

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer					
Product line		: W40 JP Pump NEMA Premium Efficiency Three-Phase		Product code : 14836587	
				Catalog # : 10018OT3E404JPV-W40	
Frame : 404/5JP		Cooling method : IC01 - ODP			
Insulation class : F		Mounting : W-6			
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 : 930 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 : 1921 lb	
Lubrication interval		Bearing Seal : 19579 h	Bearing Seal : 20000 h	Max. compression : 2851 lb	
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



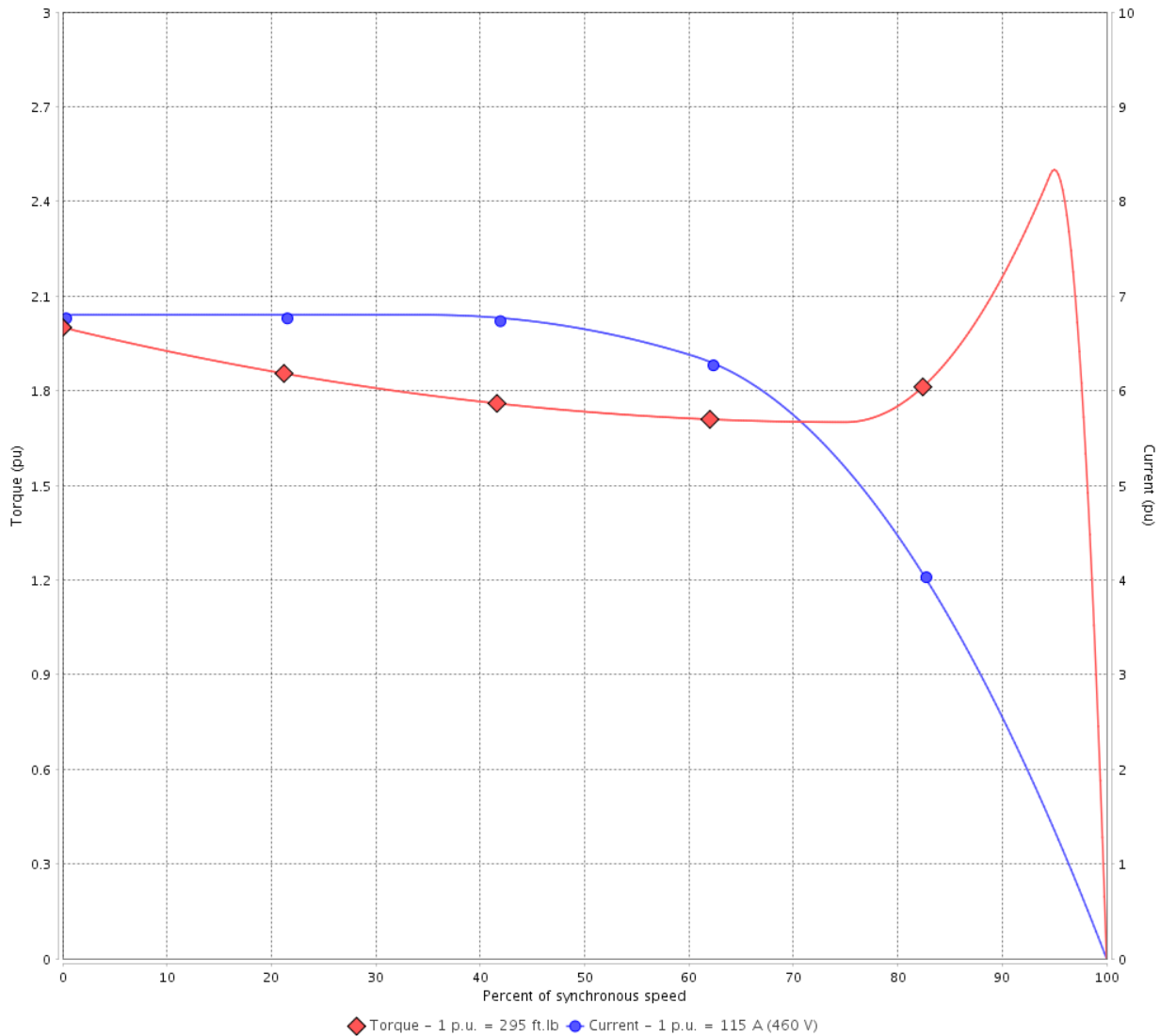
Customer :

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

Product code : 14836587

Catalog # : 10018OT3E404JPV-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



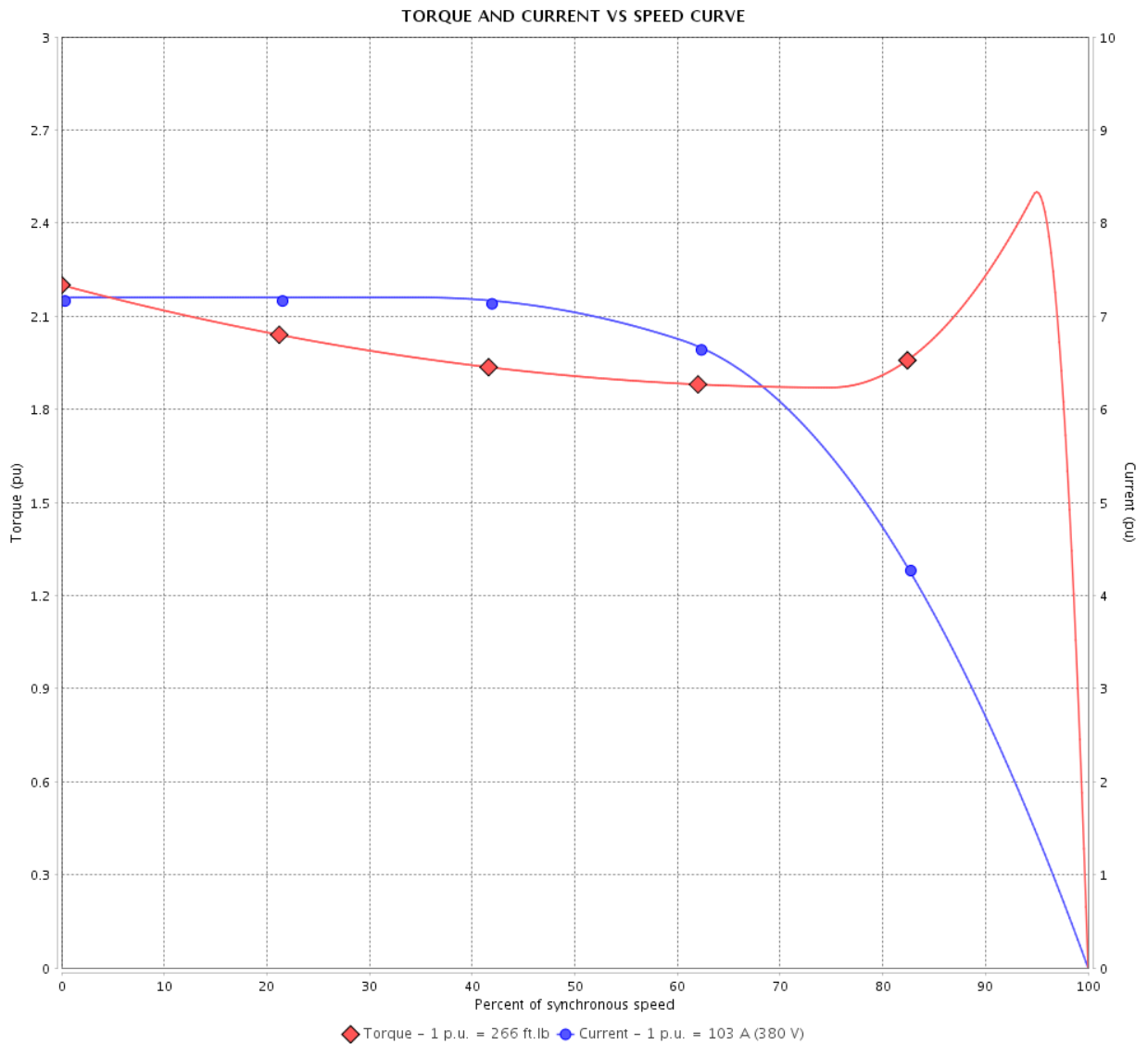
Three Phase Induction Motor - Squirrel Cage

Customer :

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

Product code : 14836587

Catalog # : 10018OT3E404JPV-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



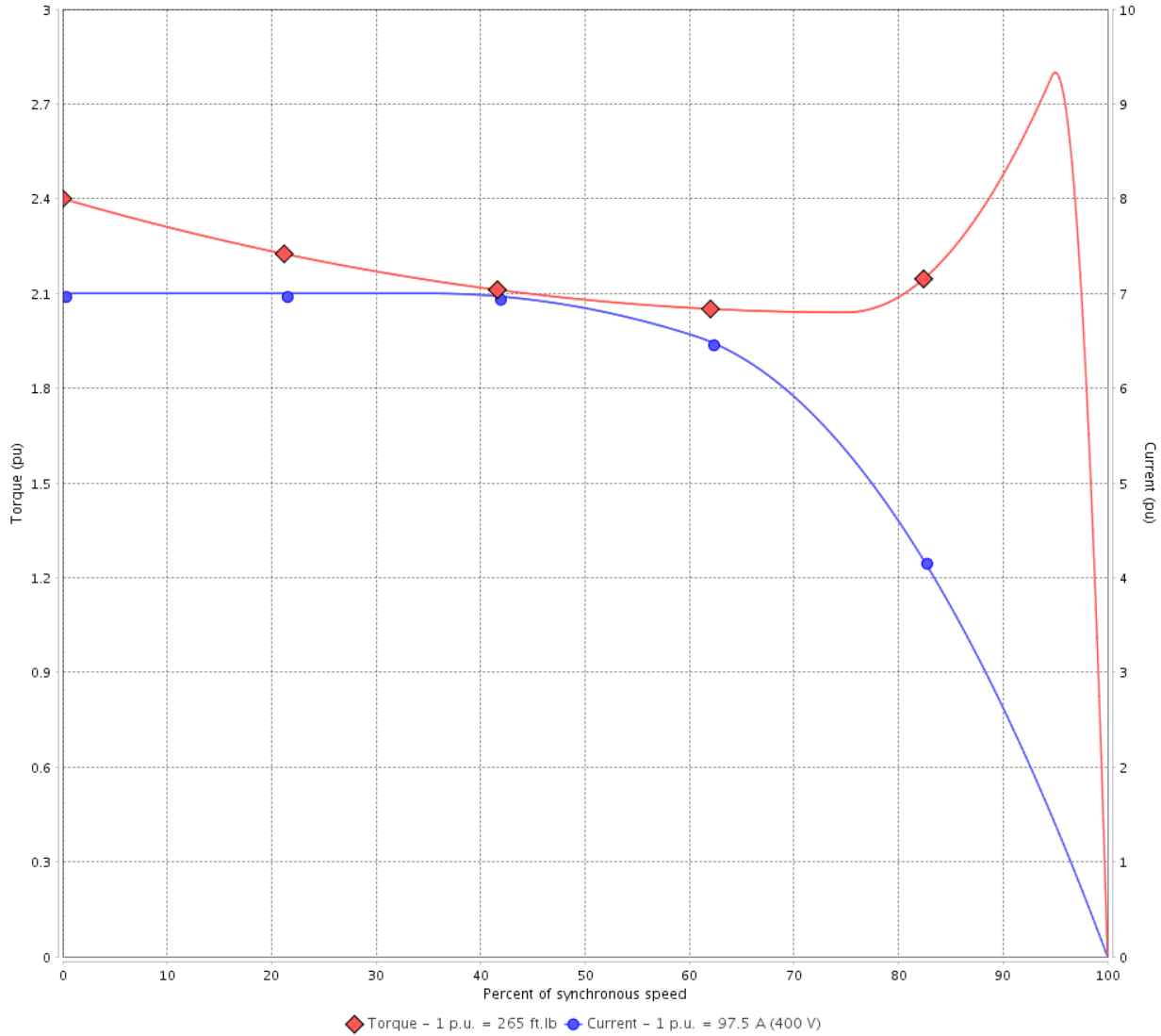
Customer :

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

Product code : 14836587

Catalog # : 10018OT3E404JPV-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



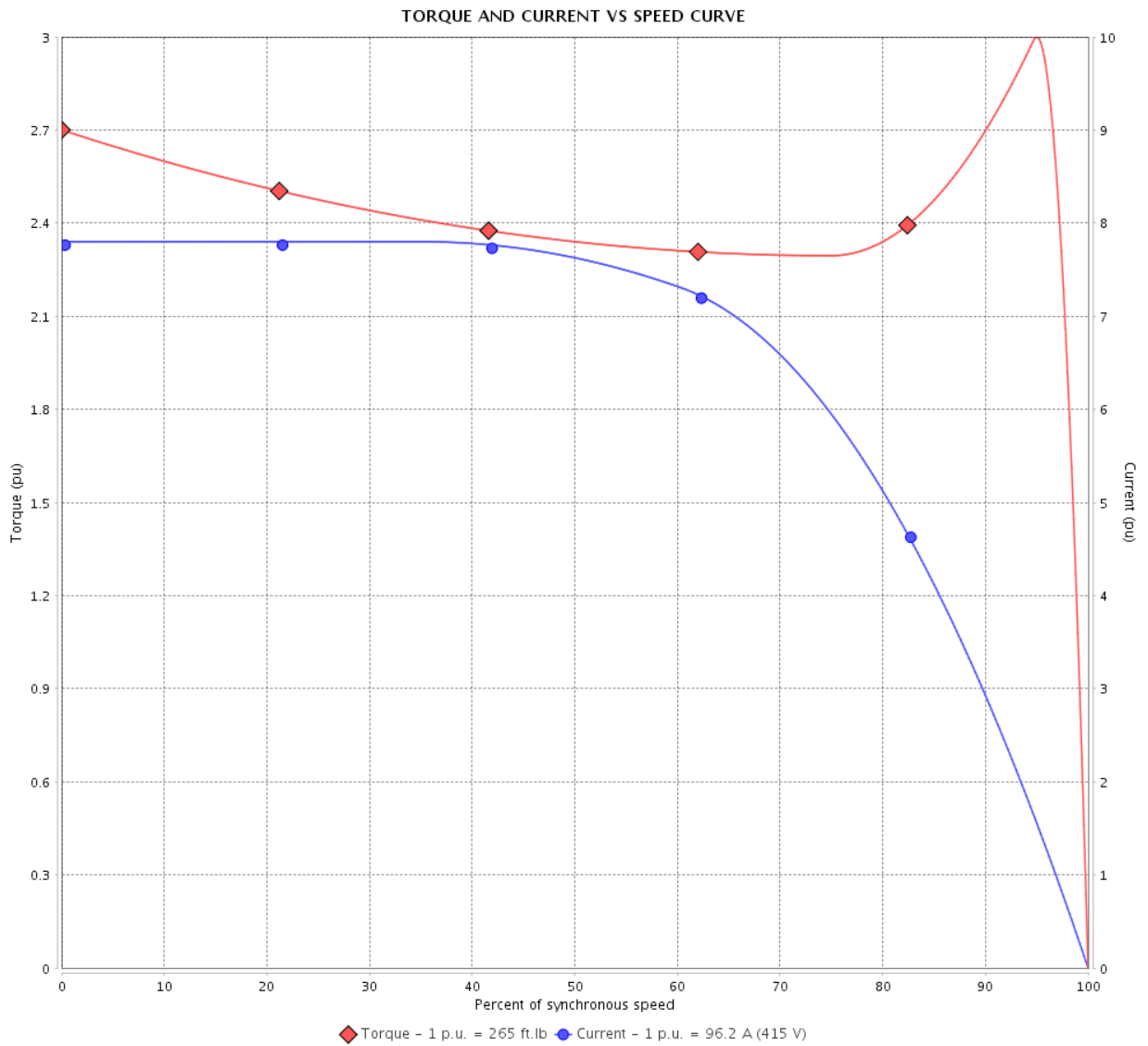
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Product code : 14836587

Catalog # : 10018OT3E404JPV-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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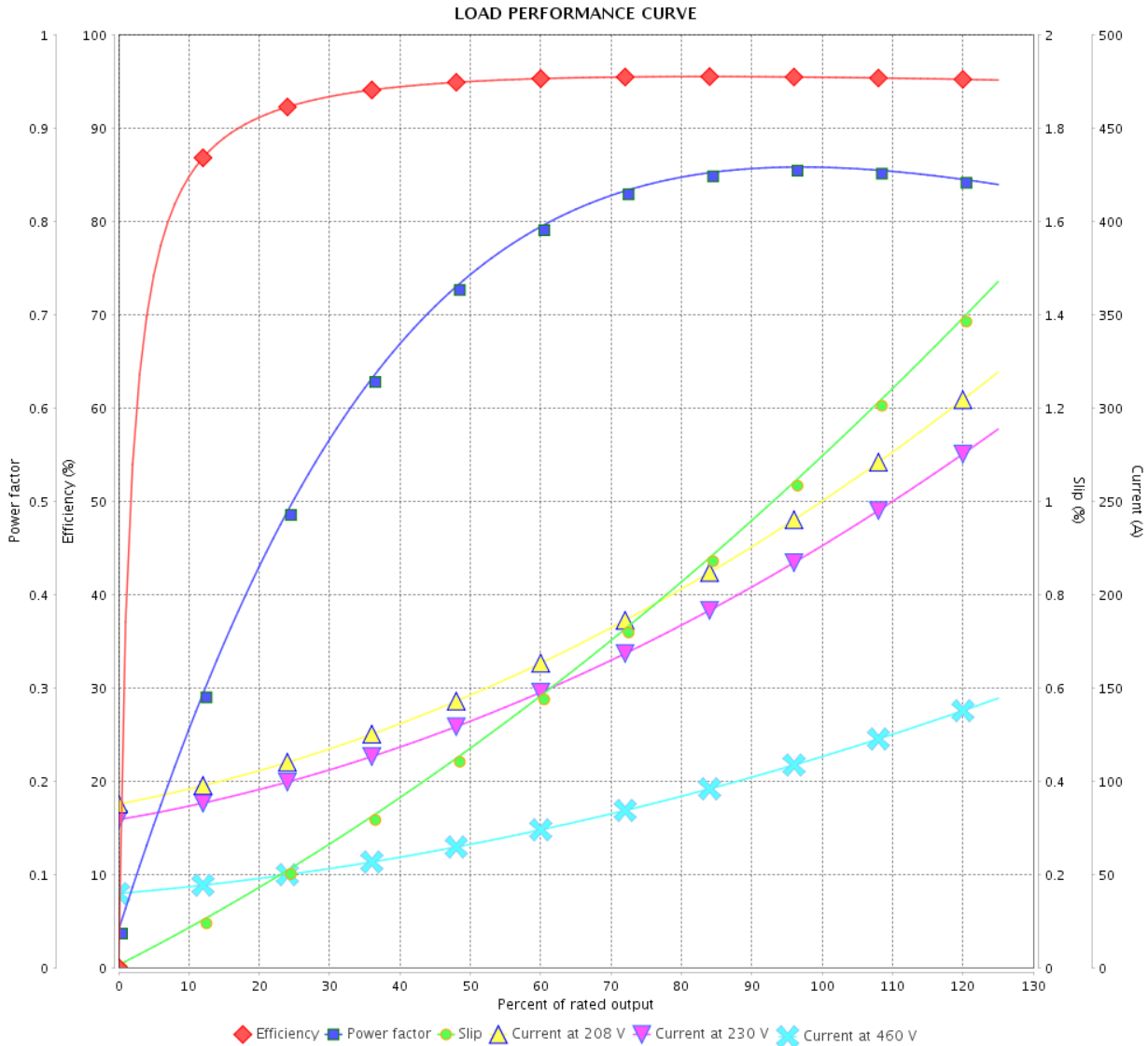


Customer :

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

Product code : 14836587

Catalog # : 10018OT3E404JPV-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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Three Phase Induction Motor - Squirrel Cage

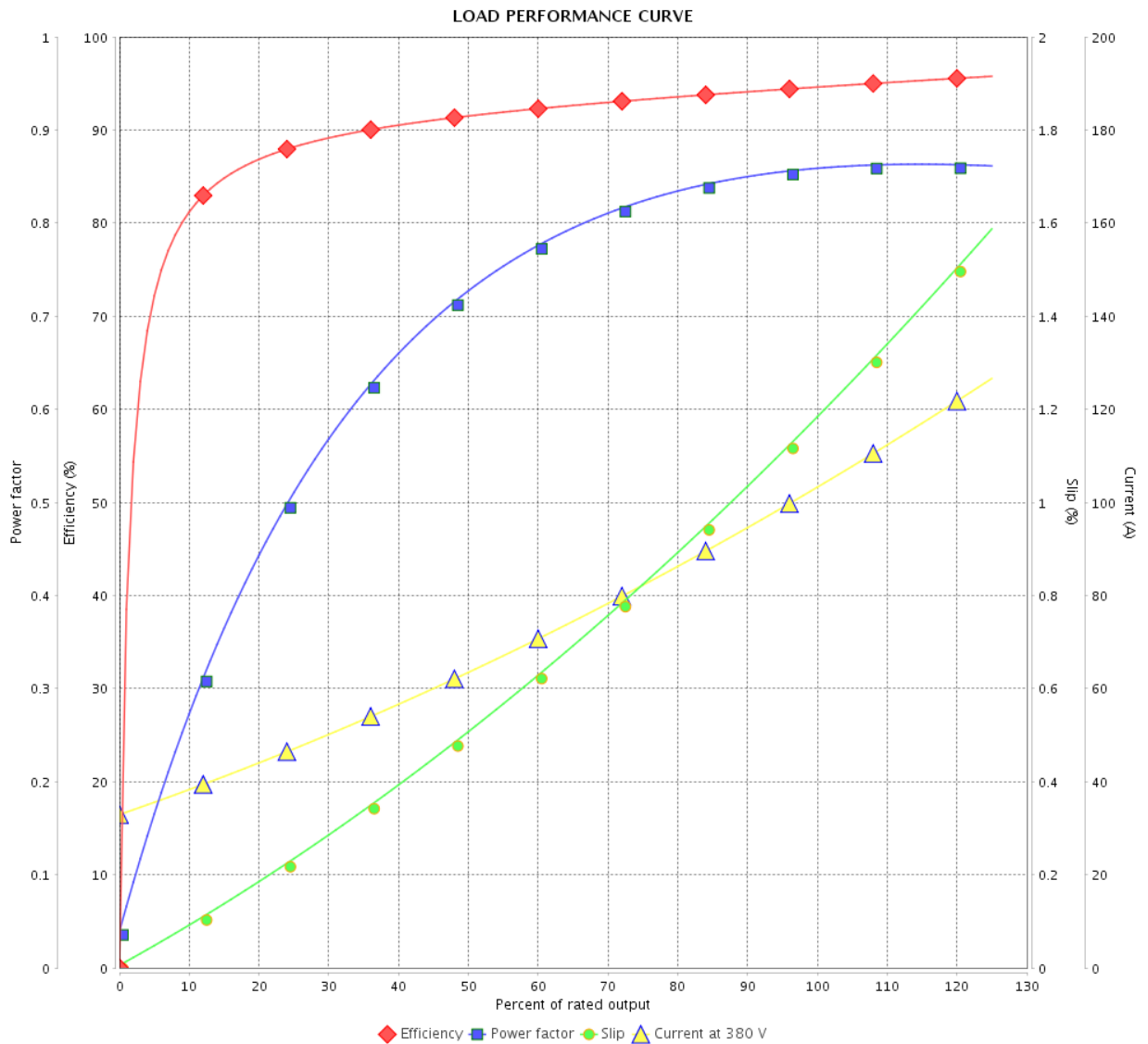


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Catalog # : 10018OT3E404JPV-W40



Performance : 380 V 50 Hz 4P IE3

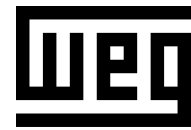
Rated current : 103 A
 LRC : 7.2
 Rated torque : 266 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 250 %
 Rated speed : 1482 rpm

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

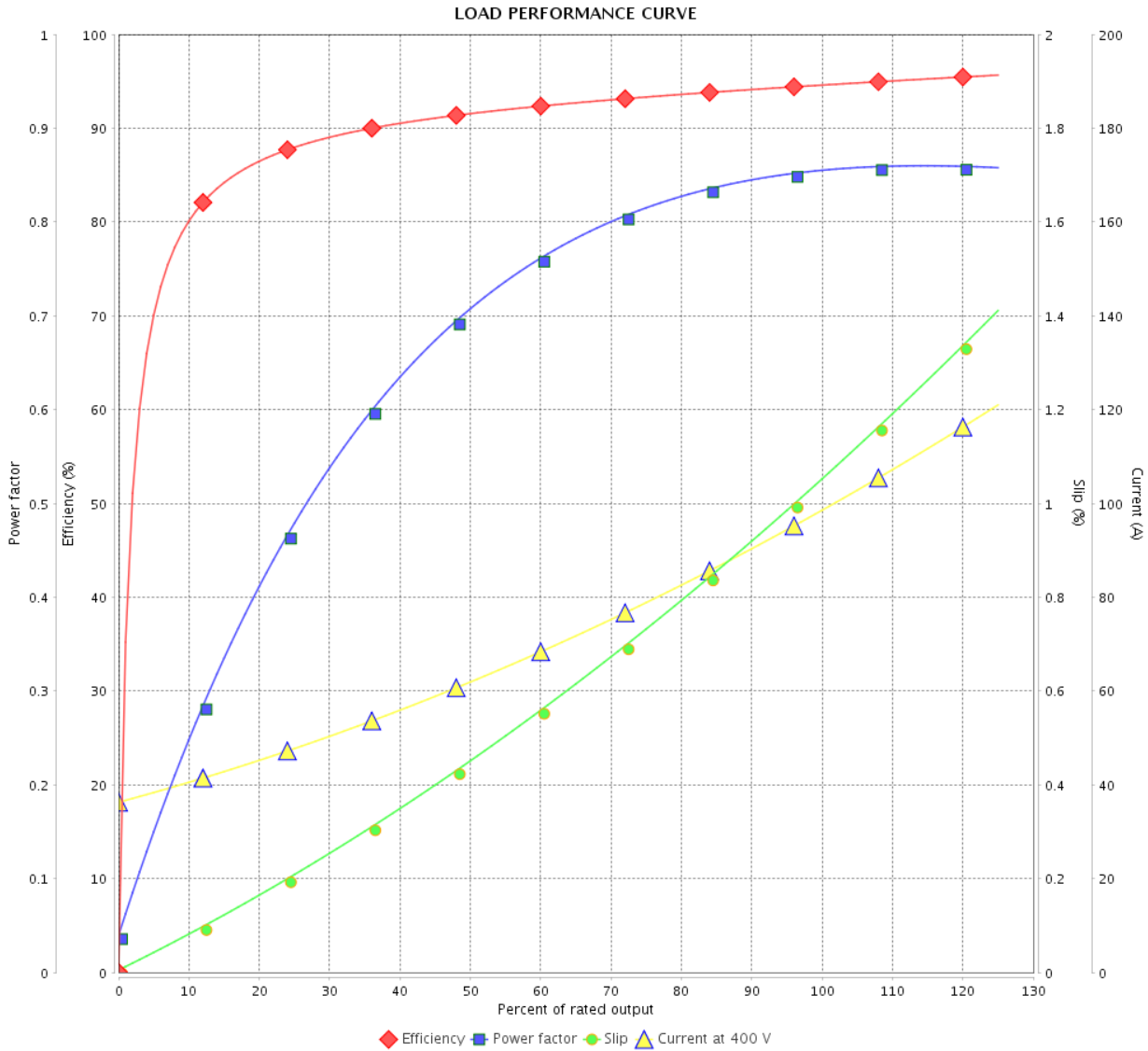


Customer : _____

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

Product code : 14836587

Catalog # : 10018OT3E404JPV-W40



Performance : 400 V 50 Hz 4P IE3

Rated current : 97.5 A
 LRC : 7.0
 Rated torque : 265 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 280 %
 Rated speed : 1484 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

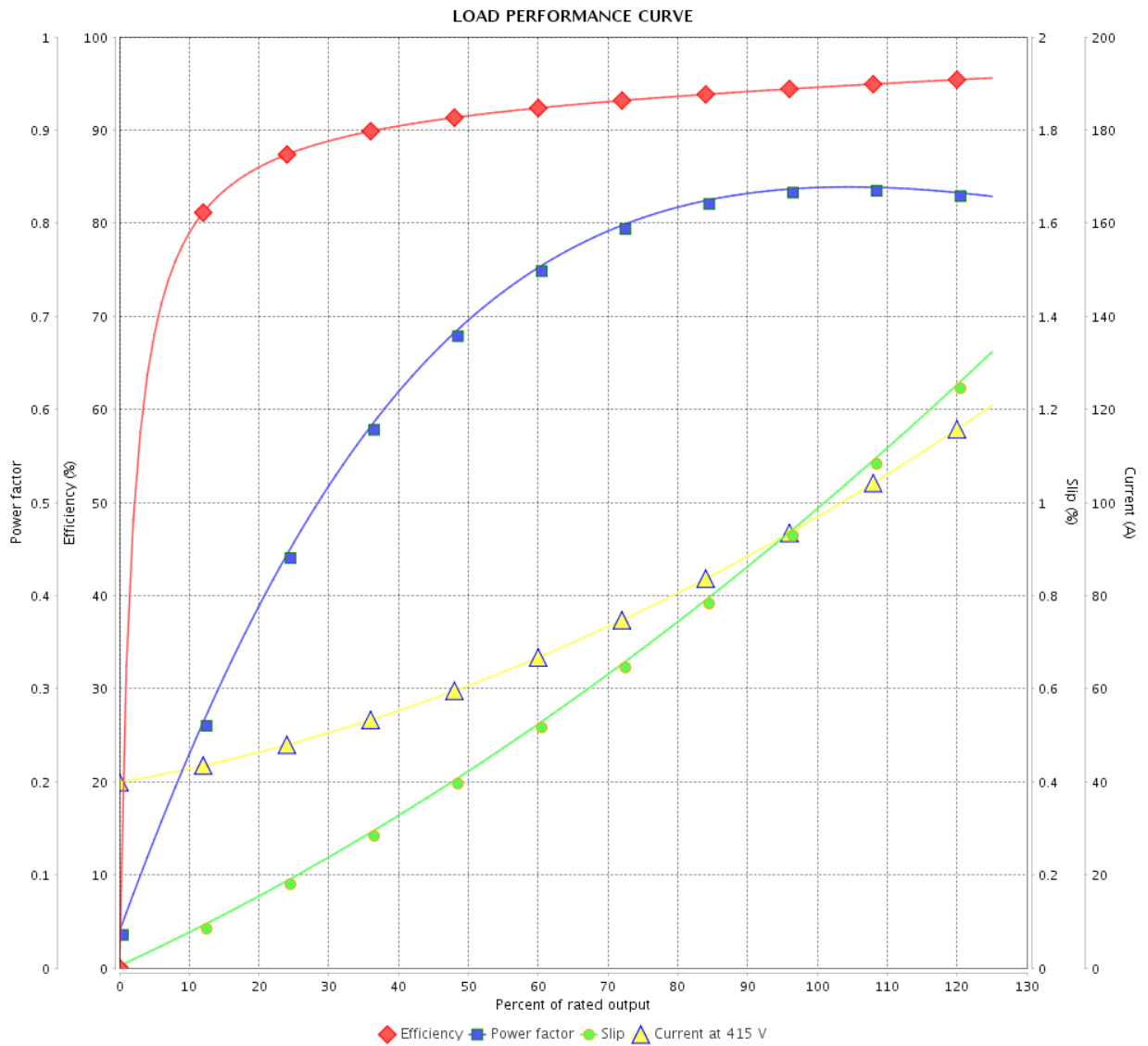


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Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase

Product code : 14836587

Catalog # : 10018OT3E404JPV-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

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THERMAL LIMIT CURVE



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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

Heating constant

Cooling constant

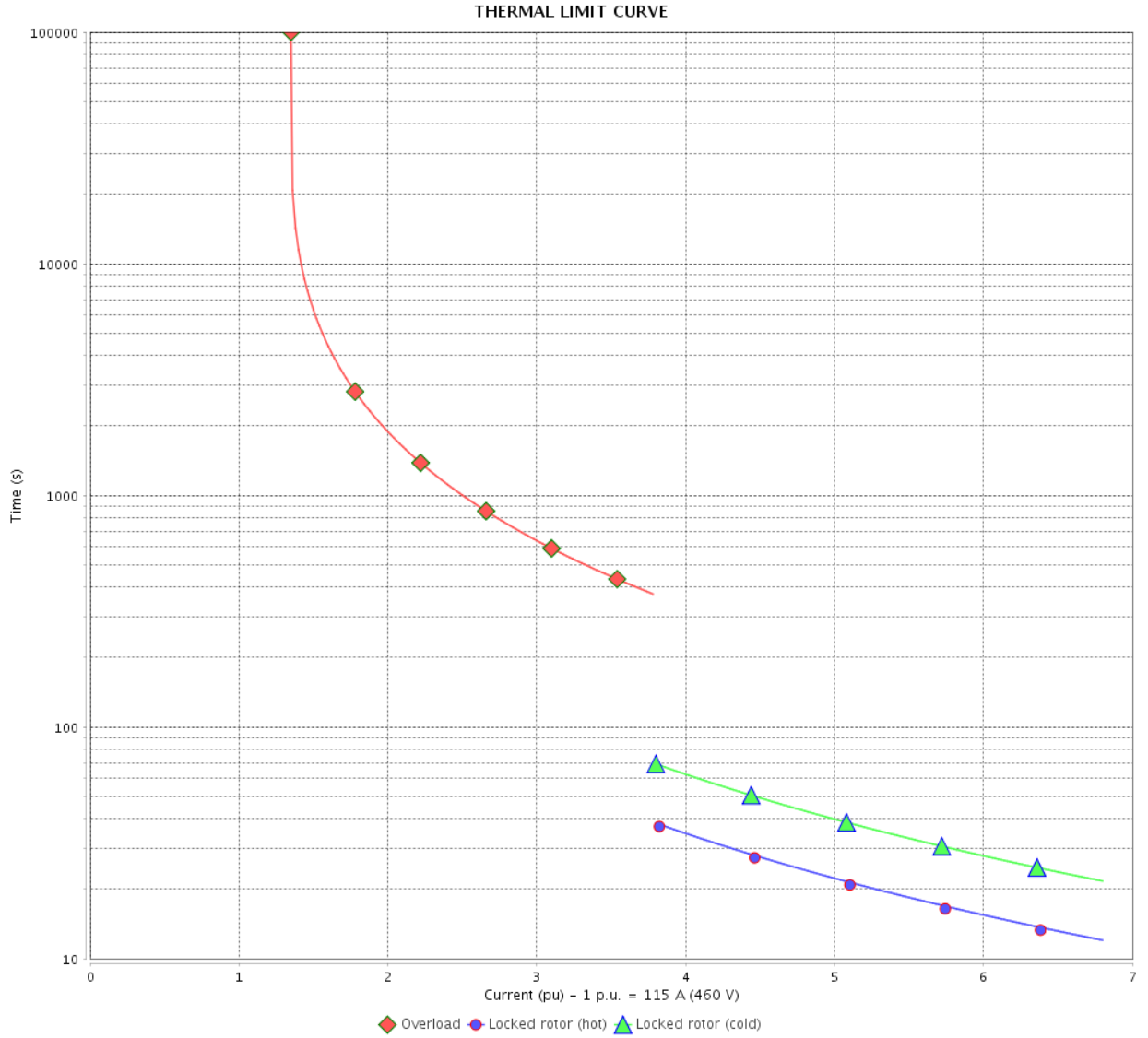
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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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

Heating constant

Cooling constant

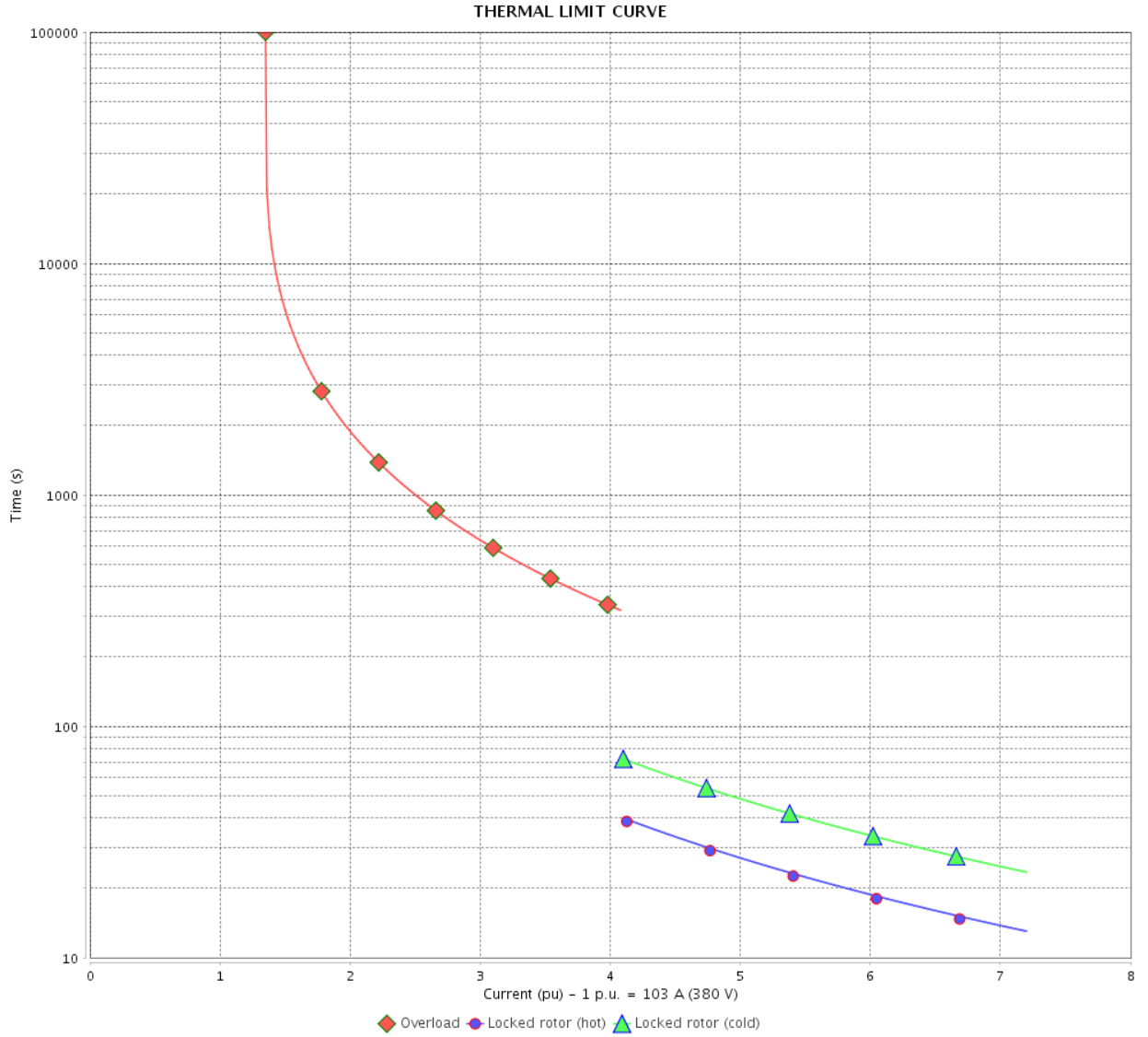
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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Date				

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Customer :

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Efficiency Three-Phase

Product code : 14836587

Catalog # : 10018OT3E404JPV-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

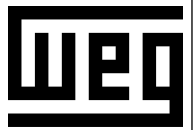
Heating constant

Cooling constant

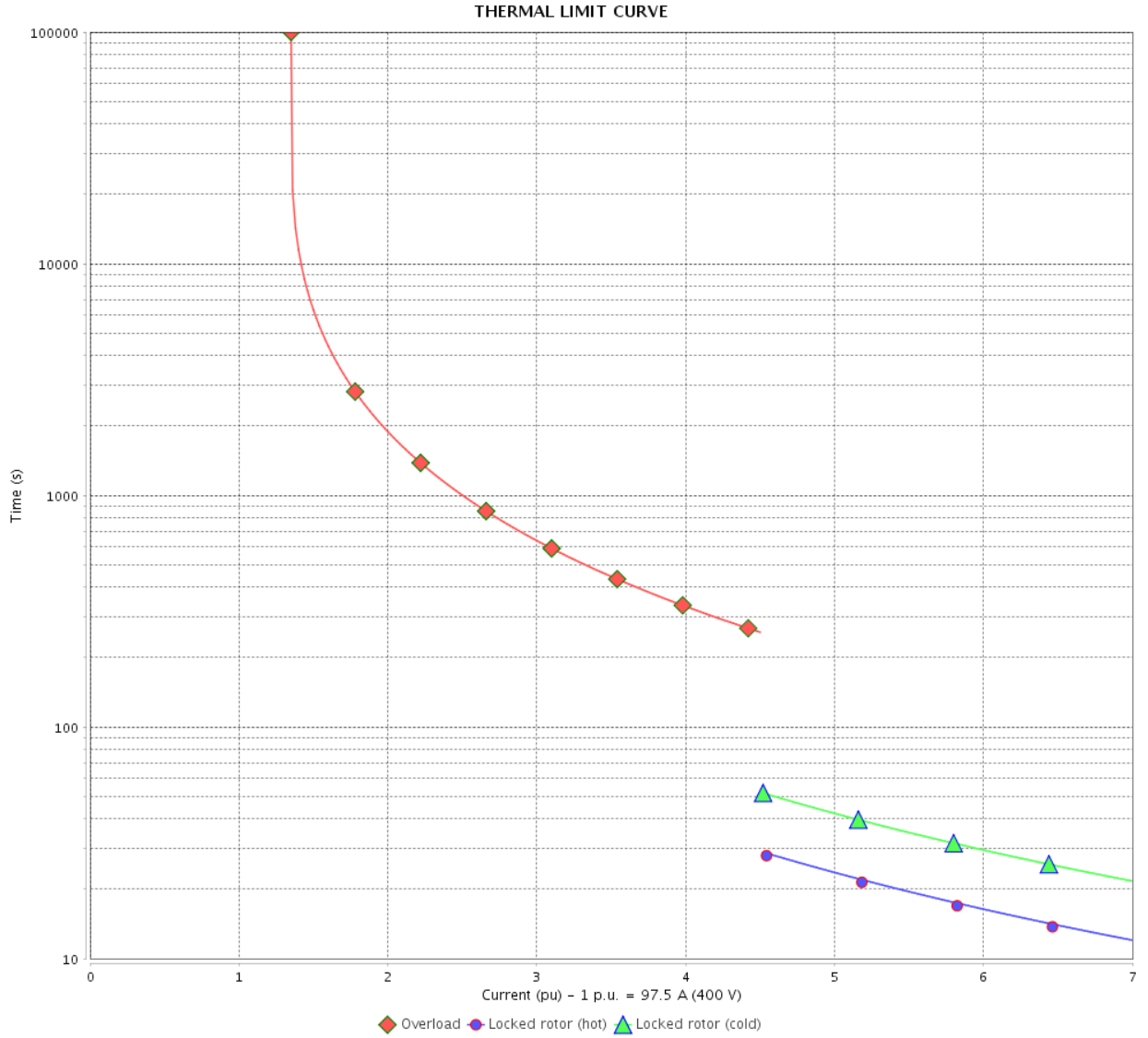
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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Three Phase Induction Motor - Squirrel Cage

Customer :

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Product code : 14836587

Catalog # : 10018OT3E404JPV-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

Heating constant

Cooling constant

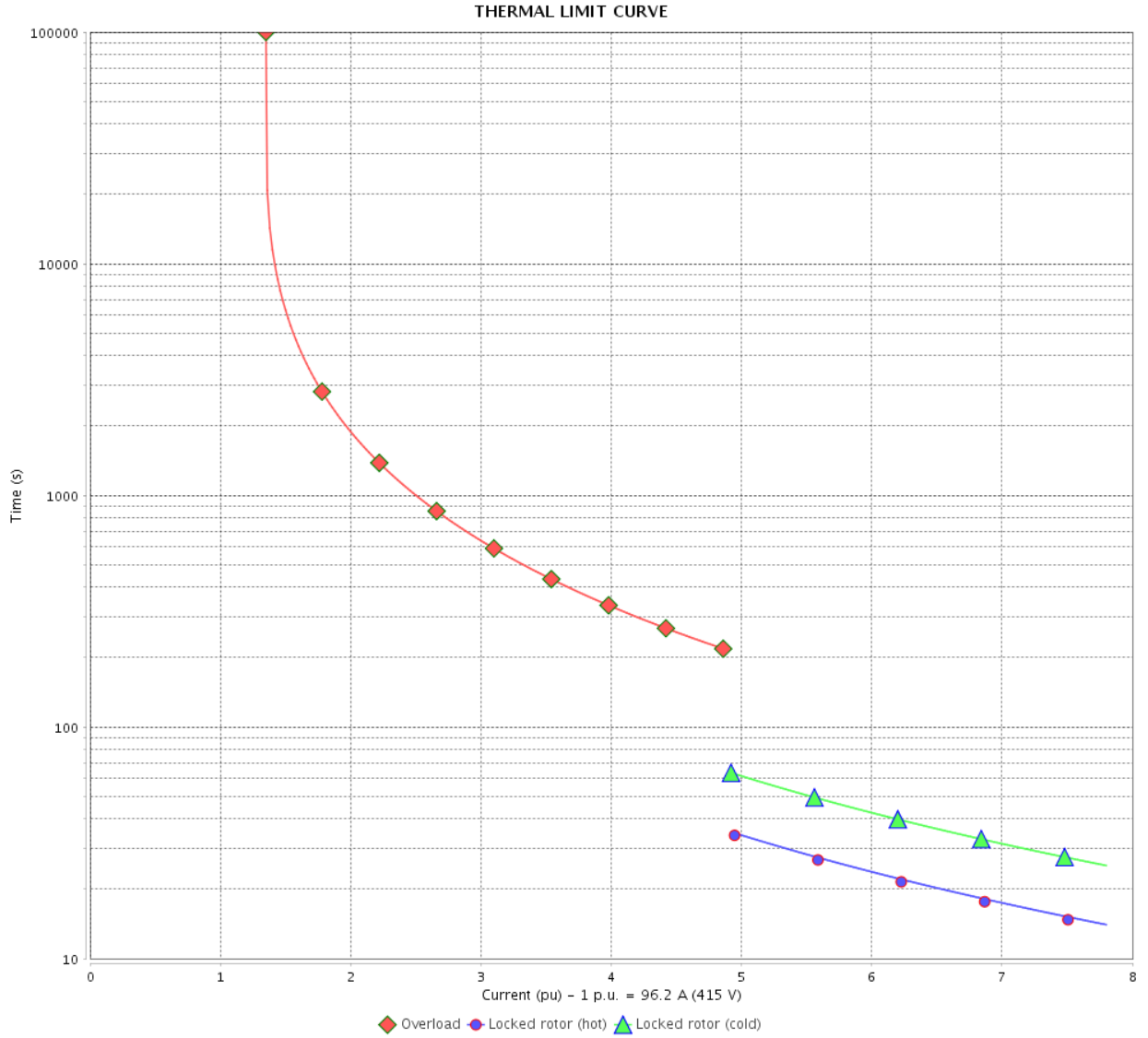
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Three Phase Induction Motor - Squirrel Cage



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



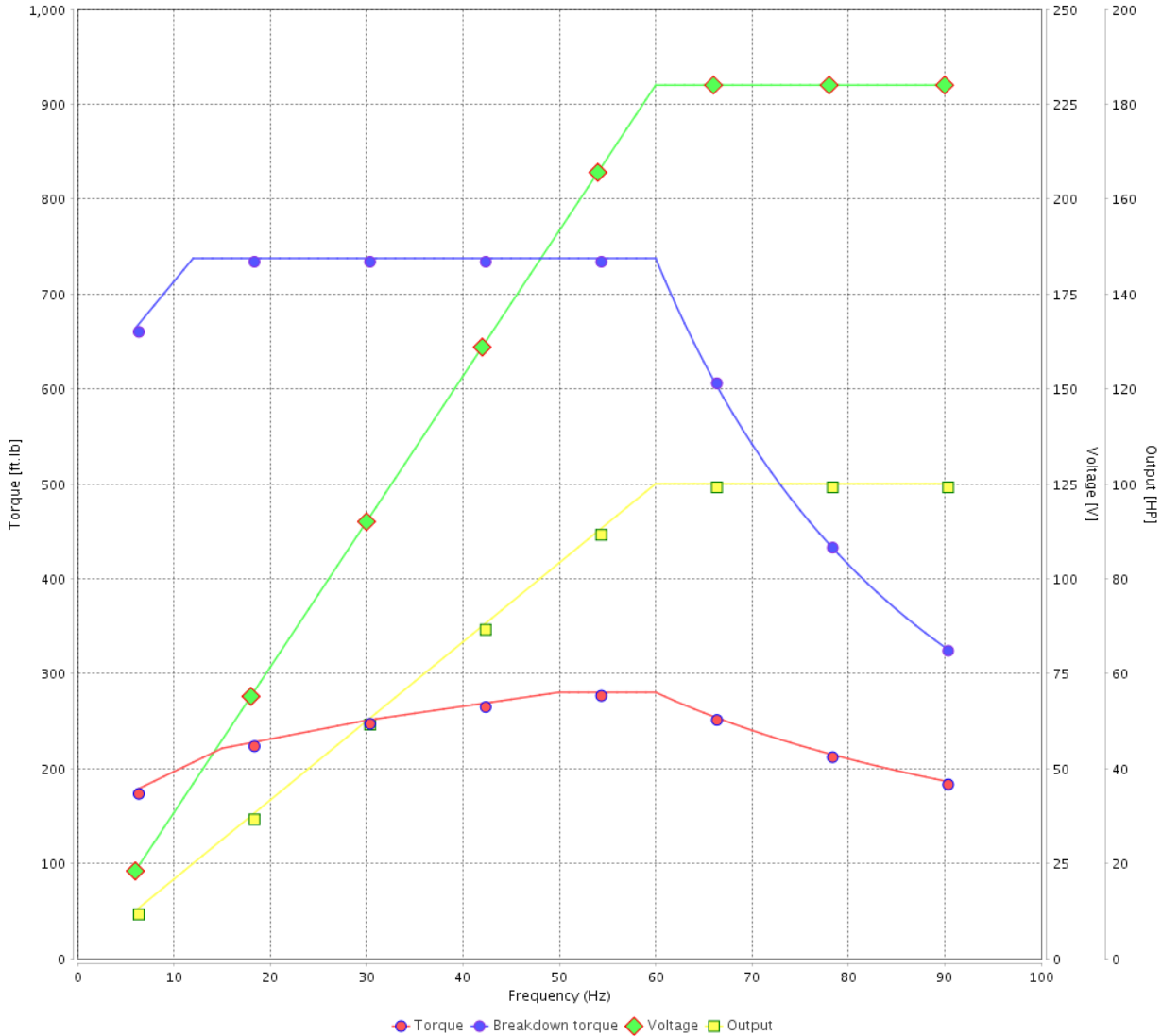
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Catalog # : 10018OT3E404JPV-W40

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

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

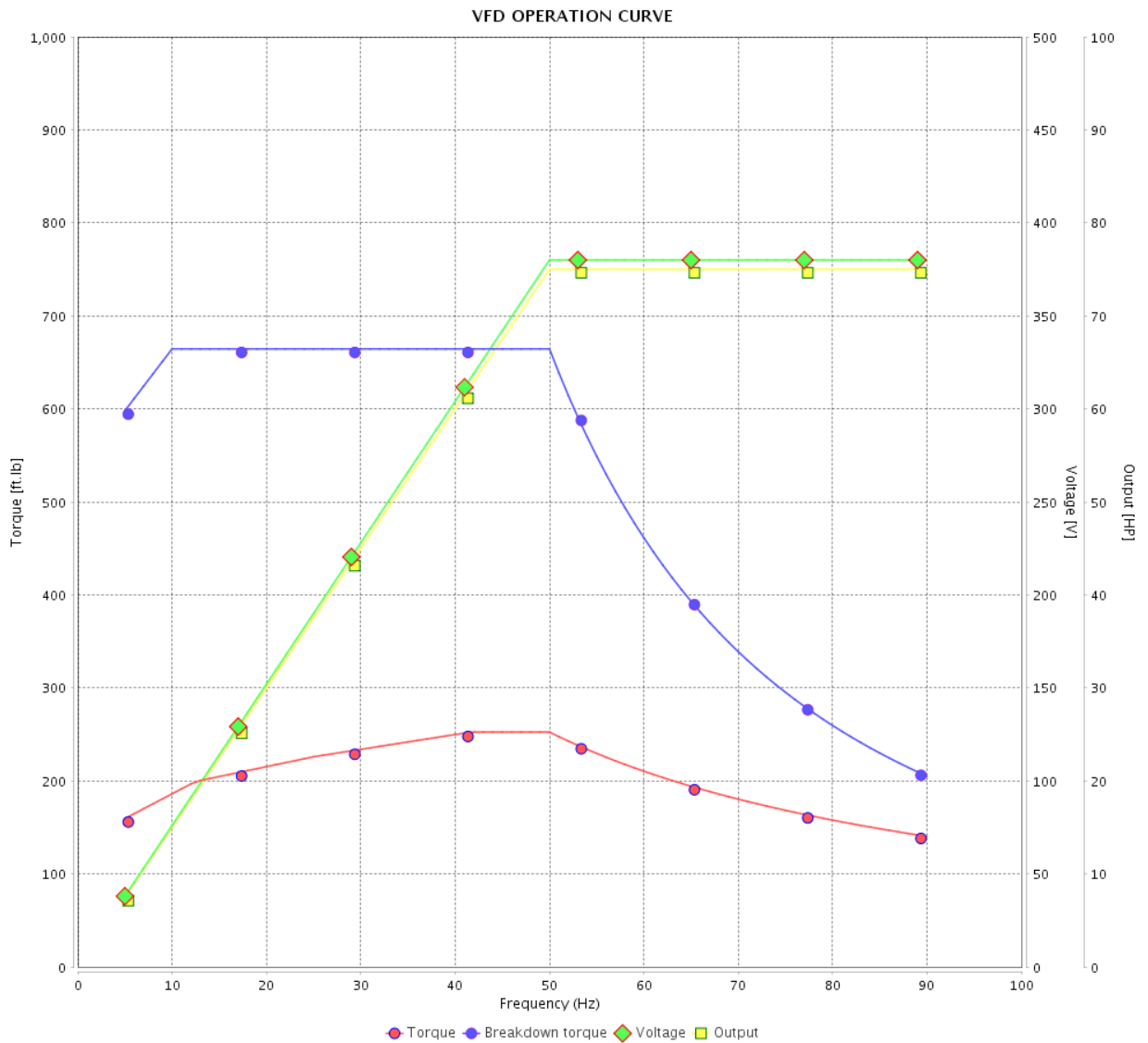


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Product code : 14836587

Catalog # : 10018OT3E404JPV-W40



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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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

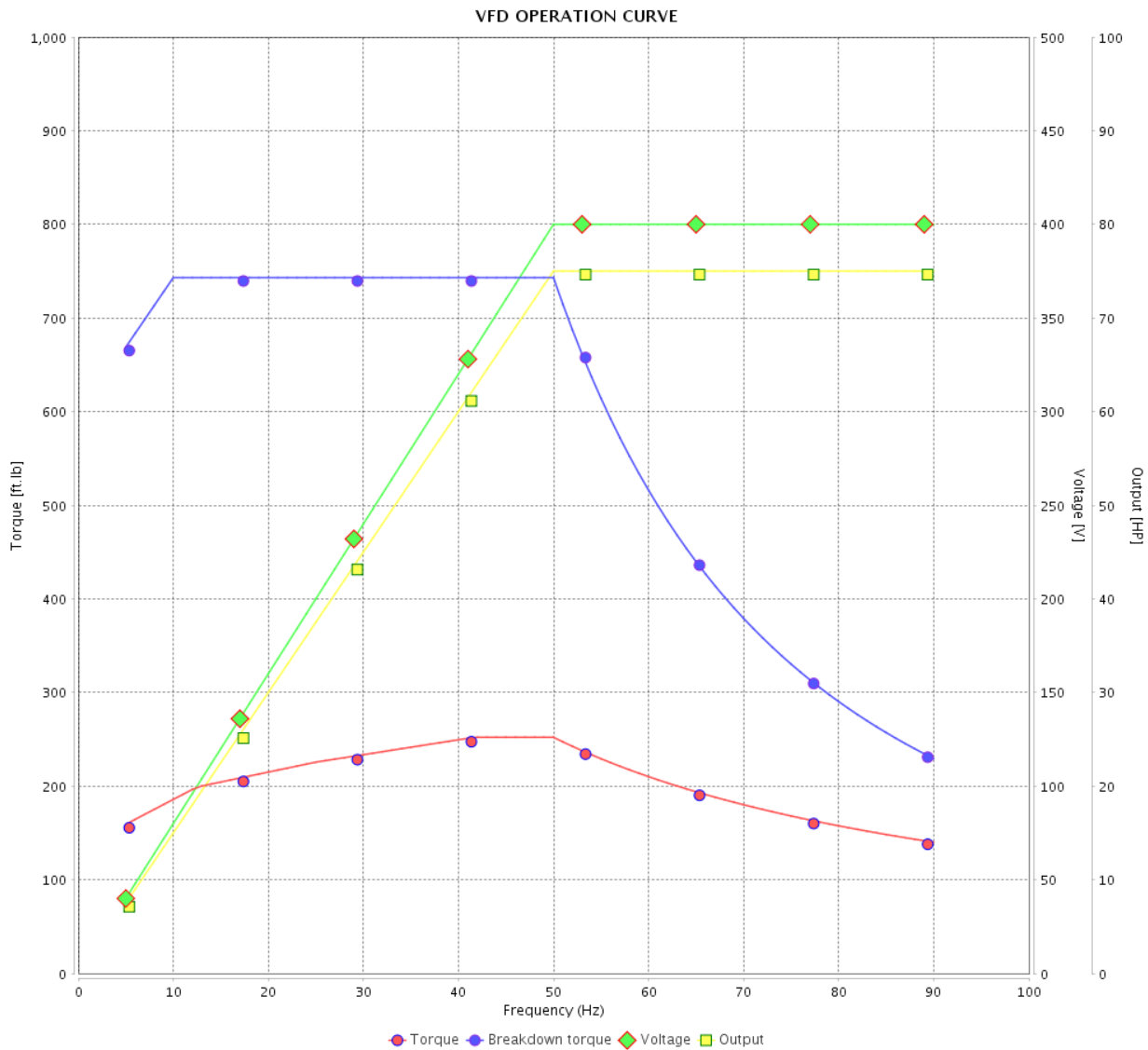


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LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 265 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1484 rpm	Design	: B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

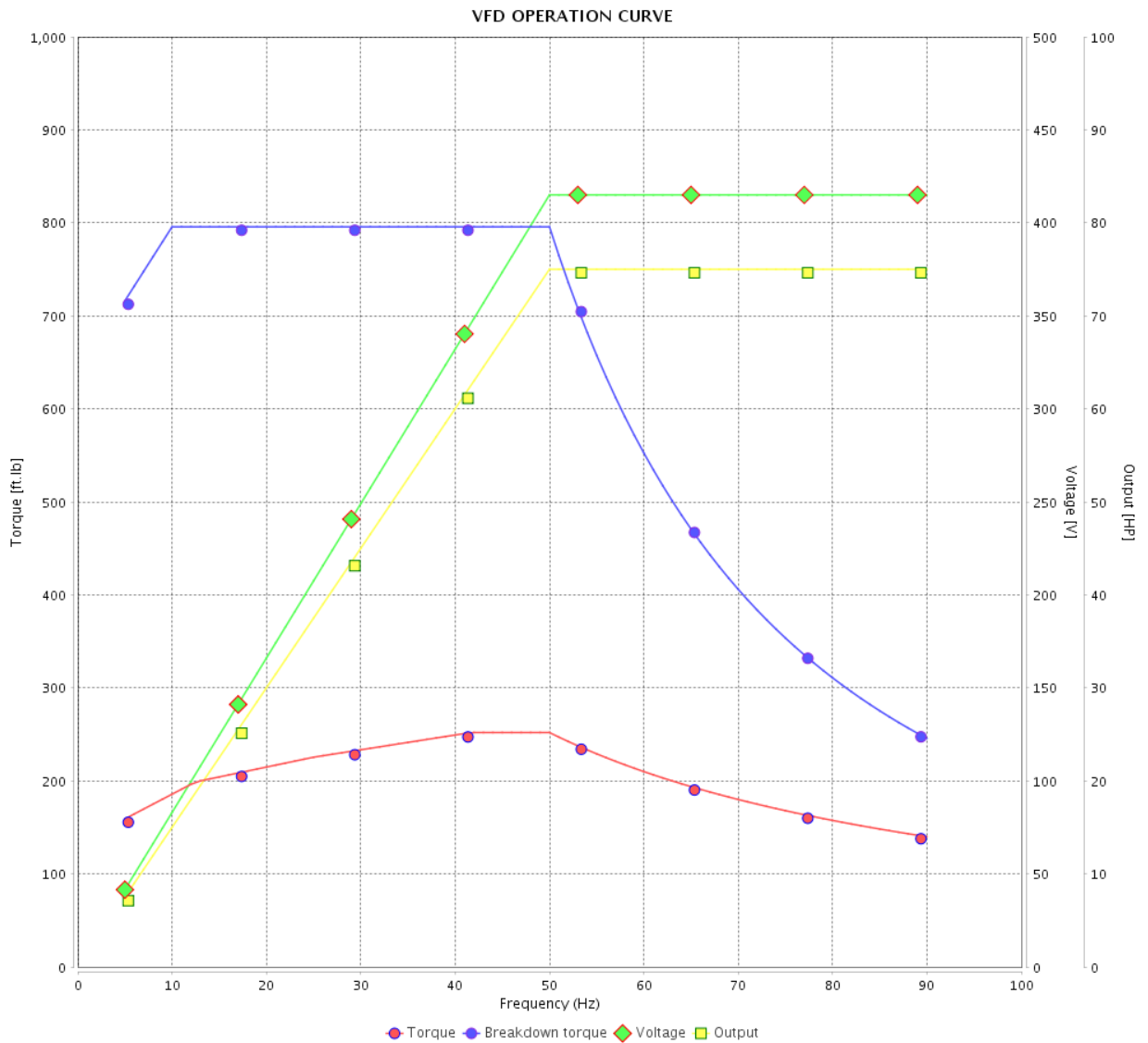


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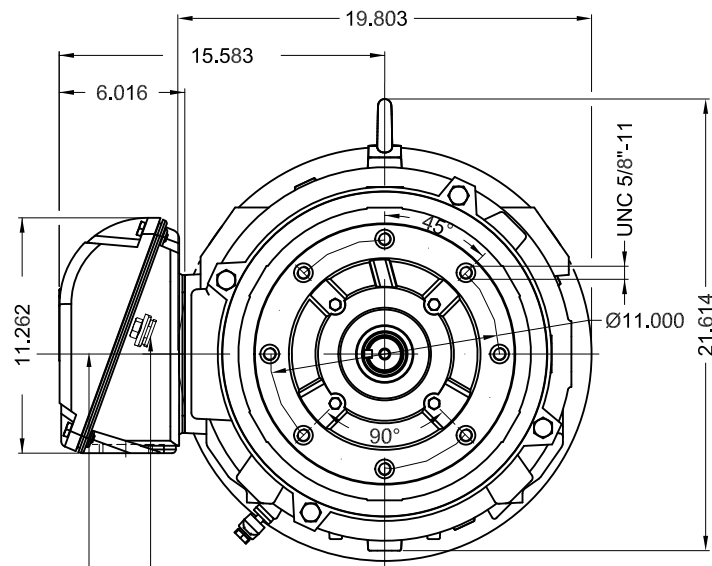


Performance : 415 V 50 Hz 4P IE3

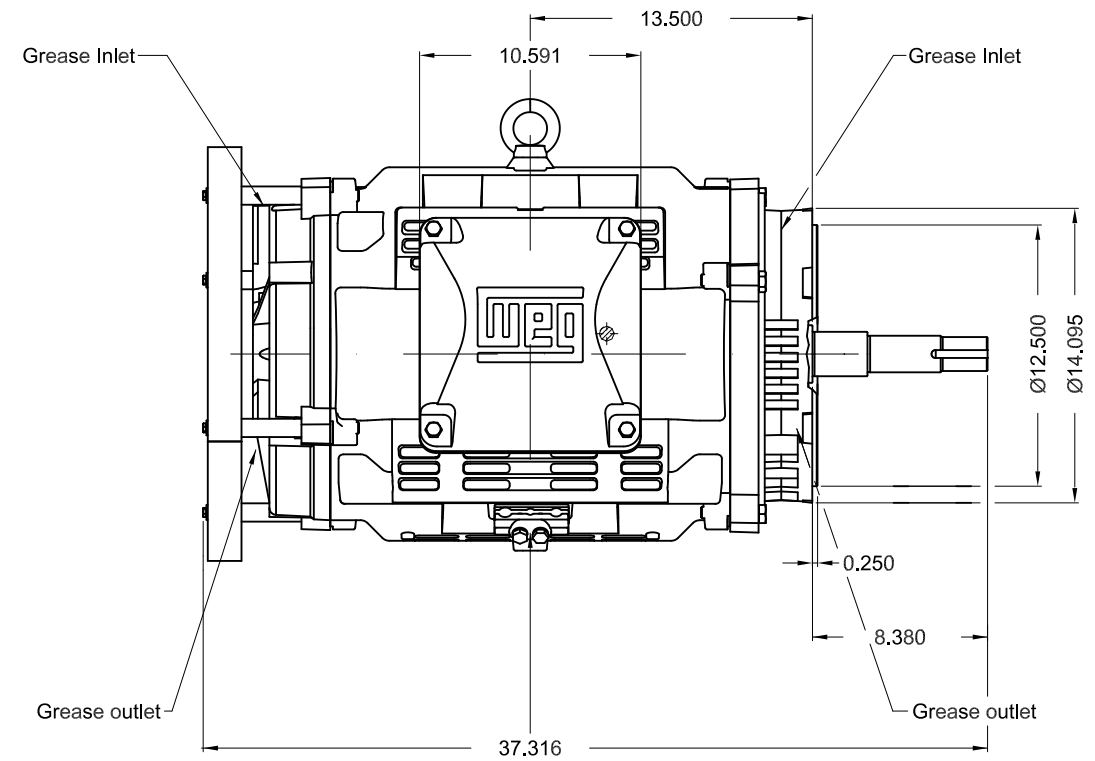
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 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

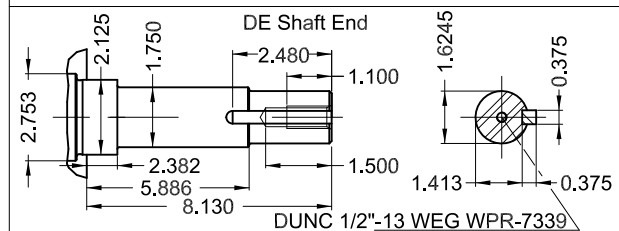
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Grounding for leads 35-70 mm² / 1-2/0 AWG
Main terminal box
NPT 3"



Grounding for leads 25-185 mm² / 3AWG-350MCM



100 HP 04 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 100 HP					
CHECKED		FRAME 404/5JP IP23 ODP					
RELEASED							
REL DT.		WMO Jaragua do Sul					

Color RAL 5009
Painting plan 203A
Mounting NEMA W-6
Mounting V18

PREVIEW
WDD



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