

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: W40 NEMA Premium Efficiency Three-Phase	Product code :	14496989		
		Catalog # :	04036OT3E286TSC-W40		
Frame	: 284/6TSC	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	: 356 lb		
Protection degree	: IP23	Moment of inertia (J)	: 2.02 sq.ft.lb		
Design	: B				
Output [HP]	40	30	30	30	
Poles	2	2	2	2	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	93.6/46.8	41.9	40.7	40.2	
L. R. Amperes [A]	608/304	302	309	310	
LRC [A]	6.5x(Code G)	7.2x(Code H)	7.6x(Code J)	7.7x(Code J)	
No load current [A]	29.8/14.9	14.3	15.8	17.0	
Rated speed [RPM]	3545	2950	2960	2960	
Slip [%]	1.53	1.67	1.33	1.33	
Rated torque [ft.lb]	59.3	53.4	53.2	53.2	
Locked rotor torque [%]	190	210	229	250	
Breakdown torque [%]	260	280	300	330	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	14s (cold) 8s (hot)	250s (cold) 139s (hot)	14s (cold) 8s (hot)	14s (cold) 8s (hot)	
Noise level ²	73.0 dB(A)				
Efficiency (%)	25%	91.5	88.6	88.7	88.9
	50%	91.7	90.0	90.1	90.2
	75%	92.4	91.4	91.4	91.5
	100%	92.4	92.8	92.8	92.8
Power Factor	25%	0.51	0.49	0.45	0.41
	50%	0.76	0.73	0.70	0.65
	75%	0.84	0.82	0.79	0.76
	100%	0.87	0.86	0.84	0.82
Bearing type	: Drive end : 6311 Z C3	Non drive end : 6211 Z C3	Foundation loads		
Sealing	: Without	Without	Max. traction		
	Bearing Seal	Bearing Seal	Max. compression		
Lubrication interval	: 20000 h	20000 h			
Lubricant amount	: 18 g	11 g			
Lubricant type	: Mobil Polyrex EM				
Notes USABLE @208V 104A SF 1.15 SFA 119A					
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.		
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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



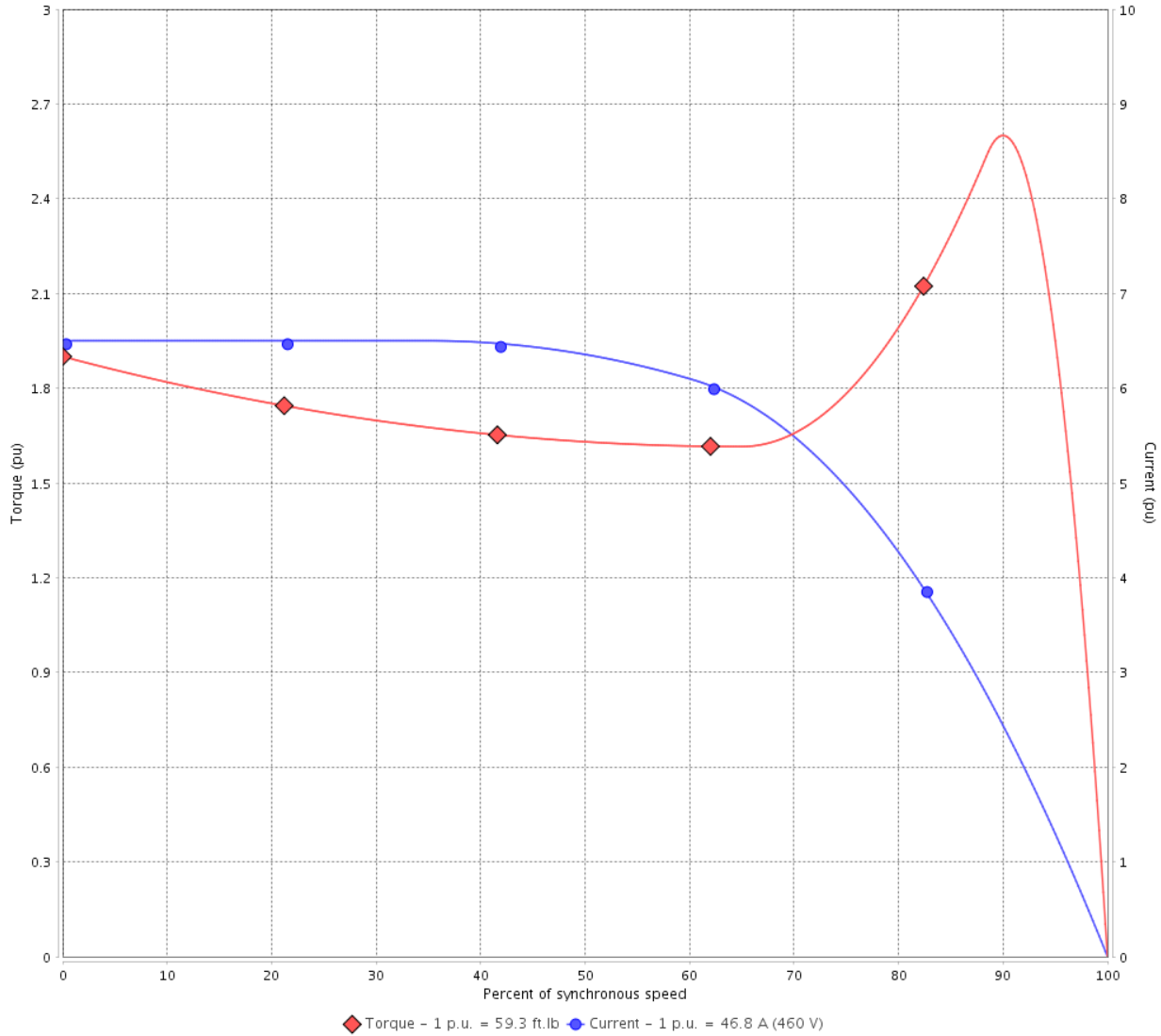
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14496989

Catalog # : 04036OT3E286TSC-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current	: 93.6/46.8 A	Moment of inertia (J)	: 2.02 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 59.3 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 3545 rpm	Design	: B

Locked rotor time : 14s (cold) 8s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



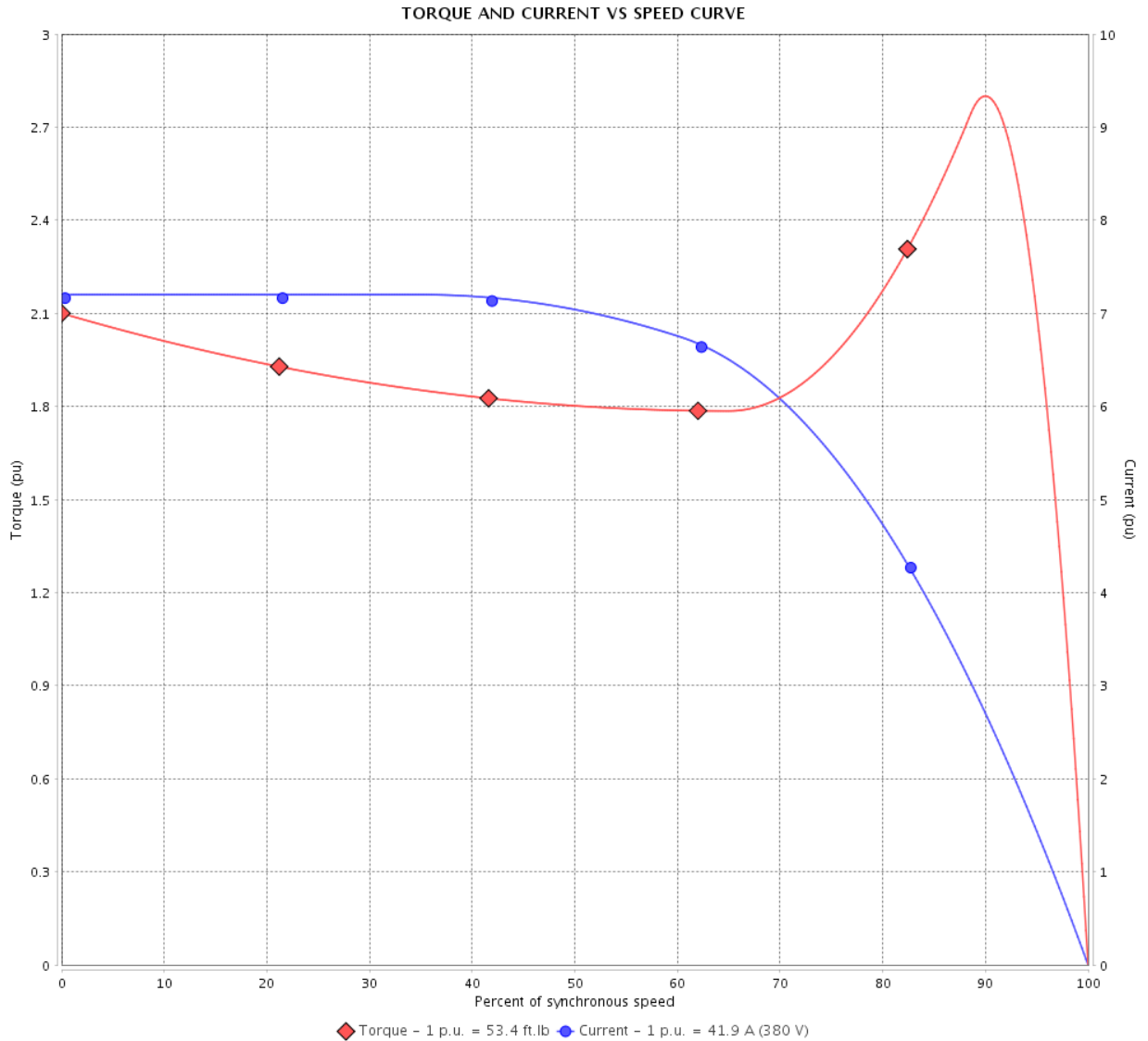
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14496989

Catalog # : 04036OT3E286TSC-W40



Performance : 380 V 50 Hz 2P IE3

Rated current : 41.9 A
 LRC : 7.2
 Rated torque : 53.4 ft.lb
 Locked rotor torque : 210 %
 Breakdown torque : 280 %
 Rated speed : 2950 rpm

Moment of inertia (J) : 2.02 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Locked rotor time : 250s (cold) 139s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



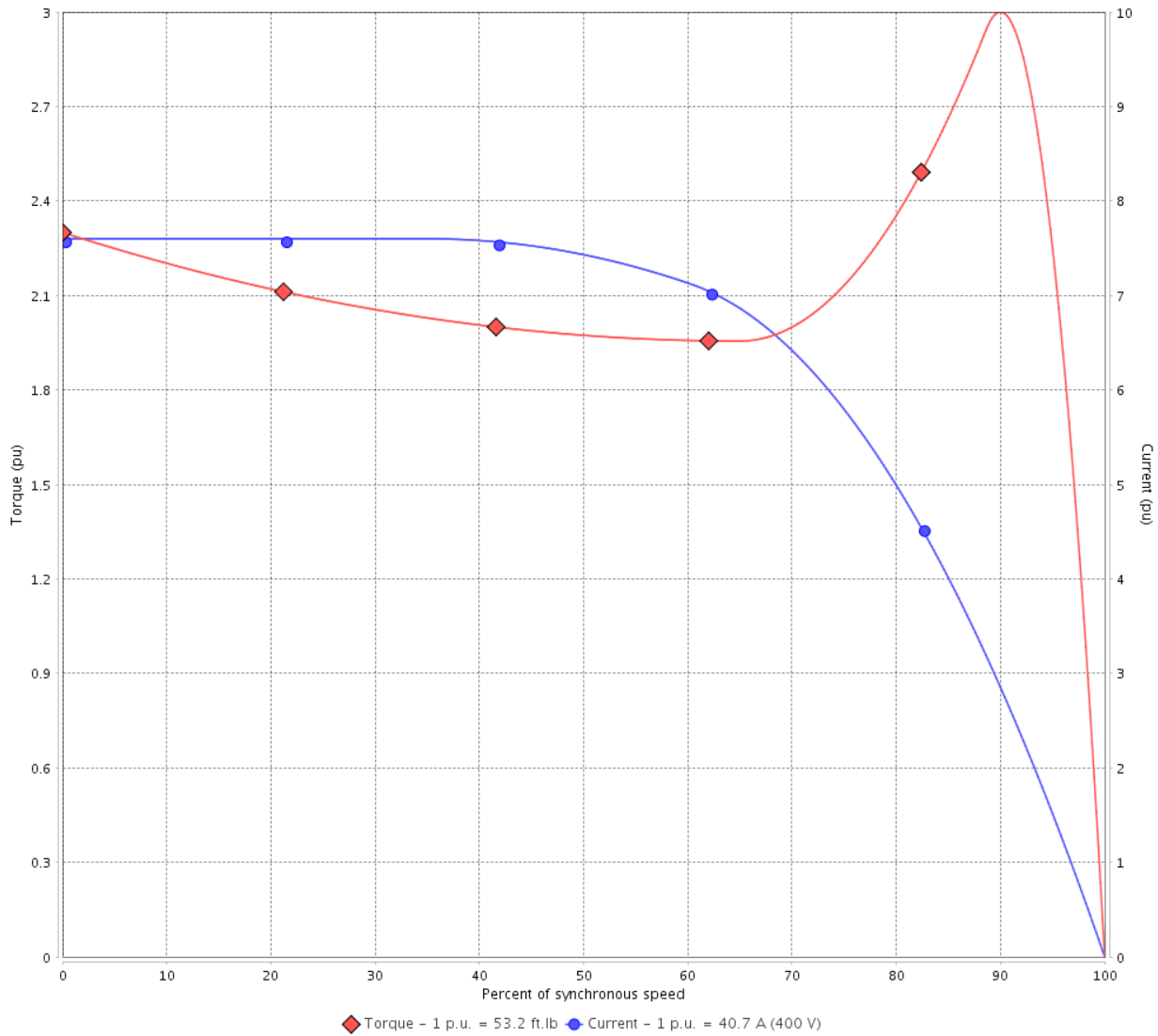
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14496989

Catalog # : 04036OT3E286TSC-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current	: 40.7 A	Moment of inertia (J)	: 2.02 sq.ft.lb
LRC	: 7.6	Duty cycle	: Cont.(S1)
Rated torque	: 53.2 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 2960 rpm	Design	: B

Locked rotor time : 14s (cold) 8s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



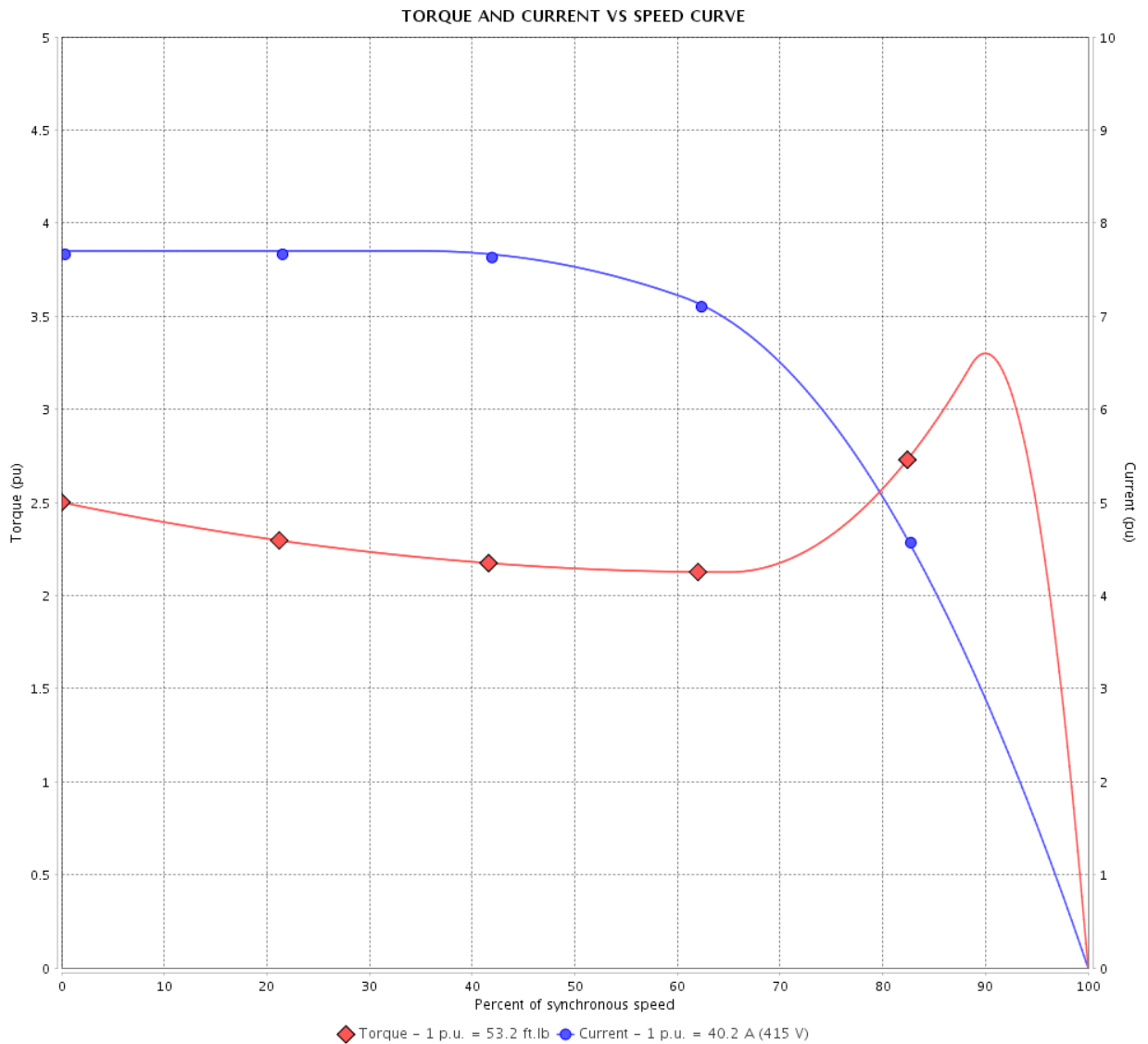
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Performance : 415 V 50 Hz 2P IE3

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Rated torque : 53.2 ft.lb
Locked rotor torque : 250 %
Breakdown torque : 330 %
Rated speed : 2960 rpm

Moment of inertia (J) : 2.02 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

Locked rotor time : 14s (cold) 8s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



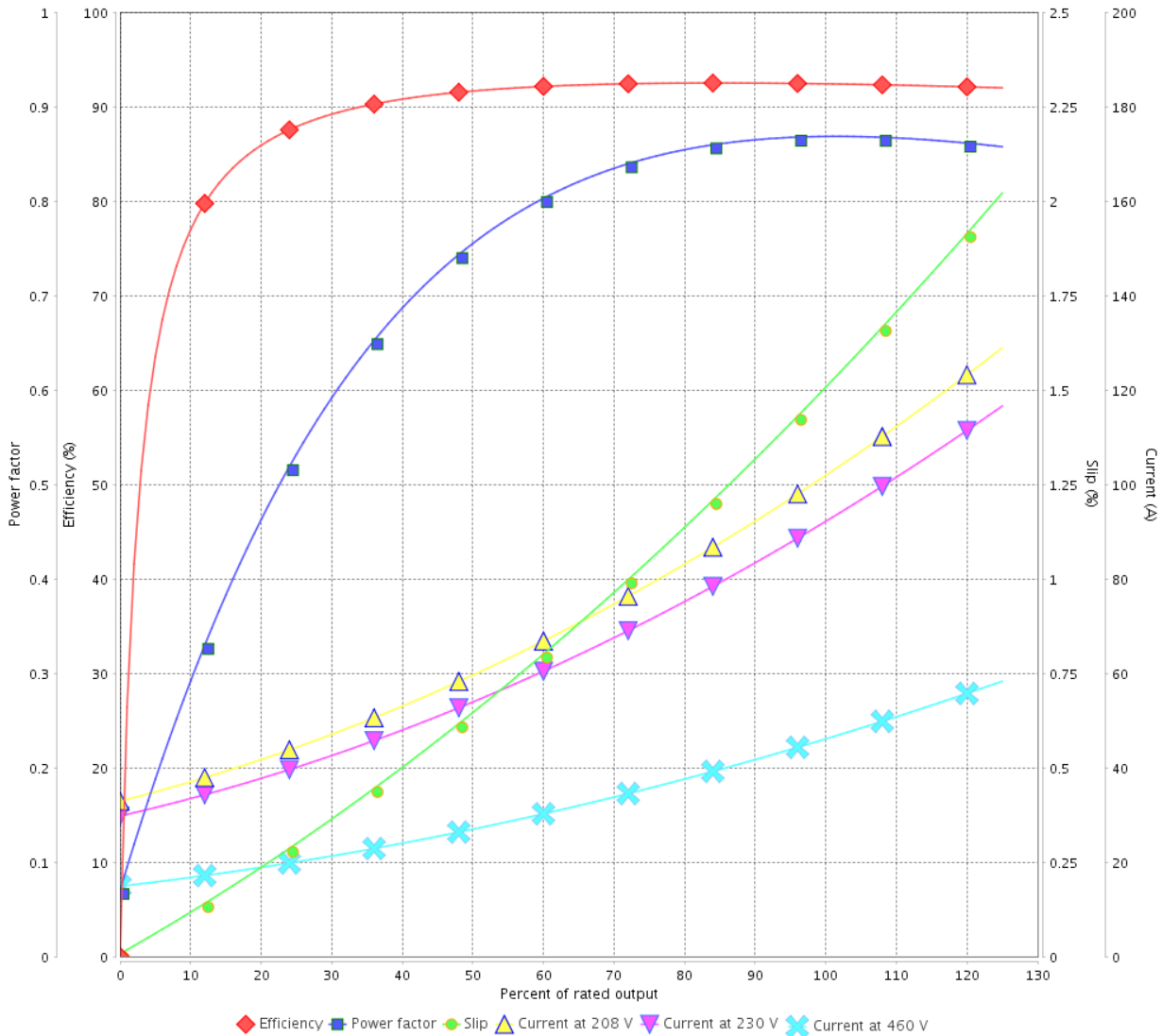
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LOAD PERFORMANCE CURVE



Performance : 230/460 V 60 Hz 2P

Rated current : 93.6/46.8 A
 LRC : 6.5
 Rated torque : 59.3 ft.lb
 Locked rotor torque : 190 %
 Breakdown torque : 260 %
 Rated speed : 3545 rpm

Moment of inertia (J) : 2.02 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
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Three Phase Induction Motor - Squirrel Cage

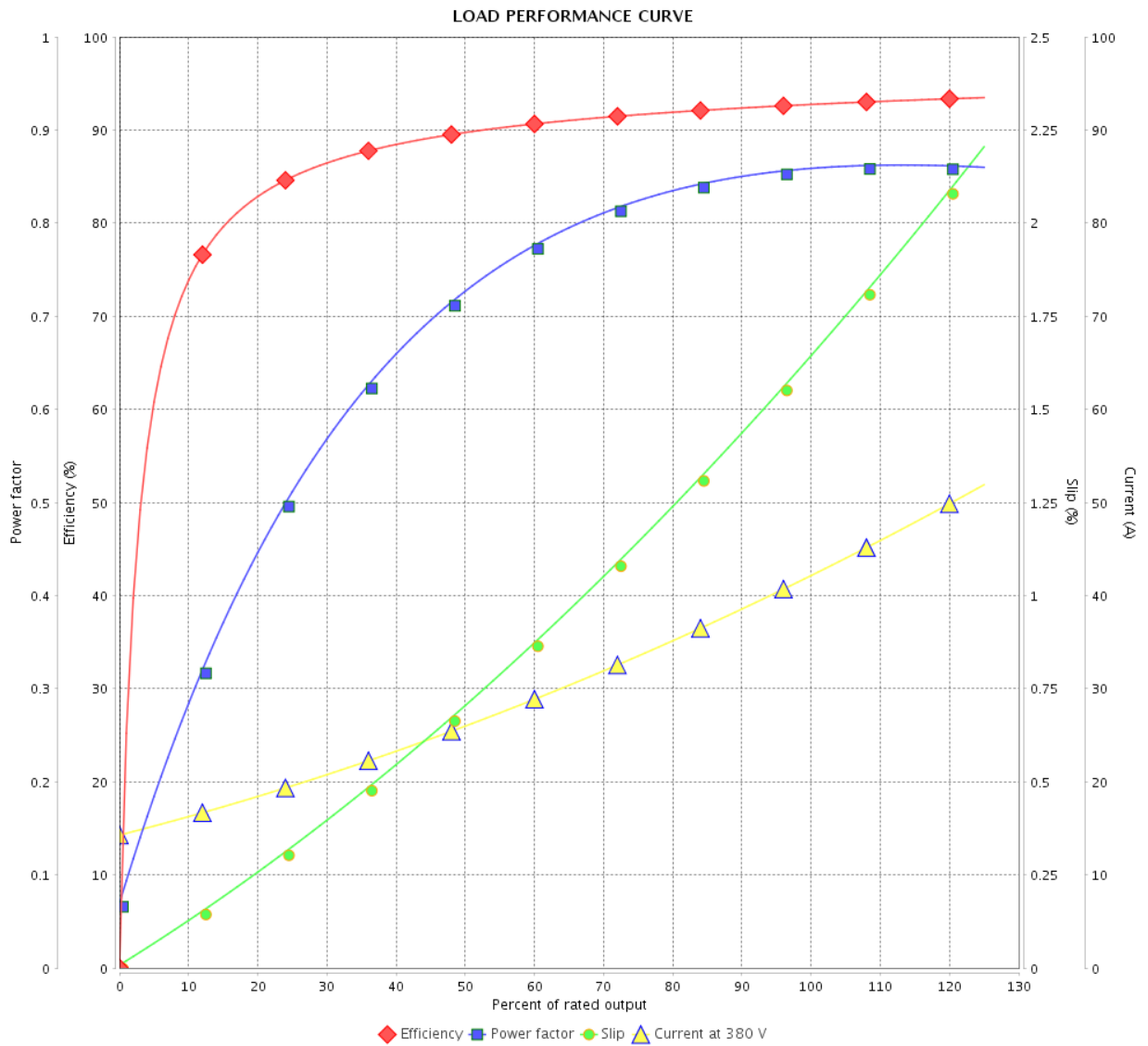


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Performance : 380 V 50 Hz 2P IE3

Rated current : 41.9 A
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 Locked rotor torque : 210 %
 Breakdown torque : 280 %
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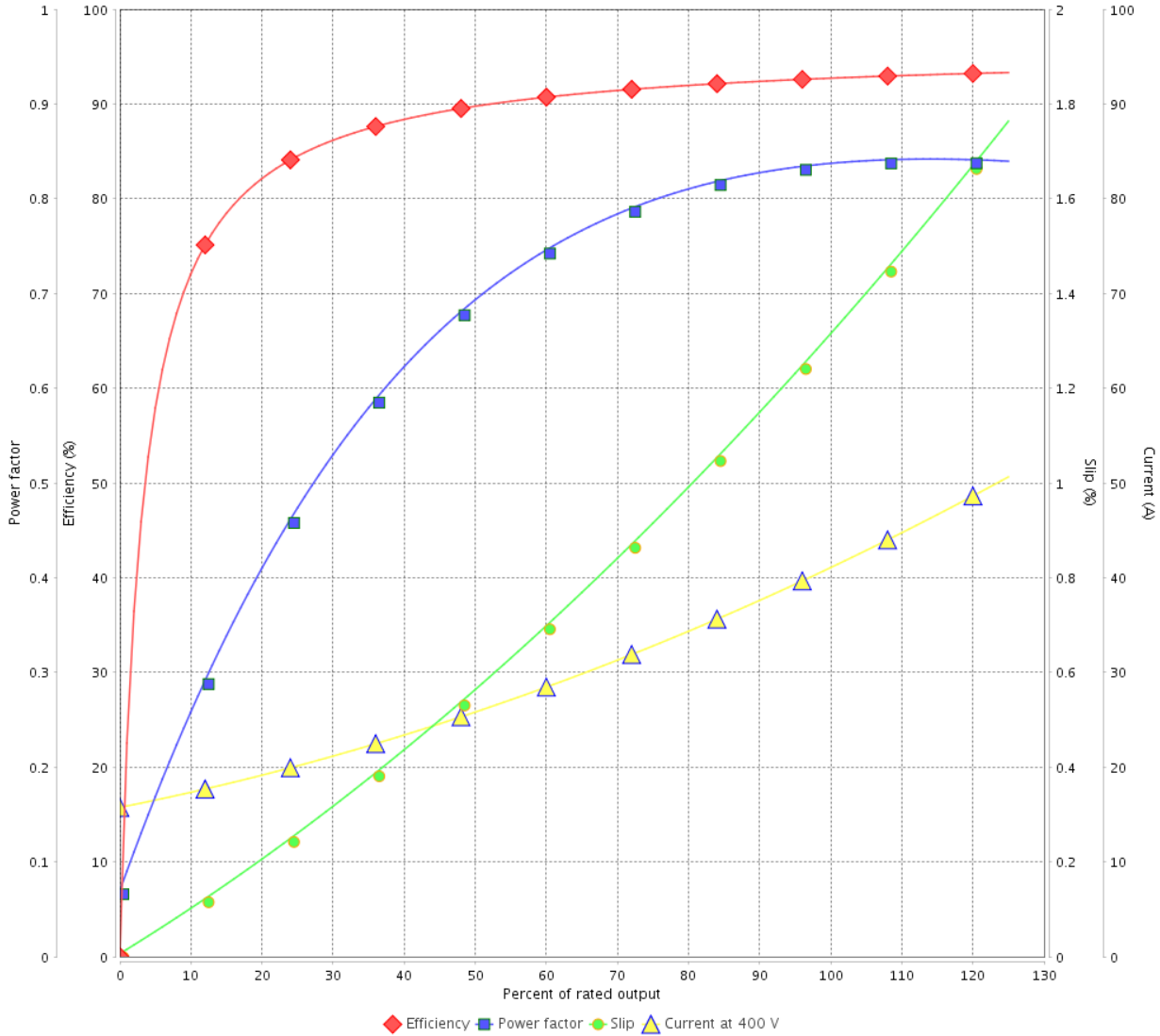
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Performance : 400 V 50 Hz 2P IE3

Rated current : 40.7 A
LRC : 7.6
Rated torque : 53.2 ft.lb
Locked rotor torque : 229 %
Breakdown torque : 300 %
Rated speed : 2960 rpm

Moment of inertia (J) : 2.02 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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Three Phase Induction Motor - Squirrel Cage

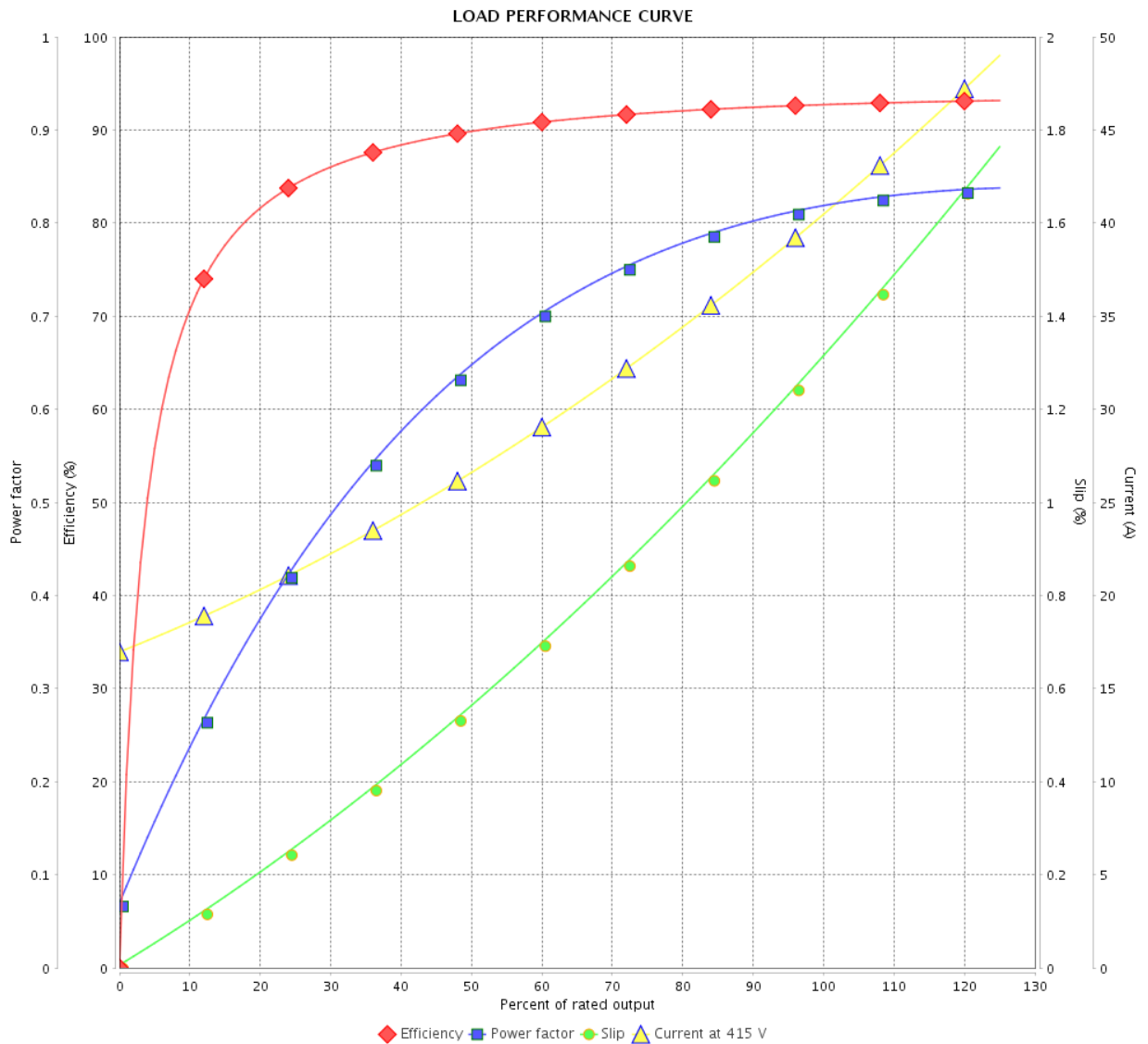


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Rated current : 40.2 A
 LRC : 7.7
 Rated torque : 53.2 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 330 %
 Rated speed : 2960 rpm

Moment of inertia (J) : 2.02 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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THERMAL LIMIT CURVE

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Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

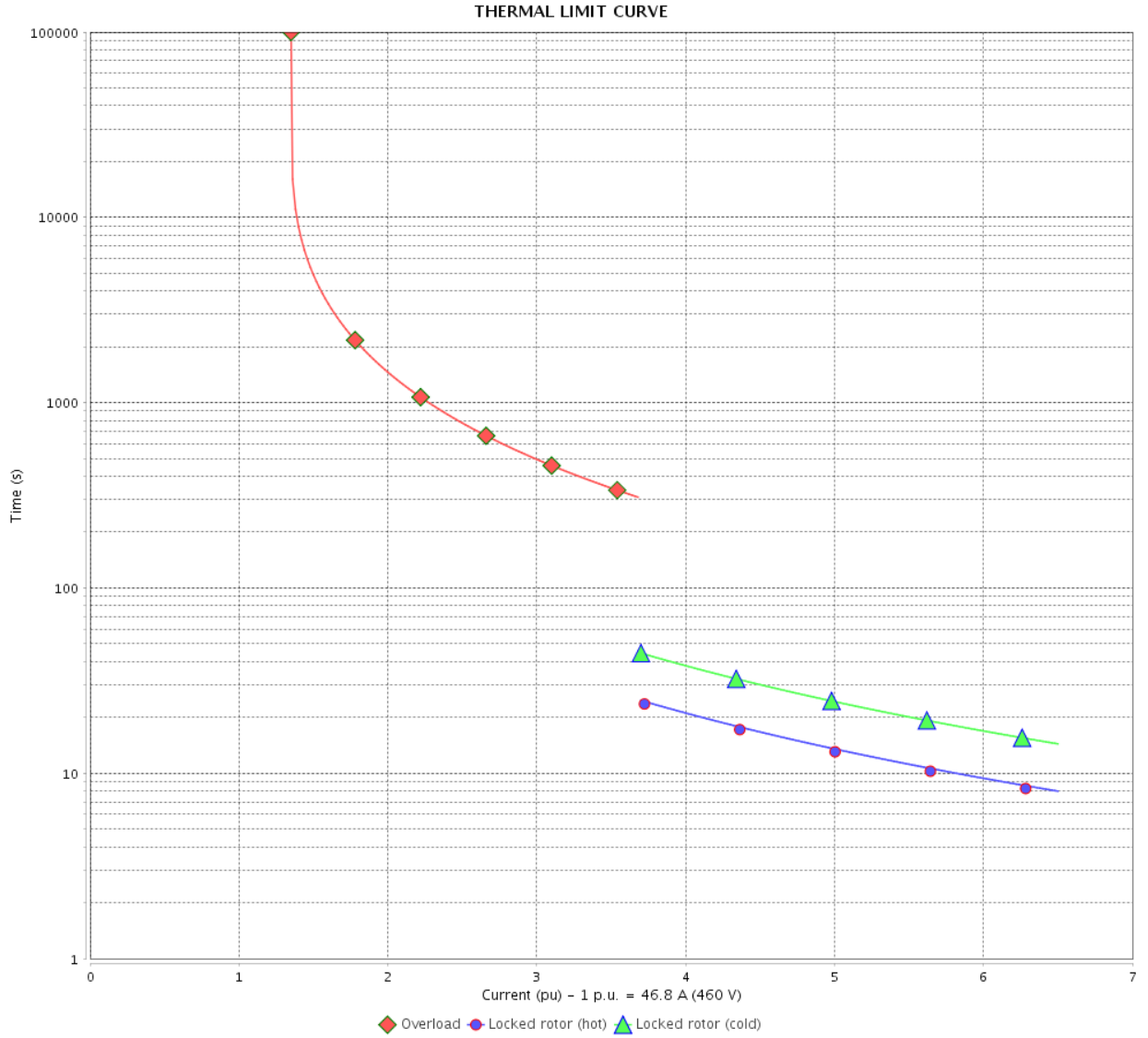
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Three Phase Induction Motor - Squirrel Cage



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Performance : 380 V 50 Hz 2P IE3

Rated current	: 41.9 A	Moment of inertia (J)	: 2.02 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 53.4 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 2950 rpm	Design	: B

Heating constant

Cooling constant

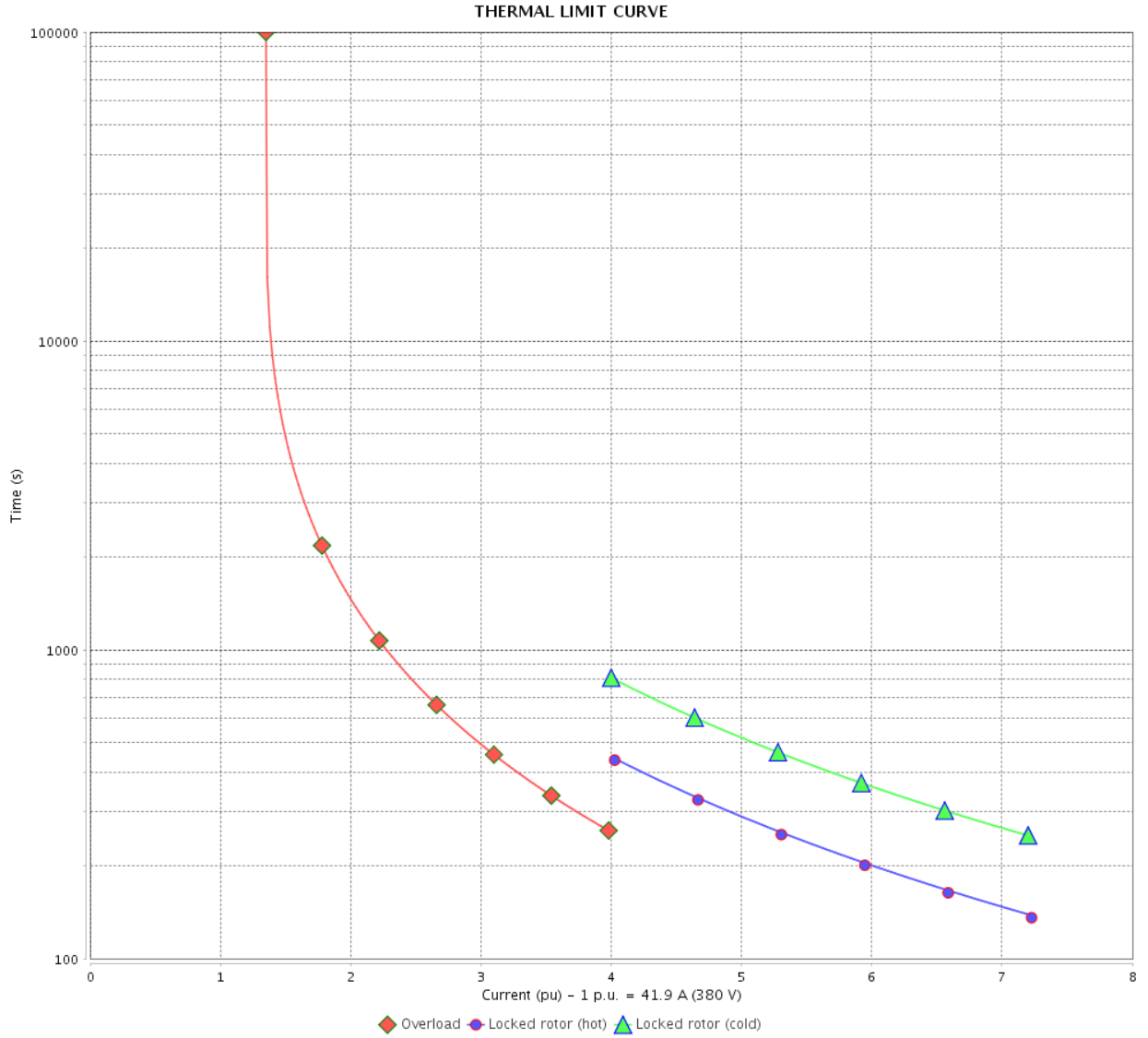
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Rated torque : 53.2 ft.lb	Insulation class : F
Locked rotor torque : 229 %	Service factor : 1.00
Breakdown torque : 300 %	Temperature rise : 80 K
Rated speed : 2960 rpm	Design : B

Heating constant

Cooling constant

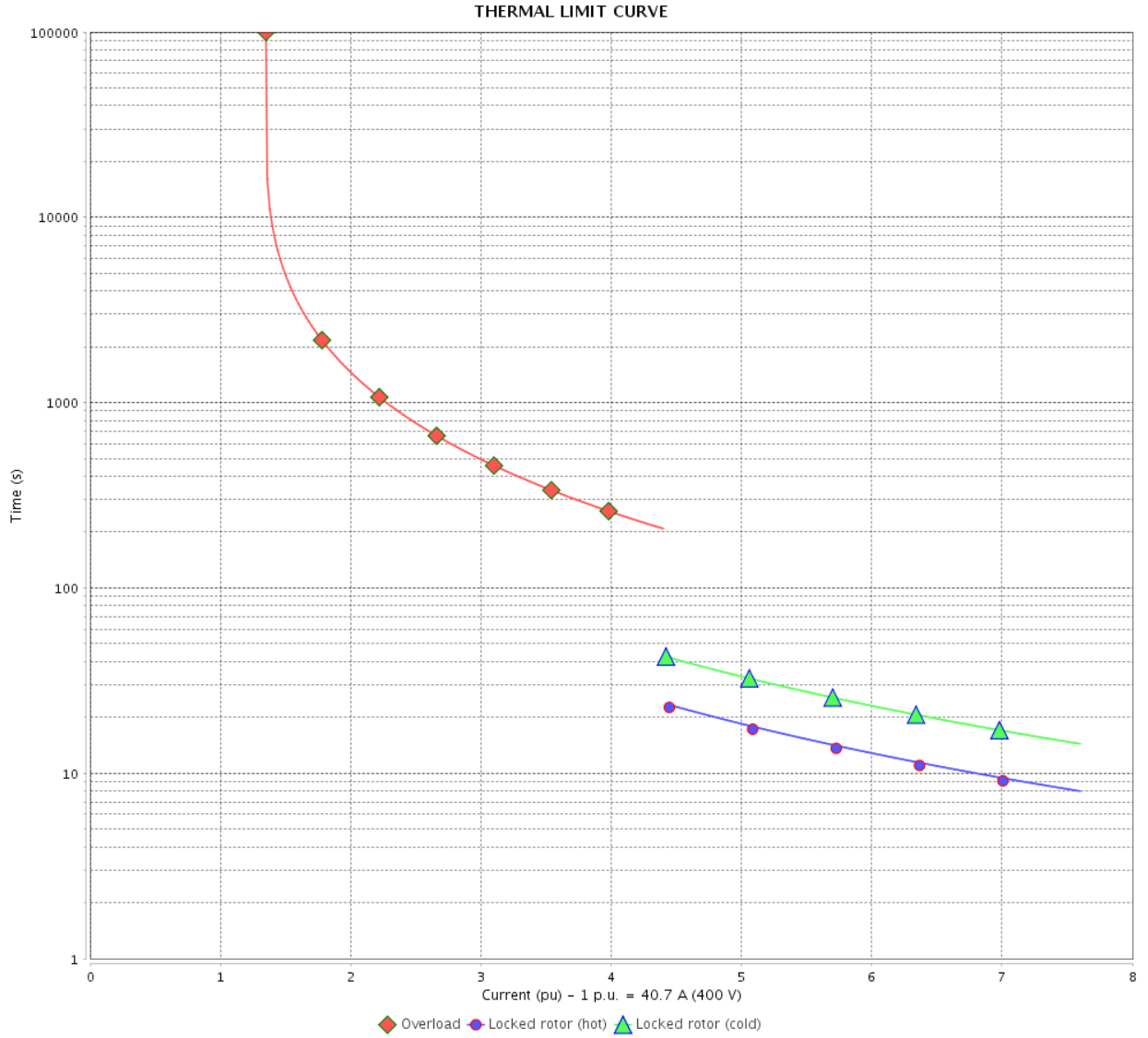
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Rated current : 40.2 A	Moment of inertia (J) : 2.02 sq.ft.lb
LRC : 7.7	Duty cycle : Cont.(S1)
Rated torque : 53.2 ft.lb	Insulation class : F
Locked rotor torque : 250 %	Service factor : 1.00
Breakdown torque : 330 %	Temperature rise : 80 K
Rated speed : 2960 rpm	Design : B

Heating constant

Cooling constant

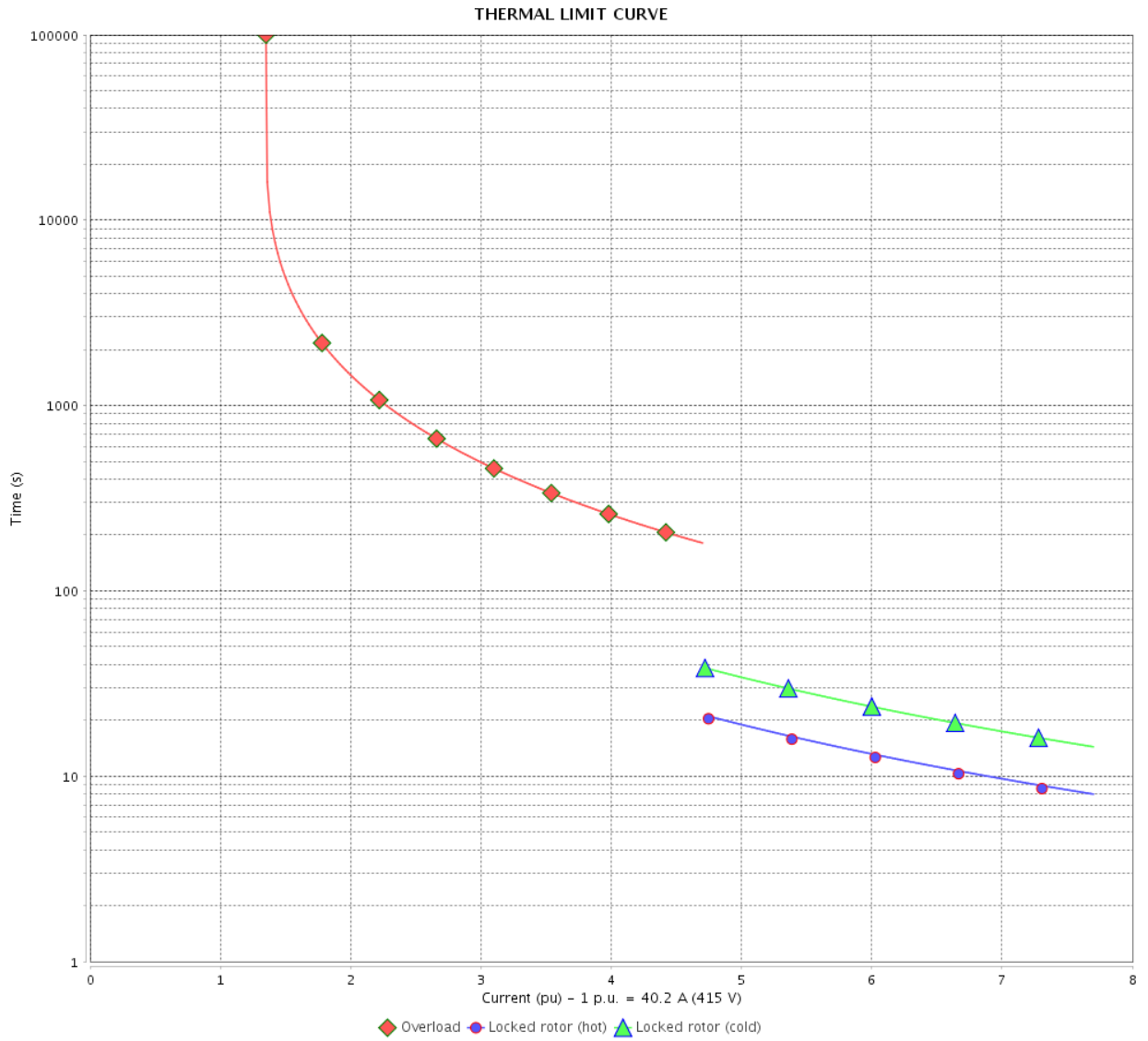
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Three Phase Induction Motor - Squirrel Cage



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Checked by				
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



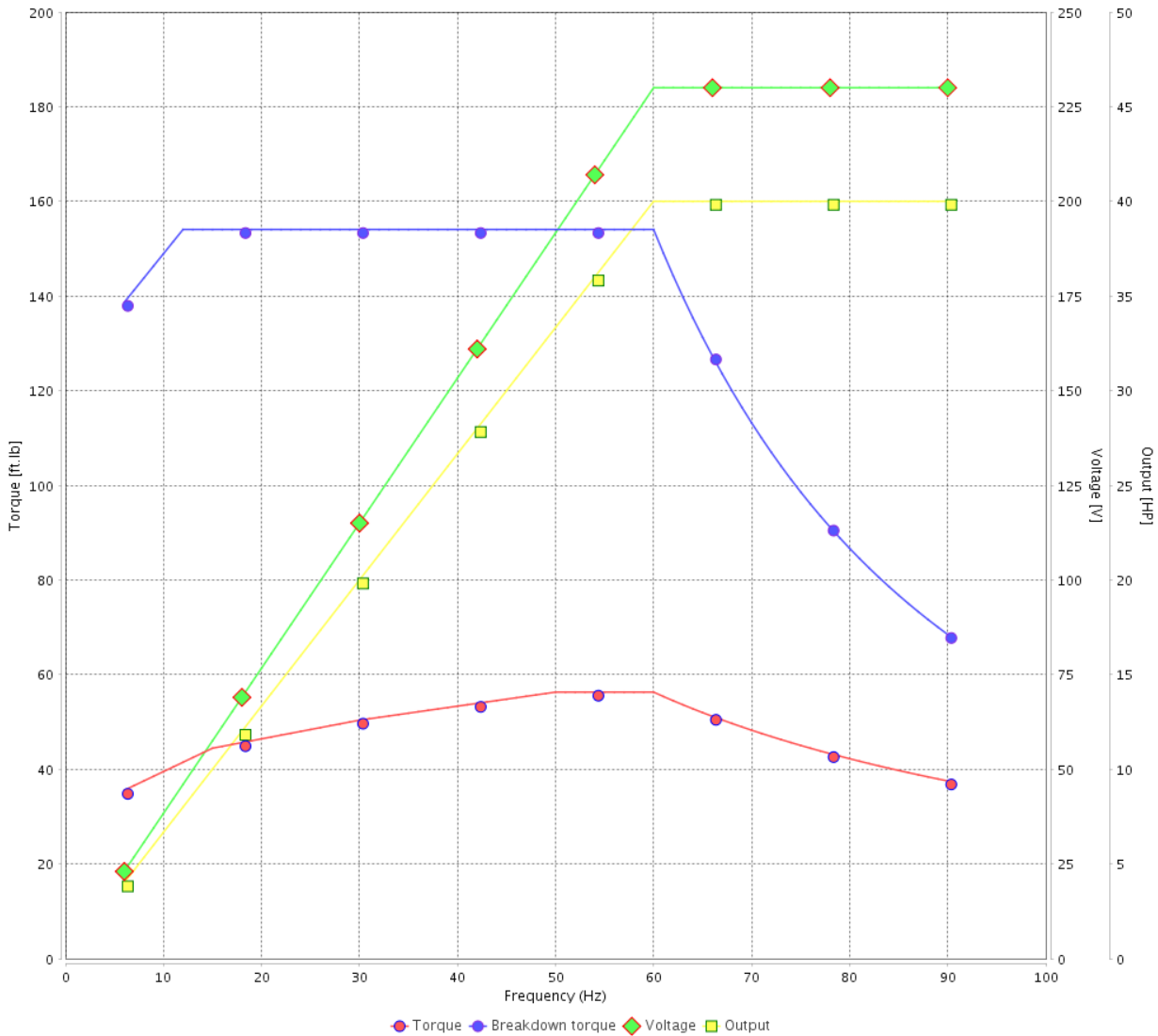
Customer :

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VFD OPERATION CURVE



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 Breakdown torque : 260 %
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Moment of inertia (J) : 2.02 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
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 Design : B

Rev.	Changes Summary	Performed	Checked	Date
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Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

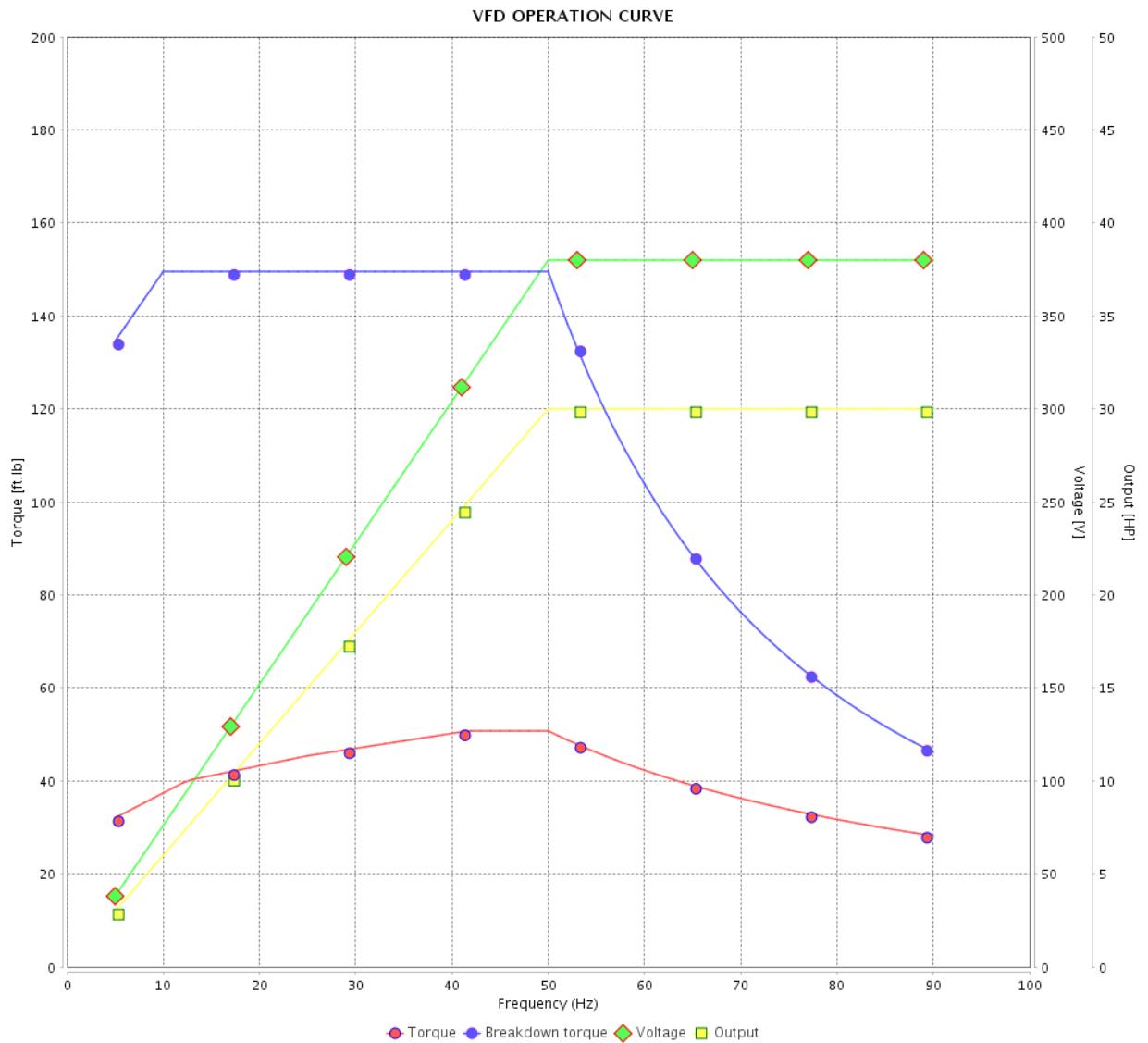


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Product code : 14496989

Catalog # : 04036OT3E286TSC-W40



Performance : 380 V 50 Hz 2P IE3

Rated current : 41.9 A
 LRC : 7.2
 Rated torque : 53.4 ft.lb
 Locked rotor torque : 210 %
 Breakdown torque : 280 %
 Rated speed : 2950 rpm

Moment of inertia (J) : 2.02 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

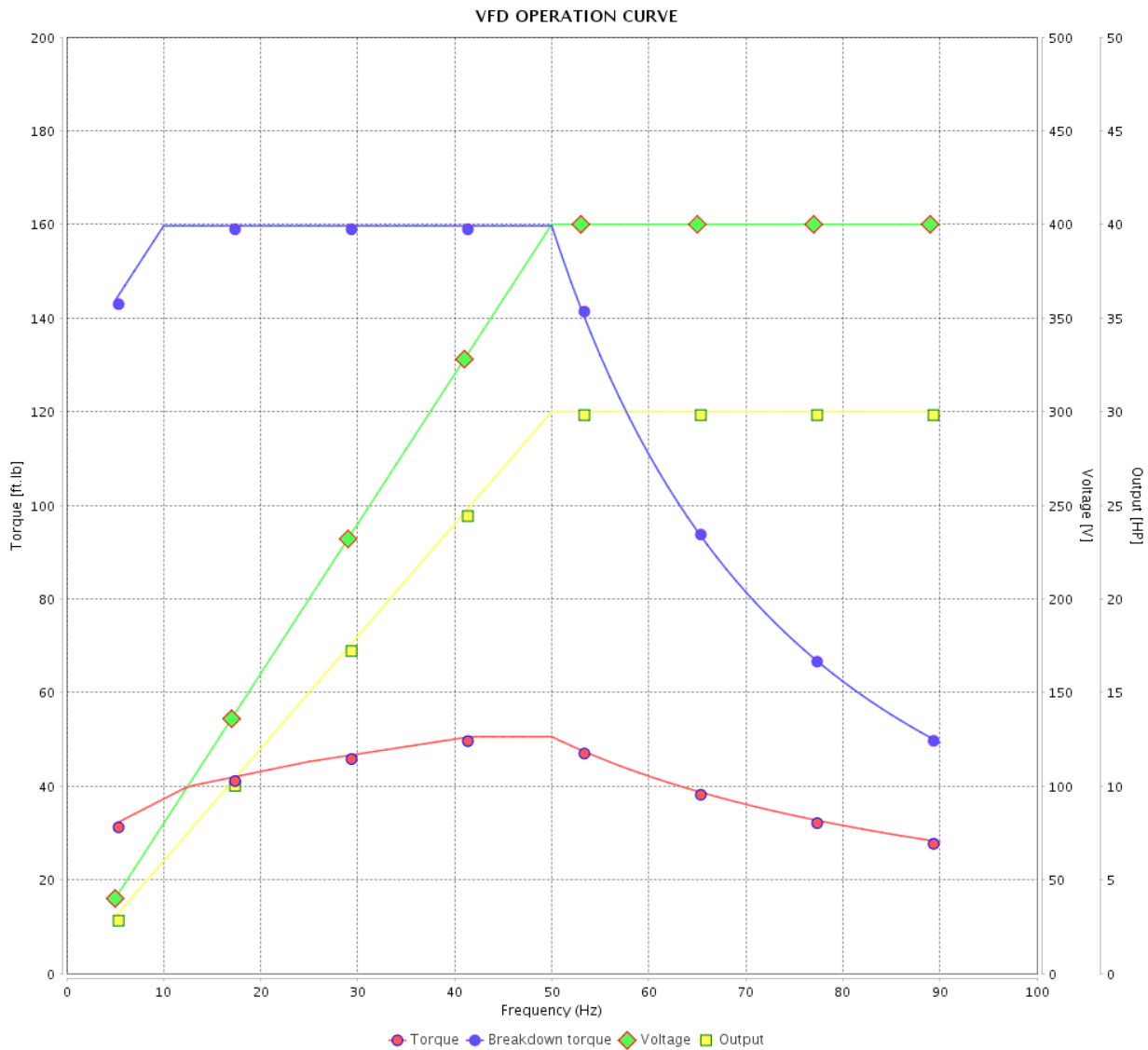


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LRC	: 7.6	Duty cycle	: Cont.(S1)
Rated torque	: 53.2 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

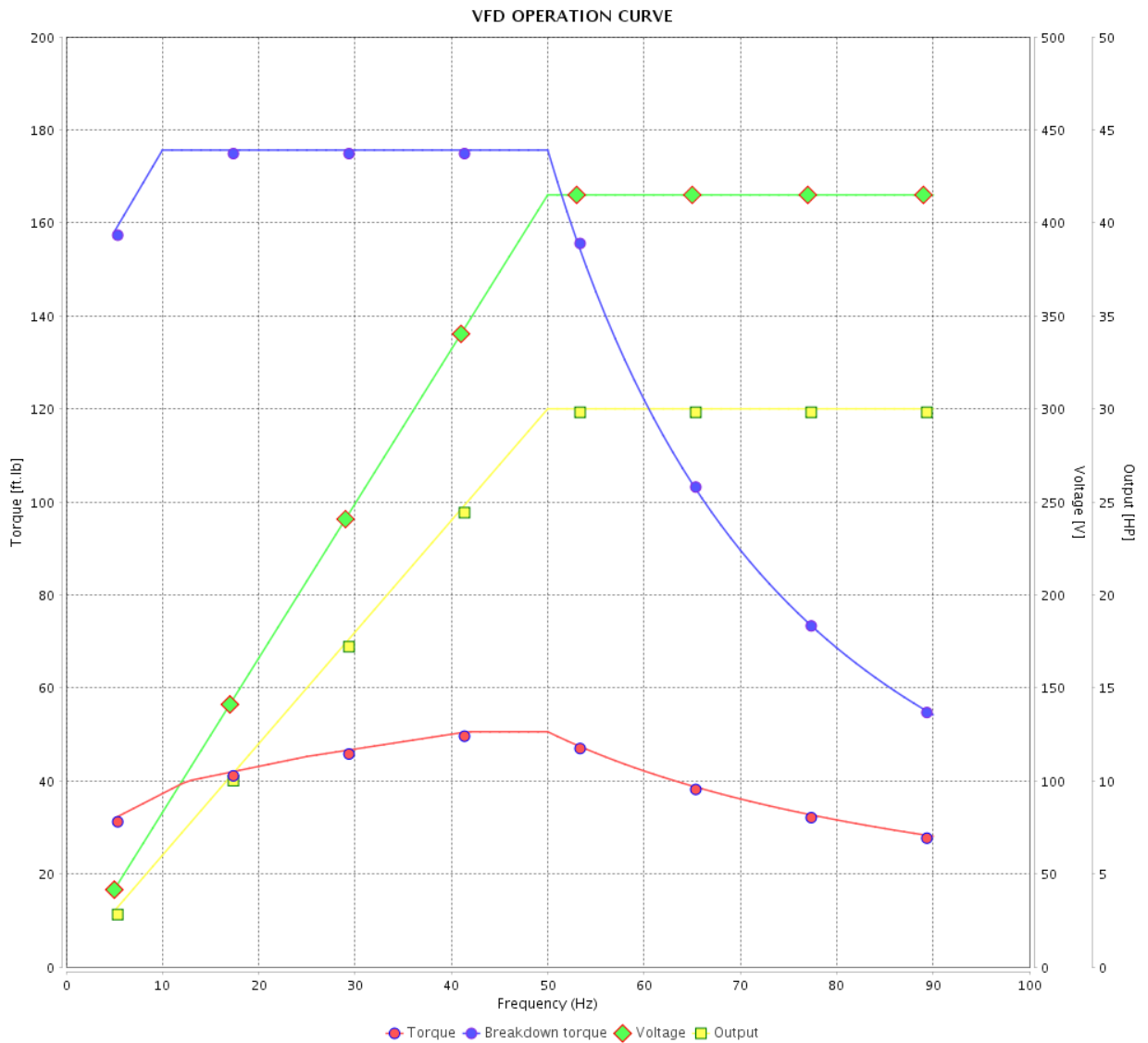


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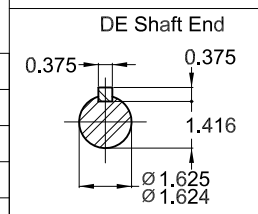
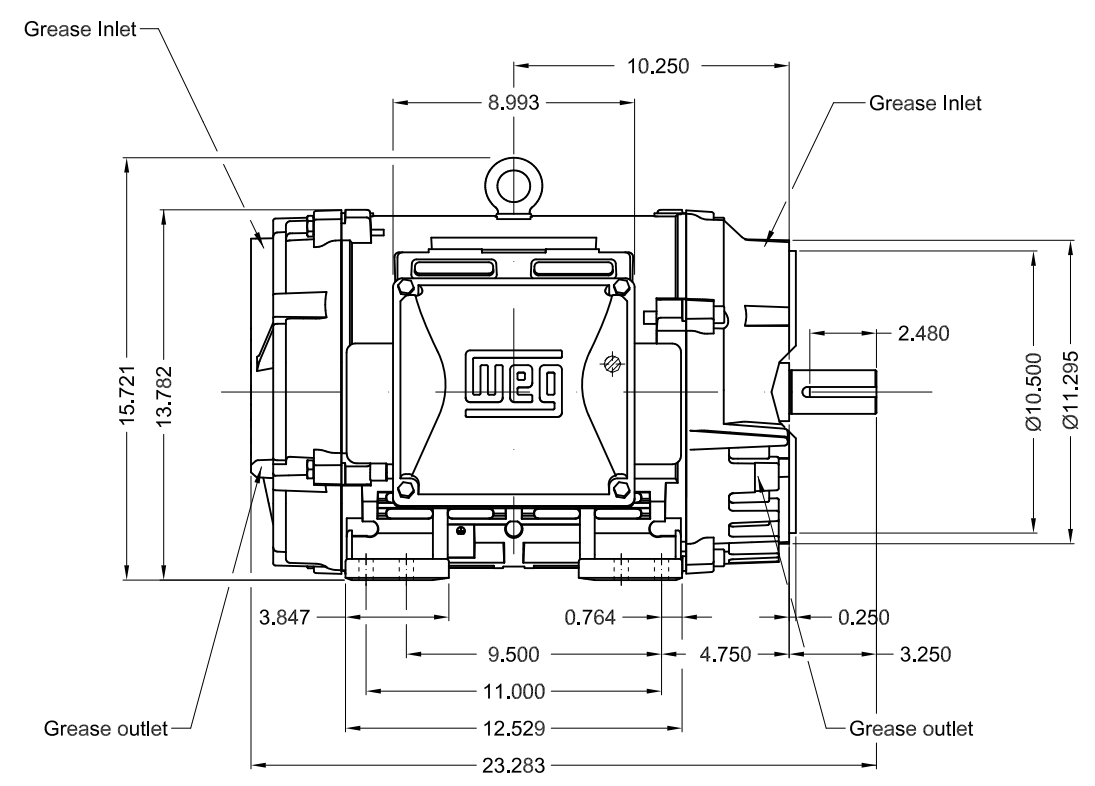
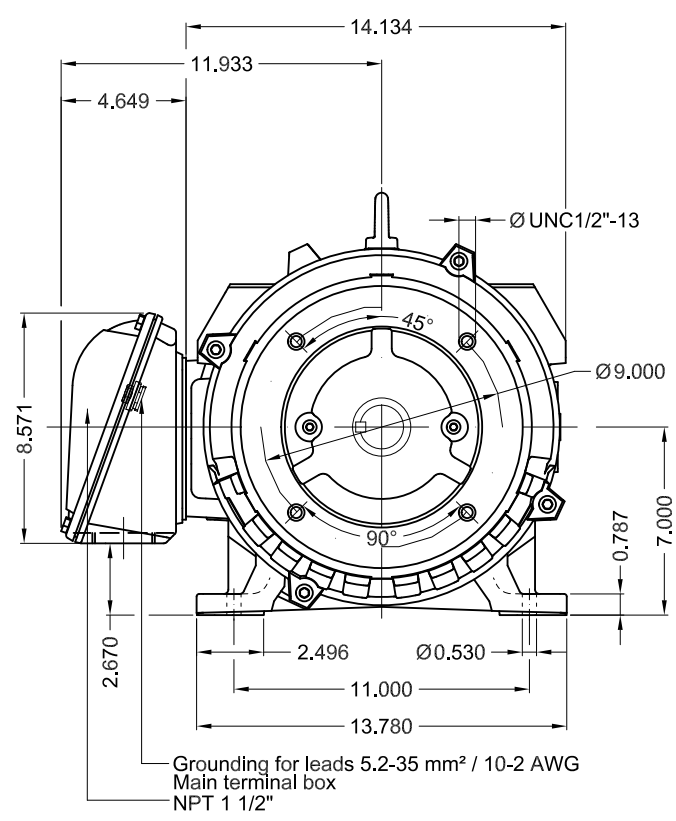


Performance : 415 V 50 Hz 2P IE3

Rated current : 40.2 A
LRC : 7.7
Rated torque : 53.2 ft.lb
Locked rotor torque : 250 %
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Bearing cap
Color RAL 5009
Painting plan 203A
Mounting NEMA F-1
Mounting B34R(D)

40 HP 02 Poles 60 Hz A

1:7

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWUSER	THREE PH. MOTOR W40 PREM. EFF.					
CHECKED		FRAME 284/6TSC IP23 ODP					
RELEASED							
REL DT.		WMO Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW
WDD



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



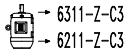
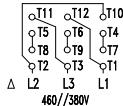
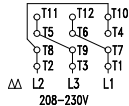
IEC 60034-1
 MOD.T01#FOXON



For 60Hz use on PWM, VT 1000:1, CT 3:1, 1.0SF

MODEL 040360T3E286TSC-W40
 MADE IN BRAZIL
 14496989

PH 3	FR 284/6TSC	HP(kW) 40.0(30.0)	Hz 60
V 230/460	A 93.6/46.8	RPM 3545	DES B
NEMA NOM EFF 92.4 %	INS. CL. F ΔT 80 K	IP23	
ENCL ODP	DUTY CONT.	AMB. 40°C	
CODE G	PF 0.87	SF 1.25	SFA 117/58.5
USABLE @208V	104 A	SF 1.15	SFA 120
30HP 22kW 50Hz 380V 41.9A 2950RPM SF1.00 EFF 92.8% (IE3)			



MOBIL POLYREX EM
 18 g 20000 h

ALT 1000 m.a.s.l. 357 Lbs