

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase Product code : 14486420
Catalog # : 03012OT3E326JP-W40

Frame : 324/6JP	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 : 531 lb
Protection degree : IP23	Moment of inertia (J) : 9.56 sq.ft.lb
Design : B	

Output [HP]	30	25	25	25
Poles	6	6	6	6
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	72.0/36.0	36.5	35.5	34.6
L. R. Amperes [A]	454/227	223	238	235
LRC [A]	6.3x(Code G)	6.1x(Code G)	6.7x(Code H)	6.8x(Code H)
No load current [A]	29.6/14.8	14.6	15.8	16.8
Rated speed [RPM]	1182	980	980	980
Slip [%]	1.50	2.00	2.00	2.00
Rated torque [ft.lb]	133	134	134	134
Locked rotor torque [%]	200	160	180	200
Breakdown torque [%]	240	229	260	280
Service factor	1.25	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	30s (cold) 17s (hot)	25s (cold) 14s (hot)	23s (cold) 13s (hot)	23s (cold) 13s (hot)
Noise level ²	62.0 dB(A)			
Efficiency (%)	25%	91.7	91.2	91.4
	50%	92.4	91.4	91.6
	75%	93.0	91.8	91.8
	100%	93.6	91.8	91.8
Power Factor	25%	0.44	0.44	0.38
	50%	0.70	0.70	0.63
	75%	0.79	0.80	0.75
	100%	0.82	0.84	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 79.6A SF 1.15 SFA 91.6A

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

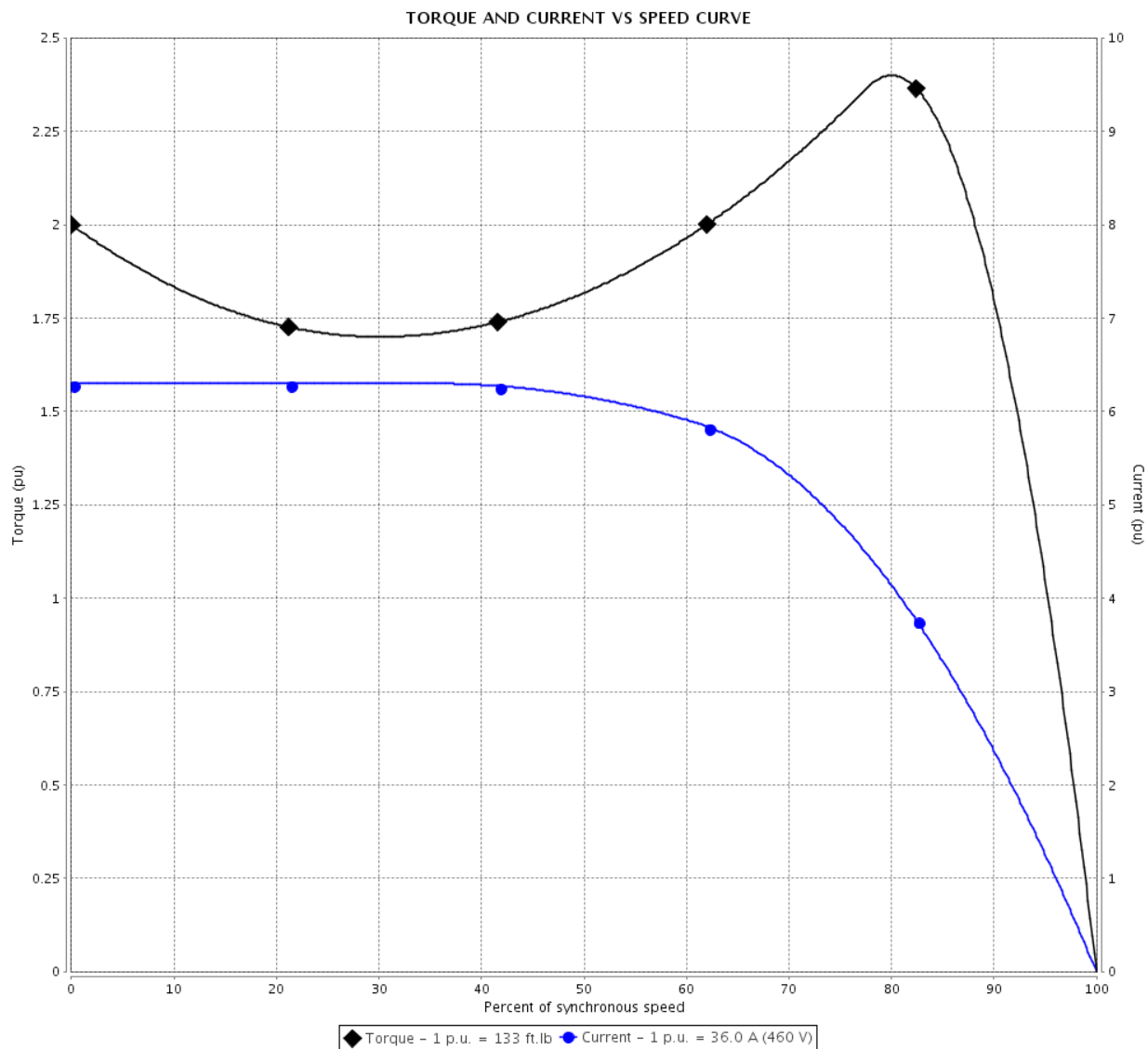


Customer :

Product line : W40 JP Pump NEMA Premium
Efficiency Three-Phase

Product code : 14486420

Catalog # : 030120T3E326JP-W40



Performance : 230/460 V 60 Hz 6P

Rated current : 72.0/36.0 A
LRC : 6.3
Rated torque : 133 ft.lb
Locked rotor torque : 200 %
Breakdown torque : 240 %
Rated speed : 1182 rpm

Moment of inertia (J) : 9.56 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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

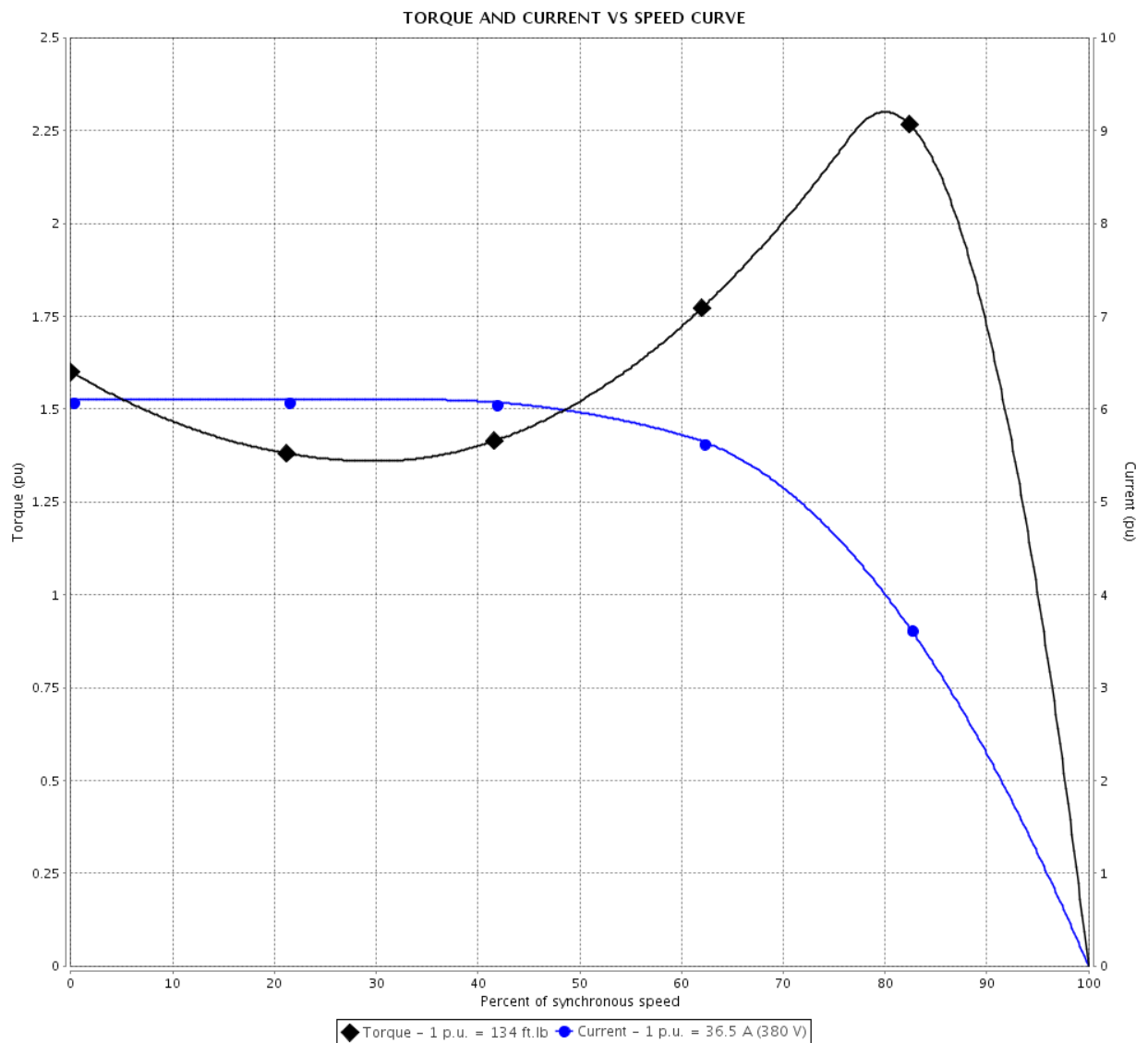


Customer :

Product line : W40 JP Pump NEMA Premium
Efficiency Three-Phase

Product code : 14486420

Catalog # : 03012OT3E326JP-W40



Performance : 380 V 50 Hz 6P IE3

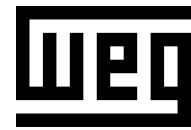
Rated current	: 36.5 A	Moment of inertia (J)	: 9.56 sq.ft.lb
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 134 ft.lb	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 980 rpm	Design	: B

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

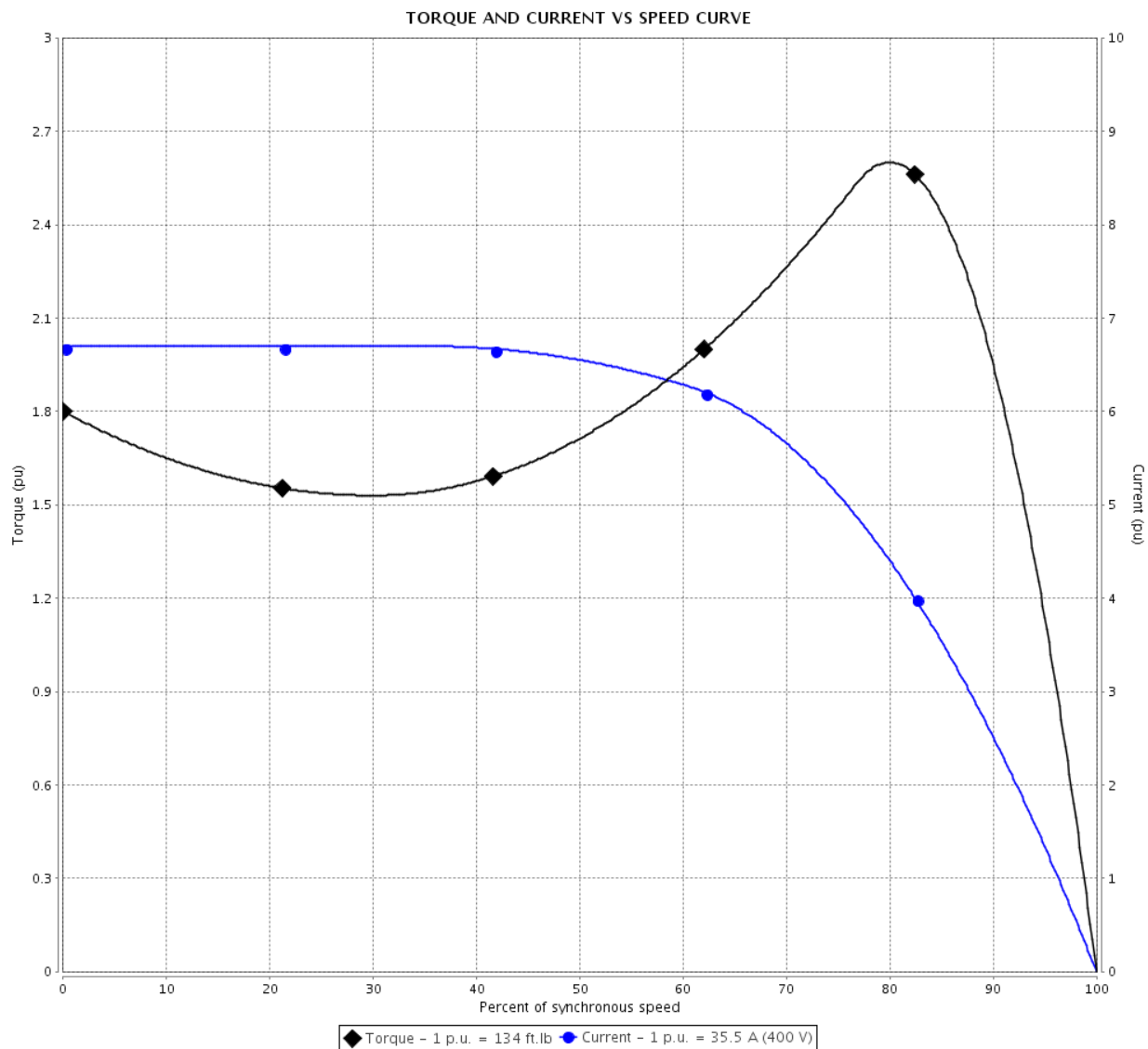


Customer :

Product line : W40 JP Pump NEMA Premium
Efficiency Three-Phase

Product code : 14486420

Catalog # : 030120T3E326JP-W40



Performance : 400 V 50 Hz 6P IE3

Rated current	: 35.5 A	Moment of inertia (J)	: 9.56 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 134 ft.lb	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 980 rpm	Design	: B

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

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

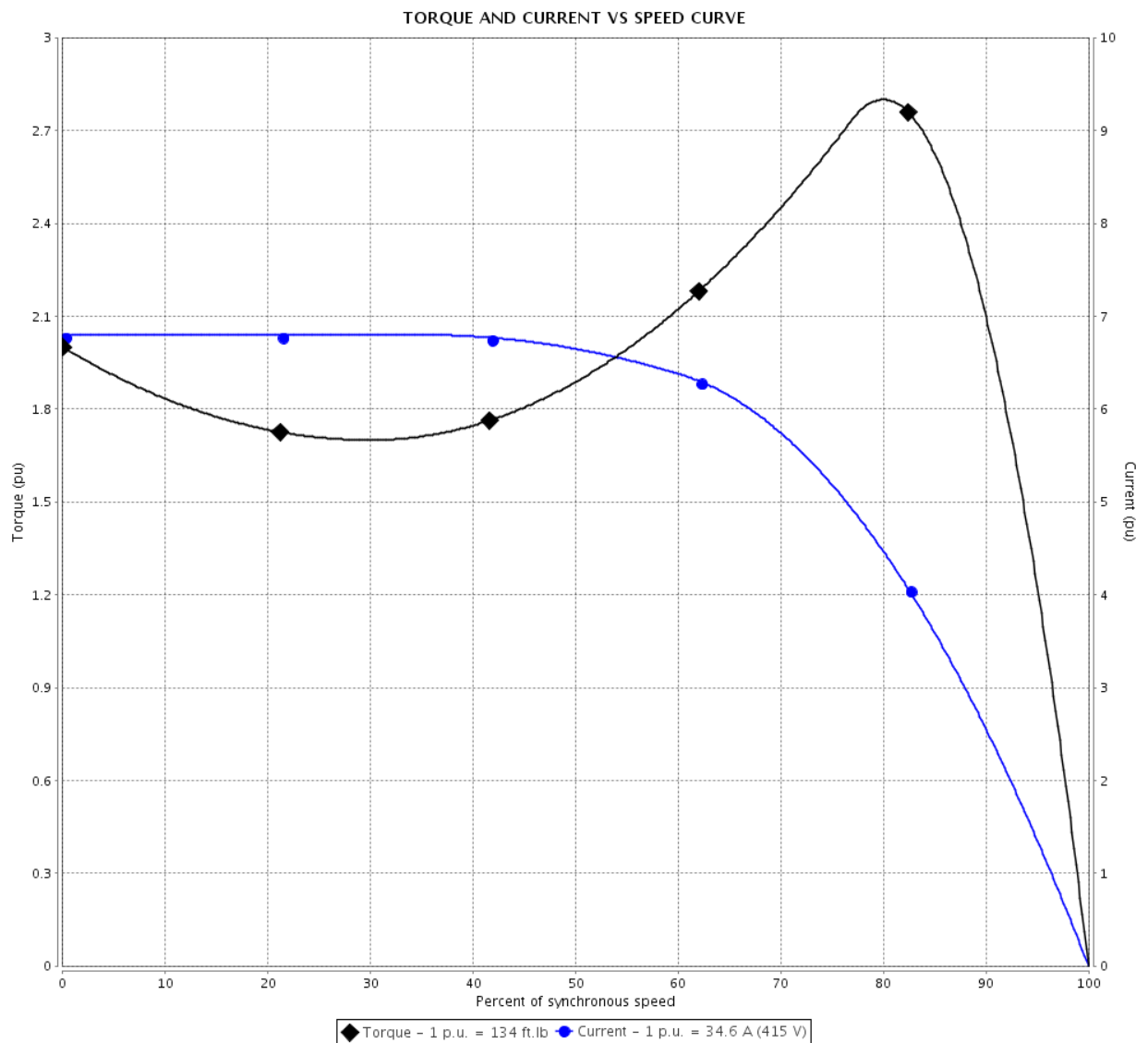


Customer :

Product line : W40 JP Pump NEMA Premium
Efficiency Three-Phase

Product code : 14486420

Catalog # : 03012OT3E326JP-W40



Performance : 415 V 50 Hz 6P IE3

Rated current	: 34.6 A	Moment of inertia (J)	: 9.56 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 134 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 980 rpm	Design	: B

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

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

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

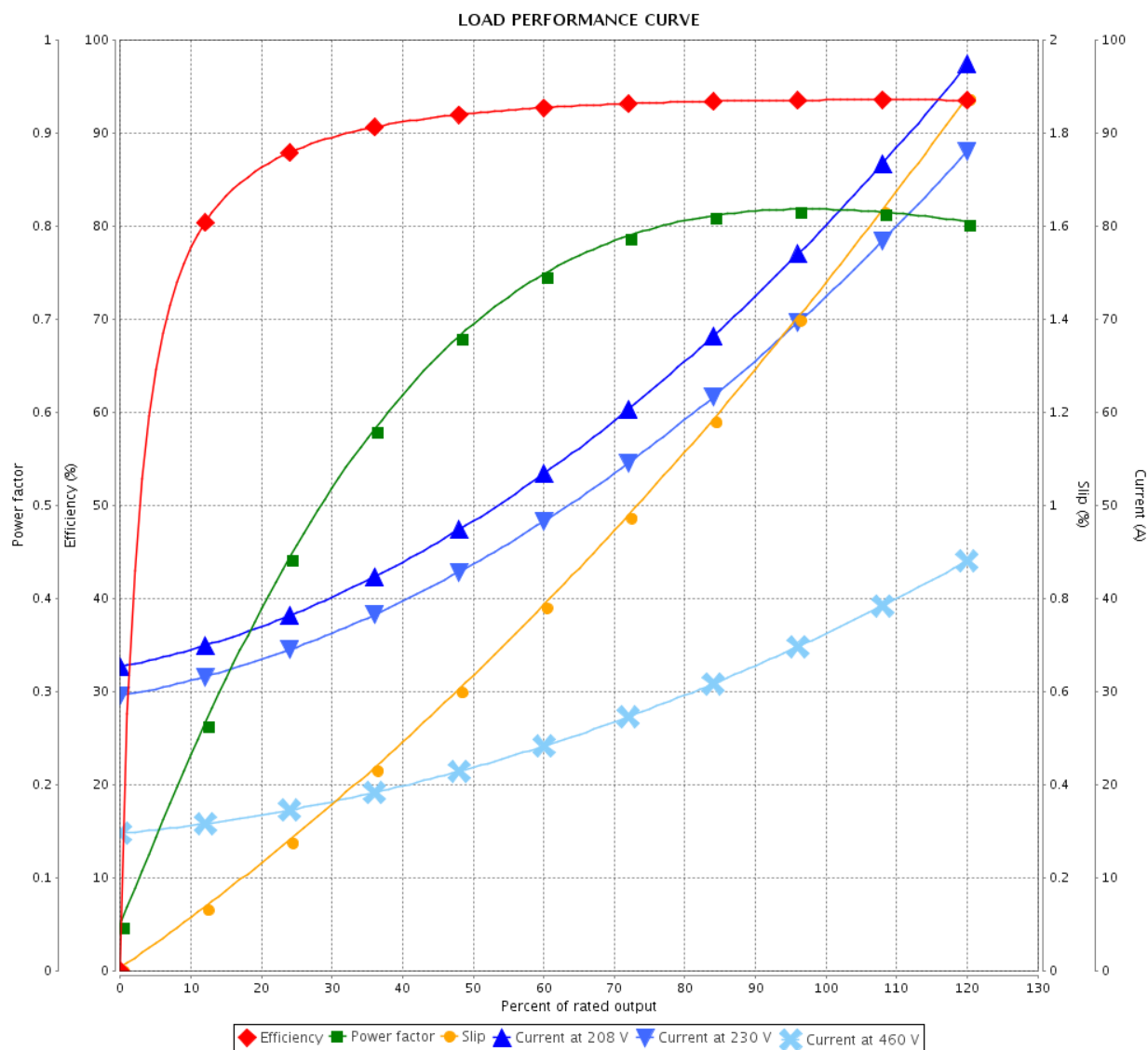


Customer :

Product line : W40 JP Pump NEMA Premium
Efficiency Three-Phase

Product code : 14486420

Catalog # : 030120T3E326JP-W40



Performance : 230/460 V 60 Hz 6P

Rated current : 72.0/36.0 A
 LRC : 6.3
 Rated torque : 133 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 240 %
 Rated speed : 1182 rpm

Moment of inertia (J) : 9.56 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

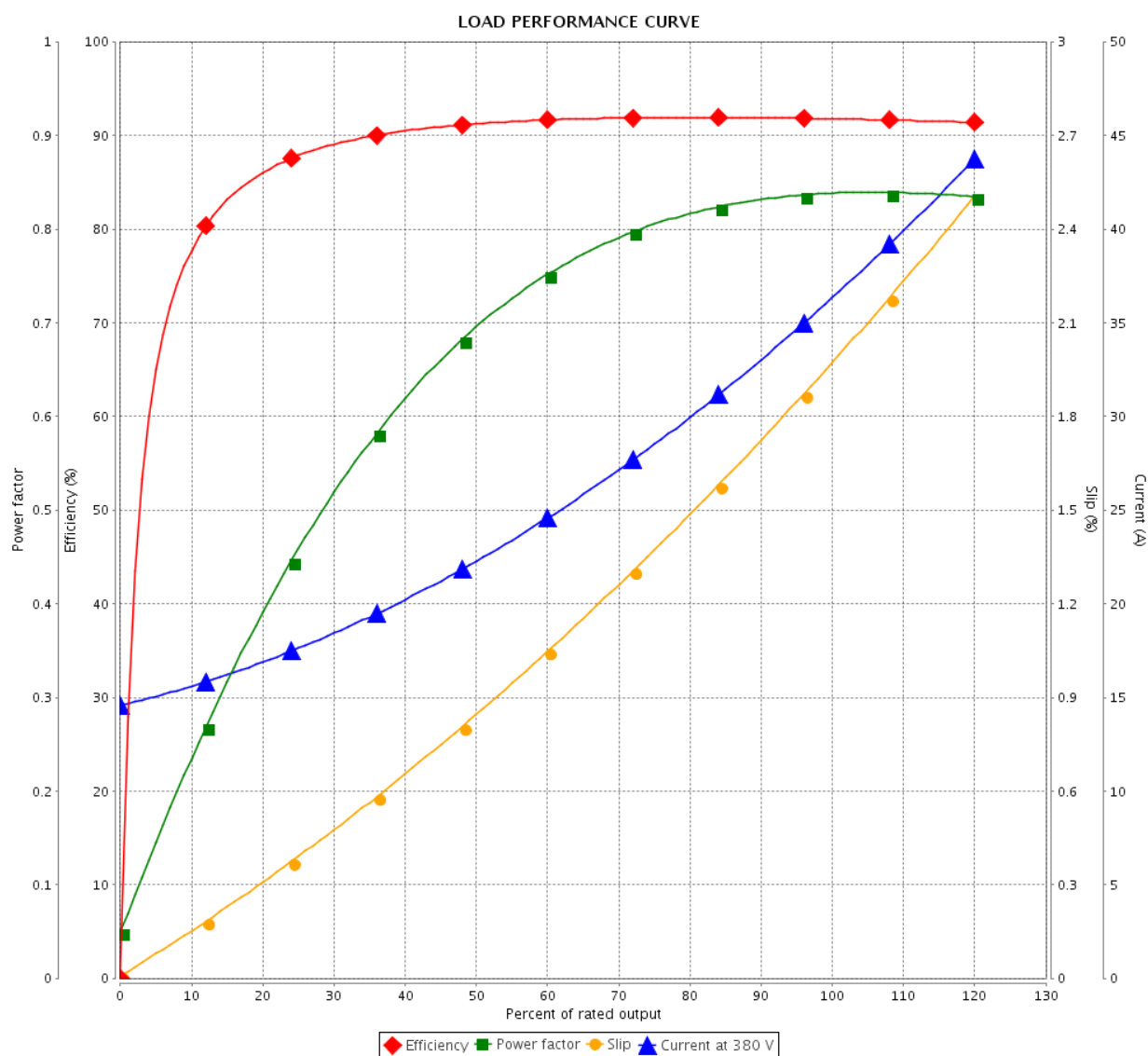


Customer :

Product line : W40 JP Pump NEMA Premium
Efficiency Three-Phase

Product code : 14486420

Catalog # : 03012OT3E326JP-W40



Performance : 380 V 50 Hz 6P IE3

Rated current	: 36.5 A	Moment of inertia (J)	: 9.56 sq.ft.lb
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 134 ft.lb	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 980 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

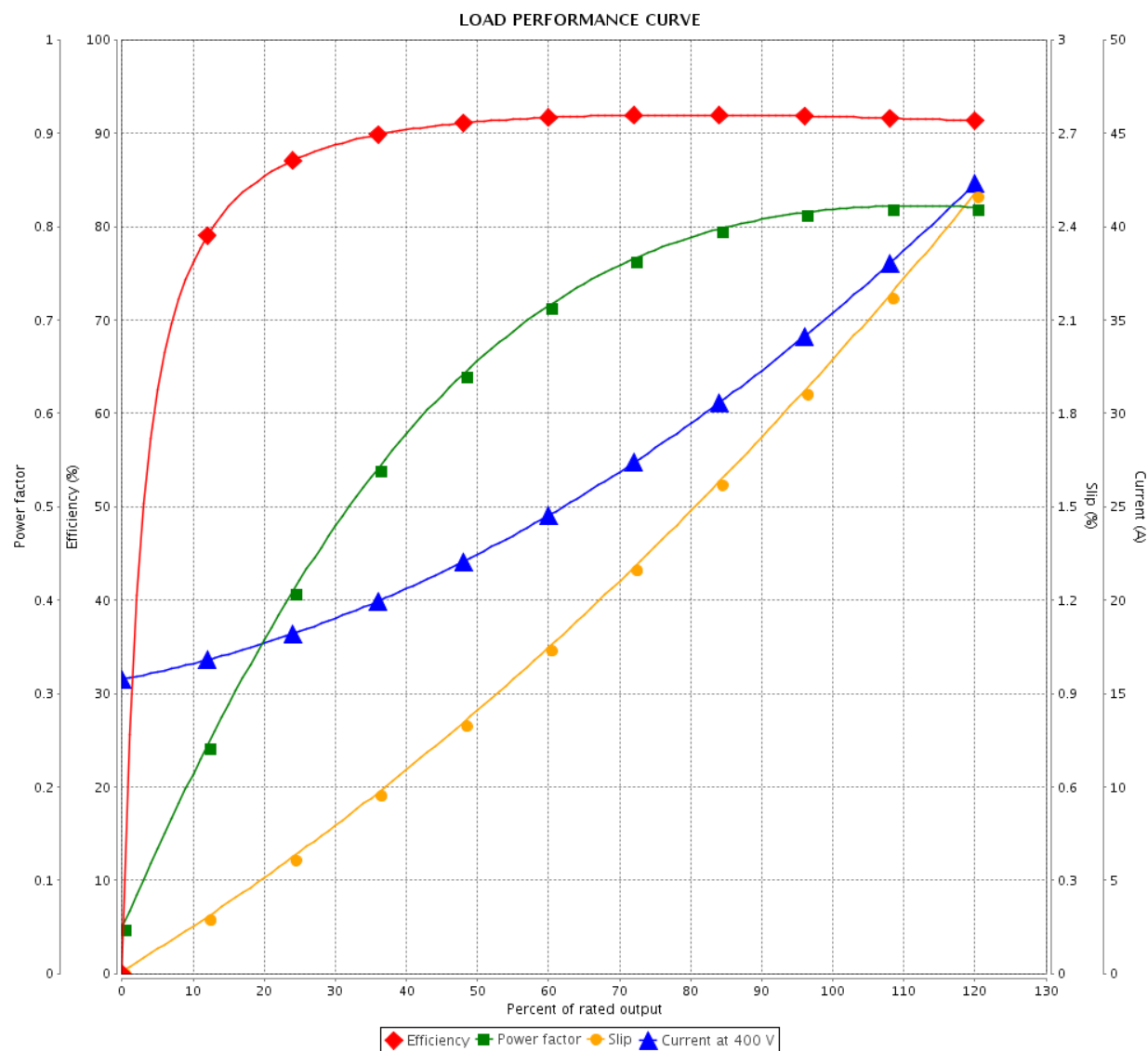


Customer :

Product line : W40 JP Pump NEMA Premium
Efficiency Three-Phase

Product code : 14486420

Catalog # : 030120T3E326JP-W40



Performance : 400 V 50 Hz 6P IE3

Rated current : 35.5 A
LRC : 6.7
Rated torque : 134 ft.lb
Locked rotor torque : 180 %
Breakdown torque : 260 %
Rated speed : 980 rpm

Moment of inertia (J) : 9.56 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	Revision
Checked by				8 / 21	
Date					

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

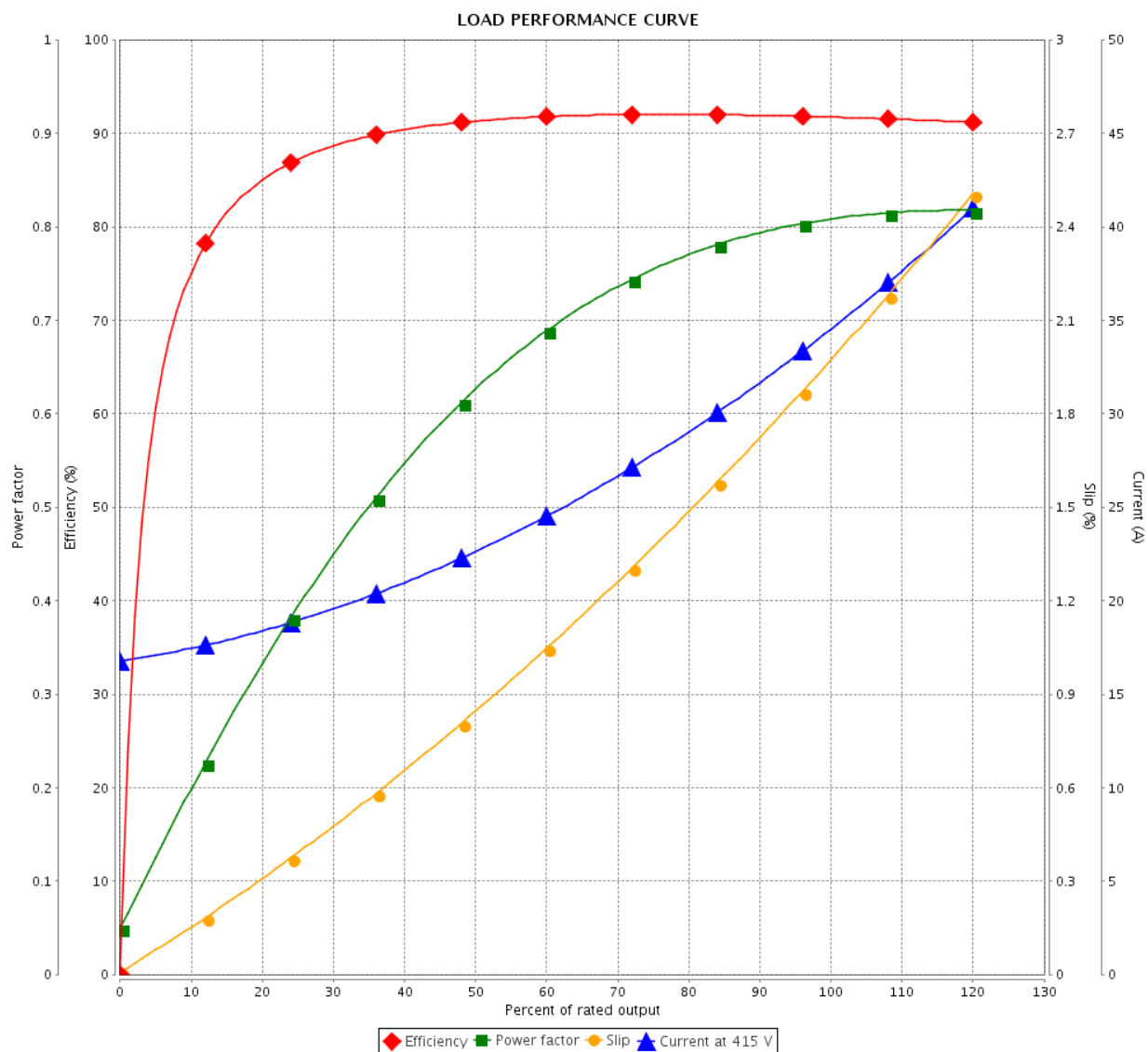


Customer :

Product line : W40 JP Pump NEMA Premium
Efficiency Three-Phase

Product code : 14486420

Catalog # : 03012OT3E326JP-W40



Performance : 415 V 50 Hz 6P IE3

Rated current	: 34.6 A	Moment of inertia (J)	: 9.56 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 134 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 980 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 9 / 21		
Checked by				
Date	11/04/2020			
		Revision		

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 JP Pump NEMA Premium
Efficiency Three-Phase

Product code : 14486420

Catalog # : 03012OT3E326JP-W40

Performance : 230/460 V 60 Hz 6P

Rated current : 72.0/36.0 A
LRC : 6.3
Rated torque : 133 ft.lb
Locked rotor torque : 200 %
Breakdown torque : 240 %
Rated speed : 1182 rpm

Moment of inertia (J) : 9.56 sq.ft.lb
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

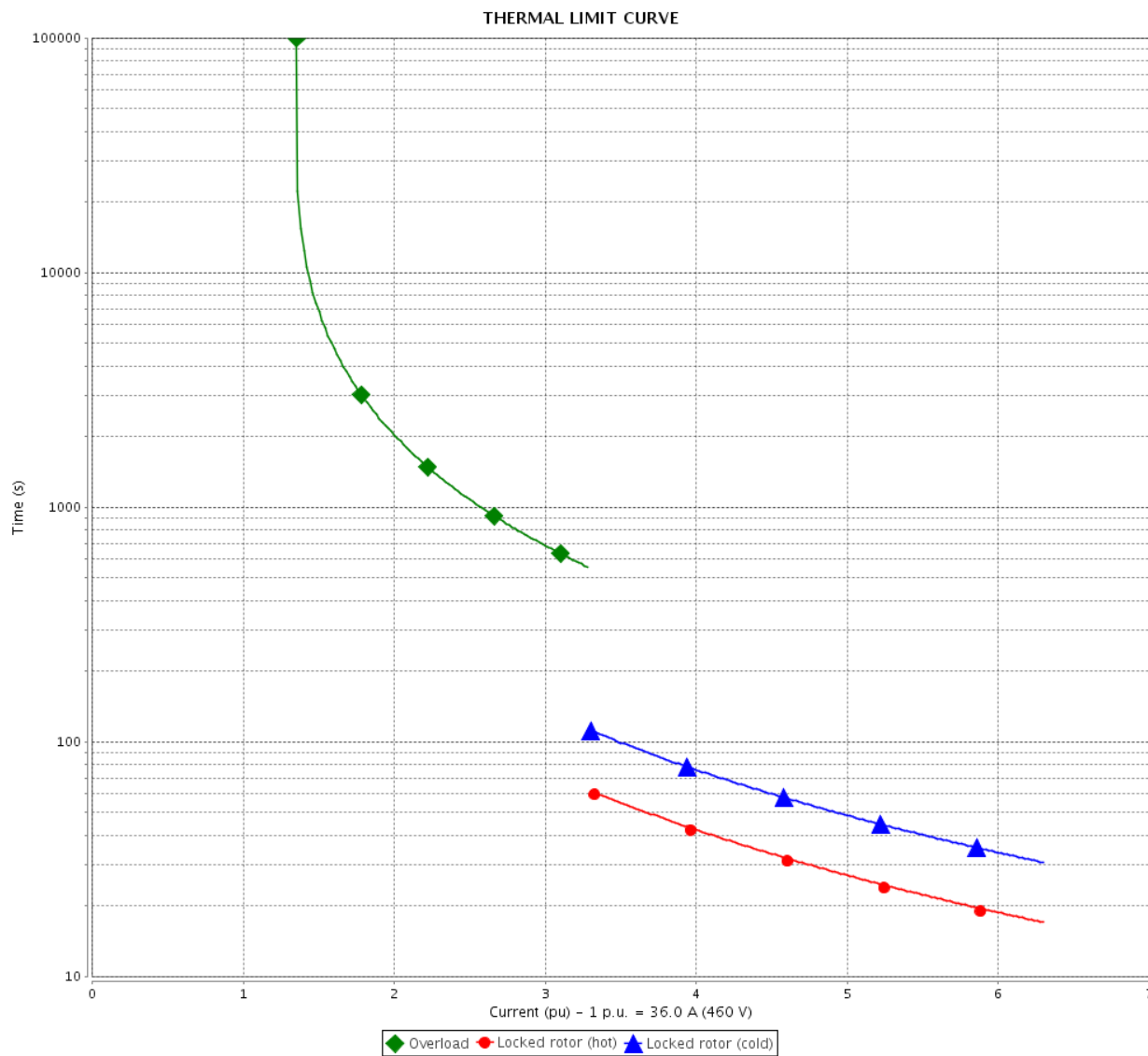
Revision

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer

:

Product line

: W40 JP Pump NEMA Premium
Efficiency Three-Phase

Product code :

14486420

Catalog # :

03012OT3E326JP-W40

Performance : 380 V 50 Hz 6P IE3

Rated current	: 36.5 A	Moment of inertia (J)	: 9.56 sq.ft.lb
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 134 ft.lb	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 980 rpm	Design	: B

Heating constant

Cooling constant

Rev.

Changes Summary

Performed

Checked

Date

Performed by

Checked by

Date

11/04/2020

Page

12 / 21

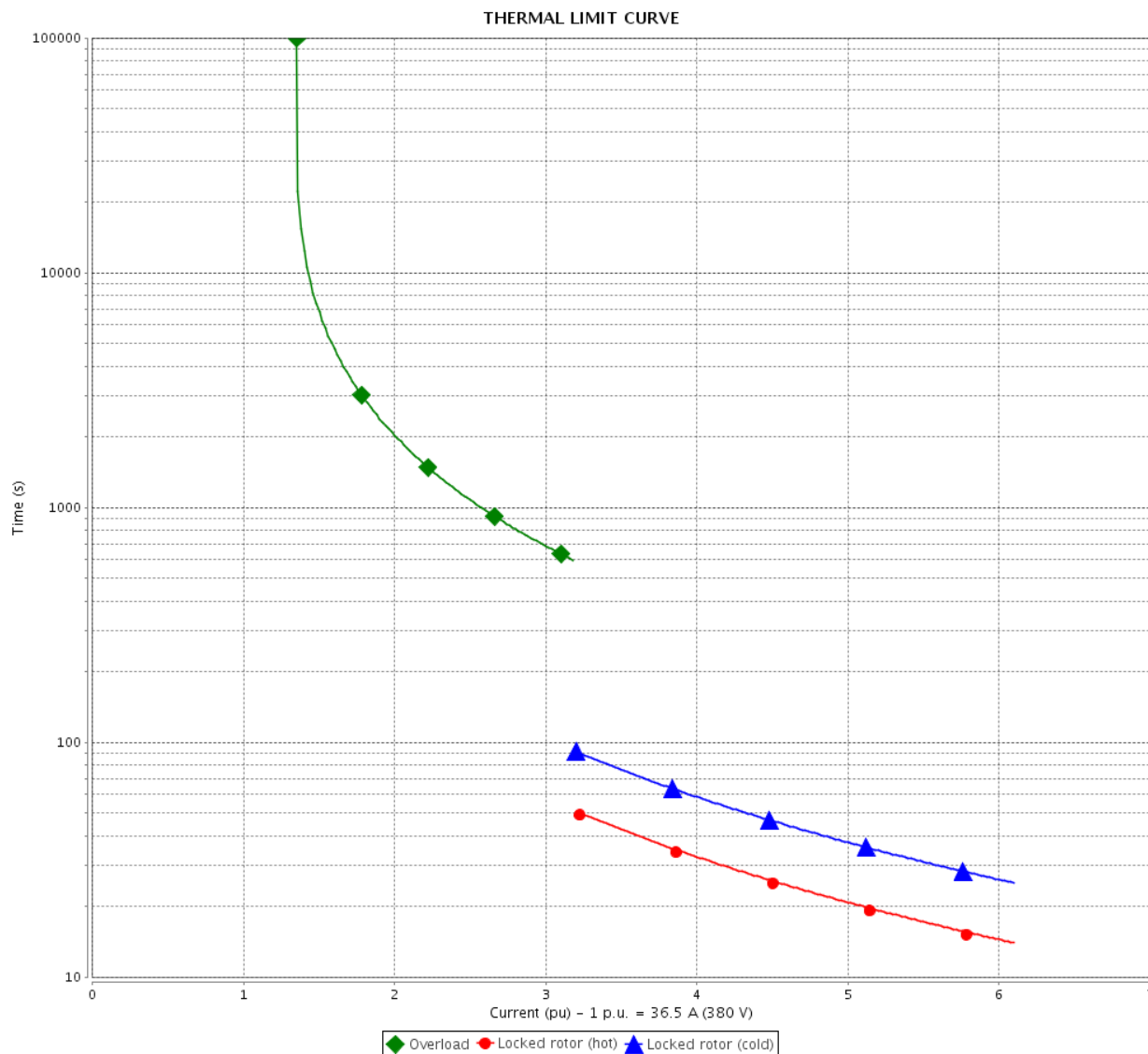
Revision

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer

:

Product line

: W40 JP Pump NEMA Premium
Efficiency Three-Phase

Product code :

14486420

Catalog # :

03012OT3E326JP-W40

Performance : 400 V 50 Hz 6P IE3

Rated current

: 35.5 A

LRC

: 6.7

Rated torque

: 134 ft.lb

Locked rotor torque

: 180 %

Breakdown torque

: 260 %

Rated speed

: 980 rpm

Moment of inertia (J)

: 9.56 sq.ft.lb

Duty cycle

: Cont.(S1)

Insulation class

: F

Service factor

: 1.00

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

14 / 21

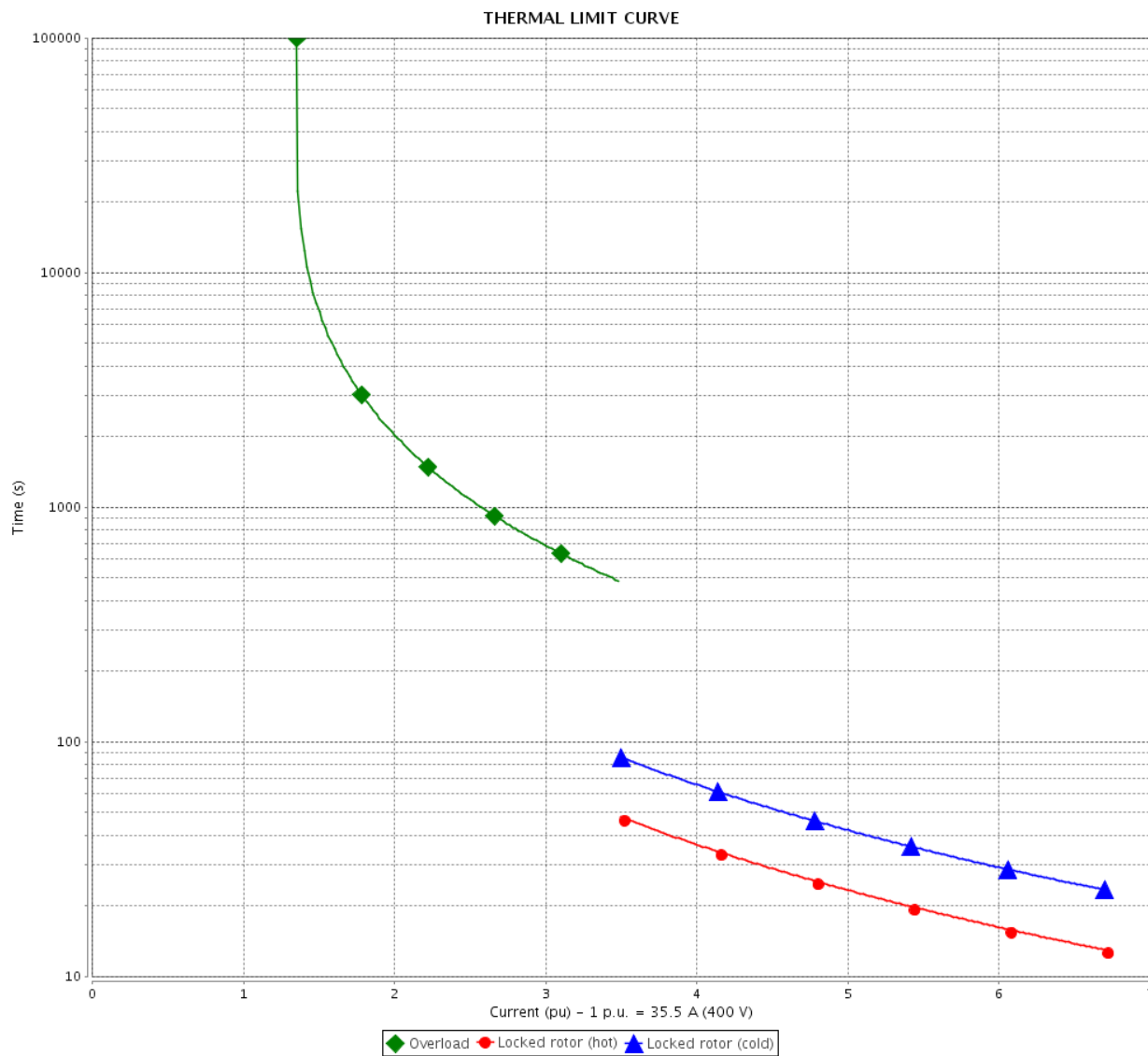
Revision

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				

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer

:

Product line

: W40 JP Pump NEMA Premium
Efficiency Three-Phase

Product code :

14486420

Catalog # :

03012OT3E326JP-W40

Performance : 415 V 50 Hz 6P IE3

Rated current

: 34.6 A

LRC

: 6.8

Rated torque

: 134 ft.lb

Locked rotor torque

: 200 %

Breakdown torque

: 280 %

Rated speed

: 980 rpm

Moment of inertia (J)

: 9.56 sq.ft.lb

Duty cycle

: Cont.(S1)

Insulation class

: F

Service factor

: 1.00

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

16 / 21

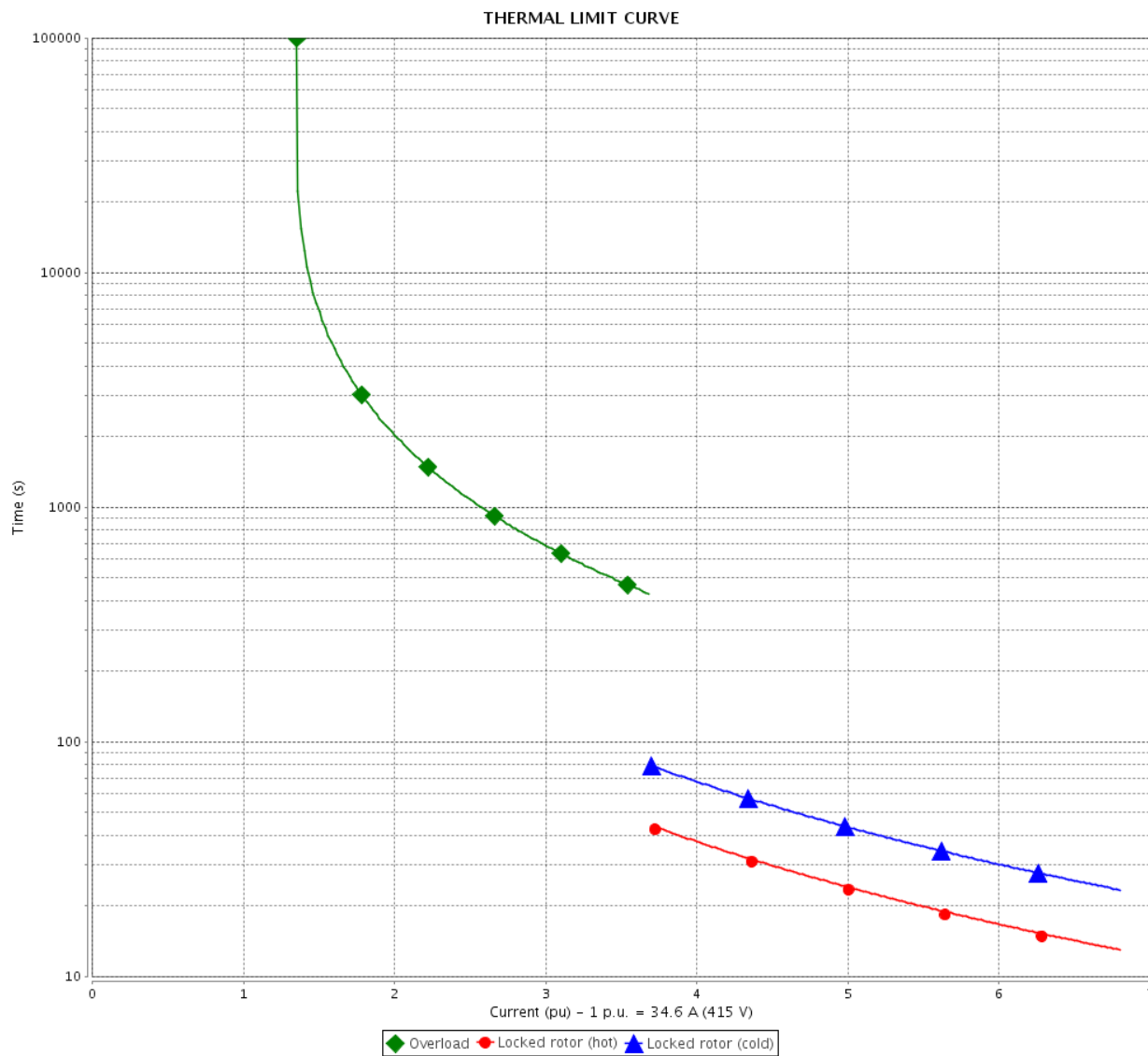
Revision

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

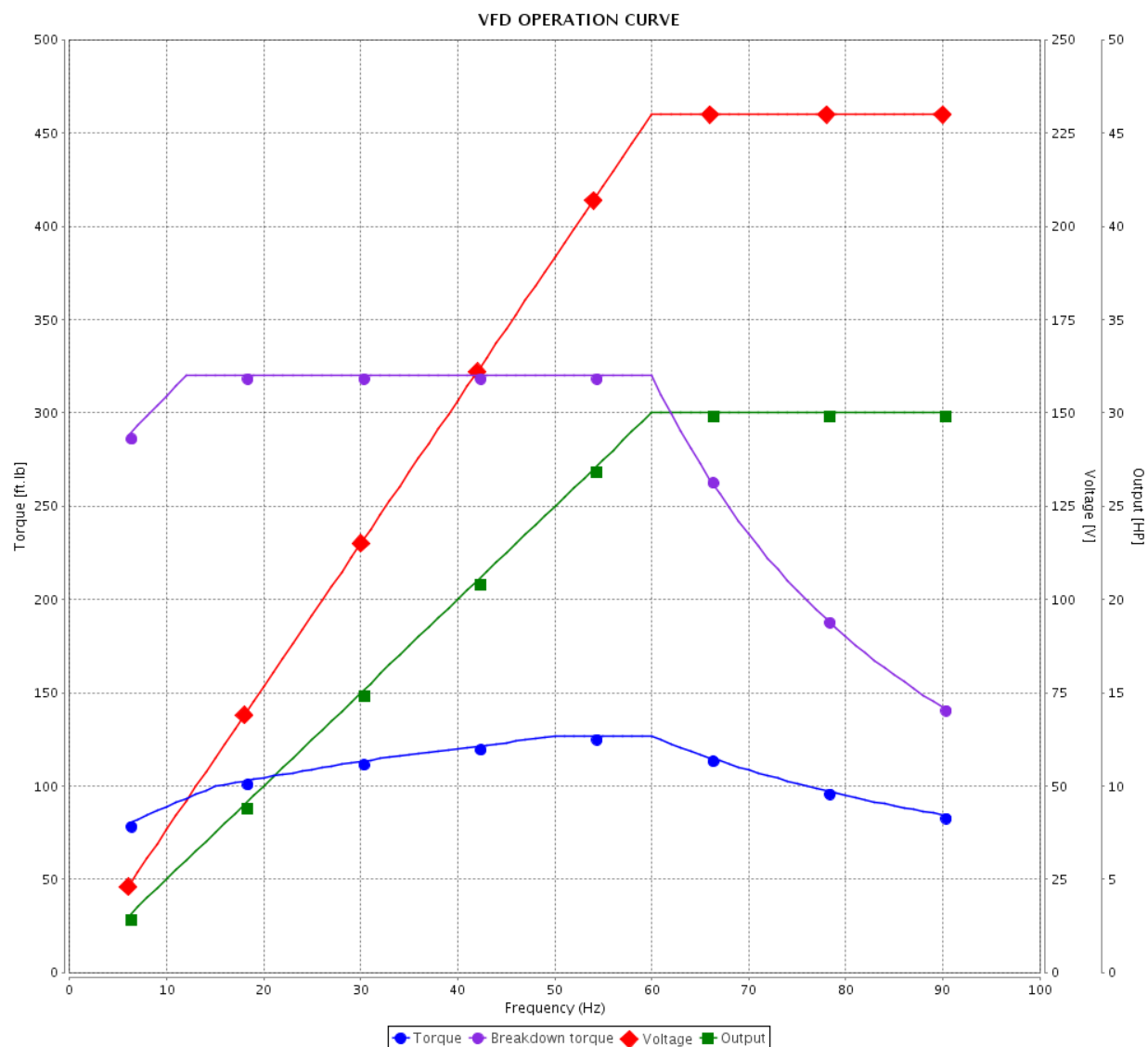


Customer :

Product line : W40 JP Pump NEMA Premium
Efficiency Three-Phase

Product code : 14486420

Catalog # : 030120T3E326JP-W40



Performance : 230/460 V 60 Hz 6P

Rated current : 72.0/36.0 A
LRC : 6.3
Rated torque : 133 ft.lb
Locked rotor torque : 200 %
Breakdown torque : 240 %
Rated speed : 1182 rpm

Moment of inertia (J) : 9.56 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 18 / 21	Revision
Checked by					
Date	11/04/2020				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

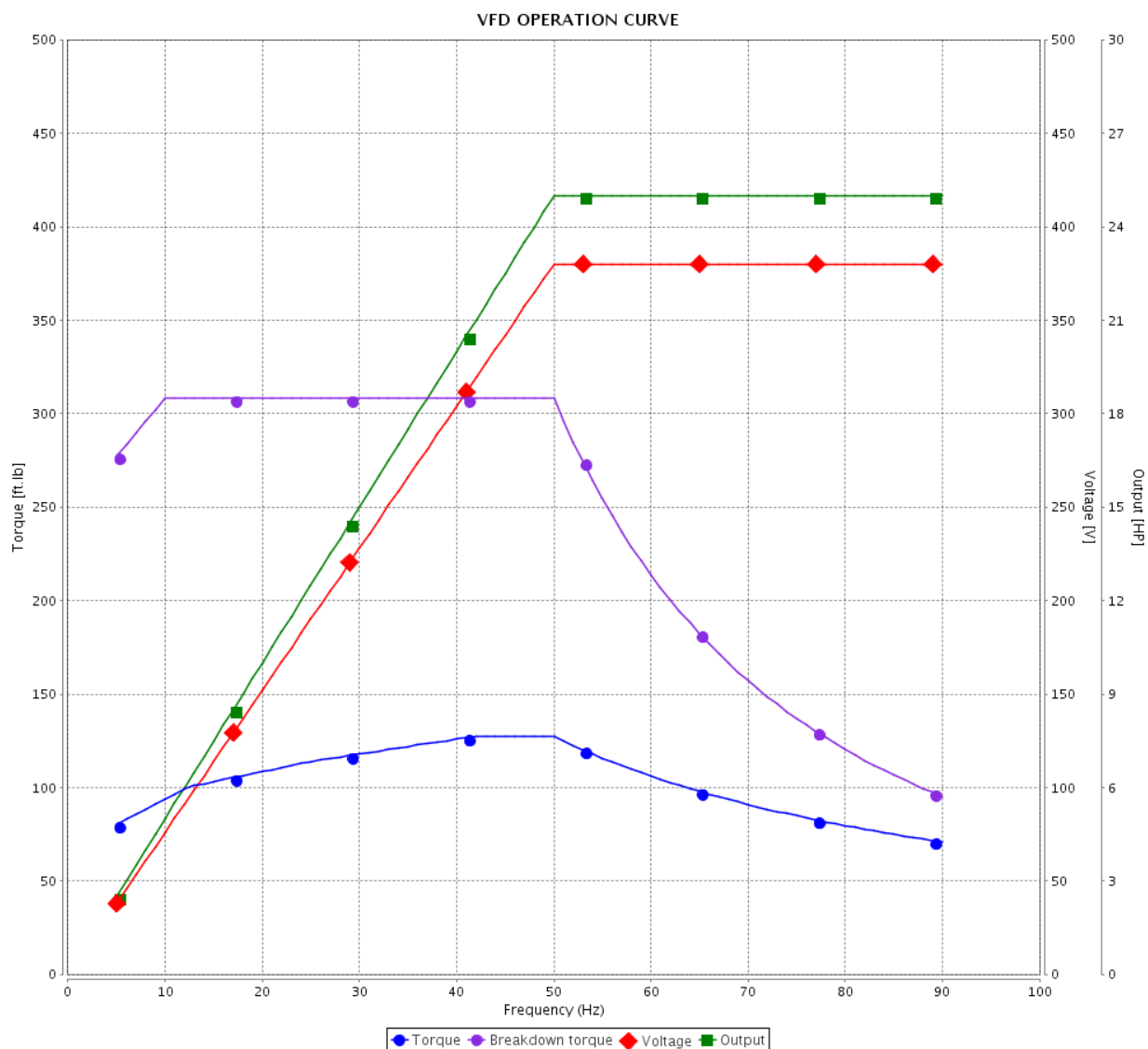


Customer :

Product line : W40 JP Pump NEMA Premium
Efficiency Three-Phase

Product code : 14486420

Catalog # : 03012OT3E326JP-W40



Performance : 380 V 50 Hz 6P IE3

Rated current : 36.5 A
LRC : 6.1
Rated torque : 134 ft.lb
Locked rotor torque : 160 %
Breakdown torque : 229 %
Rated speed : 980 rpm

Moment of inertia (J) : 9.56 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 19 / 21		
Checked by				
Date	11/04/2020			
		Revision		

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

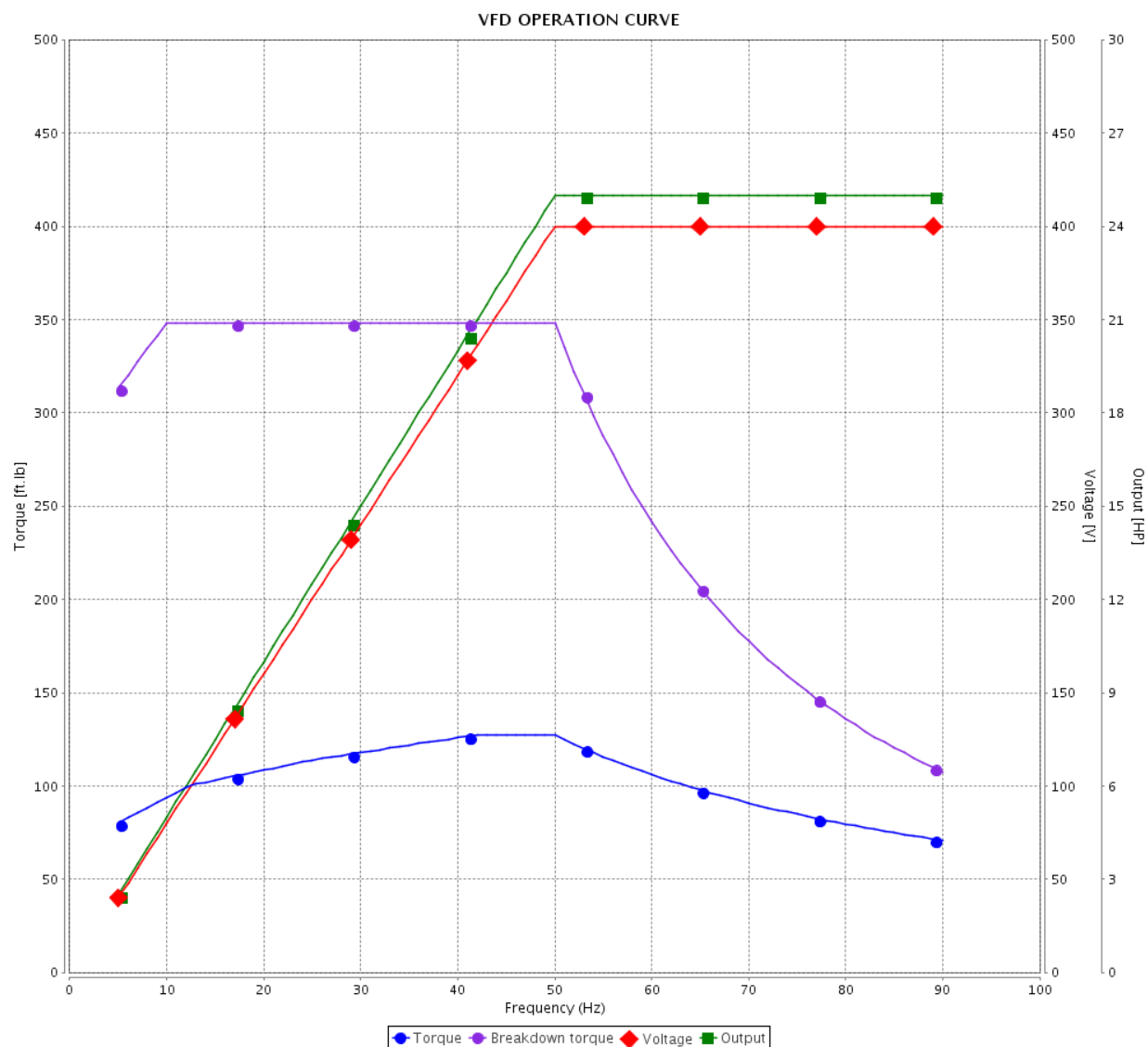


Customer :

Product line : W40 JP Pump NEMA Premium
Efficiency Three-Phase

Product code : 14486420

Catalog # : 030120T3E326JP-W40



Performance : 400 V 50 Hz 6P IE3

Rated current : 35.5 A
LRC : 6.7
Rated torque : 134 ft.lb
Locked rotor torque : 180 %
Breakdown torque : 260 %
Rated speed : 980 rpm

Moment of inertia (J) : 9.56 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 20 / 21		
Checked by				
Date	11/04/2020			
		Revision		

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

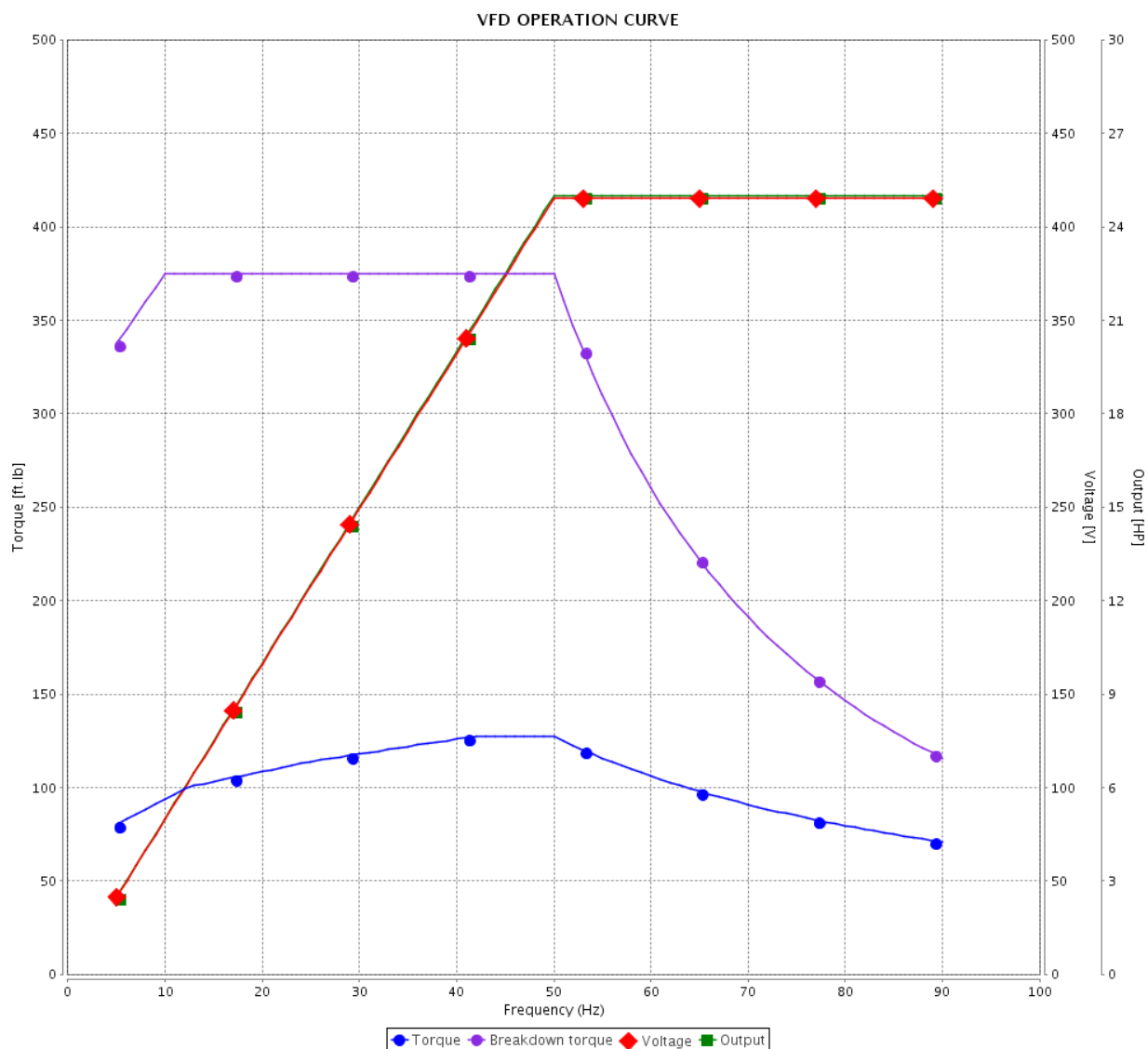


Customer :

Product line : W40 JP Pump NEMA Premium
Efficiency Three-Phase

Product code : 14486420

Catalog # : 03012OT3E326JP-W40



Performance : 415 V 50 Hz 6P IE3

Rated current : 34.6 A
LRC : 6.8
Rated torque : 134 ft.lb
Locked rotor torque : 200 %
Breakdown torque : 280 %
Rated speed : 980 rpm

Moment of inertia (J) : 9.56 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 21 / 21		
Checked by				
Date	11/04/2020			
		Revision		