

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer					
Product line		: W40 NEMA Premium Efficiency Three-Phase		Product code : 14272905 Catalog # : 07512OT3E405T-W40G	
Frame : 404/5T		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 : 966 lb			
Protection degree : IP23		Moment of inertia (J) : 31.6 sq.ft.lb			
Design : B					
Output [HP]	75	60	60	60	60
Poles	6	6	6	6	6
Frequency [Hz]	60	50	50	50	50
Rated voltage [V]	230/460	380	400	415	415
Rated current [A]	172/85.9	84.8	81.6	79.5	79.5
L. R. Amperes [A]	1151/576	585	571	596	596
LRC [A]	6.7x(Code G)	6.9x(Code H)	7.0x(Code H)	7.5x(Code J)	7.5x(Code J)
No load current [A]	60.0/30.0	29.6	32.1	34.2	34.2
Rated speed [RPM]	1185	985	985	985	985
Slip [%]	1.25	1.50	1.50	1.50	1.50
Rated torque [ft.lb]	332	320	320	320	320
Locked rotor torque [%]	240	220	250	270	270
Breakdown torque [%]	270	250	280	300	300
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	19s (cold) 11s (hot)	18s (cold) 10s (hot)	19s (cold) 11s (hot)	19s (cold) 11s (hot)	19s (cold) 11s (hot)
Noise level ²	68.0 dB(A)				
Efficiency (%)	25%	94.0	93.2	93.2	93.2
	50%	94.1	93.3	93.3	93.3
	75%	94.5	93.7	93.7	93.7
	100%	94.5	93.7	93.7	93.7
Power Factor	25%	0.47	0.49	0.45	0.42
	50%	0.72	0.75	0.71	0.68
	75%	0.81	0.83	0.81	0.79
	100%	0.85	0.86	0.85	0.84
Bearing type		Drive end : 6316 C3	Non drive end : 6212 Z C3	Foundation loads	
Sealing		Without	Without	Max. traction : 2395 lb	
Lubrication interval		Bearing Seal : 20000 h	Bearing Seal : 20000 h	Max. compression : 3361 lb	
Lubricant amount		34 g	13 g		
Lubricant type		Mobil Polyrex EM			
Notes USABLE @208V 190A SF 1.15 SFA 218A					
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	13/04/2022			1 / 21	

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



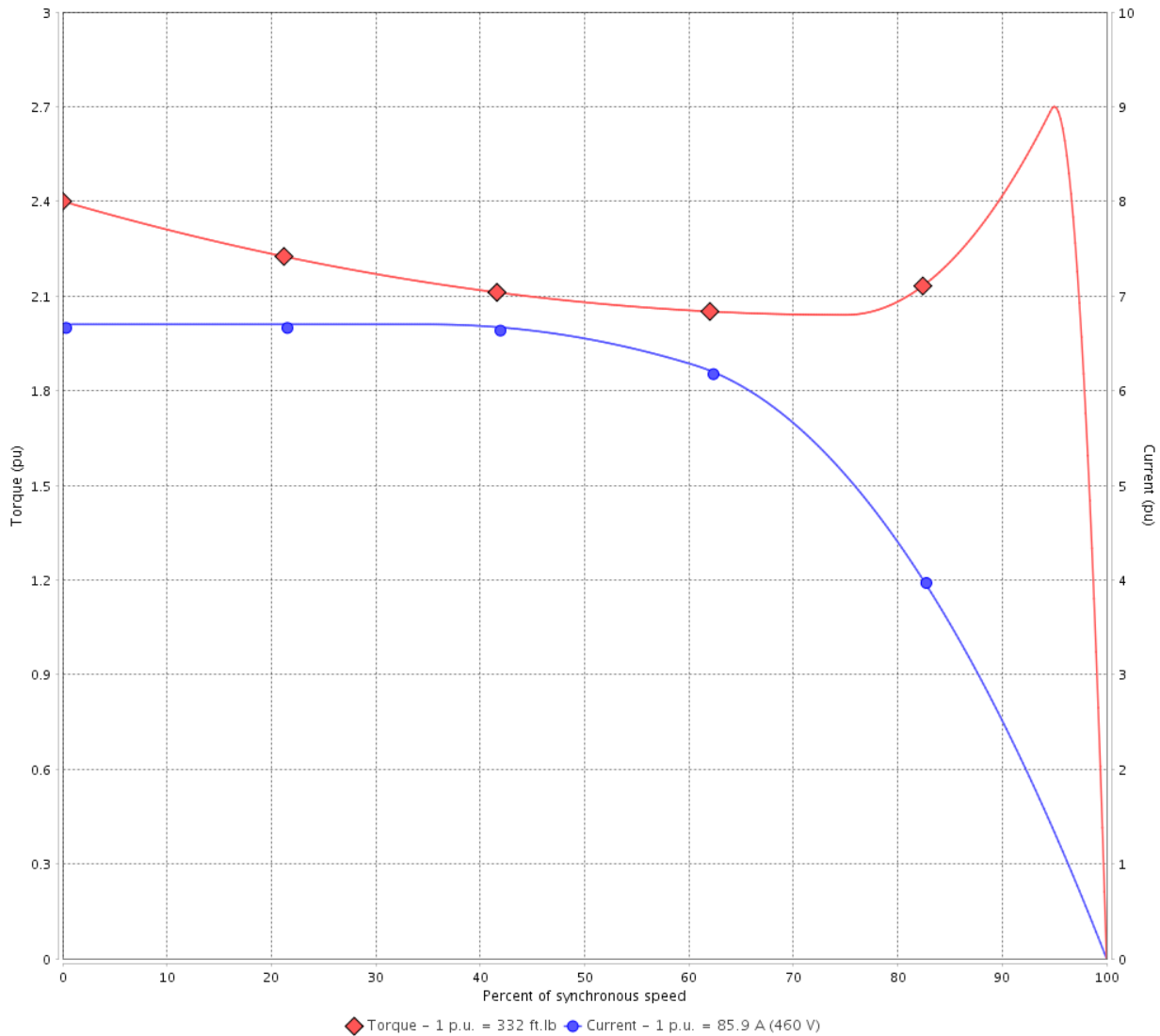
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272905

Catalog # : 075120T3E405T-W40G

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 6P

Rated current	: 172/85.9 A	Moment of inertia (J)	: 31.6 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 332 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1185 rpm	Design	: B

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

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 2 / 21	Revision
Checked by				
Date	13/04/2022			

TORQUE AND CURRENT VS SPEED CURVE



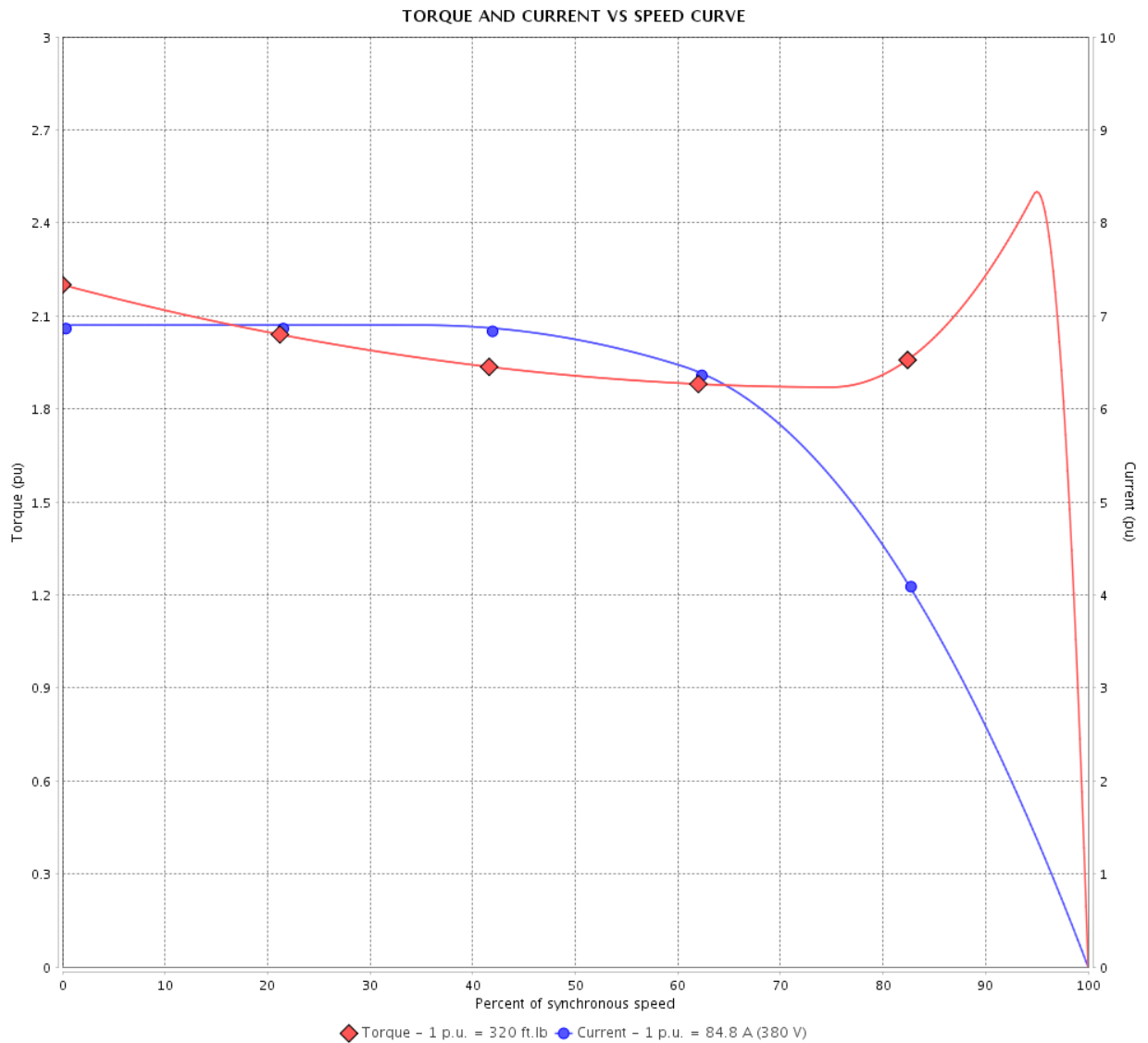
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272905

Catalog # : 07512OT3E405T-W40G



Performance : 380 V 50 Hz 6P IE3

Rated current	: 84.8 A	Moment of inertia (J)	: 31.6 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 320 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

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

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 3 / 21	Revision
Checked by				
Date	13/04/2022			

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



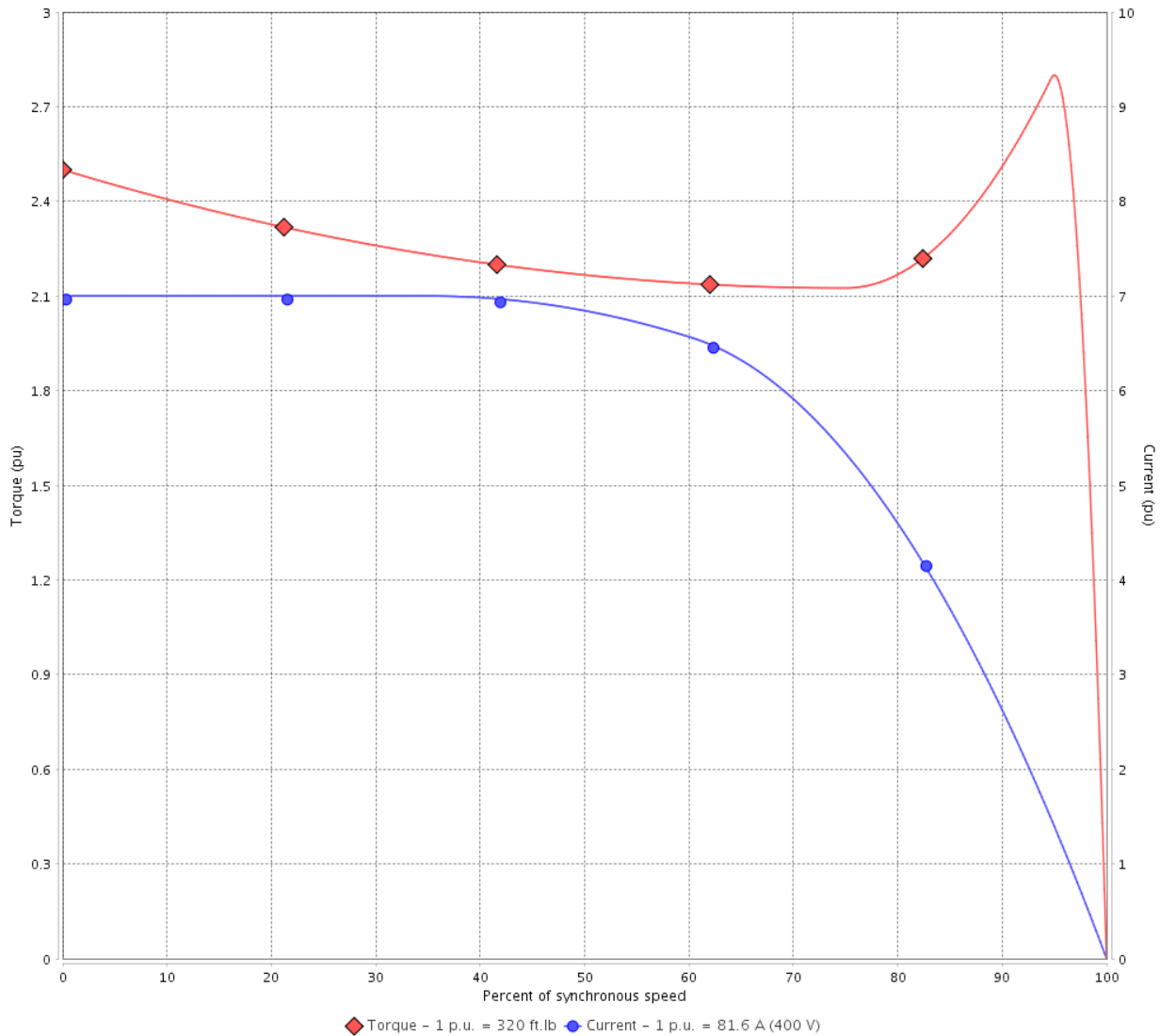
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272905

Catalog # : 075120T3E405T-W40G

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 6P IE3

Rated current	: 81.6 A	Moment of inertia (J)	: 31.6 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 320 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

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

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 4 / 21	Revision
Checked by				
Date	13/04/2022			

TORQUE AND CURRENT VS SPEED CURVE



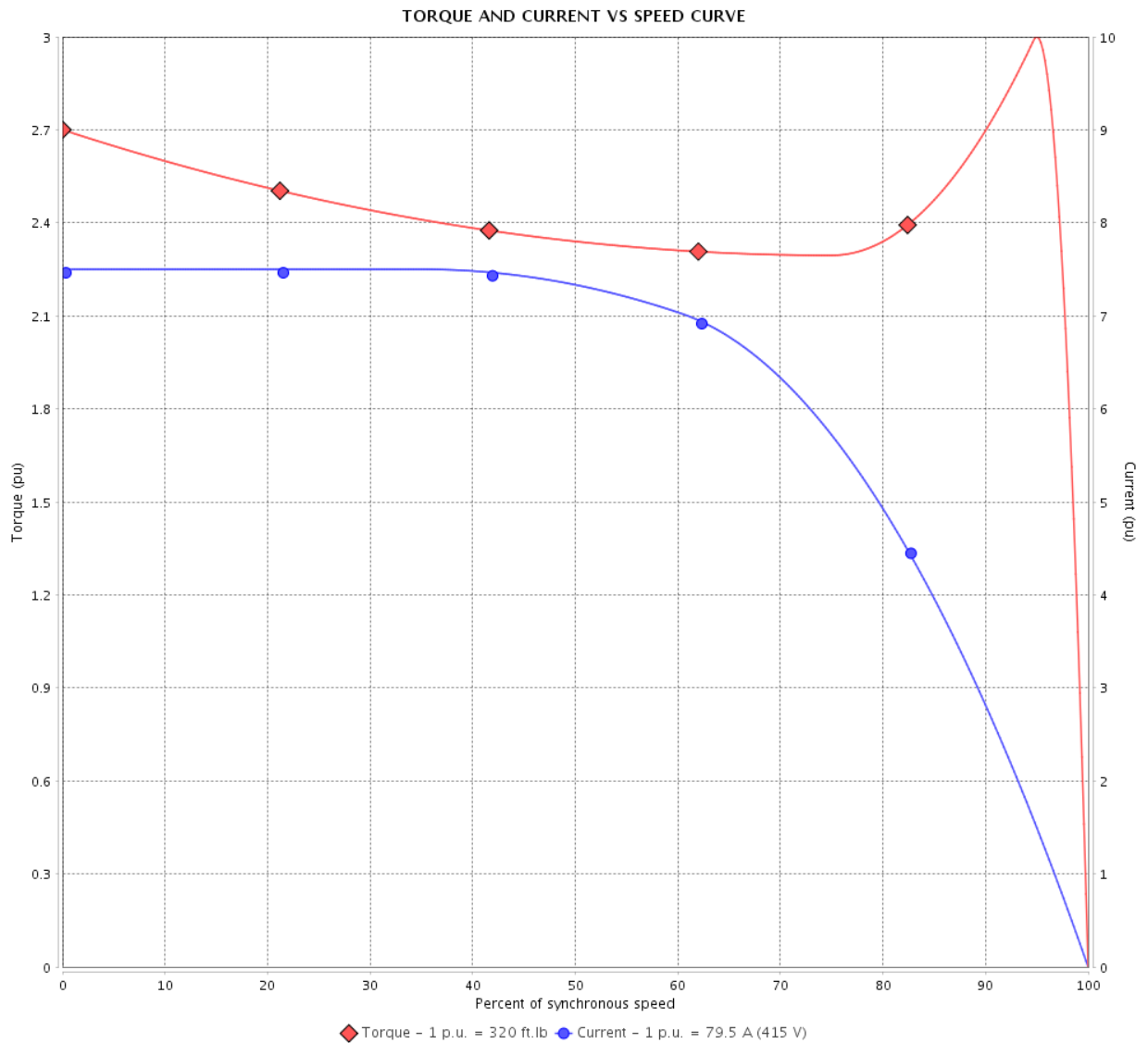
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LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 320 ft.lb	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

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

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 5 / 21	Revision
Checked by				
Date	13/04/2022			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

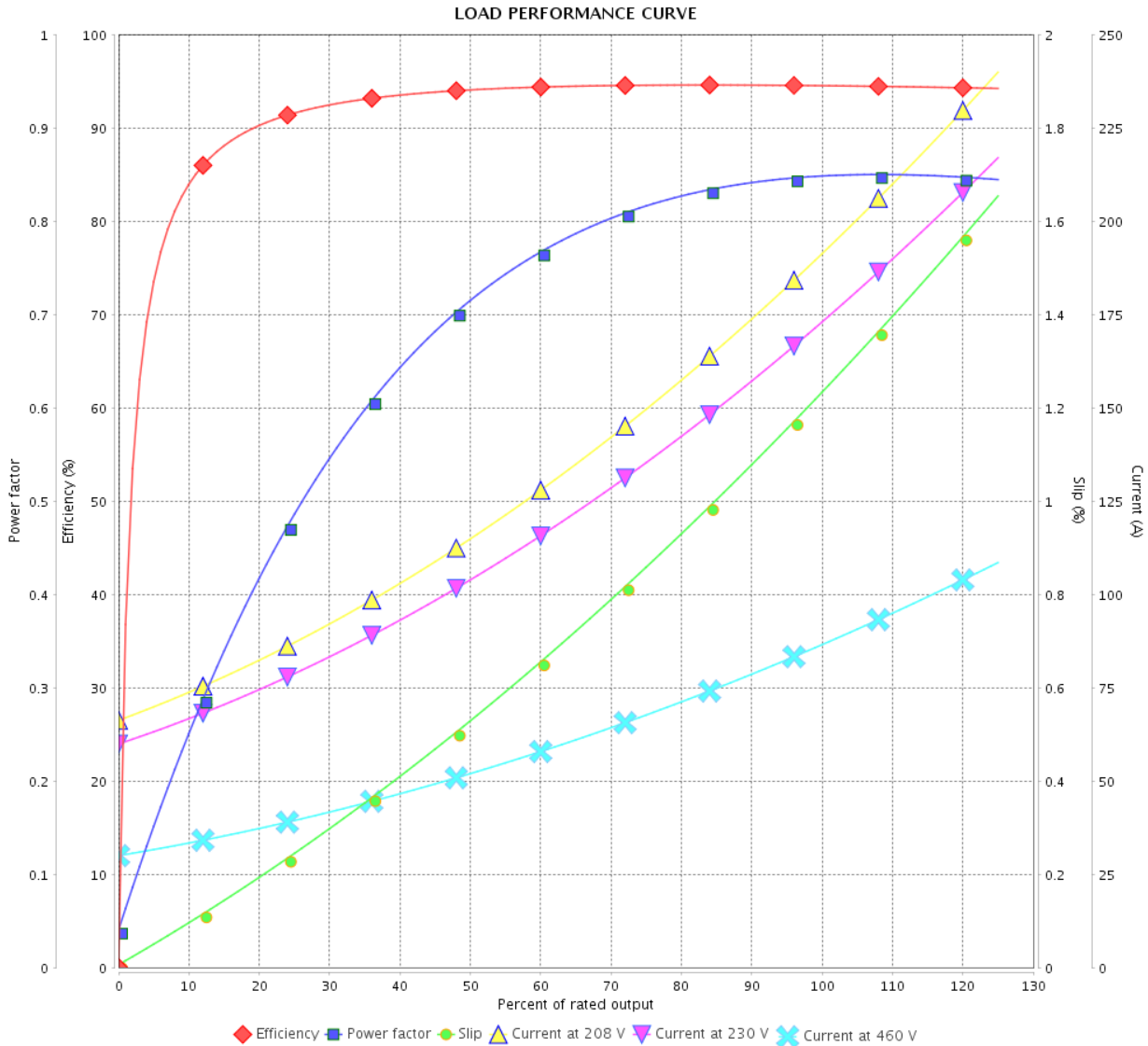


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Catalog # : 075120T3E405T-W40G



Performance : 230/460 V 60 Hz 6P

Rated current : 172/85.9 A
 LRC : 6.7
 Rated torque : 332 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 270 %
 Rated speed : 1185 rpm

Moment of inertia (J) : 31.6 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 6 / 21	Revision
Checked by				
Date	13/04/2022			

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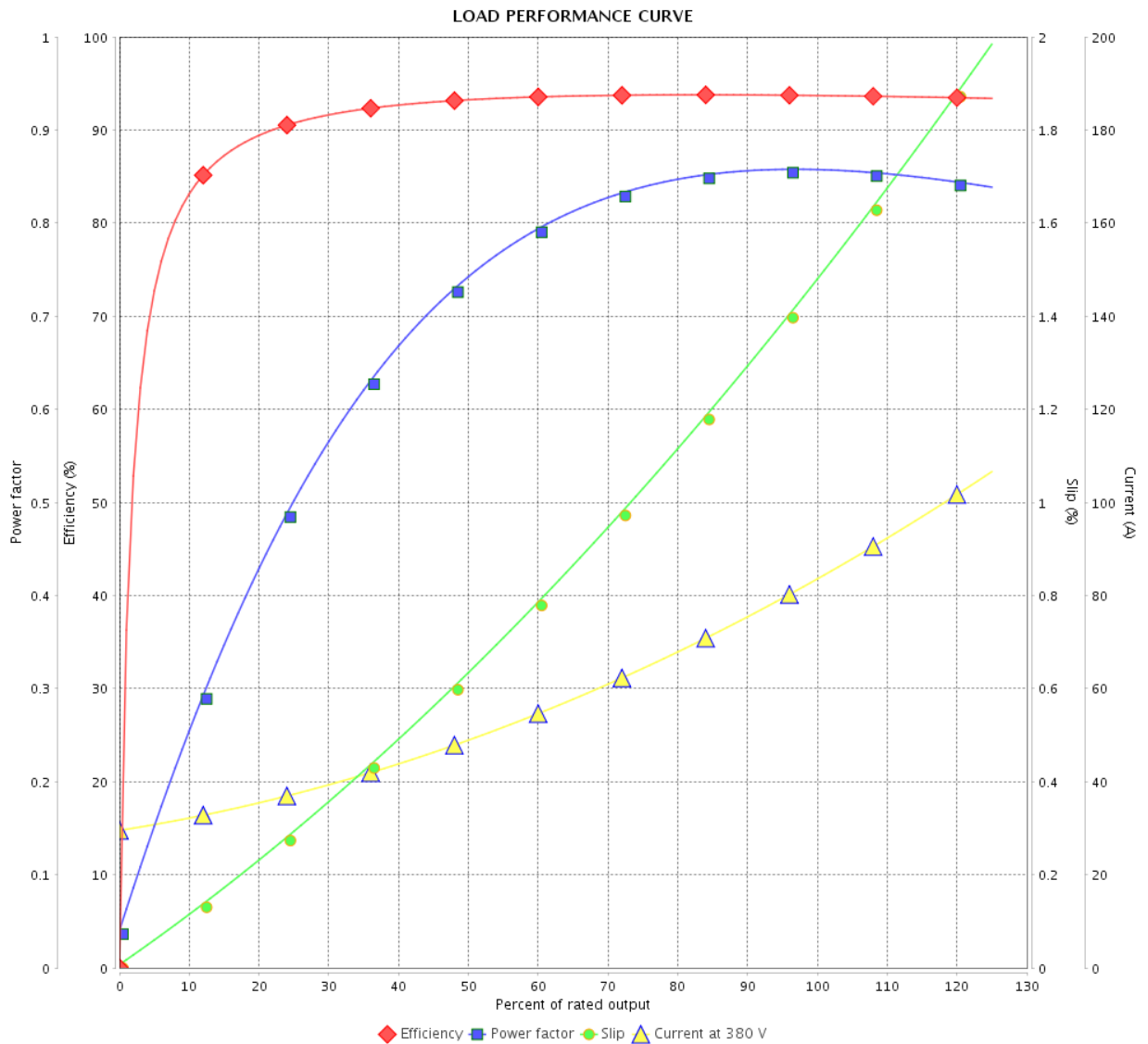


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 Breakdown torque : 250 %
 Rated speed : 985 rpm

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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		7 / 21		
Date		13/04/2022		

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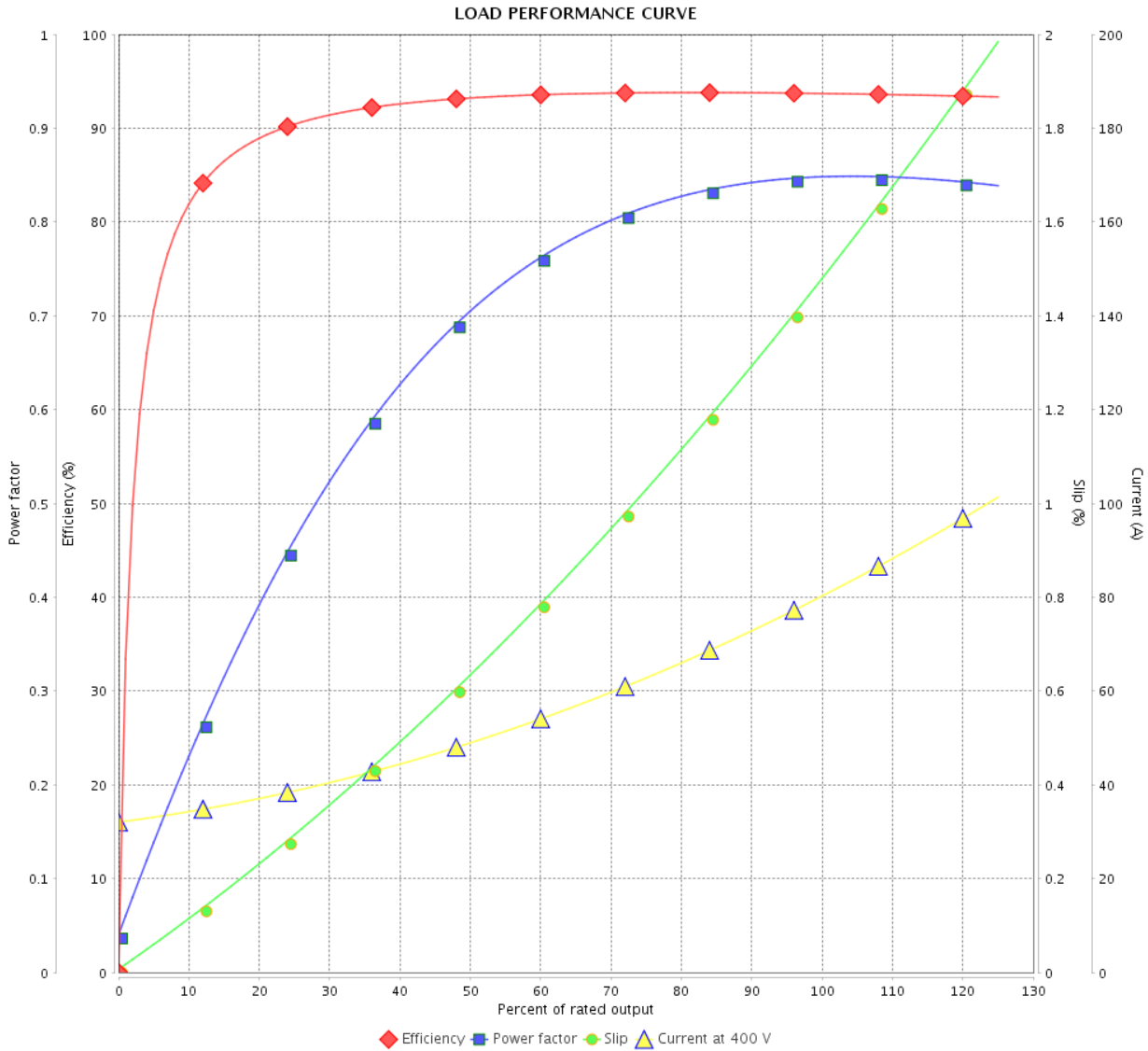


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Performance : 400 V 50 Hz 6P IE3

Rated current : 81.6 A
 LRC : 7.0
 Rated torque : 320 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 280 %
 Rated speed : 985 rpm

Moment of inertia (J) : 31.6 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			8 / 21	
Date	13/04/2022			

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Three Phase Induction Motor - Squirrel Cage

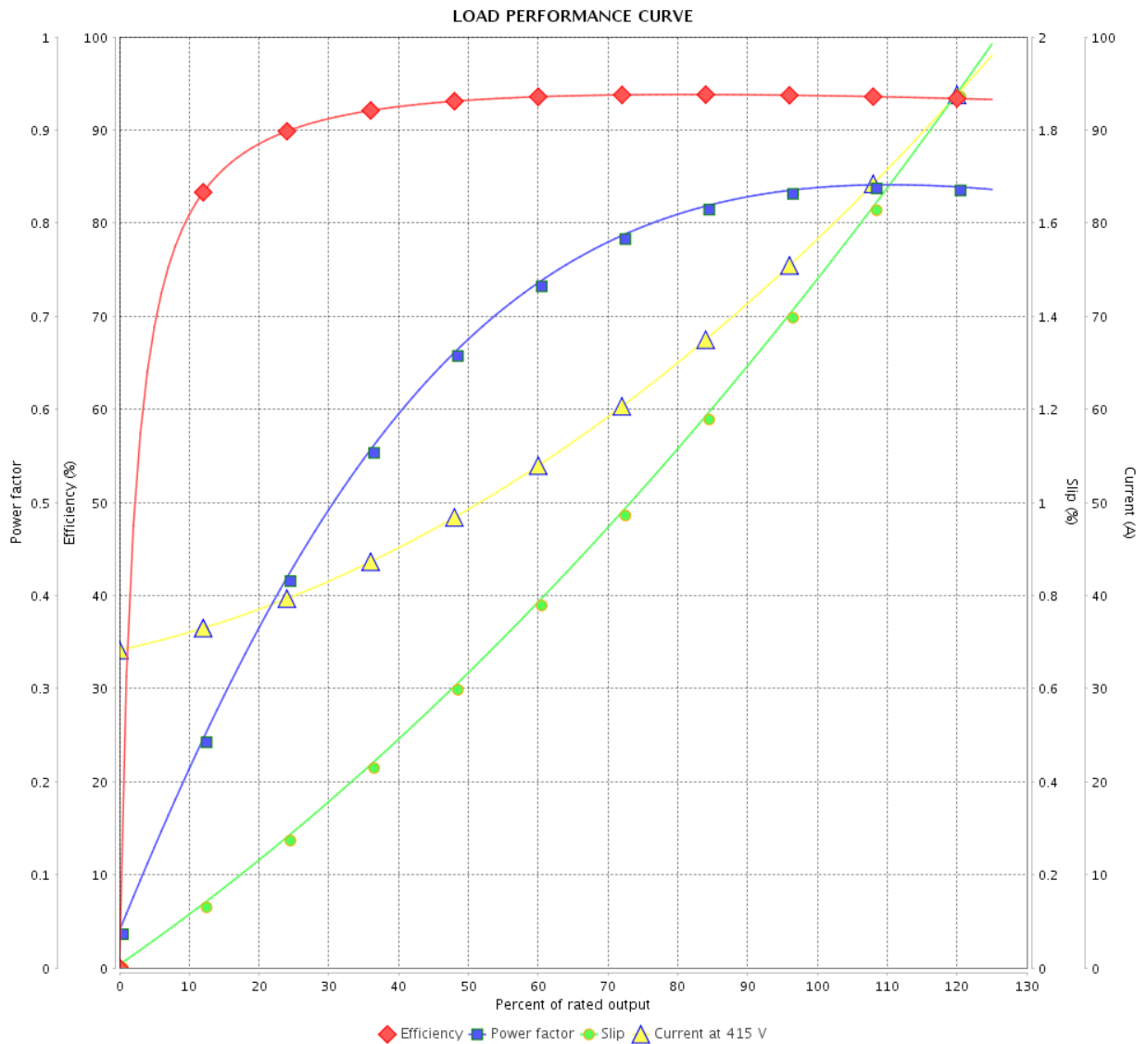


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 Service factor : 1.00
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 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		9 / 21		
Date		13/04/2022		

THERMAL LIMIT CURVE



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Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

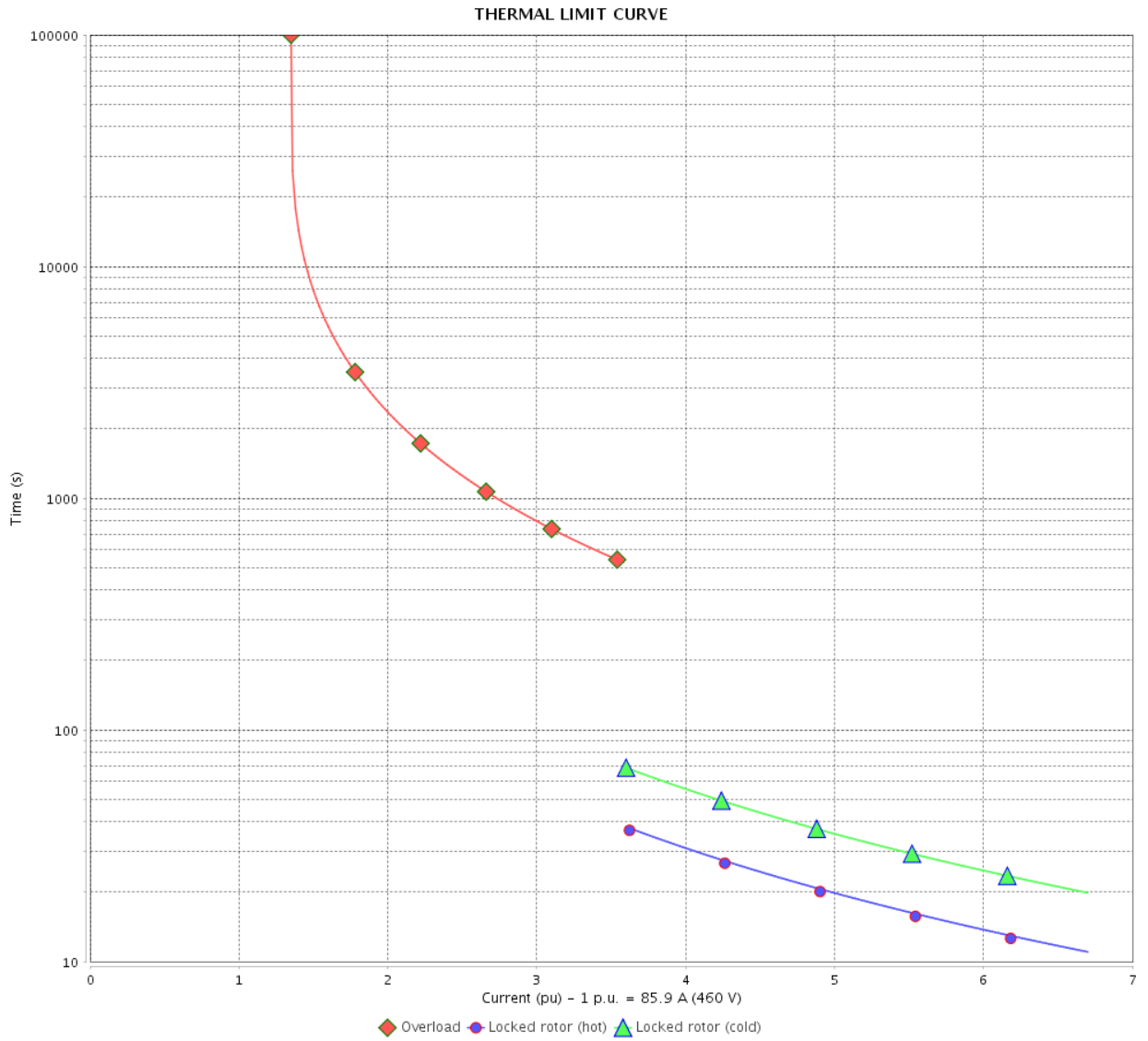
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Performed by				
Checked by			Page	Revision
Date	13/04/2022		10 / 21	

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

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Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
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Cooling constant

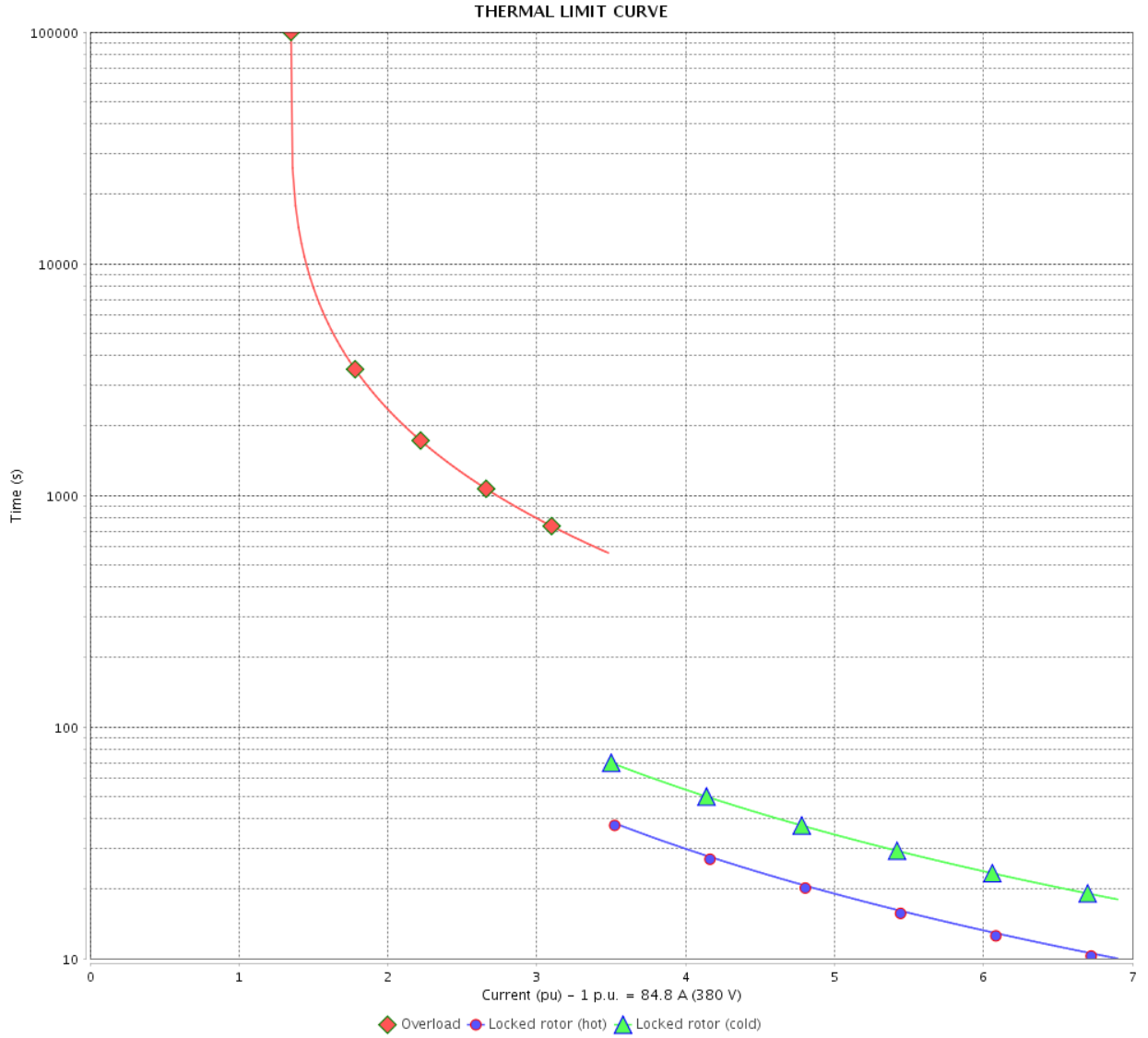
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Checked by			Page	Revision
Date	13/04/2022		12 / 21	

THERMAL LIMIT CURVE

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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		13 / 21		
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Rated torque	: 320 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

Heating constant

Cooling constant

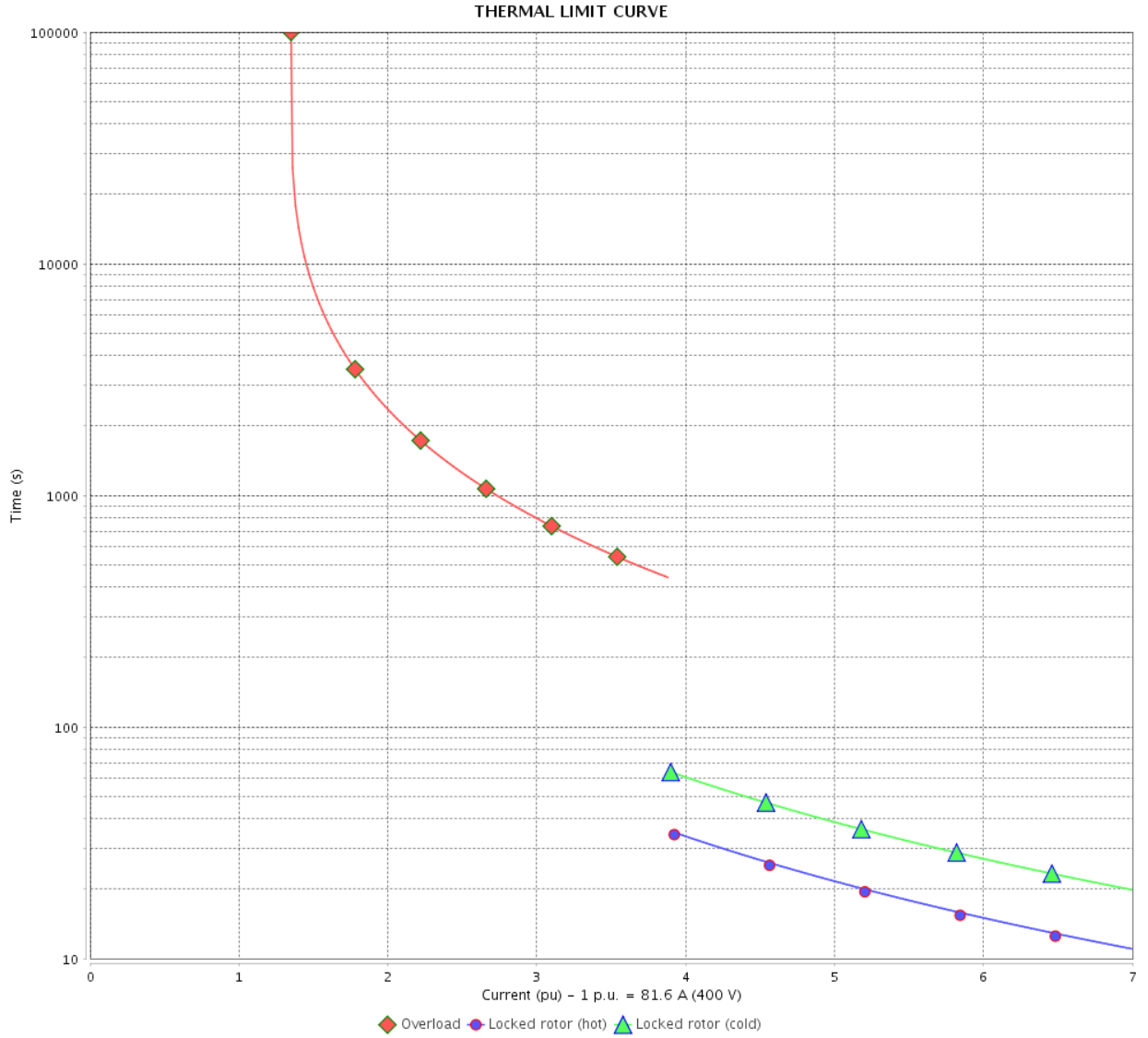
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Checked by			Page	Revision
Date	13/04/2022		14 / 21	

THERMAL LIMIT CURVE

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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		15 / 21		
Date		13/04/2022		

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Cooling constant

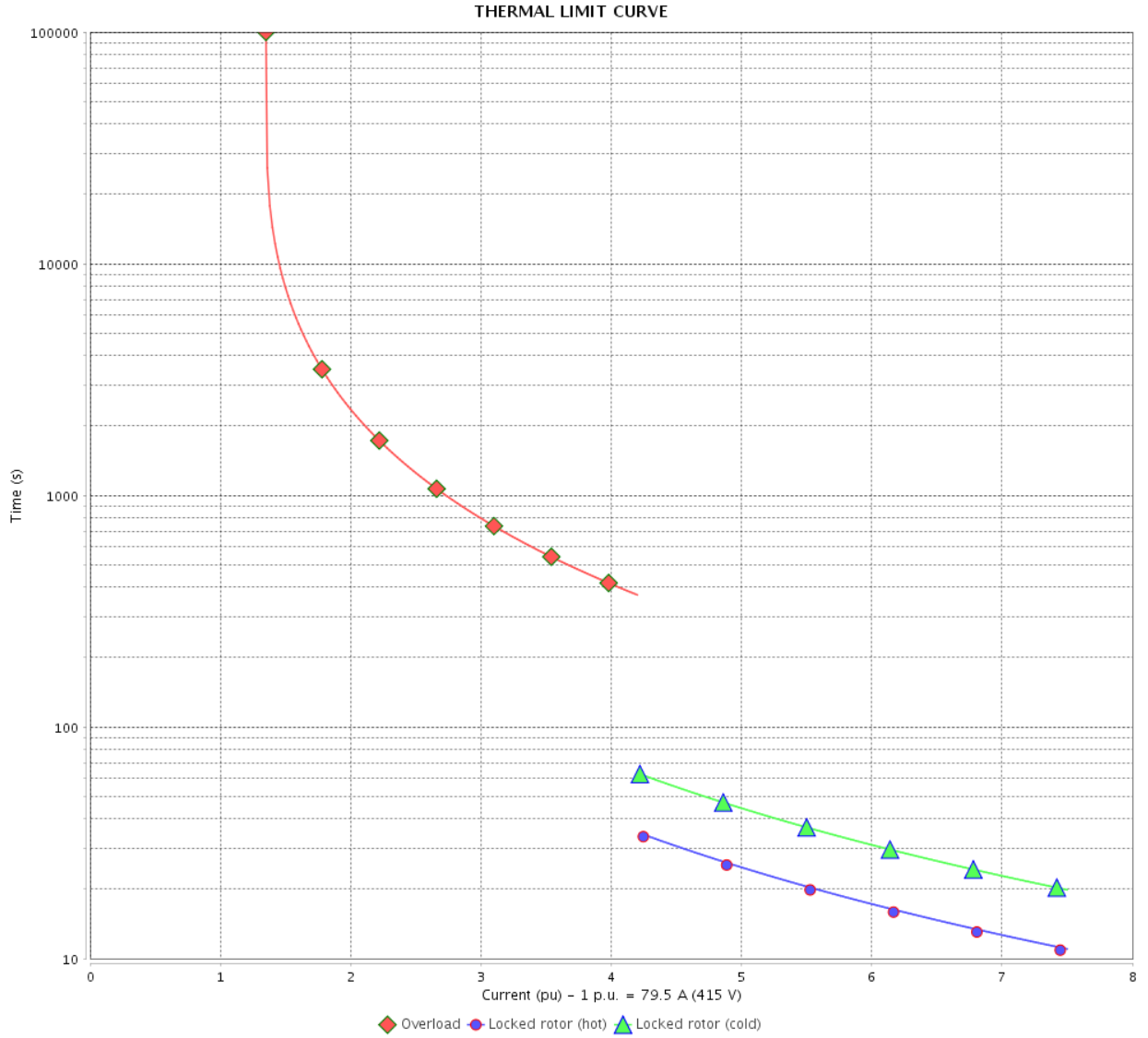
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Checked by			Page	Revision
Date	13/04/2022		16 / 21	

THERMAL LIMIT CURVE

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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		17 / 21		
Date		13/04/2022		

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



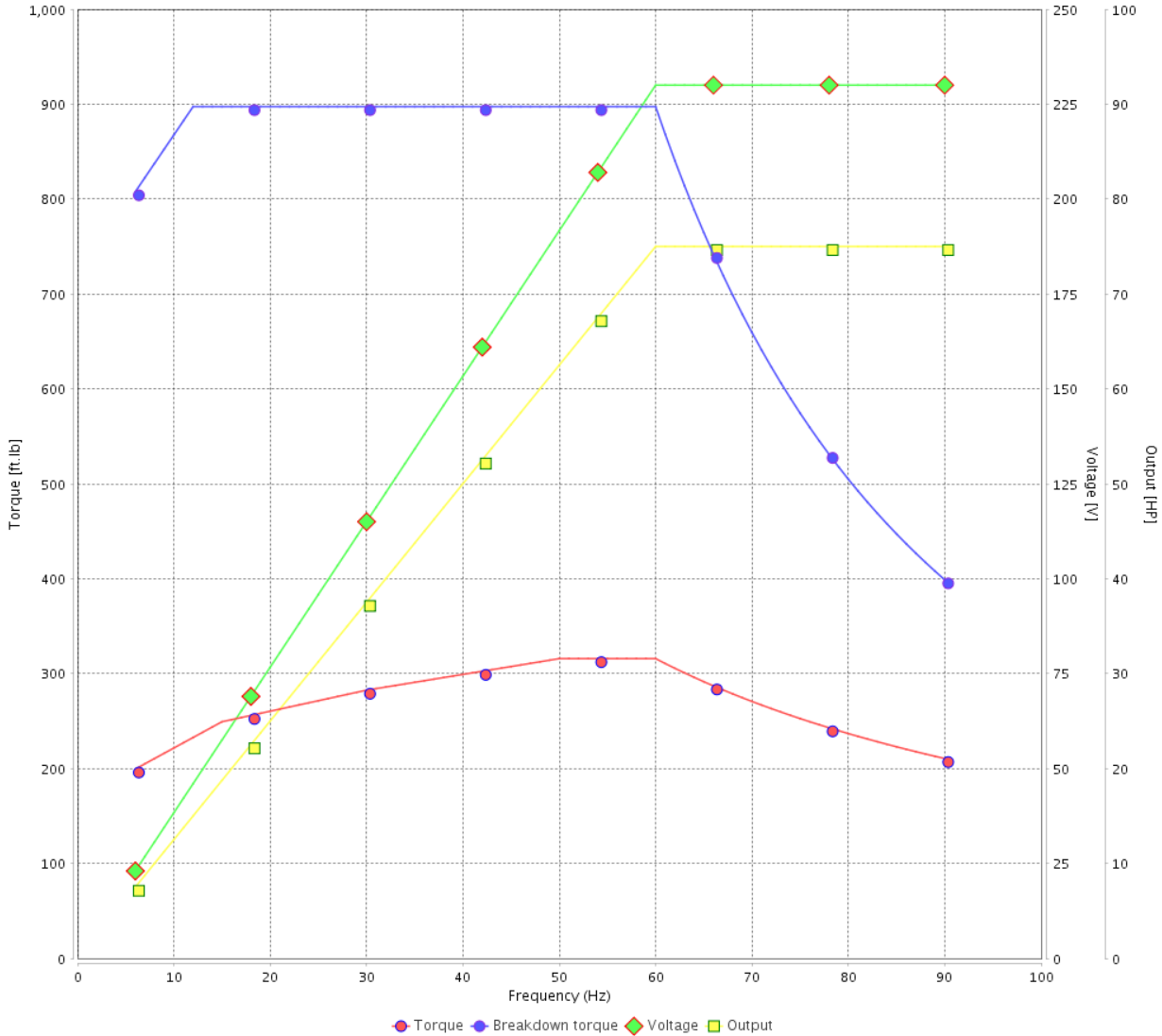
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VFD OPERATION CURVE



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 Locked rotor torque : 240 %
 Breakdown torque : 270 %
 Rated speed : 1185 rpm

Moment of inertia (J) : 31.6 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 18 / 21	Revision
Checked by				
Date	13/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

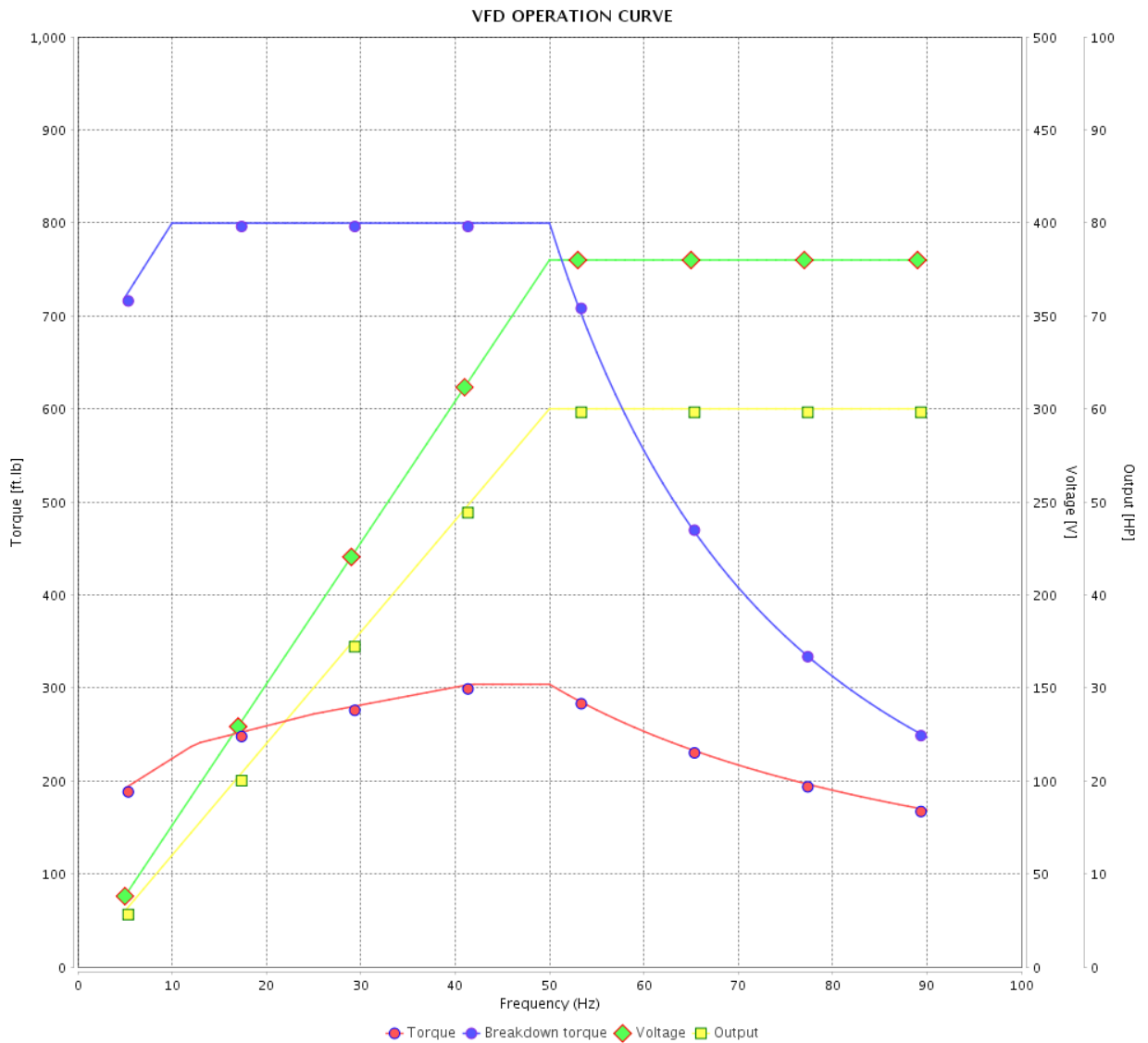


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 Insulation class : F
 Service factor : 1.00
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 Design : B

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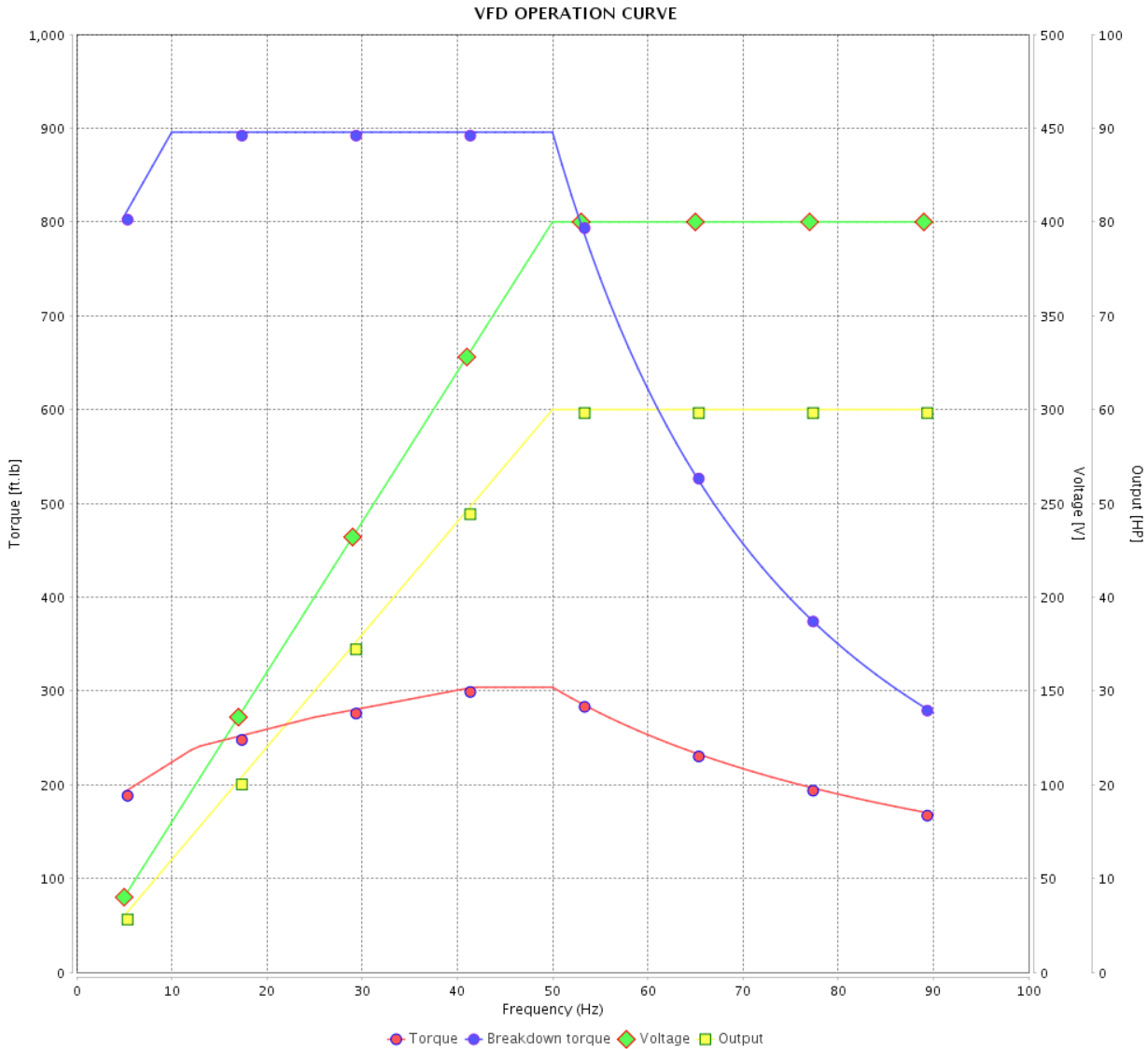


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Performed by			Page 20 / 21	Revision
Checked by				
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VFD OPERATION CURVE

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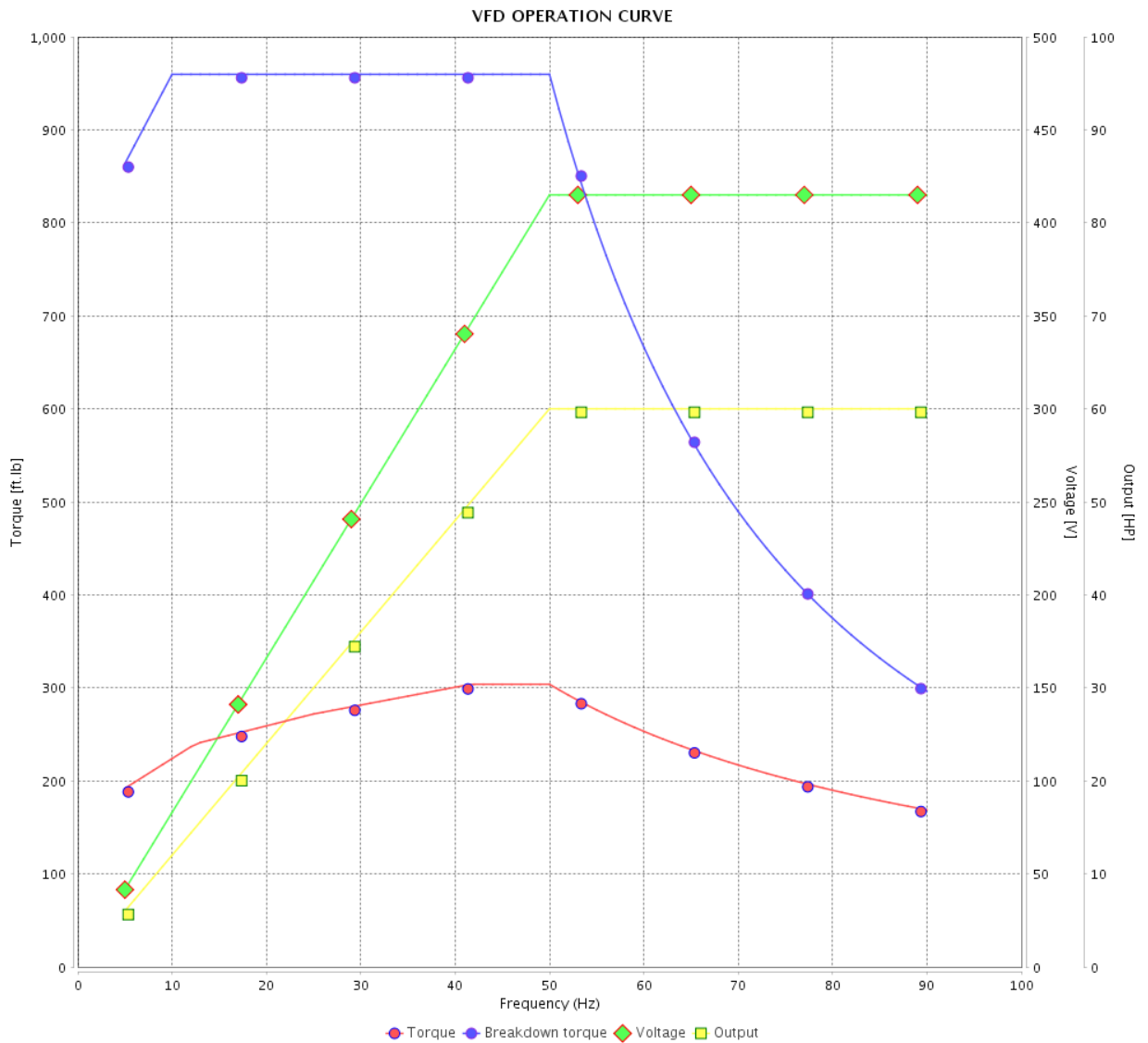


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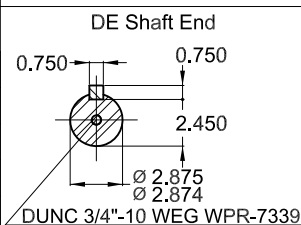
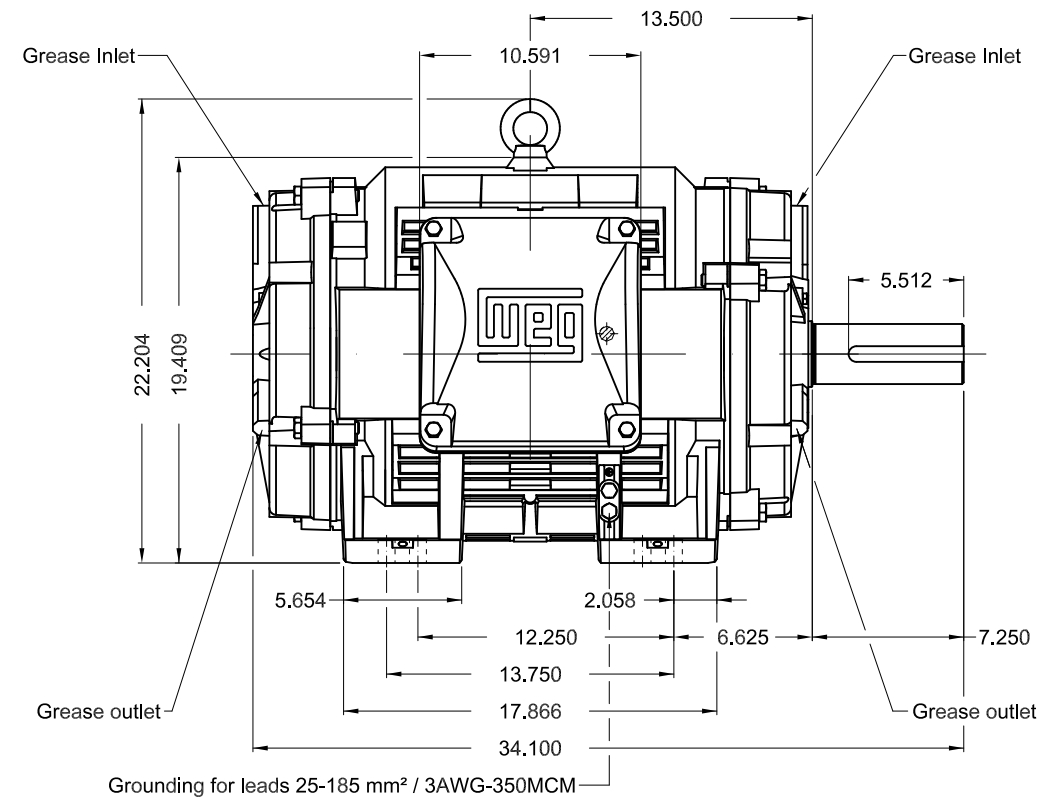
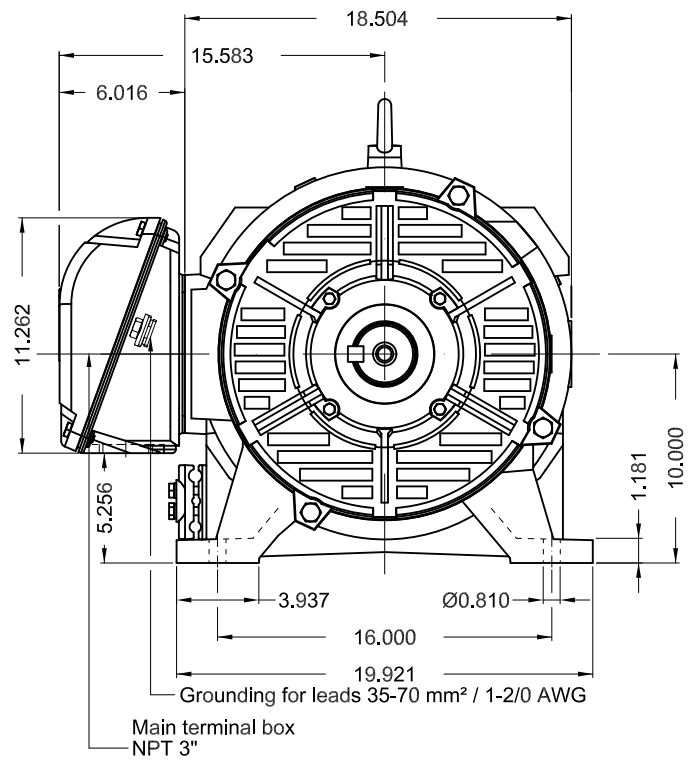


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Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 21 / 21	Revision
Checked by				
Date	13/04/2022			



Internal AEGIS ground ring on the DE

Color RAL 5009

Painting plan 203A

Mounting NEMA F-1

Mounting B3R(D)

75 HP 06 Poles 60 Hz

A

1:9

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W40 PREM. EFF.					
CHECKED		FRAME 404/5T IP23 ODP					
RELEASED							
REL DT.		WMO Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW
WDD



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



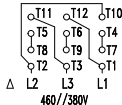
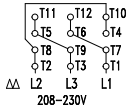
IEC 60034-1
 MOD.T01#FOXON




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

MODEL 075120T3E405T-W40G
 MADE IN BRAZIL
 14272905

PH 3	FR 404/5T	HP(kW) 75.0(55.0)	Hz 60
V 230/460	A 172/85.9	RPM 1185	DES B
NEMA NOM EFF 94.5 %	INS. CL. F Δ T 80 K	IP23	
ENCL ODP	DUTY CONT.	AMB. 40°C	
CODE G	PF 0.85	SF 1.25	SFA 215/107
USABLE @208V	190 A	SF 1.15	SFA 218
60HP 45kW 50Hz 380V 84.8A 985RPM SF1.00 EFF 93.7% (IE3)	ALT 1000 m.a.s.l.		



-  → 6316-C3(34g)
- 6212-Z-C3(13g)

MOBIL POLYREX EM
 20000 h