

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer					
Product line		: W40 NEMA Premium Efficiency Three-Phase		Product code : 14503875 Catalog # : 03036OT3E284TS-W40G	
Frame		: 284TS		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 : 304 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	: 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 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.		
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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



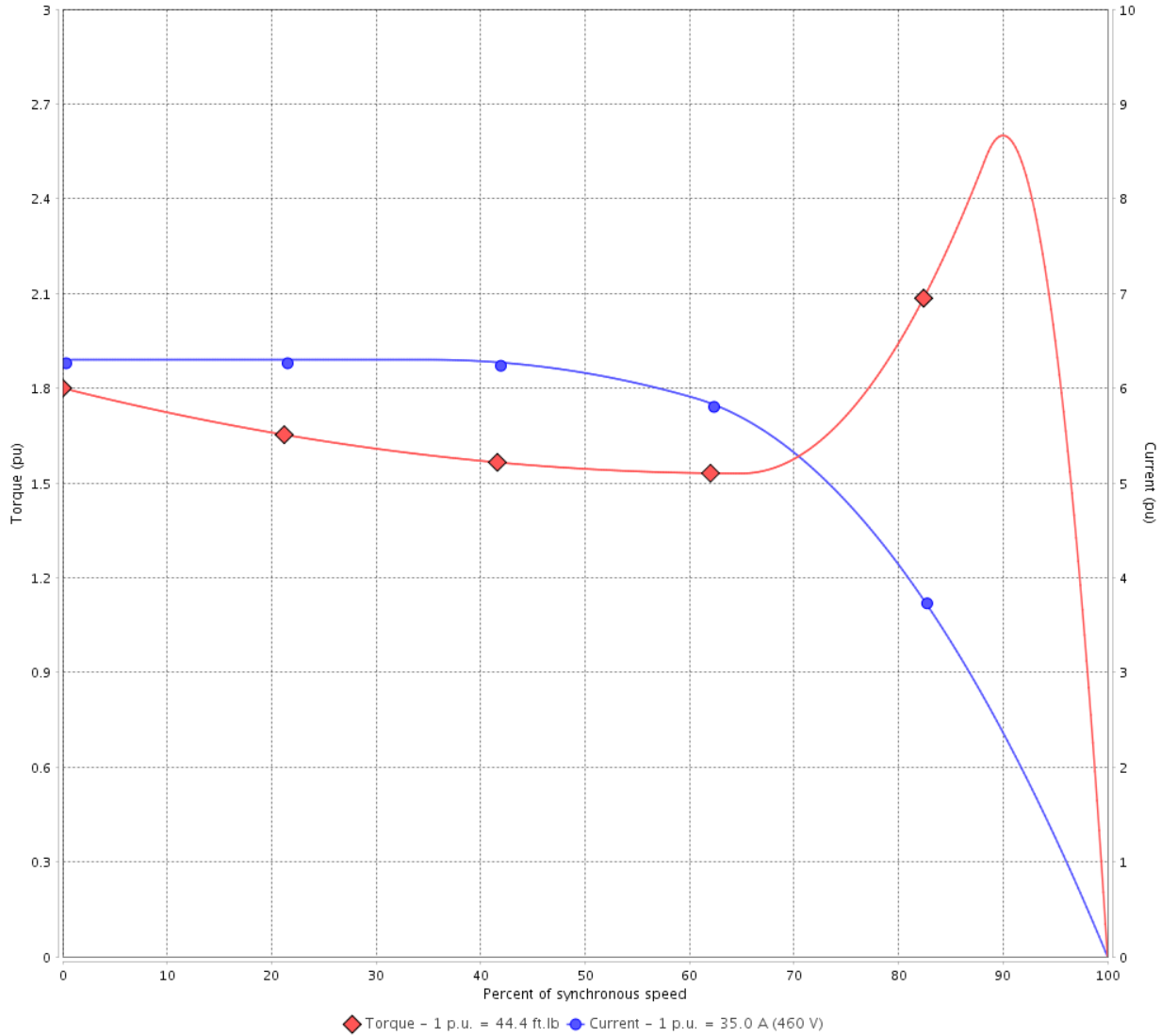
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14503875

Catalog # : 03036OT3E284TS-W40G

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)

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TORQUE AND CURRENT VS SPEED CURVE



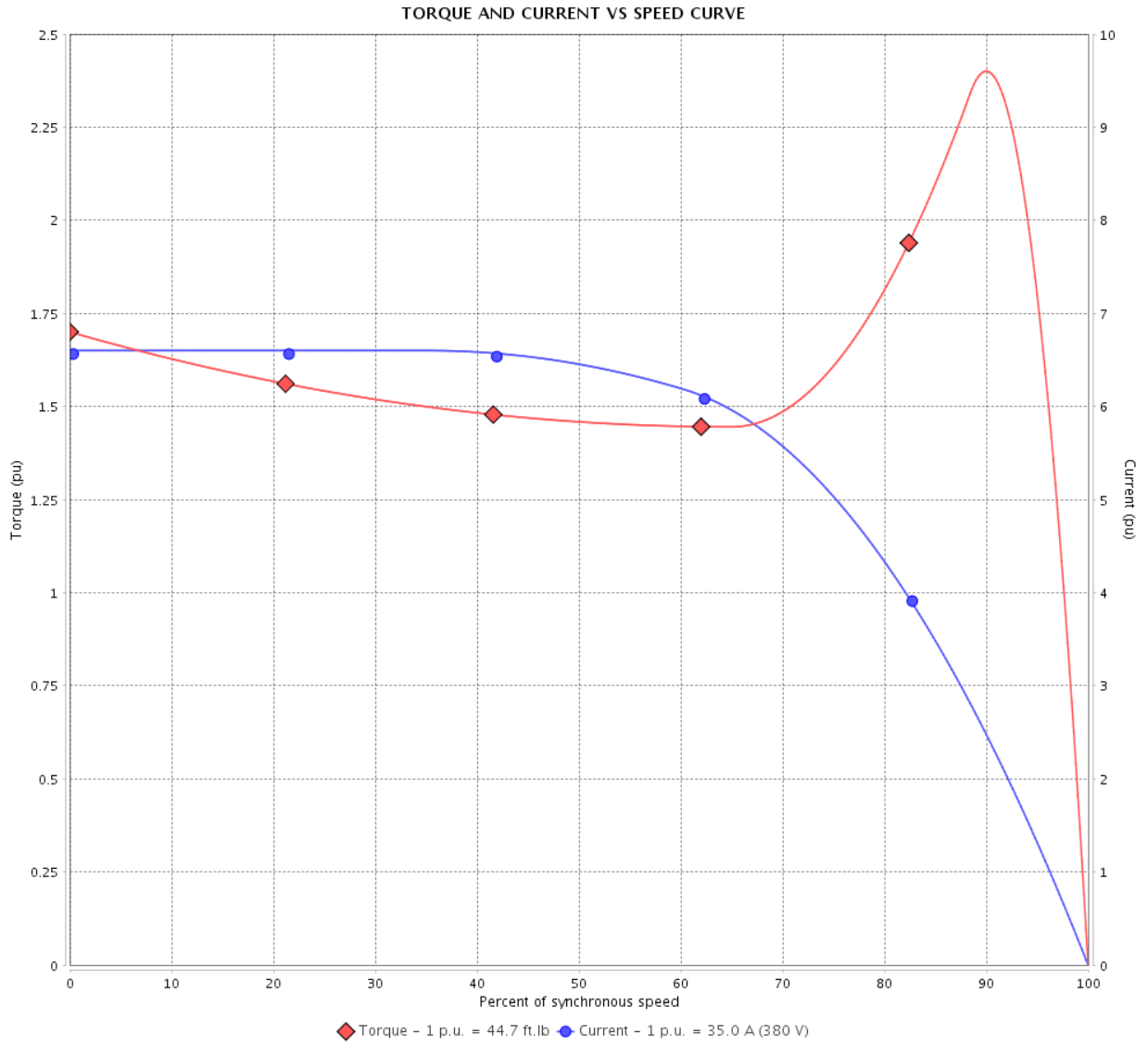
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14503875

Catalog # : 03036OT3E284TS-W40G



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)

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TORQUE AND CURRENT VS SPEED CURVE



Three Phase Induction Motor - Squirrel Cage

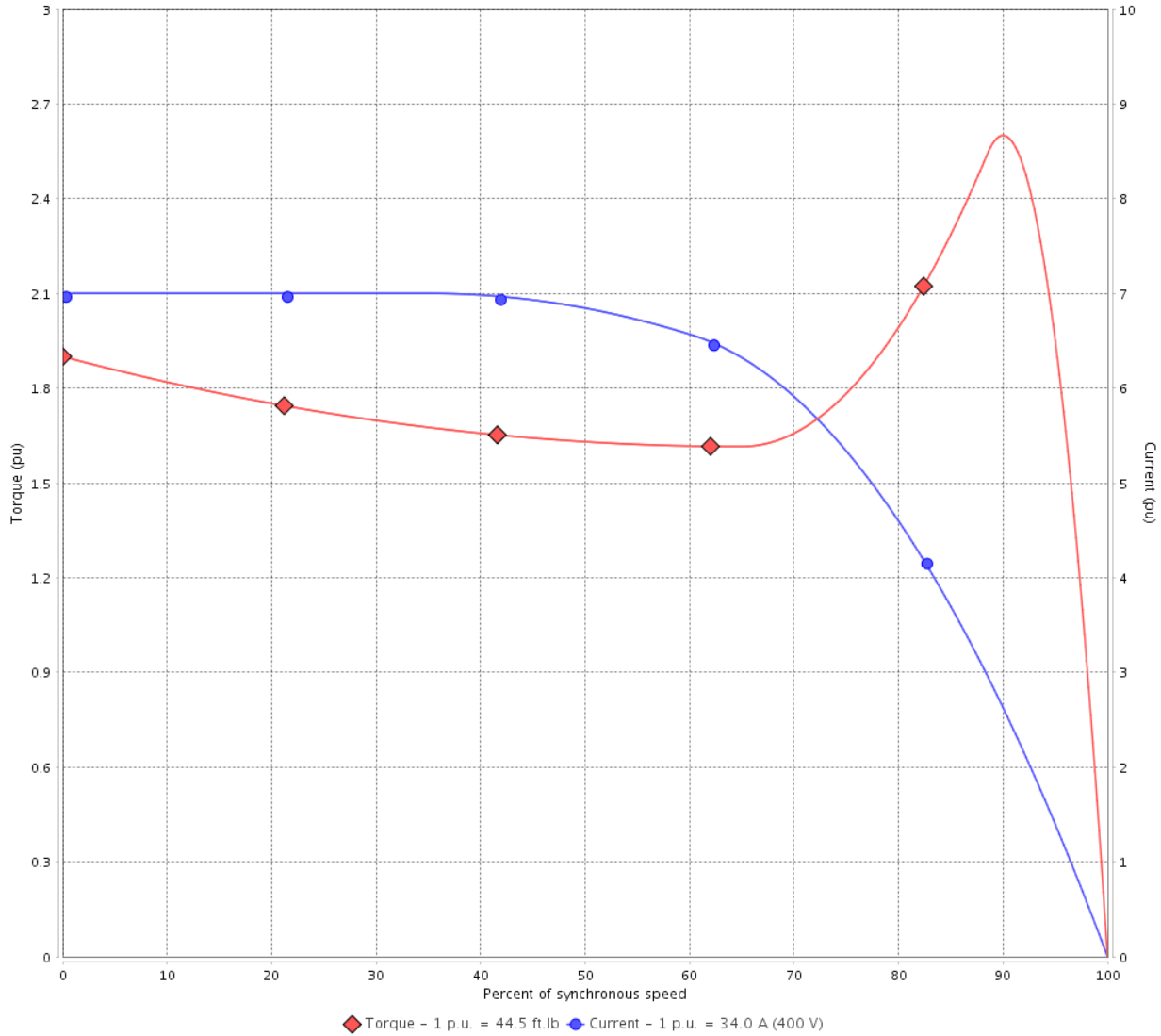
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14503875

Catalog # : 03036OT3E284TS-W40G

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)

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TORQUE AND CURRENT VS SPEED CURVE



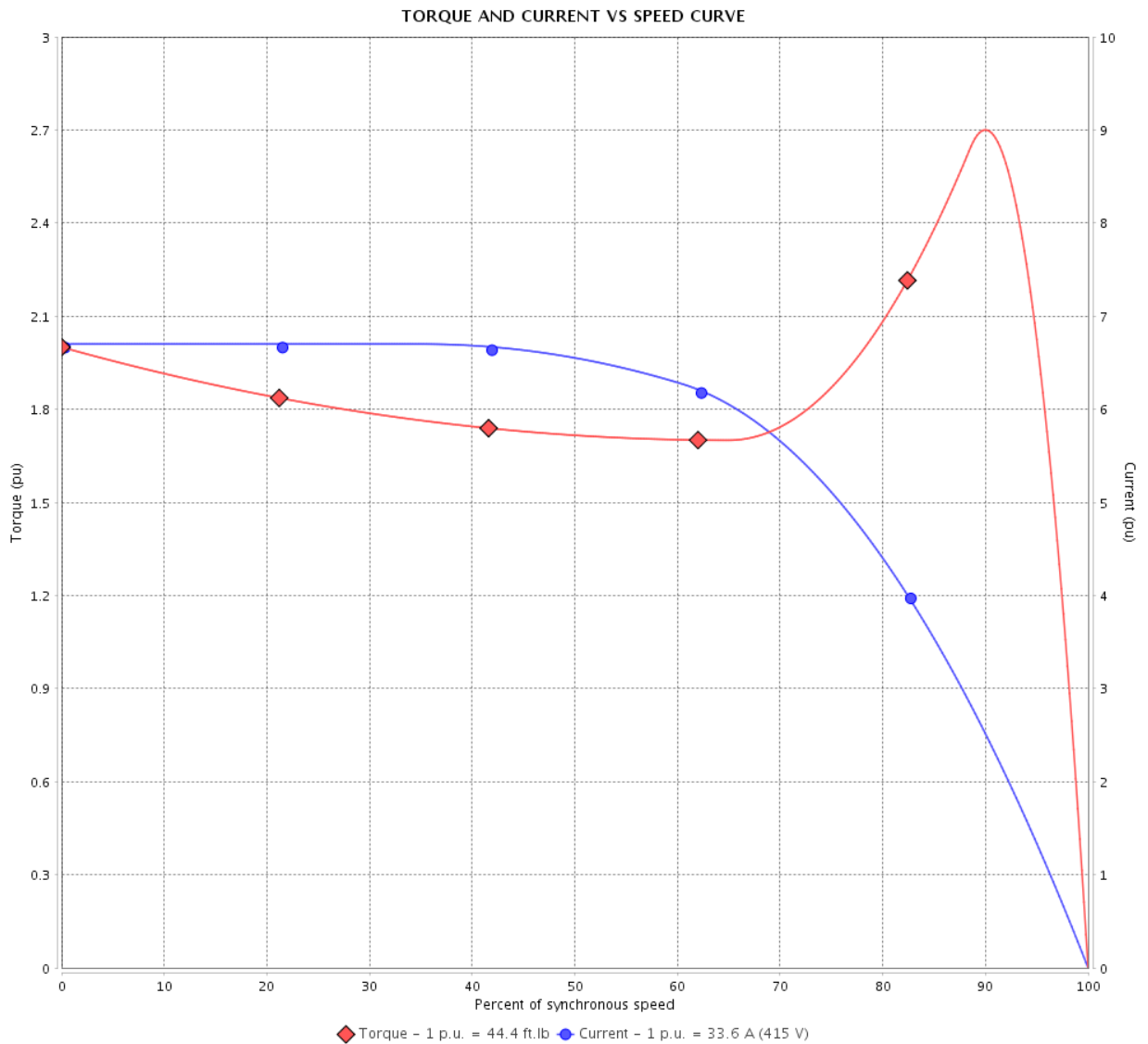
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14503875

Catalog # : 03036OT3E284TS-W40G



Performance : 415 V 50 Hz 2P IE3

Rated current : 33.6 A
LRC : 6.7
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

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

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Three Phase Induction Motor - Squirrel Cage



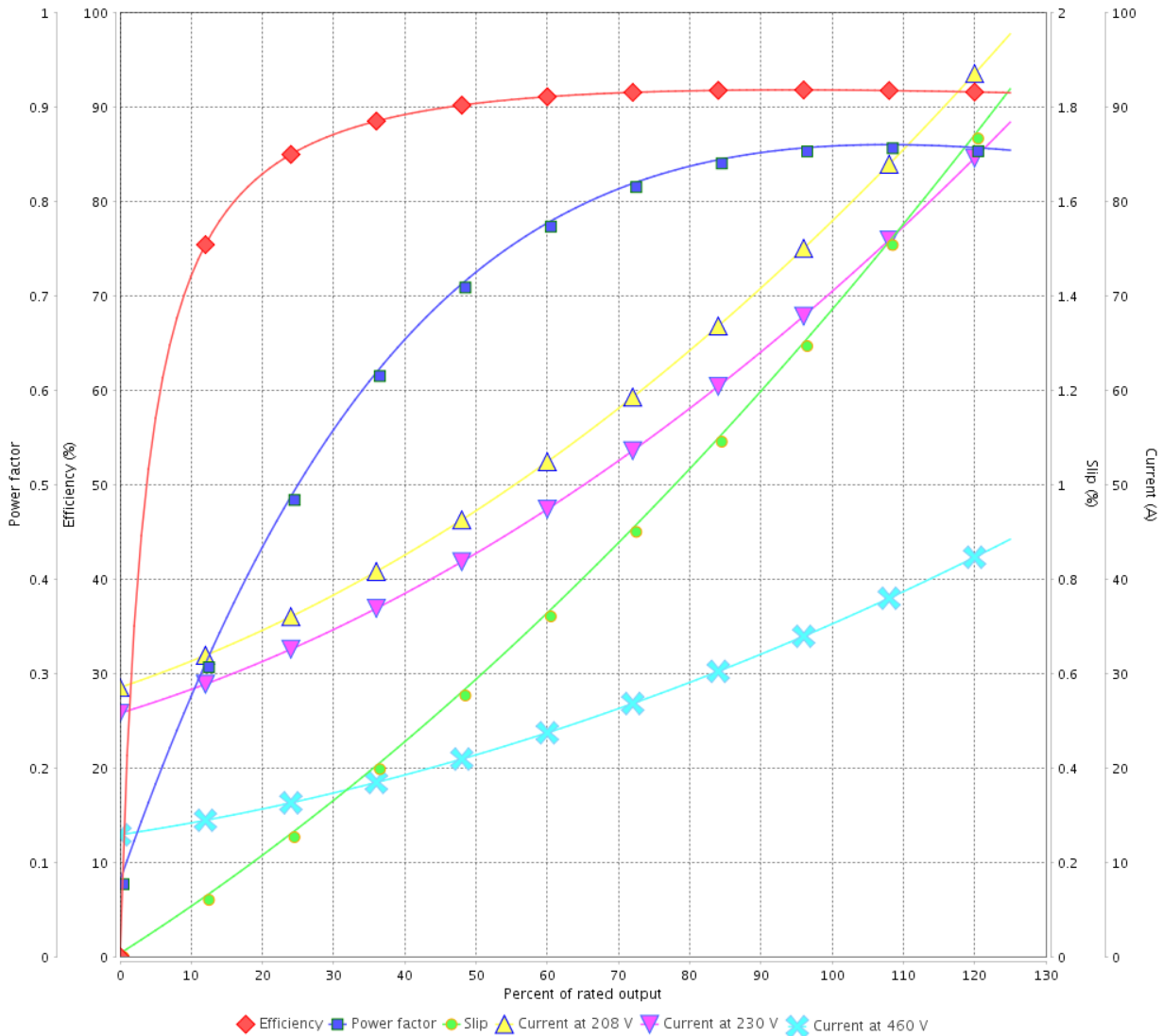
Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14503875

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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

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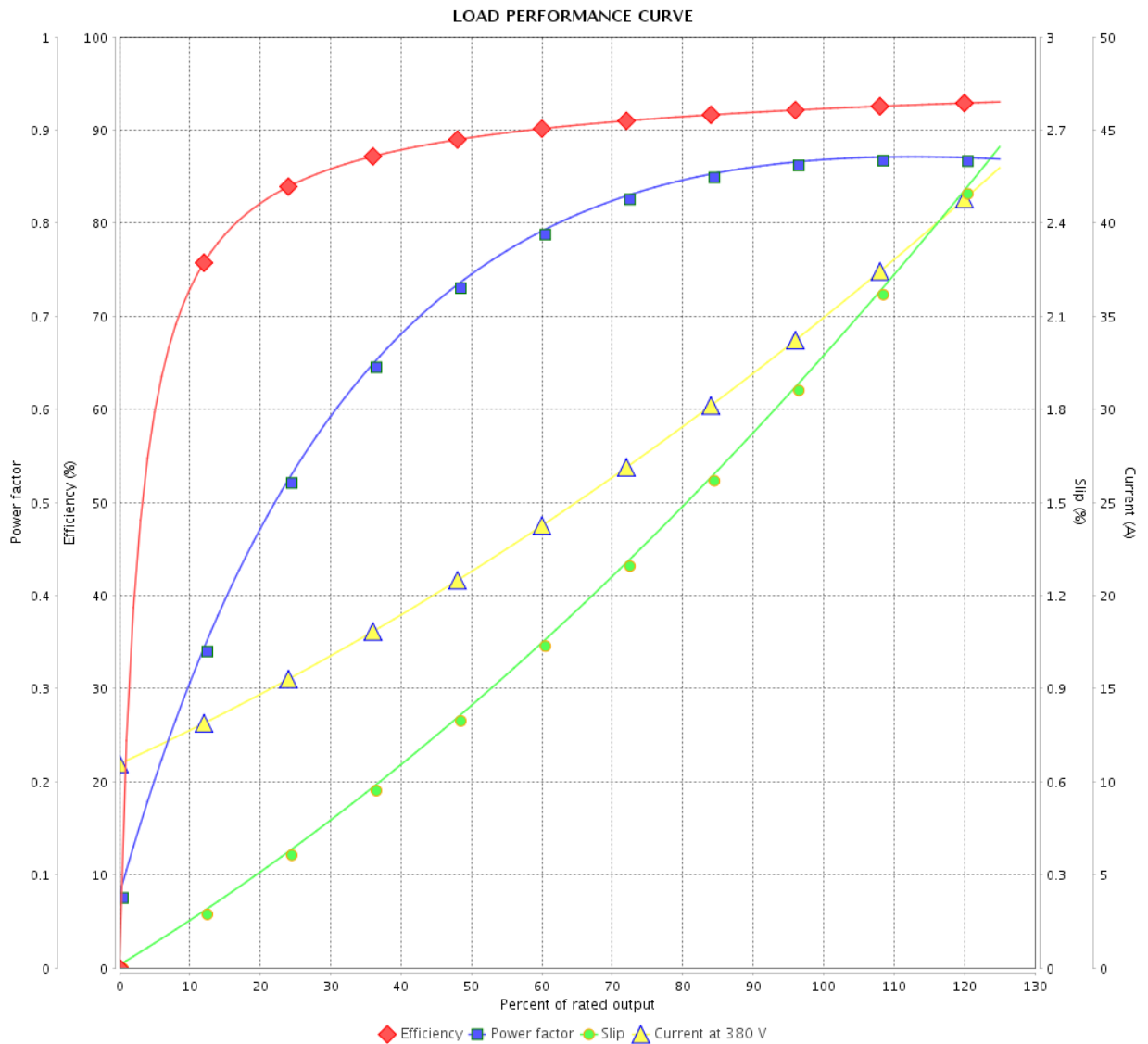


Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14503875

Catalog # : 03036OT3E284TS-W40G



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

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Three Phase Induction Motor - Squirrel Cage



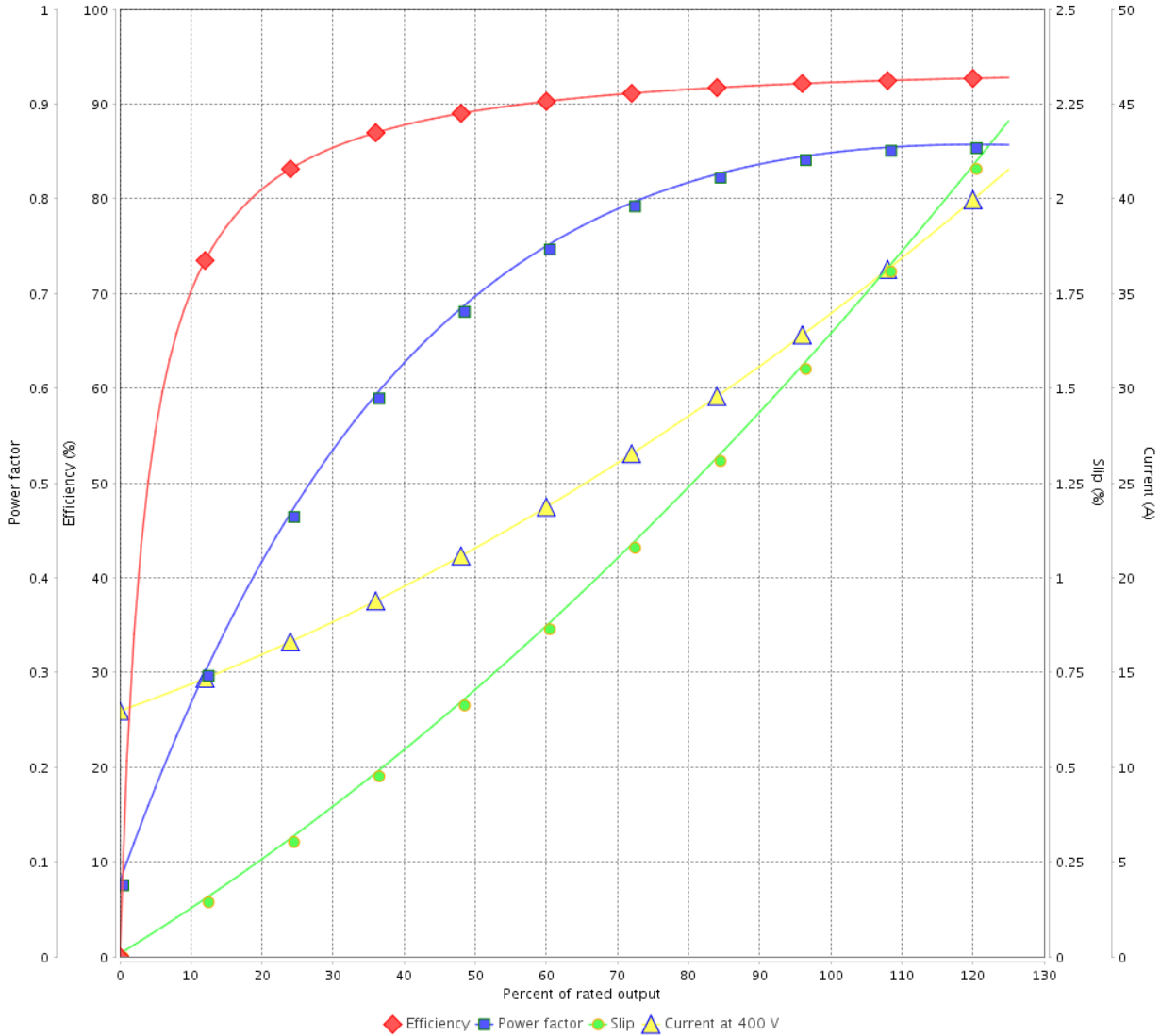
Customer :

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Product code : 14503875

Catalog # : 03036OT3E284TS-W40G

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

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

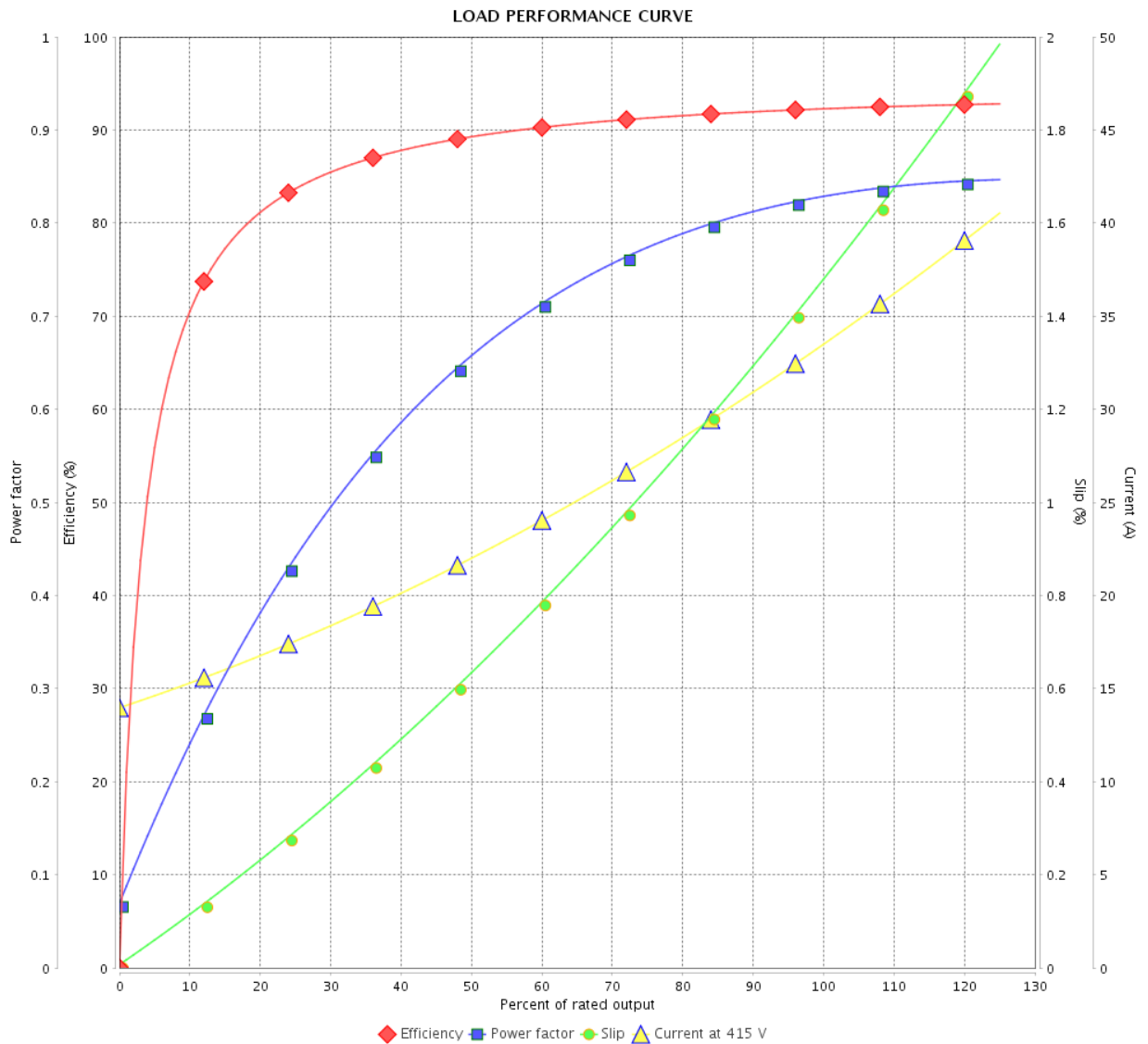


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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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THERMAL LIMIT CURVE



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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

Heating constant

Cooling constant

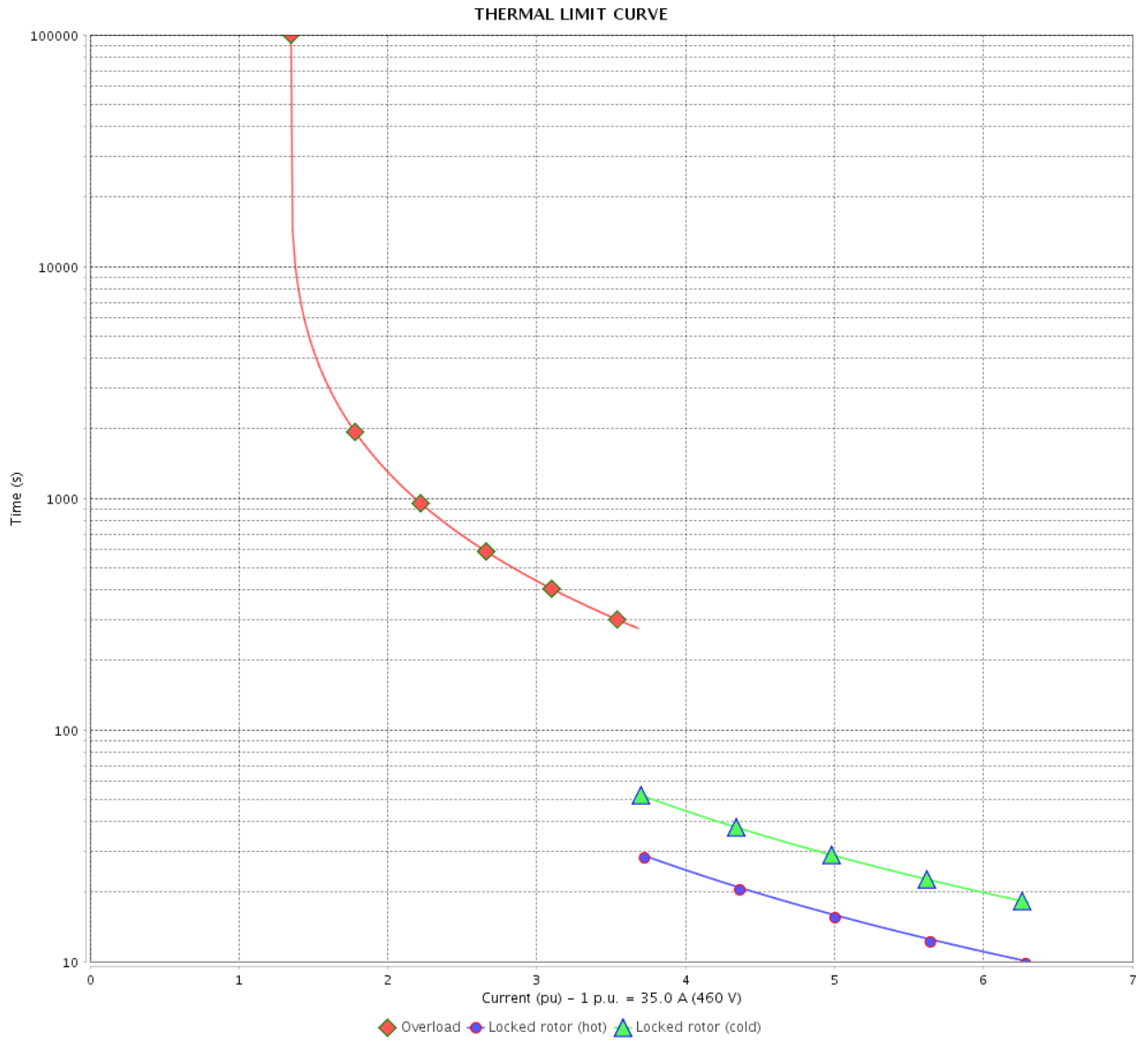
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Three Phase Induction Motor - Squirrel Cage



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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

Heating constant

Cooling constant

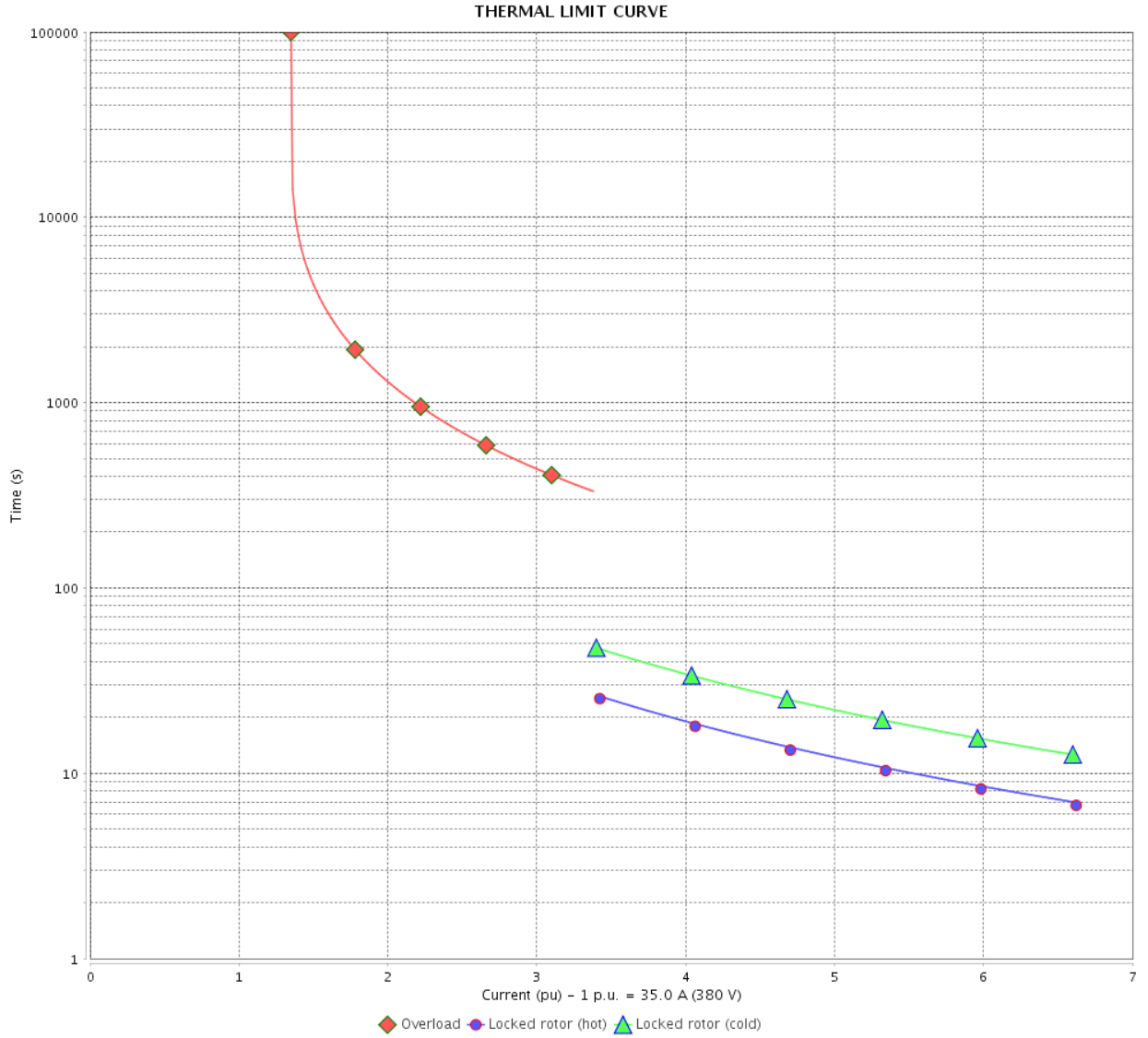
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LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 44.5 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 2950 rpm	Design	: B

Heating constant

Cooling constant

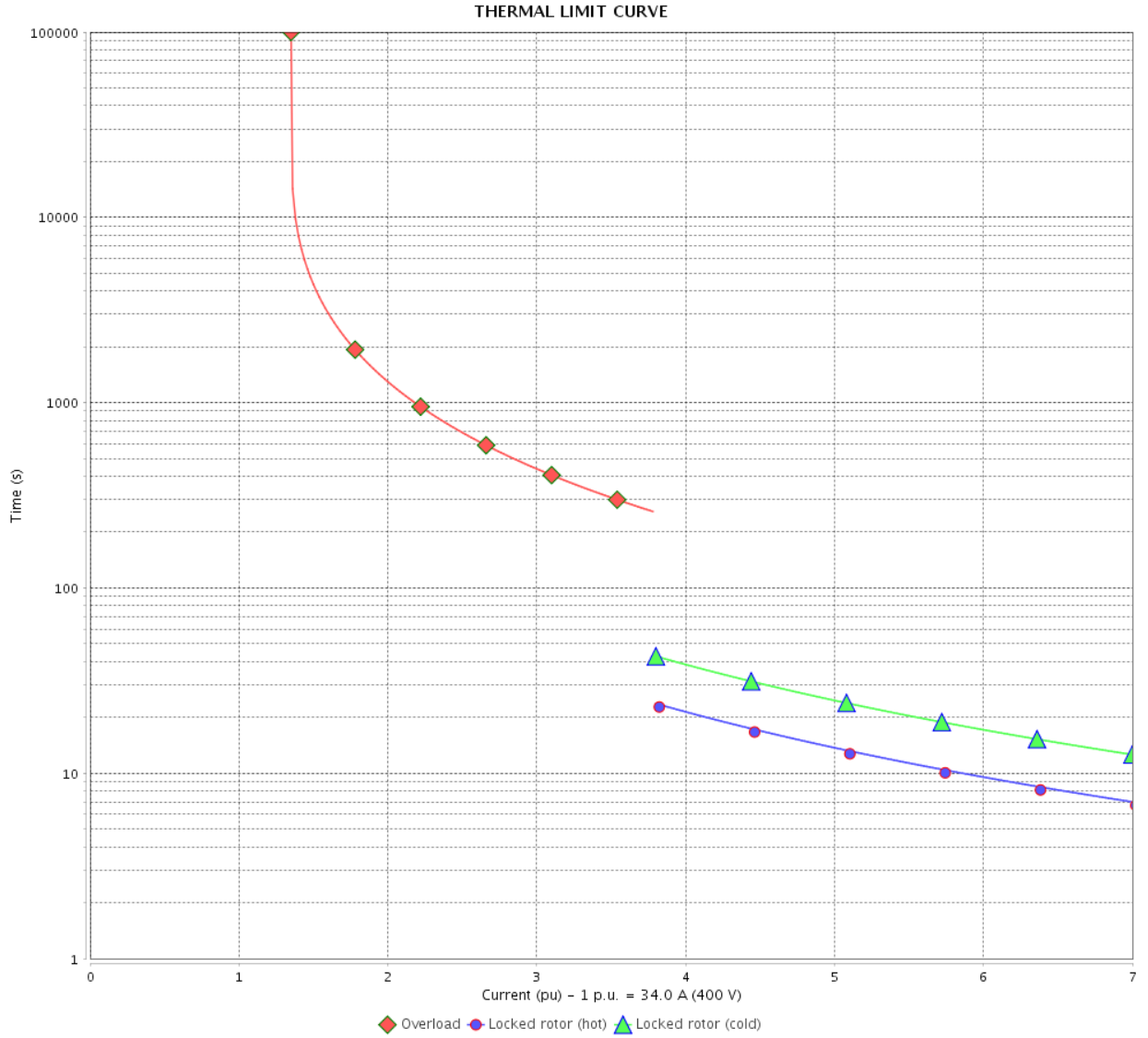
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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Three-Phase

Product code : 14503875

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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

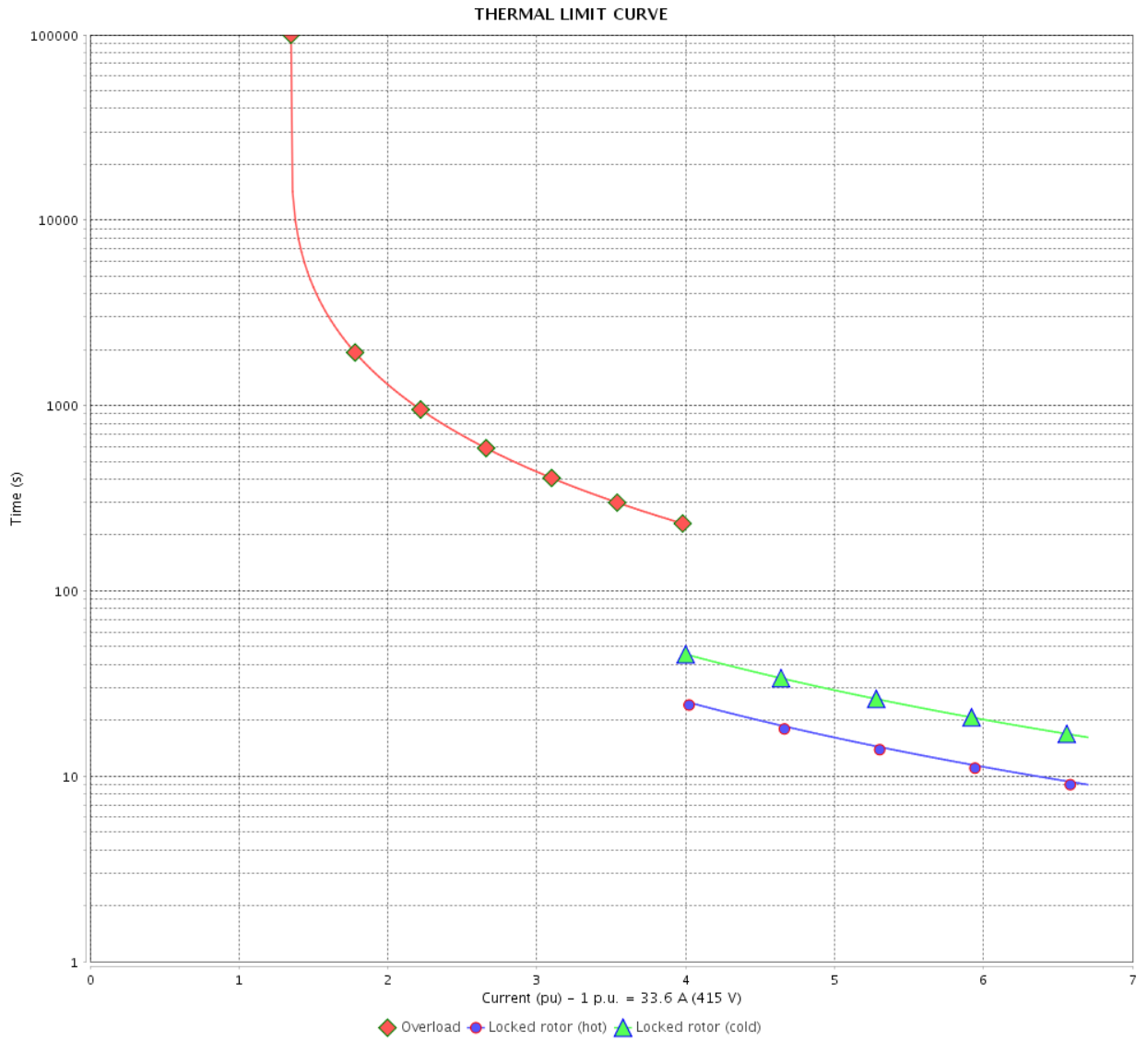
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



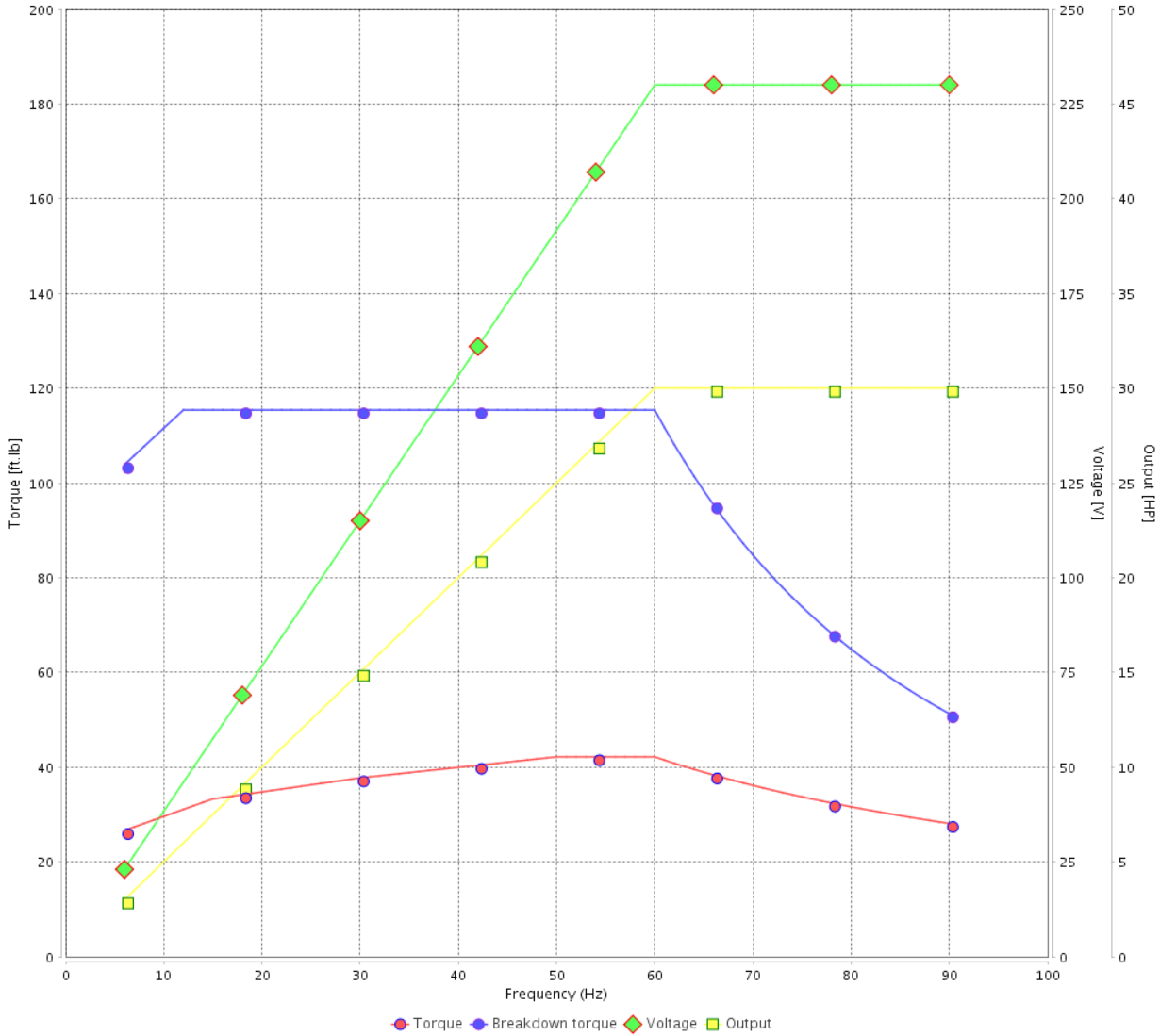
Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14503875

Catalog # : 03036OT3E284TS-W40G

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
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Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

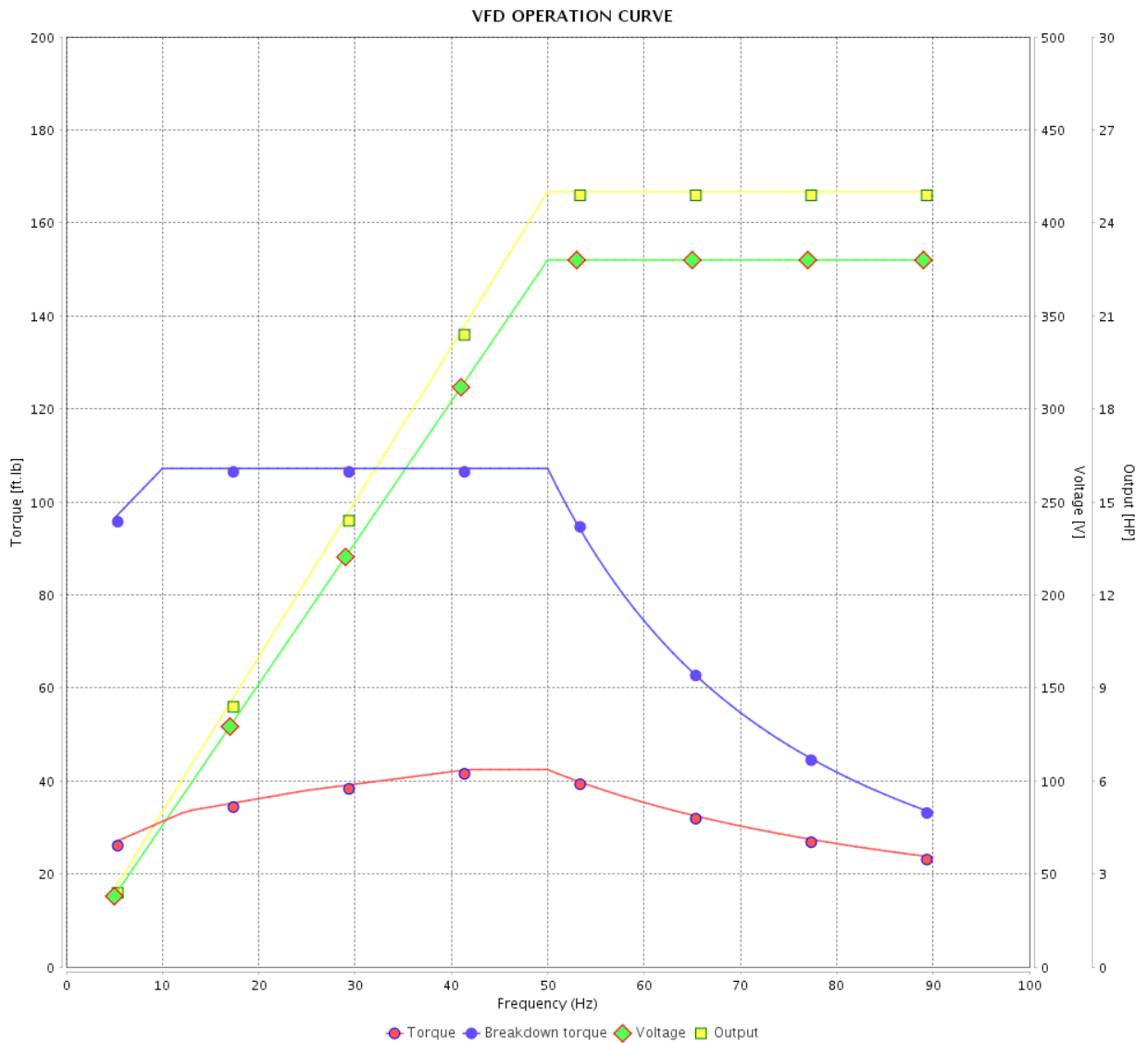


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14503875

Catalog # : 03036OT3E284TS-W40G



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

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



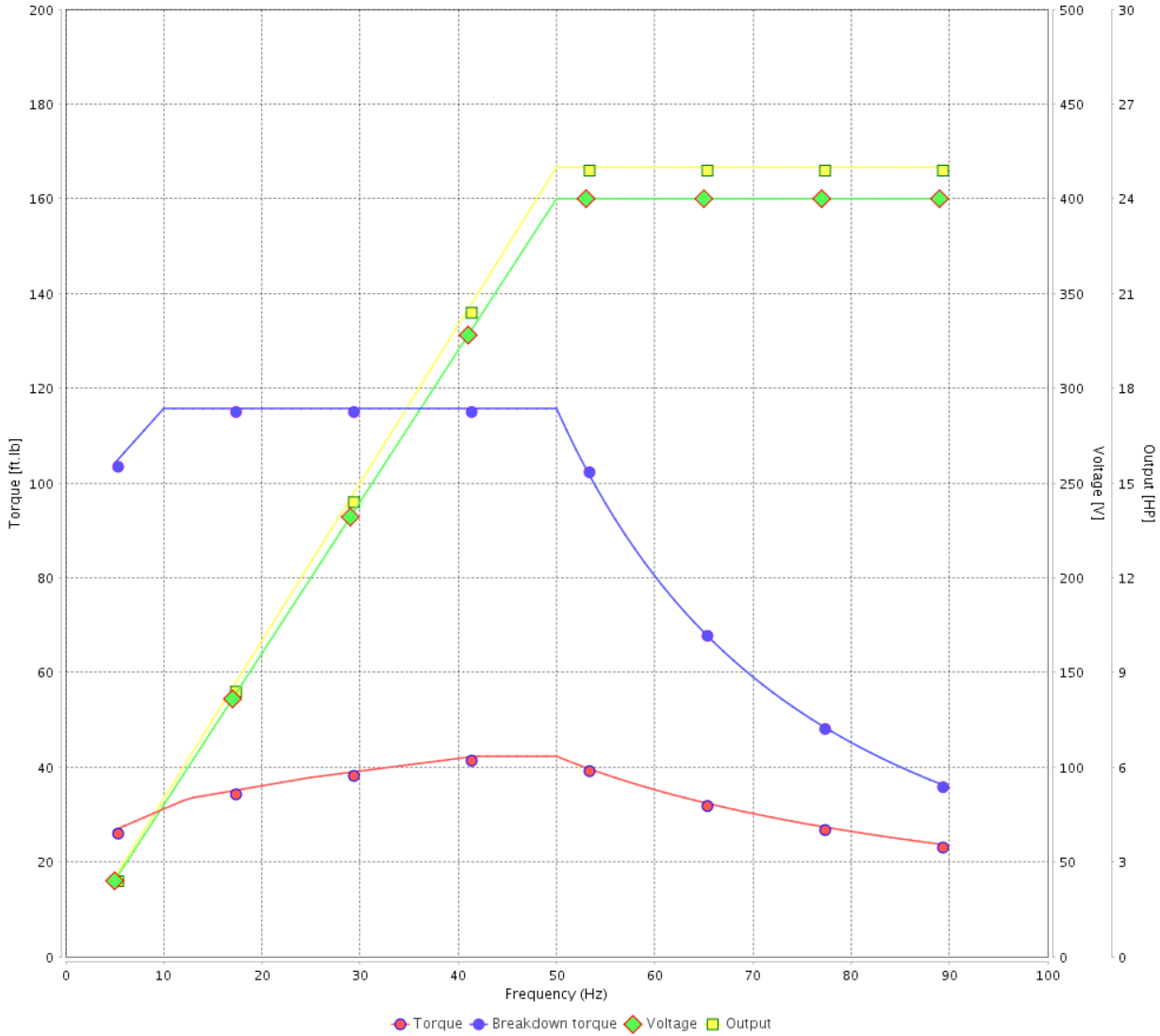
Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14503875

Catalog # : 03036OT3E284TS-W40G

VFD OPERATION 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

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

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

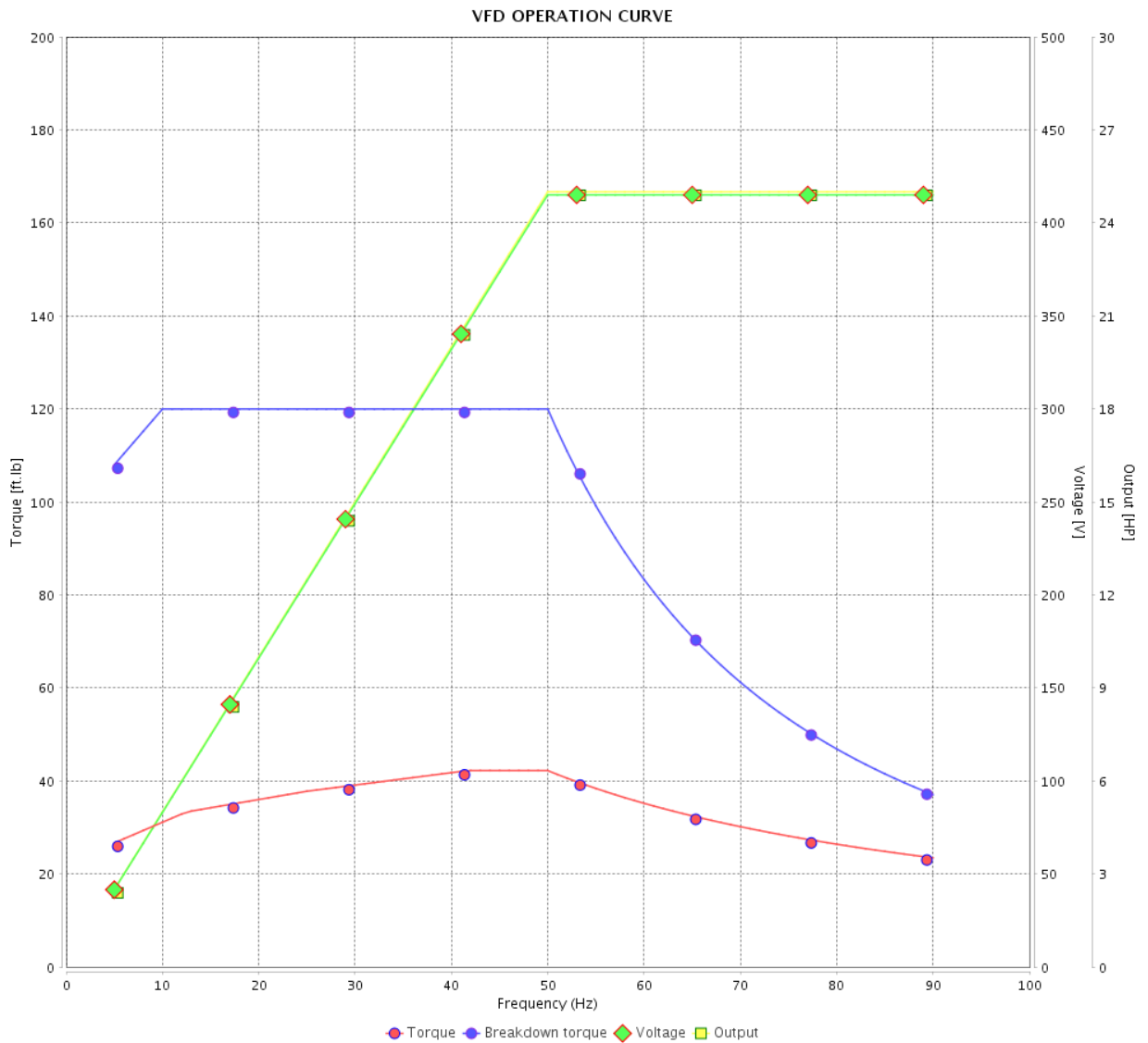


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Catalog # : 03036OT3E284TS-W40G

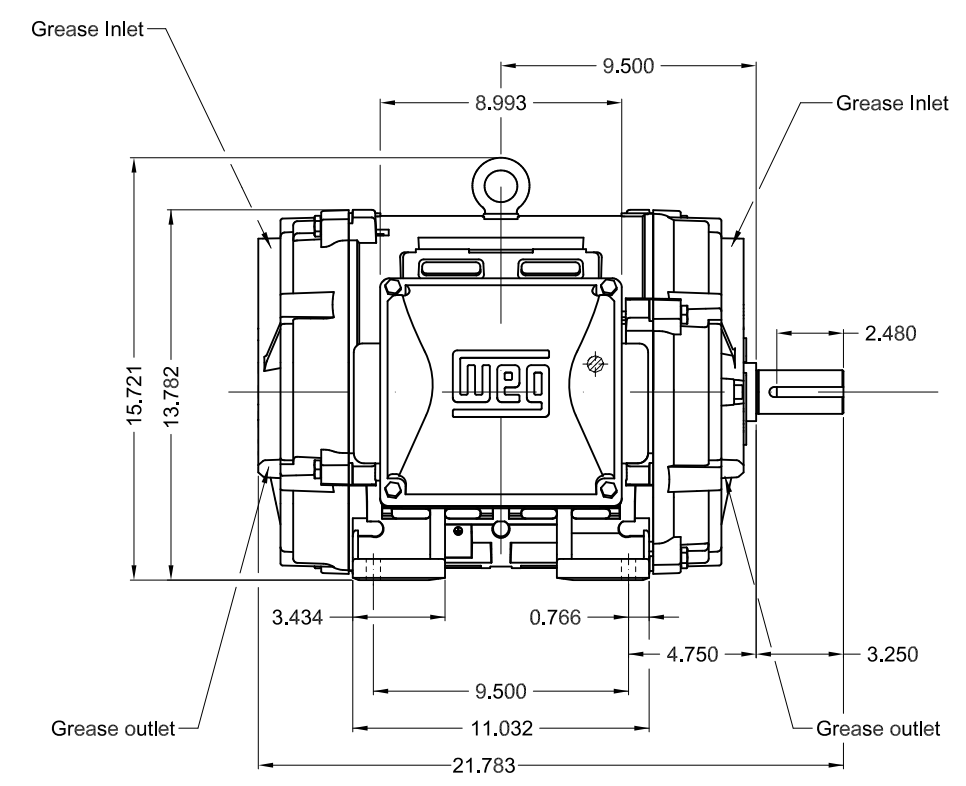
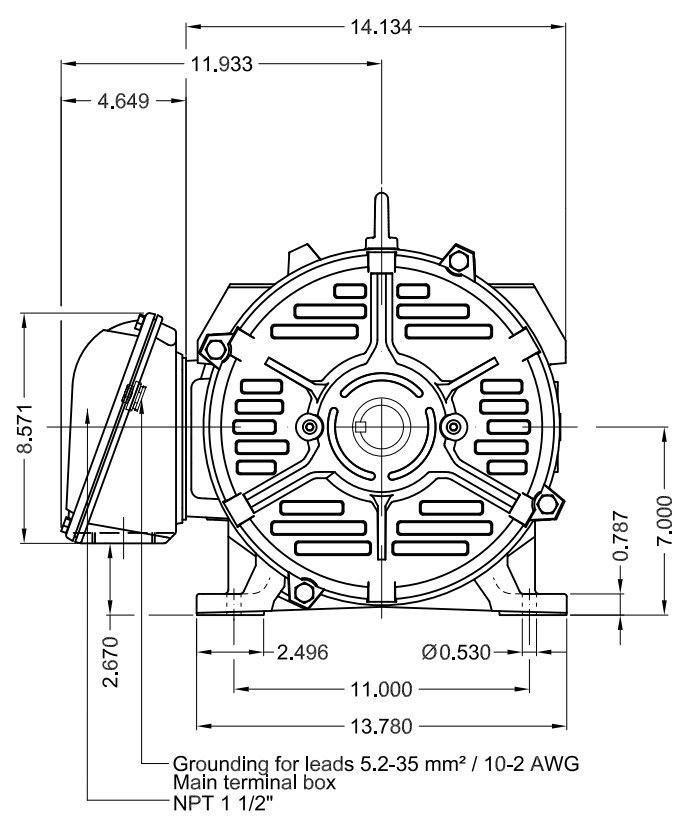


Performance : 415 V 50 Hz 2P IE3

Rated current : 33.6 A
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Rated torque : 44.4 ft.lb
Locked rotor torque : 200 %
Breakdown torque : 270 %
Rated speed : 2955 rpm

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

Rev.	Changes Summary	Performed	Checked	Date
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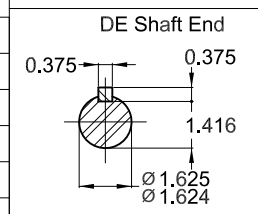


30 HP 02 Poles 60 Hz A

1:7

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

- Bearing cap
- Internal AEGIS ground ring on the DE
- Color RAL 5009
- Painting plan 203A
- Mounting NEMA F-1
- Mounting B3R(D)



Dimensions in inches XME A3



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



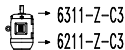
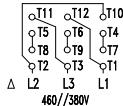
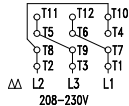
IEC 60034-1
 MOD.T01#FOXON



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

MODEL 030360T3E284TS-W40G
 MADE IN BRAZIL
 14503875

PH 3	FR 284TS	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.	304 Lbs	



MOBIL POLYREX EM
 18 g 20000 h