

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: W40 NEMA Premium Efficiency Three-Phase	Product code :	14503754		
		Catalog # :	03018OT3E286TC-W40G		
Frame	: 284/6TC	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	: 405 lb		
Protection degree	: IP23	Moment of inertia (J)	: 4.52 sq.ft.lb		
Design	: B				
Output [HP]	30	25	25	25	25
Poles	4	4	4	4	4
Frequency [Hz]	60	50	50	50	50
Rated voltage [V]	230/460	380	400	415	415
Rated current [A]	69.8/34.9	35.7	34.7	34.3	34.3
L. R. Amperes [A]	461/230	246	250	244	244
LRC [A]	6.6x(Code G)	6.9x(Code H)	7.2x(Code H)	7.1x(Code H)	7.1x(Code H)
No load current [A]	27.0/13.5	13.0	14.0	14.5	14.5
Rated speed [RPM]	1765	1465	1470	1470	1470
Slip [%]	1.94	2.33	2.00	2.00	2.00
Rated torque [ft.lb]	89.0	89.3	89.3	89.0	89.0
Locked rotor torque [%]	280	229	260	280	280
Breakdown torque [%]	270	240	270	300	300
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	32s (cold) 18s (hot)	28s (cold) 16s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)
Noise level ²	64.0 dB(A)				
Efficiency (%)	25%	93.4	92.0	92.0	92.0
	50%	93.6	92.2	92.2	92.2
	75%	94.1	92.6	92.6	92.6
	100%	94.1	92.6	92.6	92.6
Power Factor	25%	0.45	0.46	0.42	0.39
	50%	0.70	0.70	0.66	0.63
	75%	0.80	0.80	0.78	0.75
	100%	0.84	0.85	0.83	0.81
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 77.2A SF 1.15 SFA 88.8A					
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



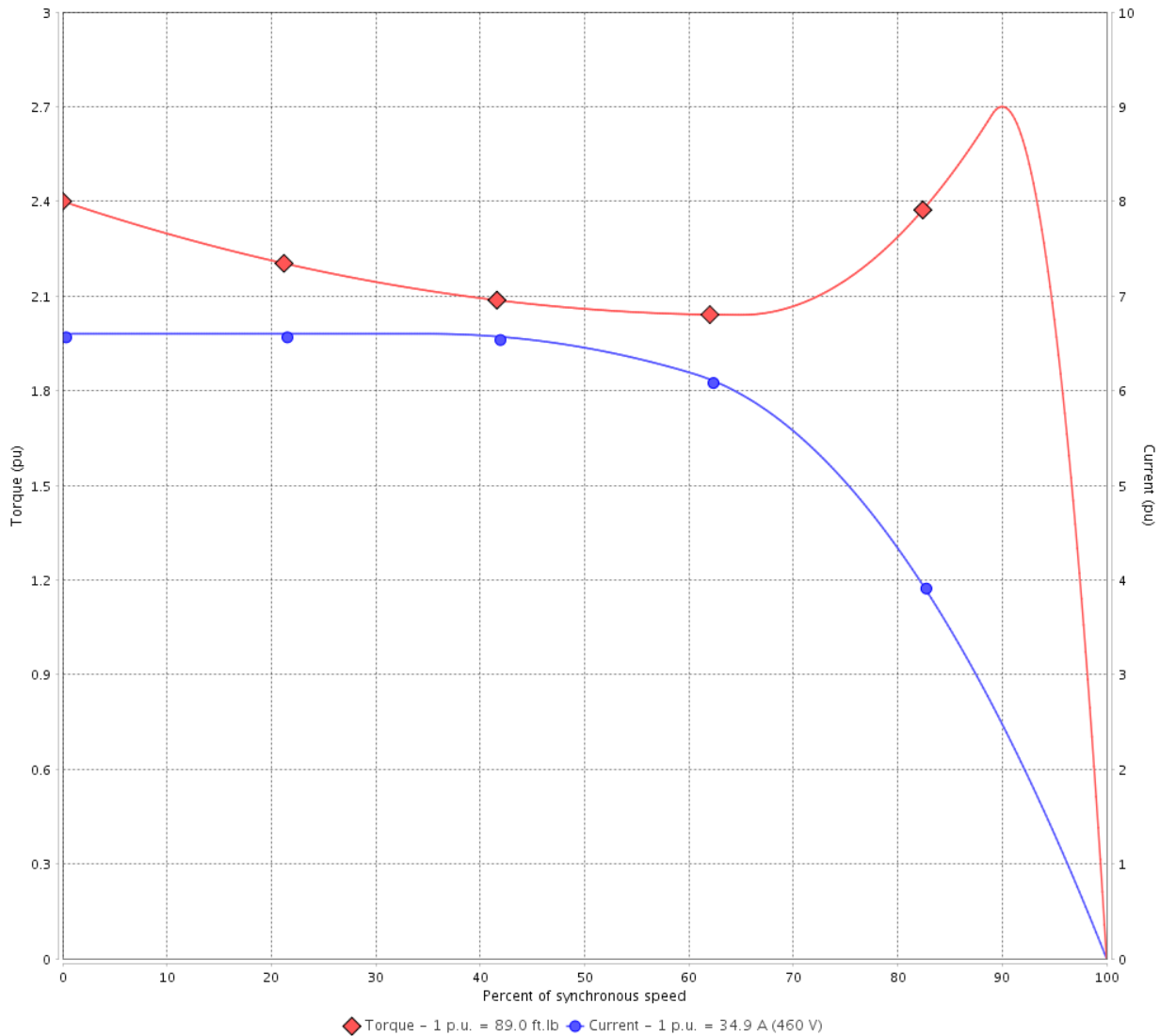
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14503754

Catalog # : 03018OT3E286TC-W40G

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

Rated current	: 69.8/34.9 A	Moment of inertia (J)	: 4.52 sq.ft.lb
LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 89.0 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.25
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1765 rpm	Design	: B

Locked rotor time : 32s (cold) 18s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



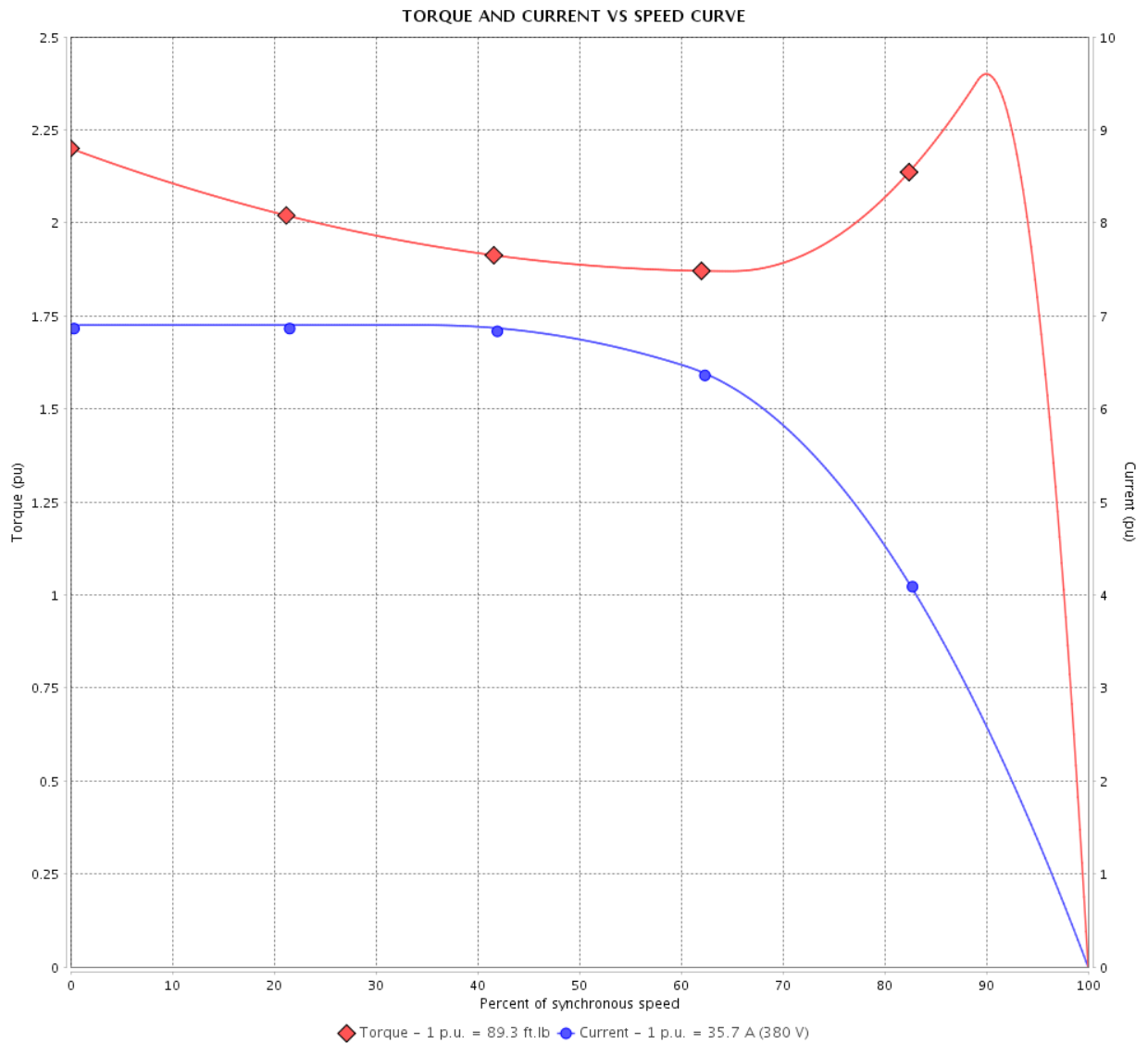
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14503754

Catalog # : 03018OT3E286TC-W40G



Performance : 380 V 50 Hz 4P IE3

Rated current : 35.7 A
 LRC : 6.9
 Rated torque : 89.3 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 240 %
 Rated speed : 1465 rpm

Moment of inertia (J) : 4.52 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Locked rotor time : 28s (cold) 16s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



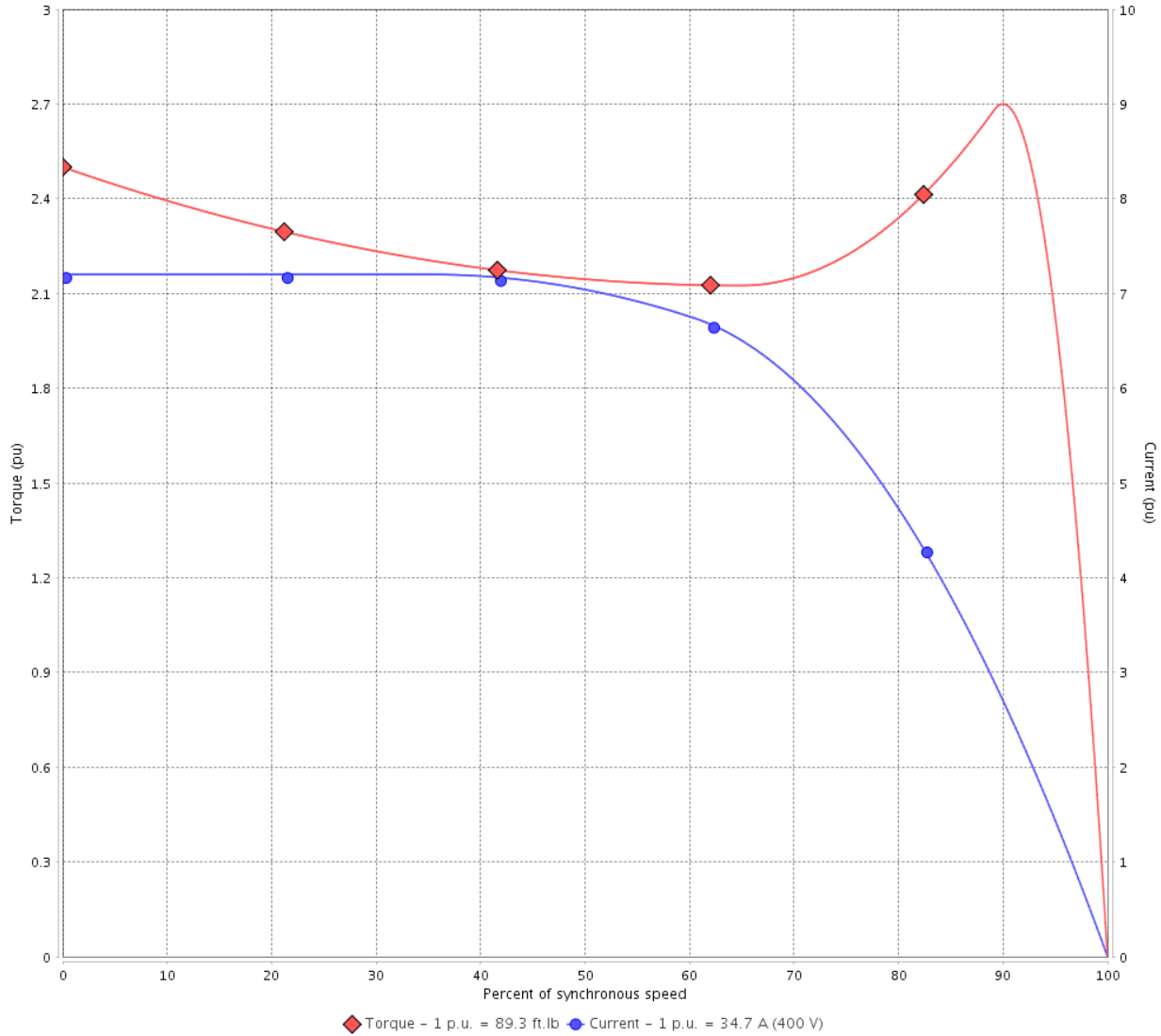
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14503754

Catalog # : 03018OT3E286TC-W40G

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 4P IE3

Rated current	: 34.7 A	Moment of inertia (J)	: 4.52 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 89.3 ft.lb	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1470 rpm	Design	: B

Locked rotor time : 30s (cold) 17s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



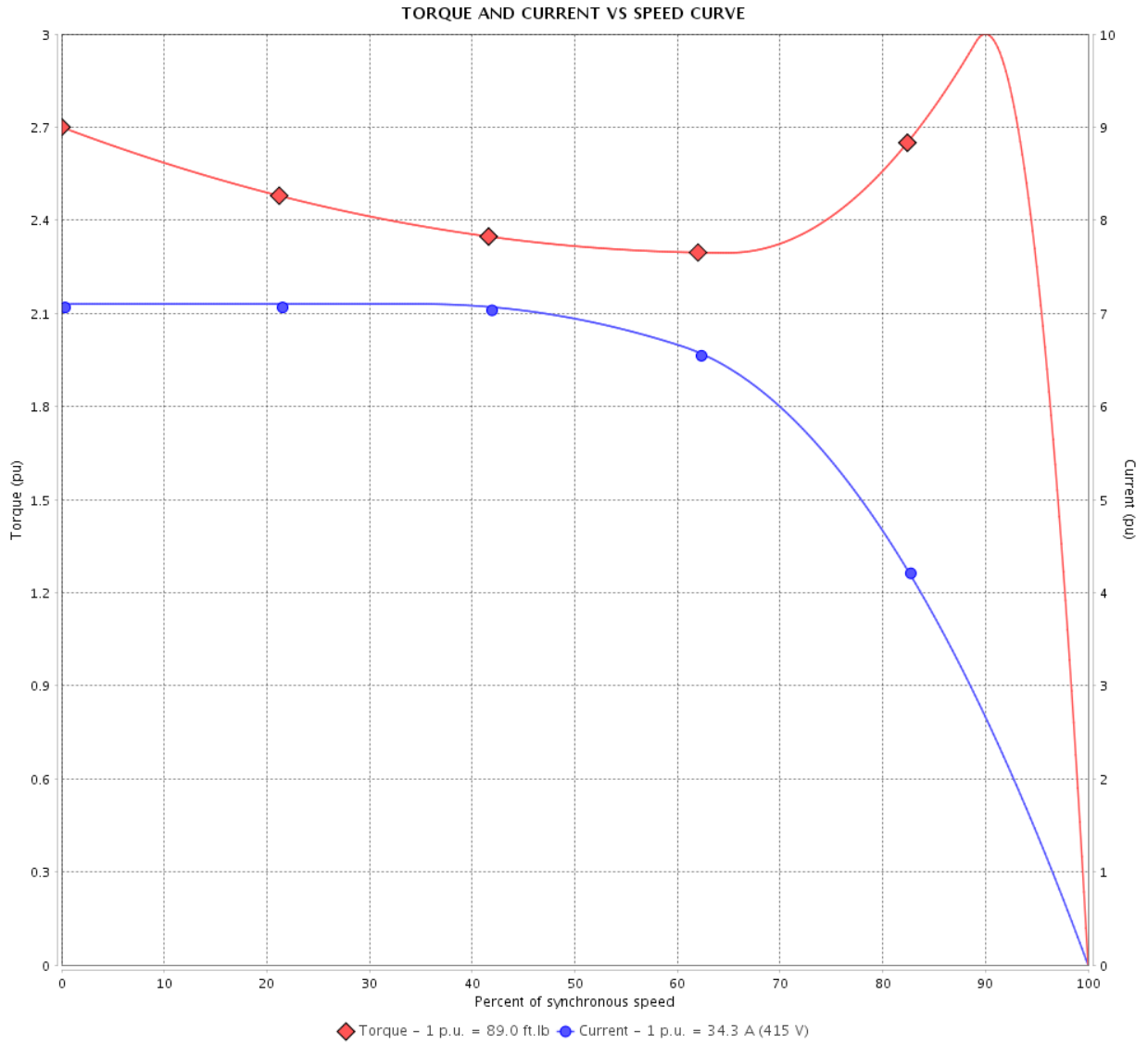
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14503754

Catalog # : 03018OT3E286TC-W40G



Performance : 415 V 50 Hz 4P IE3

Rated current : 34.3 A
 LRC : 7.1
 Rated torque : 89.0 ft.lb
 Locked rotor torque : 280 %
 Breakdown torque : 300 %
 Rated speed : 1470 rpm

Moment of inertia (J) : 4.52 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Locked rotor time : 30s (cold) 17s (hot)

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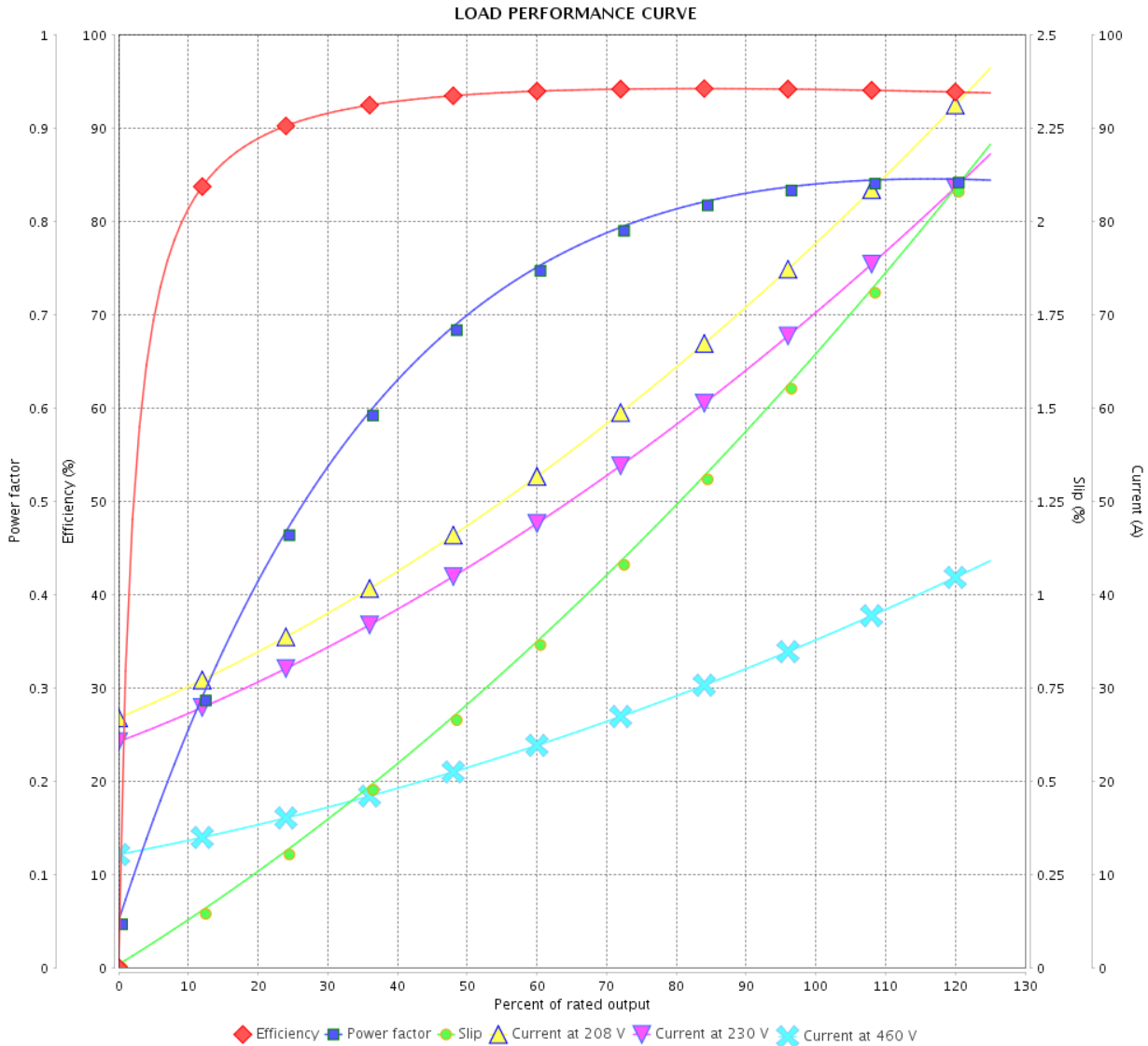


Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14503754

Catalog # : 03018OT3E286TC-W40G



Performance : 230/460 V 60 Hz 4P

Rated current : 69.8/34.9 A
 LRC : 6.6
 Rated torque : 89.0 ft.lb
 Locked rotor torque : 280 %
 Breakdown torque : 270 %
 Rated speed : 1765 rpm

Moment of inertia (J) : 4.52 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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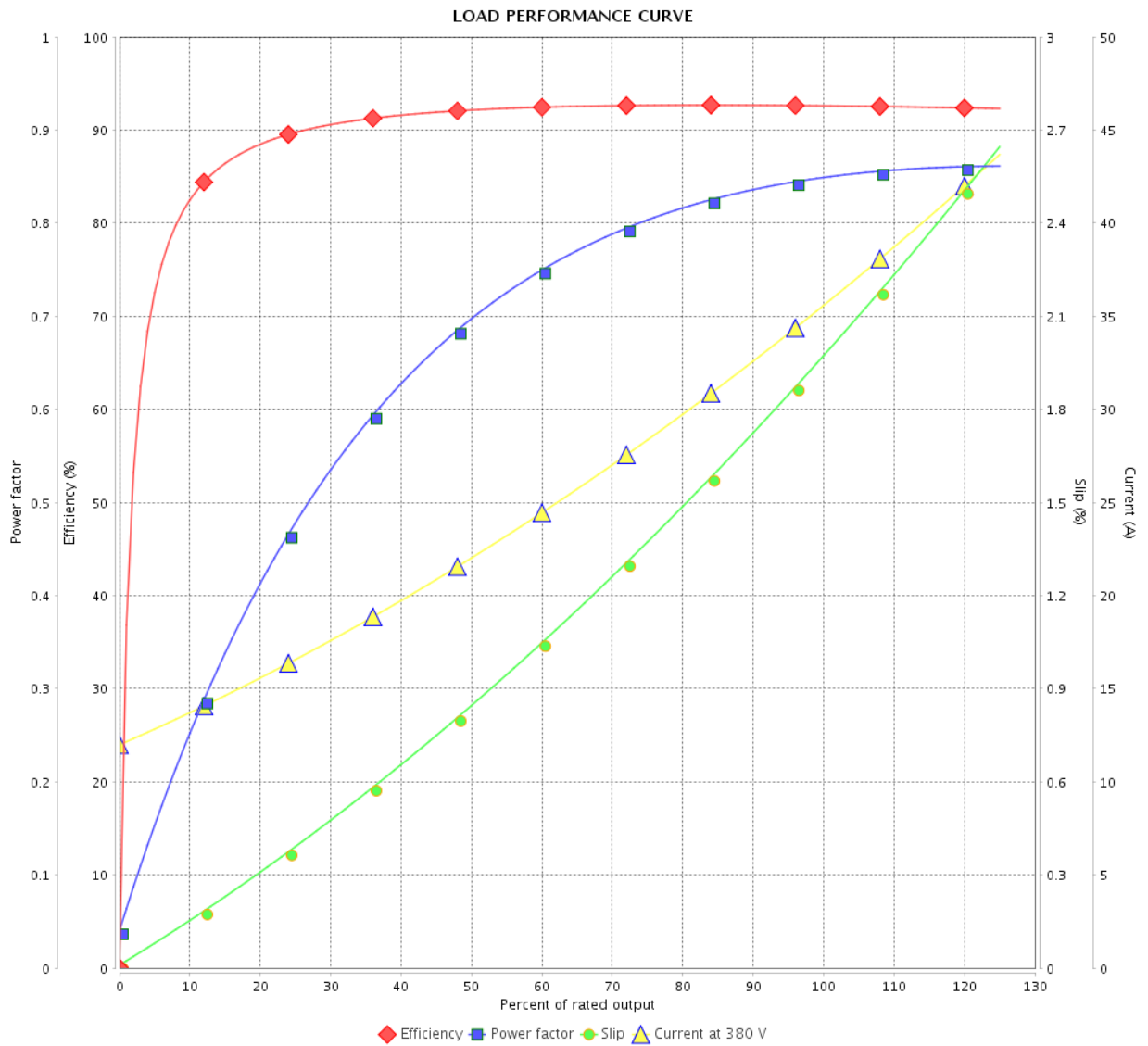


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Product code : 14503754

Catalog # : 03018OT3E286TC-W40G



Performance : 380 V 50 Hz 4P IE3

Rated current : 35.7 A
 LRC : 6.9
 Rated torque : 89.3 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 240 %
 Rated speed : 1465 rpm

Moment of inertia (J) : 4.52 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



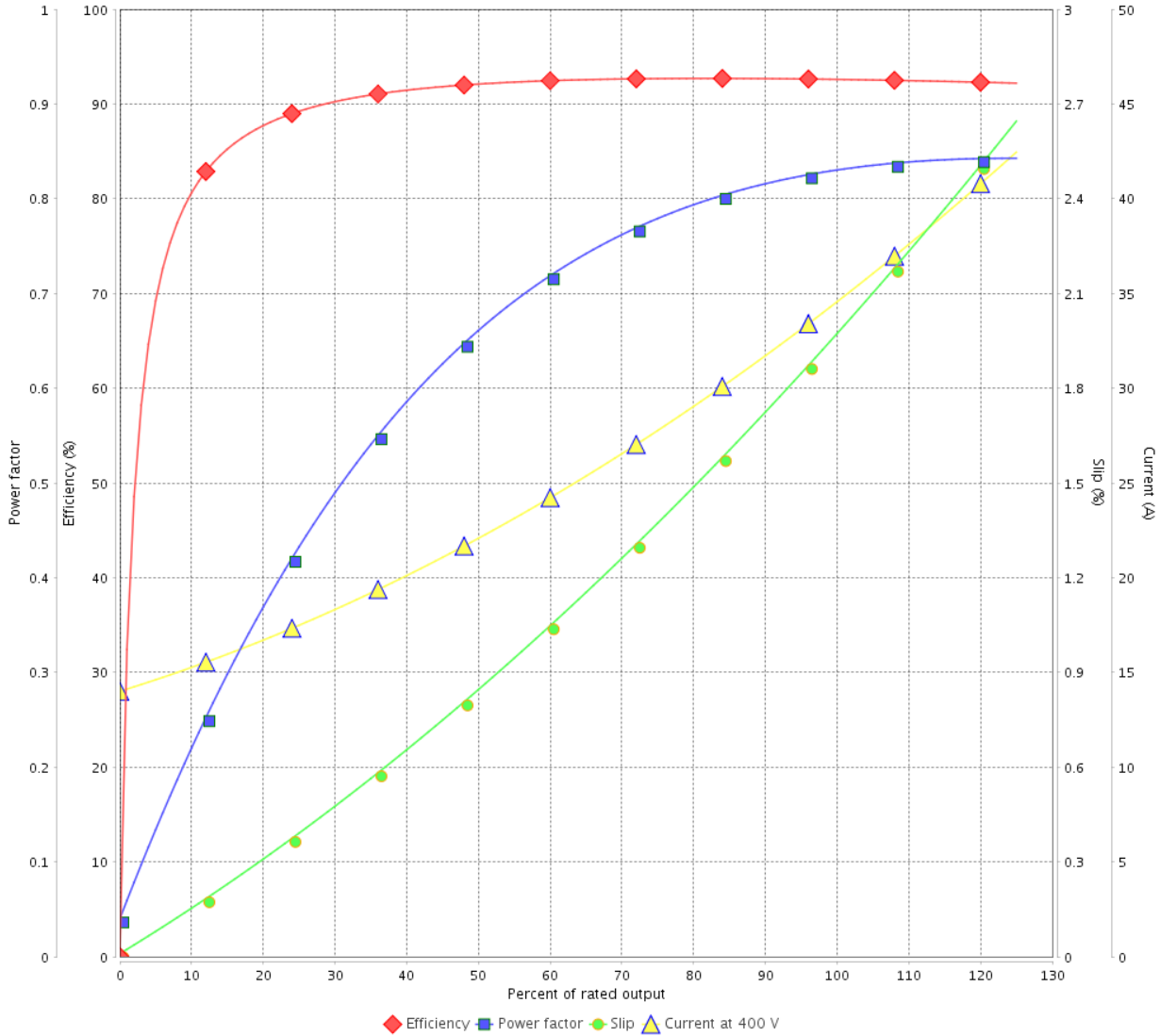
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14503754

Catalog # : 03018OT3E286TC-W40G

LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 4P IE3

Rated current : 34.7 A
 LRC : 7.2
 Rated torque : 89.3 ft.lb
 Locked rotor torque : 260 %
 Breakdown torque : 270 %
 Rated speed : 1470 rpm

Moment of inertia (J) : 4.52 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				

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Three Phase Induction Motor - Squirrel Cage

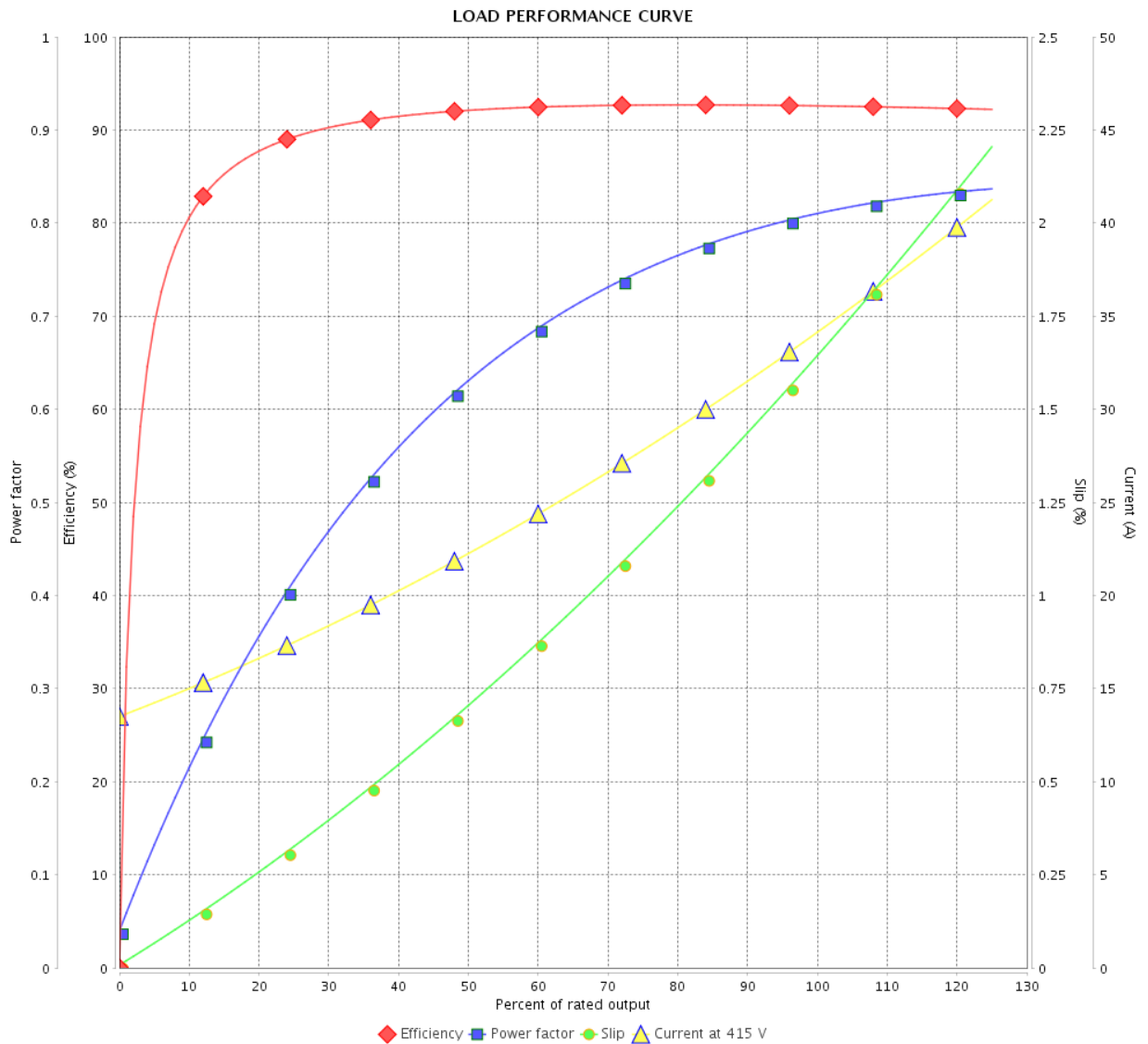


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Product code : 14503754

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Performance : 415 V 50 Hz 4P IE3

Rated current : 34.3 A
 LRC : 7.1
 Rated torque : 89.0 ft.lb
 Locked rotor torque : 280 %
 Breakdown torque : 300 %
 Rated speed : 1470 rpm

Moment of inertia (J) : 4.52 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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Rated speed : 1765 rpm

Moment of inertia (J) : 4.52 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

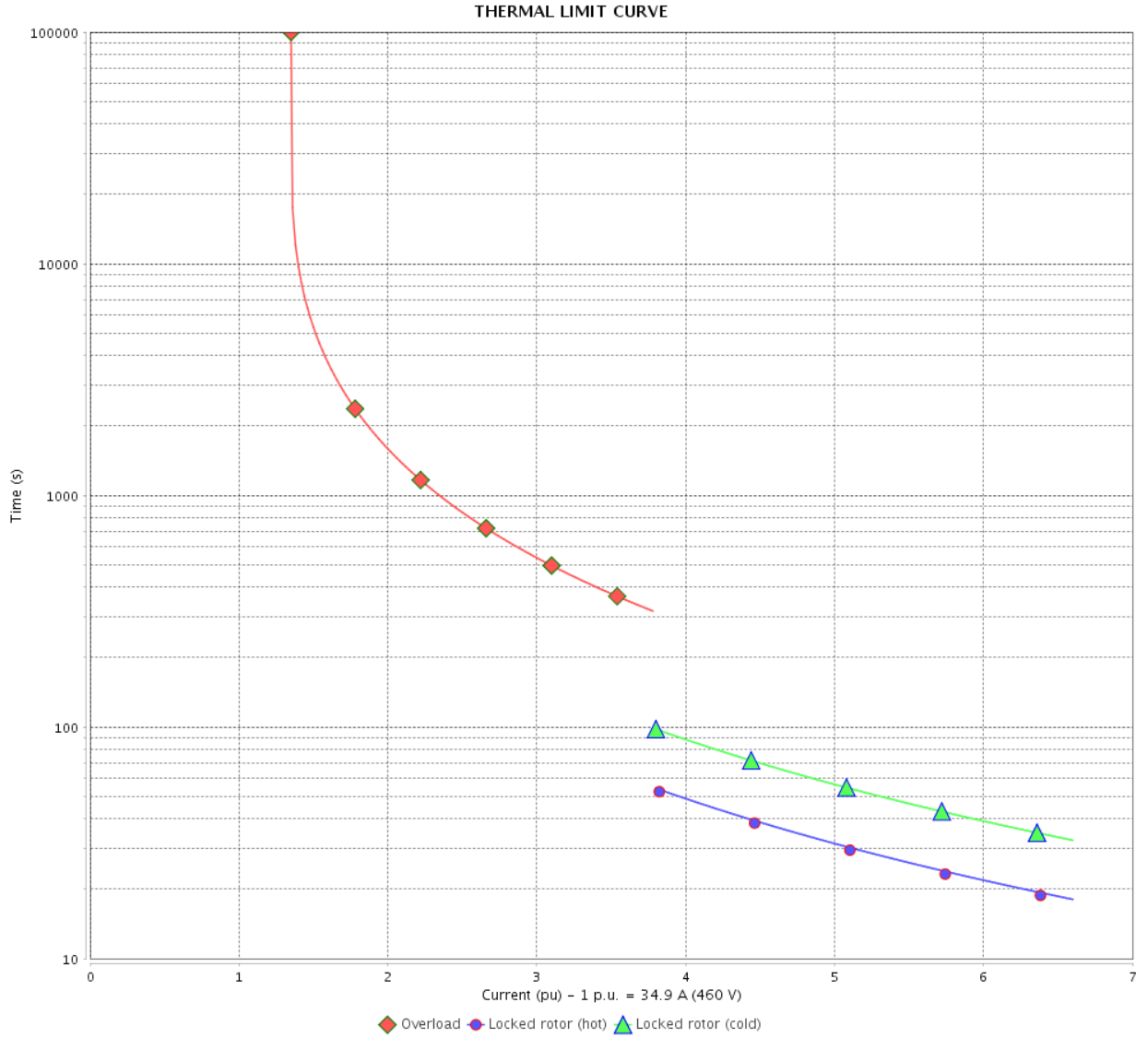
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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Catalog # : 03018OT3E286TC-W40G

Performance : 380 V 50 Hz 4P IE3

Rated current	: 35.7 A	Moment of inertia (J)	: 4.52 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 89.3 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 1465 rpm	Design	: B

Heating constant

Cooling constant

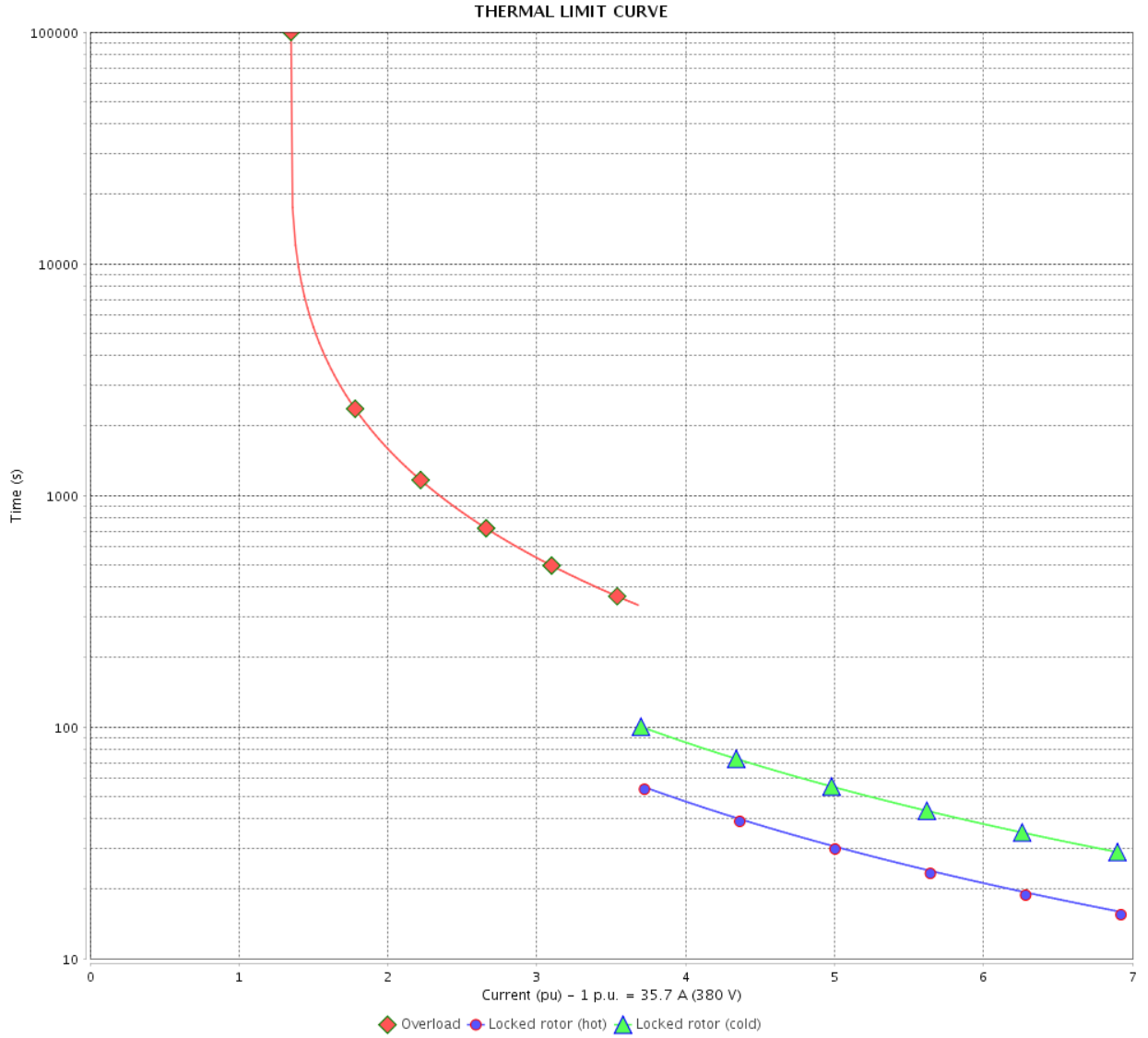
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Three Phase Induction Motor - Squirrel Cage



Customer :

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Three-Phase

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Performance : 400 V 50 Hz 4P IE3

Rated current	: 34.7 A	Moment of inertia (J)	: 4.52 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 89.3 ft.lb	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1470 rpm	Design	: B

Heating constant

Cooling constant

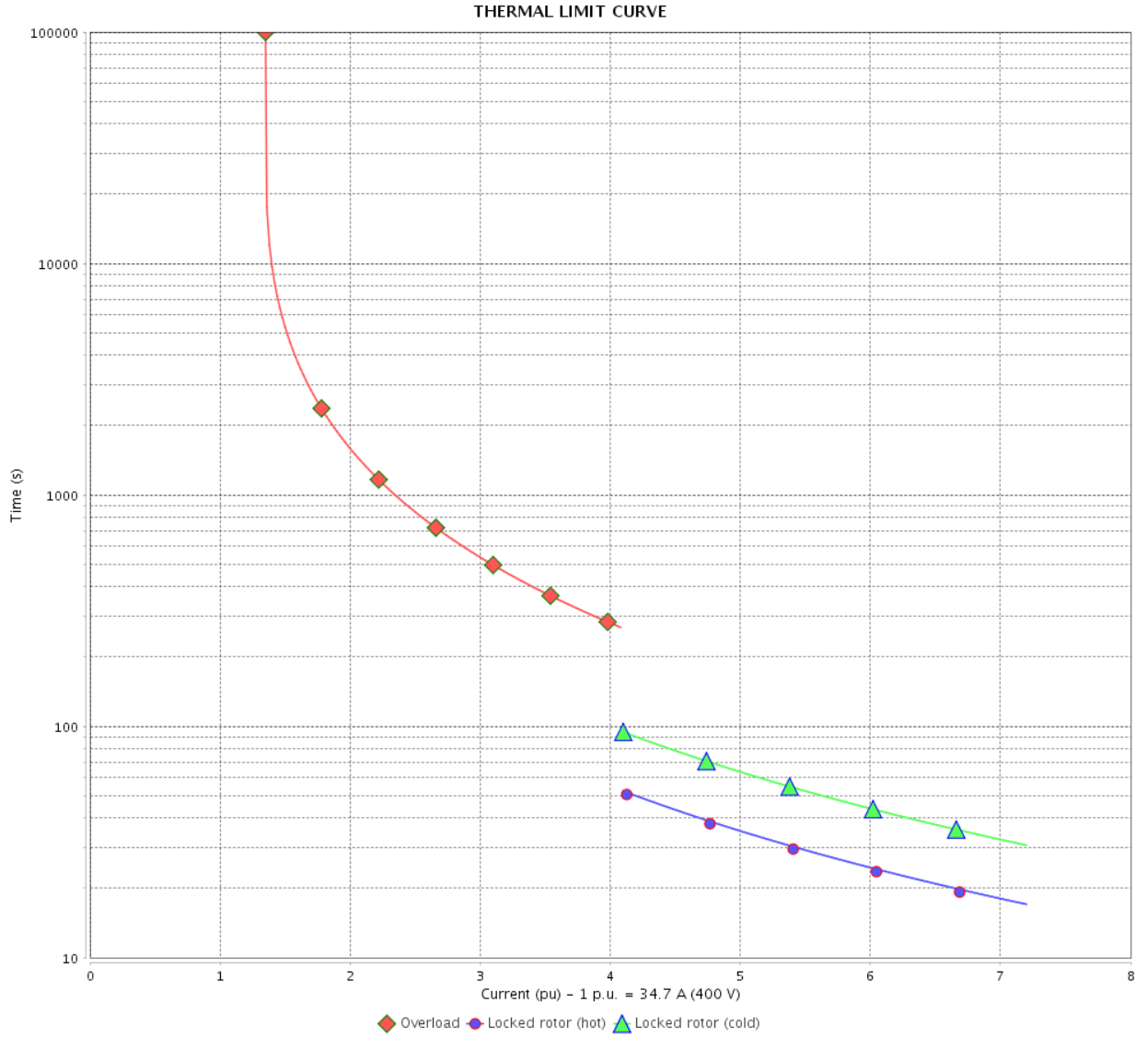
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Three Phase Induction Motor - Squirrel Cage



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Date				

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14503754

Catalog # : 03018OT3E286TC-W40G

Performance : 415 V 50 Hz 4P IE3

Rated current	: 34.3 A	Moment of inertia (J)	: 4.52 sq.ft.lb
LRC	: 7.1	Duty cycle	: Cont.(S1)
Rated torque	: 89.0 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1470 rpm	Design	: B

Heating constant

Cooling constant

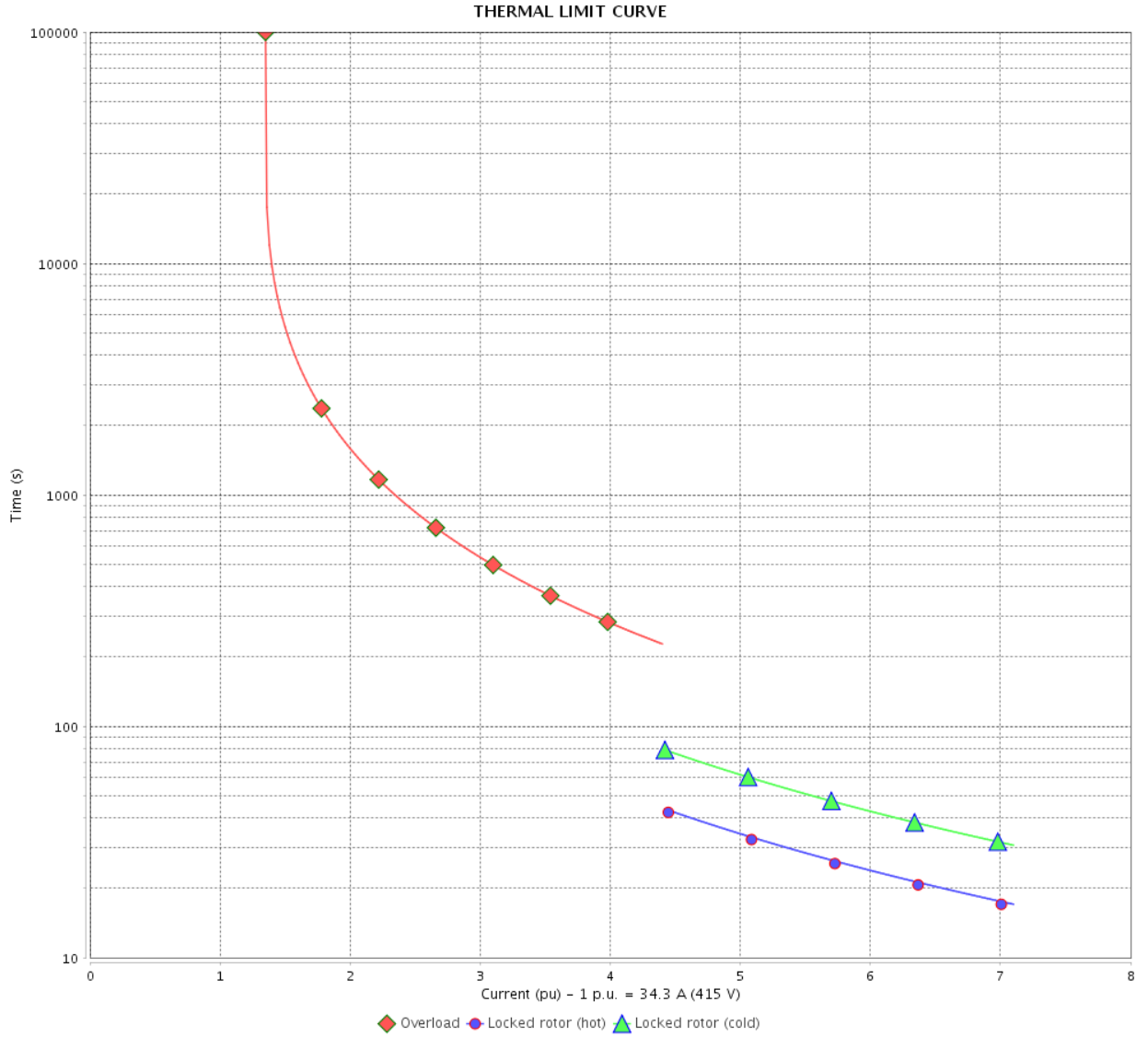
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Three Phase Induction Motor - Squirrel Cage



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

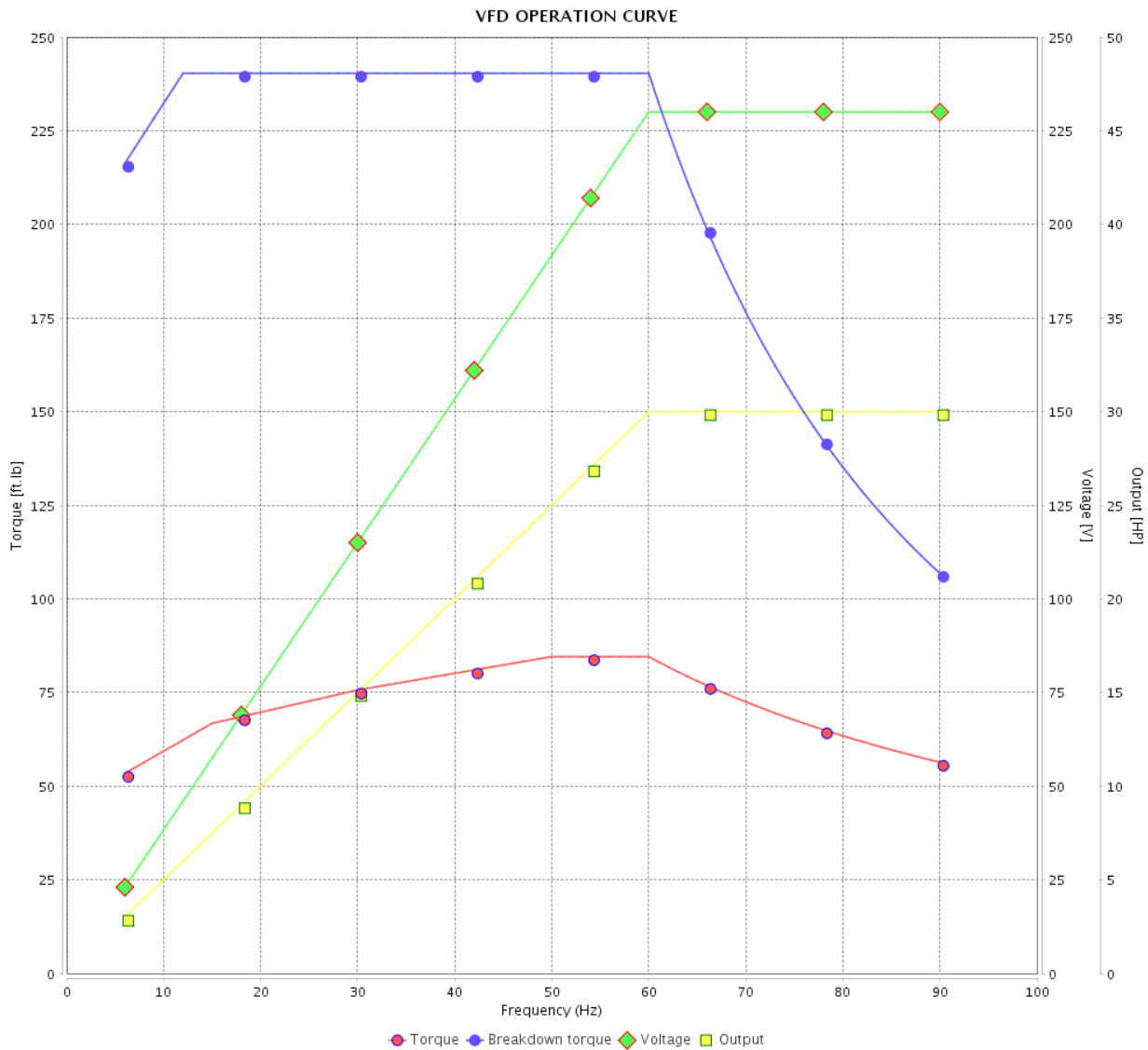


Customer : _____

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14503754

Catalog # : 03018OT3E286TC-W40G



Performance : 230/460 V 60 Hz 4P

Rated current : 69.8/34.9 A
 LRC : 6.6
 Rated torque : 89.0 ft.lb
 Locked rotor torque : 280 %
 Breakdown torque : 270 %
 Rated speed : 1765 rpm

Moment of inertia (J) : 4.52 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

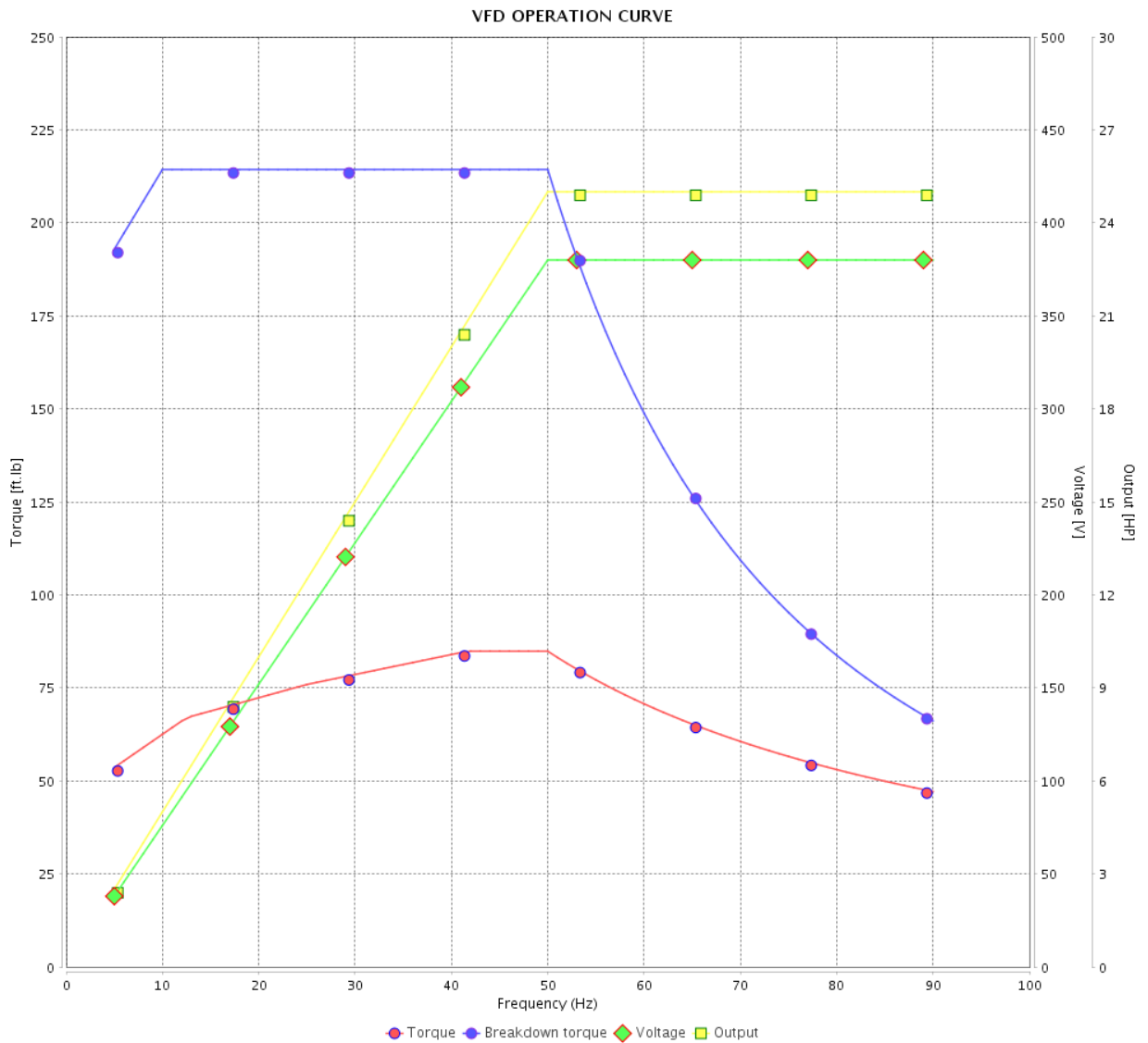


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Performance : 380 V 50 Hz 4P IE3

Rated current : 35.7 A
LRC : 6.9
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Breakdown torque : 240 %
Rated speed : 1465 rpm

Moment of inertia (J) : 4.52 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

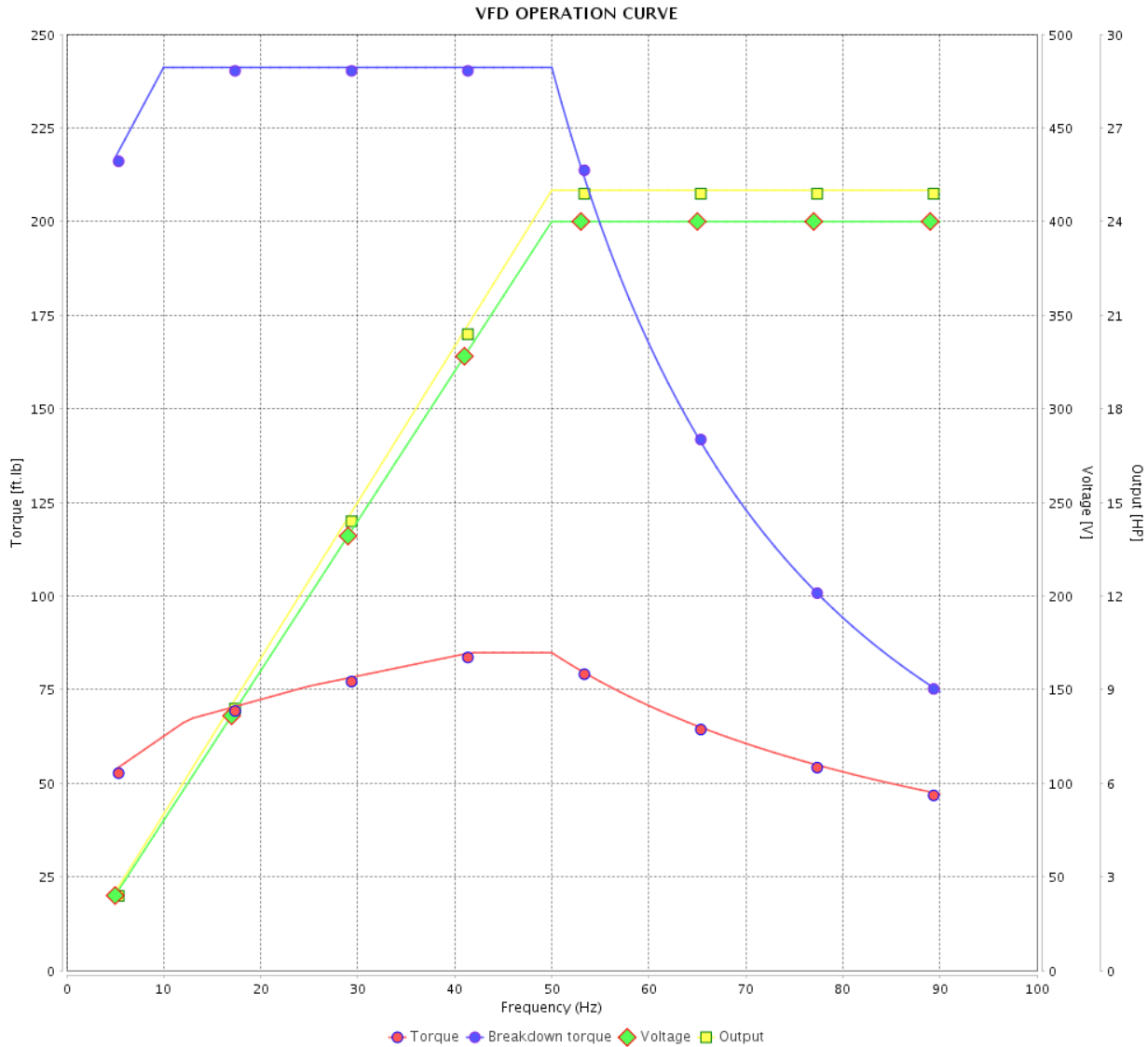


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Catalog # : 03018OT3E286TC-W40G



Performance : 400 V 50 Hz 4P IE3

Rated current : 34.7 A
LRC : 7.2
Rated torque : 89.3 ft.lb
Locked rotor torque : 260 %
Breakdown torque : 270 %
Rated speed : 1470 rpm

Moment of inertia (J) : 4.52 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

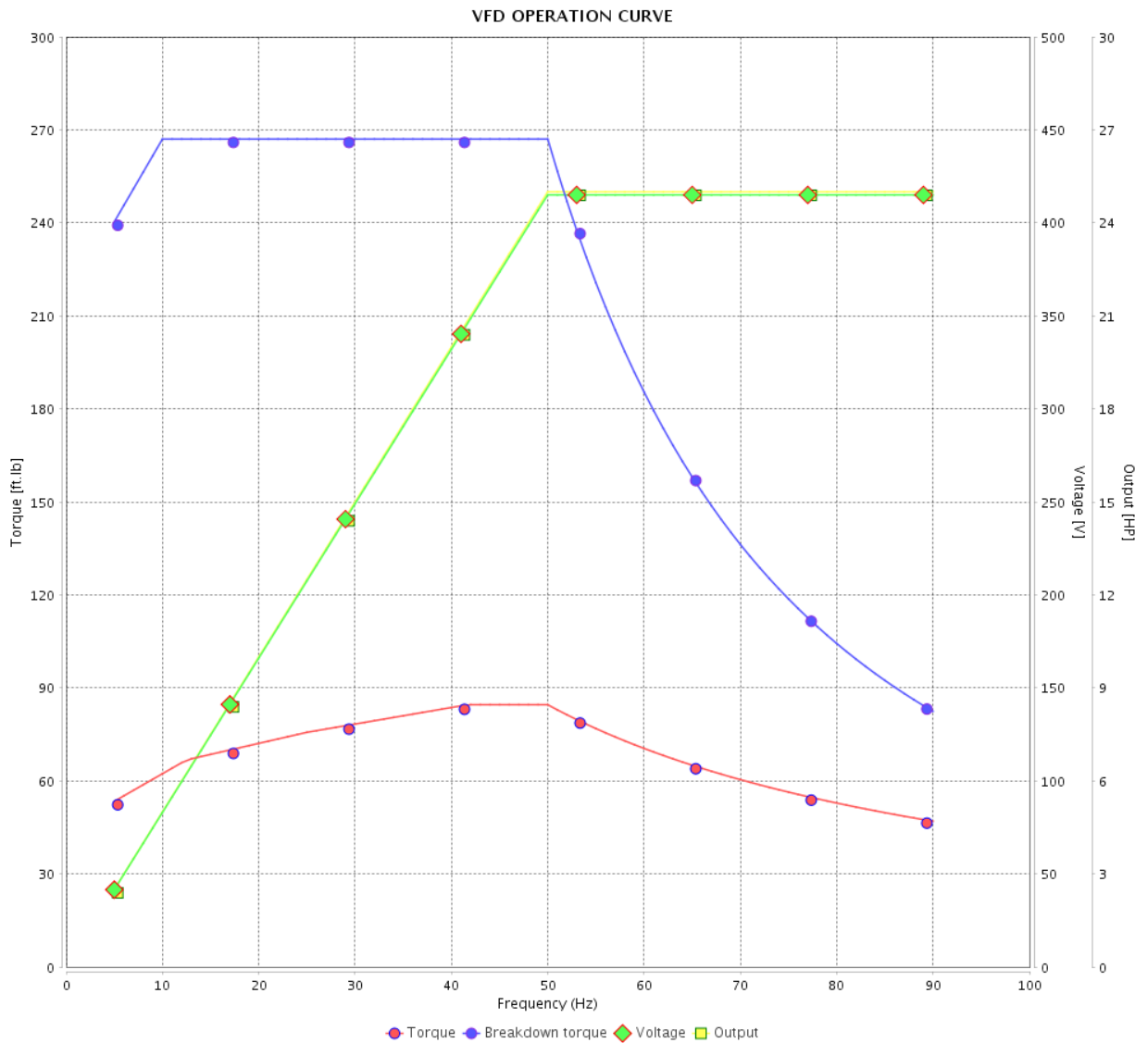


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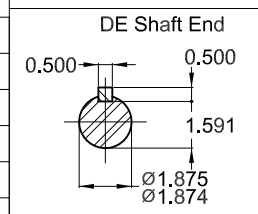
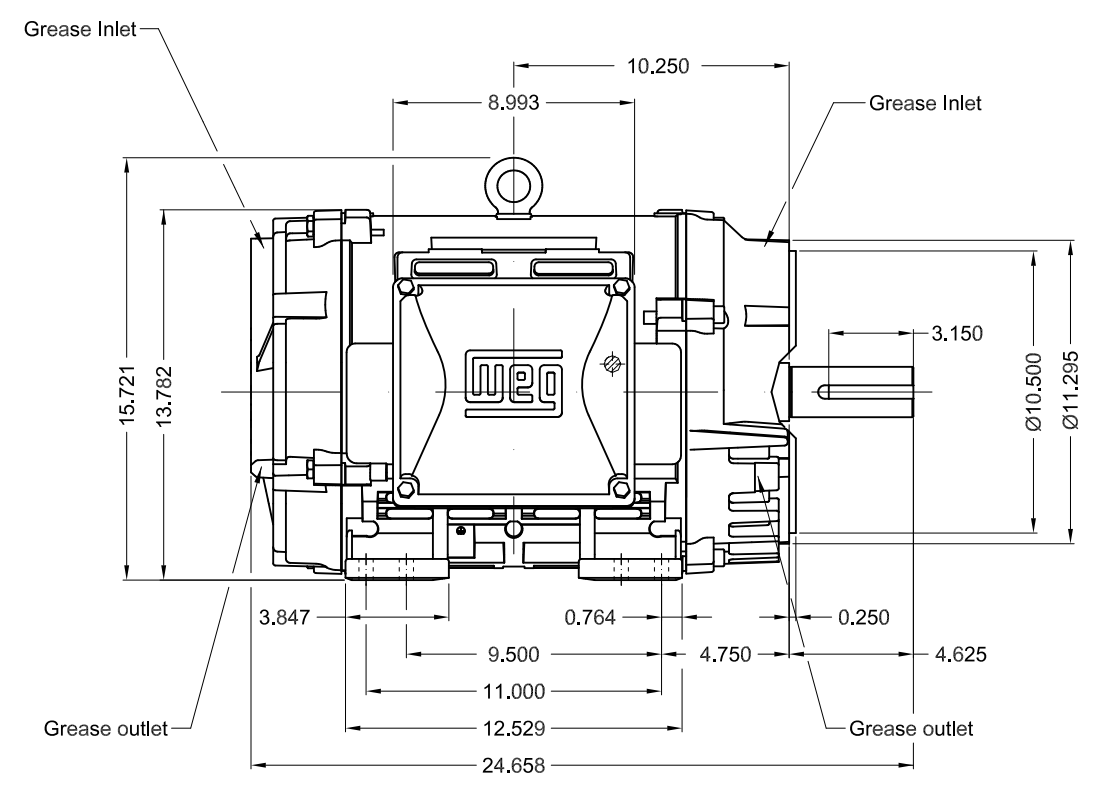
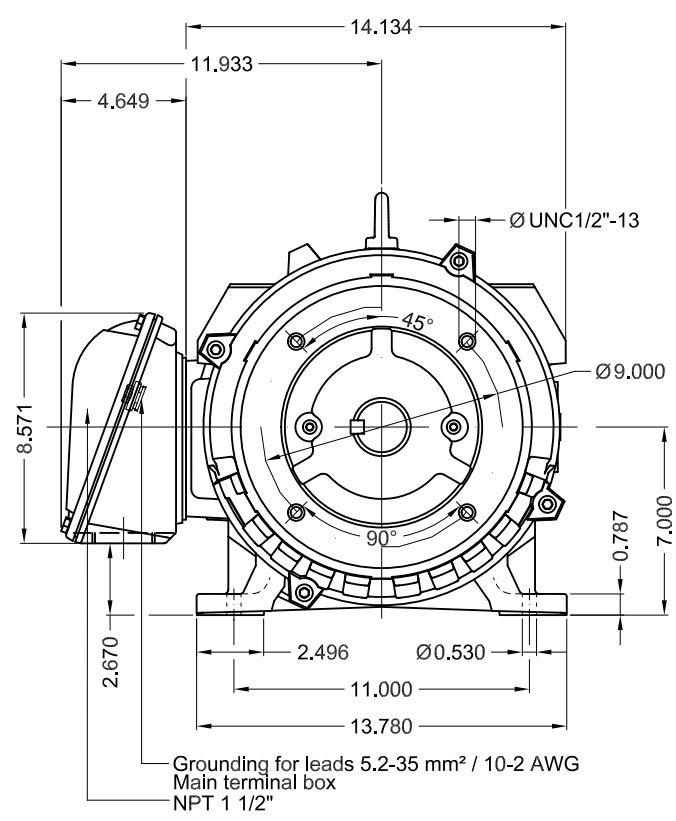


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30 HP 04 Poles 60 Hz A

1:7

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

PREVIEW
WDD



- Bearing cap
- Internal AEGIS ground ring on the DE
- Color RAL 5009
- Painting plan 203A
- Mounting NEMA F-1
- Mounting B34R(D)

MODEL 030180T3E286TC-W40G
MADE IN BRAZIL
14503754

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

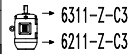
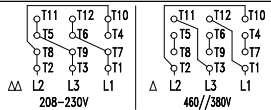


IEC 60034-1
MOD.T01#FOXON



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

PH 3	FR 284/6TC	HP(kW) 30.0(22.0)	Hz 60
V 230/460	A 69.8/34.9	RPM 1765	DES B
NEMA NOM EFF 94.1 %	INS. CL. F Δ T 80 K	IP23	
ENCL ODP	DUTY CONT.	AMB. 40°C	
CODE G	PF 0.84	SF 1.25	SFA 87.3/43.6
USABLE @208V 77.2 A	SF 1.15	SFA 88.8	
25HP 18.5kW 50Hz 380V 35.7A 1465RPM SF1.00 EFF 92.6% (IE3)	ALT 1000 m.a.s.l.	406 Lbs	



MOBIL POLYREX EM
18 g 20000 h