

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase Product code : 14486860
Catalog # : 03018OT3E286JP-W40

Frame : 284/6JP	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 : 415 lb
Protection degree : IP23	Moment of inertia (J) : 4.52 sq.ft.lb
Design : B	

Output [HP]	30	25	25	25
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	69.8/34.9	35.7	34.7	34.3
L. R. Amperes [A]	461/230	246	250	244
LRC [A]	6.6x(Code G)	6.9x(Code H)	7.2x(Code H)	7.1x(Code H)
No load current [A]	29.0/14.5	14.3	15.4	16.2
Rated speed [RPM]	1770	1465	1470	1470
Slip [%]	1.67	2.33	2.00	2.00
Rated torque [ft.lb]	89.0	89.6	89.3	89.3
Locked rotor torque [%]	280	240	270	280
Breakdown torque [%]	280	260	300	300
Service factor	1.25	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	32s (cold) 18s (hot)	28s (cold) 16s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)
Noise level ²	64.0 dB(A)			
Efficiency (%)	25%	93.4	92.0	92.0
	50%	93.6	92.2	92.2
	75%	94.1	92.6	92.6
	100%	94.1	92.6	92.6
Power Factor	25%	0.44	0.44	0.38
	50%	0.70	0.70	0.63
	75%	0.80	0.80	0.75
	100%	0.84	0.85	0.81

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6311 Z C3	6211 Z C3	Max. traction
Sealing :	Without	Without	Max. compression
	Bearing Seal	Bearing Seal	
Lubrication interval :	20000 h	20000 h	
Lubricant amount :	18 g	11 g	
Lubricant type :	Mobil Polyrex EM		

Notes
USABLE @208V 77.2A SF 1.15 SFA 88.8A

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

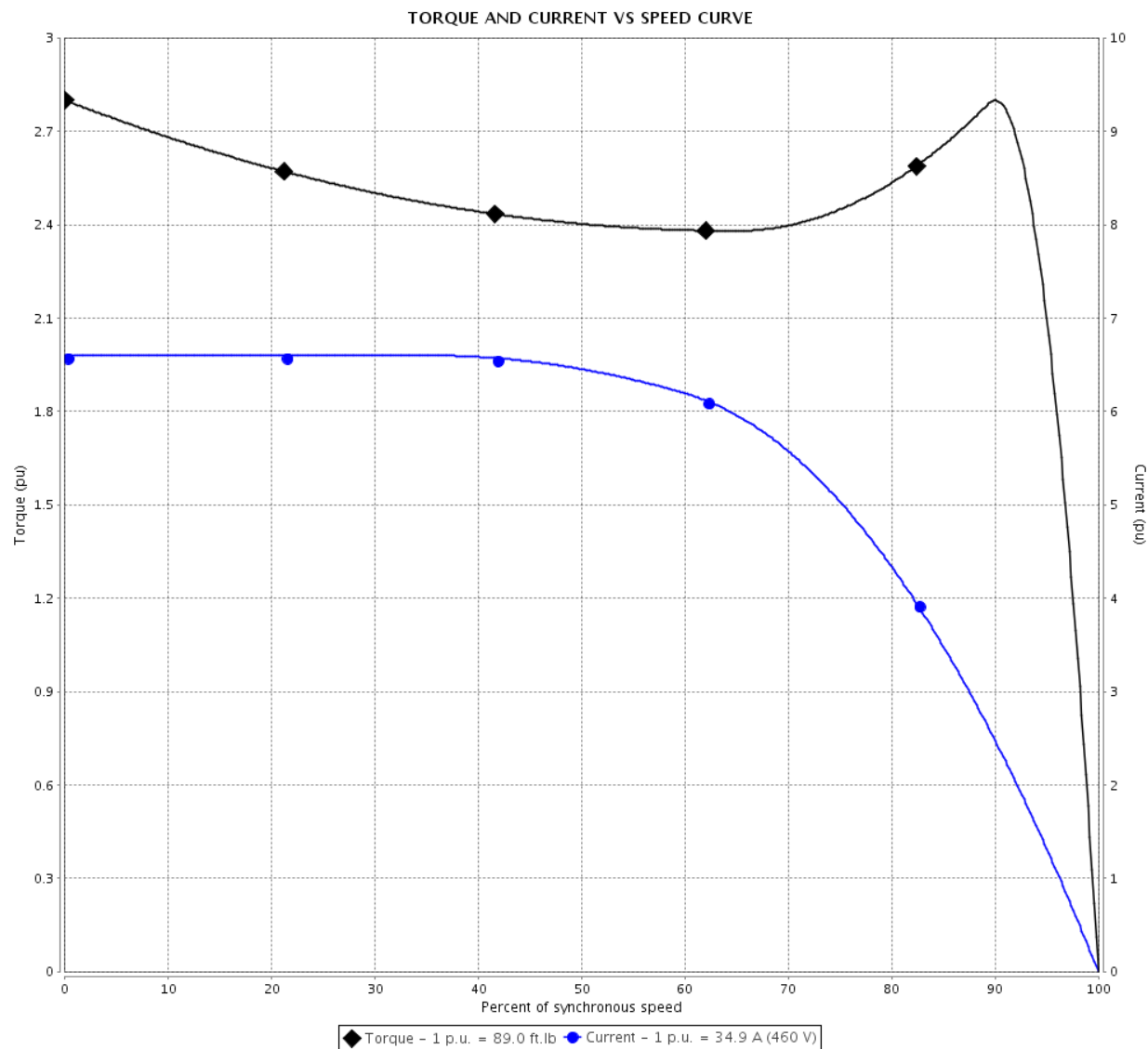


Customer :

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

Product code : 14486860

Catalog # : 03018OT3E286JP-W40



Performance : 230/460 V 60 Hz 4P

Rated current : 69.8/34.9 A
LRC : 6.6
Rated torque : 89.0 ft.lb
Locked rotor torque : 280 %
Breakdown torque : 280 %
Rated speed : 1770 rpm

Moment of inertia (J) : 4.52 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Locked rotor time : 32s (cold) 18s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

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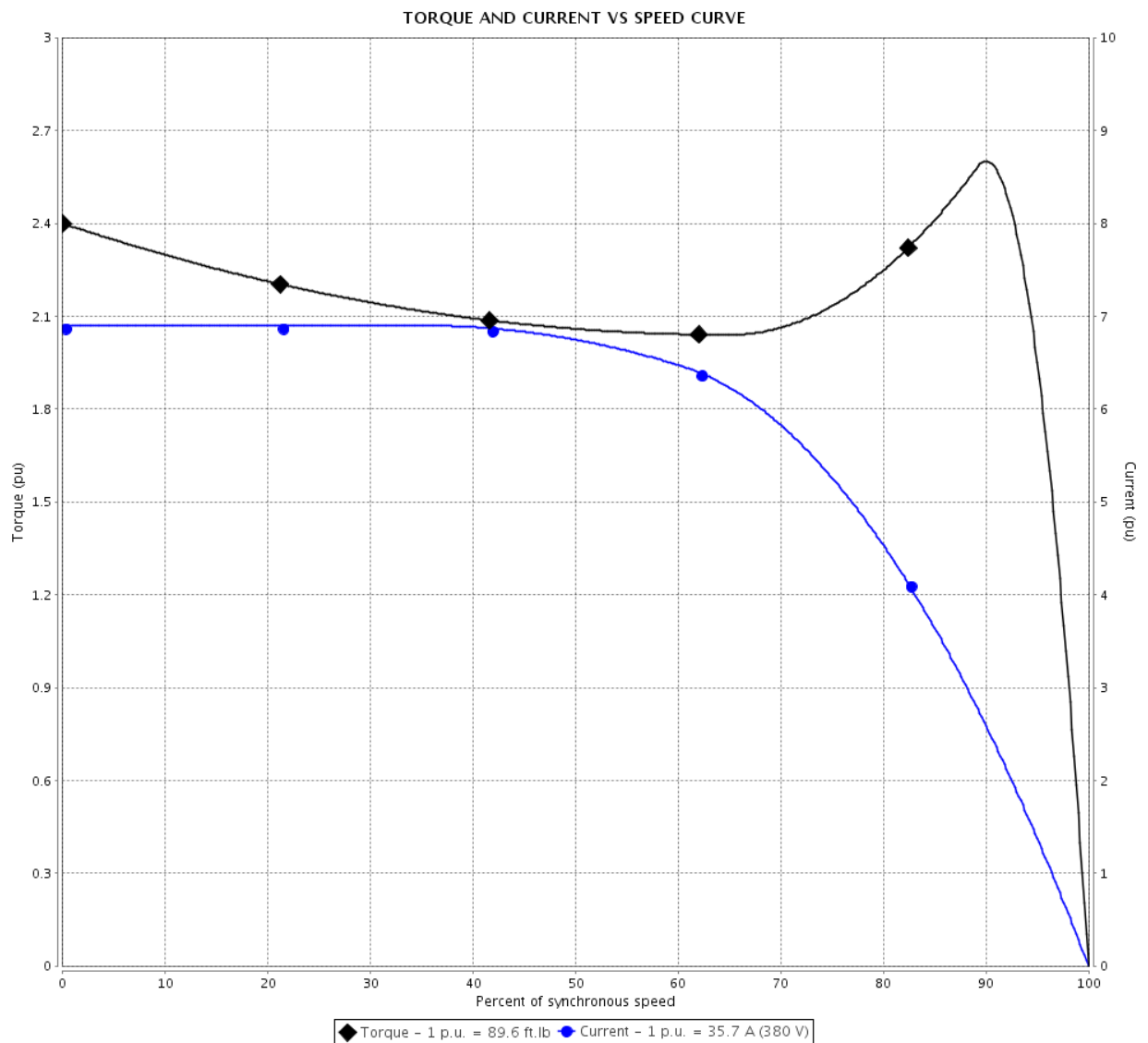


Customer :

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

Product code : 14486860

Catalog # : 03018OT3E286JP-W40



Performance : 380 V 50 Hz 4P IE3

Rated current	: 35.7 A	Moment of inertia (J)	: 4.52 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 89.6 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1465 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE

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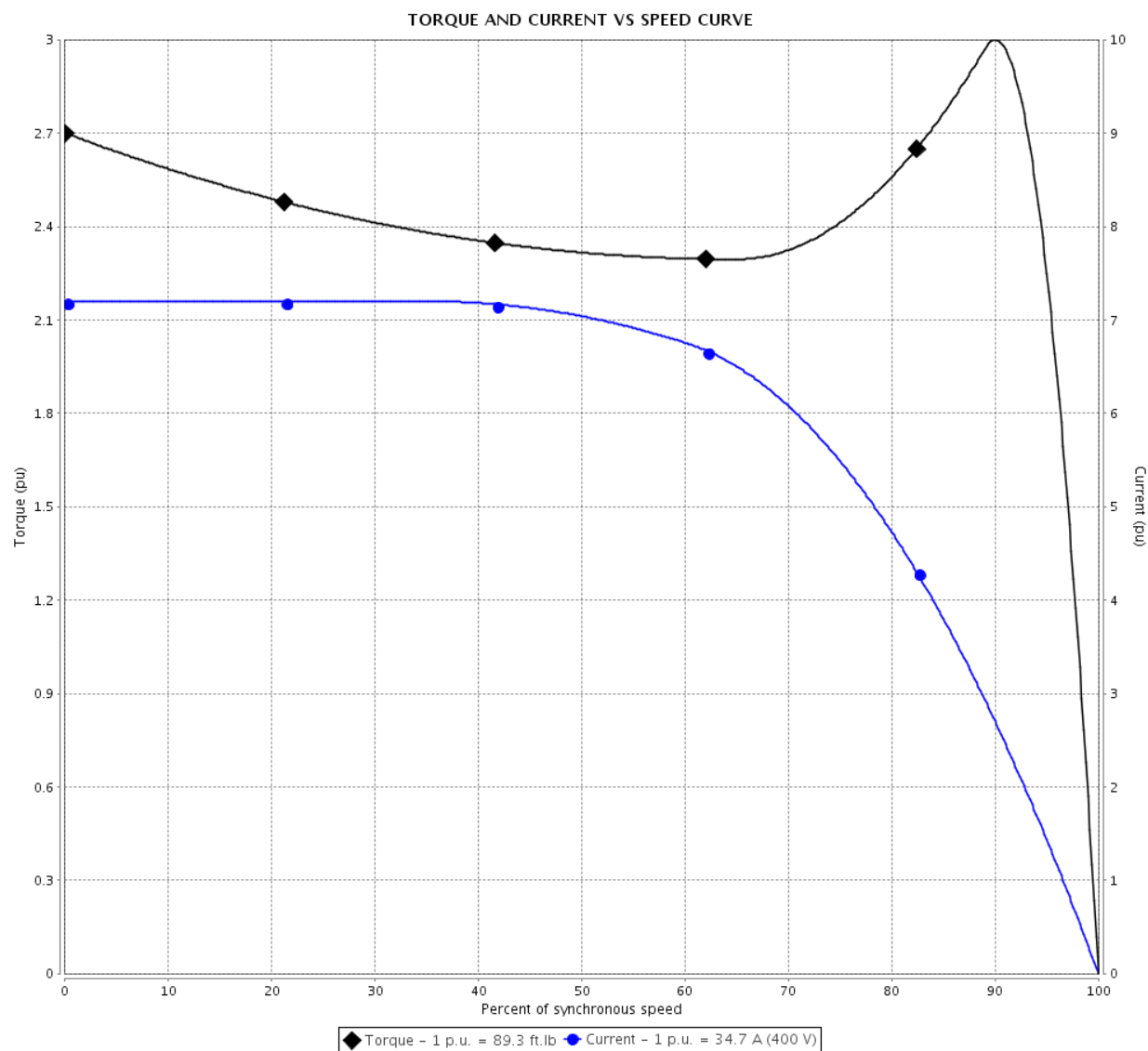


Customer :

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

Product code : 14486860

Catalog # : 03018OT3E286JP-W40



Performance : 400 V 50 Hz 4P IE3

Rated current	: 34.7 A	Moment of inertia (J)	: 4.52 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 89.3 ft.lb	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1470 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE

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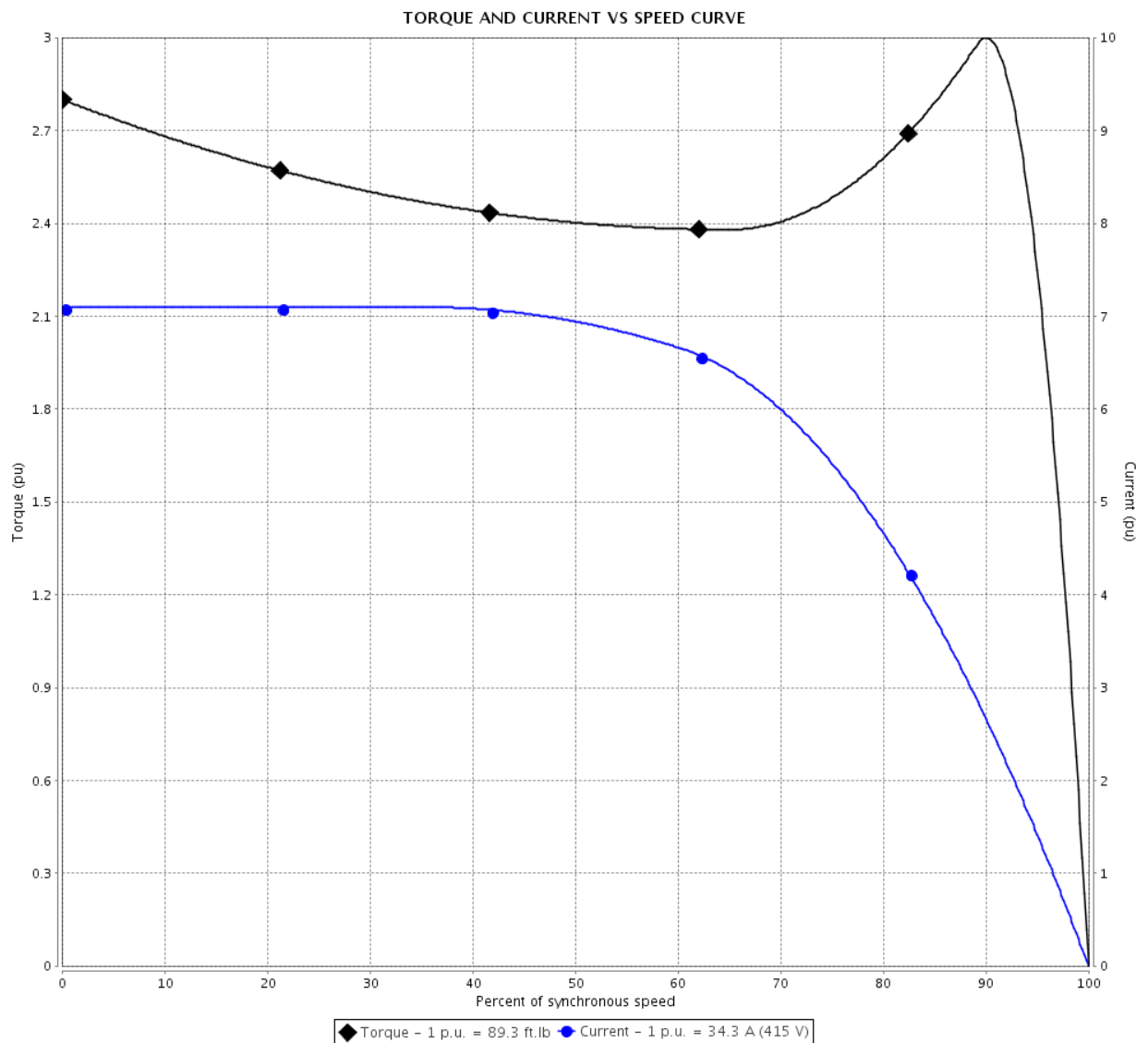


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Product line : W40 JP Pump NEMA Premium
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Product code : 14486860

Catalog # : 03018OT3E286JP-W40



Performance : 415 V 50 Hz 4P IE3

Rated current	: 34.3 A	Moment of inertia (J)	: 4.52 sq.ft.lb
LRC	: 7.1	Duty cycle	: Cont.(S1)
Rated torque	: 89.3 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1470 rpm	Design	: B

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

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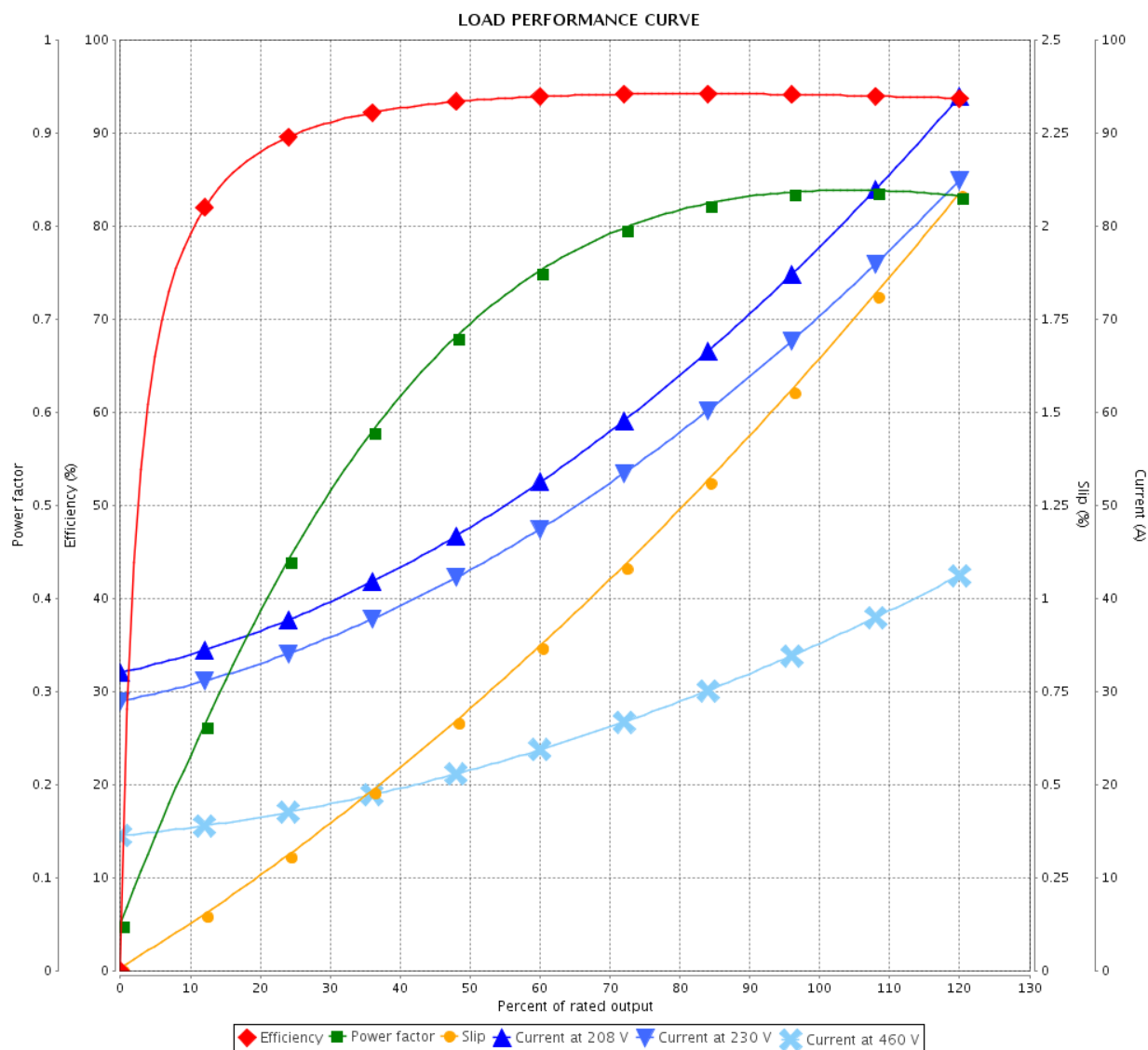


Customer :

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

Product code : 14486860

Catalog # : 03018OT3E286JP-W40



Performance : 230/460 V 60 Hz 4P

Rated current : 69.8/34.9 A
 LRC : 6.6
 Rated torque : 89.0 ft.lb
 Locked rotor torque : 280 %
 Breakdown torque : 280 %
 Rated speed : 1770 rpm

Moment of inertia (J) : 4.52 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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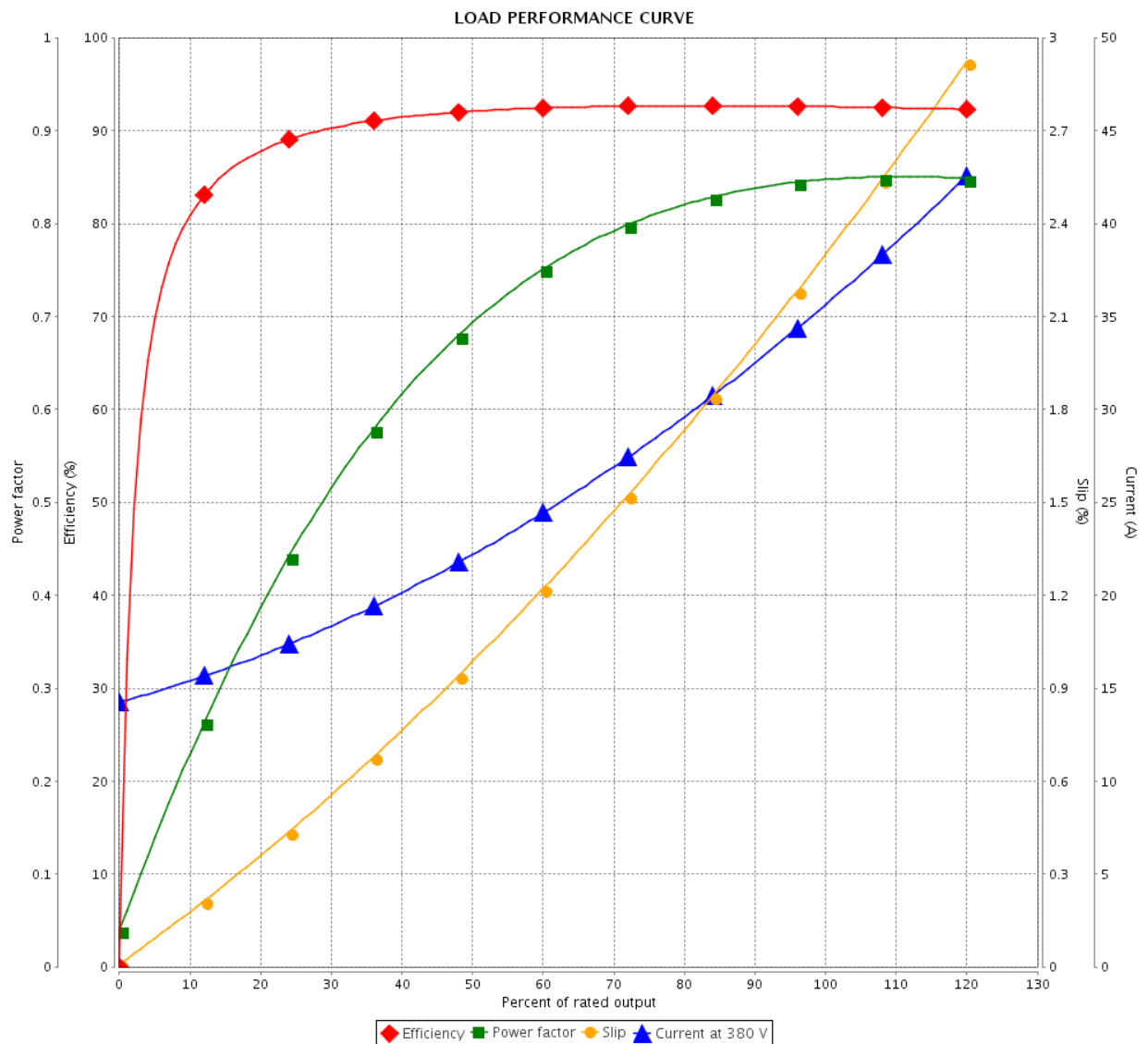


Customer :

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Product code : 14486860

Catalog # : 03018OT3E286JP-W40



Performance : 380 V 50 Hz 4P IE3

Rated current : 35.7 A
LRC : 6.9
Rated torque : 89.6 ft.lb
Locked rotor torque : 240 %
Breakdown torque : 260 %
Rated speed : 1465 rpm

Moment of inertia (J) : 4.52 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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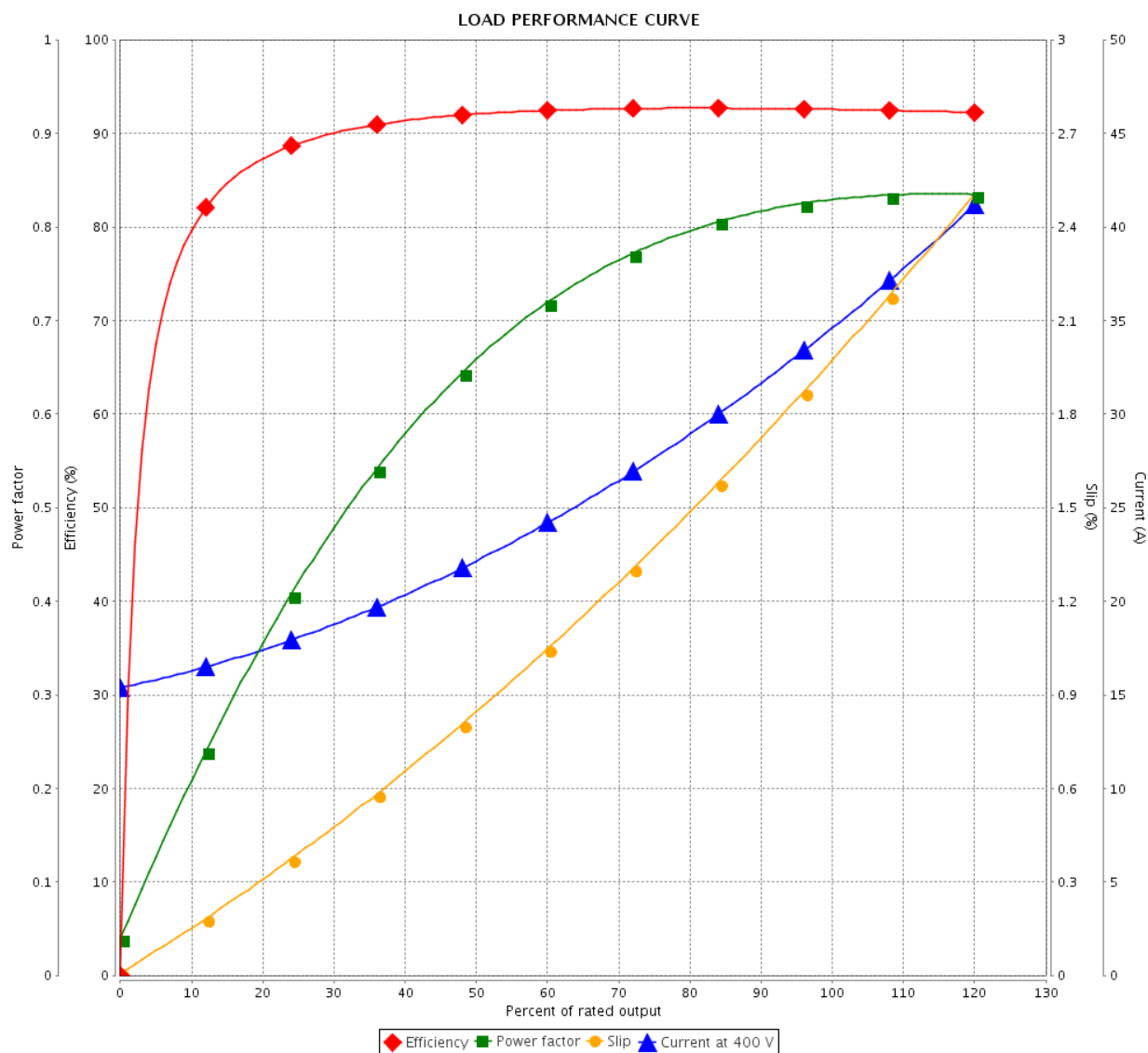


Customer :

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Product code : 14486860

Catalog # : 03018OT3E286JP-W40



Performance : 400 V 50 Hz 4P IE3

Rated current : 34.7 A
LRC : 7.2
Rated torque : 89.3 ft.lb
Locked rotor torque : 270 %
Breakdown torque : 300 %
Rated speed : 1470 rpm

Moment of inertia (J) : 4.52 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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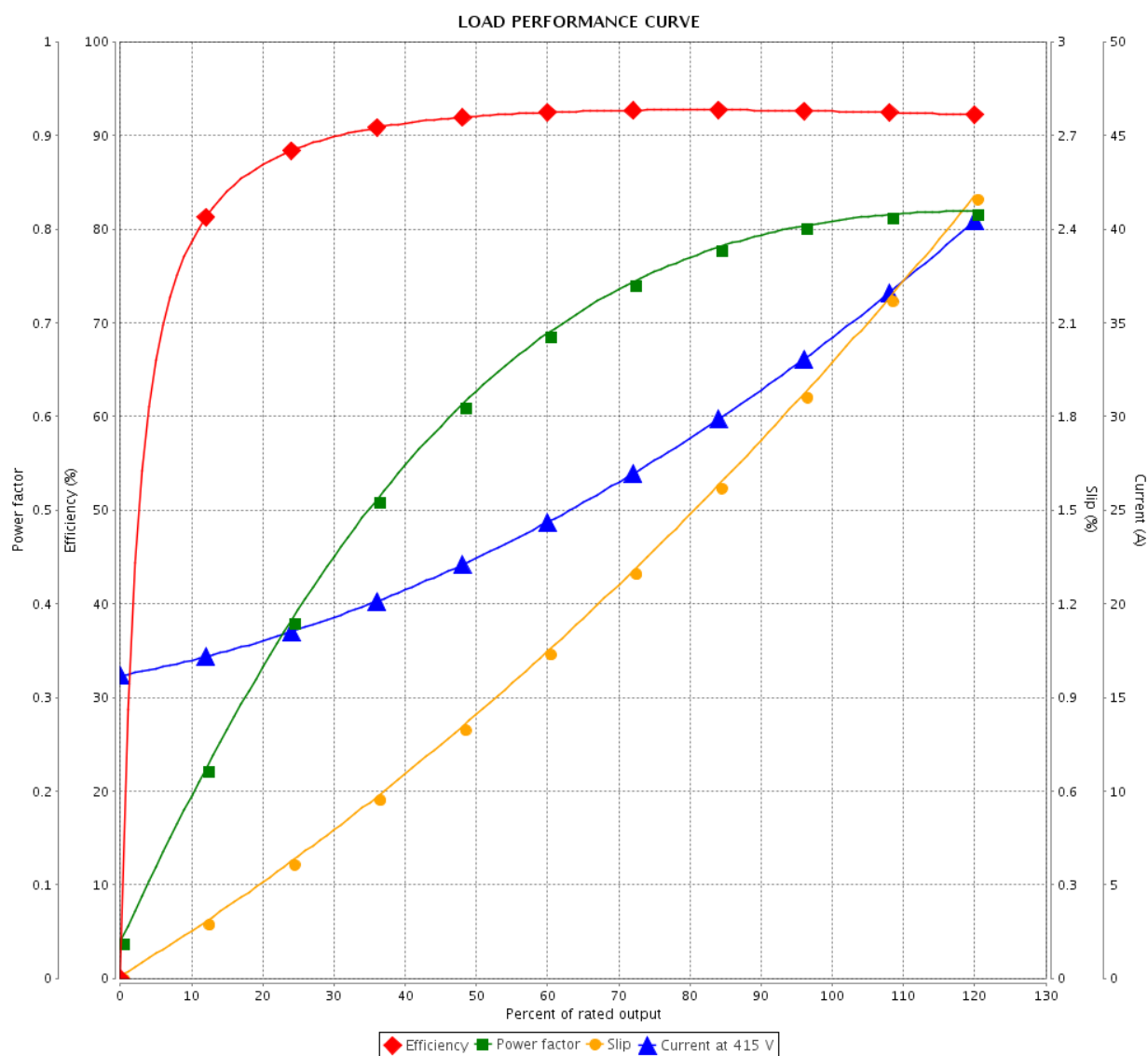


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Product code : 14486860

Catalog # : 03018OT3E286JP-W40



Performance : 415 V 50 Hz 4P IE3

Rated current : 34.3 A
LRC : 7.1
Rated torque : 89.3 ft.lb
Locked rotor torque : 280 %
Breakdown torque : 300 %
Rated speed : 1470 rpm

Moment of inertia (J) : 4.52 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 : 280 %
Breakdown torque : 280 %
Rated speed : 1770 rpm

Moment of inertia (J) : 4.52 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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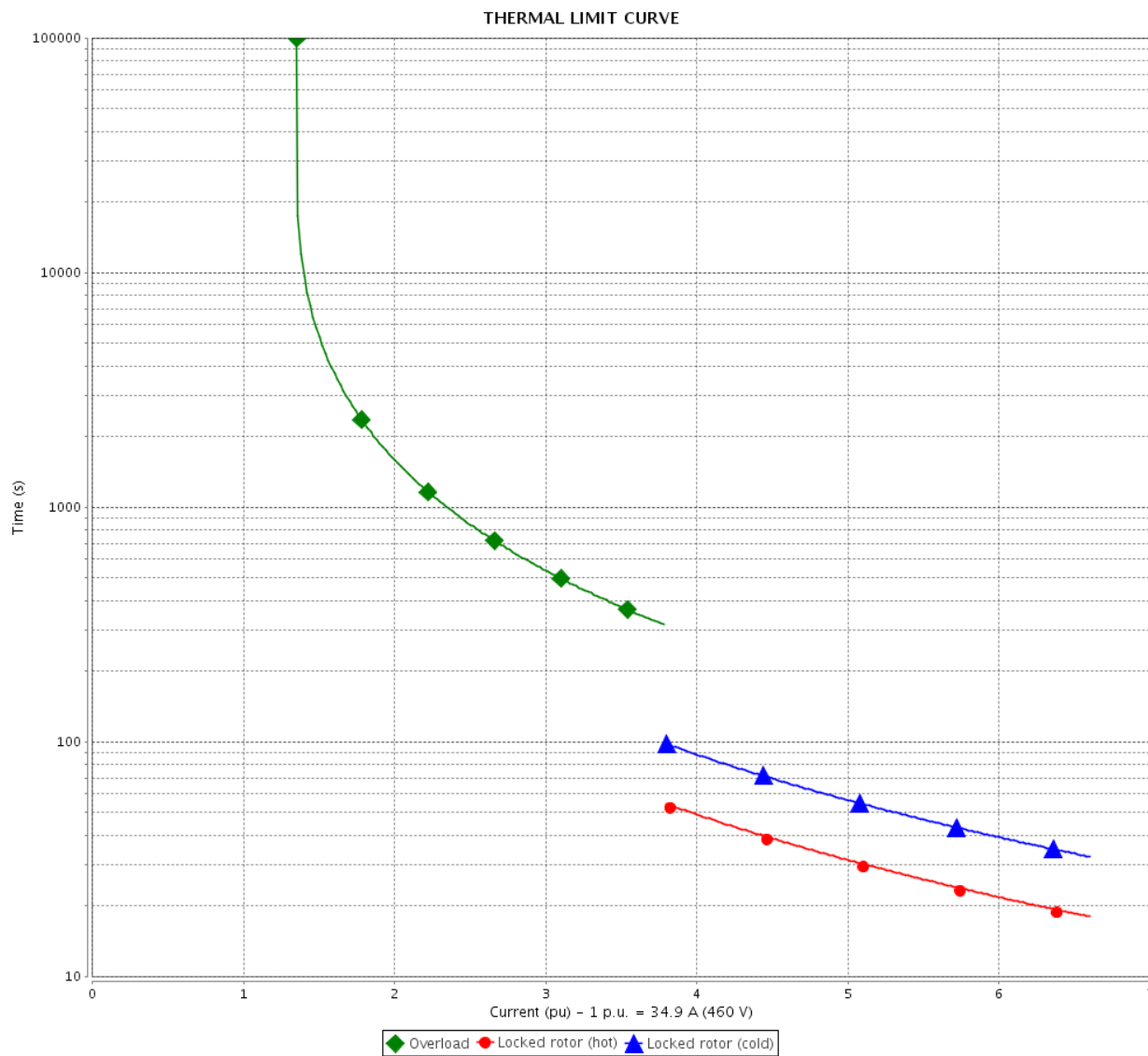
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Performance : 380 V 50 Hz 4P IE3

Rated current	: 35.7 A	Moment of inertia (J)	: 4.52 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 89.6 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1465 rpm	Design	: B

Heating constant

Cooling constant

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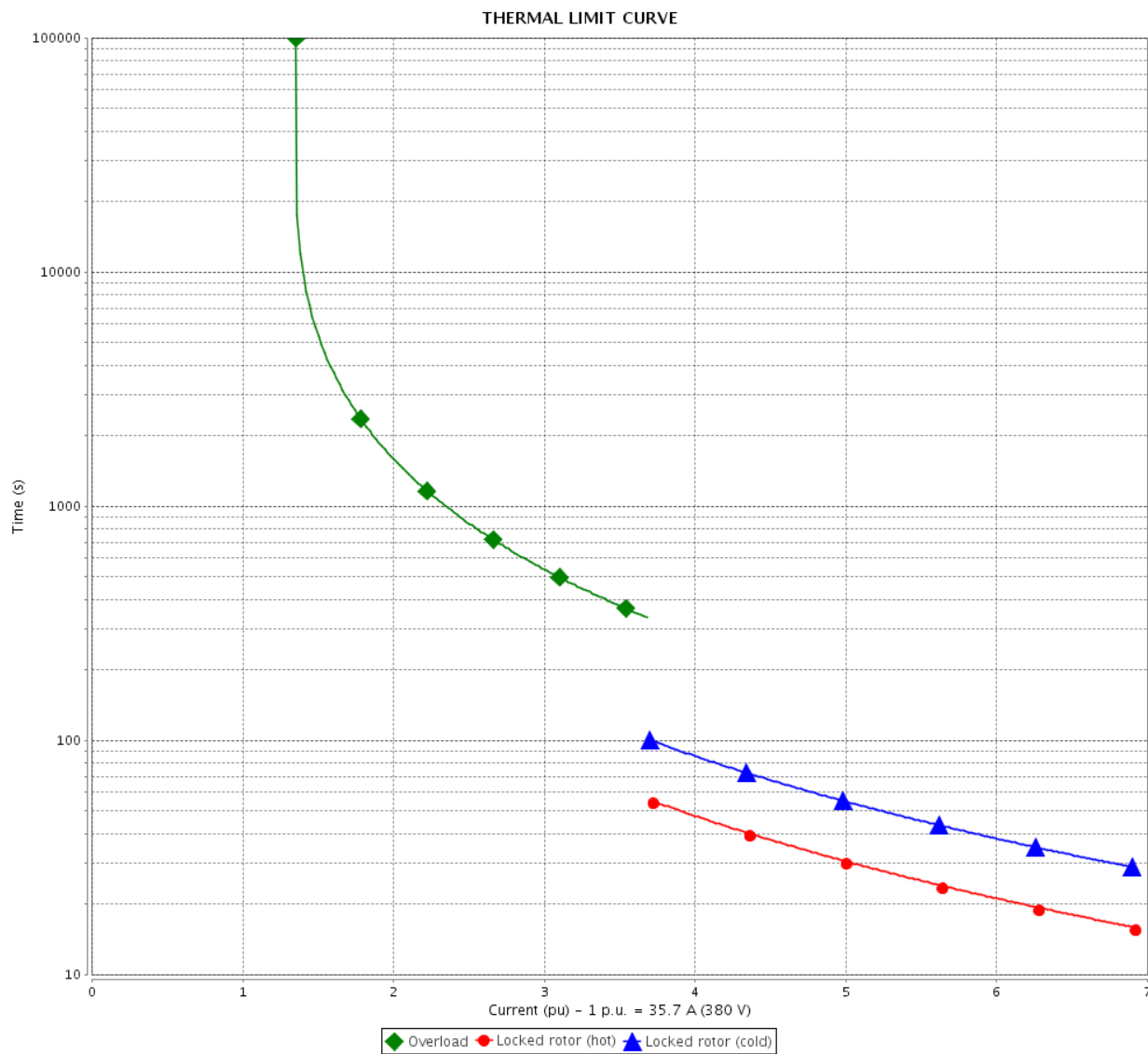
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Performance : 400 V 50 Hz 4P IE3

Rated current	: 34.7 A	Moment of inertia (J)	: 4.52 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 89.3 ft.lb	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1470 rpm	Design	: B

Heating constant

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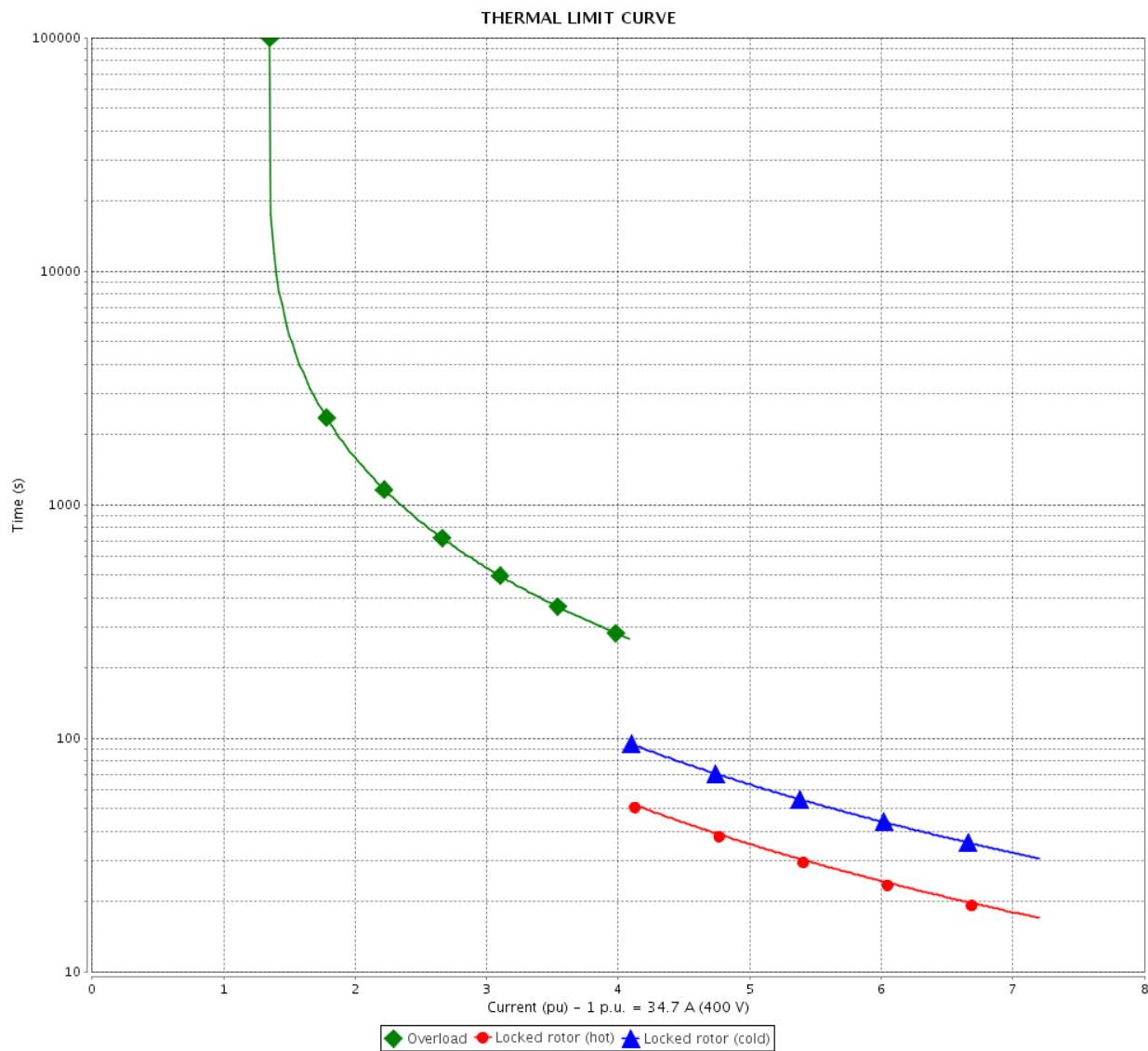
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Performance : 415 V 50 Hz 4P IE3

Rated current	: 34.3 A	Moment of inertia (J)	: 4.52 sq.ft.lb
LRC	: 7.1	Duty cycle	: Cont.(S1)
Rated torque	: 89.3 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1470 rpm	Design	: B

Heating constant

Cooling constant

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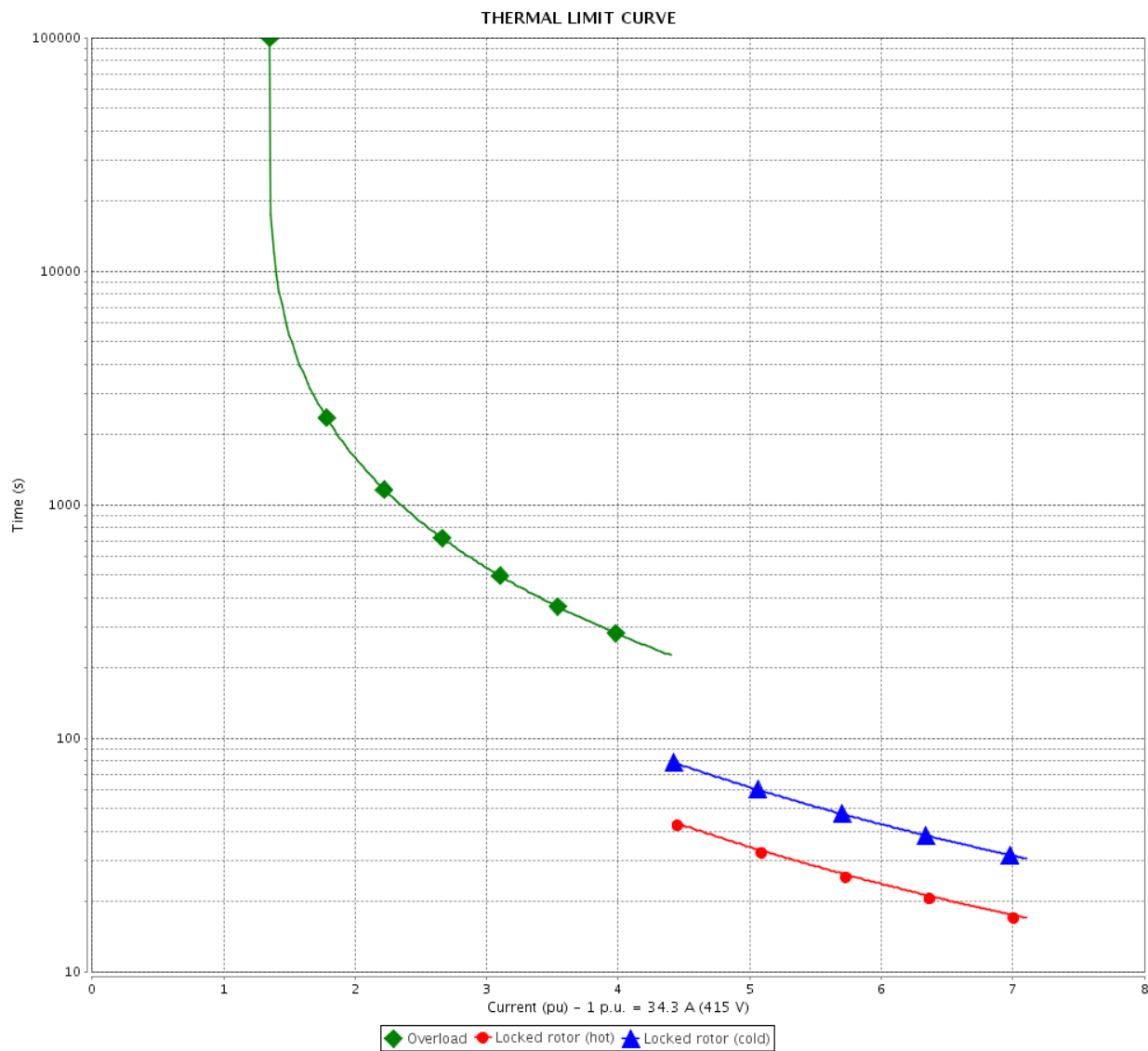
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VFD OPERATION CURVE

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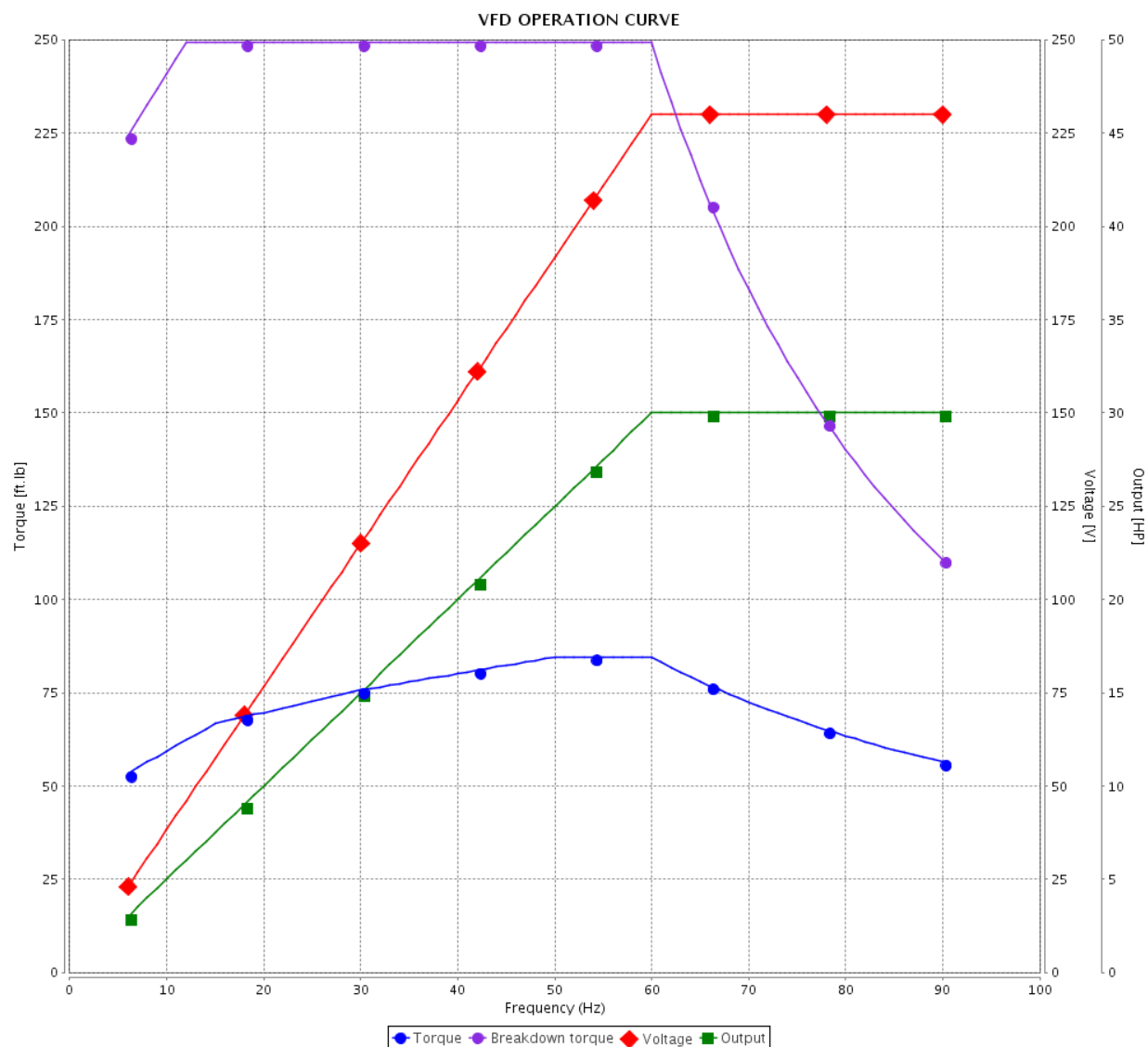


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Rated speed : 1770 rpm

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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

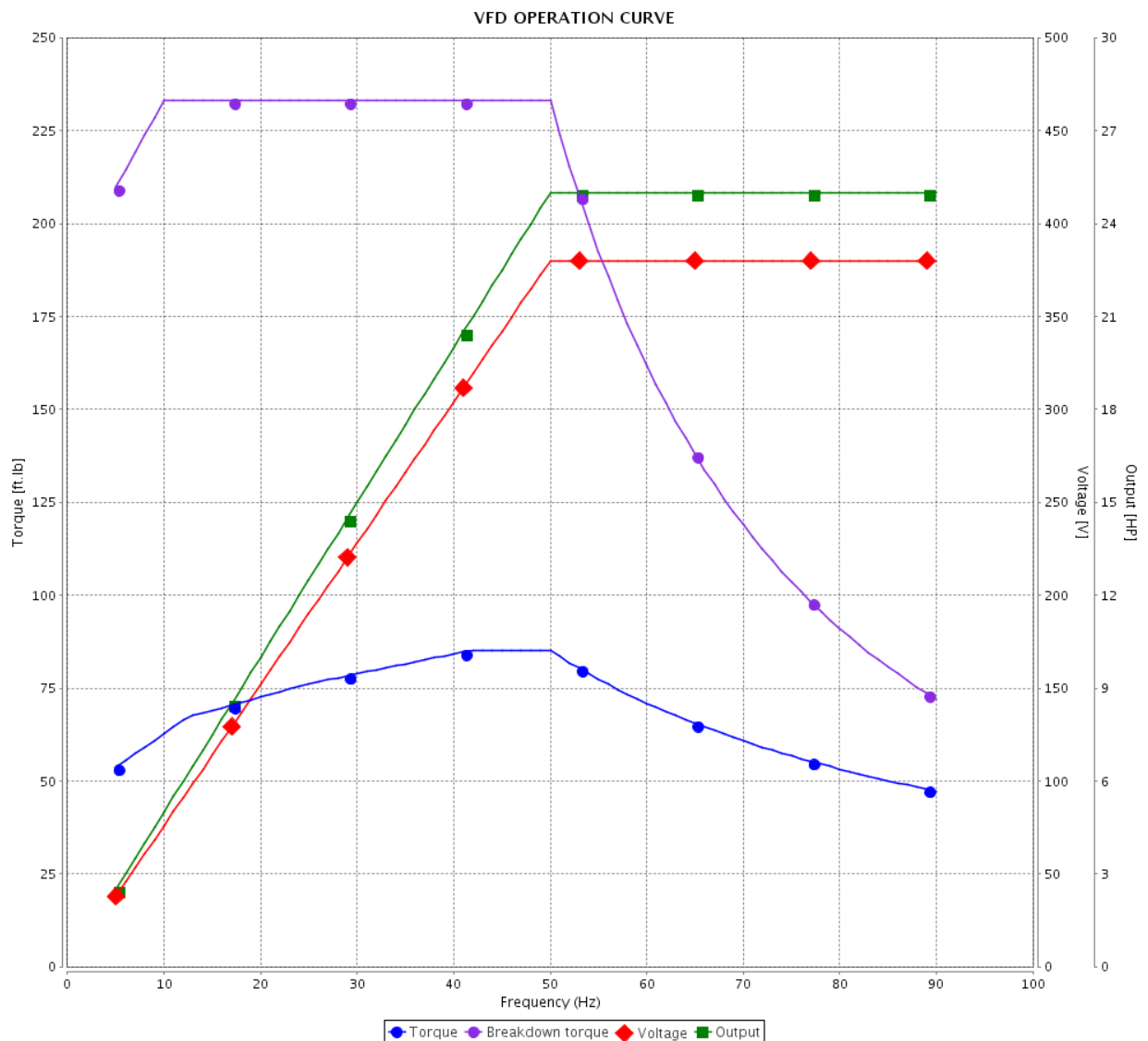


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Performance : 380 V 50 Hz 4P IE3

Rated current : 35.7 A
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Breakdown torque : 260 %
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Moment of inertia (J) : 4.52 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
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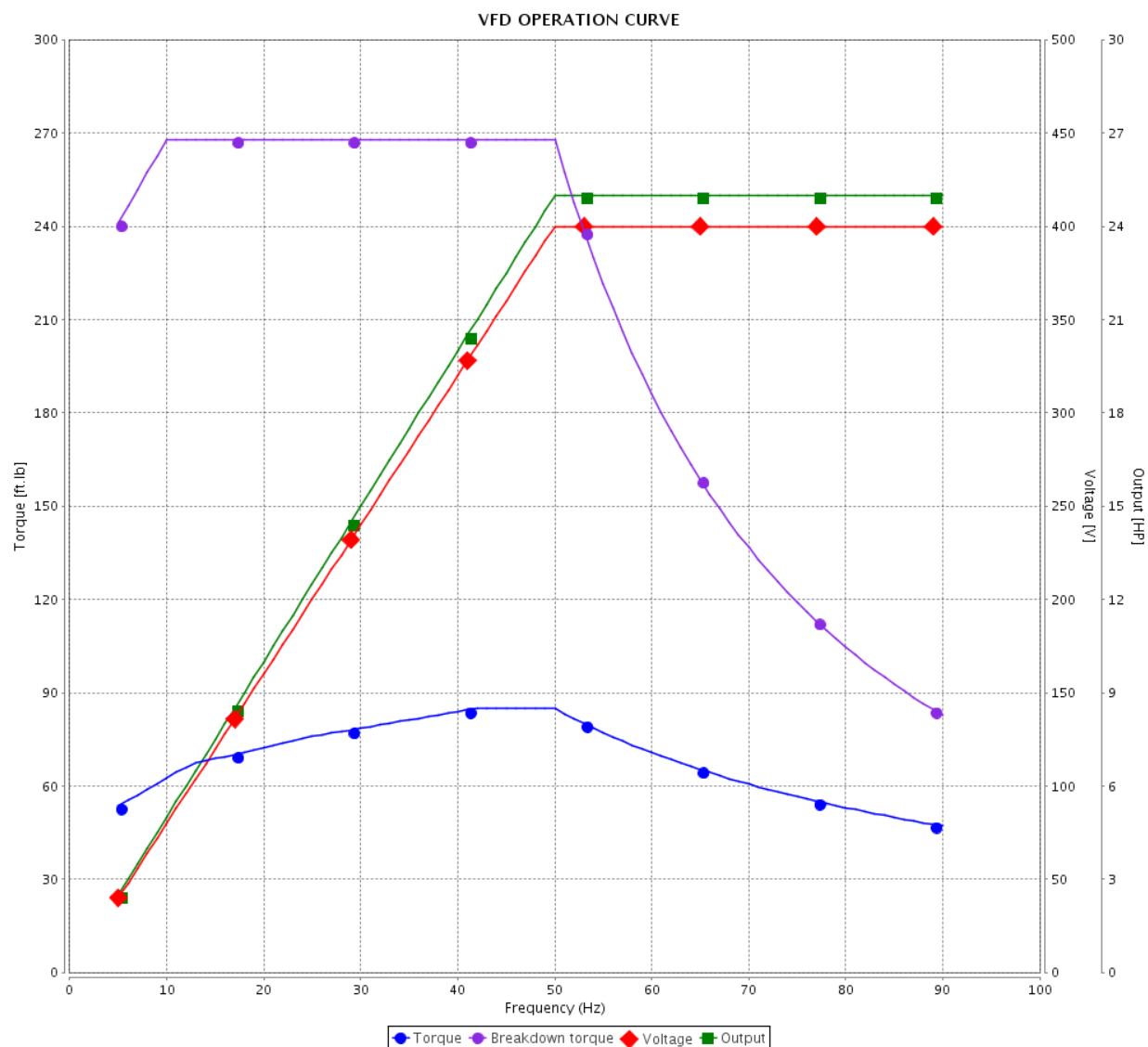


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Performance : 400 V 50 Hz 4P IE3

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Breakdown torque : 300 %
Rated speed : 1470 rpm

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VFD OPERATION CURVE

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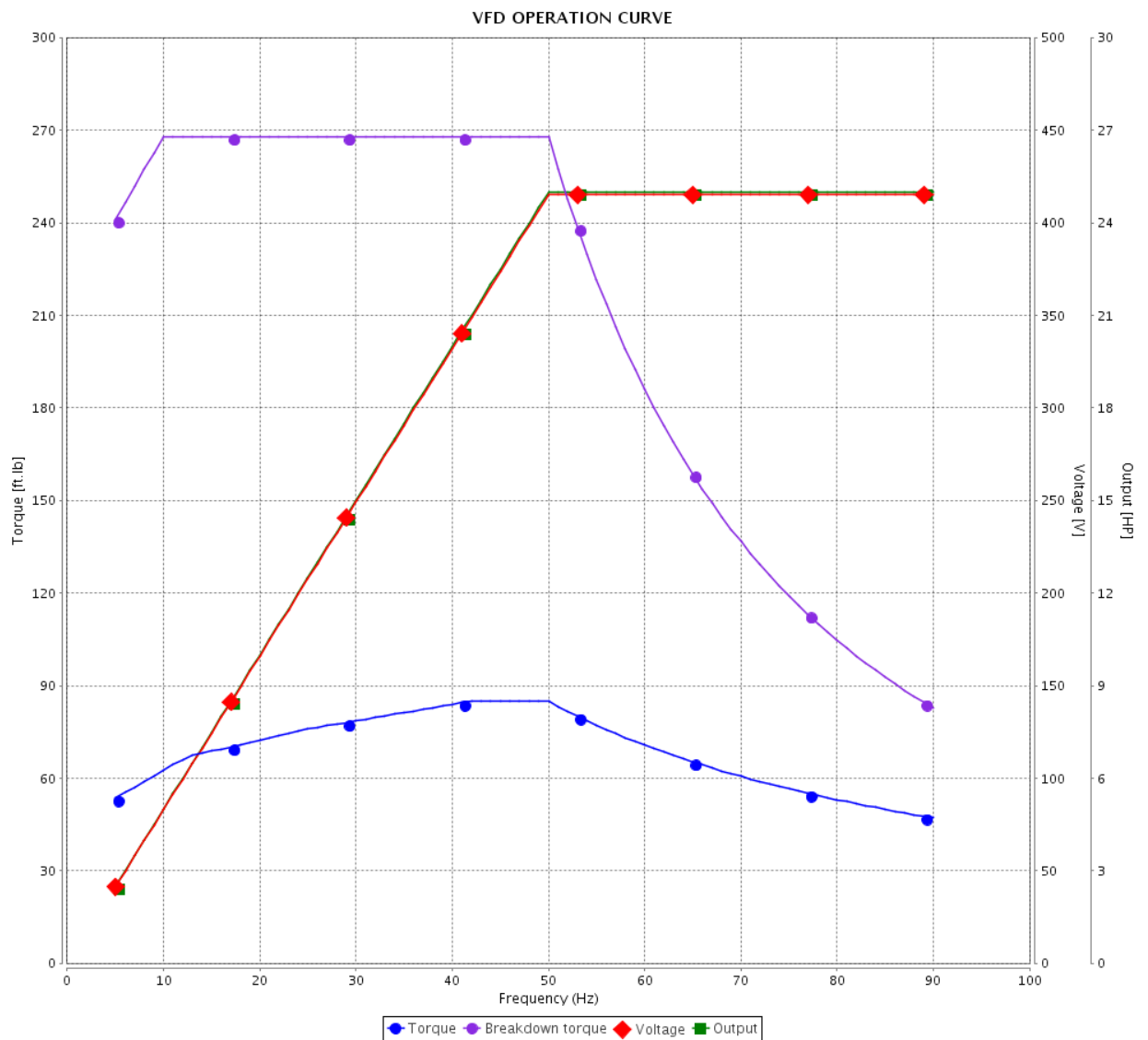


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