

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: W40 JP Pump NEMA Premium Efficiency Three-Phase	Product code :	14270658		
		Catalog # :	15036OT3G405JP-W40		
Frame	: 404/5JP	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>	: 907 lb		
Protection degree	: IP23	Moment of inertia (J)	: 8.80 sq.ft.lb		
Design	: B				
Output [HP]	150	100	100	100	
Poles	2	2	2	2	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380	400	415	
Rated current [A]	167	137	133	133	
L. R. Amperes [A]	1102	986	1051	1117	
LRC [A]	6.6x(Code G)	7.2x(Code H)	7.9x(Code J)	8.4x(Code K)	
No load current [A]	40.0	43.8	43.7	48.9	
Rated speed [RPM]	3552	2960	2965	2965	
Slip [%]	1.33	1.33	1.17	1.17	
Rated torque [ft.lb]	222	177	177	177	
Locked rotor torque [%]	200	229	250	270	
Breakdown torque [%]	250	290	330	360	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	16s (cold) 9s (hot)	21s (cold) 12s (hot)	19s (cold) 11s (hot)	18s (cold) 10s (hot)	
Noise level <sup>2</sup>	84.0 dB(A)				
Efficiency (%)	25%	93.5	93.3	92.6	91.8
	50%	93.6	93.7	93.2	92.7
	75%	94.1	94.4	94.2	93.9
	100%	94.1	94.7	94.7	94.7
Power Factor	25%	0.58	0.51	0.47	0.43
	50%	0.79	0.76	0.70	0.65
	75%	0.86	0.85	0.81	0.77
	100%	0.88	0.88	0.86	0.83
Bearing type	: Drive end : 6314 C3	Non drive end : 6212 Z C3	Foundation loads		
Sealing	: Without	Without	Max. traction	: 1458 lb	
	Bearing Seal	Bearing Seal	Max. compression	: 2365 lb	
Lubrication interval	: 14418 h	20000 h			
Lubricant amount	: 27 g	13 g			
Lubricant type	: Mobil Polyrex EM				
Notes					
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



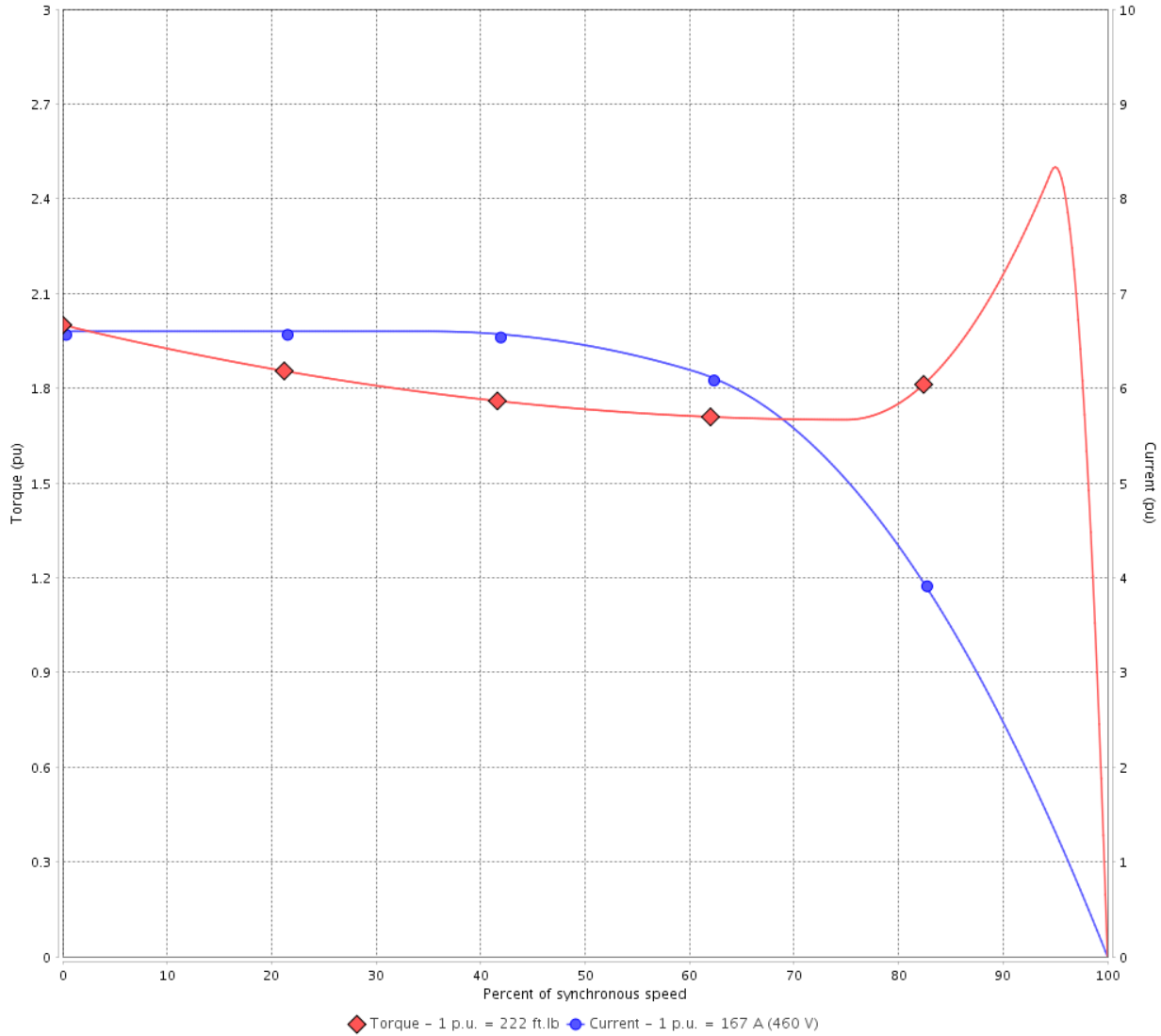
Customer :

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

Product code : 14270658

Catalog # : 15036OT3G405JP-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 460 V 60 Hz 2P

Rated current	: 167 A	Moment of inertia (J)	: 8.80 sq.ft.lb
LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 222 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.25
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 3552 rpm	Design	: B

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

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# TORQUE AND CURRENT VS SPEED CURVE



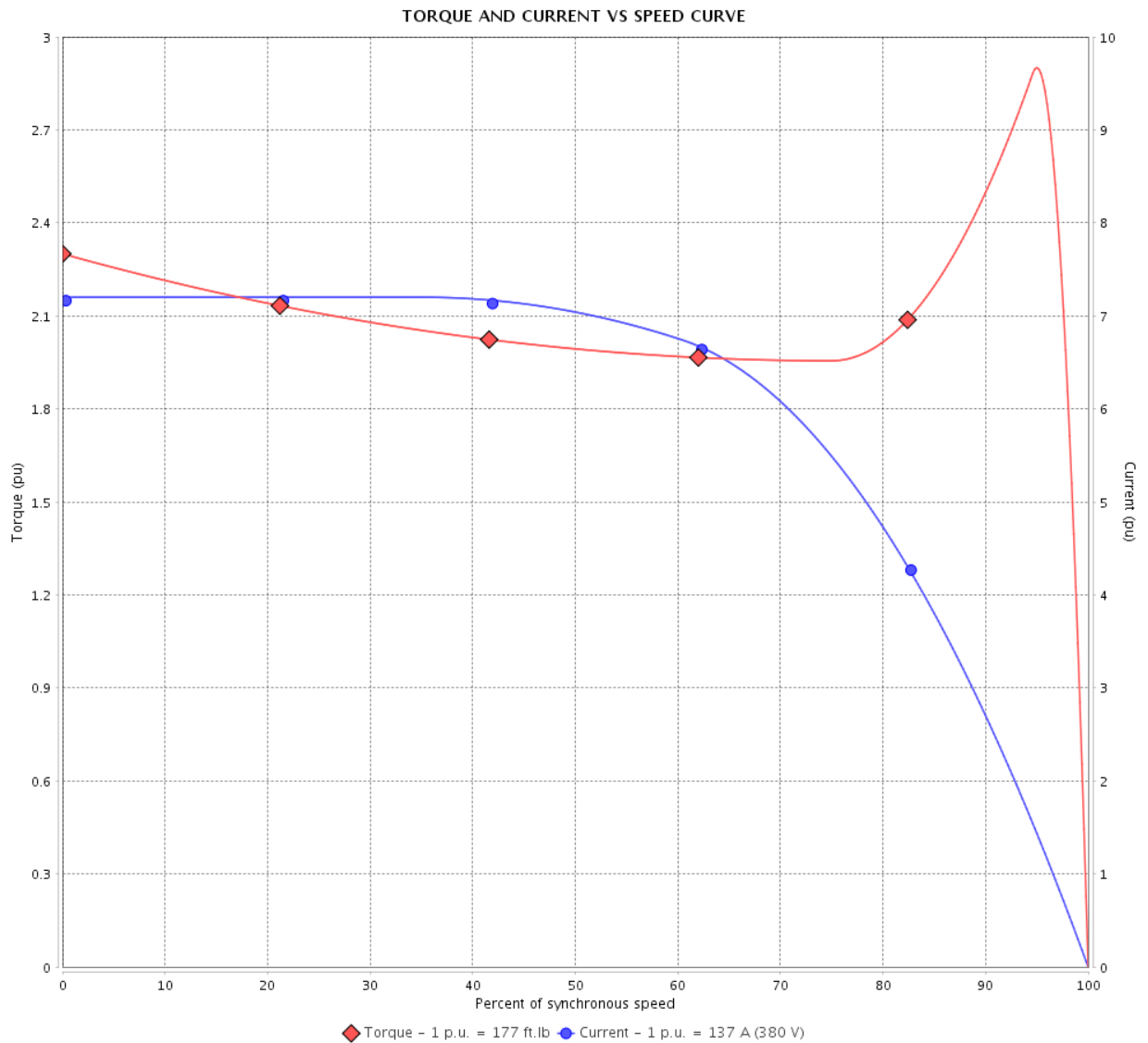
## Three Phase Induction Motor - Squirrel Cage

Customer :

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

Product code : 14270658

Catalog # : 15036OT3G405JP-W40



Performance : 380 V 50 Hz 2P IE3

Rated current	: 137 A	Moment of inertia (J)	: 8.80 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 177 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 2960 rpm	Design	: B

Locked rotor time : 21s (cold) 12s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



## Three Phase Induction Motor - Squirrel Cage

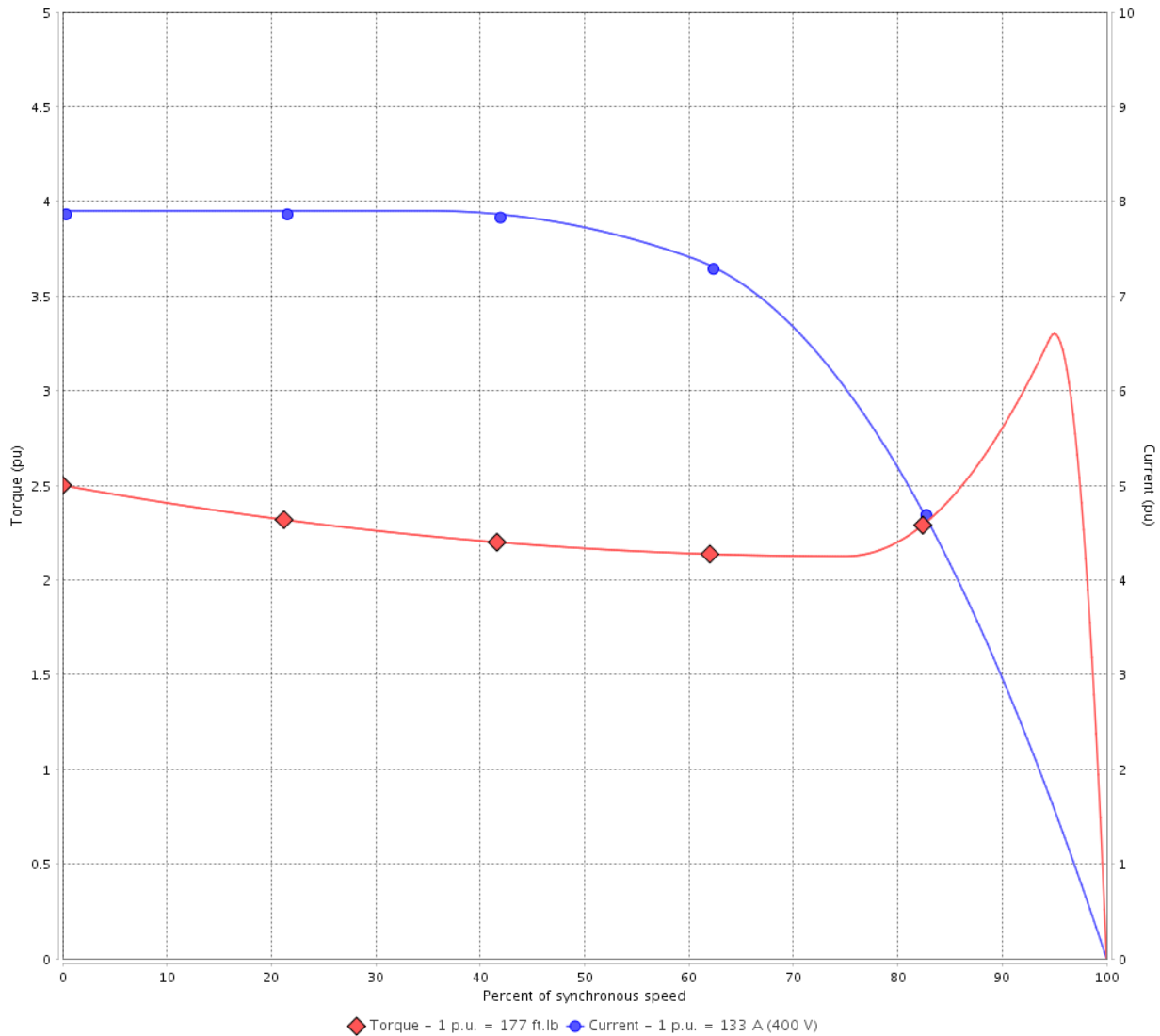
Customer :

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

Product code : 14270658

Catalog # : 15036OT3G405JP-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current	: 133 A	Moment of inertia (J)	: 8.80 sq.ft.lb
LRC	: 7.9	Duty cycle	: Cont.(S1)
Rated torque	: 177 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 2965 rpm	Design	: B

Locked rotor time : 19s (cold) 11s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



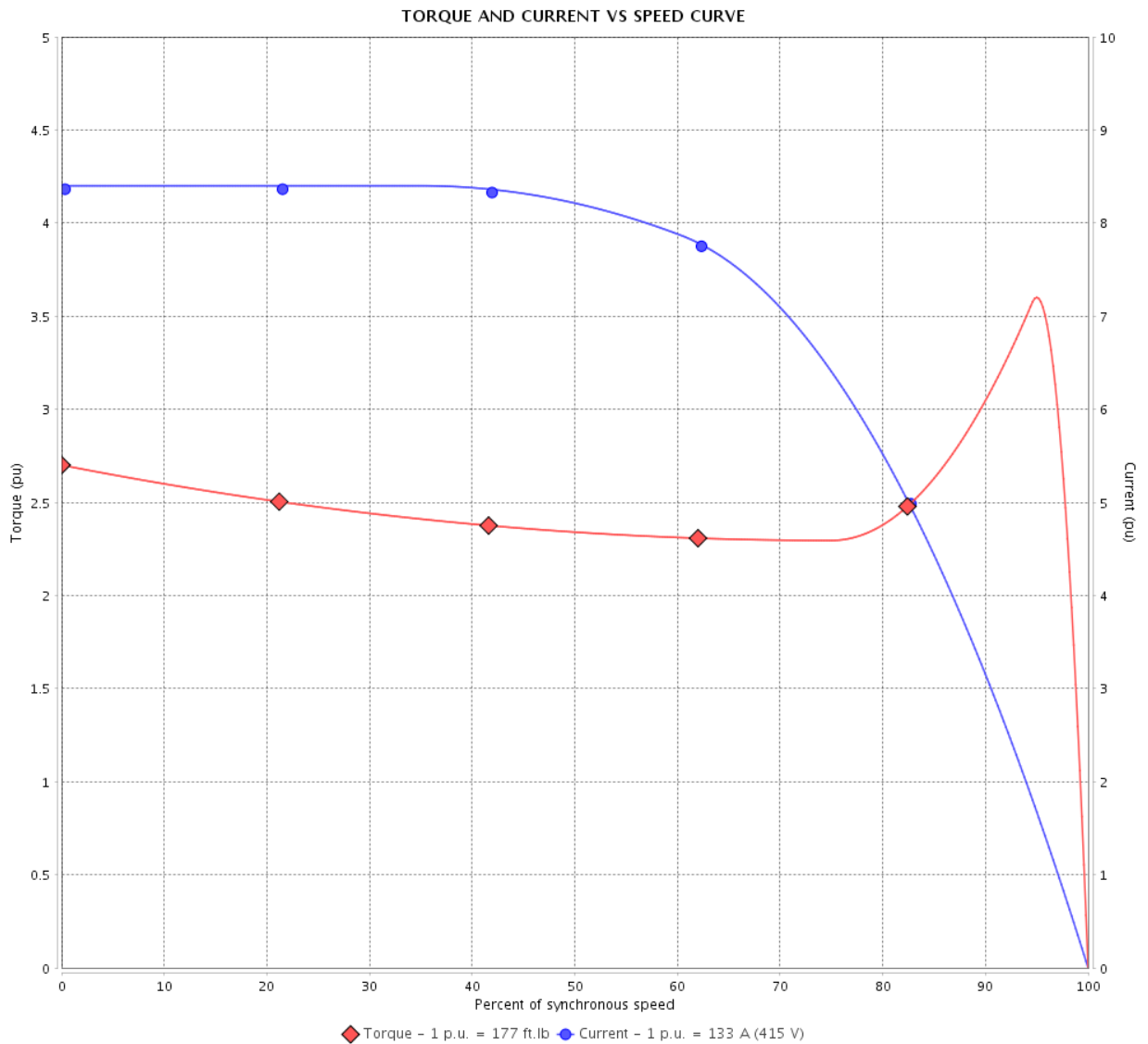
## Three Phase Induction Motor - Squirrel Cage

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

Product code : 14270658

Catalog # : 15036OT3G405JP-W40



Performance : 415 V 50 Hz 2P IE3

Rated current	: 133 A	Moment of inertia (J)	: 8.80 sq.ft.lb
LRC	: 8.4	Duty cycle	: Cont.(S1)
Rated torque	: 177 ft.lb	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 360 %	Temperature rise	: 80 K
Rated speed	: 2965 rpm	Design	: B

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

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

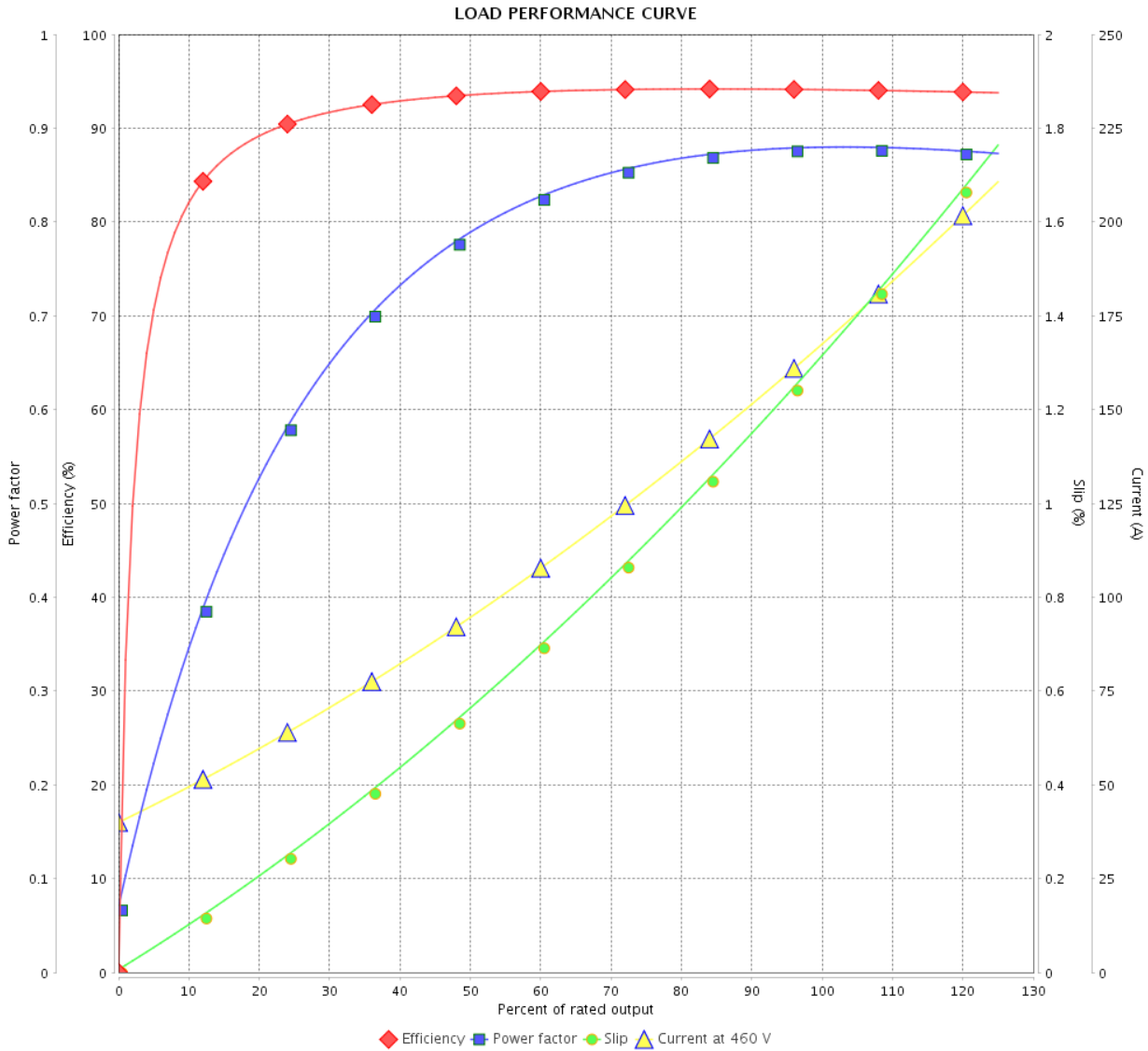


Customer : \_\_\_\_\_

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

Product code : 14270658

Catalog # : 15036OT3G405JP-W40



Performance : 460 V 60 Hz 2P

Rated current : 167 A  
 LRC : 6.6  
 Rated torque : 222 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 250 %  
 Rated speed : 3552 rpm

Moment of inertia (J) : 8.80 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

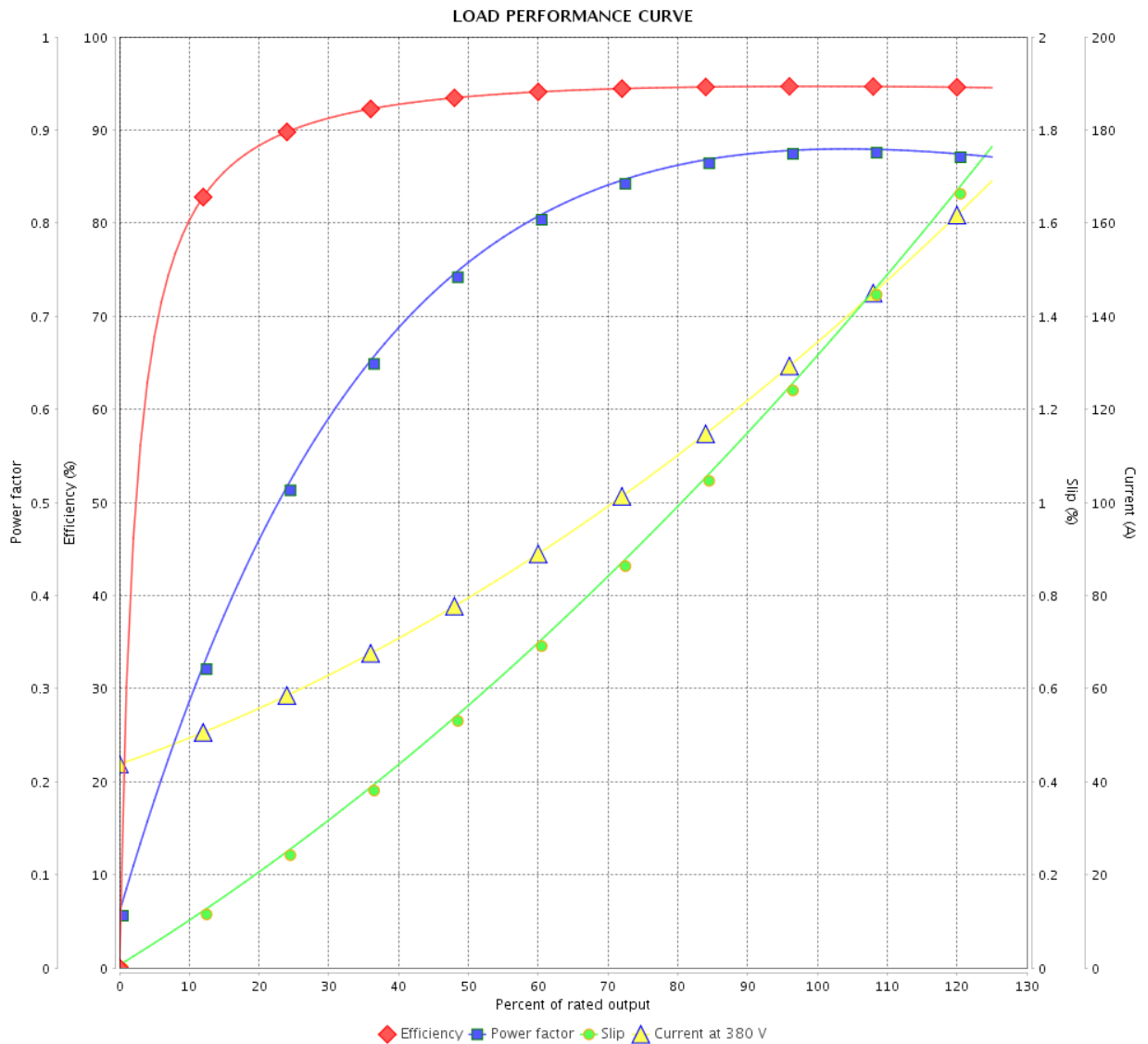


Customer :

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

Product code : 14270658

Catalog # : 15036OT3G405JP-W40



Performance : 380 V 50 Hz 2P IE3

Rated current : 137 A  
 LRC : 7.2  
 Rated torque : 177 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 290 %  
 Rated speed : 2960 rpm

Moment of inertia (J) : 8.80 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				

# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

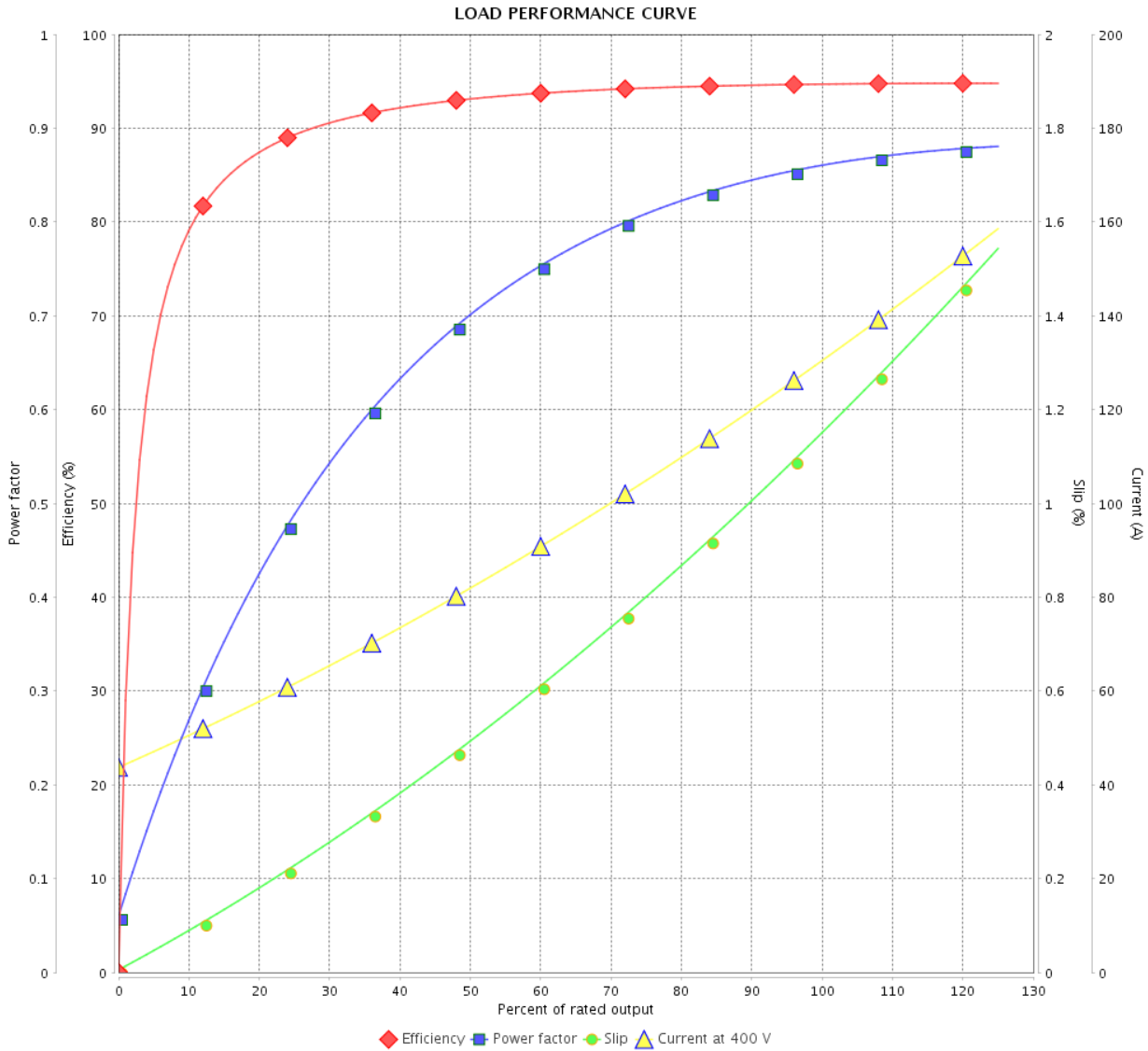


Customer :

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

Product code : 14270658

Catalog # : 15036OT3G405JP-W40



Performance : 400 V 50 Hz 2P IE3

Rated current : 133 A  
 LRC : 7.9  
 Rated torque : 177 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 330 %  
 Rated speed : 2965 rpm

Moment of inertia (J) : 8.80 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

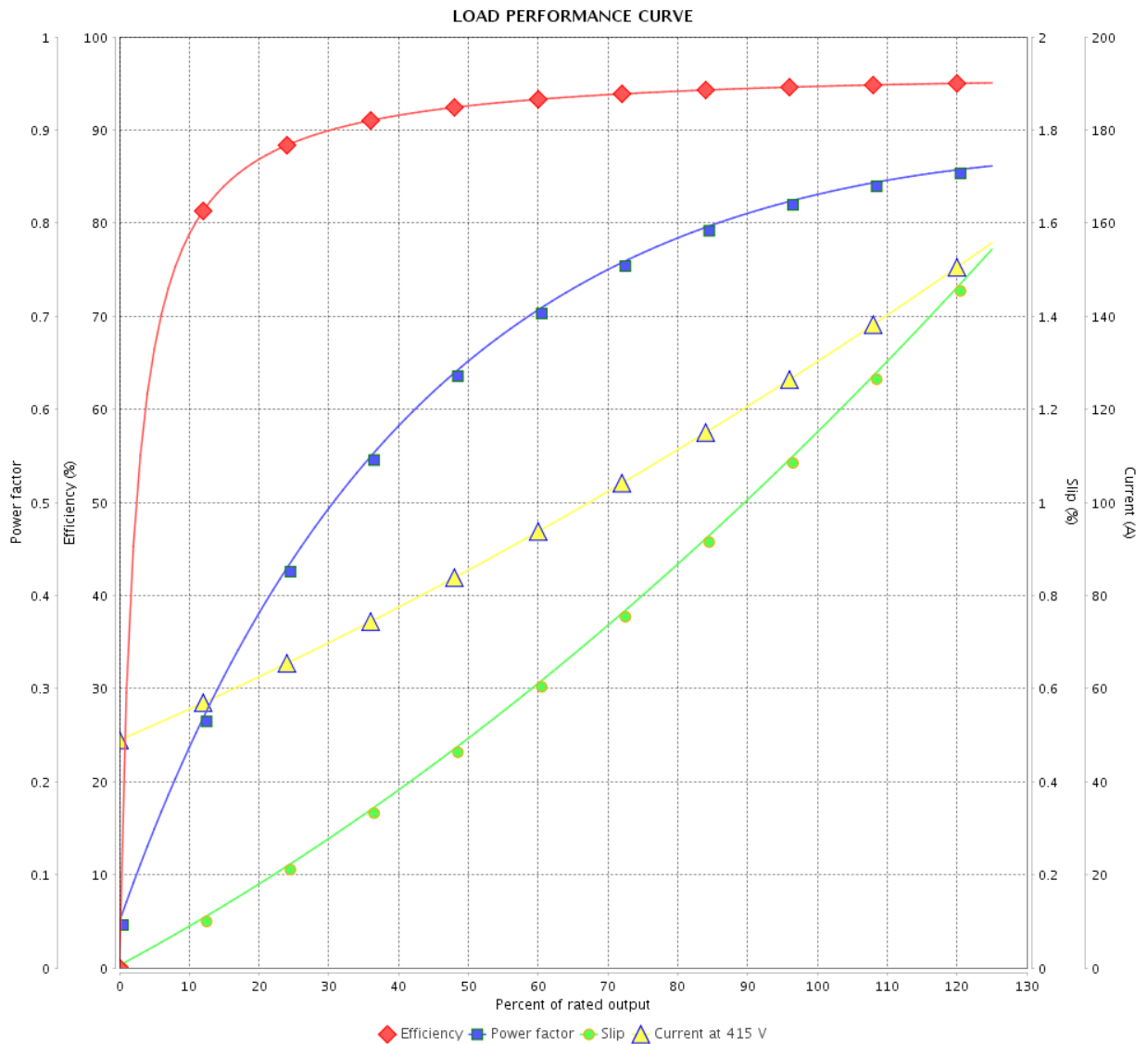


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Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase

Product code : 14270658

Catalog # : 15036OT3G405JP-W40



Performance : 415 V 50 Hz 2P IE3

Rated current : 133 A  
 LRC : 8.4  
 Rated torque : 177 ft.lb  
 Locked rotor torque : 270 %  
 Breakdown torque : 360 %  
 Rated speed : 2965 rpm

Moment of inertia (J) : 8.80 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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LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 222 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.25
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 3552 rpm	Design	: B

Heating constant

Cooling constant

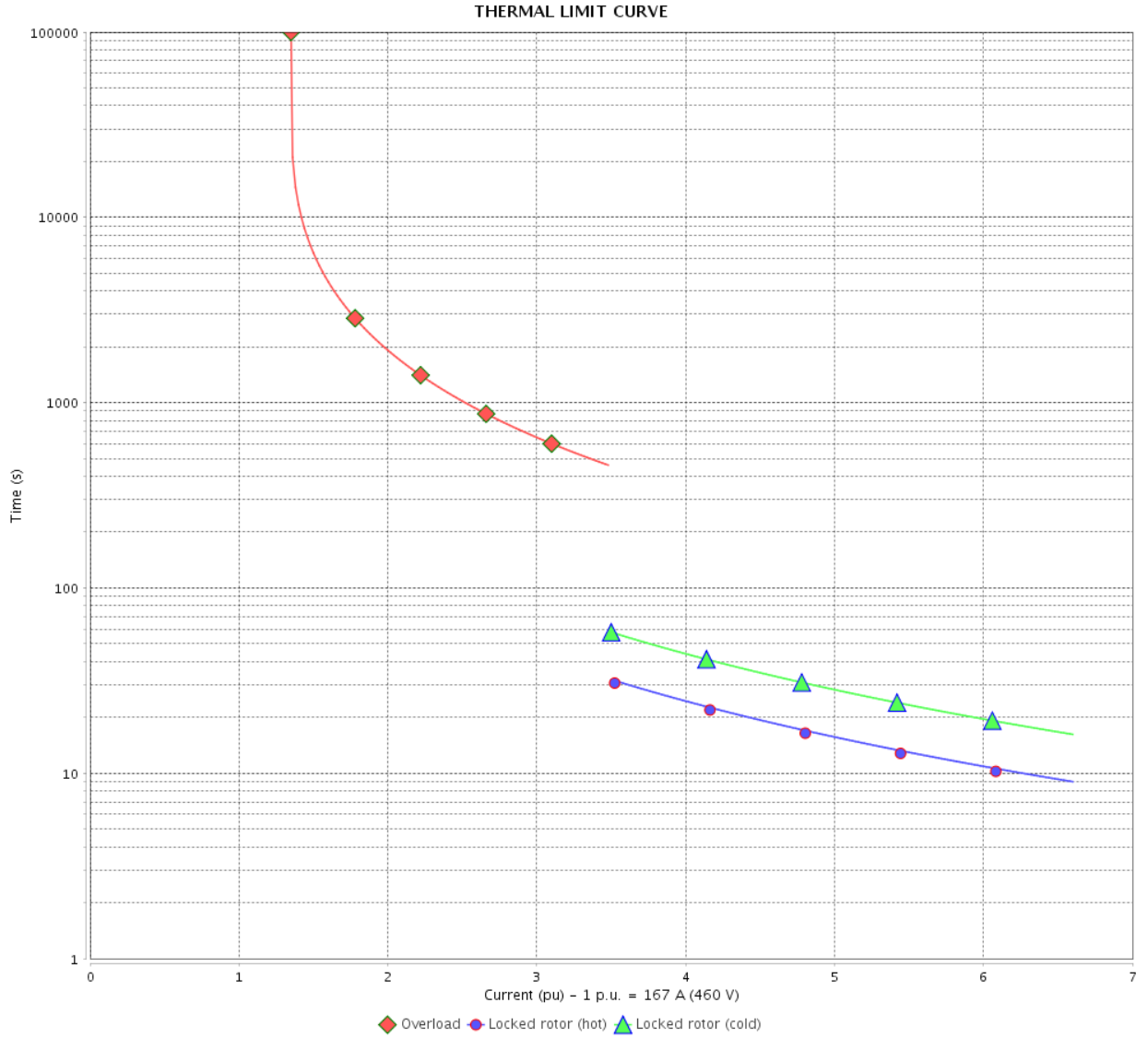
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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Date		13/04/2022		

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

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Product code : 14270658

Catalog # : 15036OT3G405JP-W40

Performance : 380 V 50 Hz 2P IE3

Rated current	: 137 A	Moment of inertia (J)	: 8.80 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 177 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 2960 rpm	Design	: B

Heating constant

Cooling constant

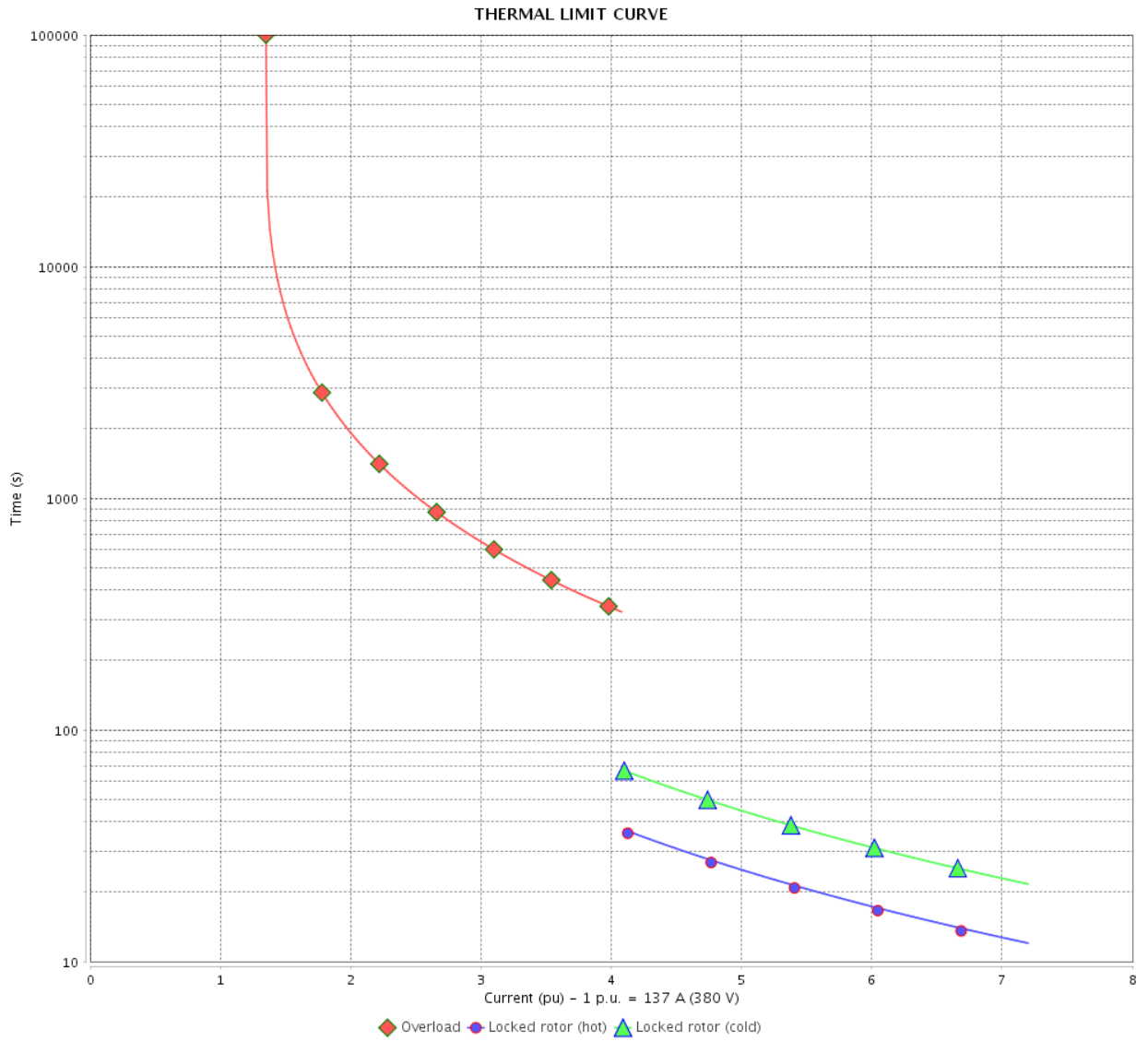
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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Date				
			Page	Revision
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Customer :

Product line : W40 JP Pump NEMA Premium  
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Product code : 14270658

Catalog # : 15036OT3G405JP-W40

Performance : 400 V 50 Hz 2P IE3

Rated current	: 133 A	Moment of inertia (J)	: 8.80 sq.ft.lb
LRC	: 7.9	Duty cycle	: Cont.(S1)
Rated torque	: 177 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 2965 rpm	Design	: B

Heating constant

Cooling constant

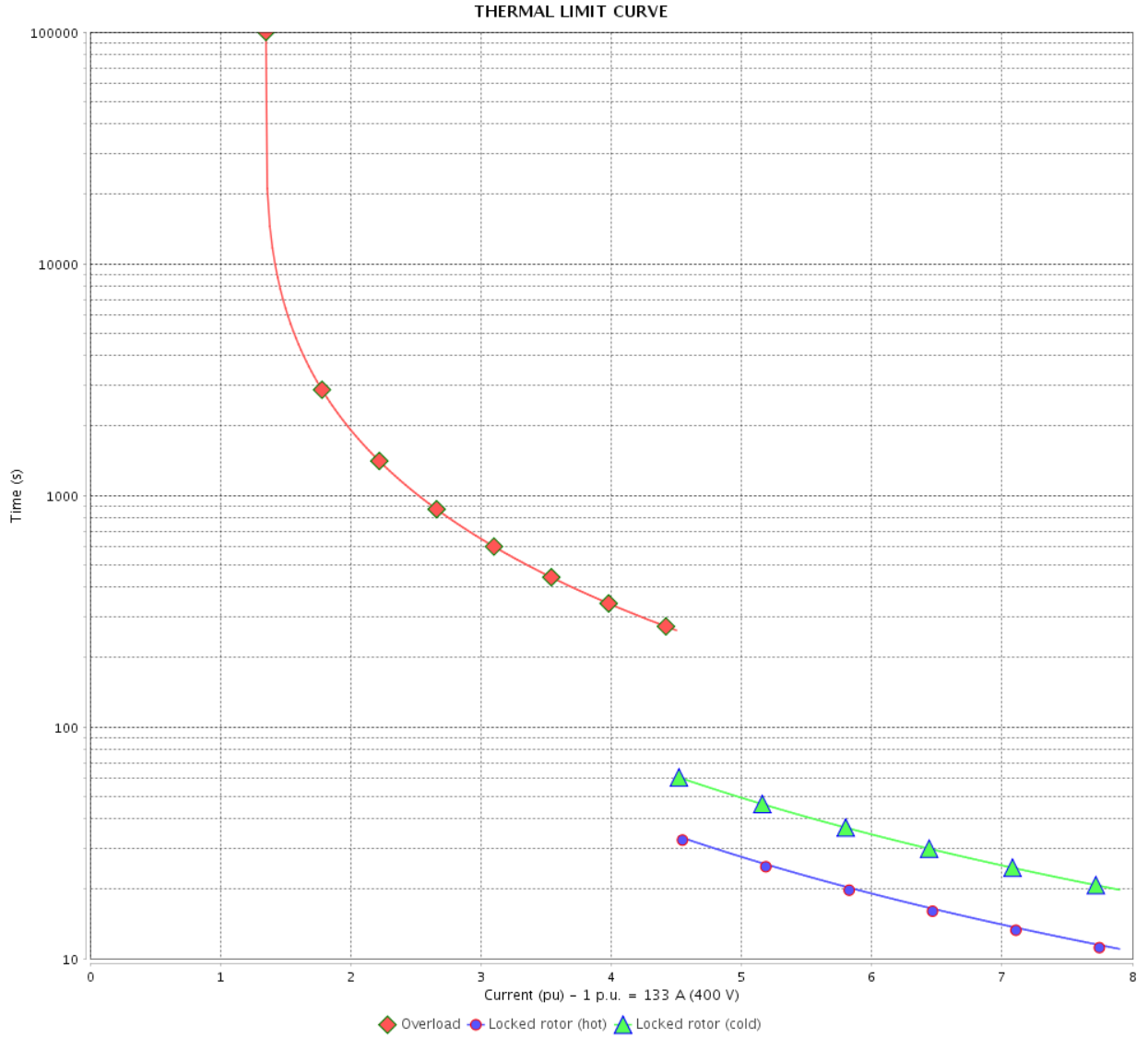
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

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

Product code : 14270658

Catalog # : 15036OT3G405JP-W40

Performance : 415 V 50 Hz 2P IE3

Rated current : 133 A  
LRC : 8.4  
Rated torque : 177 ft.lb  
Locked rotor torque : 270 %  
Breakdown torque : 360 %  
Rated speed : 2965 rpm

Moment of inertia (J) : 8.80 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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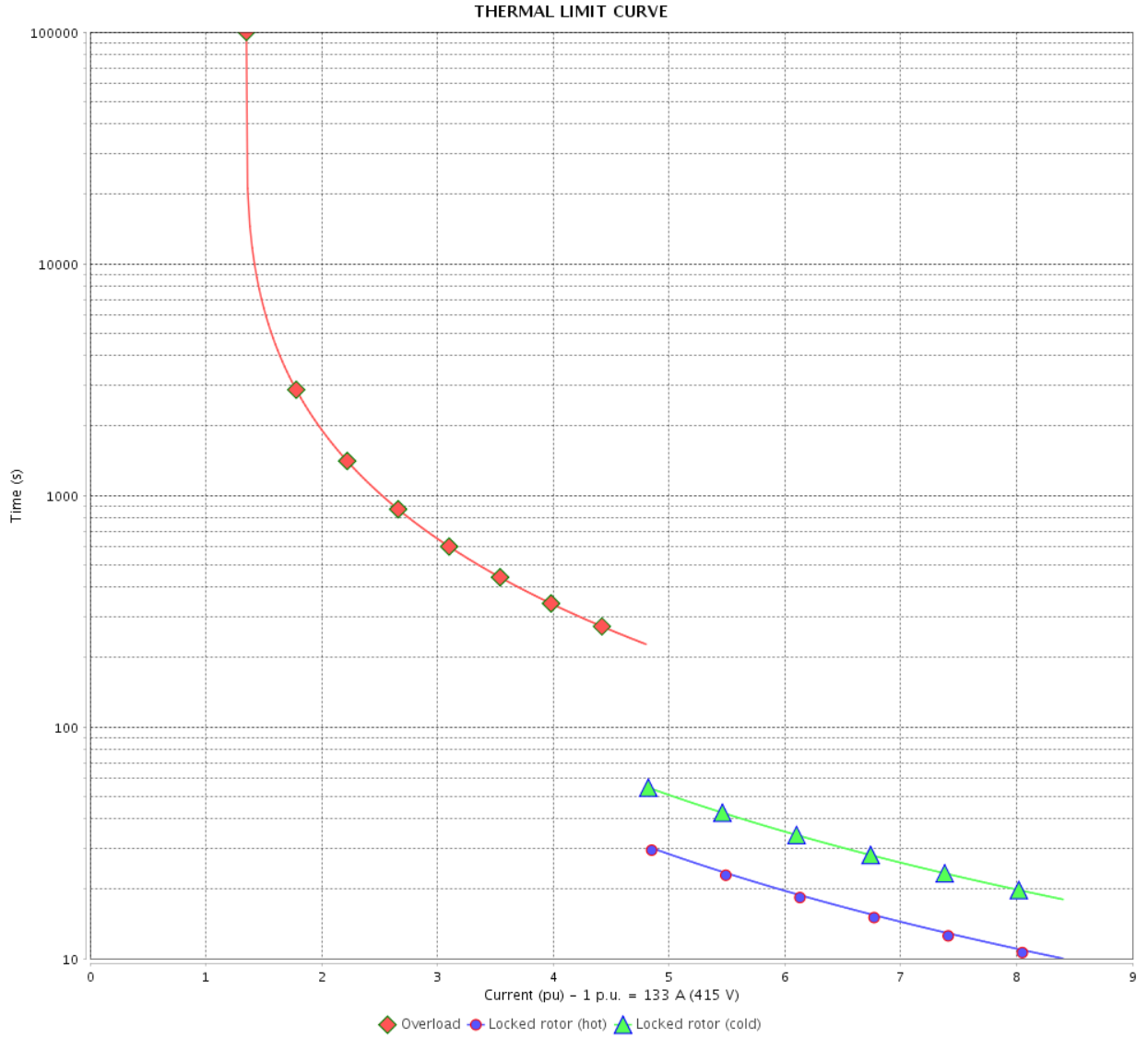


# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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Date				

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



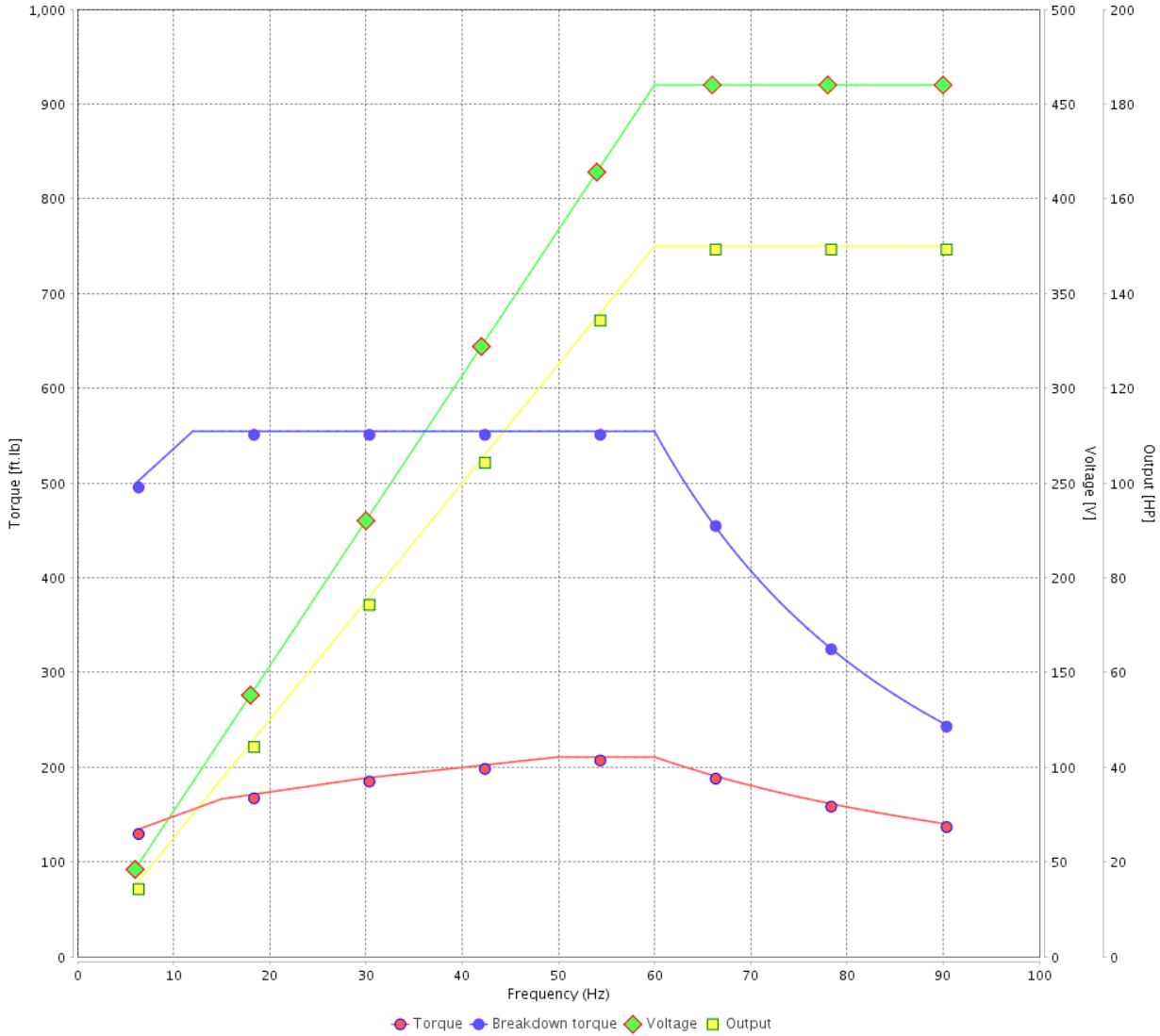
Customer :

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

Product code : 14270658

Catalog # : 15036OT3G405JP-W40

VFD OPERATION CURVE



Performance : 460 V 60 Hz 2P

Rated current : 167 A  
 LRC : 6.6  
 Rated torque : 222 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 250 %  
 Rated speed : 3552 rpm

Moment of inertia (J) : 8.80 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

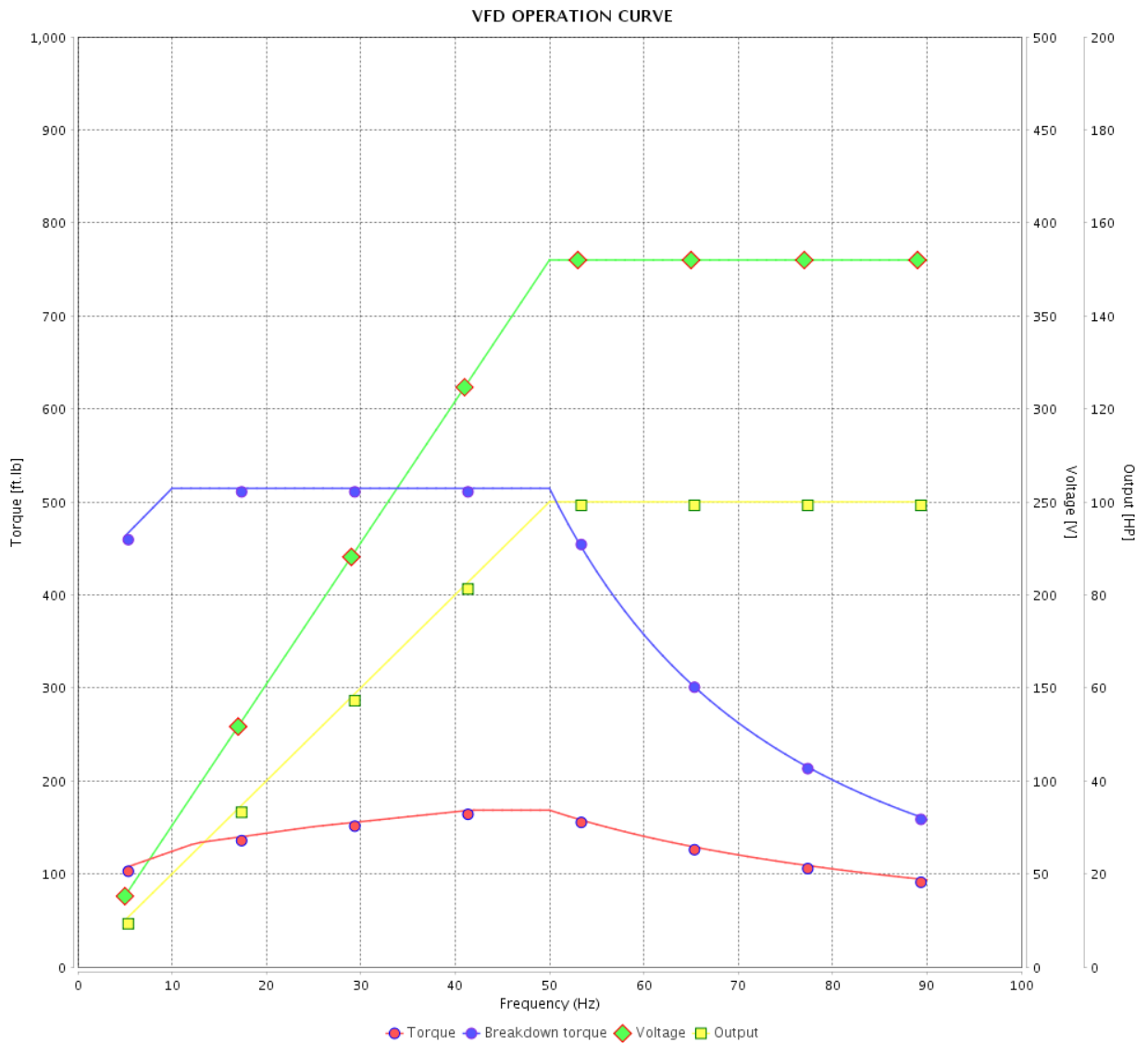


Customer :

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

Product code : 14270658

Catalog # : 15036OT3G405JP-W40



Performance : 380 V 50 Hz 2P IE3

Rated current : 137 A  
 LRC : 7.2  
 Rated torque : 177 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 290 %  
 Rated speed : 2960 rpm

Moment of inertia (J) : 8.80 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



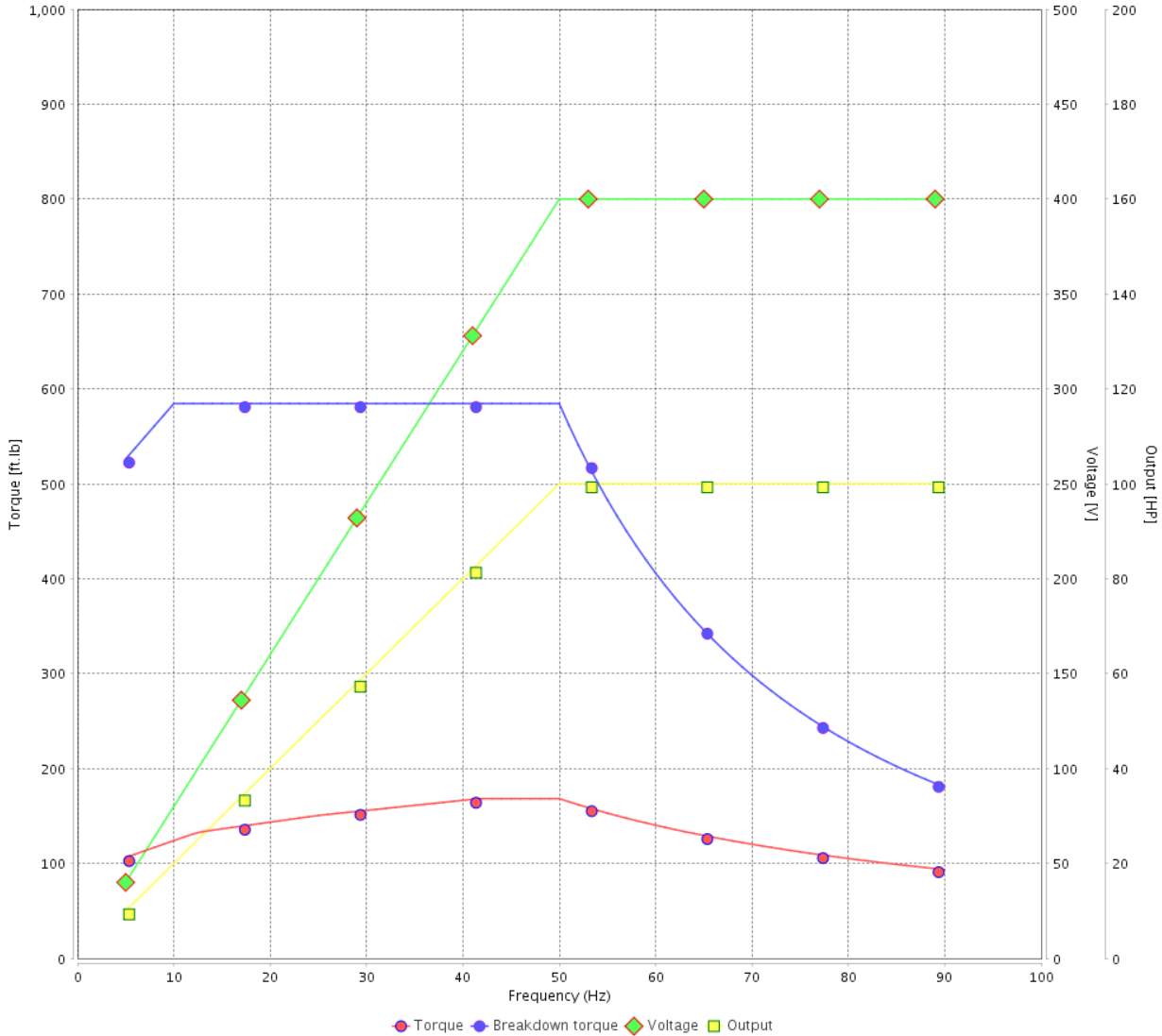
Customer :

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

Product code : 14270658

Catalog # : 15036OT3G405JP-W40

VFD OPERATION CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current : 133 A  
 LRC : 7.9  
 Rated torque : 177 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 330 %  
 Rated speed : 2965 rpm

Moment of inertia (J) : 8.80 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
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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

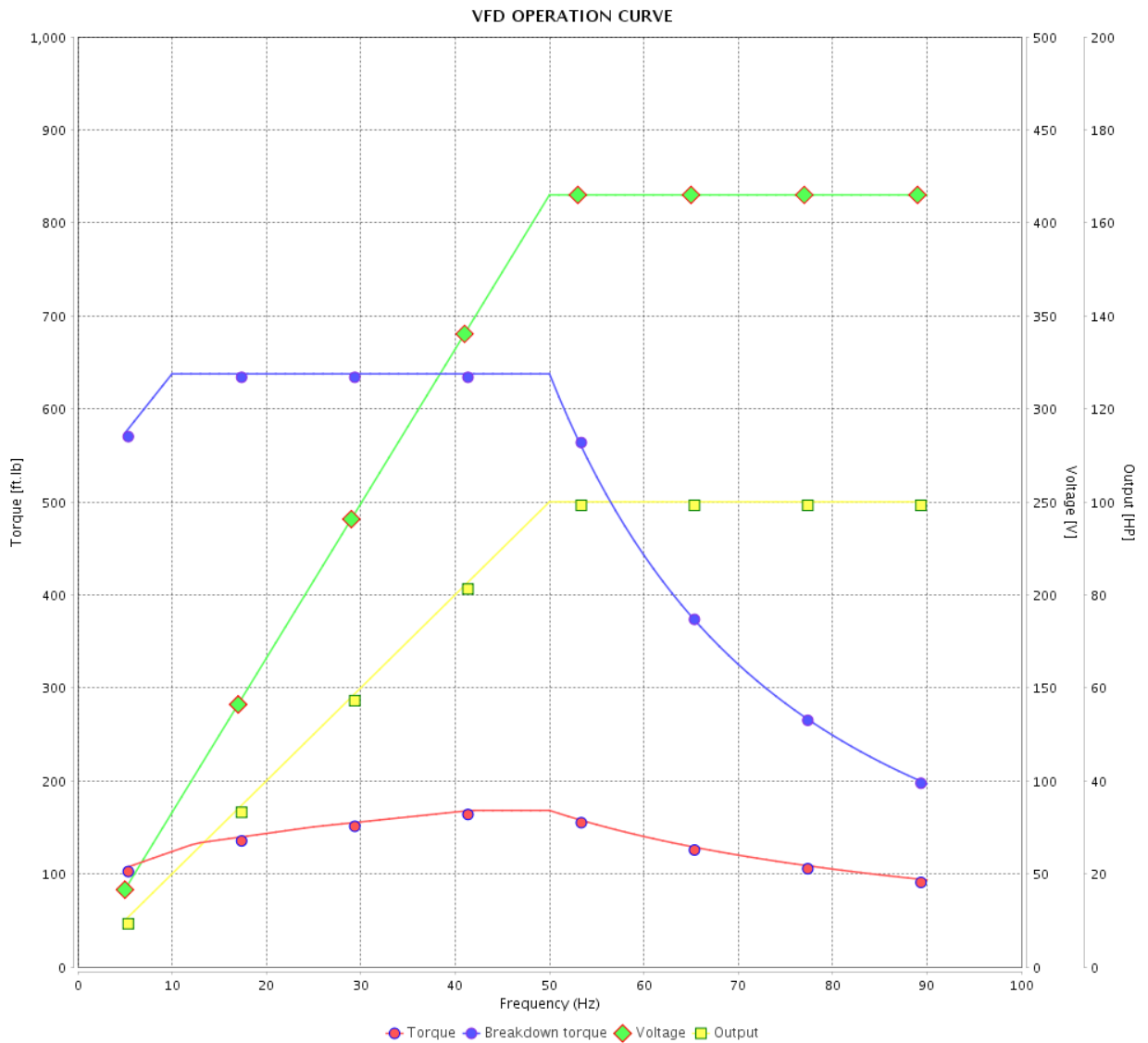


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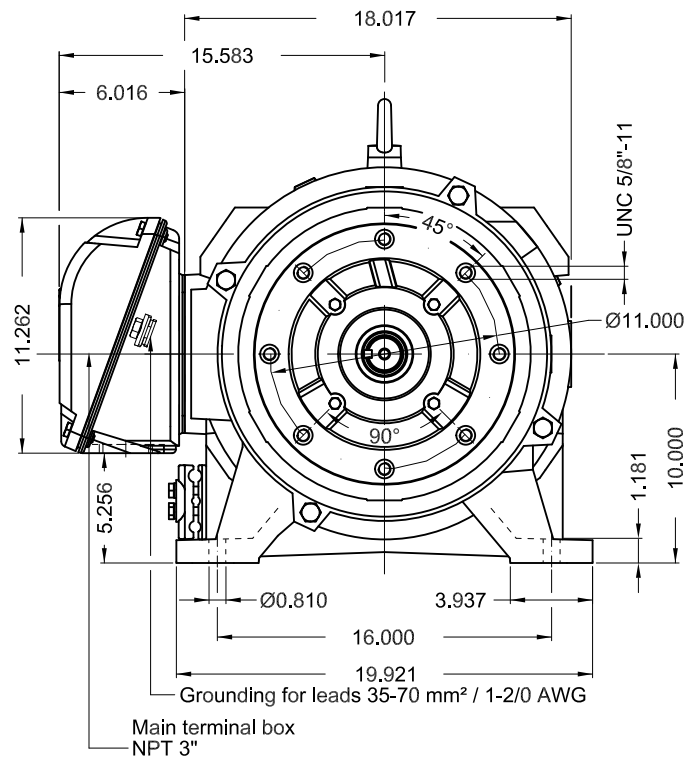


Performance : 415 V 50 Hz 2P IE3

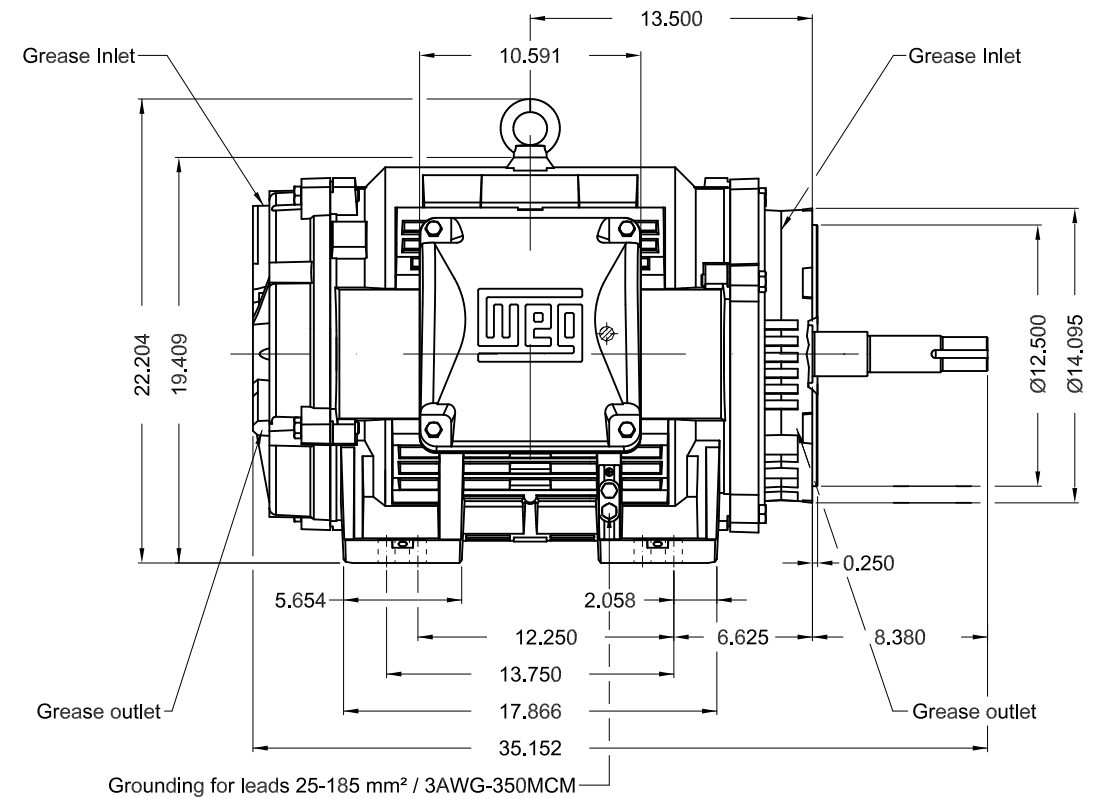
Rated current : 133 A  
 LRC : 8.4  
 Rated torque : 177 ft.lb  
 Locked rotor torque : 270 %  
 Breakdown torque : 360 %  
 Rated speed : 2965 rpm

Moment of inertia (J) : 8.80 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

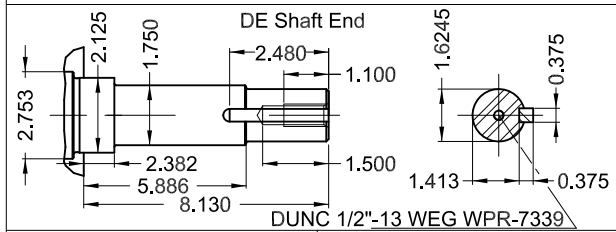
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Grounding for leads 35-70 mm<sup>2</sup> / 1-2/0 AWG  
Main terminal box  
NPT 3"



Grounding for leads 25-185 mm<sup>2</sup> / 3AWG-350MCM



150 HP 02 Poles 60 Hz

A

1:9

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W40 CLOSE COUPLED PUMP JP TYPE PREM. FT.					
CHECKED		FRAME 404/5JP IP23 ODP					
RELEASED							
REL DT.		WMO Jaragua do Sul					

PREVIEW  
WDD



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

Product Engineering SHEET 1 / 1

MODEL 150360T3G405JP-W40  
MADE IN BRAZIL  
14270658

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

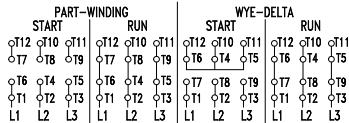



IEC 60034-1  
MOD.T01#FOXON



For 60Hz use on PWM, VT 1000:1, CT 2:1, 1.0SF

PH 3	FR 404/5JP	HP(kW) 150(110)	Hz 60
V 460	A 167		IP23
NEMA NOM EFF	94.1 %	RPM 3552	
ENCL ODP	DUTY CONT.	INS. CL. F $\Delta$ T 80 K	
PF 0.88	DES B	CODE G	AMB. 40°C
SF 1.25	SFA 209	ALT 1000 m.a.s.l.	
100HP 75kW 50Hz 380V 137A 2960RPM SF1.00 EFF 94.7% (IE3)			



 → 6314-C3(27g) MOBIL POLYREX EM  
→ 6212-Z-C3(13g) 14418 h

906 Lbs