

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 JM Pump NEMA Premium Efficiency Three-Phase Product code : 14484693
Catalog # : 03018OT3E286JM-W40

Frame : 284/6JM	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 : 414 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

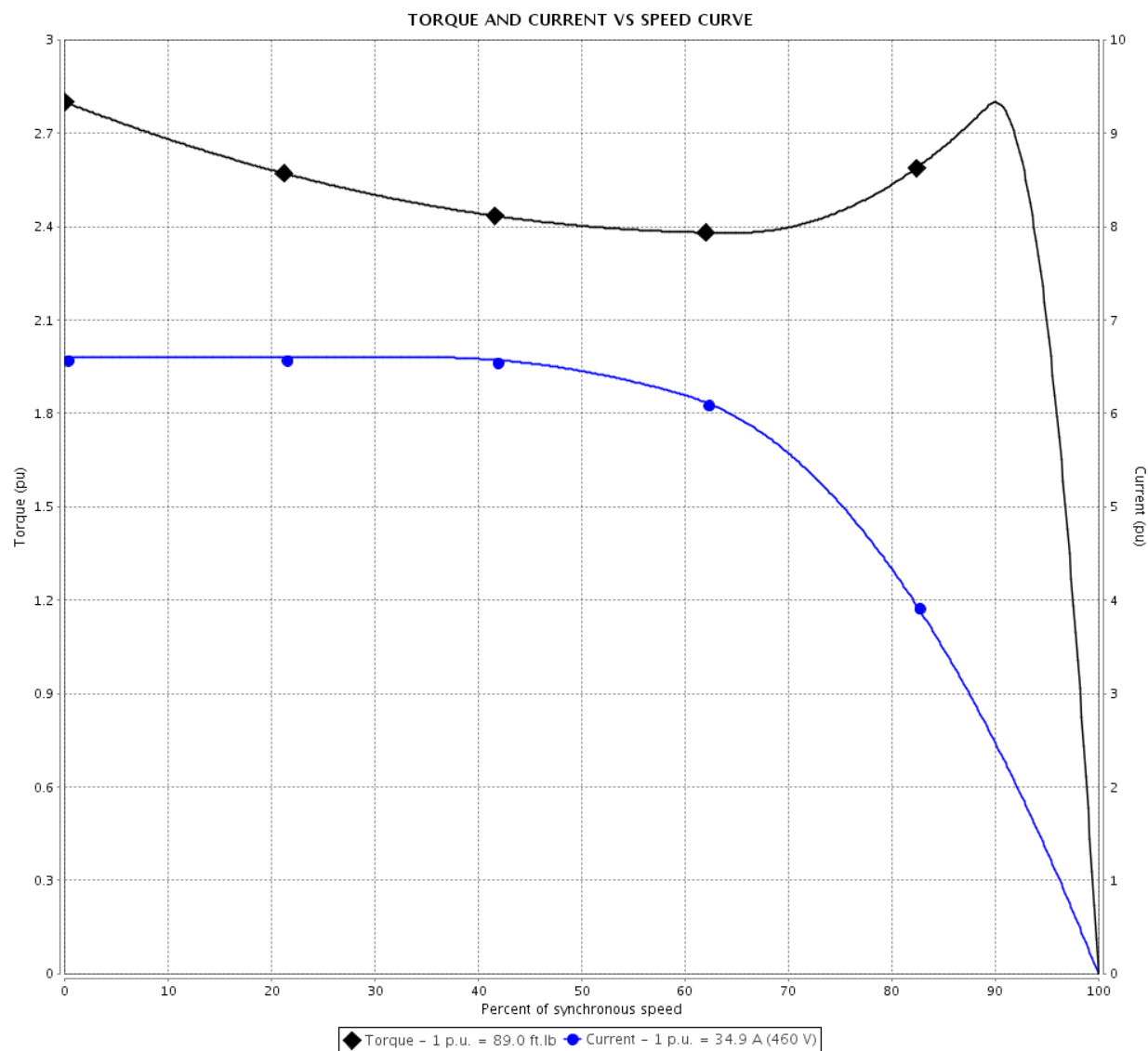
: W40 JM Pump NEMA Premium
Efficiency Three-Phase

Product code :

14484693

Catalog # :

03018OT3E286JM-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

Three Phase Induction Motor - Squirrel Cage

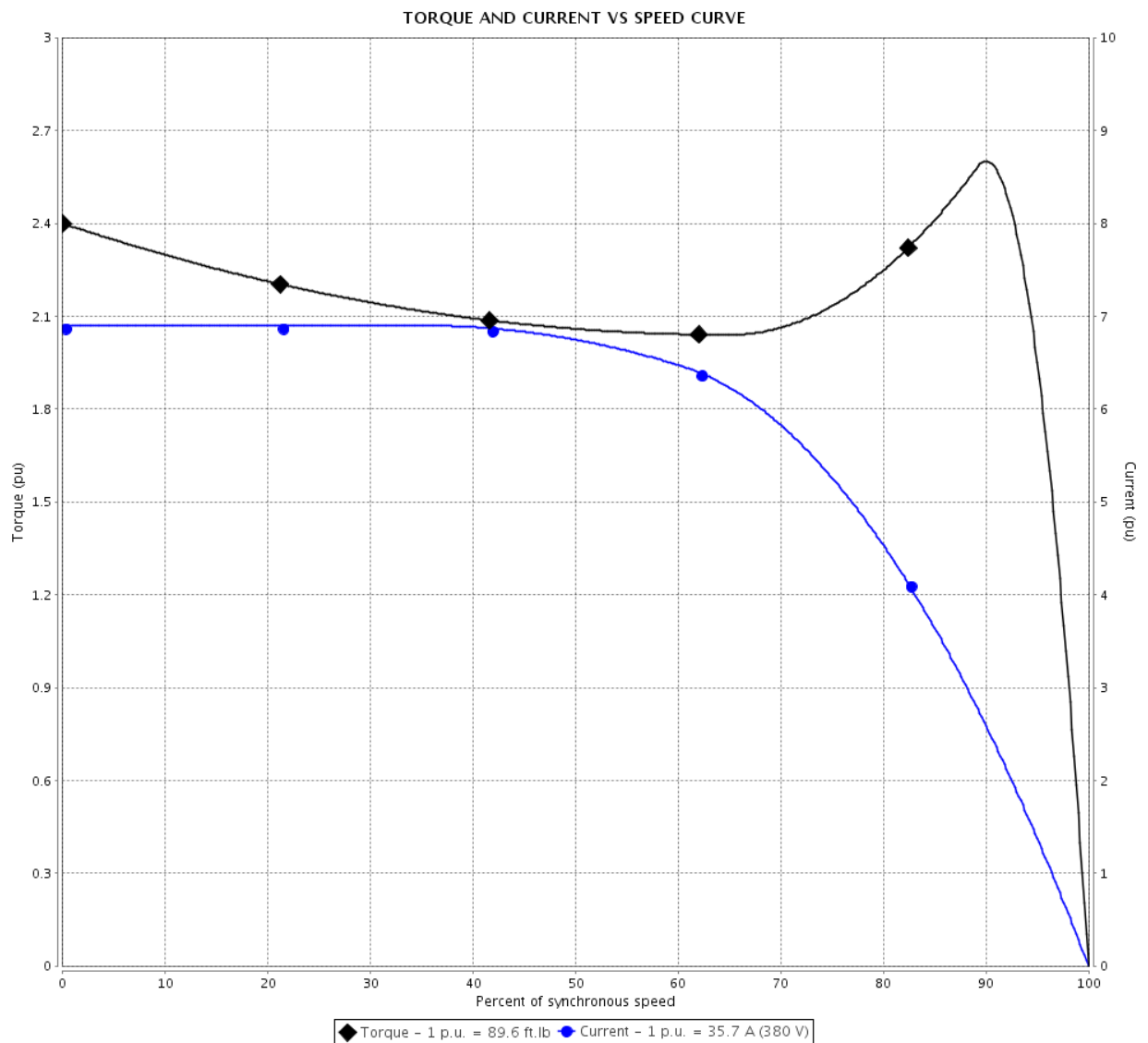


Customer :

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

Product code : 14484693

Catalog # : 03018OT3E286JM-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

Three Phase Induction Motor - Squirrel Cage

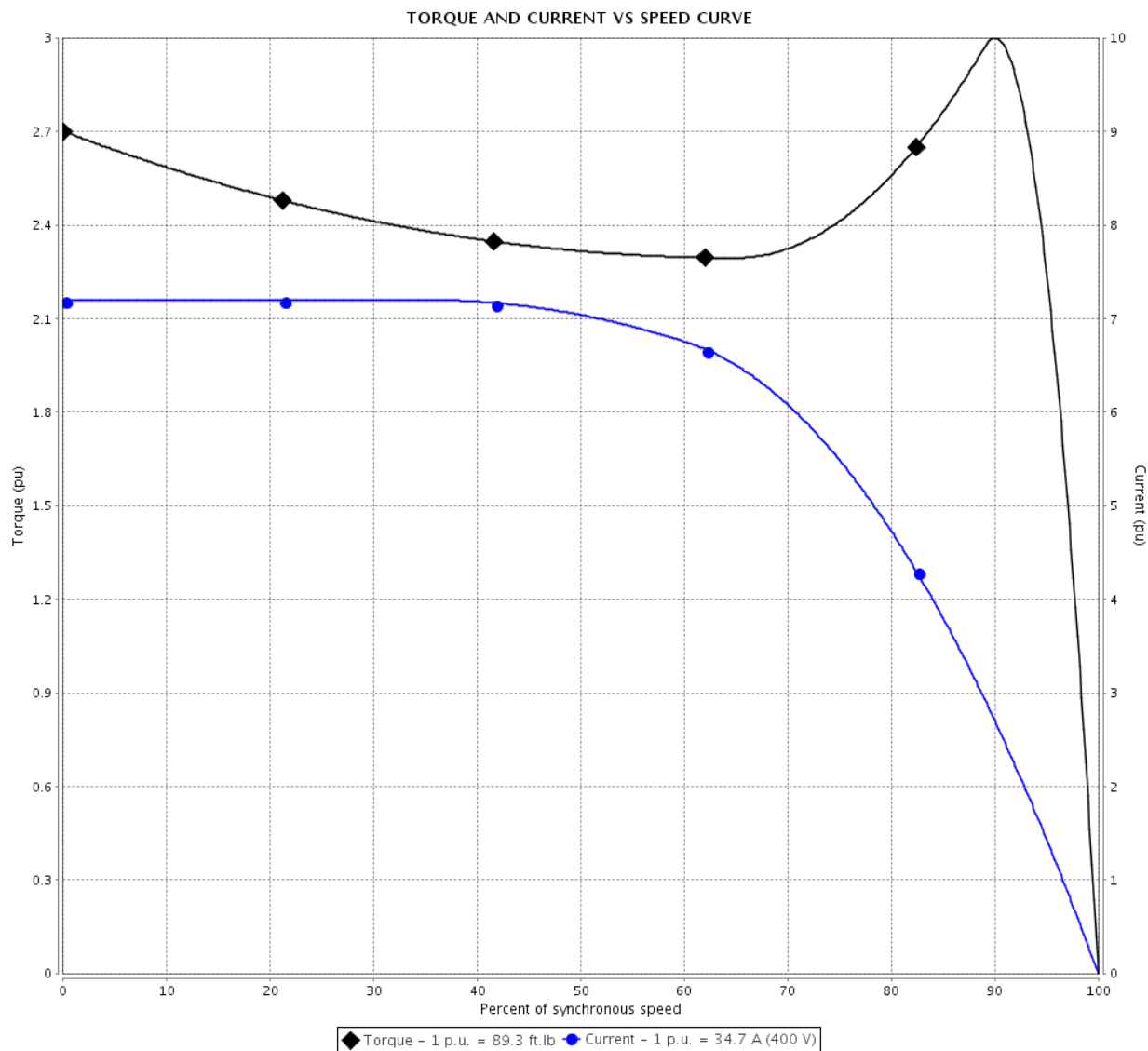


Customer :

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

Product code : 14484693

Catalog # : 03018OT3E286JM-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

Three Phase Induction Motor - Squirrel Cage

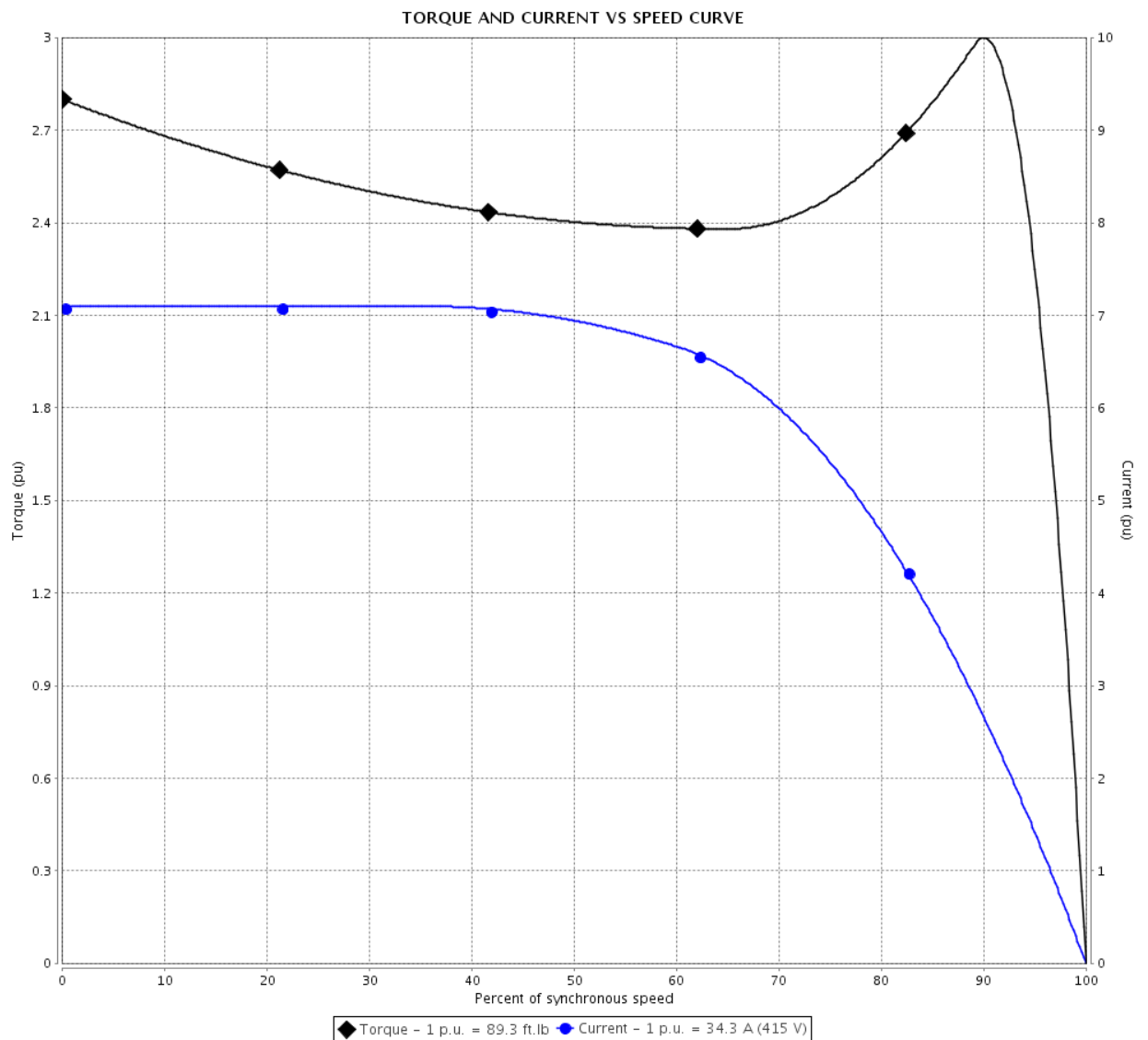


Customer :

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

Product code : 14484693

Catalog # : 03018OT3E286JM-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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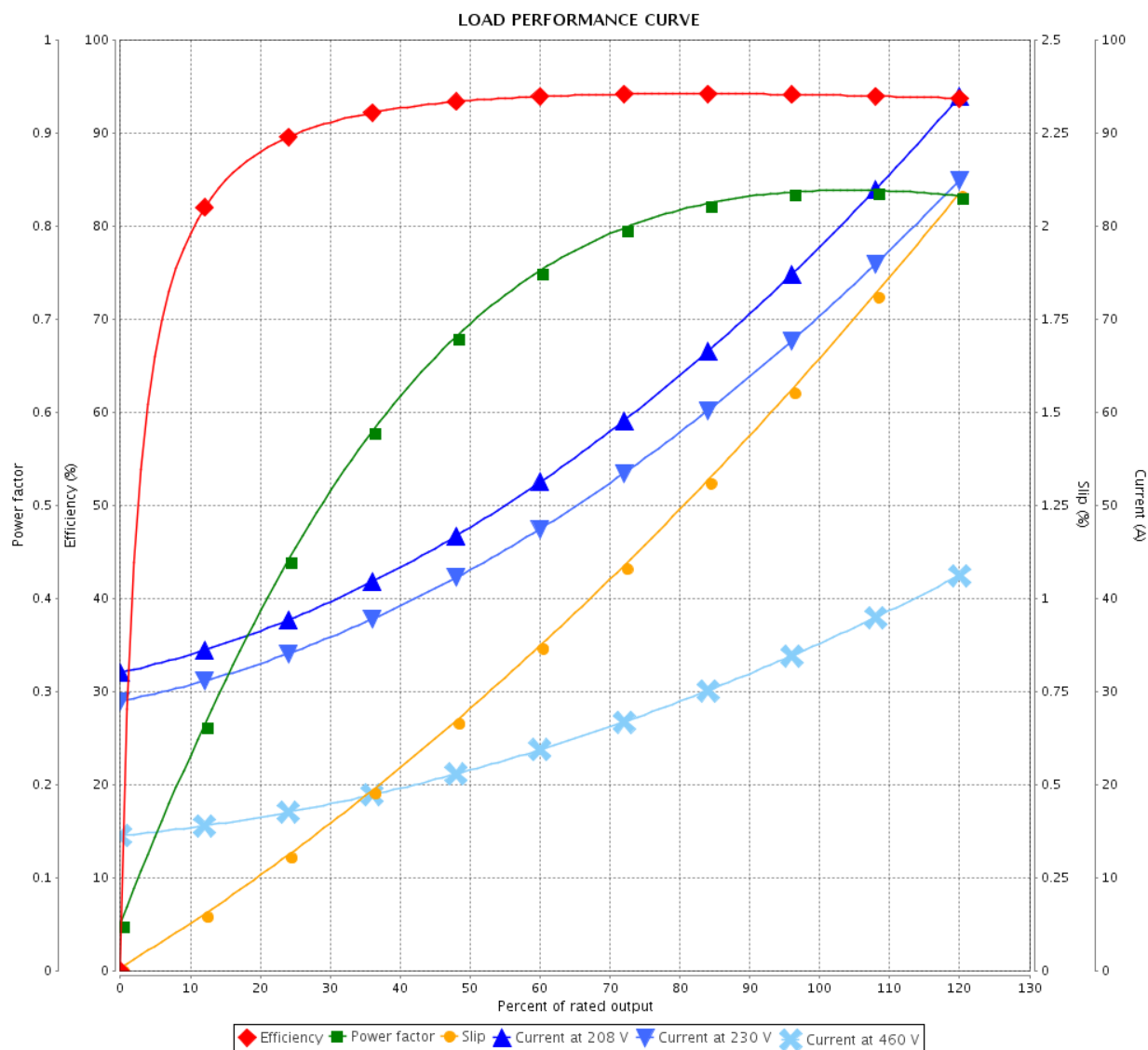


Customer :

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

Product code : 14484693

Catalog # : 03018OT3E286JM-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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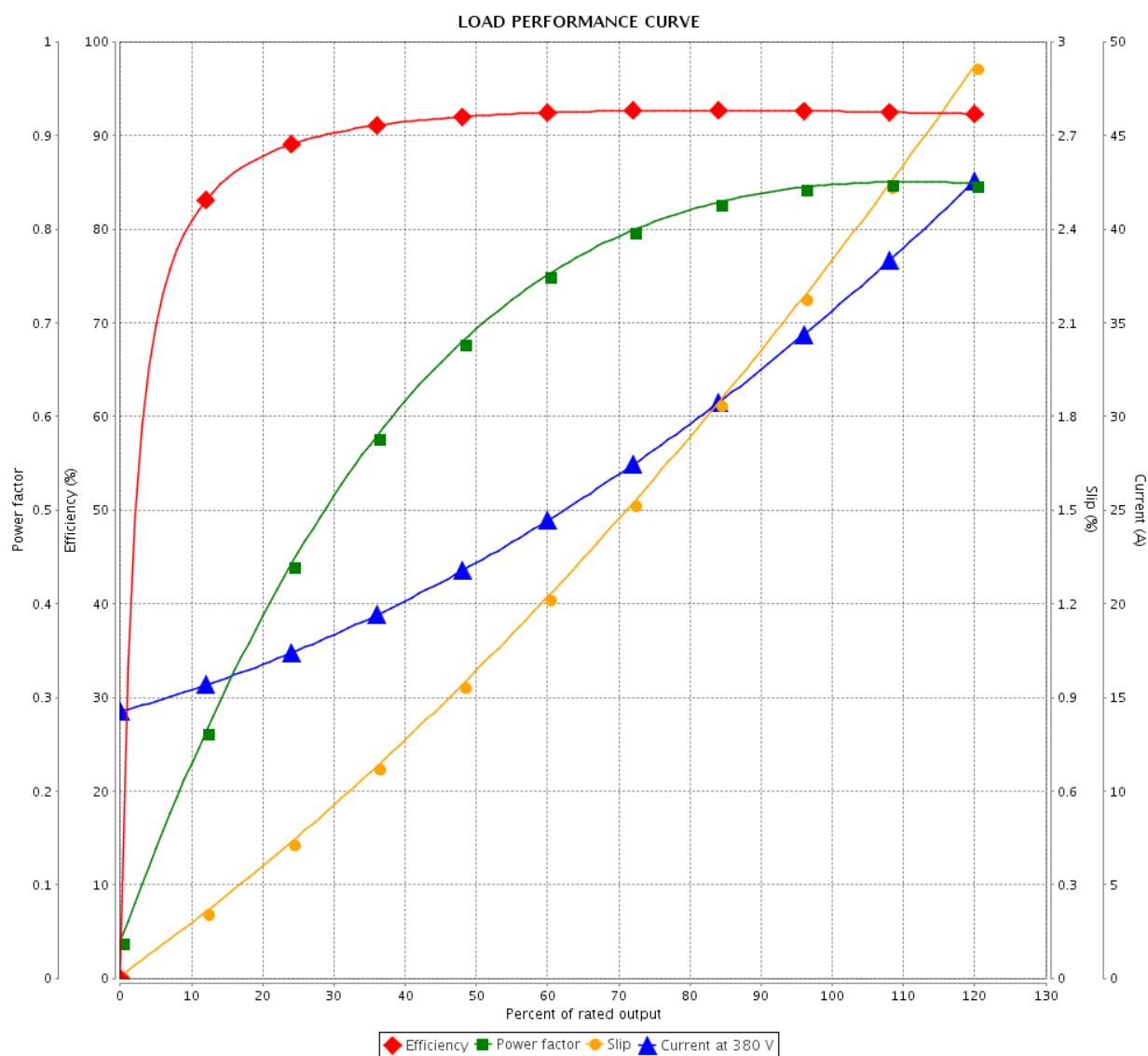


Customer :

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

Product code : 14484693

Catalog # : 03018OT3E286JM-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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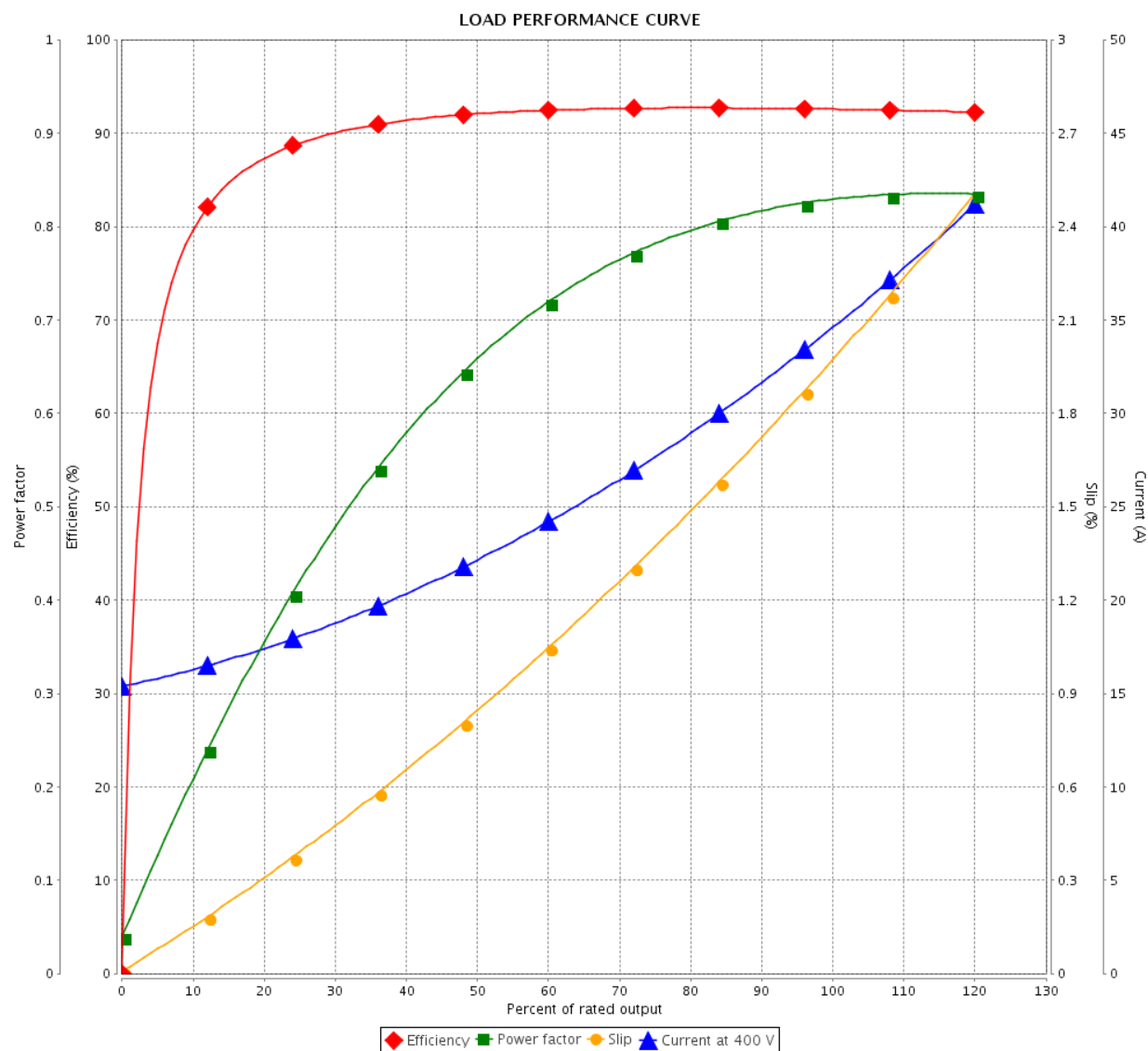


Customer :

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

Product code : 14484693

Catalog # : 03018OT3E286JM-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

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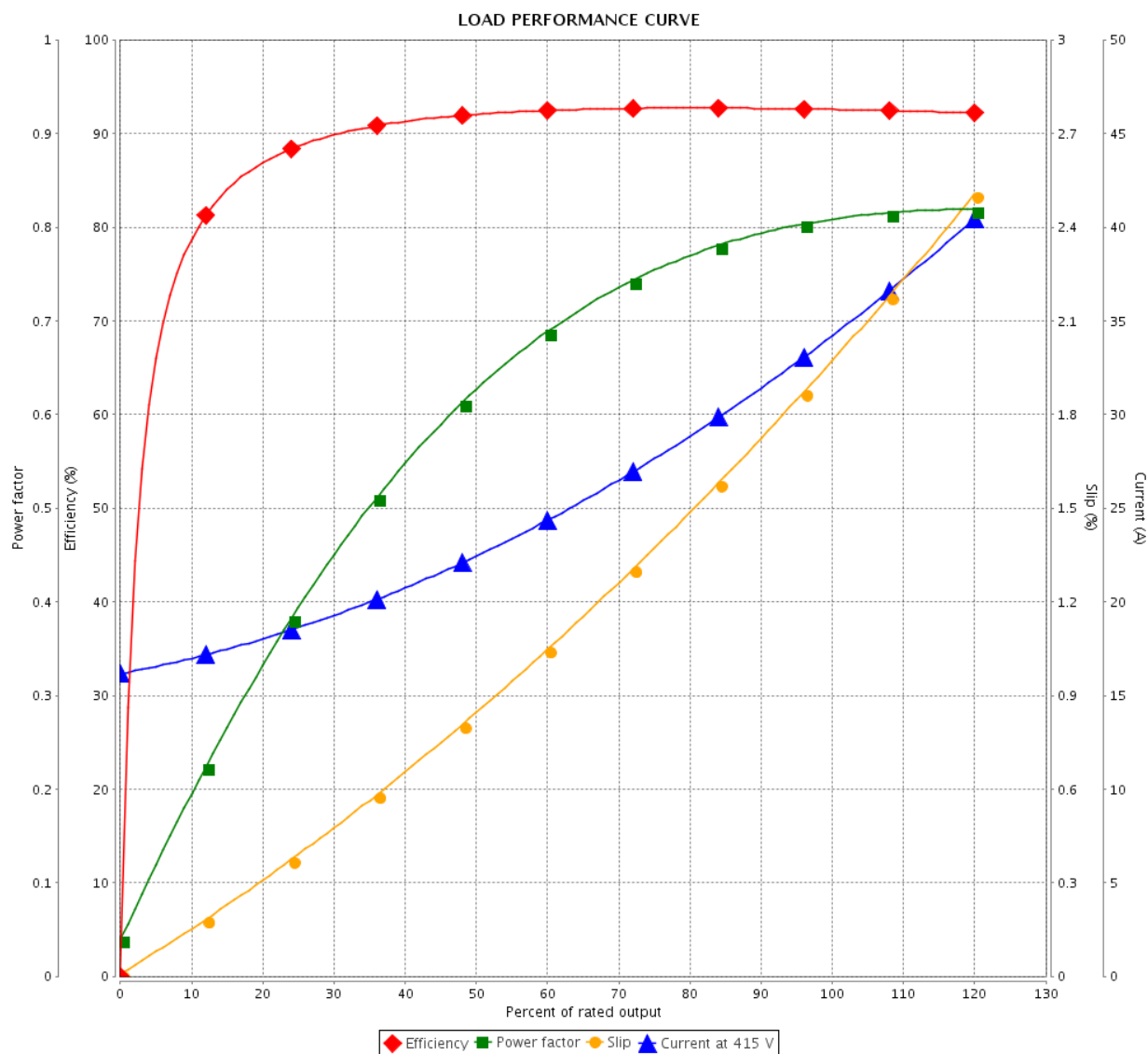


Customer :

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

Product code : 14484693

Catalog # : 03018OT3E286JM-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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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

Heating constant

Cooling constant

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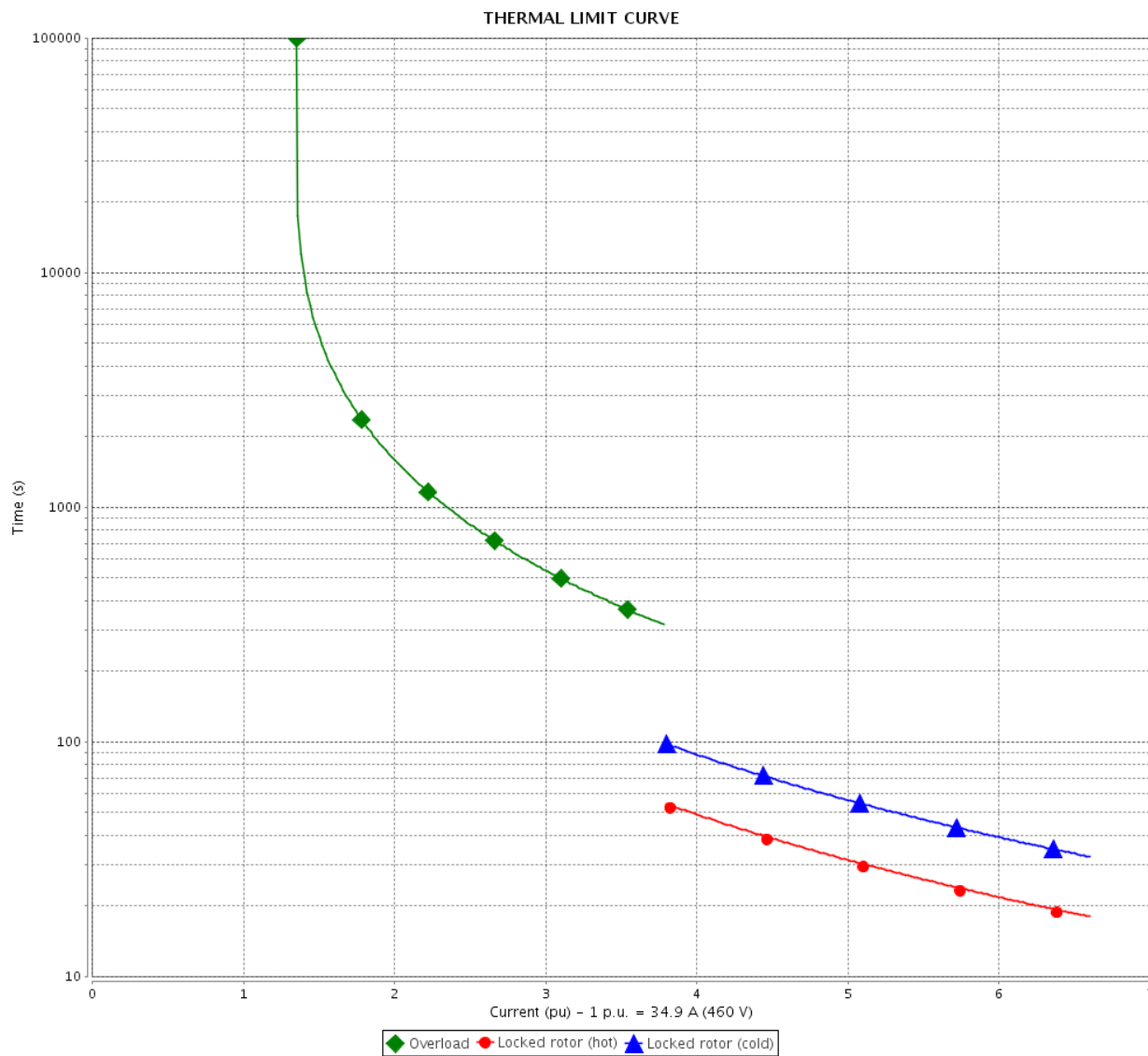
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Customer :

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

Product code : 14484693

Catalog # : 03018OT3E286JM-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

Heating constant

Cooling constant

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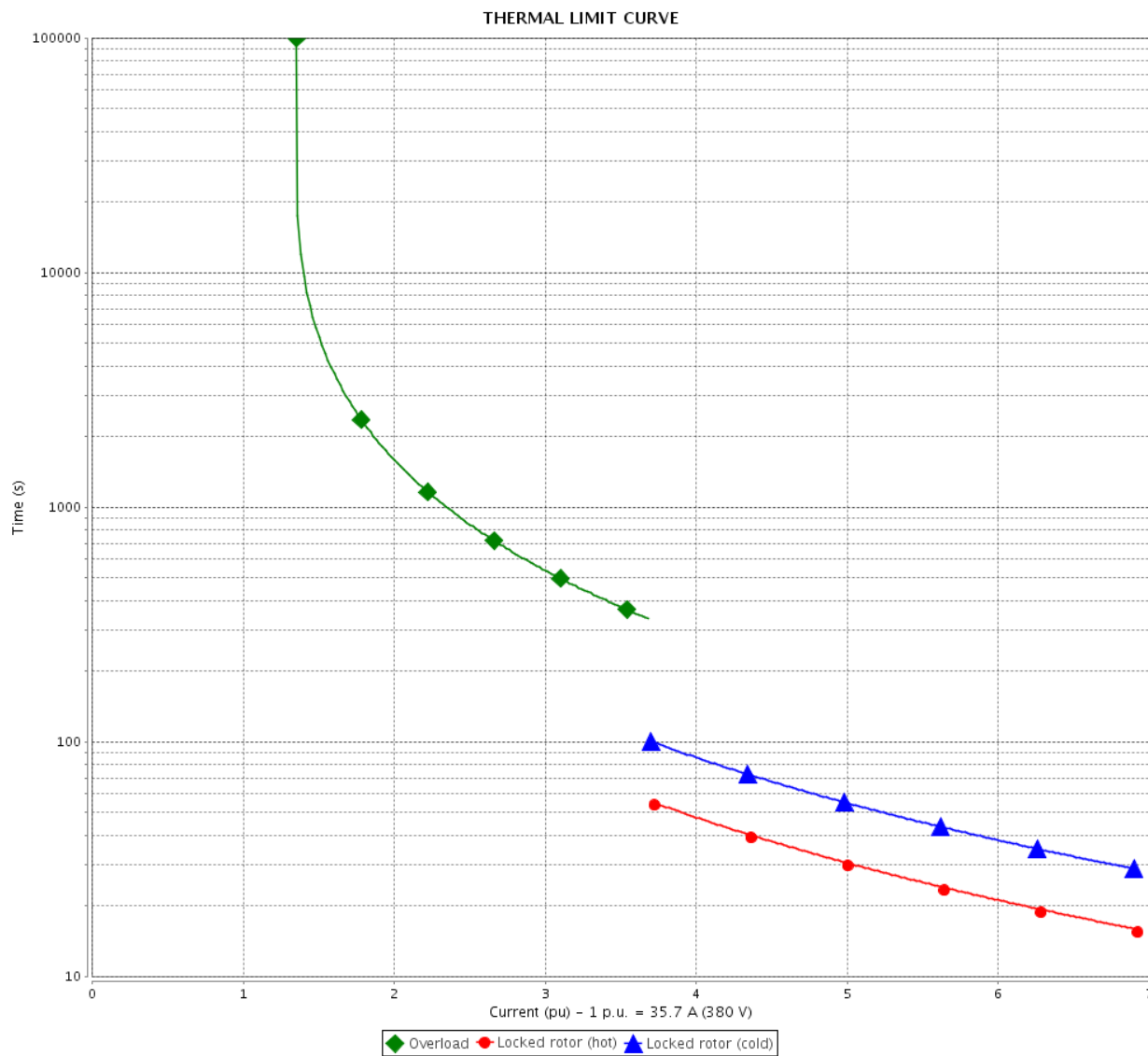
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Customer

:

Product line

: W40 JM Pump NEMA Premium
Efficiency Three-Phase

Product code :

14484693

Catalog # :

03018OT3E286JM-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

Heating constant

Cooling constant

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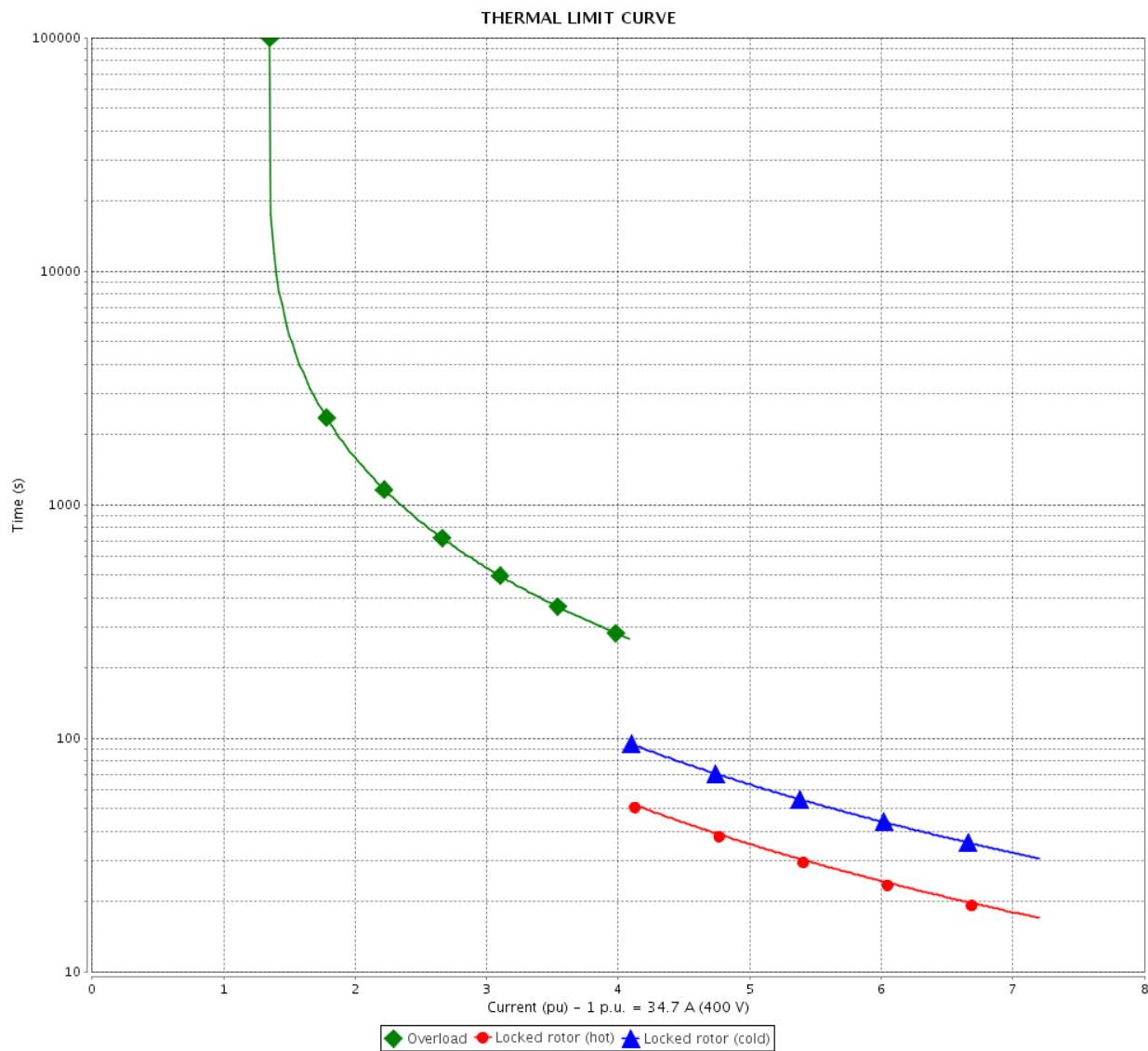
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Customer

:

Product line

: W40 JM Pump NEMA Premium
Efficiency Three-Phase

Product code :

14484693

Catalog # :

03018OT3E286JM-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

Heating constant

Cooling constant

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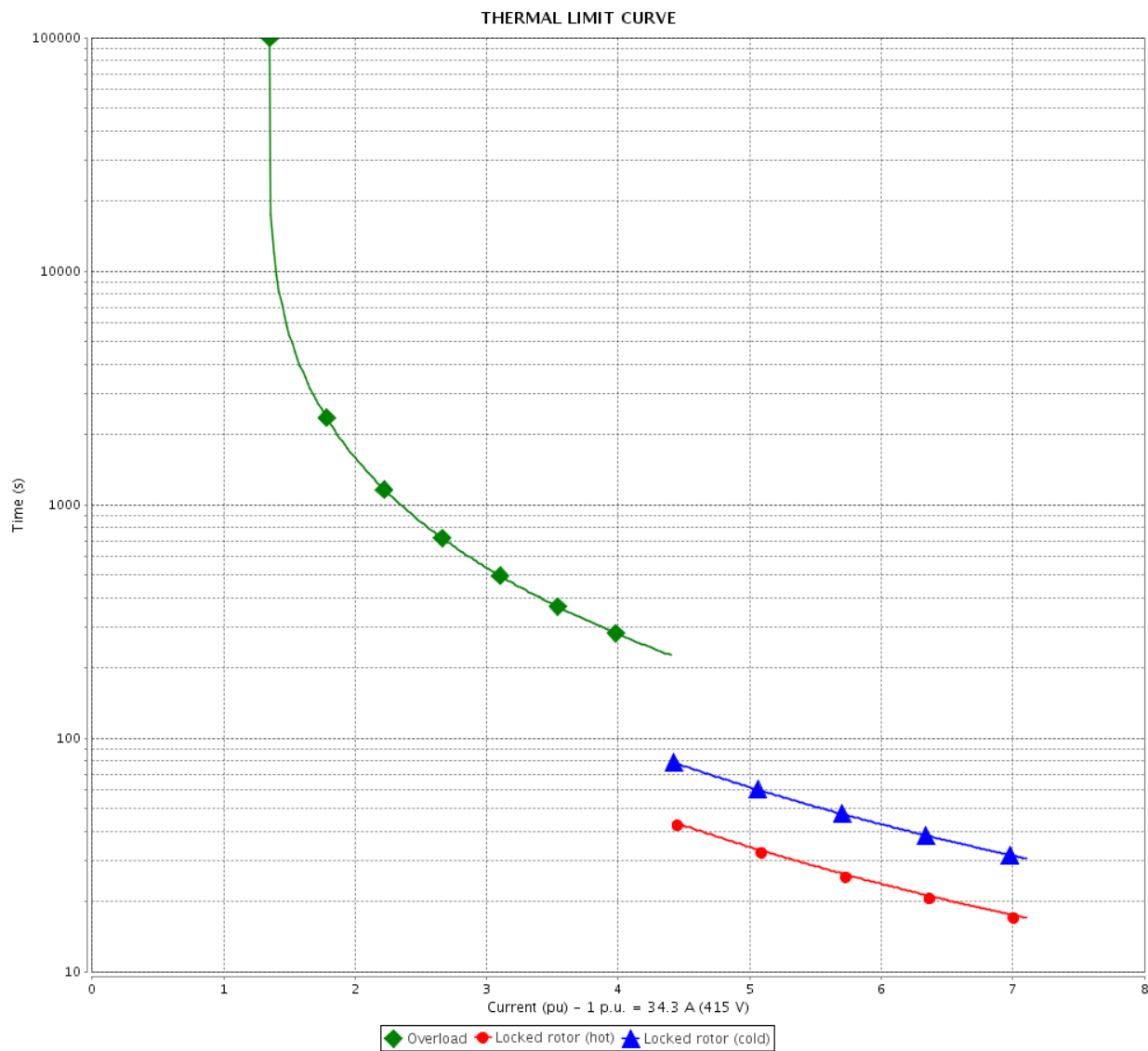
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VFD OPERATION CURVE

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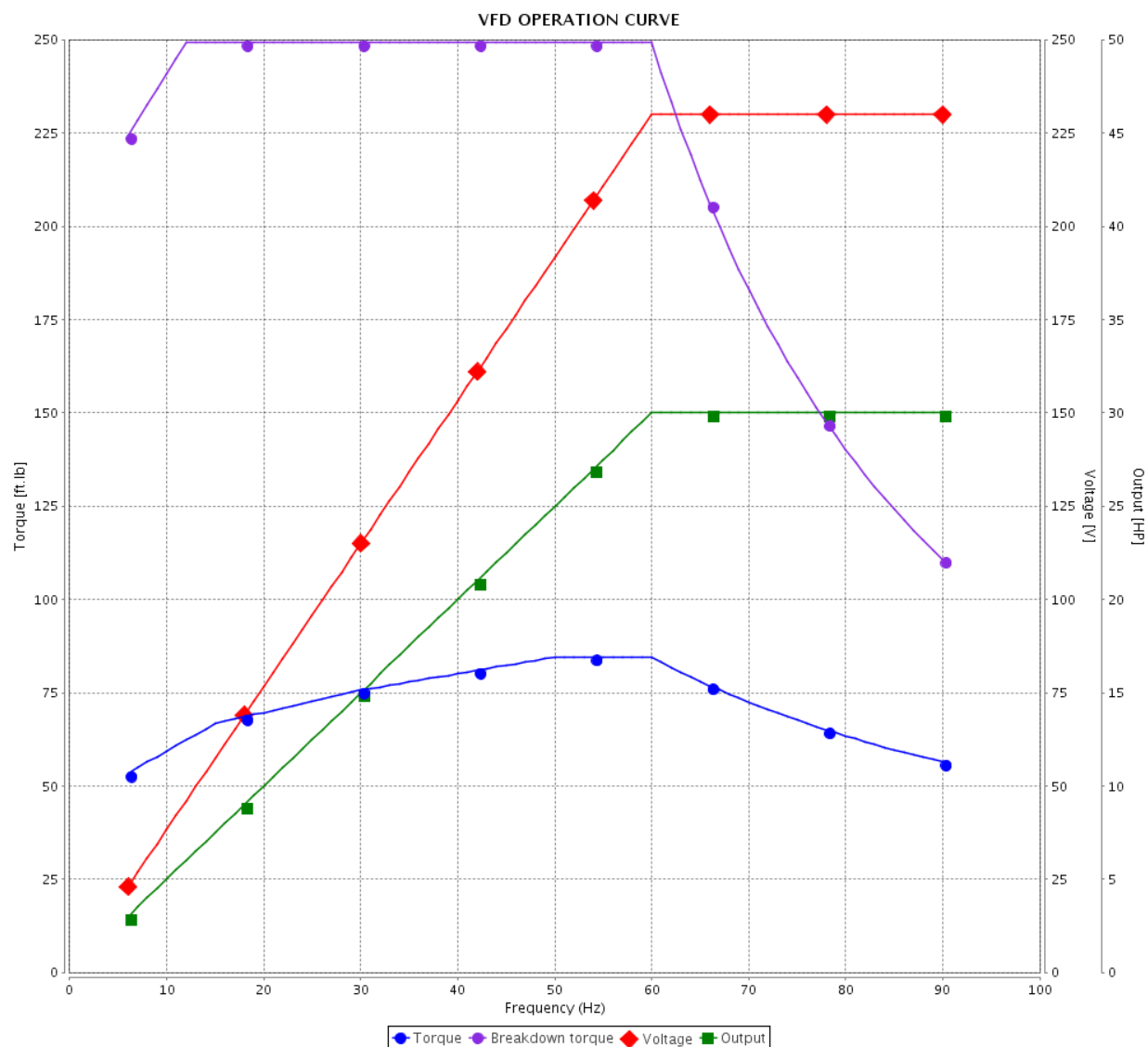


Customer :

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

Product code : 14484693

Catalog # : 03018OT3E286JM-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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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

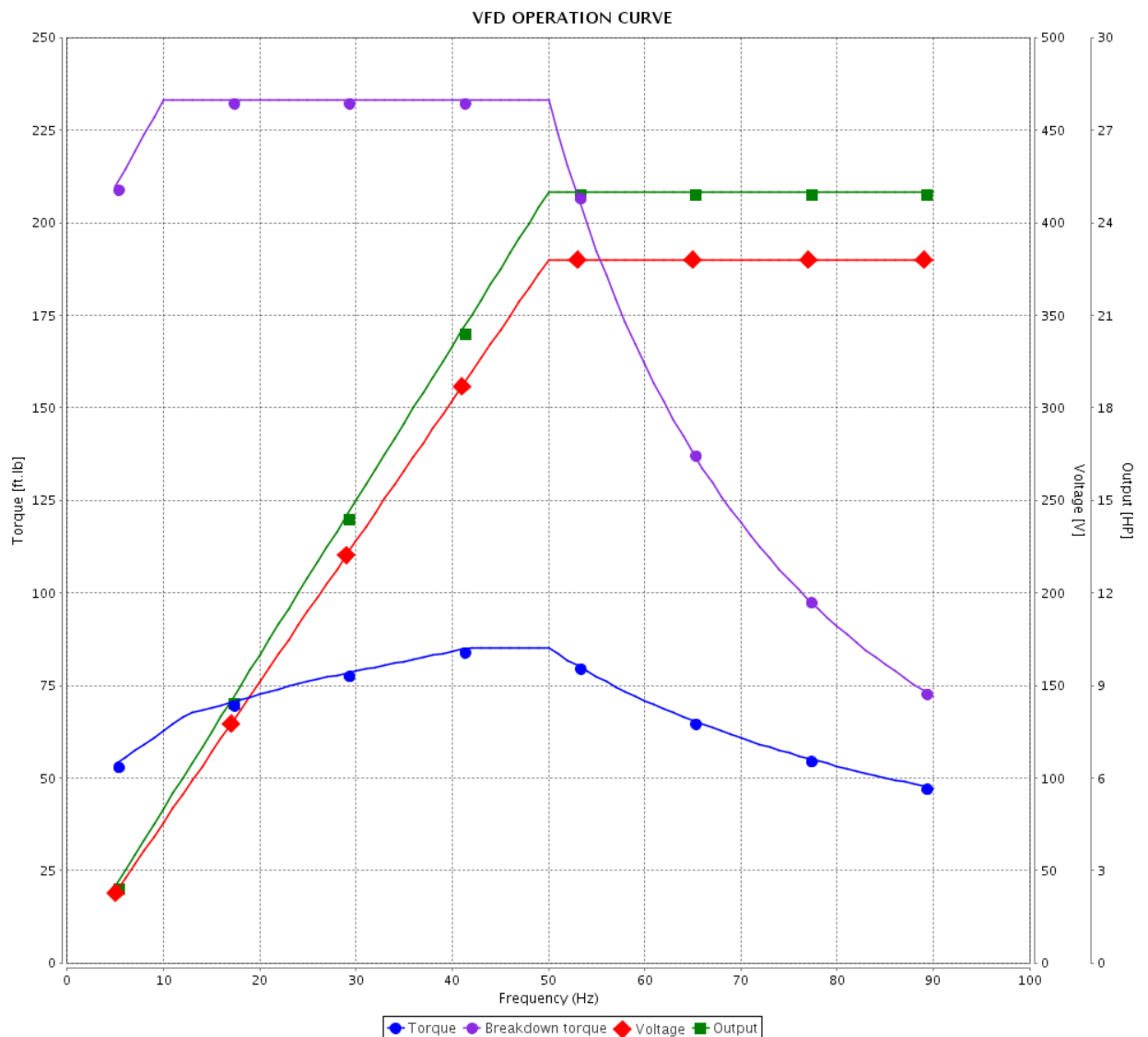


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Catalog # : 03018OT3E286JM-W40



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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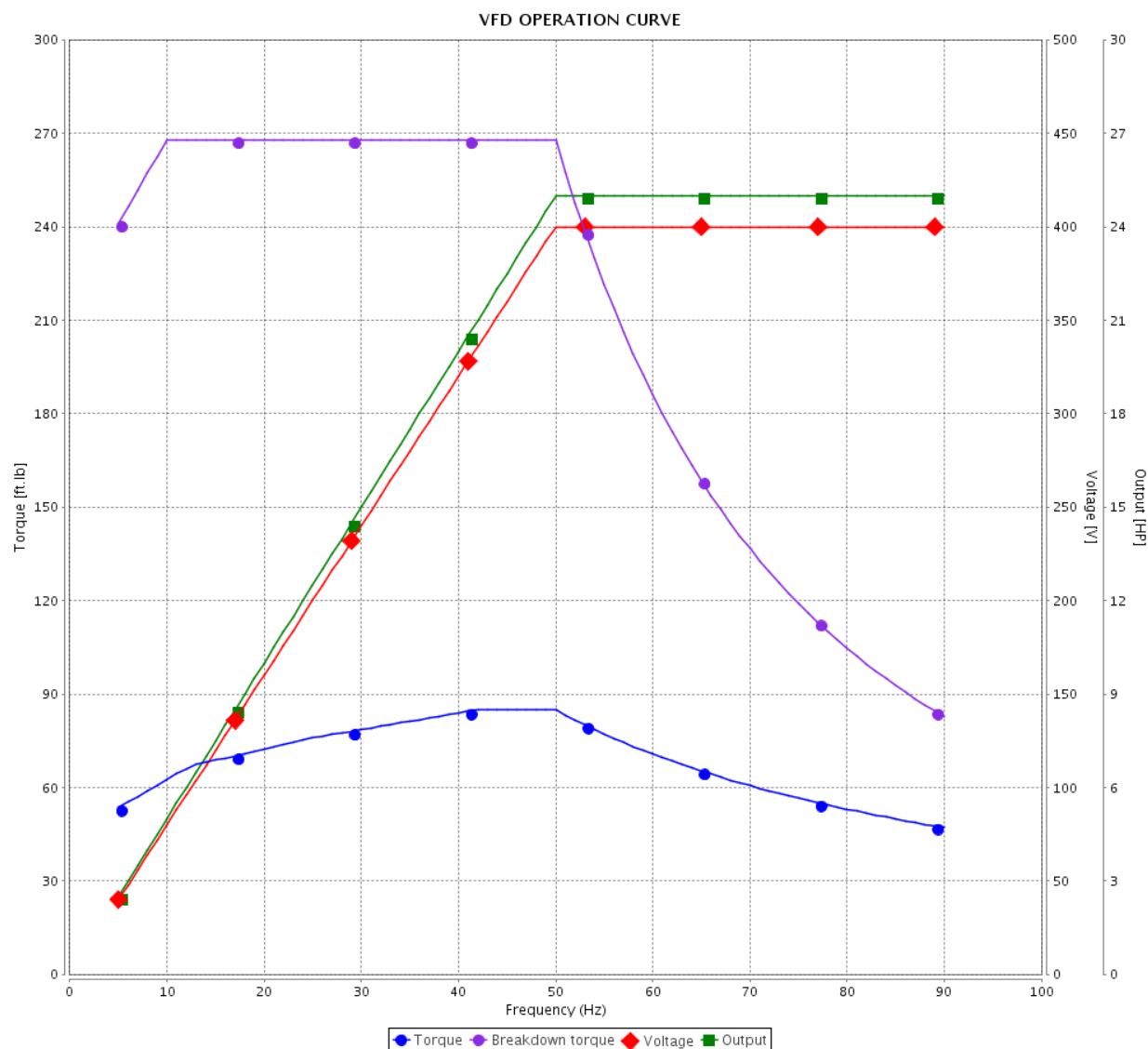


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Product code : 14484693

Catalog # : 03018OT3E286JM-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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VFD OPERATION CURVE

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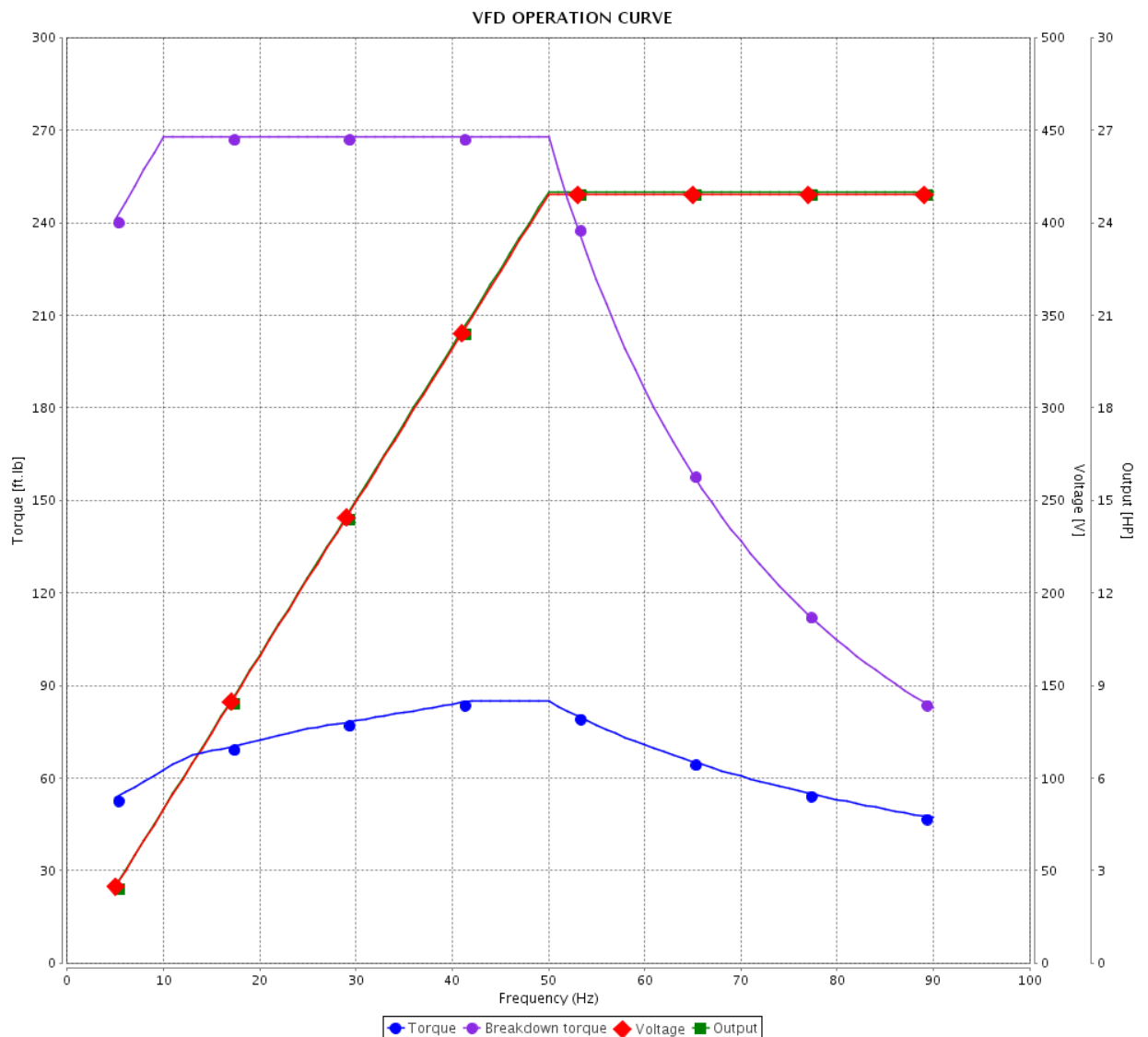


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Product code : 14484693

Catalog # : 03018OT3E286JM-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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