

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :						
Product line : IE3 Three-Phase			Product code : 12868145			
Frame : 80 Output : 0.75 kW (1 HP) Poles : 4 Frequency : 50 Hz Rated voltage : 230/400 V Rated current : 2.92/1.68 A L. R. Amperes : 20.5/11.8 A LRC : 7.0 No load current : 1.91/1.10 A Rated speed : 1435 rpm Slip : 4.33 % Rated torque : 0.509 kgfm Locked rotor torque : 360 % Breakdown torque : 360 % Insulation class : F Service factor : 1.00 Moment of inertia (J) : 0.0032 kgm <sup>2</sup> Design : N			Locked rotor time : 32s (cold) 18s (hot) Temperature rise : 80 K Duty cycle : S1 Ambient temperature : -20°C to +40°C Altitude : 1000 m.a.s.l. Protection degree : IP55 Cooling method : IC411 - TEFC Mounting : B5T Rotation <sup>1</sup> : Both (CW and CCW) Noise level <sup>2</sup> : 44.0 dB(A) Starting method : Direct On Line Approx. weight <sup>3</sup> : 17.0 kg			
Output            50%        75%        100% Efficiency (%)    78.0        81.0        82.5 Power Factor    0.54        0.68        0.78			Foundation loads Max. traction                : 50 kgf Max. compression         : 67 kgf			
Losses at normative operating points (speed;torque), in percentage of rated output power						
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)
20.6	18.1	17.3	11.1	7.8	5.8	4.1
		<u>Drive end</u>		<u>Non drive end</u>		
Bearing type :		6204 ZZ		6203 ZZ		
Sealing :		Oil Seal		Lip Seal		
Lubrication interval :		-		-		
Lubricant amount :		-		-		
Lubricant type :		Mobil Polyrex EM				
Notes						
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 : \_\_\_\_\_

### 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

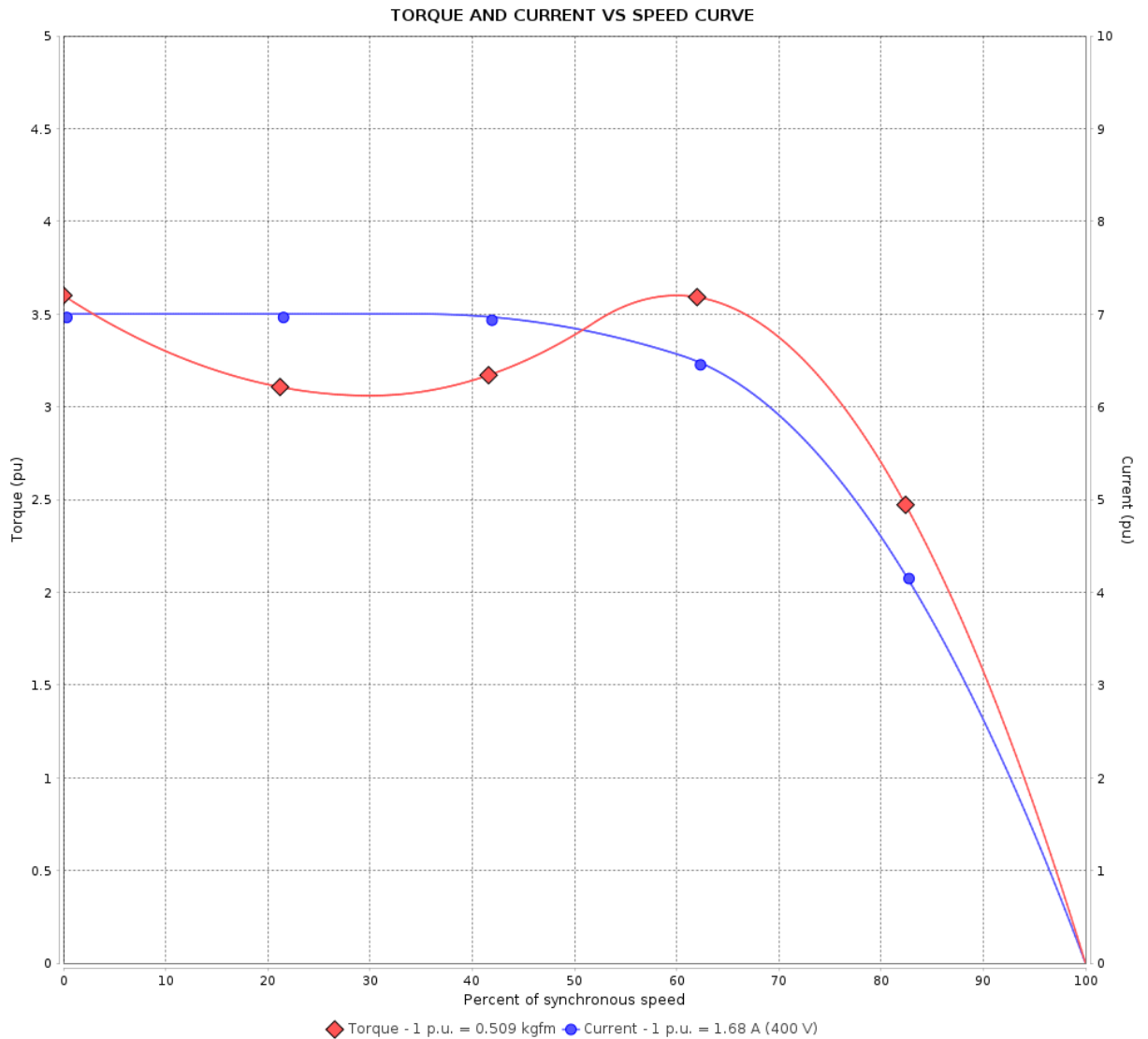


## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : IE3 Three-Phase

Product code : 12868145



Performance : 230/400 V 50 Hz 4P

Rated current	: 2.92/1.68 A	Moment of inertia (J)	: 0.0032 kgm <sup>2</sup>
LRC	: 7.0	Duty cycle	: S1
Rated torque	: 0.509 kgfm	Insulation class	: F
Locked rotor torque	: 360 %	Service factor	: 1.00
Breakdown torque	: 360 %	Temperature rise	: 80 K
Rated speed	: 1435 rpm	Design	: N

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

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# LOAD PERFORMANCE CURVE

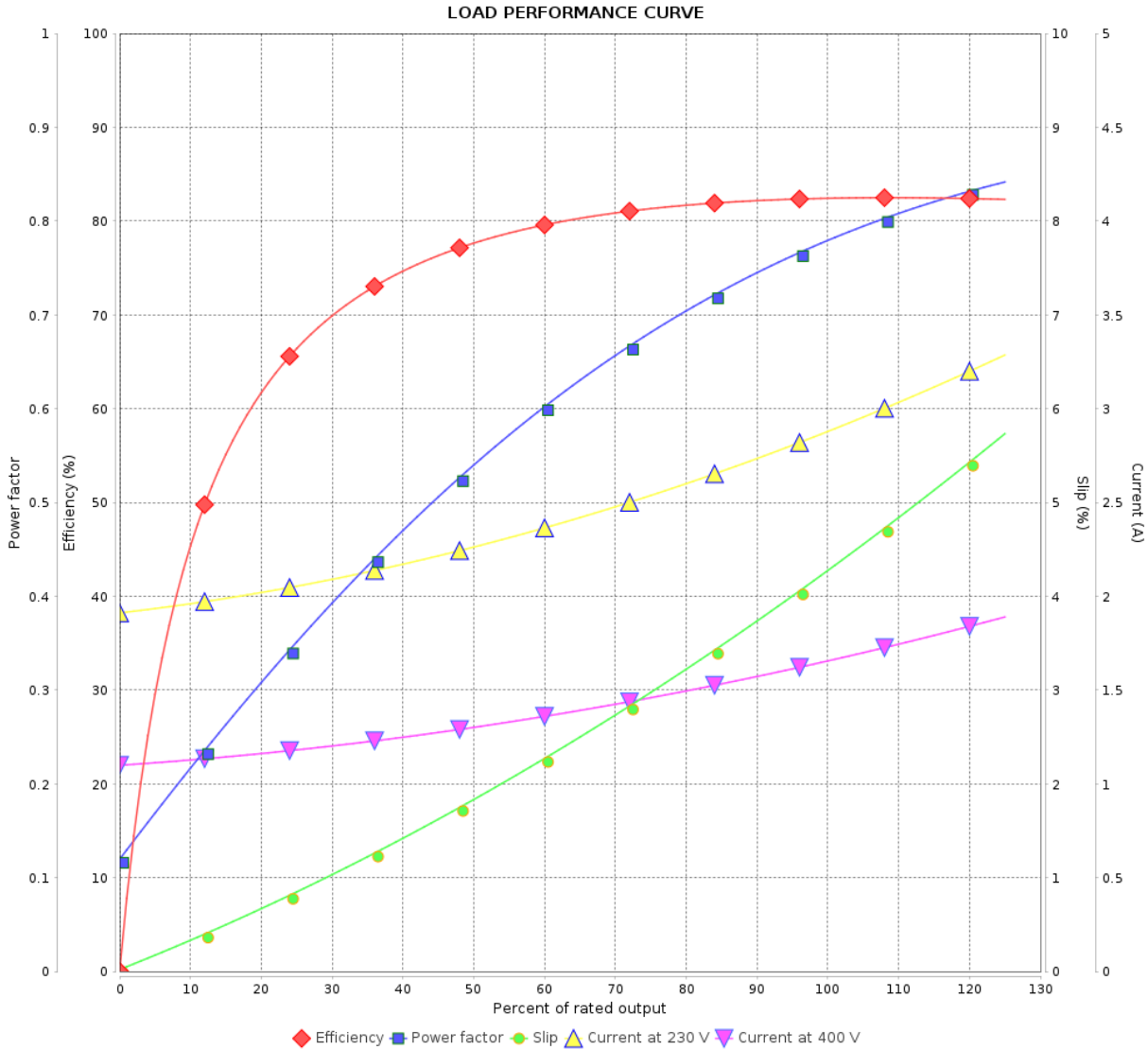
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : IE3 Three-Phase

Product code : 12868145



Performance : 230/400 V 50 Hz 4P

Rated current : 2.92/1.68 A  
 LRC : 7.0  
 Rated torque : 0.509 kgfm  
 Locked rotor torque : 360 %  
 Breakdown torque : 360 %  
 Rated speed : 1435 rpm

Moment of inertia (J) : 0.0032 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

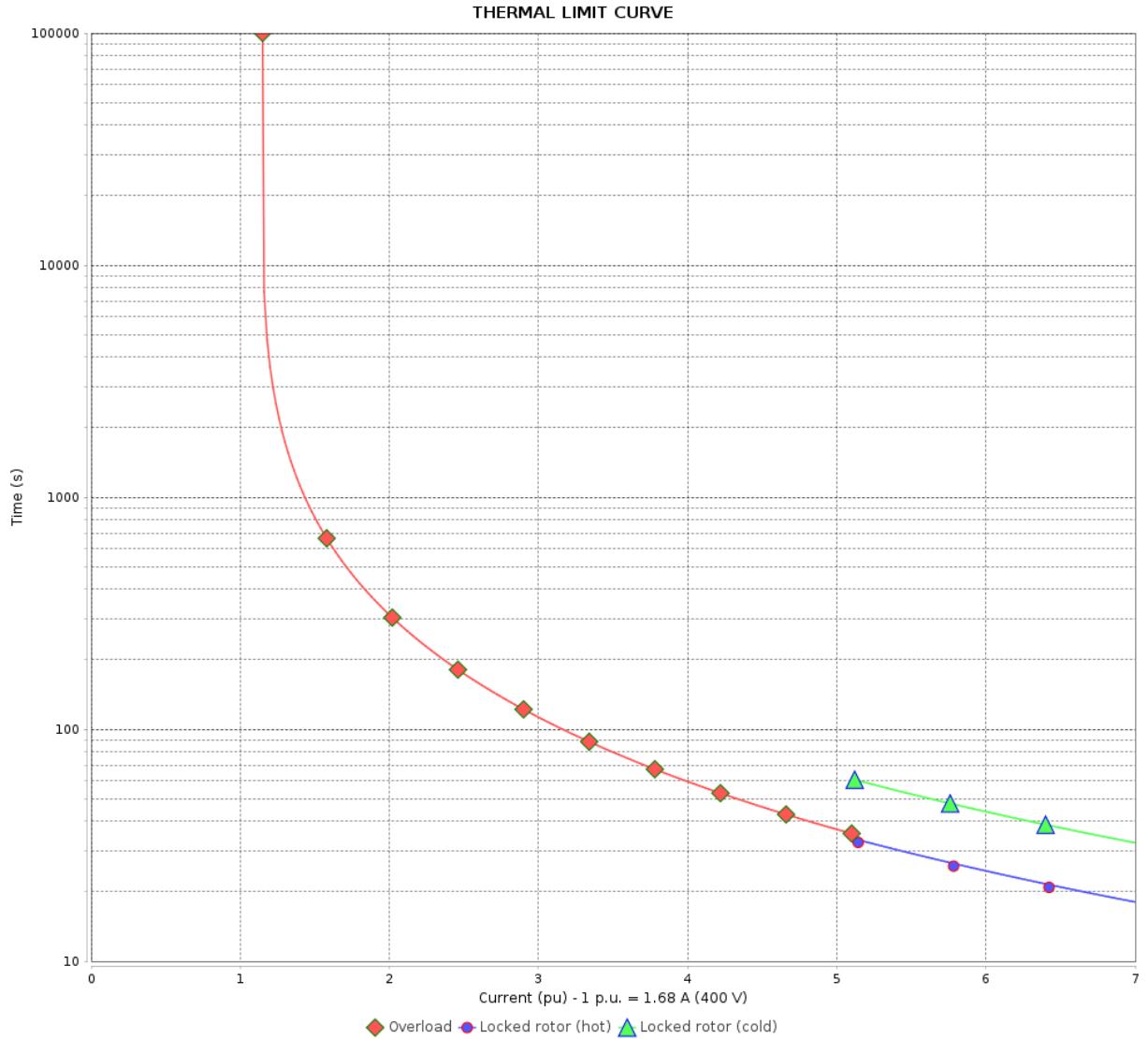
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : IE3 Three-Phase

Product code : 12868145



Performance : 230/400 V 50 Hz 4P

Rated current : 2.92/1.68 A  
 LRC : 7.0  
 Rated torque : 0.509 kgfm  
 Locked rotor torque : 360 %  
 Breakdown torque : 360 %  
 Rated speed : 1435 rpm

Moment of inertia (J) : 0.0032 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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# VFD OPERATION CURVE

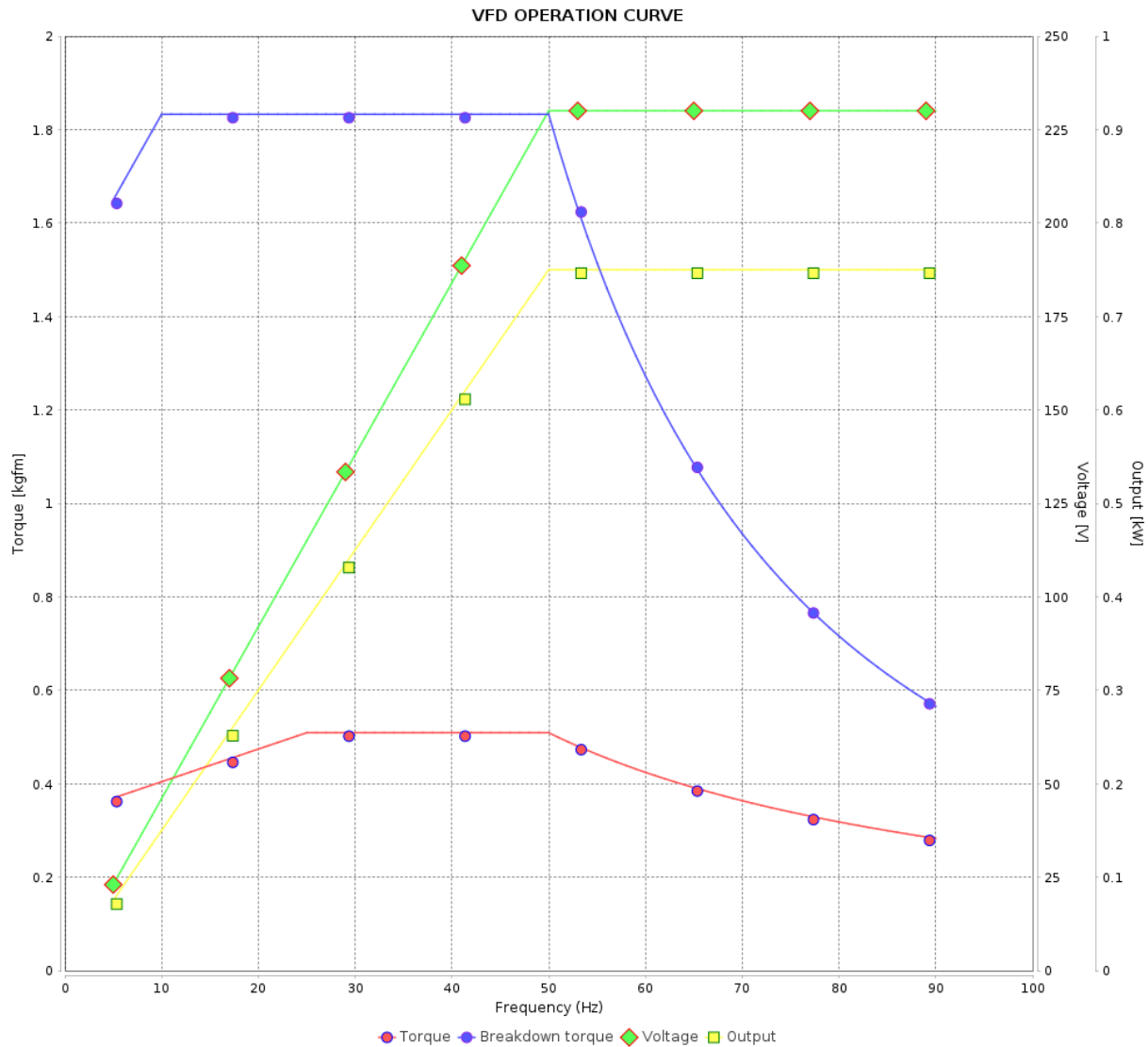
Three Phase Induction Motor - Squirrel Cage



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

Product line : IE3 Three-Phase

Product code : 12868145



Performance : 230/400 V 50 Hz 4P

Rated current : 2.92/1.68 A  
 LRC : 7.0  
 Rated torque : 0.509 kgfm  
 Locked rotor torque : 360 %  
 Breakdown torque : 360 %  
 Rated speed : 1435 rpm

Moment of inertia (J) : 0.0032 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

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