

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer					
Product line		: W40 NEMA Premium Efficiency Three-Phase		Product code : 14272902	
				Catalog # : 06012OT3E404T-W40G	
Frame		: 404/5T		Cooling method	
Insulation class		: F		: IC01 - ODP	
Duty cycle		: Cont.(S1)		Mounting	
Ambient temperature		: -20°C to +40°C		: F-1	
Altitude		: 1000 m.a.s.l.		Rotation ¹	
Protection degree		: IP23		: Both (CW and CCW)	
Design		: B		Starting method	
				: Direct On Line	
				Approx. weight ²	
				: 975 lb	
				Moment of inertia (J)	
				: 29.4 sq.ft.lb	
Output [HP]	60	50	50	50	50
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]	141/70.3	70.0	67.3	65.6	65.6
L. R. Amperes [A]	942/471	490	478	499	499
LRC [A]	6.7x(Code G)	7.0x(Code H)	7.1x(Code H)	7.6x(Code J)	7.6x(Code J)
No load current [A]	50.0/25.0	24.8	26.8	28.3	28.3
Rated speed [RPM]	1185	985	985	985	985
Slip [%]	1.25	1.50	1.50	1.50	1.50
Rated torque [ft.lb]	266	267	267	267	267
Locked rotor torque [%]	240	220	250	280	280
Breakdown torque [%]	250	250	290	310	310
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	28s (cold) 16s (hot)	27s (cold) 15s (hot)	30s (cold) 17s (hot)	28s (cold) 16s (hot)	28s (cold) 16s (hot)
Noise level ²	68.0 dB(A)				
Efficiency (%)	25%	91.4	92.9	92.9	92.9
	50%	91.7	93.0	93.0	93.0
	75%	94.5	93.4	93.4	93.4
	100%	94.5	93.4	93.4	93.4
Power Factor	25%	0.48	0.48	0.44	0.42
	50%	0.73	0.74	0.70	0.68
	75%	0.82	0.83	0.80	0.79
	100%	0.85	0.86	0.85	0.84
Bearing type	: Drive end 6316 C3	: Non drive end 6212 Z C3	Foundation loads		
Sealing	: Without	: Without	Max. traction : 1990 lb		
	: Bearing Seal	: Bearing Seal	Max. compression : 2966 lb		
Lubrication interval	: 20000 h	: 20000 h			
Lubricant amount	: 34 g	: 13 g			
Lubricant type	: Mobil Polyrex EM				
Notes					
USABLE @208V 155A SF 1.15 SFA 179A					
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



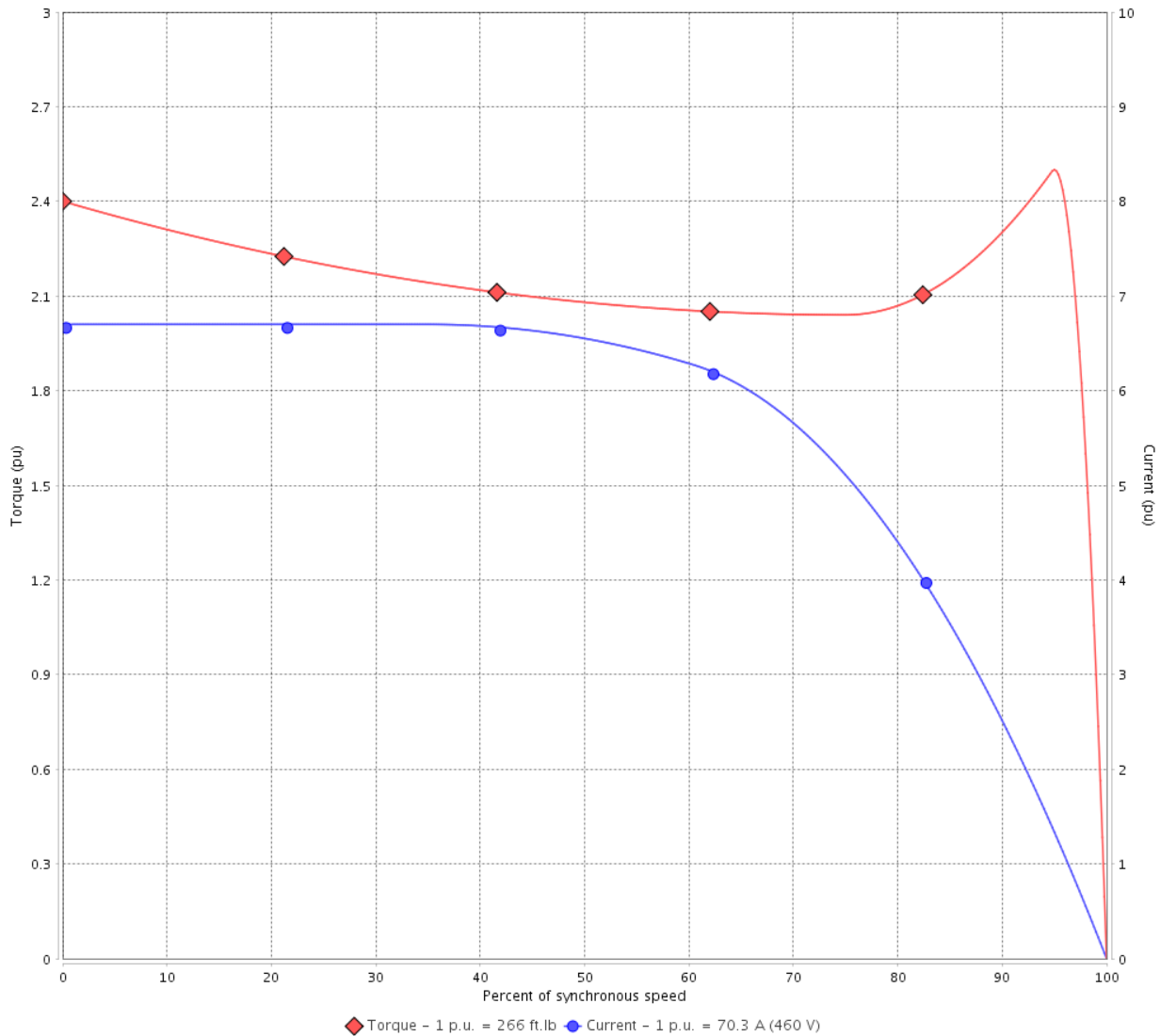
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272902

Catalog # : 060120T3E404T-W40G

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 6P

Rated current	: 141/70.3 A	Moment of inertia (J)	: 29.4 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 266 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1185 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE



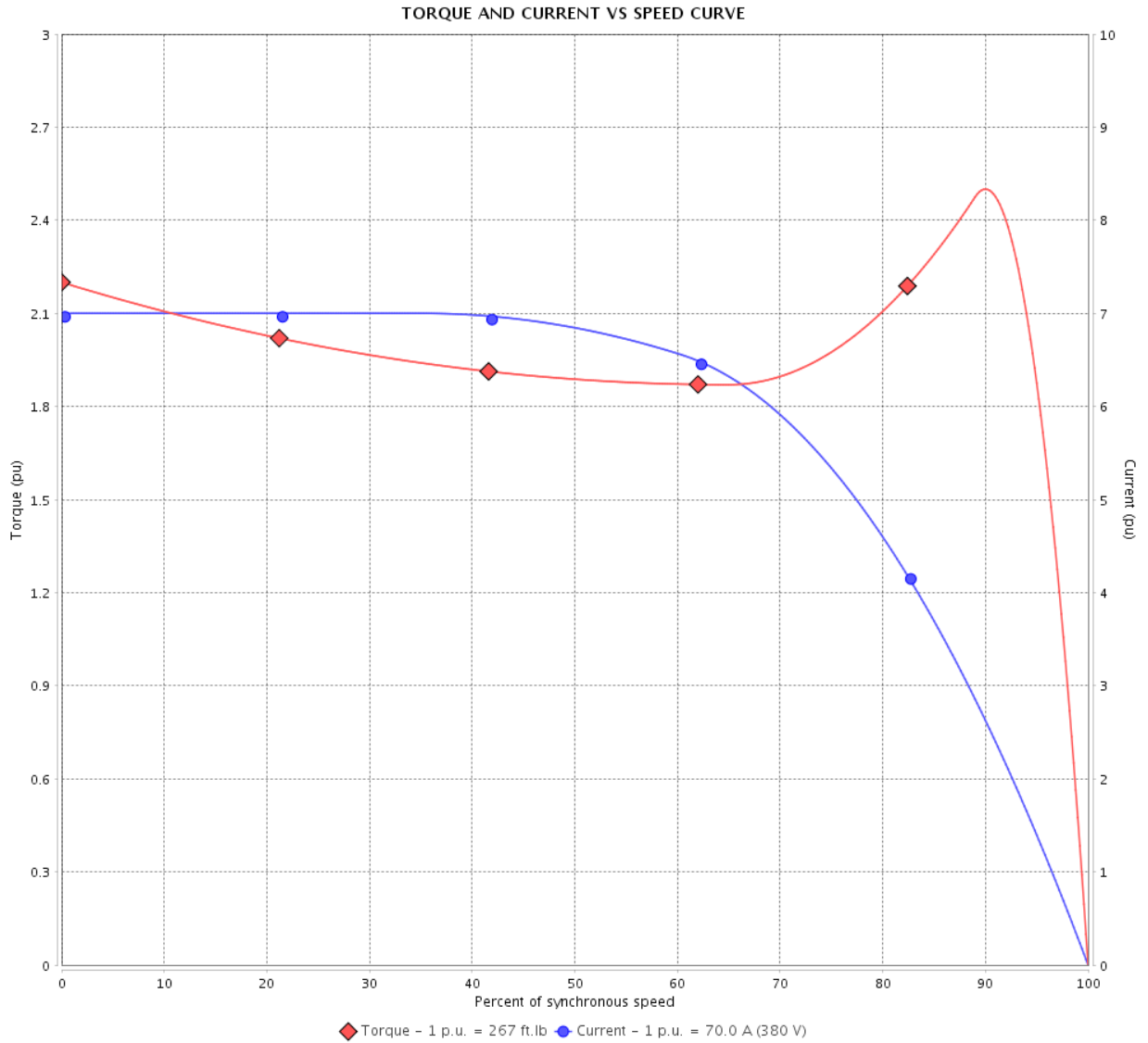
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272902

Catalog # : 06012OT3E404T-W40G



Performance : 380 V 50 Hz 6P IE3

Rated current	: 70.0 A	Moment of inertia (J)	: 29.4 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 267 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

Locked rotor time : 27s (cold) 15s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



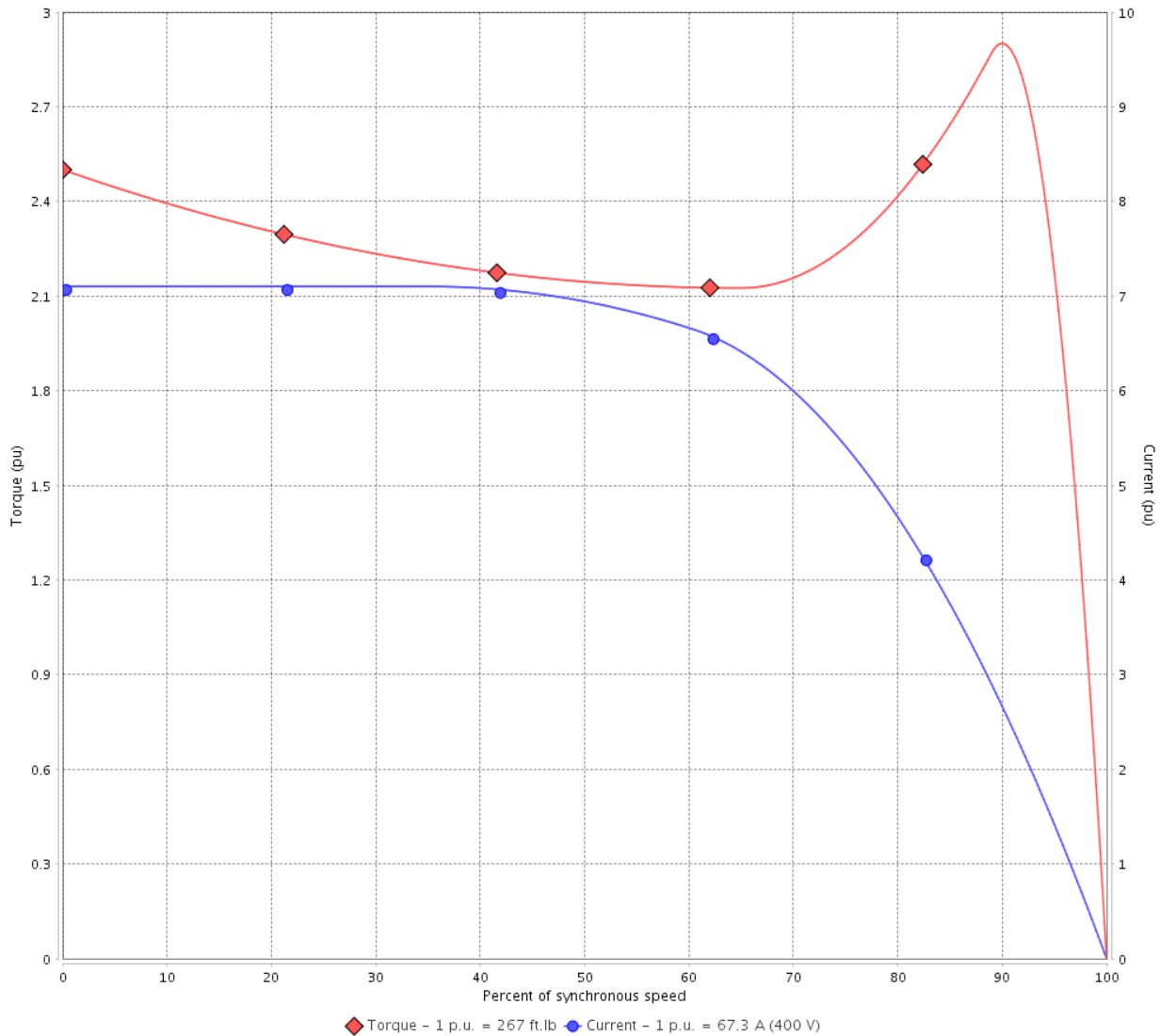
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272902

Catalog # : 060120T3E404T-W40G

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 6P IE3

Rated current	: 67.3 A	Moment of inertia (J)	: 29.4 sq.ft.lb
LRC	: 7.1	Duty cycle	: Cont.(S1)
Rated torque	: 267 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE



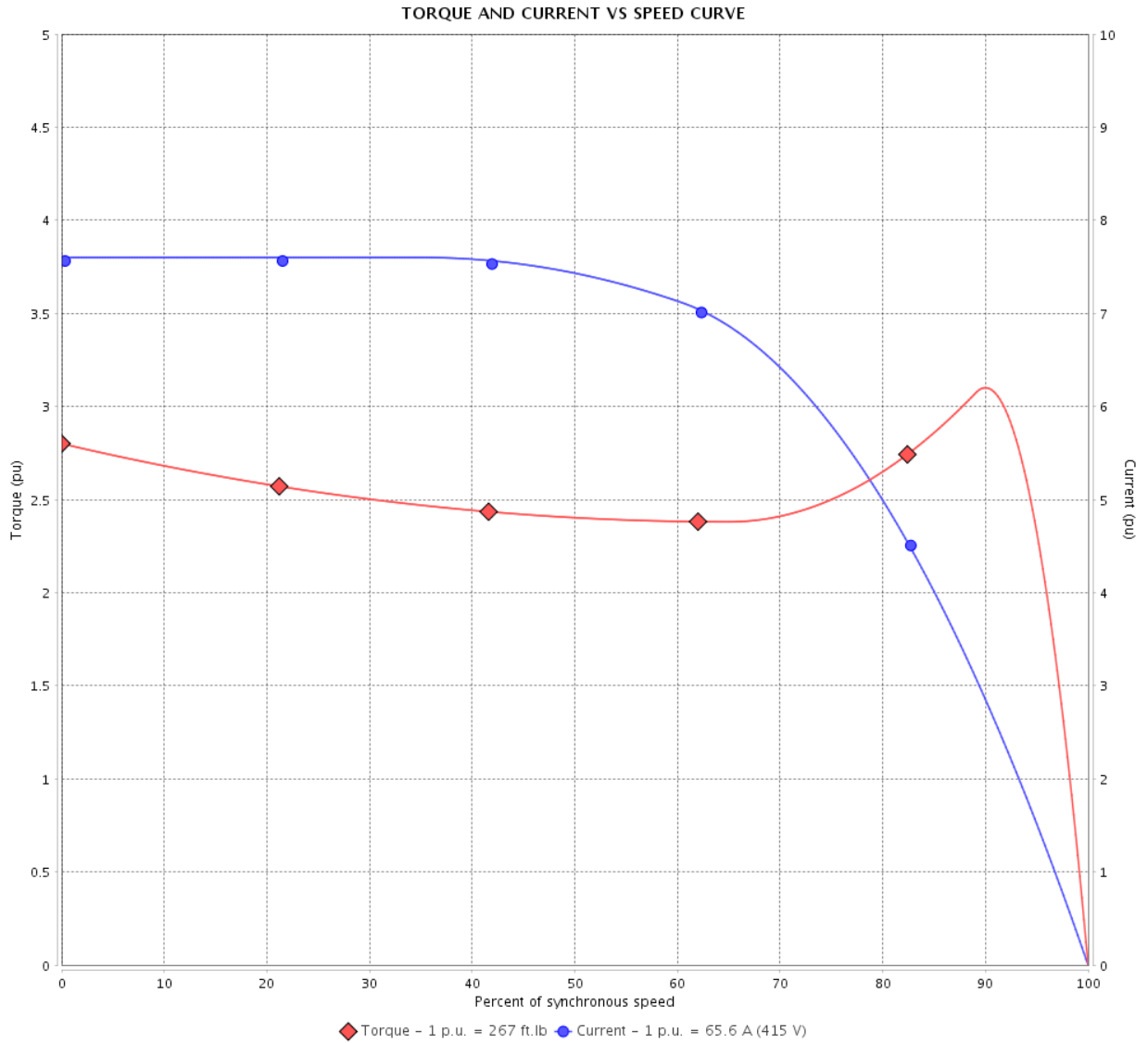
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272902

Catalog # : 06012OT3E404T-W40G



Performance : 415 V 50 Hz 6P IE3

Rated current	: 65.6 A	Moment of inertia (J)	: 29.4 sq.ft.lb
LRC	: 7.6	Duty cycle	: Cont.(S1)
Rated torque	: 267 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

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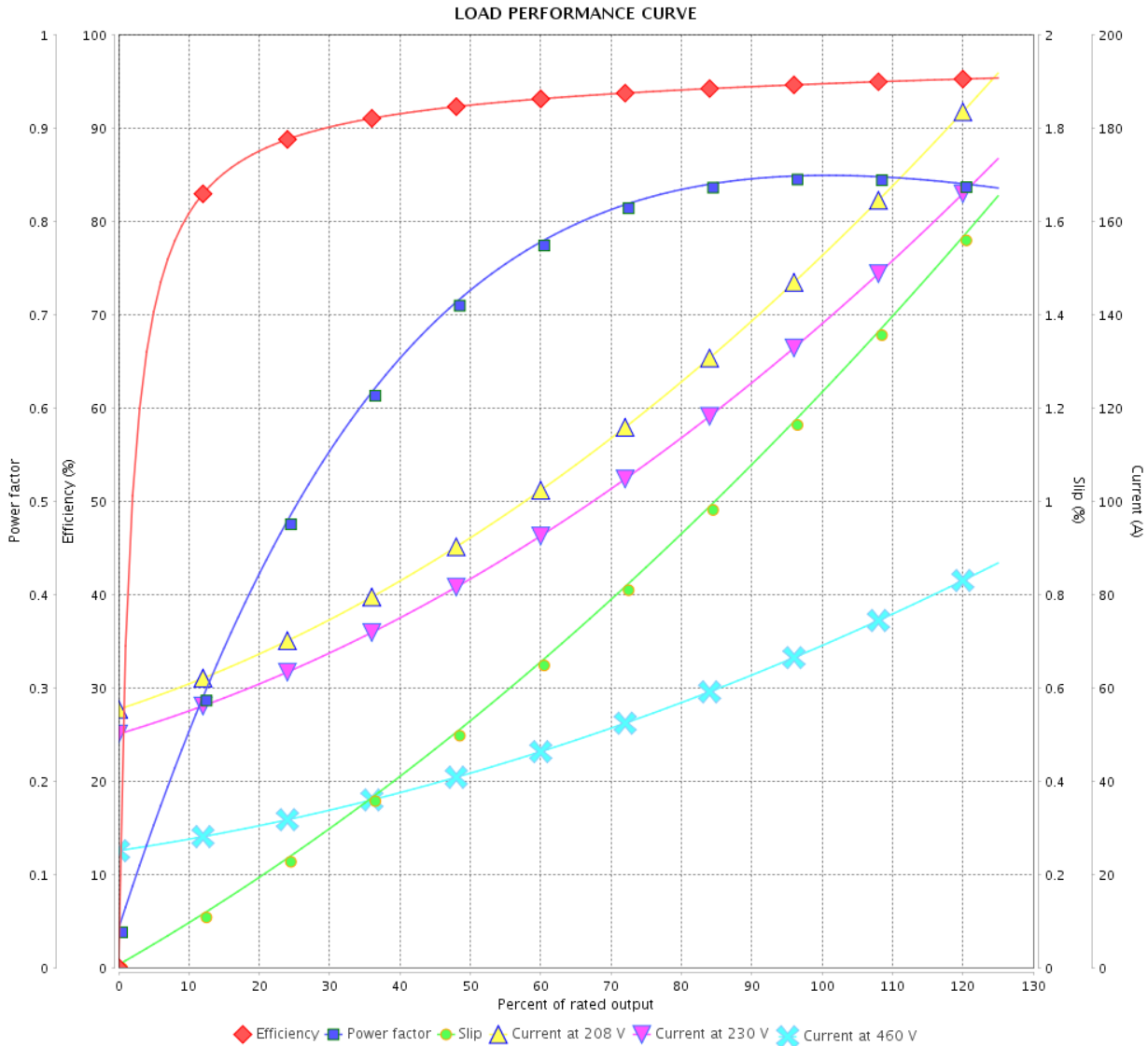


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272902

Catalog # : 060120T3E404T-W40G



Performance : 230/460 V 60 Hz 6P

Rated current : 141/70.3 A
 LRC : 6.7
 Rated torque : 266 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 250 %
 Rated speed : 1185 rpm

Moment of inertia (J) : 29.4 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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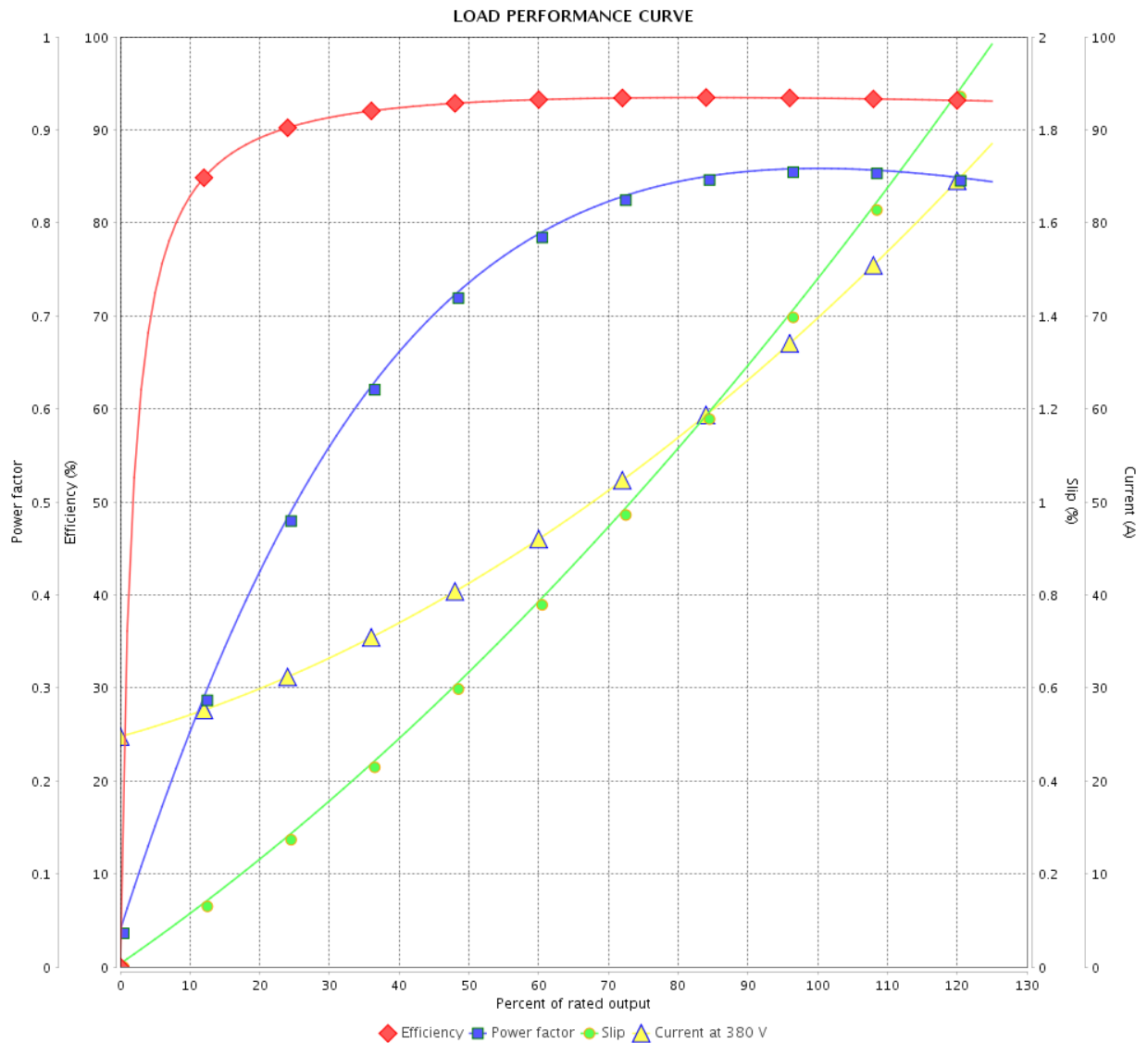


Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14272902

Catalog # : 06012OT3E404T-W40G



Performance : 380 V 50 Hz 6P IE3

Rated current : 70.0 A
 LRC : 7.0
 Rated torque : 267 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 250 %
 Rated speed : 985 rpm

Moment of inertia (J) : 29.4 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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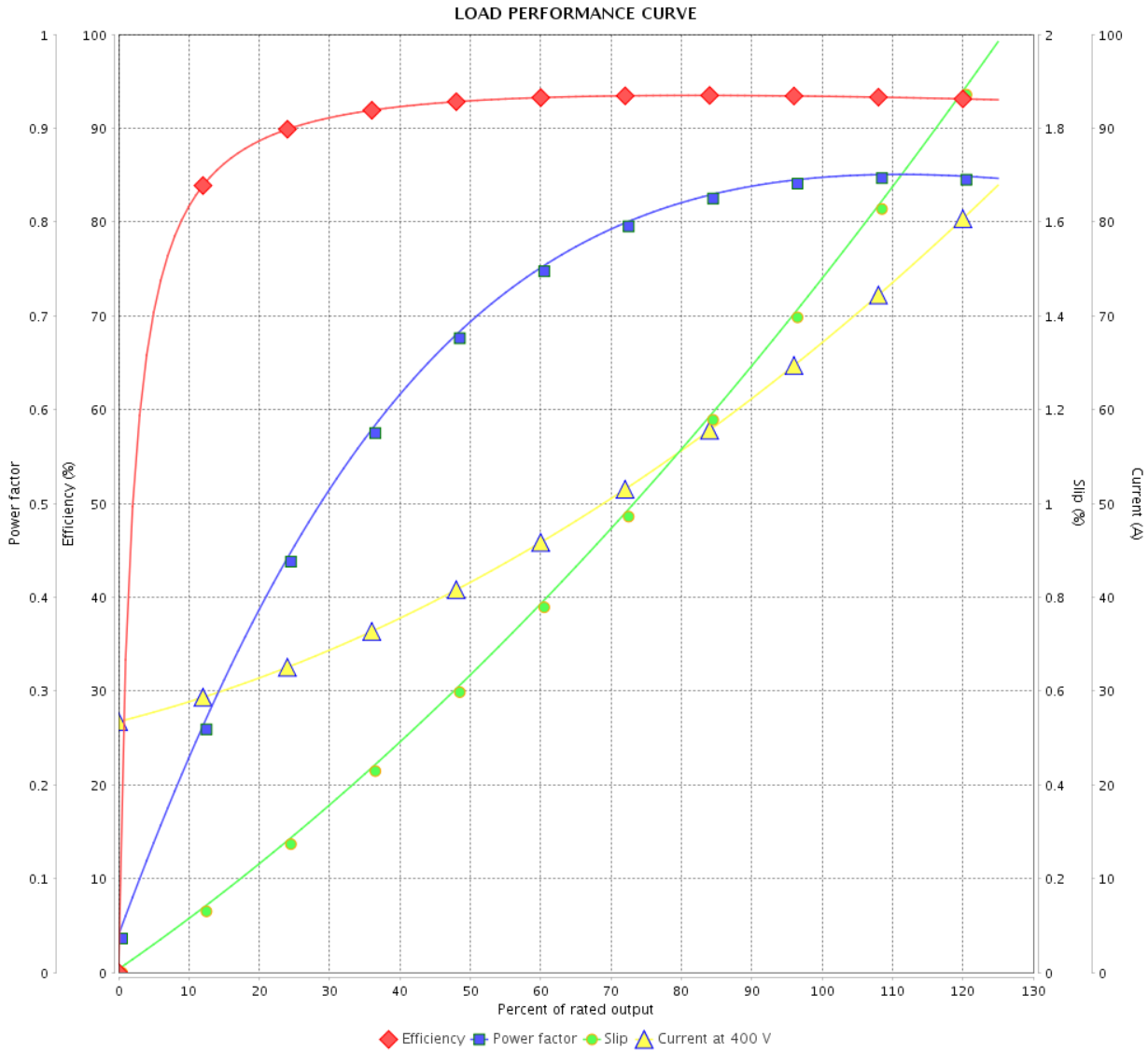


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272902

Catalog # : 060120T3E404T-W40G



Performance : 400 V 50 Hz 6P IE3

Rated current : 67.3 A
 LRC : 7.1
 Rated torque : 267 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 290 %
 Rated speed : 985 rpm

Moment of inertia (J) : 29.4 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

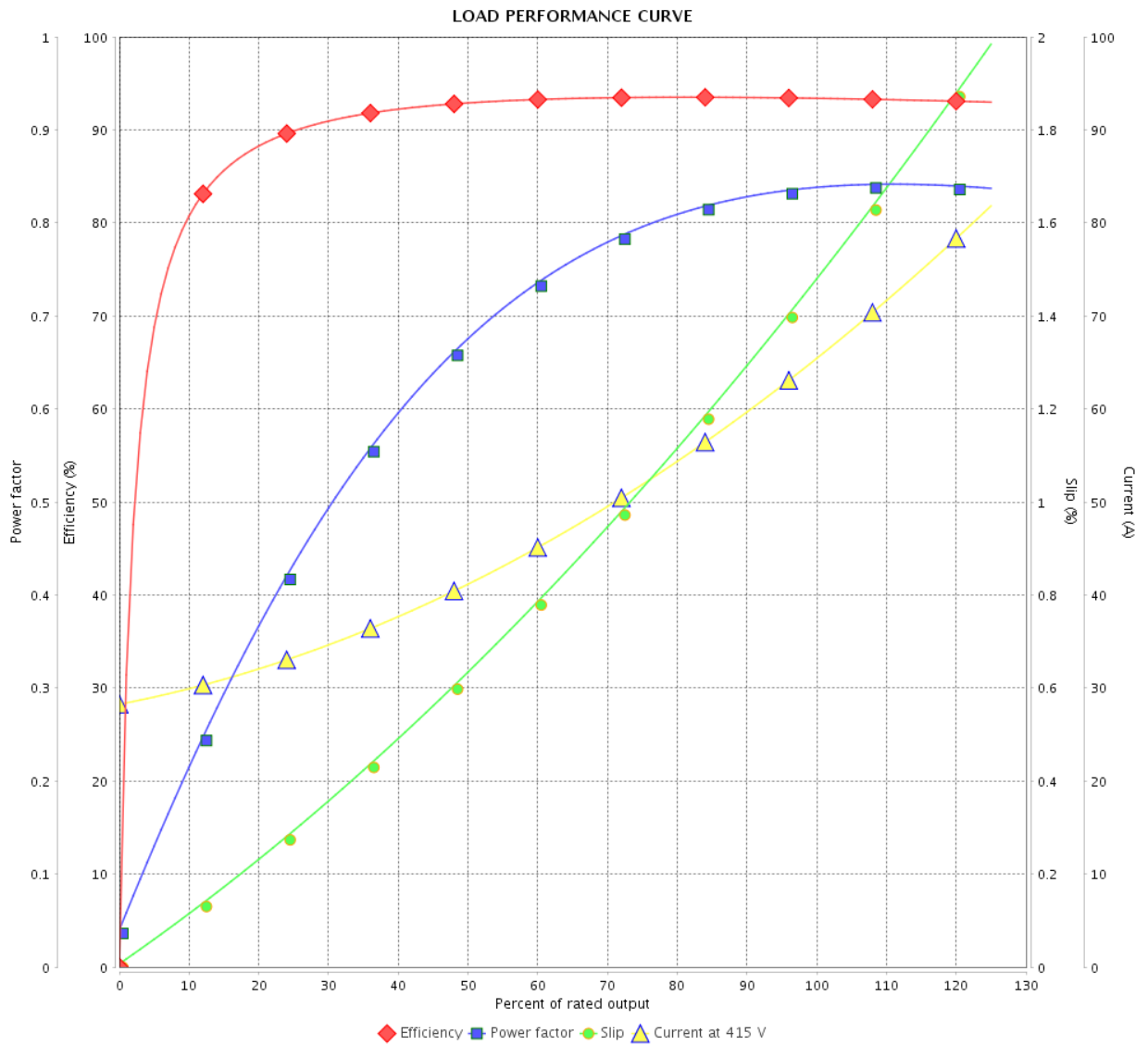


Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14272902

Catalog # : 06012OT3E404T-W40G



Performance : 415 V 50 Hz 6P IE3

Rated current : 65.6 A
 LRC : 7.6
 Rated torque : 267 ft.lb
 Locked rotor torque : 280 %
 Breakdown torque : 310 %
 Rated speed : 985 rpm

Moment of inertia (J) : 29.4 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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Breakdown torque : 250 %
Rated speed : 1185 rpm

Moment of inertia (J) : 29.4 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

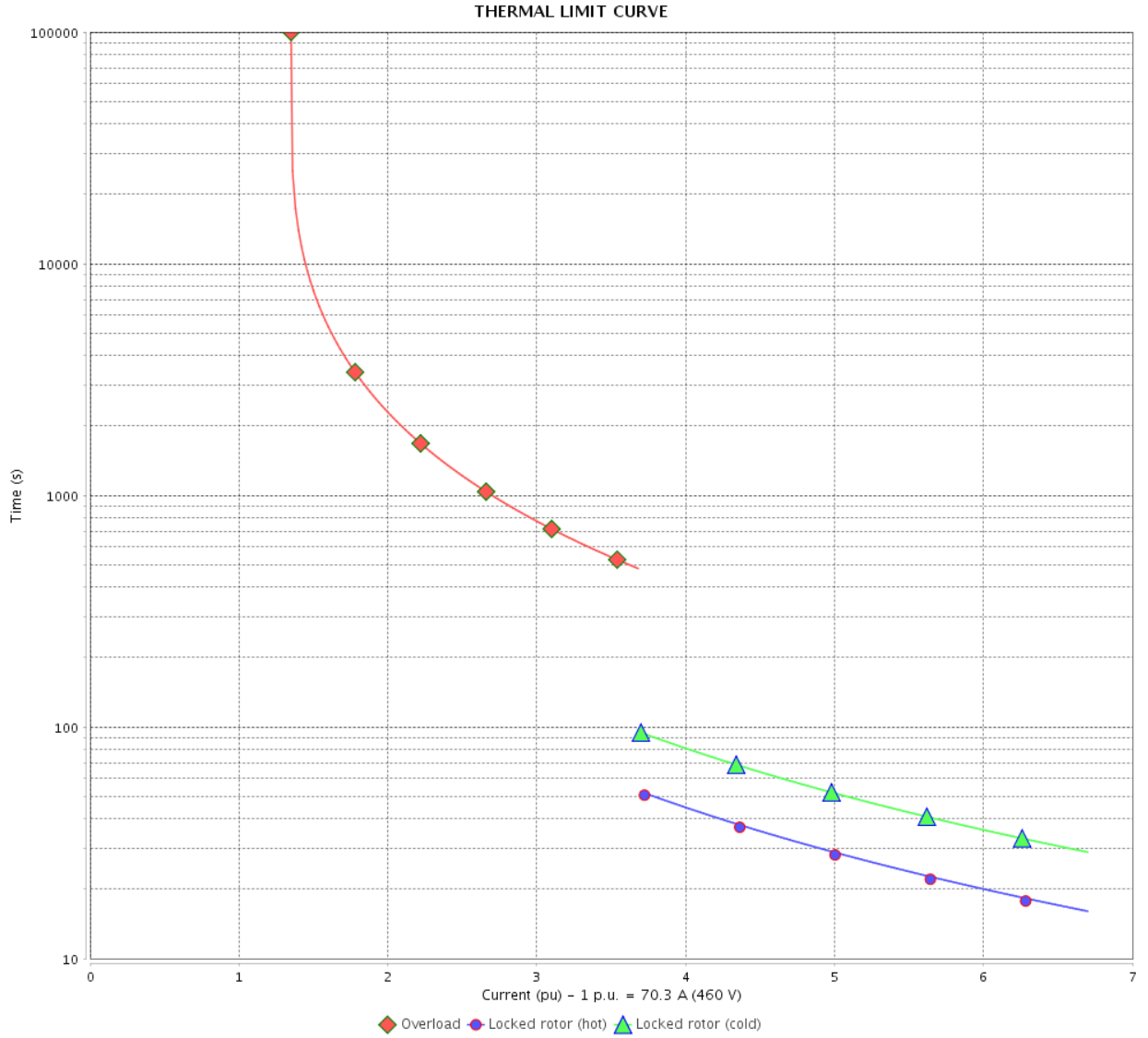
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Performance : 380 V 50 Hz 6P IE3

Rated current	: 70.0 A	Moment of inertia (J)	: 29.4 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 267 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

Heating constant

Cooling constant

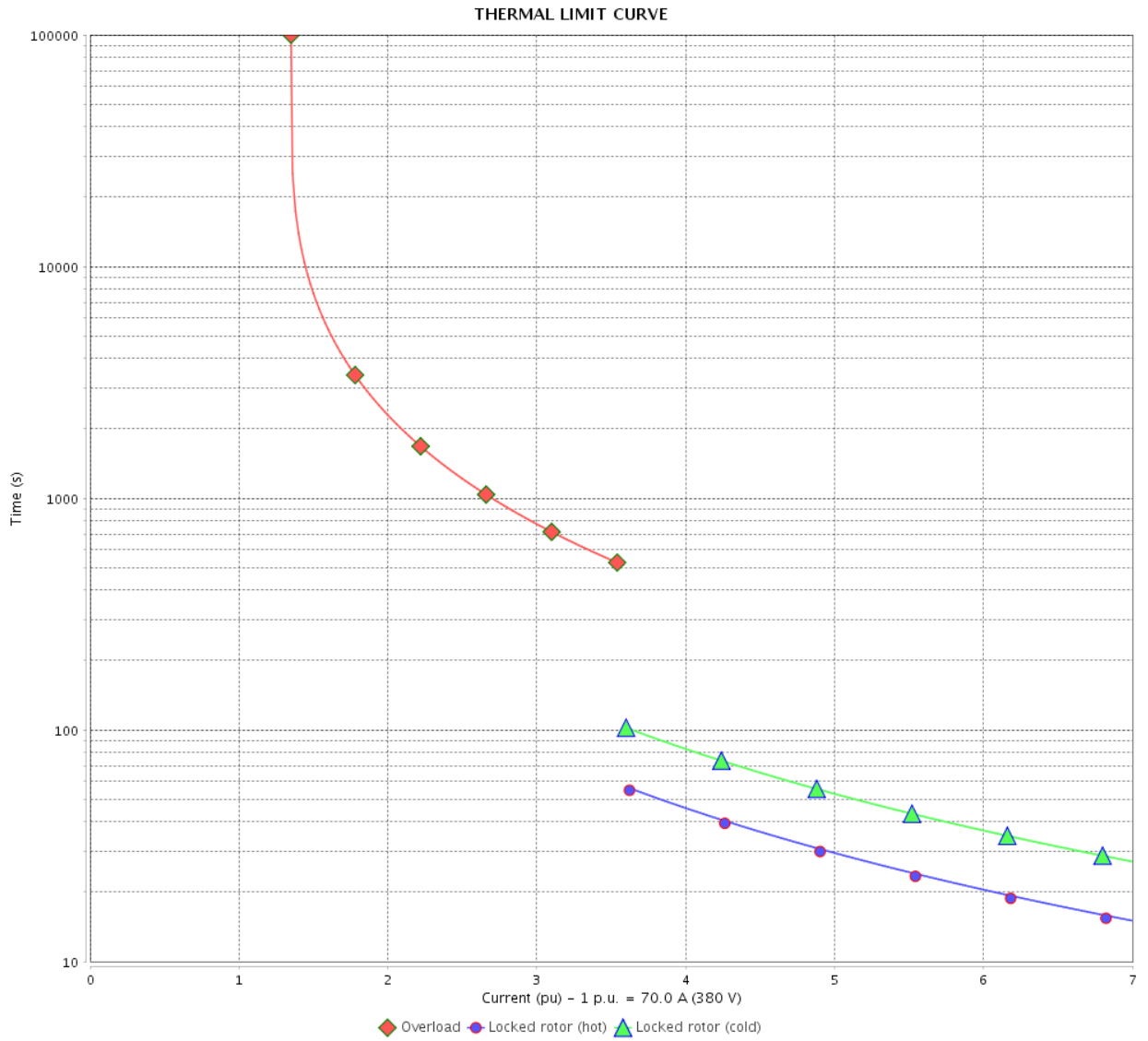
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Three Phase Induction Motor - Squirrel Cage



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Three-Phase

Product code : 14272902

Catalog # : 06012OT3E404T-W40G

Performance : 400 V 50 Hz 6P IE3

Rated current : 67.3 A	Moment of inertia (J) : 29.4 sq.ft.lb
LRC : 7.1	Duty cycle : Cont.(S1)
Rated torque : 267 ft.lb	Insulation class : F
Locked rotor torque : 250 %	Service factor : 1.00
Breakdown torque : 290 %	Temperature rise : 80 K
Rated speed : 985 rpm	Design : B

Heating constant

Cooling constant

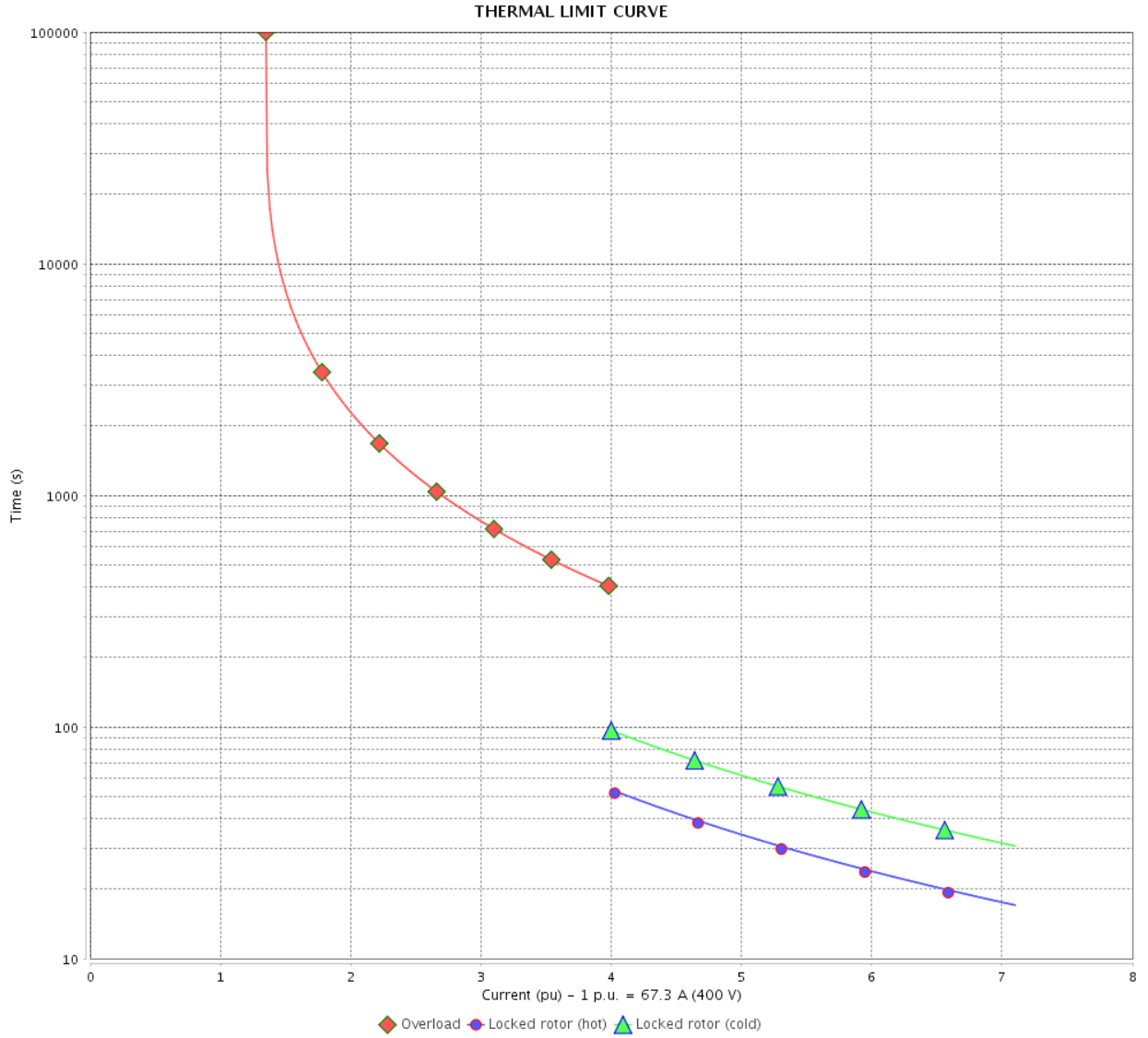
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272902

Catalog # : 06012OT3E404T-W40G

Performance : 415 V 50 Hz 6P IE3

Rated current : 65.6 A	Moment of inertia (J) : 29.4 sq.ft.lb
LRC : 7.6	Duty cycle : Cont.(S1)
Rated torque : 267 ft.lb	Insulation class : F
Locked rotor torque : 280 %	Service factor : 1.00
Breakdown torque : 310 %	Temperature rise : 80 K
Rated speed : 985 rpm	Design : B

Heating constant

Cooling constant

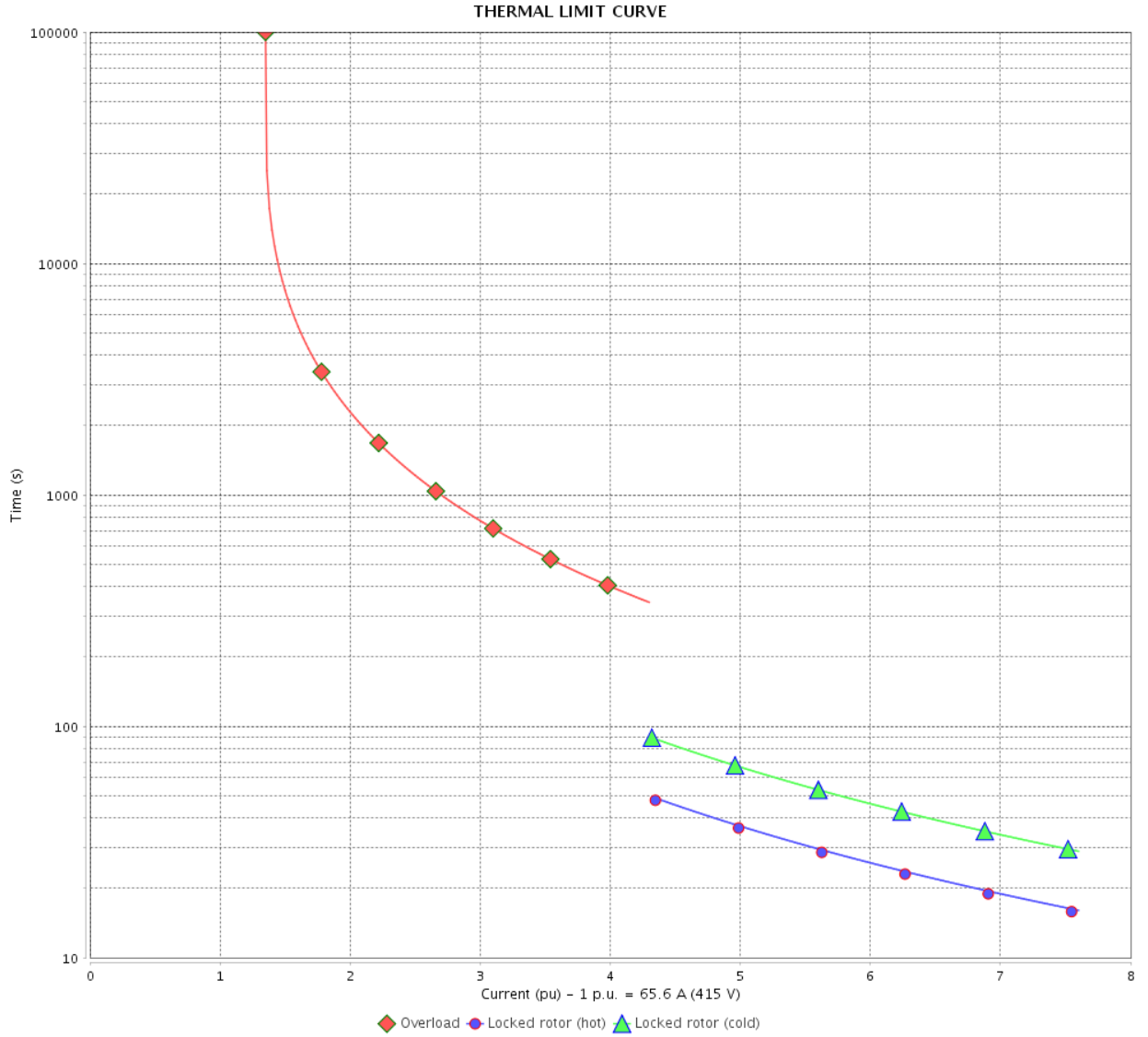
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



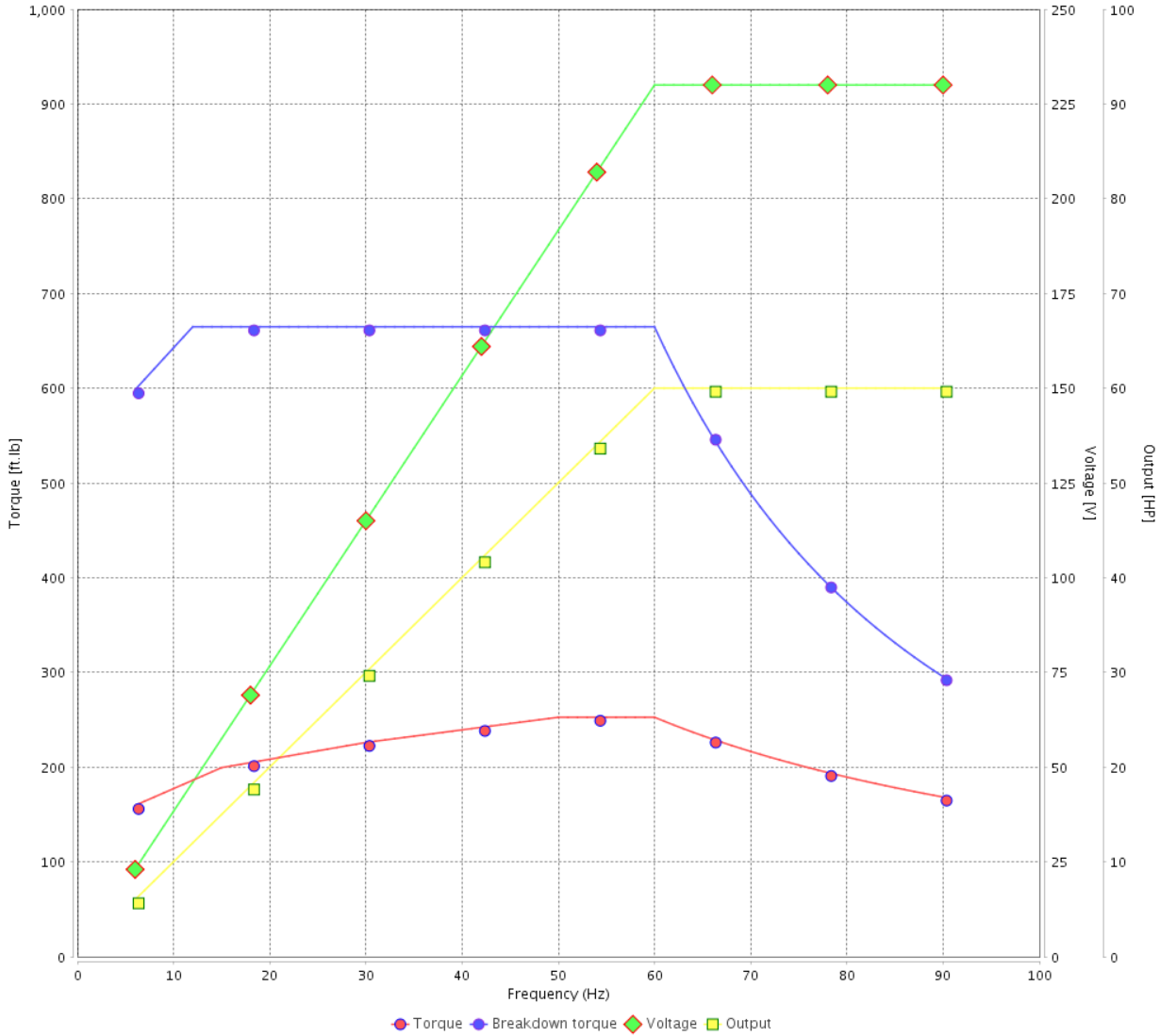
Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14272902

Catalog # : 060120T3E404T-W40G

VFD OPERATION CURVE



Performance : 230/460 V 60 Hz 6P

Rated current : 141/70.3 A
 LRC : 6.7
 Rated torque : 266 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 250 %
 Rated speed : 1185 rpm

Moment of inertia (J) : 29.4 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

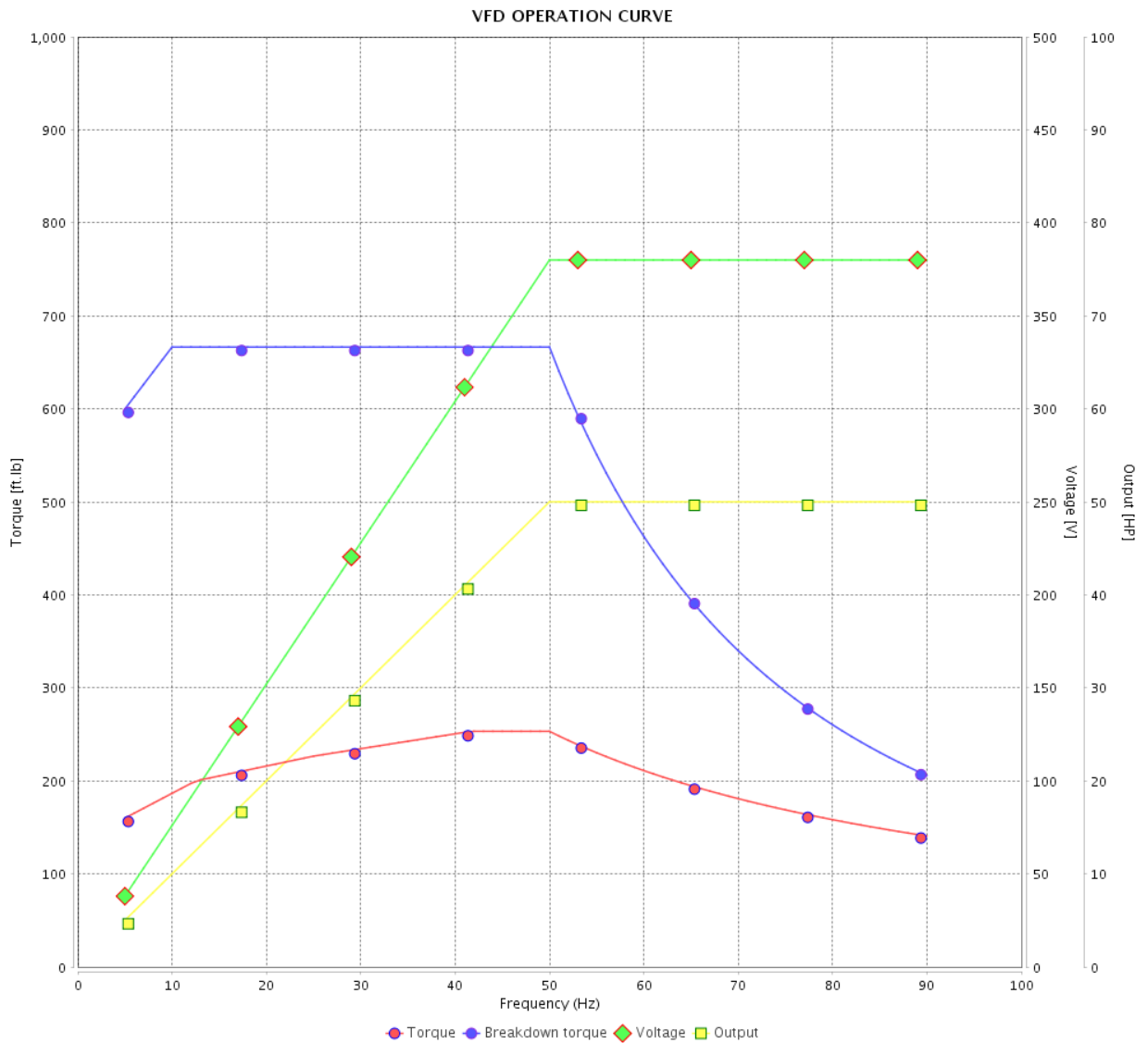


Customer :

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Three-Phase

Product code : 14272902

Catalog # : 06012OT3E404T-W40G



Performance : 380 V 50 Hz 6P IE3

Rated current : 70.0 A
LRC : 7.0
Rated torque : 267 ft.lb
Locked rotor torque : 220 %
Breakdown torque : 250 %
Rated speed : 985 rpm

Moment of inertia (J) : 29.4 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



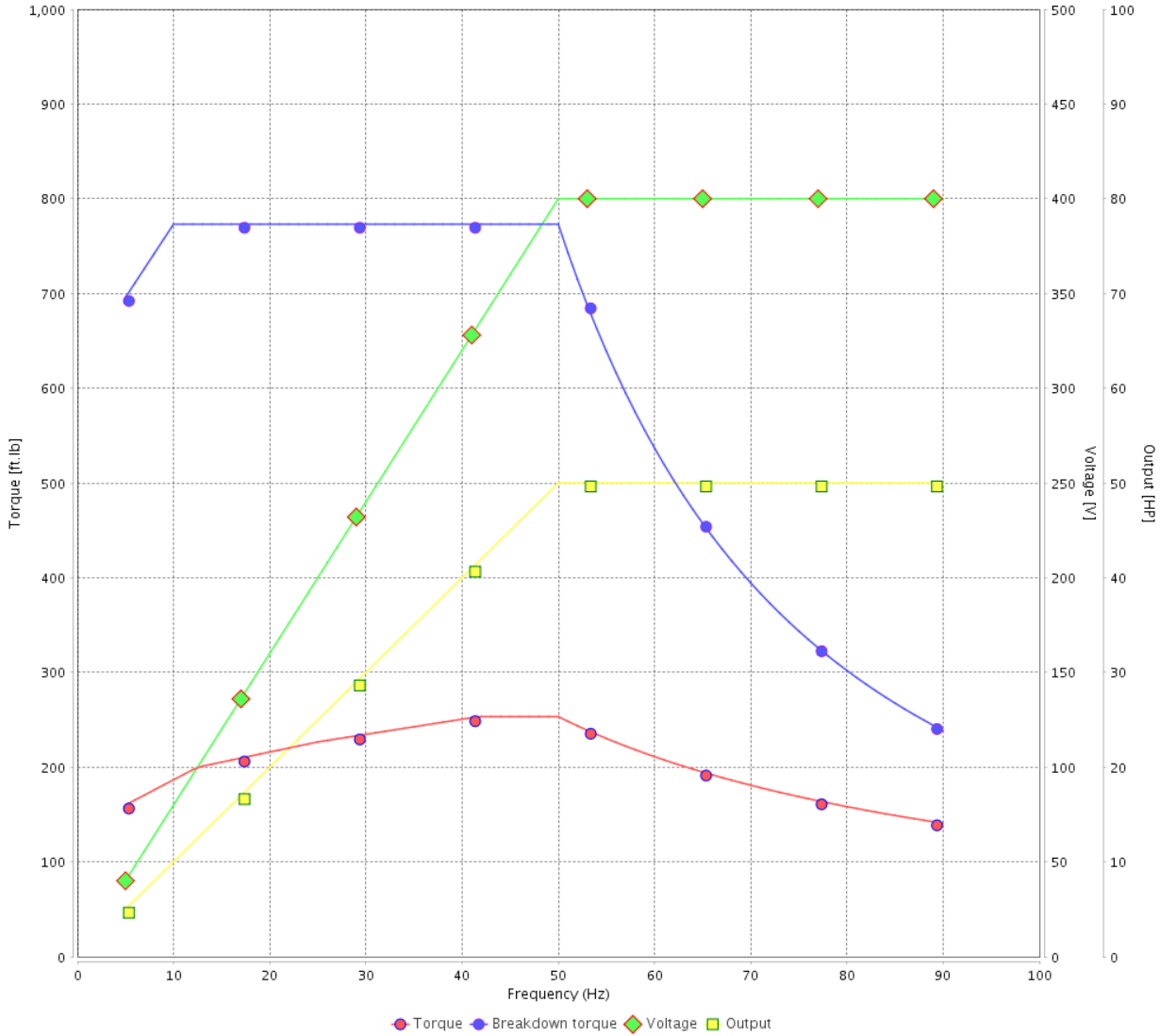
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VFD OPERATION CURVE



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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

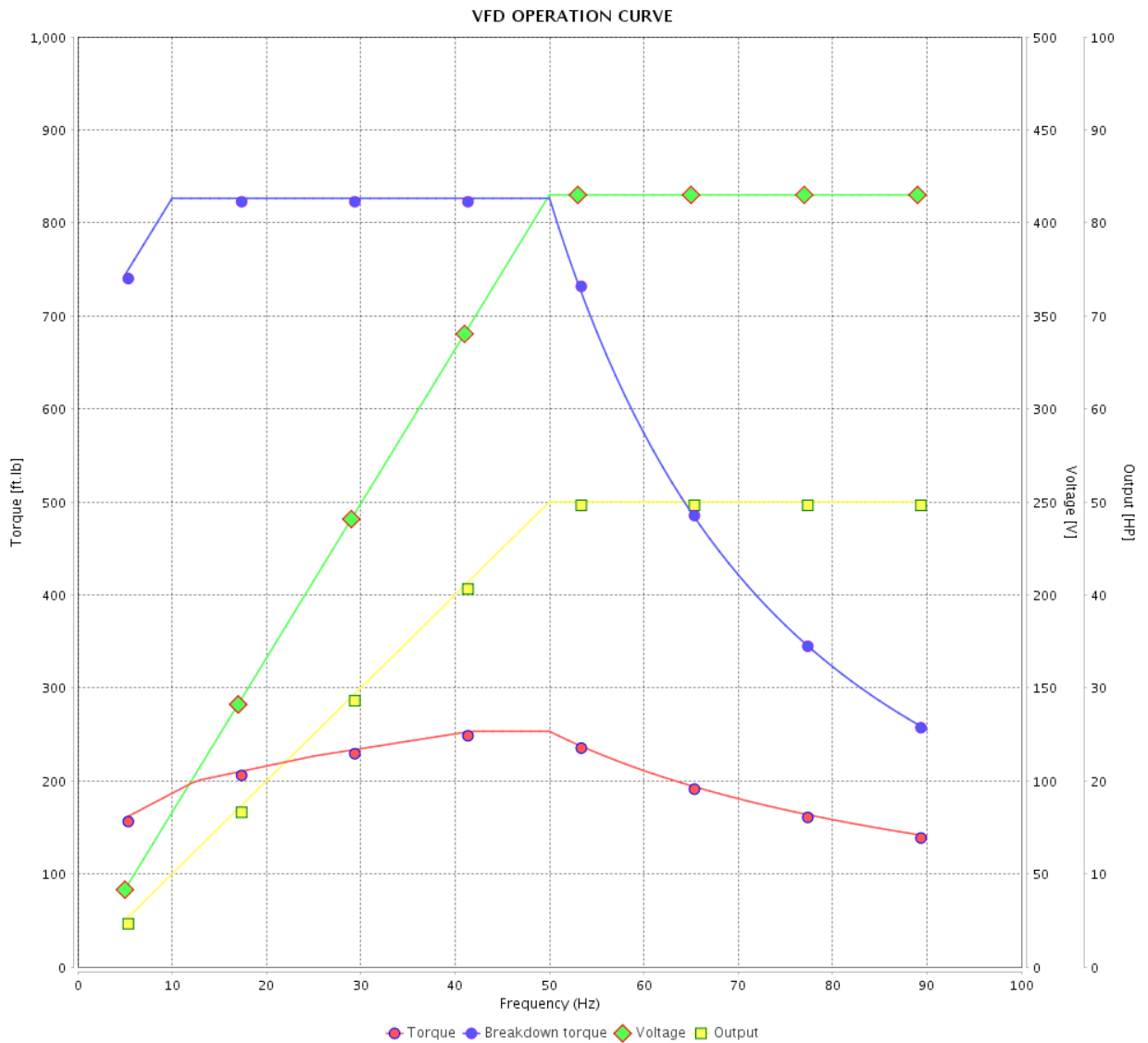


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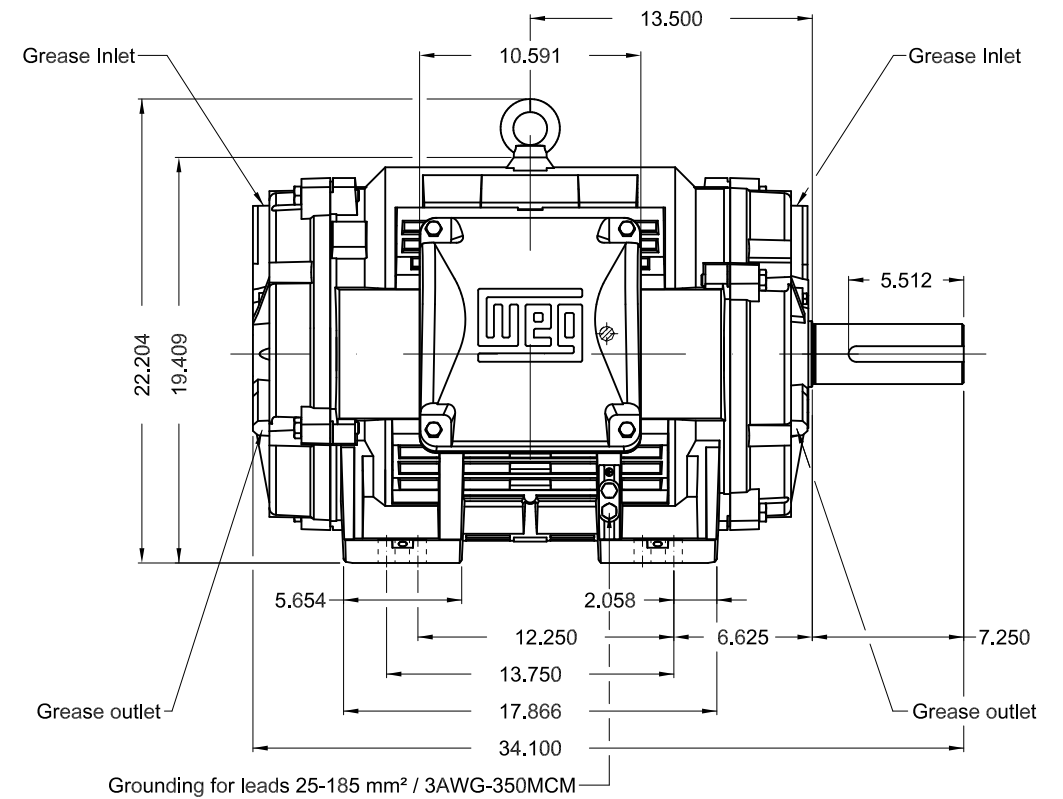
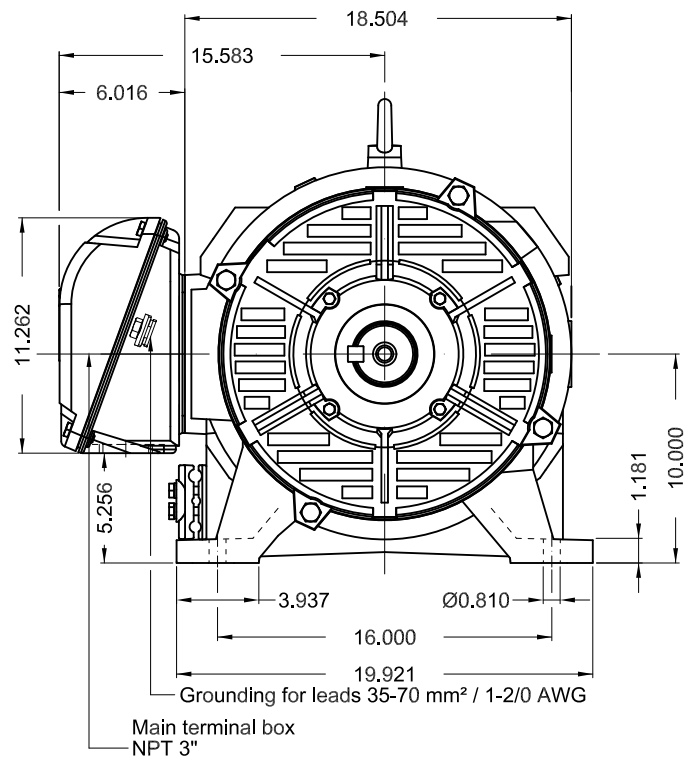


Performance : 415 V 50 Hz 6P IE3

Rated current : 65.6 A
 LRC : 7.6
 Rated torque : 267 ft.lb
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 Rated speed : 985 rpm

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60 HP 06 Poles 60 Hz

A

1:9

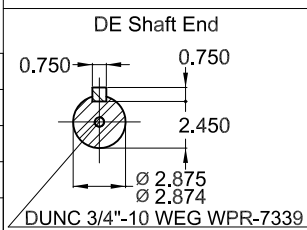
Internal AEGIS ground ring on the DE

Color RAL 5009

Painting plan 203A

Mounting NEMA F-1

Mounting B3R(D)



ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W40 PREM. EFF.					
CHECKED		FRAME 404/5T IP23 ODP					
RELEASED							
REL DT.		WMO Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW

WDD

