

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer					
Product line		: W40 NEMA Premium Efficiency Three-Phase		Product code : 14272927	
				Catalog # : 12536OT3E404TS-W40G	
Frame		: 404/5TS		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 : 886 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]	230/460	380	400	415	415
Rated current [A]	272/136	137	133	131	131
L. R. Amperes [A]	1850/925	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]	72.0/36.0	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 ²	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 : 1097 lb	
		Bearing Seal	Bearing Seal	Max. compression : 1983 lb	
Lubrication interval		: 14418 h	: 20000 h		
Lubricant amount		: 27 g	: 13 g		
Lubricant type		: Mobil Polyrex EM			
Notes					
USABLE @208V 301A SF 1.15 SFA 346A					
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



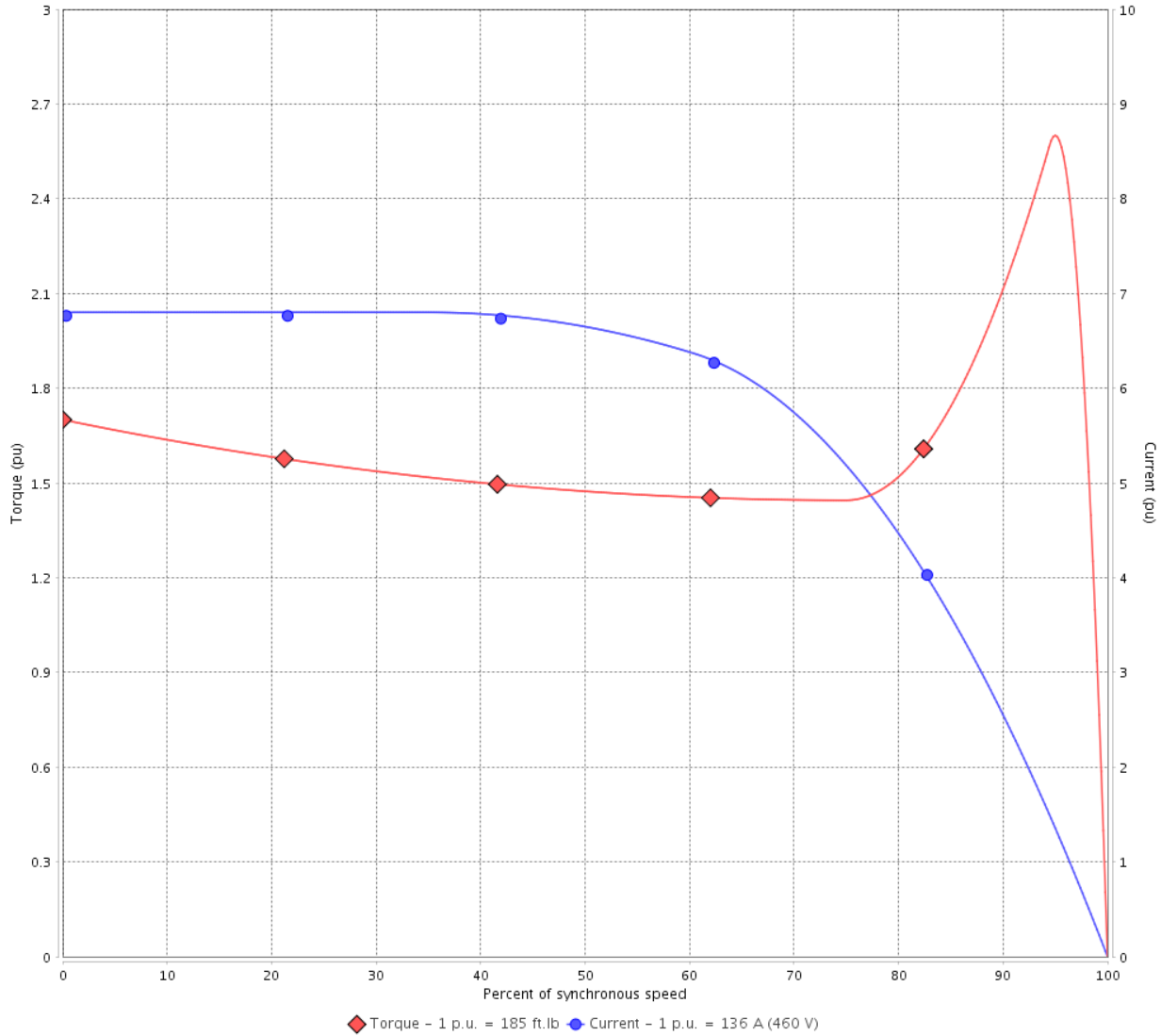
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272927

Catalog # : 12536OT3E404TS-W40G

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current	: 272/136 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



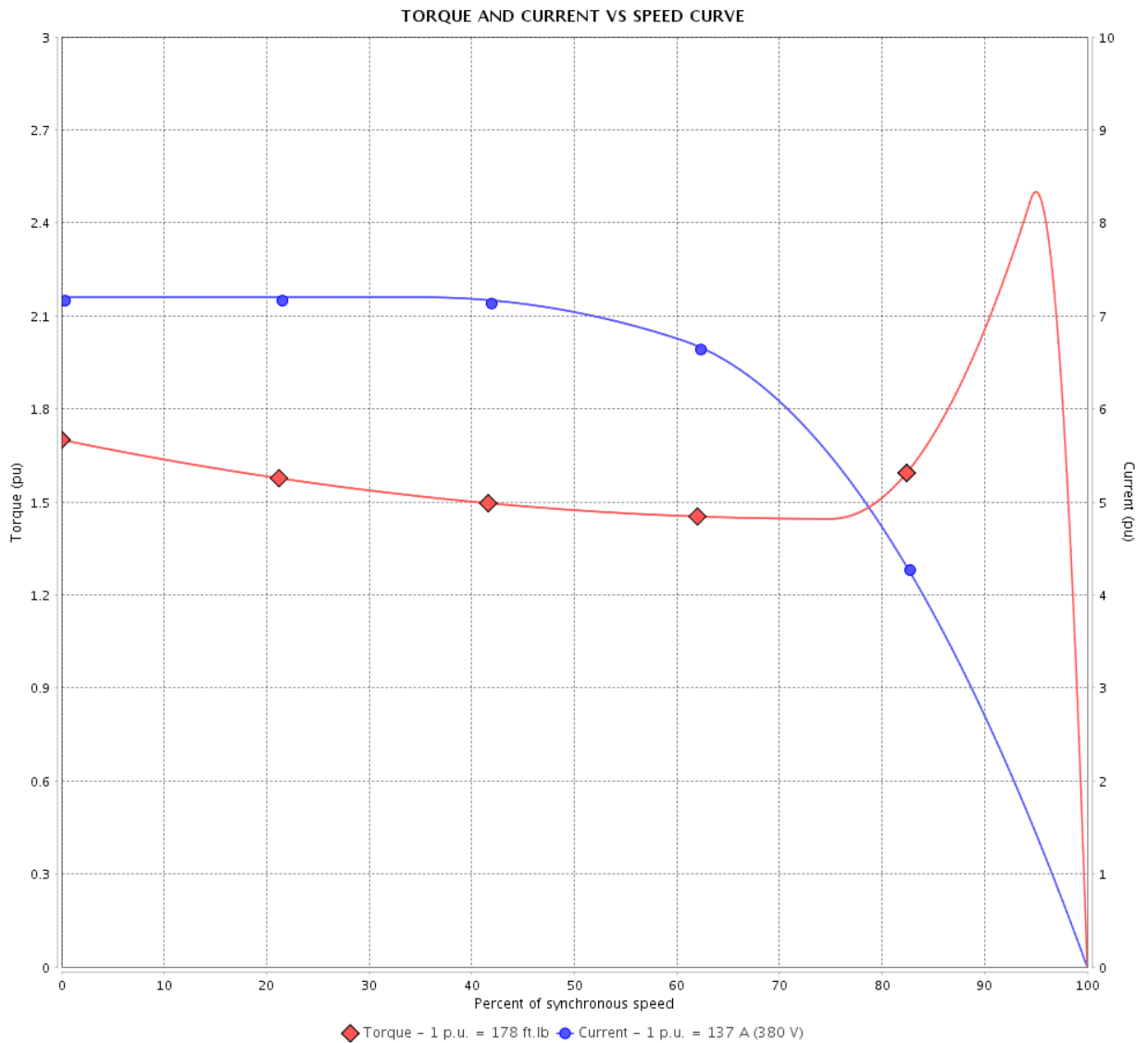
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272927

Catalog # : 12536OT3E404TS-W40G



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



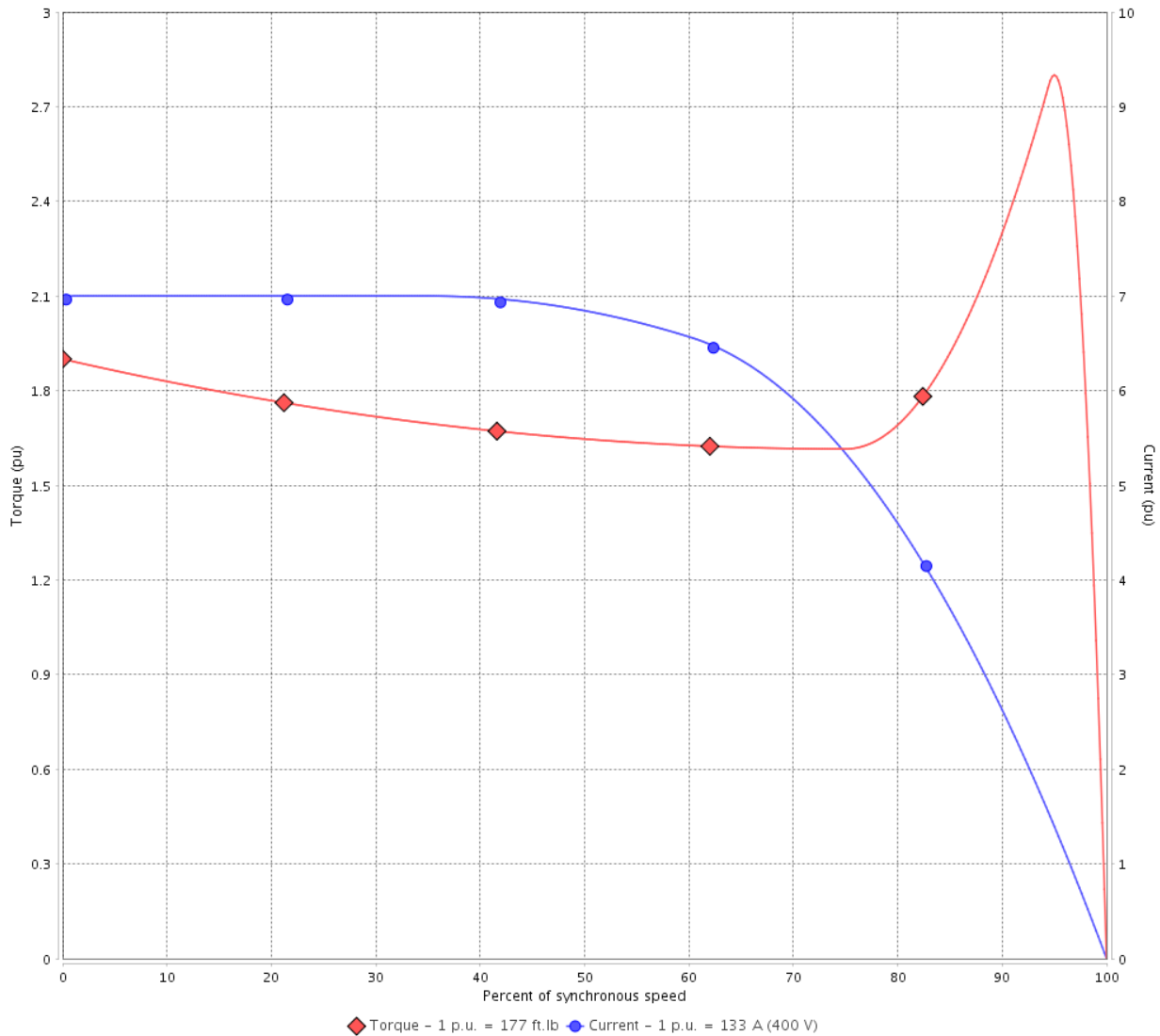
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272927

Catalog # : 125360T3E404TS-W40G

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



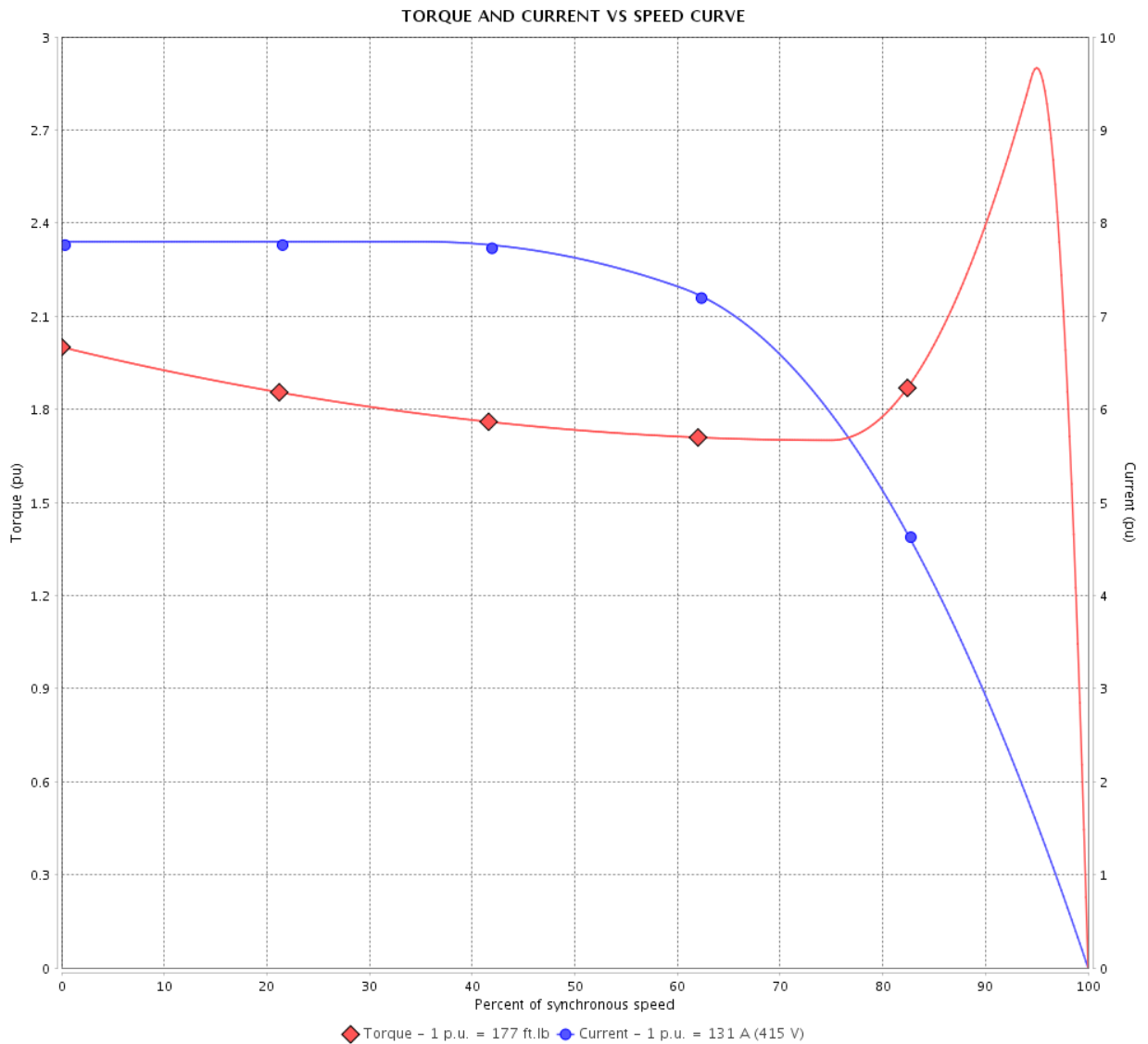
Three Phase Induction Motor - Squirrel Cage

Customer :

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Three-Phase

Product code : 14272927

Catalog # : 12536OT3E404TS-W40G



Performance : 415 V 50 Hz 2P IE3

Rated current	: 131 A	Moment of inertia (J)	: 8.23 sq.ft.lb
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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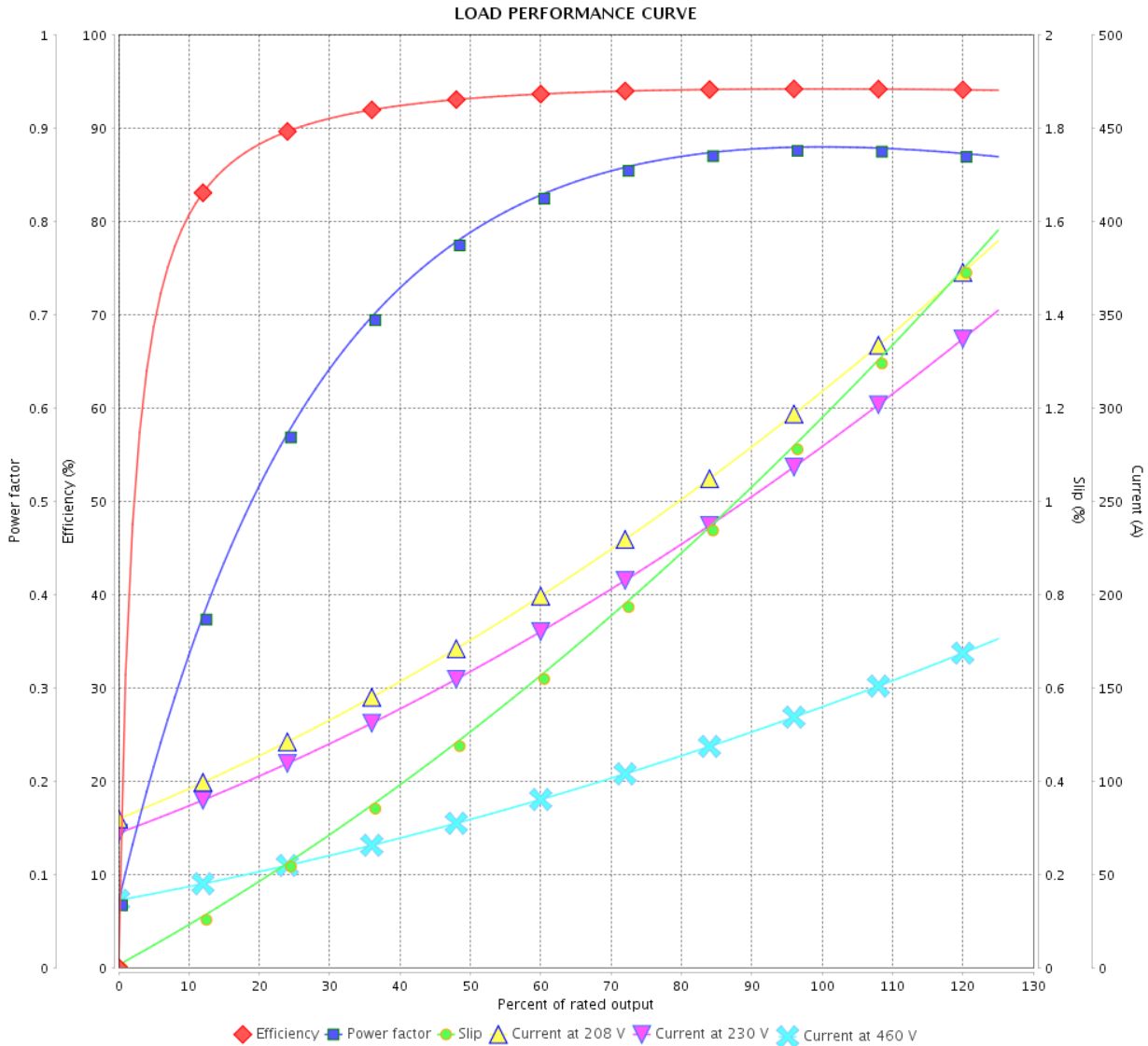


Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14272927

Catalog # : 12536OT3E404TS-W40G



Performance : 230/460 V 60 Hz 2P

Rated current : 272/136 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

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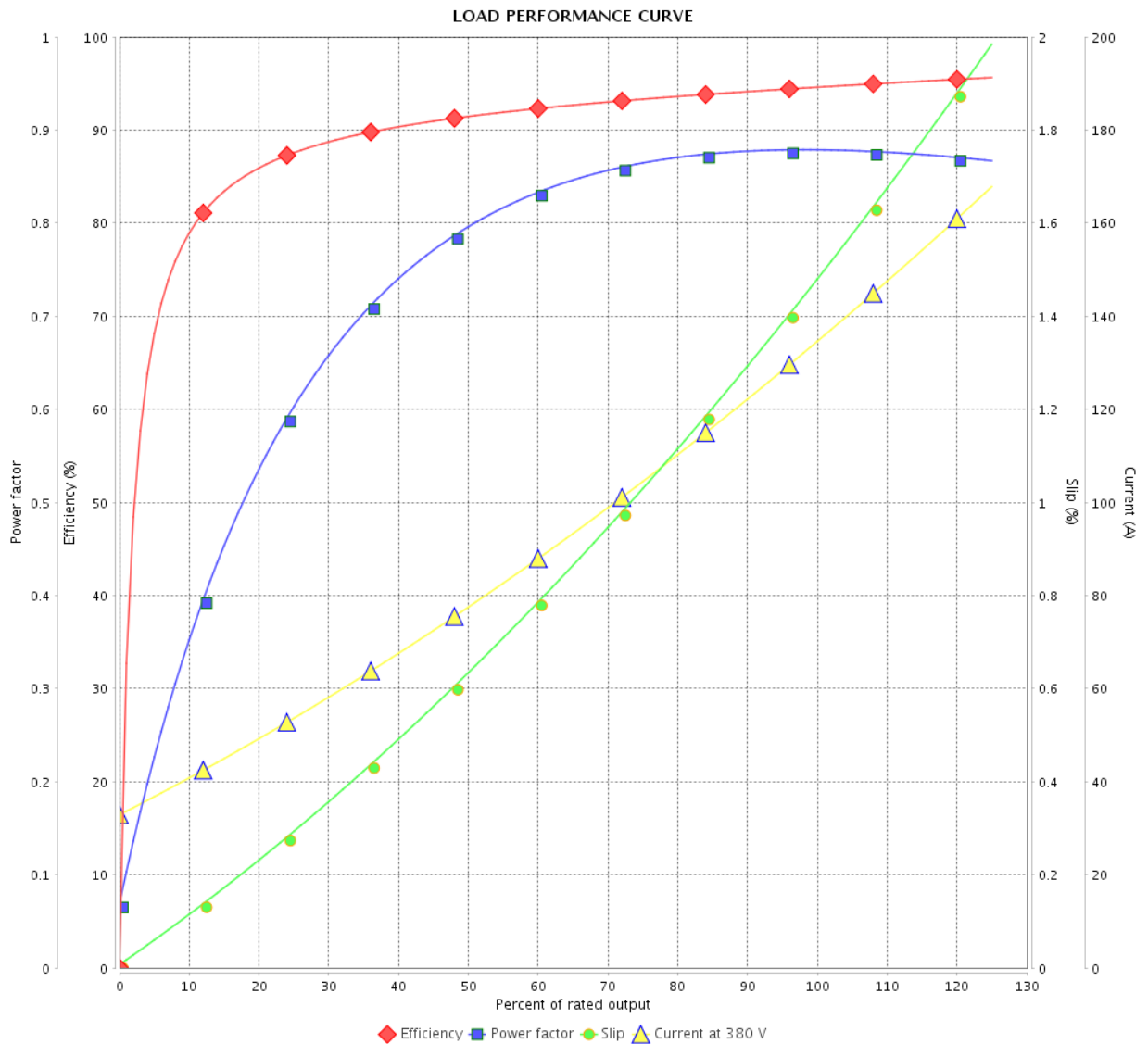


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Product code : 14272927

Catalog # : 12536OT3E404TS-W40G



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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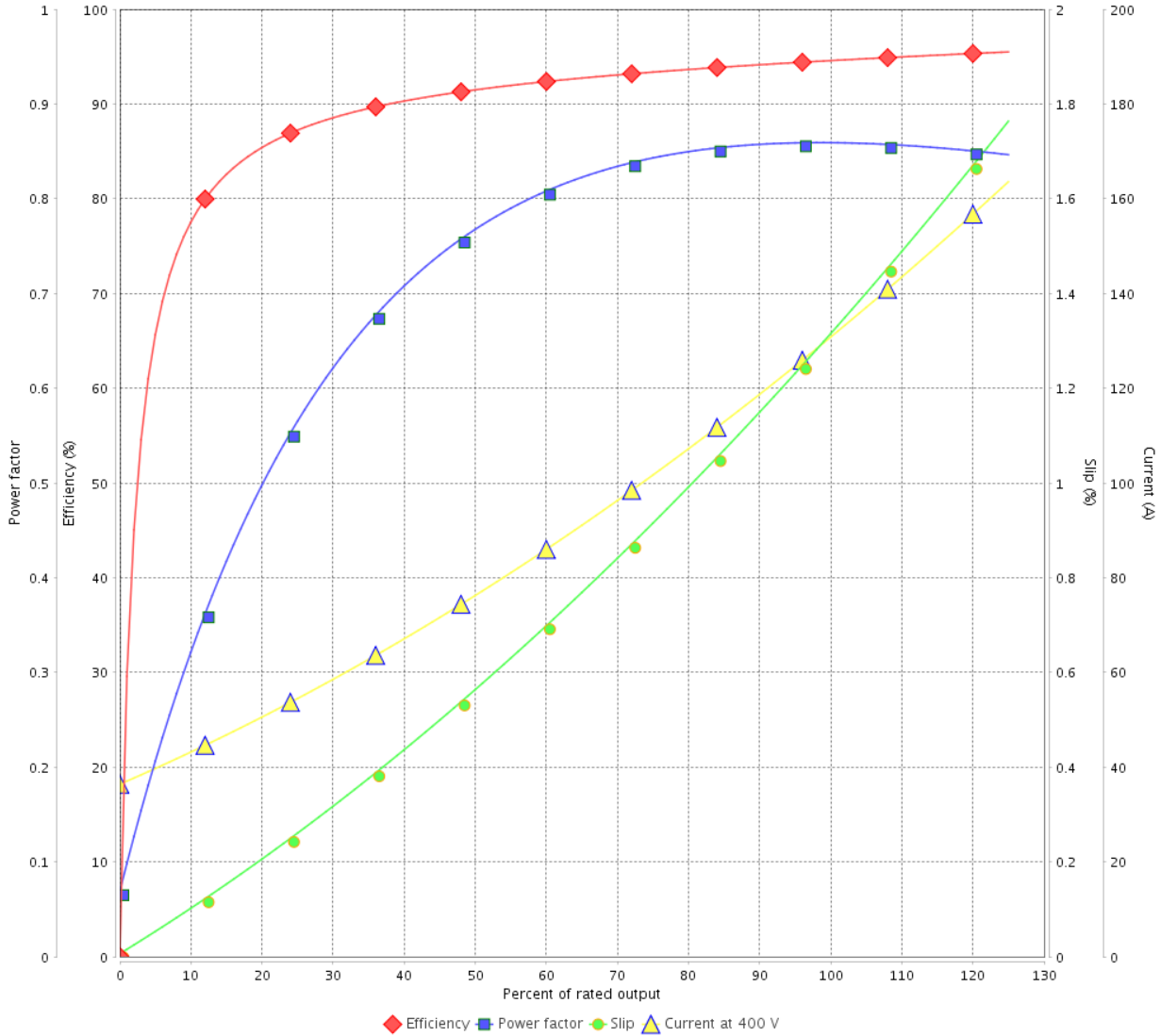
Customer :

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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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Three Phase Induction Motor - Squirrel Cage

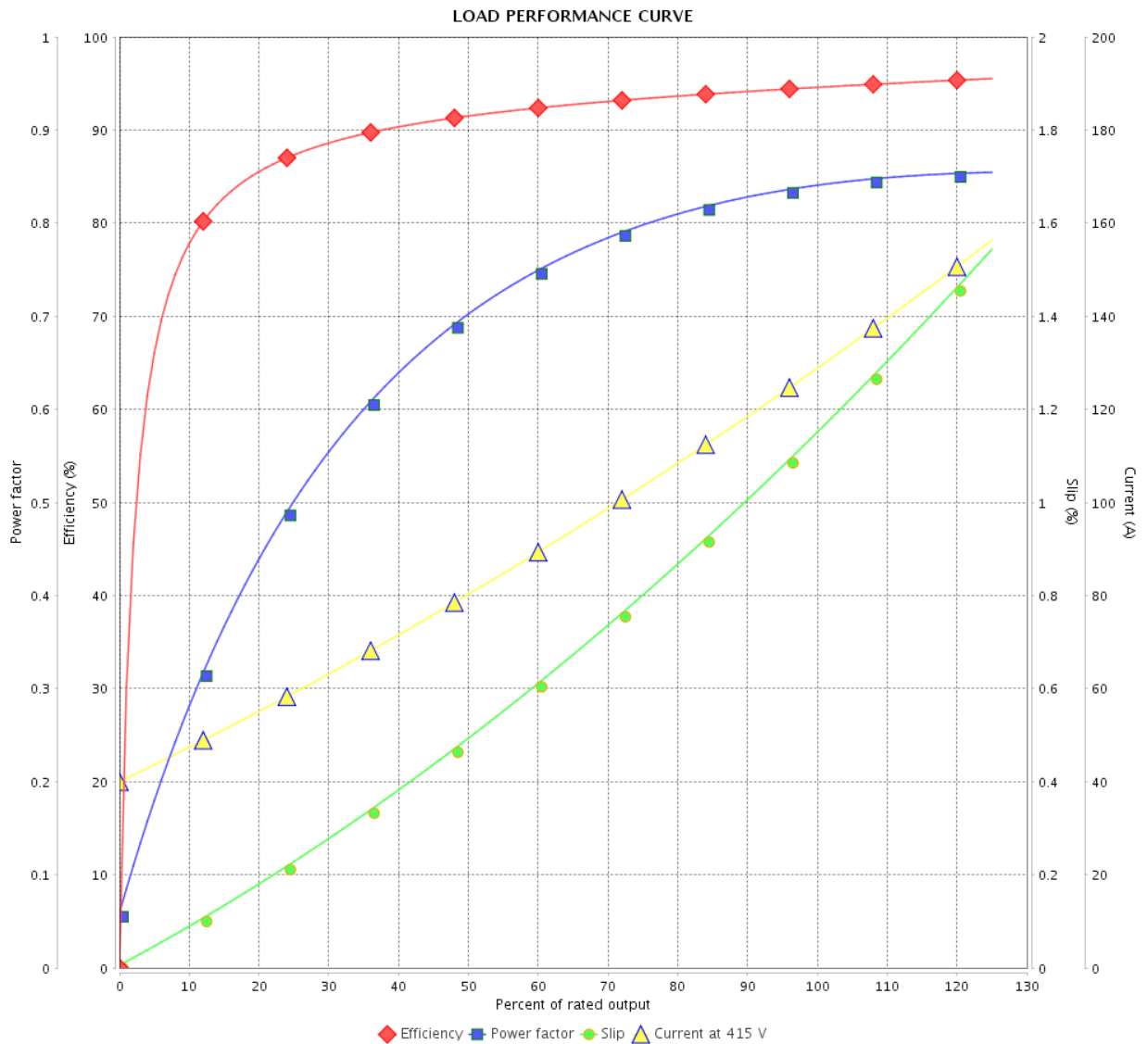


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 Locked rotor torque : 200 %
 Breakdown torque : 290 %
 Rated speed : 2965 rpm

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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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Duty cycle : Cont.(S1)
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Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

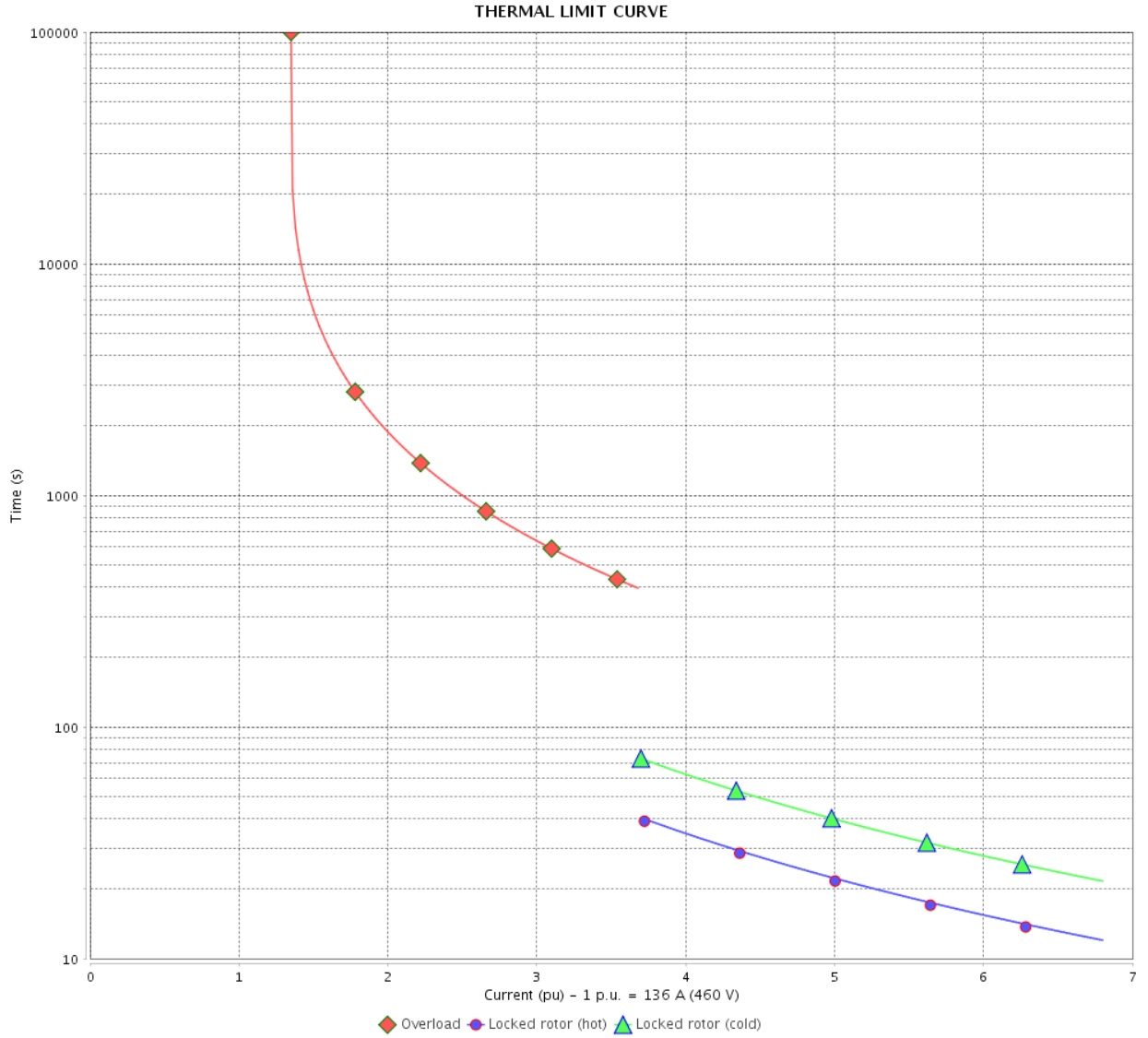
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LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 178 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 2955 rpm	Design	: B

Heating constant

Cooling constant

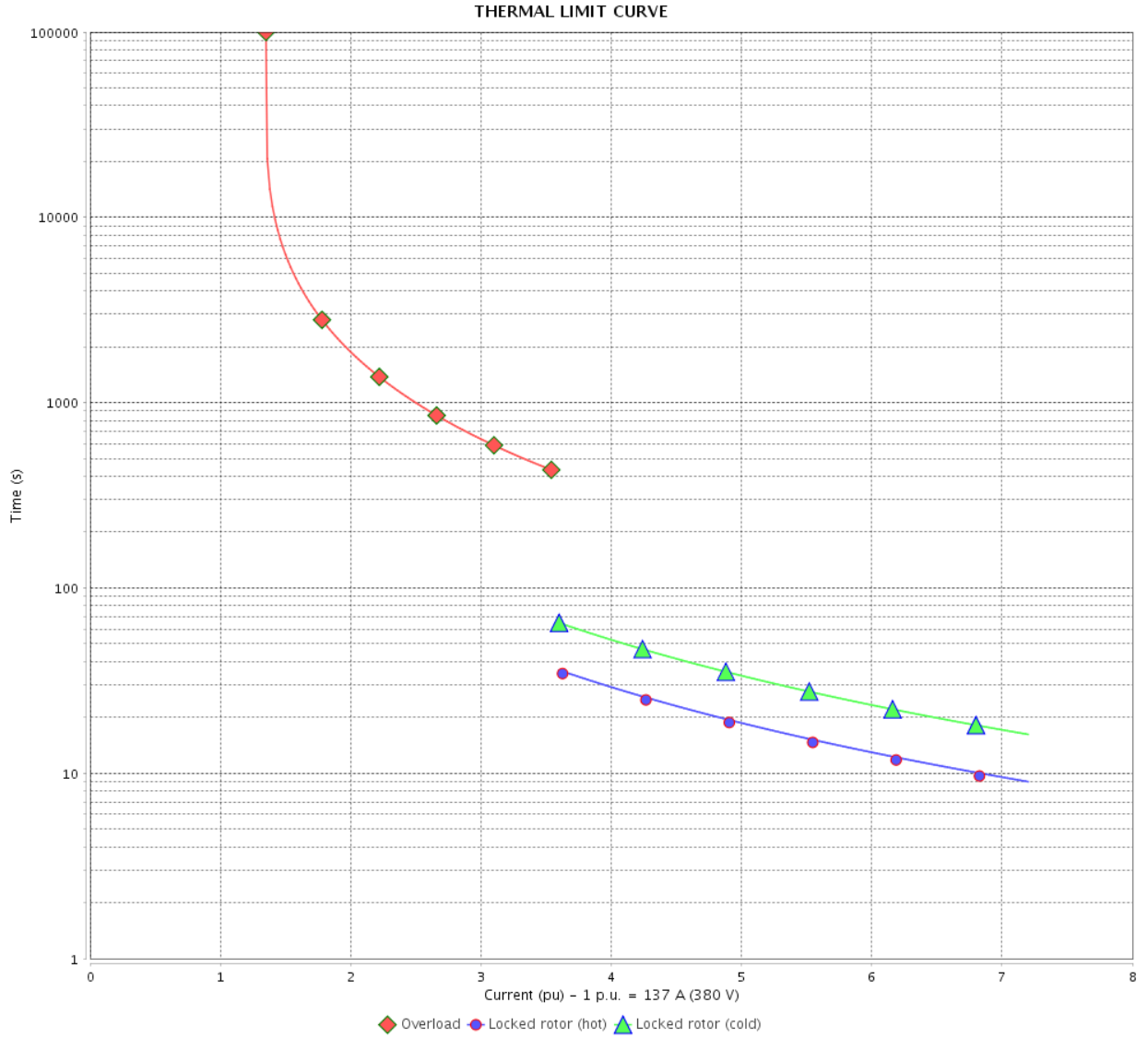
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LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 177 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 2960 rpm	Design	: B

Heating constant

Cooling constant

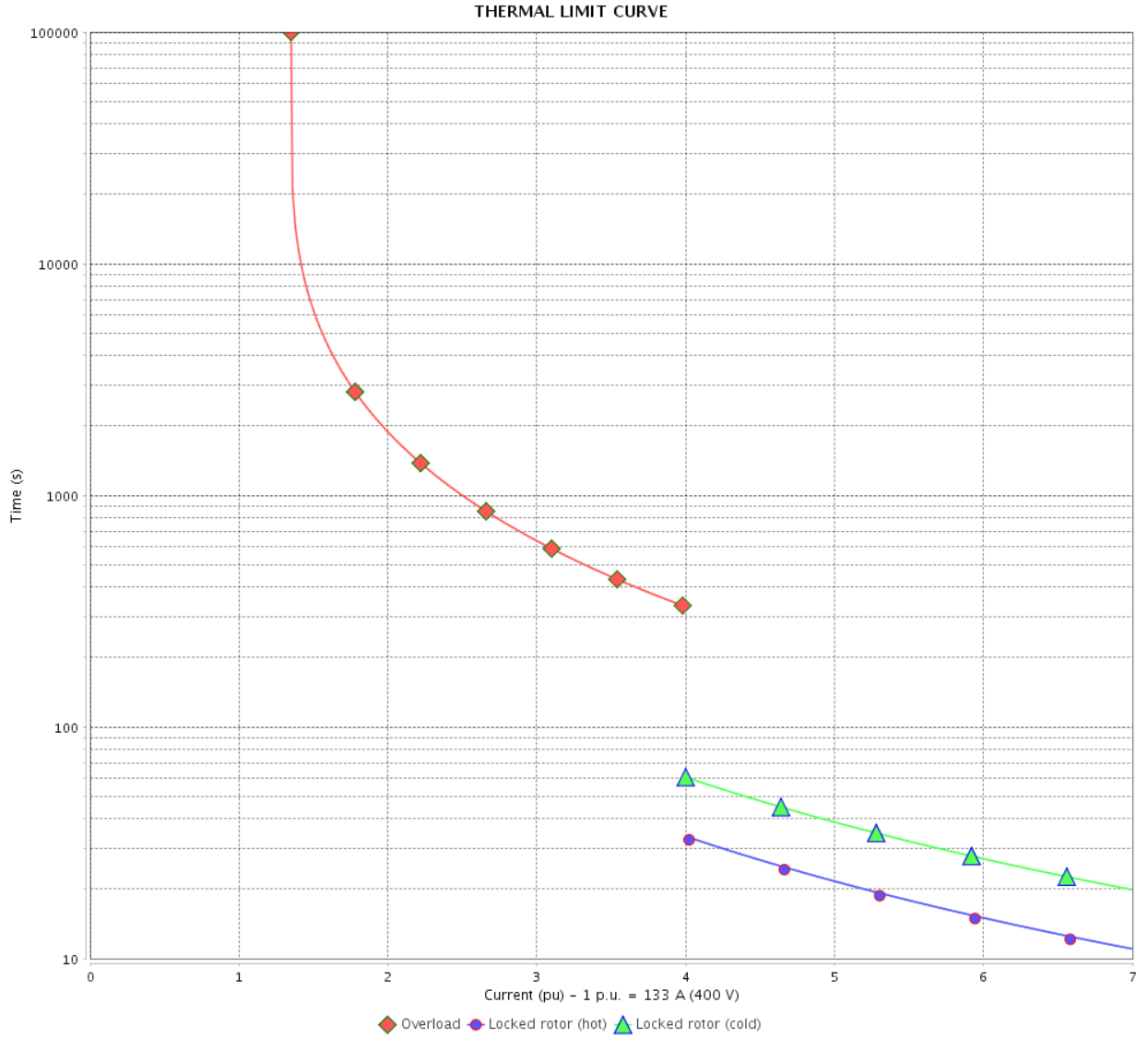
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Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 2965 rpm	Design	: B

Heating constant

Cooling constant

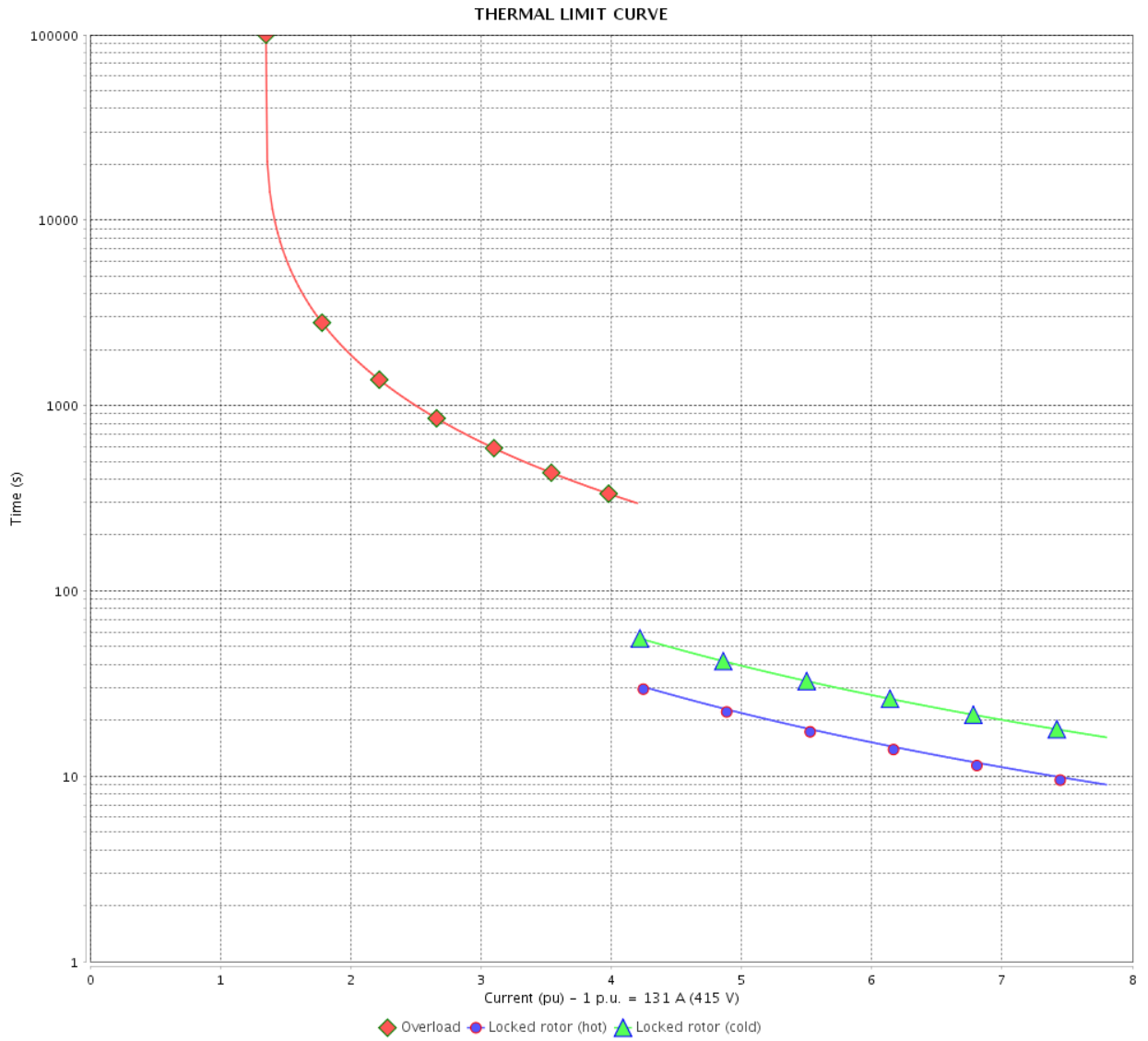
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Three Phase Induction Motor - Squirrel Cage



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

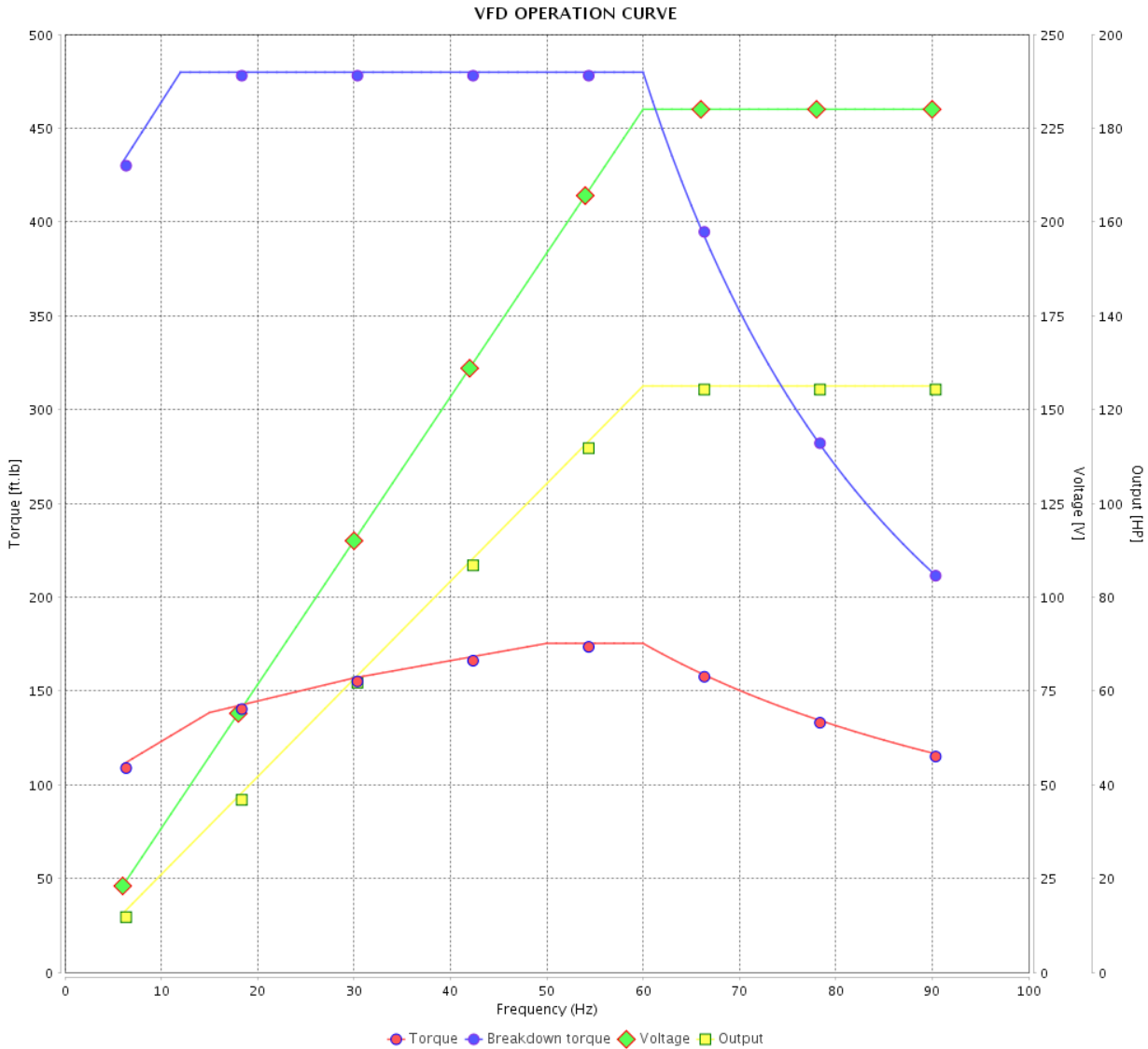


Customer :

Product line : W40 NEMA Premium Efficiency
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Product code : 14272927

Catalog # : 125360T3E404TS-W40G



Performance : 230/460 V 60 Hz 2P

Rated current : 272/136 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
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Insulation class : F
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

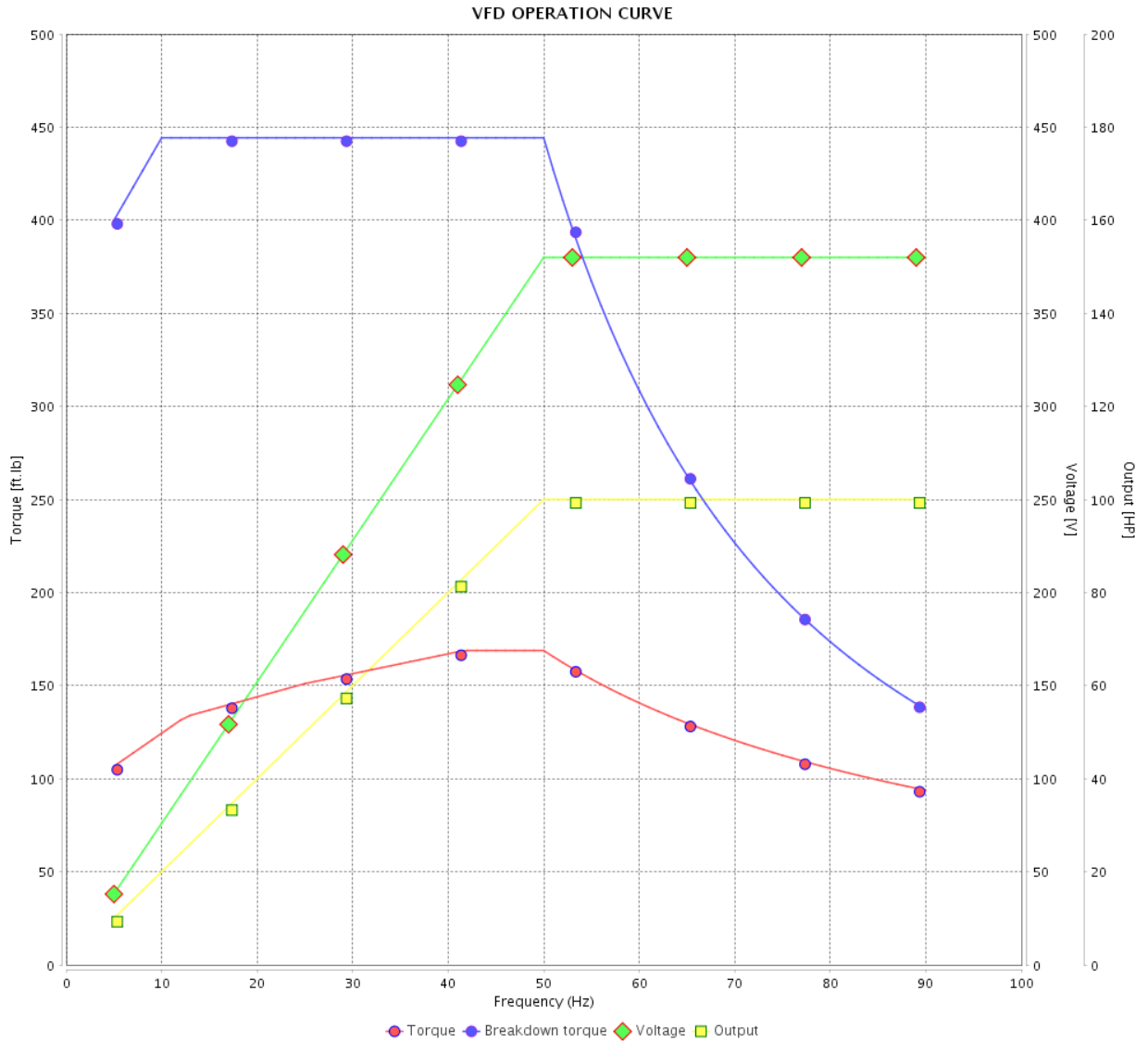


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Performance : 380 V 50 Hz 2P IE3

Rated current : 137 A
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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
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

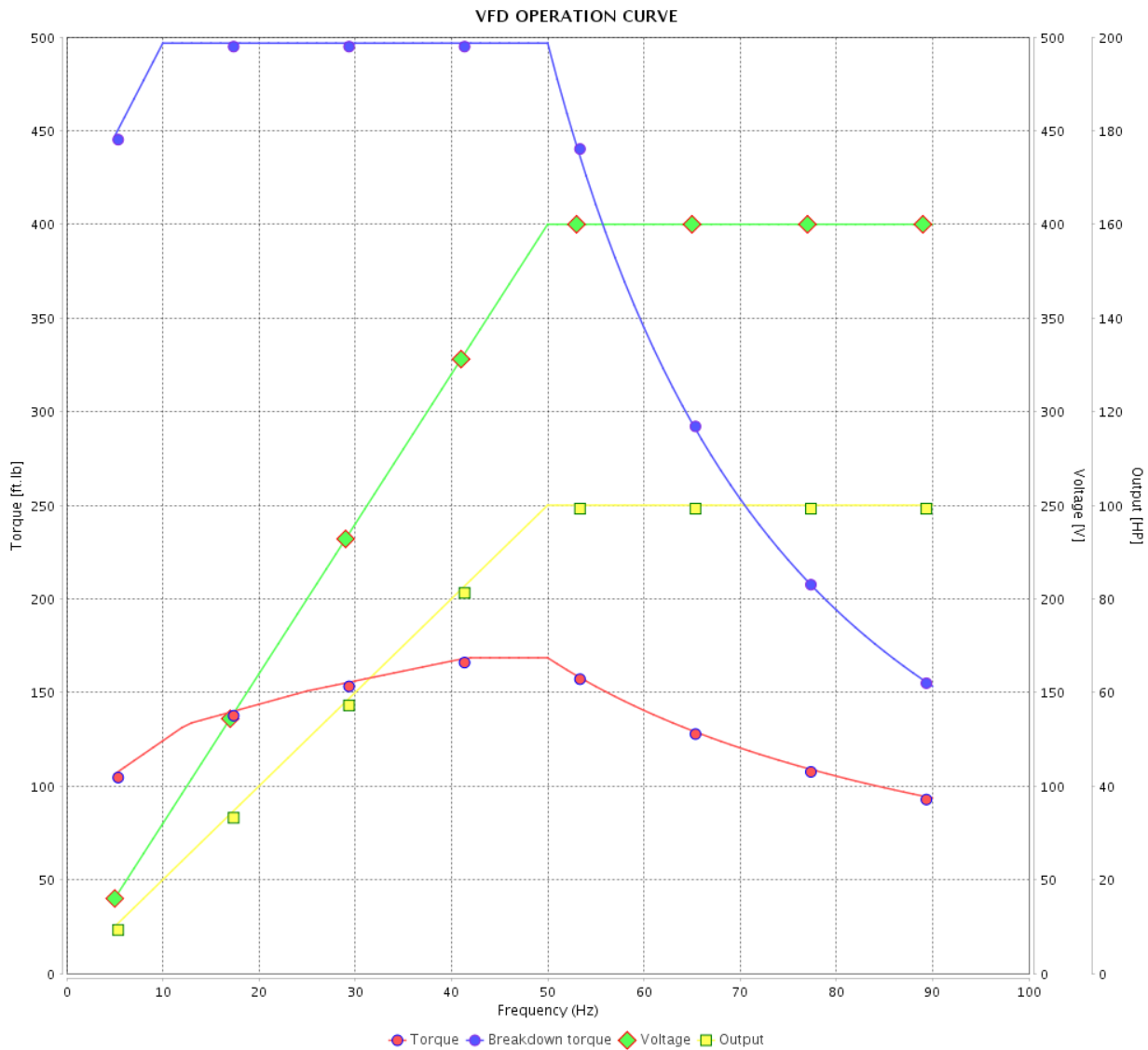


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VFD OPERATION CURVE

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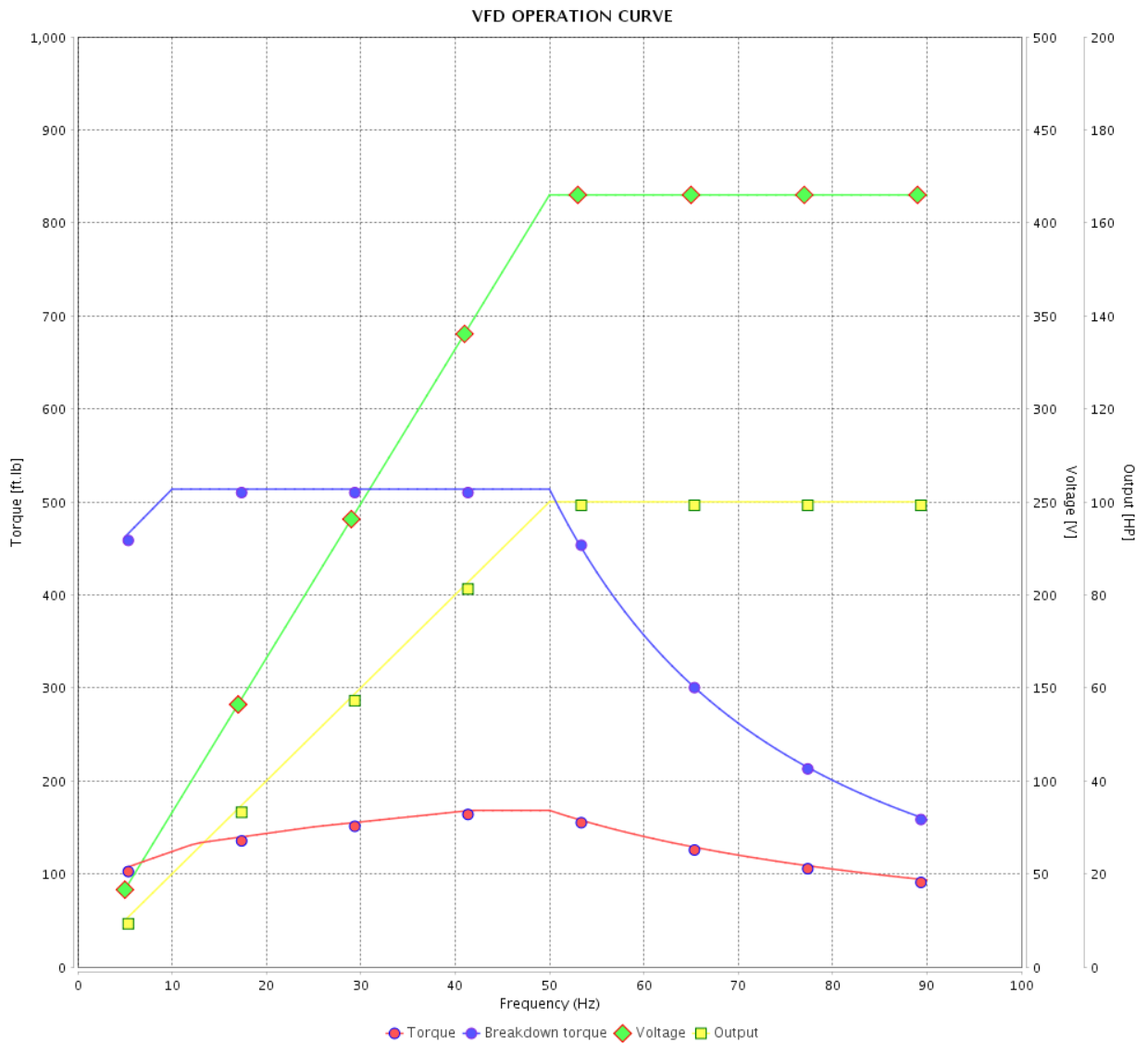


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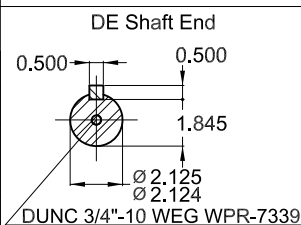
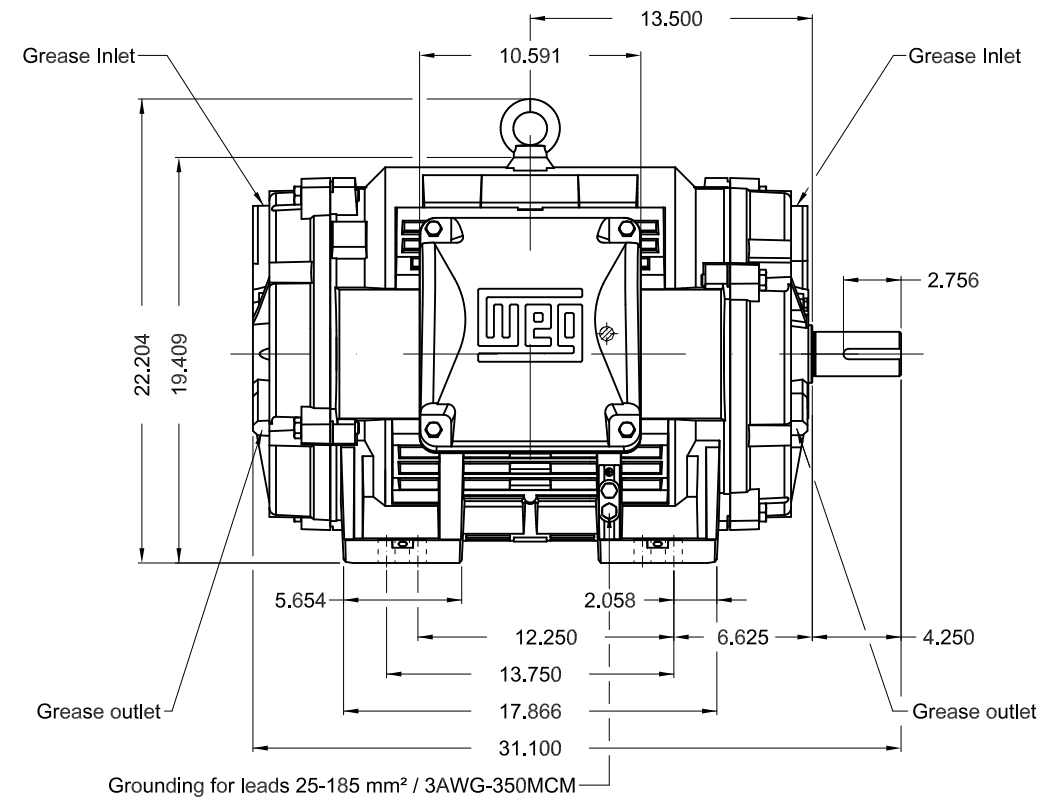
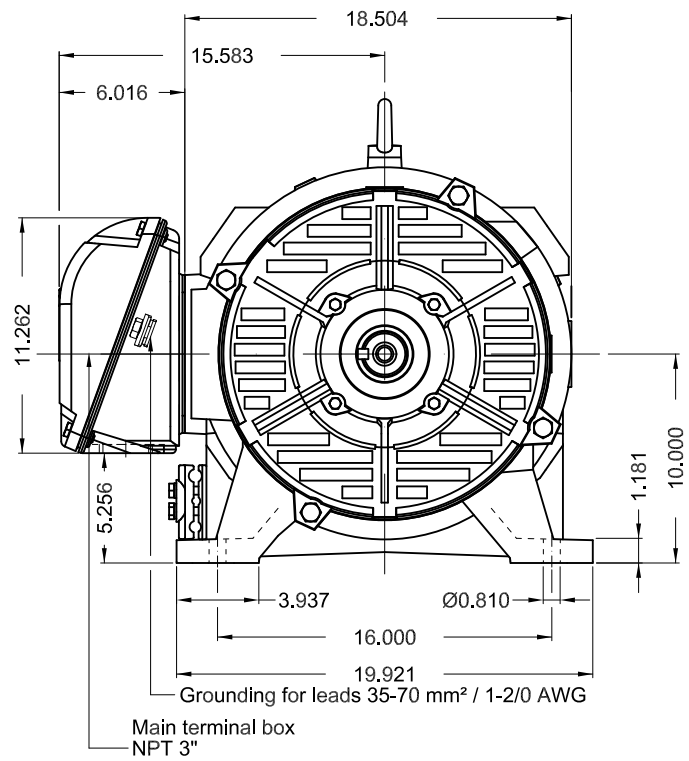


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Internal AEGIS ground ring on the DE

Color RAL 5009

Painting plan 203A

Mounting NEMA F-1

Mounting B3R(D)

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 PREM. EFF.					
CHECKED		FRAME 404/5TS IP23 ODP					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering				

PREVIEW
WDD



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