

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: W40 NEMA Premium Efficiency Three-Phase	Product code :	14272921		
		Catalog # :	10036OT3E365TS-W40G		
Frame	: 364/5TS	Cooling method	: IC01 - ODP		
Insulation class	: F	Mounting	: F-1		
Duty cycle	: Cont.(S1)	Rotation <sup>1</sup>	: Both (CW and CCW)		
Ambient temperature	: -20°C to +40°C	Starting method	: Direct On Line		
Altitude	: 1000 m.a.s.l.	Approx. weight <sup>2</sup>	: 774 lb		
Protection degree	: IP23	Moment of inertia (J)	: 7.20 sq.ft.lb		
Design	: B				
Output [HP]	100	75	75	75	
Poles	2	2	2	2	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	232/116	103	100	97.8	
L. R. Amperes [A]	1531/766	773	800	773	
LRC [A]	6.6x(Code G)	7.5x(Code H)	8.0x(Code J)	7.9x(Code J)	
No load current [A]	59.0/29.5	28.5	32.5	35.0	
Rated speed [RPM]	3555	2960	2964	2967	
Slip [%]	1.25	1.33	1.20	1.10	
Rated torque [ft.lb]	148	133	133	133	
Locked rotor torque [%]	180	220	240	250	
Breakdown torque [%]	229	260	280	320	
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)	19s (cold) 11s (hot)	18s (cold) 10s (hot)	19s (cold) 11s (hot)	
Noise level <sup>2</sup>	84.0 dB(A)				
Efficiency (%)	25%	92.2	88.0	88.2	88.2
	50%	92.4	90.2	90.3	90.3
	75%	93.6	91.9	92.0	92.0
	100%	93.6	94.3	94.3	94.3
Power Factor	25%	0.55	0.53	0.47	0.47
	50%	0.77	0.74	0.69	0.70
	75%	0.84	0.83	0.78	0.80
	100%	0.87	0.86	0.84	0.83
Bearing type	: Drive end : 6314 C3	Non drive end : 6212 Z C3	Foundation loads		
Sealing	: Without	Without	Max. traction	: 1068 lb	
	Bearing Seal	Bearing Seal	Max. compression	: 1843 lb	
Lubrication interval	: 14418 h	20000 h			
Lubricant amount	: 27 g	13 g			
Lubricant type	: Mobil Polyrex EM				
Notes USABLE @208V 257A SF 1.15 SFA 295A					
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				Page	Revision
Date	12/04/2022			1 / 21	

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



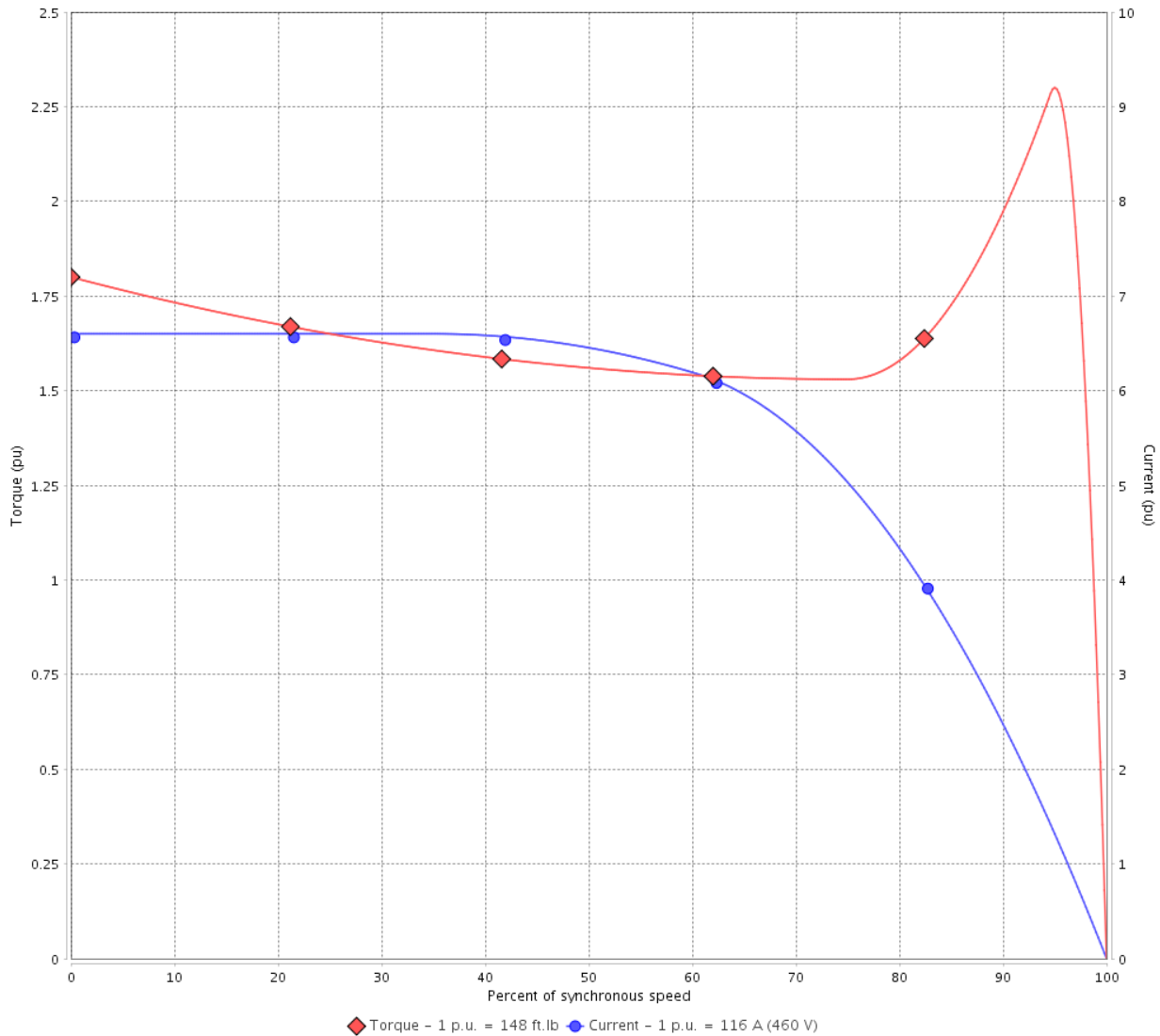
Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14272921

Catalog # : 10036OT3E365TS-W40G

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current : 232/116 A  
LRC : 6.6  
Rated torque : 148 ft.lb  
Locked rotor torque : 180 %  
Breakdown torque : 229 %  
Rated speed : 3555 rpm

Moment of inertia (J) : 7.20 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			Page 2 / 21	Revision
Checked by				
Date	12/04/2022			

# TORQUE AND CURRENT VS SPEED CURVE



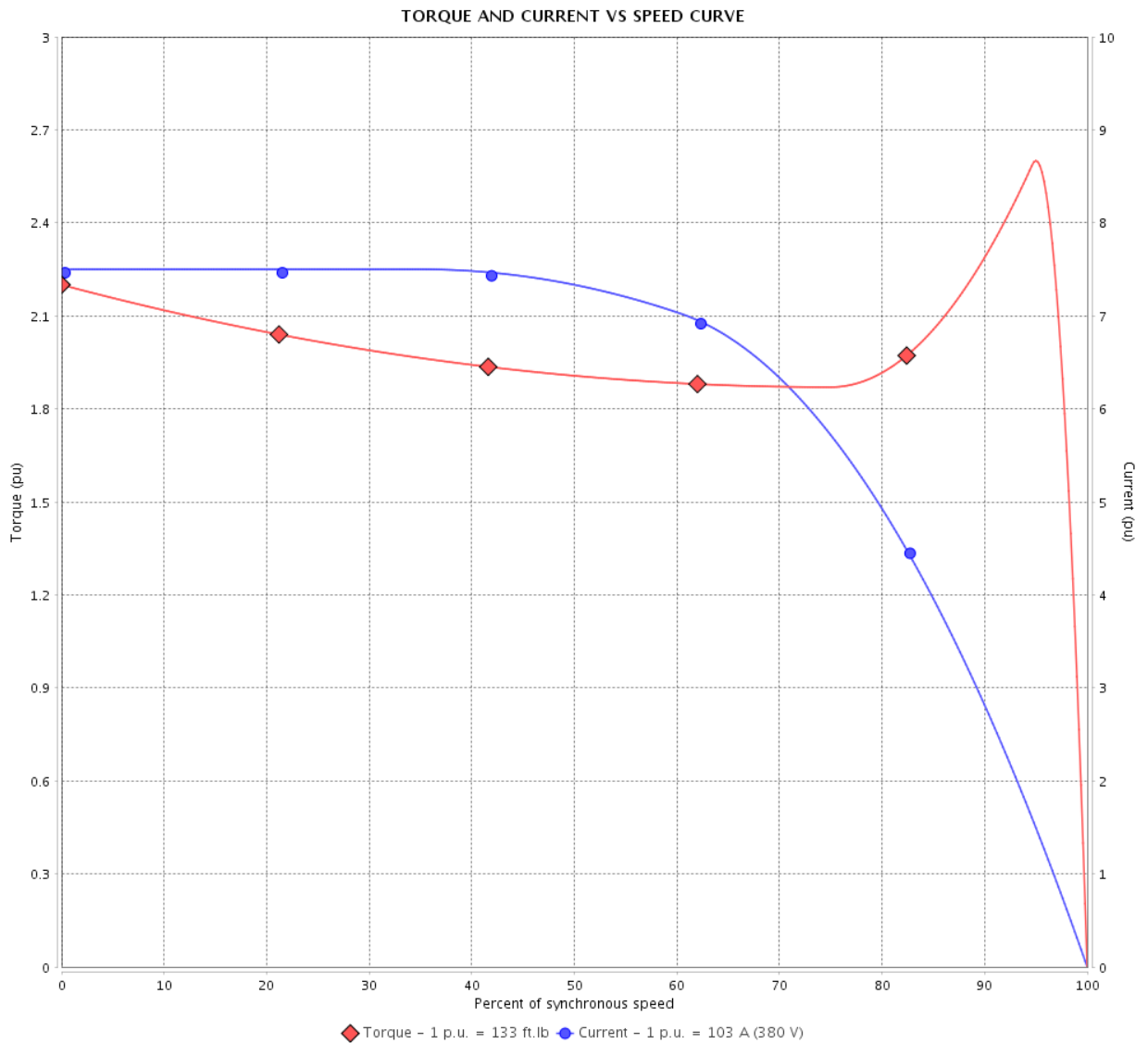
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14272921

Catalog # : 10036OT3E365TS-W40G



Performance : 380 V 50 Hz 2P IE3

Rated current	: 103 A	Moment of inertia (J)	: 7.20 sq.ft.lb
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 133 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 2960 rpm	Design	: B

Locked rotor time : 19s (cold) 11s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 3 / 21	Revision
Checked by				
Date	12/04/2022			

# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



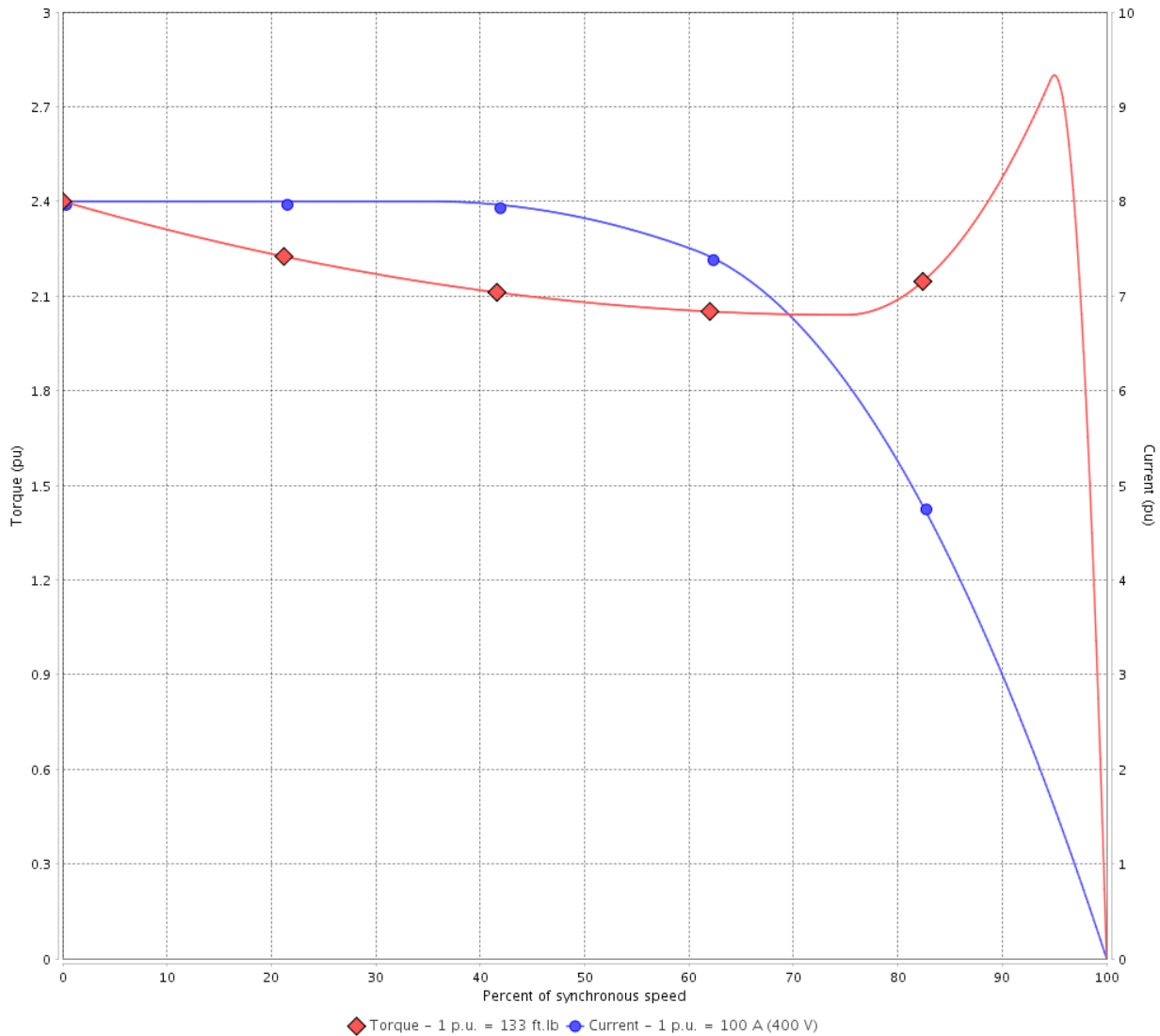
Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14272921

Catalog # : 100360T3E365TS-W40G

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current	: 100 A	Moment of inertia (J)	: 7.20 sq.ft.lb
LRC	: 8.0	Duty cycle	: Cont.(S1)
Rated torque	: 133 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 2964 rpm	Design	: B

Locked rotor time : 18s (cold) 10s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 4 / 21	Revision
Checked by				
Date	12/04/2022			

# TORQUE AND CURRENT VS SPEED CURVE



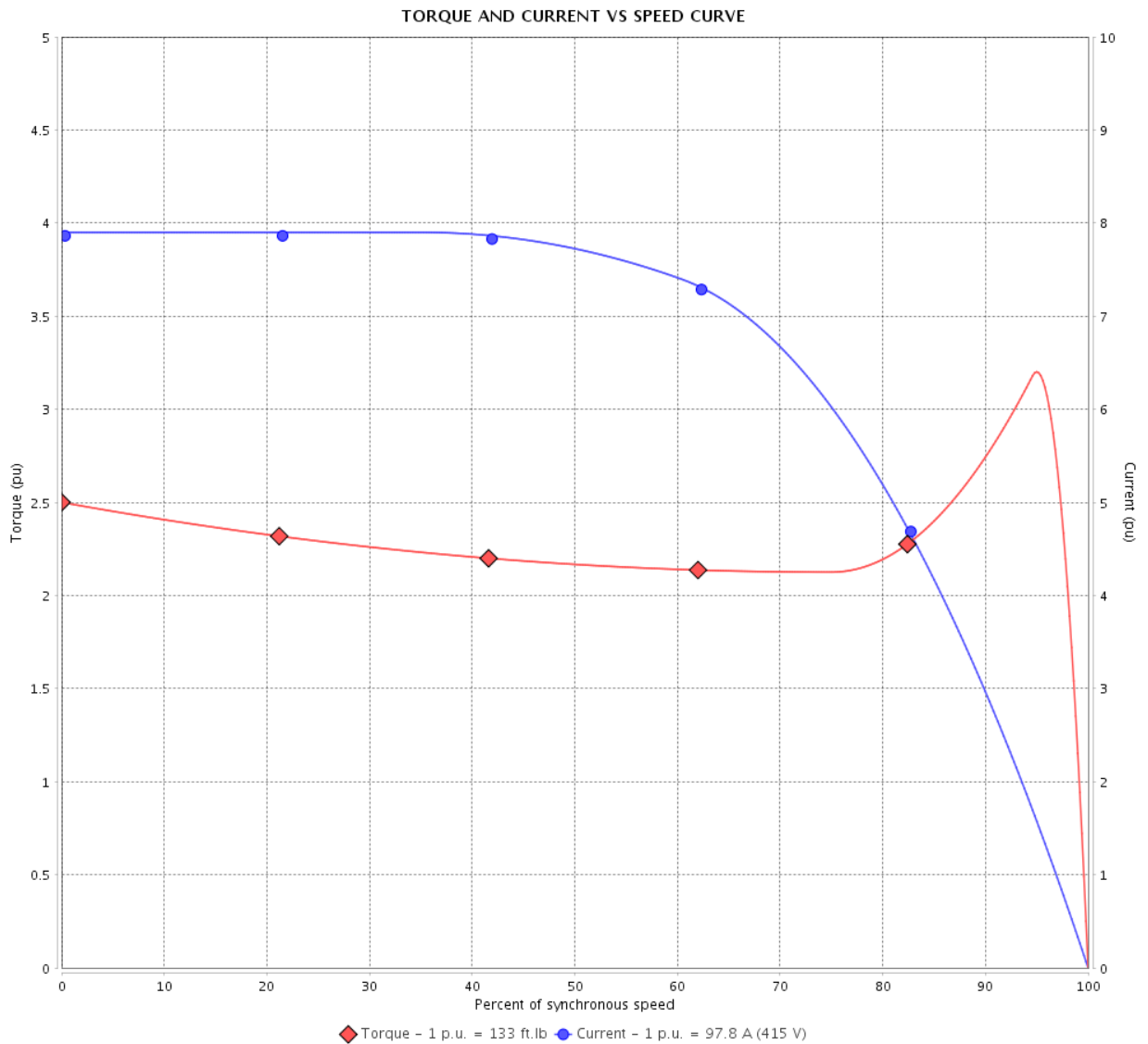
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14272921

Catalog # : 10036OT3E365TS-W40G



Performance : 415 V 50 Hz 2P IE3

Rated current	: 97.8 A	Moment of inertia (J)	: 7.20 sq.ft.lb
LRC	: 7.9	Duty cycle	: Cont.(S1)
Rated torque	: 133 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 2967 rpm	Design	: B

Locked rotor time : 19s (cold) 11s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 5 / 21	Revision
Checked by				
Date	12/04/2022			

# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



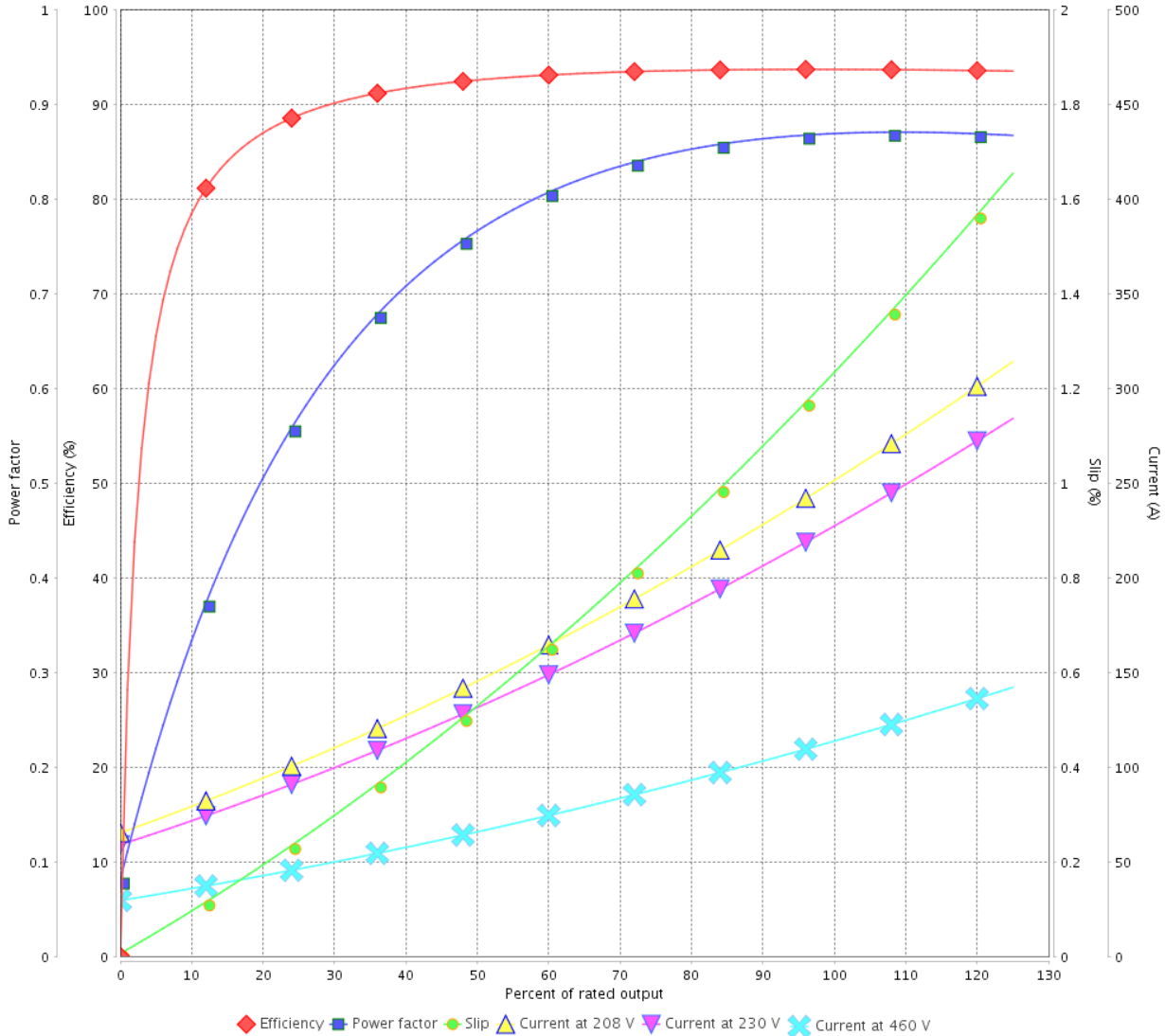
Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14272921

Catalog # : 100360T3E365TS-W40G

LOAD PERFORMANCE CURVE



Performance : 230/460 V 60 Hz 2P

Rated current : 232/116 A  
 LRC : 6.6  
 Rated torque : 148 ft.lb  
 Locked rotor torque : 180 %  
 Breakdown torque : 229 %  
 Rated speed : 3555 rpm

Moment of inertia (J) : 7.20 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				
Date				

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

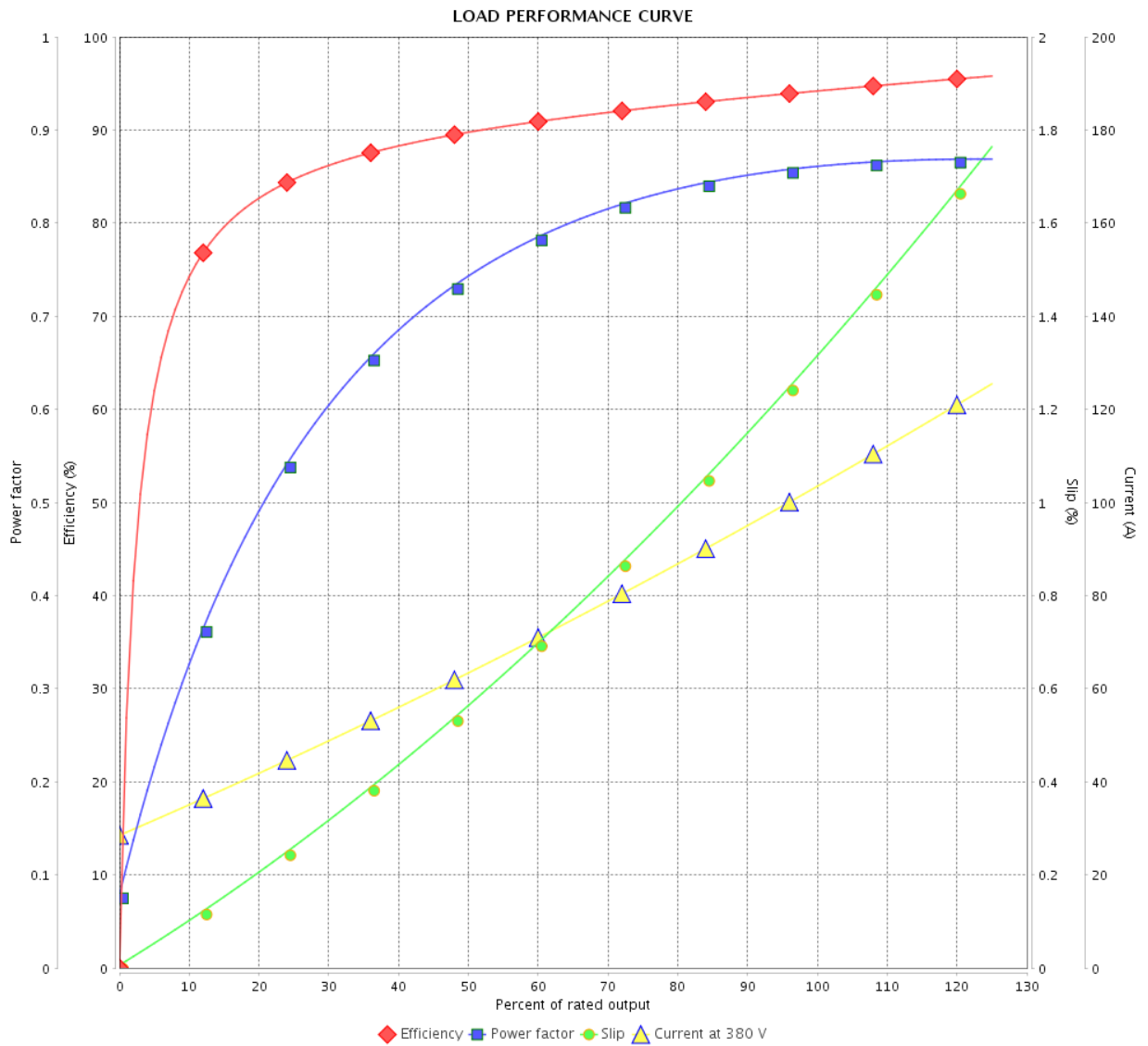


Customer : \_\_\_\_\_

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14272921

Catalog # : 10036OT3E365TS-W40G



Performance : 380 V 50 Hz 2P IE3

Rated current : 103 A  
 LRC : 7.5  
 Rated torque : 133 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 260 %  
 Rated speed : 2960 rpm

Moment of inertia (J) : 7.20 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		7 / 21		
Date		12/04/2022		

# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

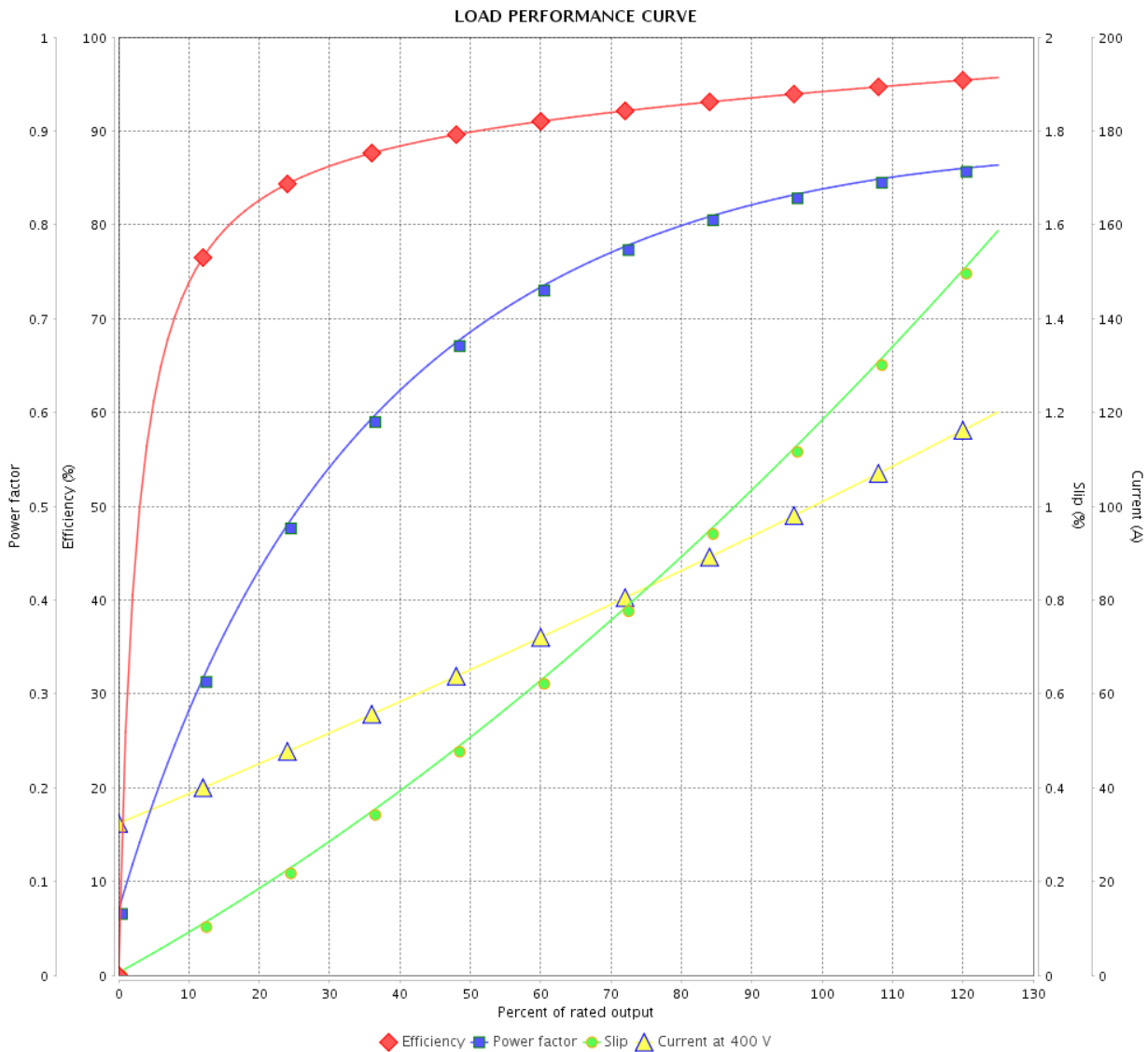


Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14272921

Catalog # : 10036OT3E365TS-W40G



Performance : 400 V 50 Hz 2P IE3

Rated current : 100 A  
LRC : 8.0  
Rated torque : 133 ft.lb  
Locked rotor torque : 240 %  
Breakdown torque : 280 %  
Rated speed : 2964 rpm

Moment of inertia (J) : 7.20 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 / 21	Revision
Checked by				
Date	12/04/2022			



# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

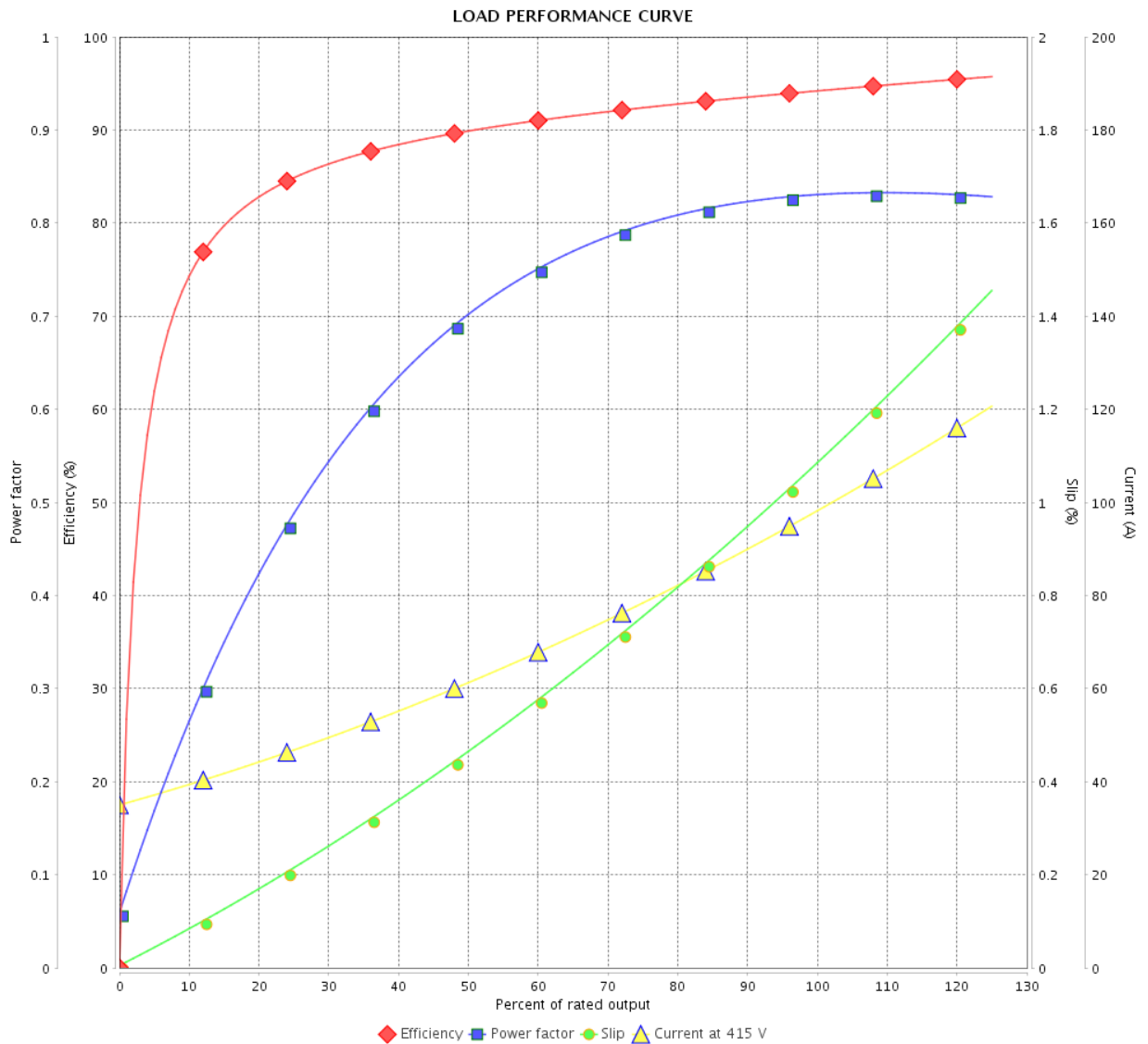


Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14272921

Catalog # : 10036OT3E365TS-W40G



Performance : 415 V 50 Hz 2P IE3

Rated current : 97.8 A  
 LRC : 7.9  
 Rated torque : 133 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 320 %  
 Rated speed : 2967 rpm

Moment of inertia (J) : 7.20 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			9 / 21	
Date	12/04/2022			

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14272921

Catalog # : 10036OT3E365TS-W40G

Performance : 230/460 V 60 Hz 2P

Rated current : 232/116 A  
LRC : 6.6  
Rated torque : 148 ft.lb  
Locked rotor torque : 180 %  
Breakdown torque : 229 %  
Rated speed : 3555 rpm

Moment of inertia (J) : 7.20 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

Heating constant

Cooling constant

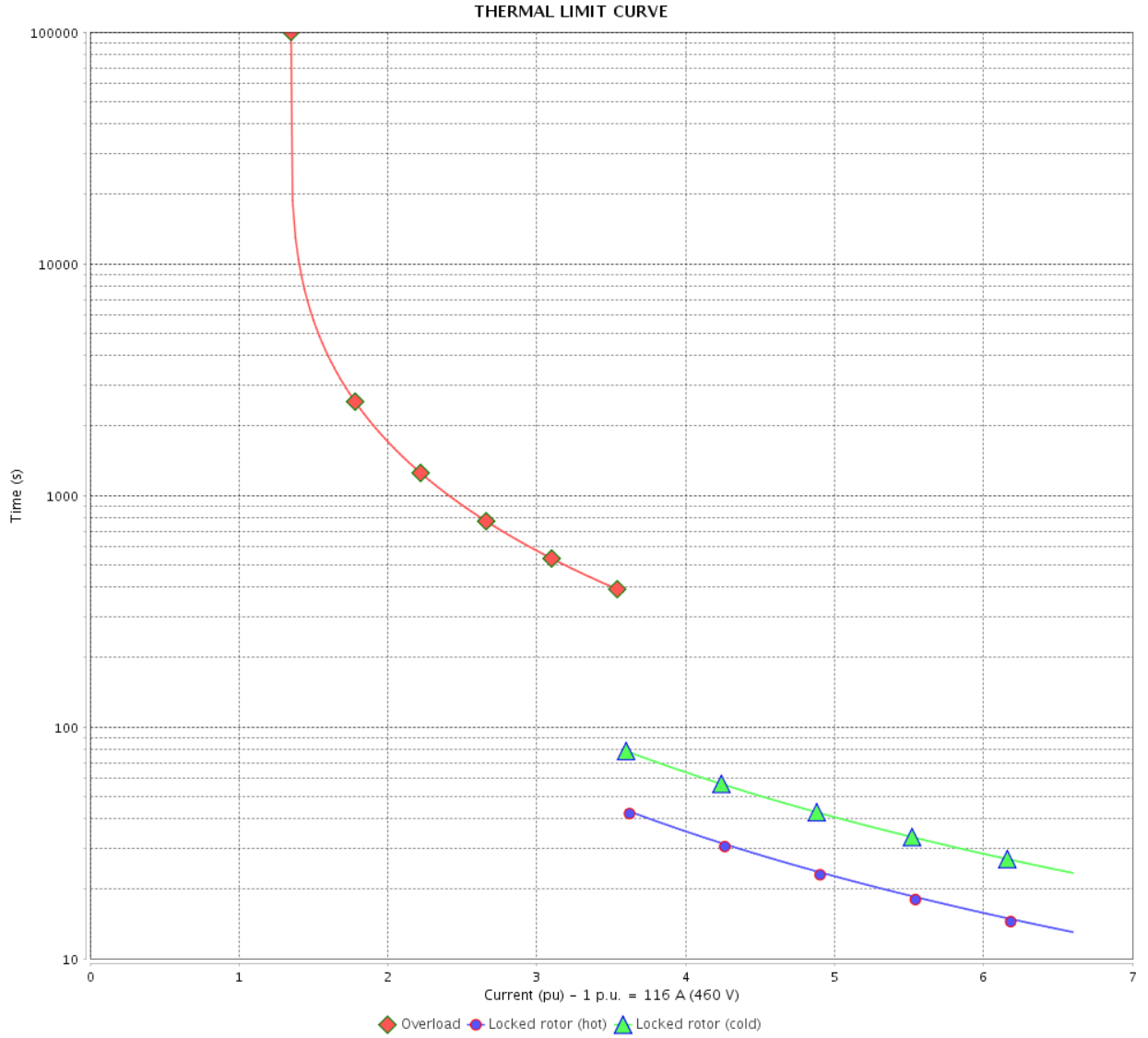
Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 10 / 21	Revision
Checked by				
Date	12/04/2022			

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		11 / 21		
Date		12/04/2022		

# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14272921

Catalog # : 10036OT3E365TS-W40G

Performance : 380 V 50 Hz 2P IE3

Rated current	: 103 A	Moment of inertia (J)	: 7.20 sq.ft.lb
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 133 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 2960 rpm	Design	: B

Heating constant

Cooling constant

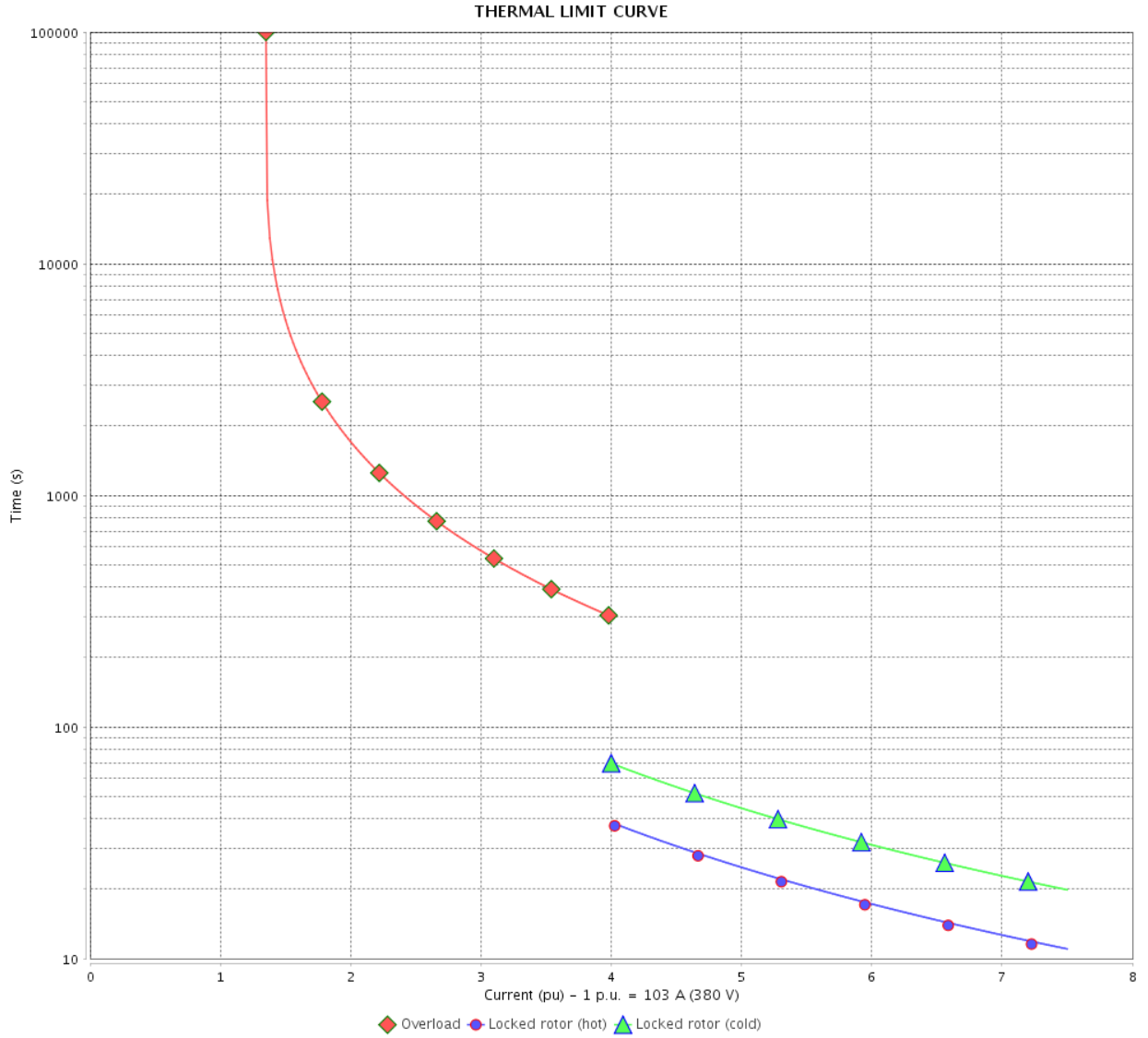
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	12/04/2022		12 / 21	

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		13 / 21		
Date		12/04/2022		

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14272921

Catalog # : 10036OT3E365TS-W40G

Performance : 400 V 50 Hz 2P IE3

Rated current : 100 A	Moment of inertia (J) : 7.20 sq.ft.lb
LRC : 8.0	Duty cycle : Cont.(S1)
Rated torque : 133 ft.lb	Insulation class : F
Locked rotor torque : 240 %	Service factor : 1.00
Breakdown torque : 280 %	Temperature rise : 80 K
Rated speed : 2964 rpm	Design : B

Heating constant

Cooling constant

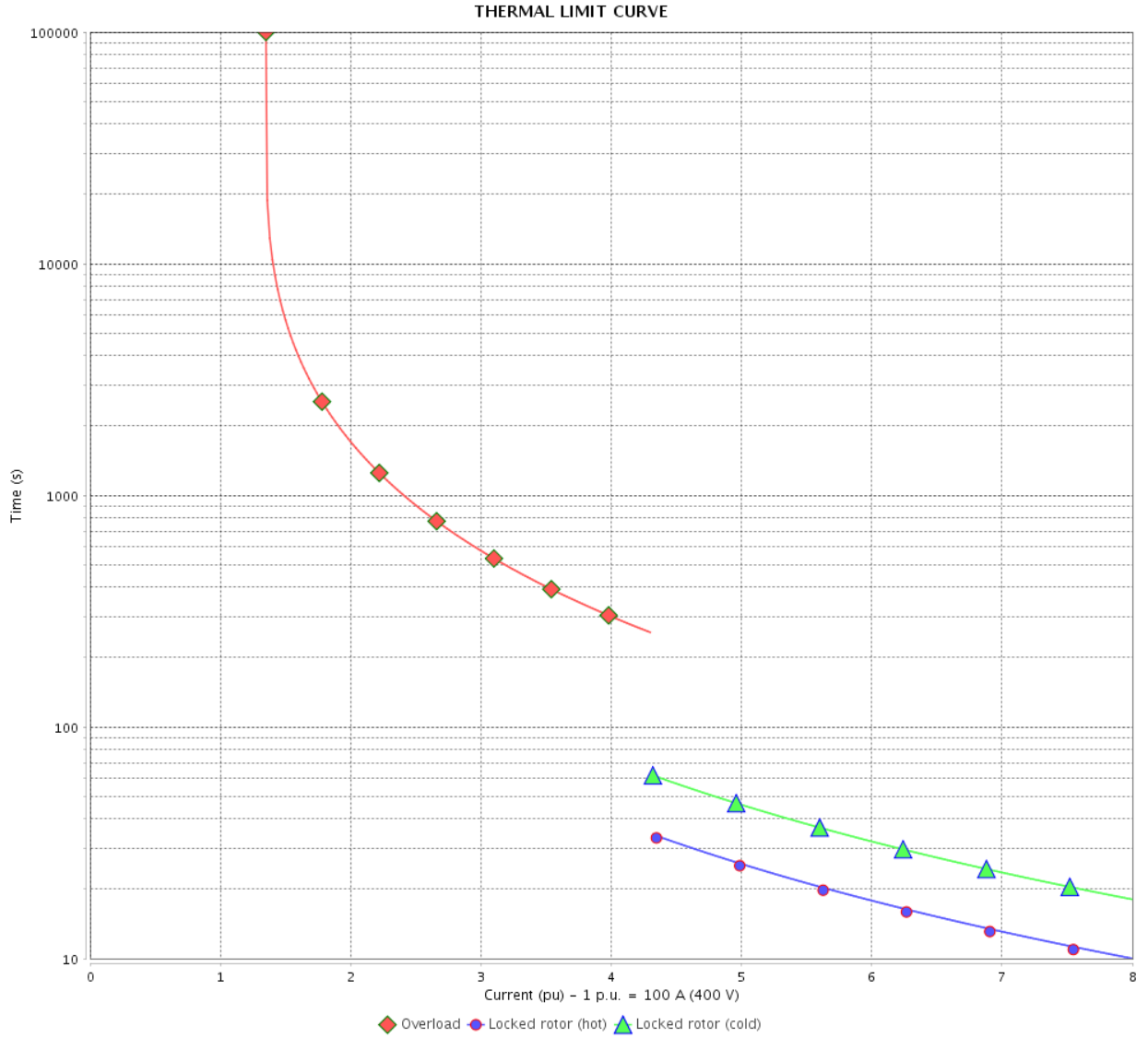
Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 14 / 21	Revision
Checked by				
Date	12/04/2022			

# 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				

# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14272921

Catalog # : 10036OT3E365TS-W40G

Performance : 415 V 50 Hz 2P IE3

Rated current	: 97.8 A	Moment of inertia (J)	: 7.20 sq.ft.lb
LRC	: 7.9	Duty cycle	: Cont.(S1)
Rated torque	: 133 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 2967 rpm	Design	: B

Heating constant

Cooling constant

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	12/04/2022		16 / 21	

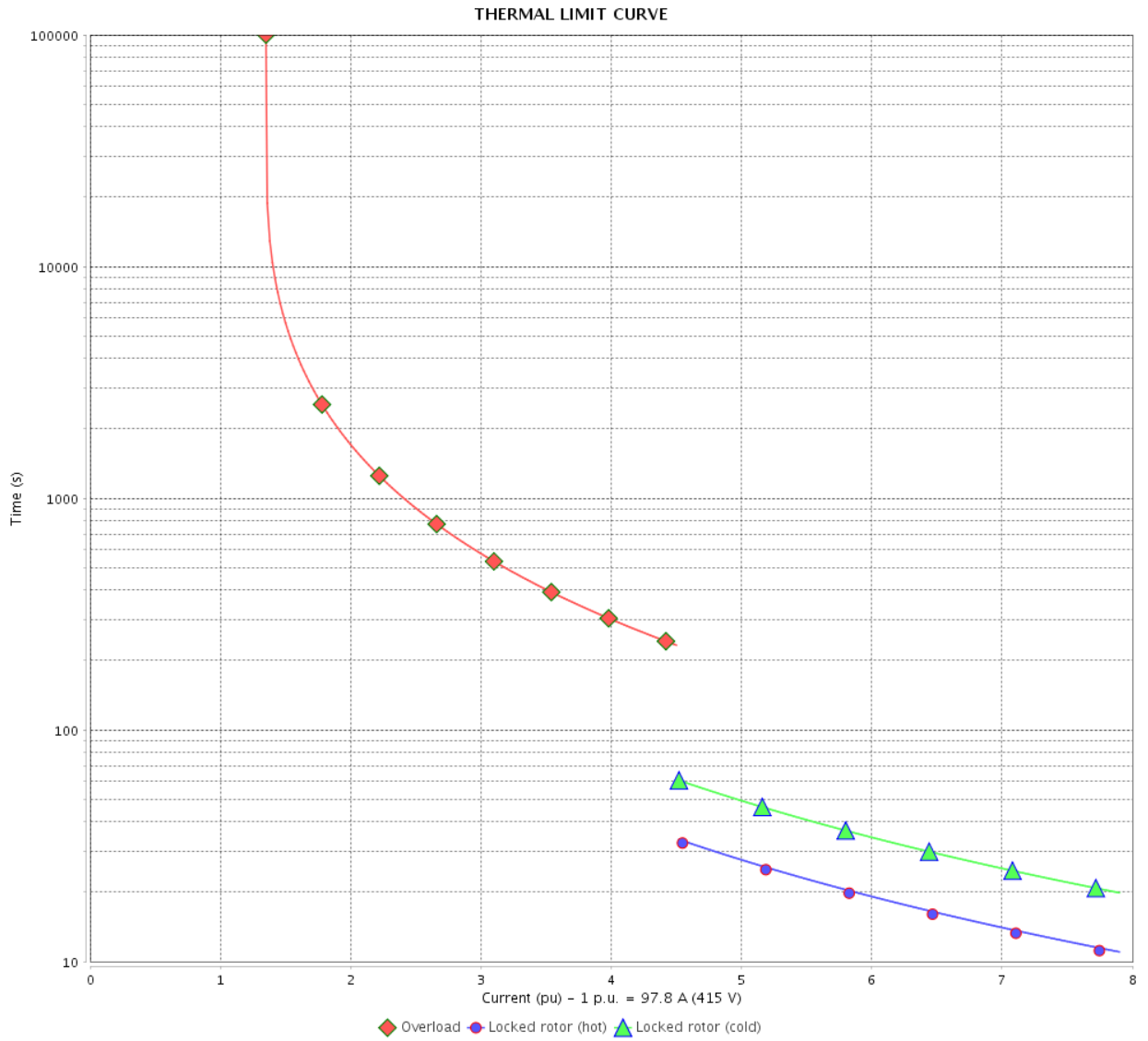


# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		17 / 21		
Date		12/04/2022		

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

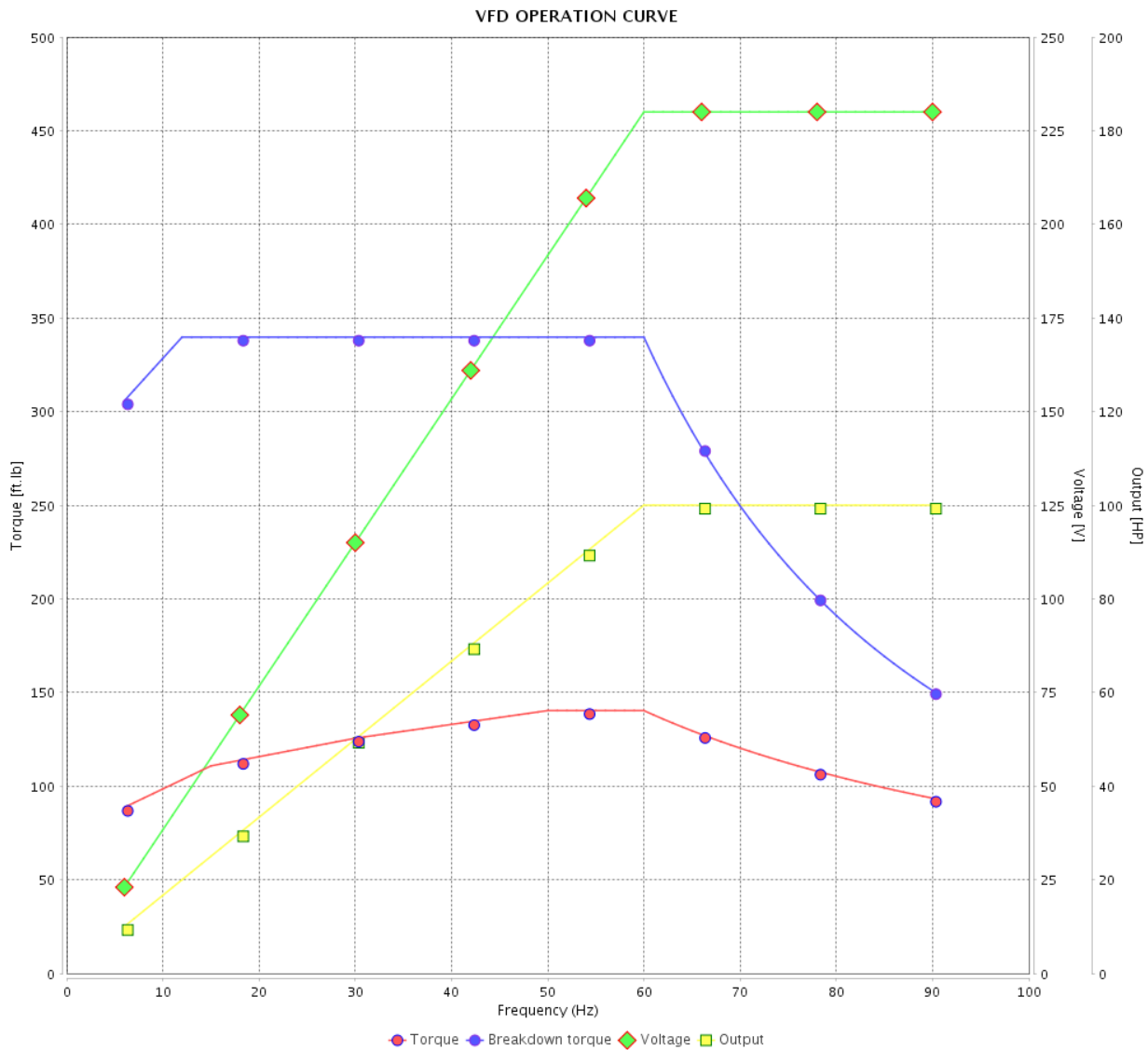


Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14272921

Catalog # : 10036OT3E365TS-W40G



Performance : 230/460 V 60 Hz 2P

Rated current : 232/116 A  
LRC : 6.6  
Rated torque : 148 ft.lb  
Locked rotor torque : 180 %  
Breakdown torque : 229 %  
Rated speed : 3555 rpm

Moment of inertia (J) : 7.20 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	12/04/2022			

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

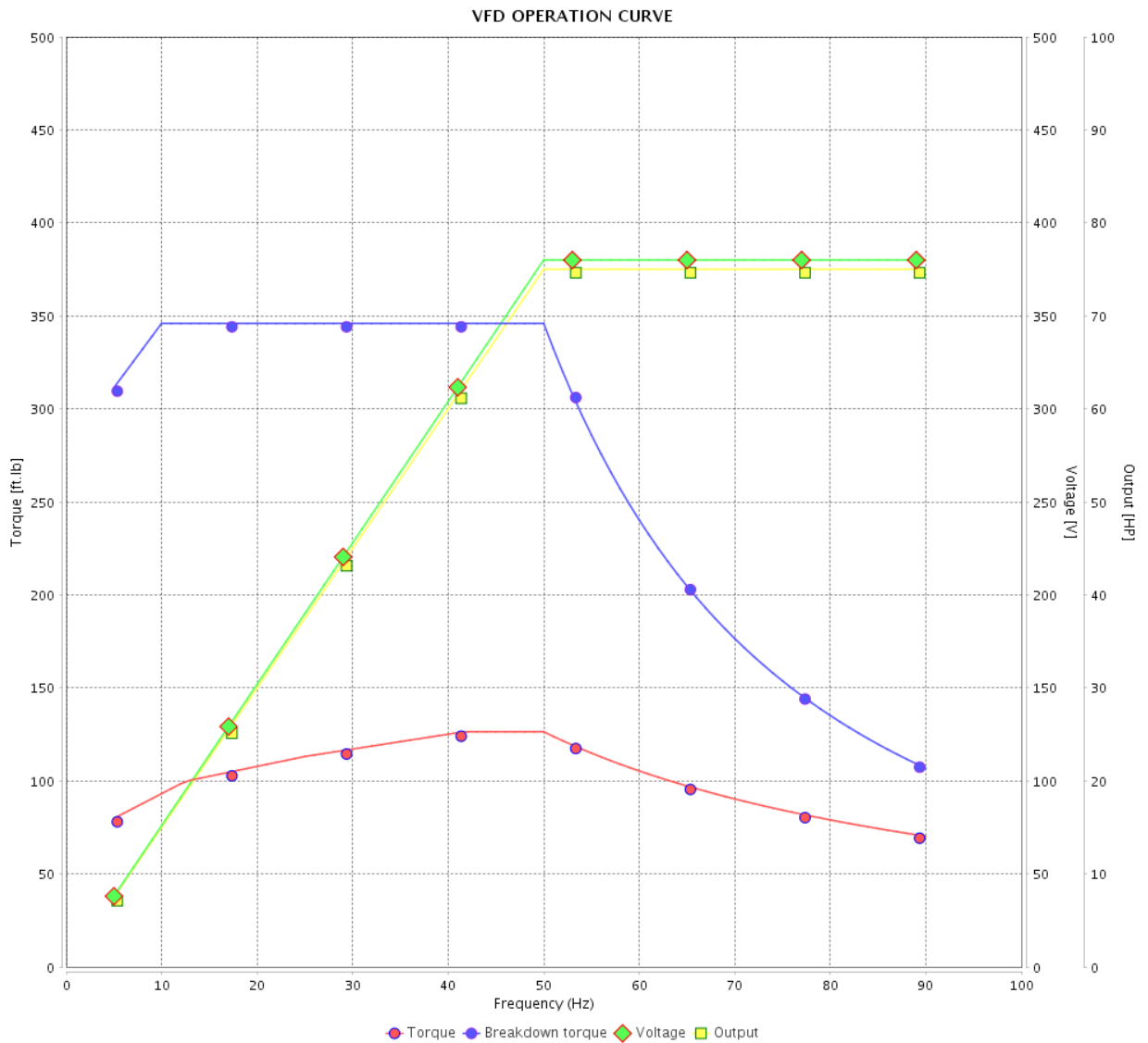


Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14272921

Catalog # : 10036OT3E365TS-W40G



Performance : 380 V 50 Hz 2P IE3

Rated current : 103 A  
LRC : 7.5  
Rated torque : 133 ft.lb  
Locked rotor torque : 220 %  
Breakdown torque : 260 %  
Rated speed : 2960 rpm

Moment of inertia (J) : 7.20 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		19 / 21		
Date	12/04/2022			

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

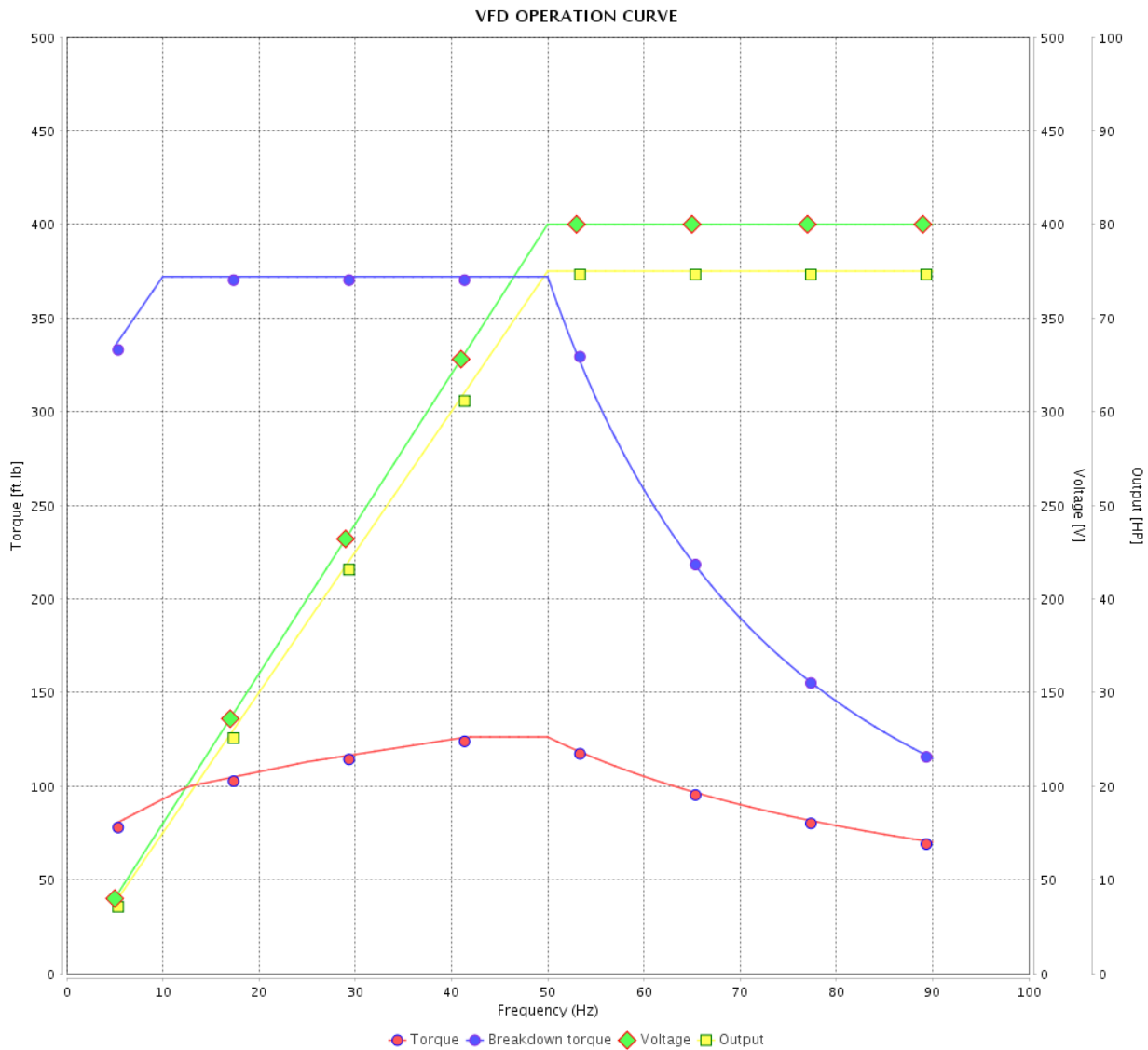


Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14272921

Catalog # : 10036OT3E365TS-W40G



Performance : 400 V 50 Hz 2P IE3

Rated current	: 100 A	Moment of inertia (J)	: 7.20 sq.ft.lb
LRC	: 8.0	Duty cycle	: Cont.(S1)
Rated torque	: 133 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 2964 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 20 / 21	Revision
Checked by				
Date	12/04/2022			

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

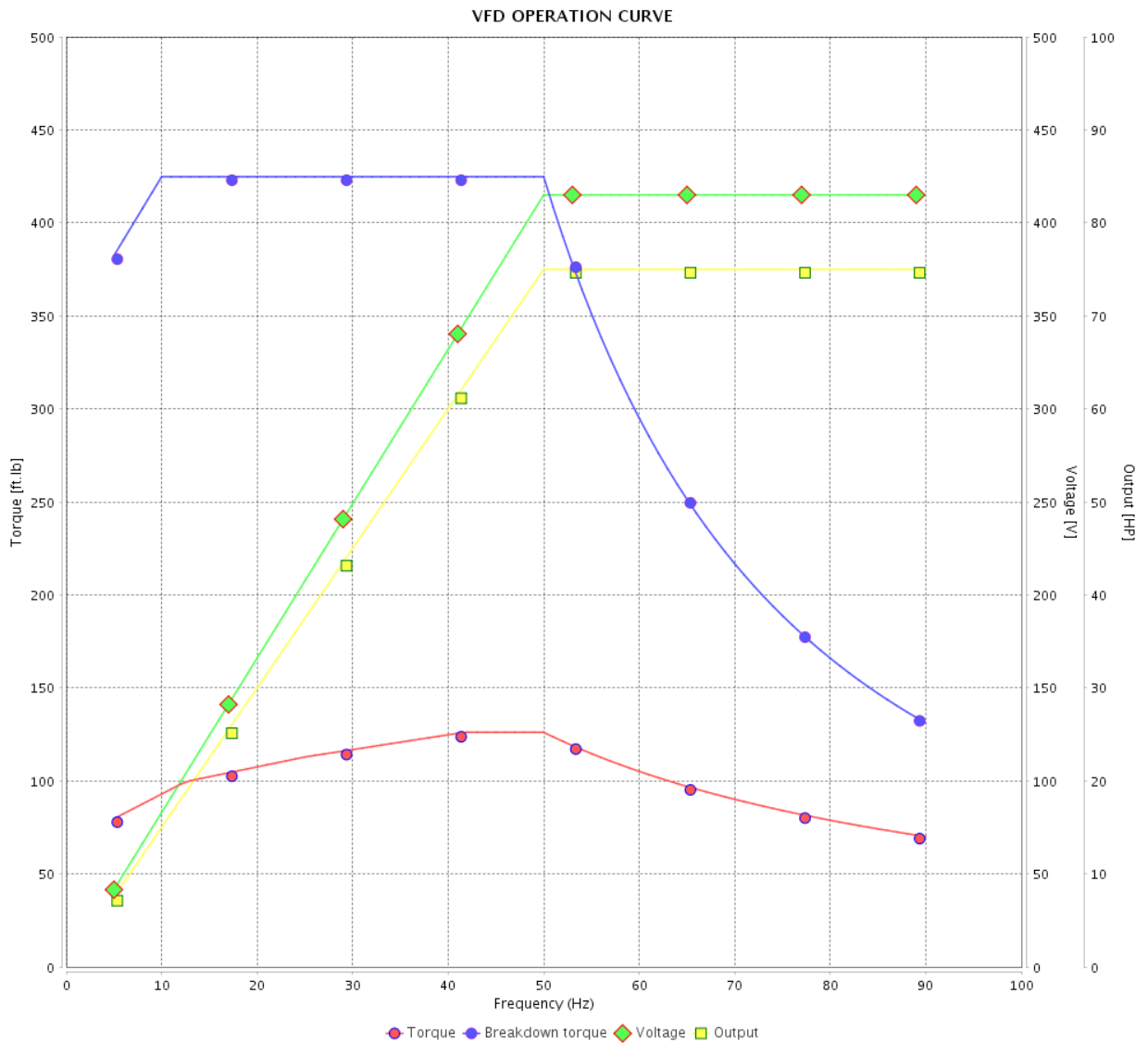


Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14272921

Catalog # : 10036OT3E365TS-W40G

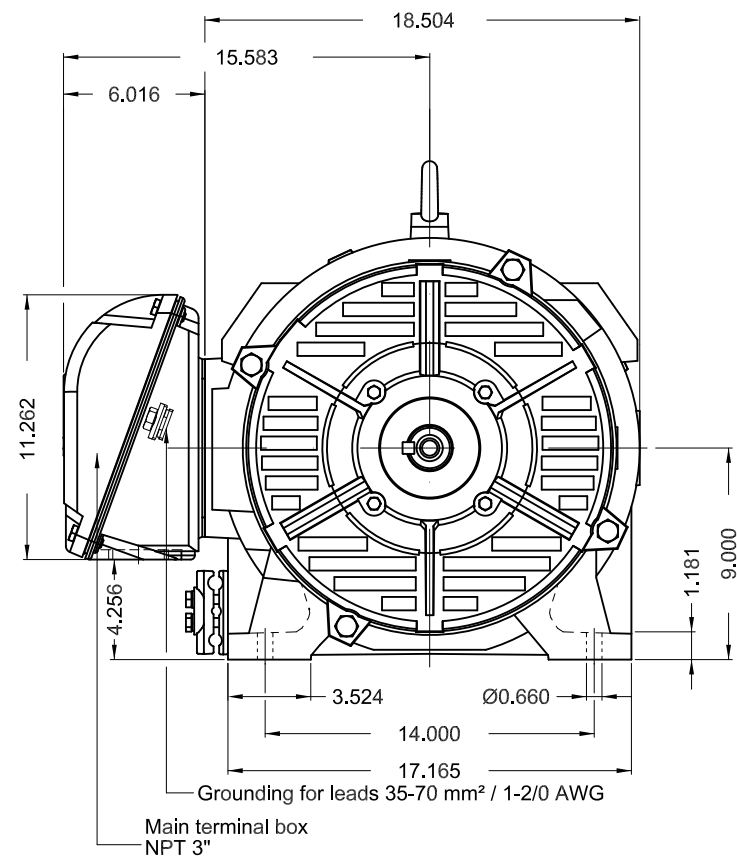


Performance : 415 V 50 Hz 2P IE3

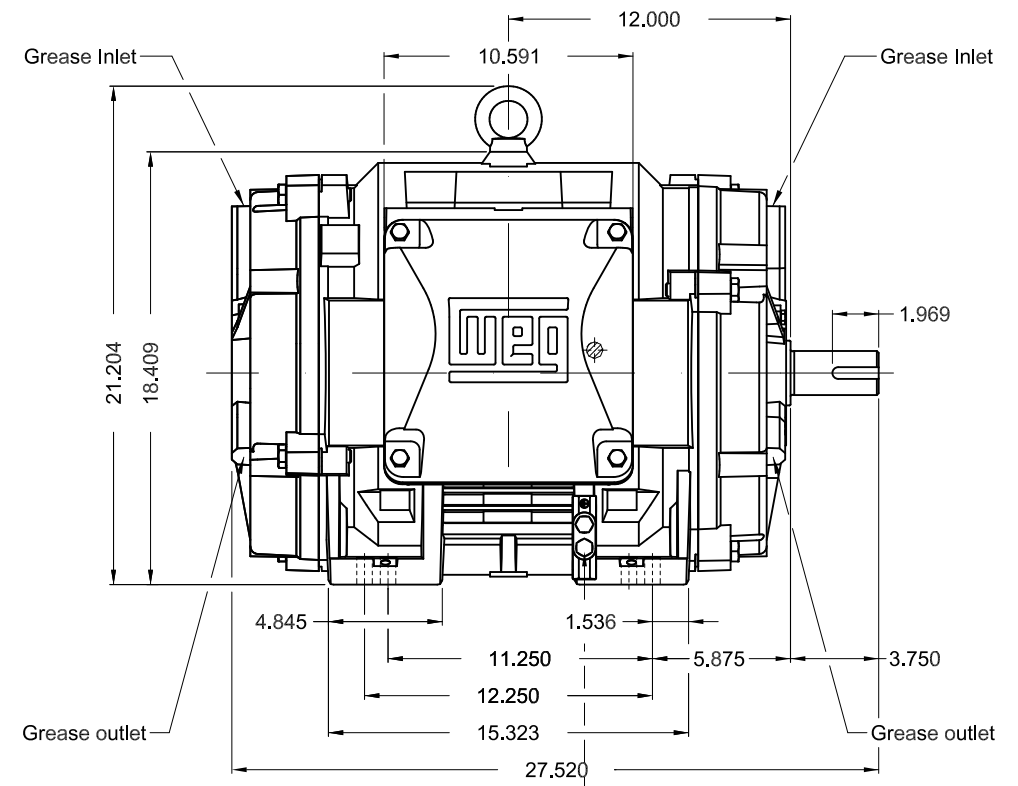
Rated current : 97.8 A  
 LRC : 7.9  
 Rated torque : 133 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 320 %  
 Rated speed : 2967 rpm

Moment of inertia (J) : 7.20 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	12/04/2022			
				Revision



Grounding for leads 35-70 mm<sup>2</sup> / 1-2/0 AWG  
Main terminal box  
NPT 3"



Grounding for leads 25-185 mm<sup>2</sup> / 3AWG-350MCM

100 HP 02 Poles 60 Hz

A

1:8

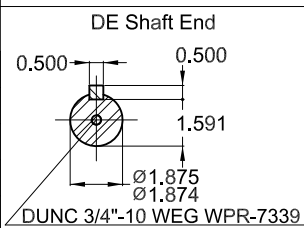
Internal AEGIS ground ring on the DE

Color RAL 5009

Painting plan 203A

Mounting NEMA F-1

Mounting B3R(D)



DUNC 3/4"-10 WEG WPR-7339

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W40 PREM. EFF.					
CHECKED		FRAME 364/5TS IP23 ODP					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering				

PREVIEW  
WDD



SHEET 1 / 1