

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase      Product code : 14836783  
Catalog # : 04018OT3E324JPV-W40

Frame : 324/6JP	Cooling method : IC01 - ODP
Insulation class : F	Mounting : W-6
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> : 465 lb
Protection degree : IP23	Moment of inertia (J) : 5.69 sq.ft.lb
Design : B	

Output [HP]	40	30	30	30
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	95.2/47.6	43.3	42.2	41.7
L. R. Amperes [A]	590/295	290	283	313
LRC [A]	6.2x(Code G)	6.7x(Code H)	6.7x(Code H)	7.5x(Code J)
No load current [A]	37.0/18.5	18.3	20.3	22.1
Rated speed [RPM]	1775	1475	1480	1480
Slip [%]	1.39	1.67	1.33	1.33
Rated torque [ft.lb]	118	107	106	106
Locked rotor torque [%]	200	229	260	280
Breakdown torque [%]	240	270	300	330
Service factor	1.25	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	23s (cold) 13s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)	25s (cold) 14s (hot)
Noise level <sup>2</sup>	66.0 dB(A)			
Efficiency (%)	25%	93.5	92.4	92.5
	50%	93.6	92.6	92.6
	75%	94.1	93.0	93.0
	100%	94.1	93.0	93.0
Power Factor	25%	0.44	0.42	0.38
	50%	0.70	0.68	0.63
	75%	0.80	0.78	0.75
	100%	0.84	0.83	0.81

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6312 Z C3	6211 Z C3	Max. traction
Sealing :	Without	Without	Max. compression
	Bearing Seal	Bearing Seal	
Lubrication interval :	20000 h	20000 h	
Lubricant amount :	21 g	11 g	
Lubricant type :	Mobil Polyrex EM		

Notes  
USABLE @208V 105A SF 1.15 SFA 121A

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

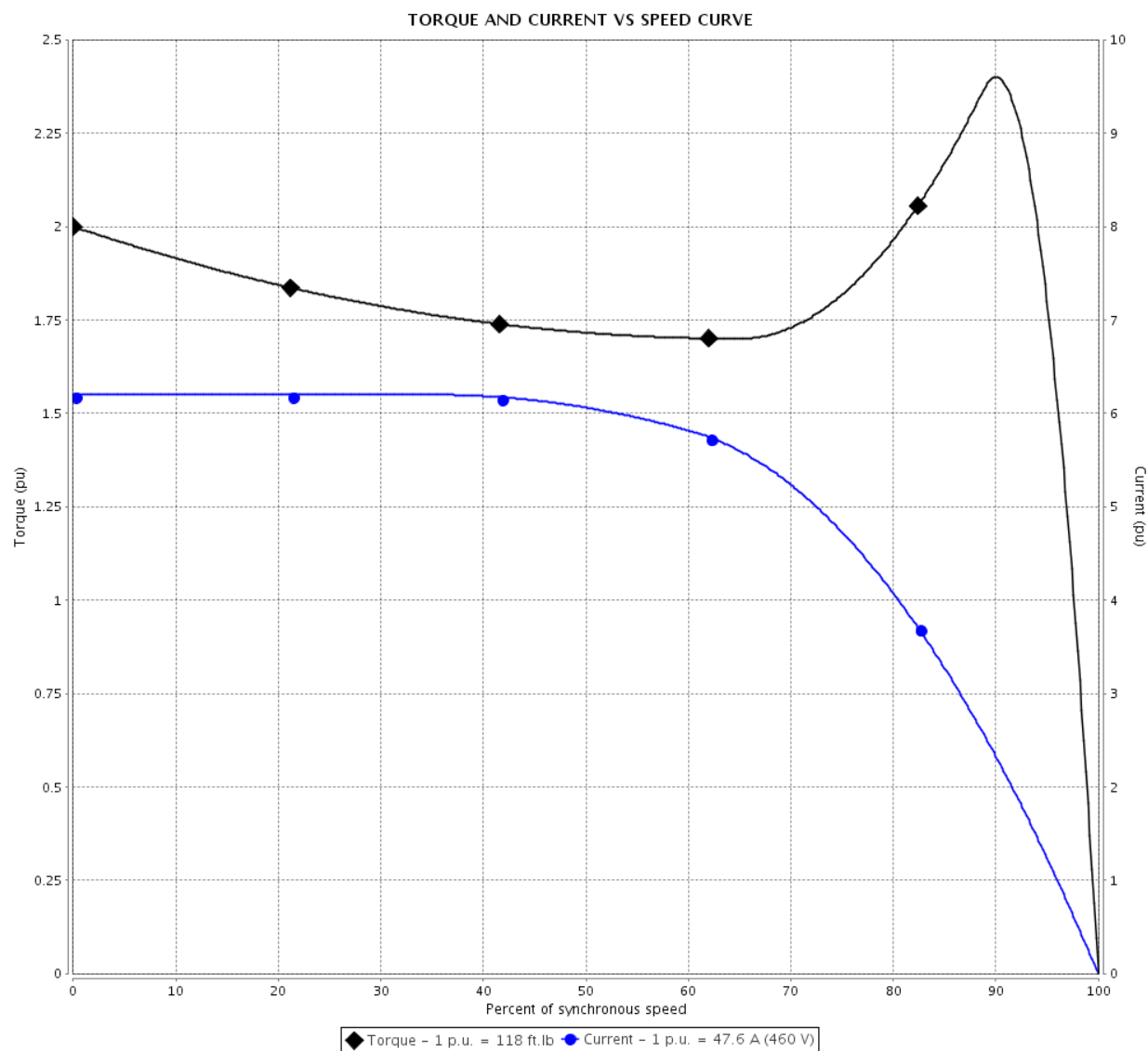


Customer :

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

Product code : 14836783

Catalog # : 04018OT3E324JPV-W40



Performance : 230/460 V 60 Hz 4P

Rated current : 95.2/47.6 A  
 LRC : 6.2  
 Rated torque : 118 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 240 %  
 Rated speed : 1775 rpm

Moment of inertia (J) : 5.69 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

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

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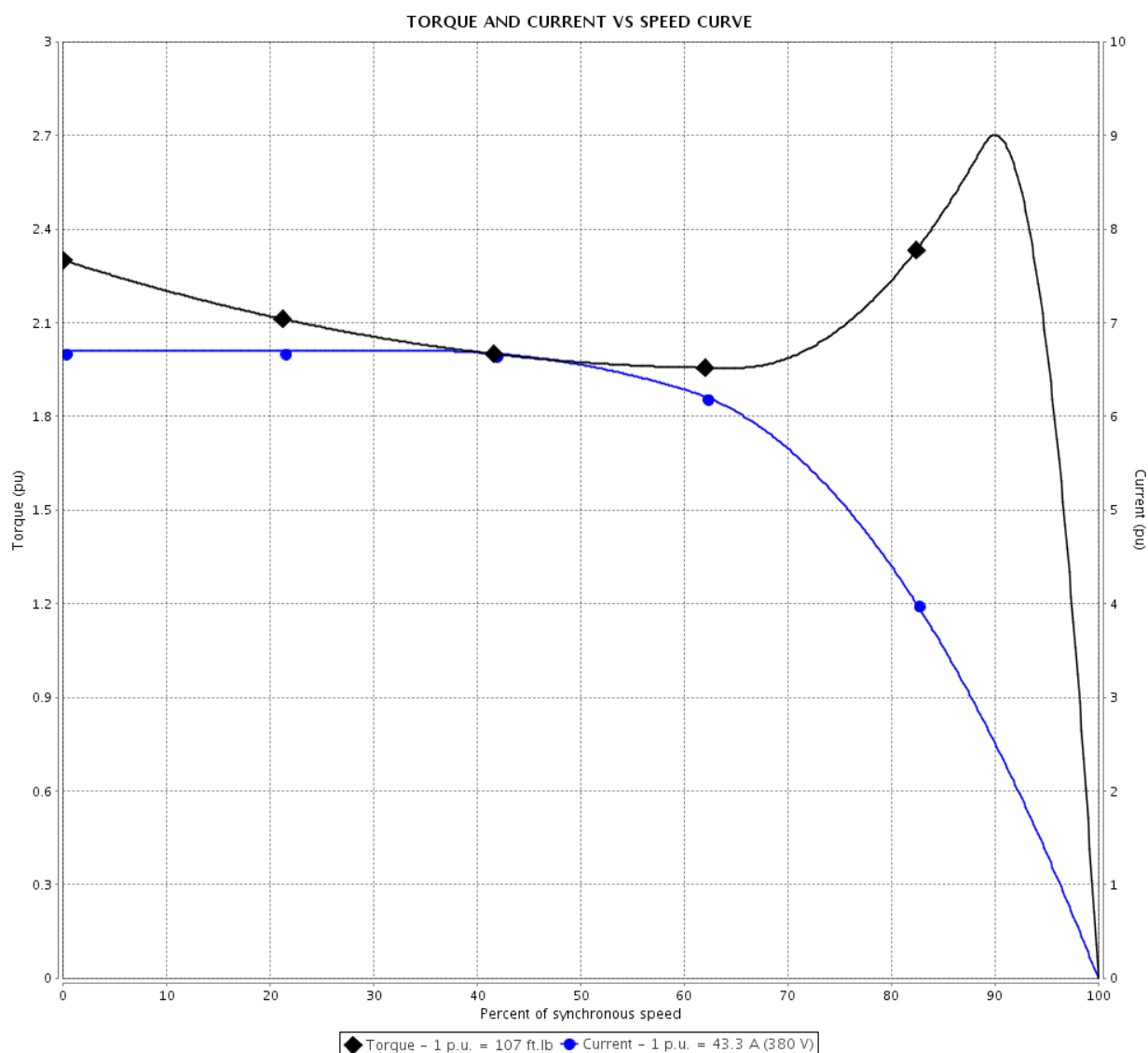


Customer :

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

Product code : 14836783

Catalog # : 04018OT3E324JPV-W40



Performance : 380 V 50 Hz 4P IE3

Rated current	: 43.3 A	Moment of inertia (J)	: 5.69 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 107 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1475 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

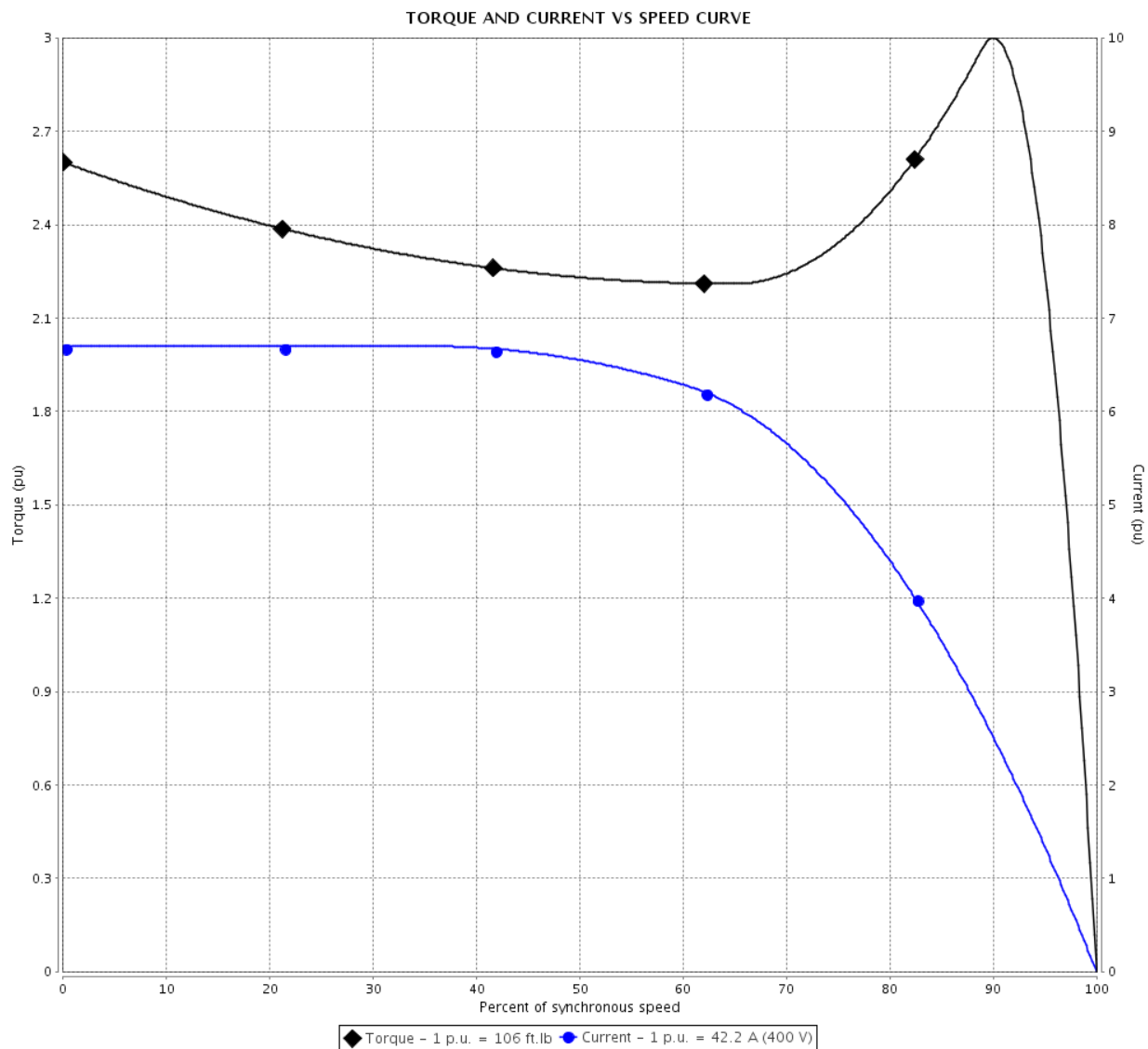


Customer :

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Product code : 14836783

Catalog # : 04018OT3E324JPV-W40



Performance : 400 V 50 Hz 4P IE3

Rated current	: 42.2 A	Moment of inertia (J)	: 5.69 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 106 ft.lb	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

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

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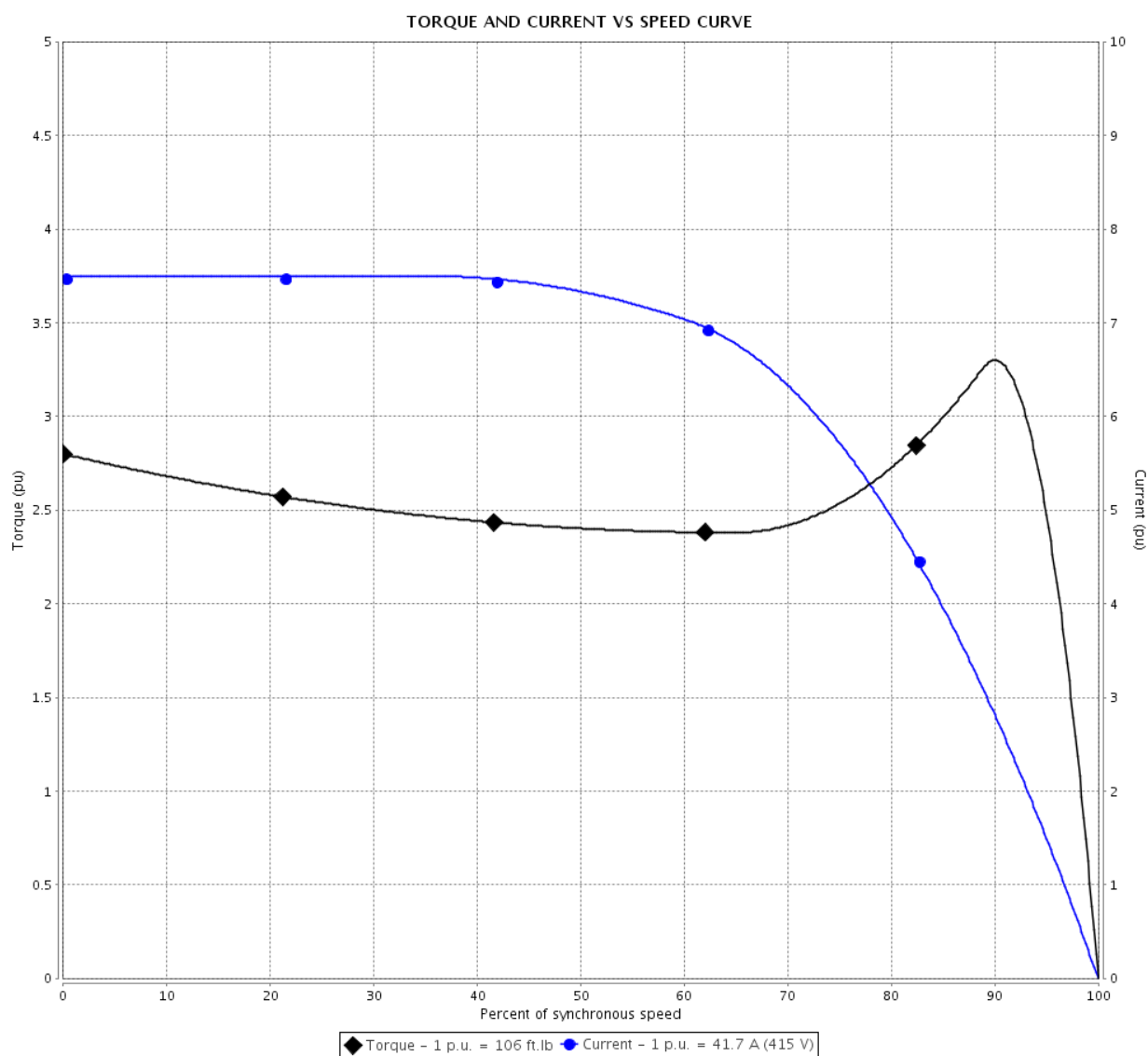


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Product code : 14836783

Catalog # : 04018OT3E324JPV-W40



Performance : 415 V 50 Hz 4P IE3

Rated current	: 41.7 A	Moment of inertia (J)	: 5.69 sq.ft.lb
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 106 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

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

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# LOAD PERFORMANCE CURVE

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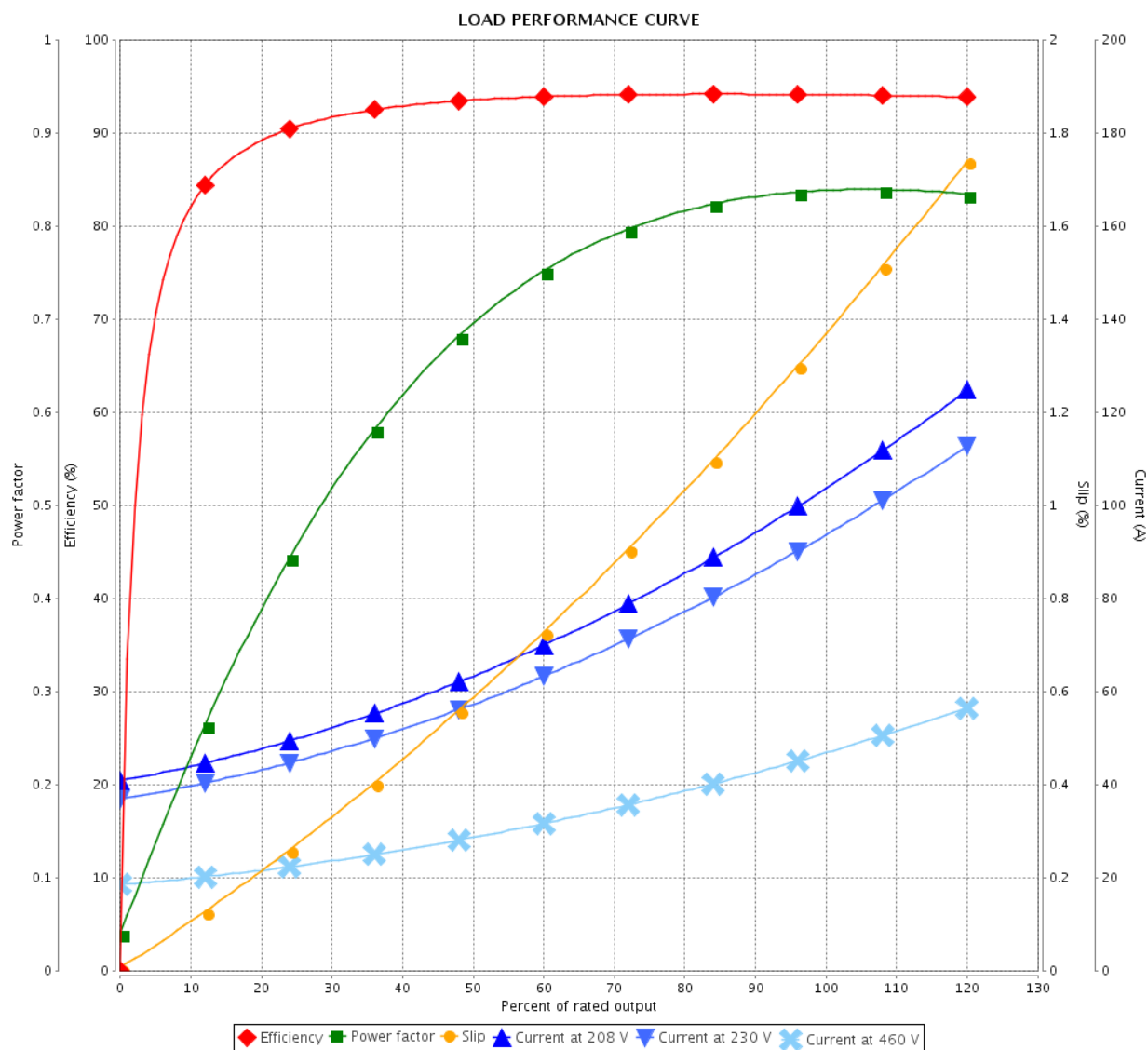


Customer :

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

Product code : 14836783

Catalog # : 04018OT3E324JPV-W40



Performance : 230/460 V 60 Hz 4P

Rated current : 95.2/47.6 A  
LRC : 6.2  
Rated torque : 118 ft.lb  
Locked rotor torque : 200 %  
Breakdown torque : 240 %  
Rated speed : 1775 rpm

Moment of inertia (J) : 5.69 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

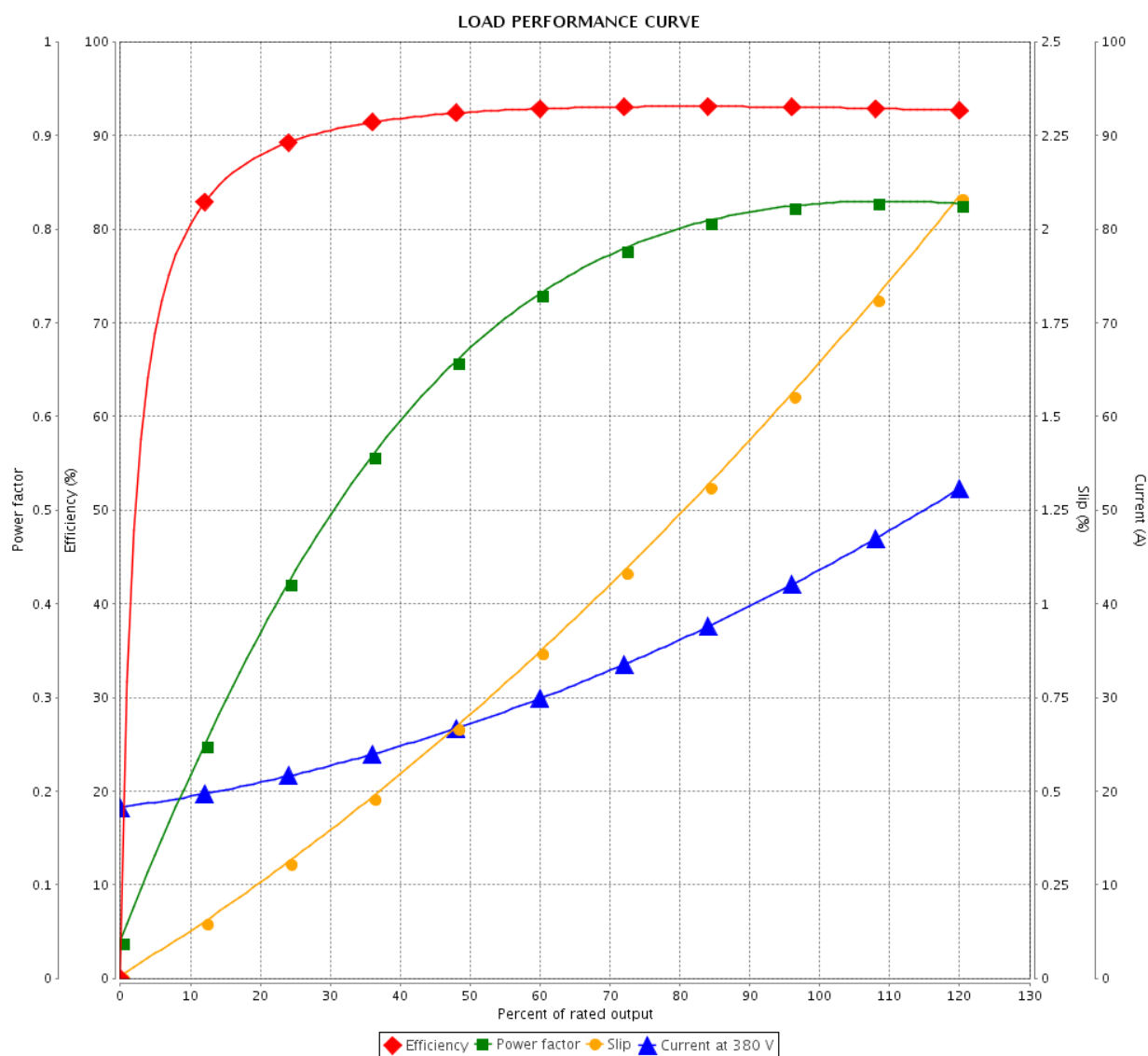


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Catalog # : 04018OT3E324JPV-W40



Performance : 380 V 50 Hz 4P IE3

Rated current : 43.3 A  
LRC : 6.7  
Rated torque : 107 ft.lb  
Locked rotor torque : 229 %  
Breakdown torque : 270 %  
Rated speed : 1475 rpm

Moment of inertia (J) : 5.69 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

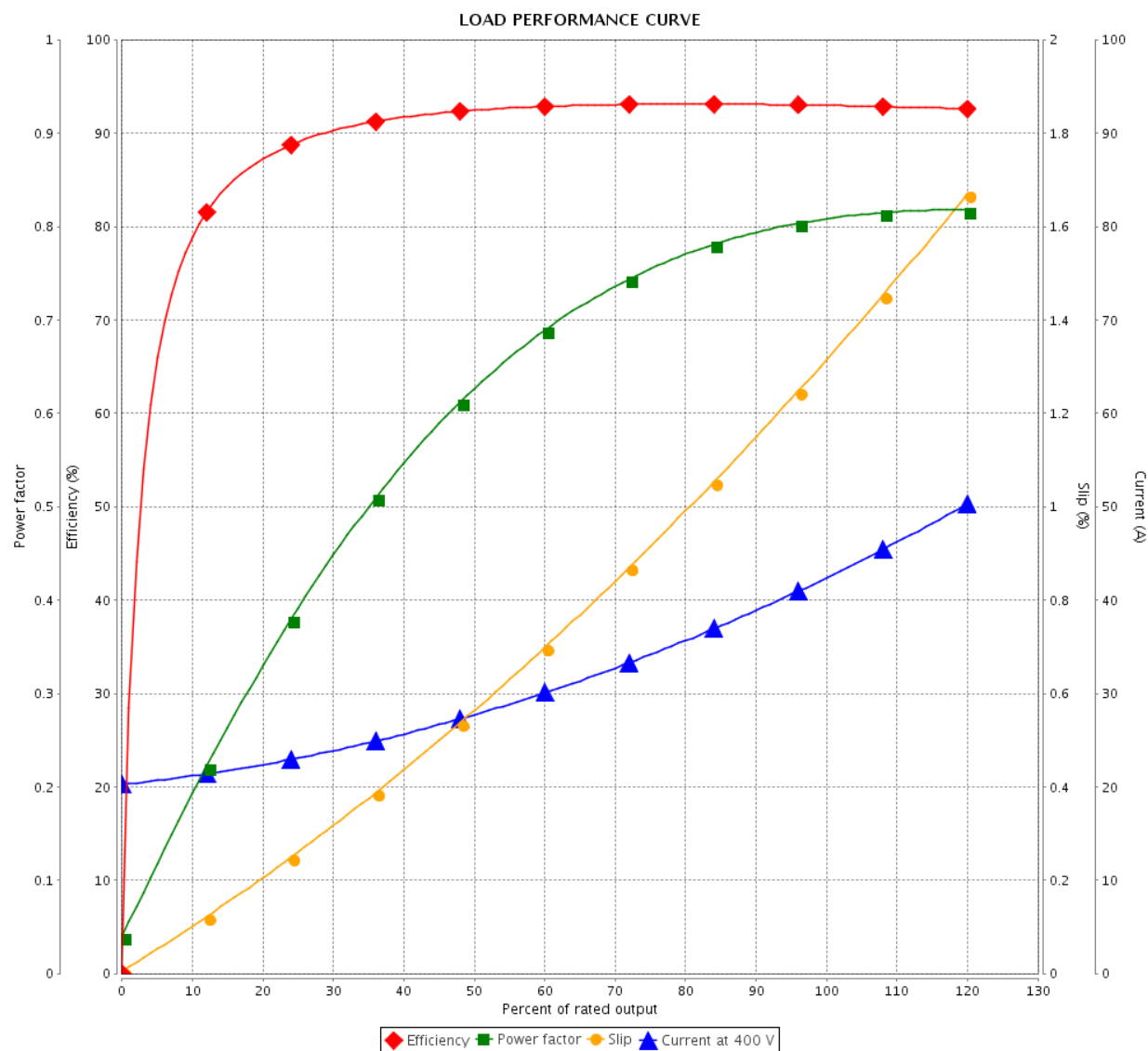


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Catalog # : 04018OT3E324JPV-W40



Performance : 400 V 50 Hz 4P IE3

Rated current : 42.2 A  
LRC : 6.7  
Rated torque : 106 ft.lb  
Locked rotor torque : 260 %  
Breakdown torque : 300 %  
Rated speed : 1480 rpm

Moment of inertia (J) : 5.69 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : B

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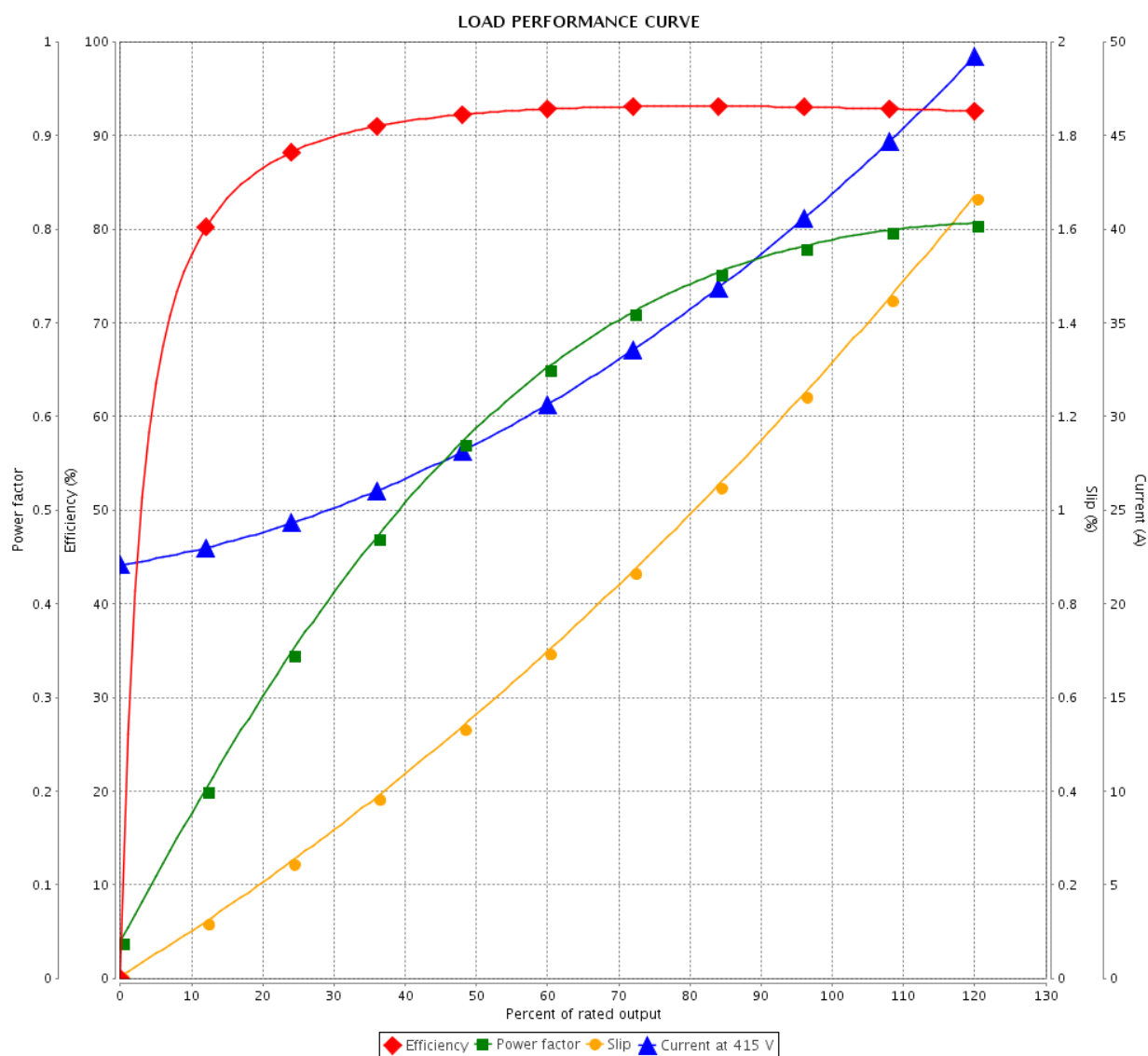


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Catalog # : 04018OT3E324JPV-W40



Performance : 415 V 50 Hz 4P IE3

Rated current : 41.7 A  
LRC : 7.5  
Rated torque : 106 ft.lb  
Locked rotor torque : 280 %  
Breakdown torque : 330 %  
Rated speed : 1480 rpm

Moment of inertia (J) : 5.69 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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Performance : 230/460 V 60 Hz 4P

Rated current : 95.2/47.6 A  
LRC : 6.2  
Rated torque : 118 ft.lb  
Locked rotor torque : 200 %  
Breakdown torque : 240 %  
Rated speed : 1775 rpm

Moment of inertia (J) : 5.69 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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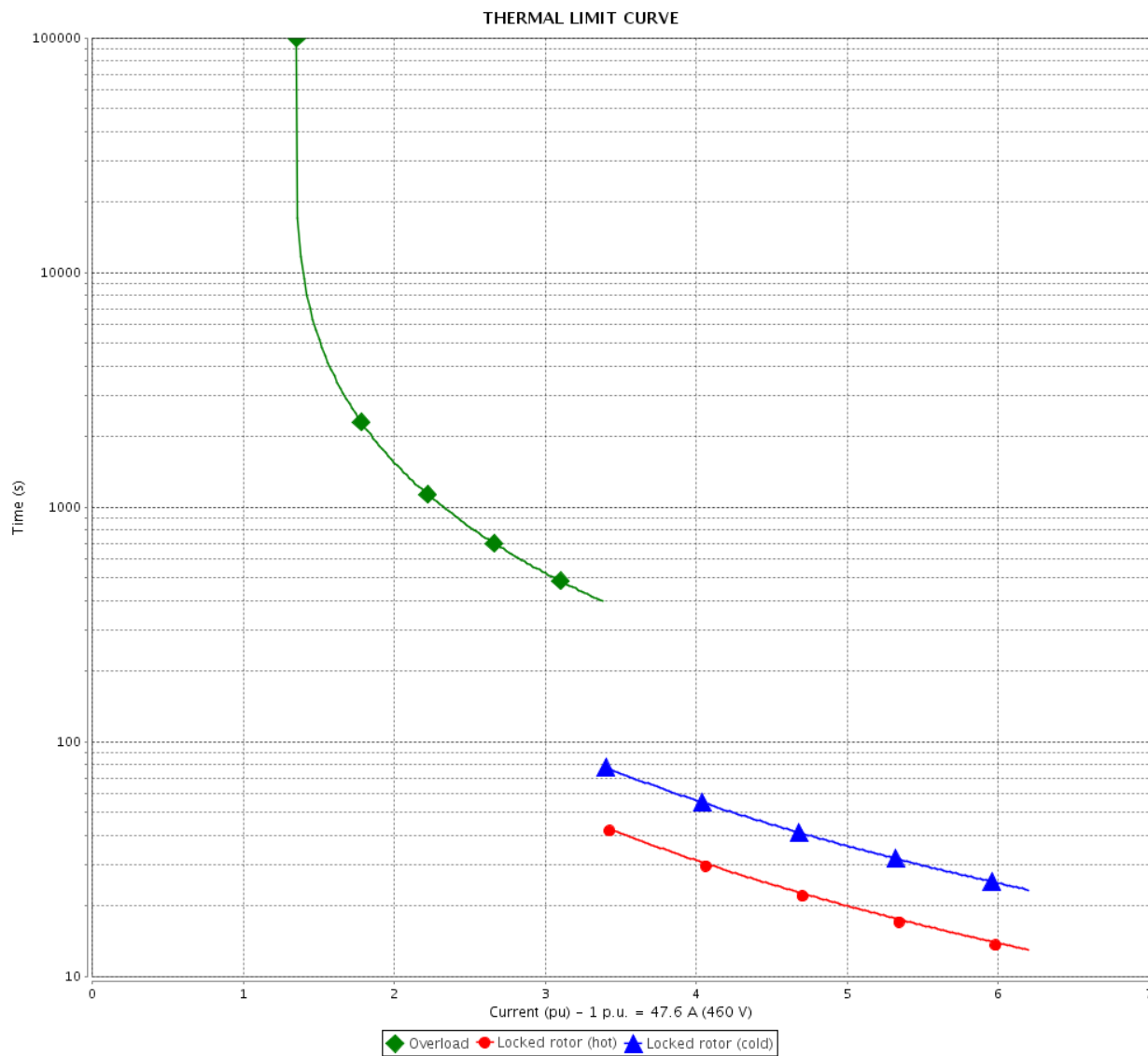
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Performance : 380 V 50 Hz 4P IE3

Rated current

: 43.3 A

LRC

: 6.7

Rated torque

: 107 ft.lb

Locked rotor torque

: 229 %

Breakdown torque

: 270 %

Rated speed

: 1475 rpm

Moment of inertia (J)

: 5.69 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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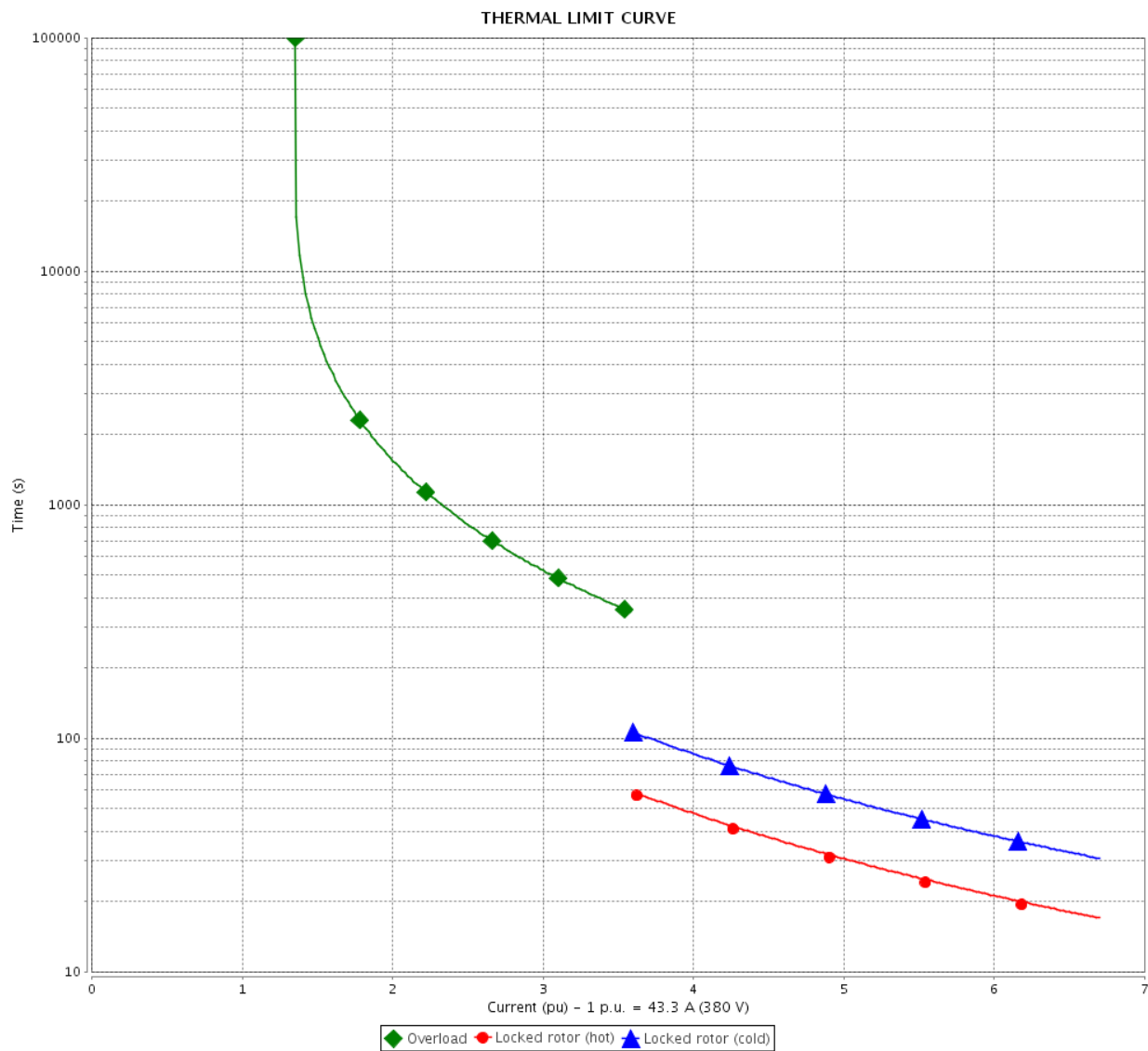
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Catalog # :

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Performance : 400 V 50 Hz 4P IE3

Rated current

: 42.2 A

LRC

: 6.7

Rated torque

: 106 ft.lb

Locked rotor torque

: 260 %

Breakdown torque

: 300 %

Rated speed

: 1480 rpm

Moment of inertia (J)

: 5.69 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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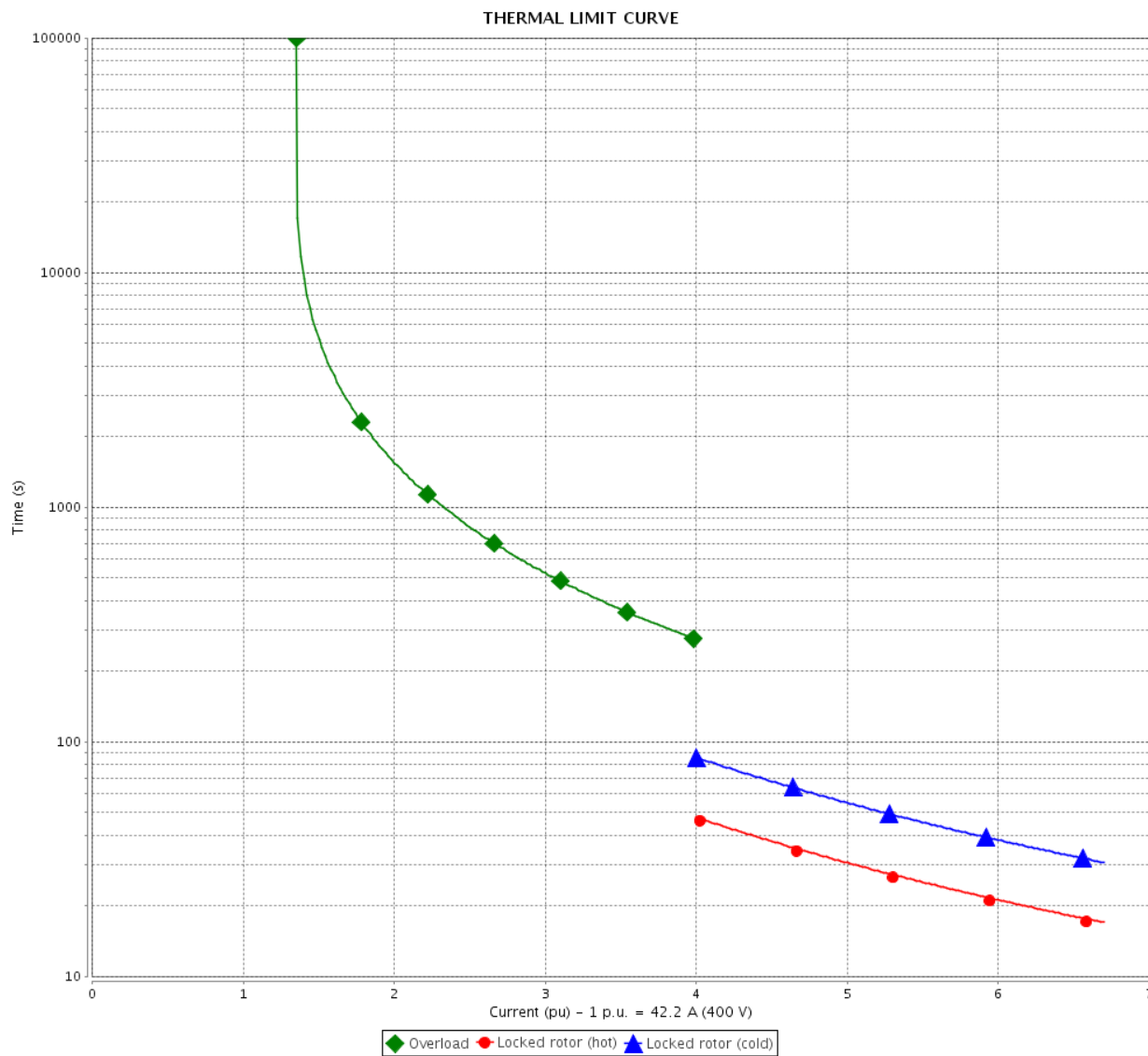
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Product line

: W40 JP Pump NEMA Premium  
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Performance : 415 V 50 Hz 4P IE3

Rated current

: 41.7 A

LRC

: 7.5

Rated torque

: 106 ft.lb

Locked rotor torque

: 280 %

Breakdown torque

: 330 %

Rated speed

: 1480 rpm

Moment of inertia (J)

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Insulation class

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Service factor

: 1.00

Temperature rise

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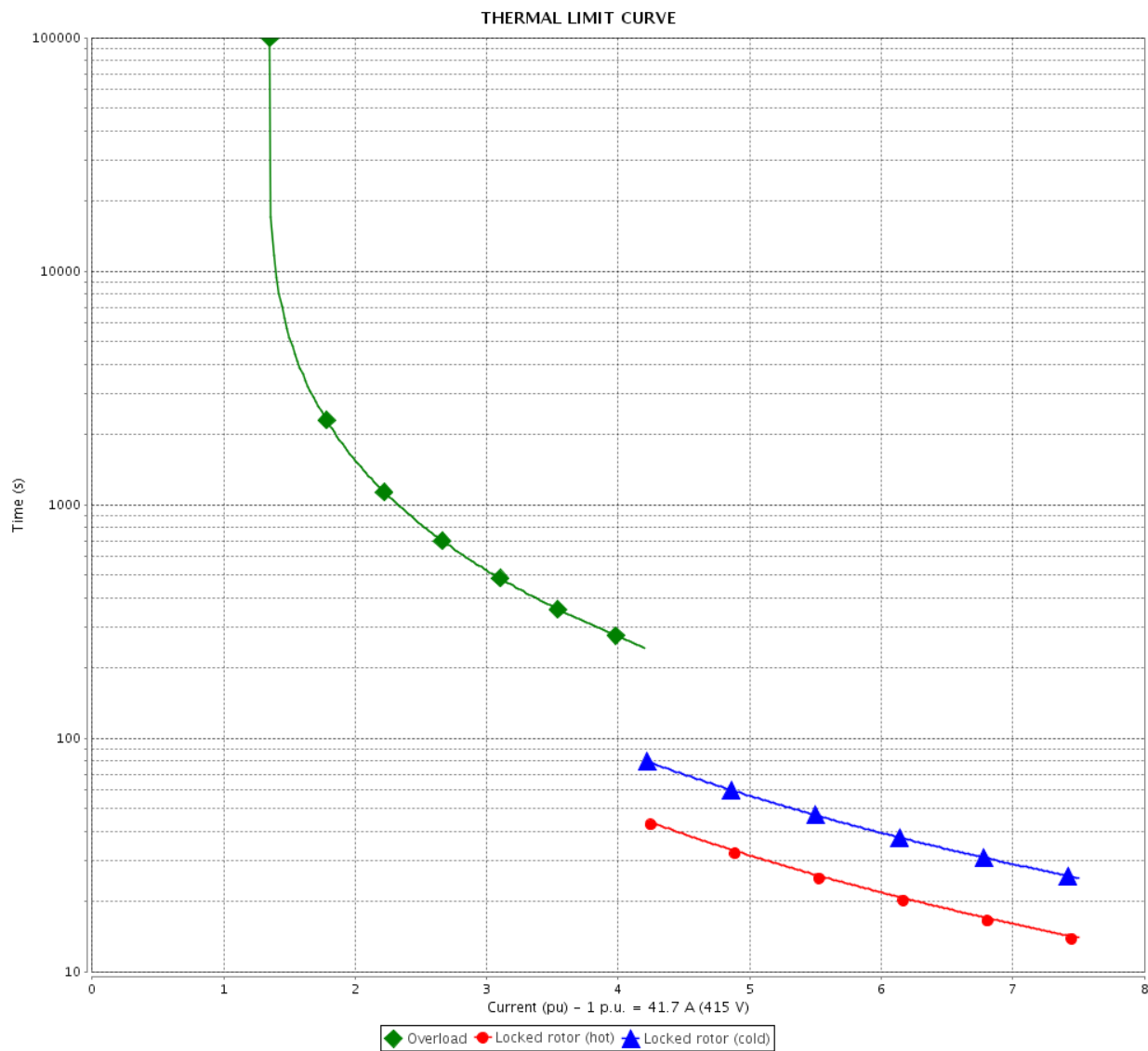


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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

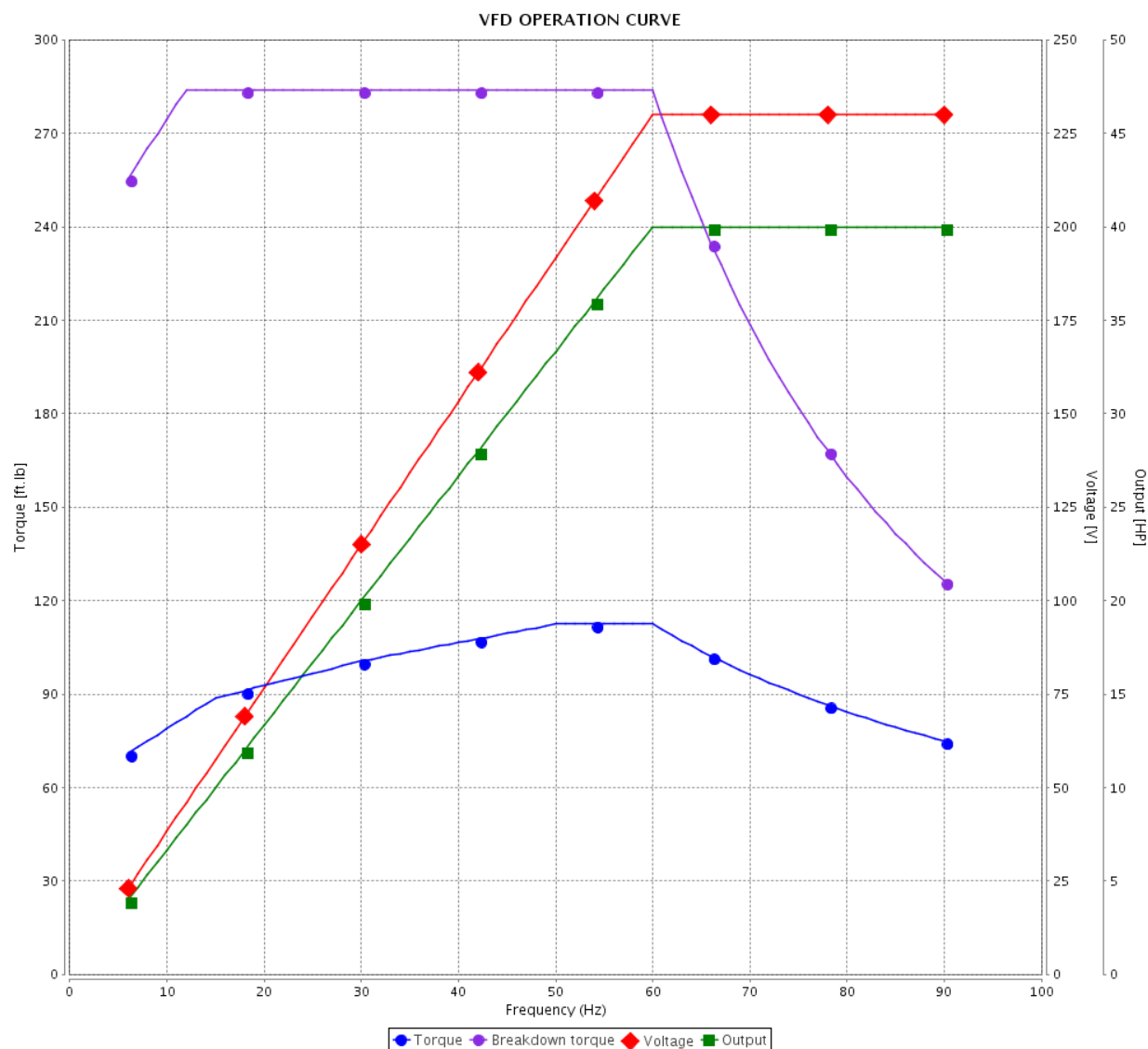


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Performance : 230/460 V 60 Hz 4P

Rated current : 95.2/47.6 A  
LRC : 6.2  
Rated torque : 118 ft.lb  
Locked rotor torque : 200 %  
Breakdown torque : 240 %  
Rated speed : 1775 rpm

Moment of inertia (J) : 5.69 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

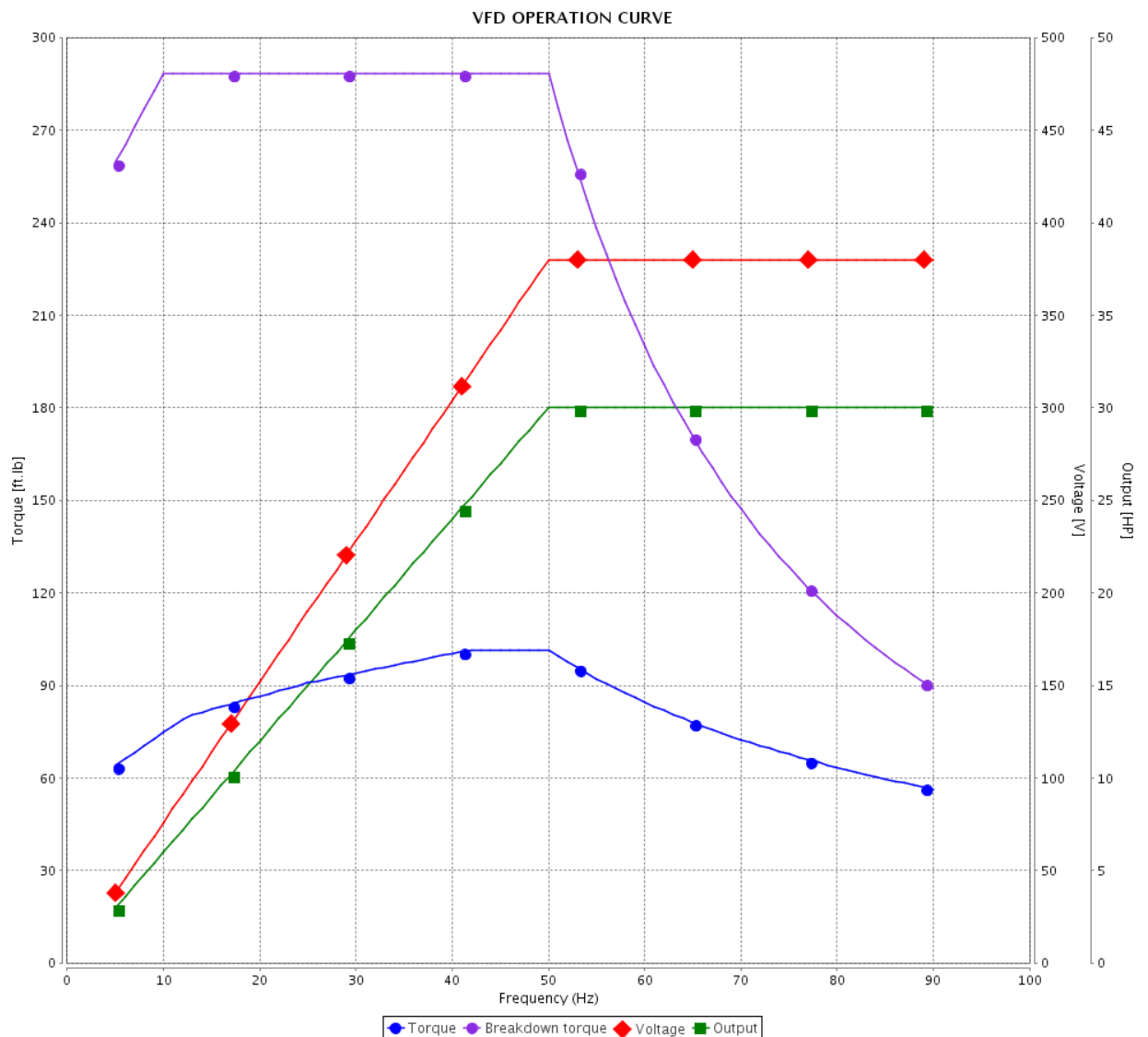


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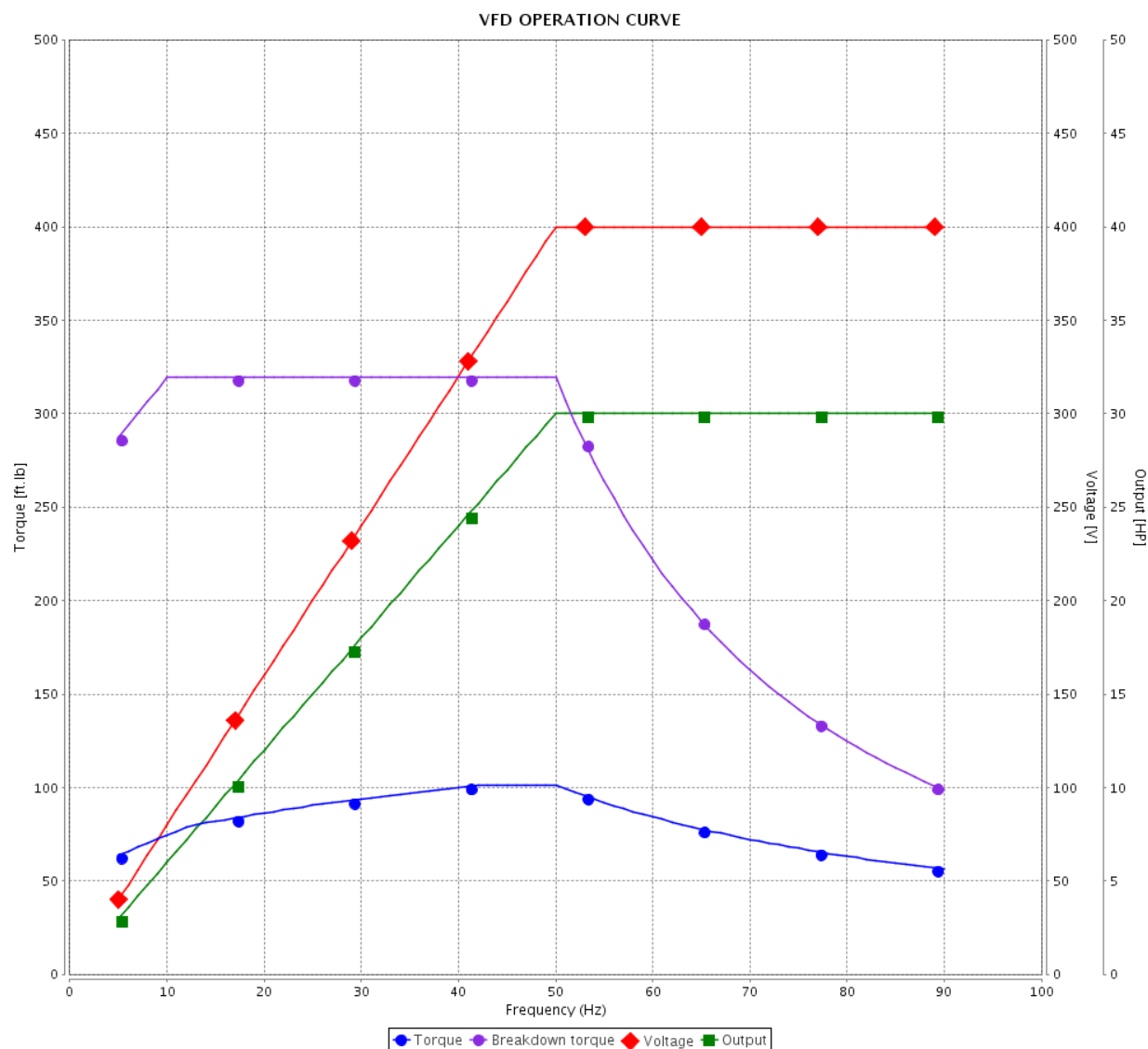


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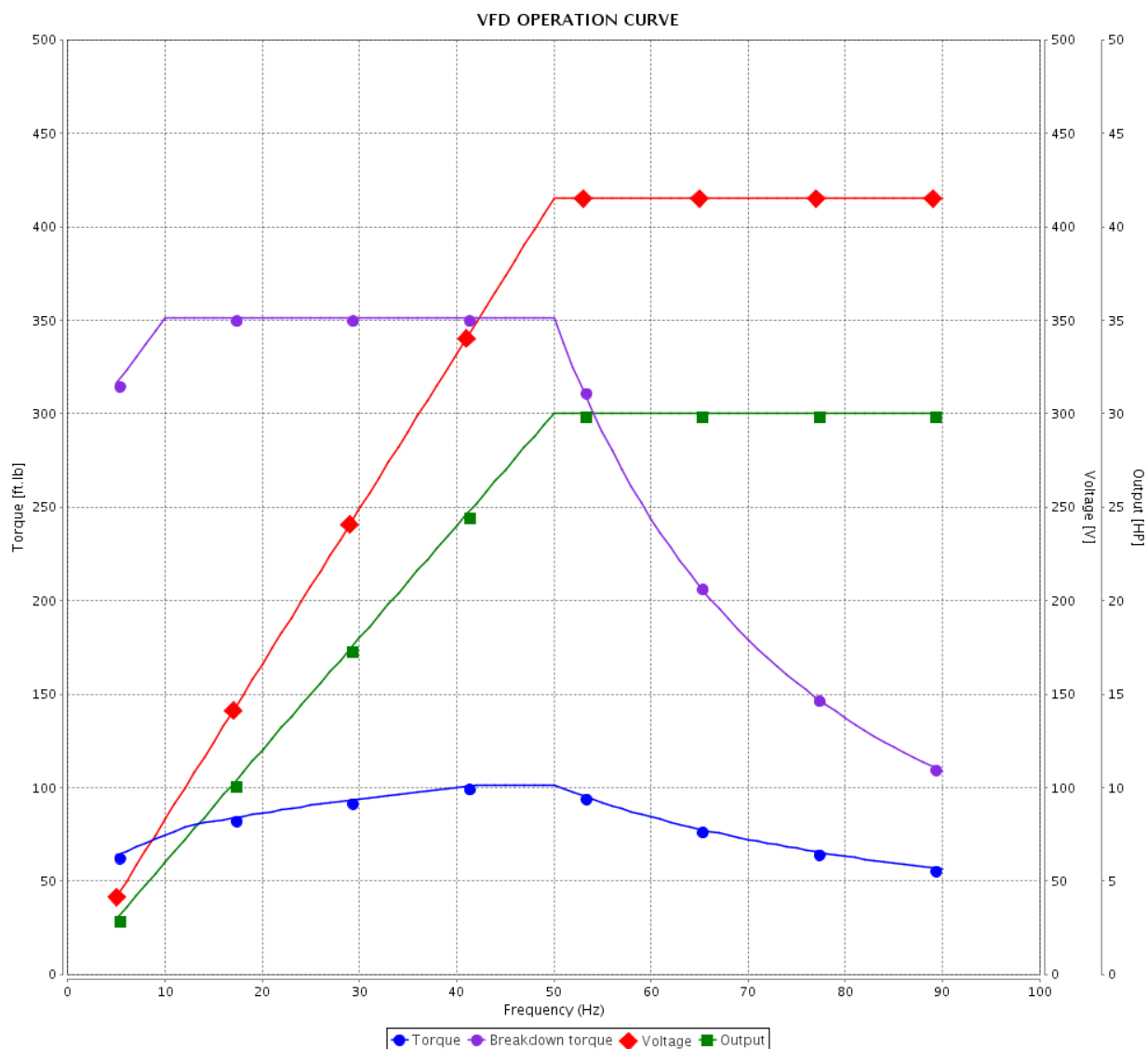


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