

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :	
Product line	: W22 Mining IE3 Three-Phase
Product code	:
Frame	: 200L
Insulation class	: H
Duty cycle	: S1
Ambient temperature	: -20°C to +40°C
Altitude	: 1000 m.a.s.l.
Protection degree	: IP66
Design	: N
Cooling method	: IC411 - TEFC
Mounting	: B5L(D)
Rotation ¹	: Both (CW and CCW)
Starting method	: Direct On Line
Approx. weight ³	: 274 kg
Moment of inertia (J)	: 0.3202 kgm ²
Output [kW]	30
Poles	4
Frequency [Hz]	50
Rated voltage [V]	380/660
Rated current [A]	58.0/33.4
L. R. Amperes [A]	423/244
LRC [A]	7.3
No load current [A]	24.5/14.1
Rated speed [RPM]	1480
Slip [%]	1.33
Rated torque [kgfm]	19.7
Locked rotor torque [%]	250
Breakdown torque [%]	280
Service factor	1.15
Temperature rise	80 K
Locked rotor time	21s (cold) 12s (hot)
Noise level ²	63.0 dB(A)
Efficiency (%)	25%
	50%
	75%
	100%
Power Factor	25%
	50%
	75%
	100%
Losses at normative operating points (speed;torque), in percentage of rated output power	
Losses (%)	P1 (0,9;1,0)
	P2 (0,5;1,0)
	P3 (0,25;1,0)
	P4 (0,9;0,5)
	P5 (0,5;0,5)
	P6 (0,5;0,25)
	P7 (0,25;0,25)
Bearing type	: Drive end 6312 C3 Non drive end 6212 C3
Sealing	: 00069
Lubrication interval	: 20000 h
Lubricant amount	: 21 g
Lubricant type	: Mobil Polyrex EM
Foundation loads	
Max. traction : 583 kgf	
Max. compression : 857 kgf	
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 IEC 60034-1.	
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Customer : _____

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Customer : _____

Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermistor - 2 wires	1 x Phase	155 °C

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

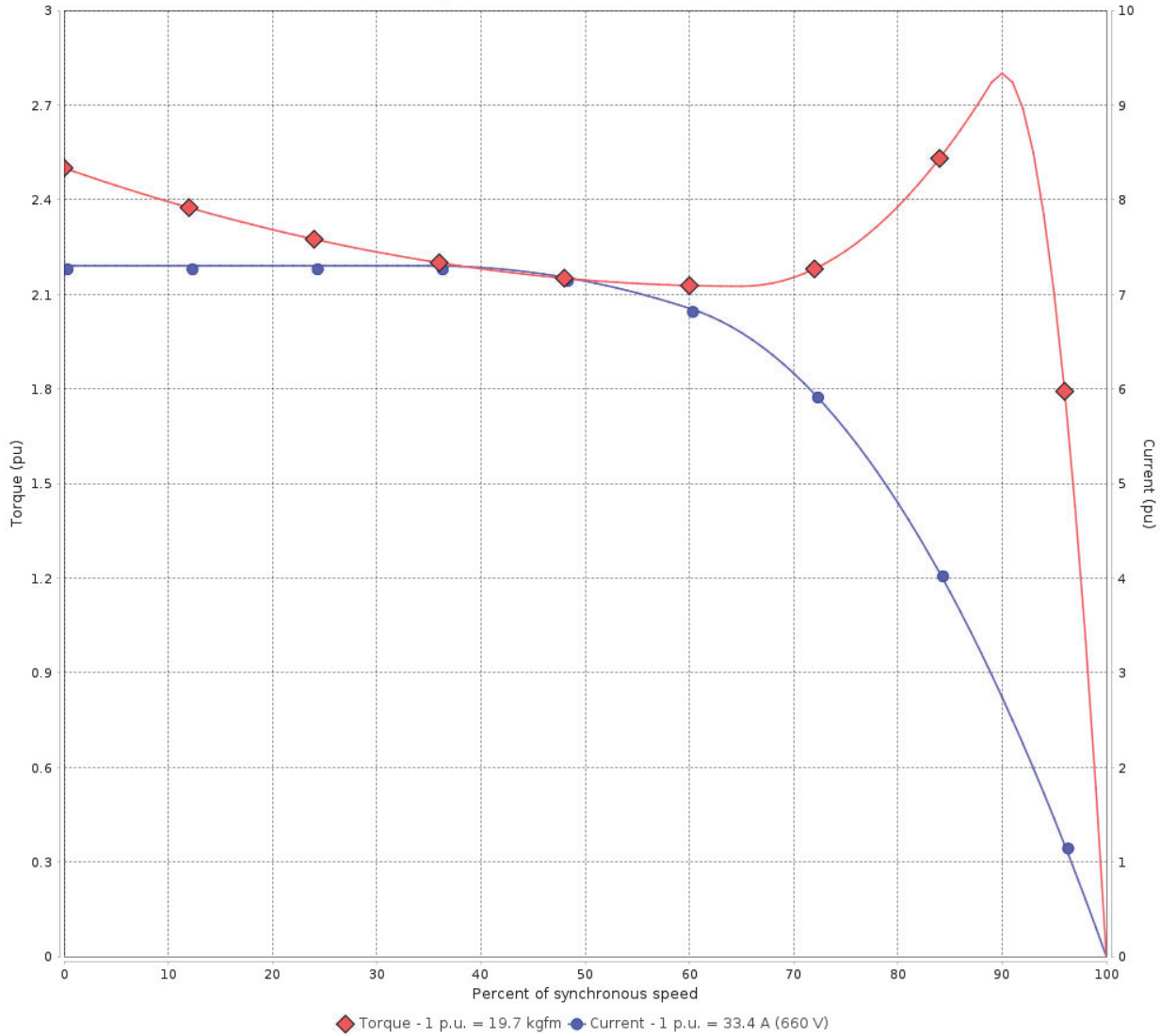


Customer :

Product line : W22 Mining IE3 Three-Phase

Product code :

TORQUE AND CURRENT VS SPEED CURVE



Performance : 380/660 V 50 Hz 4P

Rated current : 58.0/33.4 A
 LRC : 7.3
 Rated torque : 19.7 kgfm
 Locked rotor torque : 250 %
 Breakdown torque : 280 %
 Rated speed : 1480 rpm

Moment of inertia (J) : 0.3202 kgm²
 Duty cycle : S1
 Insulation class : H
 Service factor : 1.15
 Temperature rise : 80 K
 Design : N

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

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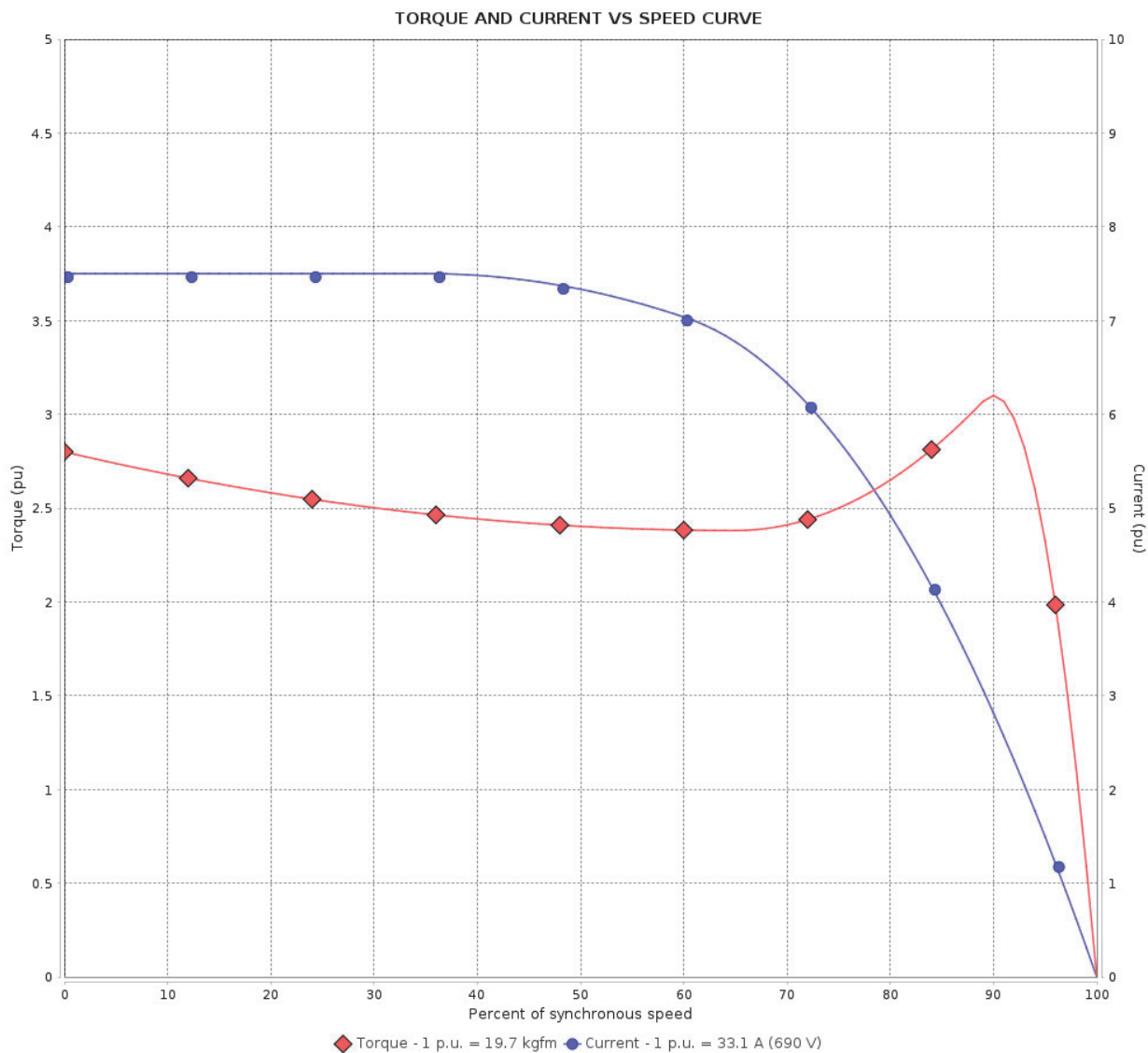
TORQUE AND CURRENT VS SPEED CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Mining IE3 Three-Phase Product code :



Performance : 400/690 V 50 Hz 4P

Rated current	: 57.1/33.1 A	Moment of inertia (J)	: 0.3202 kgm ²
LRC	: 7.5	Duty cycle	: S1
Rated torque	: 19.7 kgfm	Insulation class	: H
Locked rotor torque	: 280 %	Service factor	: 1.15
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: N

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

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TORQUE AND CURRENT VS SPEED CURVE

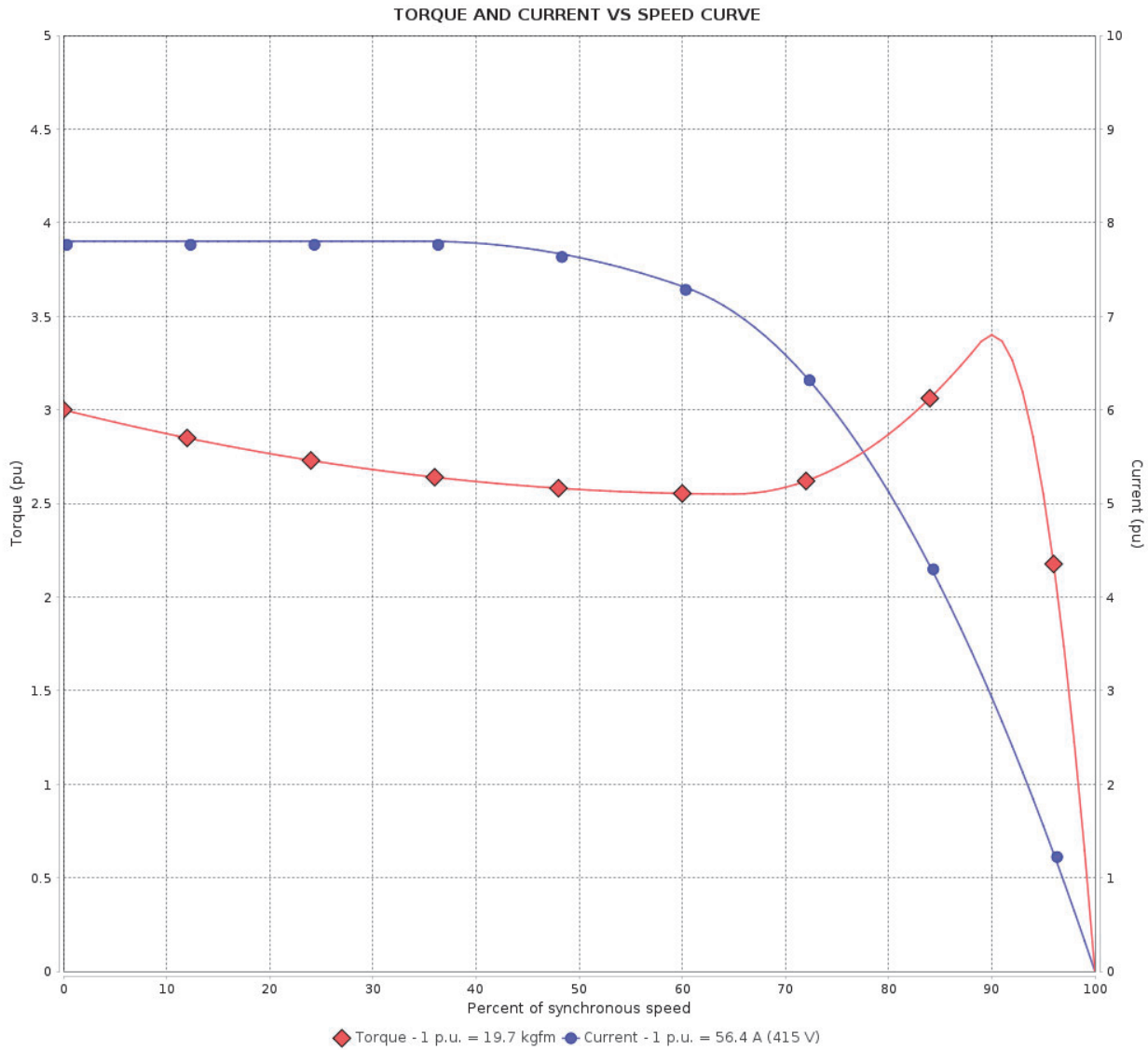
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Mining IE3 Three-Phase

Product code :



Performance : 415 V 50 Hz 4P

Rated current	: 56.4 A	Moment of inertia (J)	: 0.3202 kgm ²
LRC	: 7.8	Duty cycle	: S1
Rated torque	: 19.7 kgfm	Insulation class	: H
Locked rotor torque	: 300 %	Service factor	: 1.15
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 1485 rpm	Design	: N

Locked rotor time : 19s (cold) 10s (hot)

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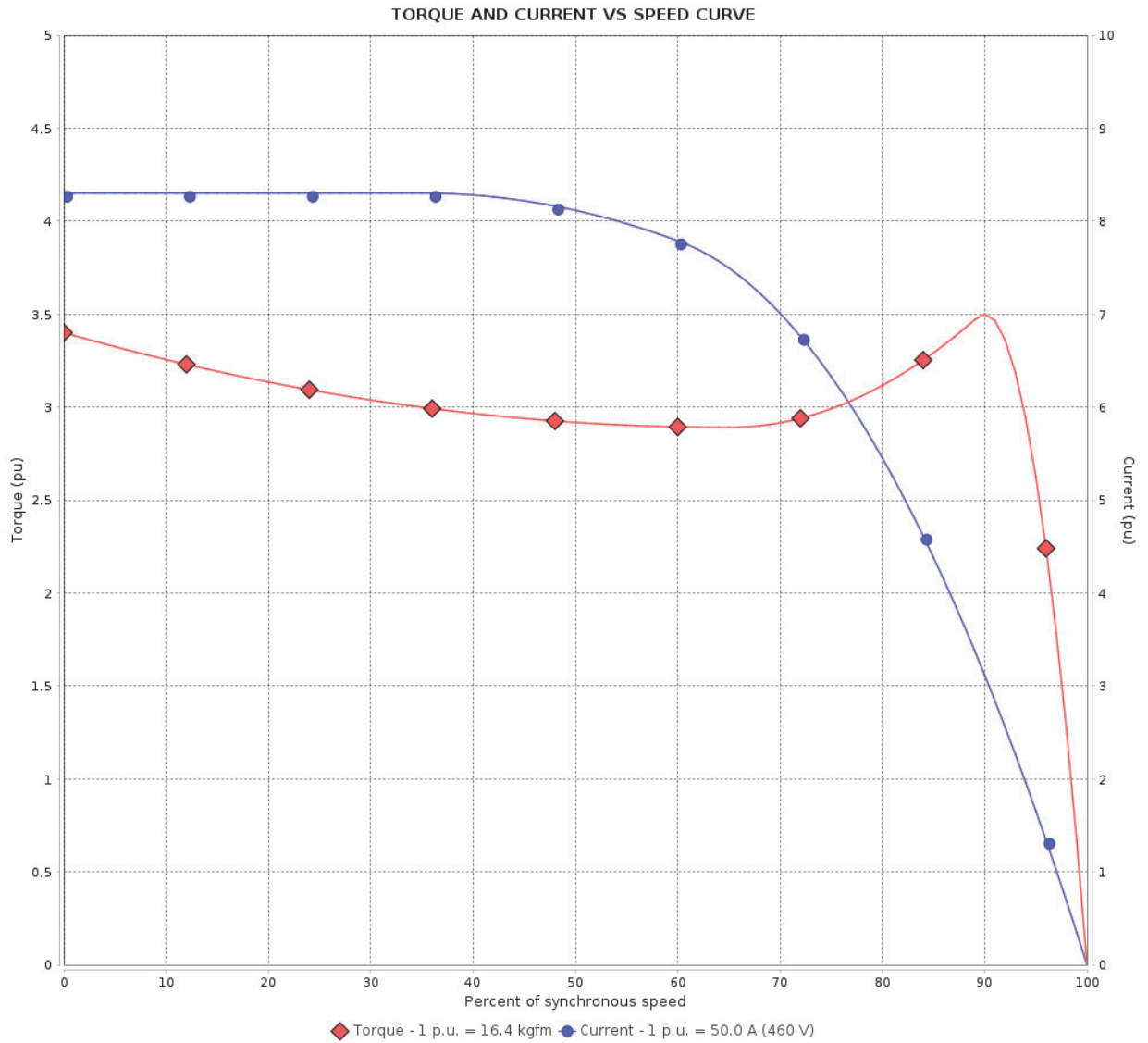
TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Mining IE3 Three-Phase Product code :



Performance : 460 V 60 Hz 4P

Rated current	: 50.0 A	Moment of inertia (J)	: 0.3202 kgm ²
LRC	: 8.3	Duty cycle	: S1
Rated torque	: 16.4 kgfm	Insulation class	: H
Locked rotor torque	: 340 %	Service factor	: 1.15
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 1785 rpm	Design	: N

Locked rotor time : 26s (cold) 14s (hot)

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LOAD PERFORMANCE CURVE

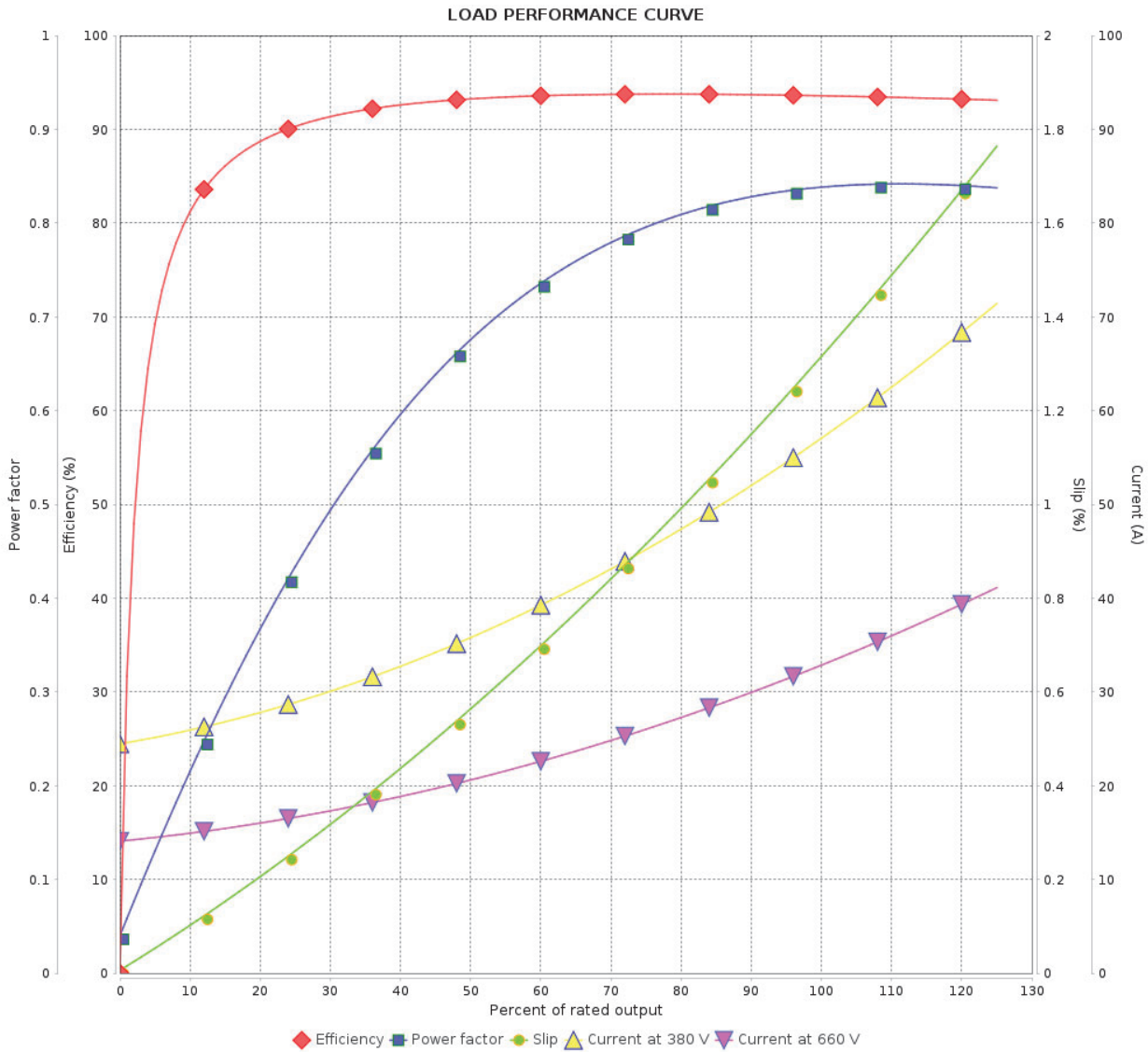
Three Phase Induction Motor - Squirrel Cage



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Product code :



Performance : 380/660 V 50 Hz 4P

Rated current : 58.0/33.4 A
 LRC : 7.3
 Rated torque : 19.7 kgfm
 Locked rotor torque : 250 %
 Breakdown torque : 280 %
 Rated speed : 1480 rpm

Moment of inertia (J) : 0.3202 kgm²
 Duty cycle : S1
 Insulation class : H
 Service factor : 1.15
 Temperature rise : 80 K
 Design : N

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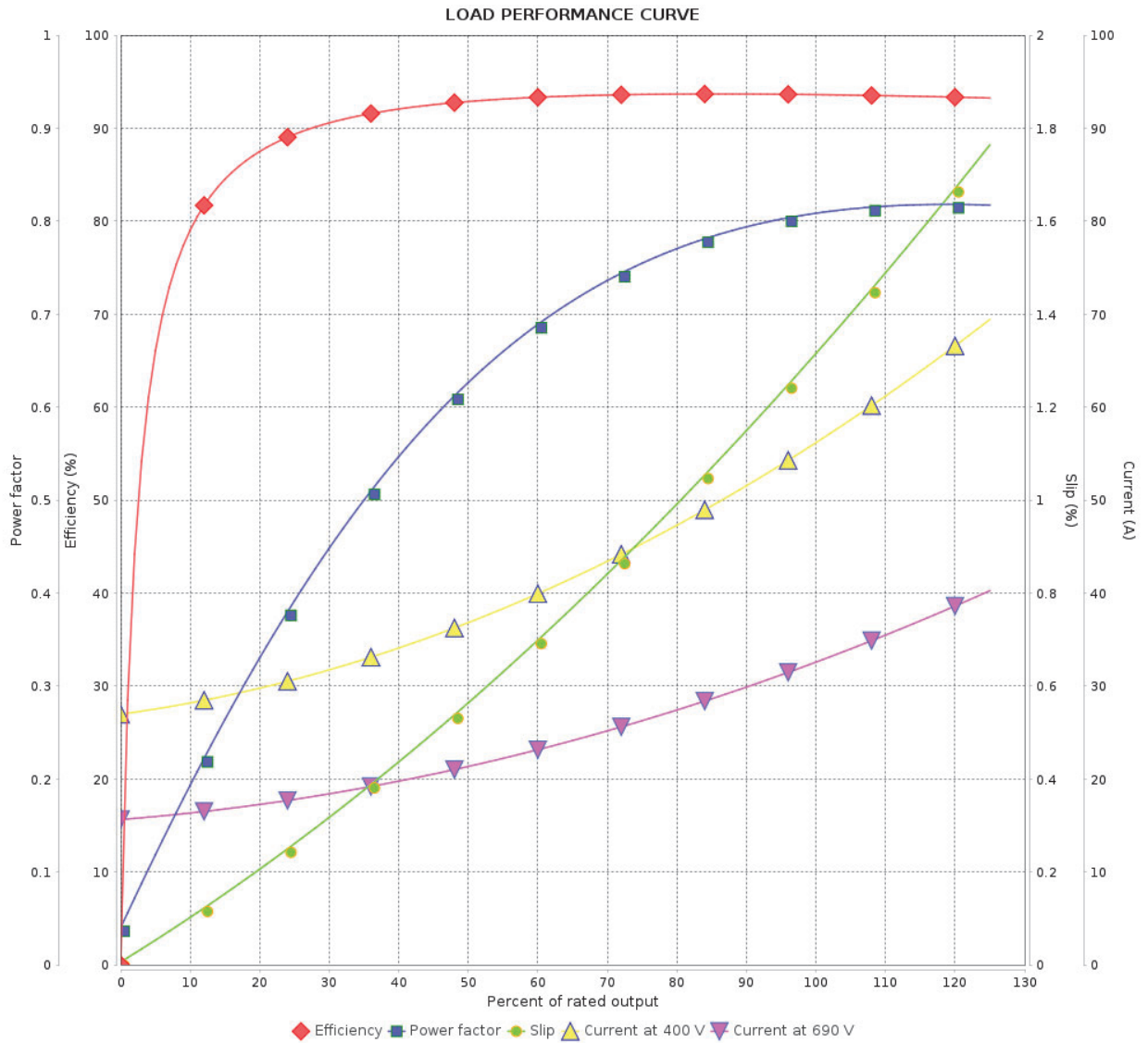
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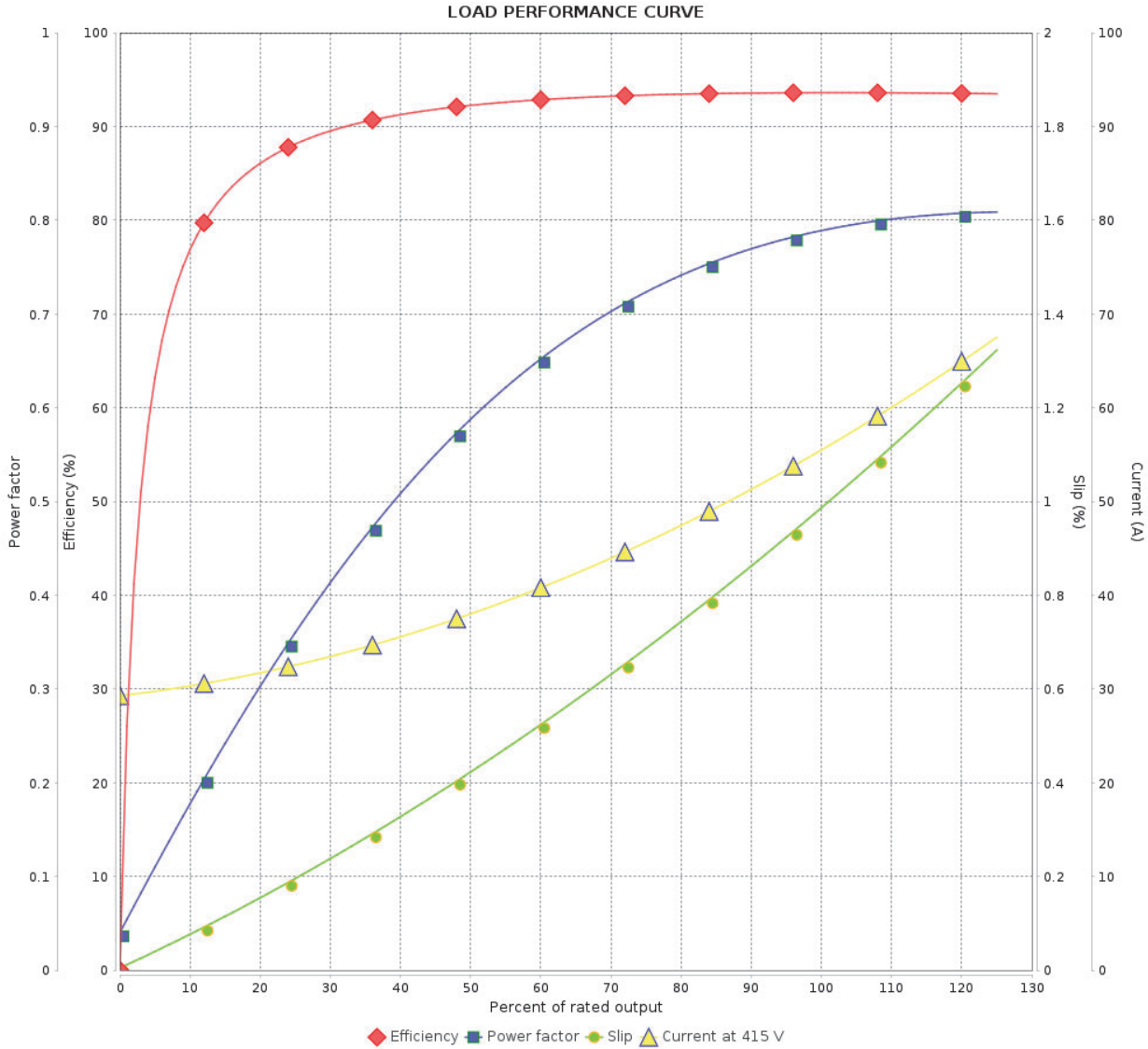
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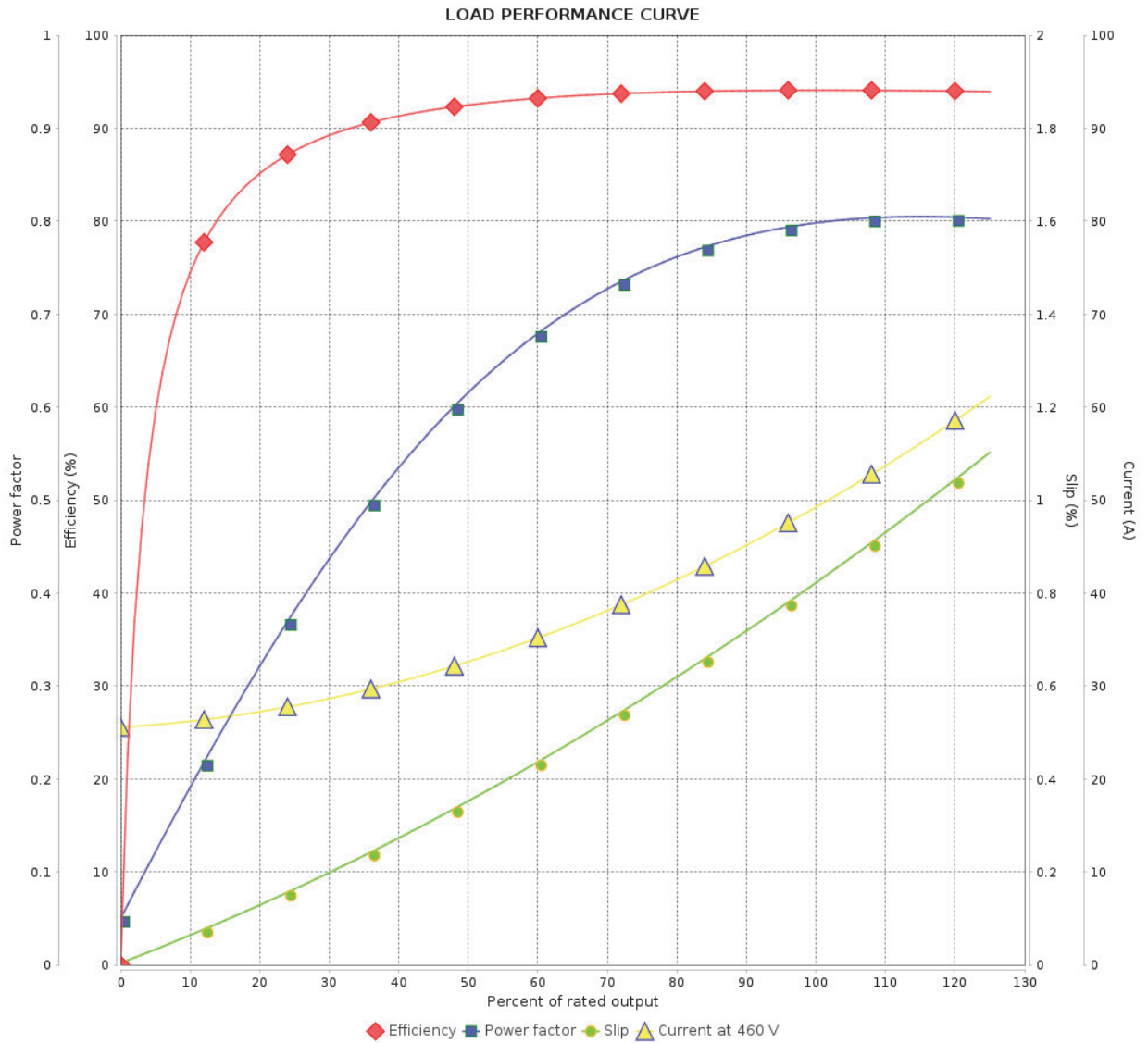
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Rated speed	: 1785 rpm	Design	: N

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THERMAL LIMIT CURVE

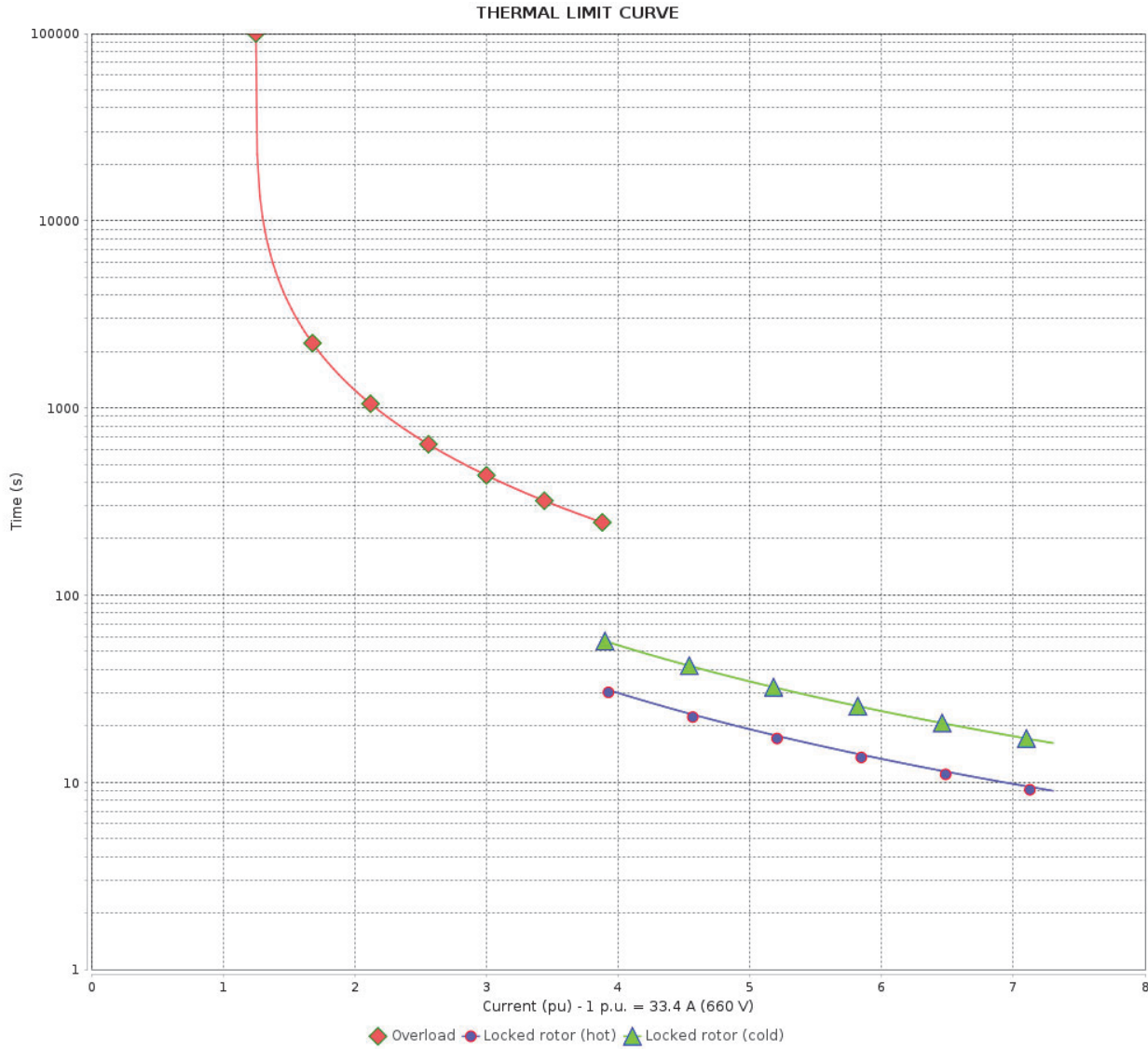
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 Service factor : 1.15
 Temperature rise : 80 K
 Design : N

Heating constant

Cooling constant

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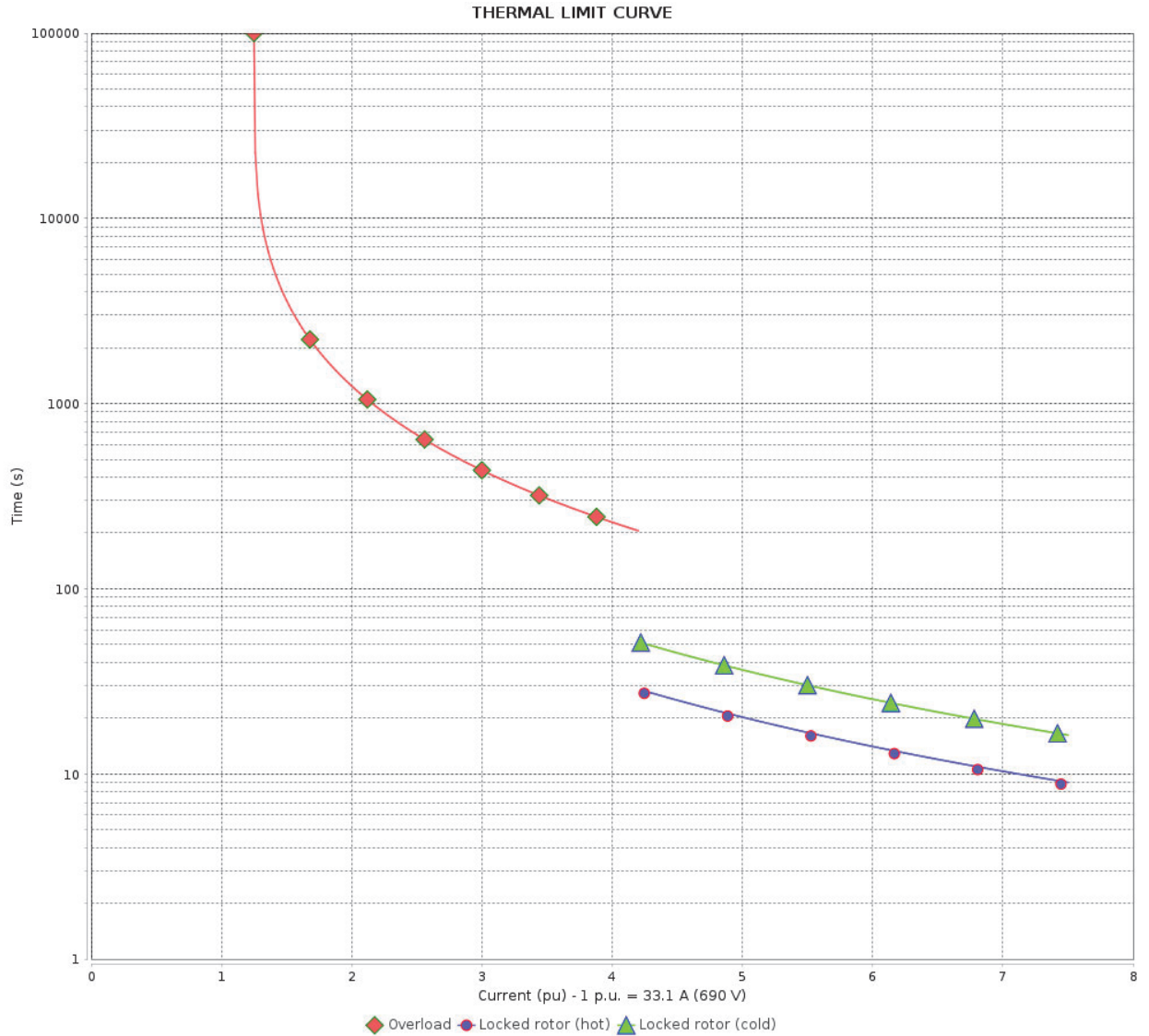
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Heating constant

Cooling constant

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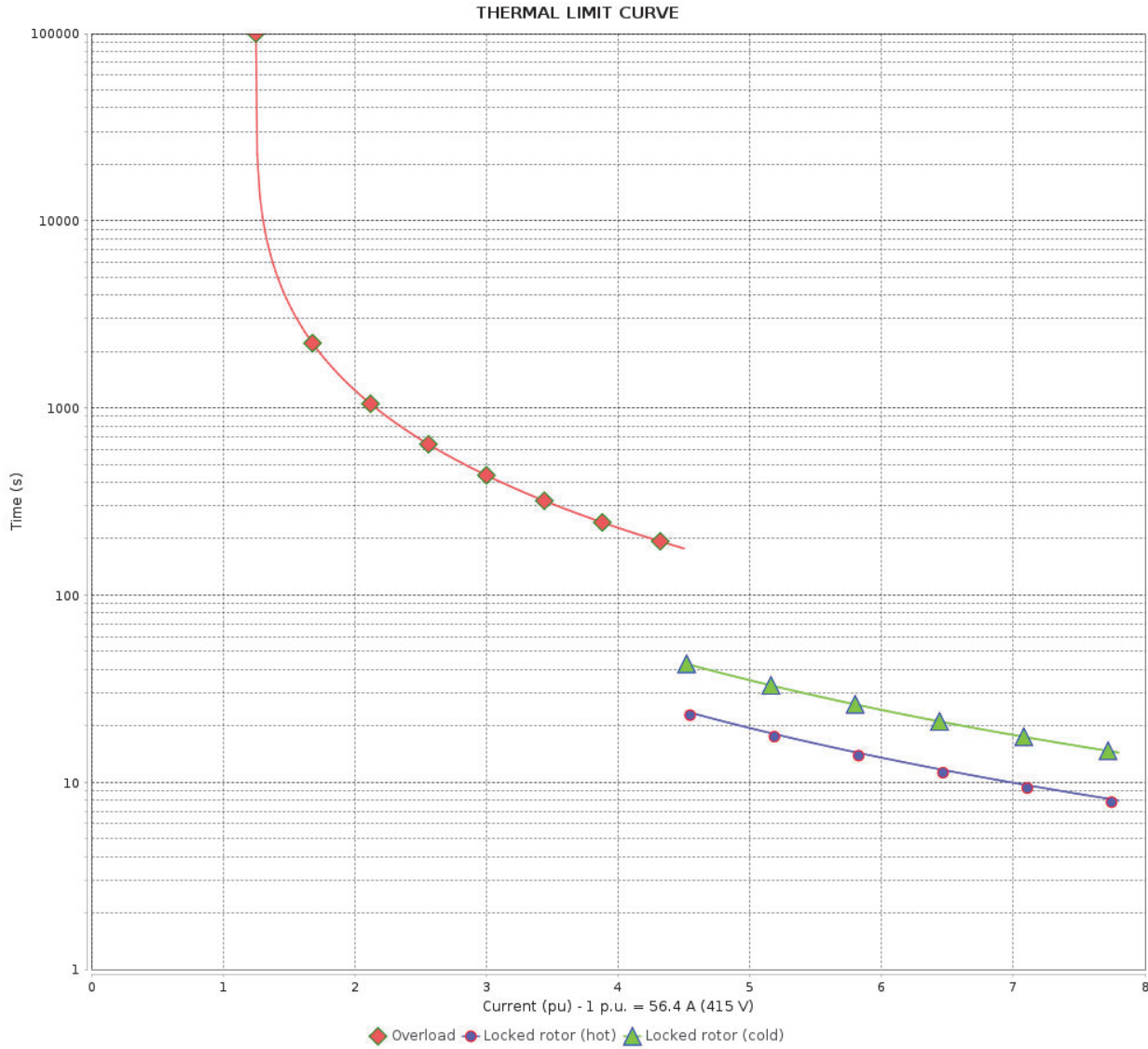
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Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 1485 rpm	Design	: N

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Cooling constant

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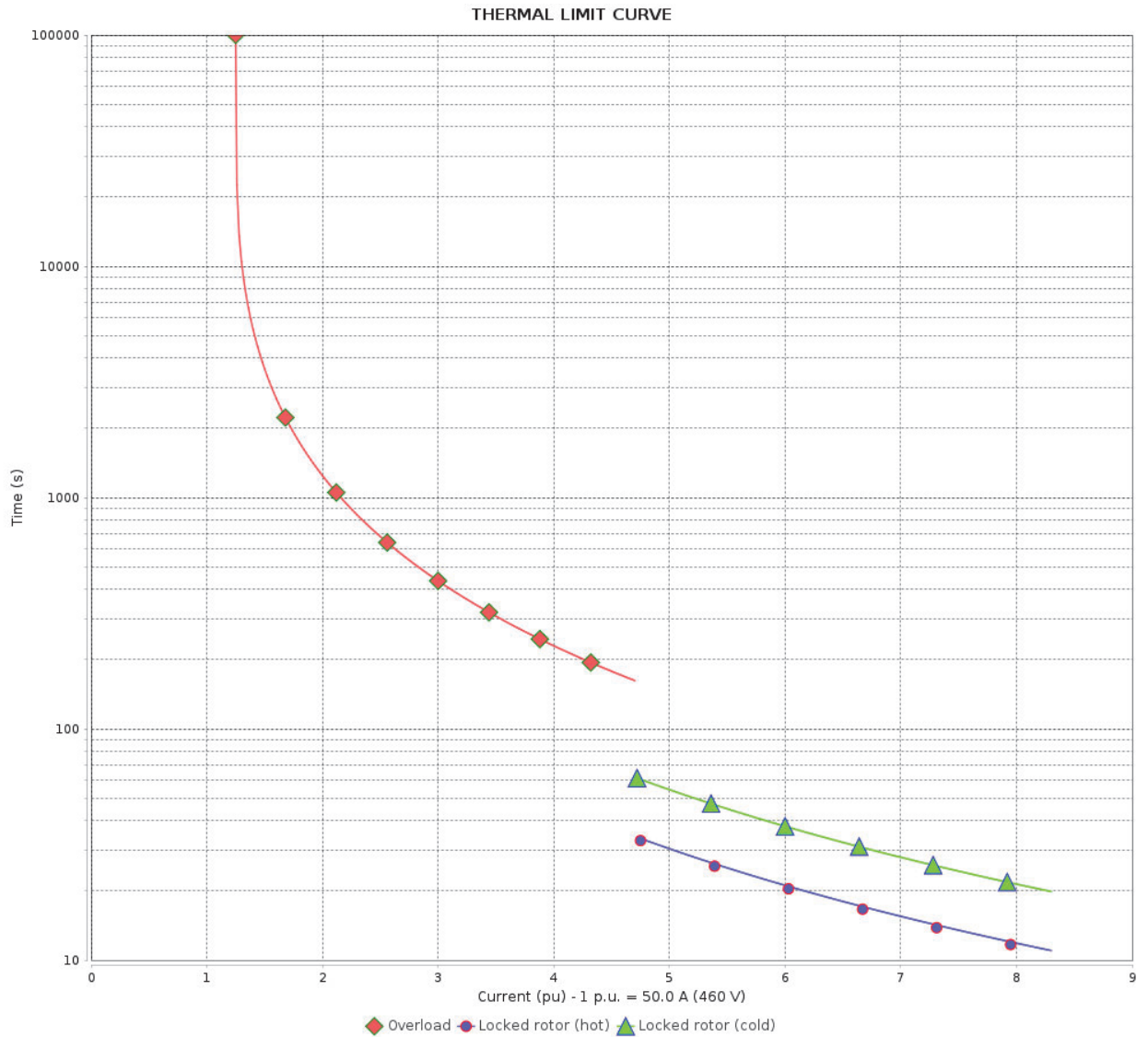
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VFD OPERATION CURVE

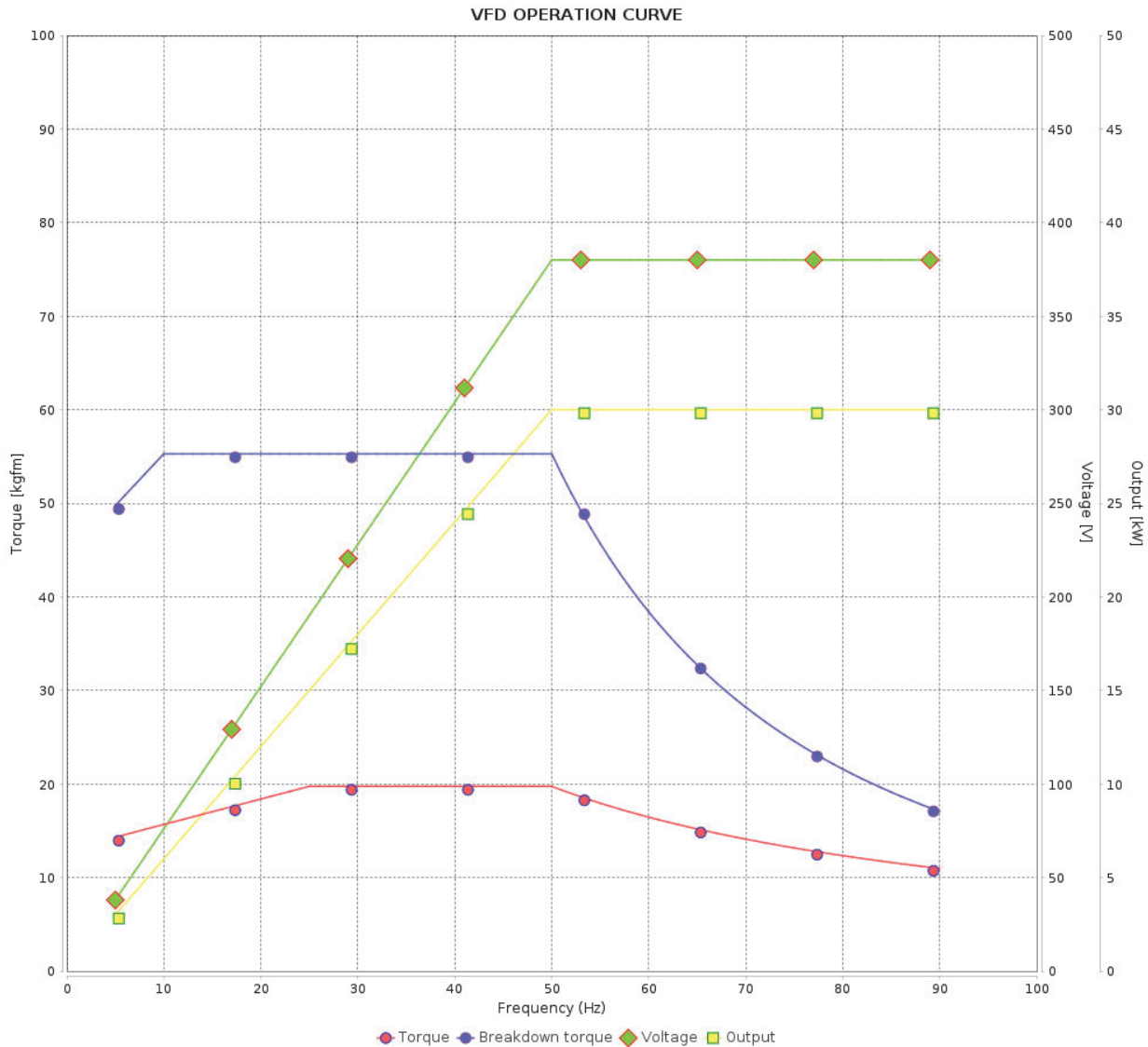
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 Duty cycle : S1
 Insulation class : H
 Service factor : 1.15
 Temperature rise : 80 K
 Design : N

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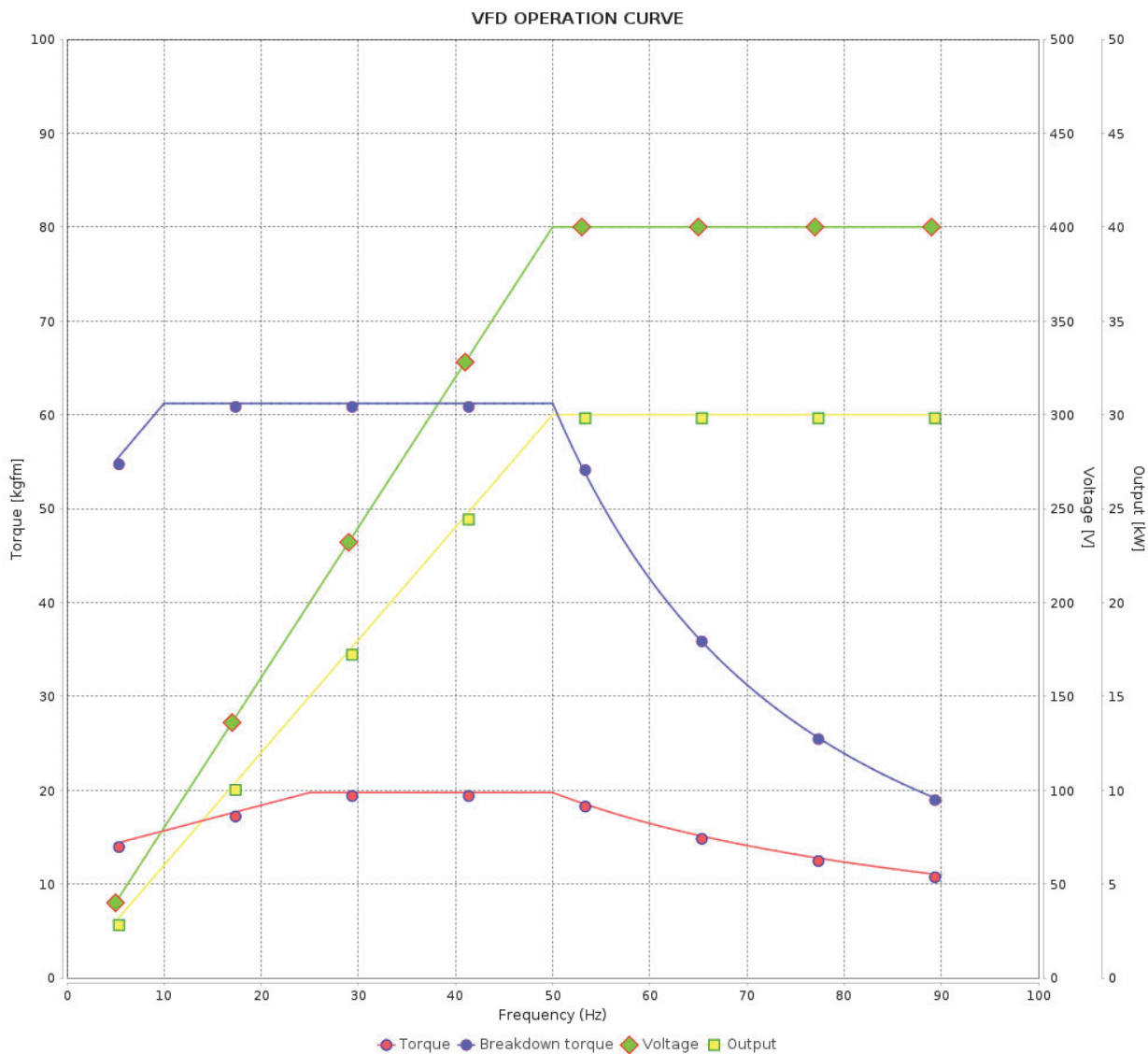
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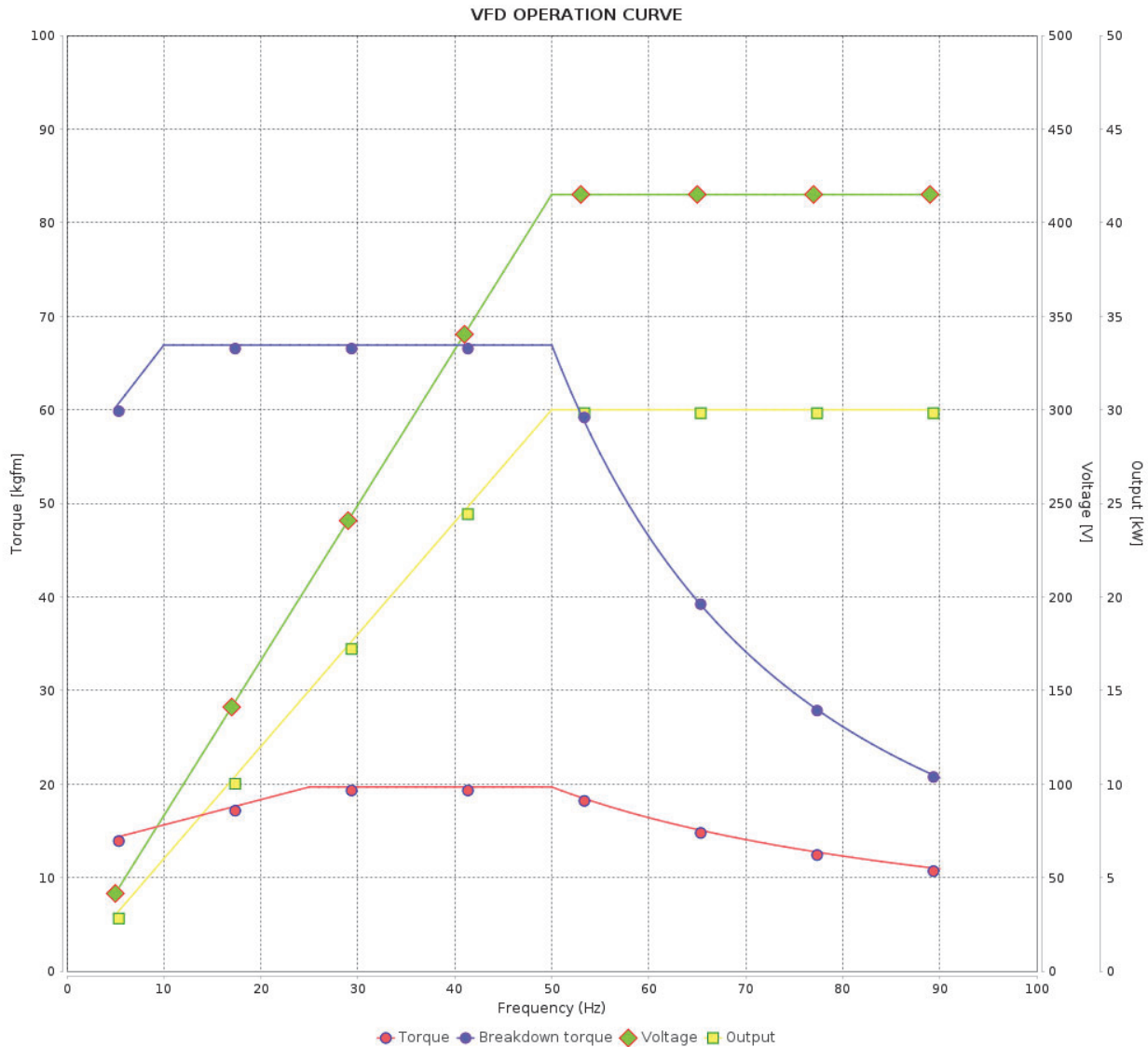
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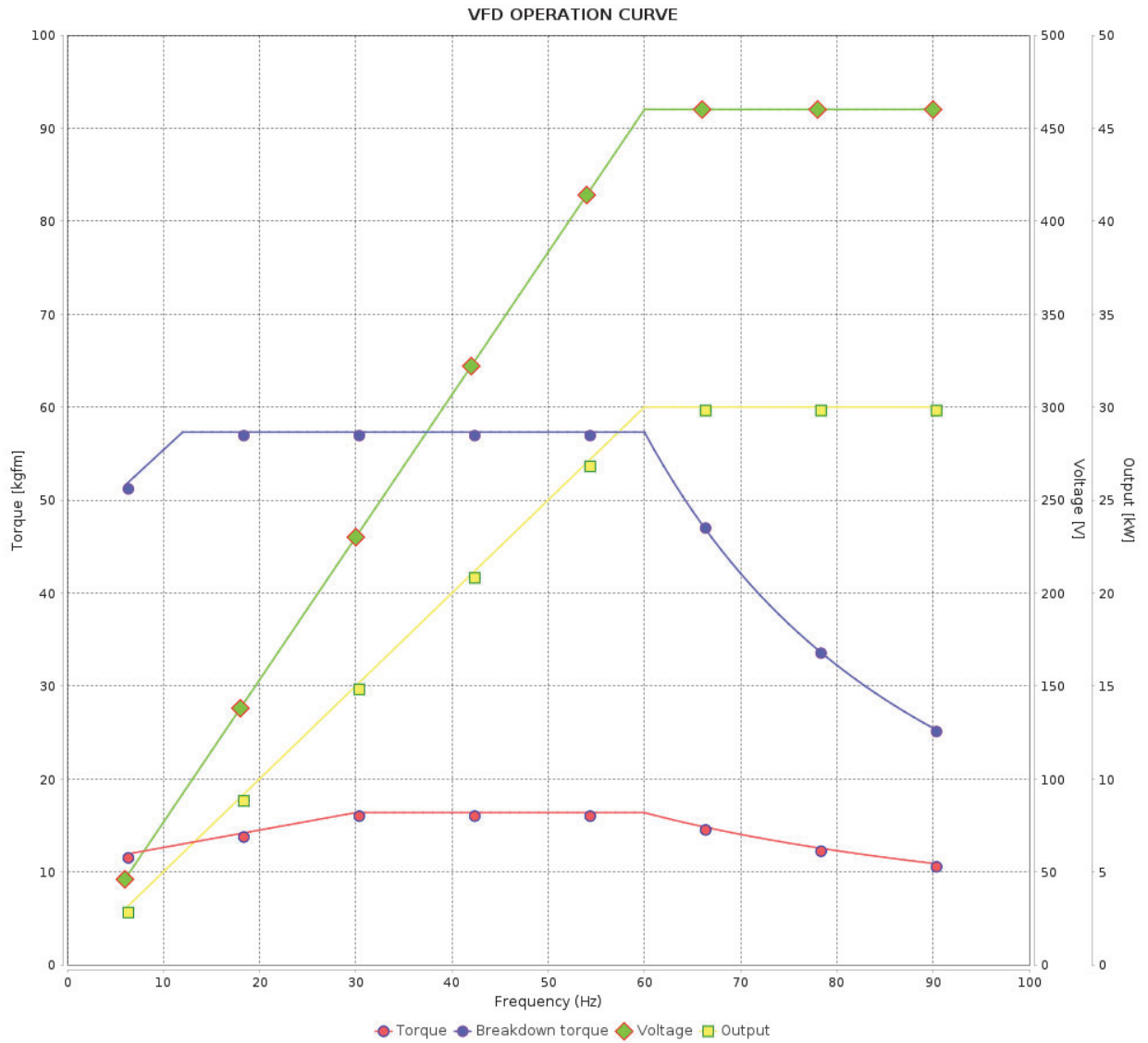
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