

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: W40 JM Pump NEMA Premium Efficiency Three-Phase	Product code :	14267928		
		Catalog # :	04012OT3E364JM-W40		
Frame	: 364/5JM	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	: 766 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	91.7
	50%	93.6	91.8	91.8	91.8
	75%	94.1	92.2	92.2	92.2
	100%	94.1	92.2	92.2	92.2
Power Factor	25%	0.49	0.47	0.43	0.41
	50%	0.74	0.72	0.69	0.66
	75%	0.82	0.82	0.79	0.78
	100%	0.85	0.85	0.84	0.83
Bearing type	: <u>Drive end</u> 6314 C3 <u>Non drive end</u> 6212 Z C3	Foundation loads			
Sealing	: Without Without	Max. traction	: 1316 lb		
	: Bearing Seal Bearing Seal	Max. compression	: 2082 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	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



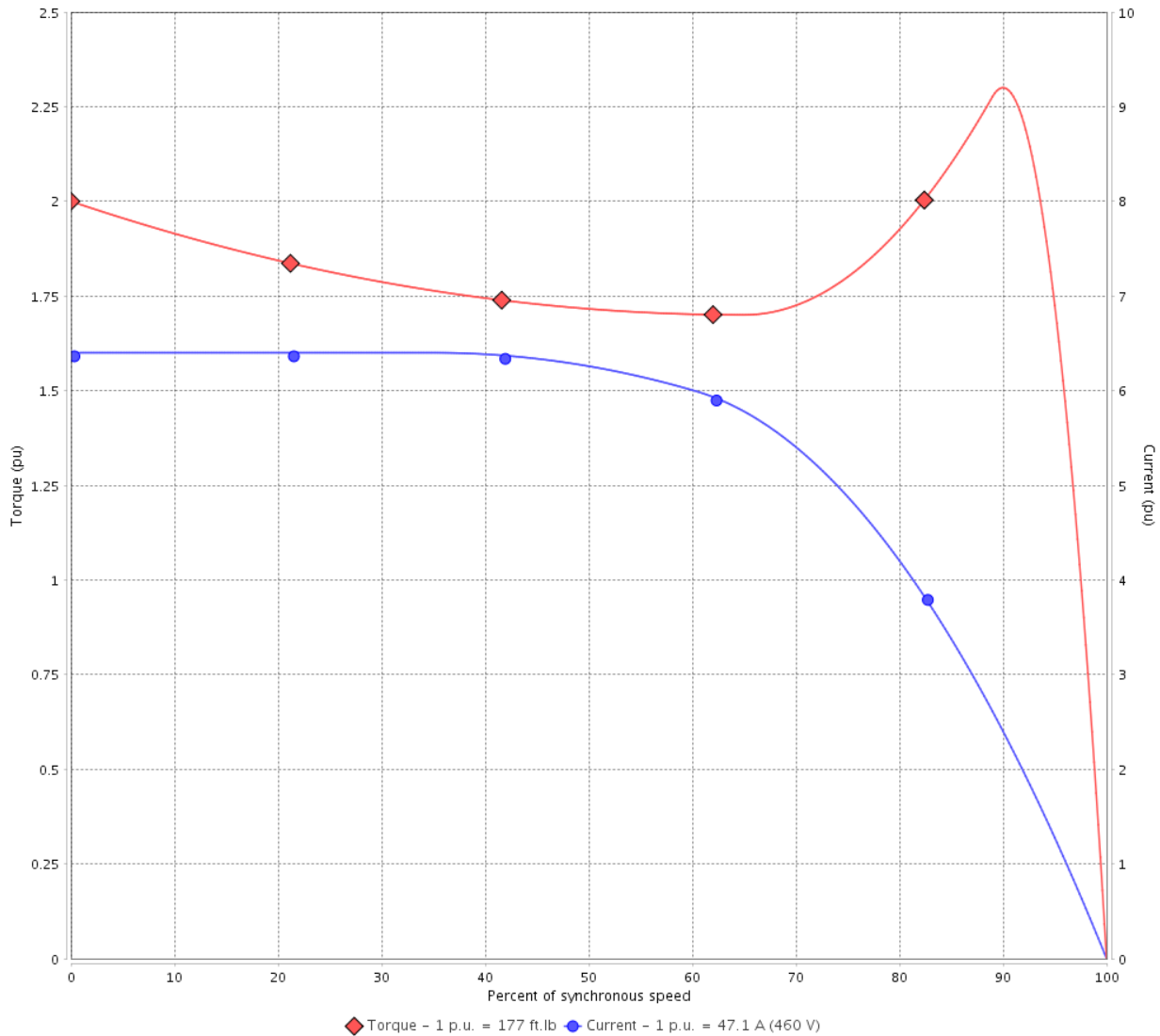
Customer :

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

Product code : 14267928

Catalog # : 04012OT3E364JM-W40

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



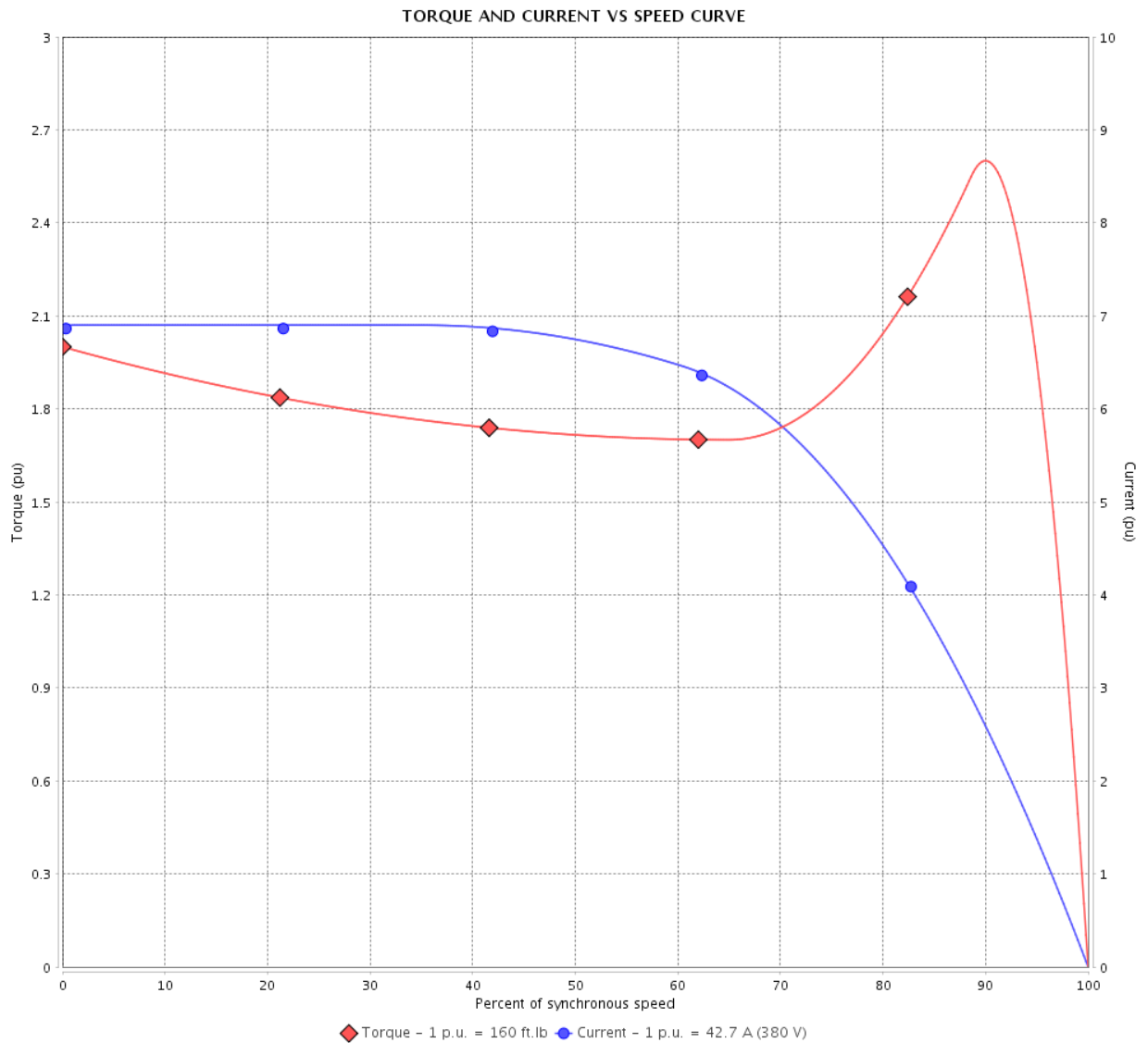
Three Phase Induction Motor - Squirrel Cage

Customer :

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

Product code : 14267928

Catalog # : 04012OT3E364JM-W40



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

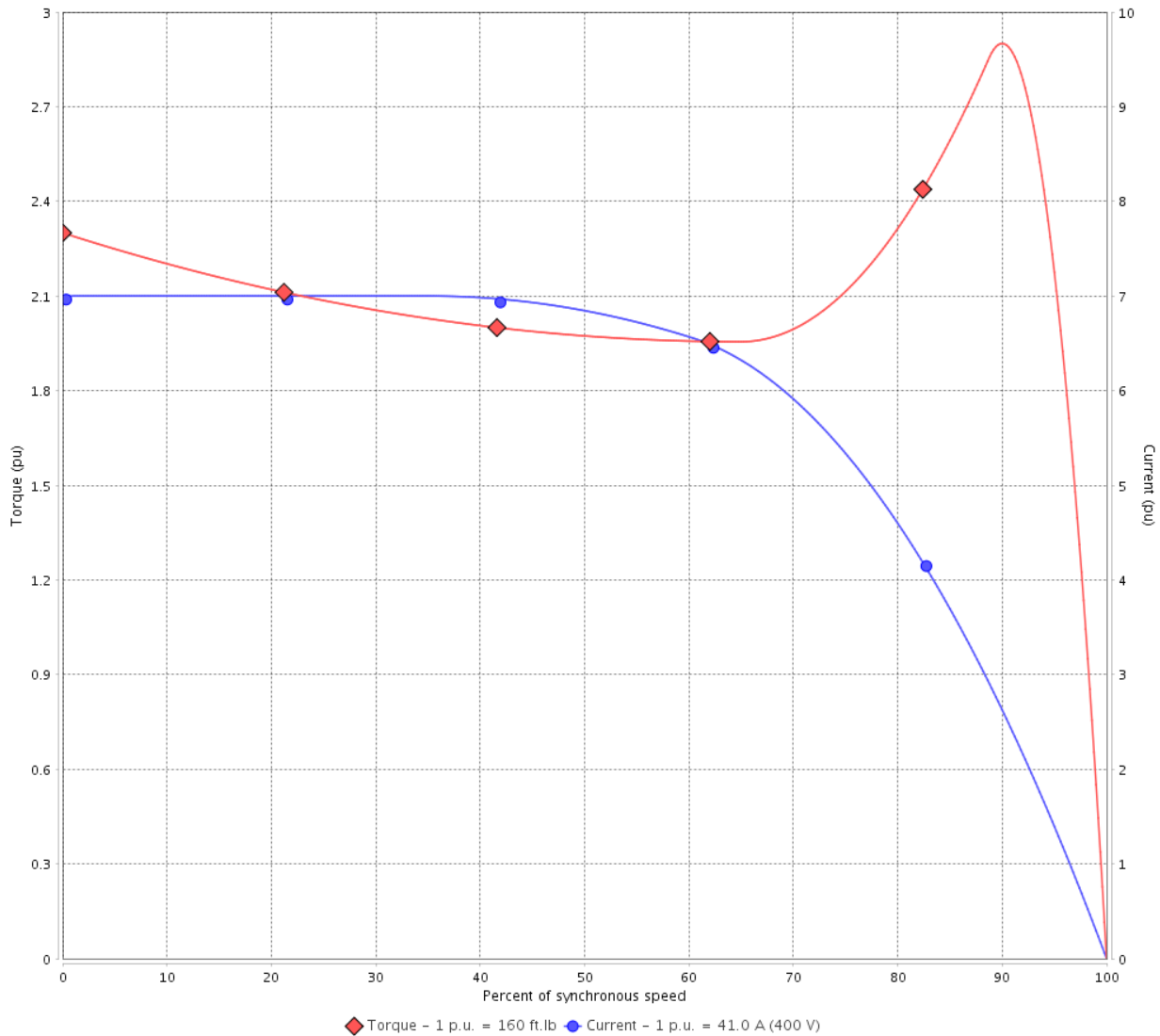
Customer :

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

Product code : 14267928

Catalog # : 04012OT3E364JM-W40

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



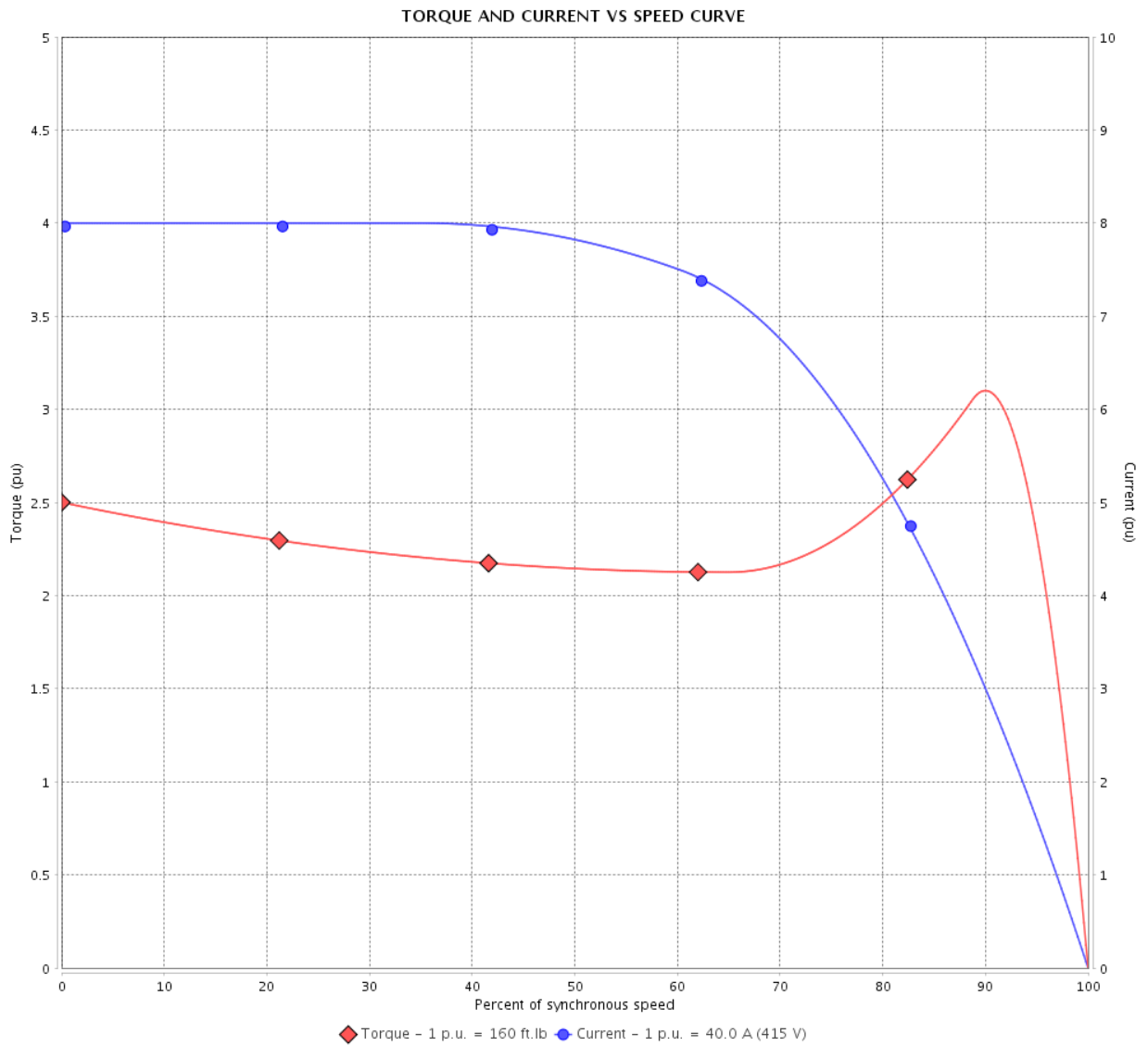
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Performance : 415 V 50 Hz 6P IE3

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

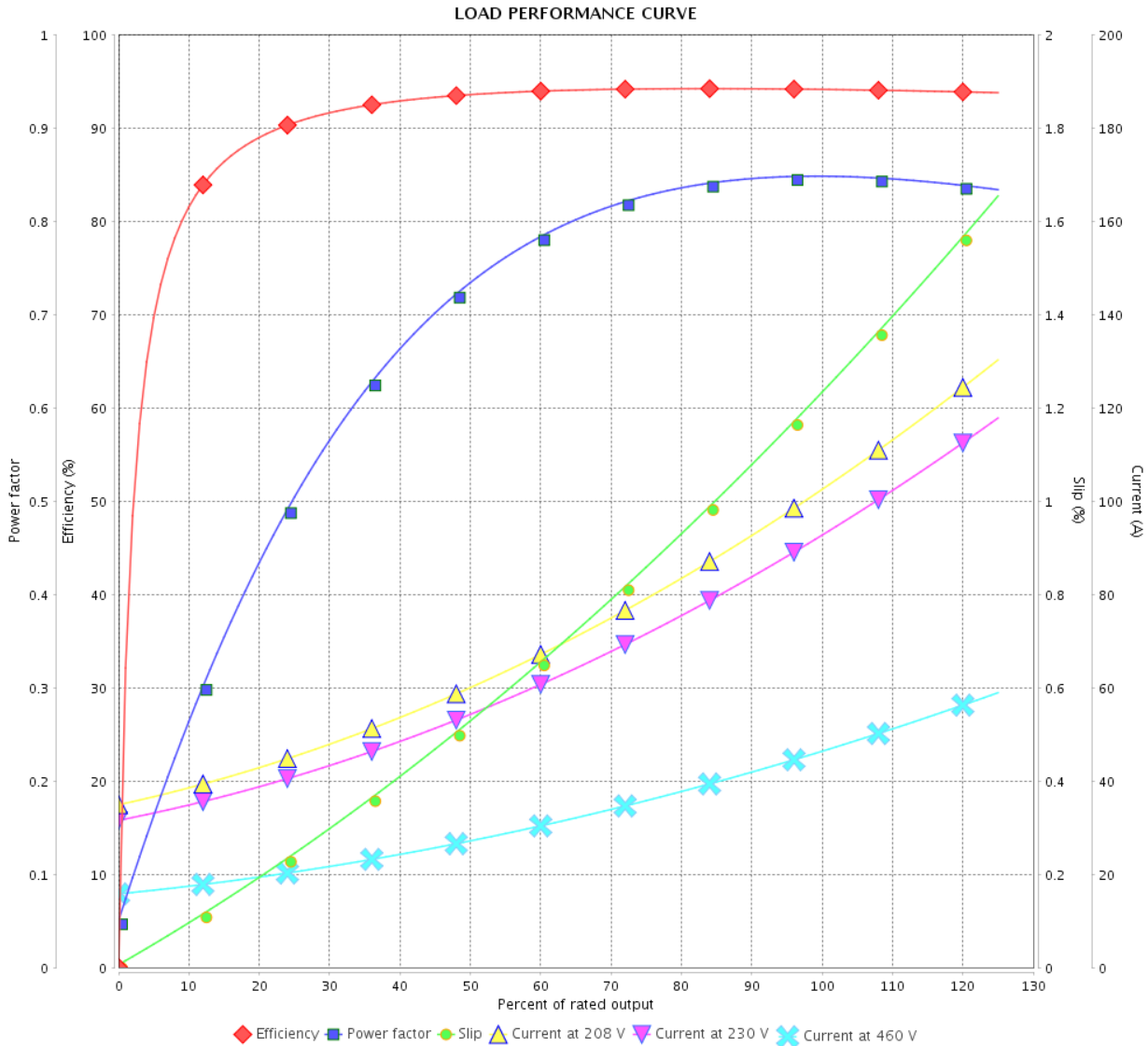


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Performance : 230/460 V 60 Hz 6P

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

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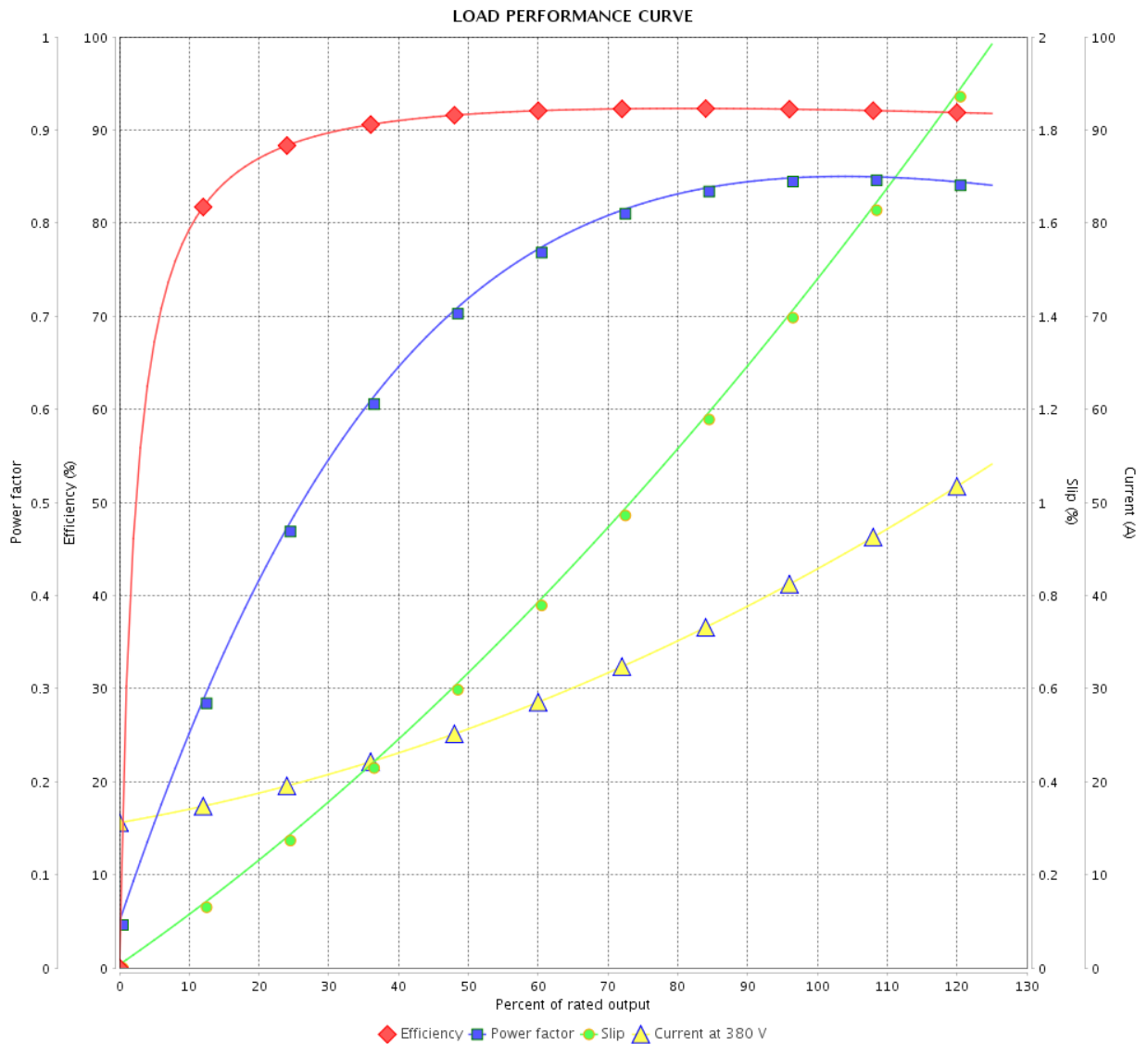


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Performance : 380 V 50 Hz 6P IE3

Rated current : 42.7 A
 LRC : 6.9
 Rated torque : 160 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 260 %
 Rated speed : 985 rpm

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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
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Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				
			7 / 21	

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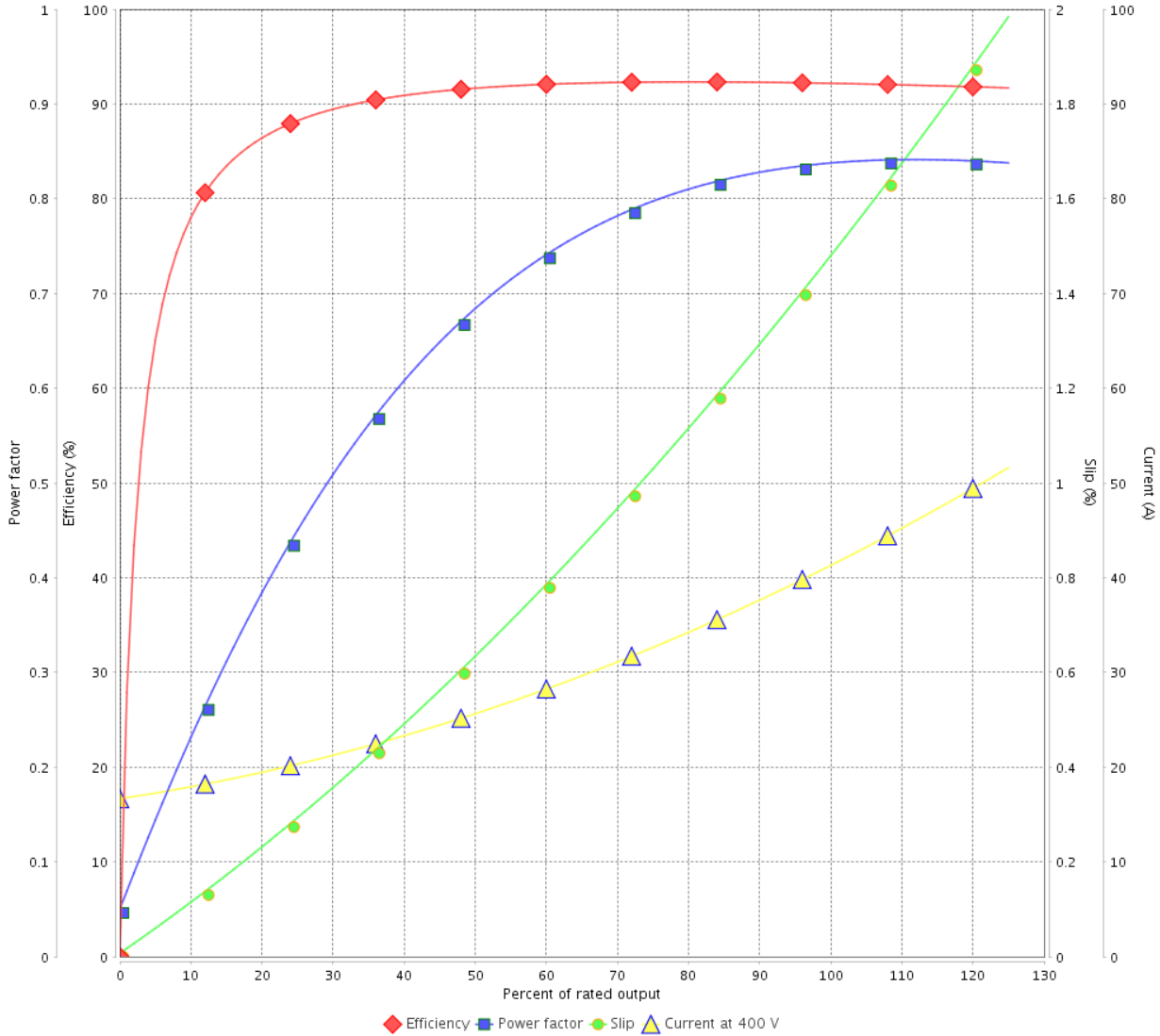
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Performance : 400 V 50 Hz 6P IE3

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 Locked rotor torque : 229 %
 Breakdown torque : 290 %
 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			Page	Revision
Checked by			8 / 21	
Date	12/04/2022			

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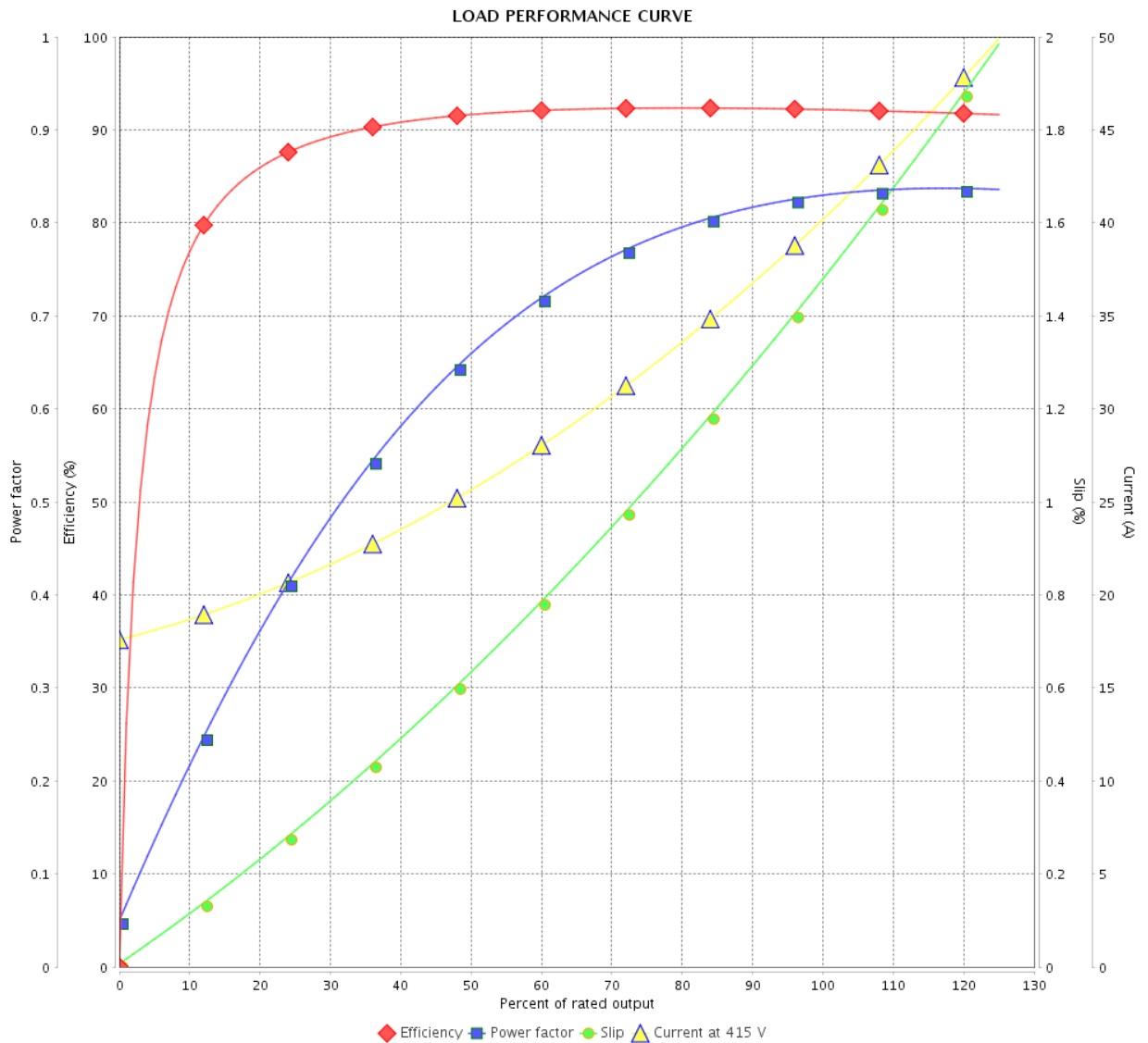


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 Breakdown torque : 310 %
 Rated speed : 985 rpm

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 Duty cycle : Cont.(S1)
 Insulation class : F
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Performed by			Page	Revision
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THERMAL LIMIT CURVE



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Heating constant

Cooling constant

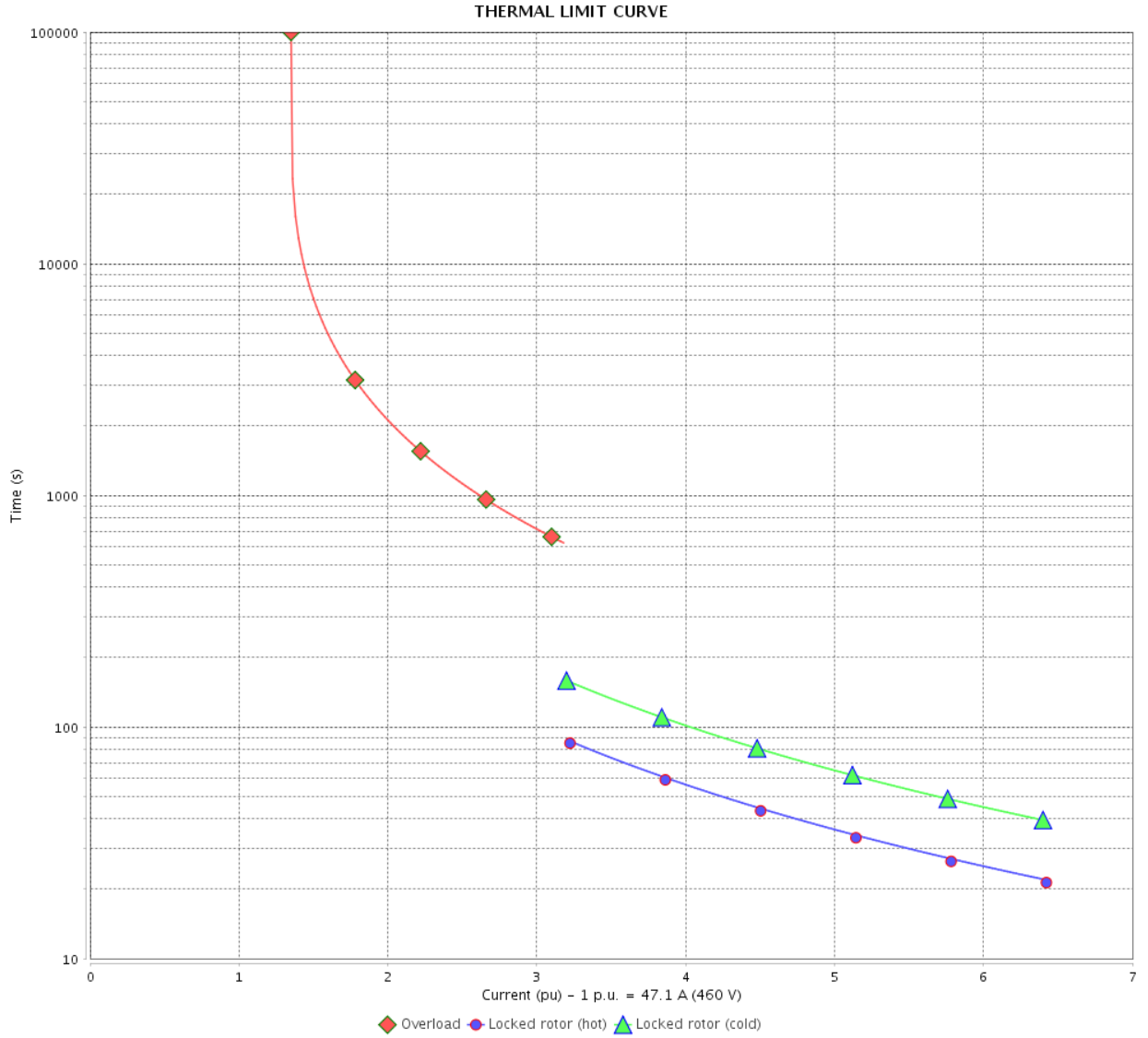
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Performed by				
Checked by			Page	Revision
Date	12/04/2022		10 / 21	

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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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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

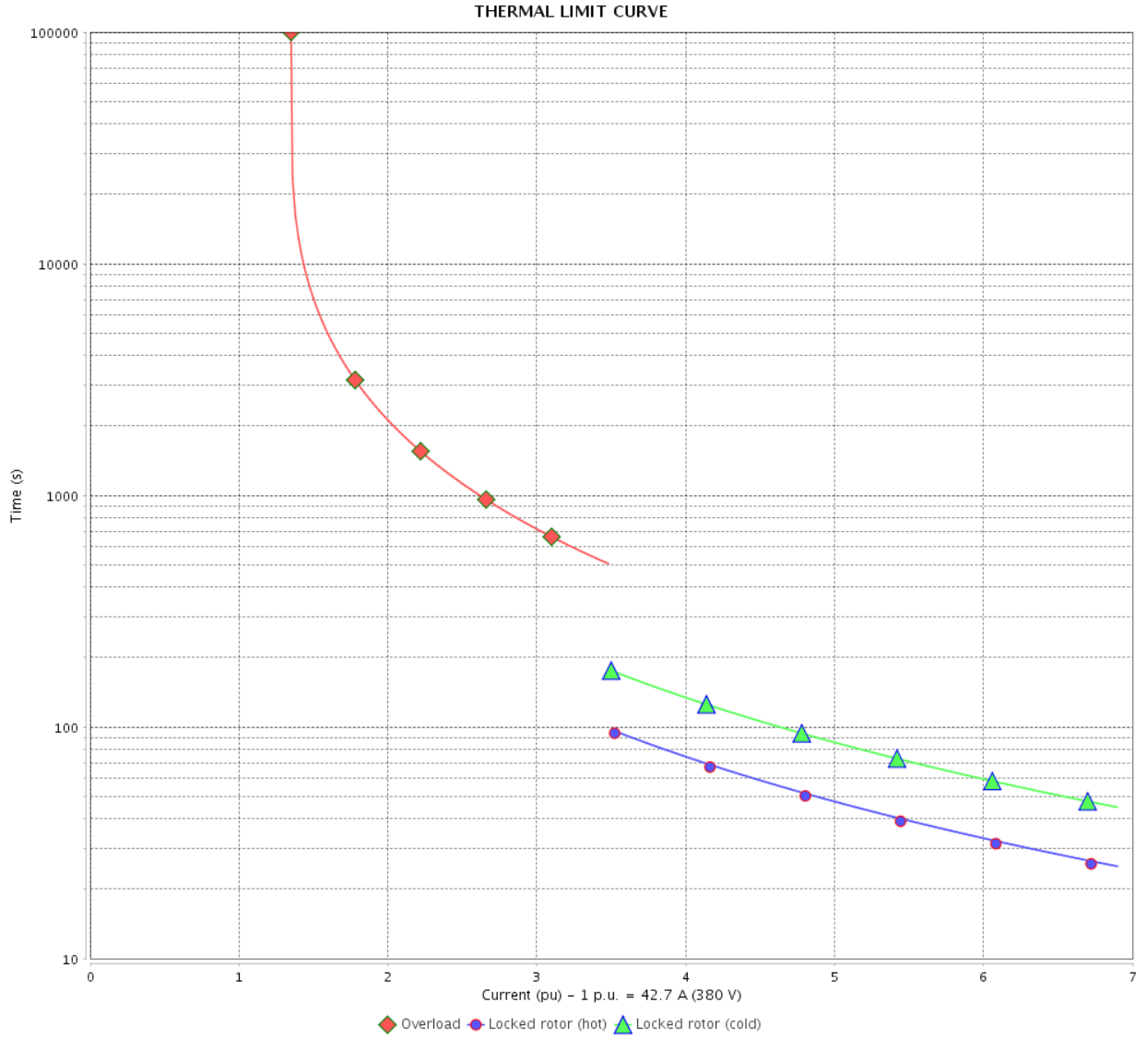
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	12/04/2022		12 / 21	

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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 13 / 21		Revision
Checked by				
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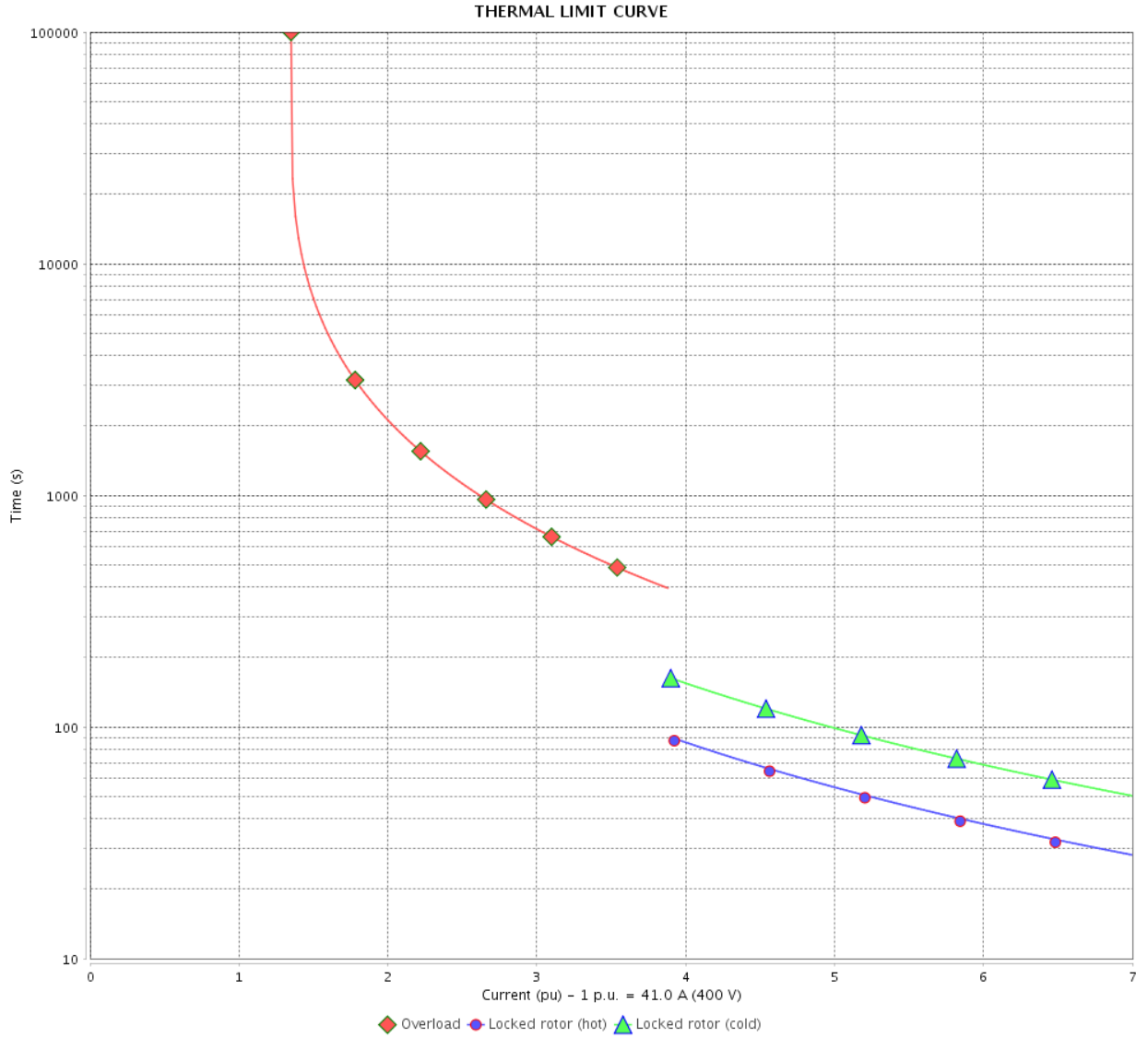
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Performed by				
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Date	12/04/2022		14 / 21	

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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by				
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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

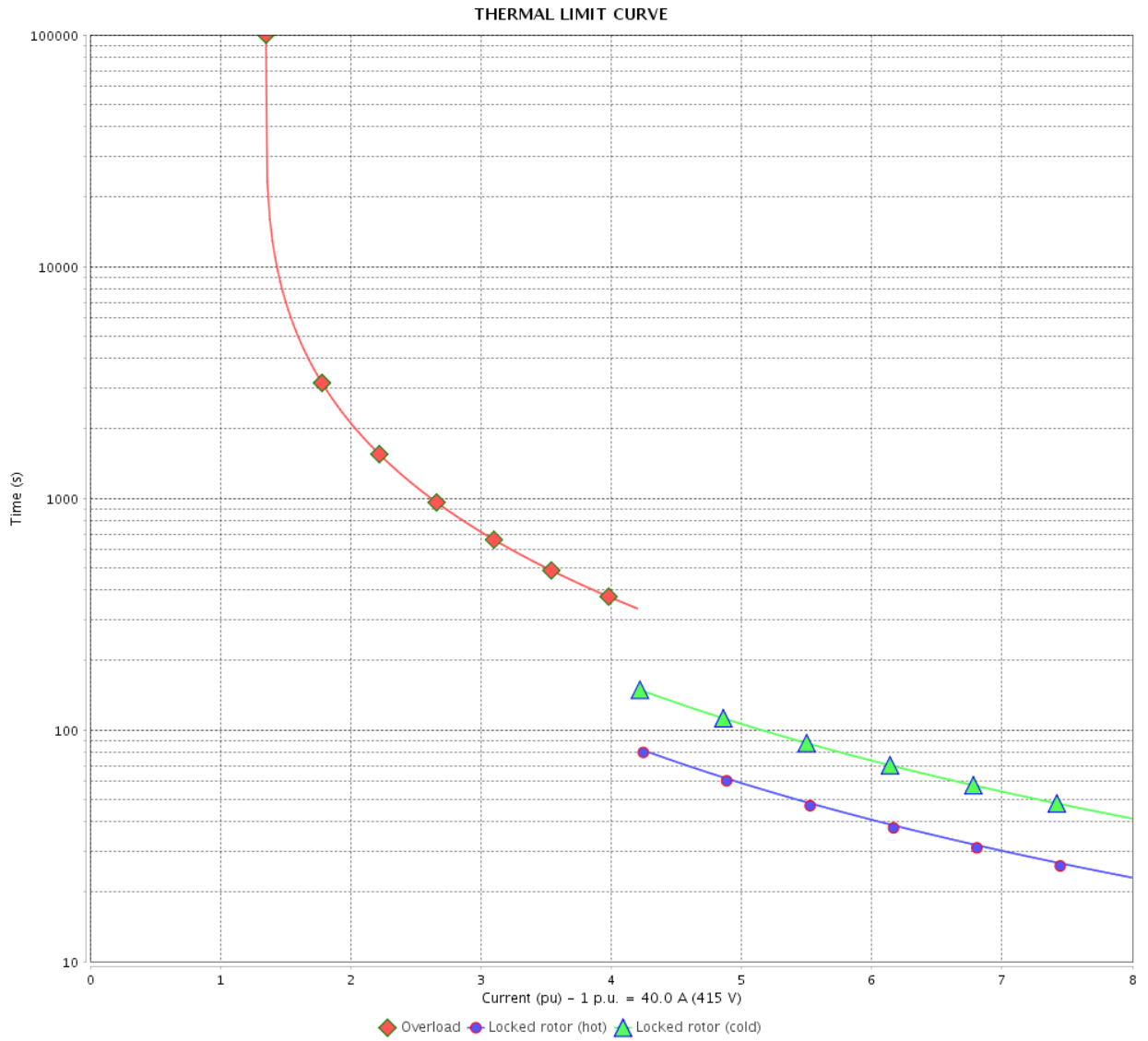
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	12/04/2022		16 / 21	

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

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



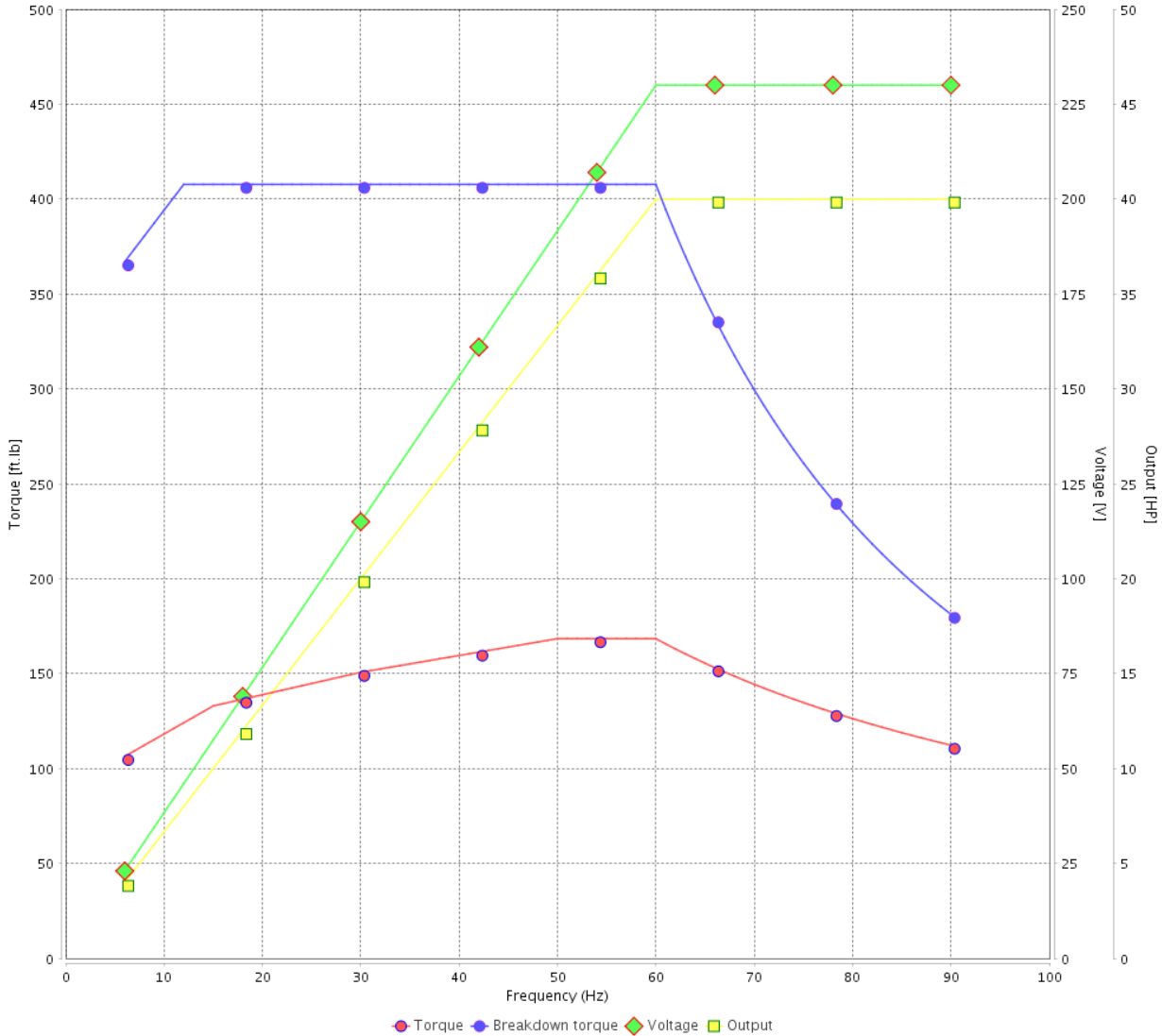
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VFD OPERATION CURVE



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Performed by			Page	Revision
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

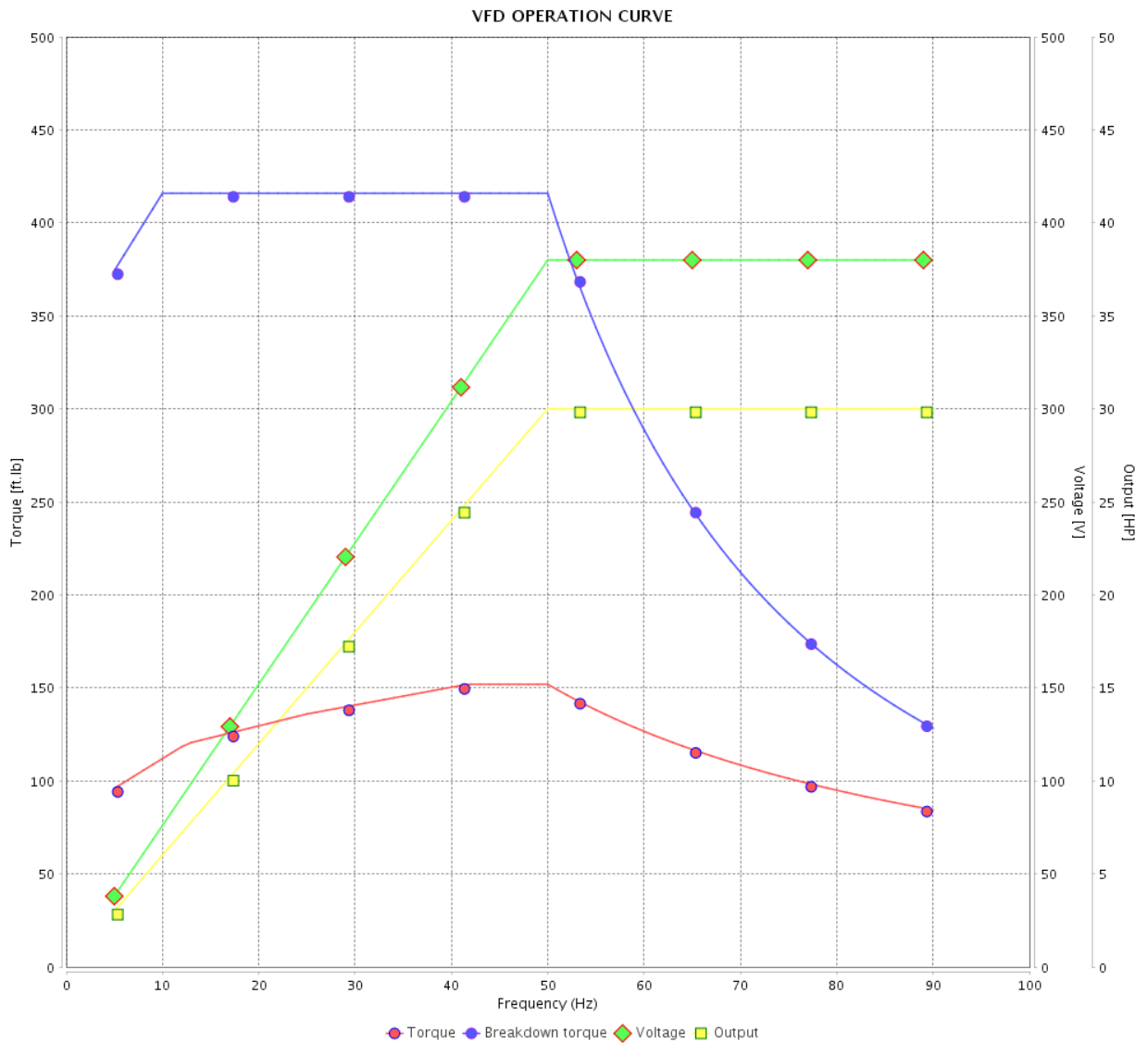


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Performance : 380 V 50 Hz 6P IE3

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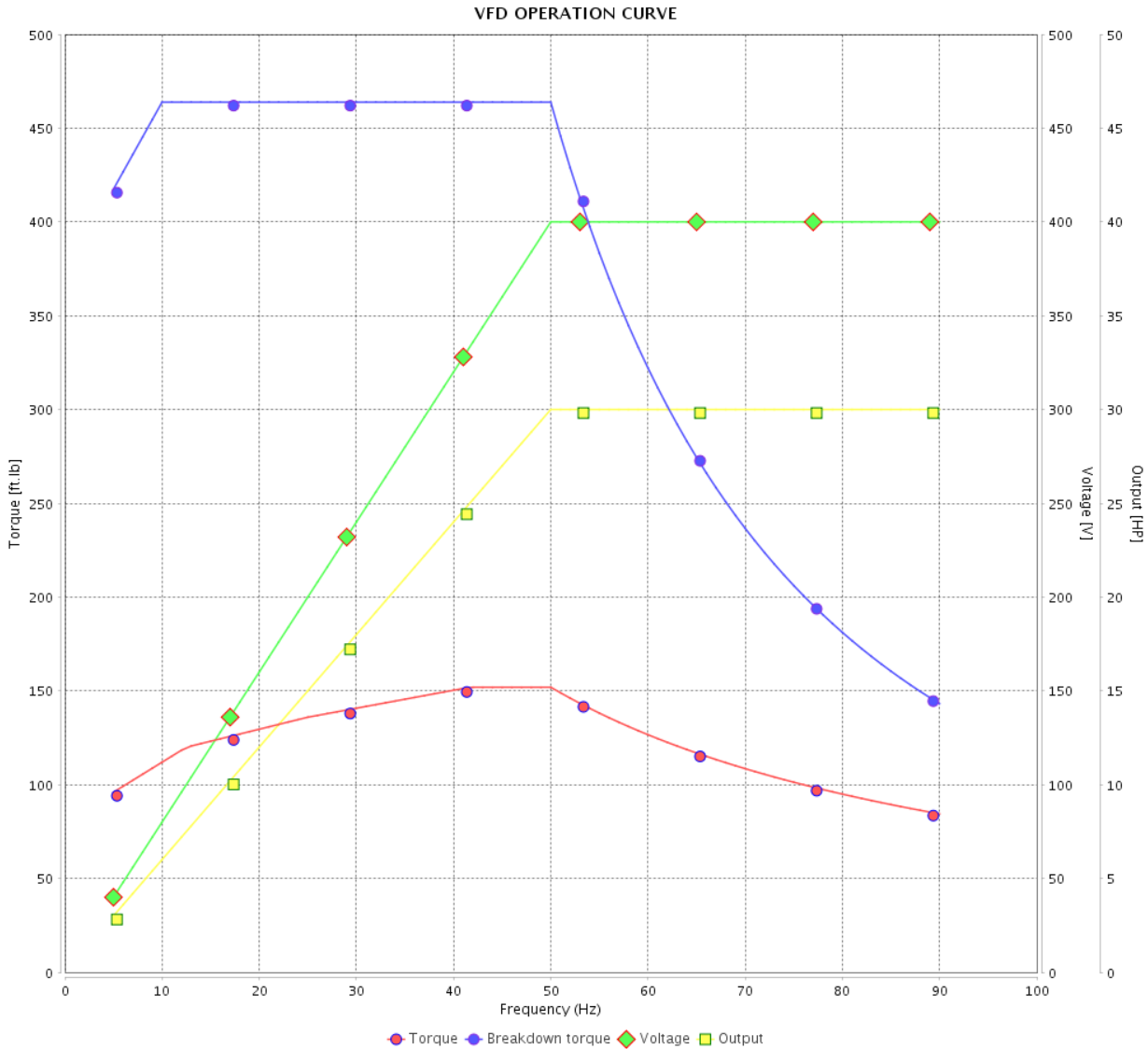


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Performed by			Page 20 / 21	Revision
Checked by				
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VFD OPERATION CURVE

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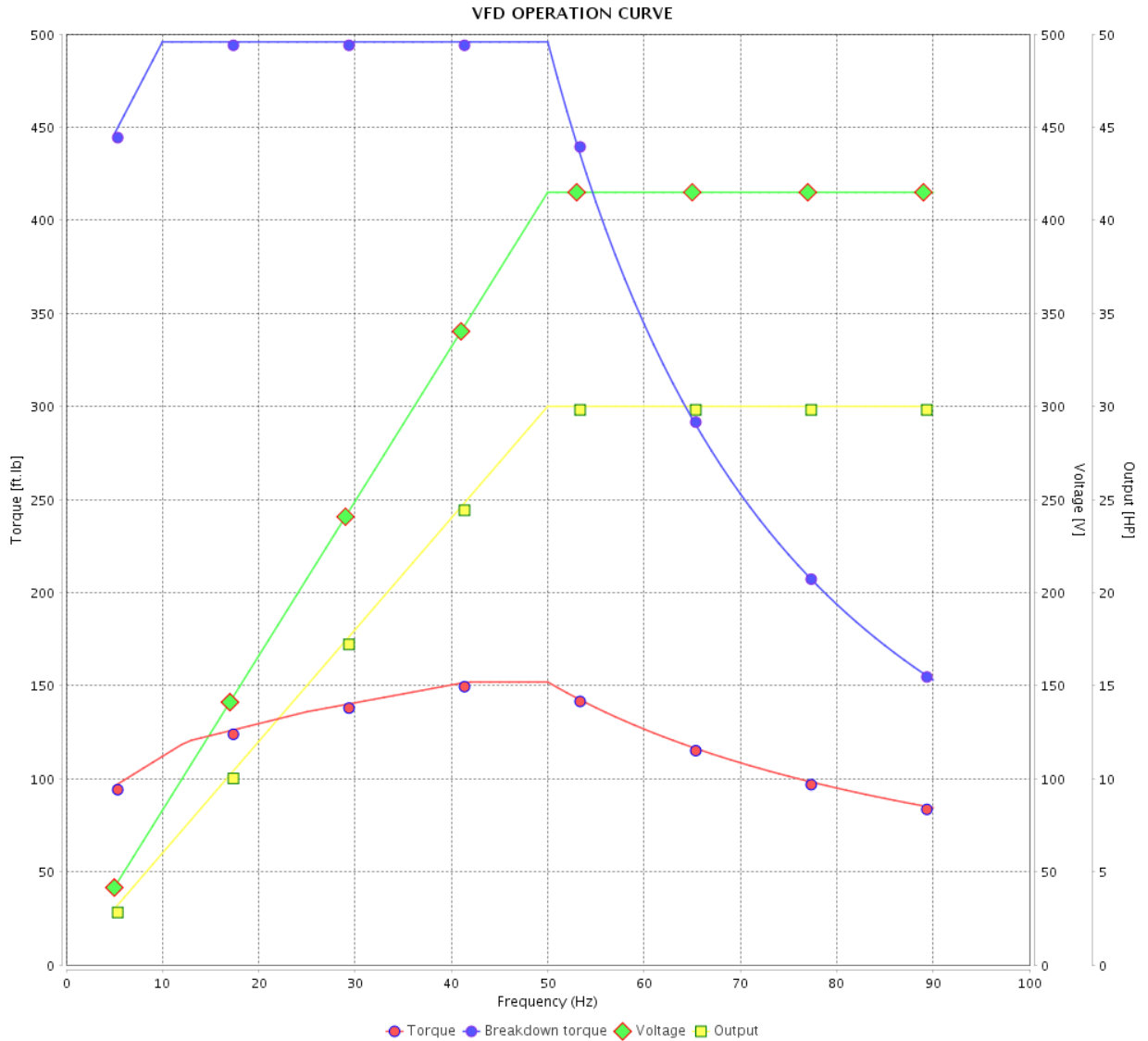


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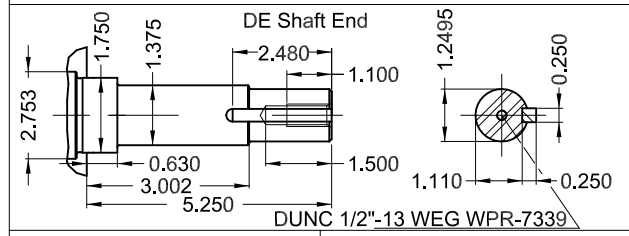
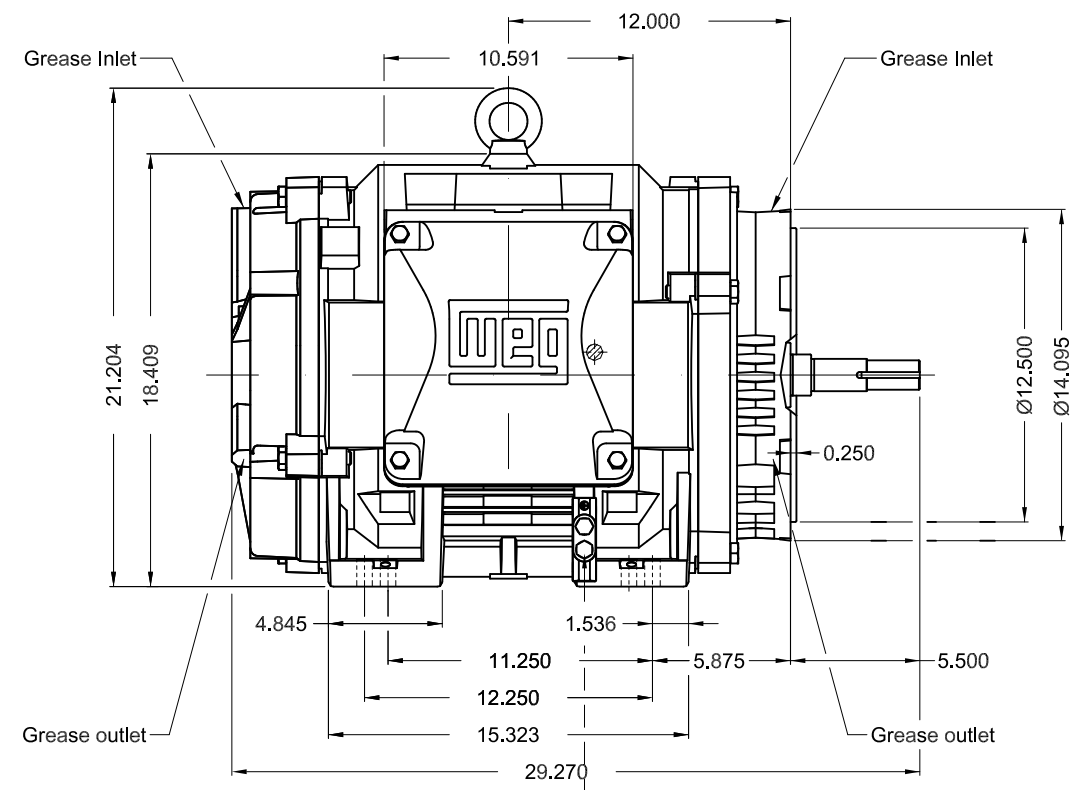
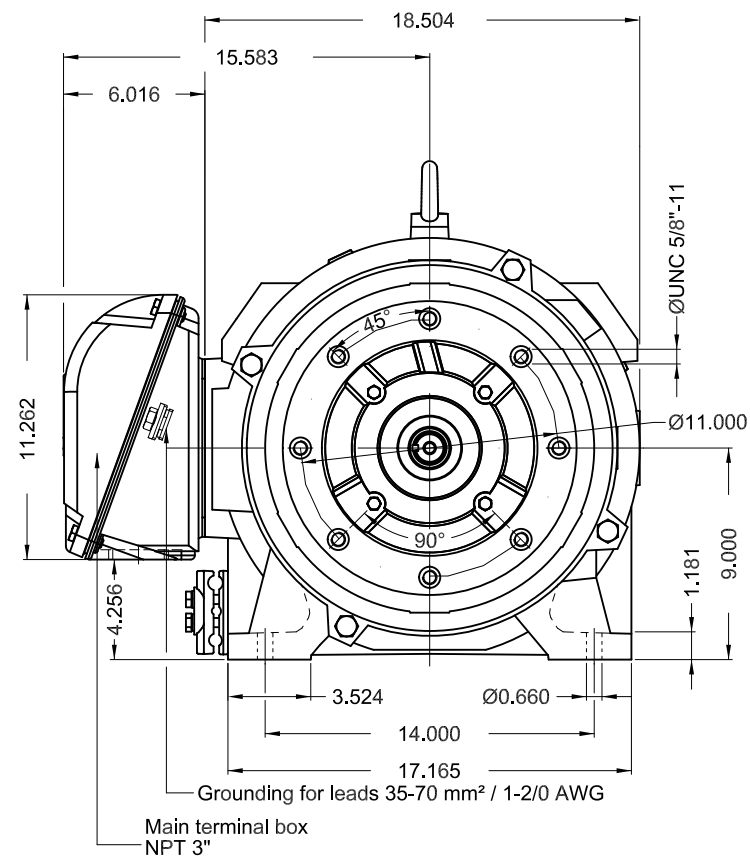


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Rated current : 40.0 A
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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		21 / 21		
Date	12/04/2022			



Color RAL 5009
 Painting plan 203A
 Mounting NEMA F-1
 Mounting B34R(D)

40 HP 06 Poles 60 Hz										A	
										1:8	
ECM	LOC	SUMMARY OF MODIFICATIONS					EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWUSER	THREE PH. MOTOR W40 CLOSE COUPLED PUMP JM TYPE PREM-EST.									
CHECKED		FRAME 364/5JM IP23 ODP									
RELEASED											
REL DT.		WMO	Jaragua do Sul	Product Engineering							





W40 NEMA
CC029A Premium

Inverter Duty Motor



3PT9

LISTED

IEC 60034-1

MOD.T01#FOXON

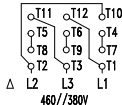
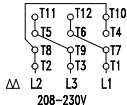


C US
Energy Verified

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

MODEL 040120T3E364JM-W40
MADE IN BRAZIL
14267928

PH 3	FR 364/5JM	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

ALT 1000 m.a.s.l. 767 Lbs