

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line		: W40 JP Pump NEMA Premium Efficiency Three-Phase		Product code :	14270555
				Catalog # :	12536OT3G404JP-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>	: 891 lb		
Protection degree	: IP23	Moment of inertia (J)	: 8.23 sq.ft.lb		
Design	: B				
Output [HP]	125	100	100	100	100
Poles	2	2	2	2	2
Frequency [Hz]	60	50	50	50	50
Rated voltage [V]	460	380	400	415	415
Rated current [A]	136	137	133	131	131
L. R. Amperes [A]	925	986	931	1022	1022
LRC [A]	6.8x(Code G)	7.2x(Code H)	7.0x(Code H)	7.8x(Code J)	7.8x(Code J)
No load current [A]	36.0	33.0	36.5	40.0	40.0
Rated speed [RPM]	3557	2955	2960	2965	2965
Slip [%]	1.19	1.50	1.33	1.17	1.17
Rated torque [ft.lb]	185	178	177	177	177
Locked rotor torque [%]	170	170	190	200	200
Breakdown torque [%]	260	250	280	290	290
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	21s (cold) 12s (hot)	16s (cold) 9s (hot)	19s (cold) 11s (hot)	16s (cold) 9s (hot)	16s (cold) 9s (hot)
Noise level <sup>2</sup>	84.0 dB(A)				
Efficiency (%)	25%	92.8	90.2	90.3	90.3
	50%	93.0	91.9	92.0	92.0
	75%	94.1	92.9	92.9	92.9
	100%	94.1	94.7	94.7	94.7
Power Factor	25%	0.57	0.59	0.55	0.48
	50%	0.79	0.80	0.77	0.70
	75%	0.86	0.86	0.84	0.80
	100%	0.88	0.88	0.86	0.84
Bearing type	: Drive end : 6314 C3	Non drive end : 6212 Z C3	Foundation loads		
Sealing	: Without	Without	Max. traction	: 1095 lb	
	Bearing Seal	Bearing Seal	Max. compression	: 1985 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



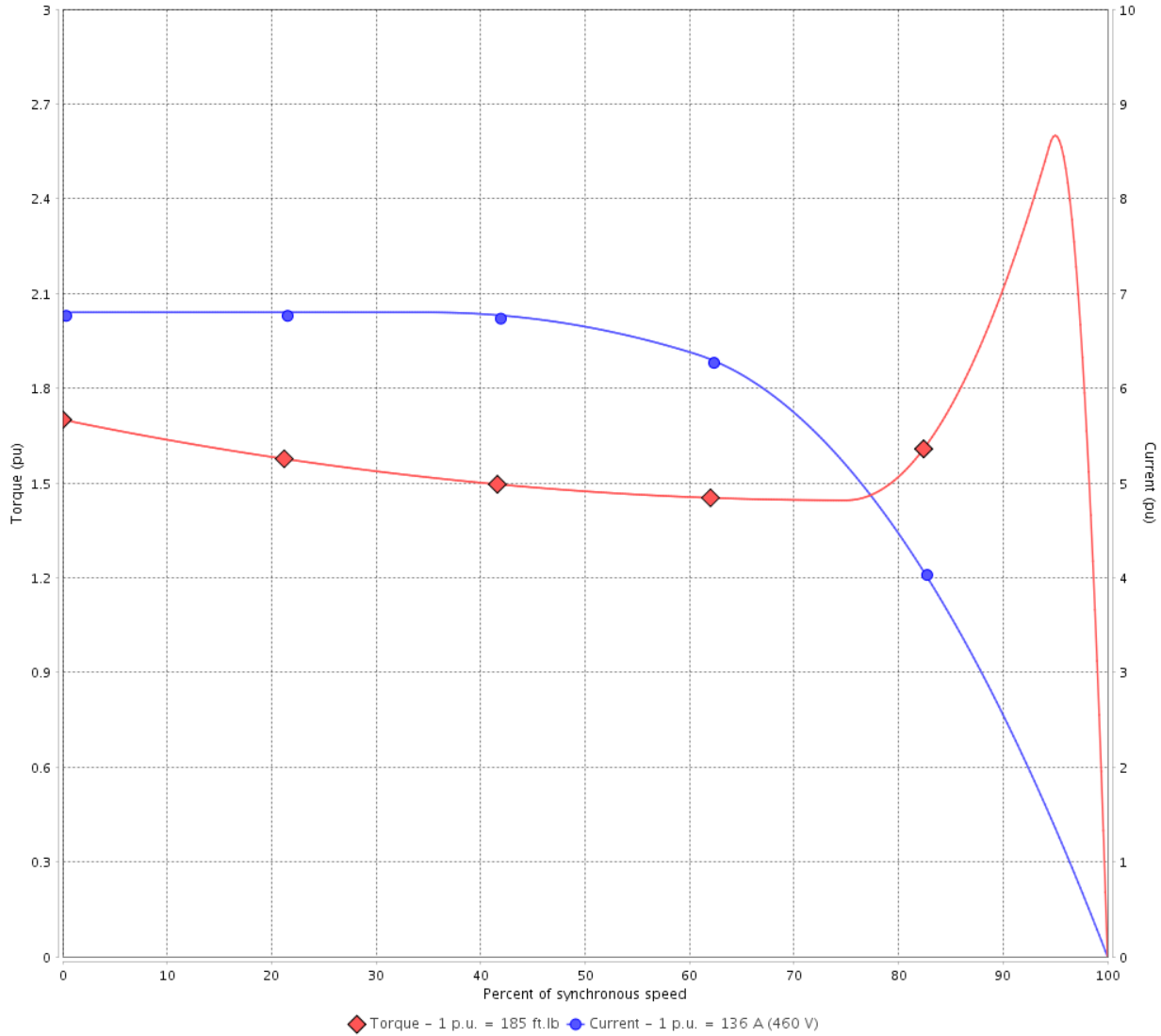
Customer :

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

Product code : 14270555

Catalog # : 12536OT3G404JP-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 460 V 60 Hz 2P

Rated current	: 136 A	Moment of inertia (J)	: 8.23 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 185 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 3557 rpm	Design	: B

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

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# TORQUE AND CURRENT VS SPEED CURVE



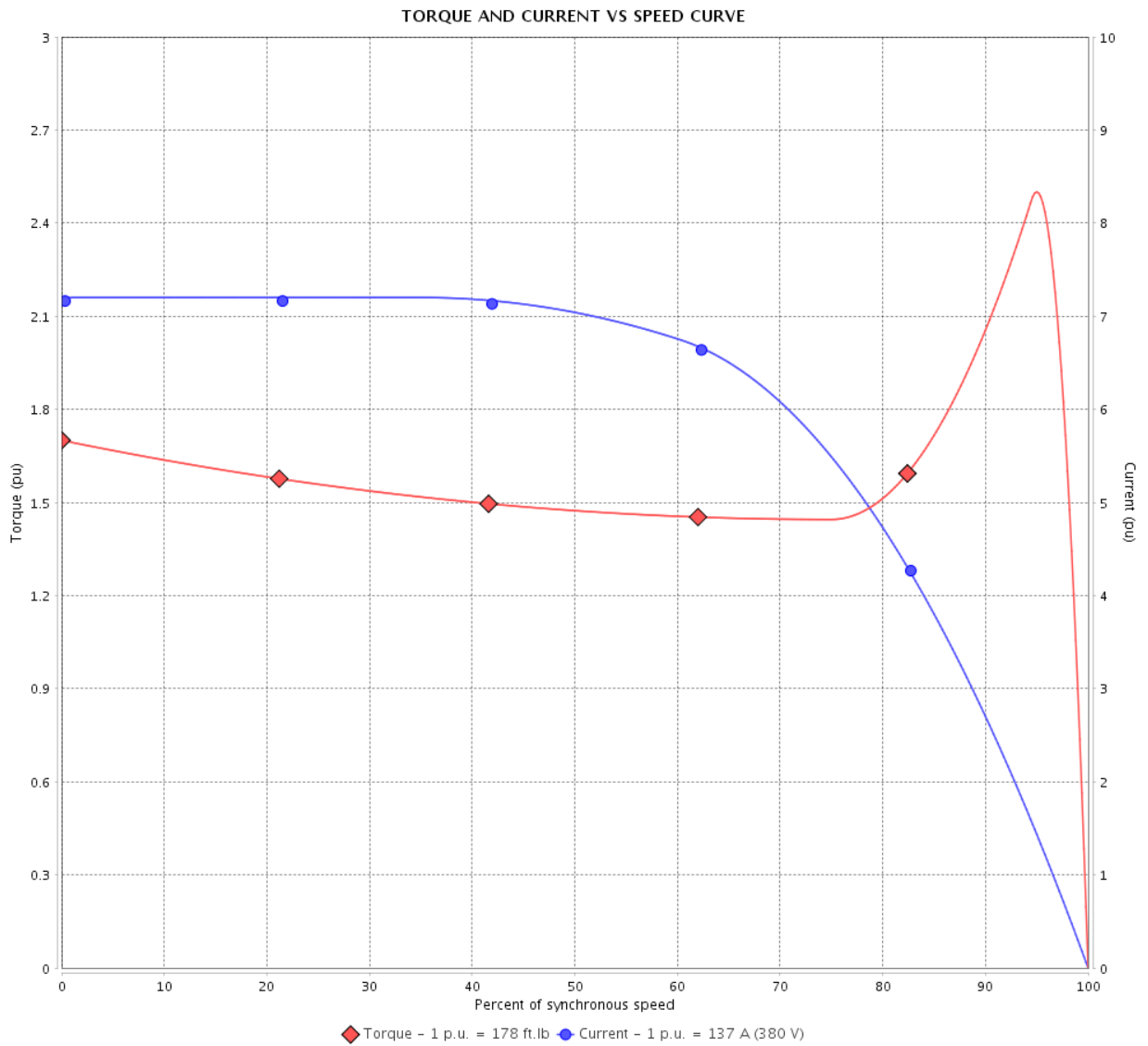
## Three Phase Induction Motor - Squirrel Cage

Customer :

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

Product code : 14270555

Catalog # : 12536OT3G404JP-W40



Performance : 380 V 50 Hz 2P IE3

Rated current	: 137 A	Moment of inertia (J)	: 8.23 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 178 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 2955 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



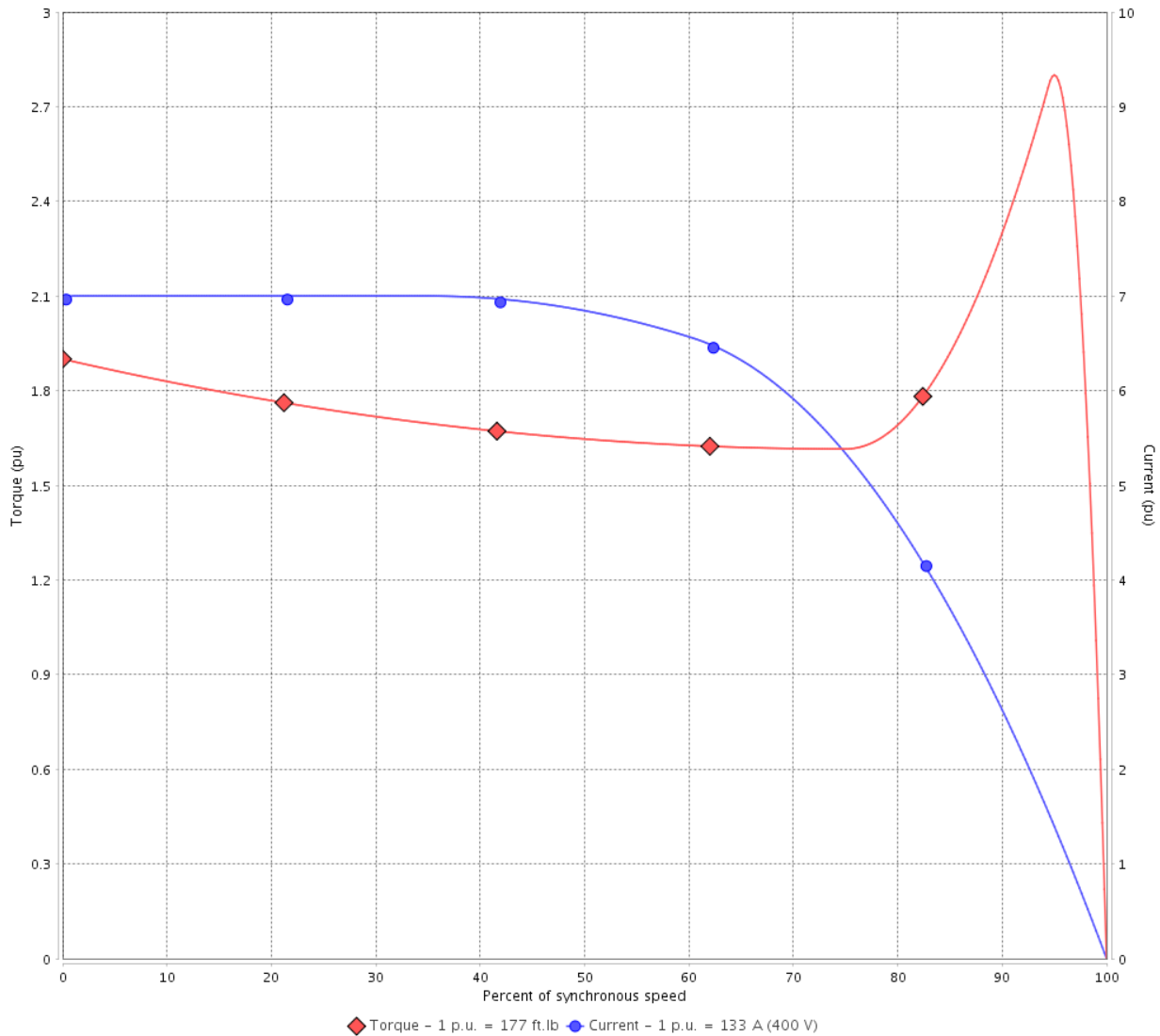
Customer :

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

Product code : 14270555

Catalog # : 12536OT3G404JP-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current	: 133 A	Moment of inertia (J)	: 8.23 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 177 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 2960 rpm	Design	: B

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

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# TORQUE AND CURRENT VS SPEED CURVE



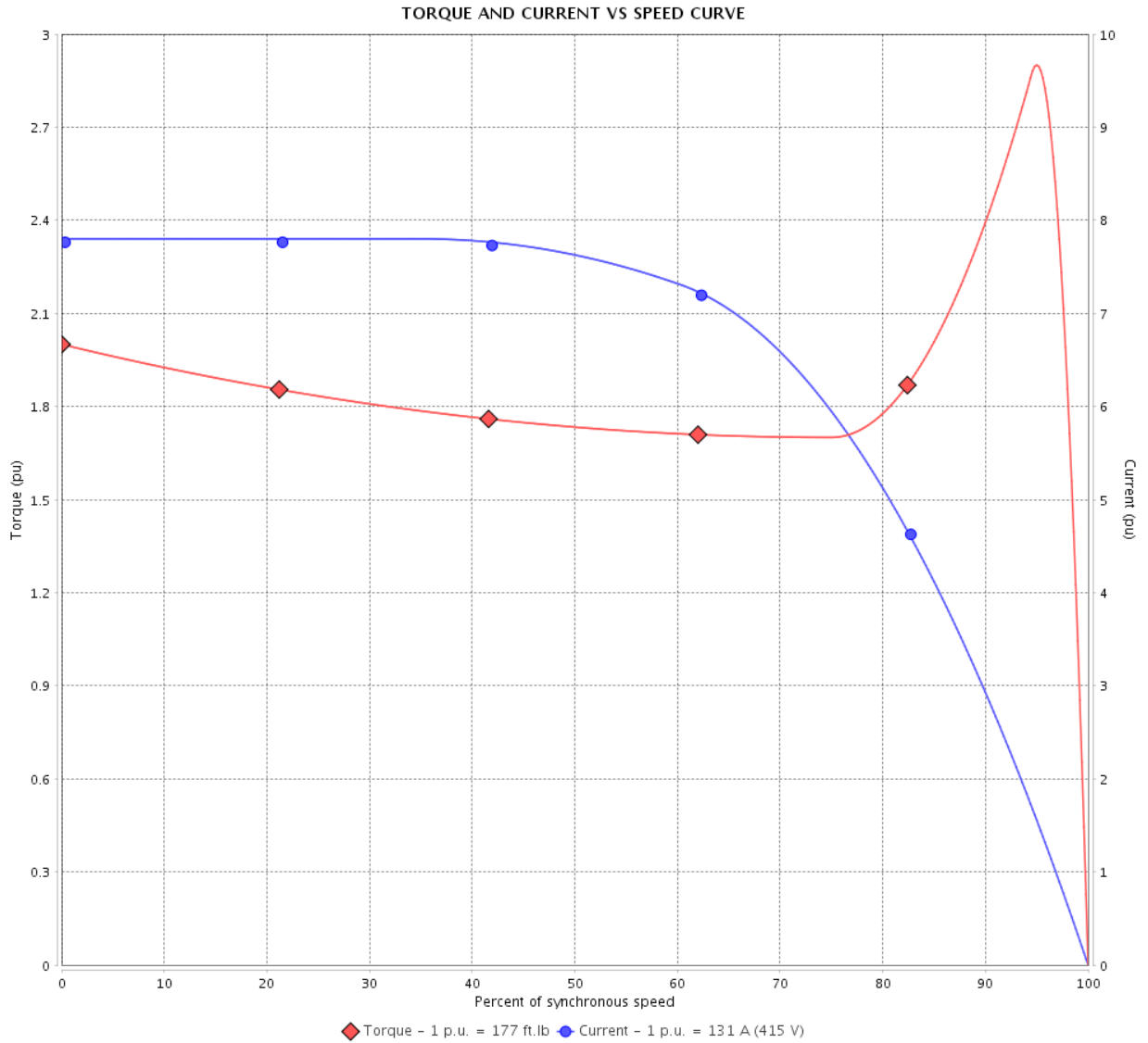
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LRC	: 7.8	Duty cycle	: Cont.(S1)
Rated torque	: 177 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 2965 rpm	Design	: B

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

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

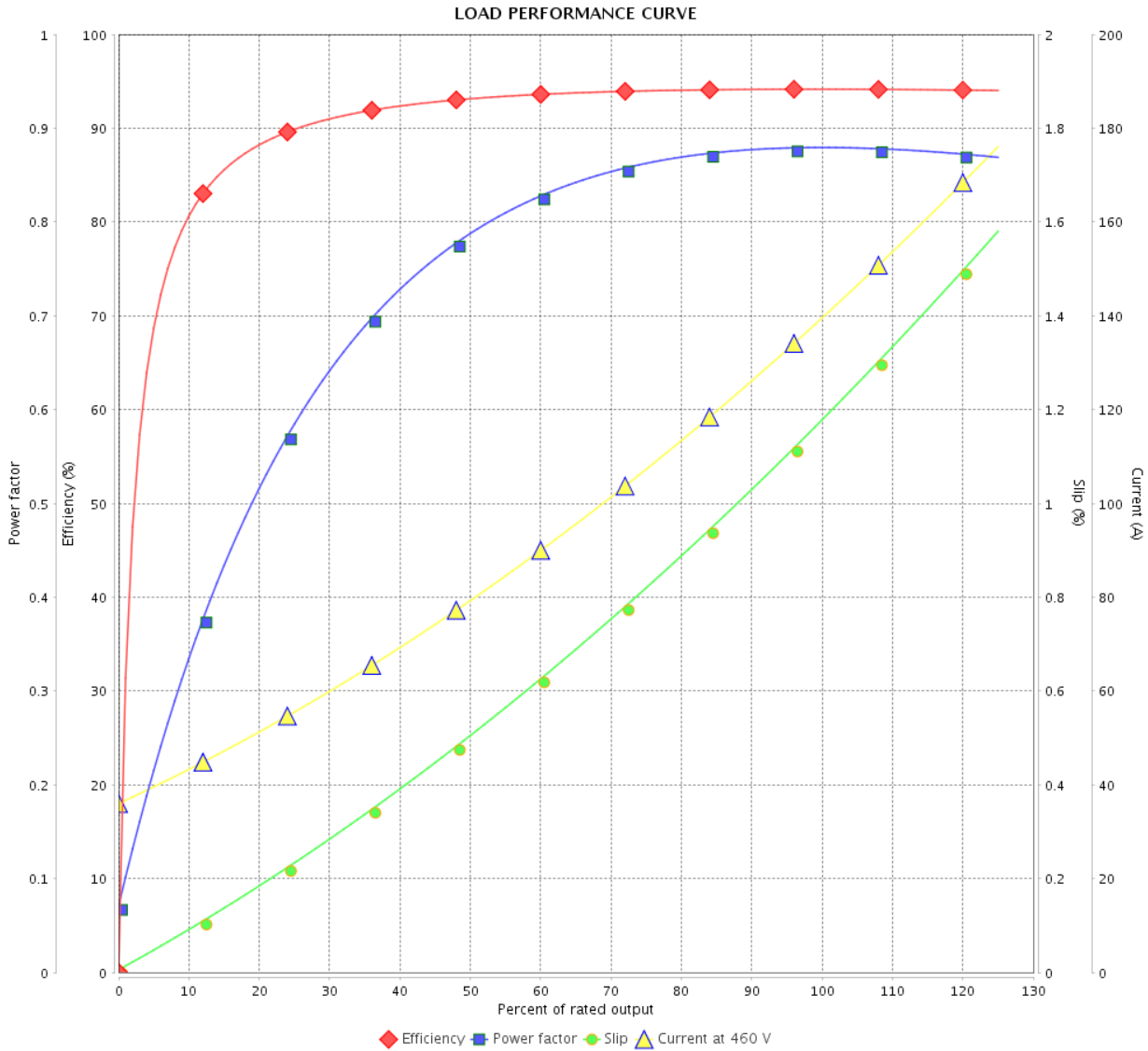


Customer :

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

Product code : 14270555

Catalog # : 12536OT3G404JP-W40



Performance : 460 V 60 Hz 2P

Rated current : 136 A  
LRC : 6.8  
Rated torque : 185 ft.lb  
Locked rotor torque : 170 %  
Breakdown torque : 260 %  
Rated speed : 3557 rpm

Moment of inertia (J) : 8.23 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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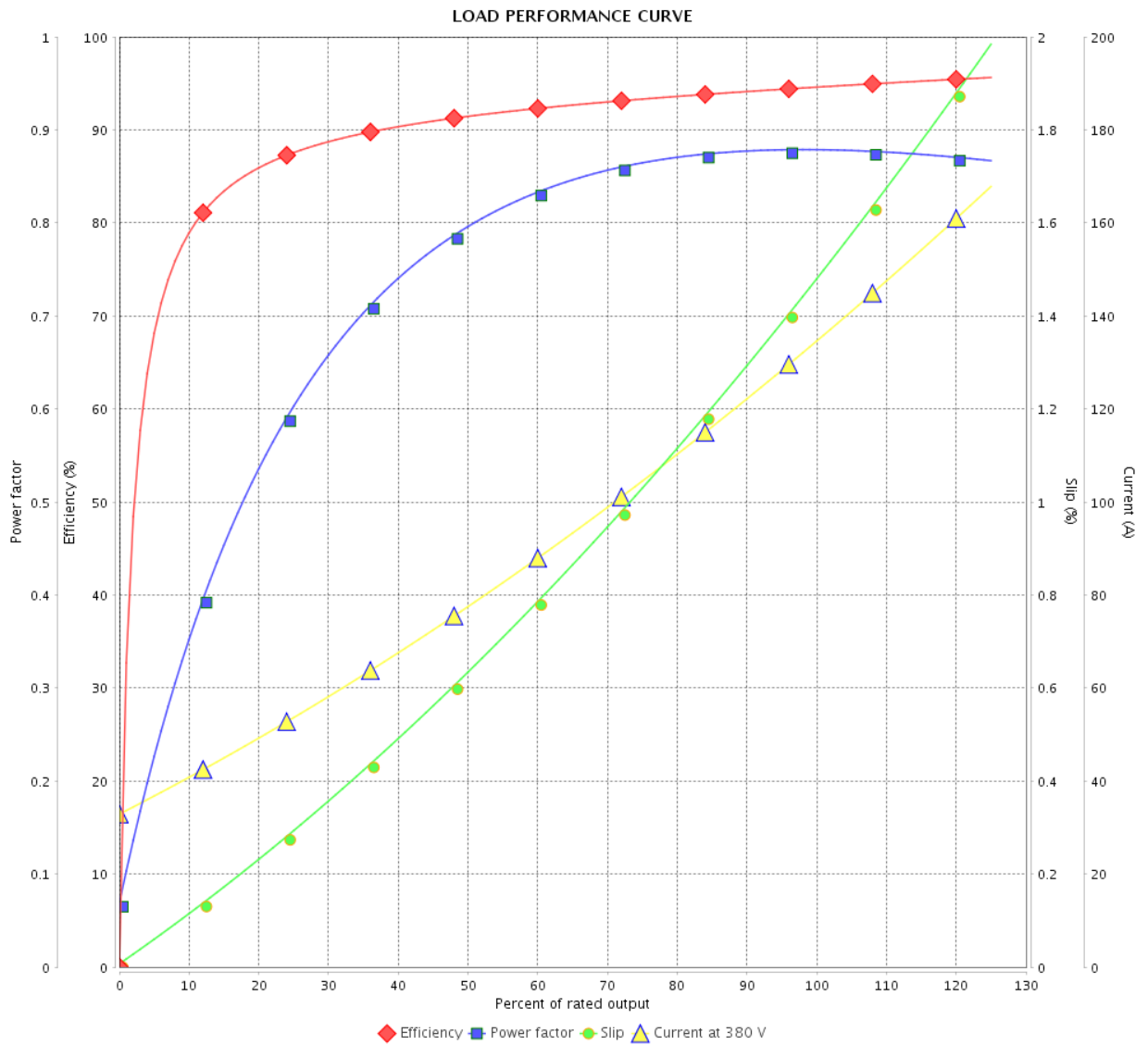


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Product code : 14270555

Catalog # : 12536OT3G404JP-W40



Performance : 380 V 50 Hz 2P IE3

Rated current : 137 A  
 LRC : 7.2  
 Rated torque : 178 ft.lb  
 Locked rotor torque : 170 %  
 Breakdown torque : 250 %  
 Rated speed : 2955 rpm

Moment of inertia (J) : 8.23 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

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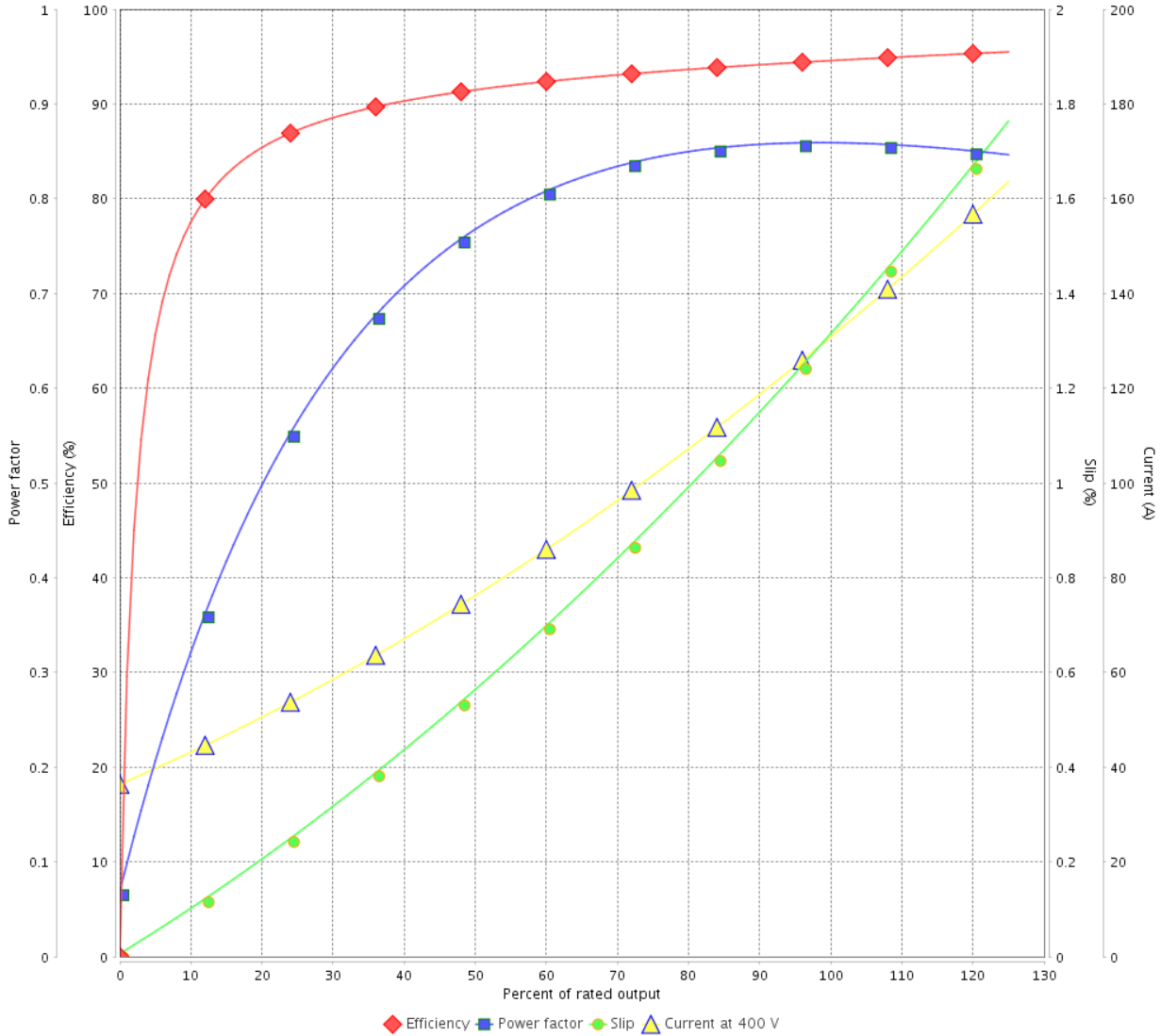
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LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current : 133 A  
LRC : 7.0  
Rated torque : 177 ft.lb  
Locked rotor torque : 190 %  
Breakdown torque : 280 %  
Rated speed : 2960 rpm

Moment of inertia (J) : 8.23 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

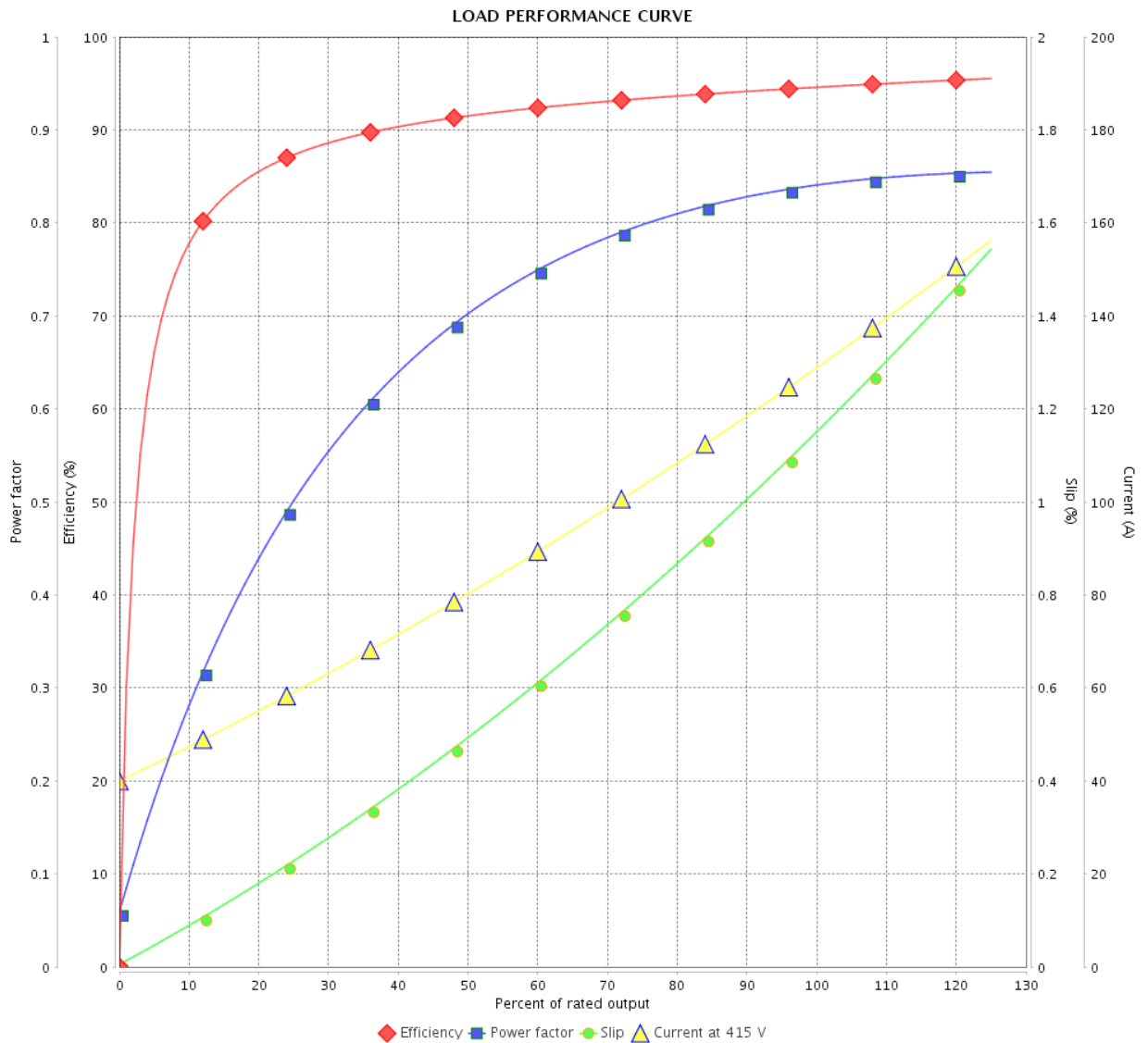


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 Locked rotor torque : 200 %  
 Breakdown torque : 290 %  
 Rated speed : 2965 rpm

Moment of inertia (J) : 8.23 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
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# THERMAL LIMIT CURVE



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Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 3557 rpm	Design	: B

Heating constant

Cooling constant

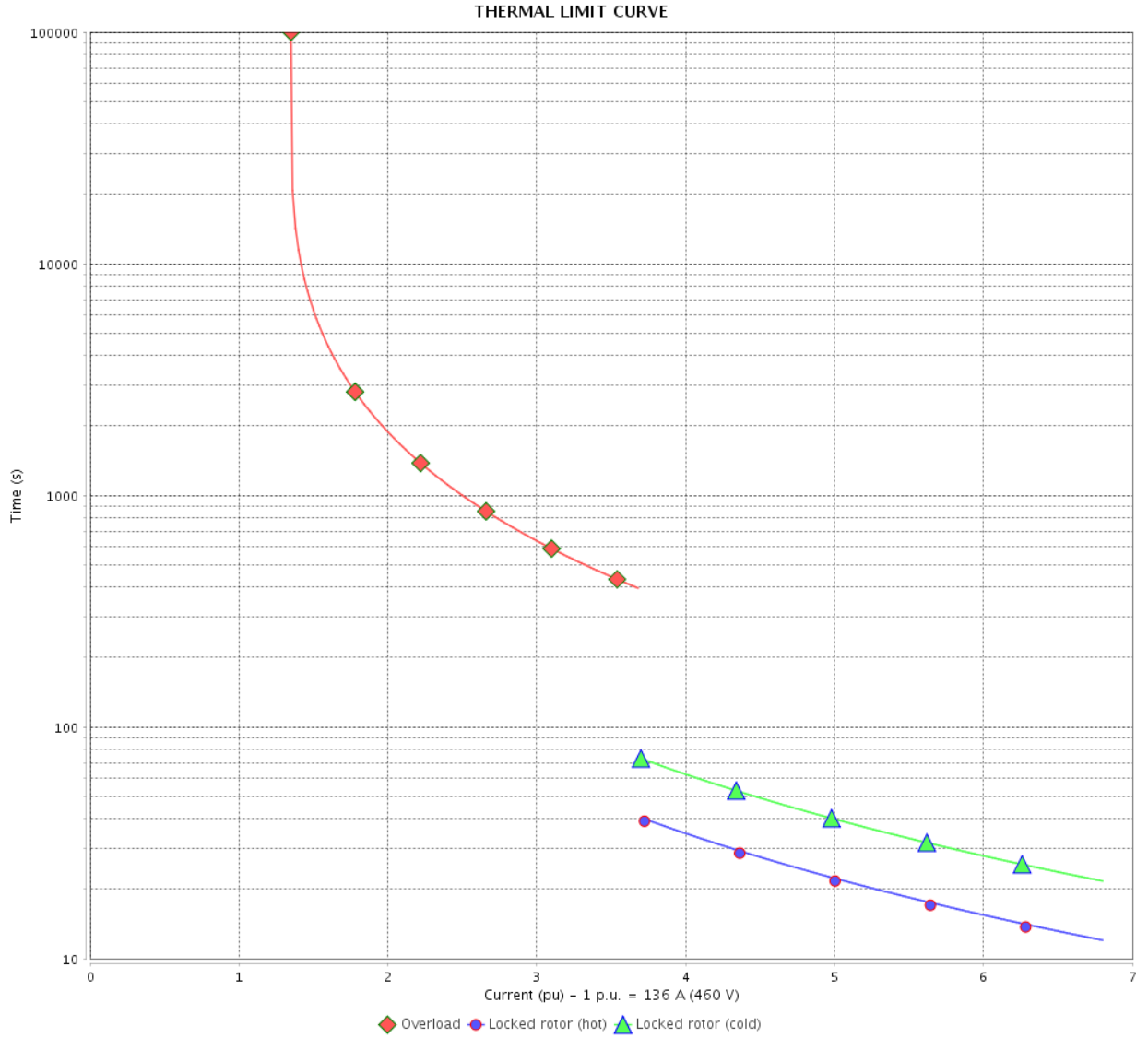
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Catalog # : 12536OT3G404JP-W40

Performance : 380 V 50 Hz 2P IE3

Rated current	: 137 A	Moment of inertia (J)	: 8.23 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 178 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 2955 rpm	Design	: B

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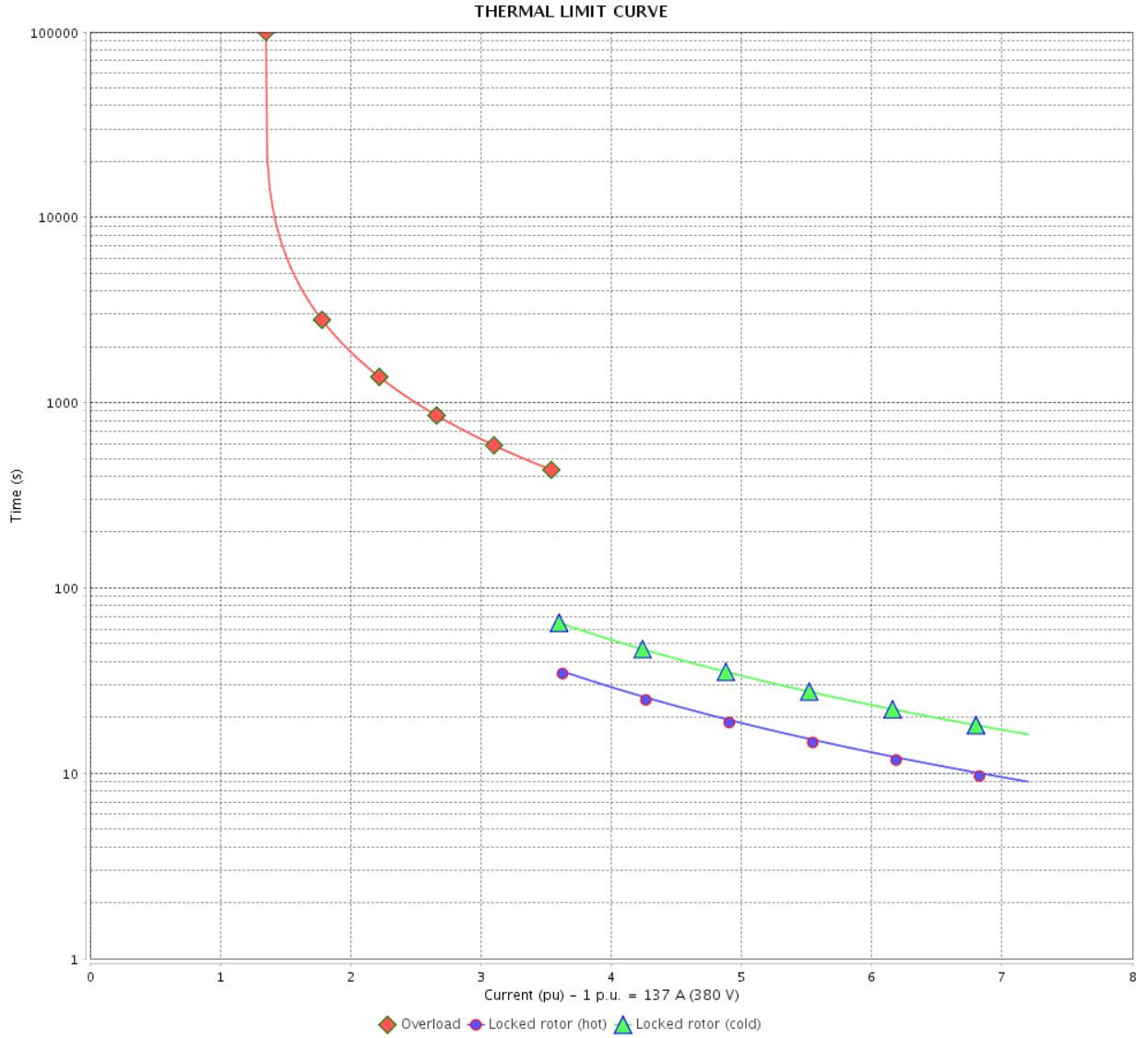
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LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 177 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 2960 rpm	Design	: B

Heating constant

Cooling constant

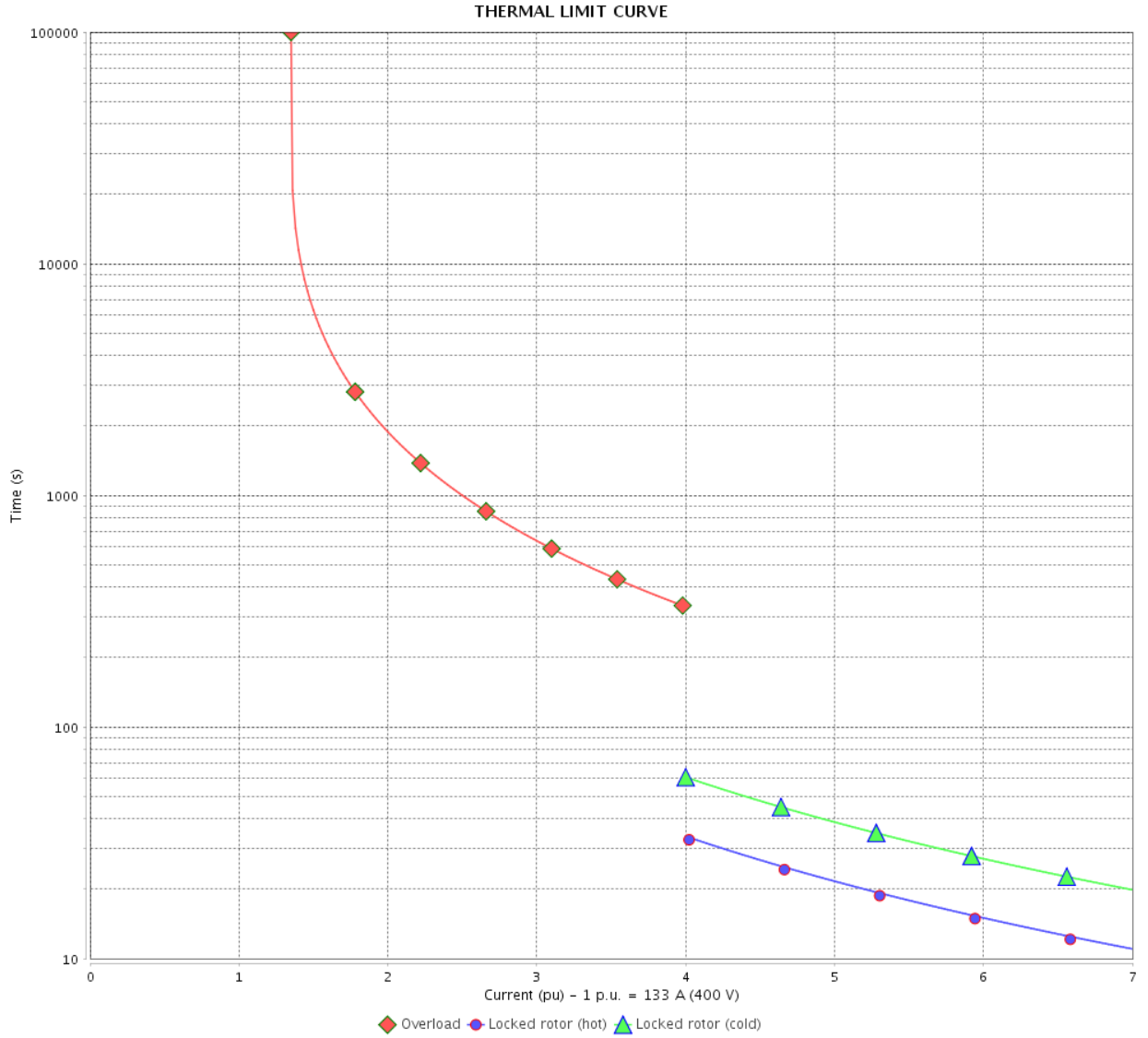
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# THERMAL LIMIT CURVE

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# THERMAL LIMIT CURVE



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LRC	: 7.8	Duty cycle	: Cont.(S1)
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Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 2965 rpm	Design	: B

Heating constant

Cooling constant

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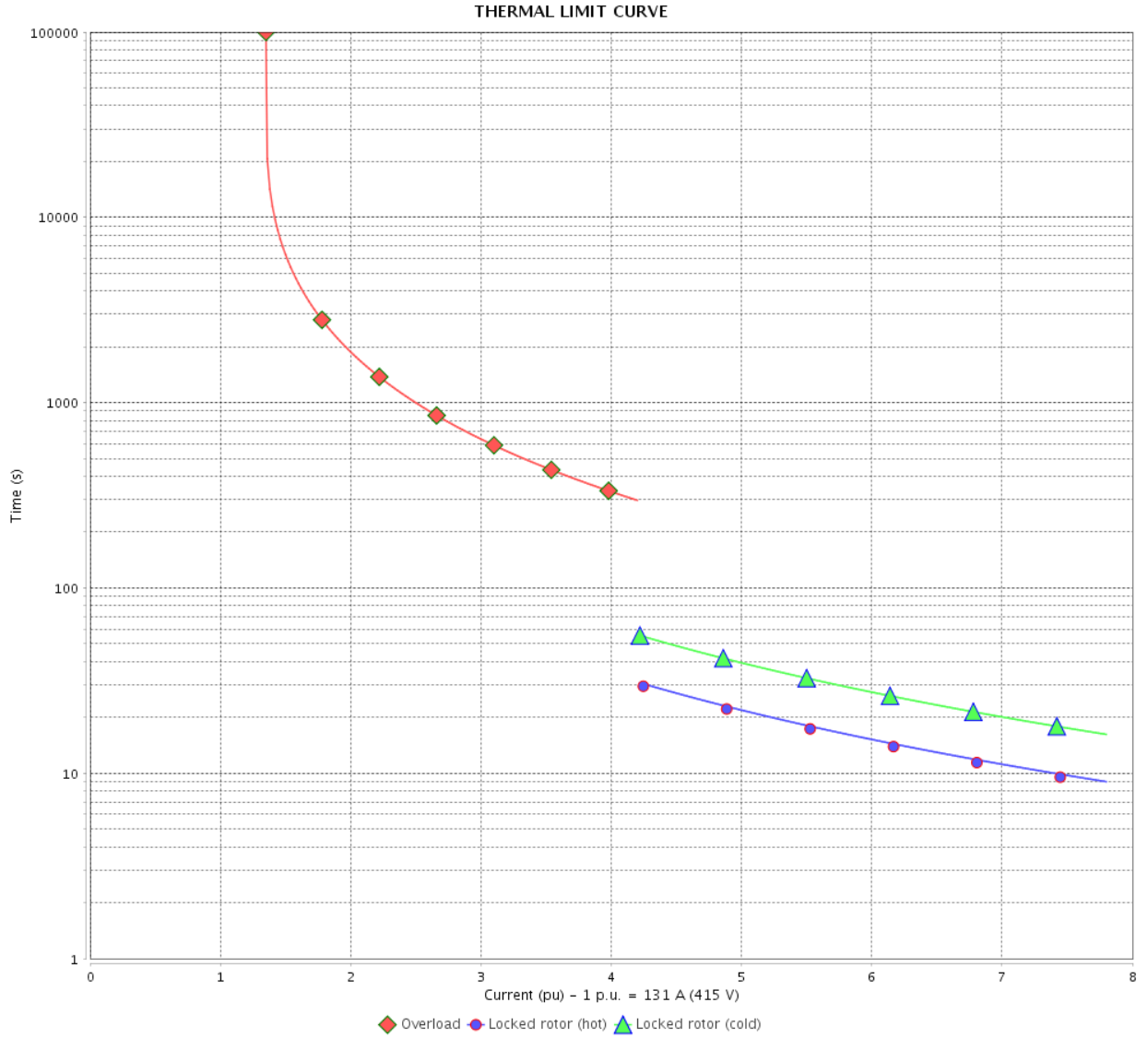


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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

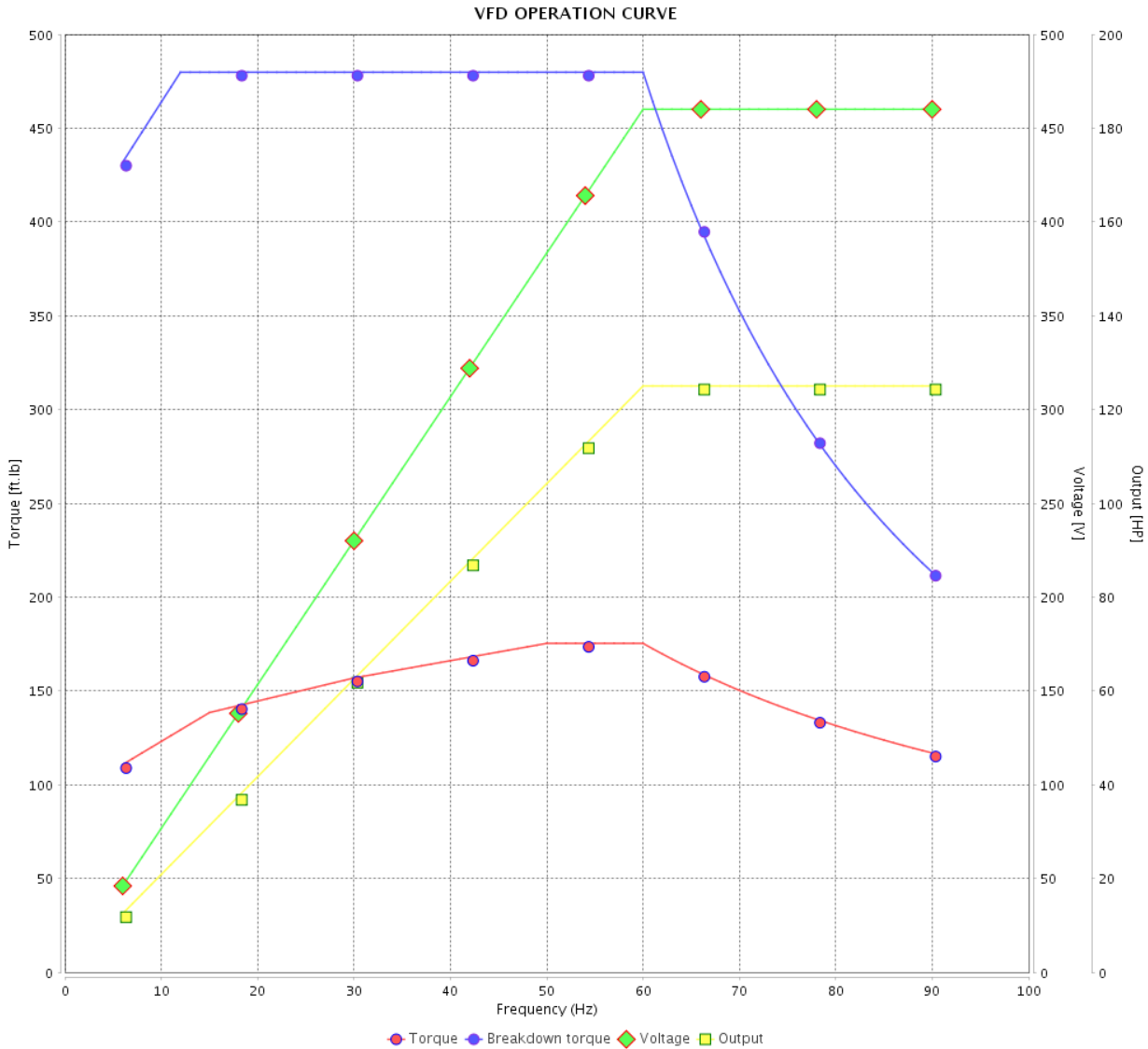


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 Locked rotor torque : 170 %  
 Breakdown torque : 260 %  
 Rated speed : 3557 rpm

Moment of inertia (J) : 8.23 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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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

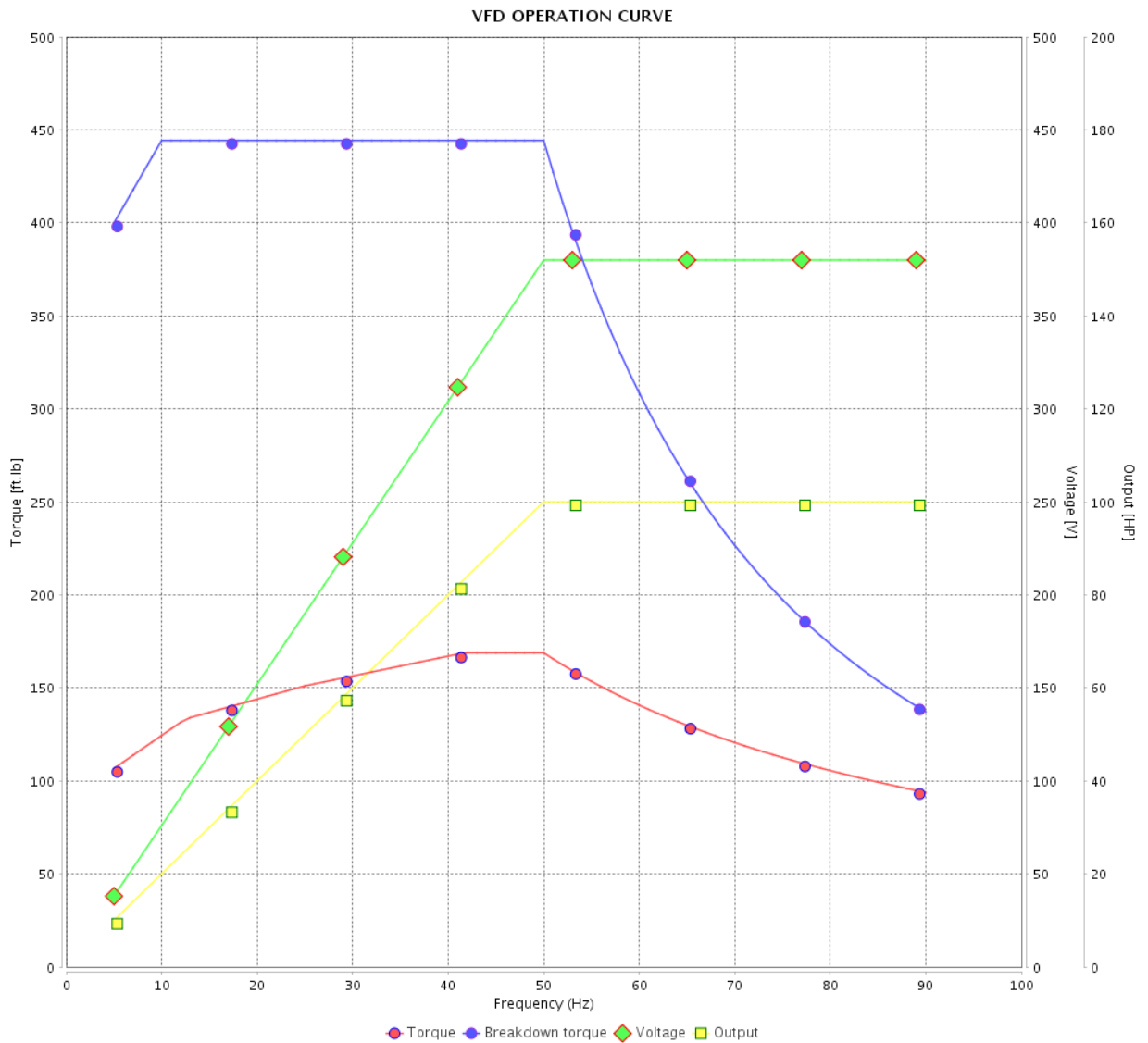


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Performance : 380 V 50 Hz 2P IE3

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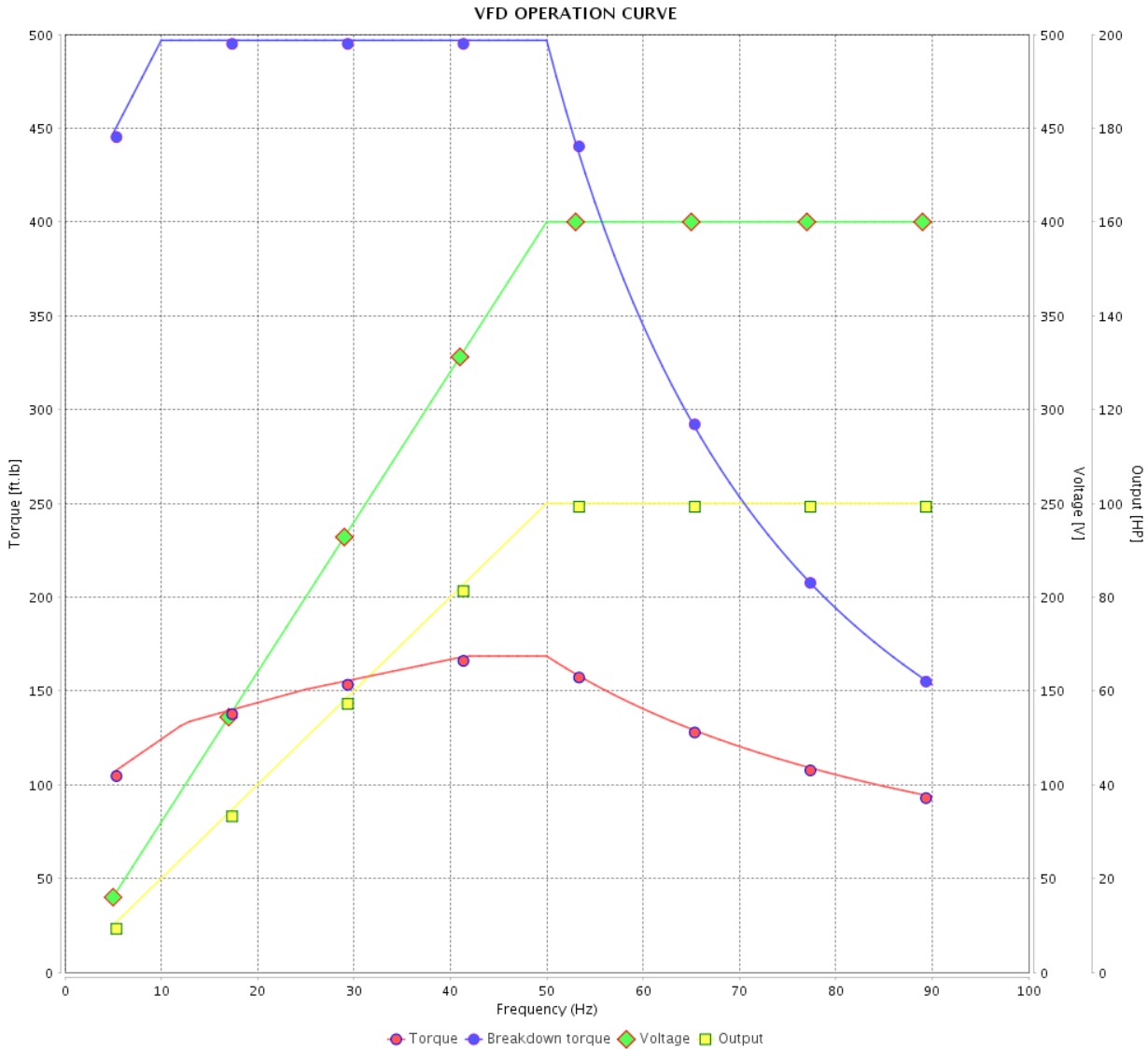


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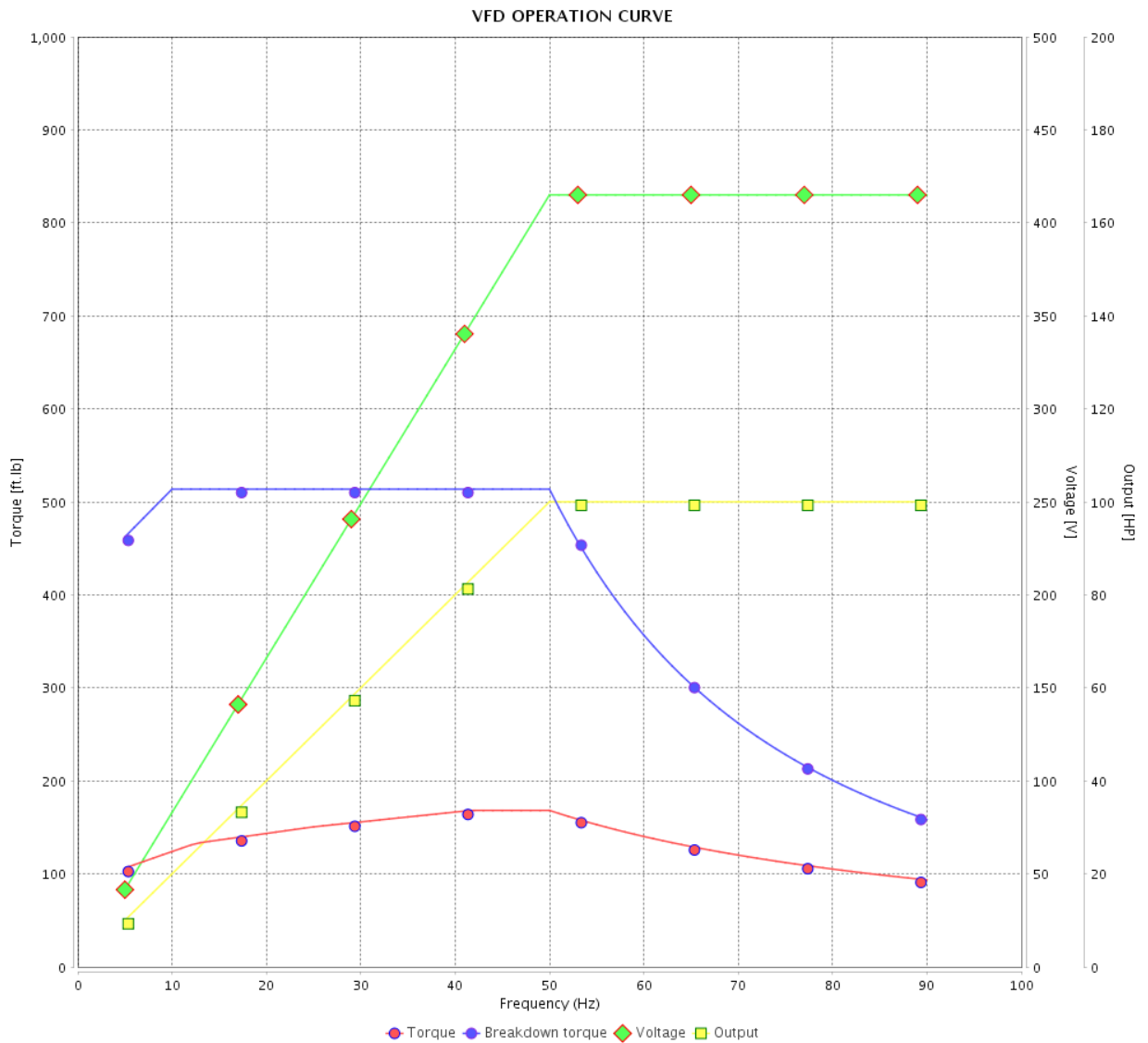


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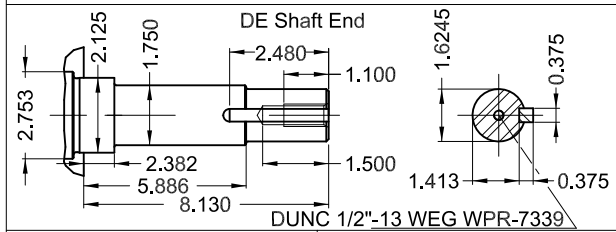
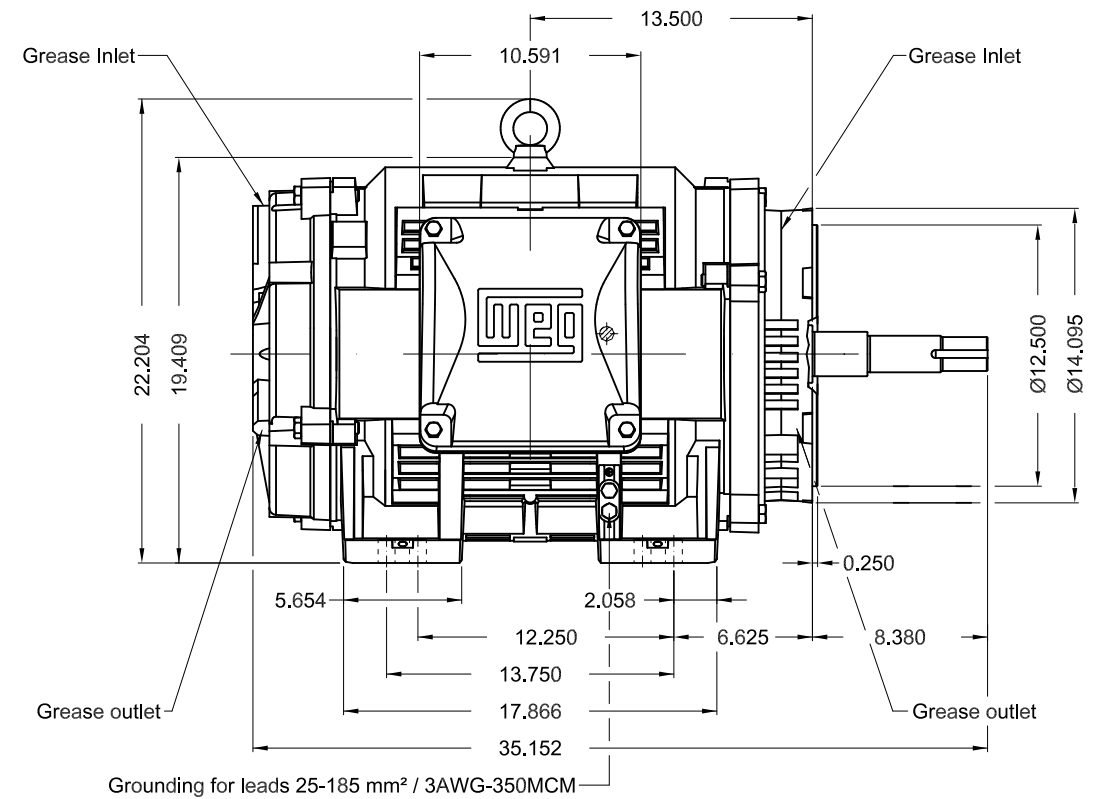
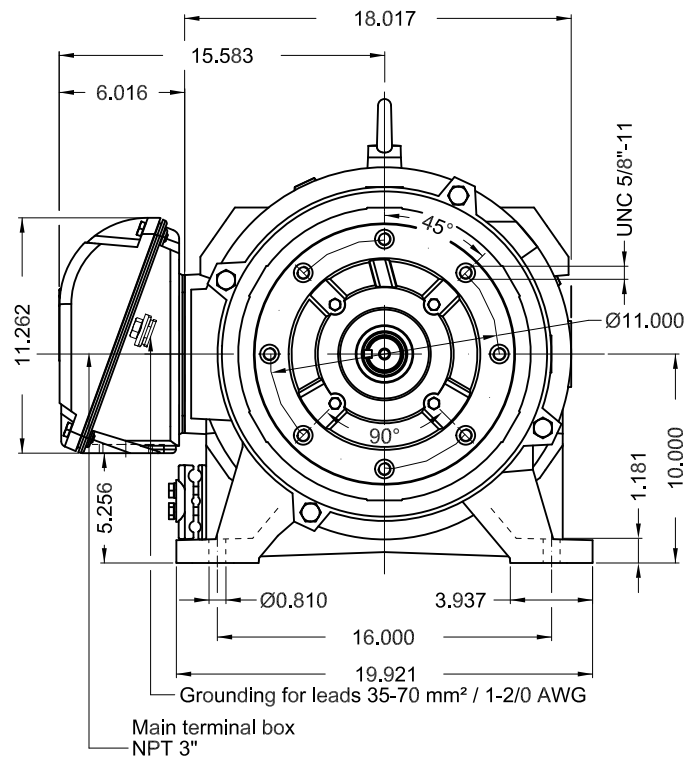


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Date	13/04/2022			



125 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					

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

**PREVIEW**  
 WDD



SHEET 1 / 1

MODEL 125360T3G404JP-W40  
MADE IN BRAZIL  
14270555

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

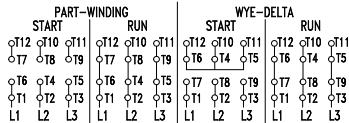



IEC 60034-1  
MOD.T01#FOXON



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

PH 3	FR 404/5JP	HP(kW) 125(90)	Hz 60
V 460	A 136		IP23
NEMA NOM EFF	94.1 %	RPM 3557	
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 170	ALT 1000 m.a.s.l.	
100HP 75kW 50Hz 380V 137A 2955RPM SF1.00 EFF 94.7% (IE3)			



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

891 Lbs