### **DATA SHEET**

#### Three Phase Induction Motor - Squirrel Cage



Customer Product line : W22 IE3 Three-Phase Product code: 15834980 : 180L Cooling method : IC411 - TEFC Frame Mounting Insulation class : F : B3T Duty cycle : S1 Rotation<sup>1</sup> : Both (CW and CCW) Ambient temperature : -20°C to +40°C Starting method : Direct On Line Altitude : 1000 m.a.s.l. Approx. weight<sup>3</sup> : 203 kg : IP55 Moment of inertia (J) : 0.2097 kgm<sup>2</sup> Protection degree : N Design 22 22 Output [kW] 22 22 Poles 4 4 4 4 Frequency [Hz] 50 50 50 60 Rated voltage [V] 380/660 400/690 415 460 Rated current [A] 42.3/24.3 41.5/24.1 40.6 36.4 L. R. Amperes [A] 309/178 320/185 329 320 LRC [A] 8.1 8.8 7.3 7.7 No load current [A] 16.5/9.50 18.0/10.4 17.0 19.5 Rated speed [RPM] 1475 1478 1480 1781 Slip [%] 1.67 1.47 1.33 1.06 Rated torque [kgfm] 12.0 14.5 14.5 14.5 Locked rotor torque [%] 280 320 350 370 Breakdown torque [%] 370 400 300 340 Service factor 1.00 1.00 1.00 1.00 Temperature rise 80 K 80 K 80 K 80 K Locked rotor time 19s (cold) 11s (hot) 19s (cold) 11s (hot) 19s (cold) 11s (hot) 19s (cold) 11s (hot) Noise level<sup>2</sup> 61.0 dB(A) 61.0 dB(A) 61.0 dB(A) 63.0 dB(A) 25% 50% 92.5 92.3 92.1 91.9 Efficiency (%) 75% 92.8 93.0 92.8 93.2 100% 93.0 93.2 93.0 93.6 25% 0.70 0.66 0.62 0.63 50% Power Factor 75% 0.80 0.77 0.74 0.75 100% 0.85 0.82 0.81 0.81 Losses at normative operating points (speed;torque), in percentage of rated output power P1 (0,9;1,0) 6.1 6.0 6.2 6.6 P2 (0,5;1,0) 4.5 4.4 4.6 4.9 P3 (0,25;1,0) 3.8 3.8 3.9 4.1 Losses (%) P4 (0,9;0,5) 3.9 3.8 4.0 4.2 P5 (0,5;0,5) 2.4 2.4 2.5 2.6 P6 (0,5;0,25) 2.0 1.9 2.0 2.1 P7 (0,25;0,25) 1.3 1.2 1.3 1.4 Non drive end Drive end Foundation loads Bearing type 6311 C3 6211 C3 Max. traction : 588 kgf : 791 kgf V'Rina V'Rina Sealing Max. compression Lubrication interval 20000 h 20000 h Lubricant amount 11 g Mobil Polyrex EM Lubricant type This revision replaces and cancel the previous one, which These are average values based on tests with sinusoidal must be eliminated. power supply, subject to the tolerances stipulated in IEC (1) Looking the motor from the shaft end. 60034-1. (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



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## **DATA SHEET**

### Three Phase Induction Motor - Squirrel Cage



Customer :

Thermal	protection

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

#### Space heater information

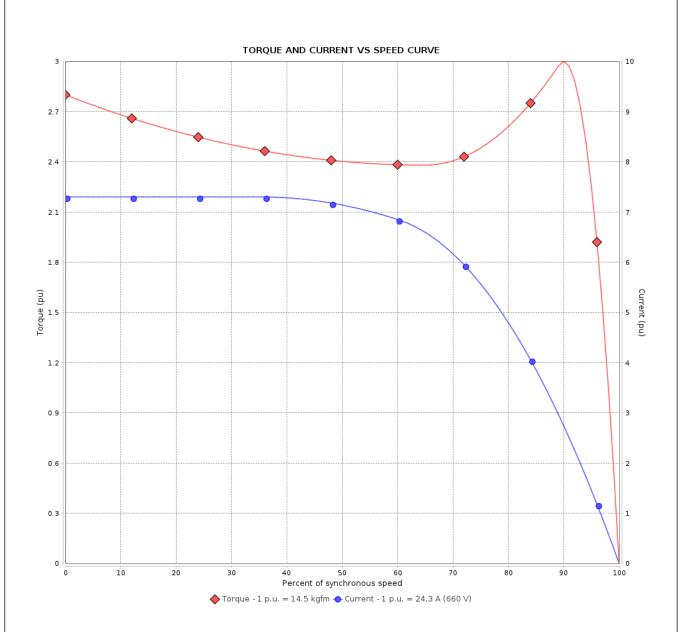
Voltage: 110-127/200-240 V

#### Three Phase Induction Motor - Squirrel Cage



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Customer	
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Product line : W22 IE3 Three-Phase Product code : 15834980



Performance	: 380/660 V 50 Hz 4P	
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Rated current : 42.3/24.3 A Moment of inertia (J) : 0.2097 kgm<sup>2</sup>

**LRC** Duty cycle : 7.3 : S1 Rated torque : 14.5 kgfm Insulation class : F : 280 % Service factor Locked rotor torque : 1.00 : 80 K Breakdown torque : 300 % Temperature rise Rated speed : N : 1475 rpm Design

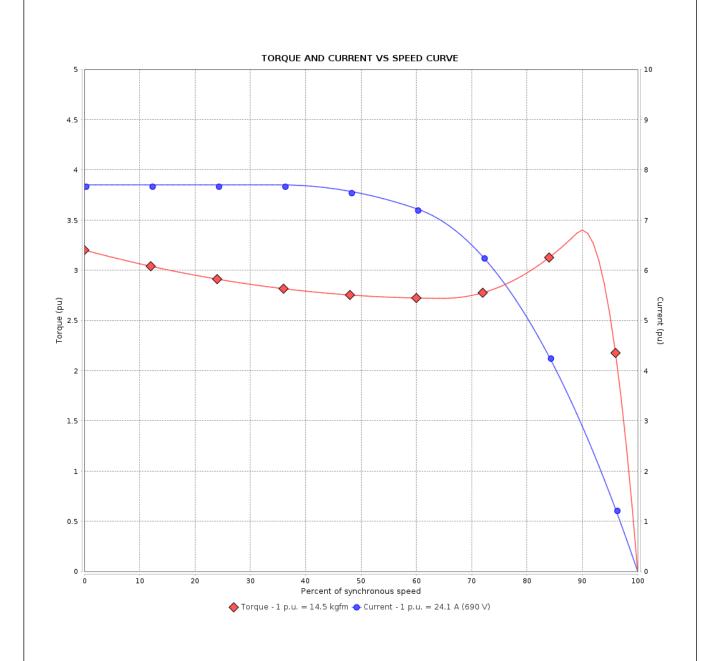
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## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase Product code : 15834980



Performance	: 400/690 V 50 Hz 4P		
Rated current	: 41.5/24.1 A	Moment of inertia (J)	: 0.2097 kgm²
LRC	: 7.7	Duty cycle	: S1
Rated torque	: 14.5 kgfm	Insulation class	: F
Locked rotor torque	: 320 %	Service factor	: 1.00
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 1478 rpm	Design	: N

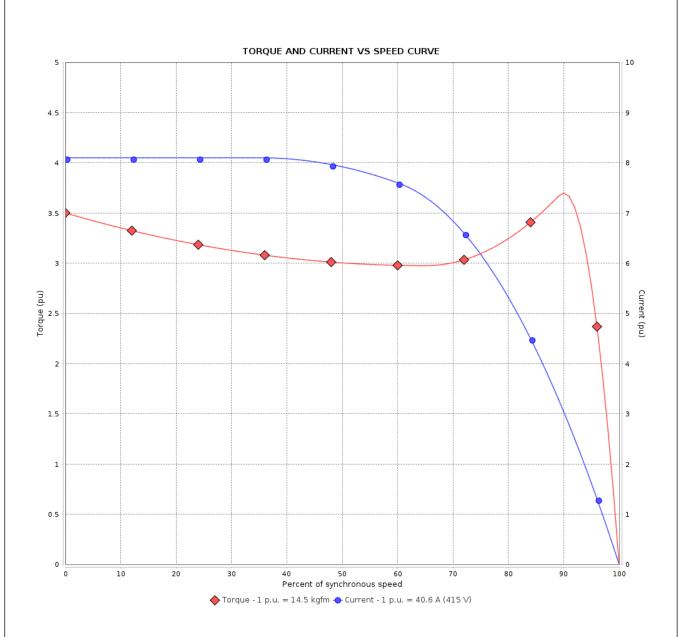
Econou rotor time		70 (001d) 110 (110t)			
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### Three Phase Induction Motor - Squirrel Cage



Customer :	
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Product line : W22 IE3 Three-Phase Product code : 15834980



Performance	: 415 V 50 Hz 4P		
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 40.6 A : 8.1 : 14.5 kgfm : 350 % : 370 % : 1480 rpm	Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise Design	: 0.2097 kgm² : S1 : F : 1.00 : 80 K : N
Rated speed	: 1480 rpm	Design	: N

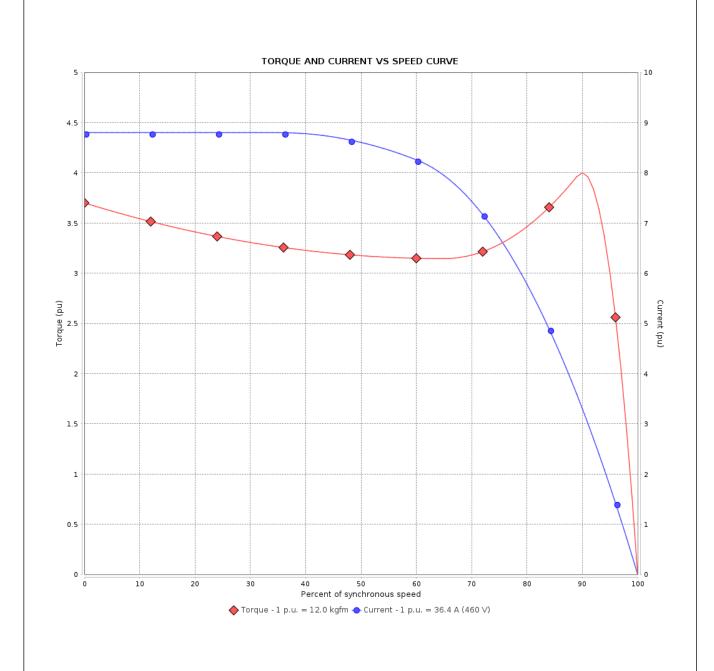
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## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase Product code : 15834980



Performance	: 460 V 60 Hz 4P			
Rated current	: 36.4 A	Moment of inertia (J)	: 0.2097 kgm²	
LRC	: 8.8	Duty cycle	: S1	
Rated torque	: 12.0 kgfm	Insulation class	: F	
Locked rotor torque	: 370 %	Service factor	: 1.00	
Breakdown torque	: 400 %	Temperature rise	: 80 K	
Rated speed	: 1781 rpm	Design	: N	

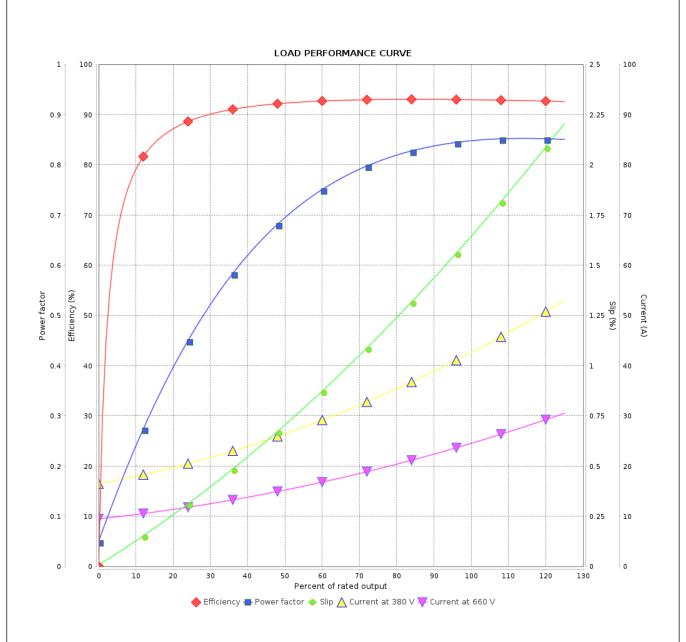
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## Three Phase Induction Motor - Squirrel Cage



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Customer	

Product line : W22 IE3 Three-Phase Product code : 15834980



Performance	: 3	: 380/660 V 50 Hz 4P				
Rated current		2.3/24.3 A	Moment o	Moment of inertia (J)		2
LRC	: 7	7.3	Duty cycle	)	: S1	
Rated torque		4.5 kgfm	Insulation	Insulation class		
Locked rotor torque		280 %	Service fa	Service factor		
Breakdown torqu	ie : 3	800 %	Temperati	Temperature rise		
Rated speed	: 1	475 rpm	Design		: N	
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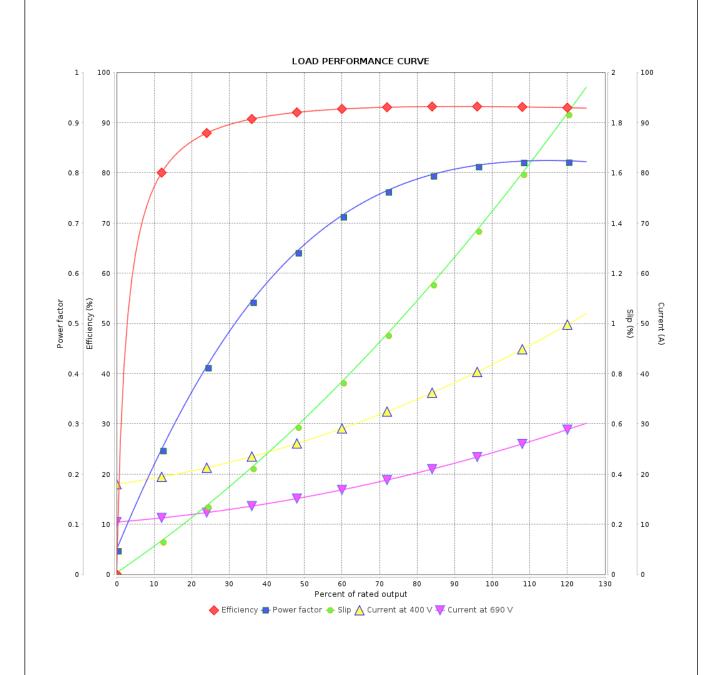
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### Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase Product code : 15834980



Performance	: 400/690 V 50 Hz 4P	: 400/690 V 50 Hz 4P			
Rated current	: 41.5/24.1 A	Moment of	f inertia (J)	: 0.2097 kgm <sup>2</sup>	2
LRC	: 7.7	Duty cycle	)	: S1	
Rated torque	: 14.5 kgfm	: 14.5 kgfm : 320 % : 340 % : 1478 rpm  Insulation class Service factor Temperature rise Design		: F	
Locked rotor torque	: 320 %			: 1.00	
Breakdown torque	: 340 %			: 80 K	
Rated speed	: 1478 rpm			: N	
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### Three Phase Induction Motor - Squirrel Cage



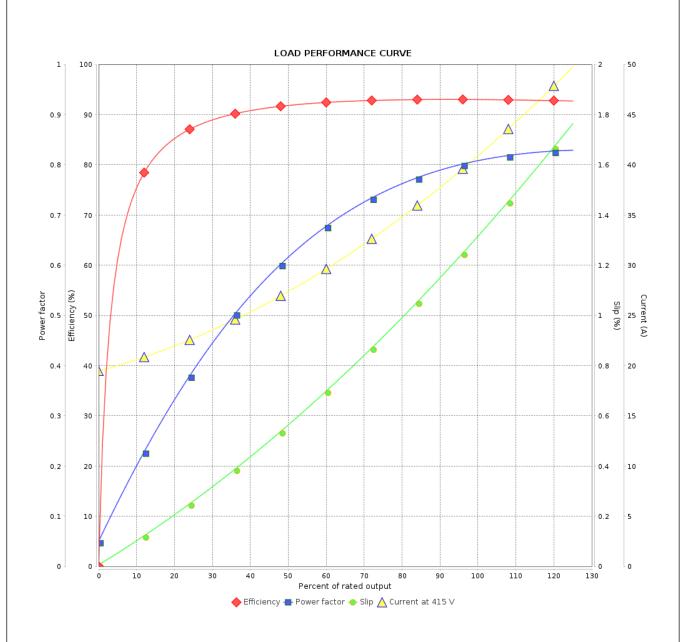
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Product line : W22 IE3 Three-Phase Product code : 15834980



Performance		: 415 V 50 Hz 4P				
Rated current LRC Rated torque Locked rotor tord Breakdown torqu Rated speed	•	: 40.6 A : 8.1 : 14.5 kgfm : 350 % : 370 % : 1480 rpm	Moment of Duty cycle Insulation Service fa Temperat Design	class ctor	: 0.2097 kgm <sup>2</sup> : S1 : F : 1.00 : 80 K : N	
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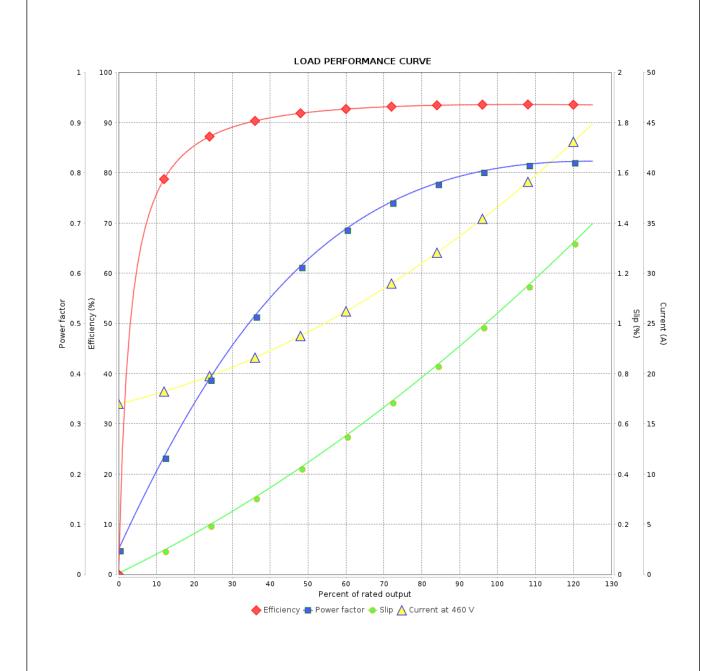
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Customer :

Product line : W22 IE3 Three-Phase Product code : 15834980



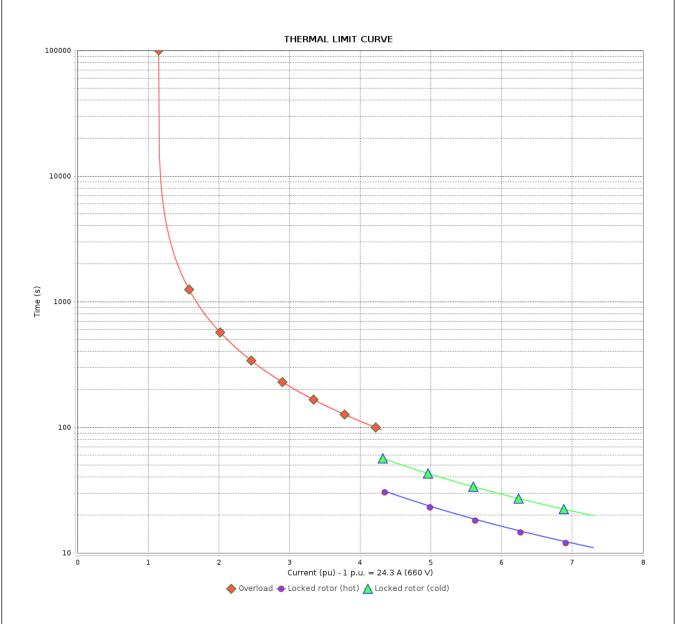
Performance	: 46	60 V 60 Hz 4P				
Rated current	: 36	6.4 A	Moment of	of inertia (J)	: 0.2097 kgm²	
LRC	: 8.	8	Duty cycle	9	: S1	
Rated torque	: 12	2.0 kgfm	Insulation	class	: F	
Locked rotor torque : 3		70 %	Service fa	ictor	: 1.00	
Breakdown torque		00 %	Temperati	Temperature rise		
Rated speed	: 17	781 rpm	Design		: N	
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### Three Phase Induction Motor - Squirrel Cage



Customer		

Product line : W22 IE3 Three-Phase Product code : 15834980



Performance	: 380/660 V 50 Hz 4P			
Rated current	: 42.3/24.3 A	Moment of inertia (J)	: 0.2097 kgm²	
LRC	: 7.3	Duty cycle	: S1	
Rated torque	: 14.5 kgfm	Insulation class	: F	
Locked rotor torque	: 280 %	Service factor	: 1.00	
Breakdown torque	: 300 %	Temperature rise	: 80 K	
Rated speed	: 1475 rpm	Design	: N	
Heating constant				
Cooling constant				

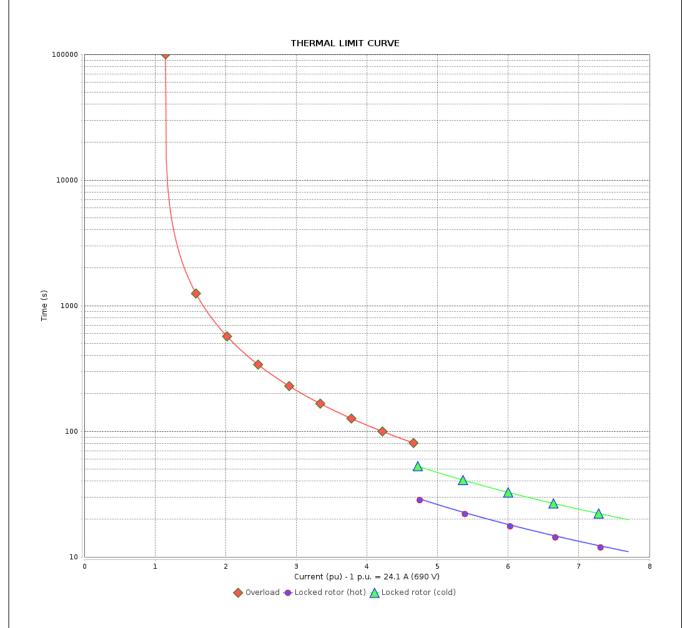
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#### Three Phase Induction Motor - Squirrel Cage



Customer

Product line : W22 IE3 Three-Phase Product code: 15834980



Performance : 400/690 V 50 Hz 4P : 41.5/24.1 A Moment of inertia (J) : 0.2097 kgm<sup>2</sup> Rated current **LRC** : 7.7 Duty cycle : S1 Insulation class : F Rated torque : 14.5 kgfm : 320 % Locked rotor torque Service factor : 1.00 : 340 % : 80 K Breakdown torque Temperature rise Rated speed : 1478 rpm Design : N Heating constant Cooling constant

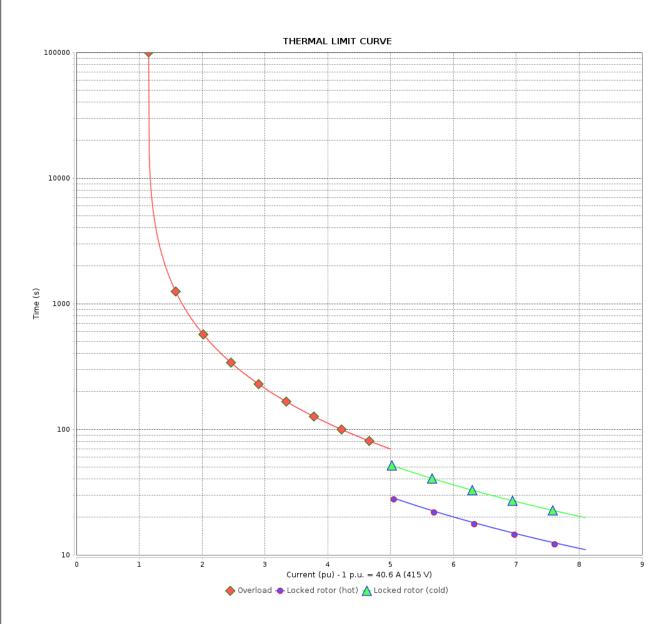
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#### Three Phase Induction Motor - Squirrel Cage



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Product line : W22 IE3 Three-Phase Product code : 15834980



Performance : 415 V 50 Hz 4P Rated current : 40.6 A Moment of inertia (J) : 0.2097 kgm<sup>2</sup> **LRC** Duty cycle : S1 : 8.1 Insulation class Rated torque : 14.5 kgfm : F : 350 % Locked rotor torque Service factor : 1.00 : 80 K : 370 % Breakdown torque Temperature rise Rated speed : 1480 rpm Design : N Heating constant

Cooling constant

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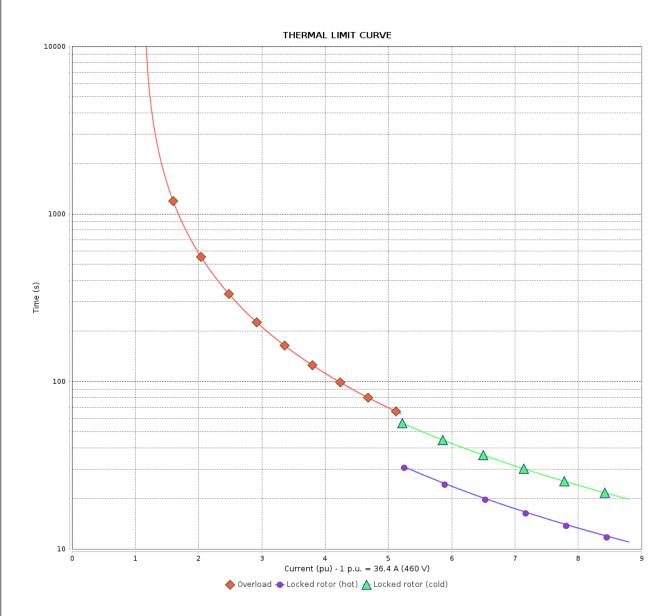
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#### Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase Product code : 15834980



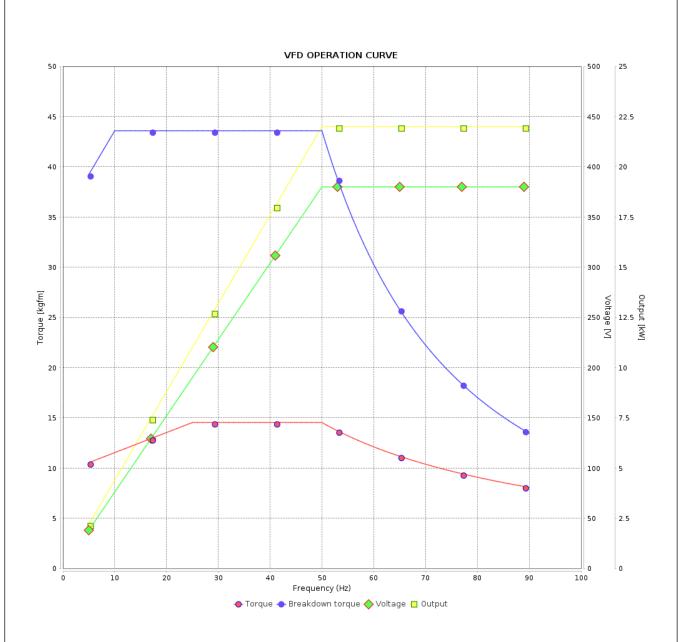
: 460 V 60 Hz 4P Performance Rated current : 36.4 A Moment of inertia (J) : 0.2097 kgm<sup>2</sup> **LRC** : 8.8 Duty cycle : S1 Insulation class : F Rated torque : 12.0 kgfm Locked rotor torque : 370 % Service factor : 1.00 Breakdown torque : 400 % : 80 K Temperature rise Rated speed : 1781 rpm Design : N Heating constant Cooling constant

### Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase Product code : 15834980



Performance	: 380/660 V 50 Hz 4P				
Rated current LRC Rated torque Locked rotor torque Breakdown torque	: 42.3/24.3 A : 7.3 : 14.5 kgfm : 280 % : 300 %	: 42.3/24.3 A Moment of : 7.3 Duty cycle : 14.5 kgfm Insulation of : 280 % Service fact		: 0.2097 kgm <sup>2</sup> : S1 : F : 1.00 : 80 K	
Rated speed	: 1475 rpm	Temperature rise Design		: N	
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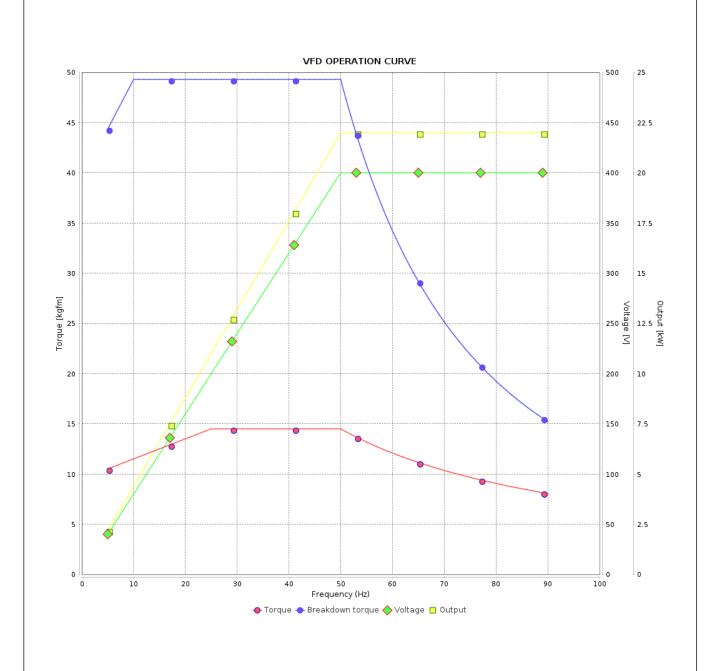
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## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase Product code : 15834980



Performance	: 400/690 V 50 Hz 4P				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 41.5/24.1 A : 7.7 : 14.5 kgfm : 320 % : 340 % : 1478 rpm	Moment of Duty cycle Insulation Service far Temperate Design	class ctor	: 0.2097 kgm² : S1 : F : 1.00 : 80 K : N	
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### Three Phase Induction Motor - Squirrel Cage



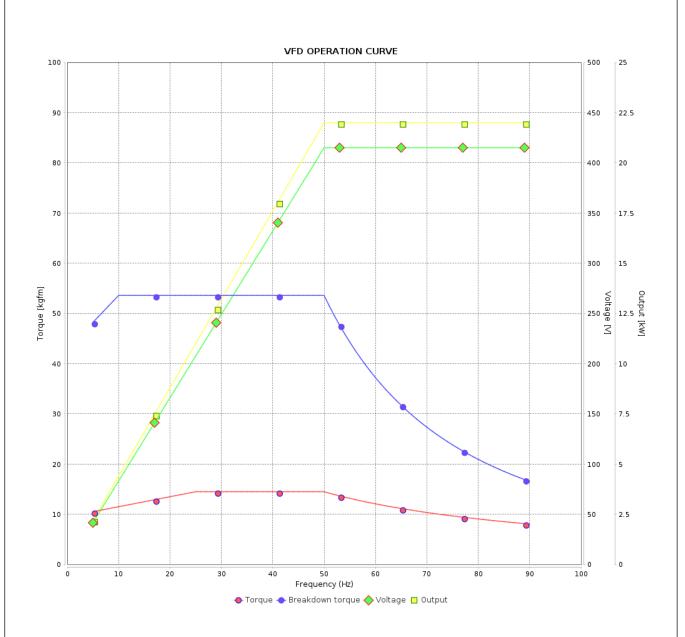
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Product line : W22 IE3 Three-Phase Product code : 15834980



445.7750.11.40				
415 V 50 HZ 4P				
8.1 14.5 kgfm 350 % 370 %	Duty cycle Insulation Service fac	class	: 0.2097 kgm <sup>2</sup> : S1 : F : 1.00 : 80 K : N	
Changes Summary		Performed	Checked	Date
	415 V 50 Hz 4P 40.6 A 8.1 14.5 kgfm 350 % 370 % 1480 rpm Changes Summary	40.6 A Moment of 8.1 Duty cycle 14.5 kgfm Insulation 350 % Service fac 370 % Temperatu 1480 rpm Design	40.6 A Moment of inertia (J) 8.1 Duty cycle 14.5 kgfm Insulation class 350 % Service factor 370 % Temperature rise 1480 rpm Design	40.6 A       Moment of inertia (J)       : 0.2097 kgm²         8.1       Duty cycle       : S1         14.5 kgfm       Insulation class       : F         350 %       Service factor       : 1.00         370 %       Temperature rise       : 80 K         1480 rpm       Design       : N

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### Three Phase Induction Motor - Squirrel Cage



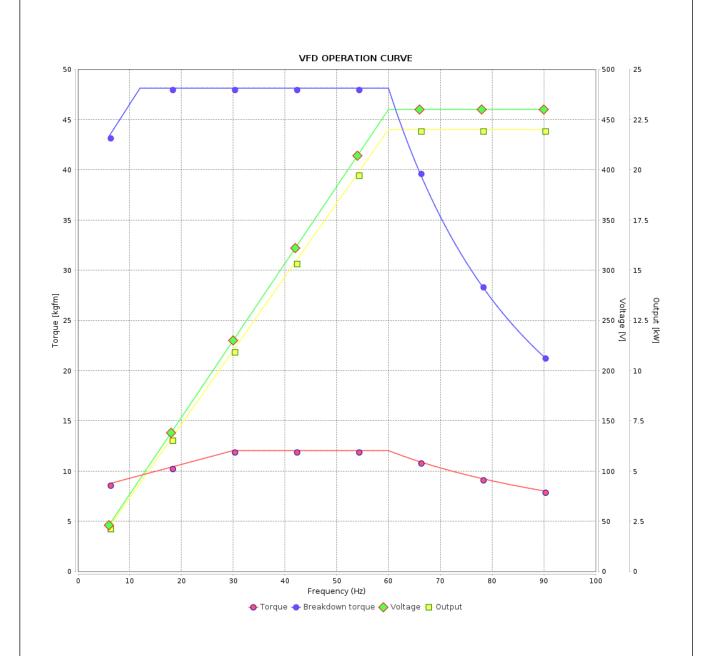
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Product line : W22 IE3 Three-Phase Product code : 15834980



Performance	: 460 V 60 Hz 4P				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 36.4 A : 8.8 : 12.0 kgfm : 370 % : 400 % : 1781 rpm	Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise Design		: 0.2097 kgm² : S1 : F : 1.00 : 80 K : N	
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