

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :	
Product line : IE3 Three-Phase	Product code : 12943408
Frame : 100L Insulation class : F Duty cycle : S1 Ambient temperature : -20°C to +40°C Altitude : 1000 m.a.s.l. Protection degree : IP55 Design : N	Cooling method : IC411 - TEFC Mounting : B3T Rotation <sup>1</sup> : Both (CW and CCW) Starting method : Direct On Line Approx. weight <sup>2</sup> : 23.3 kg Moment of inertia (J) : 0.0064 kgm <sup>2</sup>
Output [kW]	3
Poles	2
Frequency [Hz]	50
Rated voltage [V]	220/380
Rated current [A]	10.4/6.02
L. R. Amperes [A]	78.0/45.1
LRC [A]	7.5
No load current [A]	4.40/2.55
Rated speed [RPM]	2905
Slip [%]	3.17
Rated torque [kgfm]	1.01
Locked rotor torque [%]	220
Breakdown torque [%]	300
Service factor	1.00
Temperature rise	80 K
Locked rotor time	18s (cold) 10s (hot)
Noise level <sup>2</sup>	67.0 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 6206 ZZ Non drive end 6205 ZZ Sealing : V'Ring V'Ring Lubrication interval : - - Lubricant amount : - - Lubricant type : Mobil Polyrex EM	Foundation loads Max. traction : 79 kgf Max. compression : 102 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.	
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## Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

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# TORQUE AND CURRENT VS SPEED CURVE

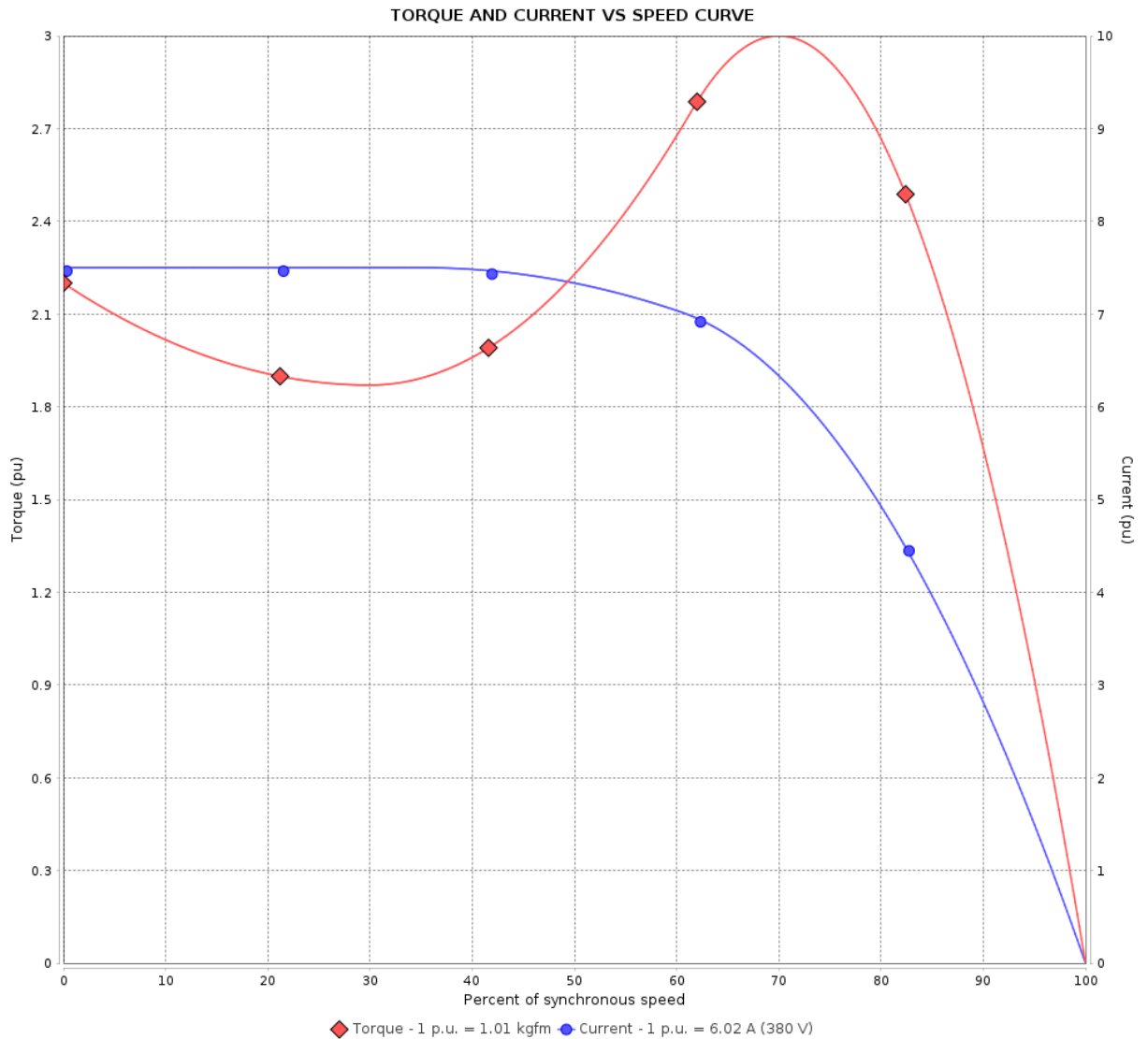


## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : IE3 Three-Phase

Product code : 12943408



Performance : 220/380 V 50 Hz 2P

Rated current	: 10.4/6.02 A	Moment of inertia (J)	: 0.0064 kgm <sup>2</sup>
LRC	: 7.5	Duty cycle	: S1
Rated torque	: 1.01 kgfm	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 2905 rpm	Design	: N

Locked rotor time : 18s (cold) 10s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

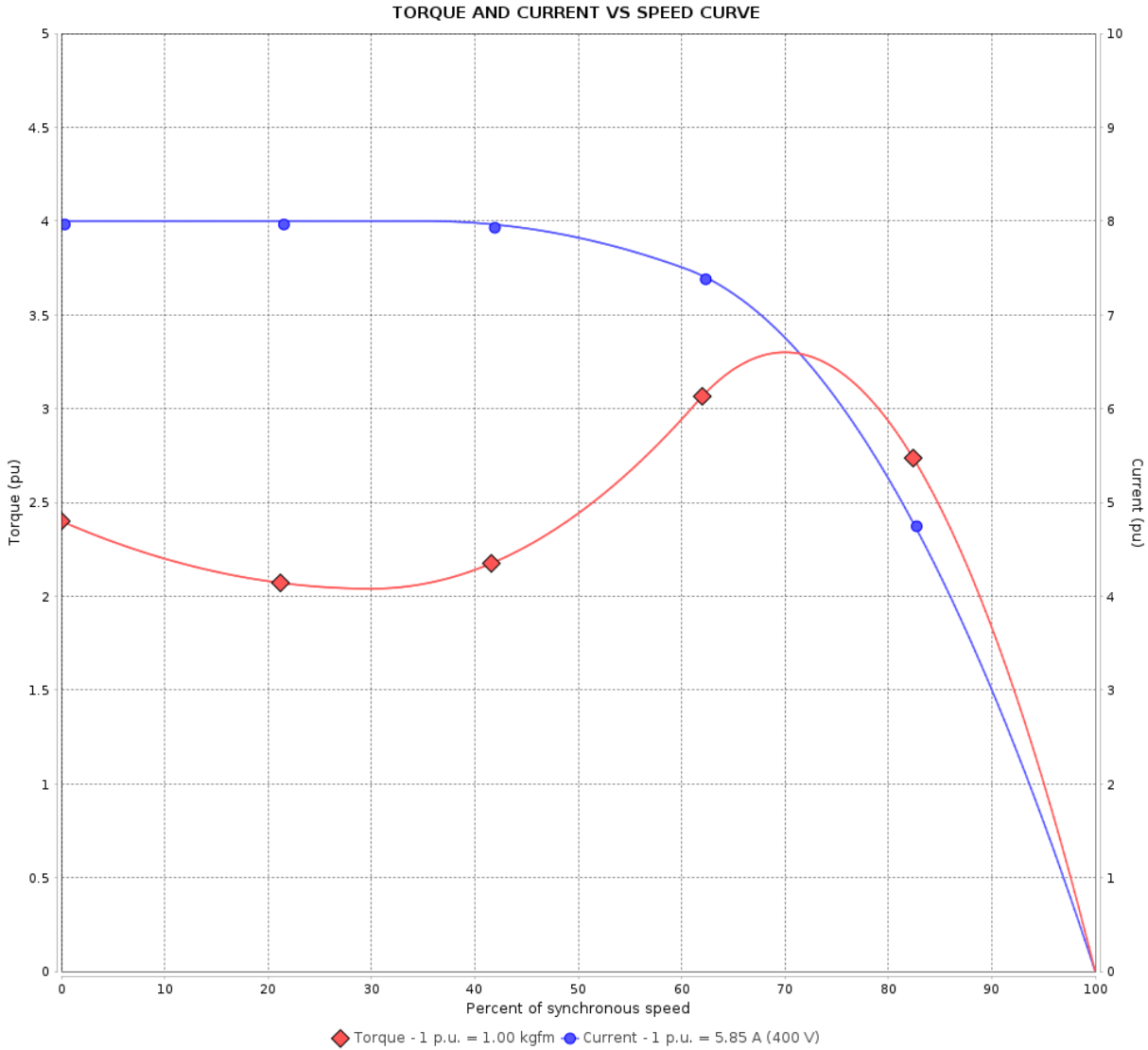
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : IE3 Three-Phase

Product code : 12943408



Performance : 230/400 V 50 Hz 2P

Rated current	: 10.2/5.85 A	Moment of inertia (J)	: 0.0064 kgm <sup>2</sup>
LRC	: 8.0	Duty cycle	: S1
Rated torque	: 1.00 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 2915 rpm	Design	: N

Locked rotor time : 16s (cold) 9s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

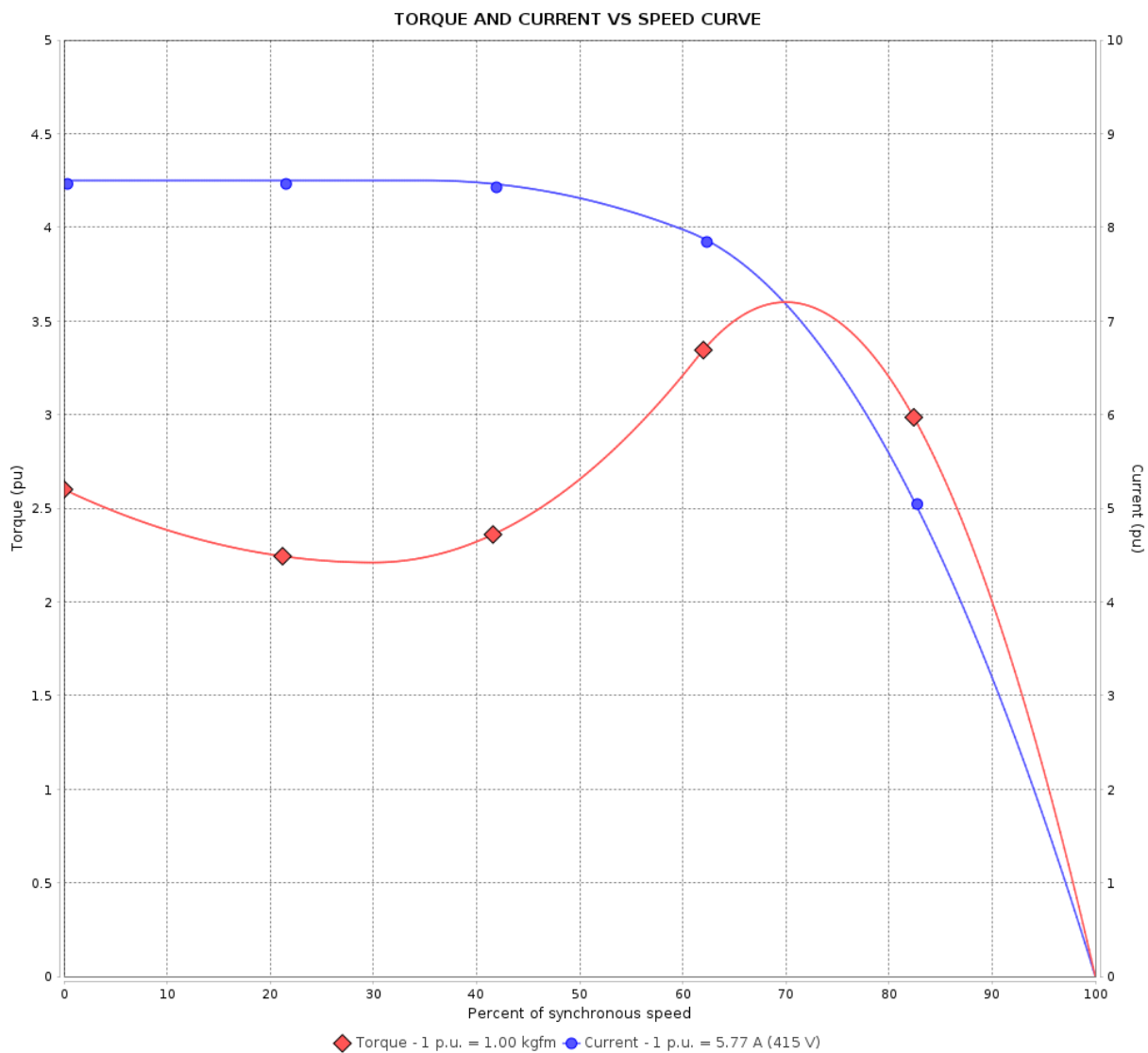


## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : IE3 Three-Phase

Product code : 12943408



Performance : 240/415 V 50 Hz 2P

Rated current	: 9.98/5.77 A	Moment of inertia (J)	: 0.0064 kgm <sup>2</sup>
LRC	: 8.5	Duty cycle	: S1
Rated torque	: 1.00 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 360 %	Temperature rise	: 80 K
Rated speed	: 2920 rpm	Design	: N

Locked rotor time : 16s (cold) 9s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

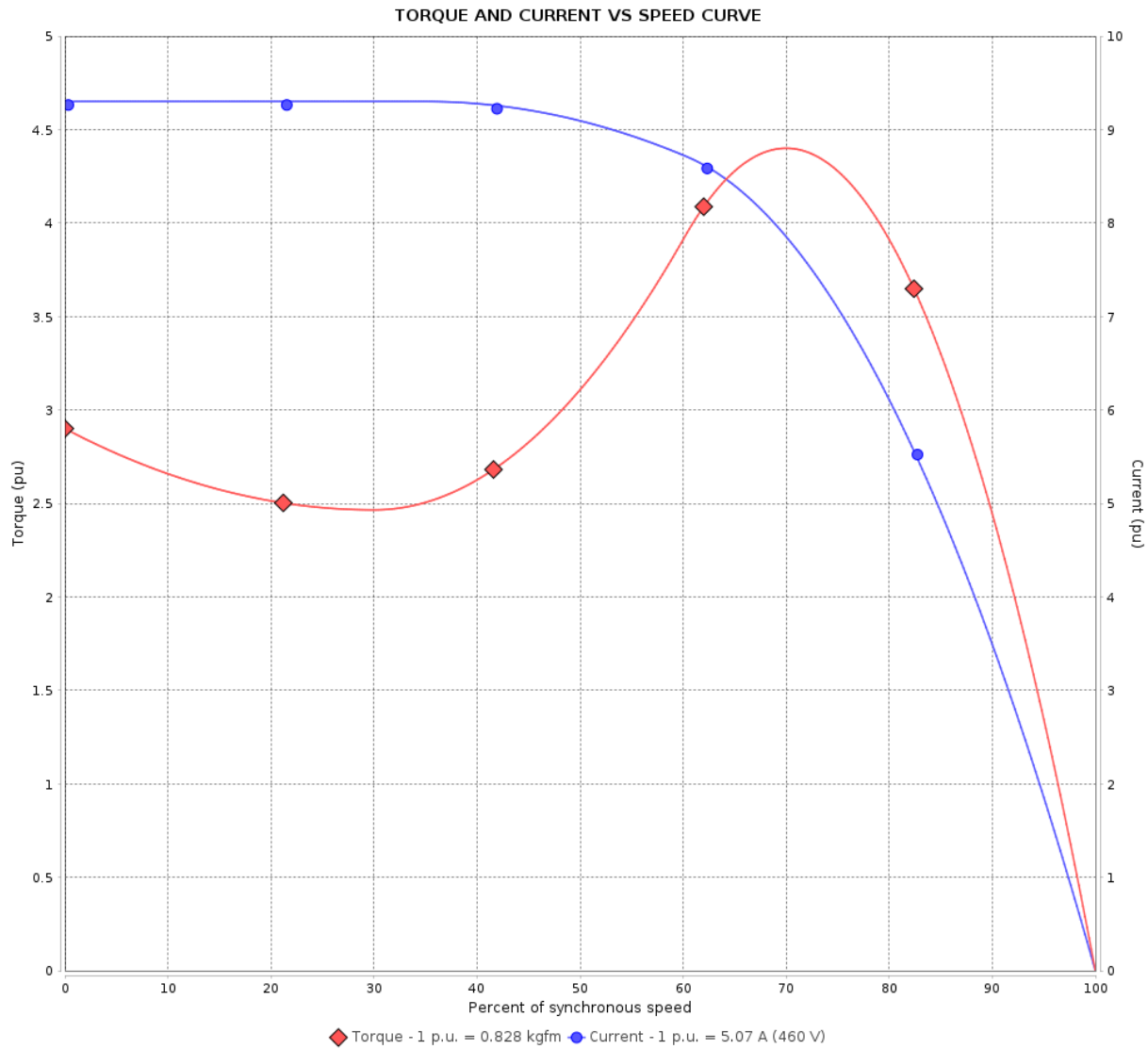
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : IE3 Three-Phase

Product code : 12943408



Performance : 460 V 60 Hz 2P

Rated current	: 5.07 A	Moment of inertia (J)	: 0.0064 kgm <sup>2</sup>
LRC	: 9.3	Duty cycle	: S1
Rated torque	: 0.828 kgfm	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.00
Breakdown torque	: 440 %	Temperature rise	: 80 K
Rated speed	: 3530 rpm	Design	: N

Locked rotor time : 18s (cold) 10s (hot)

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# LOAD PERFORMANCE CURVE

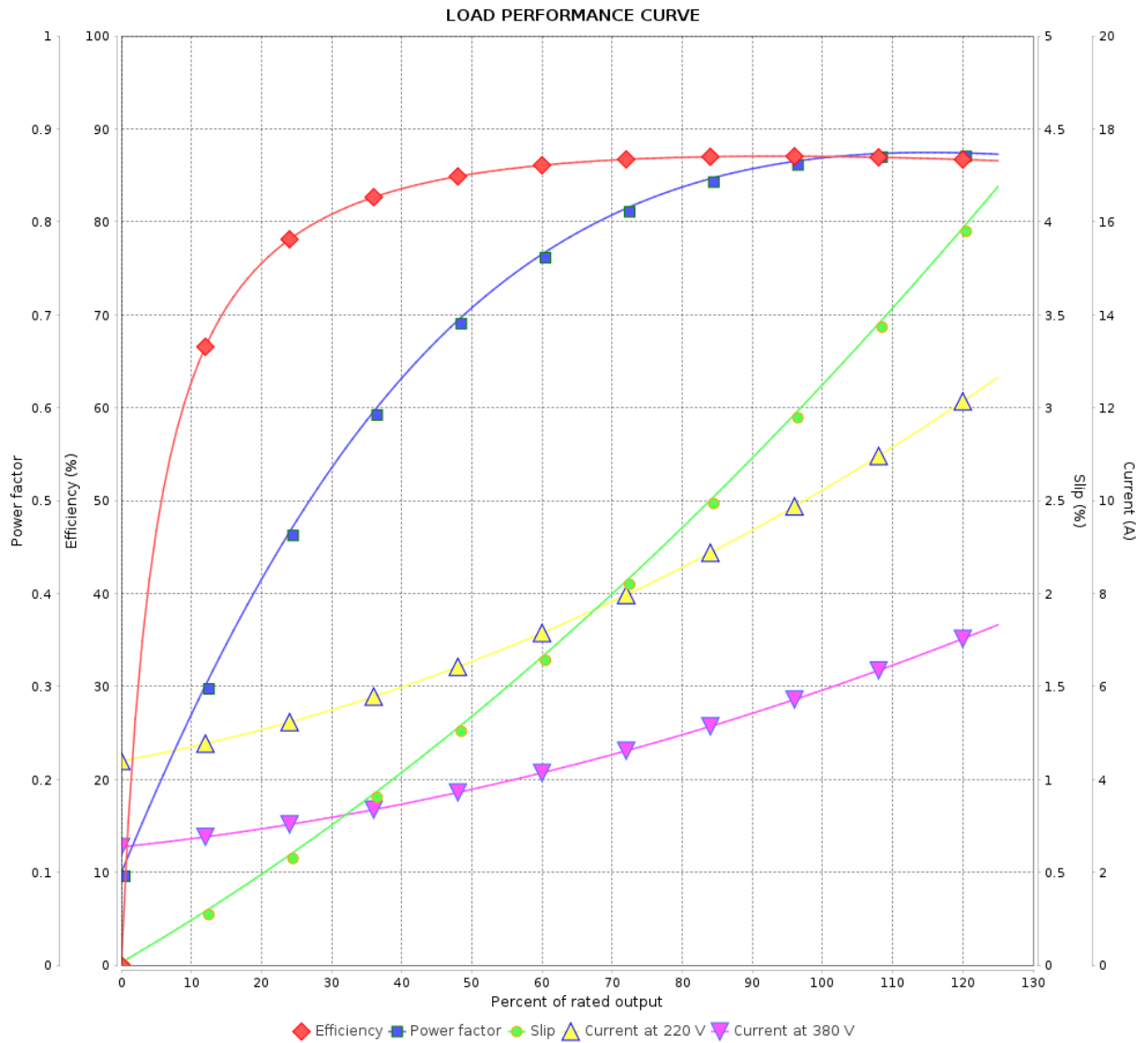
Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

Product line : IE3 Three-Phase

Product code : 12943408



Performance : 220/380 V 50 Hz 2P

Rated current : 10.4/6.02 A  
 LRC : 7.5  
 Rated torque : 1.01 kgfm  
 Locked rotor torque : 220 %  
 Breakdown torque : 300 %  
 Rated speed : 2905 rpm

Moment of inertia (J) : 0.0064 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

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# LOAD PERFORMANCE CURVE

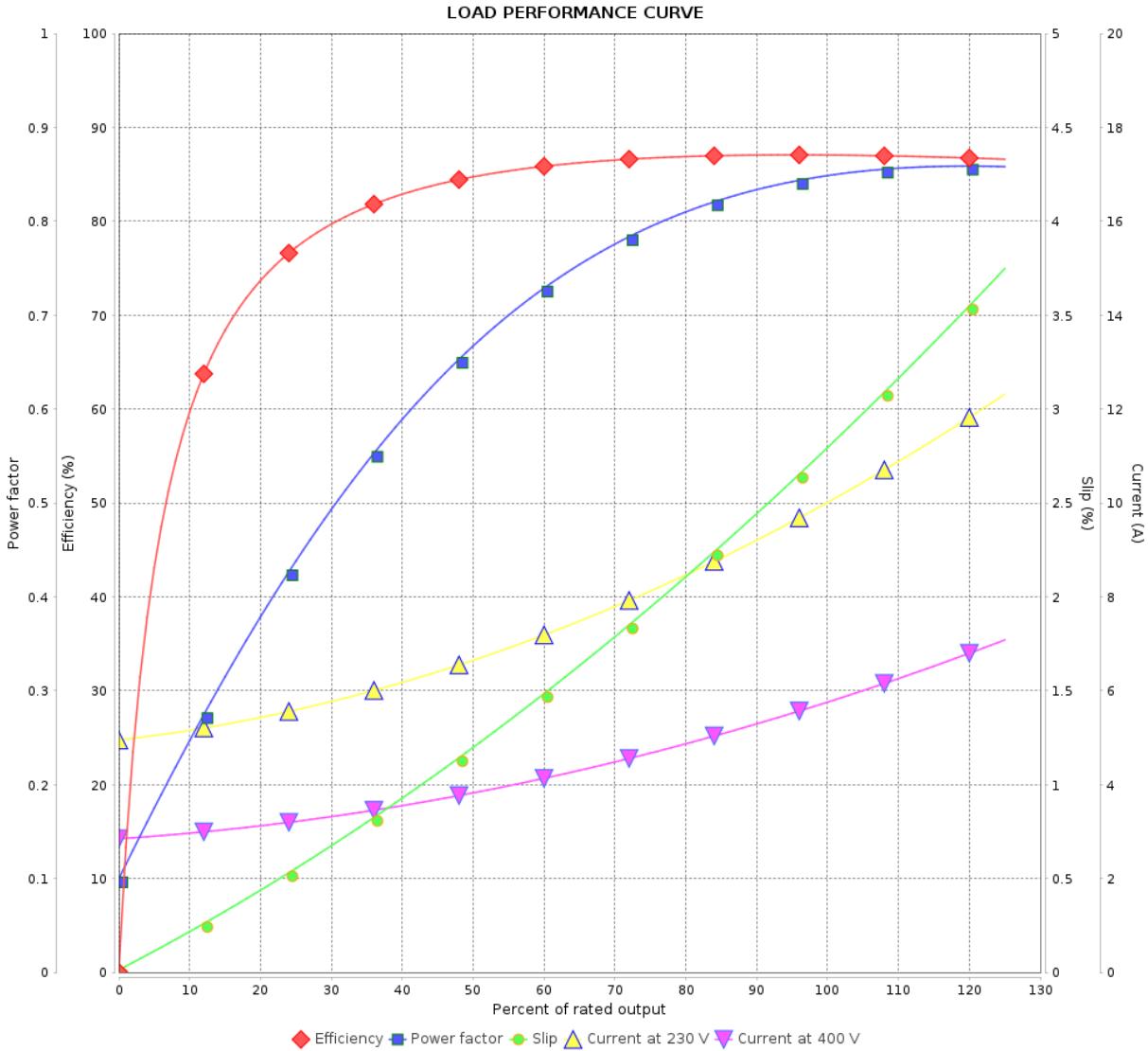
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : IE3 Three-Phase

Product code : 12943408



Performance : 230/400 V 50 Hz 2P

Rated current : 10.2/5.85 A  
 LRC : 8.0  
 Rated torque : 1.00 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 330 %  
 Rated speed : 2915 rpm

Moment of inertia (J) : 0.0064 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

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# LOAD PERFORMANCE CURVE

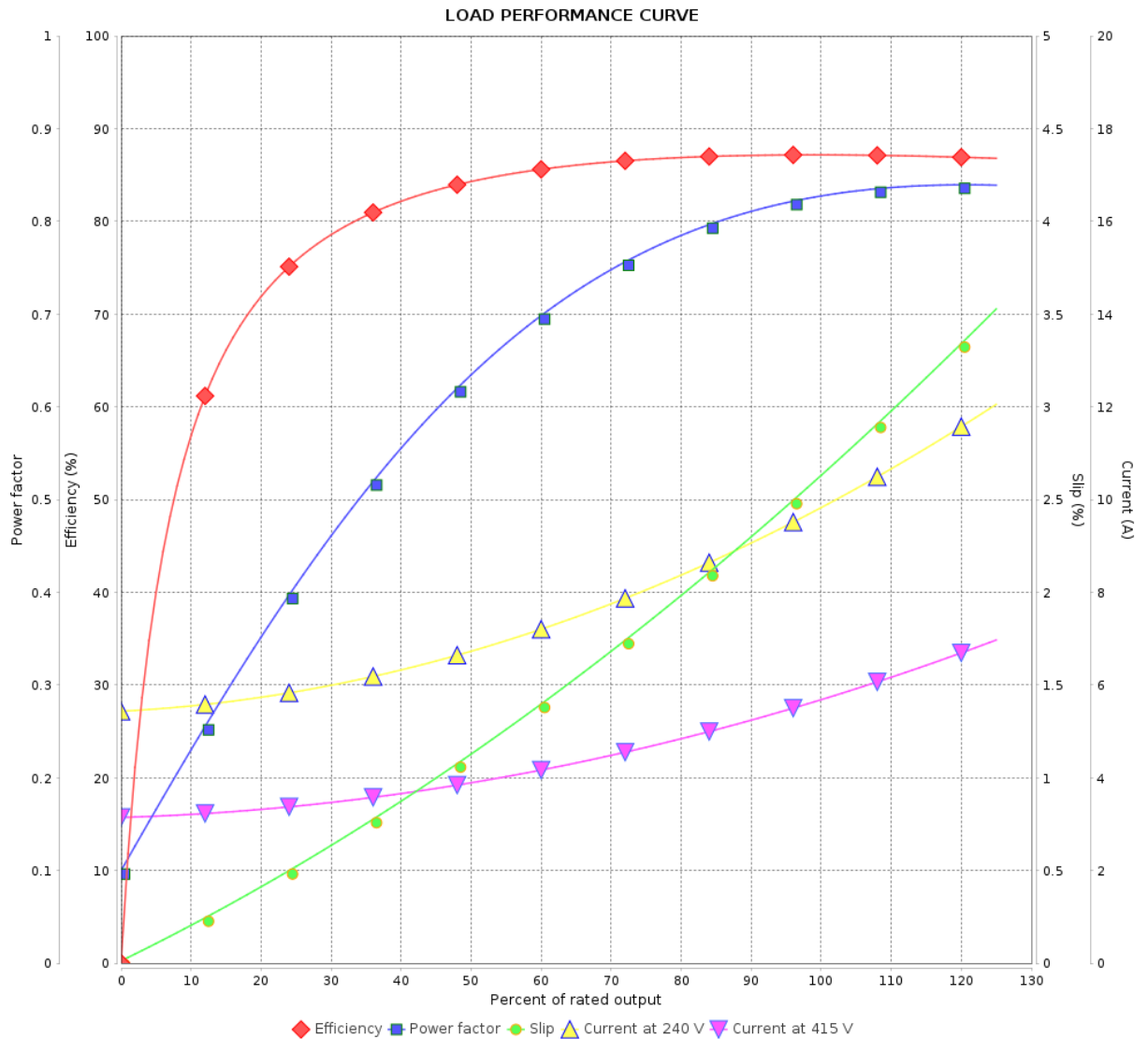
Three Phase Induction Motor - Squirrel Cage



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Product code : 12943408



Performance : 240/415 V 50 Hz 2P

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 Breakdown torque : 360 %  
 Rated speed : 2920 rpm

Moment of inertia (J) : 0.0064 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

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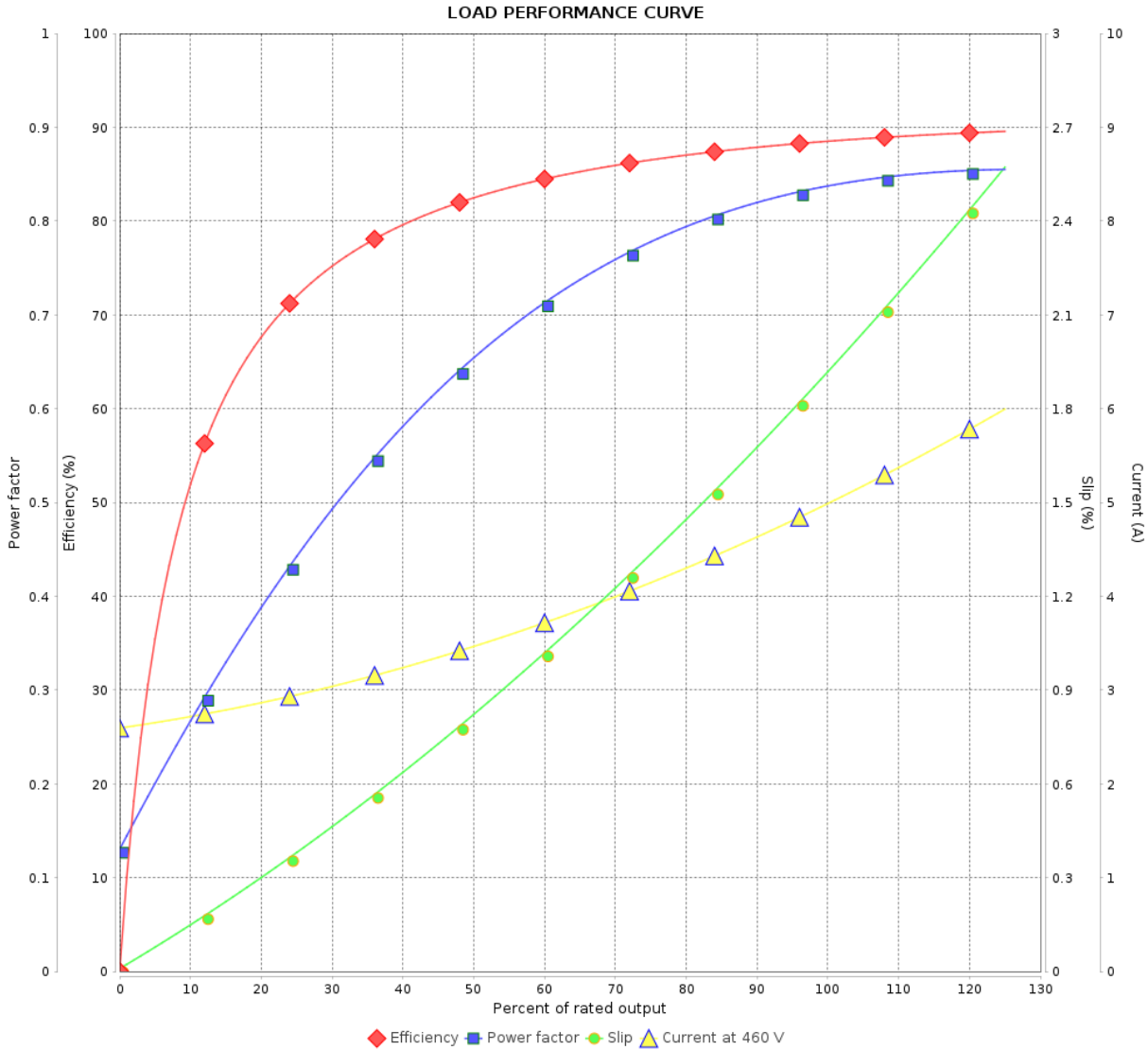
Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

Product line : IE3 Three-Phase

Product code : 12943408



Performance : 460 V 60 Hz 2P

Rated current : 5.07 A  
 LRC : 9.3  
 Rated torque : 0.828 kgfm  
 Locked rotor torque : 290 %  
 Breakdown torque : 440 %  
 Rated speed : 3530 rpm

Moment of inertia (J) : 0.0064 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

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# THERMAL LIMIT CURVE

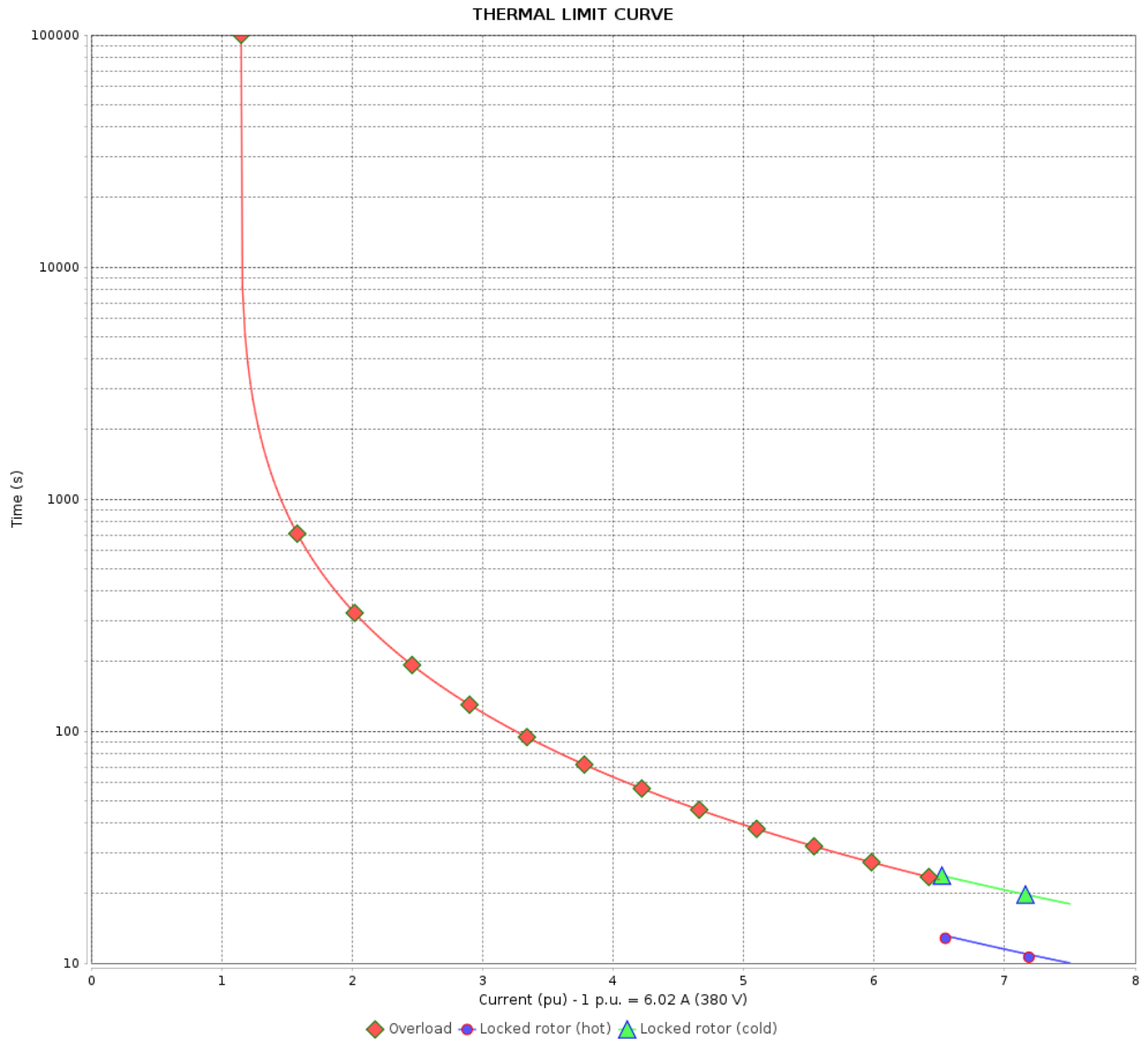
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : IE3 Three-Phase

Product code : 12943408



Performance : 220/380 V 50 Hz 2P

Rated current : 10.4/6.02 A  
 LRC : 7.5  
 Rated torque : 1.01 kgfm  
 Locked rotor torque : 220 %  
 Breakdown torque : 300 %  
 Rated speed : 2905 rpm

Moment of inertia (J) : 0.0064 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

Heating constant

Cooling constant

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# THERMAL LIMIT CURVE

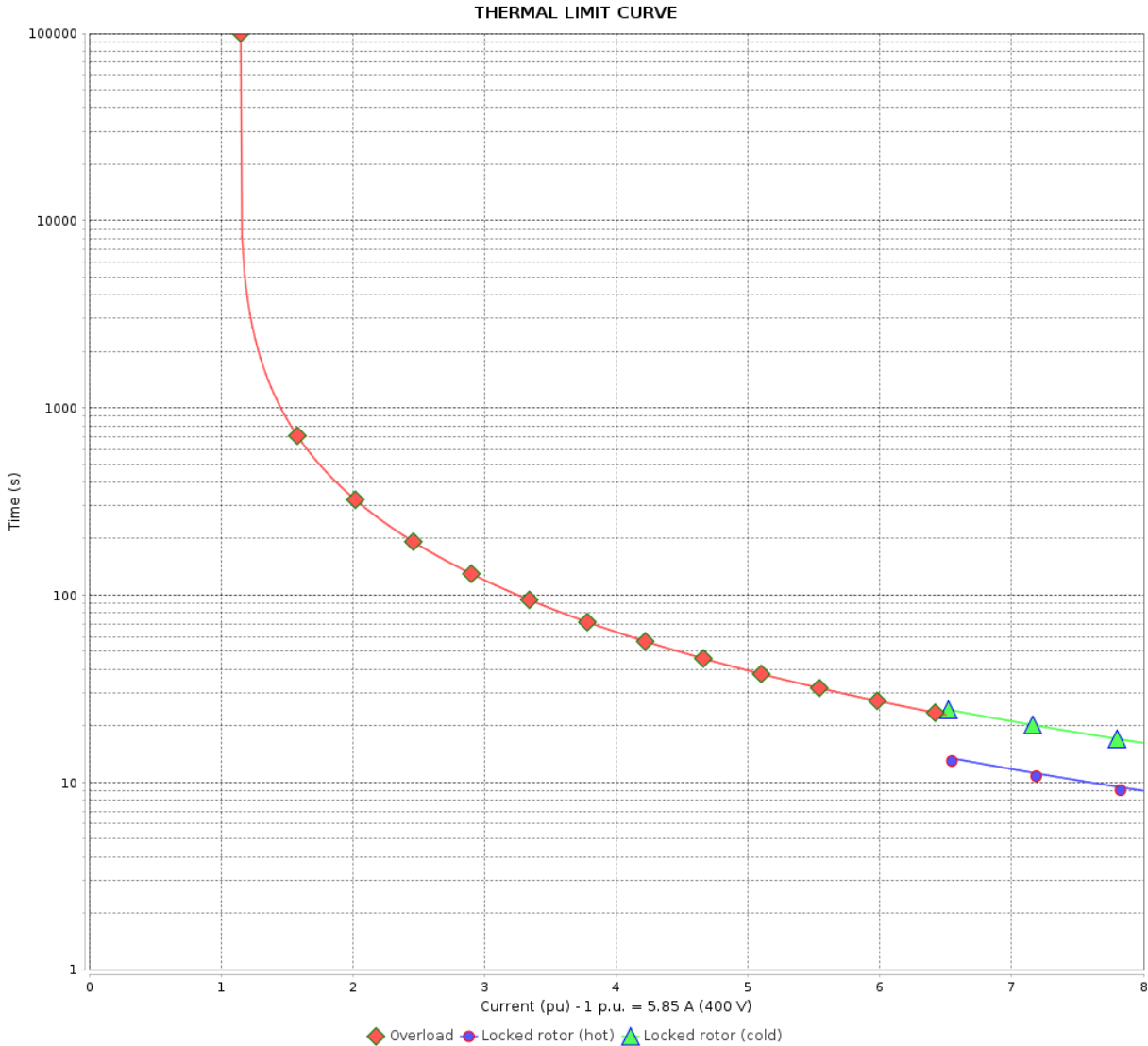
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 Breakdown torque : 330 %  
 Rated speed : 2915 rpm

Moment of inertia (J) : 0.0064 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

Heating constant

Cooling constant

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# THERMAL LIMIT CURVE

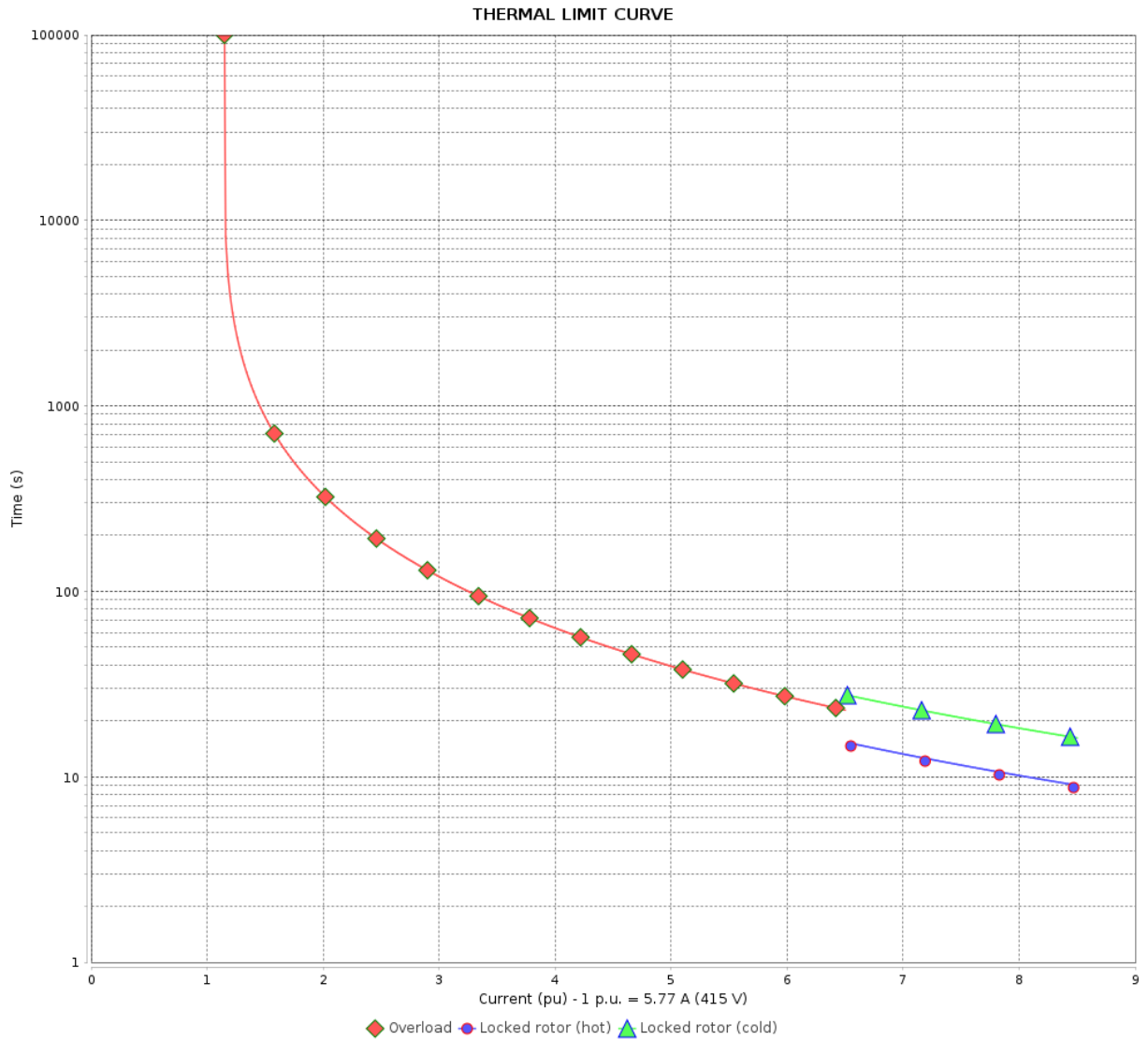
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Product code : 12943408



Performance : 240/415 V 50 Hz 2P

Rated current	: 9.98/5.77 A	Moment of inertia (J)	: 0.0064 kgm <sup>2</sup>
LRC	: 8.5	Duty cycle	: S1
Rated torque	: 1.00 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 360 %	Temperature rise	: 80 K
Rated speed	: 2920 rpm	Design	: N

Heating constant

Cooling constant

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# THERMAL LIMIT CURVE

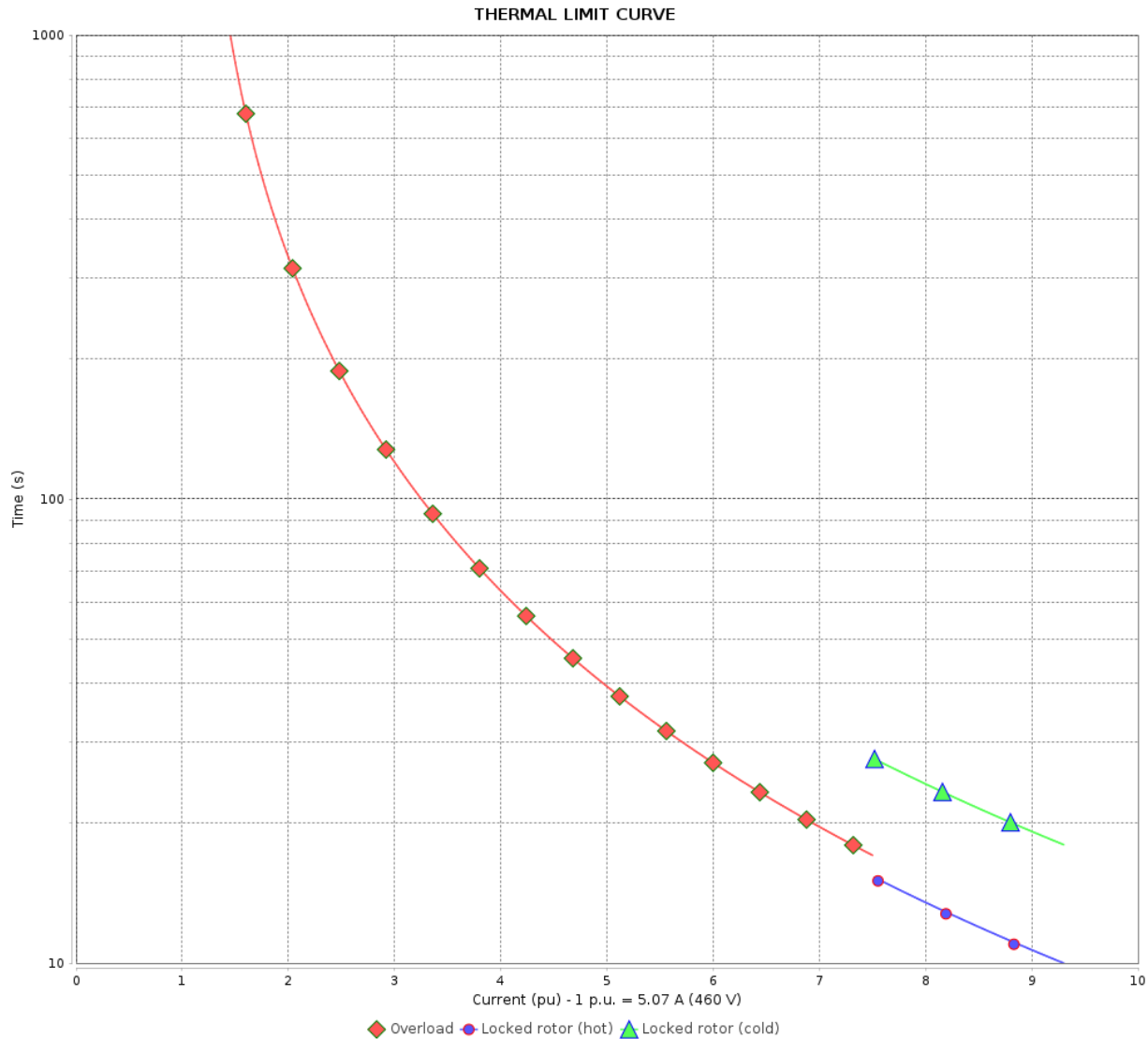
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Performance : 460 V 60 Hz 2P

Rated current	: 5.07 A	Moment of inertia (J)	: 0.0064 kgm <sup>2</sup>
LRC	: 9.3	Duty cycle	: S1
Rated torque	: 0.828 kgfm	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.00
Breakdown torque	: 440 %	Temperature rise	: 80 K
Rated speed	: 3530 rpm	Design	: N

Heating constant

Cooling constant

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# VFD OPERATION CURVE

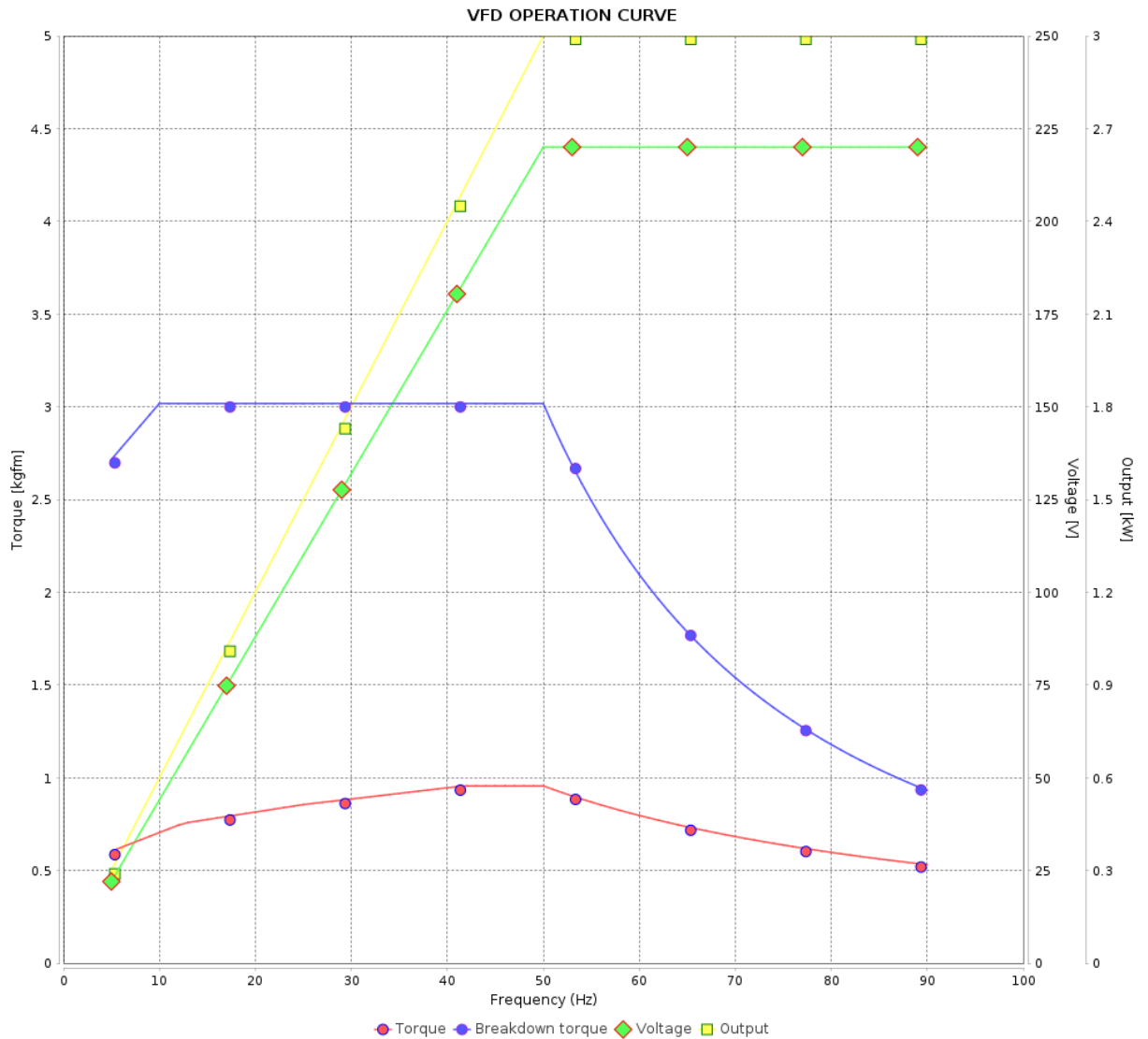
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Performance : 220/380 V 50 Hz 2P

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 LRC : 7.5  
 Rated torque : 1.01 kgfm  
 Locked rotor torque : 220 %  
 Breakdown torque : 300 %  
 Rated speed : 2905 rpm

Moment of inertia (J) : 0.0064 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

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# VFD OPERATION CURVE

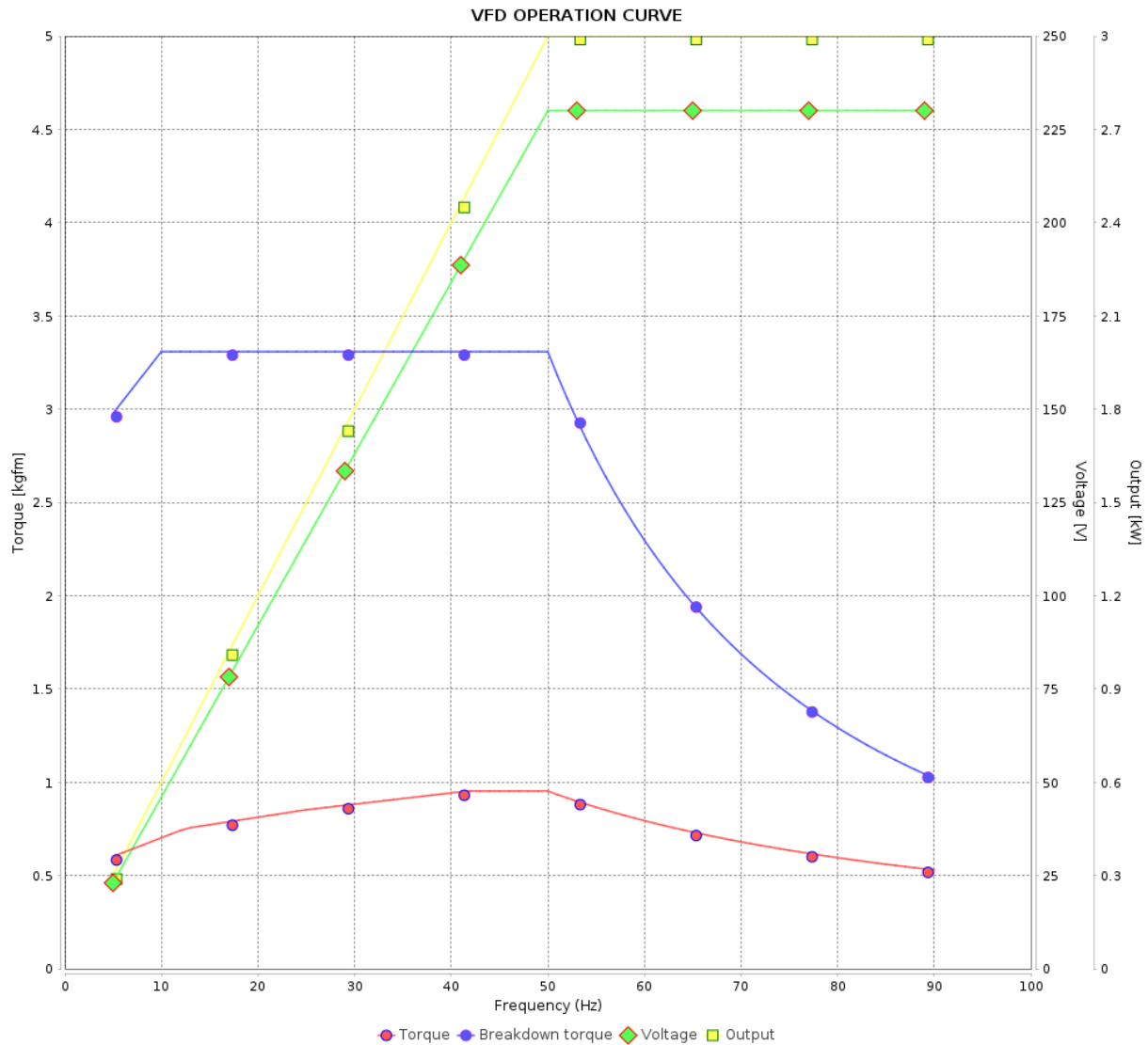
Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

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Product code : 12943408



Performance : 230/400 V 50 Hz 2P

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 LRC : 8.0  
 Rated torque : 1.00 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 330 %  
 Rated speed : 2915 rpm

Moment of inertia (J) : 0.0064 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

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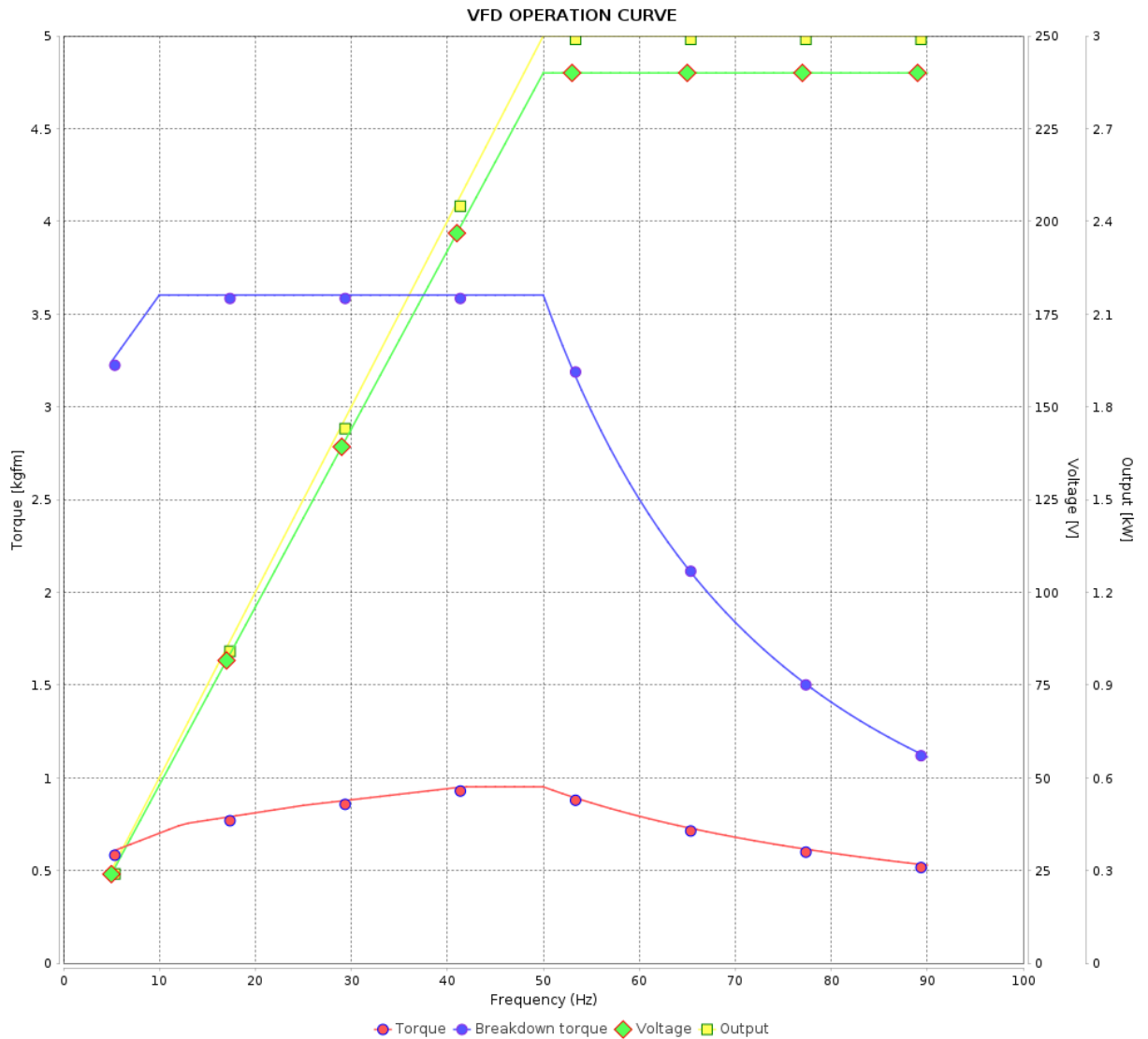
Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

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Performance : 240/415 V 50 Hz 2P

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 Breakdown torque : 360 %  
 Rated speed : 2920 rpm

Moment of inertia (J) : 0.0064 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

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# VFD OPERATION CURVE

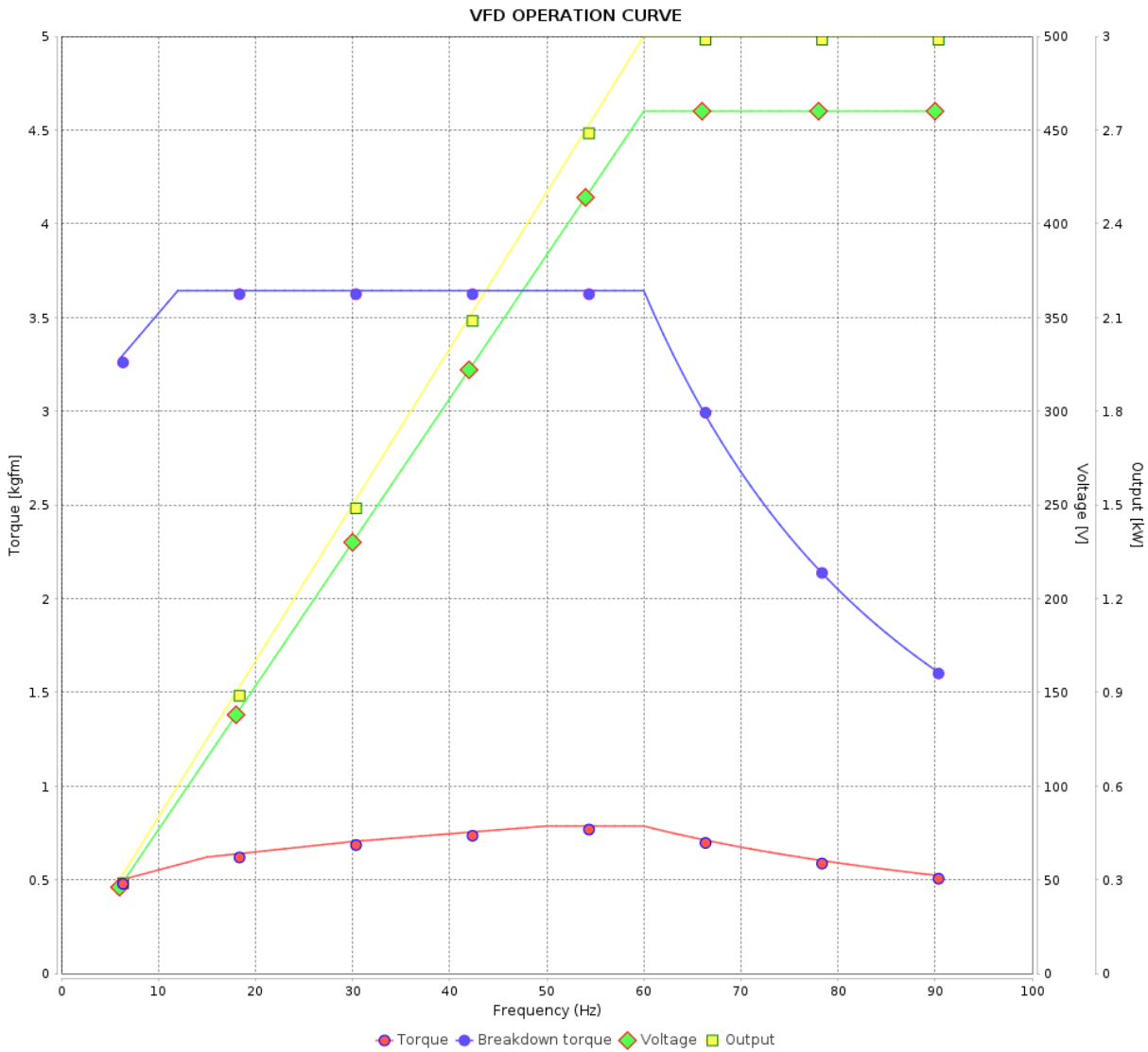
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LRC	: 9.3	Duty cycle	: S1
Rated torque	: 0.828 kgfm	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.00
Breakdown torque	: 440 %	Temperature rise	: 80 K
Rated speed	: 3530 rpm	Design	: N

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