

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line	: W40 JP Pump NEMA Premium Efficiency Three-Phase	Product code :	14270481		
		Catalog # :	10018OT3E404JP-W40		
Frame	: 404/5JP	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	: 967 lb		
Protection degree	: IP23	Moment of inertia (J)	: 21.9 sq.ft.lb		
Design	: B				
Output [HP]	100	75	75	75	
Poles	4	4	4	4	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	230/115	103	97.5	96.2	
L. R. Amperes [A]	1564/782	742	683	750	
LRC [A]	6.8x(Code G)	7.2x(Code H)	7.0x(Code H)	7.8x(Code J)	
No load current [A]	79.4/39.7	33.0	36.5	40.0	
Rated speed [RPM]	1780	1482	1484	1485	
Slip [%]	1.11	1.20	1.07	1.00	
Rated torque [ft.lb]	295	266	265	265	
Locked rotor torque [%]	200	220	240	270	
Breakdown torque [%]	250	250	280	300	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	21s (cold) 12s (hot)	23s (cold) 13s (hot)	21s (cold) 12s (hot)	25s (cold) 14s (hot)	
Noise level ²	69.0 dB(A)				
Efficiency (%)	25%	94.9	90.2	90.3	90.3
	50%	95.0	91.9	92.0	92.0
	75%	95.4	92.9	92.9	92.9
	100%	95.4	94.7	94.7	94.7
Power Factor	25%	0.49	0.50	0.47	0.44
	50%	0.75	0.73	0.72	0.70
	75%	0.83	0.82	0.80	0.80
	100%	0.86	0.86	0.86	0.84
Bearing type	: Drive end : 6314 C3	Non drive end : 6212 Z C3	Foundation loads		
Sealing	: Without	Without	Max. traction	: 1902 lb	
	Bearing Seal	Bearing Seal	Max. compression	: 2870 lb	
Lubrication interval	: 20000 h	20000 h			
Lubricant amount	: 27 g	13 g			
Lubricant type	: Mobil Polyrex EM				
Notes USABLE @208V 254A SF 1.15 SFA 292A					
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



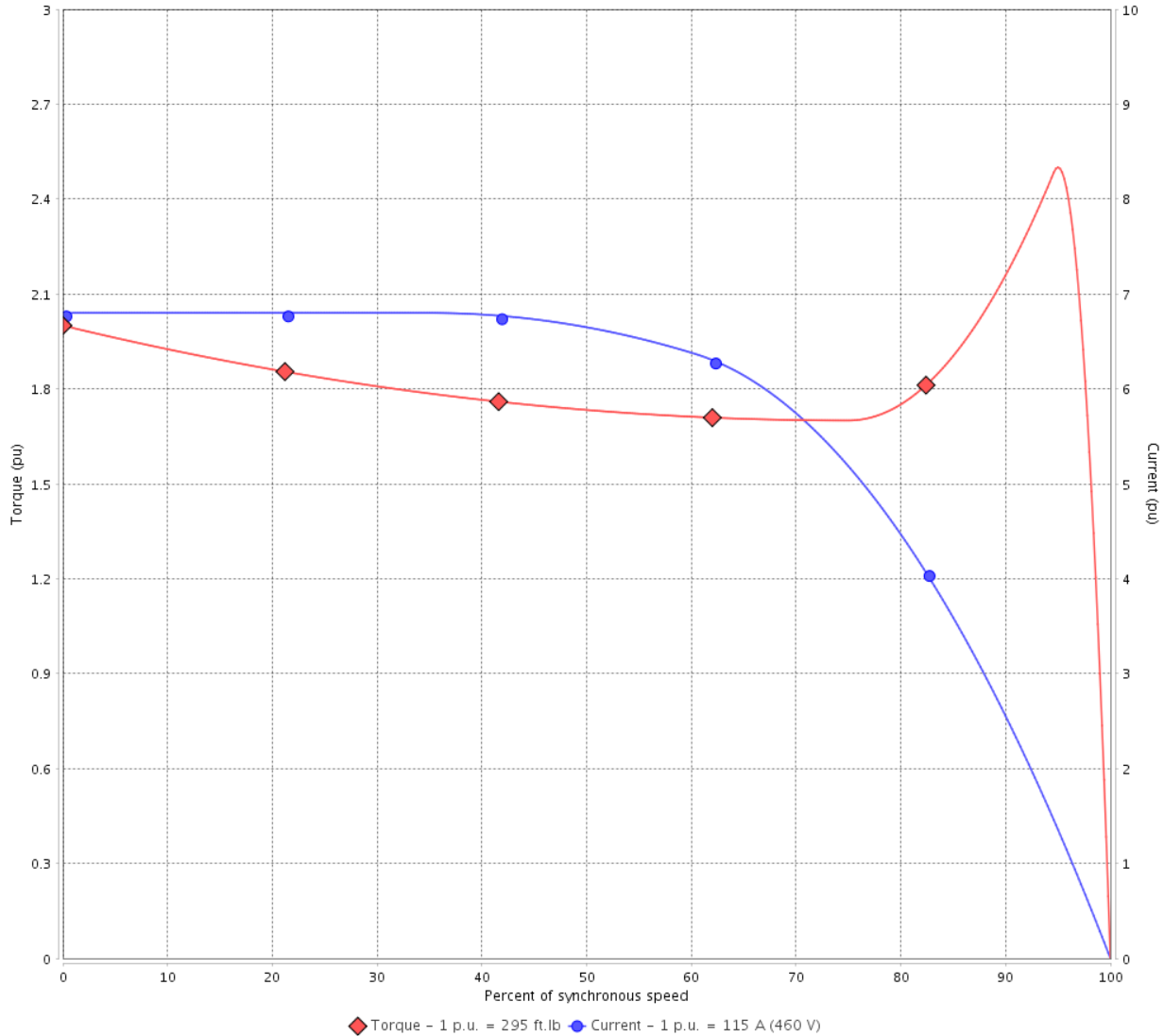
Customer :

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

Product code : 14270481

Catalog # : 10018OT3E404JP-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

Rated current	: 230/115 A	Moment of inertia (J)	: 21.9 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 295 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.25
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1780 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE



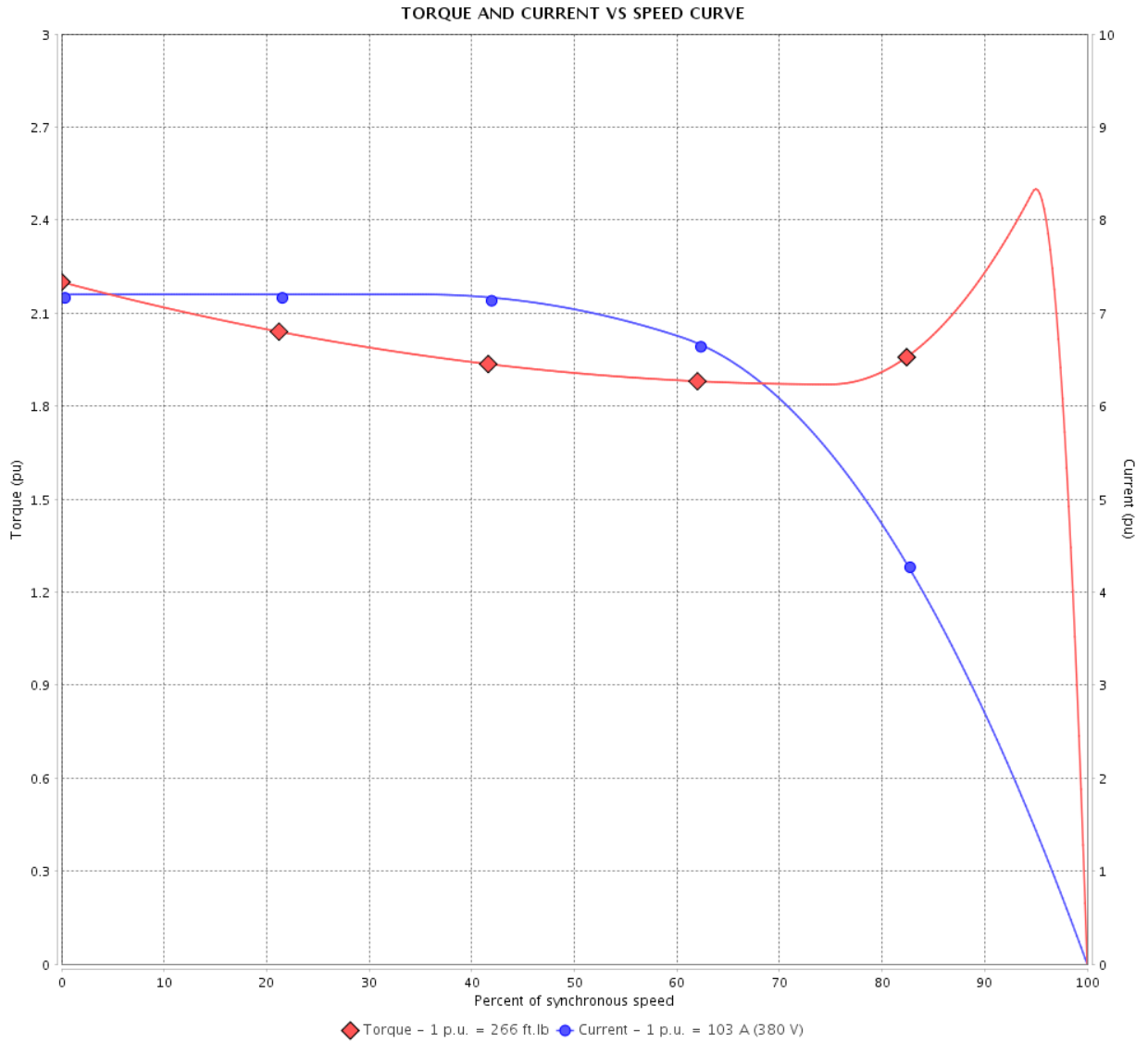
Three Phase Induction Motor - Squirrel Cage

Customer :

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

Product code : 14270481

Catalog # : 10018OT3E404JP-W40



Performance : 380 V 50 Hz 4P IE3

Rated current	: 103 A	Moment of inertia (J)	: 21.9 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 266 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1482 rpm	Design	: B

Locked rotor time : 23s (cold) 13s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



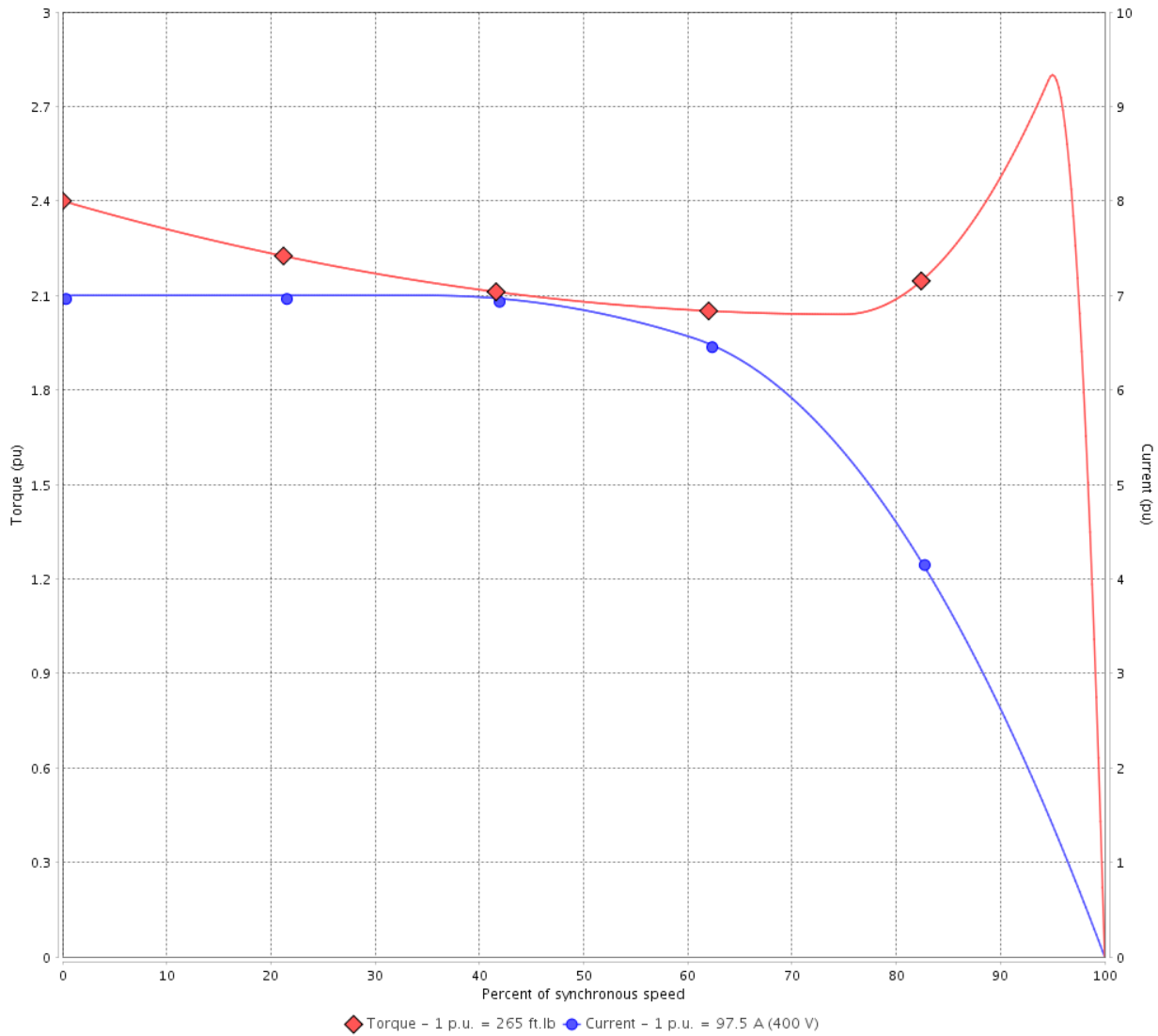
Customer :

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

Product code : 14270481

Catalog # : 10018OT3E404JP-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 4P IE3

Rated current	: 97.5 A	Moment of inertia (J)	: 21.9 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 265 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1484 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE



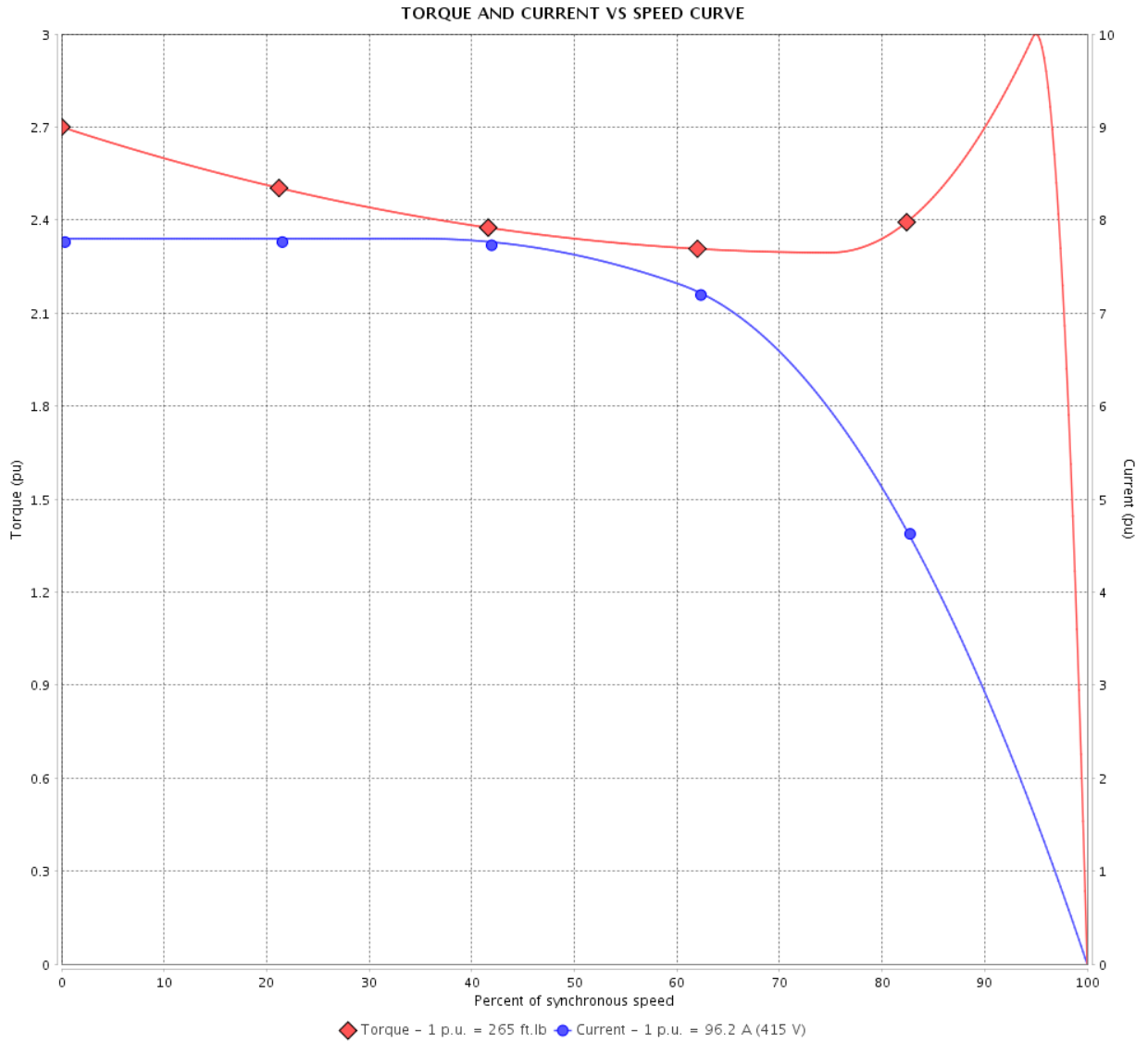
Three Phase Induction Motor - Squirrel Cage

Customer :

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Product code : 14270481

Catalog # : 10018OT3E404JP-W40



Performance : 415 V 50 Hz 4P IE3

Rated current	: 96.2 A	Moment of inertia (J)	: 21.9 sq.ft.lb
LRC	: 7.8	Duty cycle	: Cont.(S1)
Rated torque	: 265 ft.lb	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1485 rpm	Design	: B

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

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Three Phase Induction Motor - Squirrel Cage

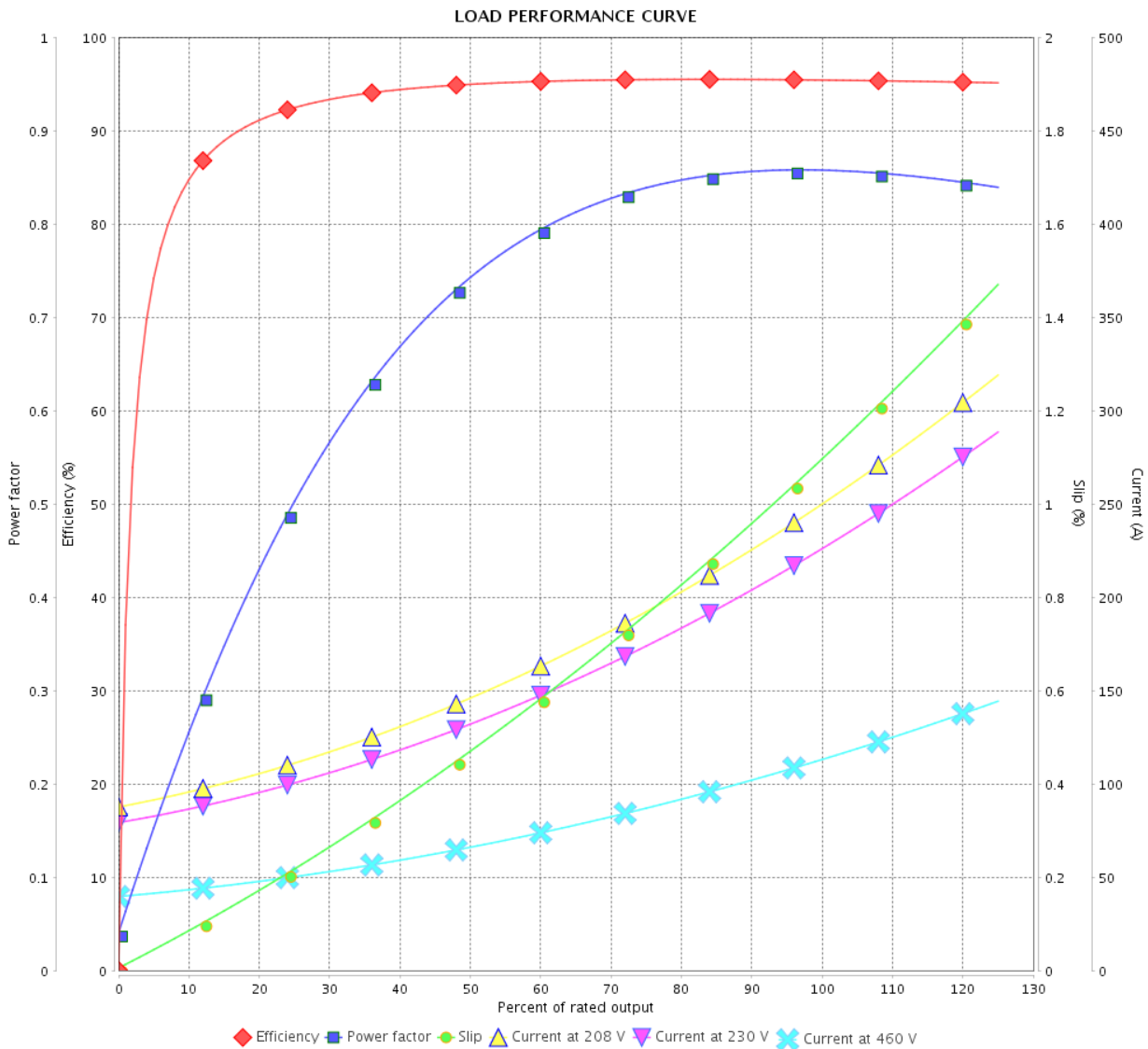


Customer :

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

Product code : 14270481

Catalog # : 10018OT3E404JP-W40



Performance : 230/460 V 60 Hz 4P

Rated current : 230/115 A
 LRC : 6.8
 Rated torque : 295 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 250 %
 Rated speed : 1780 rpm

Moment of inertia (J) : 21.9 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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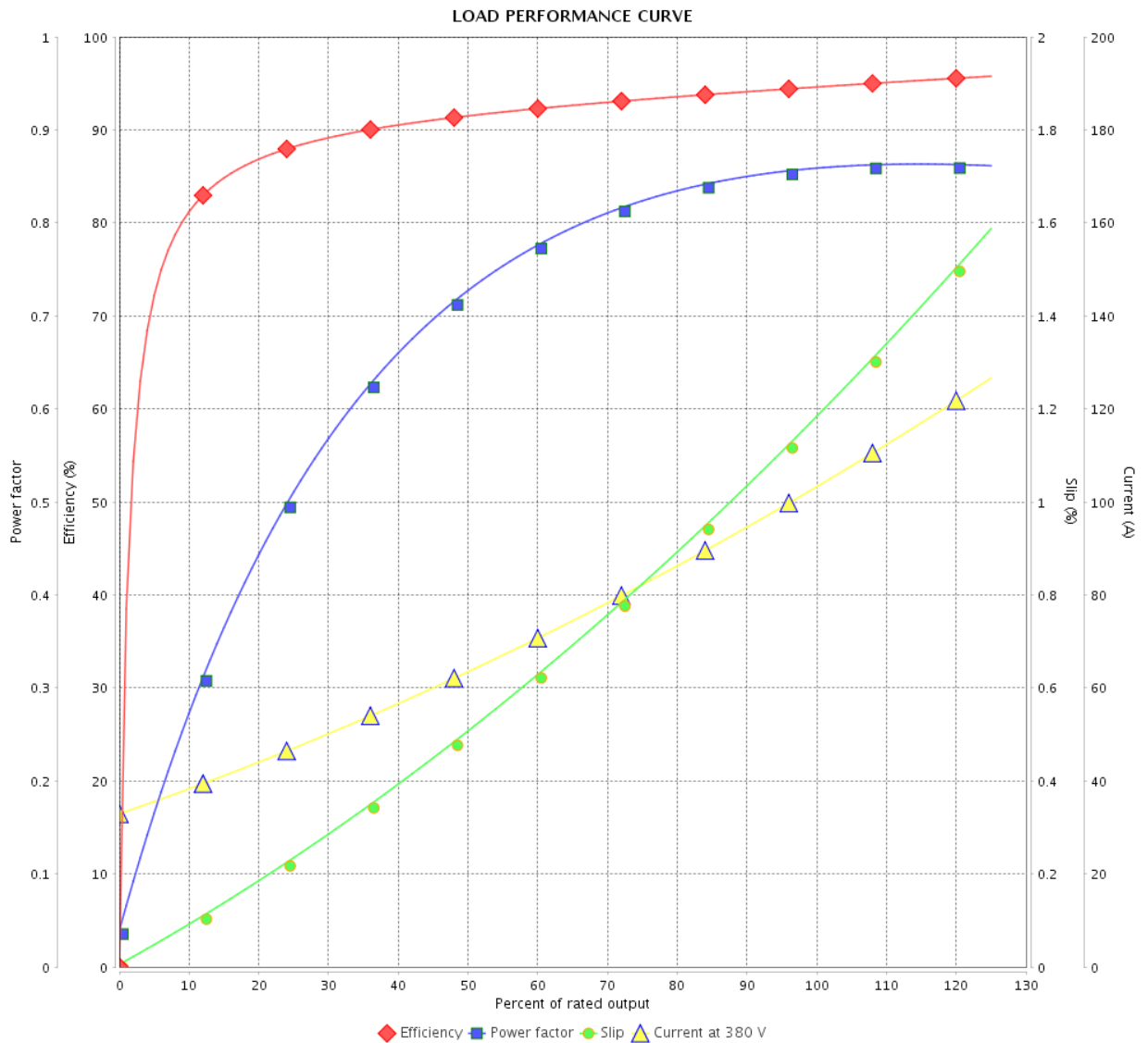


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Performance : 380 V 50 Hz 4P IE3

Rated current : 103 A
 LRC : 7.2
 Rated torque : 266 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 250 %
 Rated speed : 1482 rpm

Moment of inertia (J) : 21.9 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

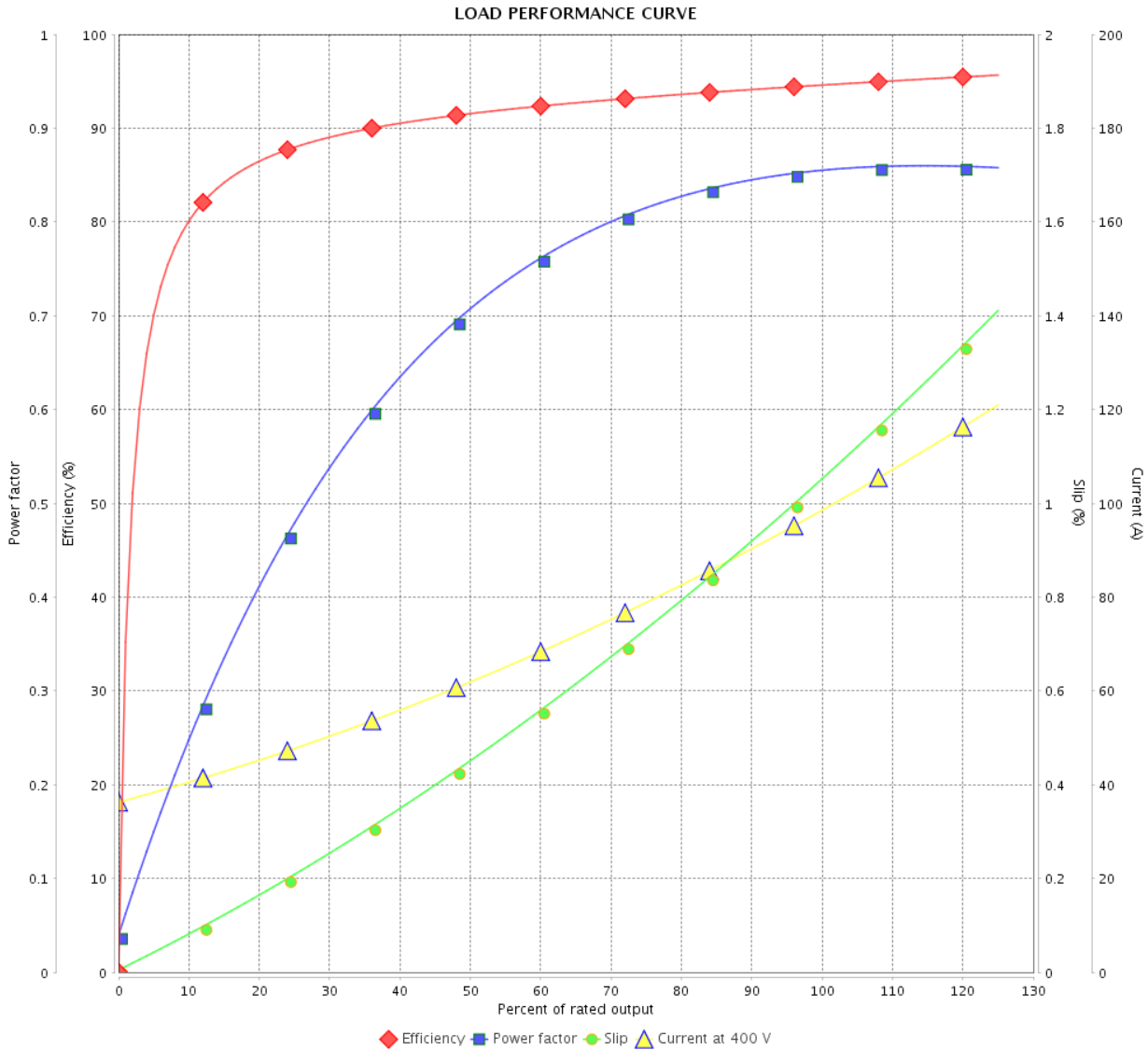


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Efficiency Three-Phase

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Catalog # : 10018OT3E404JP-W40



Performance : 400 V 50 Hz 4P IE3

Rated current	: 97.5 A	Moment of inertia (J)	: 21.9 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 265 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1484 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

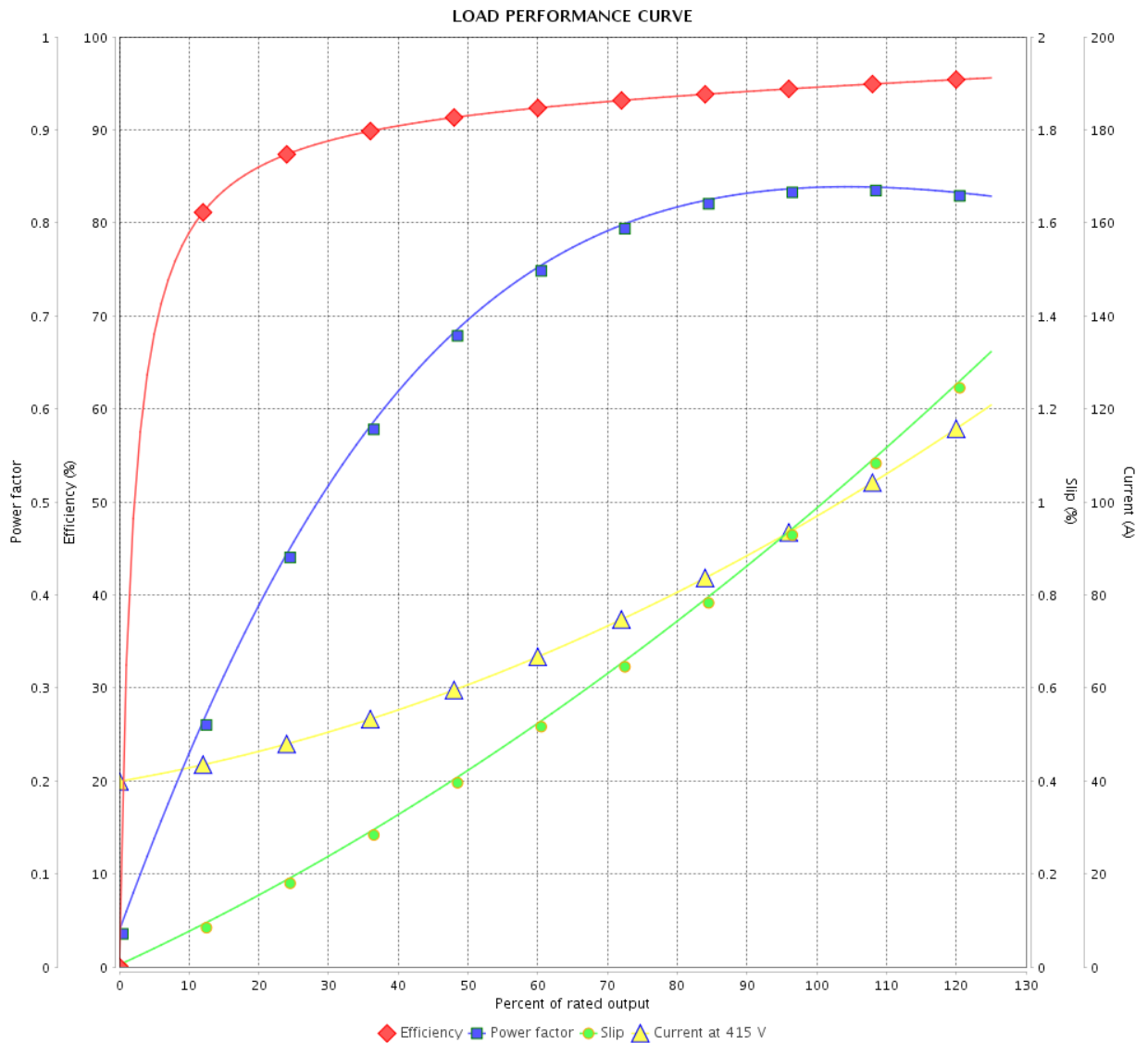


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 LRC : 7.8
 Rated torque : 265 ft.lb
 Locked rotor torque : 270 %
 Breakdown torque : 300 %
 Rated speed : 1485 rpm

Moment of inertia (J) : 21.9 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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Service factor : 1.25
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

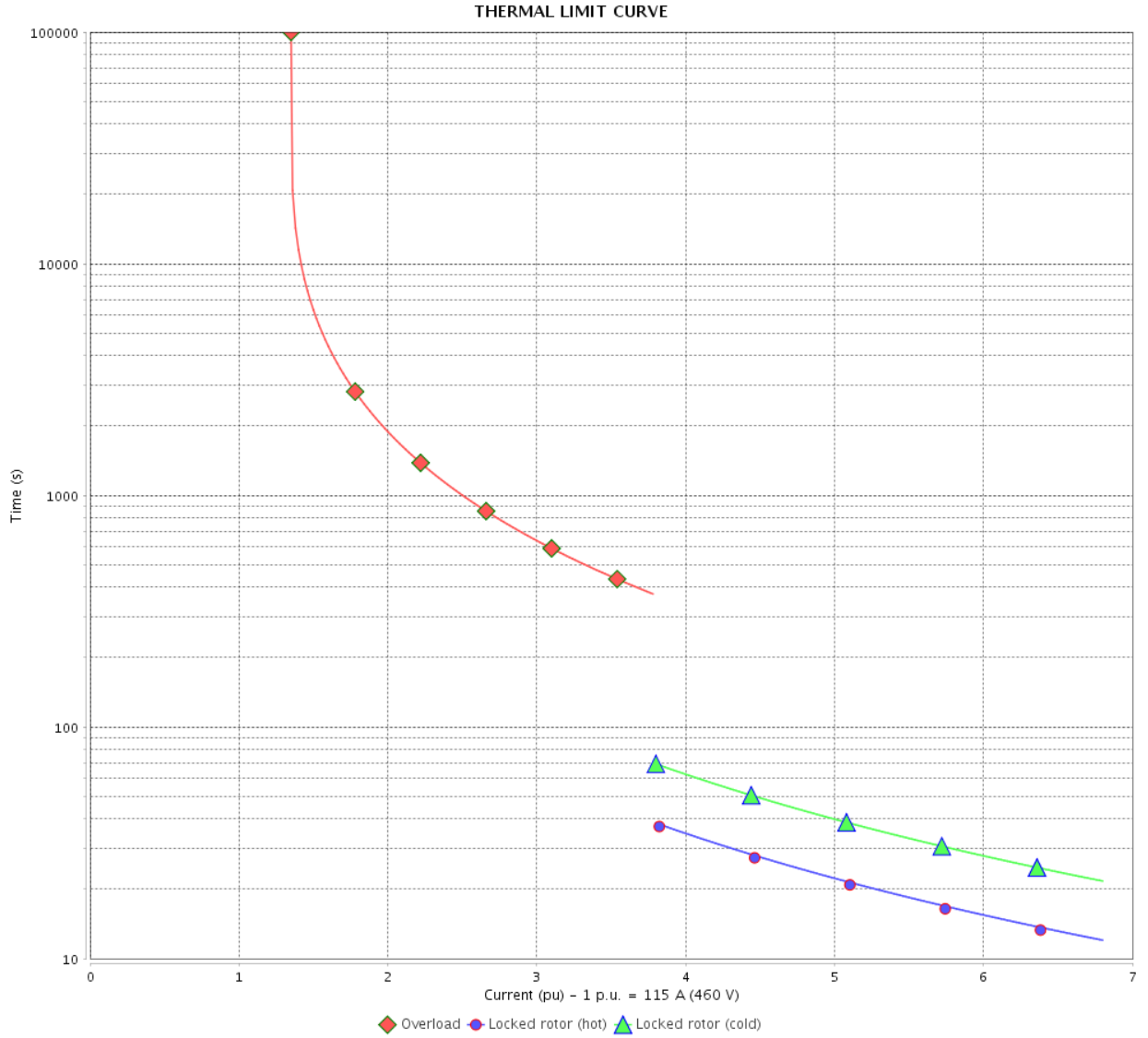
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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Performance : 380 V 50 Hz 4P IE3

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LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 266 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1482 rpm	Design	: B

Heating constant

Cooling constant

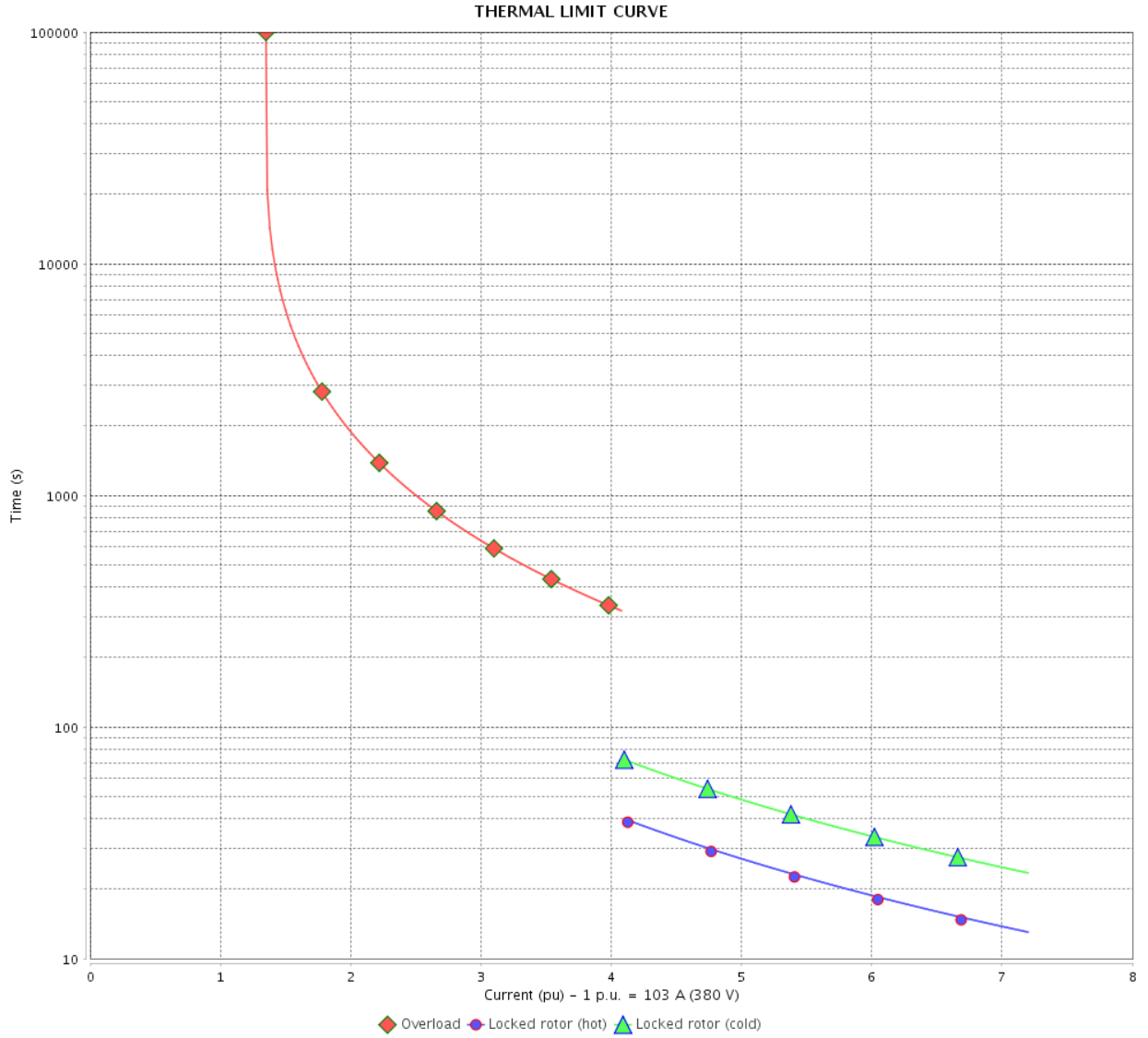
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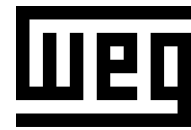


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LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 265 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1484 rpm	Design	: B

Heating constant

Cooling constant

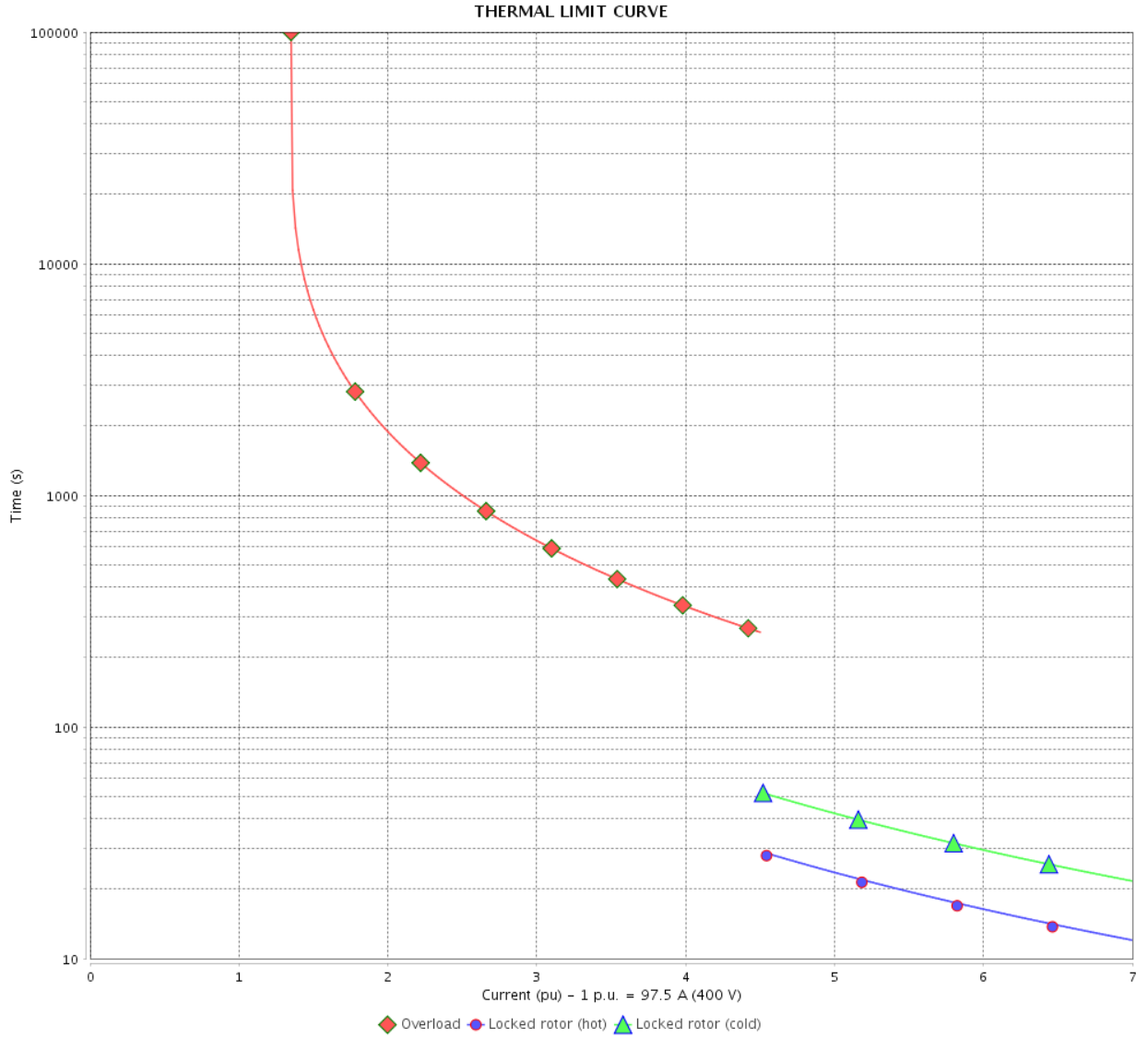
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Performed by				
Checked by			Page	Revision
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THERMAL LIMIT CURVE

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 : 14270481

Catalog # : 10018OT3E404JP-W40

Performance : 415 V 50 Hz 4P IE3

Rated current : 96.2 A
LRC : 7.8
Rated torque : 265 ft.lb
Locked rotor torque : 270 %
Breakdown torque : 300 %
Rated speed : 1485 rpm

Moment of inertia (J) : 21.9 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

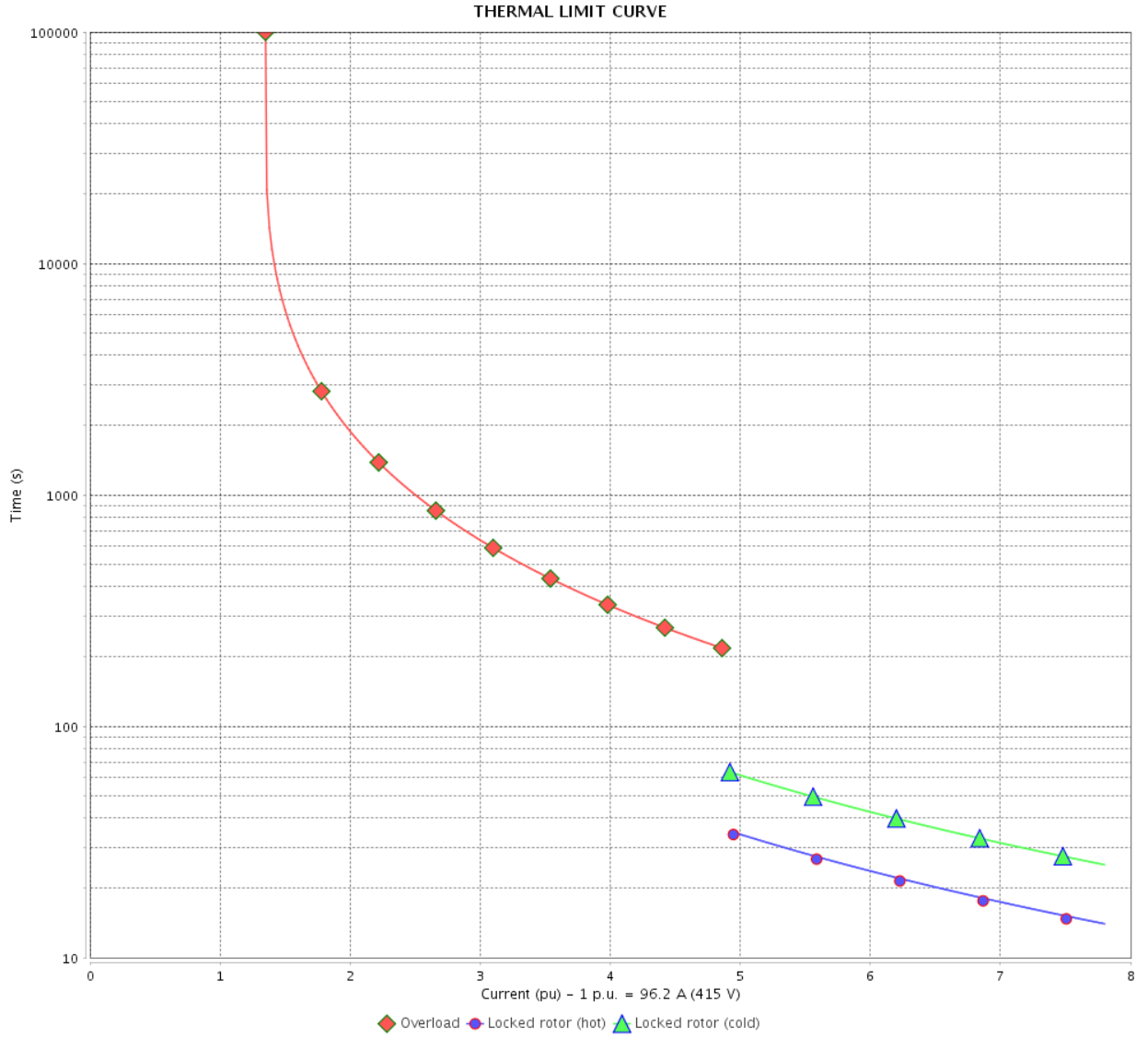
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



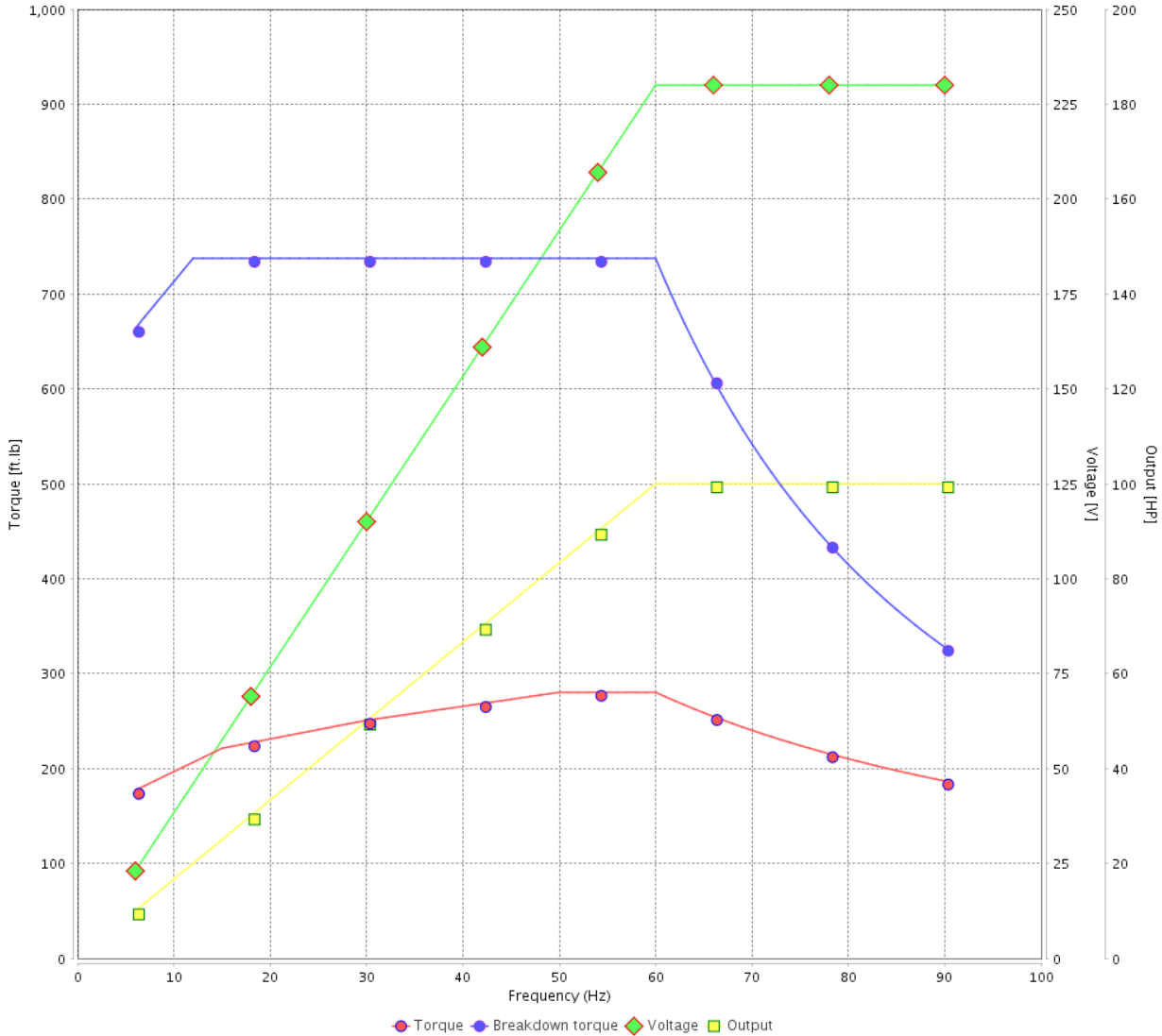
Customer :

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VFD OPERATION CURVE



Performance : 230/460 V 60 Hz 4P

Rated current : 230/115 A
 LRC : 6.8
 Rated torque : 295 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 250 %
 Rated speed : 1780 rpm

Moment of inertia (J) : 21.9 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

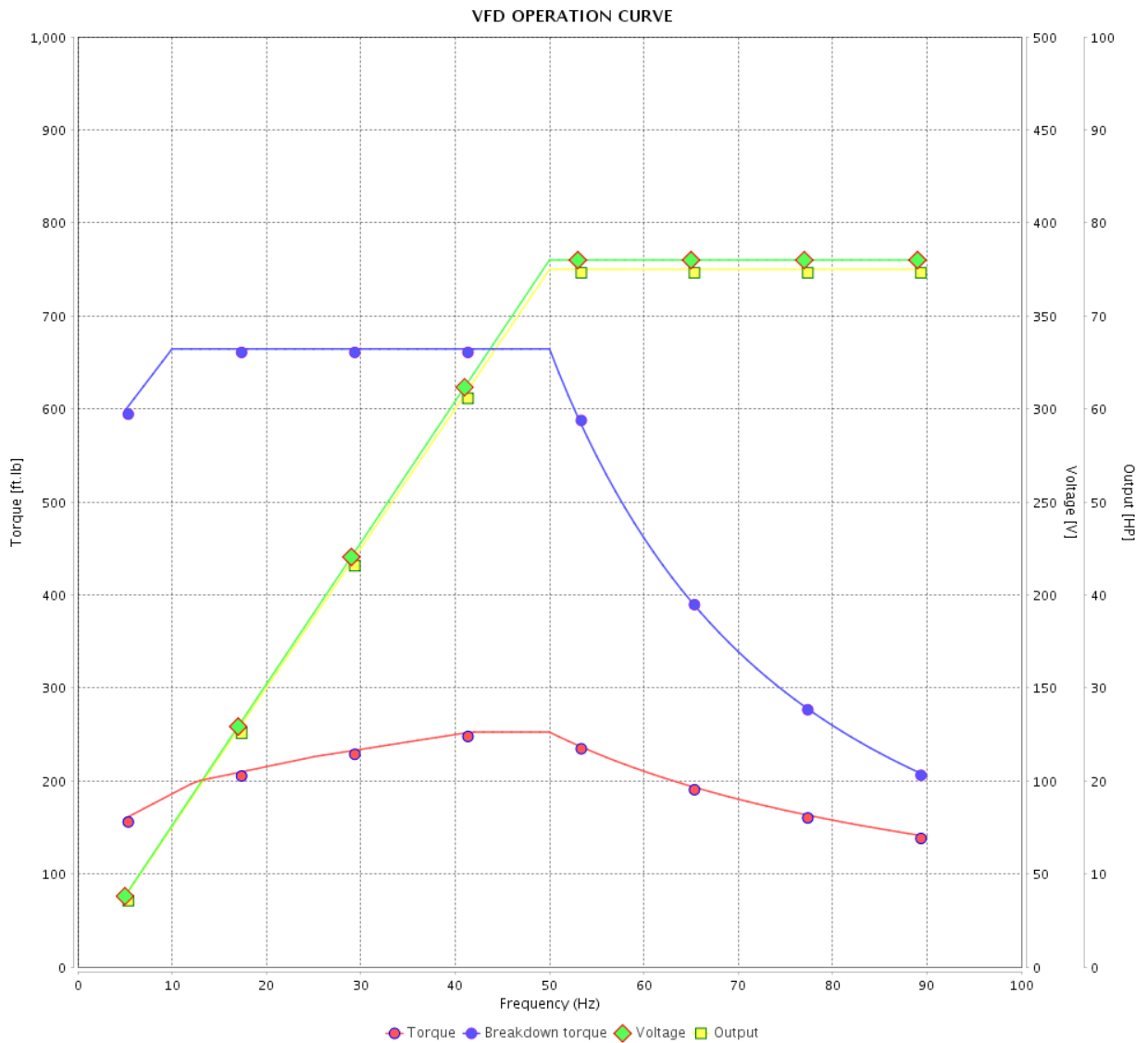


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Performance : 380 V 50 Hz 4P IE3

Rated current : 103 A
 LRC : 7.2
 Rated torque : 266 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 250 %
 Rated speed : 1482 rpm

Moment of inertia (J) : 21.9 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	14/04/2022			
				Revision

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



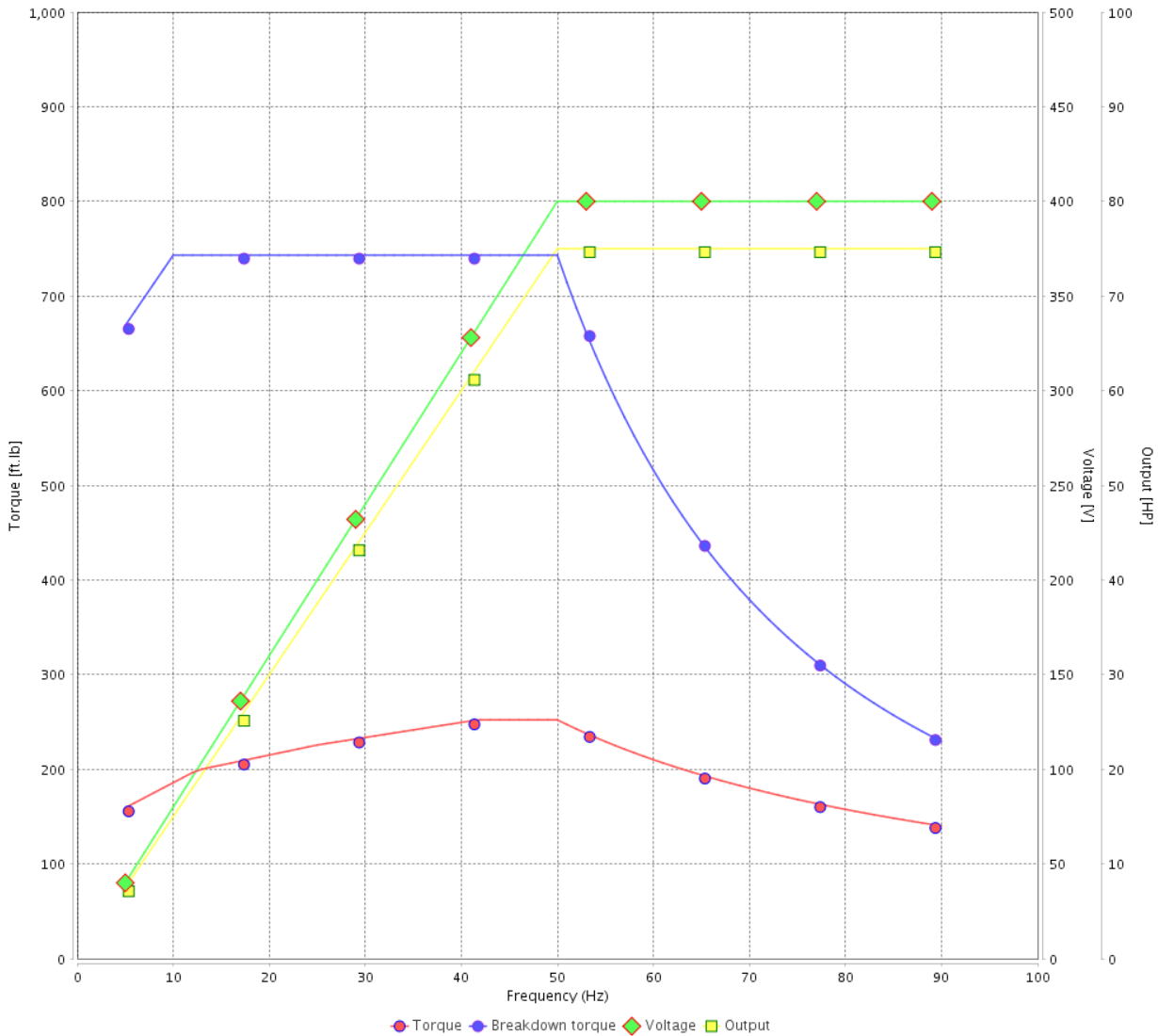
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VFD OPERATION CURVE



Performance : 400 V 50 Hz 4P IE3

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Rated torque	: 265 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

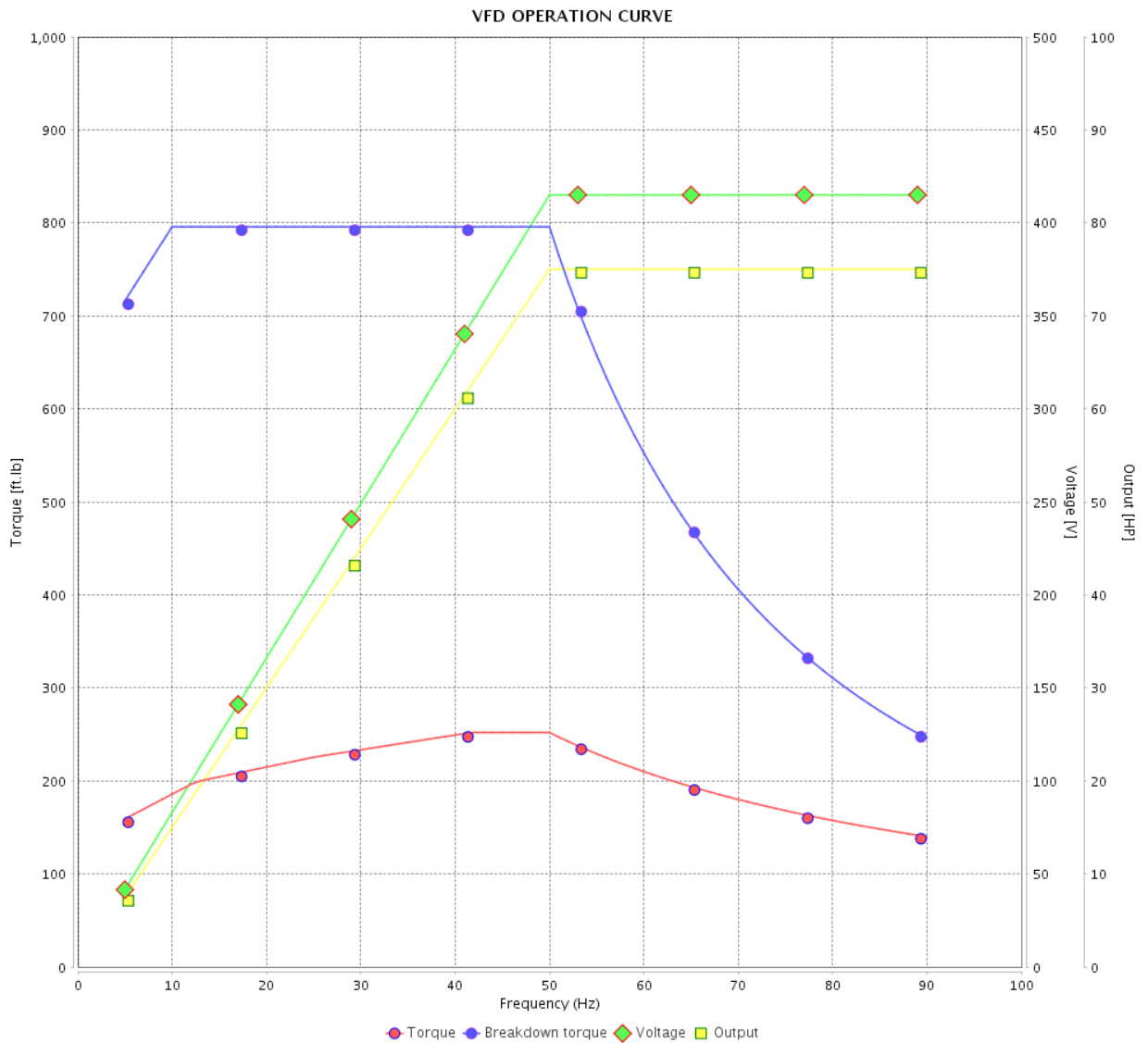


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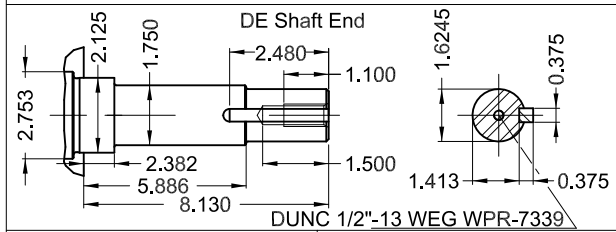
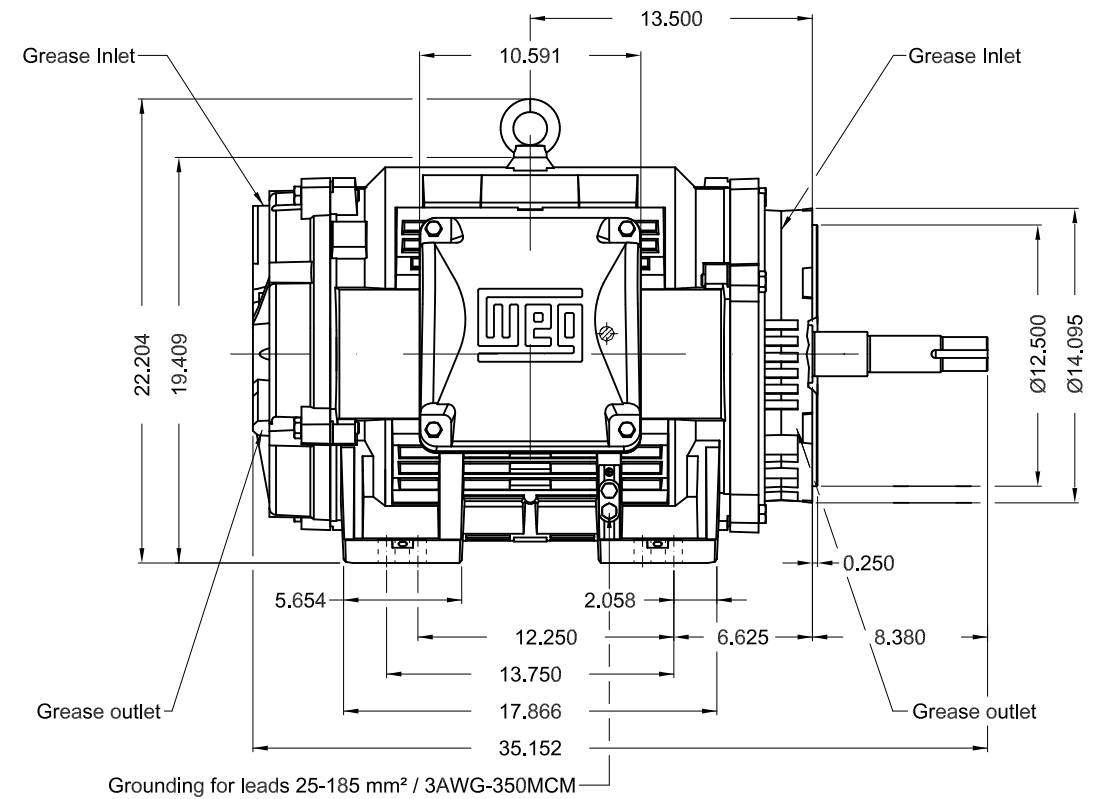
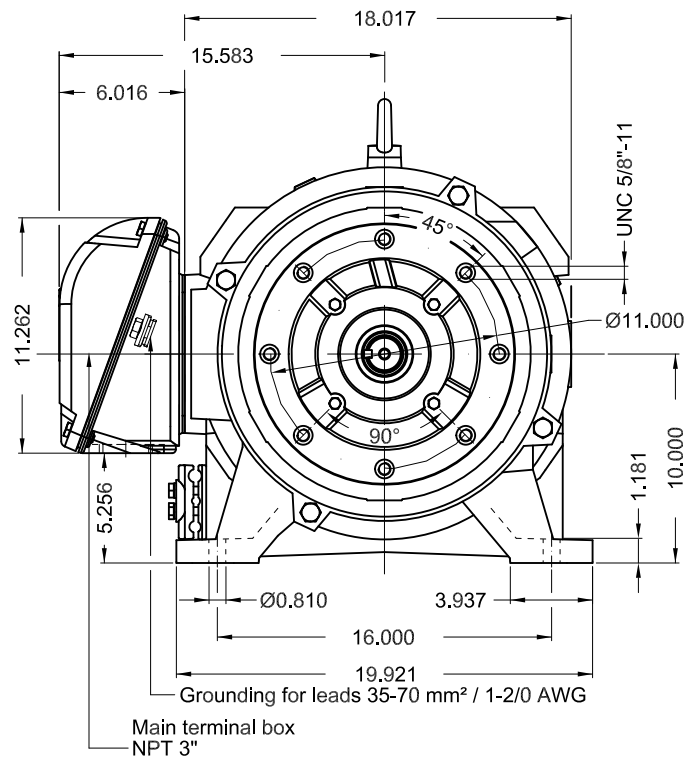


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 Service factor : 1.00
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100 HP 04 Poles 60 Hz

Dimensions in inches

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

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



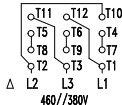
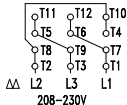
IEC 60034-1
 MOD.T01#FOXON




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

MODEL 100180T3E404JP-W40
 MADE IN BRAZIL
 14270481

PH 3	FR 404/5JP	HP(kW) 100.0(75.0)	Hz 60
V 230/460	A 230/115	RPM 1780	DES B
NEMA NOM EFF 95.4 %	INS. CL. F Δ T 80 K	IP23	
ENCL ODP	DUTY CONT.	AMB. 40°C	
CODE G	PF 0.86	SF 1.25	SFA 288/144
USABLE @208V 254 A	SF 1.15	SFA 292	
75HP 55kW 50Hz 380V 103A 1482RPM SF1.00 EFF 94.7% (IE3)	ALT 1000 m.a.s.l.	968 Lbs	



-  → 6314-C3(27g)
- 6212-Z-C3(13g)

MOBIL POLYREX EM
 20000 h