DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : W22 IE3 Three-Phase Product code: 12917049 Frame : 180M Cooling method : IC411 - TEFC Insulation class Mounting : F : B35T Duty cycle : S1 Rotation¹ : Both (CW and CCW) Ambient temperature : -20°C to +40°C Starting method : Direct On Line Altitude : 1000 m.a.s.l. Approx. weight³ : 197 kg Protection degree : IP55 Moment of inertia (J) : 0.1740 kgm² Design : N 18.5 Output [kW] 18.5 18.5 18.5 Poles 4 4 4 4 50 50 50 60 Frequency [Hz] Rated voltage [V] 380/660 400/690 415 460 Rated current [A] 36.1/20.8 35.2/20.4 34.7 30.6 L. R. Amperes [A] 253/145 264/153 278 260 LRC [A] 7.0 8.0 8.5 7.5 16.0/9.28 No load current [A] 14.2/8.18 17.7 14.5 Rated speed [RPM] 1476 1477 1780 1473 Slip [%] 1.80 1.60 1.53 1.11 Rated torque [kgfm] 12.2 10.1 12.2 12.2 Locked rotor torque [%] 260 300 320 340 Breakdown torque [%] 320 350 380 290 Service factor 1.00 1.00 1.00 1.00 Temperature rise 80 K 80 K 80 K 80 K Locked rotor time 14s (cold) 8s (hot) 14s (cold) 8s (hot) 14s (cold) 8s (hot) 18s (cold) 10s (hot) Noise level² 61.0 dB(A) 61.0 dB(A) 61.0 dB(A) 63.0 dB(A) 25% 50% 92.2 91.8 92.0 91.8 Efficiency (%) 75% 92.6 92.6 92.6 93.0 100% 92.6 92.6 92.6 93.6 25% 0.69 0.64 0.61 0.62 50% Power Factor 75% 0.79 0.76 0.73 0.74 100% 0.84 0.82 0.80 0.81 Losses at normative operating points (speed;torque), in percentage of rated output power P1 (0,9;1,0) 7.8 7.8 7.8 6.7 P2 (0,5;1,0) 6.7 6.7 6.7 5.8 P3 (0,25;1,0) 6.2 6.2 6.2 5.3 Losses (%) P4 (0,9;0,5) 3.6 3.6 3.6 3.1 P5 (0,5;0,5) 2.6 2.6 2.6 2.2 P6 (0,5;0,25) 1.7 1.7 1.7 1.4 P7 (0,25;0,25) 1.2 1.2 1.2 1.0 Drive end Non drive end Foundation loads Bearing type 6311 ZZ C3 6211 ZZ C3 Max. traction : 453 kaf Sealing Oil Seal Lip Seal : 649 kaf Max. compression Lubrication interval Lubricant amount Lubricant type Mobil Polyrex EM 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



Customer : Astraprom d.o.o.

Thermal	protection

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

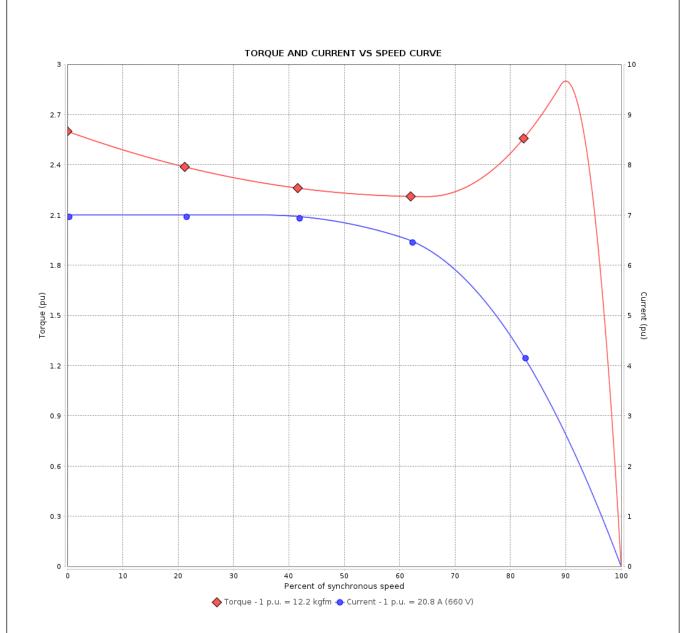
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Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : W22 IE3 Three-Phase Product code : 12917049



Performance : 380/660 V 50 Hz 4P Rated current : 36.1/20.8 A Moment of inertia (J) : 0.1740 kgm² **LRC** : 7.0 Duty cycle : S1 Rated torque : 12.2 kgfm Insulation class : F : 260 % Service factor Locked rotor torque : 1.00 : 80 K Breakdown torque : 290 % Temperature rise Rated speed : N : 1473 rpm Design

Locked rotor time : 14s (cold) 8s (hot)

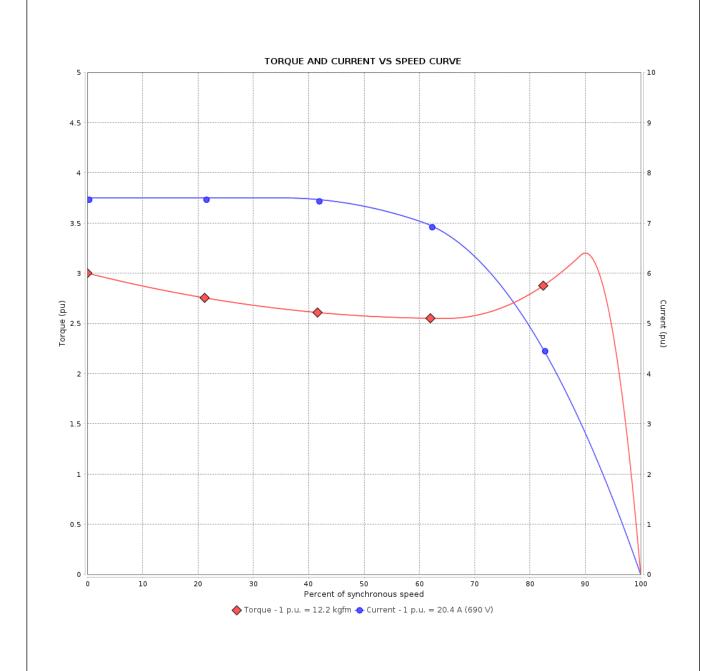
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Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : W22 IE3 Three-Phase Product code : 12917049



Performance	: 400/690 V 50 Hz 4P		
Rated current	: 35.2/20.4 A	Moment of inertia (J)	: 0.1740 kgm²
LRC	: 7.5	Duty cycle	: S1
Rated torque	: 12.2 kgfm	Insulation class	: F
Locked rotor torque	: 300 %	Service factor	: 1.00
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 1476 rpm	Design	: N

Locked rotor time : 14s (cold) 8s (hot)

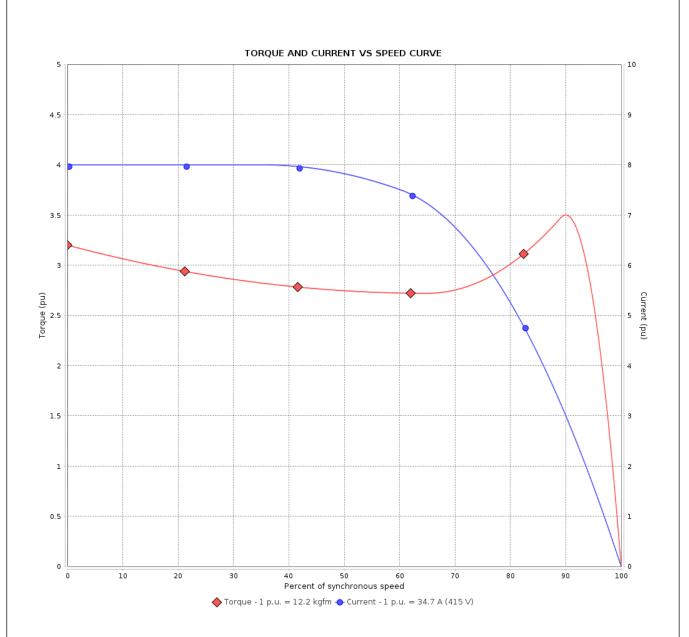
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Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : W22 IE3 Three-Phase Product code : 12917049



Performance	: 415 V 50 Hz 4P		
Rated current LRC Rated torque Locked rotor torque Breakdown torque	: 34.7 A : 8.0 : 12.2 kgfm : 320 % : 350 %	Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise	: 0.1740 kgm² : S1 : F : 1.00 : 80 K
Rated speed	: 1477 rpm	Design	: N

Locked rotor time : 14s (cold) 8s (hot)

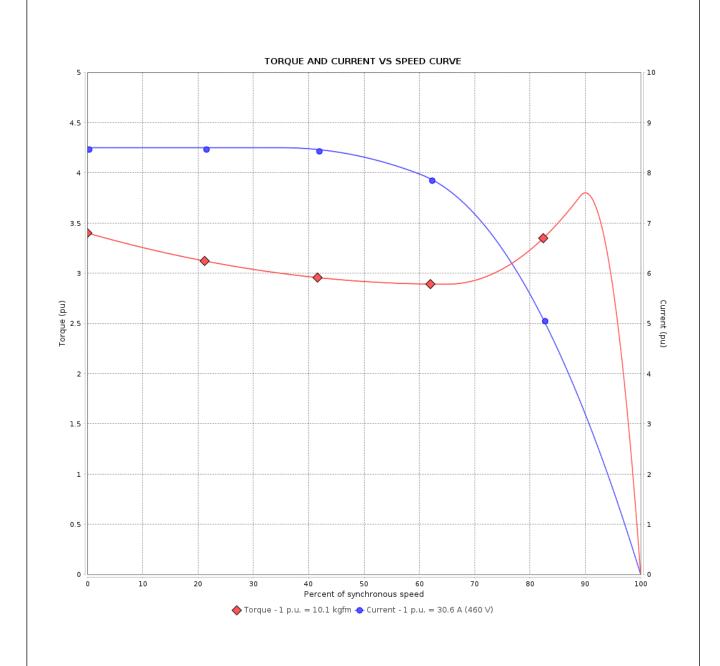
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Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : W22 IE3 Three-Phase Product code : 12917049



Performance	: 460 V 60 Hz 4P			
Rated current	: 30.6 A	Moment of inertia (J)	: 0.1740 kgm²	
LRC	: 8.5	Duty cycle	: S1	
Rated torque	: 10.1 kgfm	Insulation class	: F	
Locked rotor torque	: 340 %	Service factor	: 1.00	
Breakdown torque	: 380 %	Temperature rise	: 80 K	
Rated speed	: 1780 rpm	Design	: N	

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

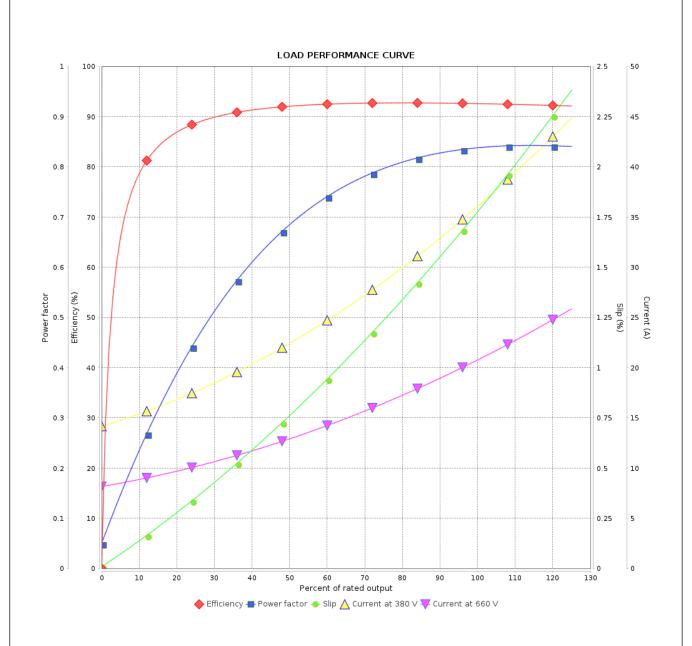
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Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : W22 IE3 Three-Phase Product code : 12917049



Performance	: 200/660 V E0 U= 4D				
Periormance	: 380/660 V 50 Hz 4P				
Rated current	: 36.1/20.8 A	Moment of	f inertia (J)	: 0.1740 kgm ²	2
LRC	: 7.0	Duty cycle	;	: S1	
Rated torque	: 12.2 kgfm	Insulation	class	: F	
Locked rotor torque	: 260 %	Service fa	ctor	: 1.00	
Breakdown torque	: 290 %	Temperat	ıre rise	: 80 K	
Rated speed	: 1473 rpm	Design		: N	
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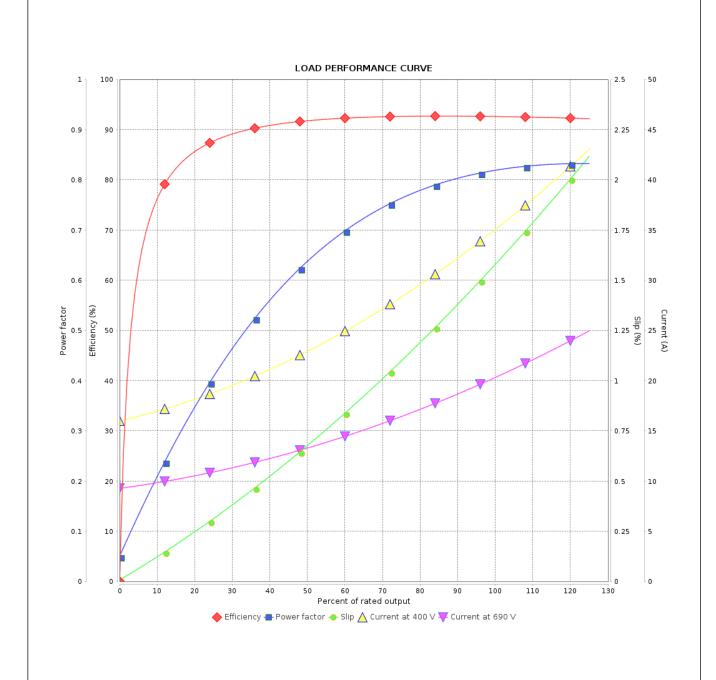
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Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.



Performance	: 40	00/690 V 50 Hz 4P				
Rated current LRC Rated torque Locked rotor torqu Breakdown torqu	: 7. : 12 ue : 30 ue : 32	2.2 kgfm 00 % 20 %	Duty cycle Insulation Service fa Temperati	class ector	: 0.1740 kgm ² : S1 : F : 1.00 : 80 K	2
Rated speed Rev.		476 rpm Changes Summary	Design	Performed	: N Checked	Date
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Three Phase Induction Motor - Squirrel Cage



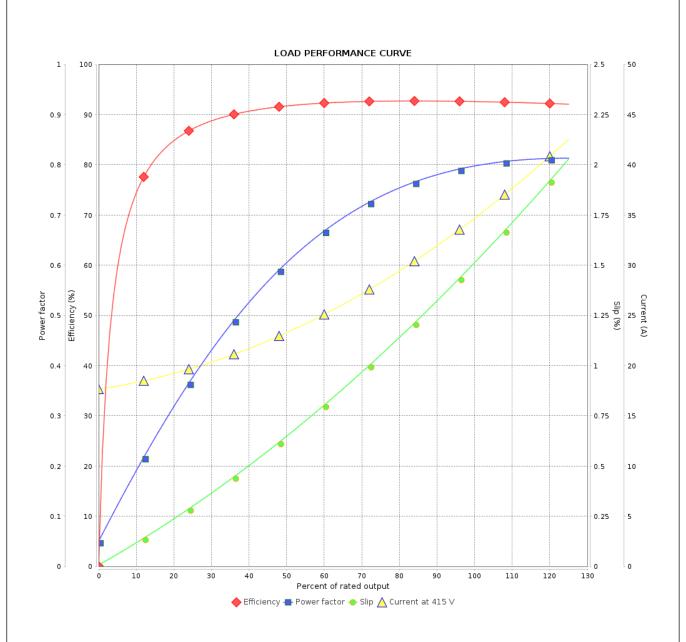
Customer : Astraprom d.o.o.

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Product line : W22 IE3 Three-Phase Product code : 12917049



Performance	: 4	15 V 50 Hz 4P				
Rated current LRC Rated torque Locked rotor tord Breakdown torqu Rated speed	: 8 : 1 jue : 3	4.7 A 5.0 2.2 kgfm 20 % 50 % 477 rpm	Moment of Duty cycle Insulation Service fa Temperation	class ector	: 0.1740 kgm² : S1 : F : 1.00 : 80 K : N	
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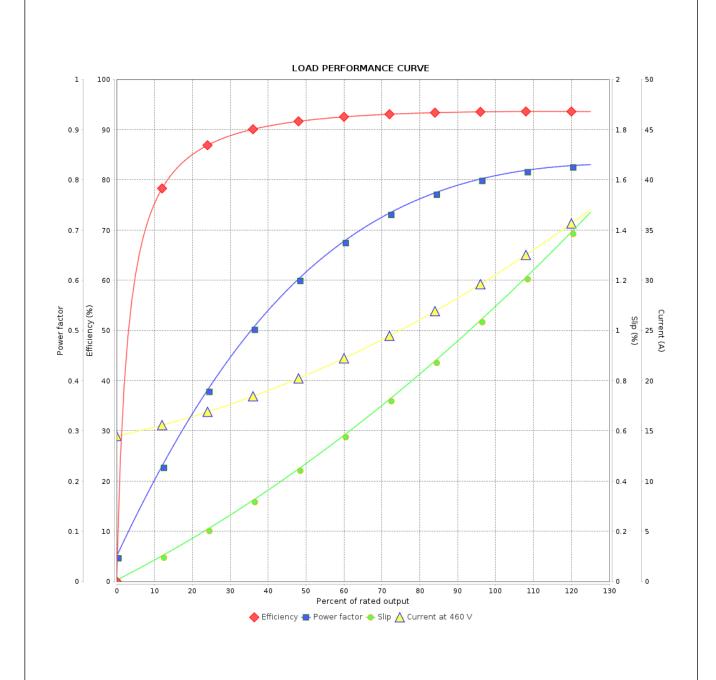
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Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.



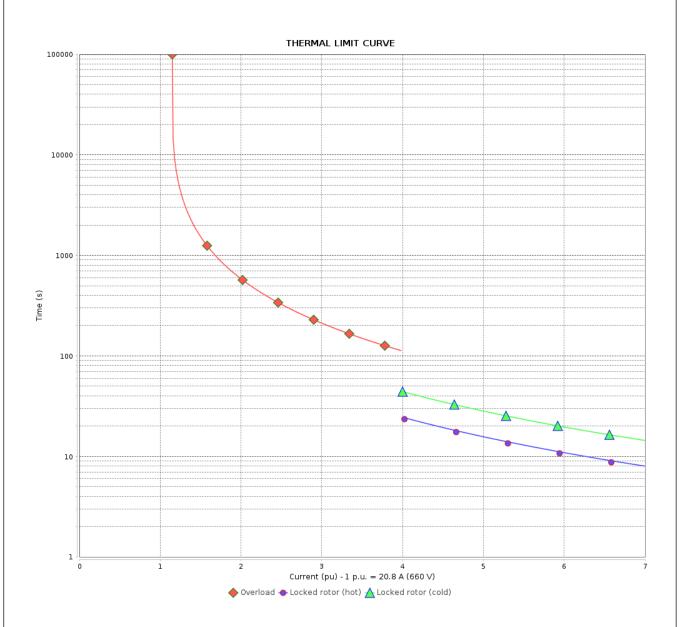
Performance	: 40	60 V 60 Hz 4P				
Rated current	: 30	0.6 A	Moment of	of inertia (J)	: 0.1740 kgm²	
LRC	: 8.	5	Duty cycle	Э	: S1	
Rated torque	: 10	0.1 kgfm	Insulation	class	: F	
Locked rotor torq	ue : 34	40 %	Service fa	ector	: 1.00	
Breakdown torqu	e : 38	80 %	Temperat	ure rise	: 80 K	
Rated speed	: 17	780 rpm	Design		: N	
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Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : W22 IE3 Three-Phase Product code : 12917049



Performance : 380/660 V 50 Hz 4P Rated current : 36.1/20.8 A Moment of inertia (J) : 0.1740 kgm² **LRC** : 7.0 Duty cycle : S1 Insulation class : F Rated torque : 12.2 kgfm : 260 % : 1.00 Locked rotor torque Service factor Breakdown torque : 290 % Temperature rise : 80 K Rated speed : 1473 rpm Design : N Heating constant Cooling constant

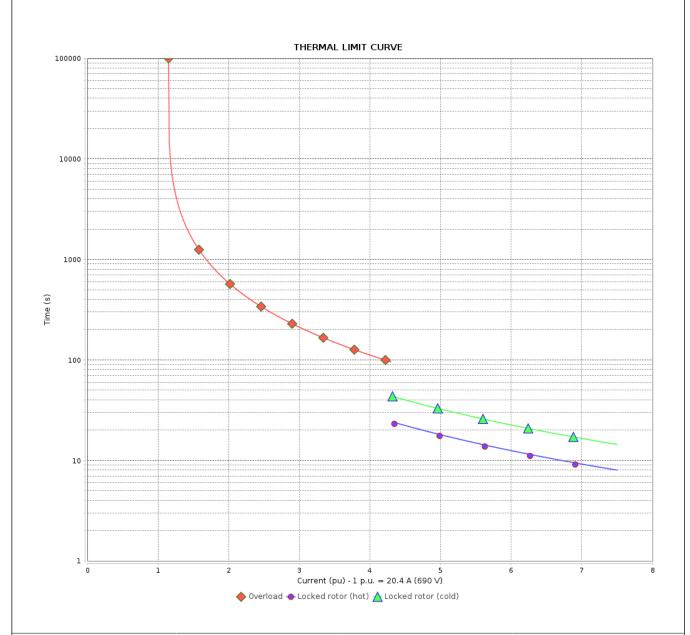
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Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : W22 IE3 Three-Phase Product code : 12917049



Performance : 400/690 V 50 Hz 4P : 35.2/20.4 A Moment of inertia (J) : 0.1740 kgm² Rated current **LRC** : 7.5 Duty cycle : S1 Insulation class : F Rated torque : 12.2 kgfm : 300 % : 1.00 Locked rotor torque Service factor Breakdown torque : 320 % : 80 K Temperature rise Rated speed : 1476 rpm Design : N Heating constant Cooling constant

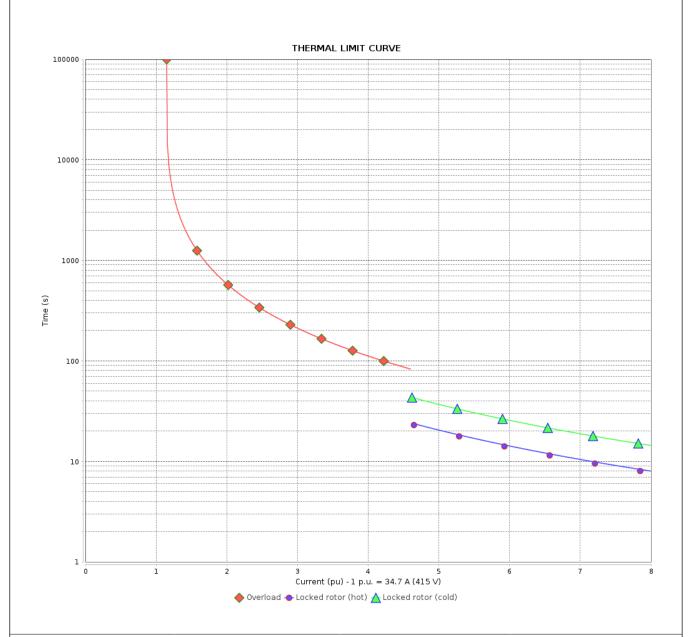
Cooling constant	<u> </u>				
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Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : W22 IE3 Three-Phase Product code : 12917049



: 415 V 50 Hz 4P Performance Rated current : 34.7 A Moment of inertia (J) : 0.1740 kgm² **LRC** : 8.0 Duty cycle : S1 Insulation class : F Rated torque : 12.2 kgfm : 320 % : 1.00 Locked rotor torque Service factor Breakdown torque : 350 % Temperature rise : 80 K Rated speed : 1477 rpm Design : N

Heating constant

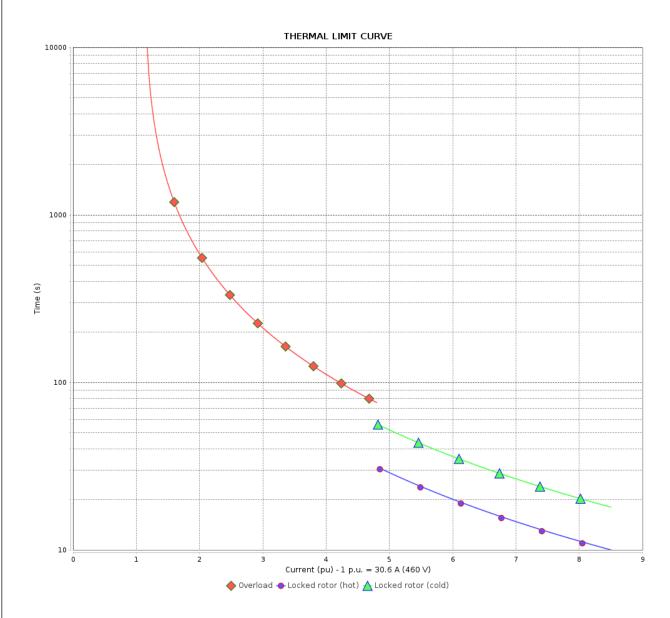
Cooling constant

Cooling constant					
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Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.



Performance	: 460 V 60 Hz 4P		
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 30.6 A : 8.5 : 10.1 kgfm : 340 % : 380 % : 1780 rpm	Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise Design	: 0.1740 kgm² : S1 : F : 1.00 : 80 K : N
Heating constant Cooling constant			

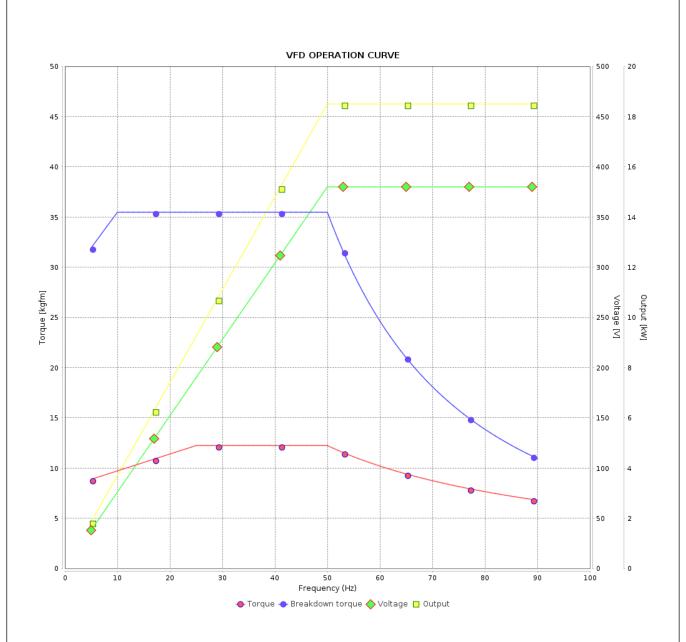
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Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : W22 IE3 Three-Phase Product code : 12917049



Performance	: 380/660 V 50 Hz 4P			
Rated current	: 36.1/20.8 A	Moment of inertia (J)	: 0.1740 kgm²	
LRC	: 7.0	Duty cycle	: S1	
Rated torque	: 12.2 kgfm	Insulation class	: F	
Locked rotor torque	: 260 %	Service factor	: 1.00	
Breakdown torque	: 290 %	Temperature rise	: 80 K	
Rated speed	: 1473 rpm	Design	: N	
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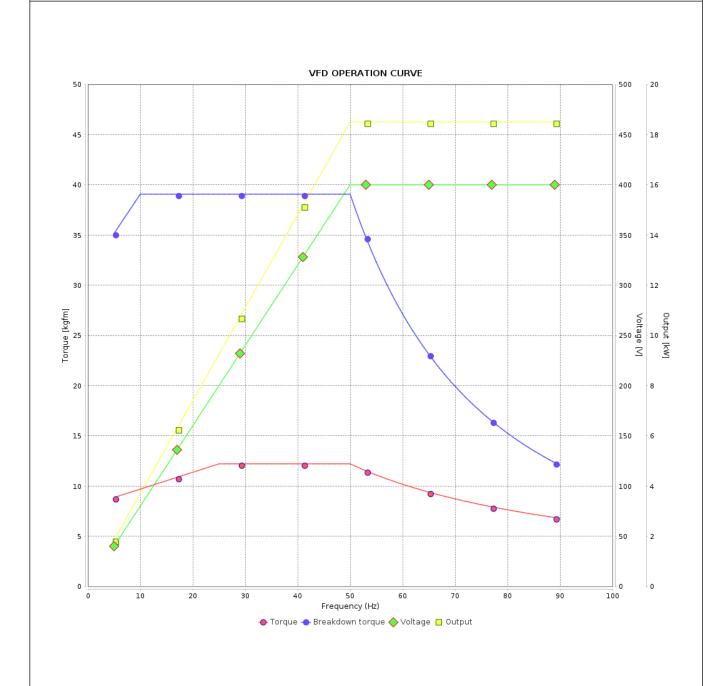
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Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.



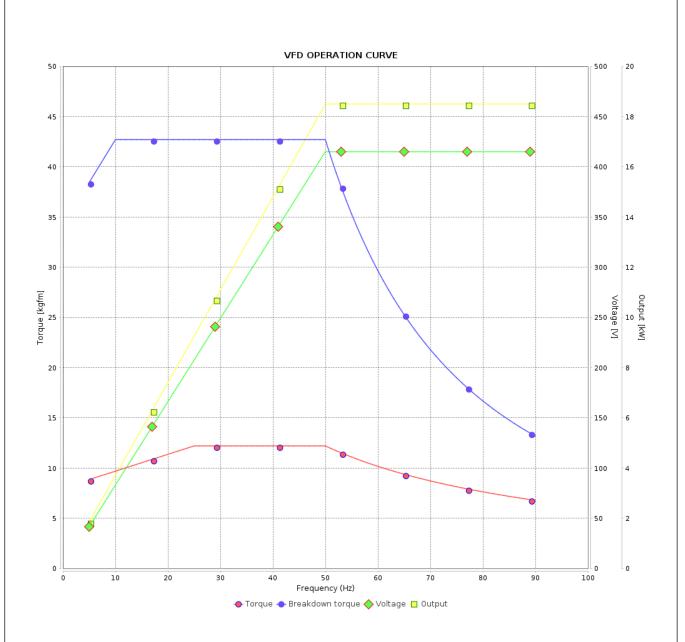
Performance	: 40	00/690 V 50 Hz 4P				
Rated current	: 38	5.2/20.4 A	Moment of	of inertia (J)	: 0.1740 kgm²	
LRC	: 7.	5	Duty cycle	Э	: S1	
Rated torque	: 12	2.2 kgfm	Insulation	class	: F	
Locked rotor tord	que : 30	00 %	Service fa	ector	: 1.00	
Breakdown torqu	ue : 32	20 %	Temperat	ure rise	: 80 K	
Rated speed	: 14	176 rpm	Design		: N	
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Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : W22 IE3 Three-Phase Product code : 12917049



							
Performance	: 415 V 50 Hz 4P						
Rated current LRC	: 34.7 A : 8.0	Moment of inertia (J) Duty cycle		: 0.1740 kgm² : S1			
Rated torque Locked rotor torque Breakdown torque	: 12.2 kgfm : 320 % : 350 %	Insulation class Service factor Temperature rise Design		: F : 1.00 : 80 K			
Rated speed	: 1477 rpm			: N			
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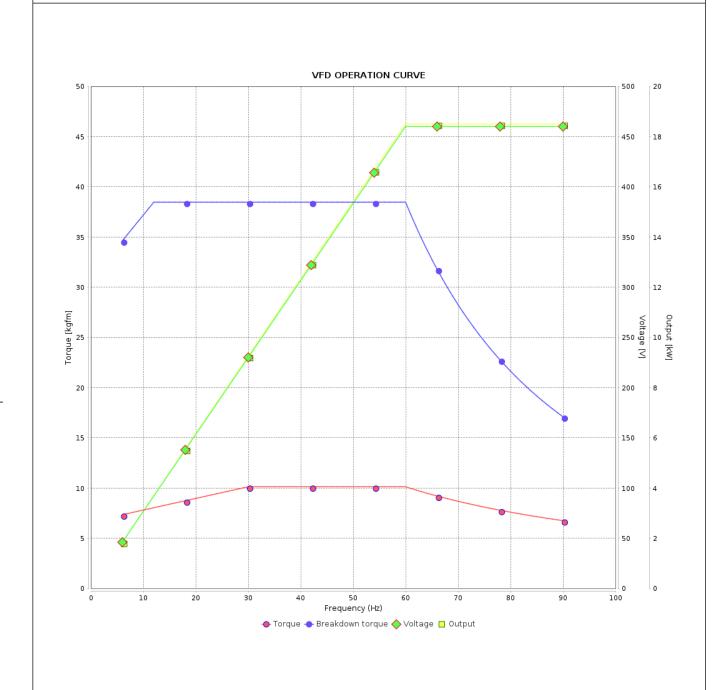
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Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.



Performance	: 40	60 V 60 Hz 4P					
		0.6 A	ı	Moment of inertia (J)		: 0.1740 kgm²	
		.5		Duty cycle		: S 1	
Rated torque : 1		0.1 kgfm	Insulation	Insulation class		: F	
Locked rotor torque : 34		40 %	Service fa	Service factor		: 1.00	
Breakdown torque :		80 %	Temperati	Temperature rise		: 80 K	
Rated speed		780 rpm Design			: N		
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