

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer					
Product line		: W40 NEMA Premium Efficiency Three-Phase		Product code : 14285014 Catalog # : 20018OT3G445TS-W40	
Frame		: 444/5TS		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 : 1407 lb	
Protection degree		: IP23		Moment of inertia (J) : 46.4 sq.ft.lb	
Design		: B			
Output [HP]	200	175	175	175	175
Poles	4	4	4	4	4
Frequency [Hz]	60	50	50	50	50
Rated voltage [V]	460	380	400	415	415
Rated current [A]	234	247	237	234	234
L. R. Amperes [A]	1544	1630	1635	1568	1568
LRC [A]	6.6x(Code G)	6.6x(Code G)	6.9x(Code H)	6.7x(Code H)	6.7x(Code H)
No load current [A]	86.5	85.2	93.6	101	101
Rated speed [RPM]	1783	1480	1480	1485	1485
Slip [%]	0.94	1.33	1.33	1.00	1.00
Rated torque [ft.lb]	589	621	621	619	619
Locked rotor torque [%]	210	190	210	229	229
Breakdown torque [%]	250	220	250	270	270
Service factor	1.15	1.00	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K	80 K
Locked rotor time	25s (cold) 14s (hot)	21s (cold) 12s (hot)	23s (cold) 13s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)
Noise level ²	78.0 dB(A)				
Efficiency (%)	25%	95.3	95.1	95.3	95.1
	50%	95.4	95.2	95.4	95.2
	75%	95.8	95.6	95.6	95.6
	100%	95.8	95.6	95.6	95.6
Power Factor	25%	0.46	0.48	0.44	0.41
	50%	0.72	0.74	0.70	0.67
	75%	0.80	0.82	0.80	0.77
	100%	0.84	0.85	0.84	0.82
Bearing type	: Drive end : 6314 C3	: Non drive end : 6212 Z C3	Foundation loads		
Sealing	: Without	: Without	Max. traction : 3751 lb		
	: Bearing Seal	: Bearing Seal	Max. compression : 5158 lb		
Lubrication interval	: 20000 h	: 20000 h			
Lubricant amount	: 27 g	: 13 g			
Lubricant type	: Mobil Polyrex EM				
Notes					
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



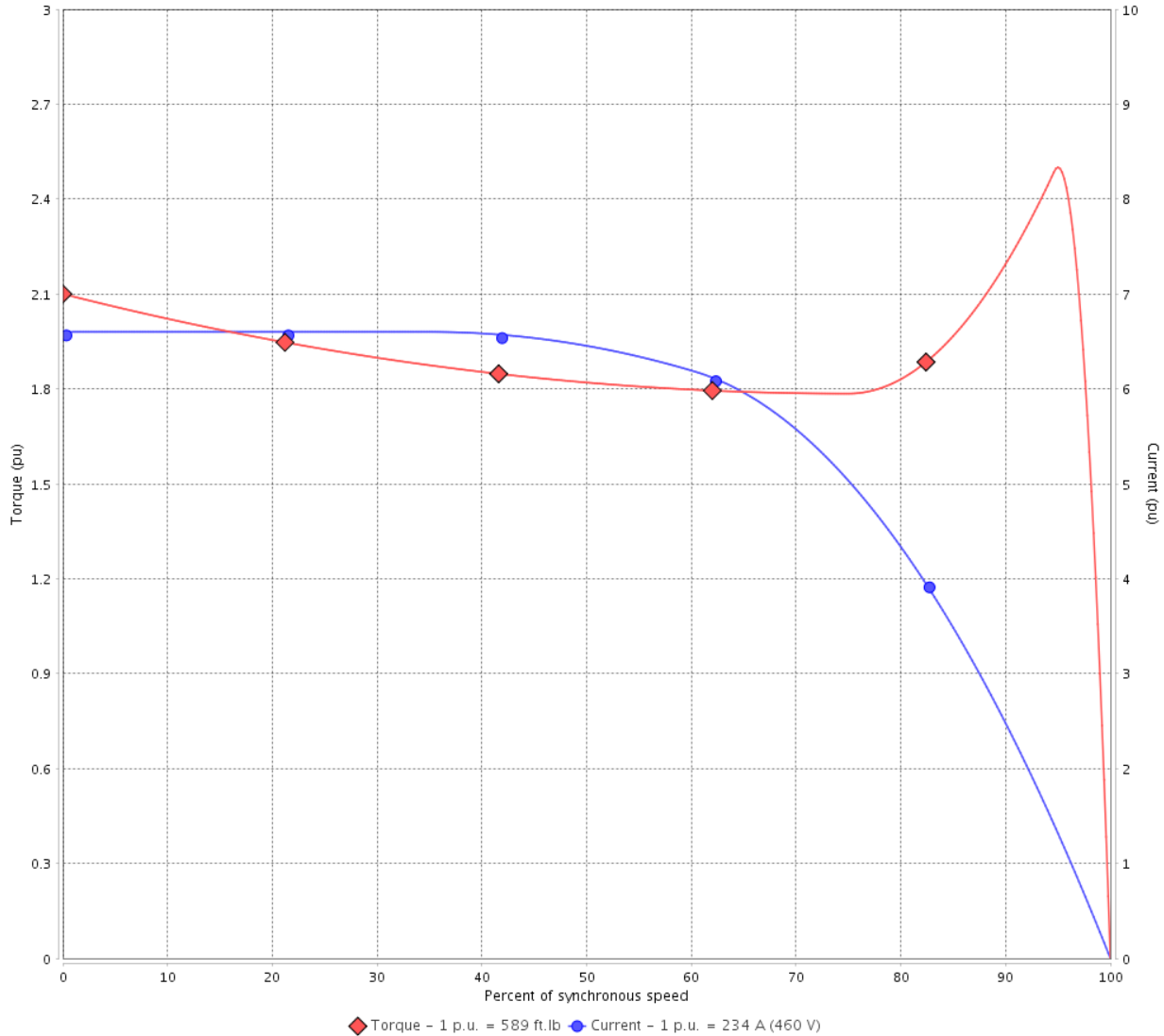
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14285014

Catalog # : 20018OT3G445TS-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 460 V 60 Hz 4P

Rated current	: 234 A	Moment of inertia (J)	: 46.4 sq.ft.lb
LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 589 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1783 rpm	Design	: B

Locked rotor time : 25s (cold) 14s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



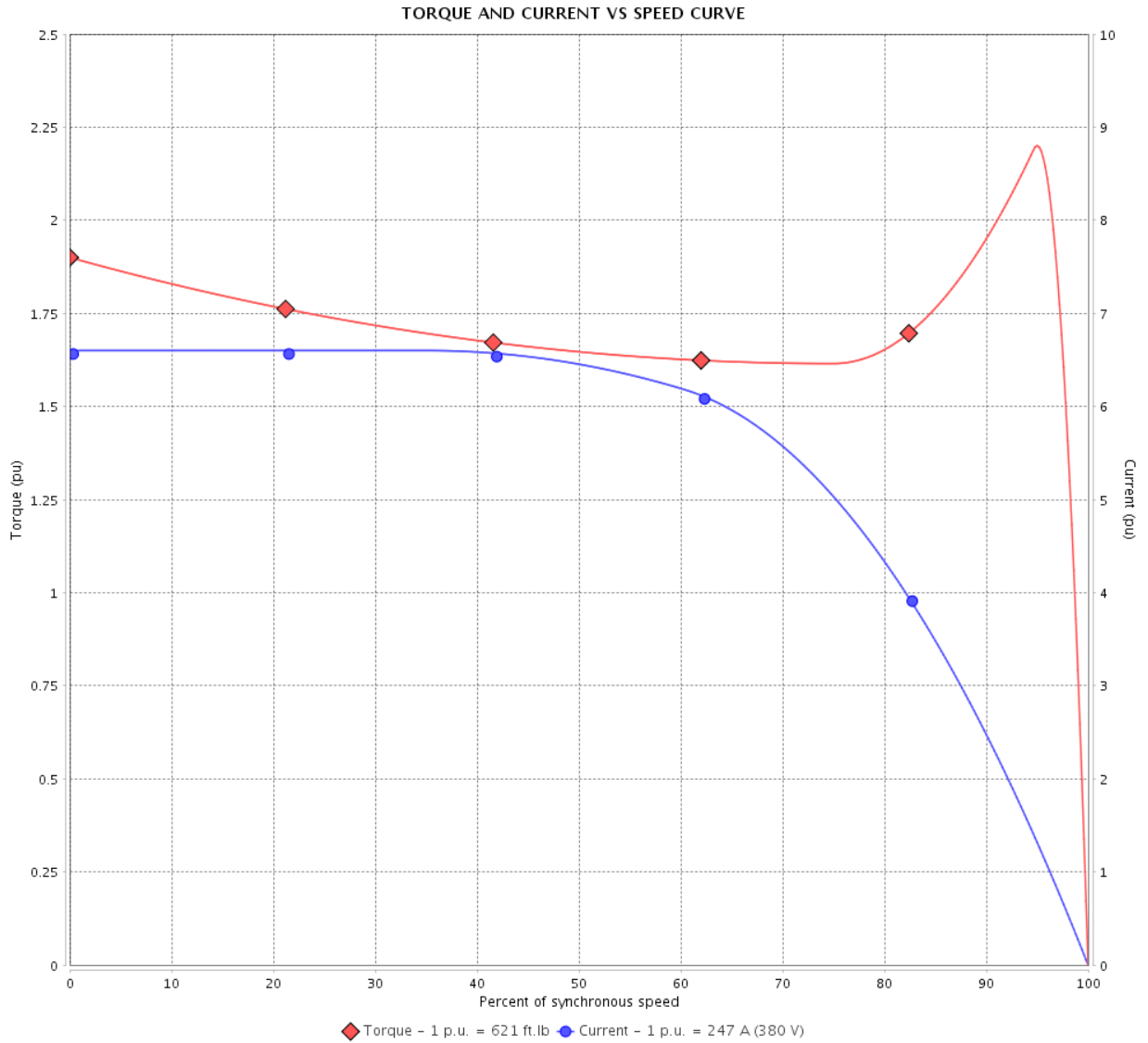
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14285014

Catalog # : 20018OT3G445TS-W40



Performance : 380 V 50 Hz 4P IE3

Rated current	: 247 A	Moment of inertia (J)	: 46.4 sq.ft.lb
LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 621 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

Locked rotor time : 21s (cold) 12s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



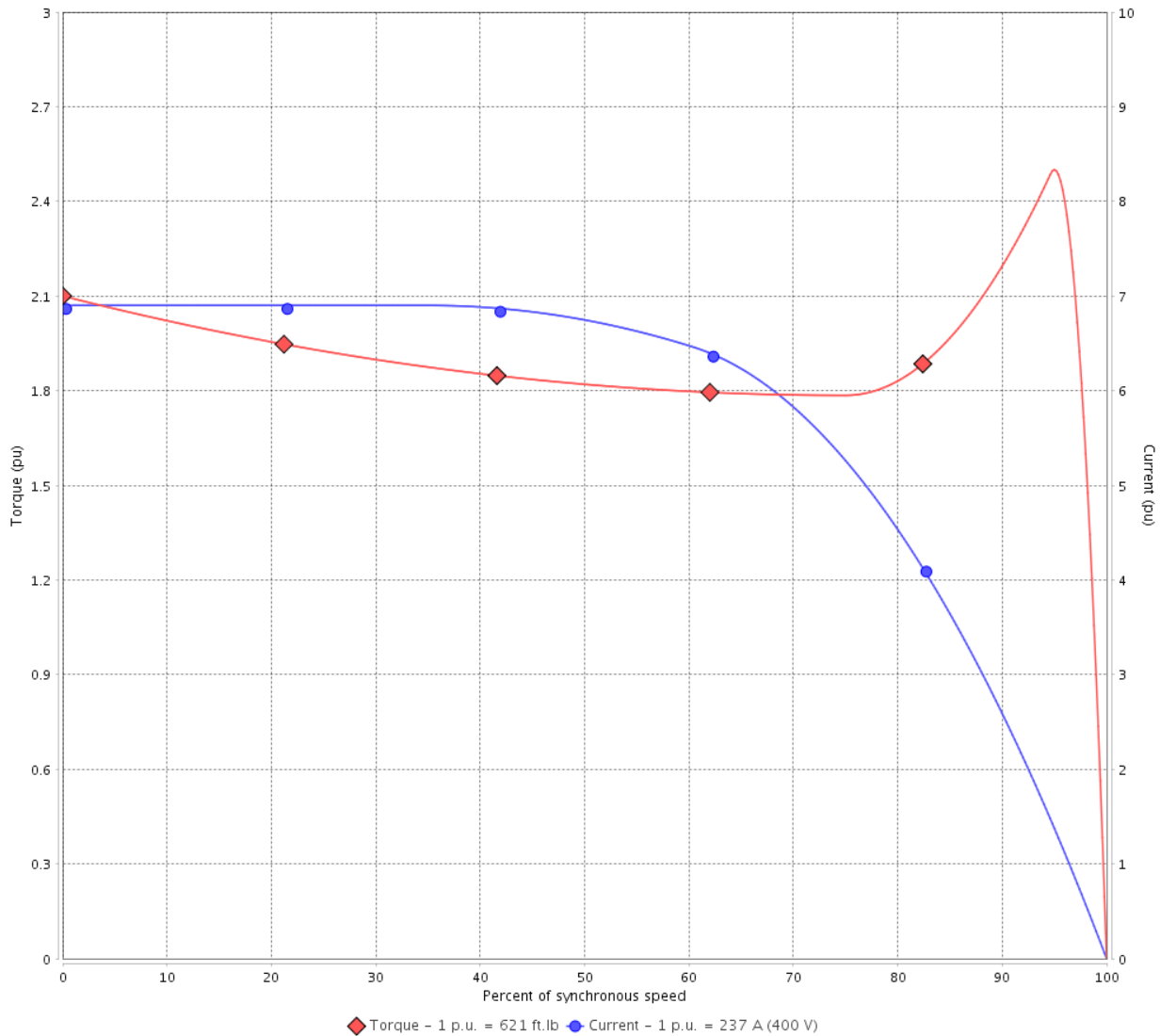
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14285014

Catalog # : 20018OT3G445TS-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 4P IE3

Rated current	: 237 A	Moment of inertia (J)	: 46.4 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 621 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

Locked rotor time : 23s (cold) 13s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



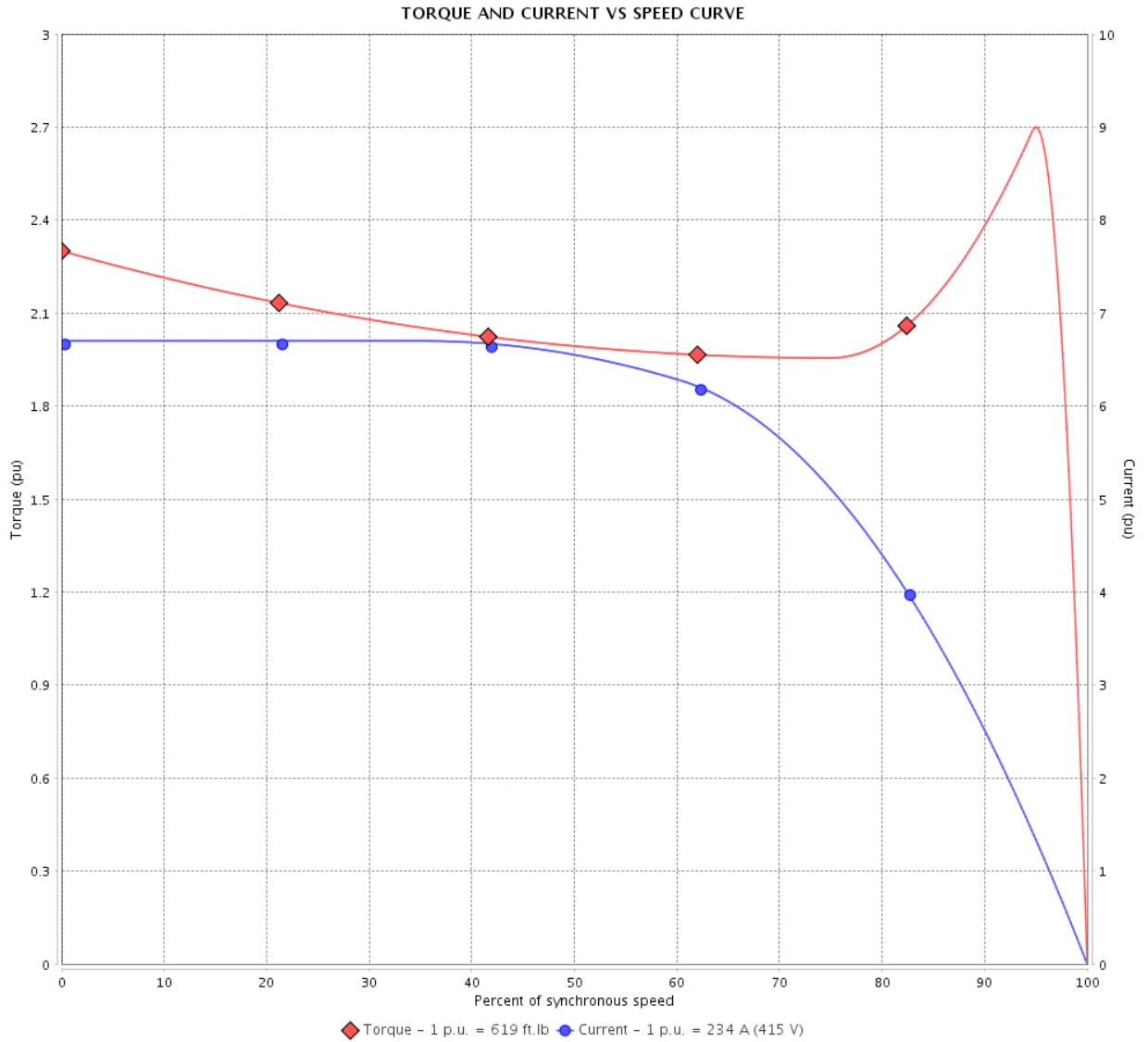
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Three-Phase

Product code : 14285014

Catalog # : 20018OT3G445TS-W40



Performance : 415 V 50 Hz 4P IE3

Rated current	: 234 A	Moment of inertia (J)	: 46.4 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 619 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1485 rpm	Design	: B

Locked rotor time : 25s (cold) 14s (hot)

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LOAD PERFORMANCE CURVE

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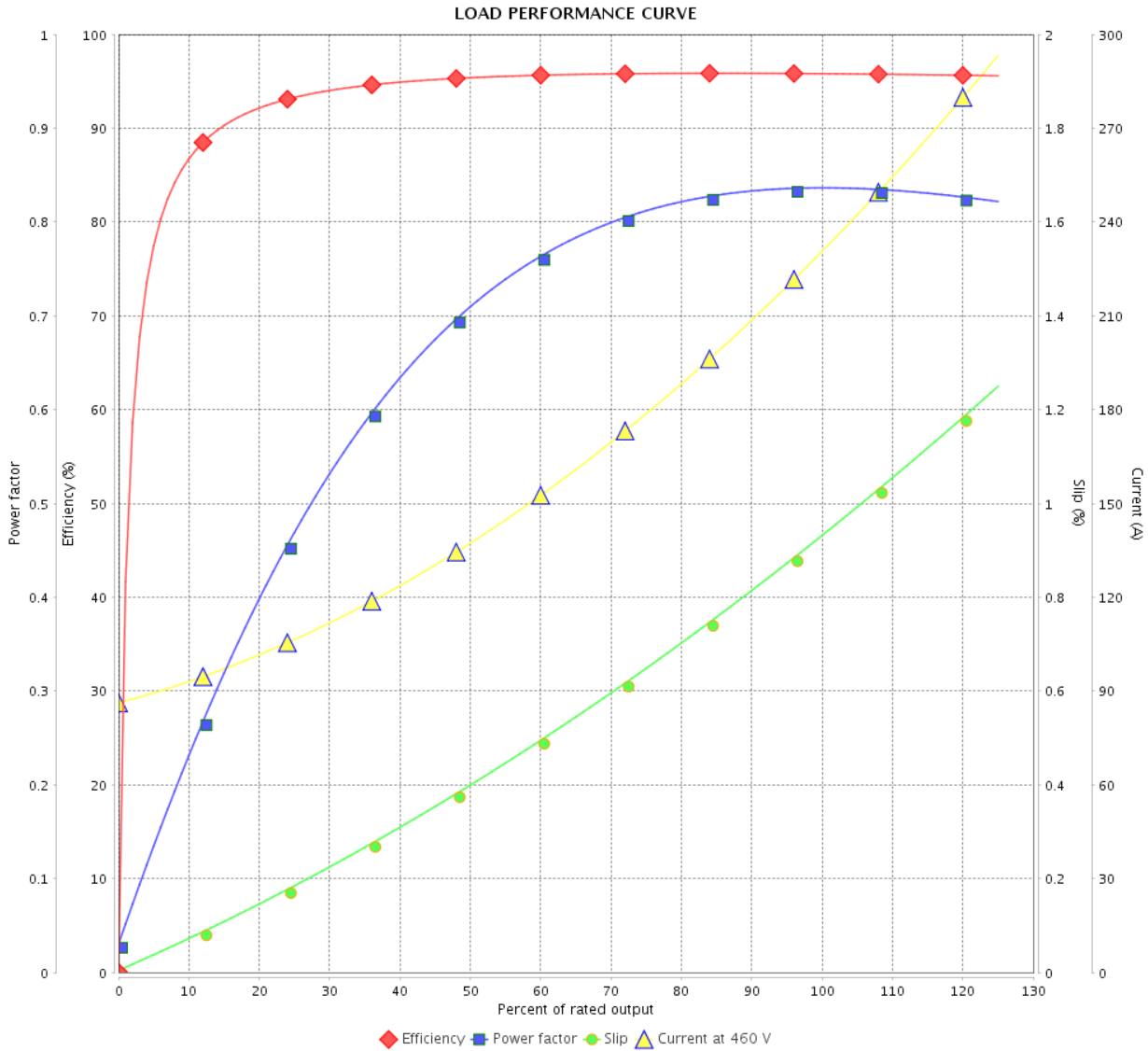


Customer :

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Product code : 14285014

Catalog # : 20018OT3G445TS-W40



Performance : 460 V 60 Hz 4P

Rated current : 234 A
 LRC : 6.6
 Rated torque : 589 ft.lb
 Locked rotor torque : 210 %
 Breakdown torque : 250 %
 Rated speed : 1783 rpm

Moment of inertia (J) : 46.4 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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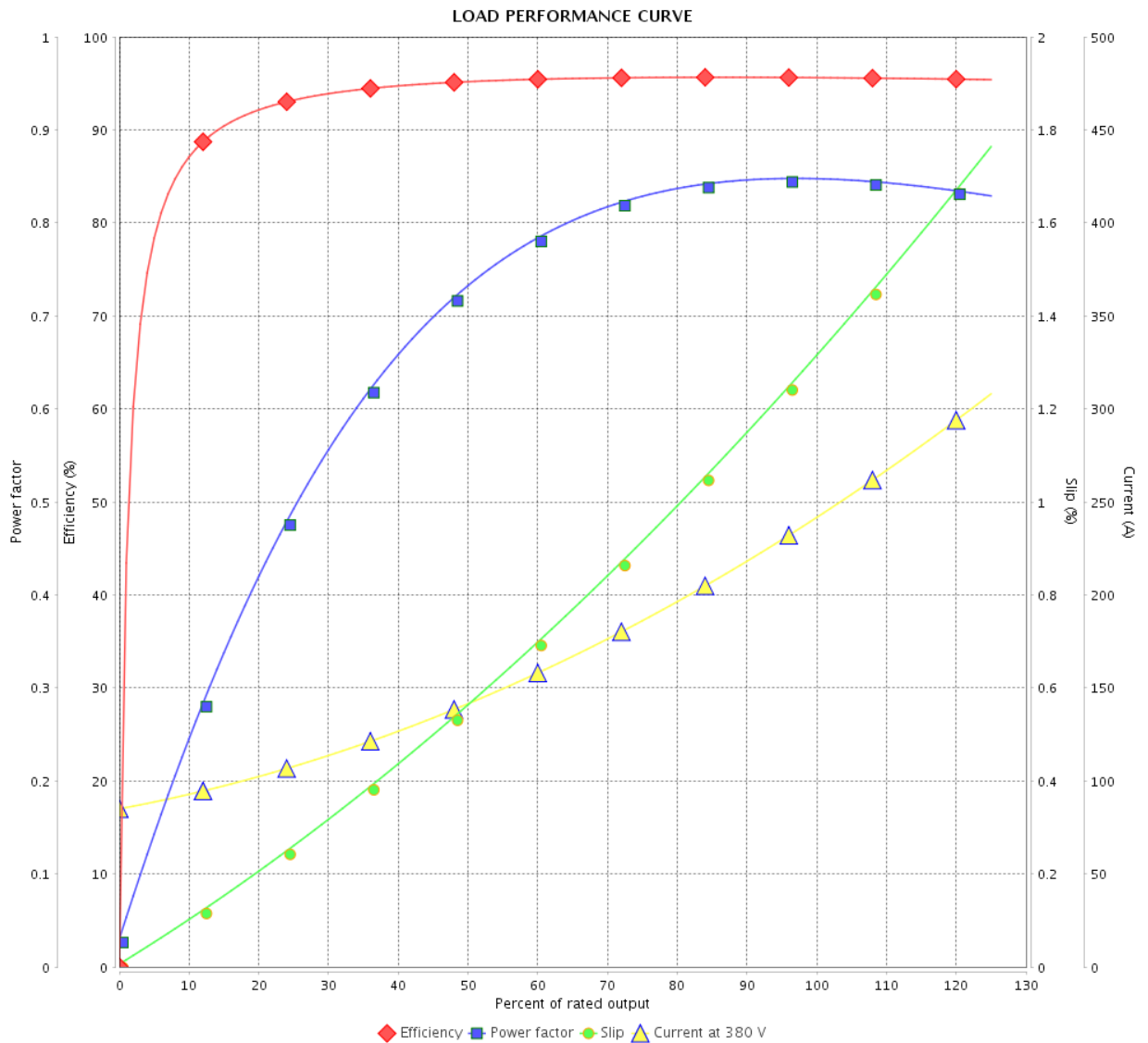


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Performance : 380 V 50 Hz 4P IE3

Rated current : 247 A
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 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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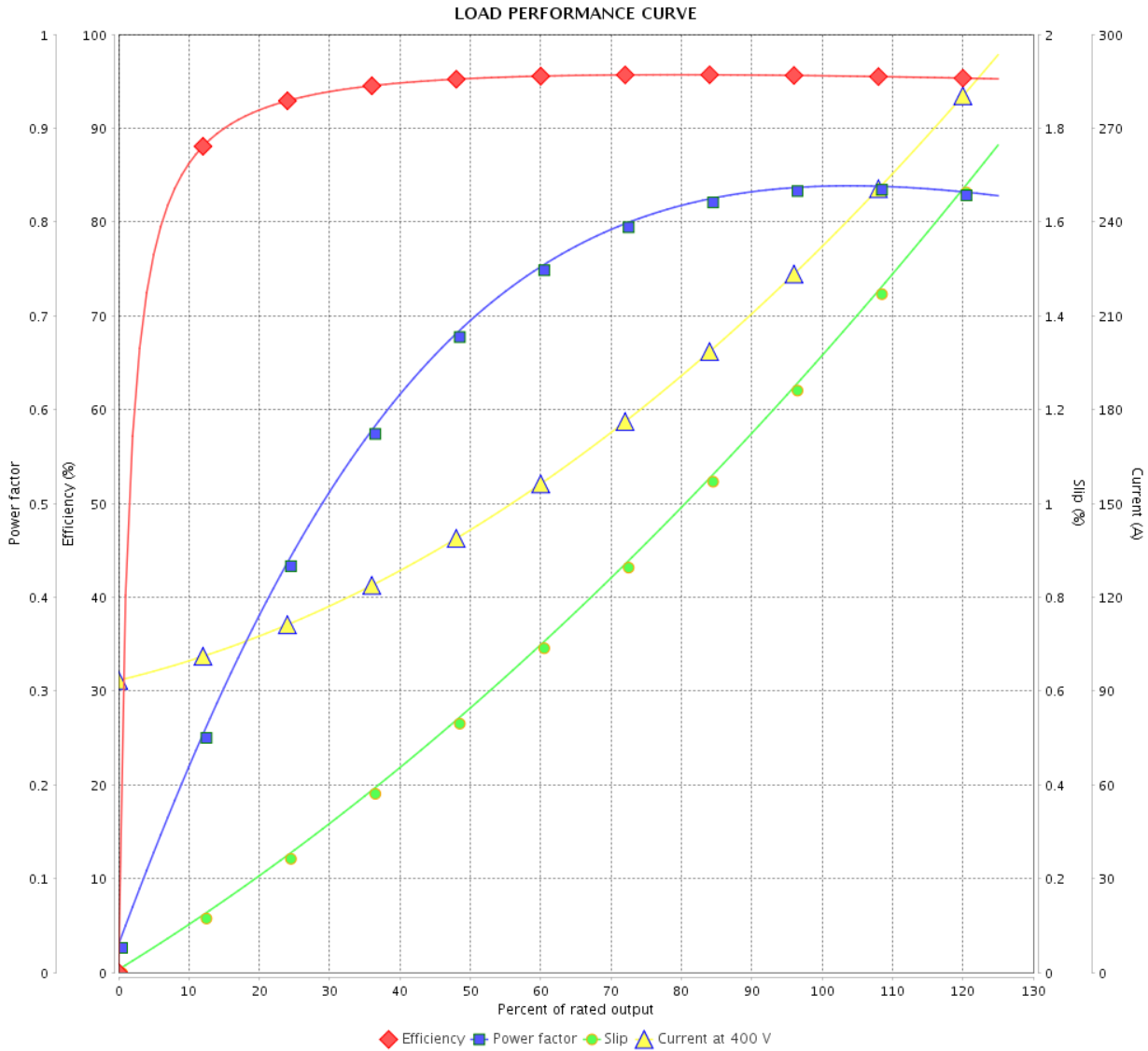


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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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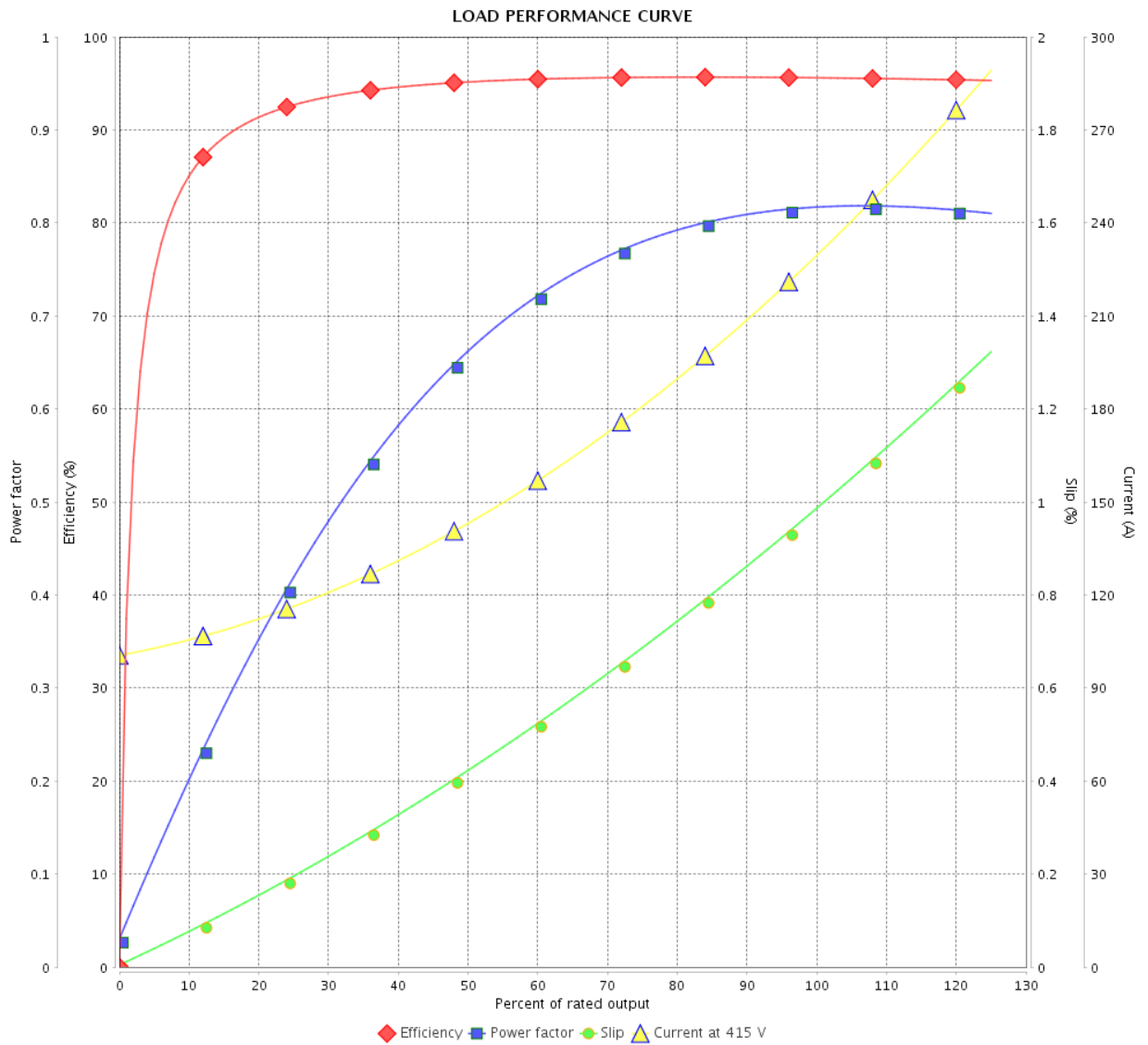


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THERMAL LIMIT CURVE



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Rated speed	: 1783 rpm	Design	: B

Heating constant

Cooling constant

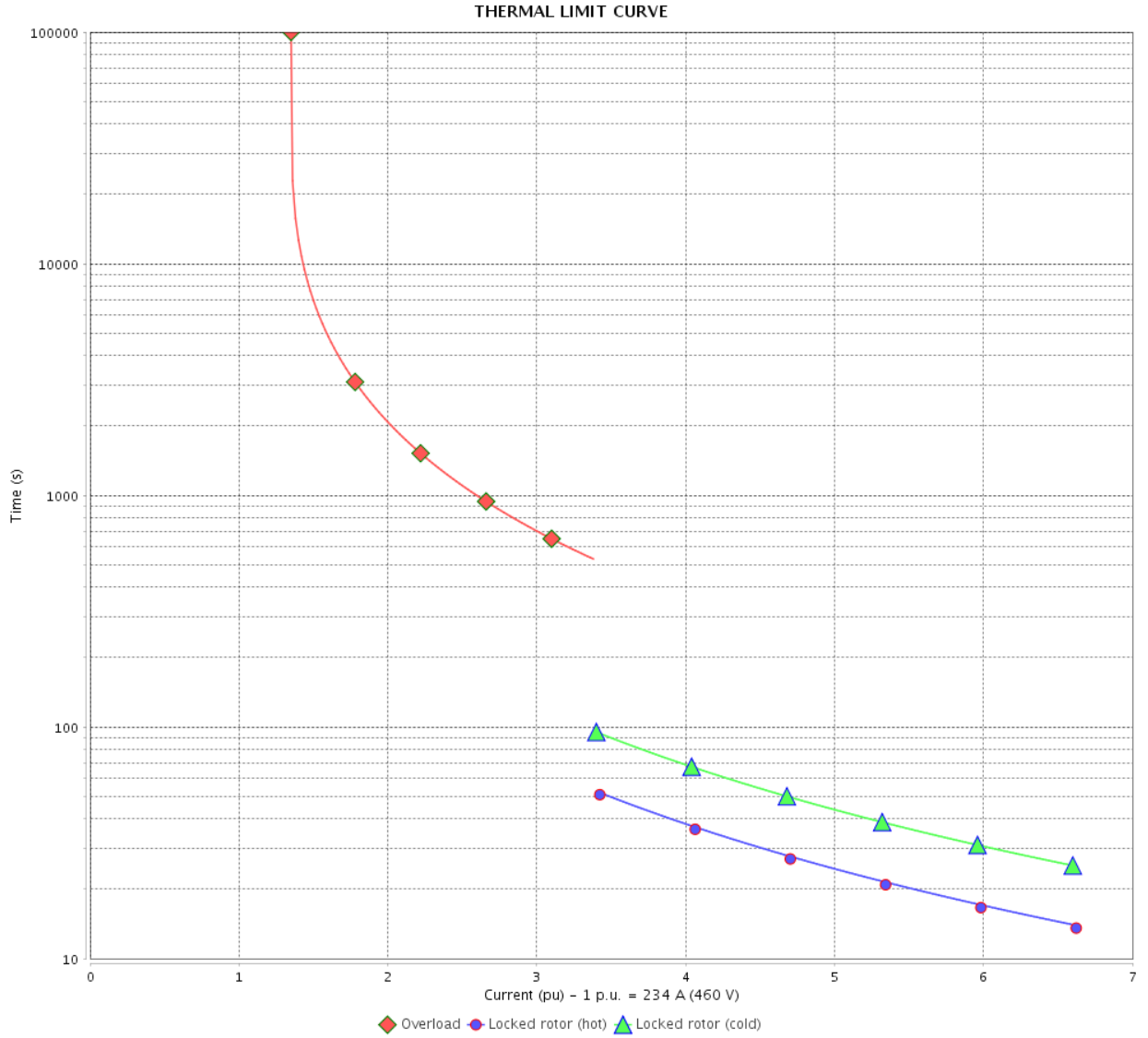
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Three Phase Induction Motor - Squirrel Cage



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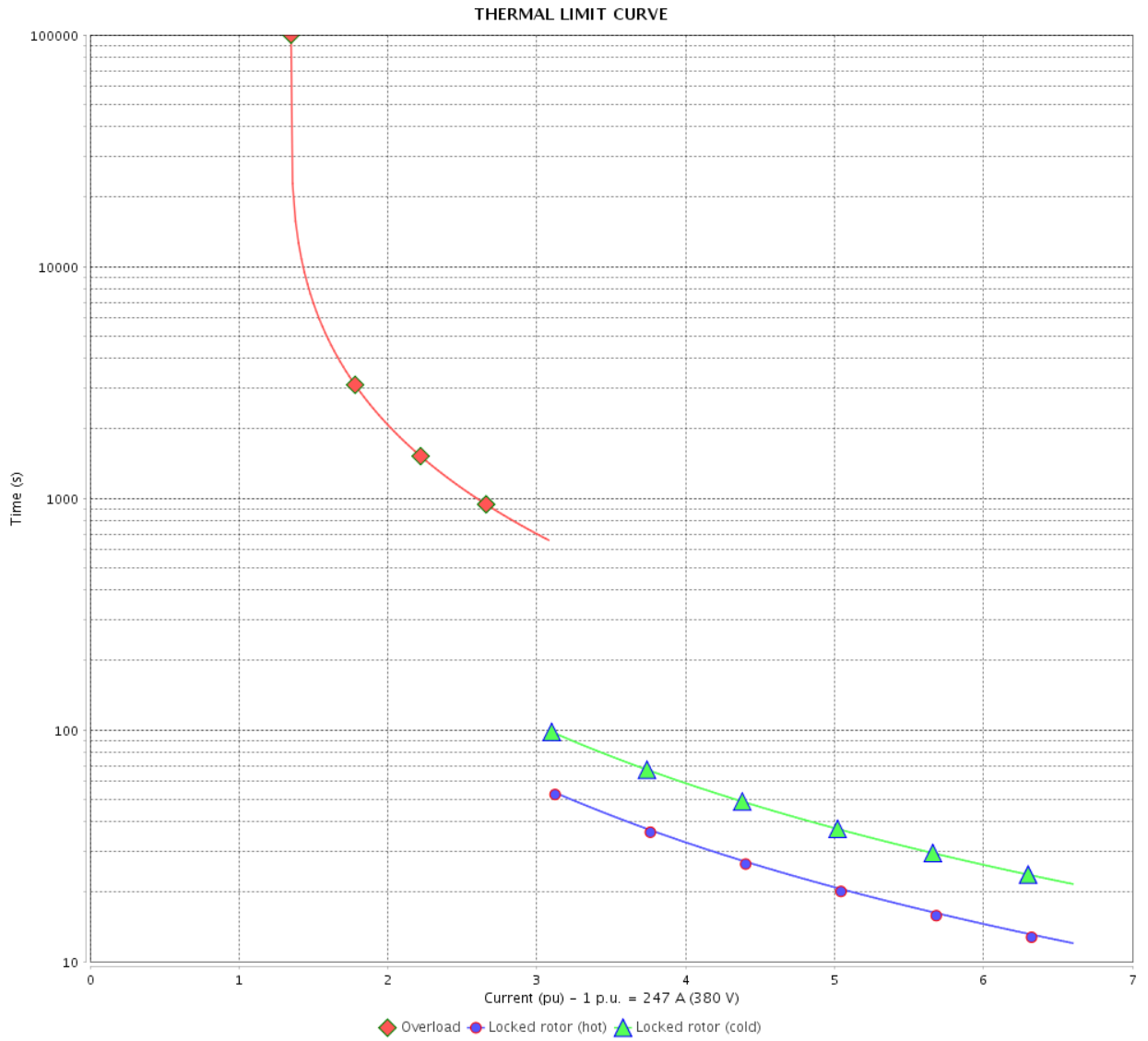
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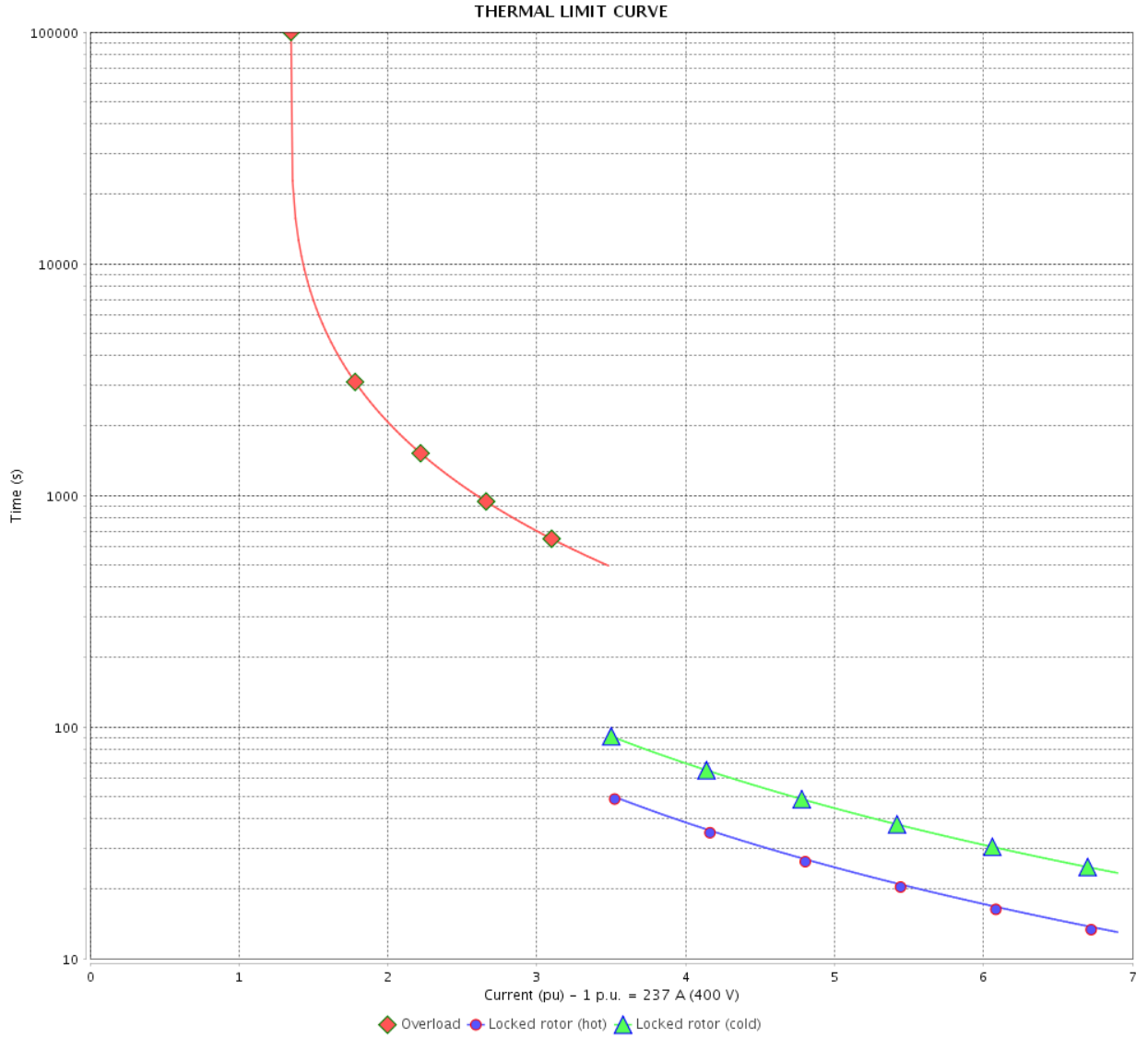
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Performed by				
Checked by			Page	Revision
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Three Phase Induction Motor - Squirrel Cage



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Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1485 rpm	Design	: B

Heating constant

Cooling constant

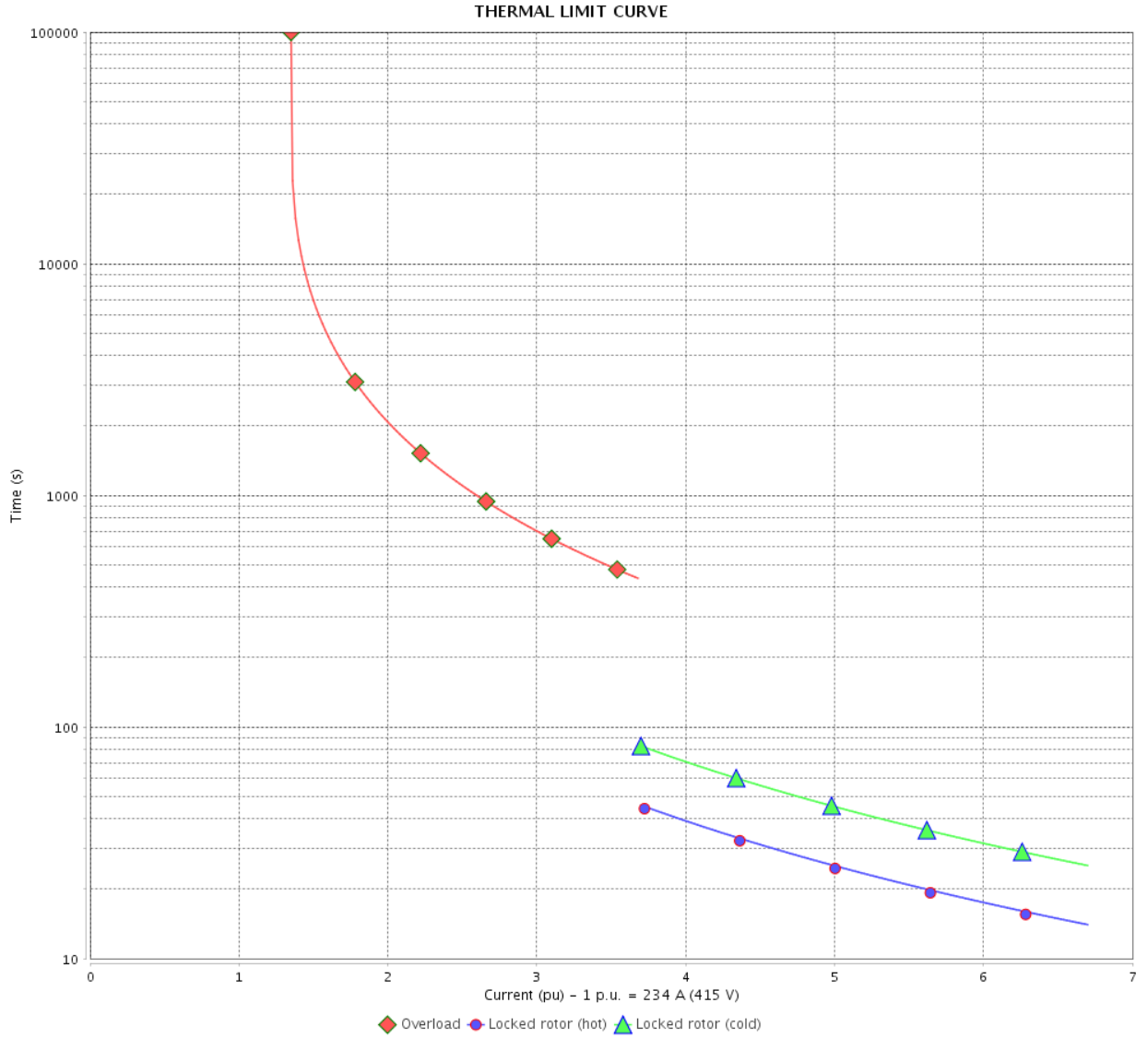
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Performed by				
Checked by			Page	Revision
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



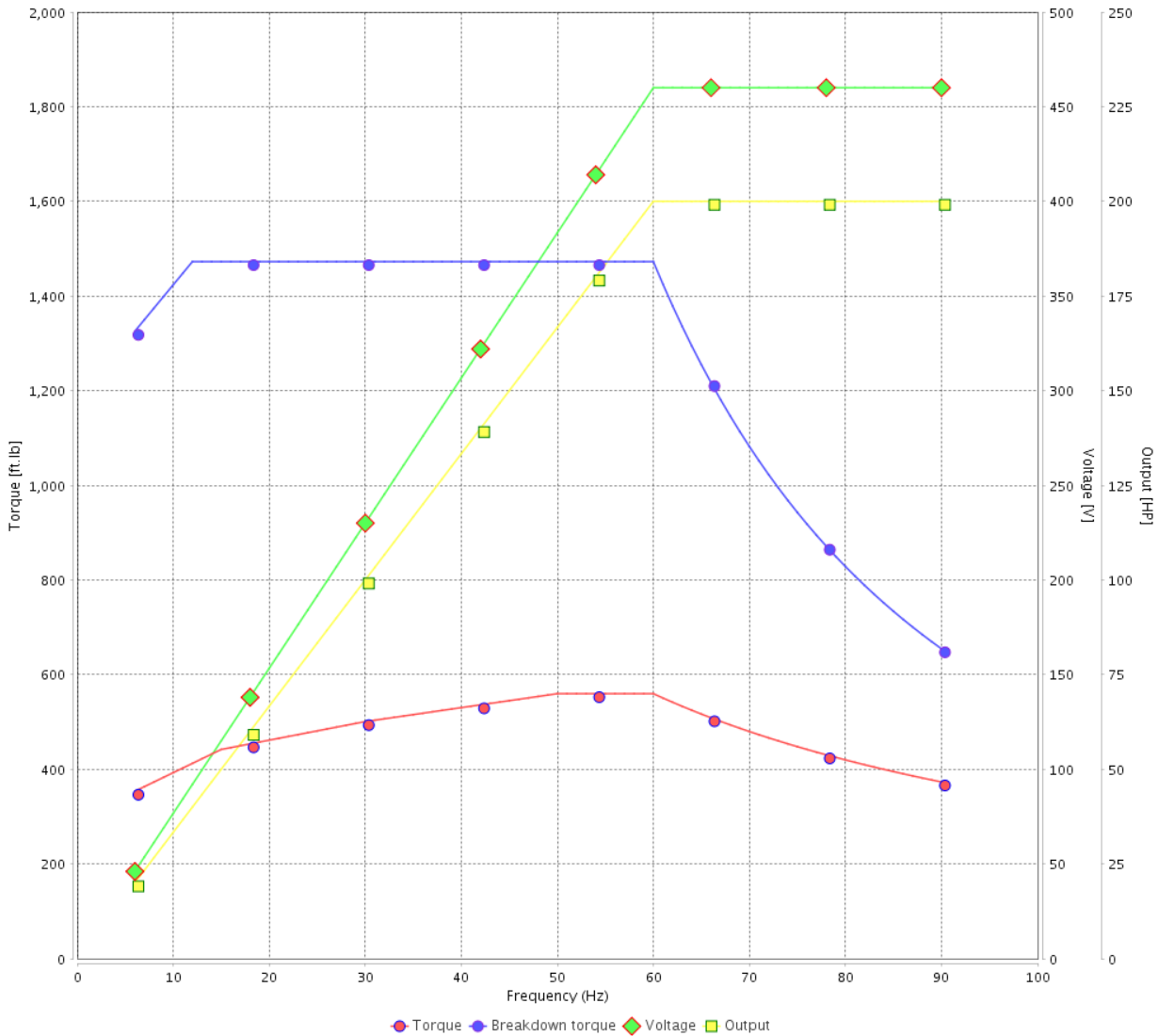
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VFD OPERATION CURVE



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Duty cycle : Cont.(S1)
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Design : B

Rev.	Changes Summary	Performed	Checked	Date
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Date	14/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

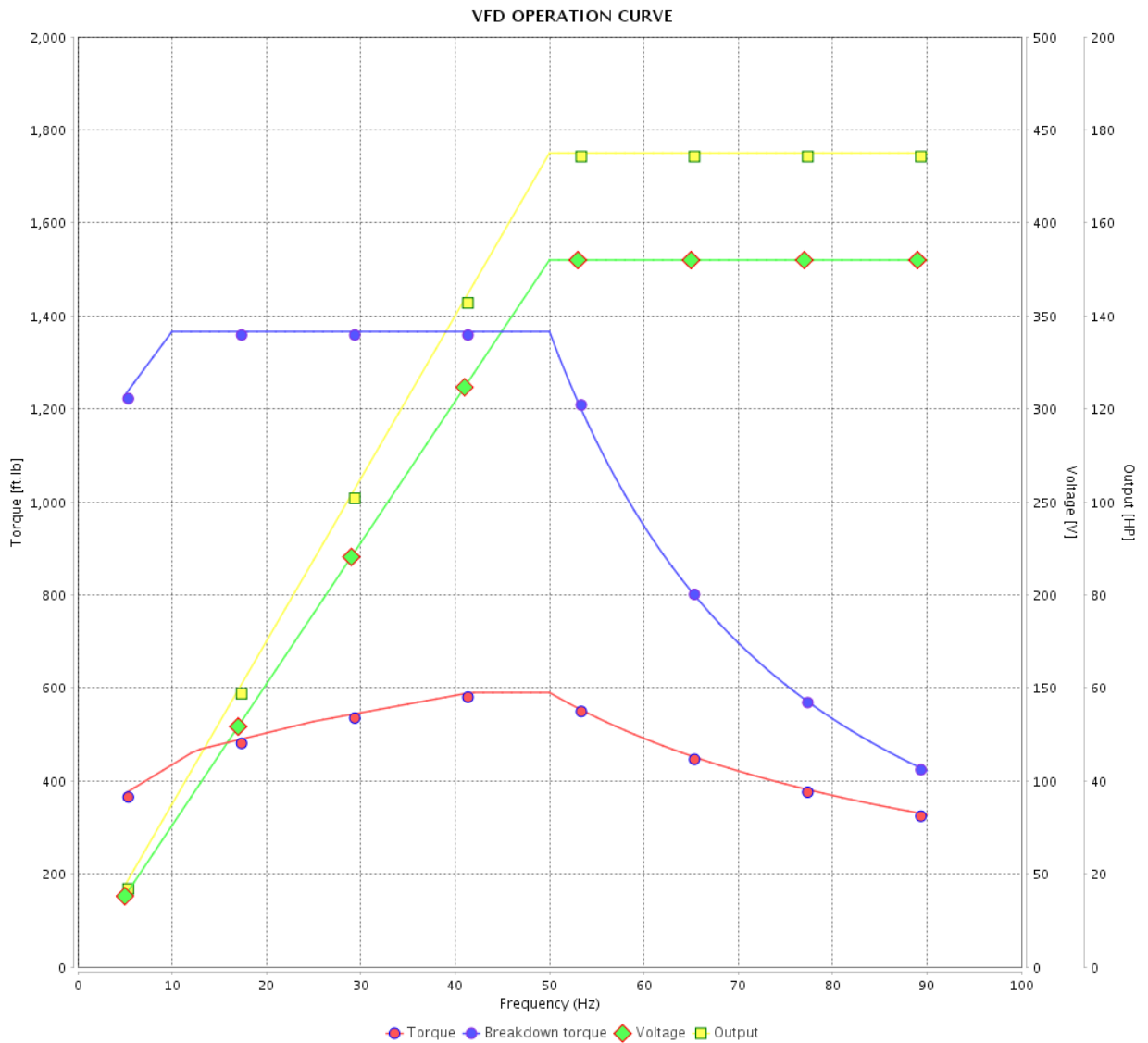


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Performance : 380 V 50 Hz 4P IE3

Rated current : 247 A
 LRC : 6.6
 Rated torque : 621 ft.lb
 Locked rotor torque : 190 %
 Breakdown torque : 220 %
 Rated speed : 1480 rpm

Moment of inertia (J) : 46.4 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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Date		14/04/2022		

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



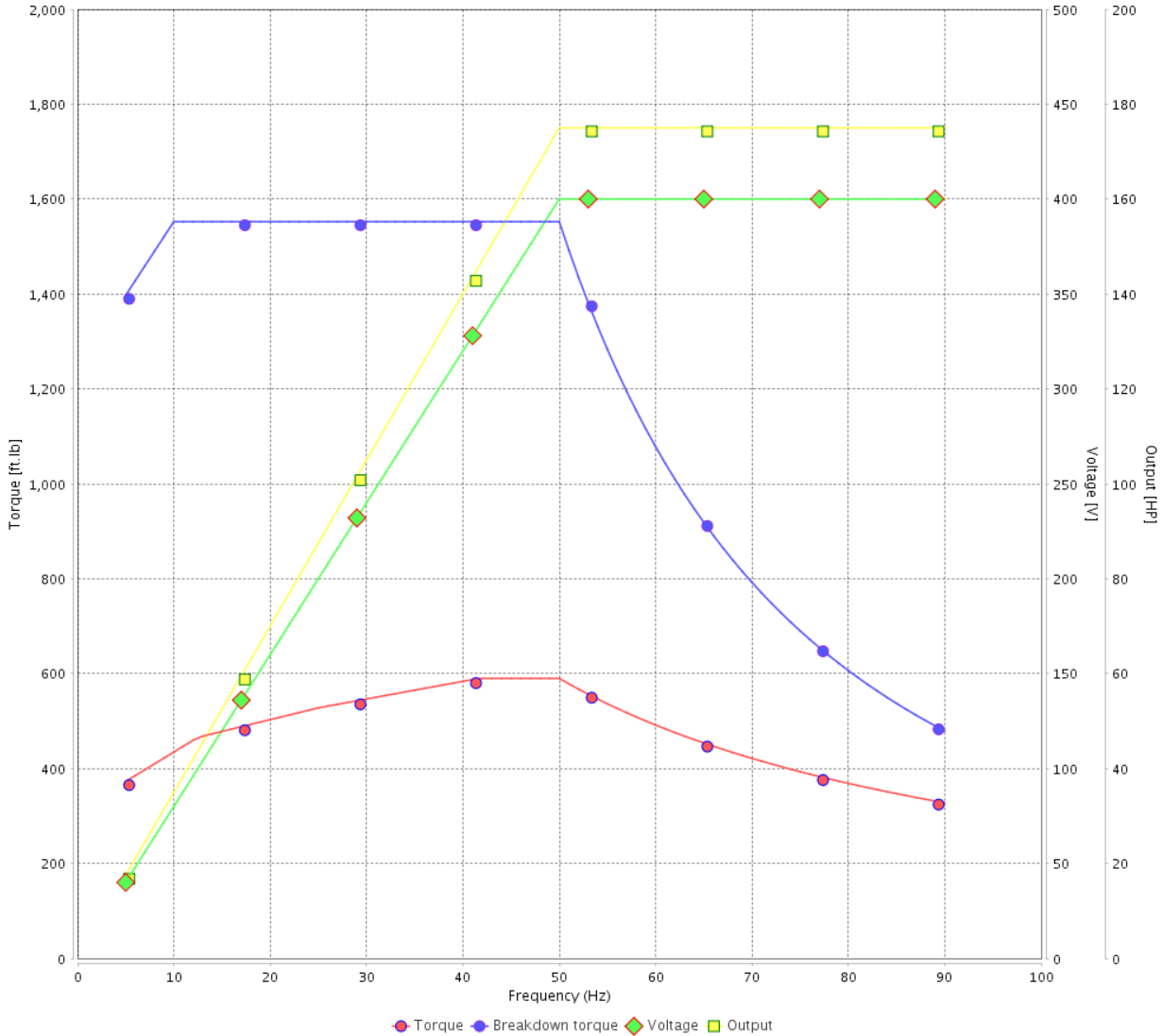
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VFD OPERATION CURVE

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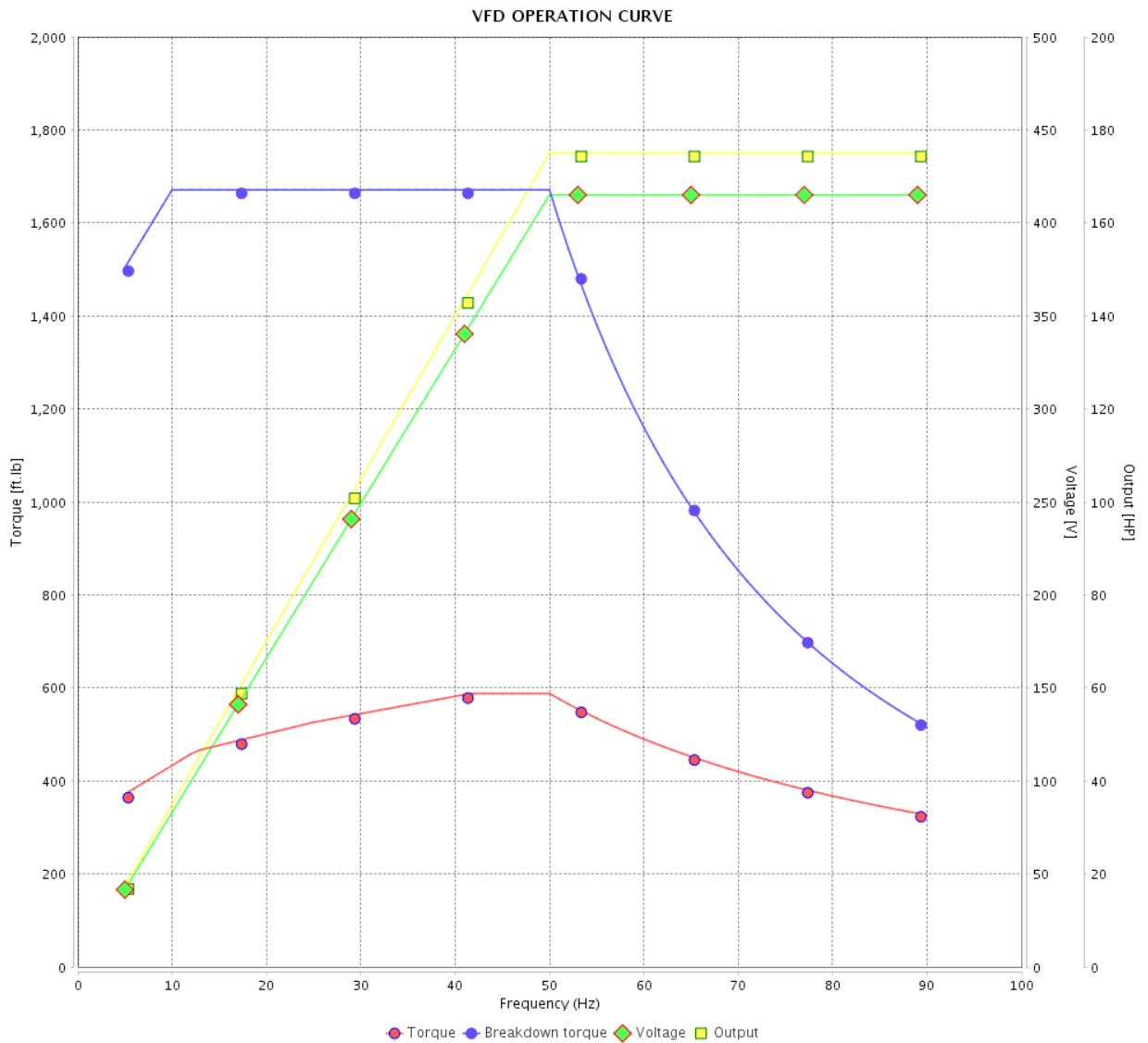


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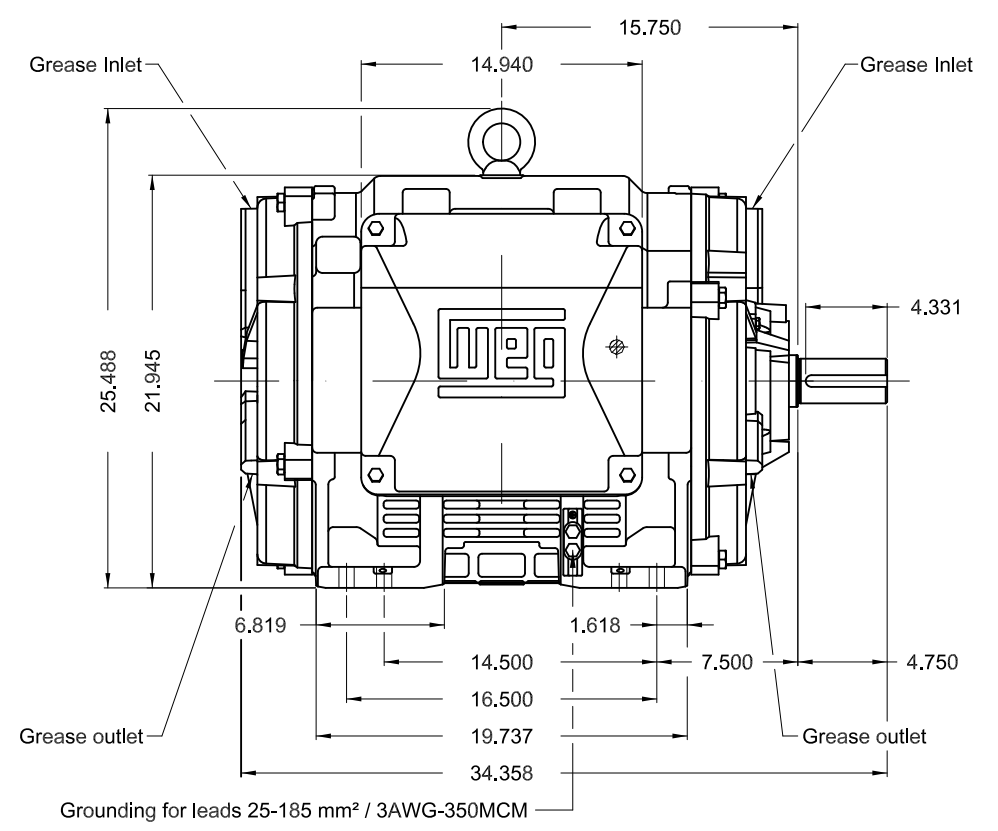
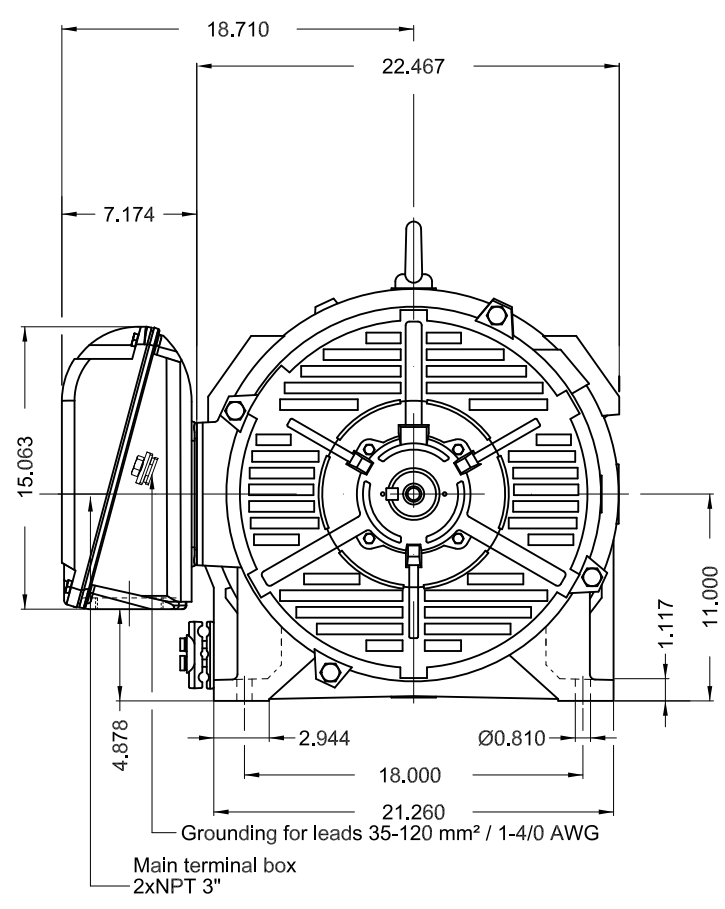


Performance : 415 V 50 Hz 4P IE3

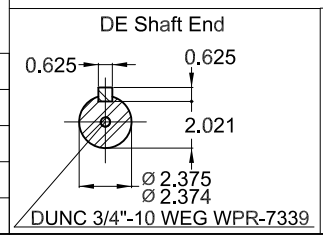
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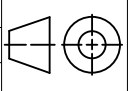


TS shaft end
Color RAL 5009
Painting plan 203A
Mounting NEMA F-1
Mounting B3R(D)



200 HP 04 Poles 60 Hz A

						1:10
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ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWUSER	 THREE PH. MOTOR W40 PREM. EFF. FRAME 444/5TS IP23 ODP					
CHECKED							
RELEASED							
REL DT.		WMO Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW
WDD



MODEL 200180T3G445TS-W40
MADE IN BRAZIL
14285014

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



MOD.T01#FOXON



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

PH 3	FR 444/5TS	HP(kW) 200(150)	Hz 60	PART-WINDING			WYE-DELTA			
V 460		A 234	IP23	START	RUN	START	RUN			
				○T12 ○T10 ○T11 ○T7 ○T8 ○T9	○T12 ○T10 ○T11 ○T7 ○T8 ○T9	○T12 ○T10 ○T11 ○T6 ○T4 ○T5	○T12 ○T10 ○T11 ○T6 ○T4 ○T5	○T12 ○T10 ○T11 ○T7 ○T8 ○T9	○T12 ○T10 ○T11 ○T7 ○T8 ○T9	
				○T6 ○T4 ○T5 ○T1 ○T2 ○T3	○T6 ○T4 ○T5 ○T1 ○T2 ○T3	○T7 ○T8 ○T9 ○T1 ○T2 ○T3	○T7 ○T8 ○T9 ○T1 ○T2 ○T3	○T7 ○T8 ○T9 ○T1 ○T2 ○T3	○T7 ○T8 ○T9 ○T1 ○T2 ○T3	
				L1 L2 L3	L1 L2 L3	L1 L2 L3	L1 L2 L3	L1 L2 L3	L1 L2 L3	
NEMA NOM EFF		95.8 %	RPM 1783	→ 6314-C3(27g) MOBIL POLYREX EM → 6212-Z-C3(13g) 20000 h						
ENCL ODP	DUTY	CONT.	INS. CL. F ΔT 80 K							
PF 0.84		DES B	CODE G	AMB. 40°C						
SF 1.15	SFA 269		ALT 1000 m.a.s.l.				1354 Lbs			
175HP 132kW 50Hz 380V 247A 1480RPM SF1.00 EFF 95.6% (IE3)										