

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer					
Product line		: W40 NEMA Premium Efficiency Three-Phase		Product code : 14367176 Catalog # : 04036OT3E286TS-W40	
Frame : 284/6TS		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 : 349 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.		
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



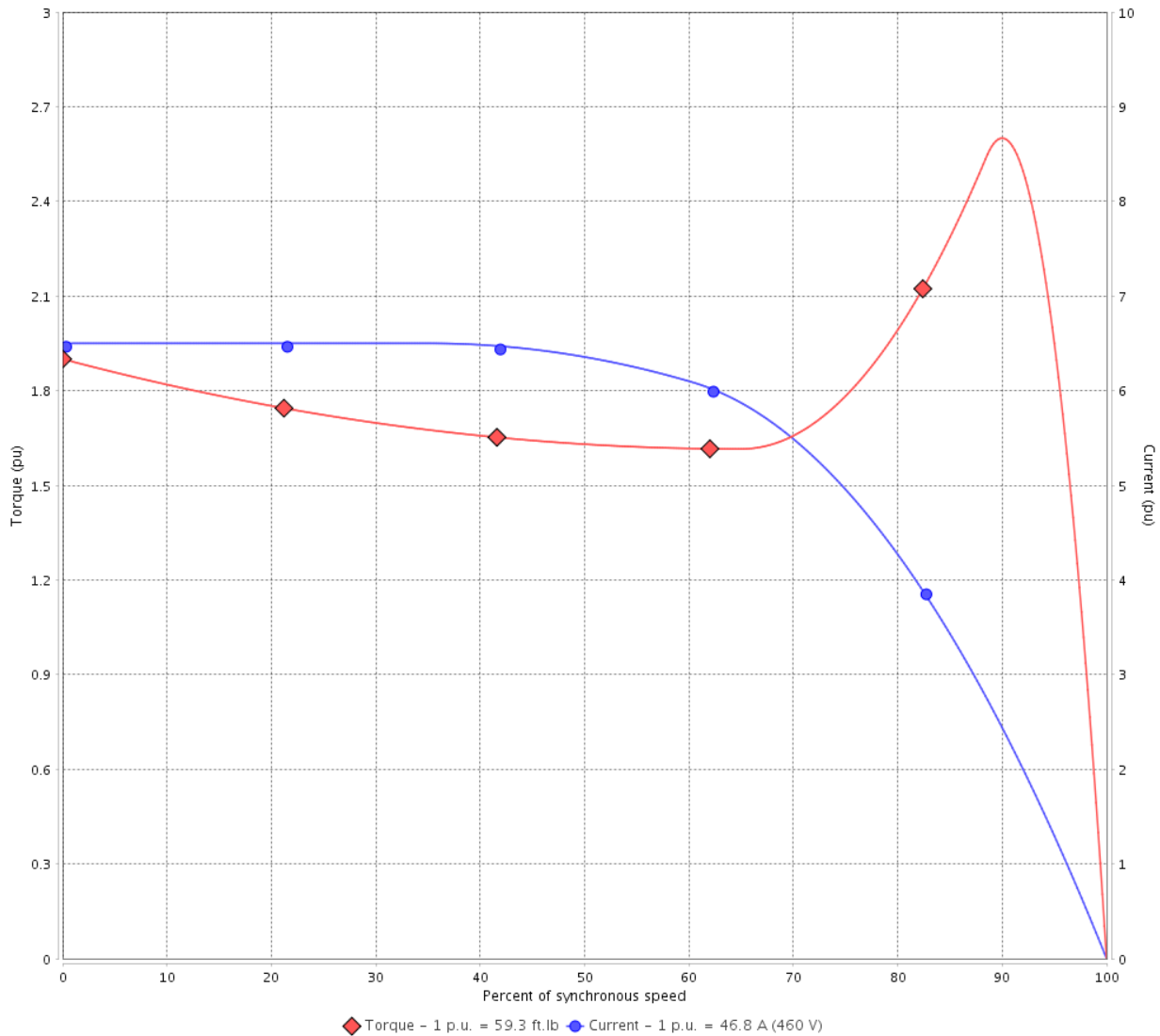
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14367176

Catalog # : 04036OT3E286TS-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)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 2 / 21	Revision
Checked by				
Date	12/04/2022			

TORQUE AND CURRENT VS SPEED CURVE



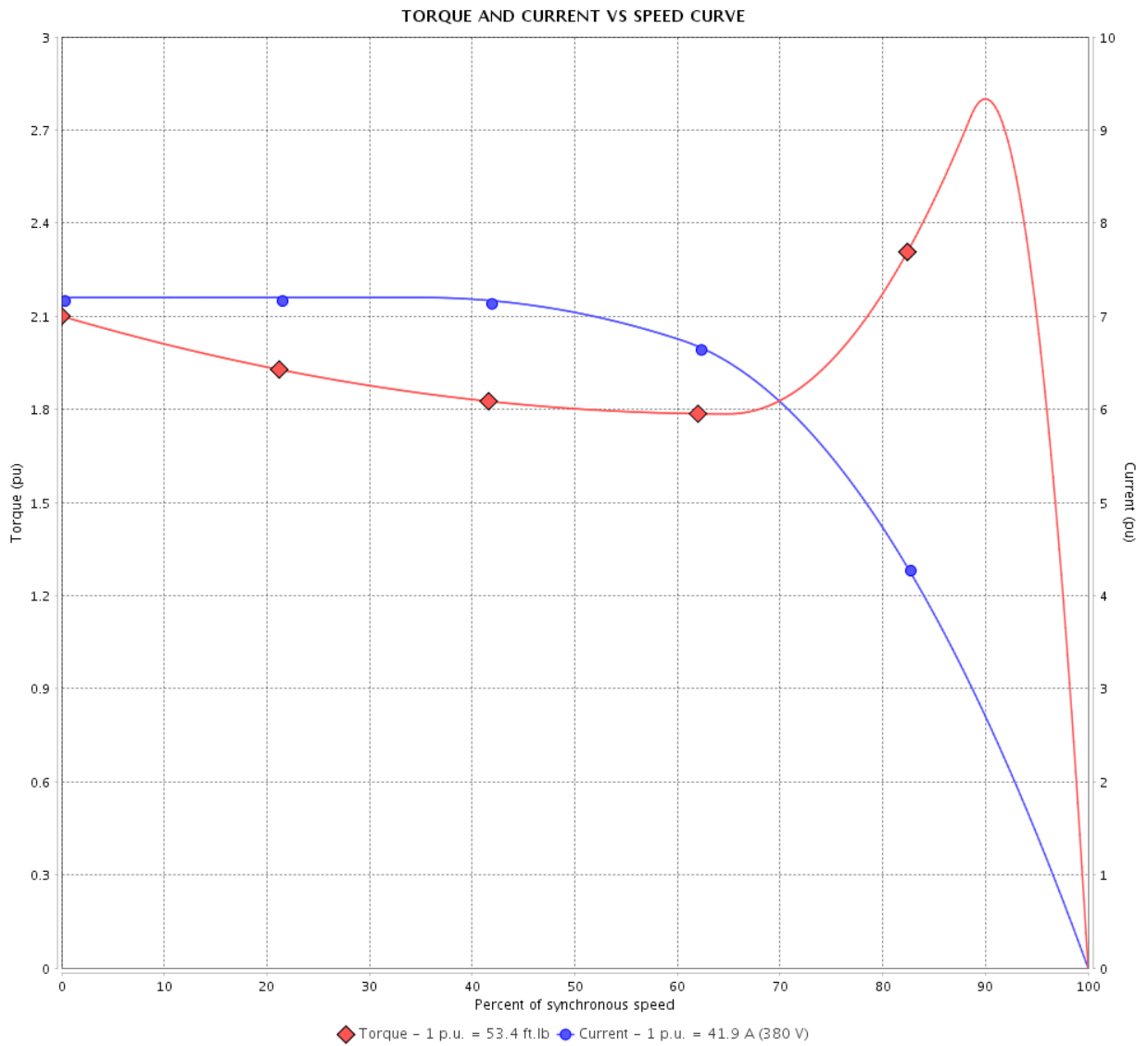
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14367176

Catalog # : 04036OT3E286TS-W40



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

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



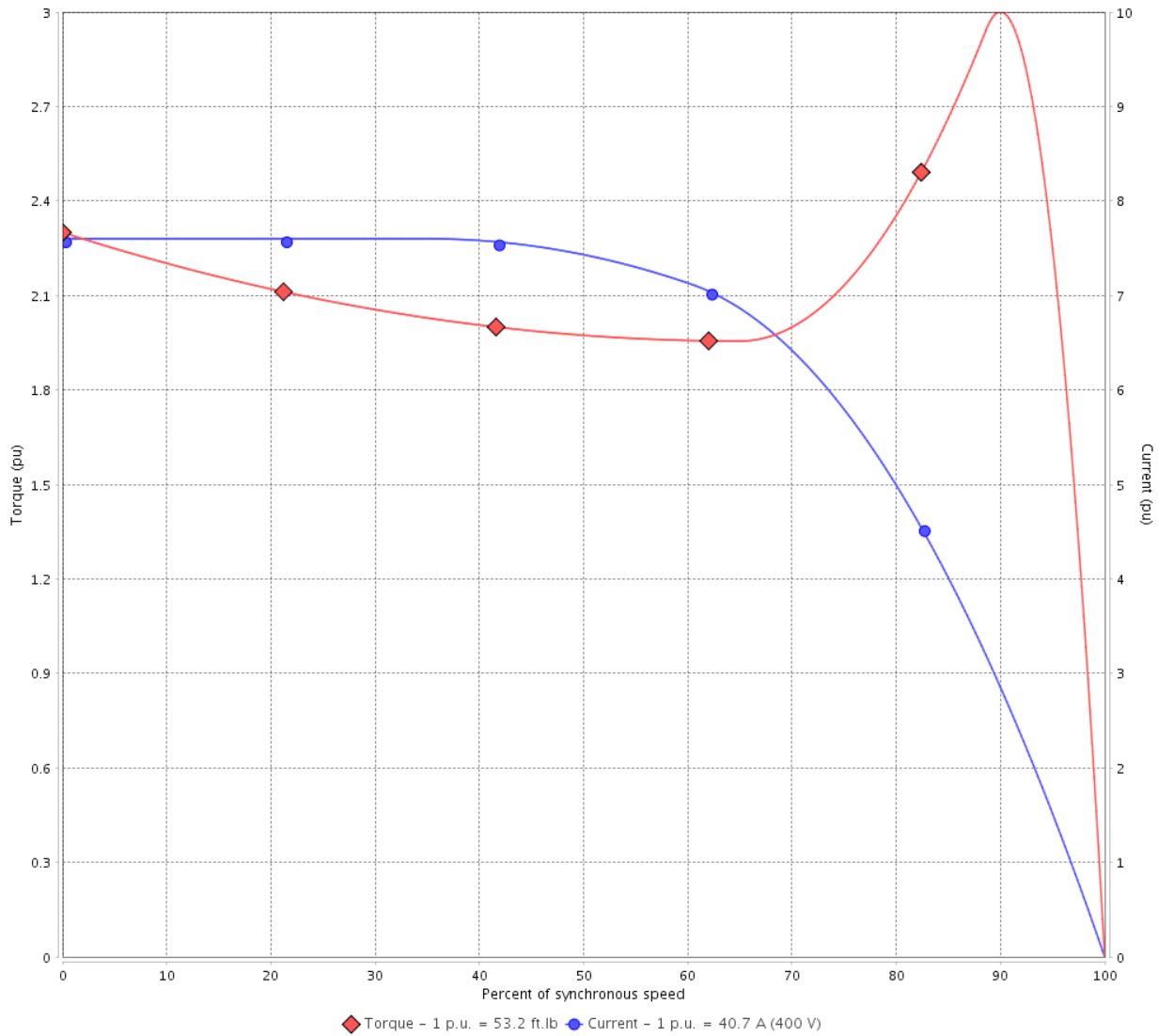
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14367176

Catalog # : 04036OT3E286TS-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)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 4 / 21	Revision
Checked by				
Date	12/04/2022			

TORQUE AND CURRENT VS SPEED CURVE



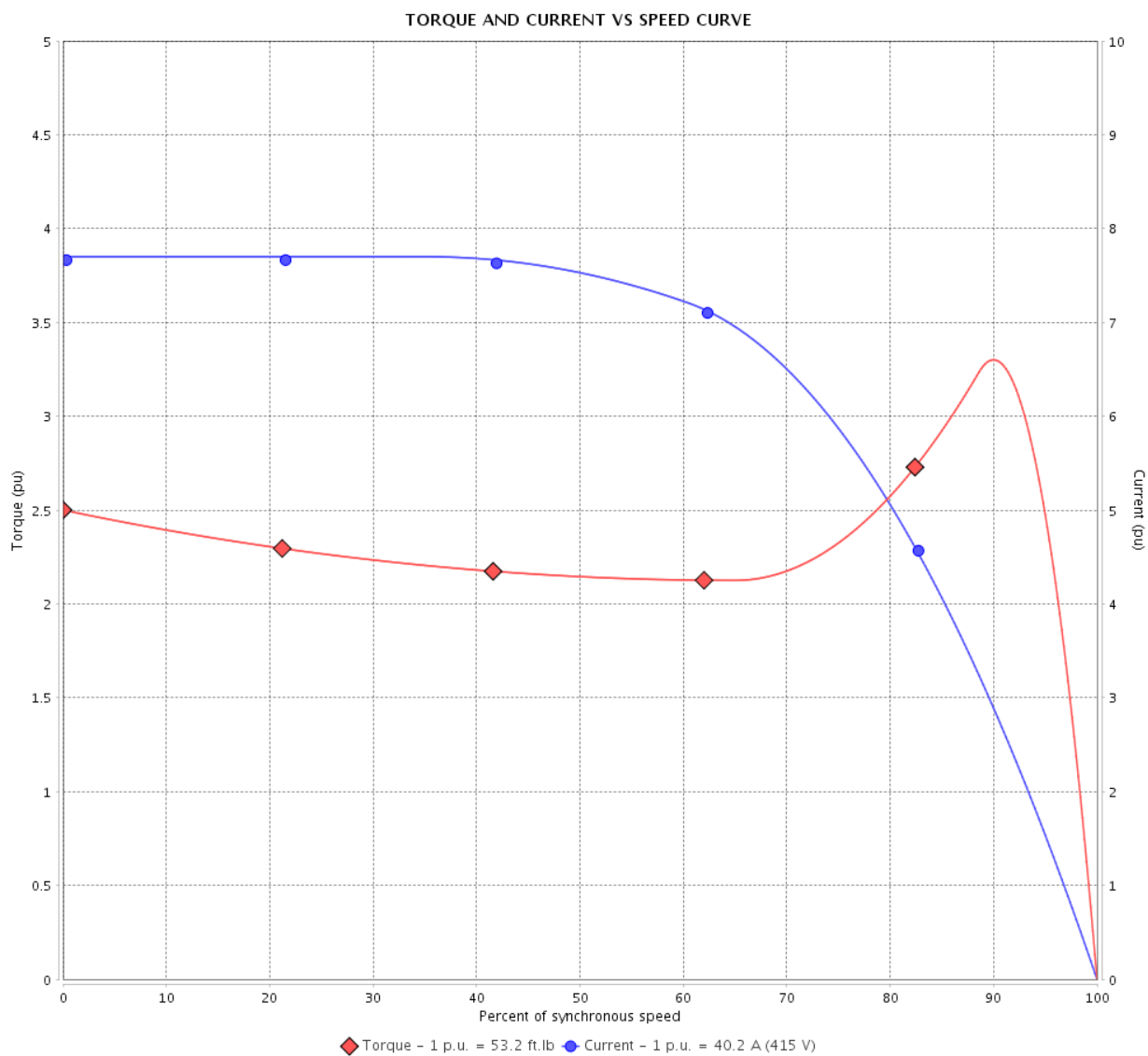
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Product code : 14367176

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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

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

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 5 / 21	Revision
Checked by				
Date	12/04/2022			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

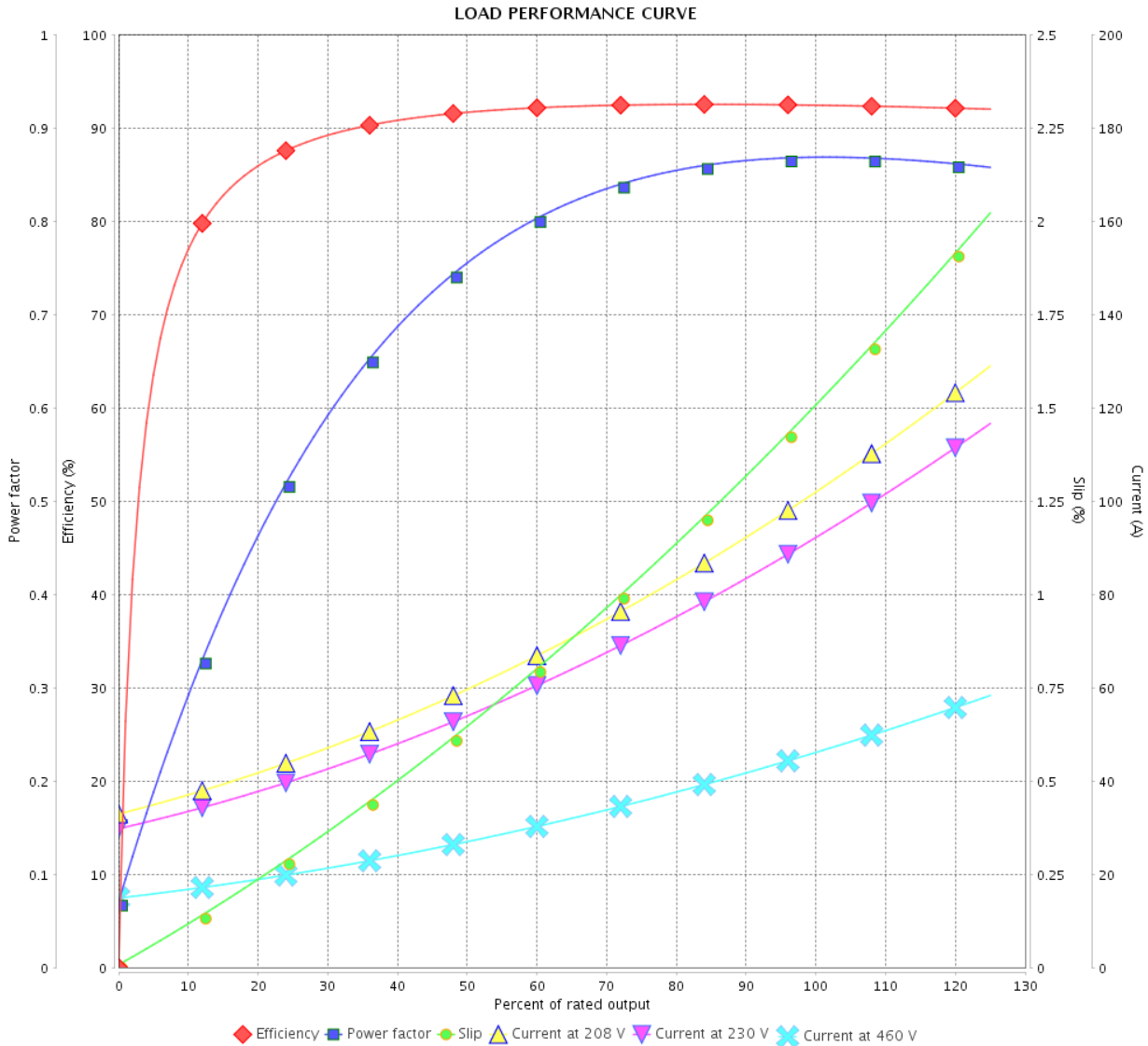


Customer :

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Product code : 14367176

Catalog # : 04036OT3E286TS-W40



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
 Design : B

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

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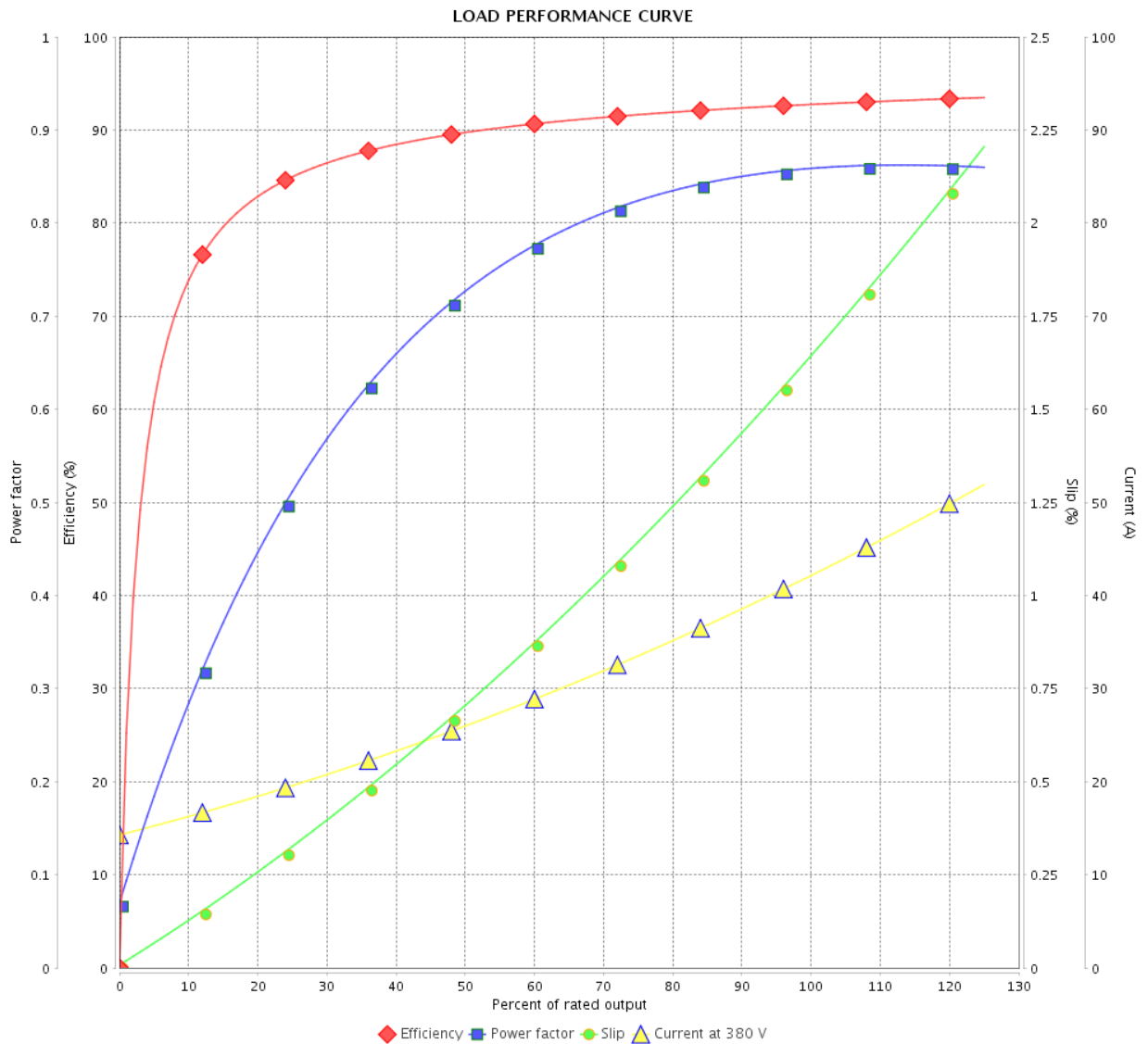


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Performance : 380 V 50 Hz 2P IE3

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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Performed by			Page	Revision
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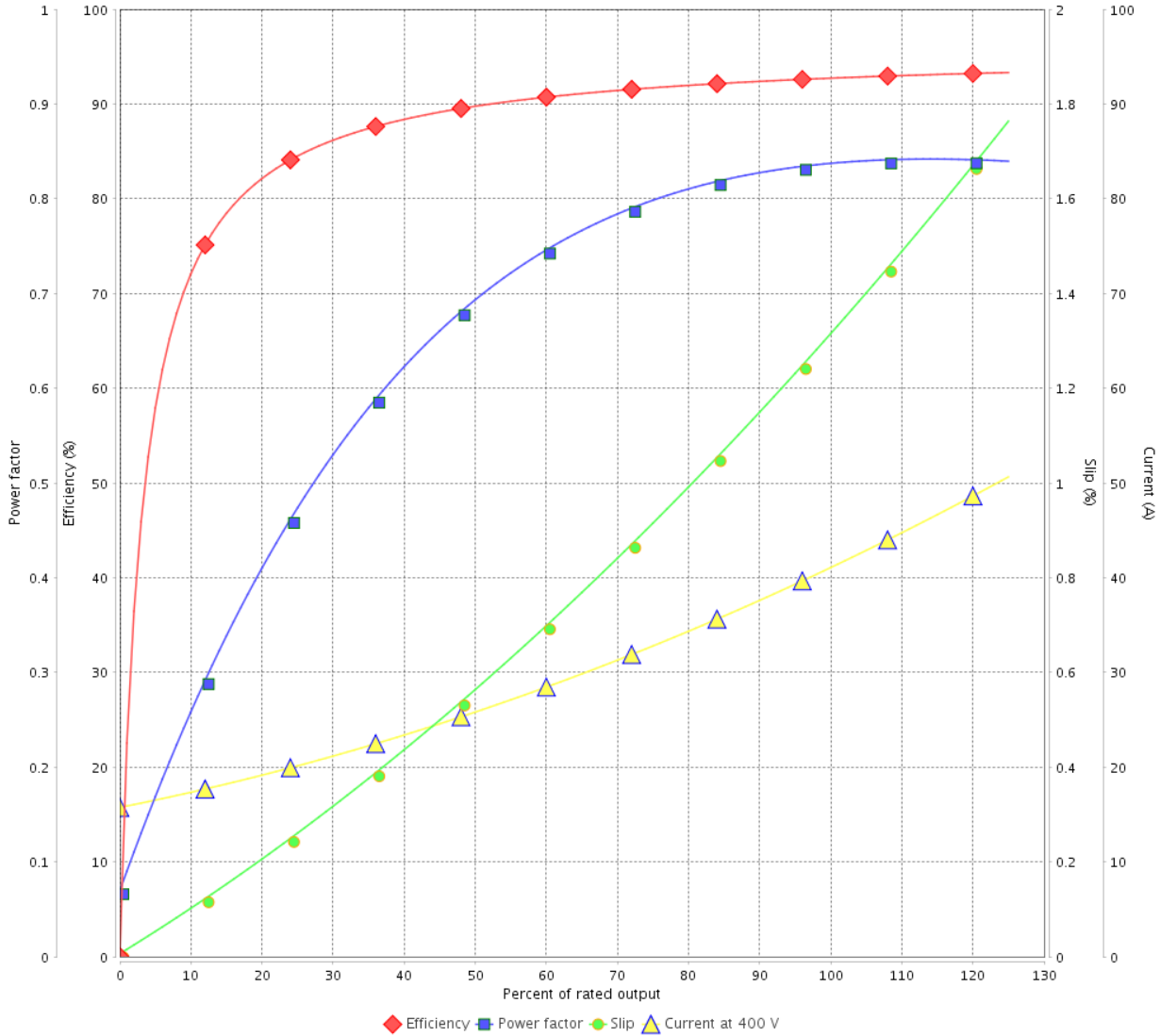
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LOAD PERFORMANCE CURVE



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

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

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Three Phase Induction Motor - Squirrel Cage

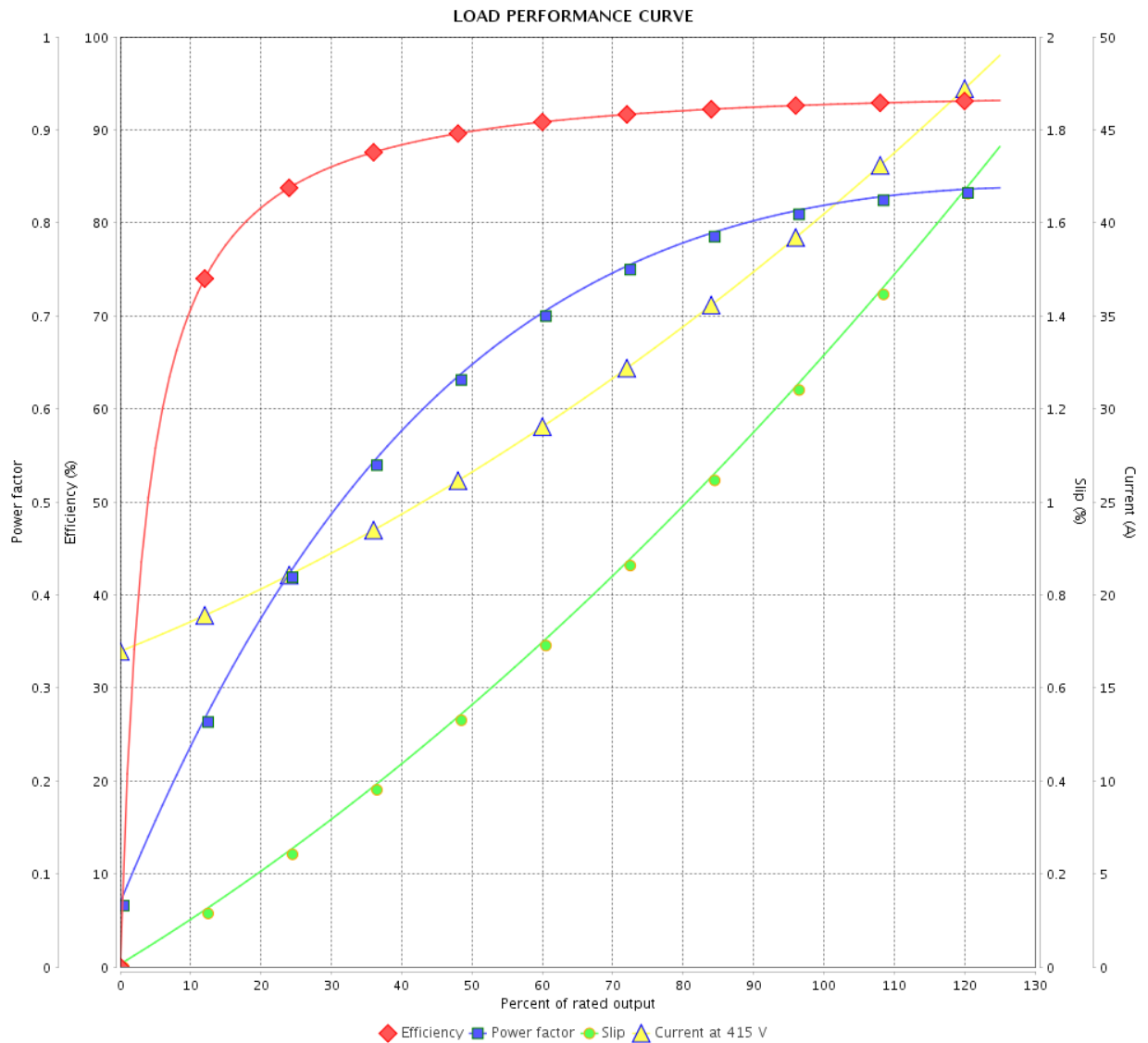


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 Breakdown torque : 330 %
 Rated speed : 2960 rpm

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

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

Heating constant

Cooling constant

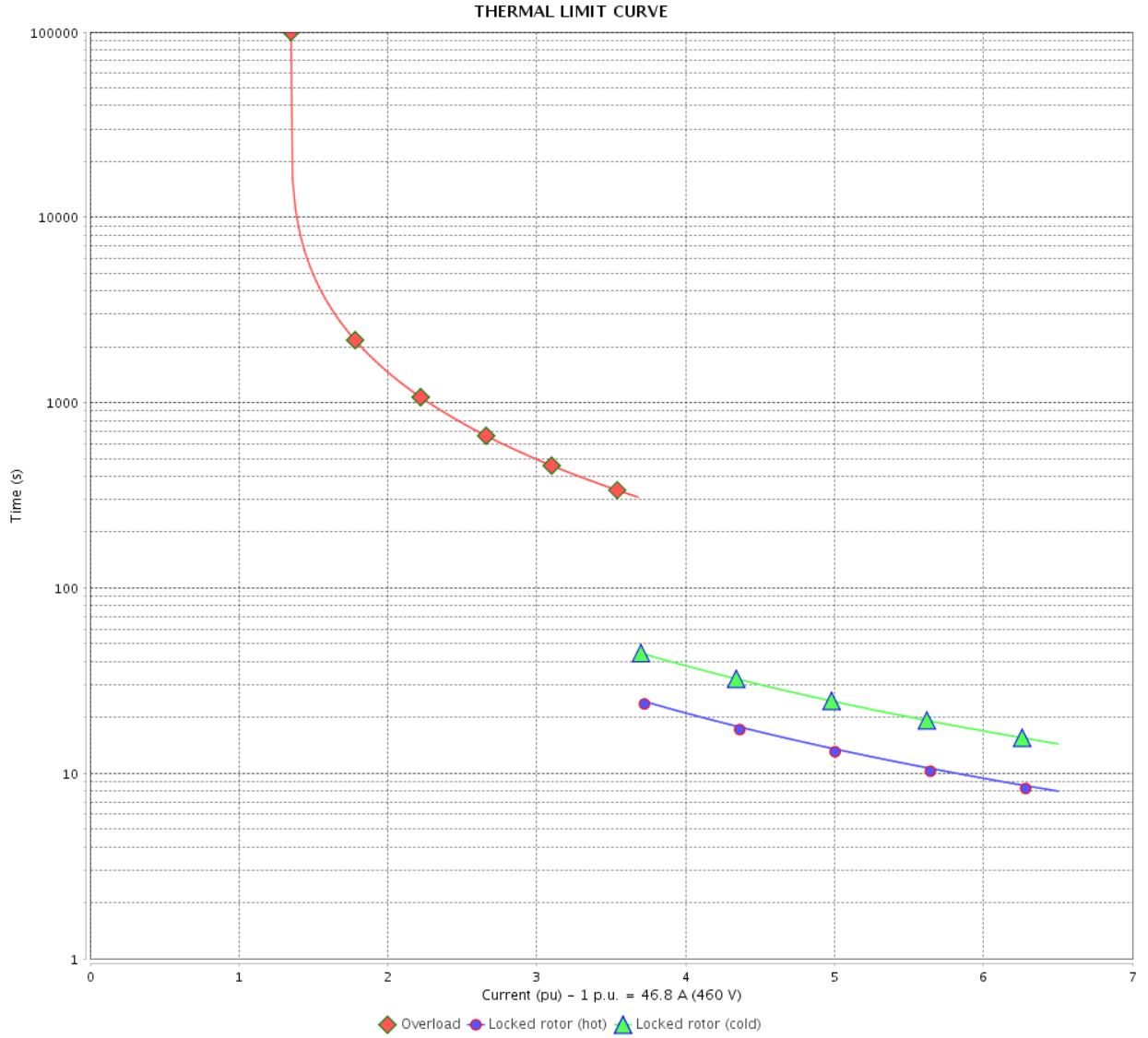
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Performed by				
Checked by			Page	Revision
Date	12/04/2022		10 / 21	

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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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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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

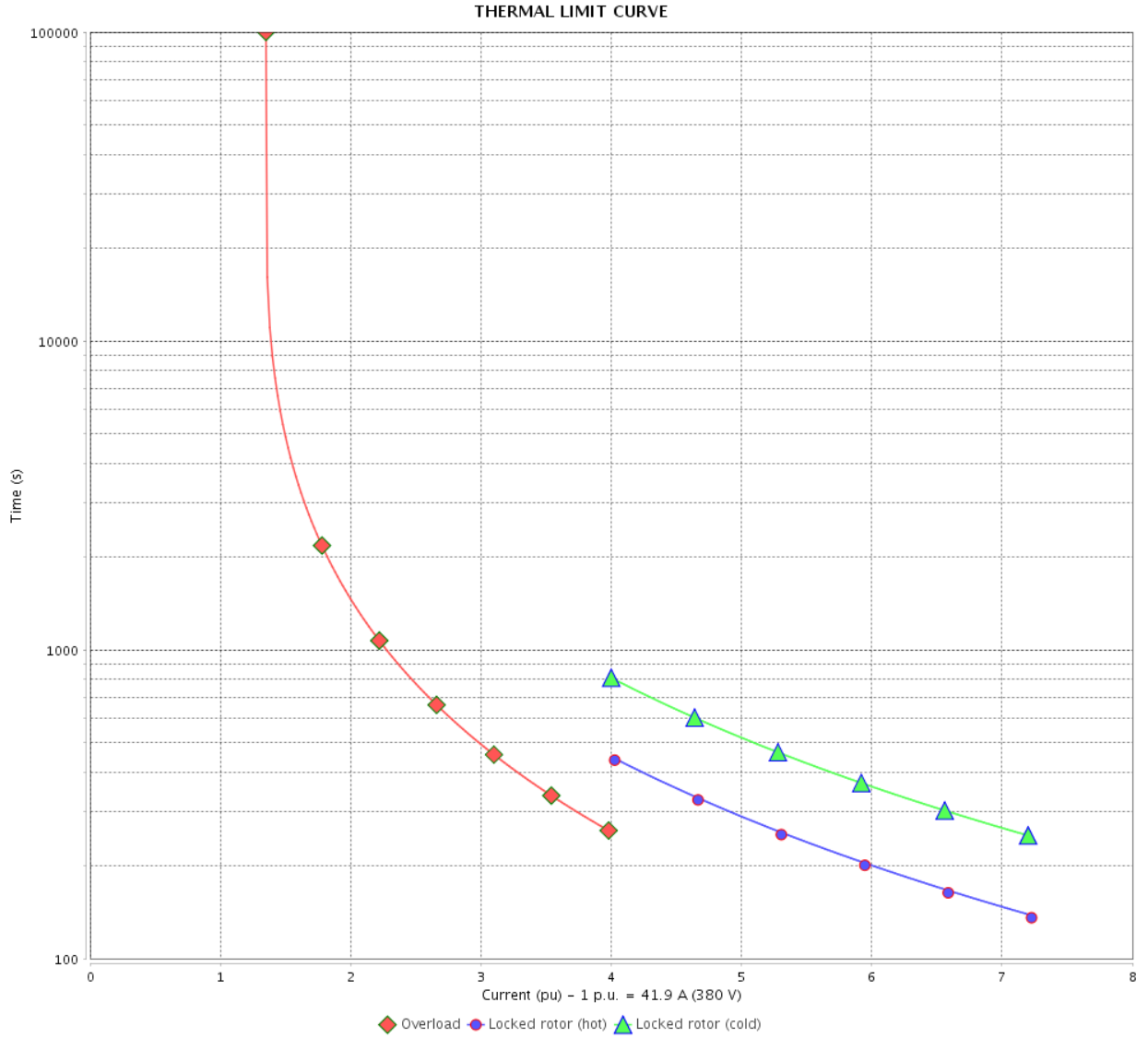
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Checked by				
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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		13 / 21		
Date		12/04/2022		

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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
Rated speed : 2960 rpm	Design : B

Heating constant

Cooling constant

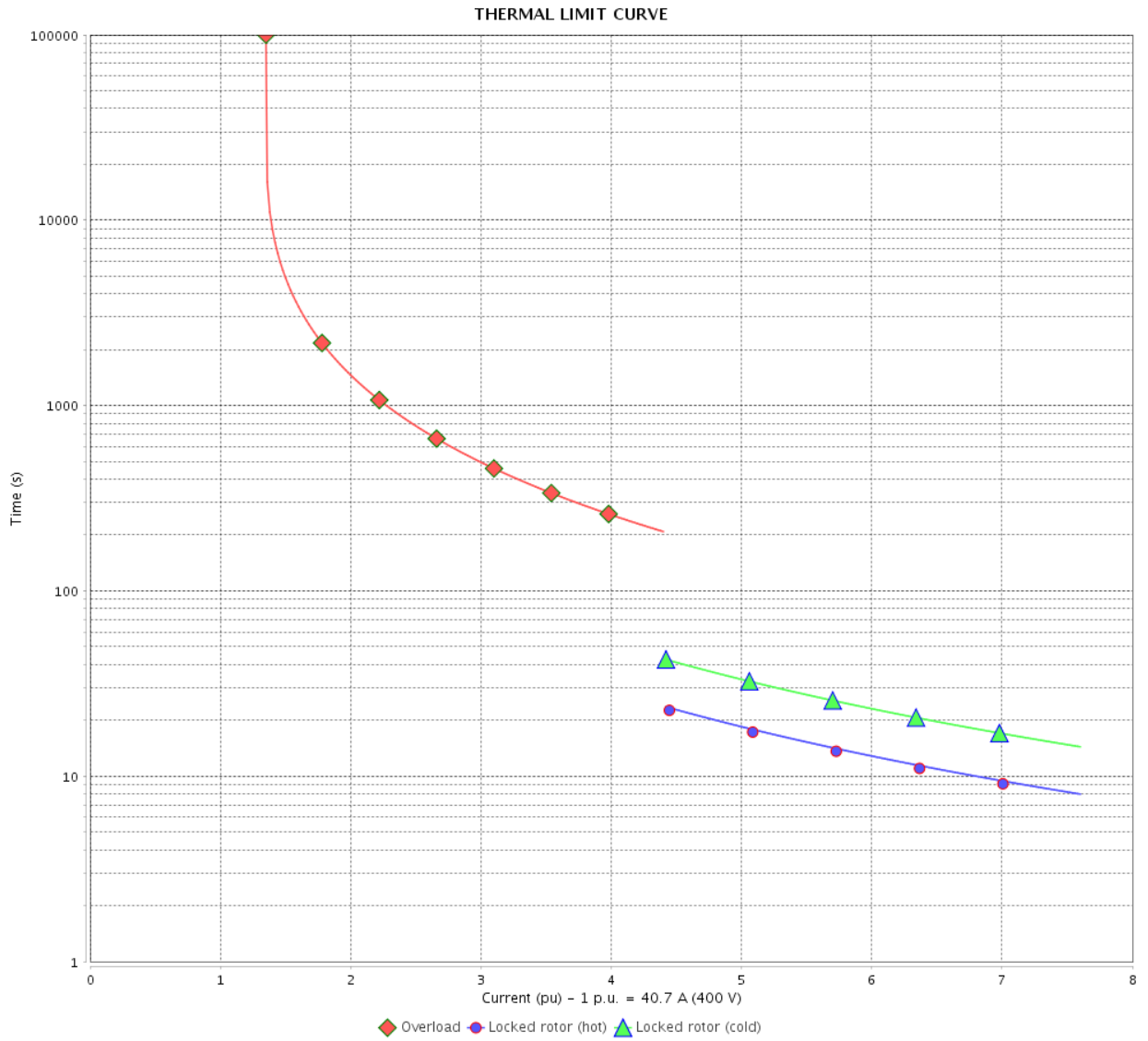
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Performed by			Page 14 / 21	Revision
Checked by				
Date	12/04/2022			

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Three Phase Induction Motor - Squirrel Cage



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

THERMAL LIMIT CURVE



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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

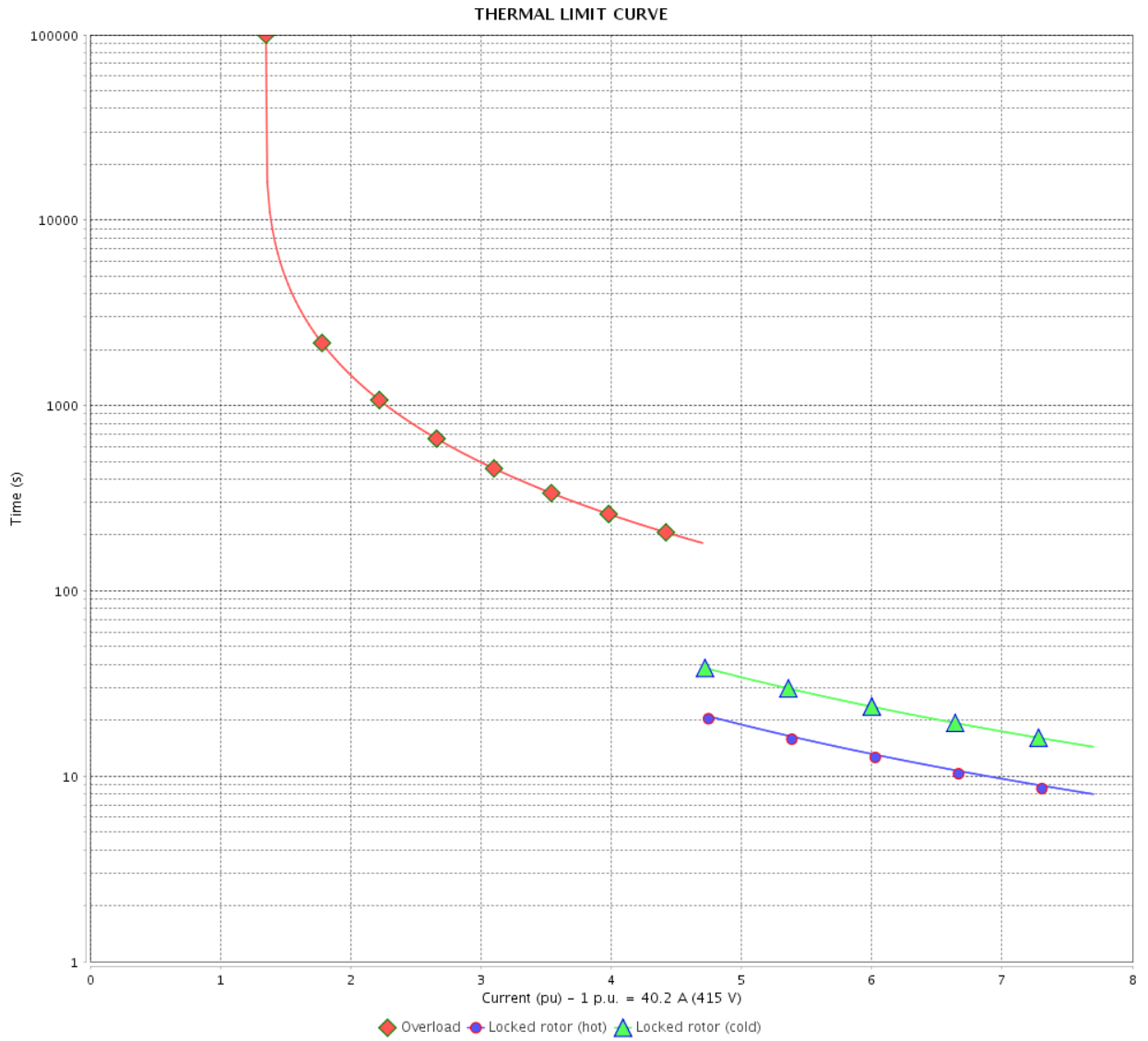
Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 16 / 21	Revision
Checked by				
Date	12/04/2022			

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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



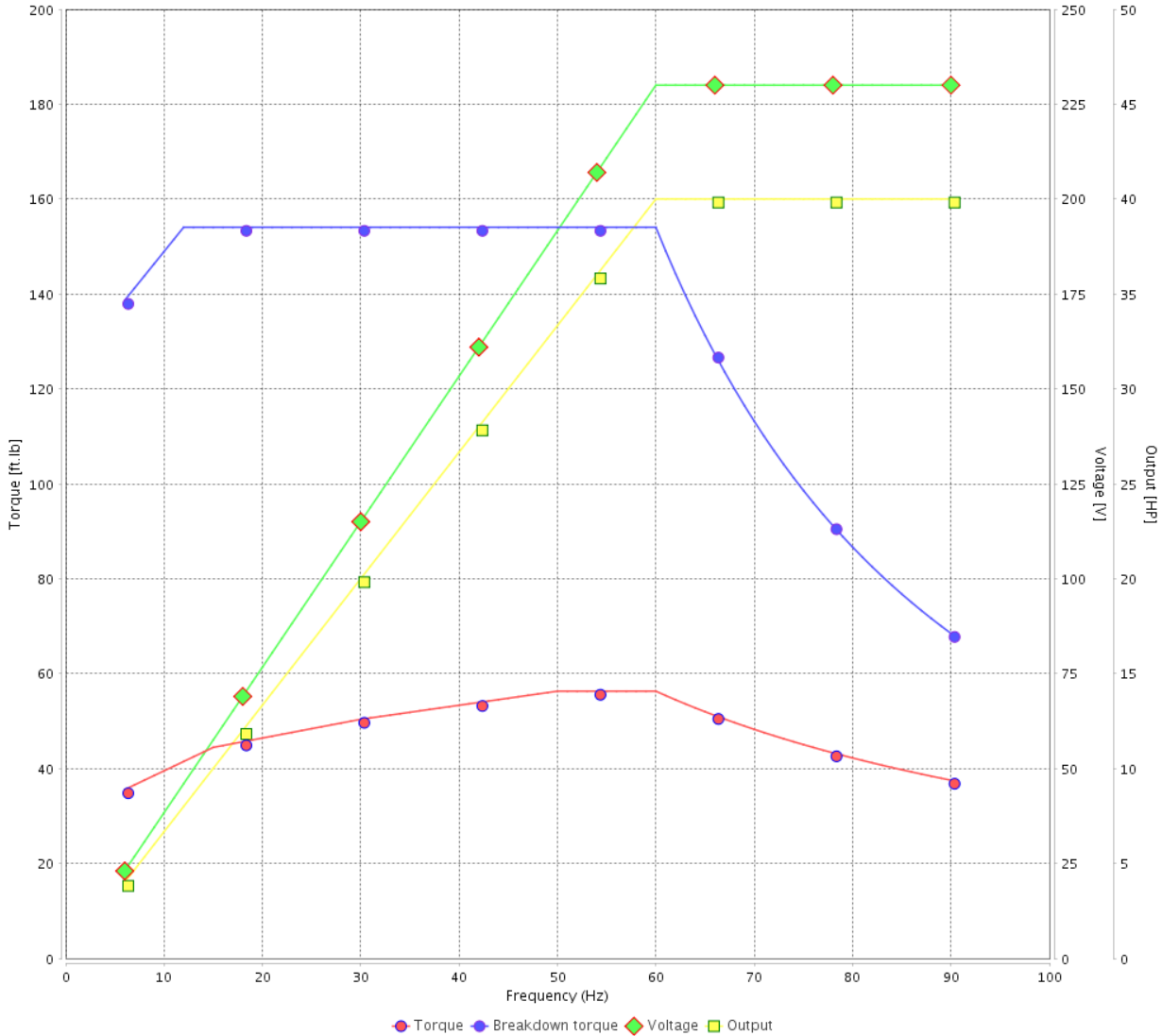
Customer :

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VFD OPERATION 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
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 18 / 21	Revision
Checked by				
Date	12/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

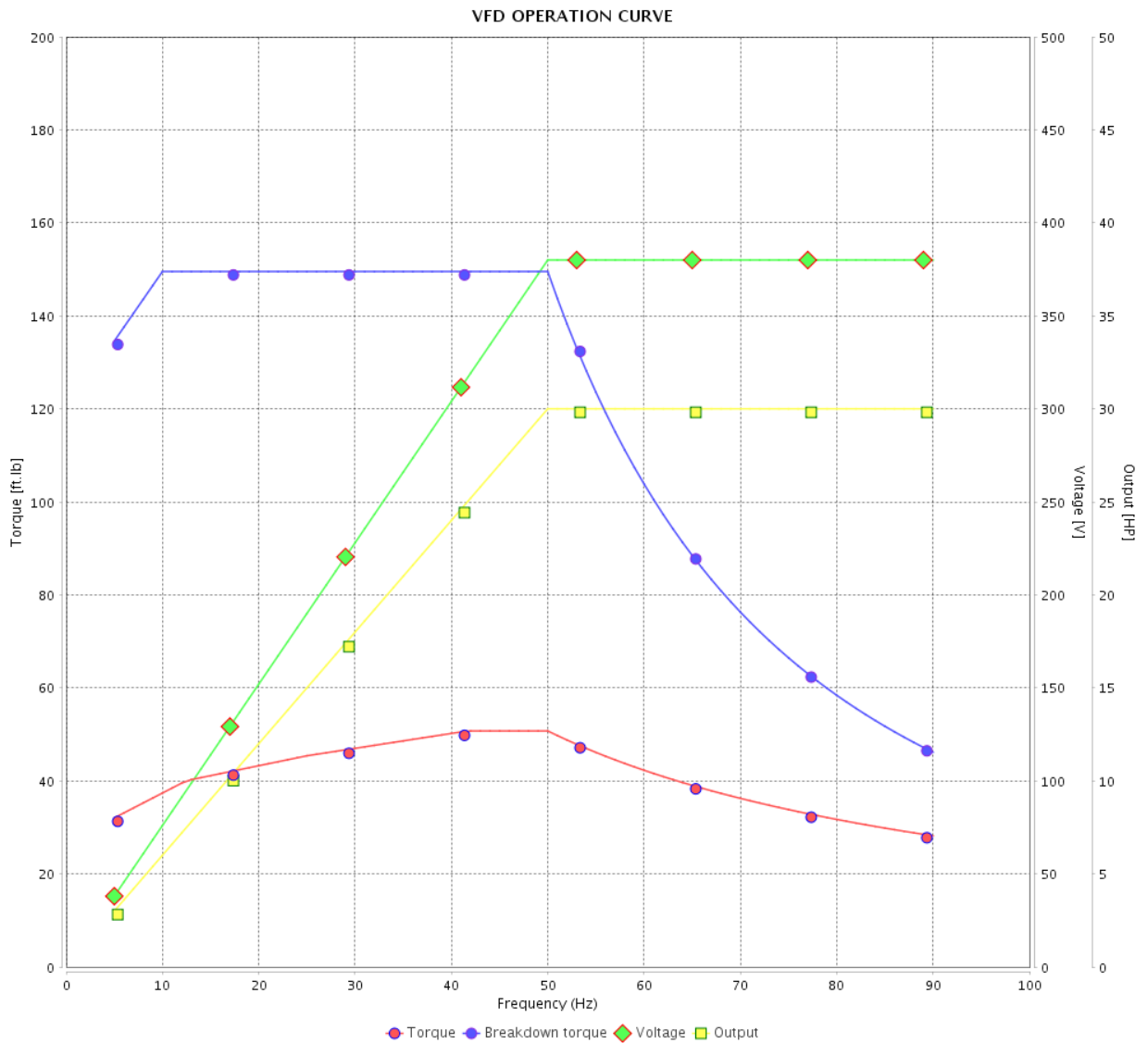


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Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14367176

Catalog # : 04036OT3E286TS-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

Rev.	Changes Summary	Performed	Checked	Date
Performed by				Page 19 / 21
Checked by				
Date	12/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



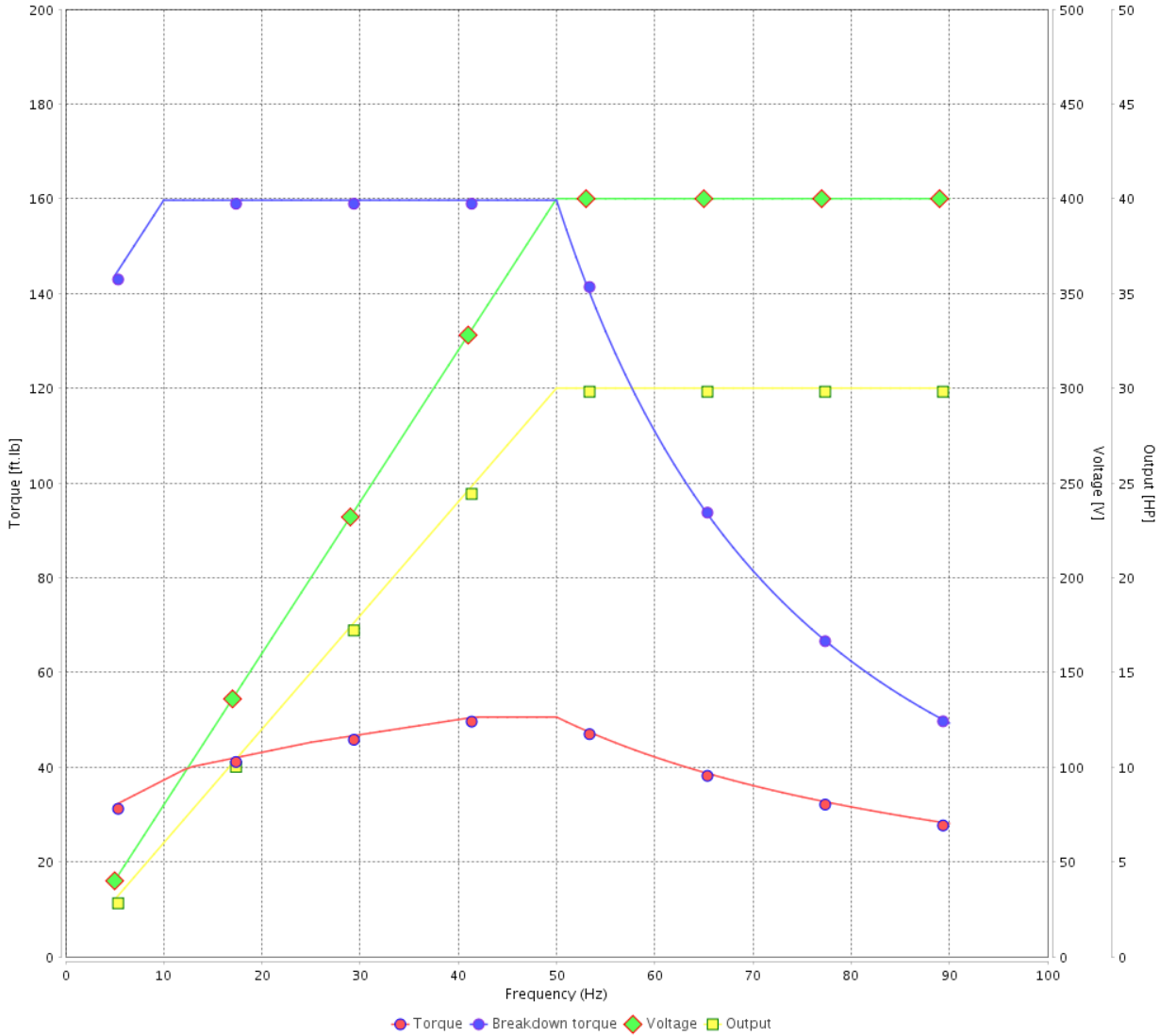
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VFD OPERATION CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current : 40.7 A
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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

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 20 / 21	Revision
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Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

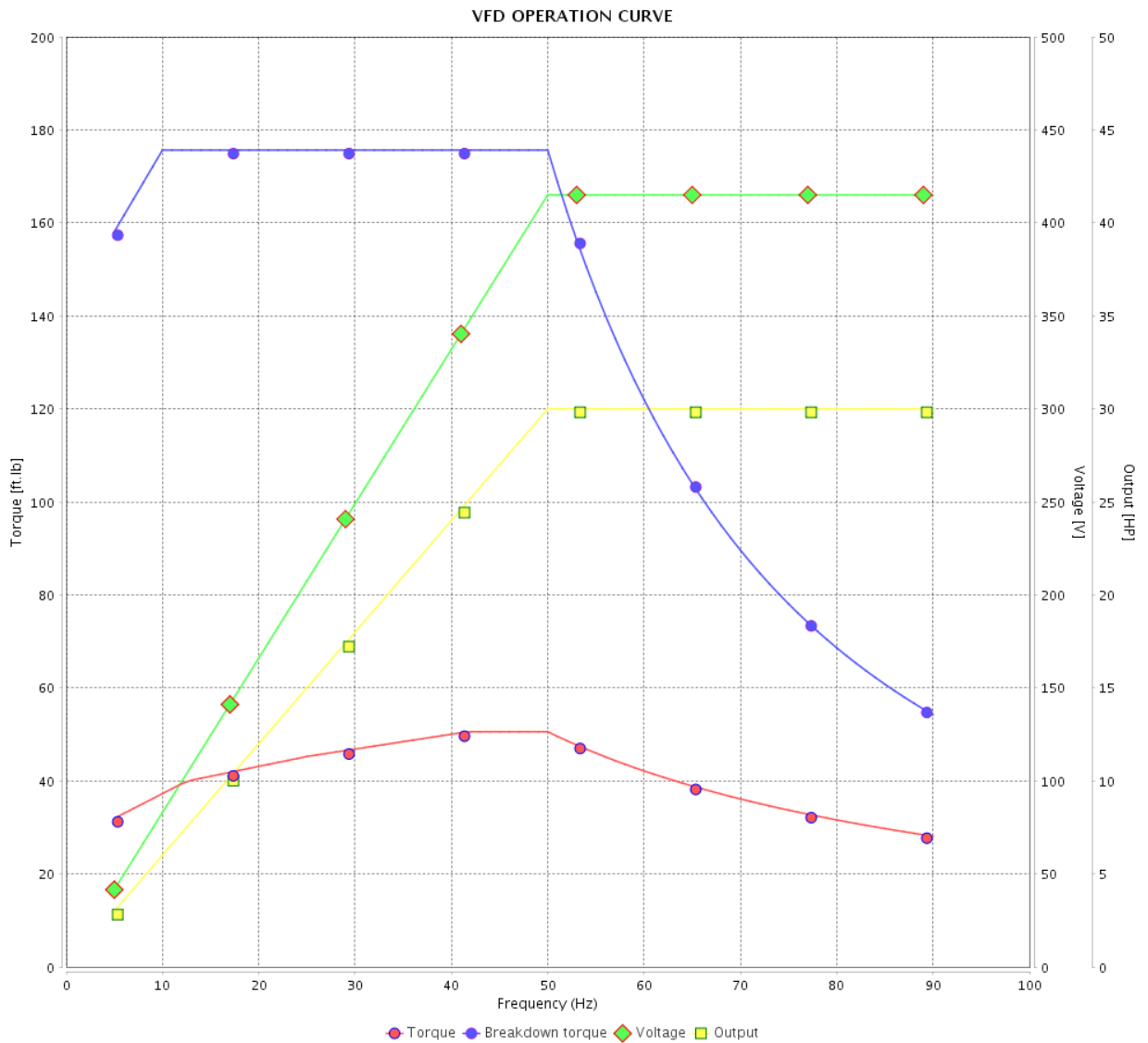


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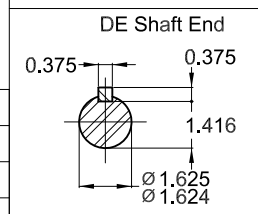
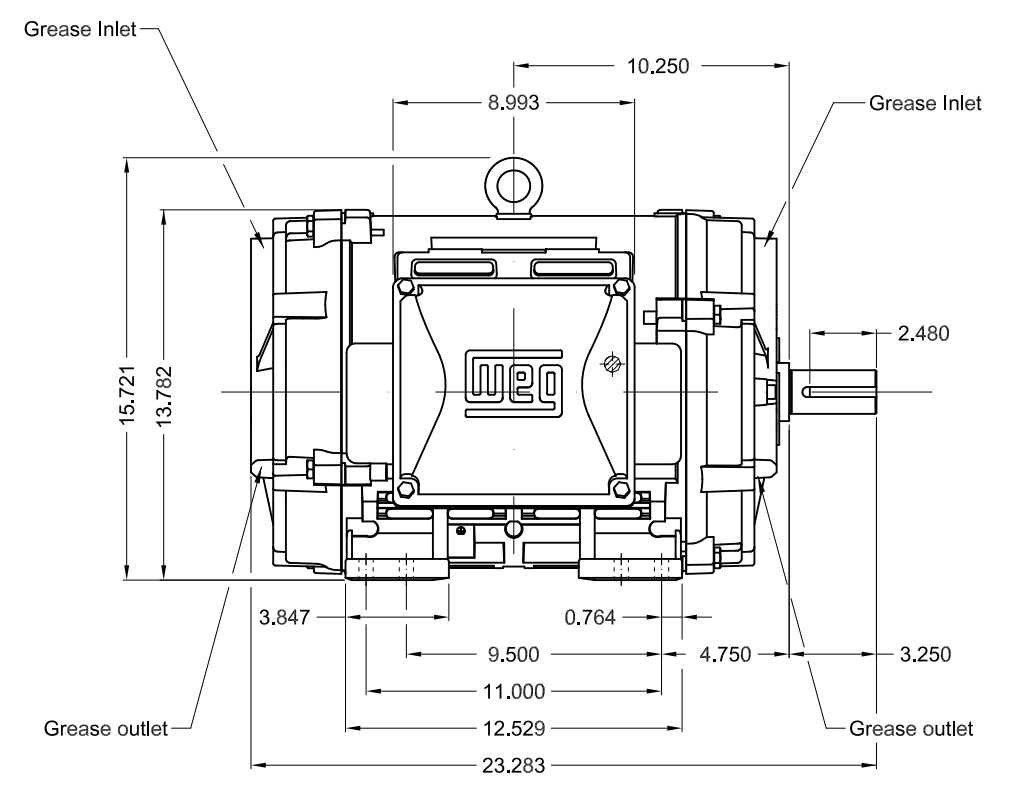
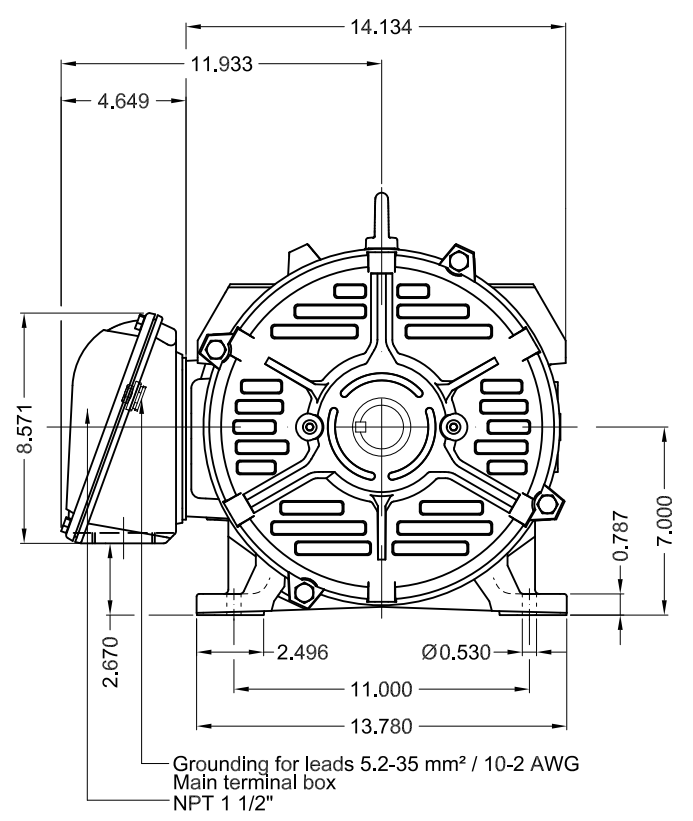


Performance : 415 V 50 Hz 2P IE3

Rated current : 40.2 A
 LRC : 7.7
 Rated torque : 53.2 ft.lb
 Locked rotor torque : 250 %
 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

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



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

40 HP 02 Poles 60 Hz A

1:7

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

PREVIEW
WDD



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



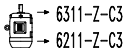
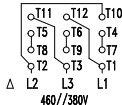
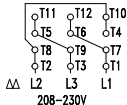
MOD.T01#FOXON



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

MODEL 040360T3E286TS-W40
 MADE IN BRAZIL
 14367176

PH 3	FR 284/6TS	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 Δ T 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)	ALT 1000 m.a.s.l.	348 Lbs	



MOBIL POLYREX EM
 18 g 20000 h