

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer : Astraprom d.o.o.

Product line : W22 IE2 Three-Phase

Product code : 16474631

Frame	: 112M	Locked rotor time	: 27s (cold) 15s (hot)
Output	: 5.5 kW (7.5 HP)	Temperature rise	: 70 K
Poles	: 4	Duty cycle	: S1
Frequency	: 60 Hz	Ambient temperature	: -20°C to +50°C
Rated voltage	: 400/690 V	Altitude	: 1000 m.a.s.l.
Rated current	: 11.7/6.76 A	Protection degree	: IP55
L. R. Amperes	: 84.0/48.7 A	Cooling method	: IC411 - TEFC
LRC	: 7.2	Mounting	: B5T
No load current	: 6.49/3.76 A	Rotation <sup>1</sup>	: Both (CW and CCW)
Rated speed	: 1745 rpm	Noise level <sup>2</sup>	: 56.0 dB(A)
Slip	: 3.06 %	Starting method	: Direct On Line
Rated torque	: 3.07 kgfm	Approx. weight <sup>3</sup>	: 44.0 kg
Locked rotor torque	: 270 %		
Breakdown torque	: 330 %		
Insulation class	: F		
Service factor	: 1.15		
Moment of inertia (J)	: 0.0180 kgm <sup>2</sup>		
Design	: N		

Output	50%	75%	100%	Foundation loads	
Efficiency (%)	88.4	89.3	89.5	Max. traction	: 191 kgf
Power Factor	0.53	0.67	0.76	Max. compression	: 235 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)
11.3	9.8	10.0	5.8	4.3	3.1	2.3

	Drive end	Non drive end
Bearing type	: 6207 ZZ	: 6206 ZZ
Sealing	: V'Ring	: V'Ring
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.

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	31/05/2023		1 / 5	

# TORQUE AND CURRENT VS SPEED CURVE

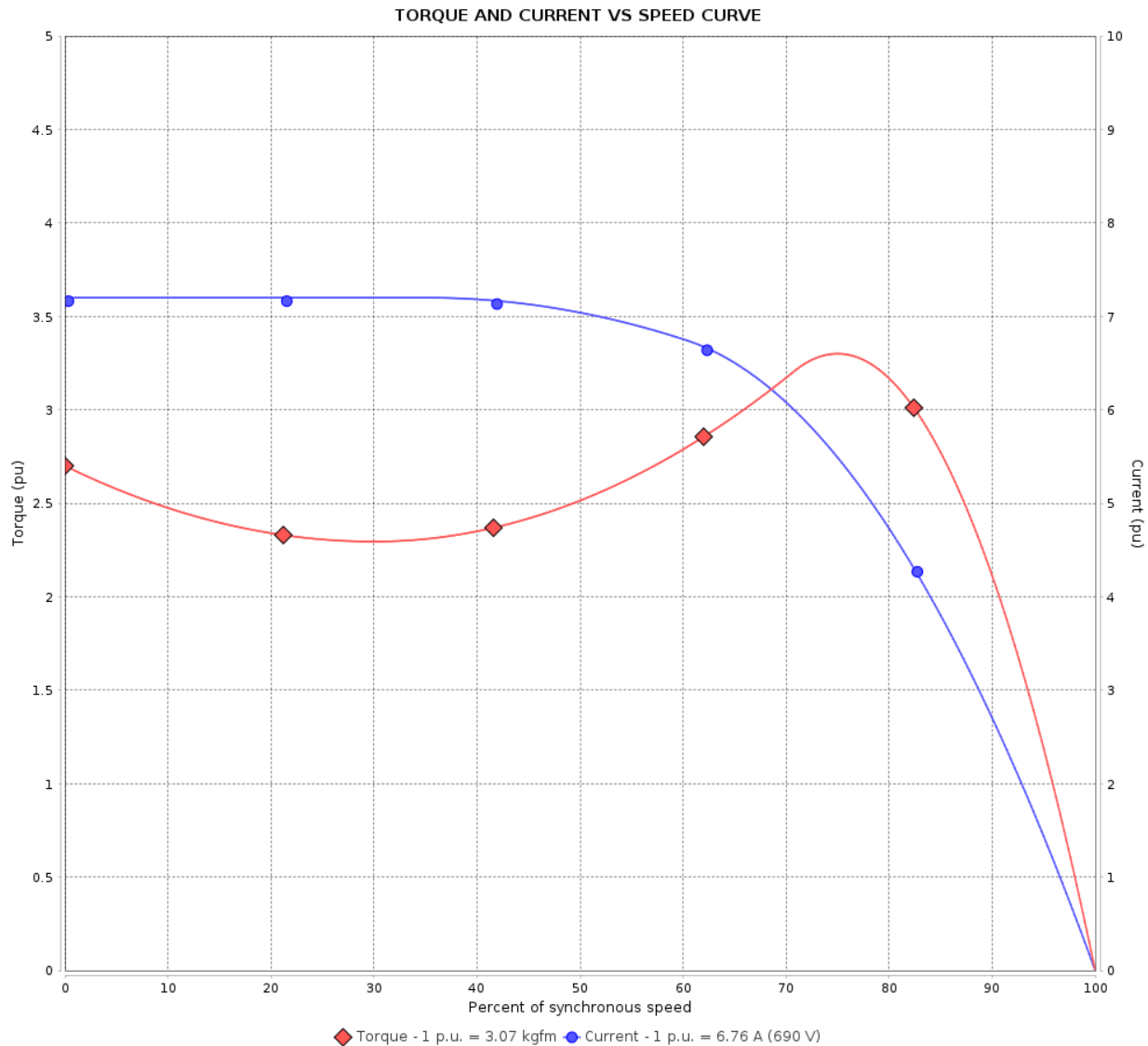
## Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : W22 IE2 Three-Phase

Product code : 16474631



Performance : 400/690 V 60 Hz 4P

Rated current	: 11.7/6.76 A	Moment of inertia (J)	: 0.0180 kgm <sup>2</sup>
LRC	: 7.2	Duty cycle	: S1
Rated torque	: 3.07 kgfm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.15
Breakdown torque	: 330 %	Temperature rise	: 70 K
Rated speed	: 1745 rpm	Design	: N

Locked rotor time : 27s (cold) 15s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 2 / 5	Revision
Checked by				
Date	31/05/2023			

# LOAD PERFORMANCE CURVE

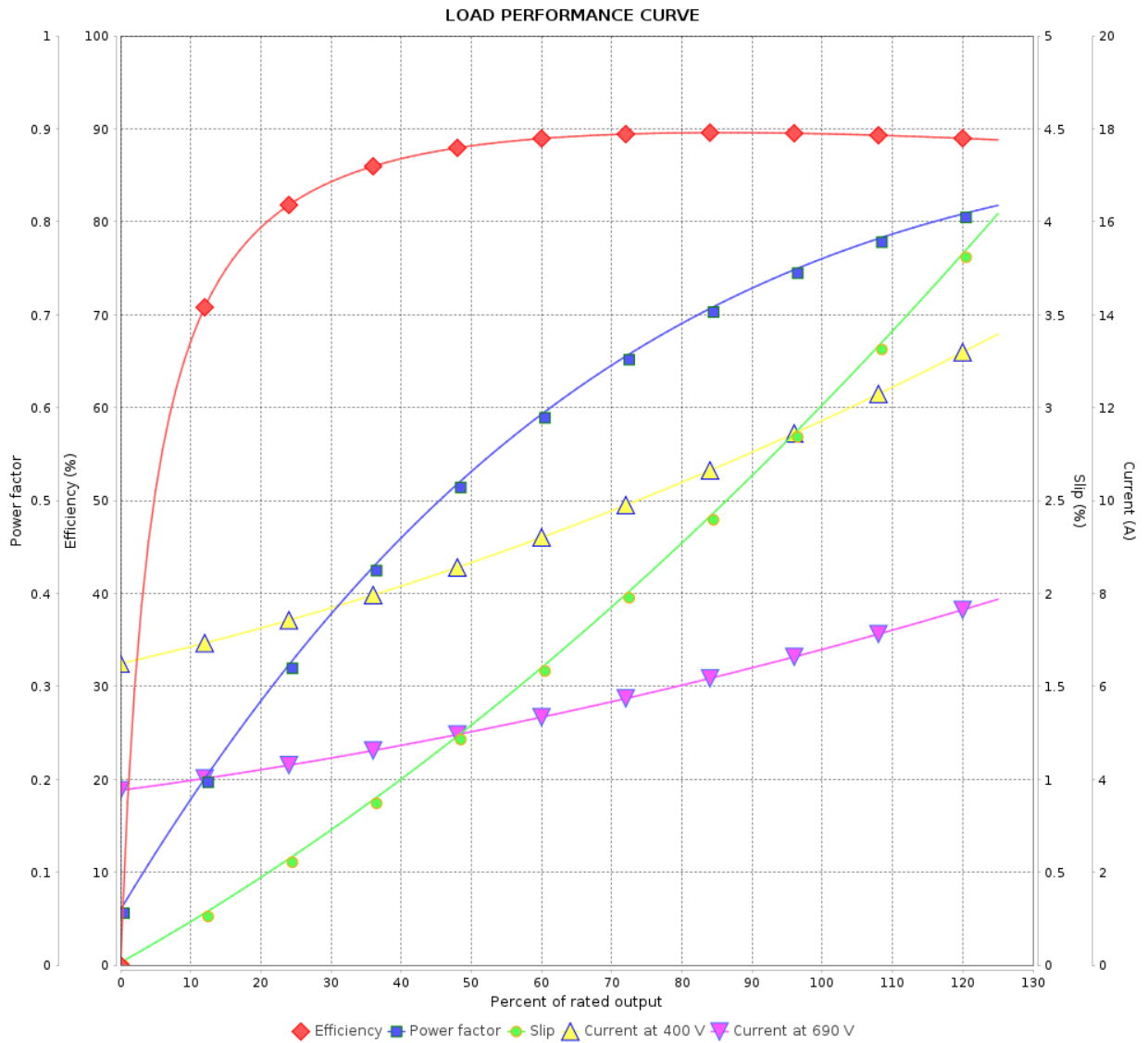
## Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : W22 IE2 Three-Phase

Product code : 16474631



Performance : 400/690 V 60 Hz 4P

Rated current : 11.7/6.76 A  
 LRC : 7.2  
 Rated torque : 3.07 kgfm  
 Locked rotor torque : 270 %  
 Breakdown torque : 330 %  
 Rated speed : 1745 rpm

Moment of inertia (J) : 0.0180 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 70 K  
 Design : N

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				

# THERMAL LIMIT CURVE

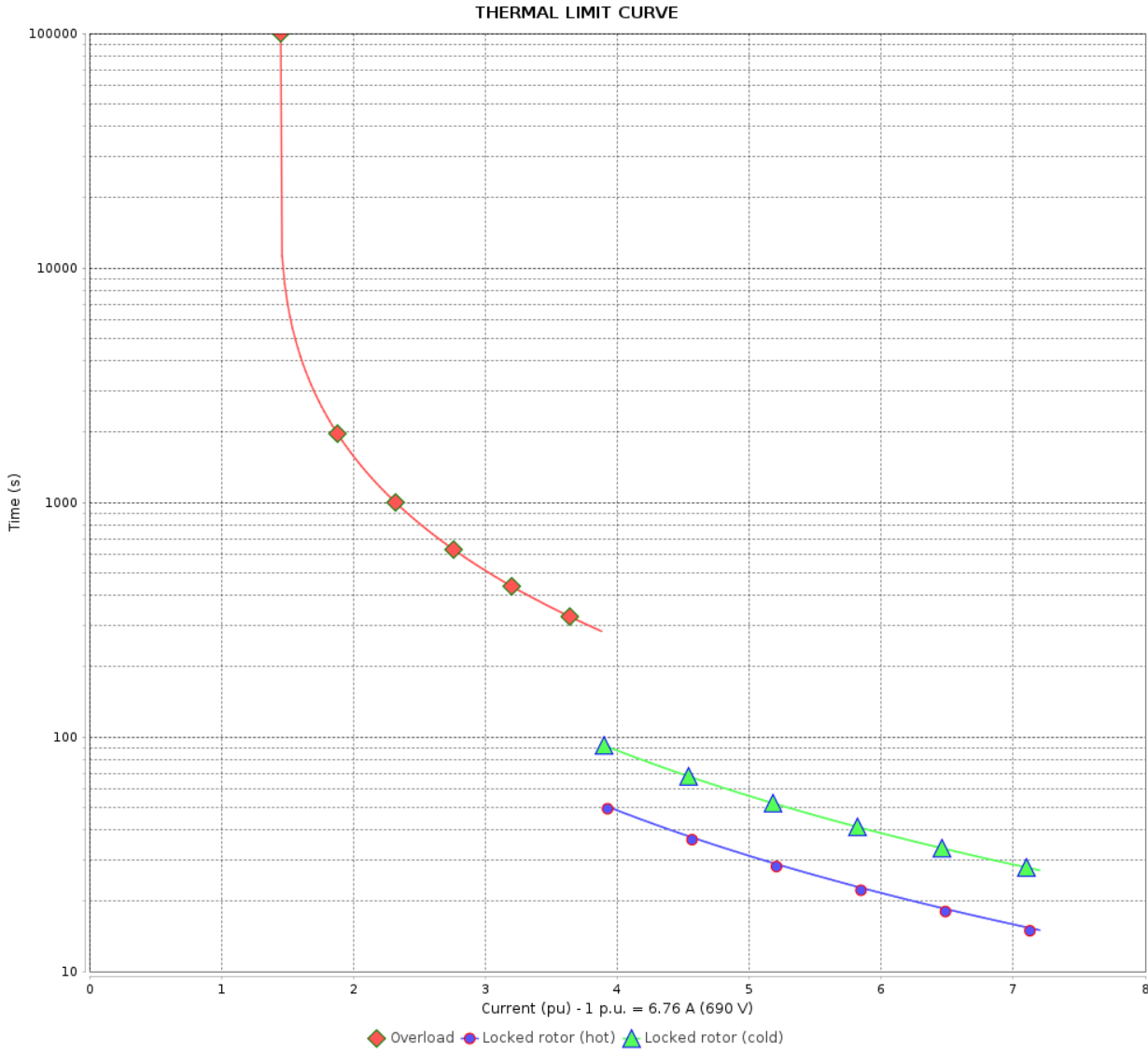
## Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : W22 IE2 Three-Phase

Product code : 16474631



Performance : 400/690 V 60 Hz 4P

Rated current : 11.7/6.76 A  
 LRC : 7.2  
 Rated torque : 3.07 kgfm  
 Locked rotor torque : 270 %  
 Breakdown torque : 330 %  
 Rated speed : 1745 rpm

Moment of inertia (J) : 0.0180 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 70 K  
 Design : N

Heating constant

Cooling constant

Rev.	Changes Summary	Performed	Checked	Date
Performed by	31/05/2023	Page 4 / 5		Revision
Checked by				
Date				

# VFD OPERATION CURVE

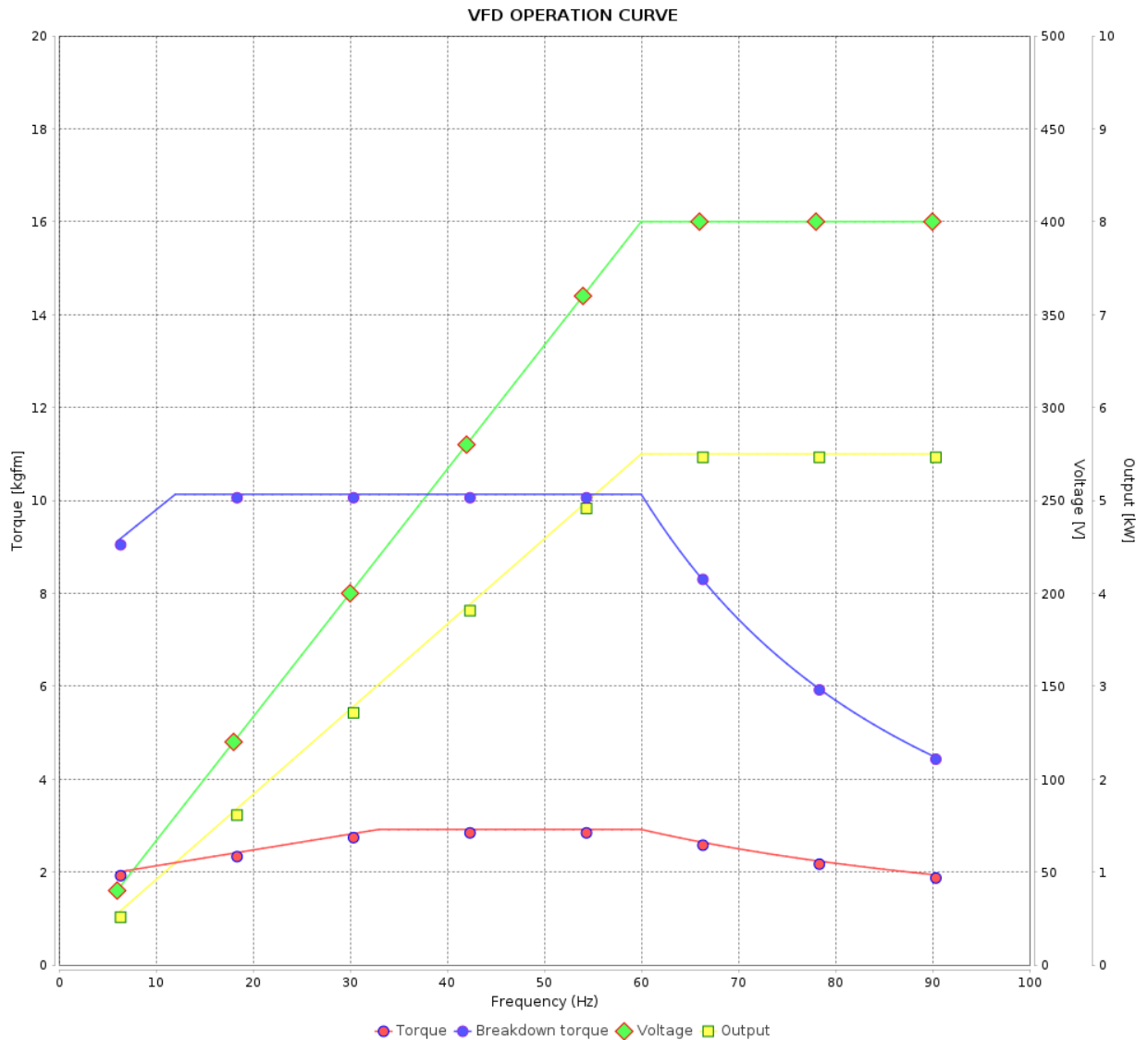
## Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : W22 IE2 Three-Phase

Product code : 16474631



Performance : 400/690 V 60 Hz 4P

Rated current : 11.7/6.76 A  
 LRC : 7.2  
 Rated torque : 3.07 kgfm  
 Locked rotor torque : 270 %  
 Breakdown torque : 330 %  
 Rated speed : 1745 rpm

Moment of inertia (J) : 0.0180 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 70 K  
 Design : N

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		5 / 5		
Date		31/05/2023		