

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: W40 NEMA Premium Efficiency Three-Phase	Product code :	14495934		
		Catalog # :	03036OT3E284TSC-W40		
Frame	: 284TSC	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	: 310 lb		
Protection degree	: IP23	Moment of inertia (J)	: 1.59 sq.ft.lb		
Design	: B				
Output [HP]	30	25	25	25	25
Poles	2	2	2	2	2
Frequency [Hz]	60	50	50	50	50
Rated voltage [V]	230/460	380	400	415	415
Rated current [A]	70.0/35.0	35.0	34.0	33.6	33.6
L. R. Amperes [A]	441/221	231	238	225	225
LRC [A]	6.3x(Code G)	6.6x(Code G)	7.0x(Code H)	6.7x(Code H)	6.7x(Code H)
No load current [A]	25.8/12.9	11.0	13.0	14.0	14.0
Rated speed [RPM]	3550	2940	2950	2955	2955
Slip [%]	1.39	2.00	1.67	1.50	1.50
Rated torque [ft.lb]	44.4	44.7	44.5	44.4	44.4
Locked rotor torque [%]	180	170	190	200	200
Breakdown torque [%]	260	240	260	270	270
Service factor	1.25	1.00	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K	80 K
Locked rotor time	18s (cold) 10s (hot)	12s (cold) 7s (hot)	12s (cold) 7s (hot)	16s (cold) 9s (hot)	16s (cold) 9s (hot)
Noise level ²	73.0 dB(A)				
Efficiency (%)	25%	90.0	88.0	88.2	88.3
	50%	90.2	89.7	89.8	89.8
	75%	91.7	90.7	90.8	90.8
	100%	91.7	92.4	92.4	92.4
Power Factor	25%	0.47	0.51	0.45	0.42
	50%	0.73	0.75	0.70	0.66
	75%	0.82	0.83	0.80	0.77
	100%	0.86	0.87	0.85	0.83
Bearing type	: <u>Drive end</u> 6311 Z C3 <u>Non drive end</u> 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 77.4A SF 1.15 SFA 89.0A					
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	14/04/2022			1 / 21	

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



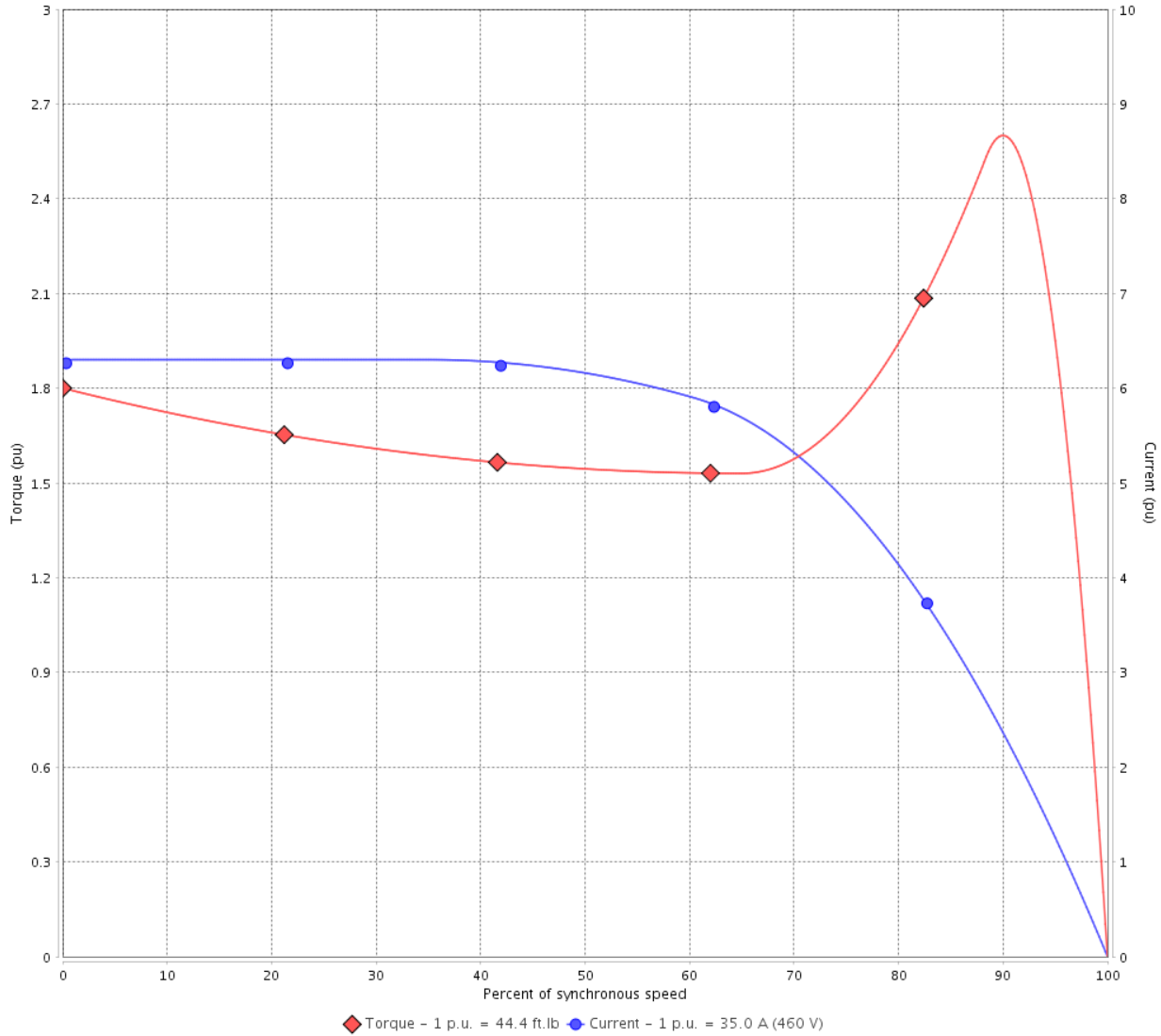
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14495934

Catalog # : 03036OT3E284TSC-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current	: 70.0/35.0 A	Moment of inertia (J)	: 1.59 sq.ft.lb
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 44.4 ft.lb	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 3550 rpm	Design	: B

Locked rotor time : 18s (cold) 10s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 2 / 21	Revision
Checked by				
Date	14/04/2022			

TORQUE AND CURRENT VS SPEED CURVE



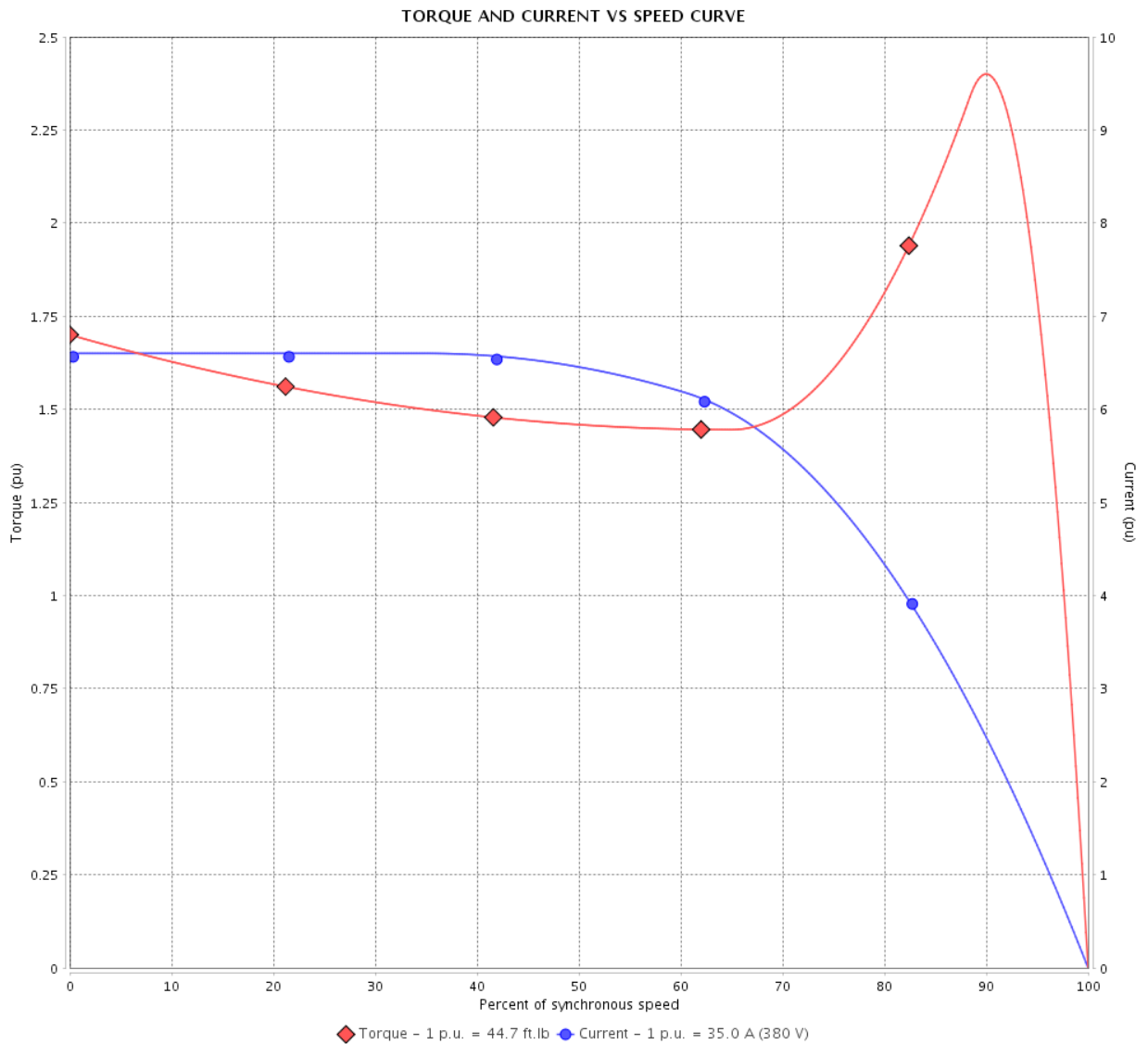
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14495934

Catalog # : 03036OT3E284TSC-W40



Performance : 380 V 50 Hz 2P IE3

Rated current	: 35.0 A	Moment of inertia (J)	: 1.59 sq.ft.lb
LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 44.7 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 2940 rpm	Design	: B

Locked rotor time : 12s (cold) 7s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 3 / 21	Revision
Checked by				
Date	14/04/2022			

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



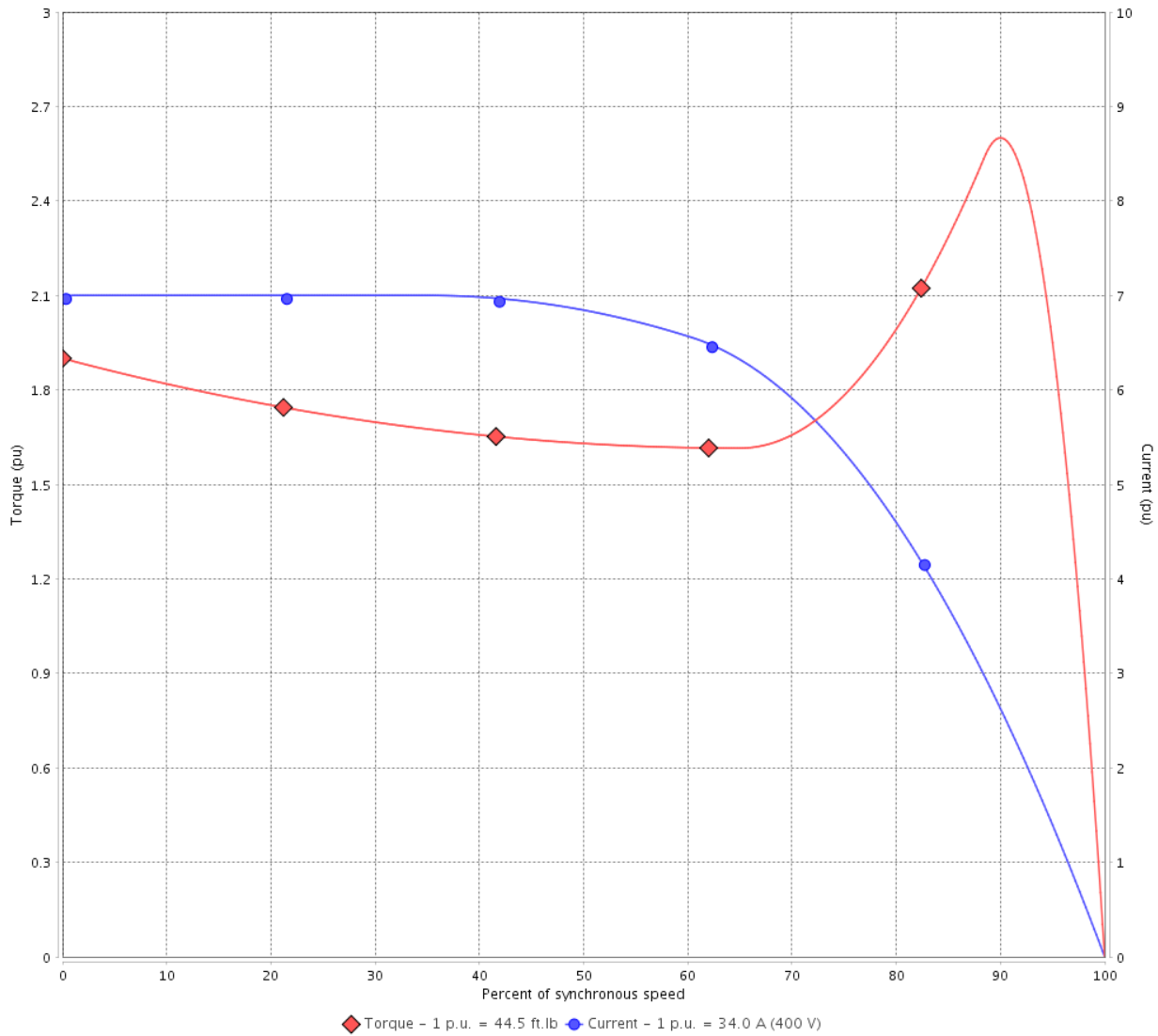
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14495934

Catalog # : 03036OT3E284TSC-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current	: 34.0 A	Moment of inertia (J)	: 1.59 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 44.5 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 2950 rpm	Design	: B

Locked rotor time : 12s (cold) 7s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 4 / 21	Revision
Checked by				
Date	14/04/2022			

TORQUE AND CURRENT VS SPEED CURVE



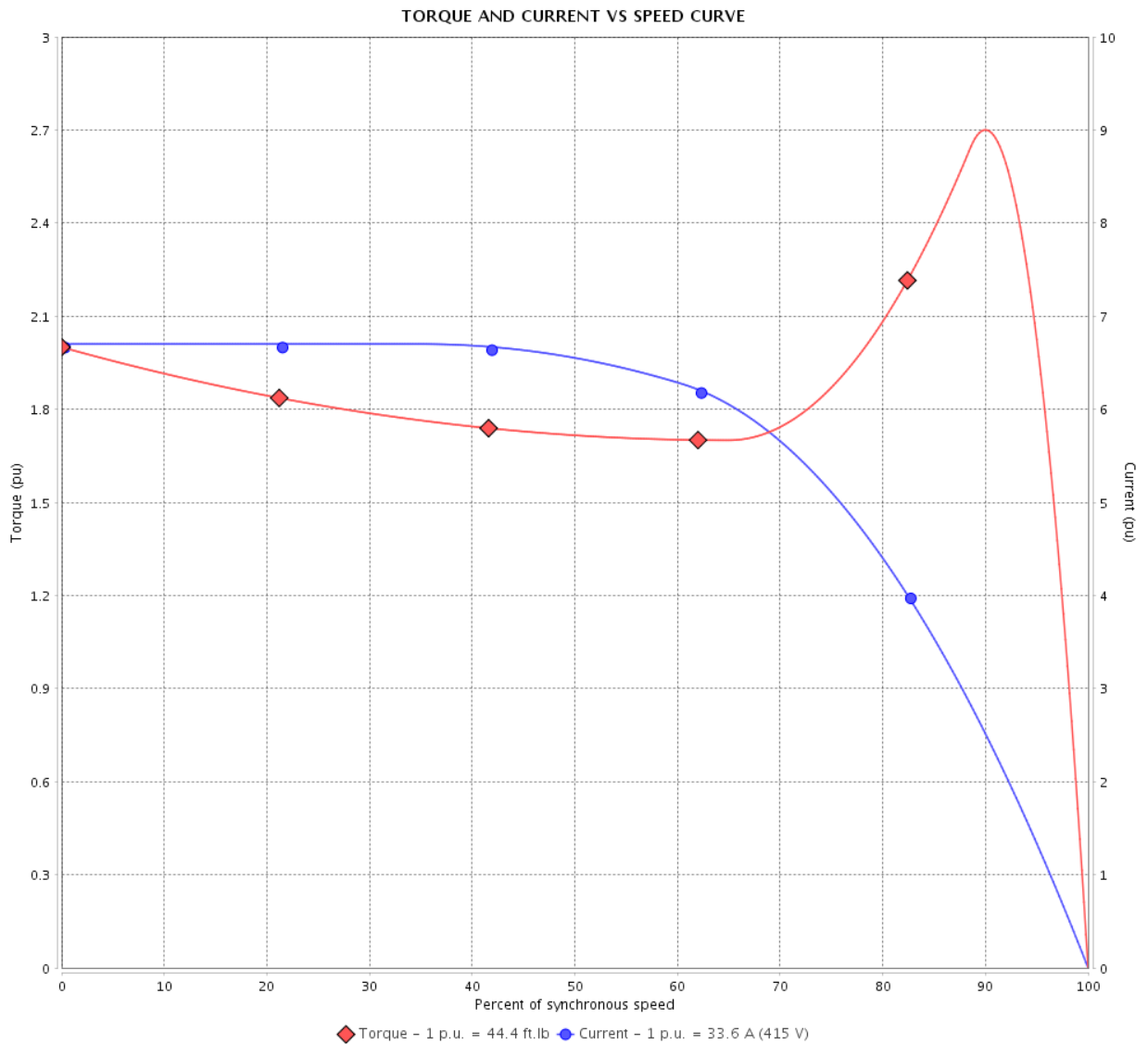
Three Phase Induction Motor - Squirrel Cage

Customer :

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Product code : 14495934

Catalog # : 03036OT3E284TSC-W40



Performance : 415 V 50 Hz 2P IE3

Rated current	: 33.6 A	Moment of inertia (J)	: 1.59 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 44.4 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 2955 rpm	Design	: B

Locked rotor time : 16s (cold) 9s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 5 / 21	Revision
Checked by				
Date	14/04/2022			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



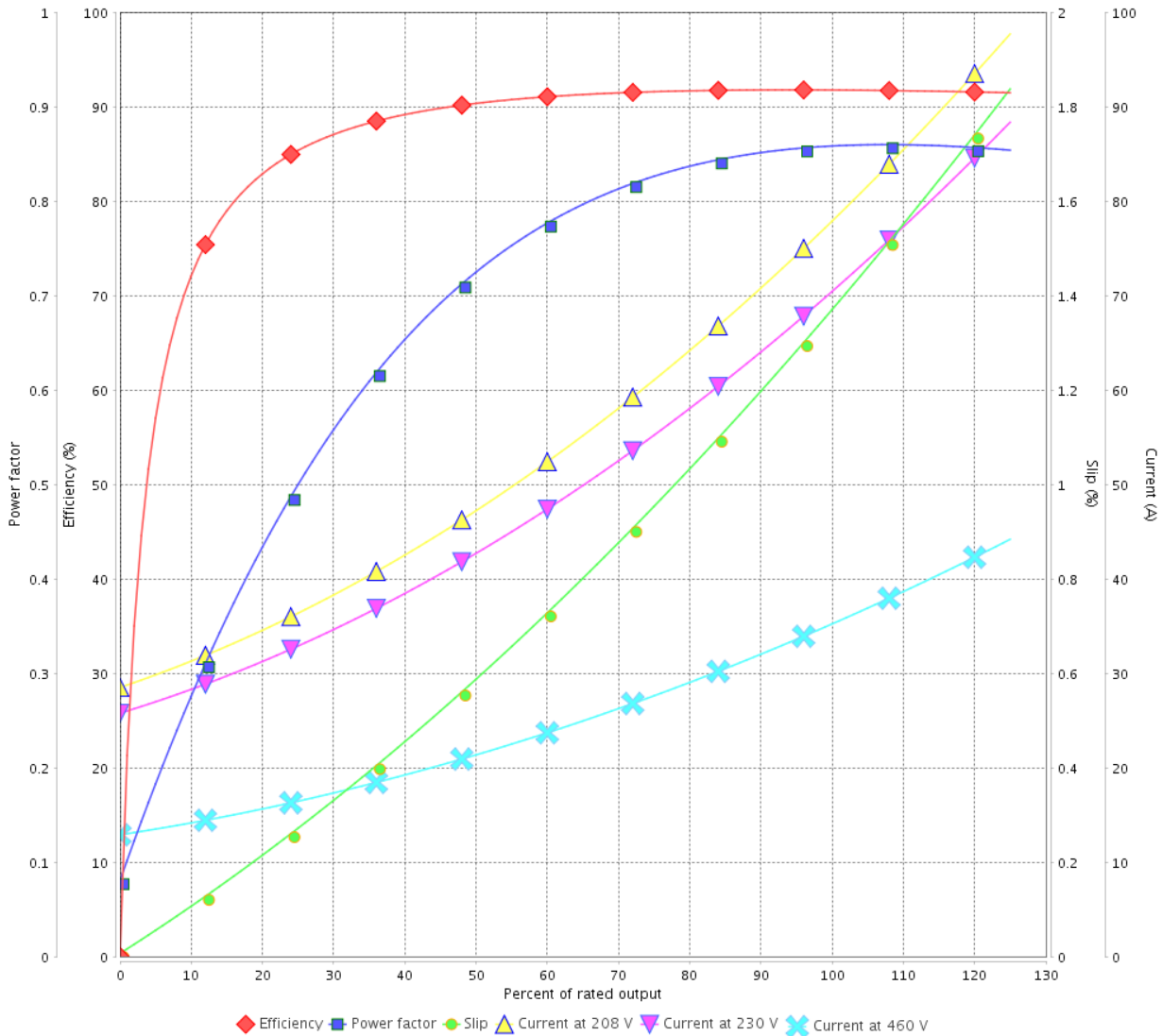
Customer :

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Product code : 14495934

Catalog # : 03036OT3E284TSC-W40

LOAD PERFORMANCE CURVE



Performance : 230/460 V 60 Hz 2P

Rated current : 70.0/35.0 A
 LRC : 6.3
 Rated torque : 44.4 ft.lb
 Locked rotor torque : 180 %
 Breakdown torque : 260 %
 Rated speed : 3550 rpm

Moment of inertia (J) : 1.59 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	14/04/2022			

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Three Phase Induction Motor - Squirrel Cage

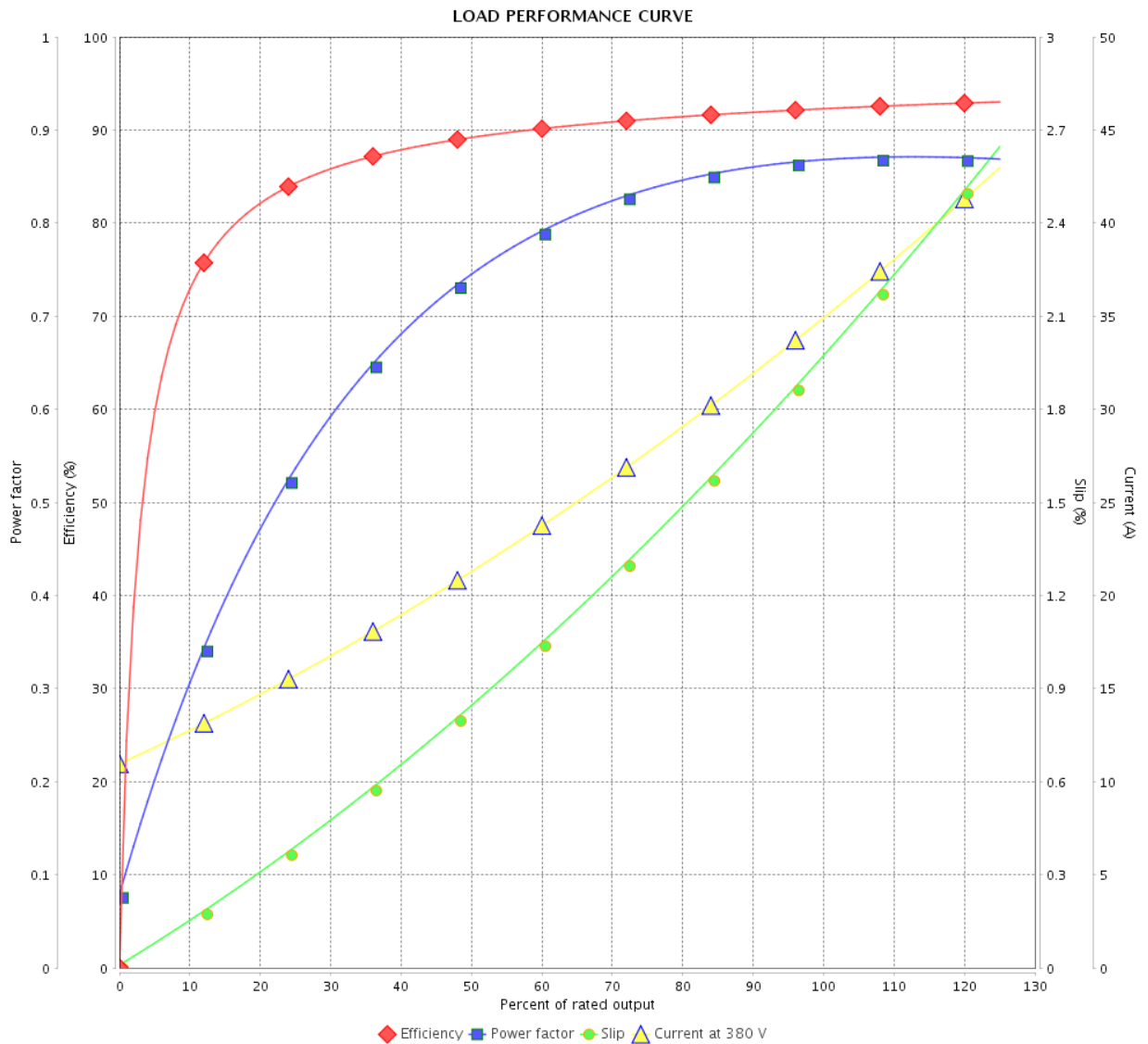


Customer : _____

Product line : W40 NEMA Premium Efficiency
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Product code : 14495934

Catalog # : 03036OT3E284TSC-W40



Performance : 380 V 50 Hz 2P IE3

Rated current : 35.0 A
 LRC : 6.6
 Rated torque : 44.7 ft.lb
 Locked rotor torque : 170 %
 Breakdown torque : 240 %
 Rated speed : 2940 rpm

Moment of inertia (J) : 1.59 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		7 / 21		
Date		14/04/2022		

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Three Phase Induction Motor - Squirrel Cage



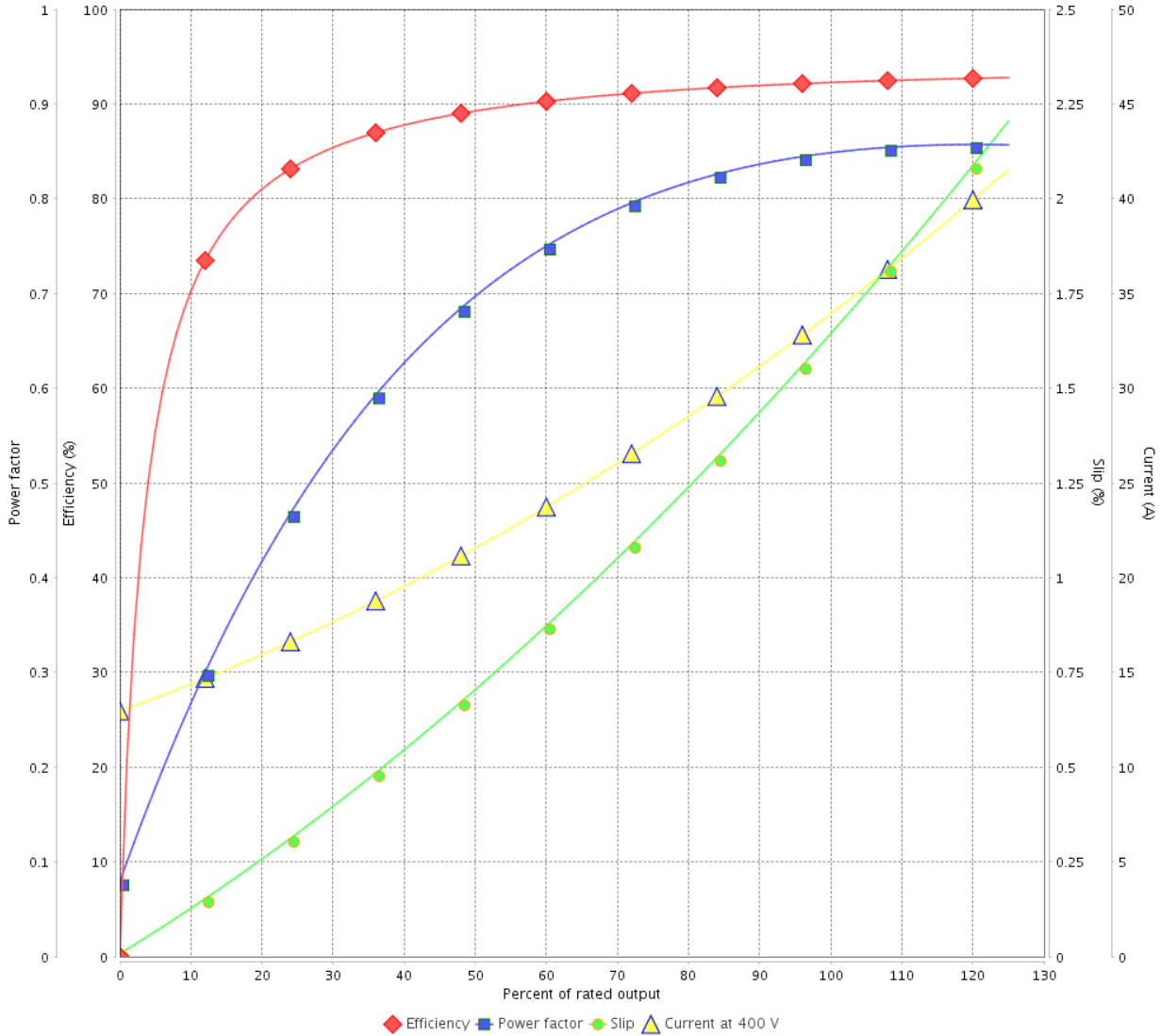
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LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current : 34.0 A
 LRC : 7.0
 Rated torque : 44.5 ft.lb
 Locked rotor torque : 190 %
 Breakdown torque : 260 %
 Rated speed : 2950 rpm

Moment of inertia (J) : 1.59 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 8 / 21	Revision
Checked by				
Date	14/04/2022			

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Three Phase Induction Motor - Squirrel Cage

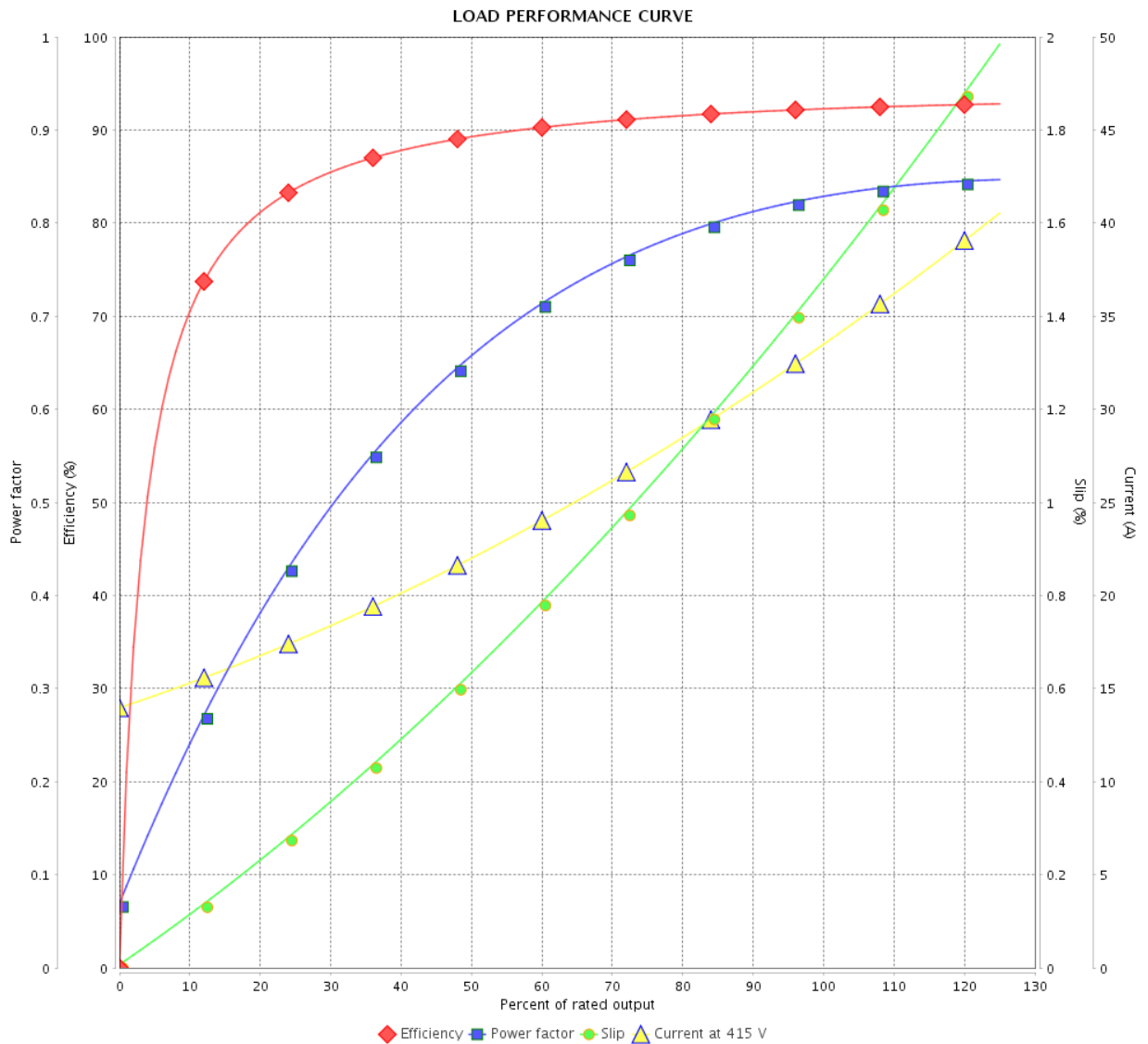


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 Rated torque : 44.4 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 270 %
 Rated speed : 2955 rpm

Moment of inertia (J) : 1.59 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				
Checked by				
Date				
		Page	Revision	
		9 / 21		

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

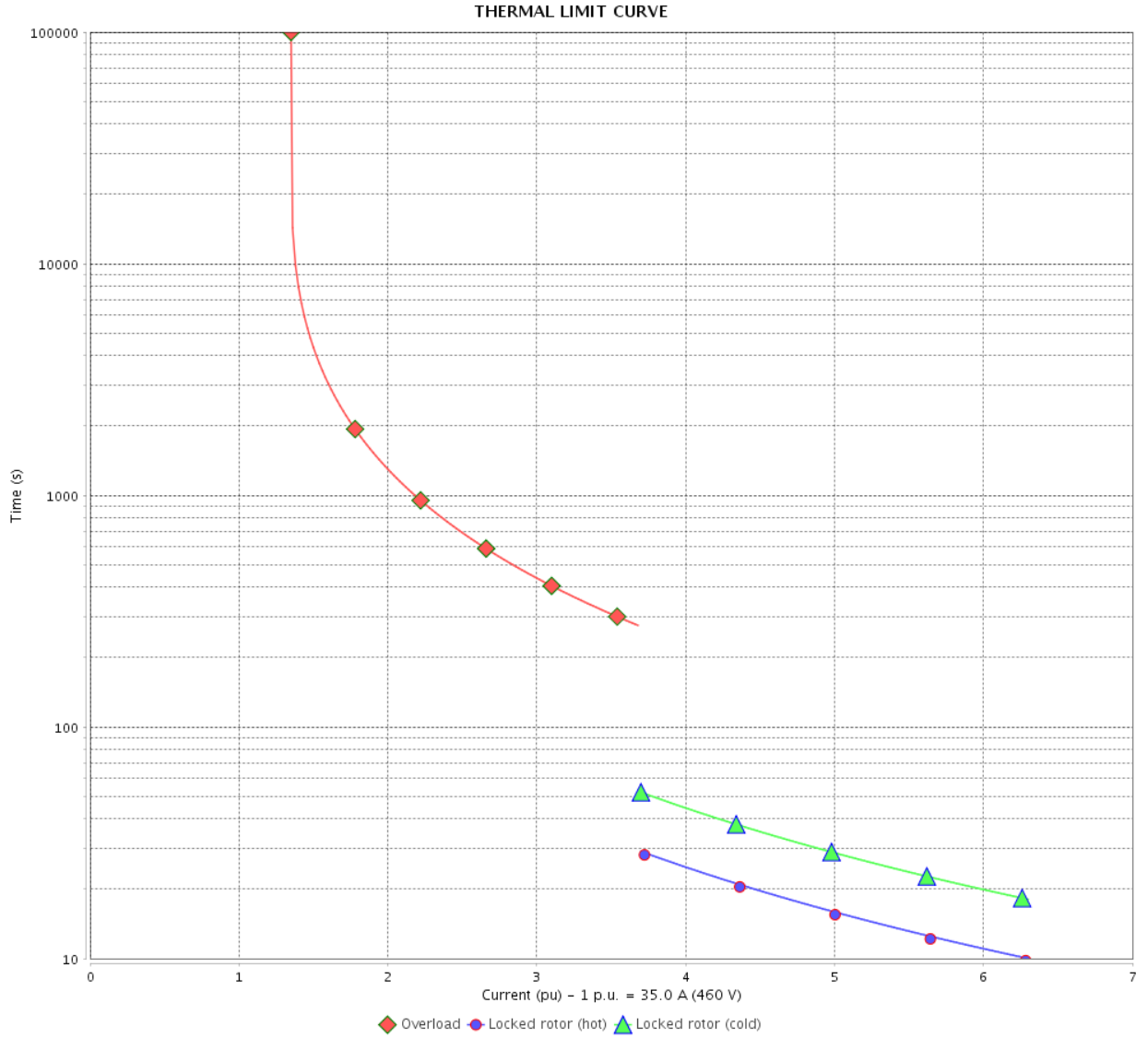
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	14/04/2022		10 / 21	

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		14/04/2022		

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LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 44.7 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 2940 rpm	Design	: B

Heating constant

Cooling constant

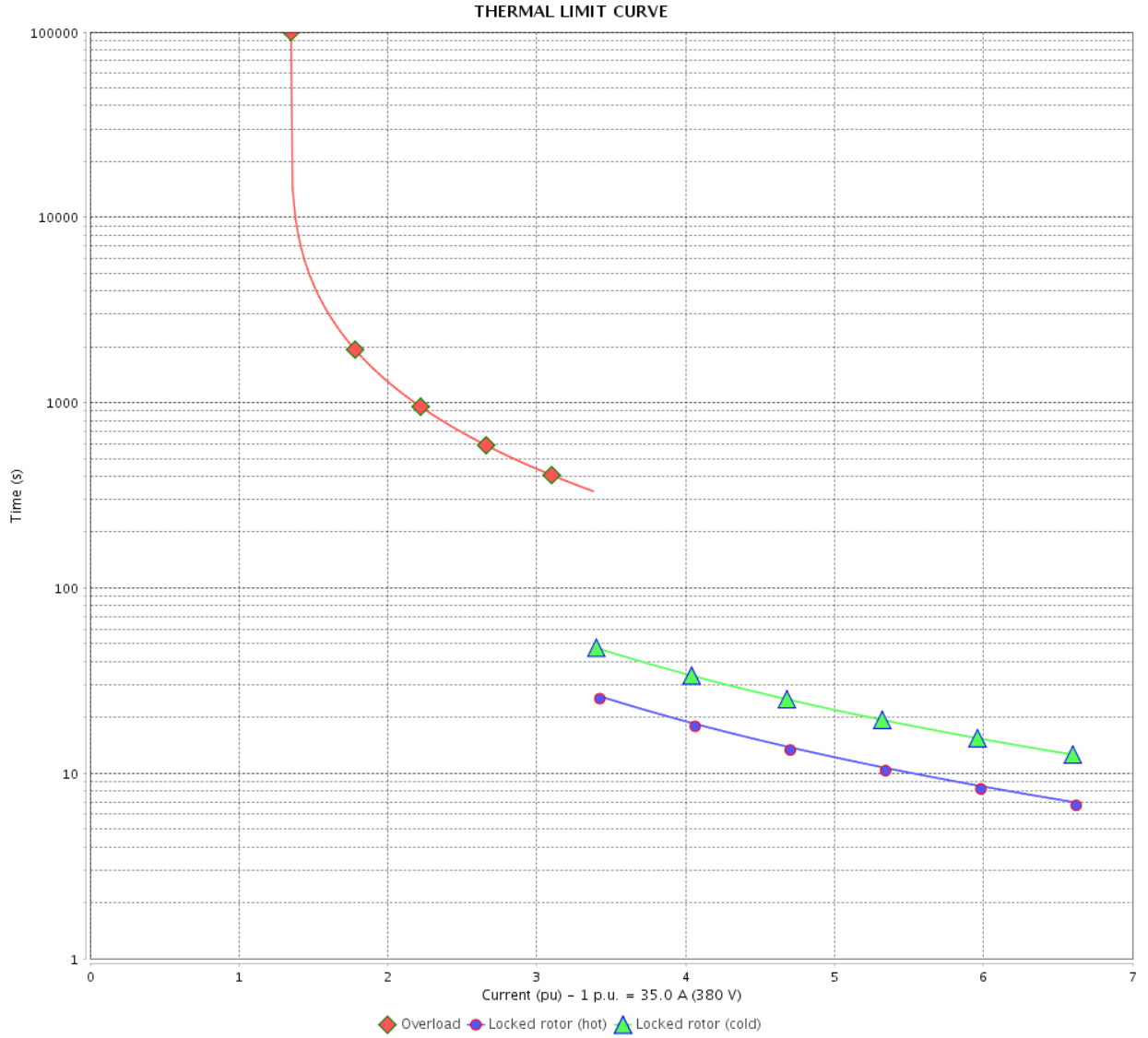
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Performed by				
Checked by			Page	Revision
Date	14/04/2022		12 / 21	

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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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

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Performance : 400 V 50 Hz 2P IE3

Rated current : 34.0 A
LRC : 7.0
Rated torque : 44.5 ft.lb
Locked rotor torque : 190 %
Breakdown torque : 260 %
Rated speed : 2950 rpm

Moment of inertia (J) : 1.59 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

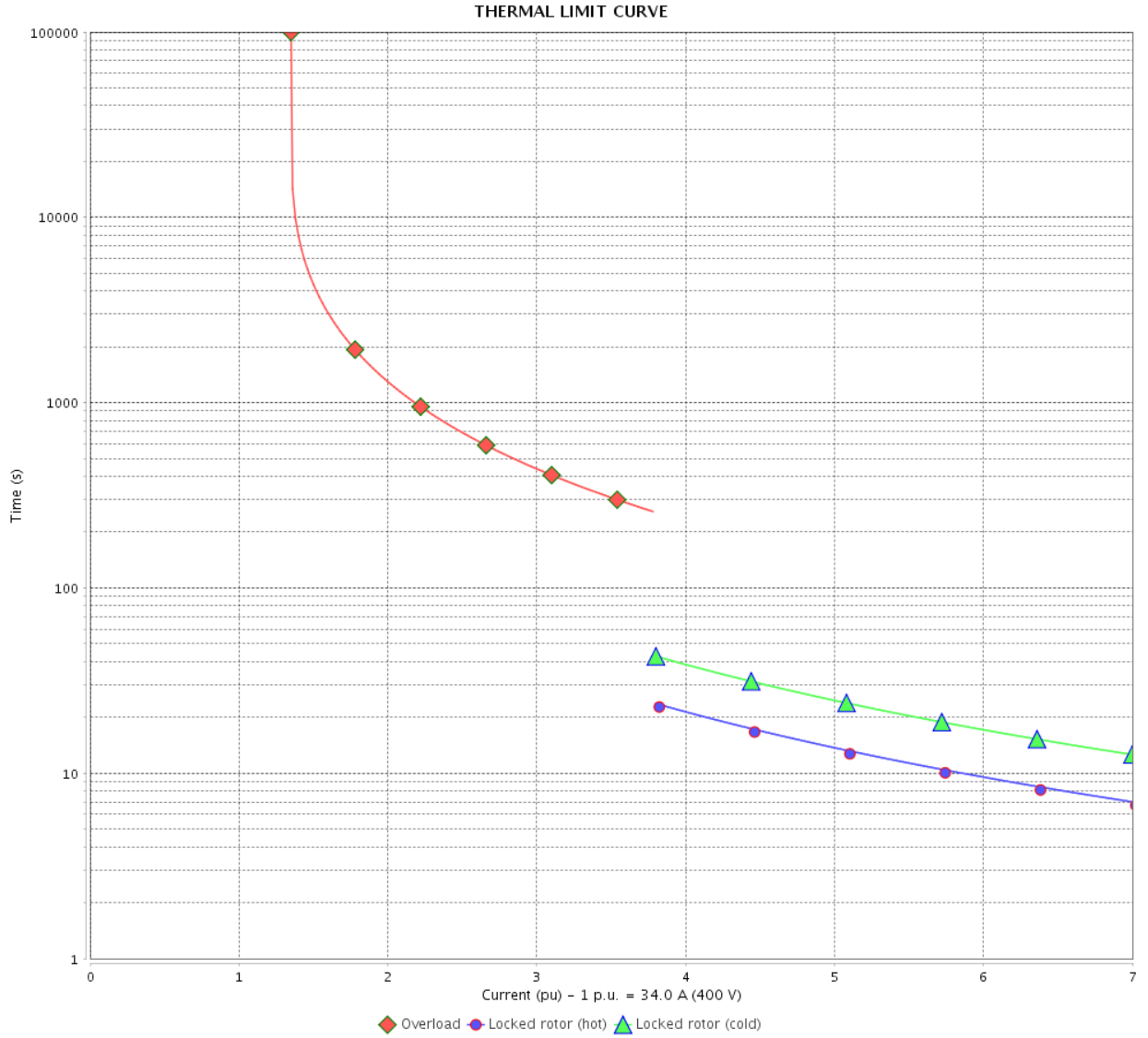
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Date	14/04/2022		14 / 21	

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		15 / 21		
Date		14/04/2022		

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14495934

Catalog # : 03036OT3E284TSC-W40

Performance : 415 V 50 Hz 2P IE3

Rated current	: 33.6 A	Moment of inertia (J)	: 1.59 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 44.4 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 2955 rpm	Design	: B

Heating constant

Cooling constant

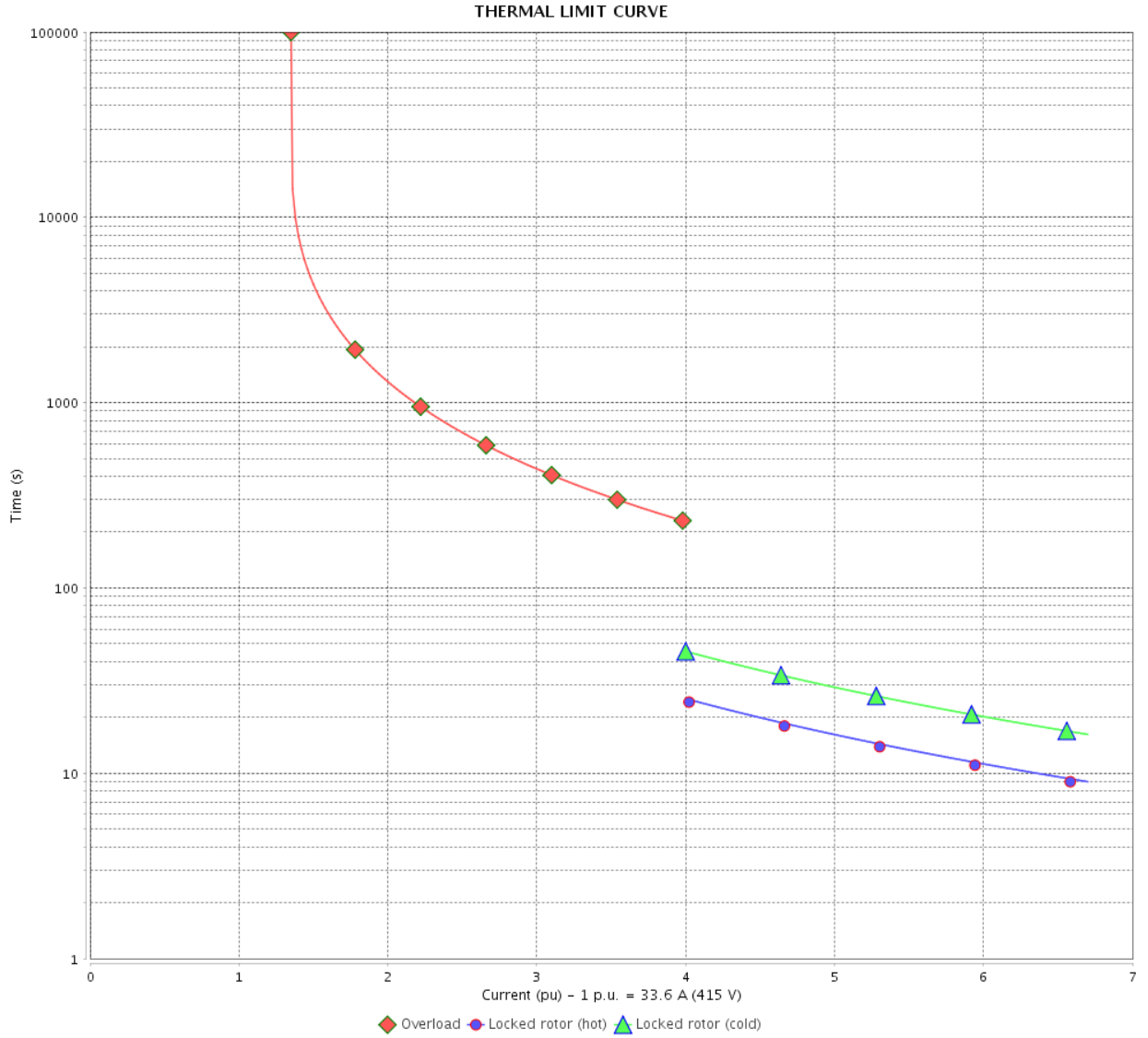
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Checked by			Page	Revision
Date	14/04/2022		16 / 21	

THERMAL LIMIT CURVE

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



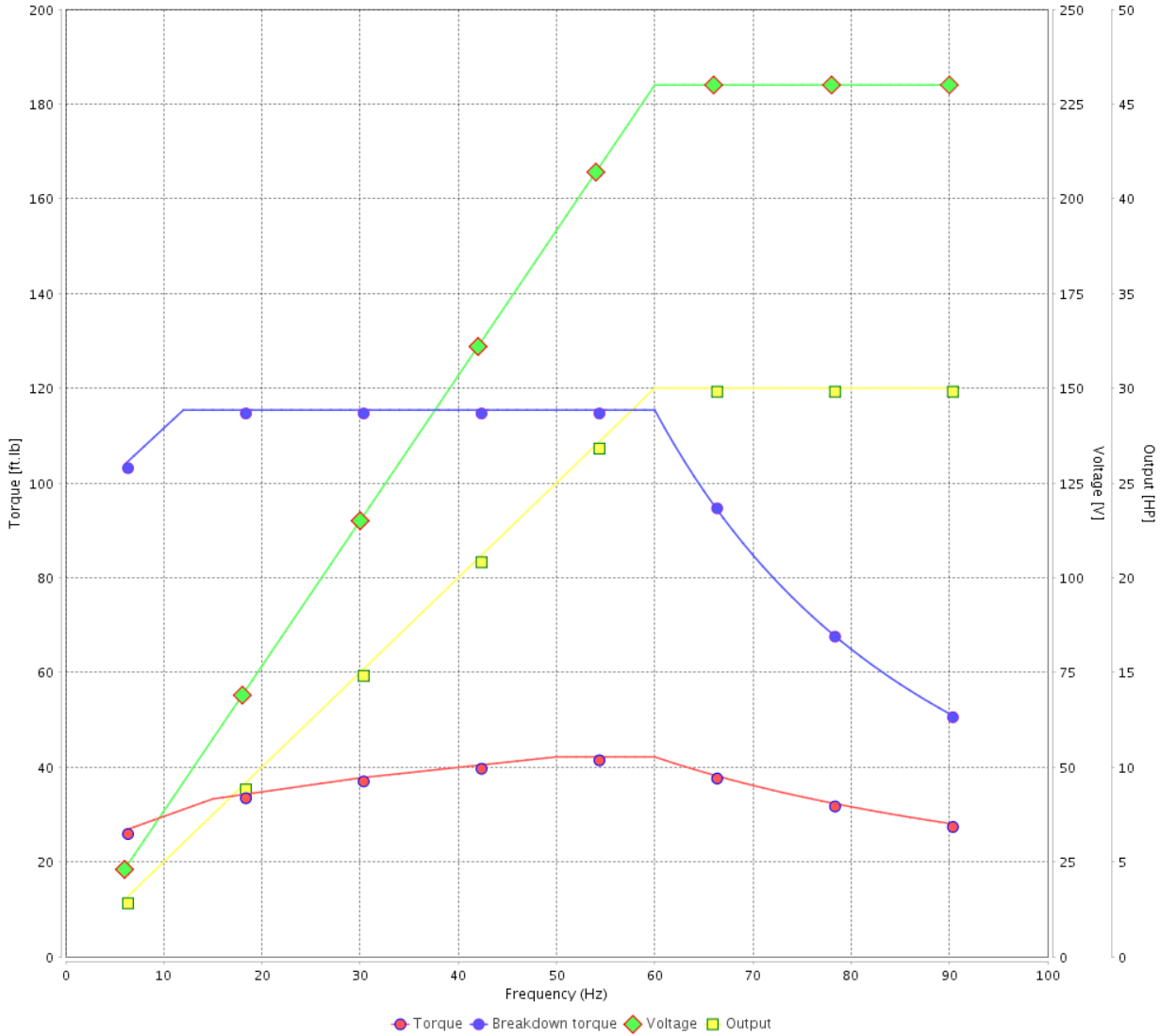
Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14495934

Catalog # : 03036OT3E284TSC-W40

VFD OPERATION CURVE



Performance : 230/460 V 60 Hz 2P

Rated current : 70.0/35.0 A
 LRC : 6.3
 Rated torque : 44.4 ft.lb
 Locked rotor torque : 180 %
 Breakdown torque : 260 %
 Rated speed : 3550 rpm

Moment of inertia (J) : 1.59 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
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Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

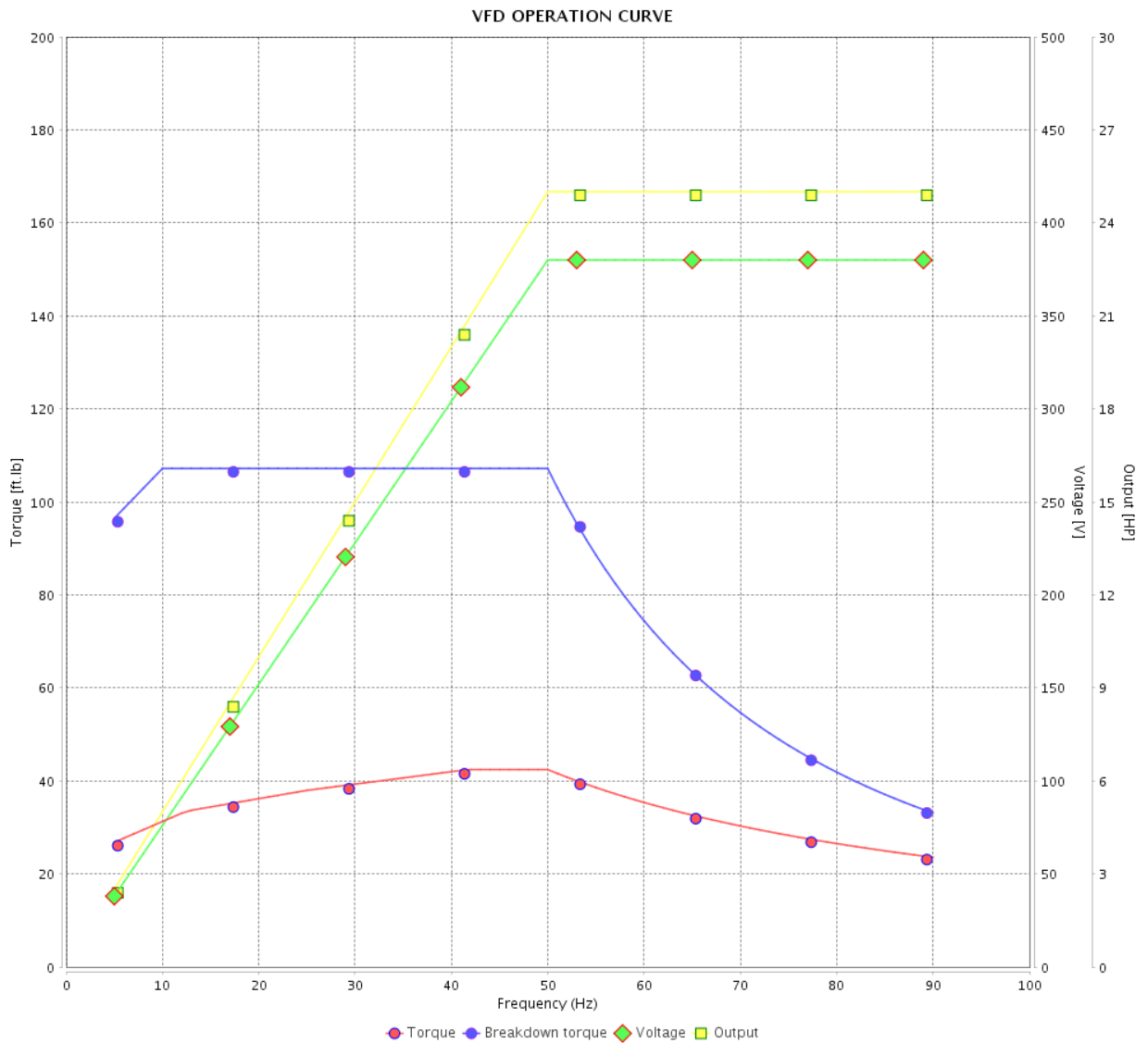


Customer : _____

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Three-Phase

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Performance : 380 V 50 Hz 2P IE3

Rated current : 35.0 A
 LRC : 6.6
 Rated torque : 44.7 ft.lb
 Locked rotor torque : 170 %
 Breakdown torque : 240 %
 Rated speed : 2940 rpm

Moment of inertia (J) : 1.59 sq.ft.lb
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 Insulation class : F
 Service factor : 1.00
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Rev.	Changes Summary	Performed	Checked	Date
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



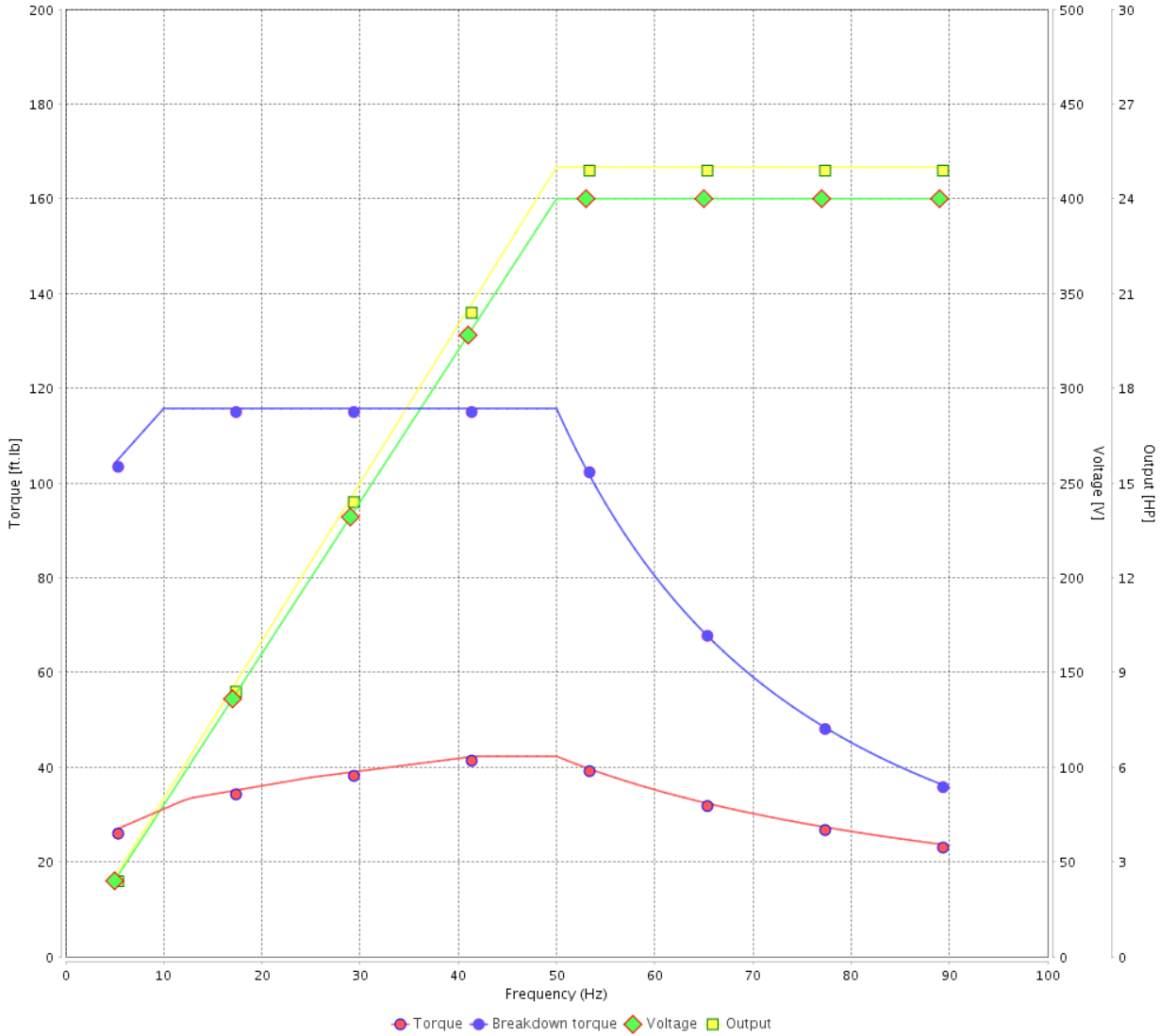
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 Breakdown torque : 260 %
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 Insulation class : F
 Service factor : 1.00
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 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 20 / 21	Revision
Checked by				
Date	14/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

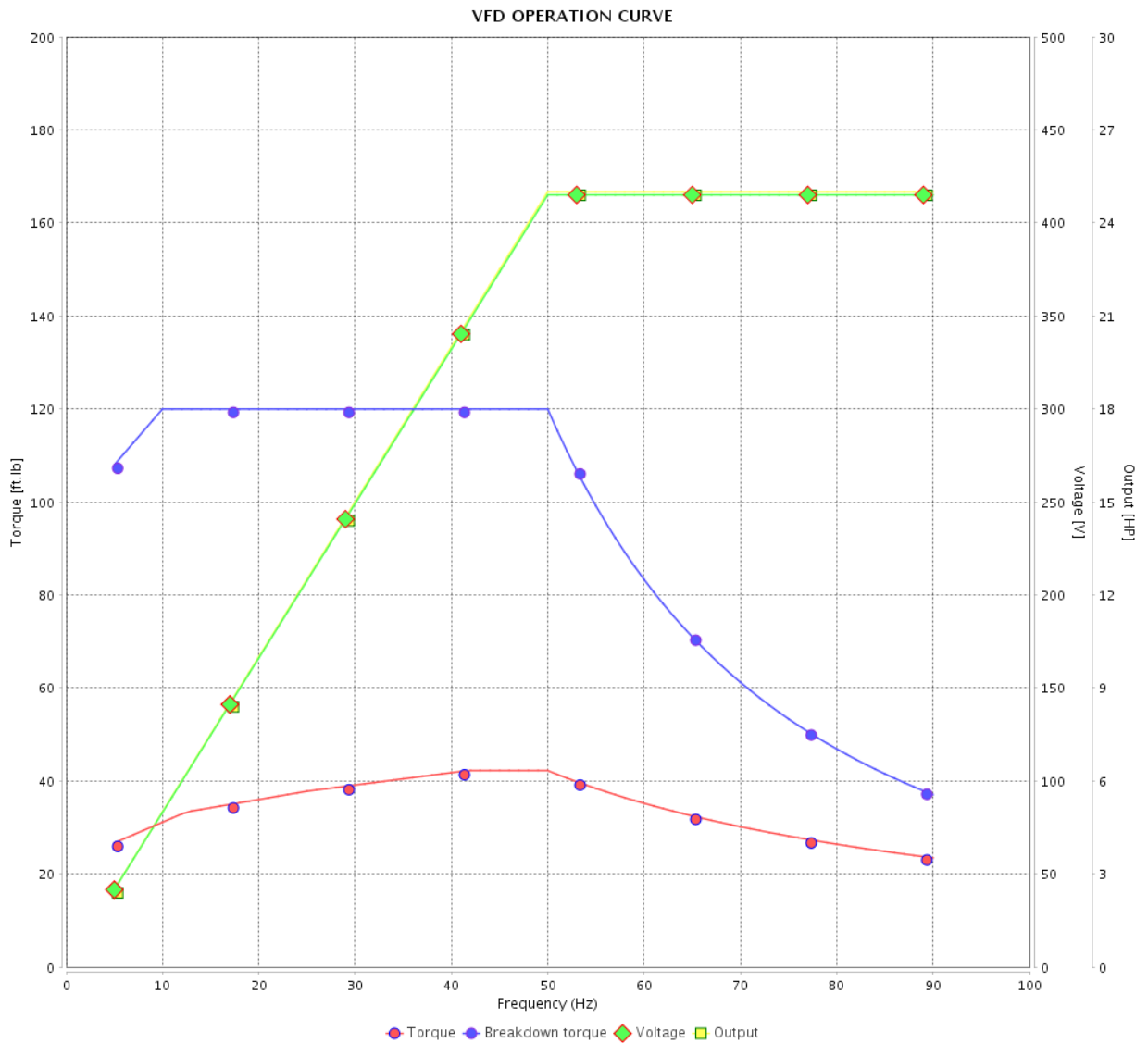


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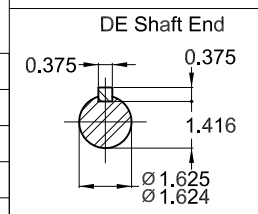
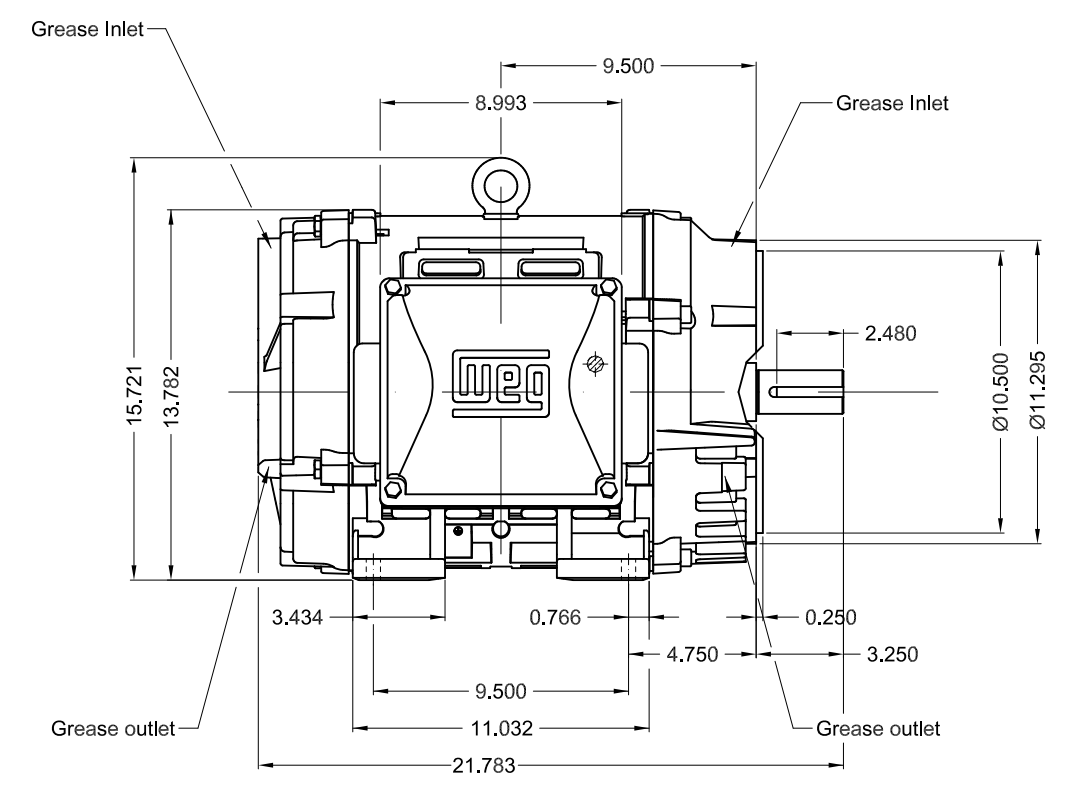
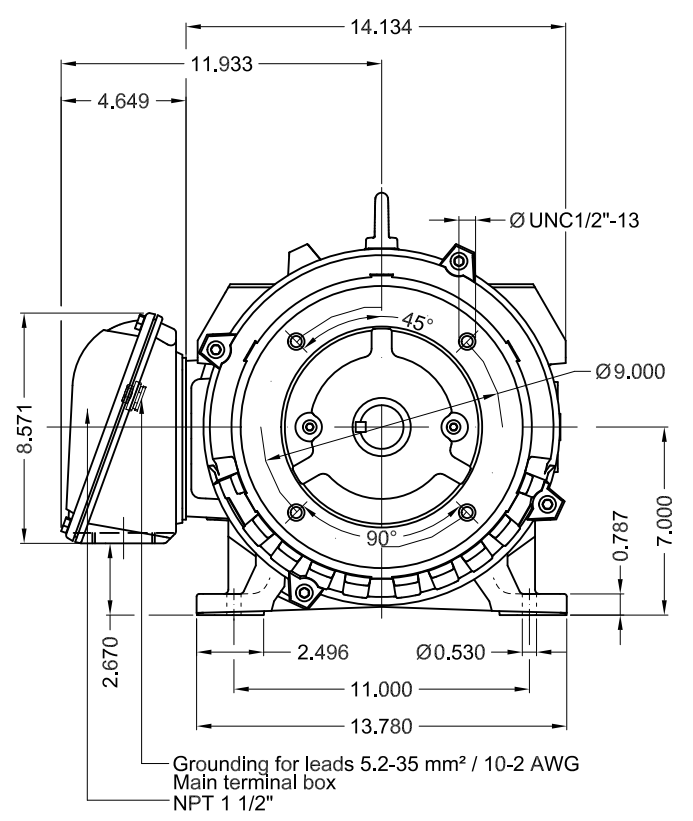


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 Design : B

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



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

30 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 284TSC IP23 ODP					
RELEASED							
REL DT.		WMO Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW
WDD



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



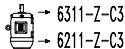
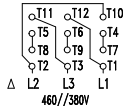
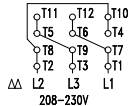
IEC 60034-1
 MOD.T01#FOXON



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

MODEL 030360T3E284TSC-W40
 MADE IN BRAZIL
 14495934

PH 3	FR 284TSC	HP(kW) 30.0(22.0)	Hz 60
V 230/460	A 70.0/35.0	RPM 3550	DES B
NEMA NOM EFF 91.7 %	INS. CL. F ΔT 80 K	IP23	
ENCL ODP	DUTY CONT.	AMB. 40°C	
CODE G	PF 0.86	SF 1.25	SFA 87.5/43.8
USABLE @208V 77.4 A	SF 1.15	SFA 89.0	
25HP 18.5kW 50Hz 380V 35.0A 2940RPM SF1.00 EFF 92.4% (IE3)	ALT 1000 m.a.s.l.	311 Lbs	



MOBIL POLYREX EM
 18 g 20000 h