

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer					
Product line		: W40 NEMA Premium Efficiency Three-Phase		Product code : 14270885	
				Catalog # : 06018OT3E364TS-W40	
Frame		: 364/5TS		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 : 742 lb	
Protection degree		: IP23		Moment of inertia (J) : 15.6 sq.ft.lb	
Design		: B			
Output [HP]	60	50	50	50	50
Poles	4	4	4	4	4
Frequency [Hz]	60	50	50	50	50
Rated voltage [V]	230/460	380	400	415	415
Rated current [A]	140/69.9	69.6	66.9	65.3	65.3
L. R. Amperes [A]	909/454	473	482	457	457
LRC [A]	6.5x(Code G)	6.8x(Code G)	7.2x(Code H)	7.0x(Code H)	7.0x(Code H)
No load current [A]	49.4/24.7	24.4	26.2	27.7	27.7
Rated speed [RPM]	1780	1480	1480	1485	1485
Slip [%]	1.11	1.33	1.33	1.00	1.00
Rated torque [ft.lb]	177	177	177	177	177
Locked rotor torque [%]	200	200	220	240	240
Breakdown torque [%]	240	229	250	270	270
Service factor	1.25	1.00	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K	80 K
Locked rotor time	34s (cold) 19s (hot)	32s (cold) 18s (hot)	30s (cold) 17s (hot)	28s (cold) 16s (hot)	28s (cold) 16s (hot)
Noise level ²	69.0 dB(A)				
Efficiency (%)	25%	94.4	93.4	93.4	93.4
	50%	94.5	93.5	93.5	93.5
	75%	95.0	93.9	93.9	93.9
	100%	95.0	93.9	93.9	93.9
Power Factor	25%	0.48	0.49	0.45	0.42
	50%	0.73	0.74	0.71	0.68
	75%	0.82	0.83	0.81	0.79
	100%	0.85	0.86	0.85	0.84
Bearing type		Drive end : 6314 C3	Non drive end : 6212 Z C3	Foundation loads	
Sealing		: Without	: Without	Max. traction : 1265 lb	
Lubrication interval		: 20000 h	: 20000 h	Max. compression : 2007 lb	
Lubricant amount		: 27 g	: 13 g		
Lubricant type		: Mobil Polyrex EM			
Notes					
USABLE @208V 155A SF 1.15 SFA 178A					
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



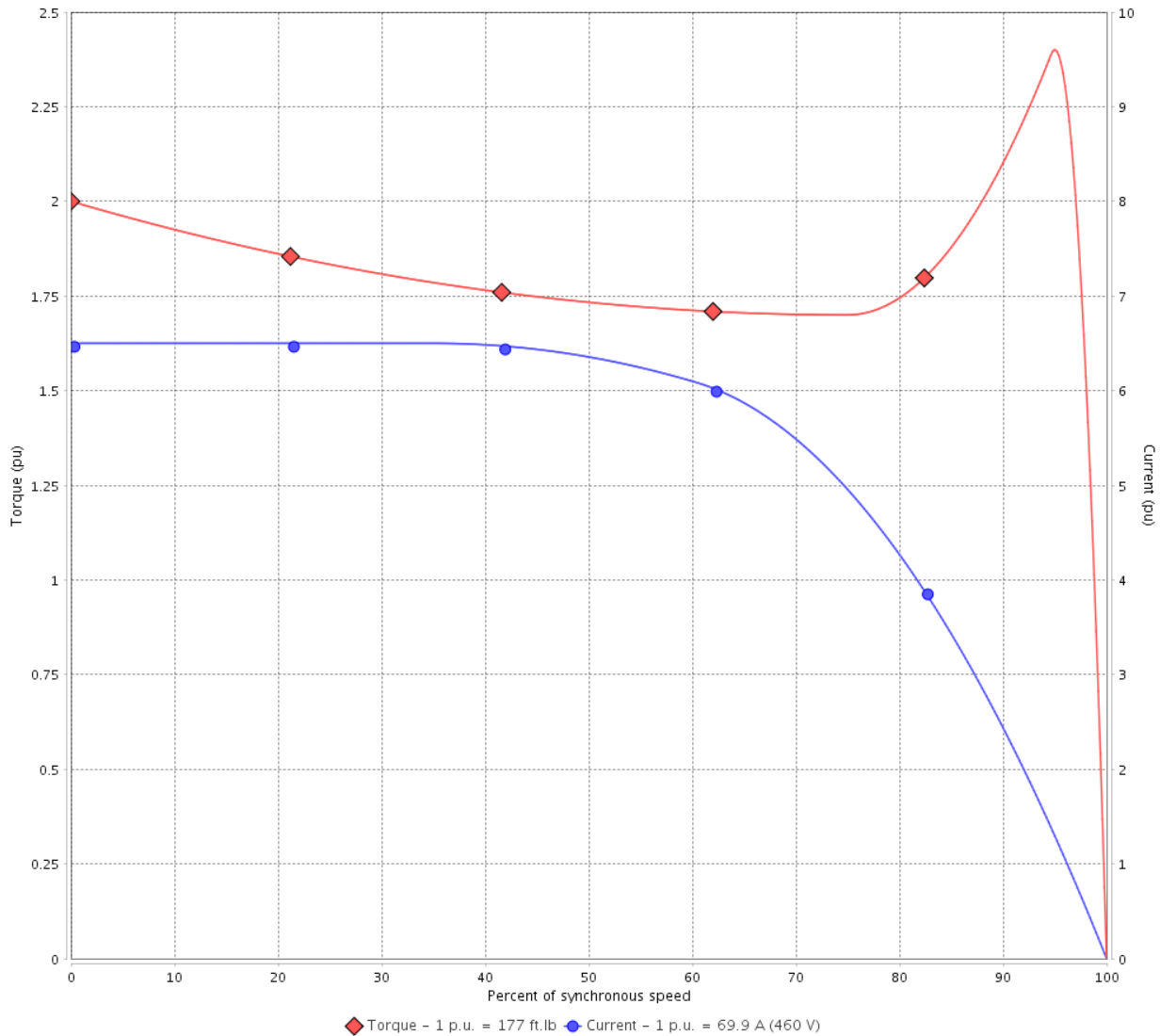
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14270885

Catalog # : 06018OT3E364TS-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

Rated current	: 140/69.9 A	Moment of inertia (J)	: 15.6 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 177 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.25
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 1780 rpm	Design	: B

Locked rotor time : 34s (cold) 19s (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



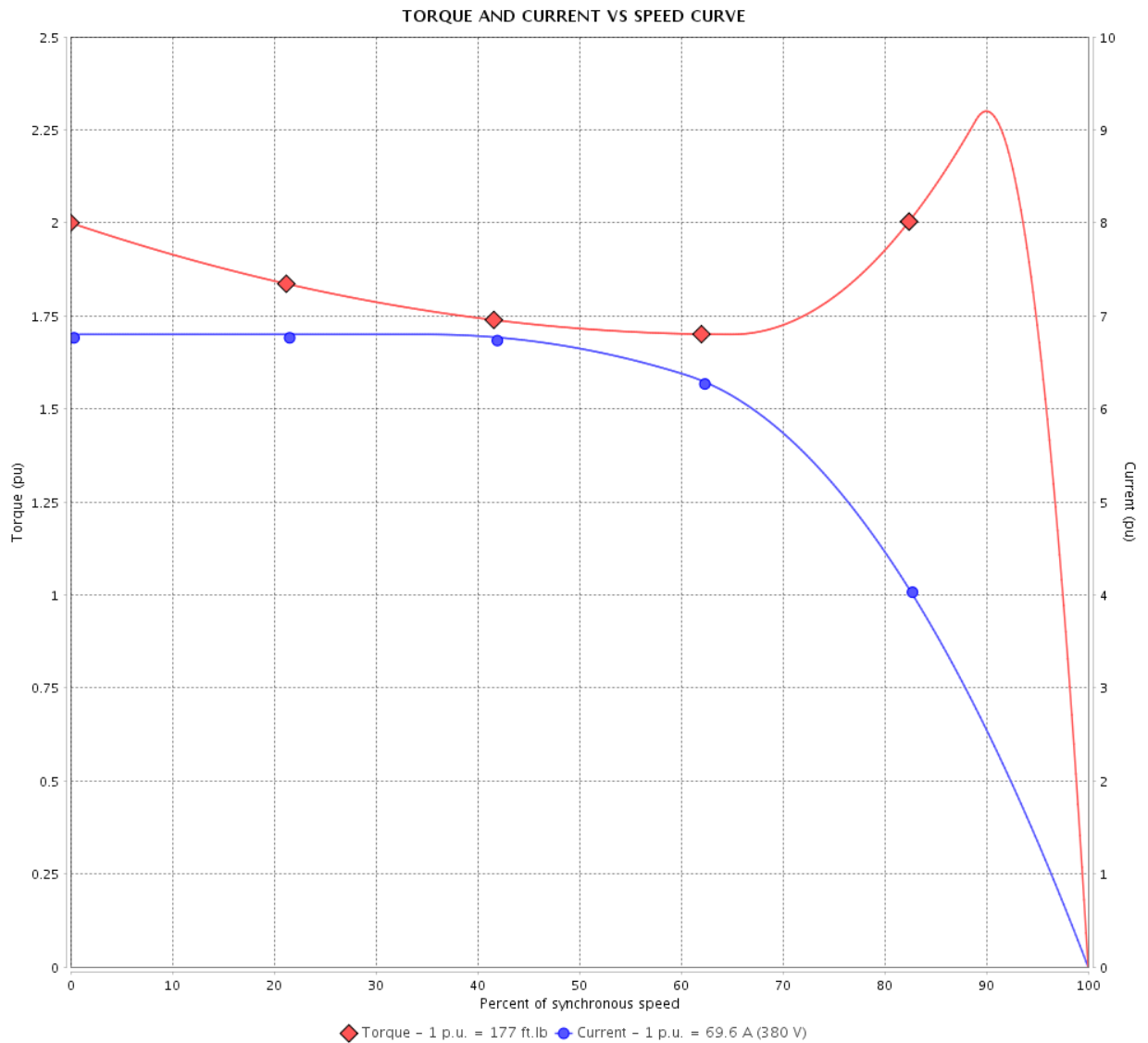
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14270885

Catalog # : 06018OT3E364TS-W40



Performance : 380 V 50 Hz 4P IE3

Rated current	: 69.6 A	Moment of inertia (J)	: 15.6 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 177 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

Locked rotor time : 32s (cold) 18s (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



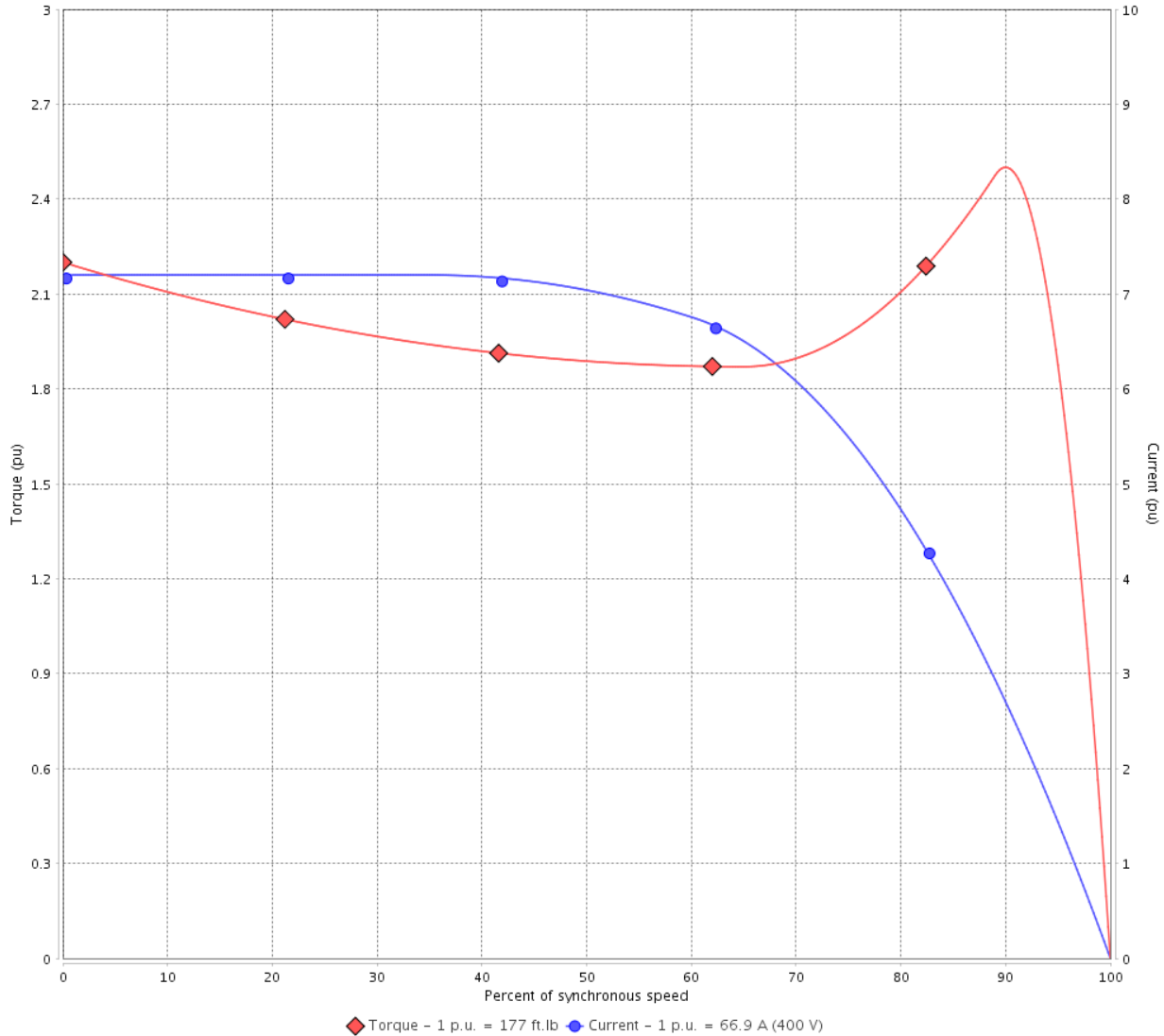
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14270885

Catalog # : 06018OT3E364TS-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 4P IE3

Rated current	: 66.9 A	Moment of inertia (J)	: 15.6 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 177 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 250 %	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			Page 4 / 21	Revision
Checked by				
Date	12/04/2022			

TORQUE AND CURRENT VS SPEED CURVE



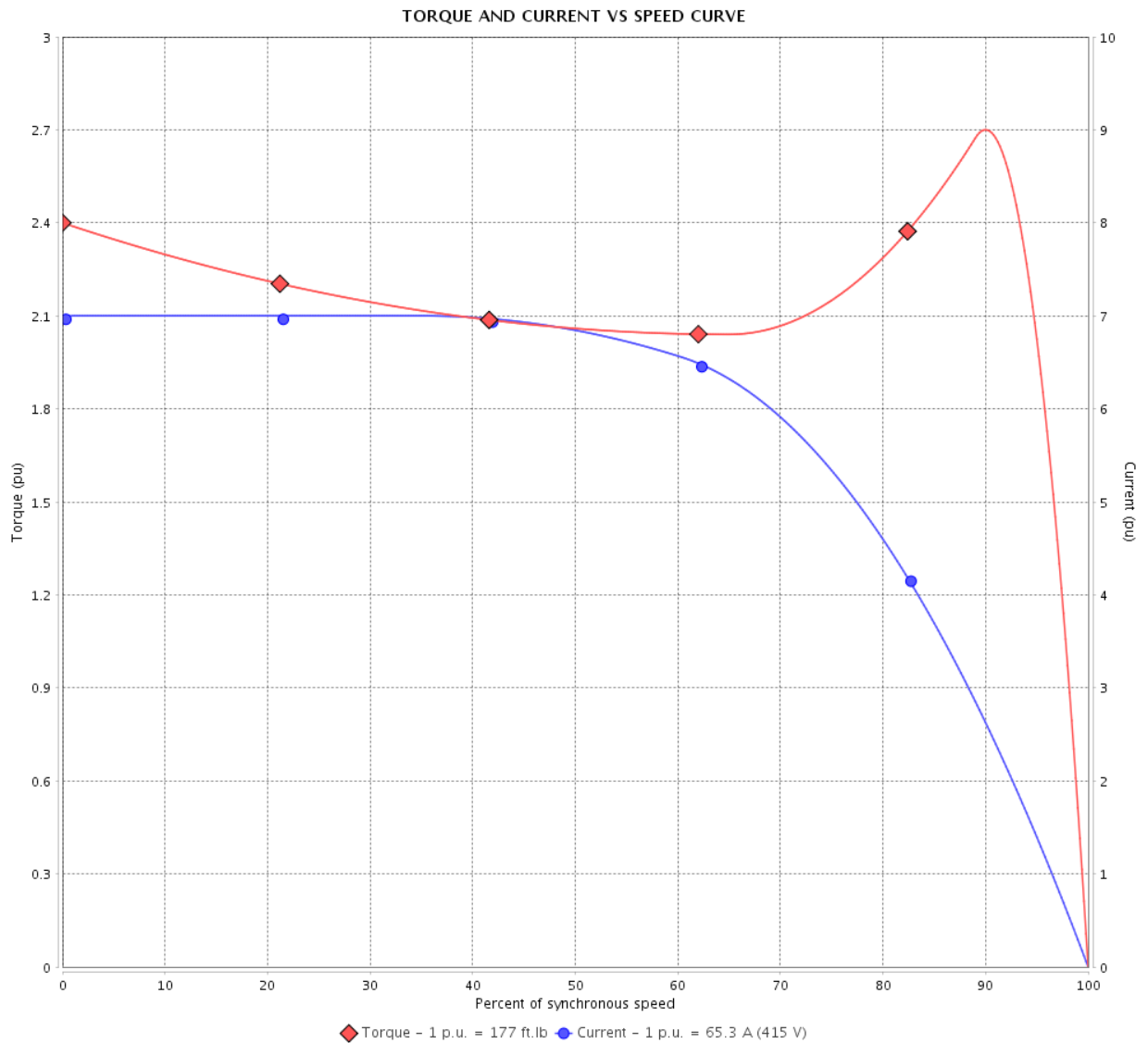
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14270885

Catalog # : 06018OT3E364TS-W40



Performance : 415 V 50 Hz 4P IE3

Rated current	: 65.3 A	Moment of inertia (J)	: 15.6 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 177 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1485 rpm	Design	: B

Locked rotor time : 28s (cold) 16s (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

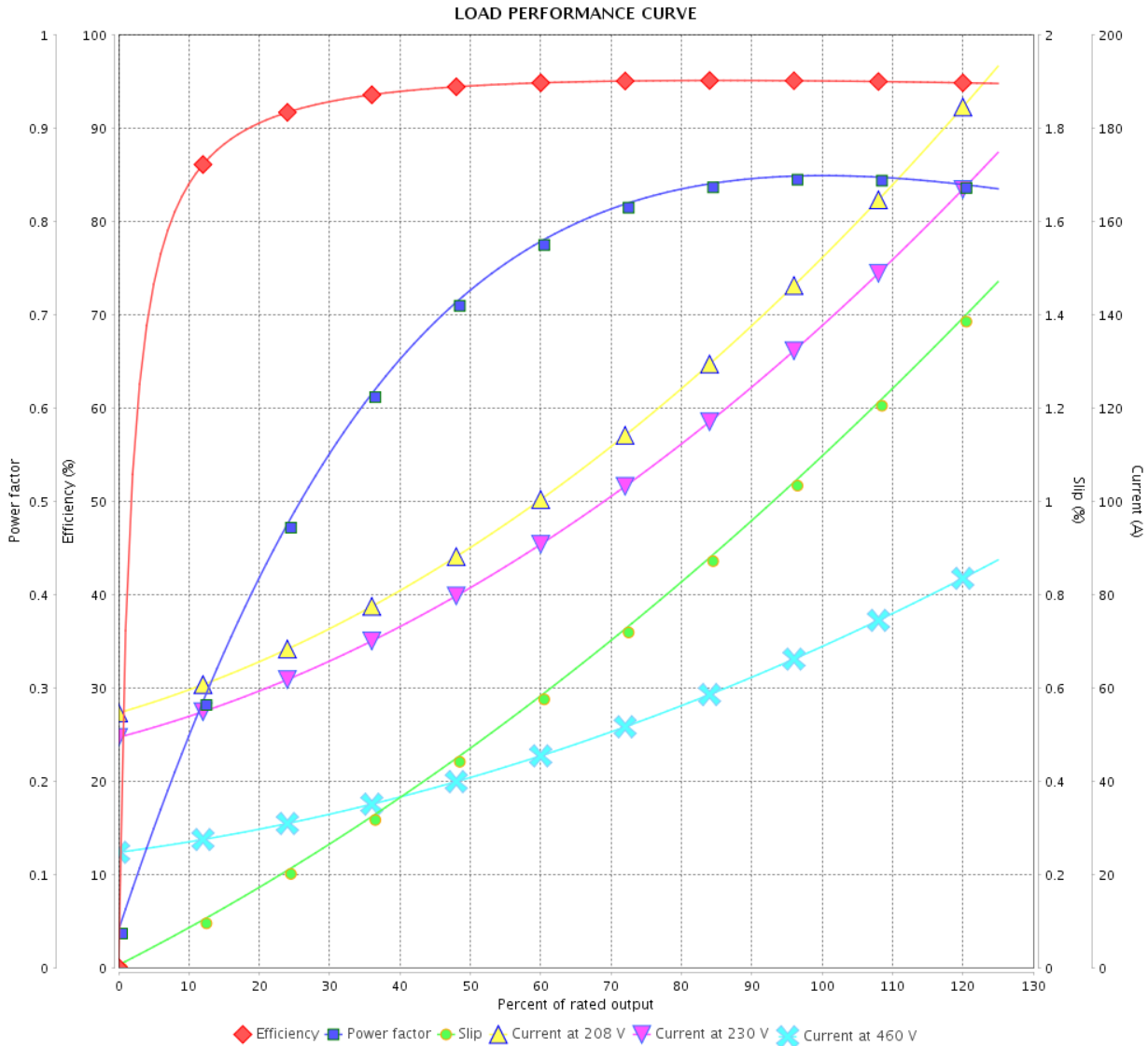


Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14270885

Catalog # : 06018OT3E364TS-W40



Performance : 230/460 V 60 Hz 4P

Rated current : 140/69.9 A
 LRC : 6.5
 Rated torque : 177 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 240 %
 Rated speed : 1780 rpm

Moment of inertia (J) : 15.6 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

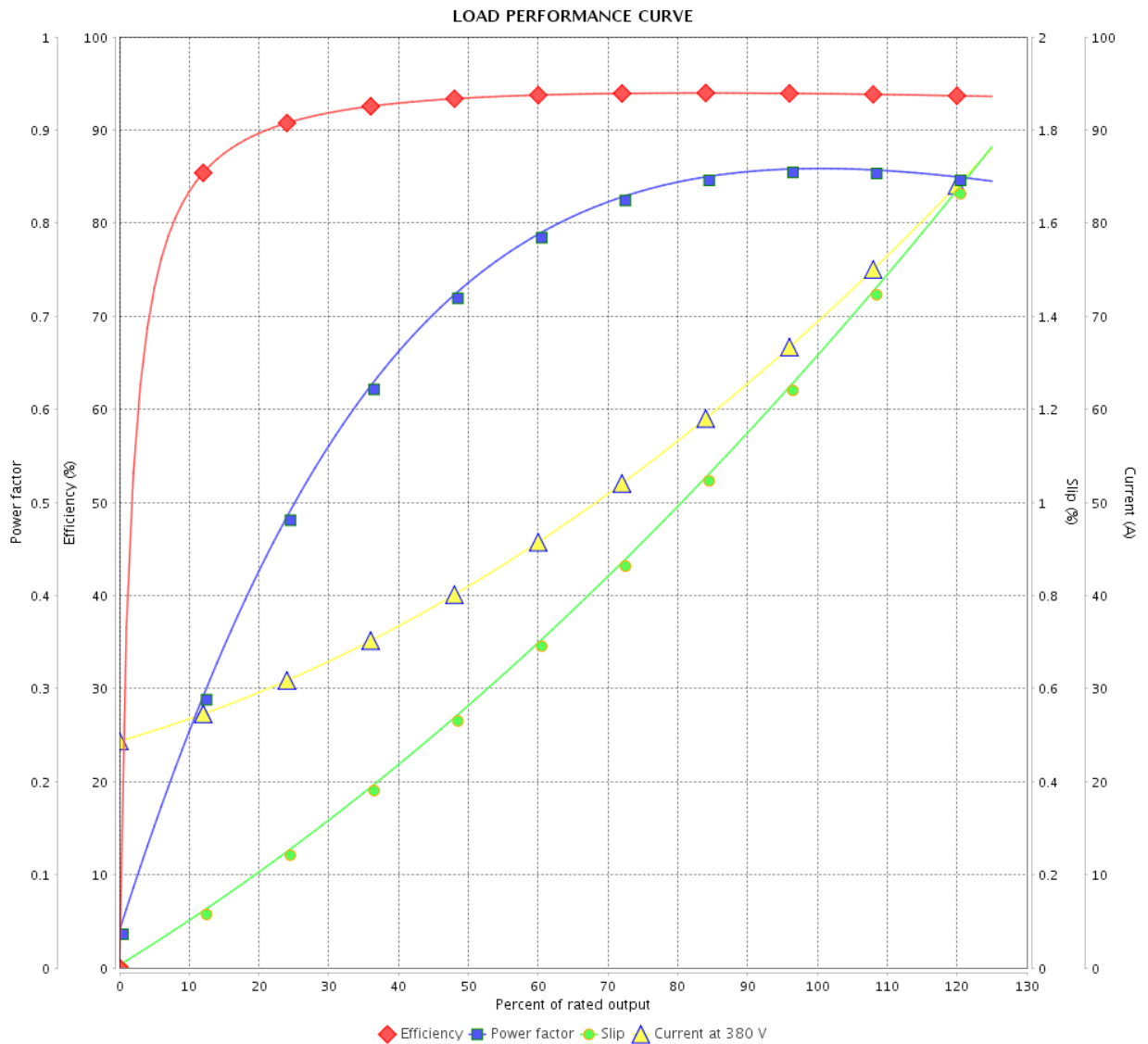


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Product line : W40 NEMA Premium Efficiency Three-Phase

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Catalog # : 06018OT3E364TS-W40



Performance : 380 V 50 Hz 4P IE3

Rated current : 69.6 A
 LRC : 6.8
 Rated torque : 177 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 229 %
 Rated speed : 1480 rpm

Moment of inertia (J) : 15.6 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			

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Three Phase Induction Motor - Squirrel Cage

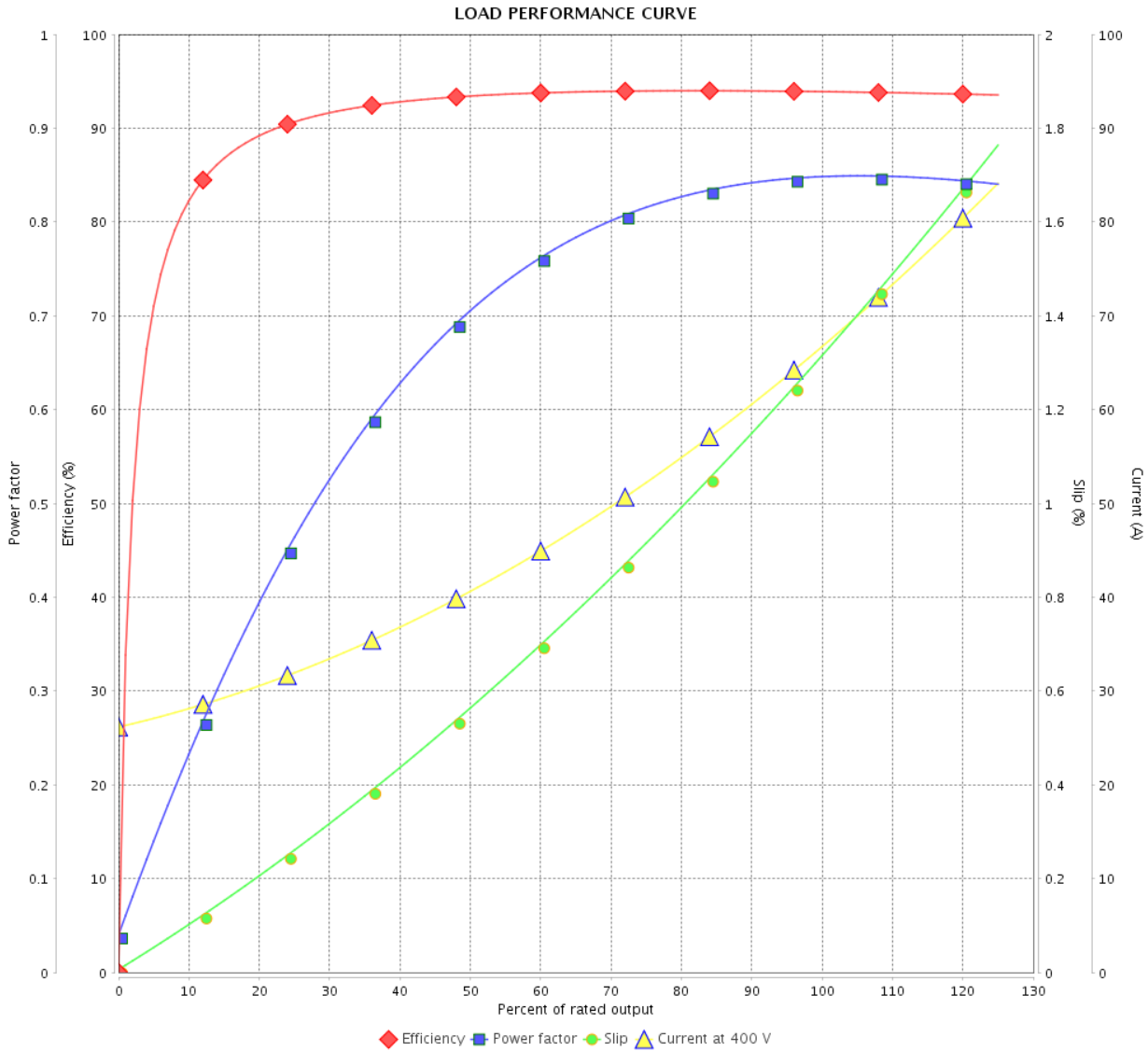


Customer :

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Product code : 14270885

Catalog # : 06018OT3E364TS-W40



Performance : 400 V 50 Hz 4P IE3

Rated current : 66.9 A
 LRC : 7.2
 Rated torque : 177 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 250 %
 Rated speed : 1480 rpm

Moment of inertia (J) : 15.6 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				
Date	12/04/2022			
			8 / 21	

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

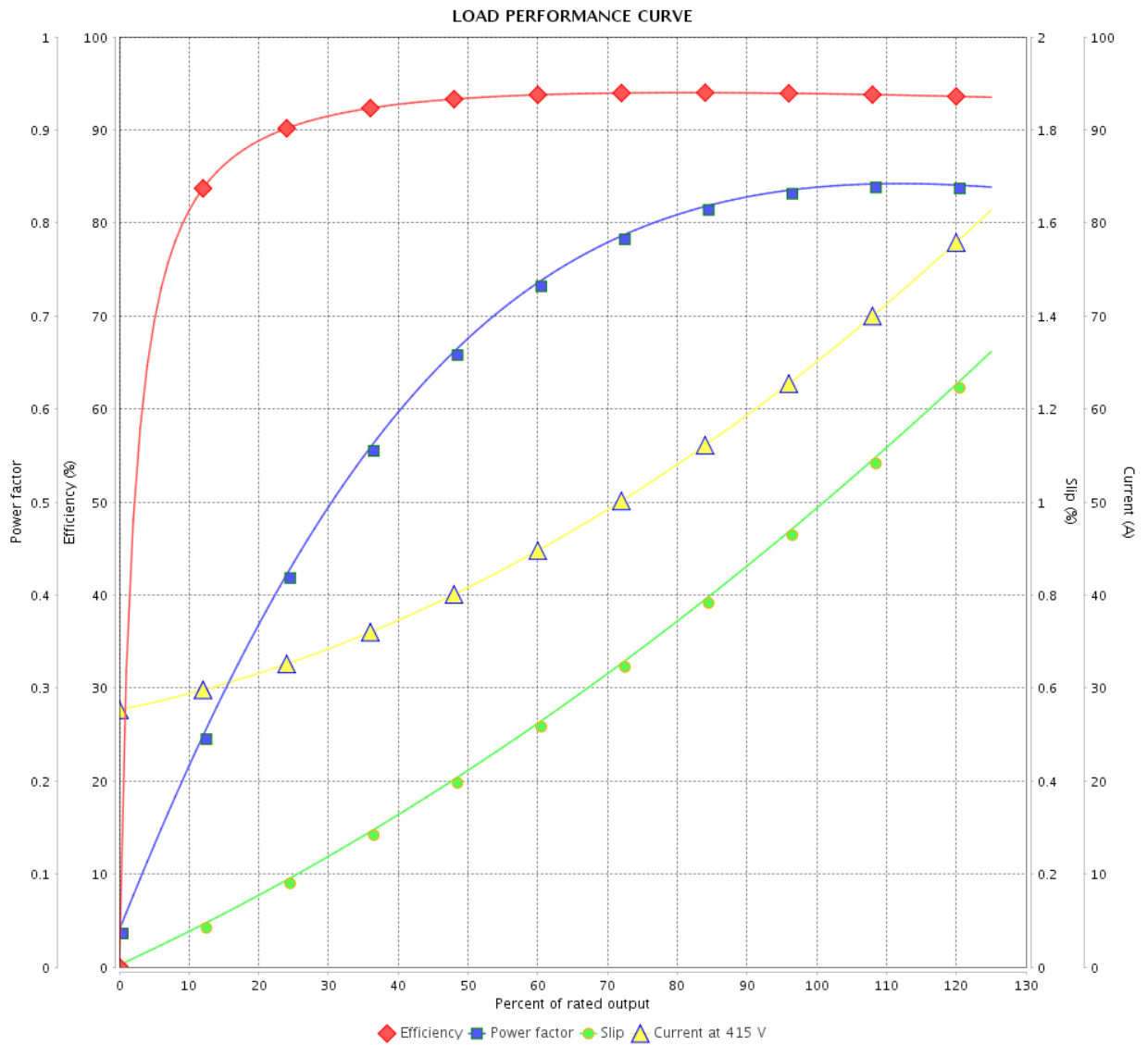


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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by			9 / 21	
Date	12/04/2022			

THERMAL LIMIT CURVE

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Breakdown torque : 240 %
Rated speed : 1780 rpm

Moment of inertia (J) : 15.6 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

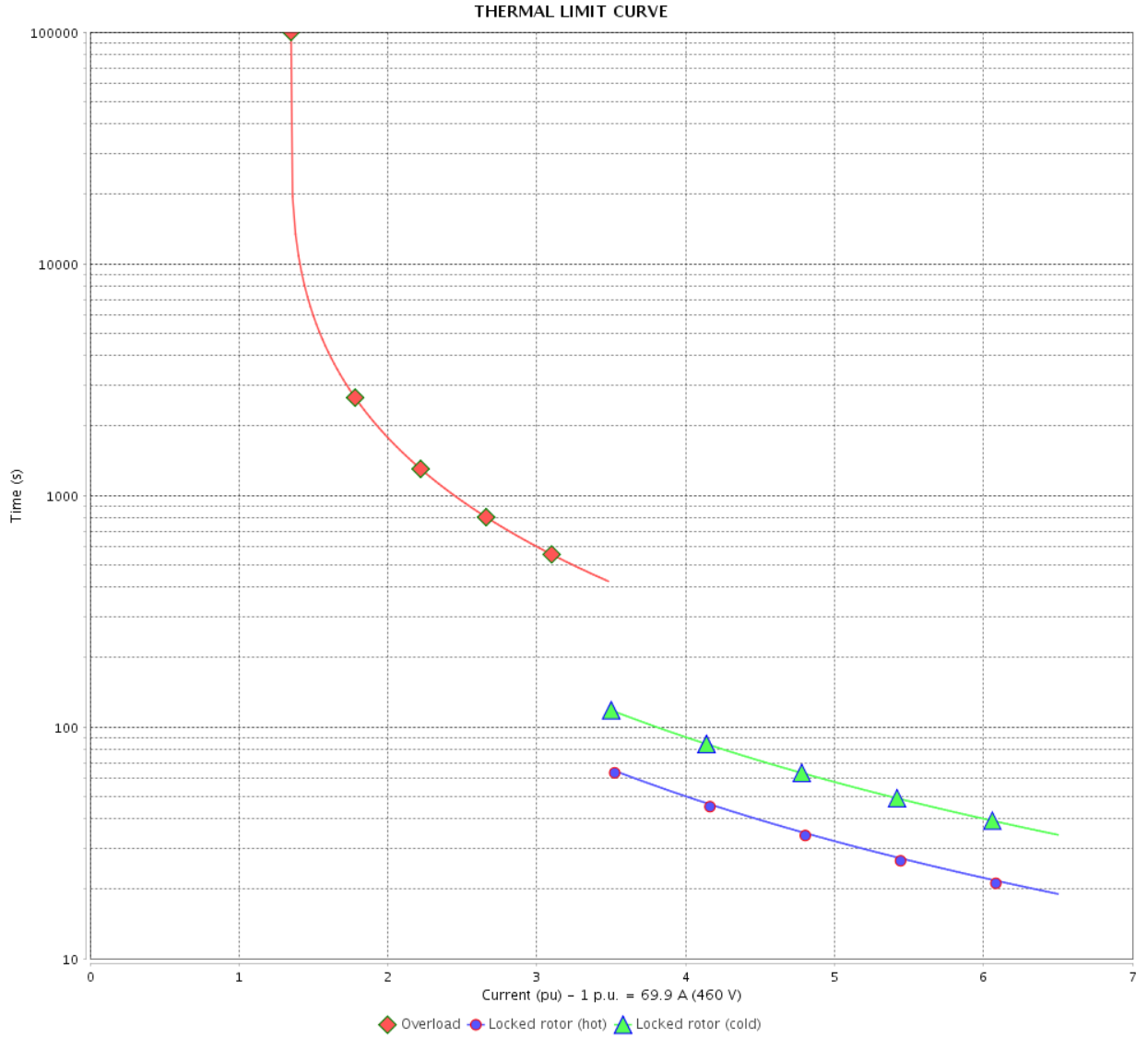
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Checked by			Page	Revision
Date	12/04/2022		10 / 21	

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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

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LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 177 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

Heating constant

Cooling constant

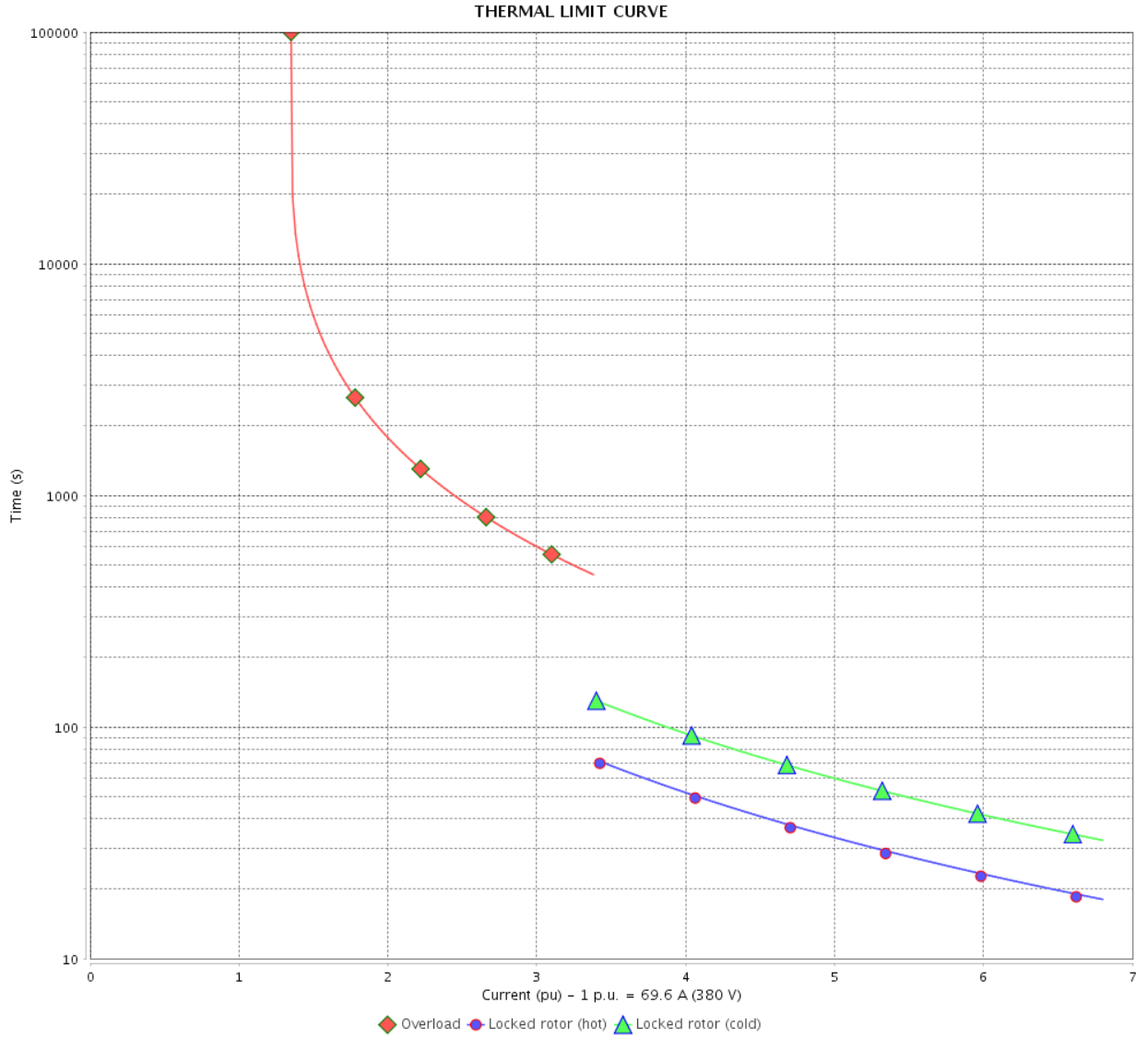
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Performed by				
Checked by			Page	Revision
Date	12/04/2022		12 / 21	

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

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Catalog # : 06018OT3E364TS-W40

Performance : 400 V 50 Hz 4P IE3

Rated current : 66.9 A	Moment of inertia (J) : 15.6 sq.ft.lb
LRC : 7.2	Duty cycle : Cont.(S1)
Rated torque : 177 ft.lb	Insulation class : F
Locked rotor torque : 220 %	Service factor : 1.00
Breakdown torque : 250 %	Temperature rise : 80 K
Rated speed : 1480 rpm	Design : B

Heating constant

Cooling constant

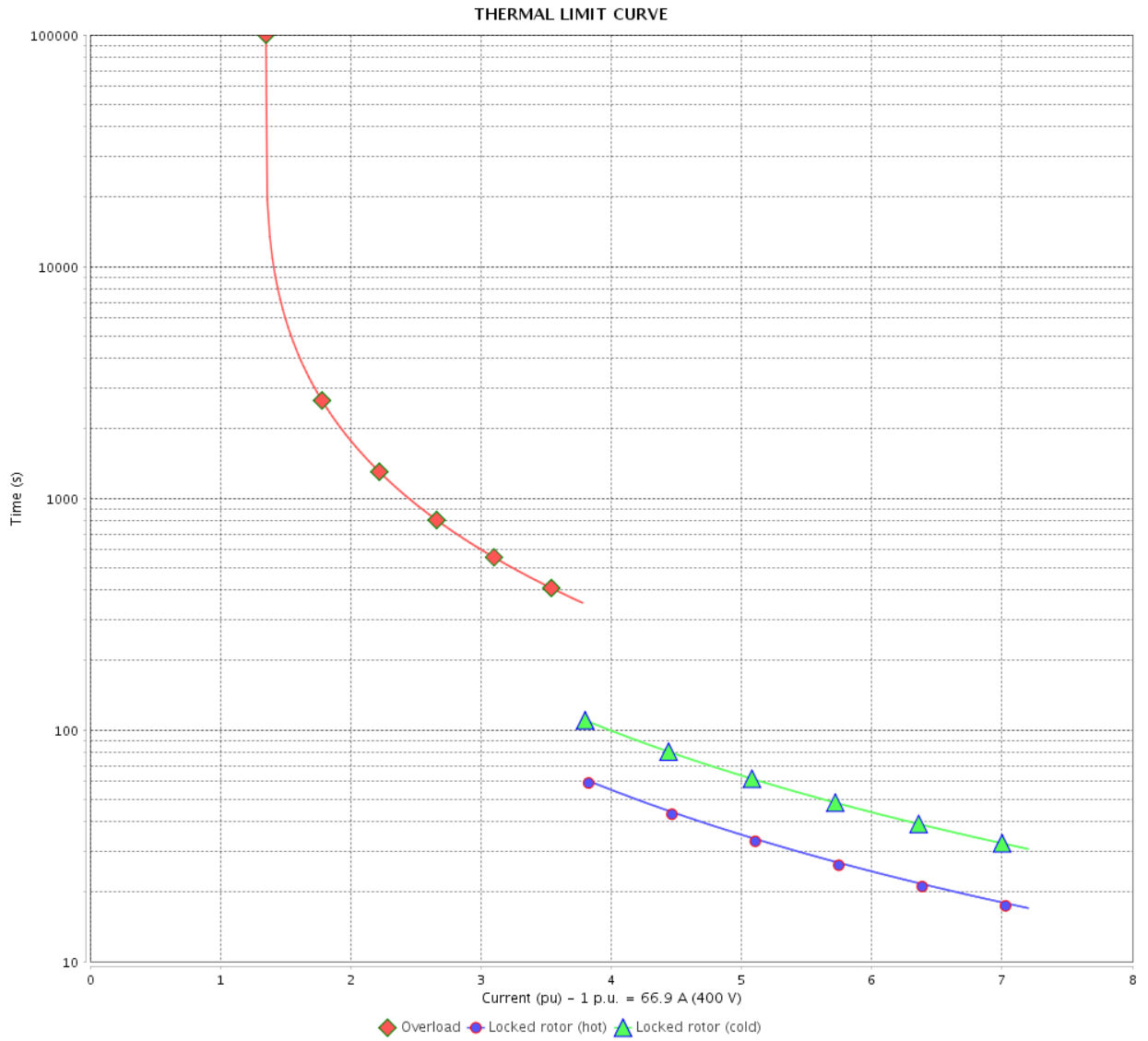
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Performed by			Page 14 / 21	Revision
Checked by				
Date	12/04/2022			

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

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Three-Phase

Product code : 14270885

Catalog # : 06018OT3E364TS-W40

Performance : 415 V 50 Hz 4P IE3

Rated current : 65.3 A	Moment of inertia (J) : 15.6 sq.ft.lb
LRC : 7.0	Duty cycle : Cont.(S1)
Rated torque : 177 ft.lb	Insulation class : F
Locked rotor torque : 240 %	Service factor : 1.00
Breakdown torque : 270 %	Temperature rise : 80 K
Rated speed : 1485 rpm	Design : B

Heating constant

Cooling constant

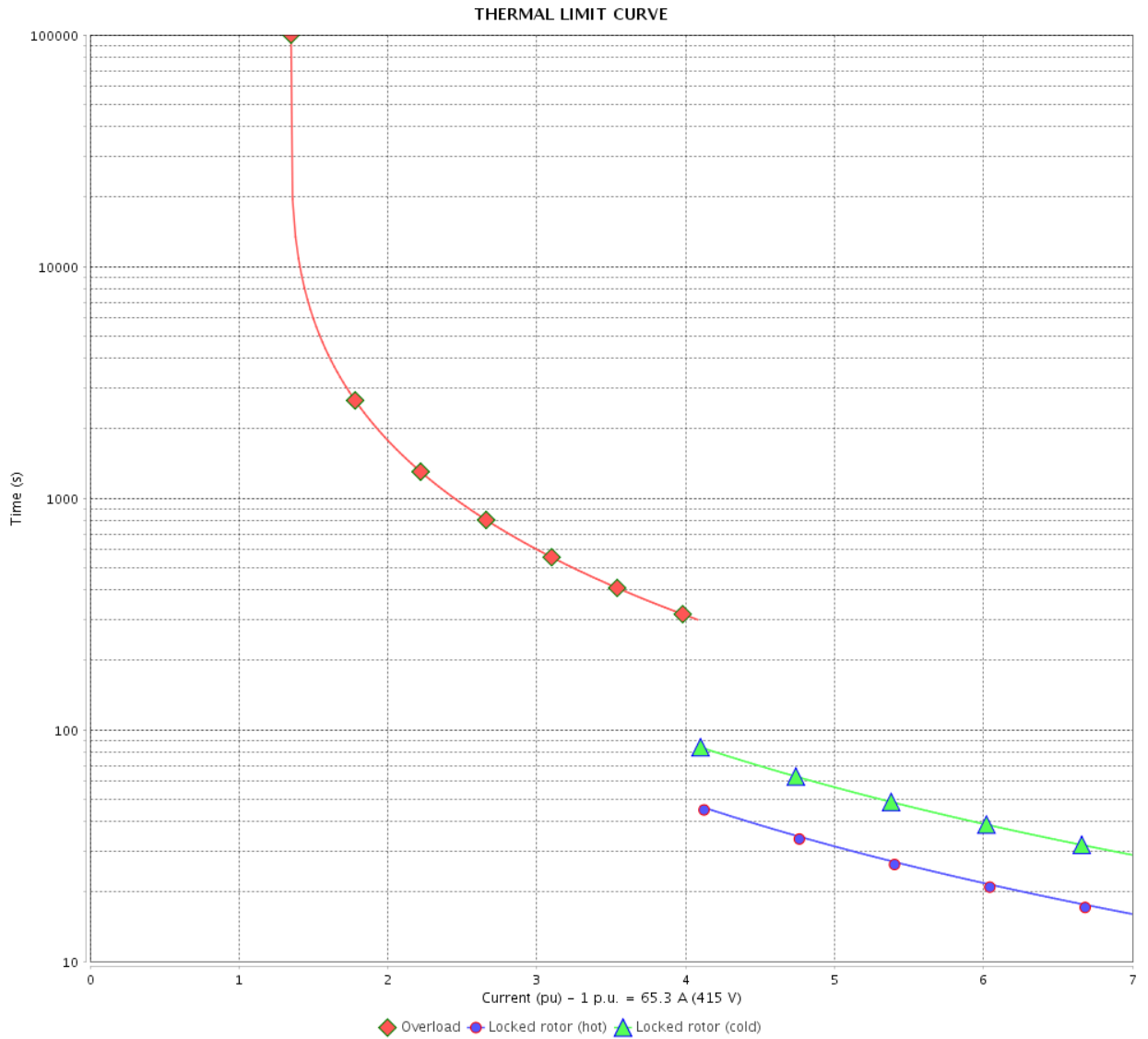
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Performed by			Page	Revision
Checked by				
Date				

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



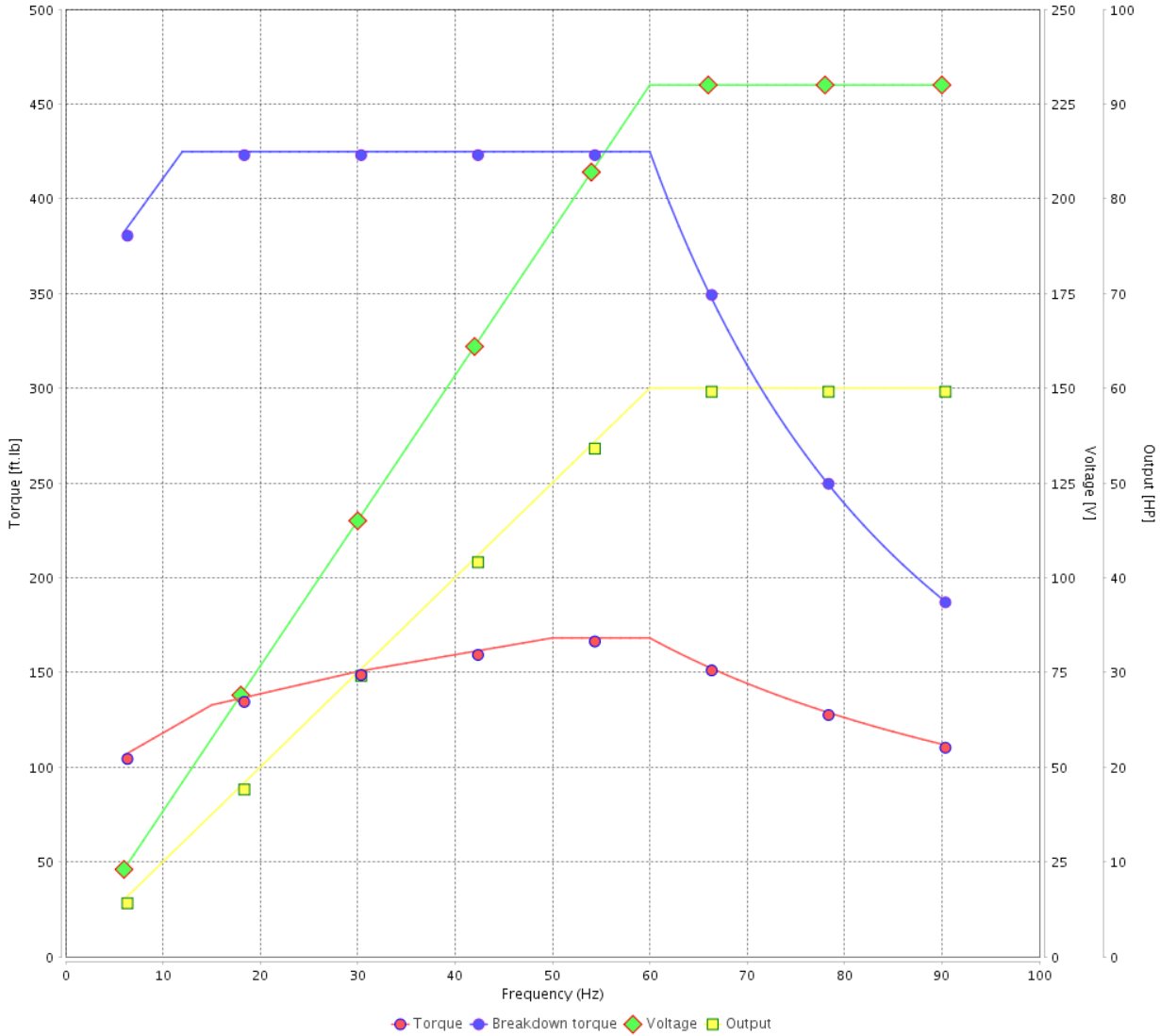
Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14270885

Catalog # : 06018OT3E364TS-W40

VFD OPERATION CURVE



Performance : 230/460 V 60 Hz 4P

Rated current : 140/69.9 A
 LRC : 6.5
 Rated torque : 177 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 240 %
 Rated speed : 1780 rpm

Moment of inertia (J) : 15.6 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				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

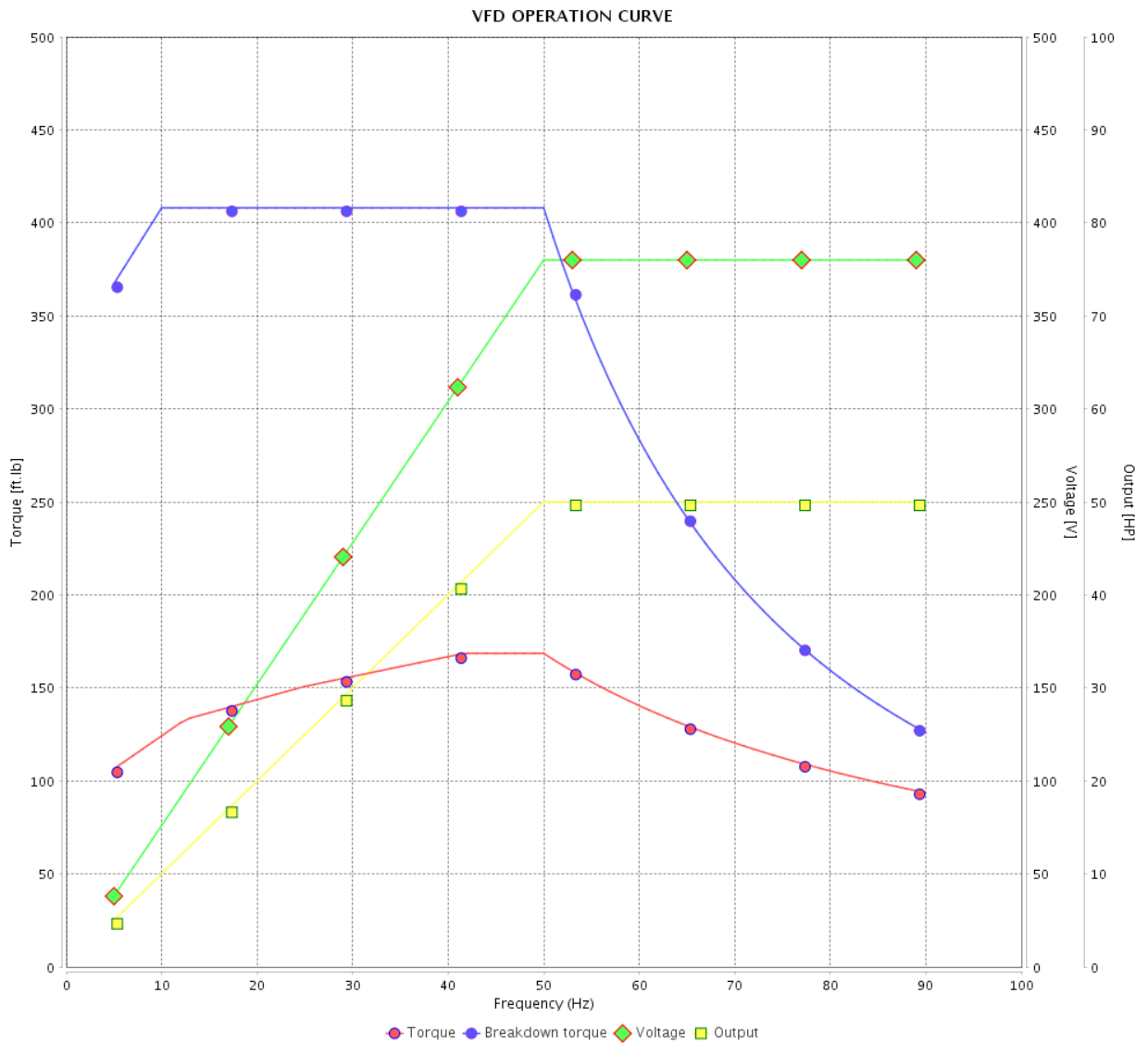


Customer :

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Three-Phase

Product code : 14270885

Catalog # : 06018OT3E364TS-W40



Performance : 380 V 50 Hz 4P IE3

Rated current : 69.6 A
LRC : 6.8
Rated torque : 177 ft.lb
Locked rotor torque : 200 %
Breakdown torque : 229 %
Rated speed : 1480 rpm

Moment of inertia (J) : 15.6 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	Revision
Checked by				
Date	12/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



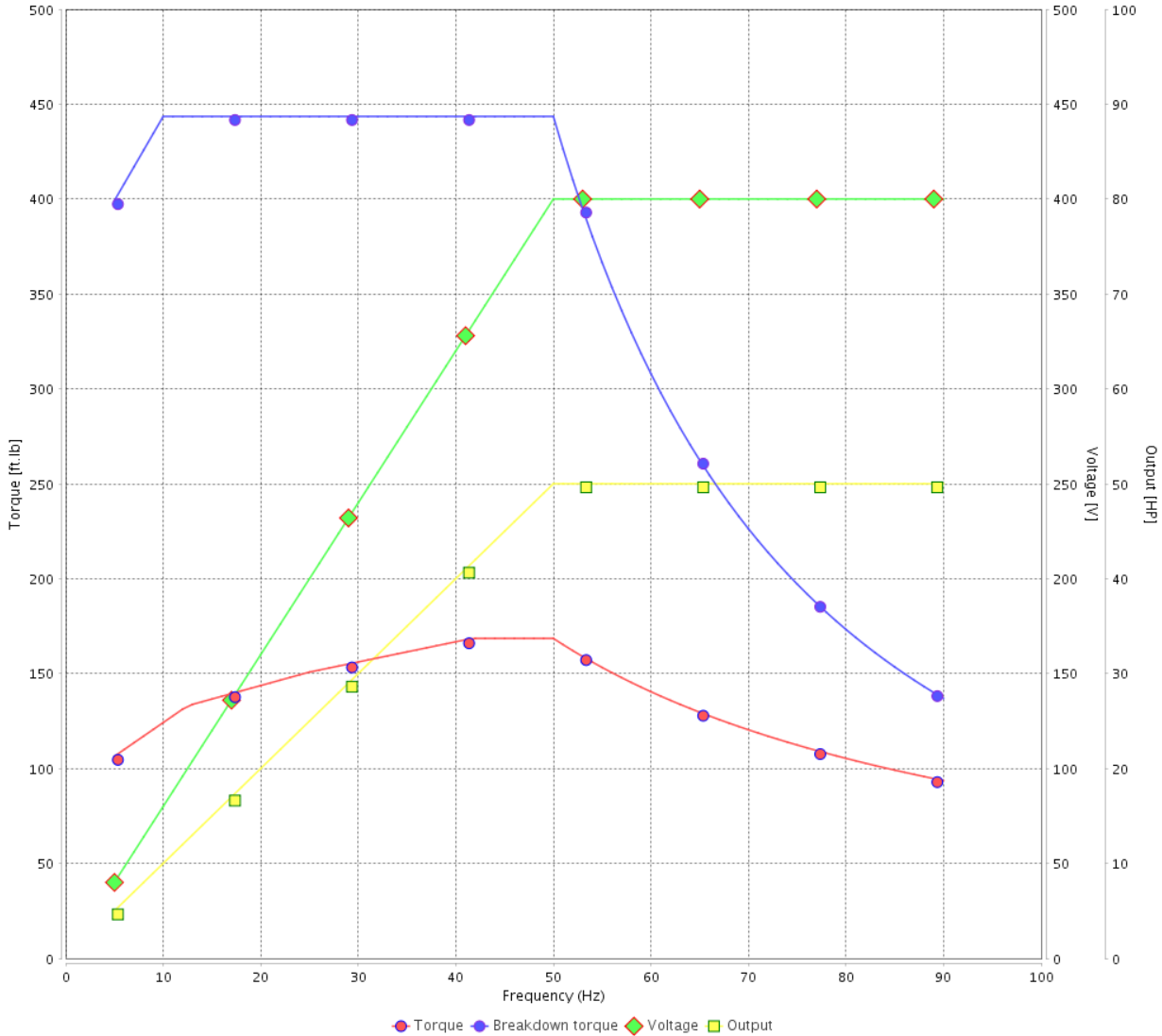
Customer :

Product line : W40 NEMA Premium Efficiency
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Product code : 14270885

Catalog # : 06018OT3E364TS-W40

VFD OPERATION CURVE



Performance : 400 V 50 Hz 4P IE3

Rated current : 66.9 A
LRC : 7.2
Rated torque : 177 ft.lb
Locked rotor torque : 220 %
Breakdown torque : 250 %
Rated speed : 1480 rpm

Moment of inertia (J) : 15.6 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	Revision
Checked by				
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

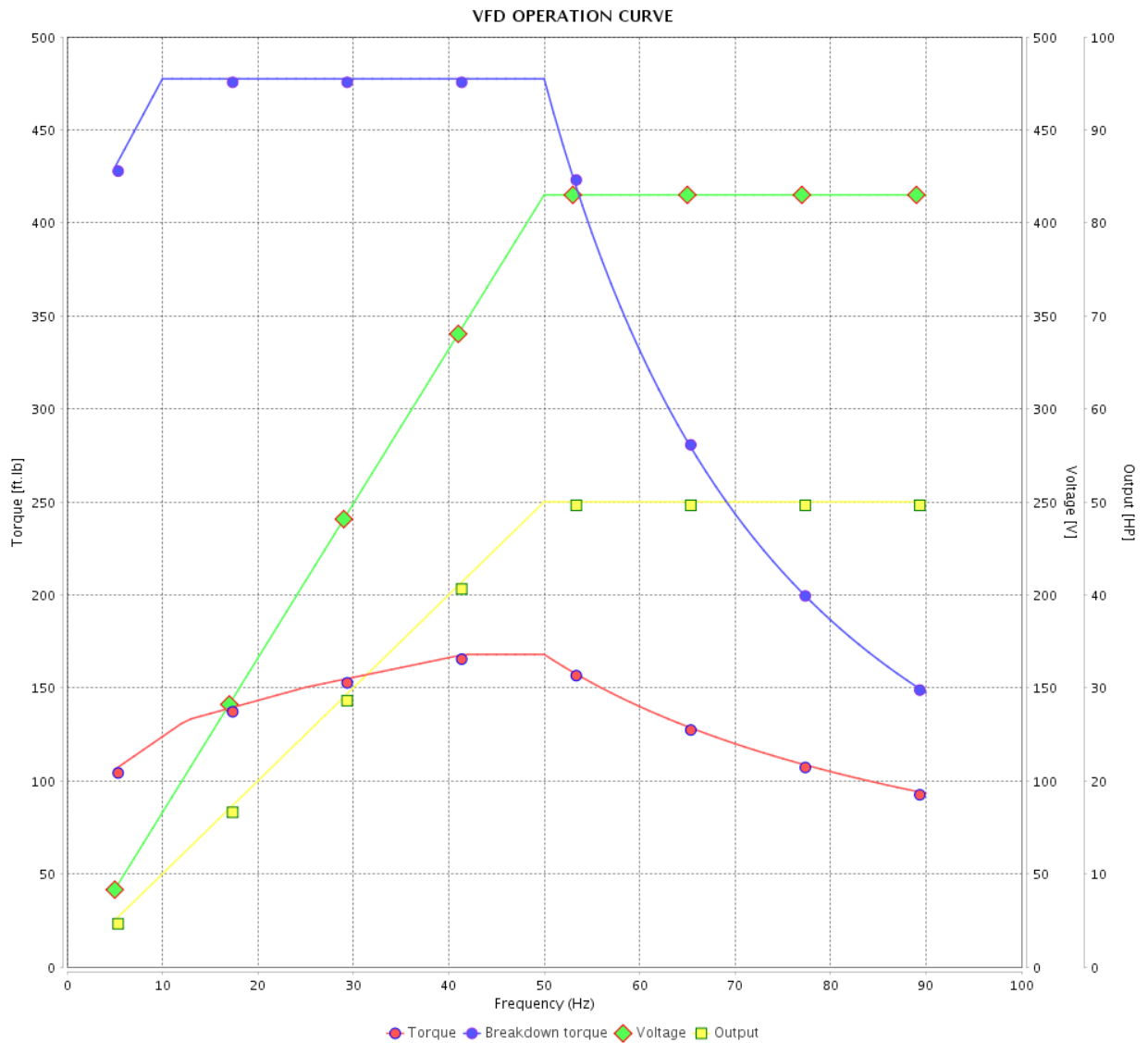


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Catalog # : 06018OT3E364TS-W40

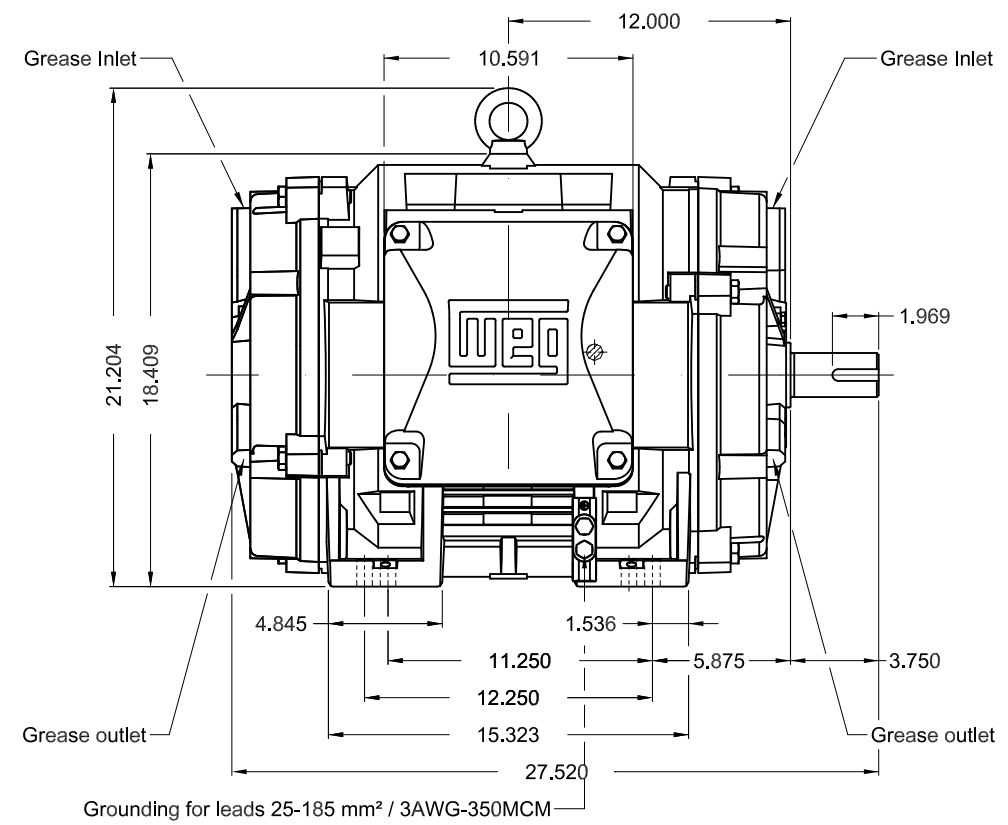
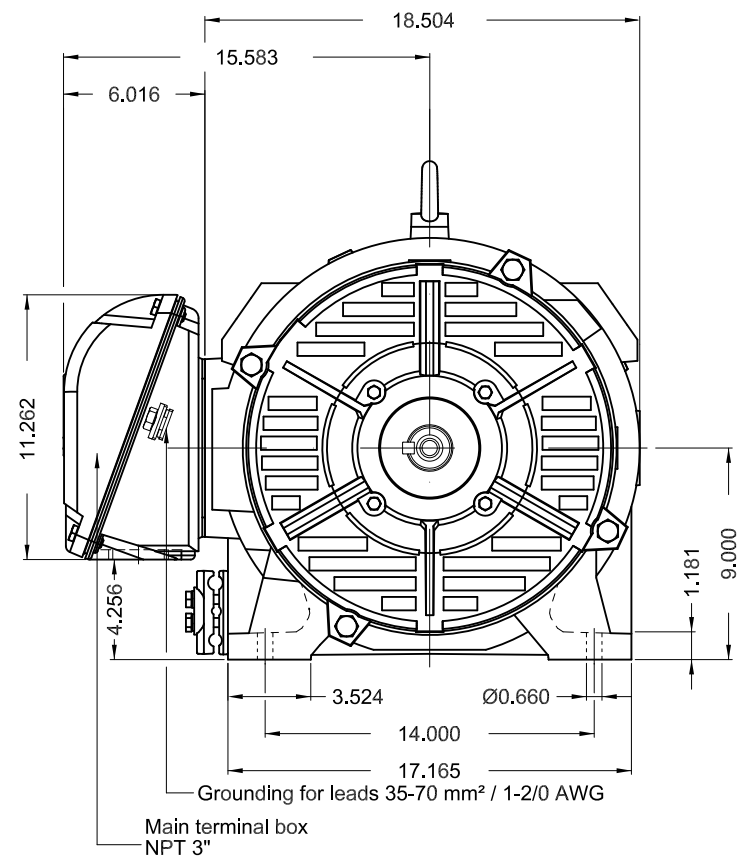


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Rev.	Changes Summary	Performed	Checked	Date
Performed by				Page 21 / 21
Checked by				
Date	12/04/2022			



60 HP 04 Poles 60 Hz

A

1:8

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

PREVIEW
WDD



SHEET 1 / 1

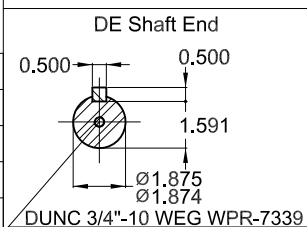
TS shaft end

Color RAL 5009

Painting plan 203A

Mounting NEMA F-1

Mounting B3R(D)



WEG **W40 NEMA**
CC029A Premium
Inverter Duty Motor



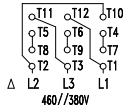
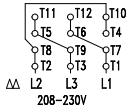
IEC 60034-1
 MOD.T01#FOXON




For 60Hz use on PWM, VT 1000:1, CT 2:1, 1.0SF

MODEL 060180T3E364TS-W40
 MADE IN BRAZIL
 14270885

PH 3	FR 364/5TS	HP(kW) 60.0(45.0)	Hz 60
V 230/460	A 140/69.9	RPM 1780	DES B
NEMA NOM EFF 95.0 %	INS. CL. F Δ T 80 K	IP23	
ENCL ODP	DUTY CONT.	AMB. 40°C	
CODE G	PF 0.85	SF 1.25	SFA 175/87.4
USABLE @208V	155 A	SF 1.15	SFA 178
50HP 37kW 50Hz 380V 69.6A 1480RPM SF1.00 EFF 93.9% (IE3)	ALT 1000 m.a.s.l.		



-  → 6314-C3(27g)
- 6212-Z-C3(13g)

MOBIL POLYREX EM
 20000 h