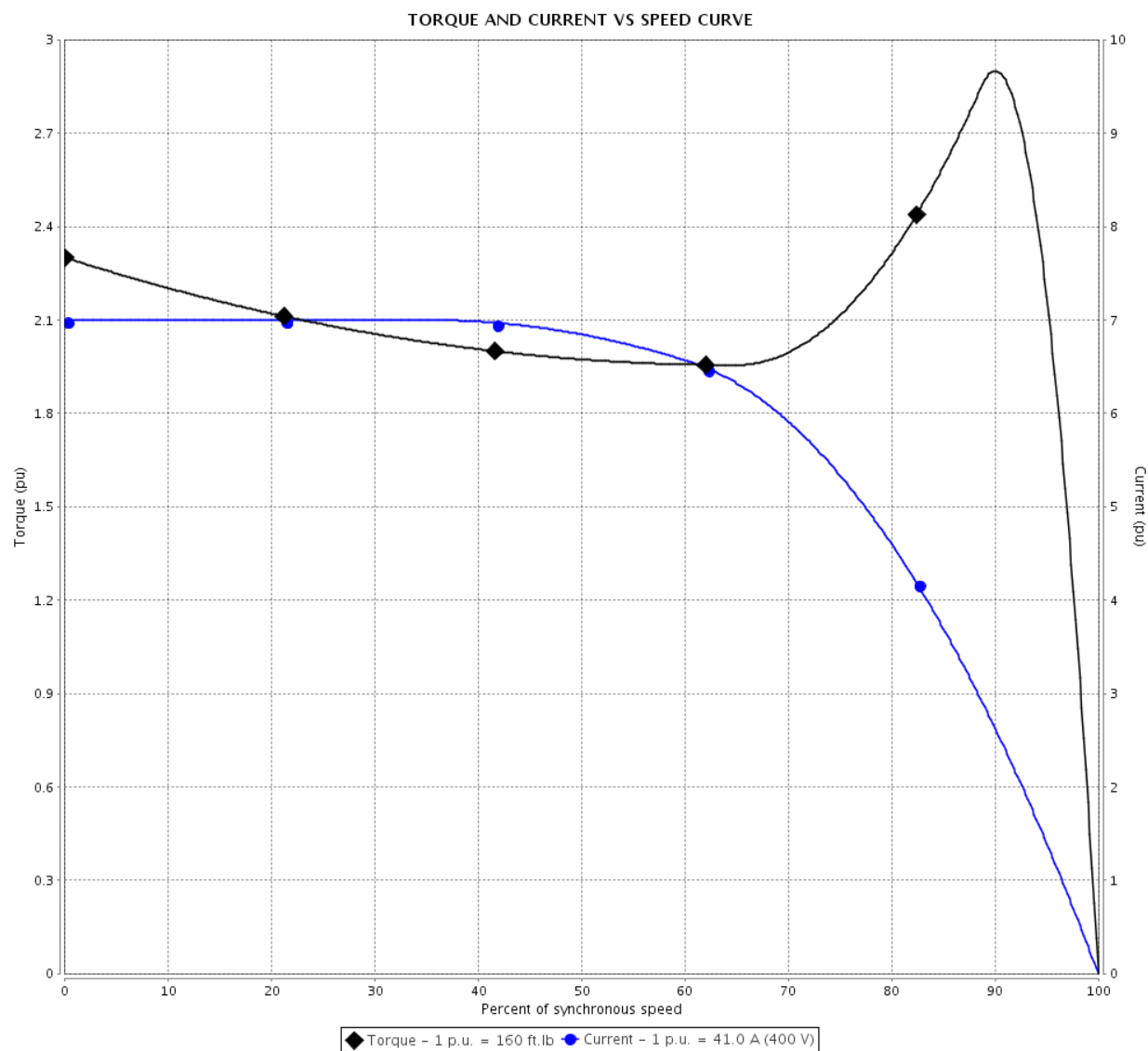


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14270659

Catalog # : 040120T3E364T-W40



Performance : 400 V 50 Hz 6P IE3

Rated current : 41.0 A
LRC : 7.0
Rated torque : 160 ft.lb
Locked rotor torque : 229 %
Breakdown torque : 290 %
Rated speed : 985 rpm

Moment of inertia (J) : 21.8 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

Locked rotor time : 50s (cold) 28s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 4 / 21Revision		
Checked by				
Date	11/04/2020			

TORQUE AND CURRENT VS SPEED CURVE

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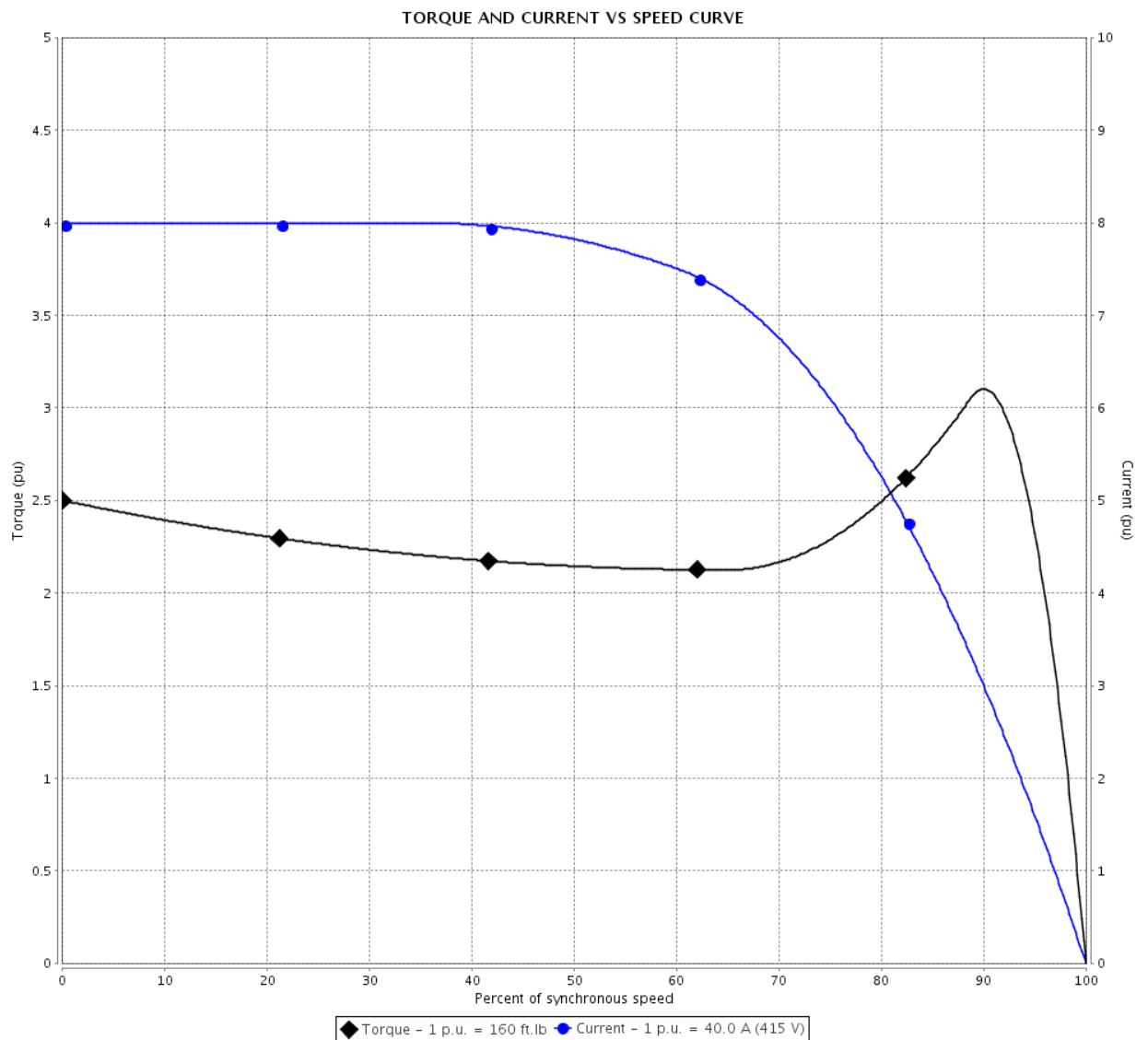


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Performance : 415 V 50 Hz 6P IE3

Rated current	: 40.0 A	Moment of inertia (J)	: 21.8 sq.ft.lb
LRC	: 8.0	Duty cycle	: Cont.(S1)
Rated torque	: 160 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

Locked rotor time : 41s (cold) 23s (hot)

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

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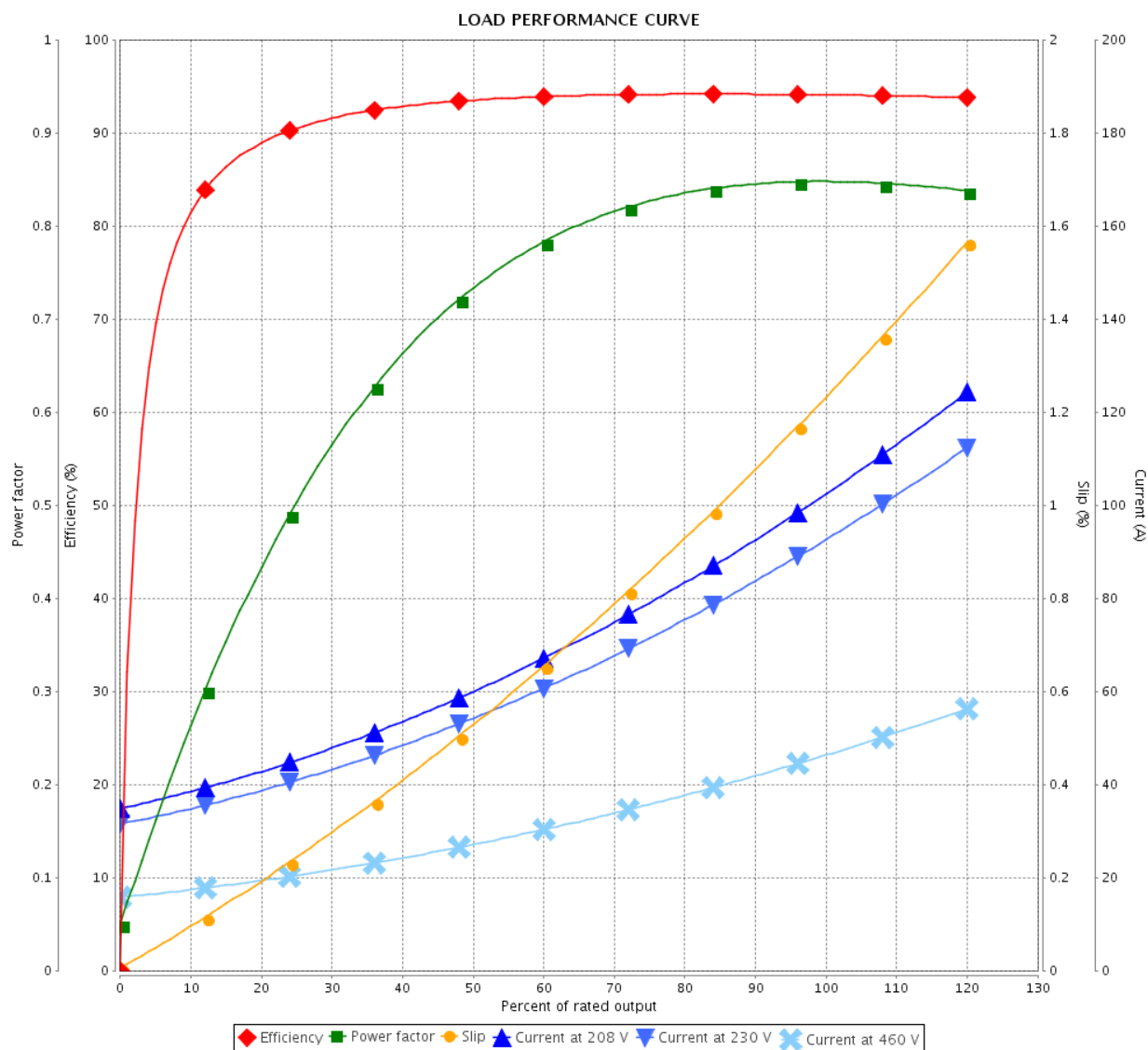


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Performance : 230/460 V 60 Hz 6P

Rated current : 94.2/47.1 A
LRC : 6.4
Rated torque : 177 ft.lb
Locked rotor torque : 200 %
Breakdown torque : 229 %
Rated speed : 1185 rpm

Moment of inertia (J) : 21.8 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 6 / 21	Revision
Checked by					
Date	11/04/2020				

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

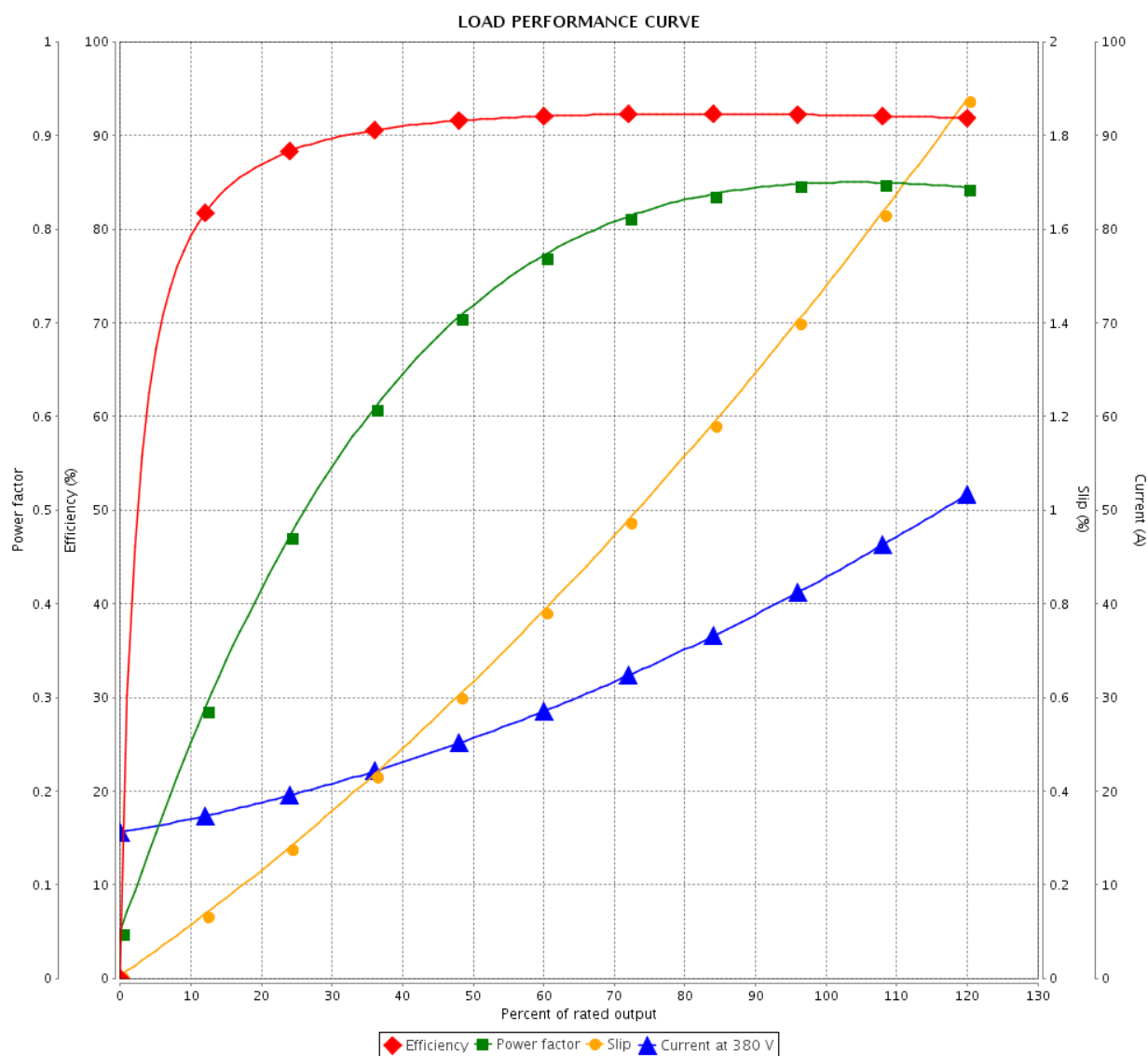


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Rated current	: 42.7 A	Moment of inertia (J)	: 21.8 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 160 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

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

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

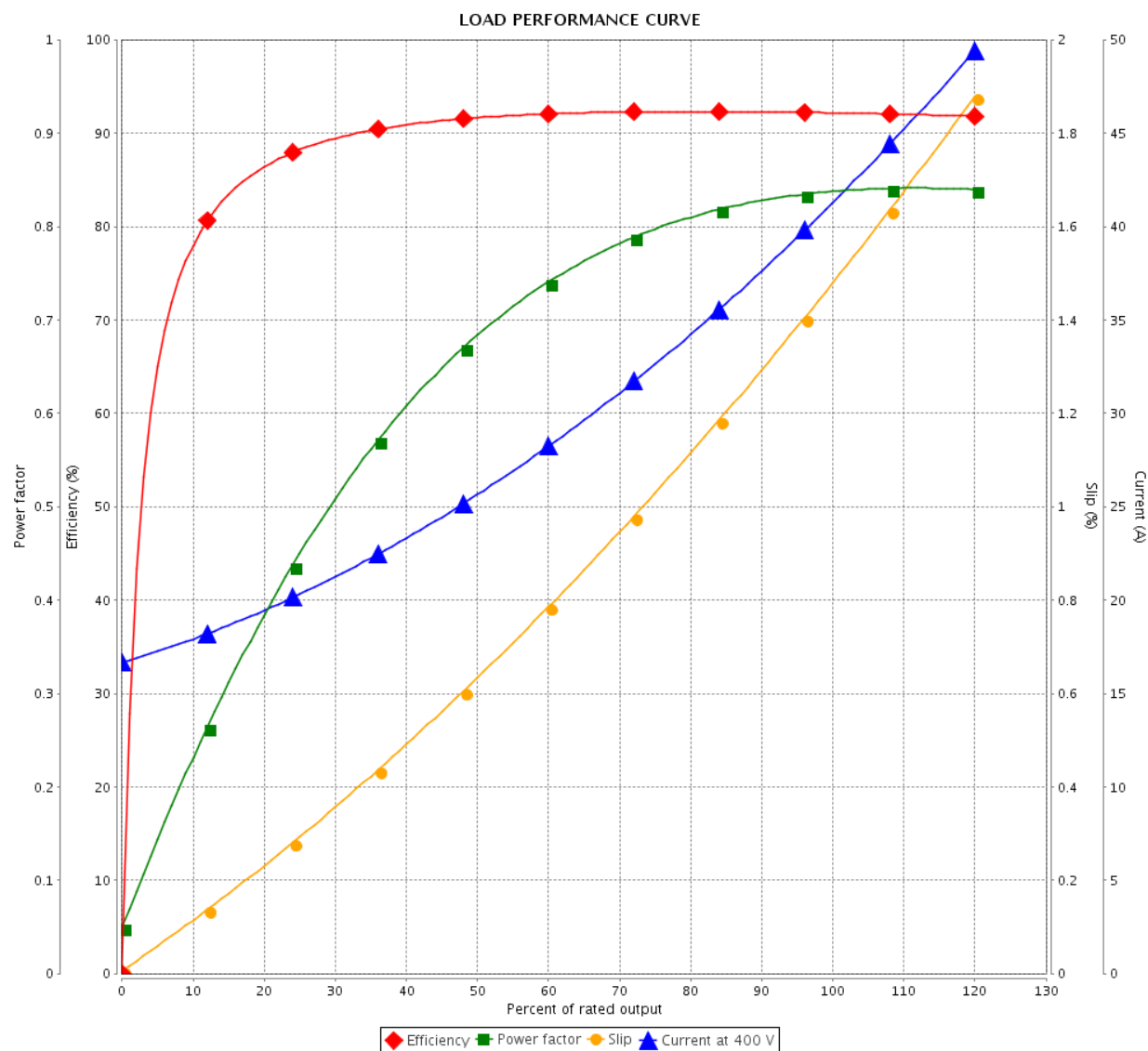


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Performance : 400 V 50 Hz 6P IE3

Rated current : 41.0 A
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Breakdown torque : 290 %
Rated speed : 985 rpm

Moment of inertia (J) : 21.8 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 8 / 21Revision	
Checked by					
Date	11/04/2020				

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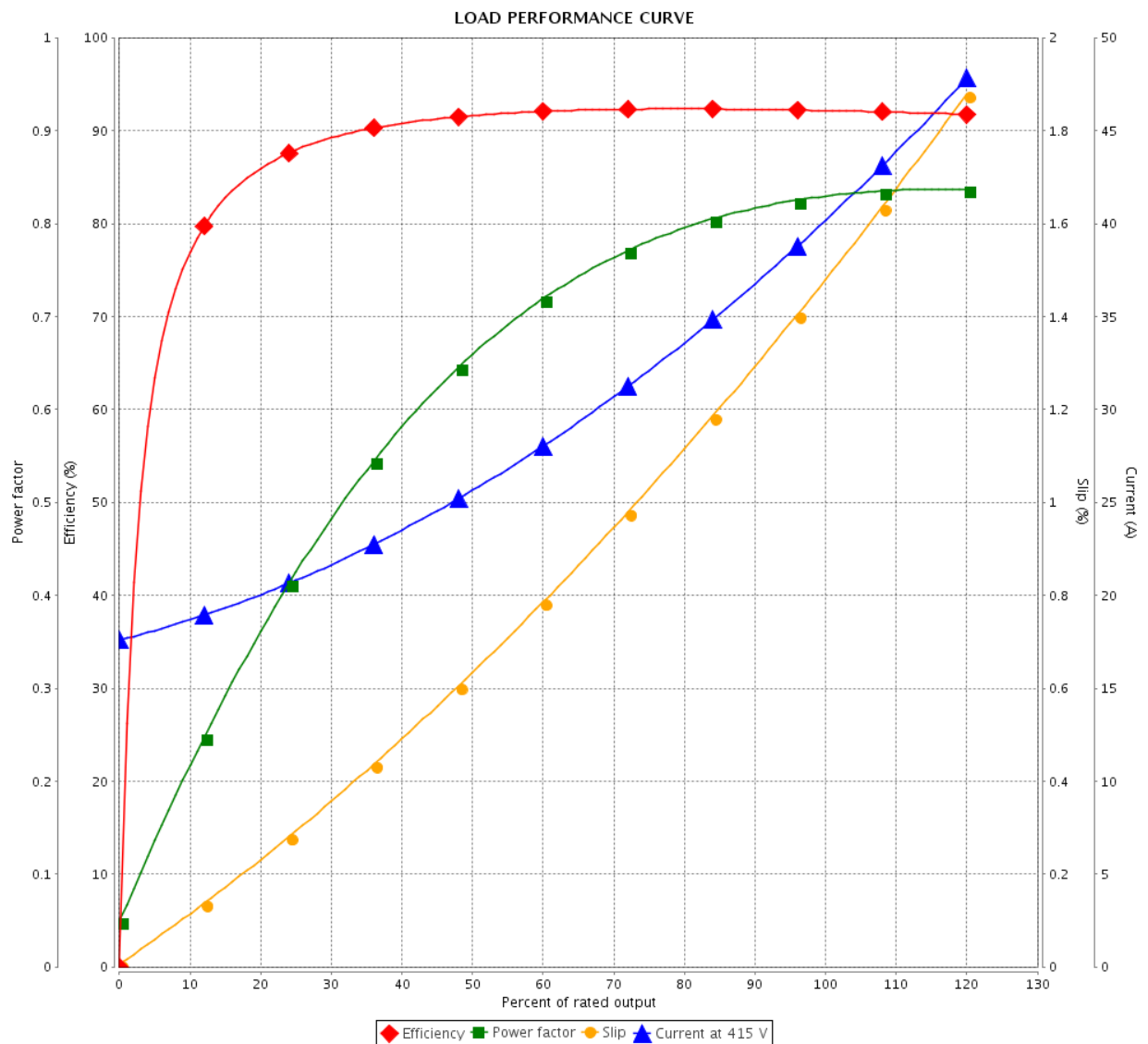


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Service factor : 1.00
Temperature rise : 80 K
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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 9 / 21		
Checked by				
Date	11/04/2020			
			Revision	

THERMAL LIMIT CURVE

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Rated speed : 1185 rpm

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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

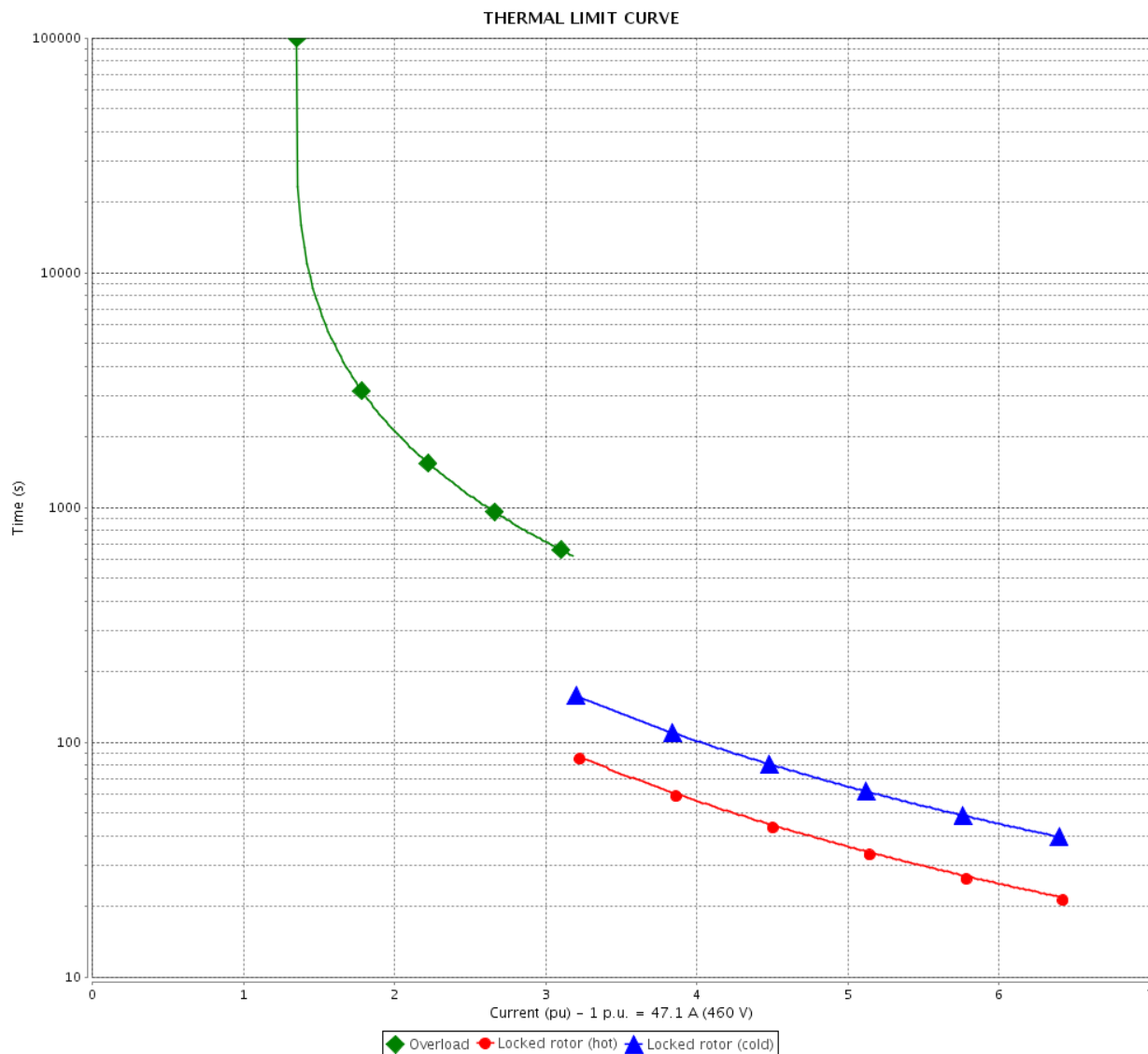
Revision

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 torque	: 160 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

Heating constant

Cooling constant

Rev.

Changes Summary

Performed

Checked

Date

Performed by

Checked by

Date

11/04/2020

Page

12 / 21

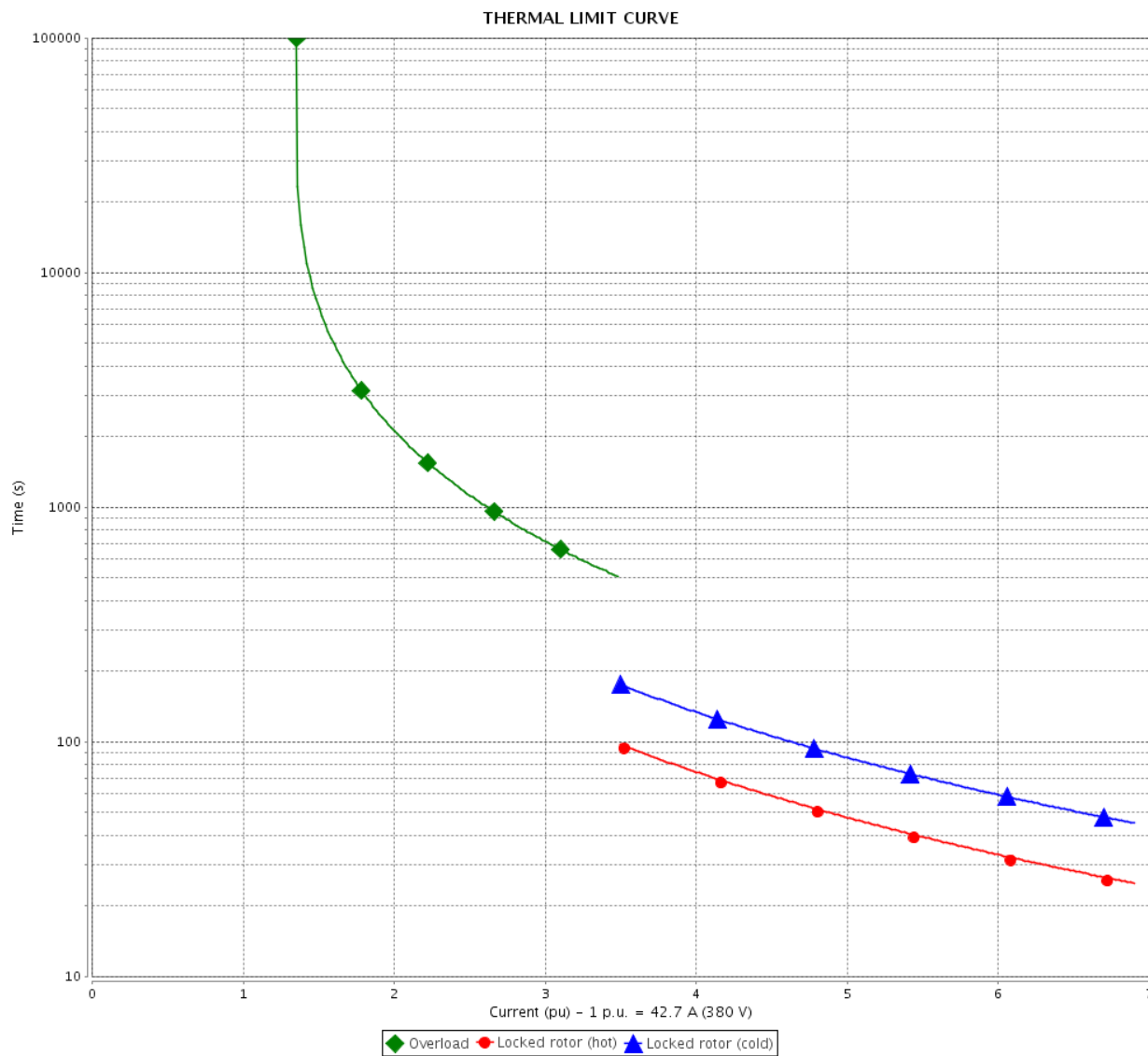
Revision

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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

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Performance : 400 V 50 Hz 6P IE3

Rated current

: 41.0 A

LRC

: 7.0

Rated torque

: 160 ft.lb

Locked rotor torque

: 229 %

Breakdown torque

: 290 %

Rated speed

: 985 rpm

Moment of inertia (J)

: 21.8 sq.ft.lb

Duty cycle

: Cont.(S1)

Insulation class

: F

Service factor

: 1.00

Temperature rise

: 80 K

Design

: B

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Rev.

Changes Summary

Performed

Checked

Date

Performed by

Checked by

Date

11/04/2020

Page

14 / 21

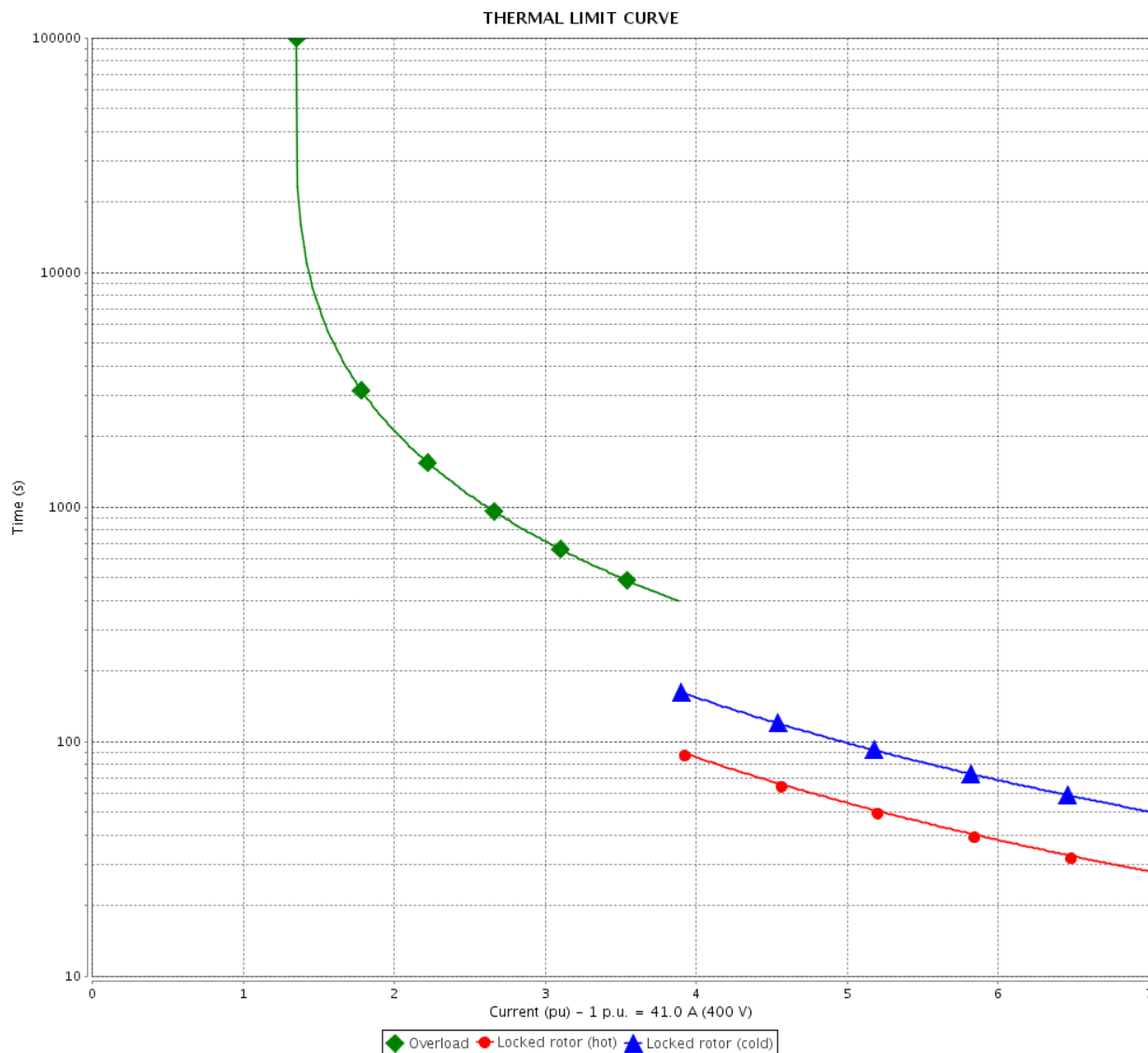
Revision

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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

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Performance : 415 V 50 Hz 6P IE3

Rated current	: 40.0 A	Moment of inertia (J)	: 21.8 sq.ft.lb
LRC	: 8.0	Duty cycle	: Cont.(S1)
Rated torque	: 160 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

Heating constant

Cooling constant

Rev.

Changes Summary

Performed

Checked

Date

Performed by

Checked by

Date

11/04/2020

Page

16 / 21

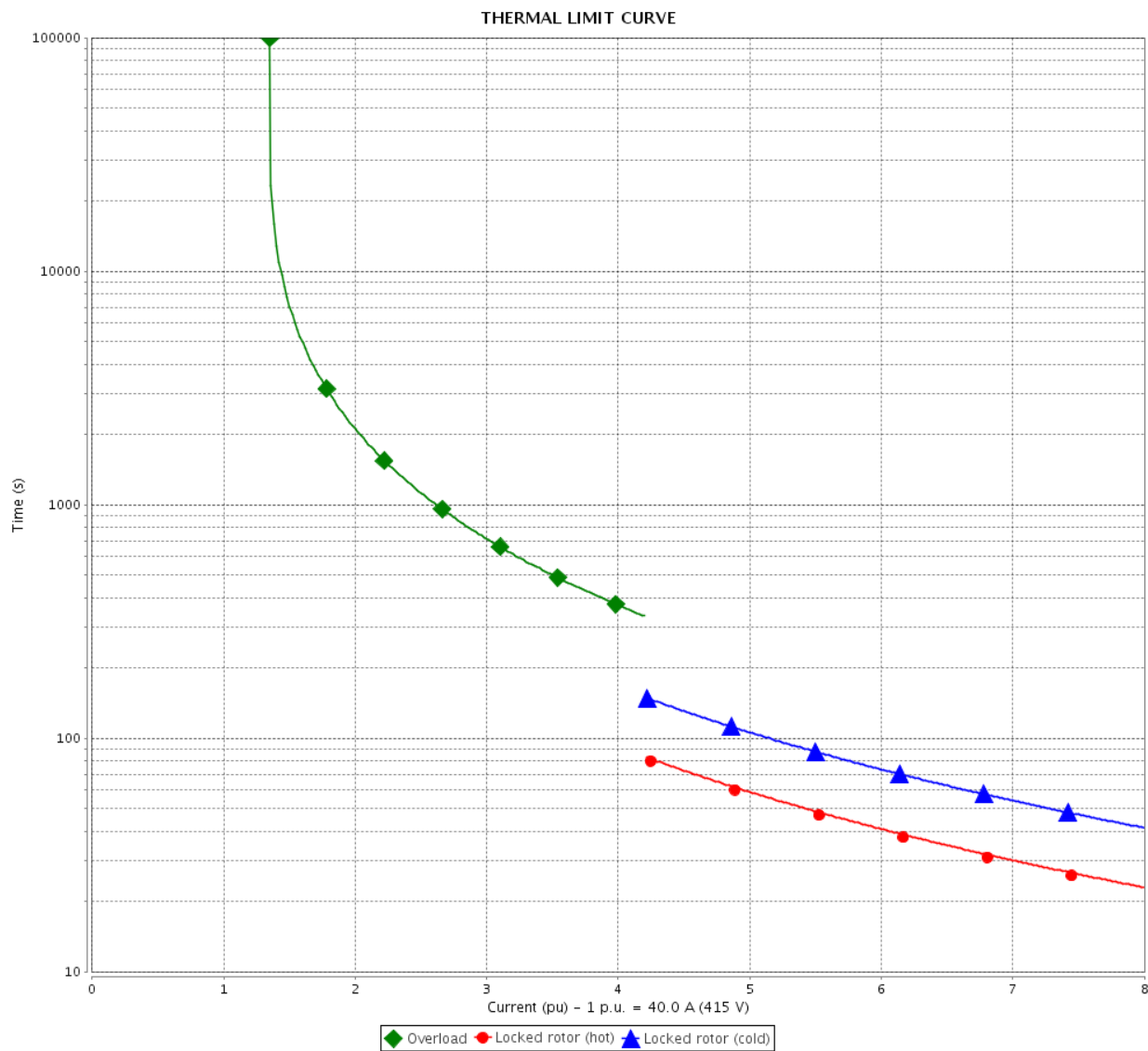
Revision

THERMAL LIMIT CURVE

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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

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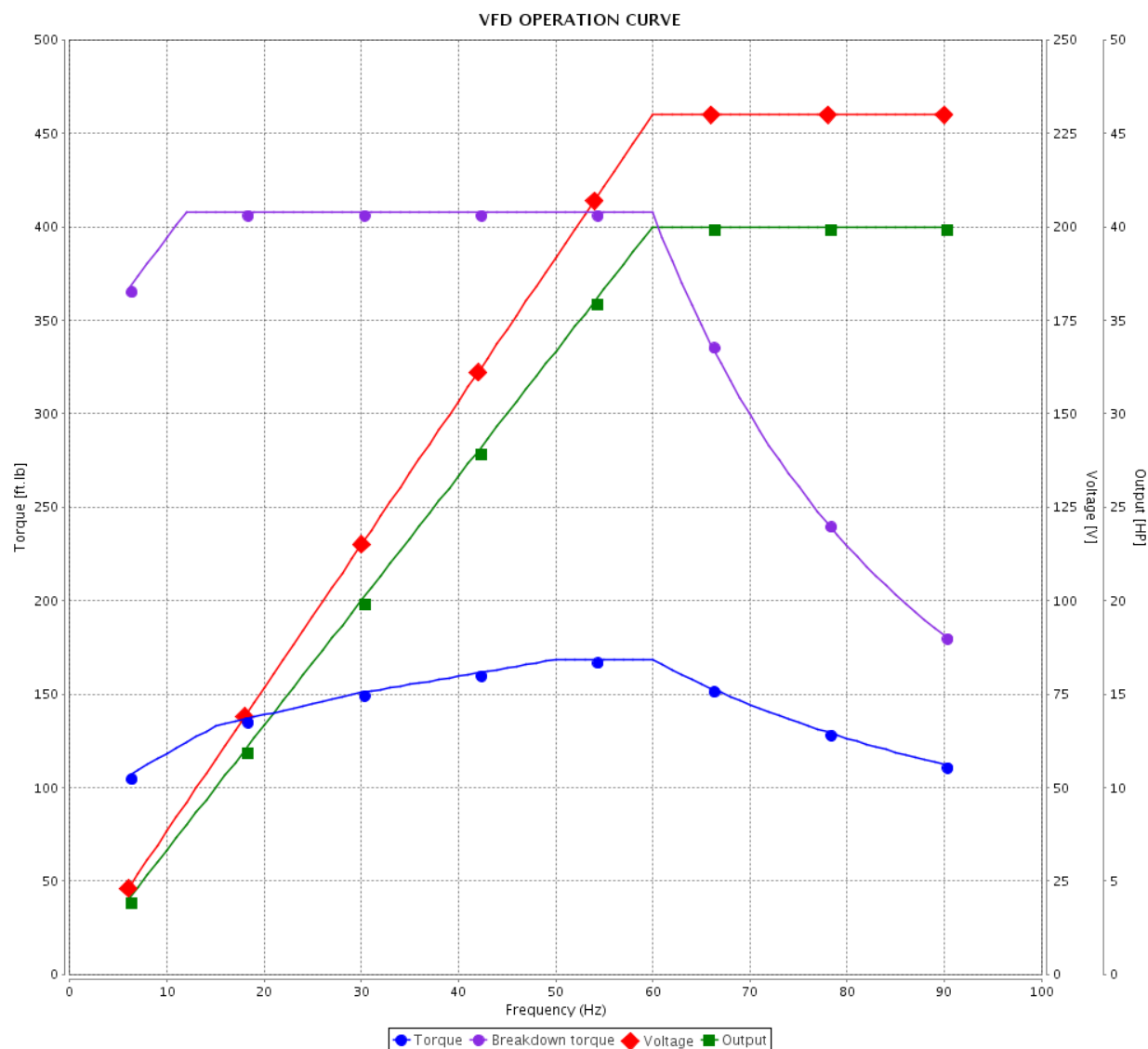


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Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by			18 / 21	
Date				

VFD OPERATION CURVE

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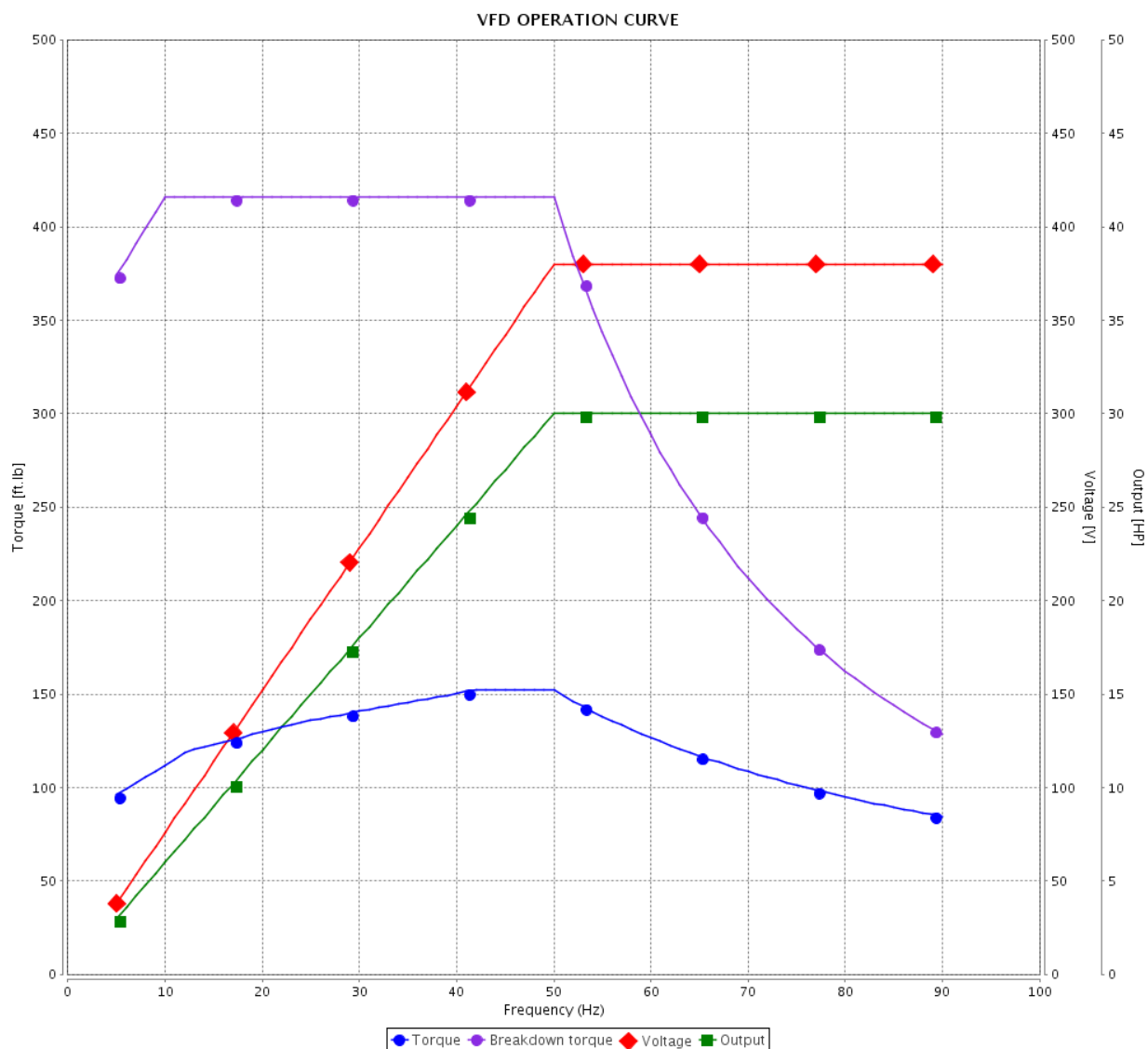


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Performance : 380 V 50 Hz 6P IE3

Rated current : 42.7 A
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Locked rotor torque : 200 %
Breakdown torque : 260 %
Rated speed : 985 rpm

Moment of inertia (J) : 21.8 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
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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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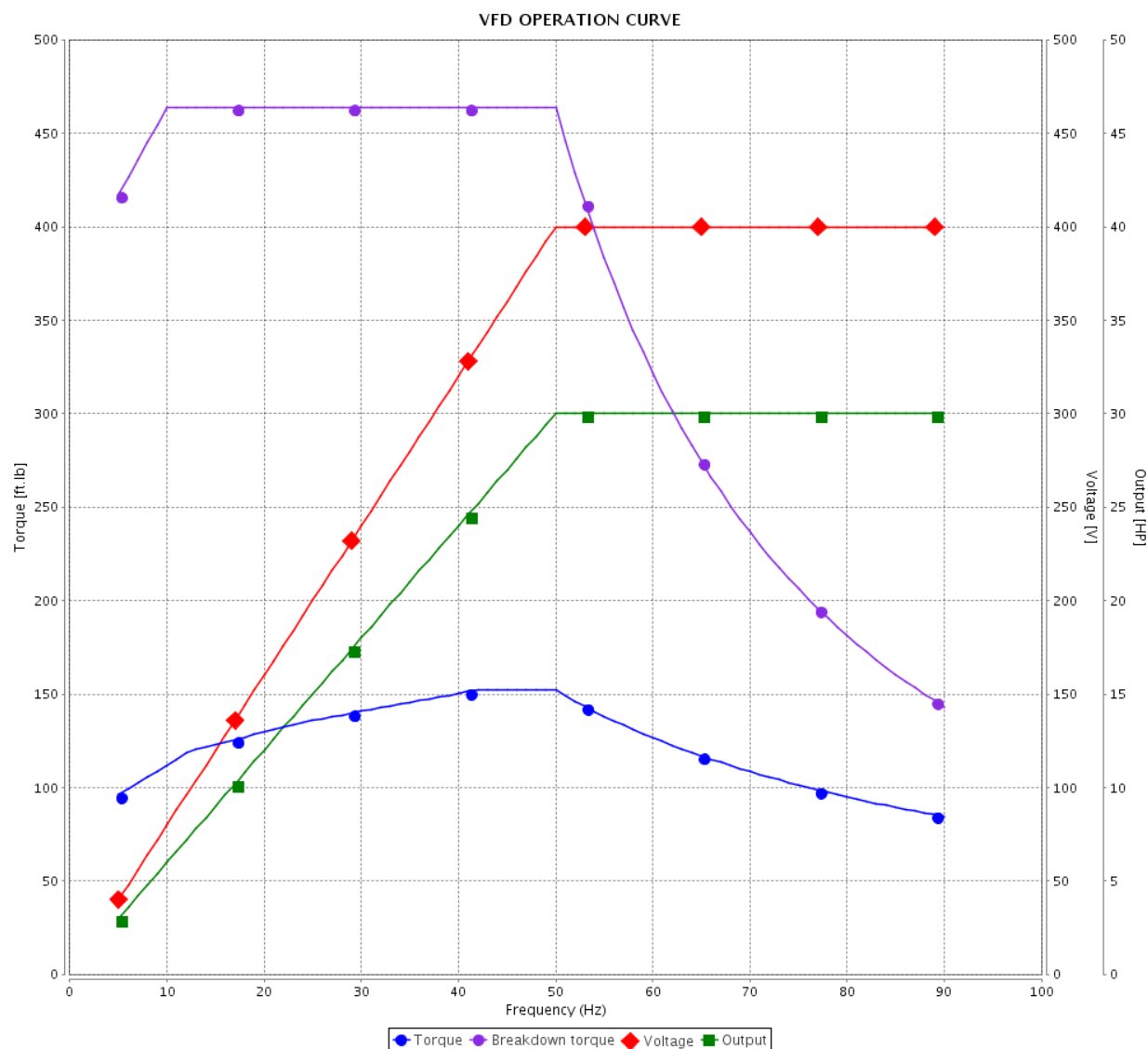


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Rev.	Changes Summary	Performed	Checked	Date
Performed by				Page 20 / 21
Checked by				
Date				
	11/04/2020			Revision

VFD OPERATION CURVE

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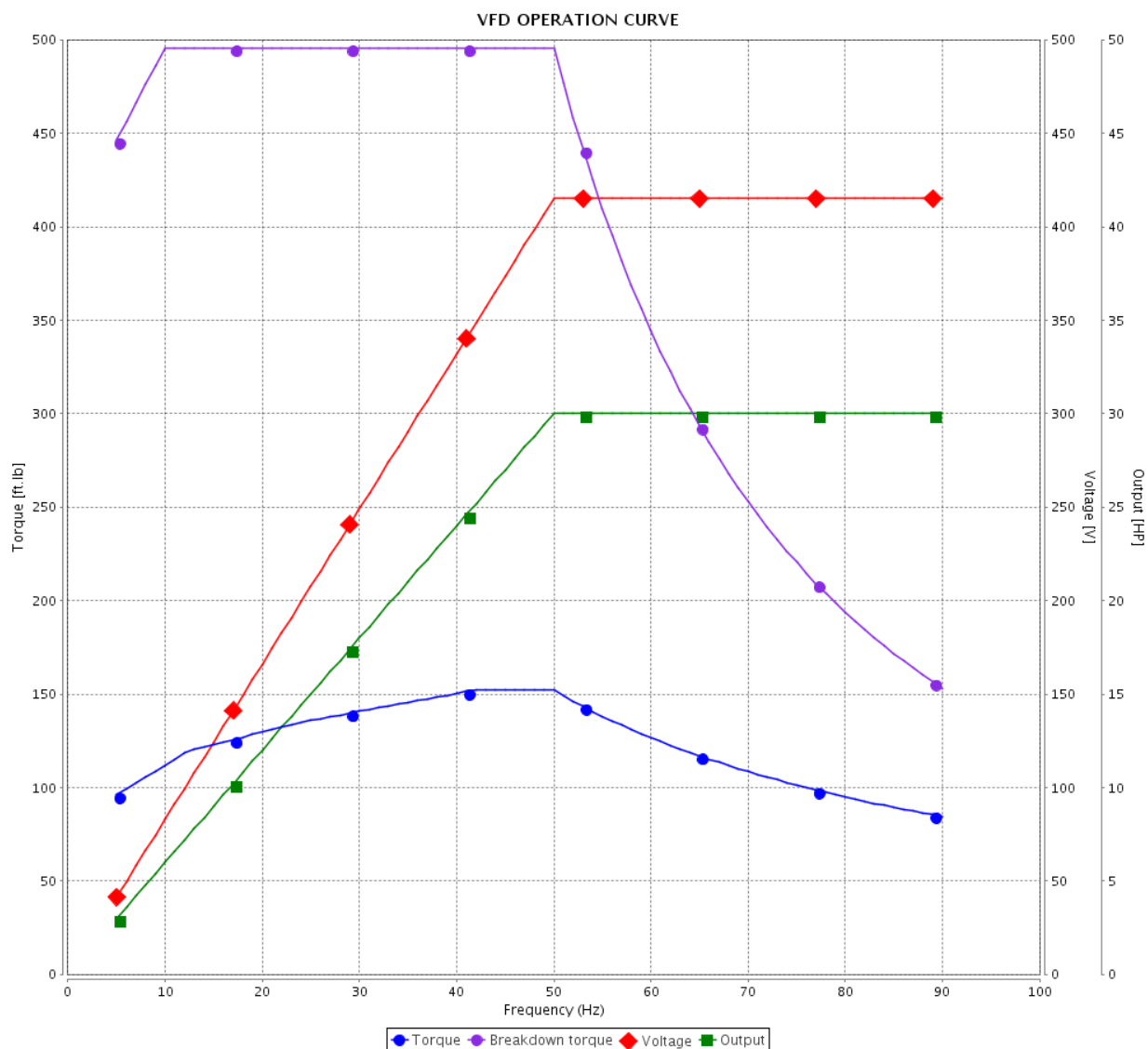


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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 21 / 21		
Checked by				
Date	11/04/2020			
		Revision		