

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :				
Product line		: W40 NEMA Premium Efficiency Three-Phase	Product code :	14285007
			Catalog # :	04012OT3E364T-W40G
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	: 745 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
Bearing type	: <u>Drive end</u> 6314 C3 <u>Non drive end</u> 6212 Z C3	Foundation loads		
Sealing	: Without Without	Max. traction	: 1327 lb	
	: Bearing Seal Bearing Seal	Max. compression	: 2071 lb	
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
Performed by				
Checked by				
Date	12/04/2022		Page	Revision
			1 / 21	

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



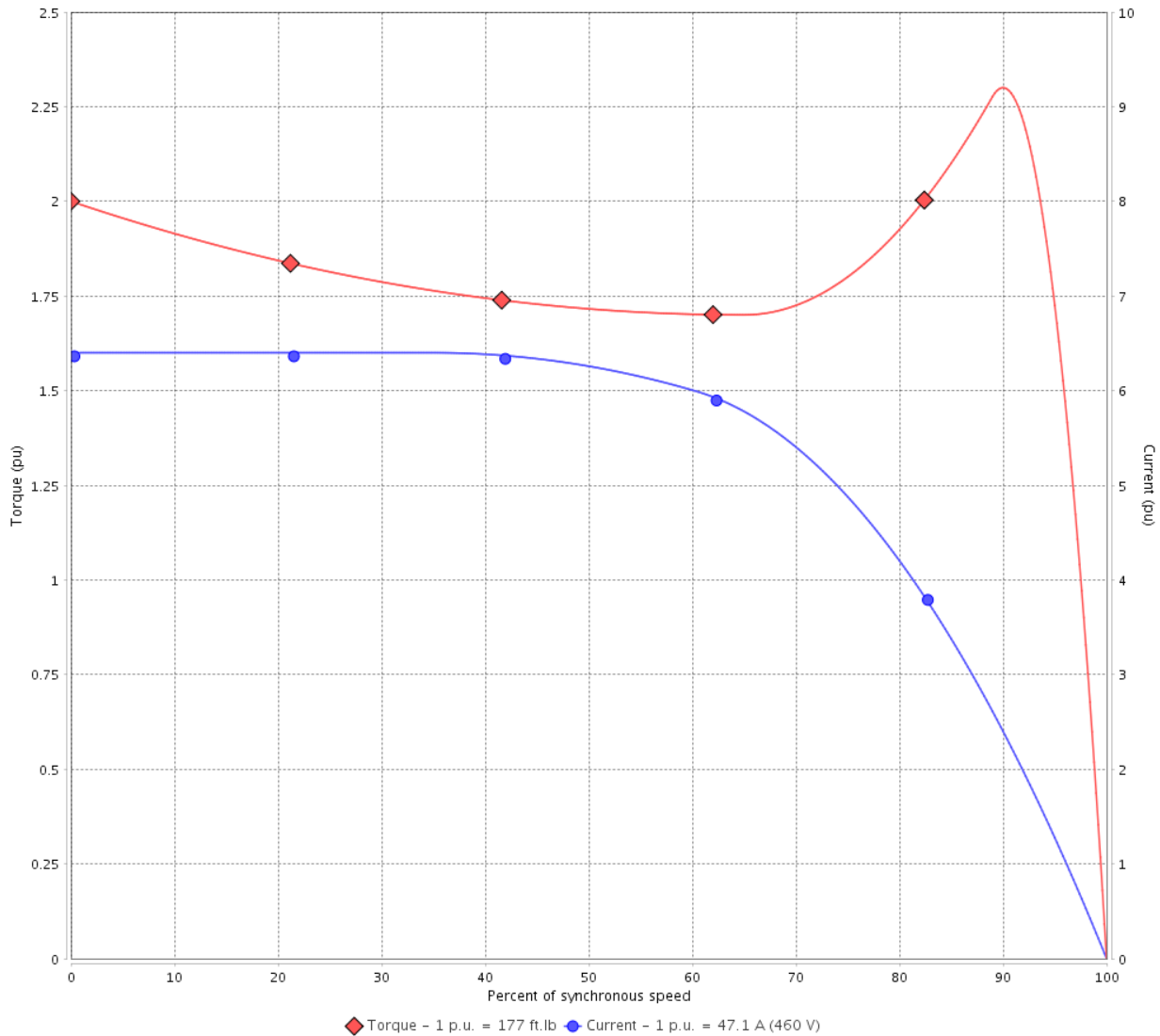
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14285007

Catalog # : 040120T3E364T-W40G

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 6P

Rated current	: 94.2/47.1 A	Moment of inertia (J)	: 21.8 sq.ft.lb
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 177 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.25
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 1185 rpm	Design	: B

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



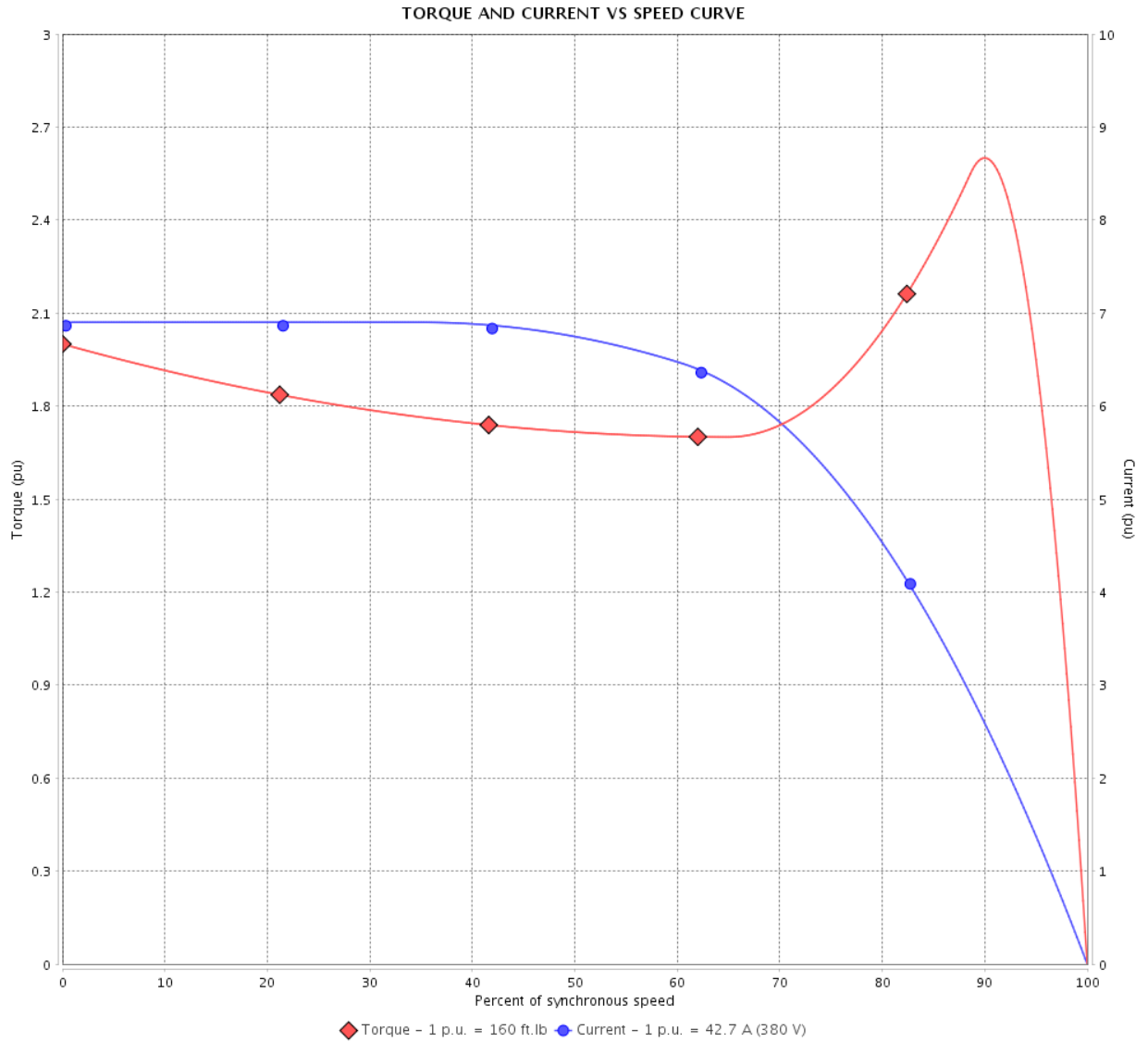
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14285007

Catalog # : 04012OT3E364T-W40G



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	Revision
Checked by				
Date	12/04/2022			

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



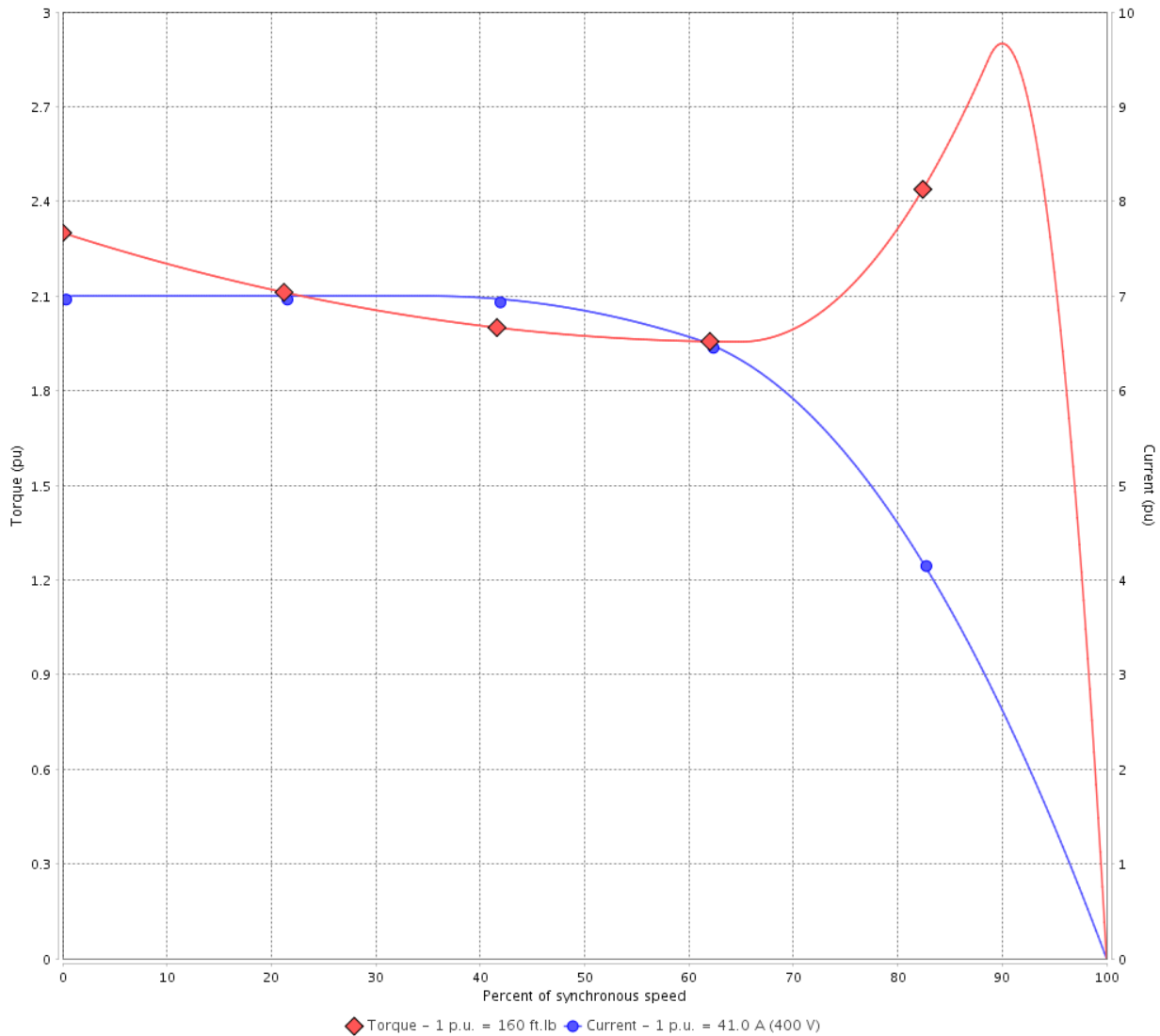
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14285007

Catalog # : 04012OT3E364T-W40G

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 6P IE3

Rated current	: 41.0 A	Moment of inertia (J)	: 21.8 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 160 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

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



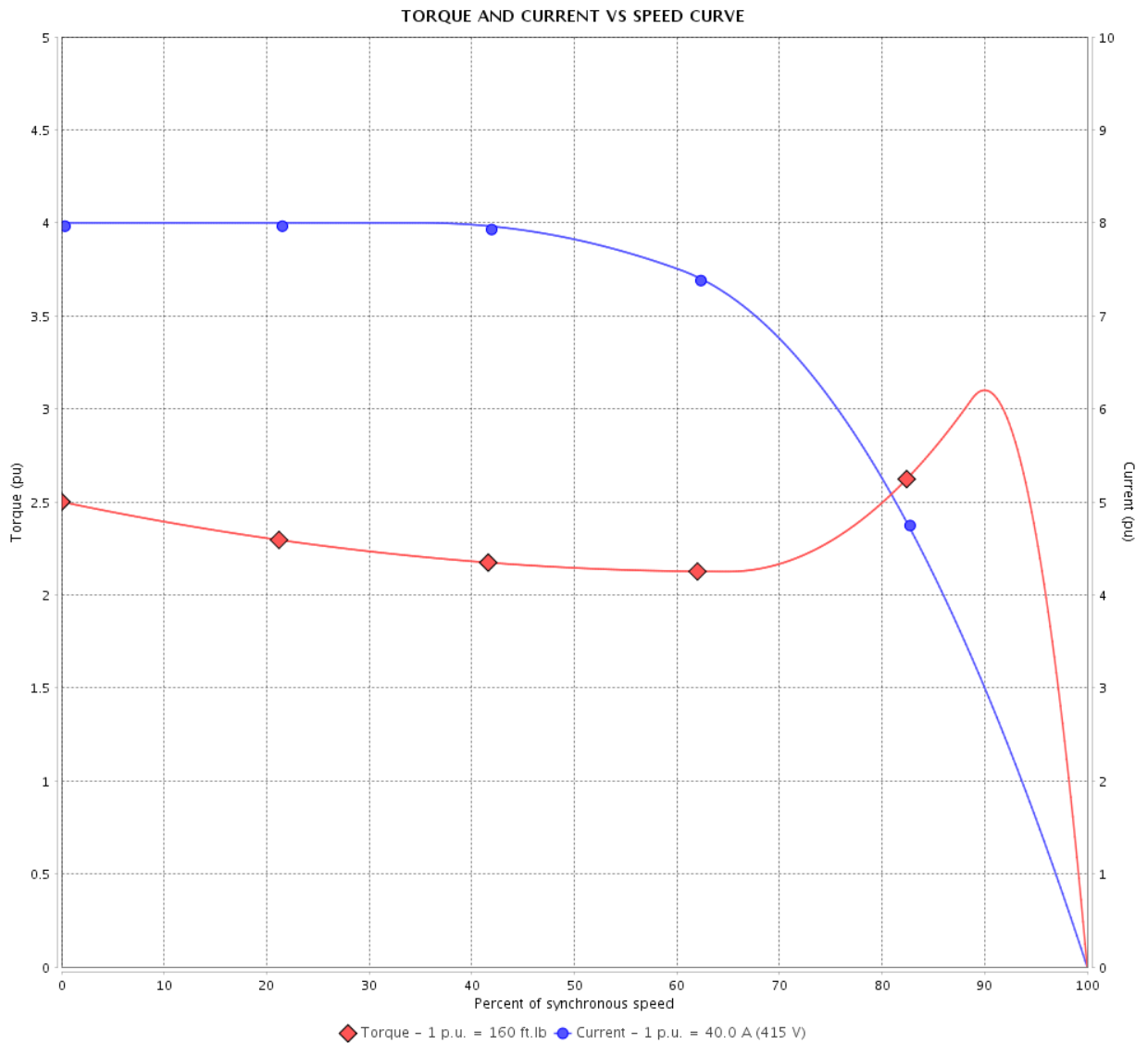
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Product code : 14285007

Catalog # : 04012OT3E364T-W40G



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	Revision
Checked by				
Date	12/04/2022			

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Three Phase Induction Motor - Squirrel Cage

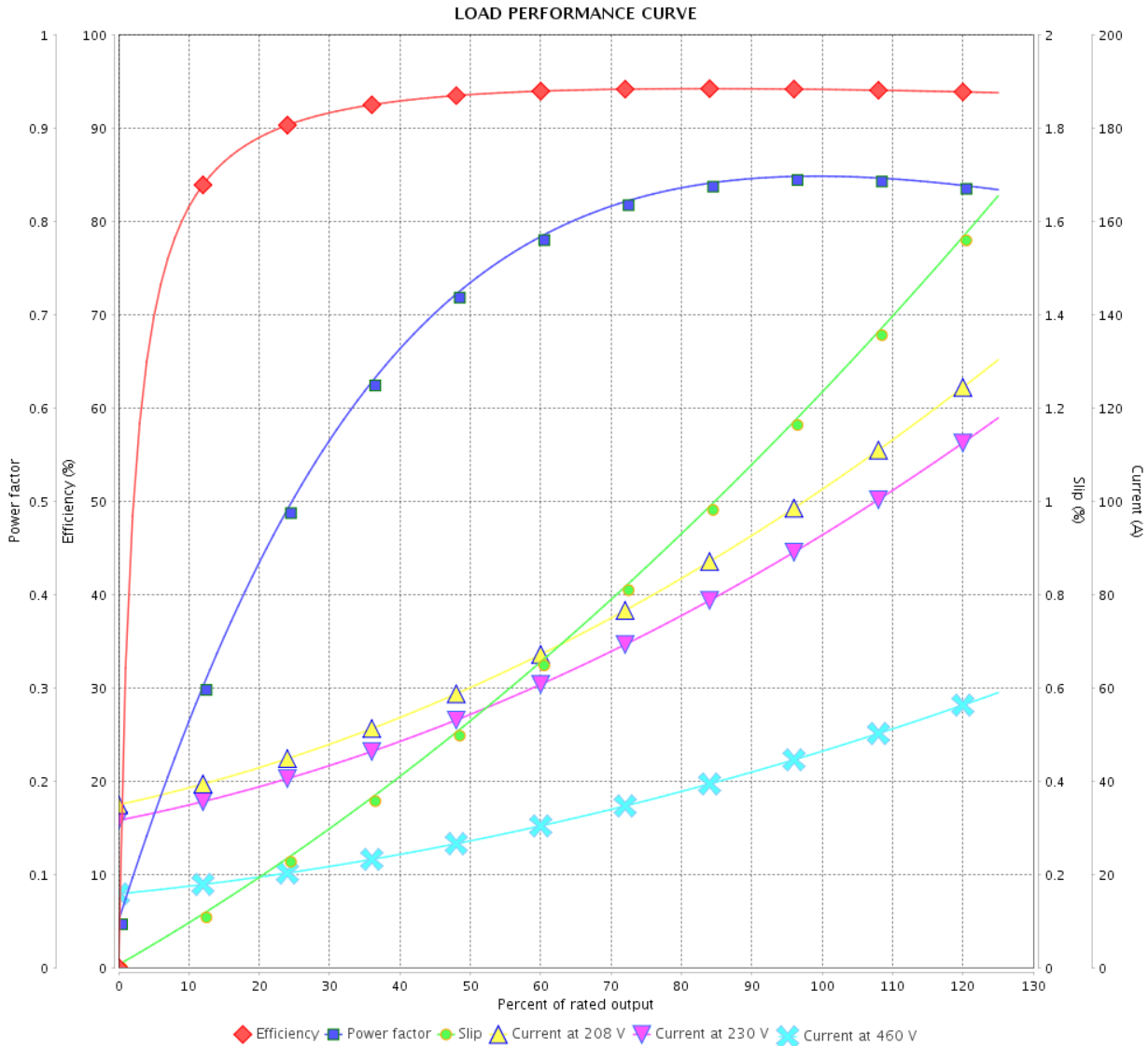


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Three-Phase

Product code : 14285007

Catalog # : 040120T3E364T-W40G



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	Revision
Checked by			6 / 21	
Date	12/04/2022			

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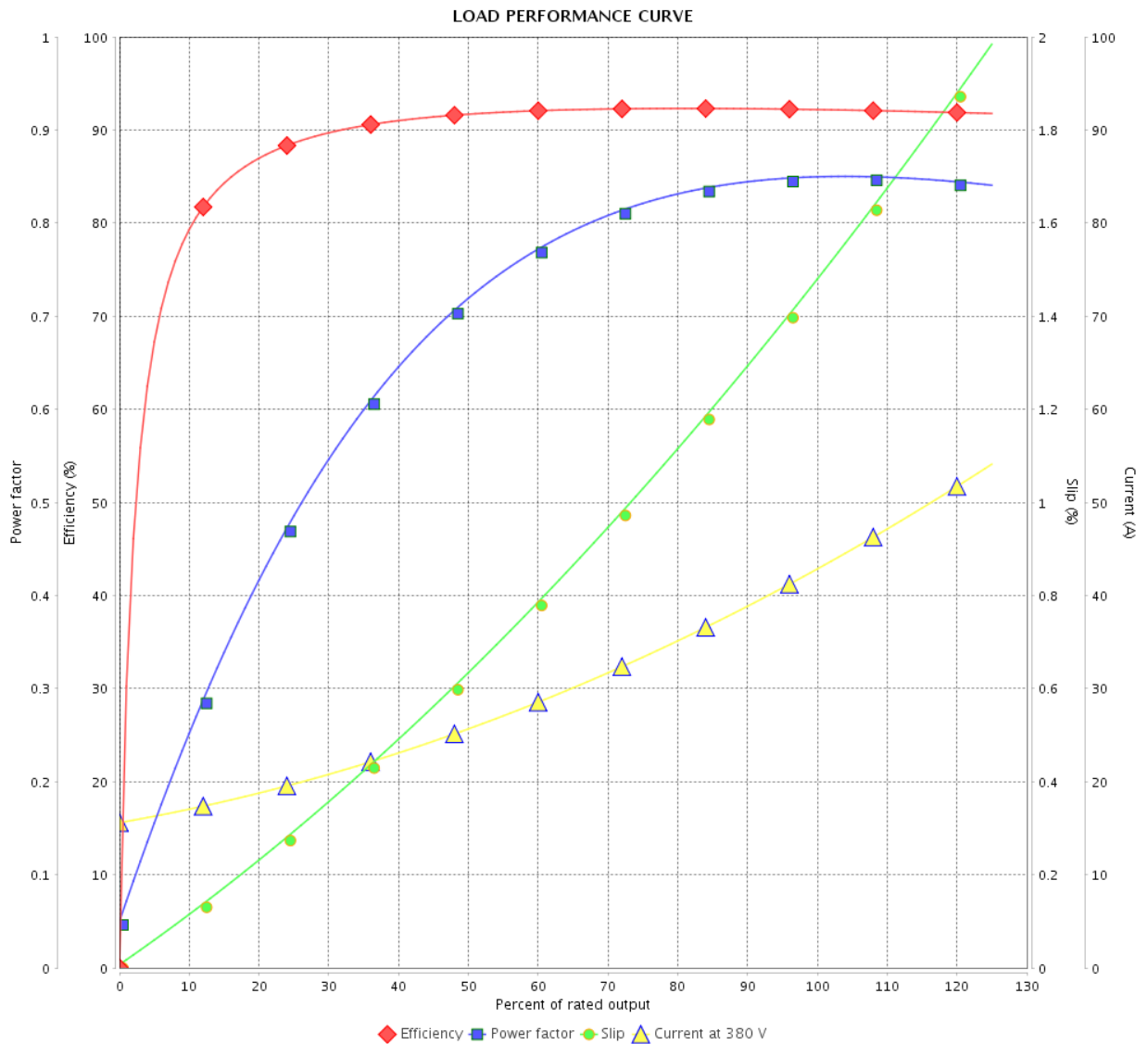


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Performance : 380 V 50 Hz 6P IE3

Rated current : 42.7 A
 LRC : 6.9
 Rated torque : 160 ft.lb
 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
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date	
Performed by					
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Date					12/04/2022
		Page	Revision		
		7 / 21			

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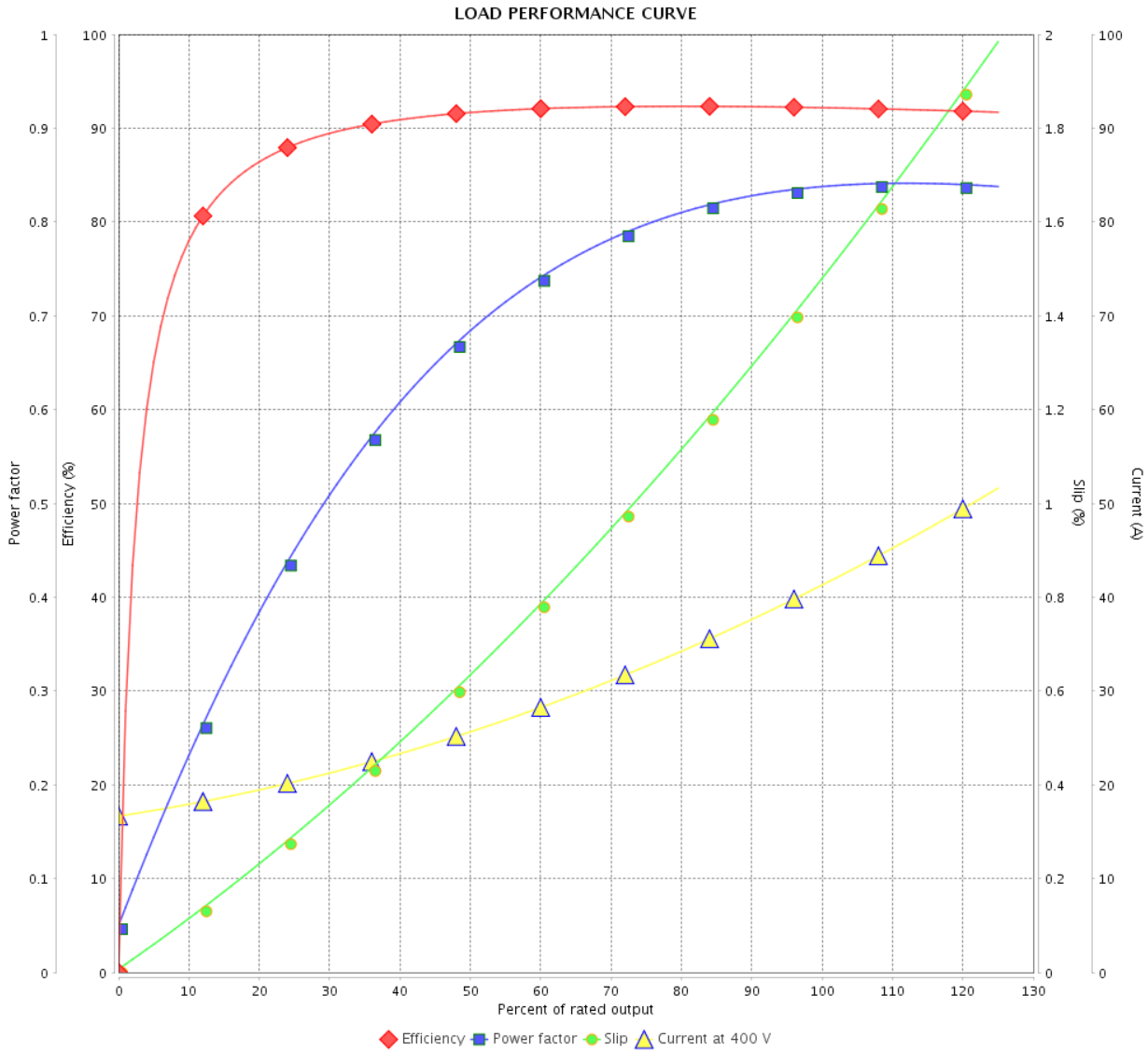


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 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		8 / 21		
Date		12/04/2022		

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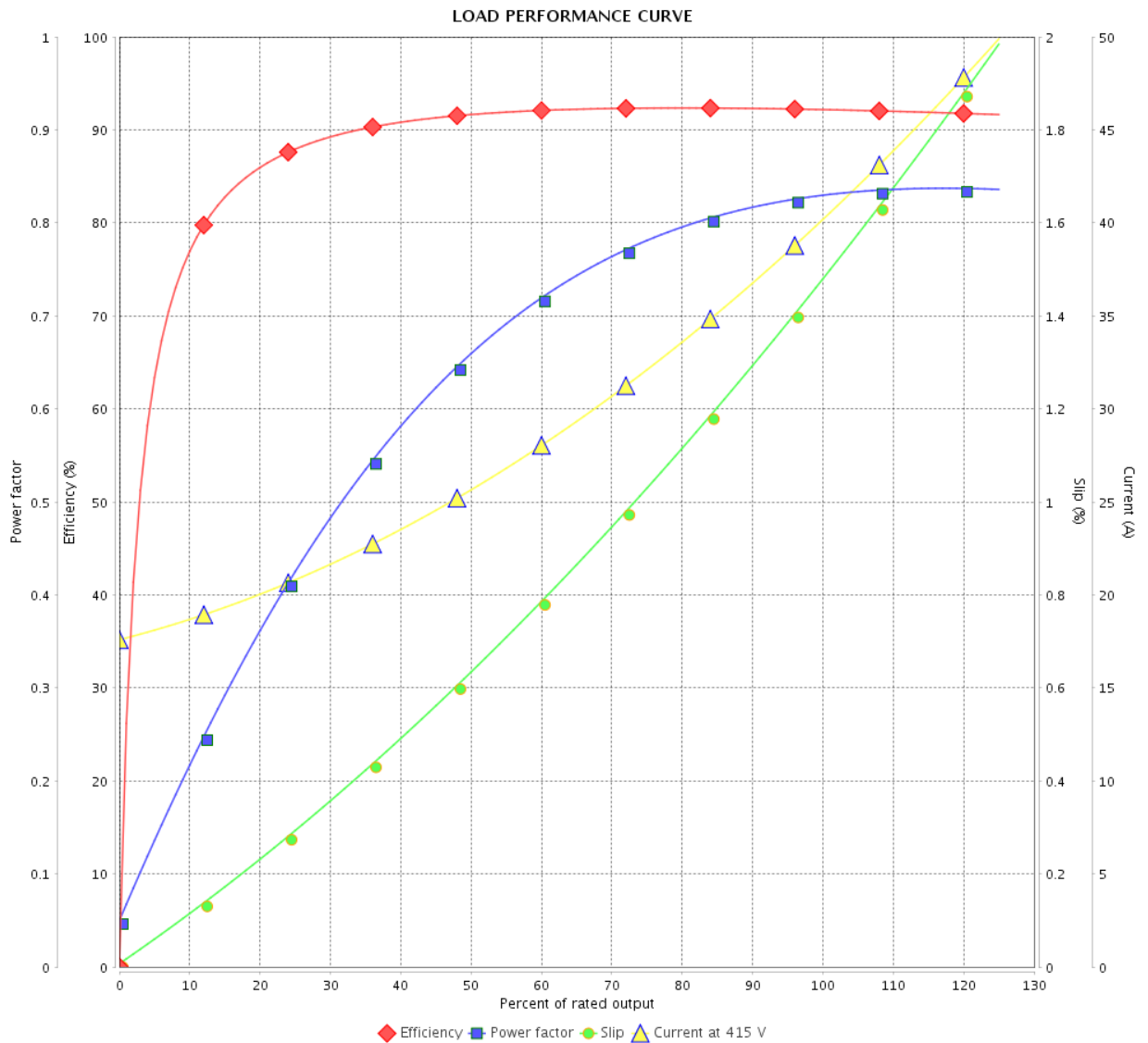


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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		9 / 21		
Date		12/04/2022		

THERMAL LIMIT CURVE



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Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

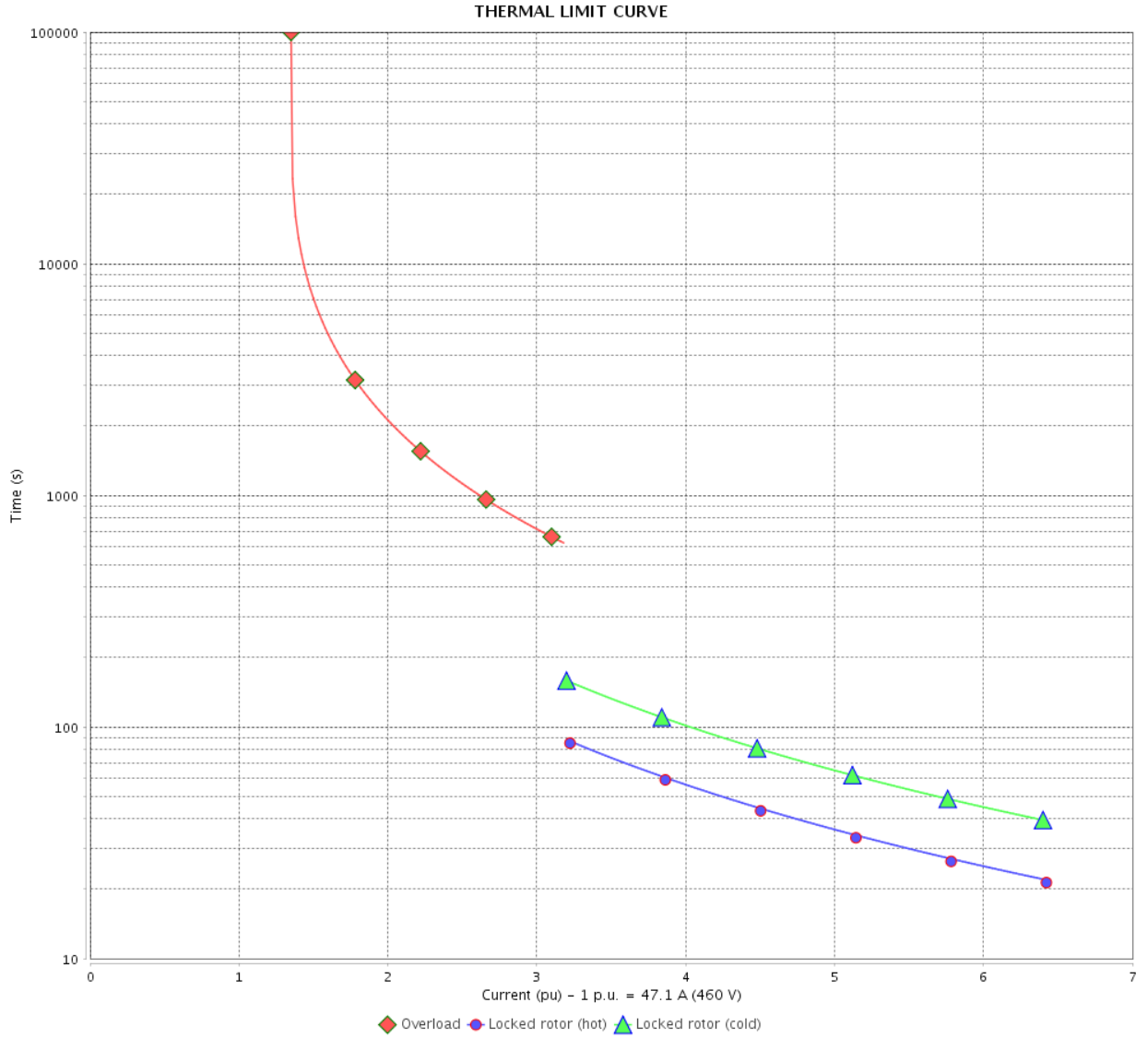
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Date	12/04/2022		10 / 21	

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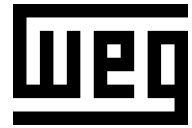


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Rev.	Changes Summary	Performed	Checked	Date
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Checked by		11 / 21		
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LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 160 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

Heating constant

Cooling constant

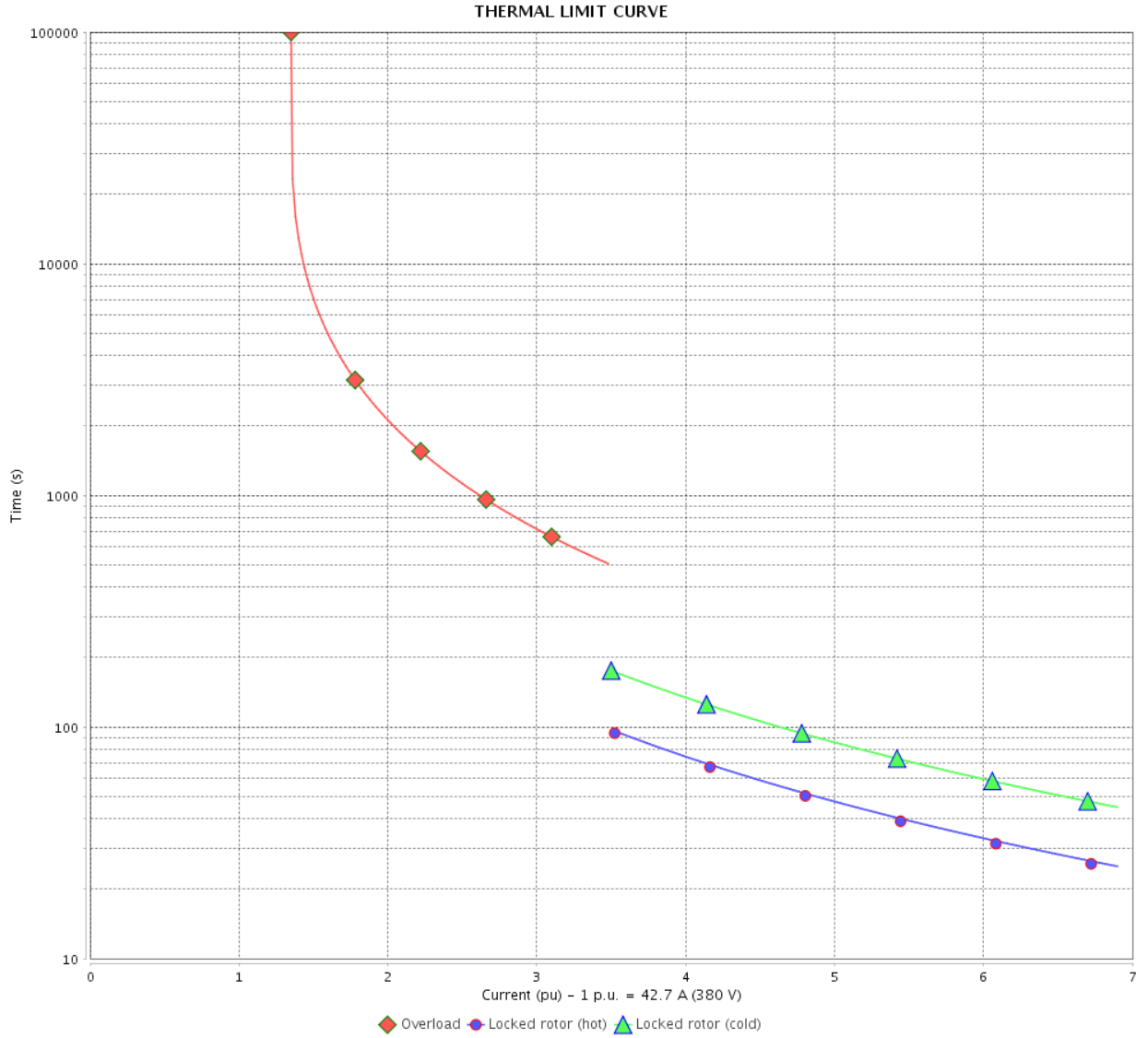
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Date	12/04/2022		12 / 21	

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

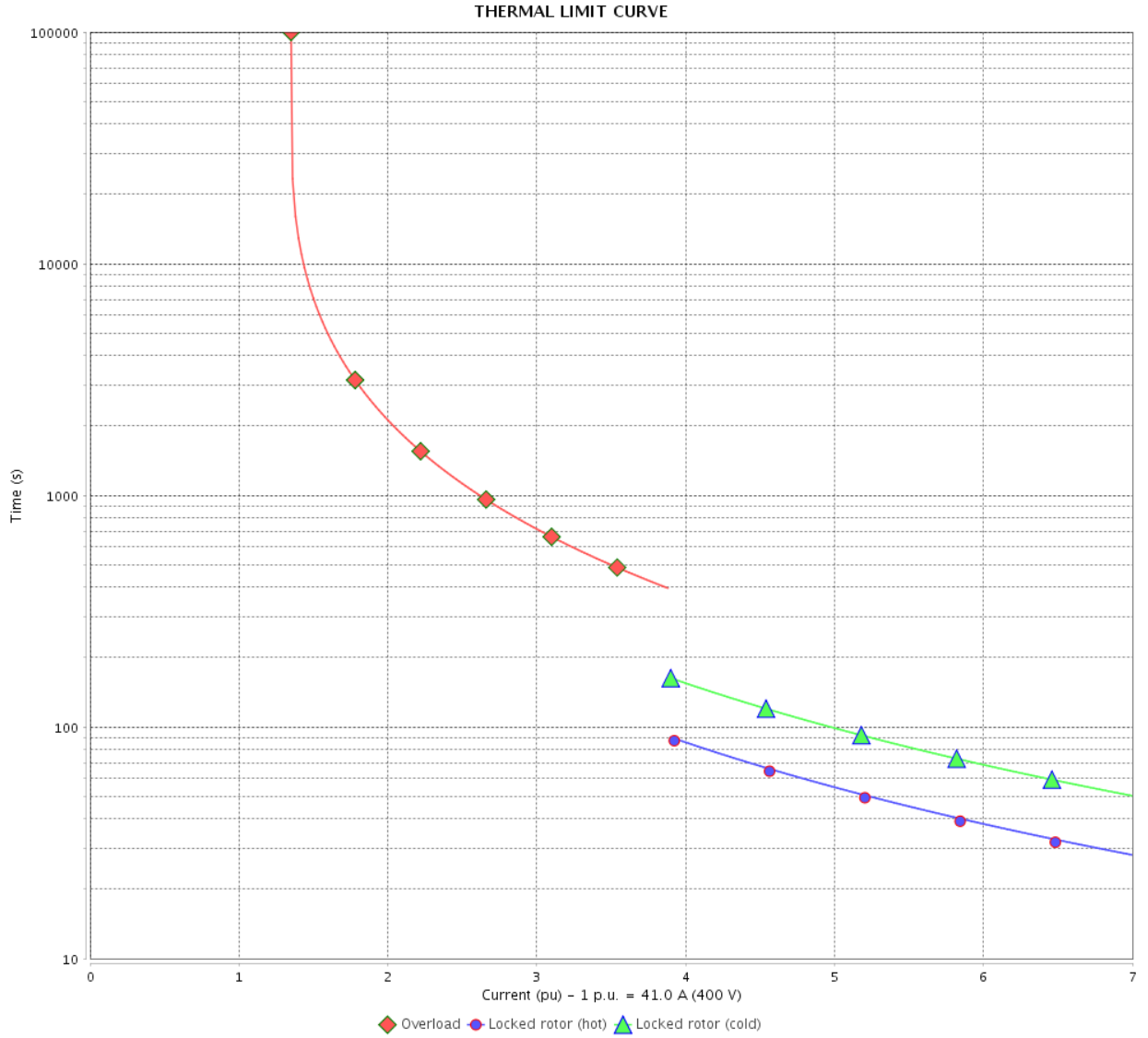
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Checked by			Page	Revision
Date	12/04/2022		14 / 21	

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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		15 / 21		
Date		12/04/2022		

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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

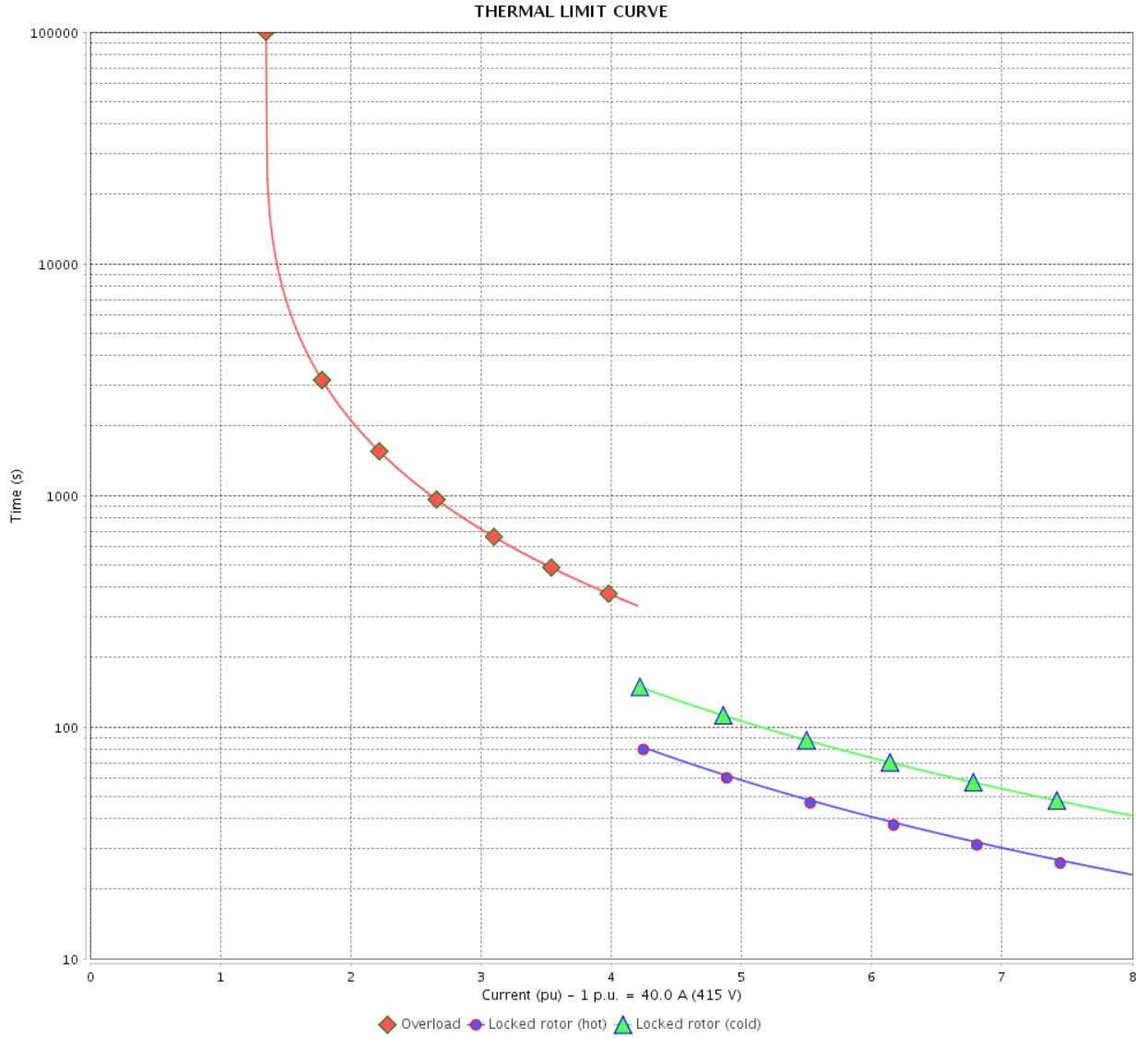
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Performed by			Page 16 / 21	Revision
Checked by				
Date	12/04/2022			

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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



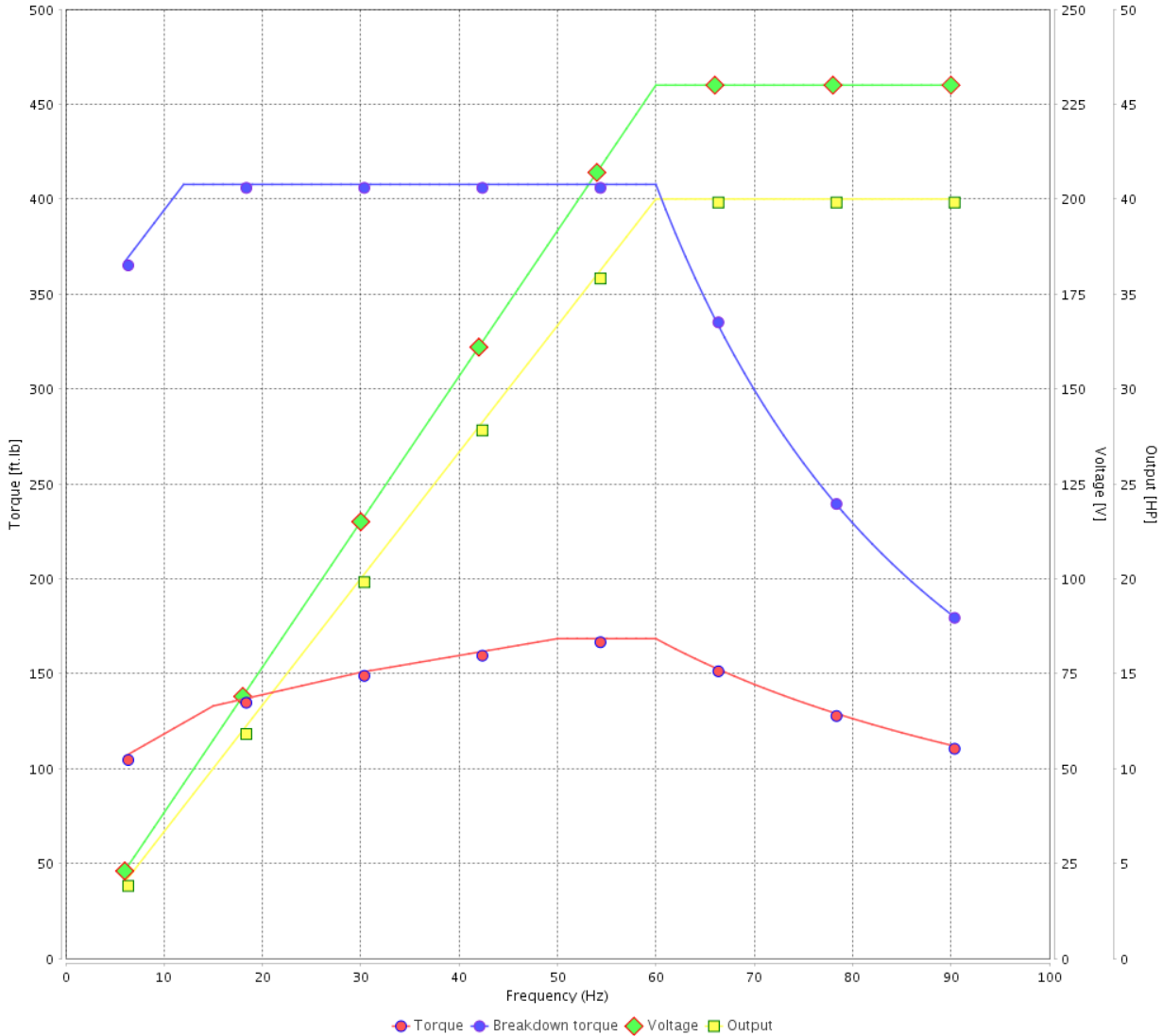
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Performed by			Page	Revision
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

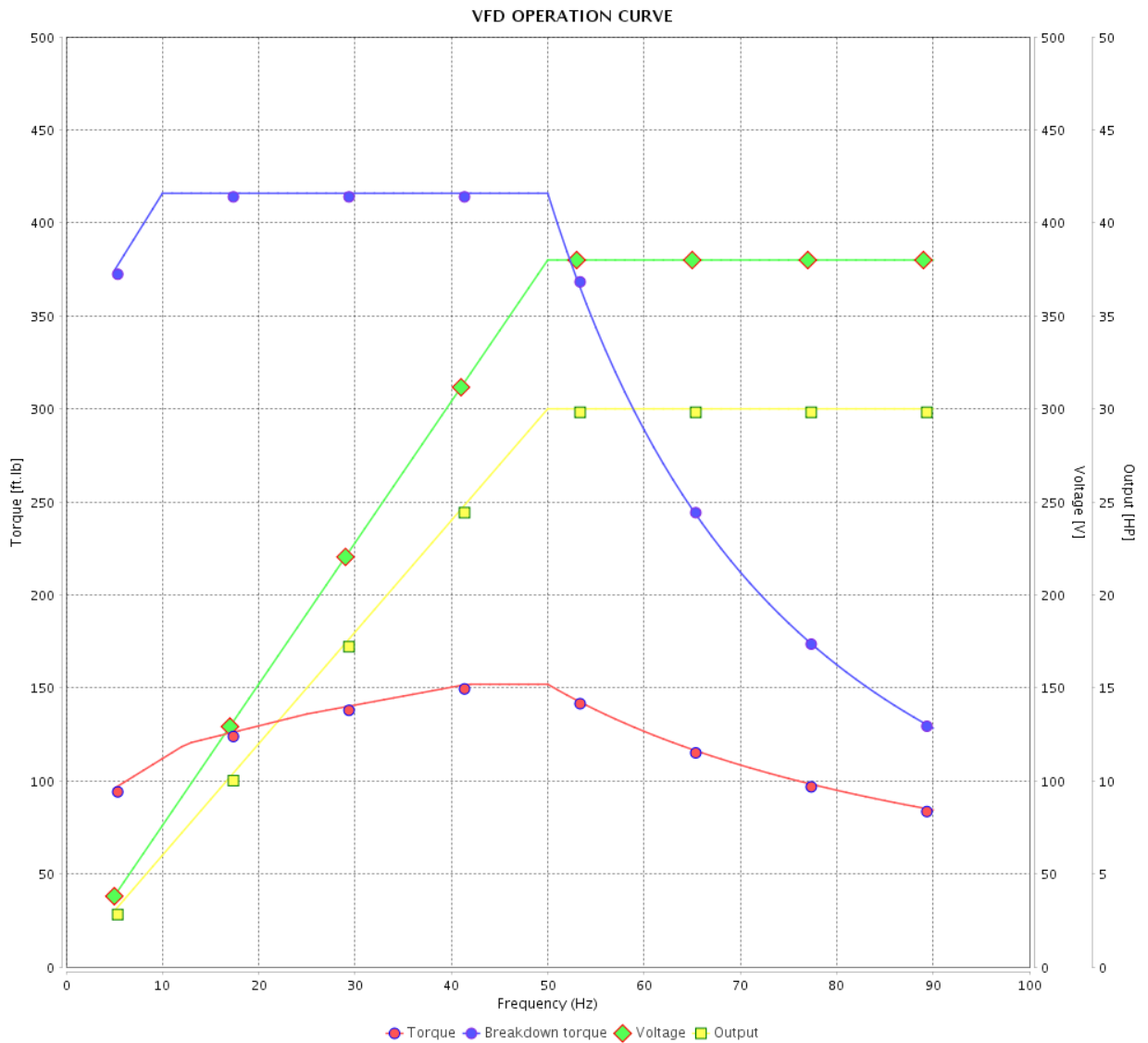


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Performance : 380 V 50 Hz 6P IE3

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

Moment of inertia (J) : 21.8 sq.ft.lb
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Rev.	Changes Summary	Performed	Checked	Date
Performed by				Page 19 / 21
Checked by				
Date	12/04/2022			

VFD OPERATION CURVE

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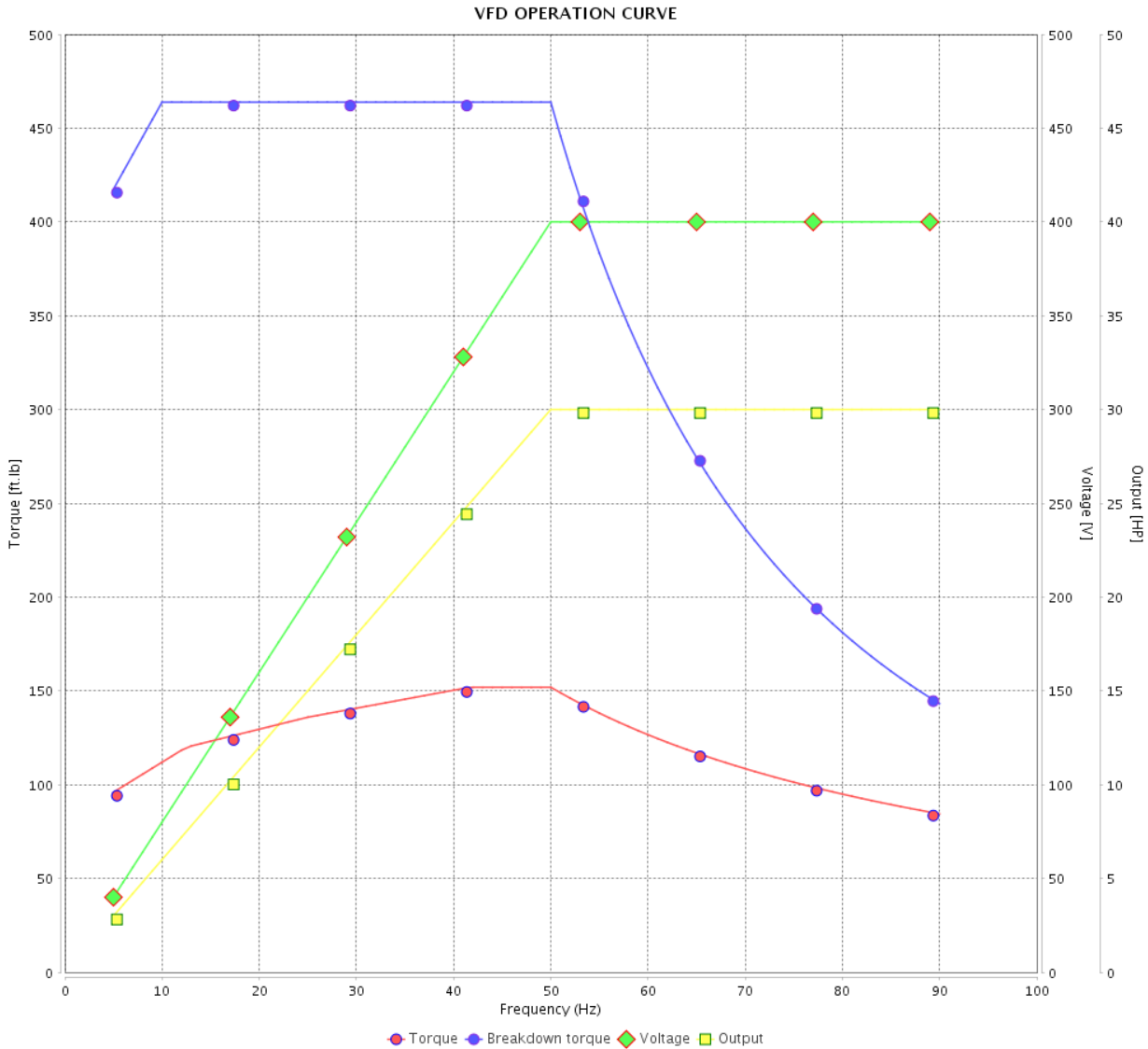


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VFD OPERATION CURVE

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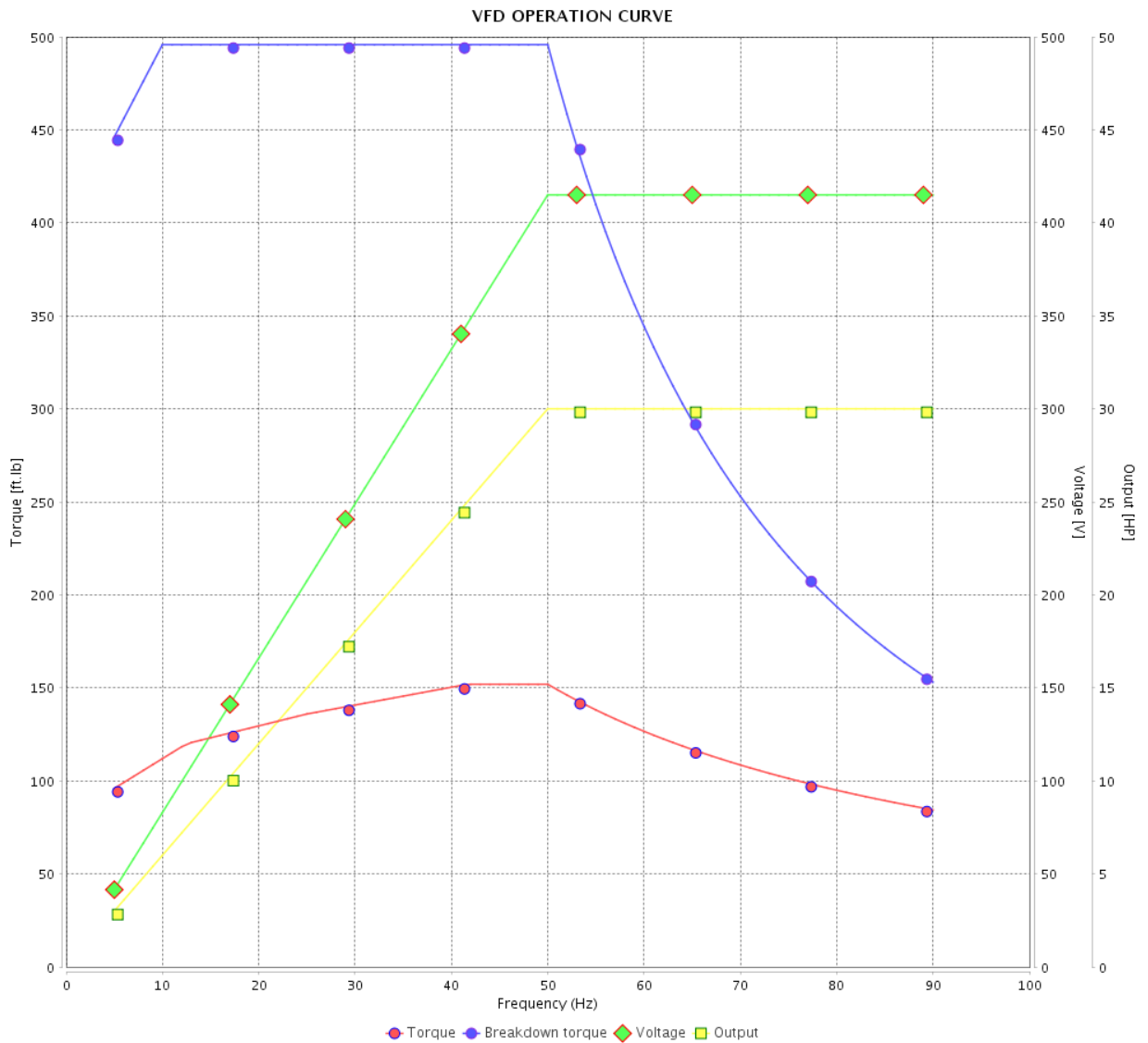


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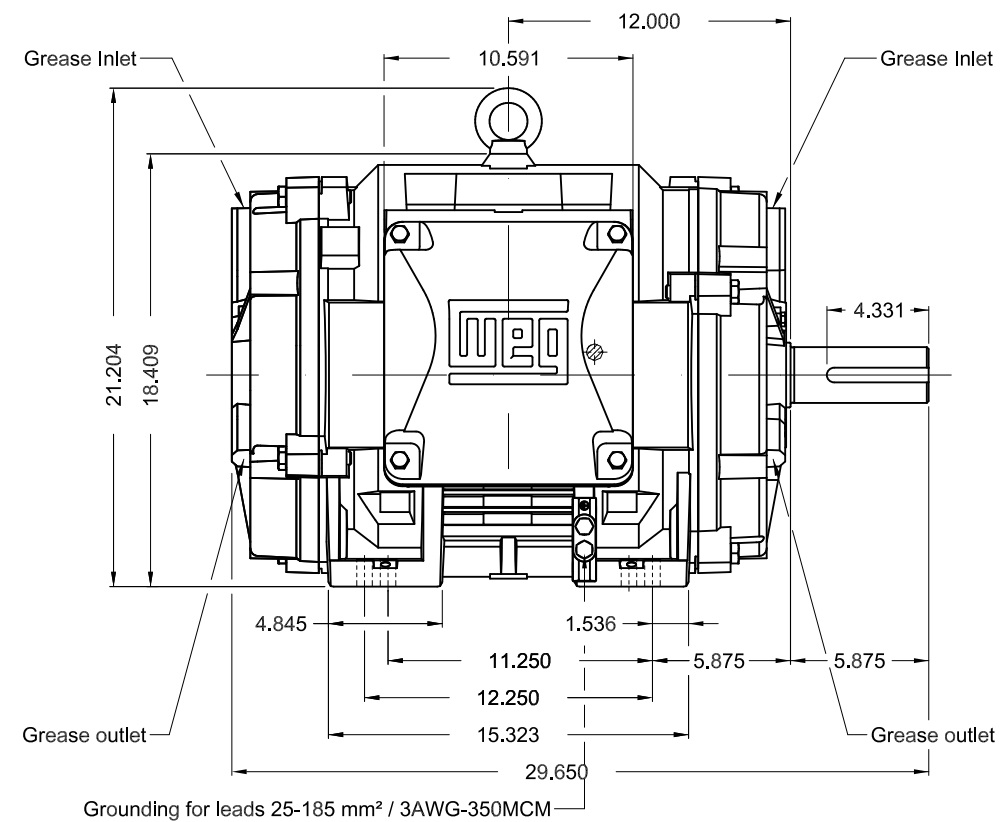
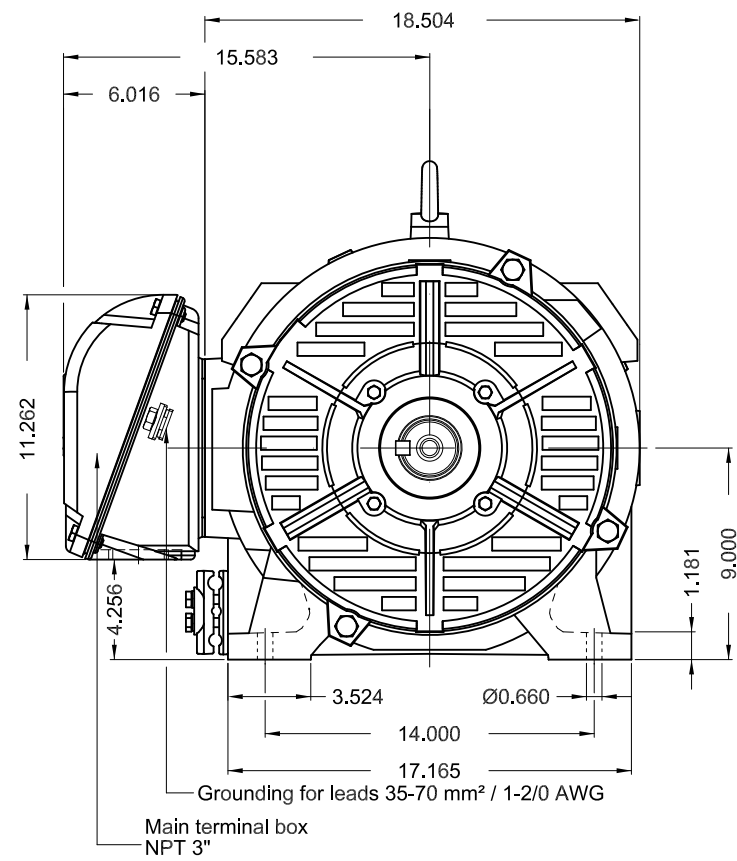


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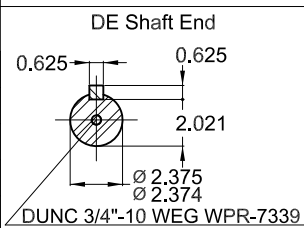
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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		21 / 21		
Date	12/04/2022			



Internal AEGIS ground ring on the DE
Color RAL 5009
Painting plan 203A
Mounting NEMA F-1
Mounting B3R(D)



40 HP 06 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 364/5T IP23 ODP					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW
WDD



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



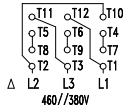
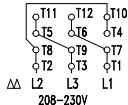
IEC 60034-1
 MOD.T01#FOXON



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

MODEL 040120T3E364T-W40G
 MADE IN BRAZIL
 14285007

PH 3	FR 364/5T	HP(kW) 40.0(30.0)	Hz 60
V 230/460	A 94.2/47.1	RPM 1185	DES B
NEMA NOM EFF 94.1 %	INS. CL. F Δ T 80 K	IP23	
ENCL ODP	DUTY CONT.	AMB. 40°C	
CODE G	PF 0.85	SF 1.25	SFA 118/58.9
USABLE @208V	104 A	SF 1.15	SFA 120
30HP 22kW 50Hz 380V 42.7A 985RPM SF1.00 EFF 92.2% (IE3)	ALT 1000 m.a.s.l.		



→ 6314-C3(27g)
 → 6212-Z-C3(13g)

MOBIL POLYREX EM
 20000 h