

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer					
Product line		: W40 JM Pump NEMA Premium Efficiency Three-Phase		Product code : 14483182	
				Catalog # : 01012OT3E256JM-W40	
Frame		: 254/6JM		Cooling method : IC01 - ODP	
Insulation class		: F		Mounting : F-1	
Duty cycle		: Cont.(S1)		Rotation <sup>1</sup> : Both (CW and CCW)	
Ambient temperature		: -20°C to +40°C		Starting method : Direct On Line	
Altitude		: 1000 m.a.s.l.		Approx. weight <sup>2</sup> : 271 lb	
Protection degree		: IP23		Moment of inertia (J) : 3.53 sq.ft.lb	
Design		: B			
Output [HP]	10	10	10	10	10
Poles	6	6	6	6	6
Frequency [Hz]	60	50	50	50	50
Rated voltage [V]	230/460	380	400	415	415
Rated current [A]	25.6/12.8	15.0	14.6	14.3	14.3
L. R. Amperes [A]	174/87.0	88.5	93.4	94.4	94.4
LRC [A]	6.8x(Code H)	5.9x(Code G)	6.4x(Code H)	6.6x(Code H)	6.6x(Code H)
No load current [A]	12.2/6.10	6.10	6.50	6.80	6.80
Rated speed [RPM]	1180	970	975	975	975
Slip [%]	1.67	3.00	2.50	2.50	2.50
Rated torque [ft.lb]	44.5	54.1	53.9	53.9	53.9
Locked rotor torque [%]	229	190	210	229	229
Breakdown torque [%]	300	229	260	280	280
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	30s (cold) 17s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)
Noise level <sup>2</sup>	59.0 dB(A)				
Efficiency (%)	25%	89.4	88.3	88.3	88.3
	50%	90.2	88.6	88.6	88.6
	75%	91.0	89.0	89.0	89.0
	100%	91.7	89.1	89.1	89.1
Power Factor	25%	0.37	0.44	0.41	0.38
	50%	0.62	0.70	0.66	0.63
	75%	0.74	0.80	0.78	0.76
	100%	0.80	0.85	0.83	0.82
Bearing type	: Drive end : 6309 Z C3	: Non drive end : 6209 Z C3	Foundation loads		
Sealing	: Without	: Without	Max. traction		
	: Bearing Seal	: Bearing Seal	Max. compression		
Lubrication interval	: 20000 h	: 20000 h			
Lubricant amount	: 13 g	: 9 g			
Lubricant type	: Mobil Polyrex EM				
Notes					
USABLE @208V 28.3A SF 1.15 SFA 32.6A					
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

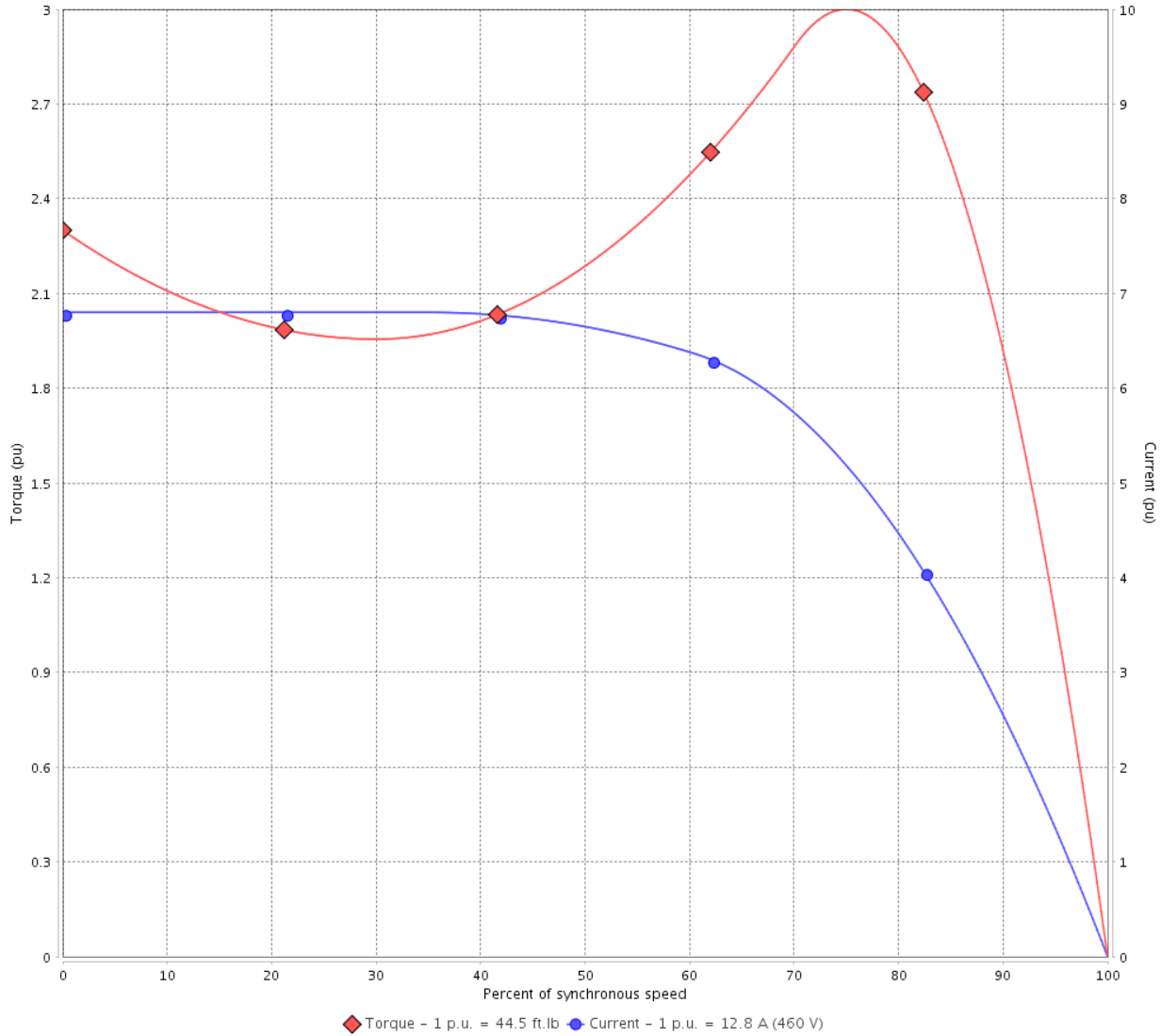
Customer :

Product line : W40 JM Pump NEMA Premium Efficiency Three-Phase

Product code : 14483182

Catalog # : 01012OT3E256JM-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 6P

Rated current : 25.6/12.8 A  
 LRC : 6.8  
 Rated torque : 44.5 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 300 %  
 Rated speed : 1180 rpm

Moment of inertia (J) : 3.53 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

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

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# TORQUE AND CURRENT VS SPEED CURVE



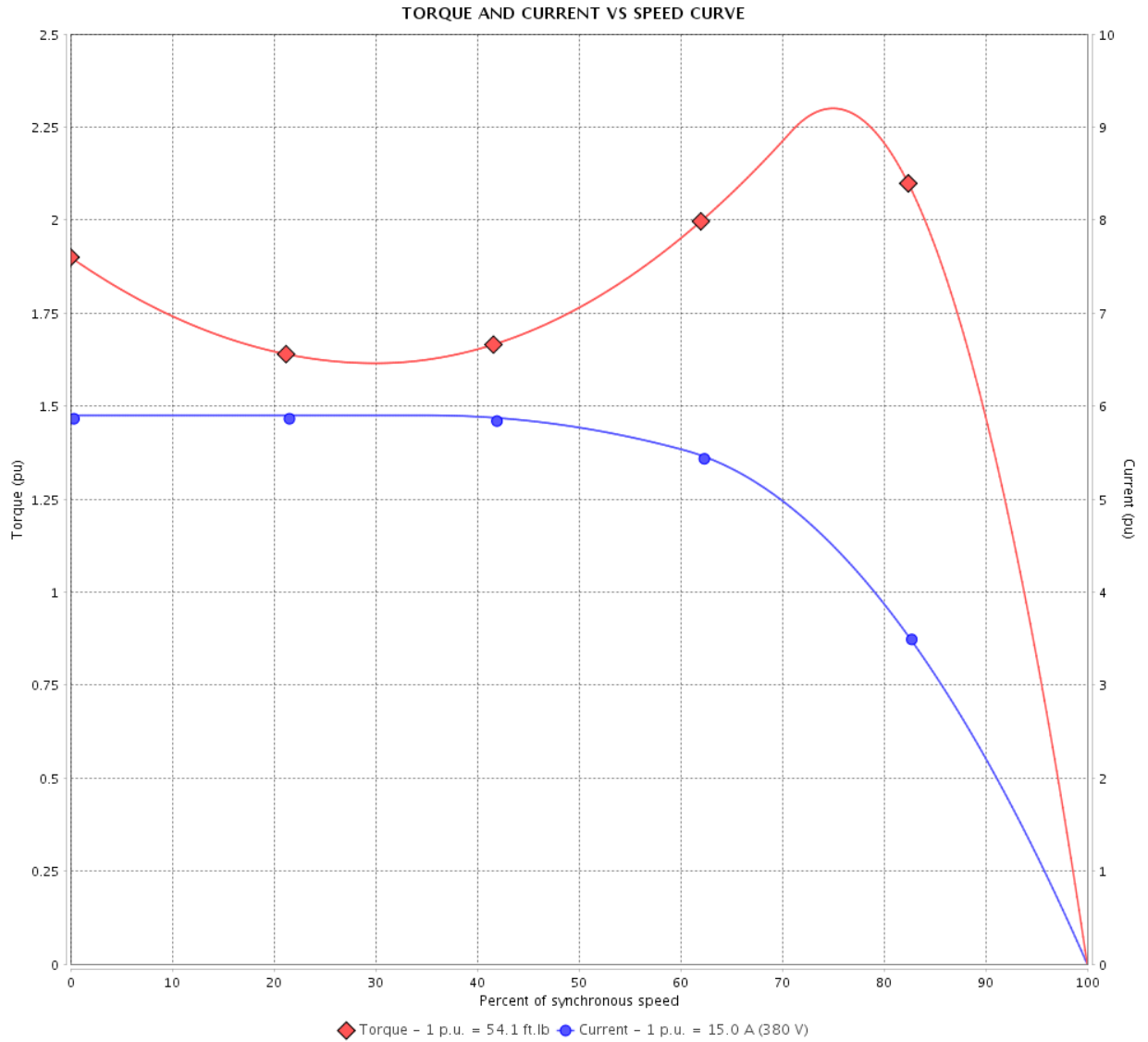
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 JM Pump NEMA Premium Efficiency Three-Phase

Product code : 14483182

Catalog # : 01012OT3E256JM-W40



Performance : 380 V 50 Hz 6P IE3

Rated current : 15.0 A  
 LRC : 5.9  
 Rated torque : 54.1 ft.lb  
 Locked rotor torque : 190 %  
 Breakdown torque : 229 %  
 Rated speed : 970 rpm

Moment of inertia (J) : 3.53 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 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



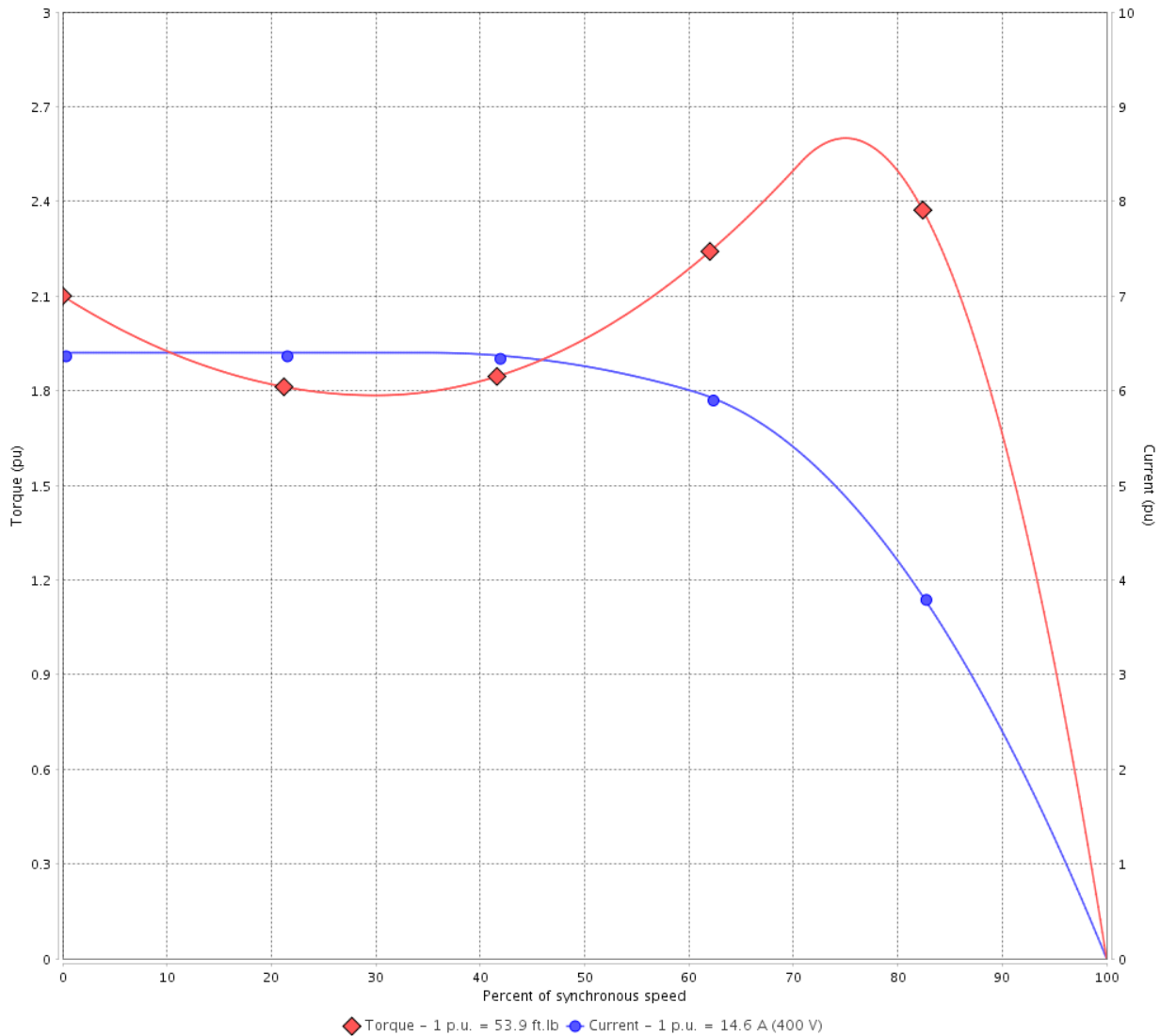
Customer :

Product line : W40 JM Pump NEMA Premium Efficiency Three-Phase

Product code : 14483182

Catalog # : 01012OT3E256JM-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 6P IE3

Rated current	: 14.6 A	Moment of inertia (J)	: 3.53 sq.ft.lb
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 53.9 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 975 rpm	Design	: B

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

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# TORQUE AND CURRENT VS SPEED CURVE



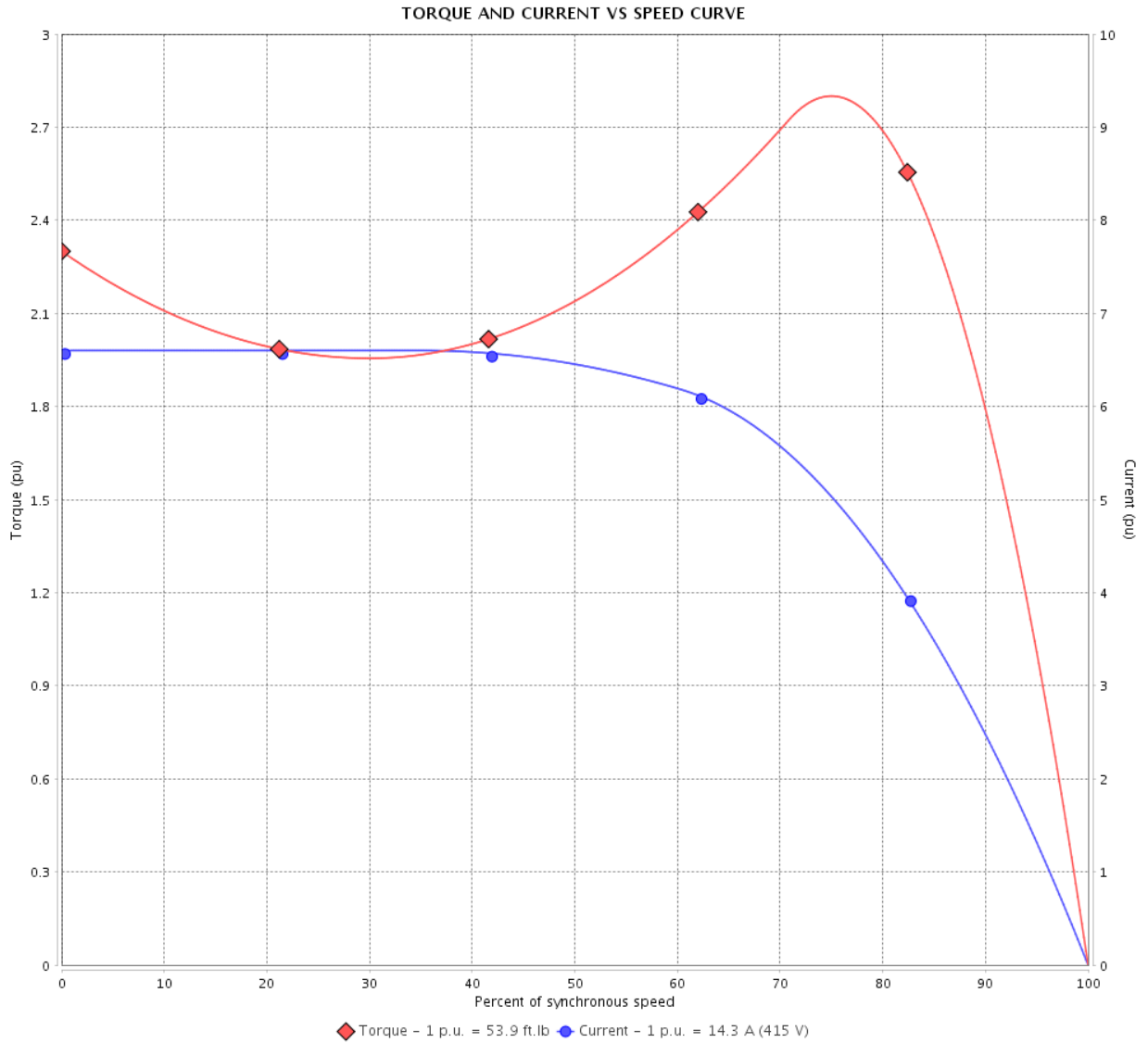
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 JM Pump NEMA Premium Efficiency Three-Phase

Product code : 14483182

Catalog # : 01012OT3E256JM-W40



Performance : 415 V 50 Hz 6P IE3

Rated current	: 14.3 A	Moment of inertia (J)	: 3.53 sq.ft.lb
LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 53.9 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 975 rpm	Design	: B

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

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



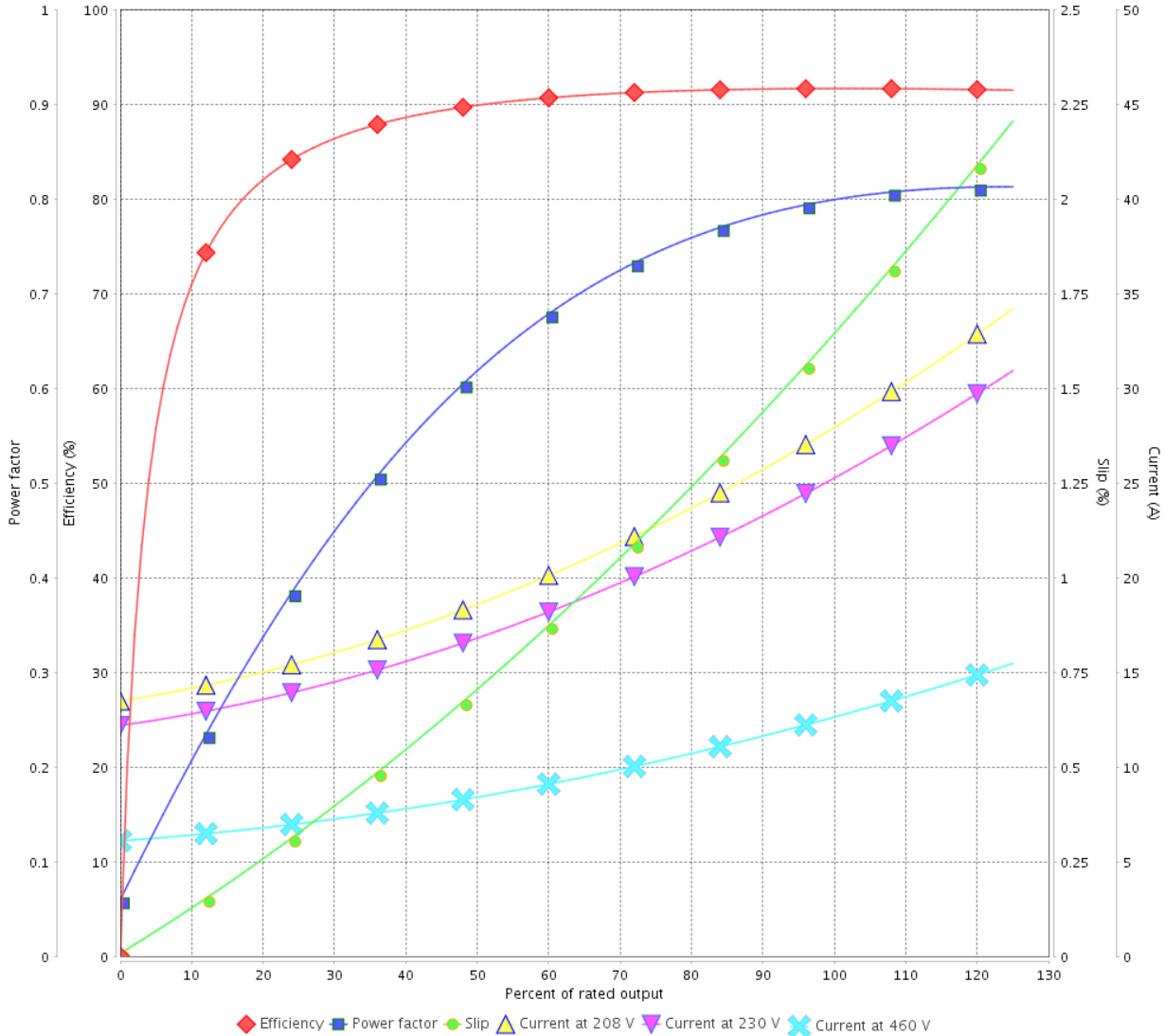
Customer :

Product line : W40 JM Pump NEMA Premium Efficiency Three-Phase

Product code : 14483182

Catalog # : 010120T3E256JM-W40

LOAD PERFORMANCE CURVE



Performance : 230/460 V 60 Hz 6P

Rated current : 25.6/12.8 A  
 LRC : 6.8  
 Rated torque : 44.5 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 300 %  
 Rated speed : 1180 rpm

Moment of inertia (J) : 3.53 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

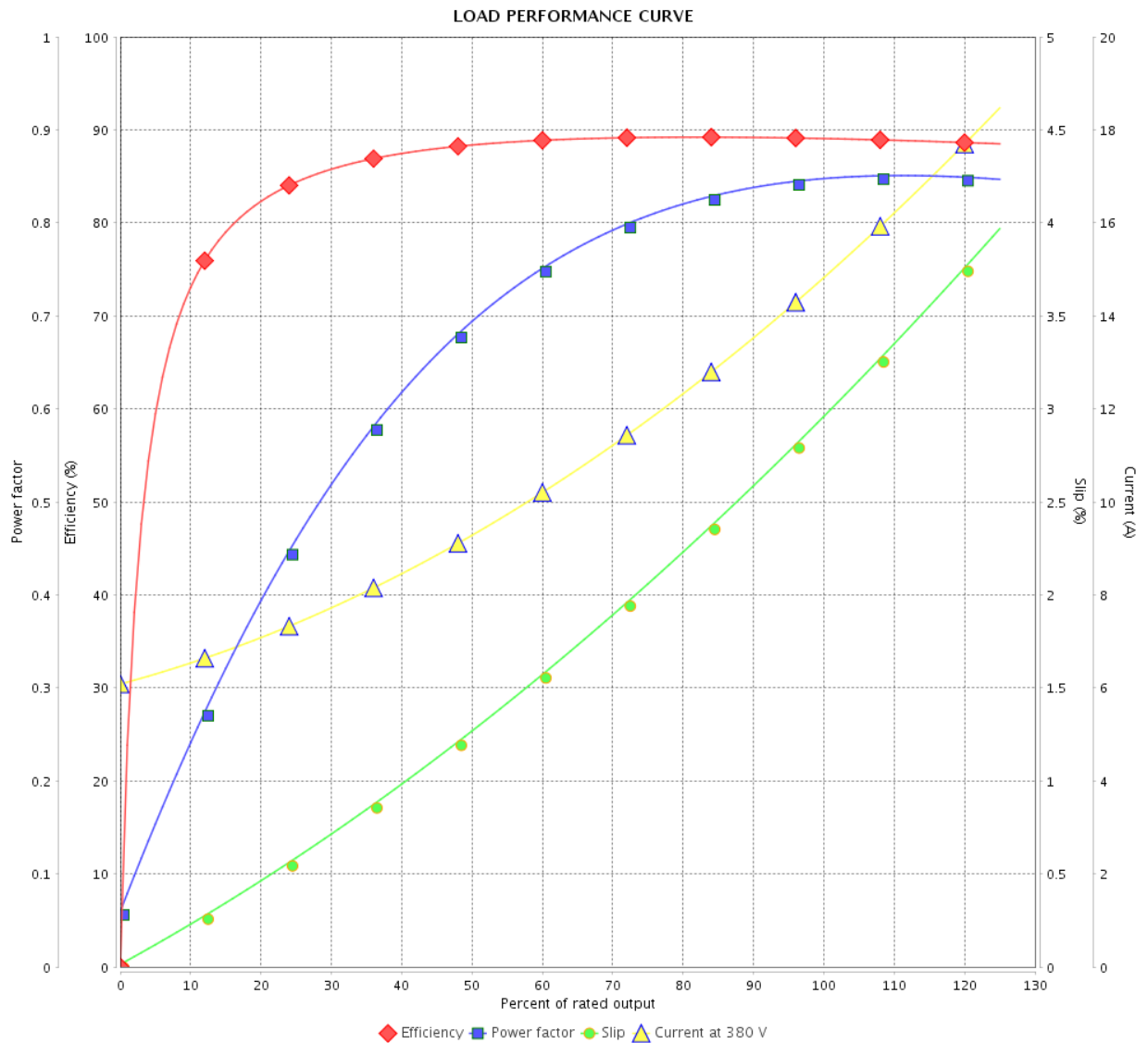


Customer :

Product line : W40 JM Pump NEMA Premium Efficiency Three-Phase

Product code : 14483182

Catalog # : 01012OT3E256JM-W40



Performance : 380 V 50 Hz 6P IE3

Rated current : 15.0 A  
 LRC : 5.9  
 Rated torque : 54.1 ft.lb  
 Locked rotor torque : 190 %  
 Breakdown torque : 229 %  
 Rated speed : 970 rpm

Moment of inertia (J) : 3.53 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



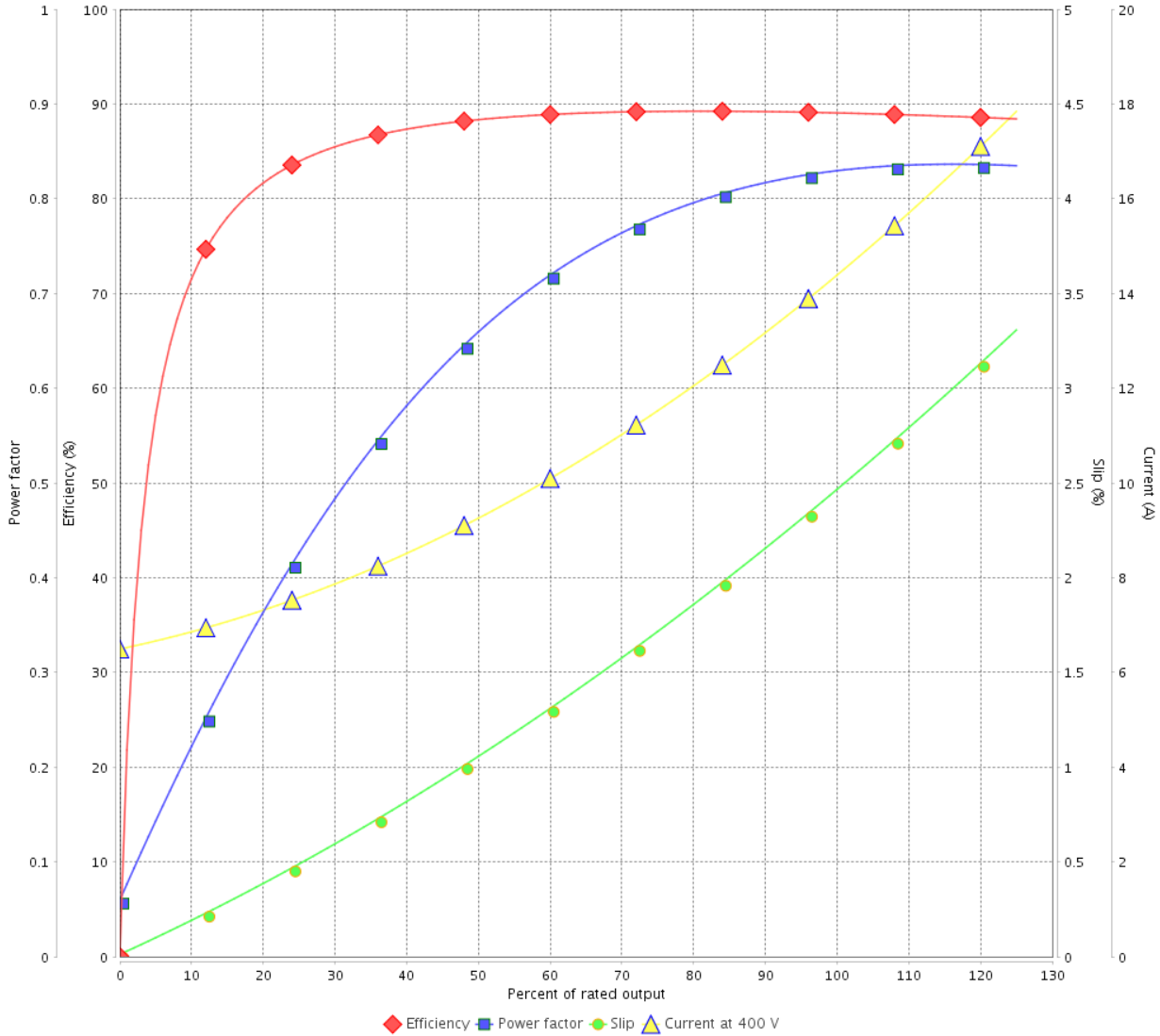
Customer :

Product line : W40 JM Pump NEMA Premium Efficiency Three-Phase

Product code : 14483182

Catalog # : 010120T3E256JM-W40

LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 6P IE3

Rated current : 14.6 A  
 LRC : 6.4  
 Rated torque : 53.9 ft.lb  
 Locked rotor torque : 210 %  
 Breakdown torque : 260 %  
 Rated speed : 975 rpm

Moment of inertia (J) : 3.53 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

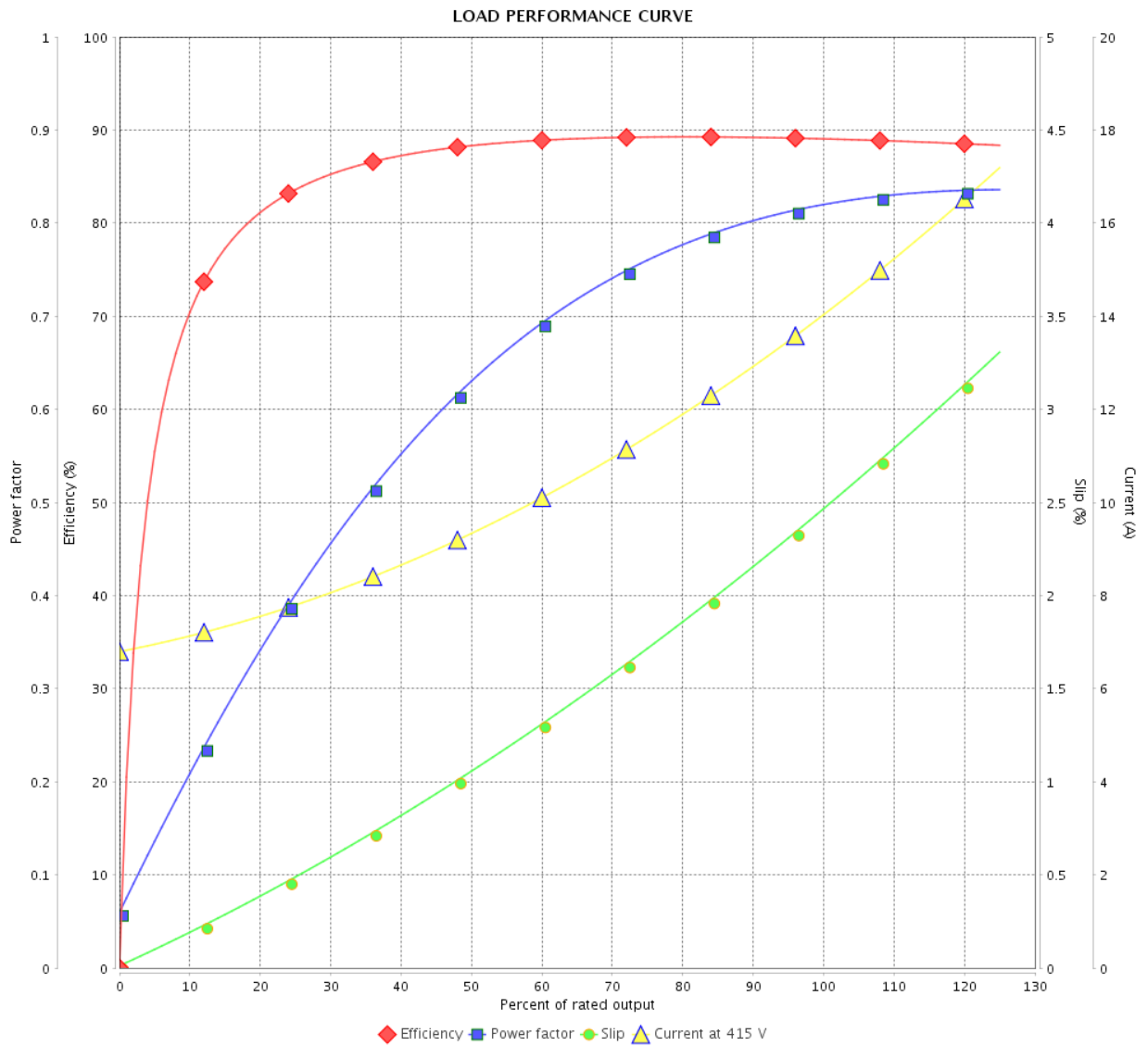


Customer :

Product line : W40 JM Pump NEMA Premium Efficiency Three-Phase

Product code : 14483182

Catalog # : 01012OT3E256JM-W40



Performance : 415 V 50 Hz 6P IE3

Rated current : 14.3 A  
 LRC : 6.6  
 Rated torque : 53.9 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 280 %  
 Rated speed : 975 rpm

Moment of inertia (J) : 3.53 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



## Three Phase Induction Motor - Squirrel Cage

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Efficiency Three-Phase

Product code : 14483182

Catalog # : 01012OT3E256JM-W40

Performance : 230/460 V 60 Hz 6P

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Rated torque : 44.5 ft.lb  
Locked rotor torque : 229 %  
Breakdown torque : 300 %  
Rated speed : 1180 rpm

Moment of inertia (J) : 3.53 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

Heating constant

Cooling constant

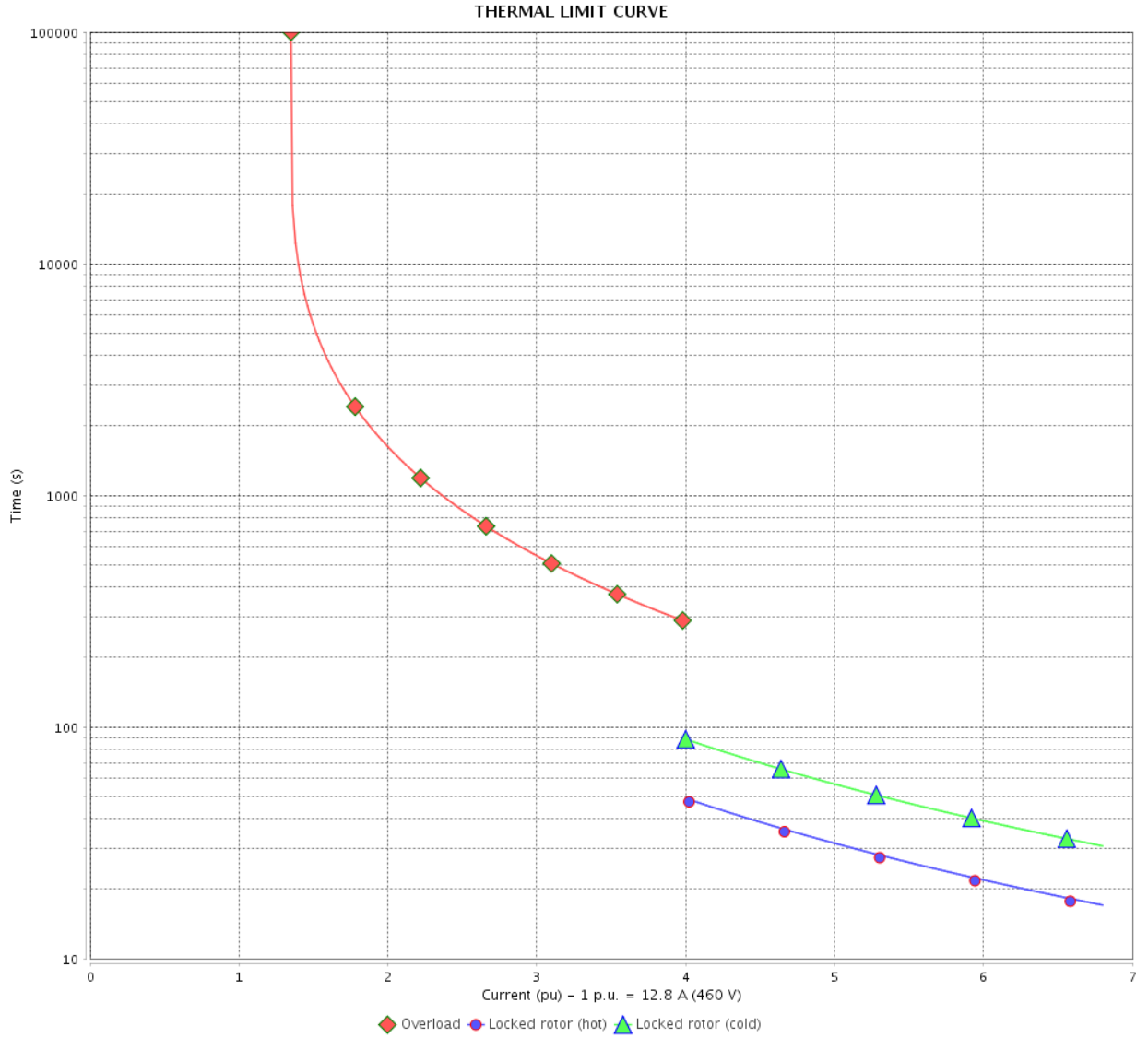
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



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# THERMAL LIMIT CURVE



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Catalog # : 01012OT3E256JM-W40

Performance : 380 V 50 Hz 6P IE3

Rated current : 15.0 A  
LRC : 5.9  
Rated torque : 54.1 ft.lb  
Locked rotor torque : 190 %  
Breakdown torque : 229 %  
Rated speed : 970 rpm

Moment of inertia (J) : 3.53 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : B

Heating constant

Cooling constant

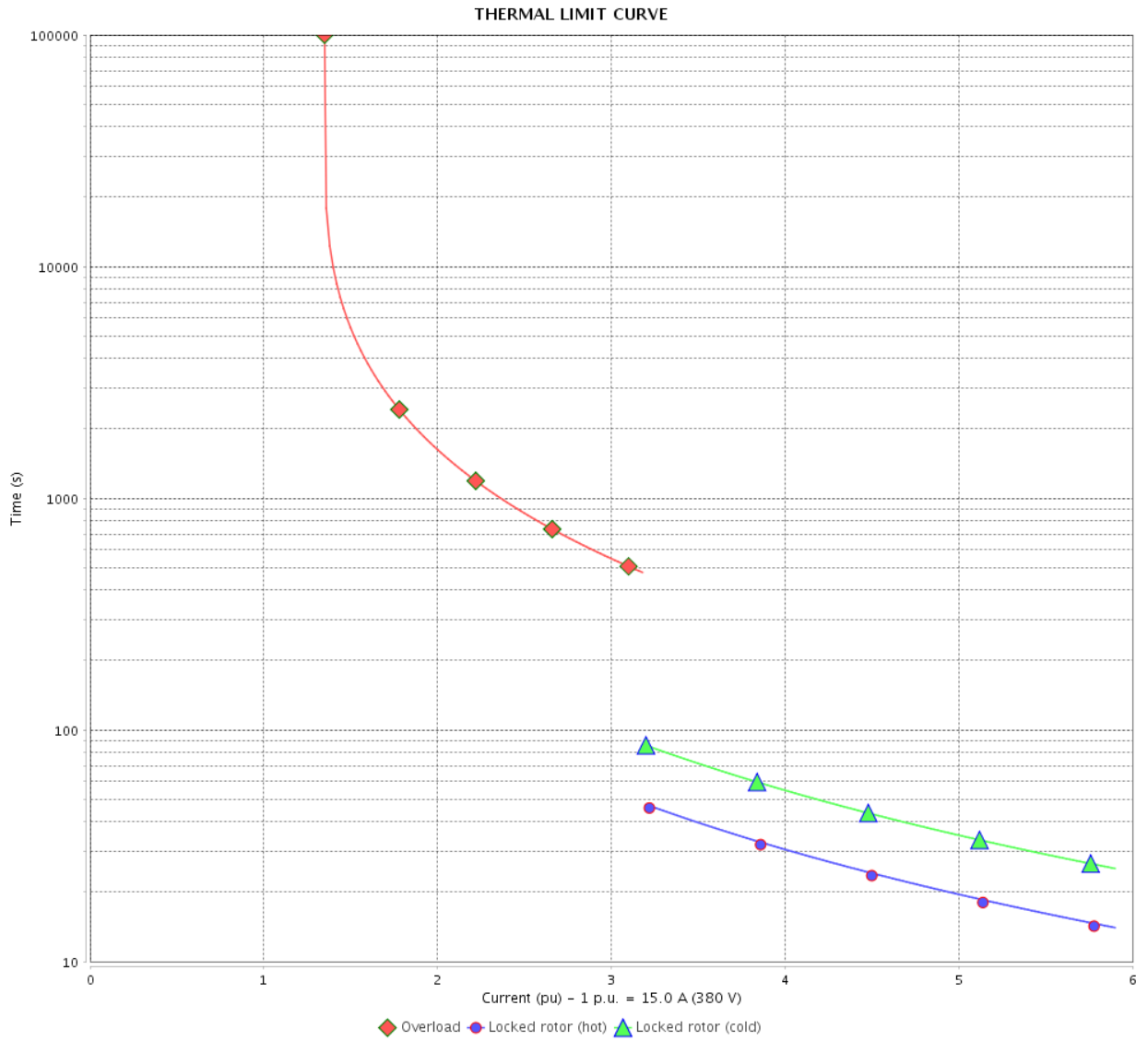
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



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Date		12/04/2022		

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 14483182

Catalog # : 01012OT3E256JM-W40

Performance : 400 V 50 Hz 6P IE3

Rated current : 14.6 A	Moment of inertia (J) : 3.53 sq.ft.lb
LRC : 6.4	Duty cycle : Cont.(S1)
Rated torque : 53.9 ft.lb	Insulation class : F
Locked rotor torque : 210 %	Service factor : 1.00
Breakdown torque : 260 %	Temperature rise : 80 K
Rated speed : 975 rpm	Design : B

Heating constant

Cooling constant

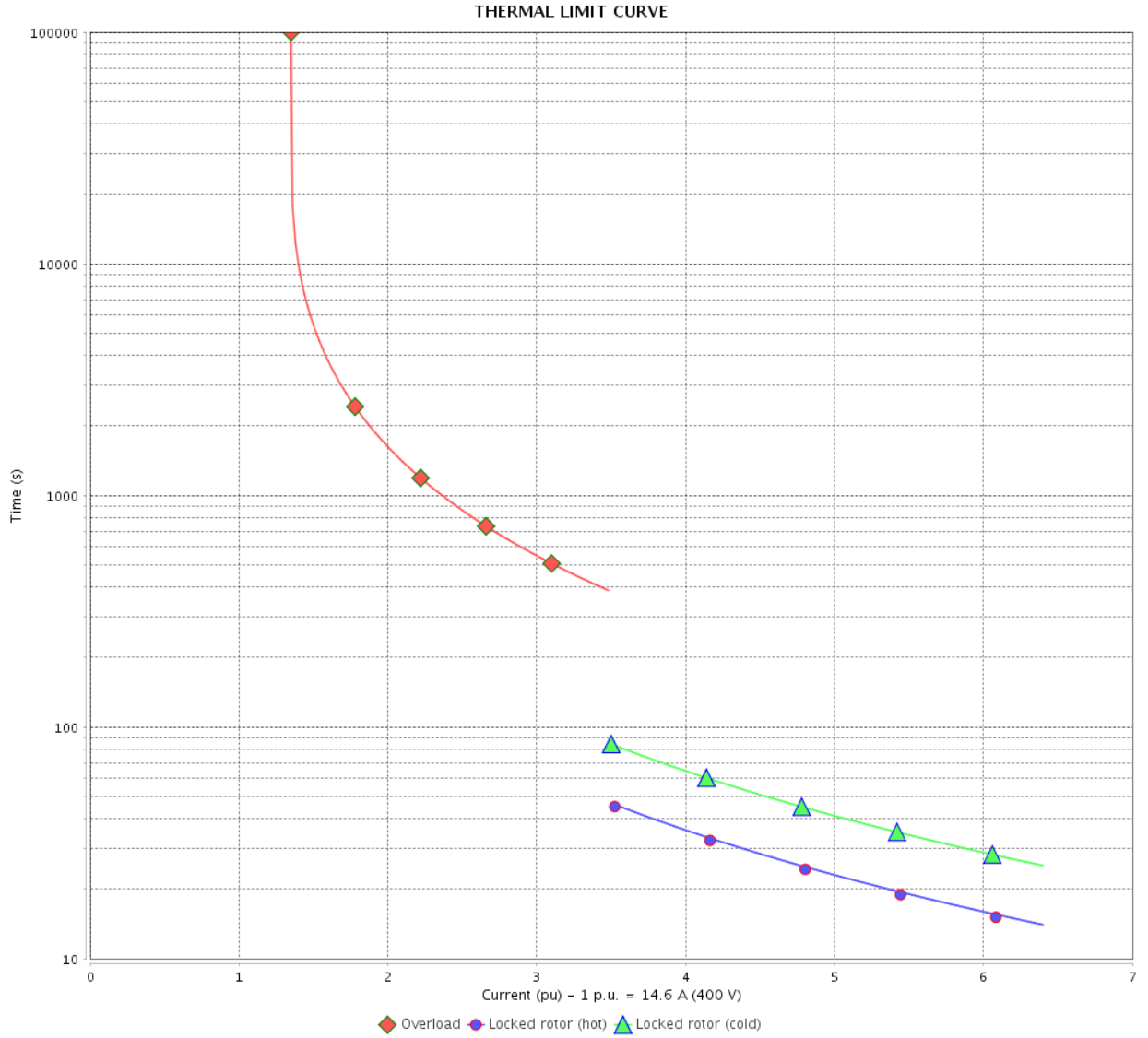
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage

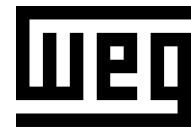


Customer : \_\_\_\_\_



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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 14483182

Catalog # : 01012OT3E256JM-W40

Performance : 415 V 50 Hz 6P IE3

Rated current : 14.3 A	Moment of inertia (J) : 3.53 sq.ft.lb
LRC : 6.6	Duty cycle : Cont.(S1)
Rated torque : 53.9 ft.lb	Insulation class : F
Locked rotor torque : 229 %	Service factor : 1.00
Breakdown torque : 280 %	Temperature rise : 80 K
Rated speed : 975 rpm	Design : B

Heating constant

Cooling constant

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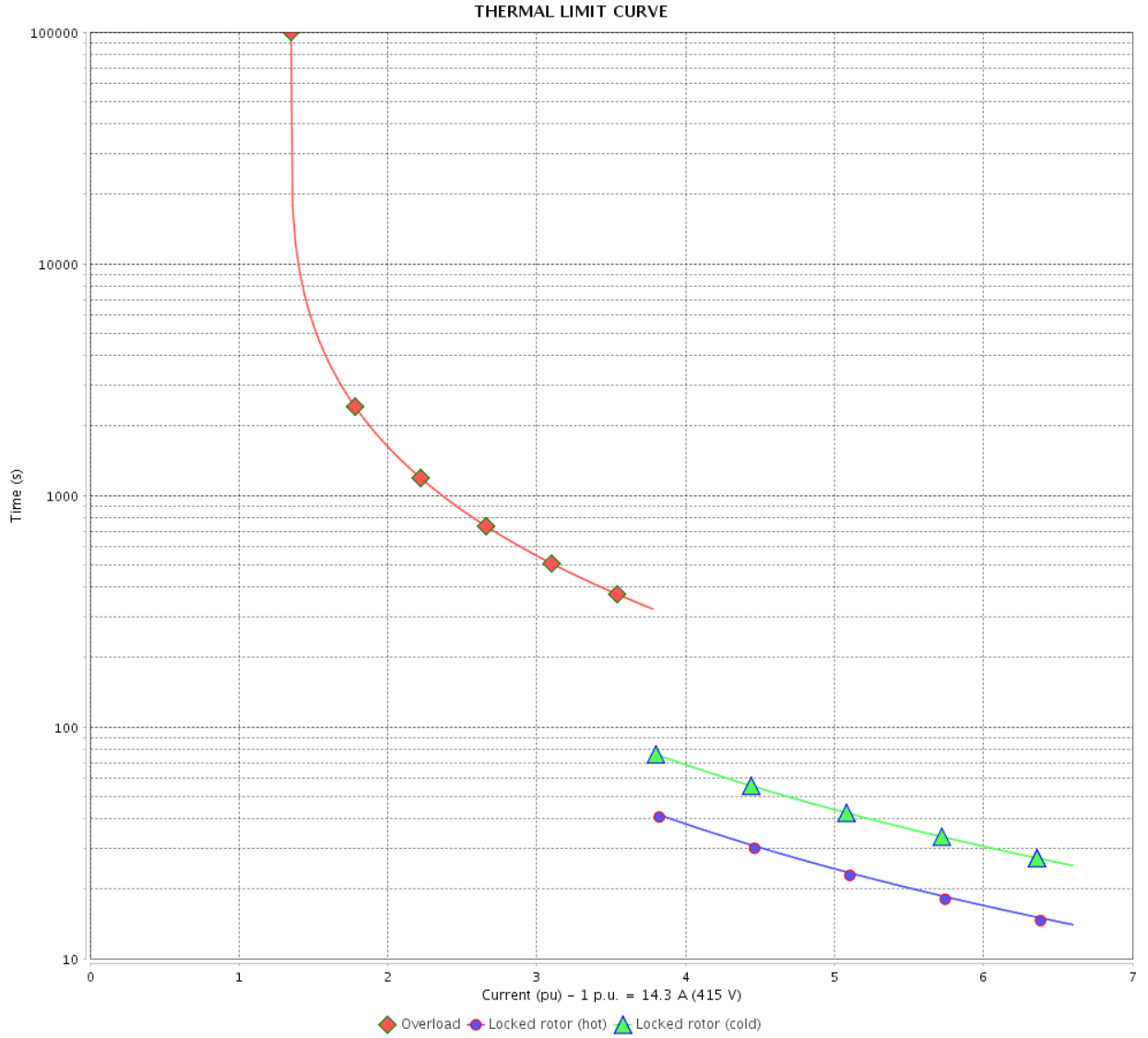


# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



Rev.	Changes Summary	Performed	Checked	Date
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Date		12/04/2022		

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



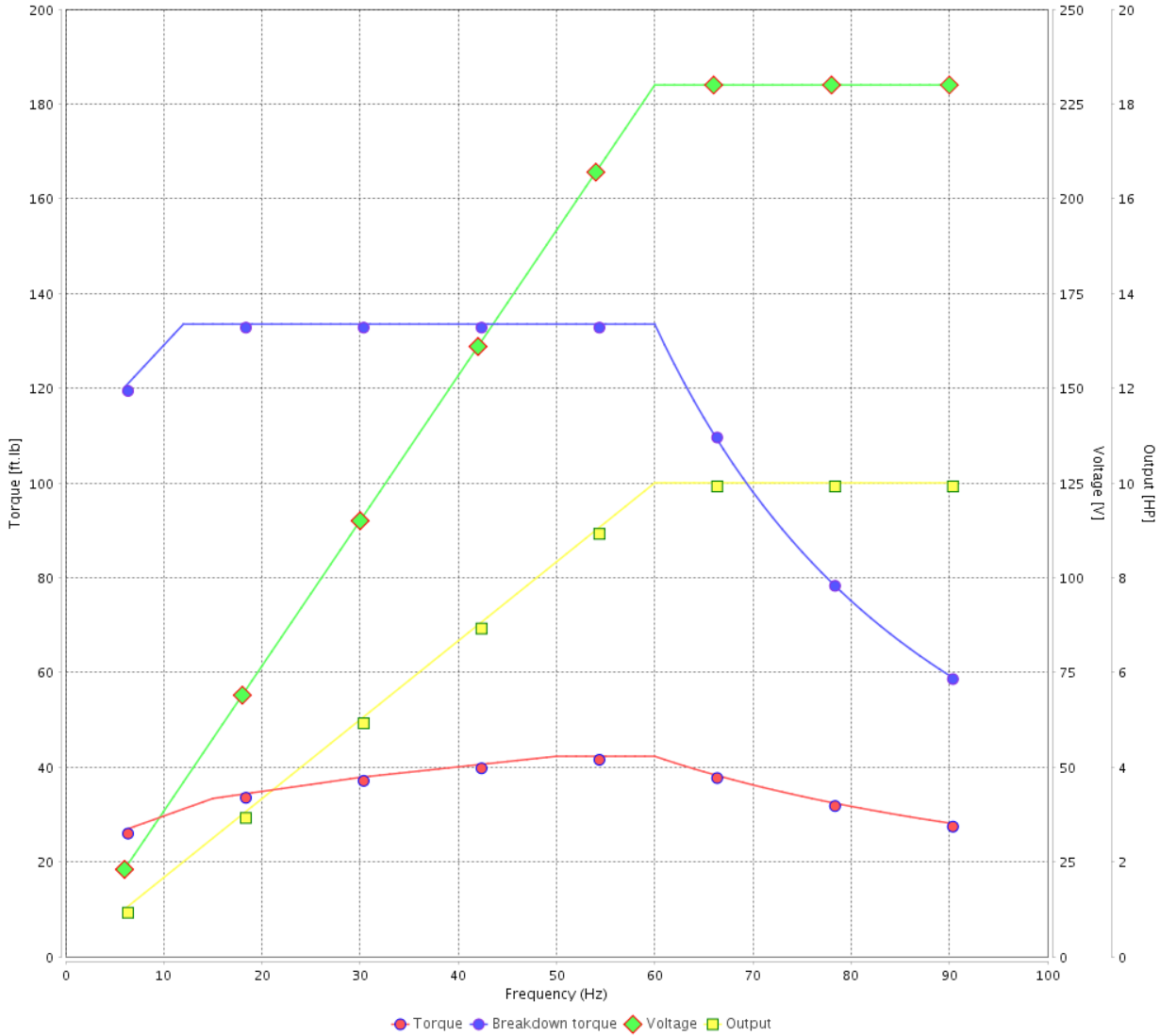
Customer :

Product line : W40 JM Pump NEMA Premium Efficiency Three-Phase

Product code : 14483182

Catalog # : 01012OT3E256JM-W40

VFD OPERATION CURVE



Performance : 230/460 V 60 Hz 6P

Rated current : 25.6/12.8 A  
 LRC : 6.8  
 Rated torque : 44.5 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 300 %  
 Rated speed : 1180 rpm

Moment of inertia (J) : 3.53 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

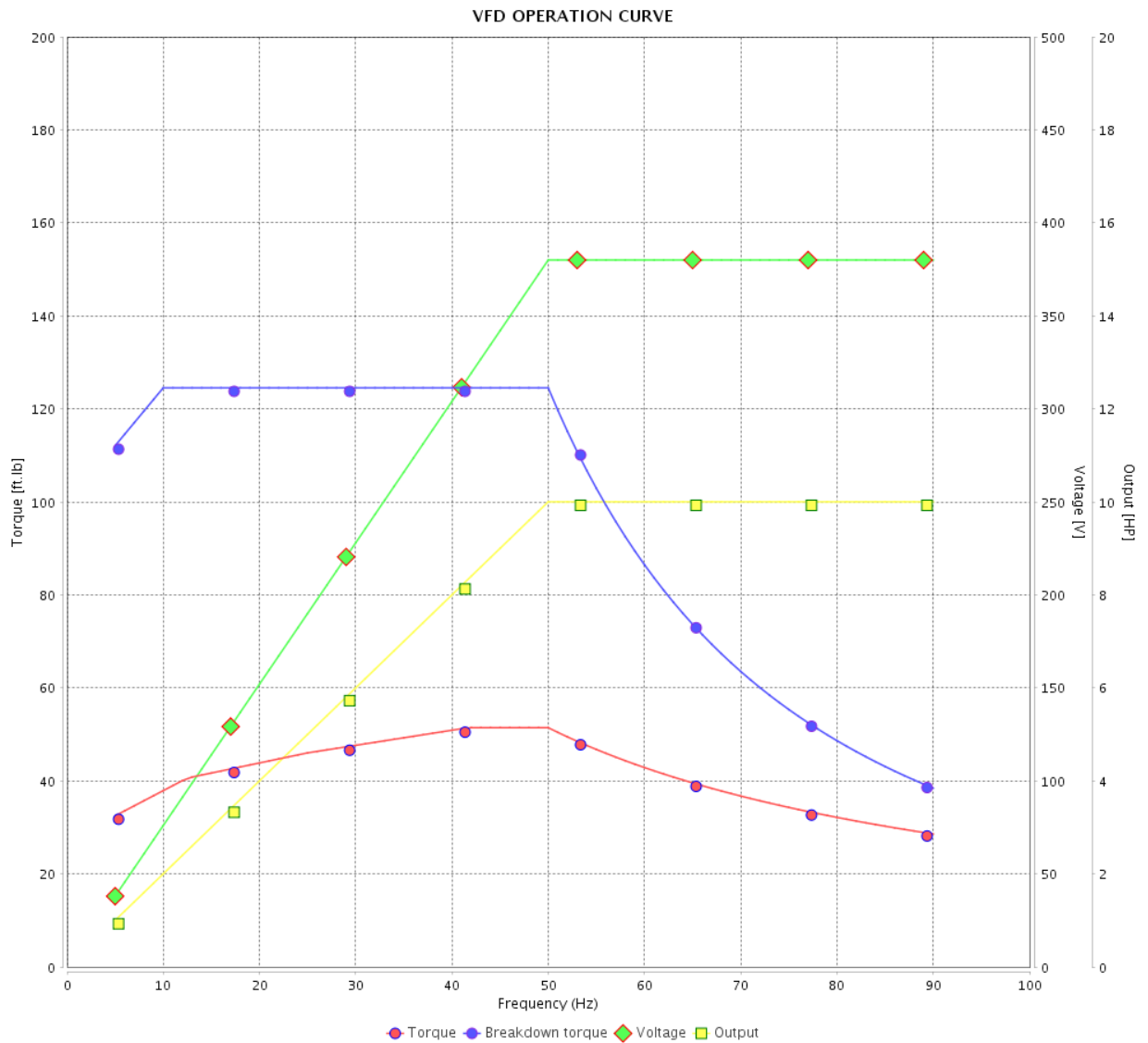


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Catalog # : 01012OT3E256JM-W40



Performance : 380 V 50 Hz 6P IE3

Rated current : 15.0 A  
 LRC : 5.9  
 Rated torque : 54.1 ft.lb  
 Locked rotor torque : 190 %  
 Breakdown torque : 229 %  
 Rated speed : 970 rpm

Moment of inertia (J) : 3.53 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



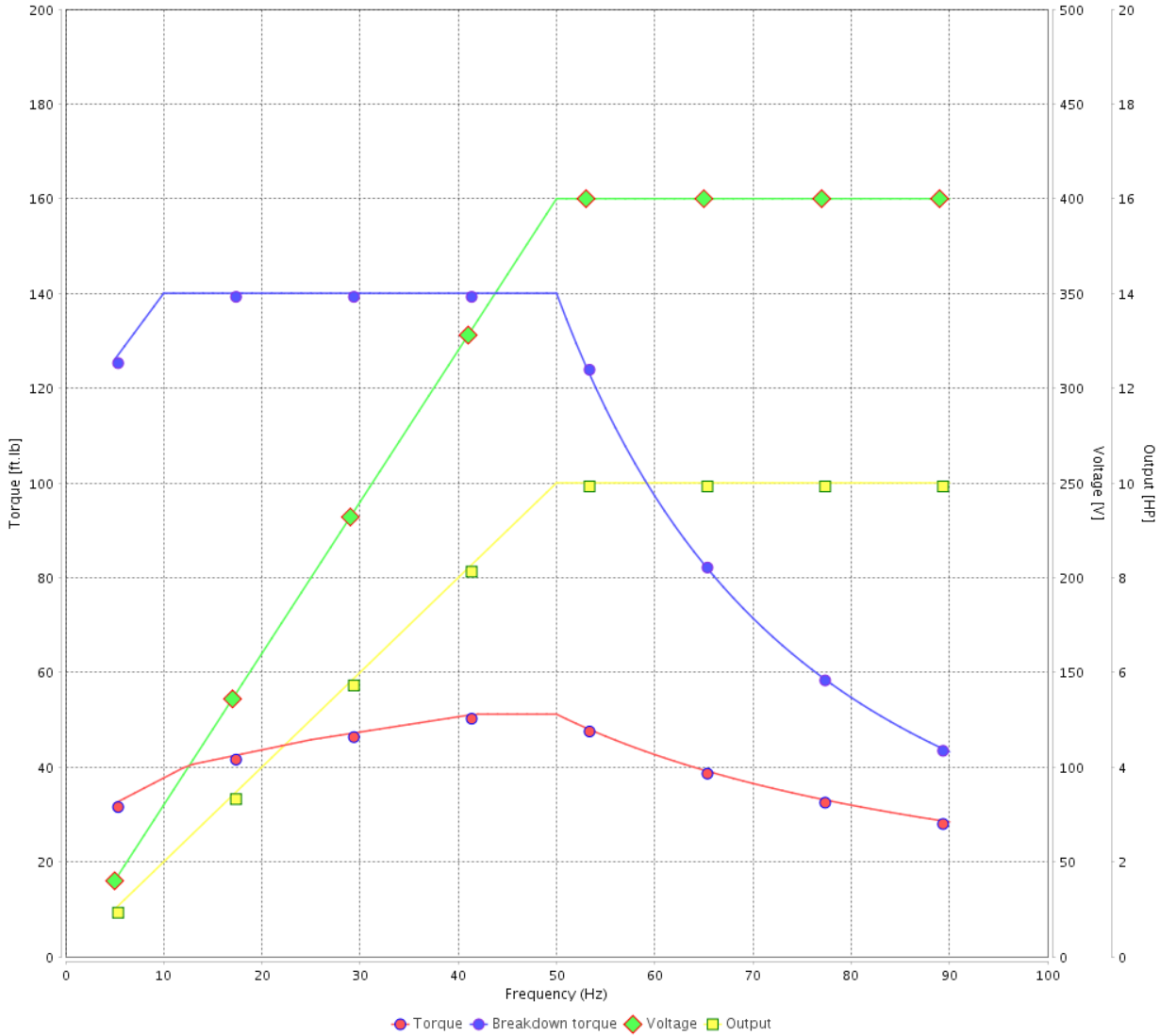
Customer :

Product line : W40 JM Pump NEMA Premium Efficiency Three-Phase

Product code : 14483182

Catalog # : 01012OT3E256JM-W40

VFD OPERATION CURVE



Performance : 400 V 50 Hz 6P IE3

Rated current : 14.6 A  
 LRC : 6.4  
 Rated torque : 53.9 ft.lb  
 Locked rotor torque : 210 %  
 Breakdown torque : 260 %  
 Rated speed : 975 rpm

Moment of inertia (J) : 3.53 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

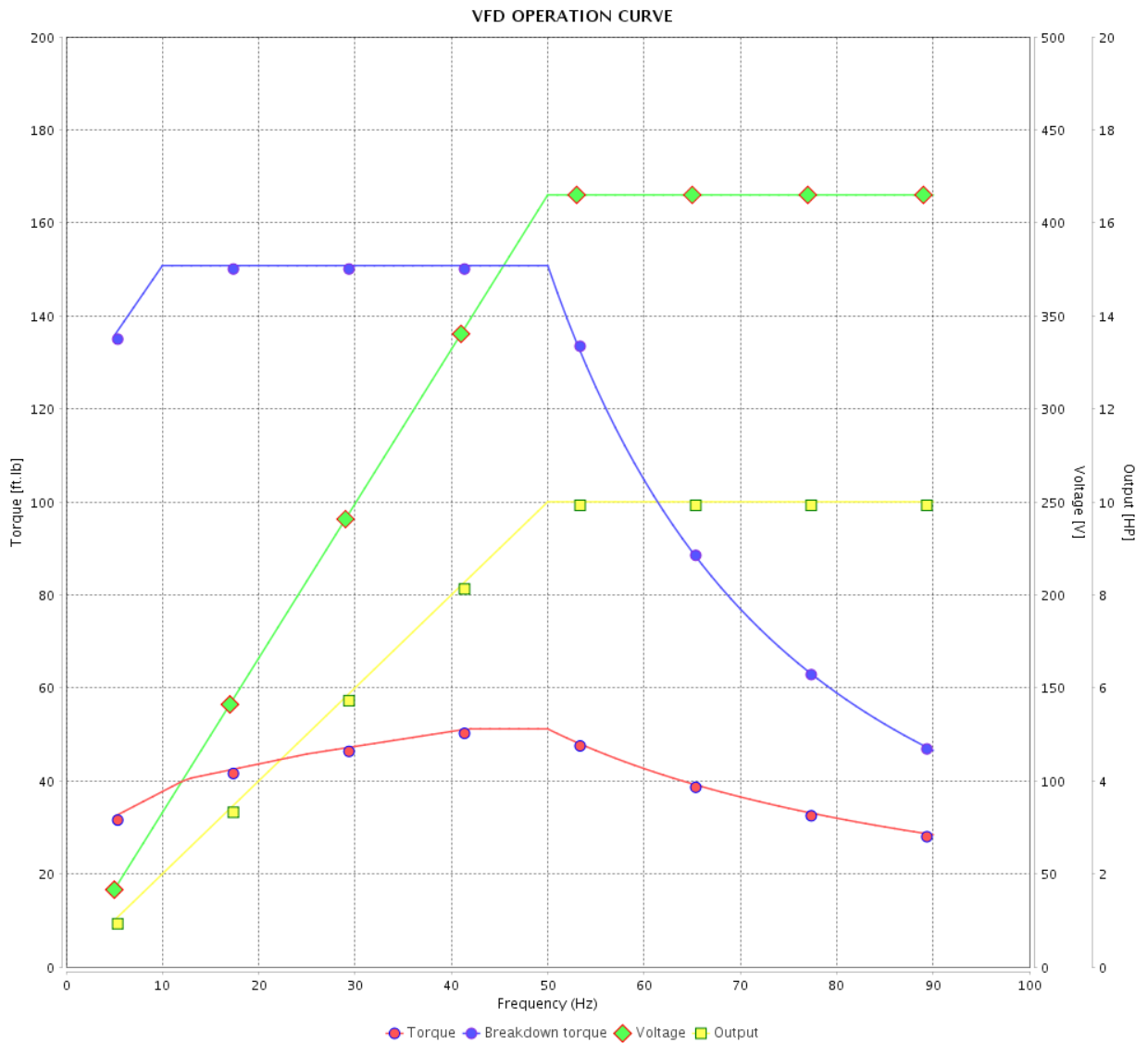


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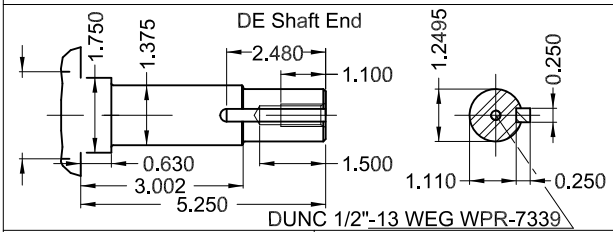
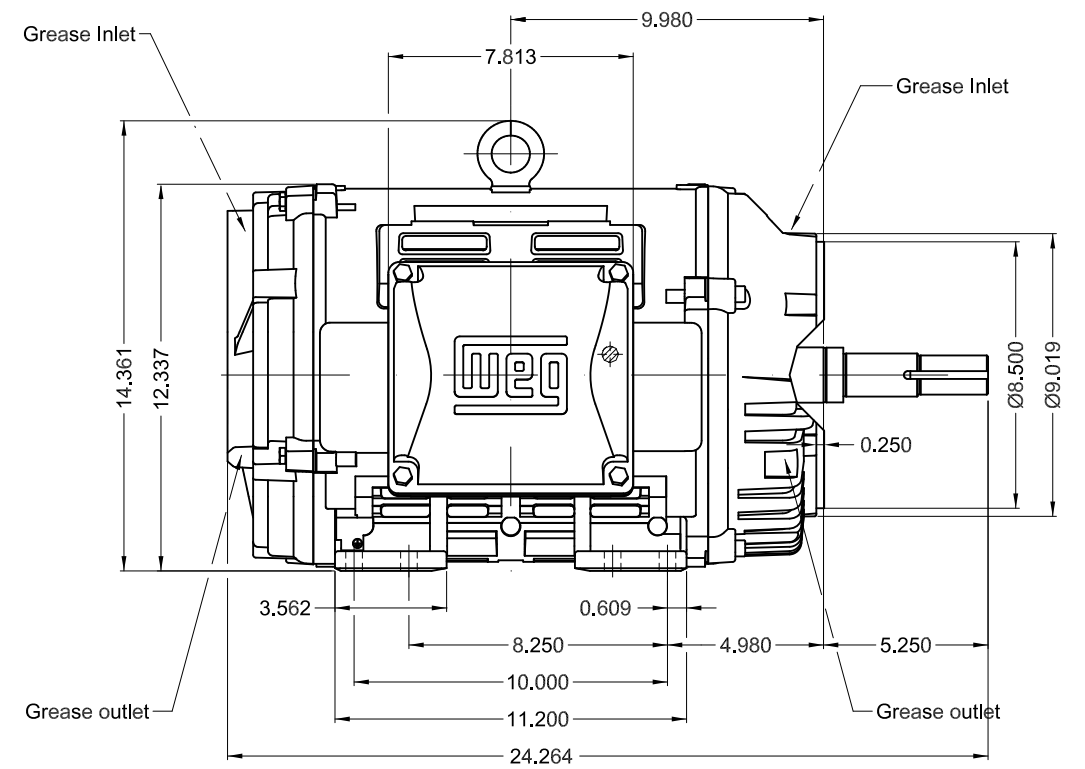
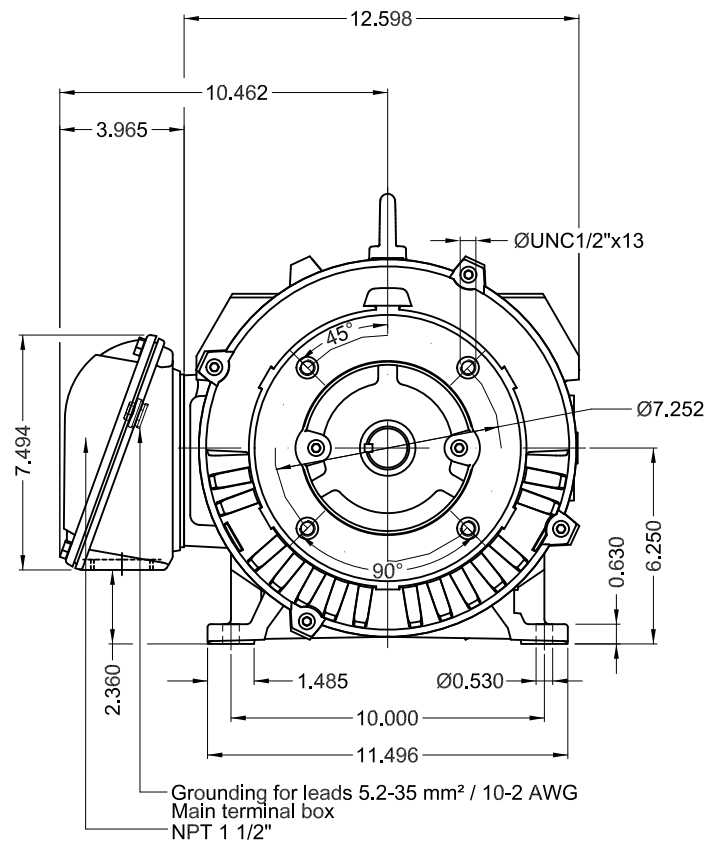


Performance : 415 V 50 Hz 6P IE3

Rated current : 14.3 A  
 LRC : 6.6  
 Rated torque : 53.9 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 280 %  
 Rated speed : 975 rpm

Moment of inertia (J) : 3.53 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	12/04/2022			



10 HP 06 Poles 60 Hz

A

1:6

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W40 CLOSE COUPLED PUMP JM TYPE PREM-EST.					
CHECKED		FRAME 254/6JM IP23 ODP					
RELEASED							
REL DT.		WMO Jaragua do Sul					

PREVIEW

WDD



SHEET 1 / 1

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

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



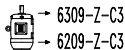
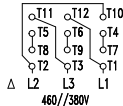
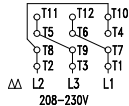
IEC 60034-1  
 MOD.T01#FOXON



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

MODEL 010120T3E256JM-W40  
 MADE IN BRAZIL  
 14483182

PH 3	FR 254/6JM	HP(kW) 10.0(7.5)	Hz 60
V 230/460	A 25.6/12.8	RPM 1180	DES B
NEMA NOM EFF 91.7 %	INS. CL. F $\Delta$ T 80 K	IP23	
ENCL ODP	DUTY CONT.	AMB. 40°C	
CODE H	PF 0.80	SF 1.25	SFA 32.0/16.0
USABLE @208V	28.3 A	SF 1.15	SFA 32.5
10HP 7.5kW 50Hz 380V 15.0A 970RPM SF1.00 EFF 89.1% (IE3)	ALT 1000 m.a.s.l.		



MOBIL POLYREX EM  
 13 g 20000 h

ALT 1000 m.a.s.l. 273 Lbs