

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer : THE INVERTER DRIVE SUPERMARKET LTD

Product line : Special Motor

Frame	: 132M	Locked rotor time	: 28 s (hot) 50 s (cold)
Output	: 5.5 kW	Temperature rise	: 65 K
Poles	: 6	Duty cycle	: S1
Frequency	: 50 Hz	Ambient temperature	: -5 °C to +80 °C
Rated voltage	: 415 V	Altitude	: 1000 m.a.s.l
Rated current	: 12.4 A	Protection degree	: IP55
L. R. Amperes	: 85.4 A	Cooling method	: IC411 - TEFC
LRC	: 6.9	Mounting	: V6T
No load current	: 7.50 A	Rotation <sup>1</sup>	: Both
Rated speed	: 970 rpm	Noise level <sup>2</sup>	: 53.0 dB(A)
Slip	: 3.00 %	Vibration class	: A
Rated torque	: 54.1 Nm	Starting method	: Direct On Line
Locked rotor torque	: 270 %	Coupling	: Direct
Pull up torque	: 255 %	Approx. weight <sup>3</sup>	: 86.2 kg
Breakdown torque	: 280 %	Painting plan	: 207A
Insulation class	: H	Color	: RAL 5009
Service factor	: 1.00	Design	: N
Moment of inertia (J)	: 0.0600 kgm <sup>2</sup>		

Output	50%	75%	100%	Load type	: -
Efficiency (%)	86.5	87.8	88.0	Load torque	: -
Power Factor	0.49	0.62	0.70	Load inertia (J=GD <sup>2</sup> /4)	: -

Bearing type	Drive end	Non drive end	Foundation loads	
Lubrication interval	6308-C3	6207-C3	Max. traction	:
Lubricant amount	20000 h	20000 h	Max. compression	:
Lubricant type	21 g	13 g		
	KRYTOX GPL 225			

### Notes

### 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)
13.1	11.1	10.8	7.3	5.4	4.1	3.2

Standards	Specification	: IEC 60034-1	Vibration	: IEC 60034-14
	Test	: IEC 60034-2	Tolerance	: IEC 60034-1
	Noise	: IEC 60034-9		

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 be changed after manufacturing process.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in IEC 60034-1.

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Performed by	gregorys	1846789608		
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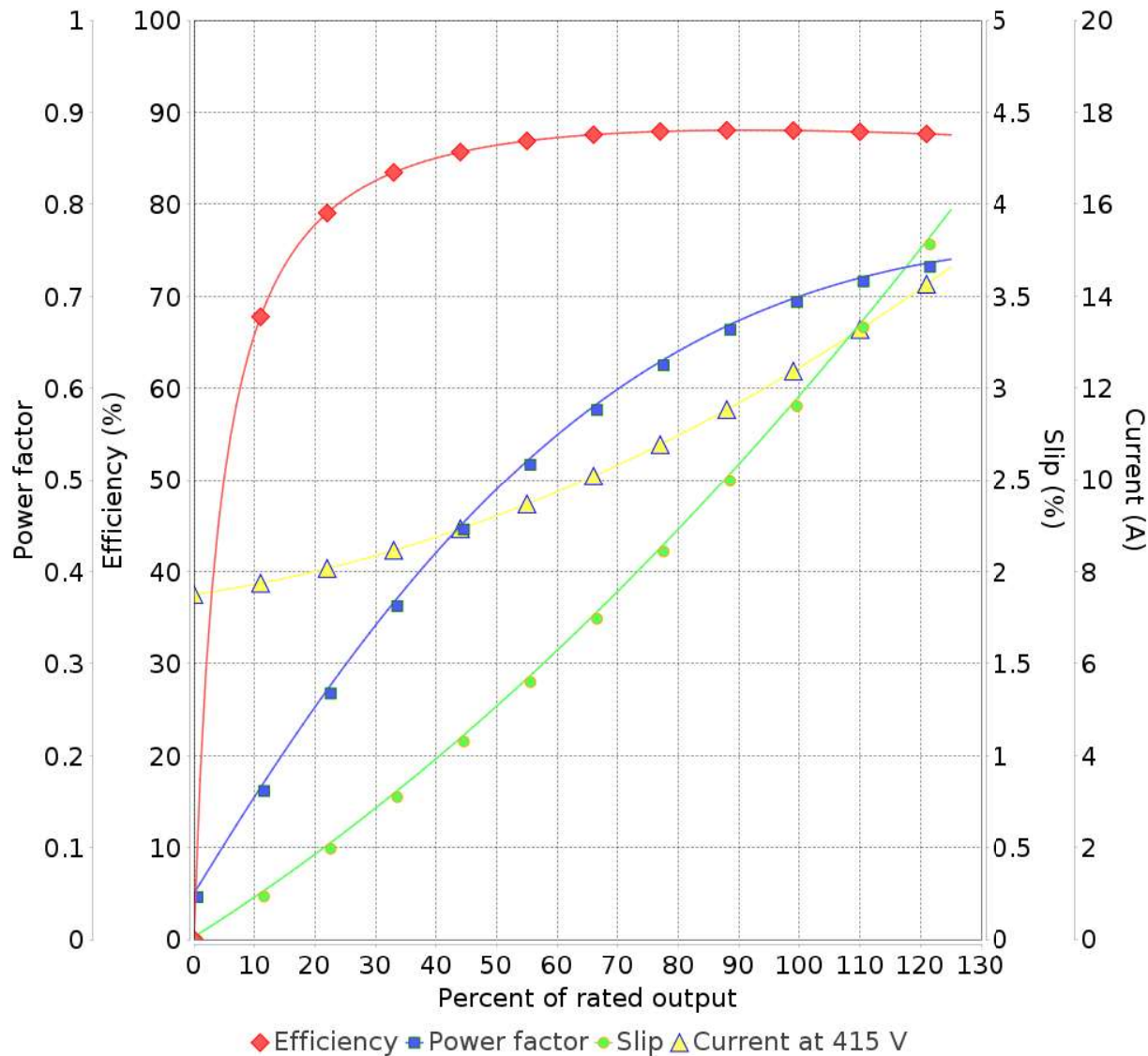
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer : THE INVERTER DRIVE SUPERMARKET LTD

Product line : Special Motor



Performance : 5.5 kW 415 V 50 Hz 6P 132M

Rated current	: 12.4 A	Moment of inertia (J)	: 0.0600 kgm <sup>2</sup>
LRC	: 6.9	Duty cycle	: S1
Rated torque	: 54.1 Nm	Insulation class	: H
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 65 K
Rated speed	: 970 rpm	Design	: N

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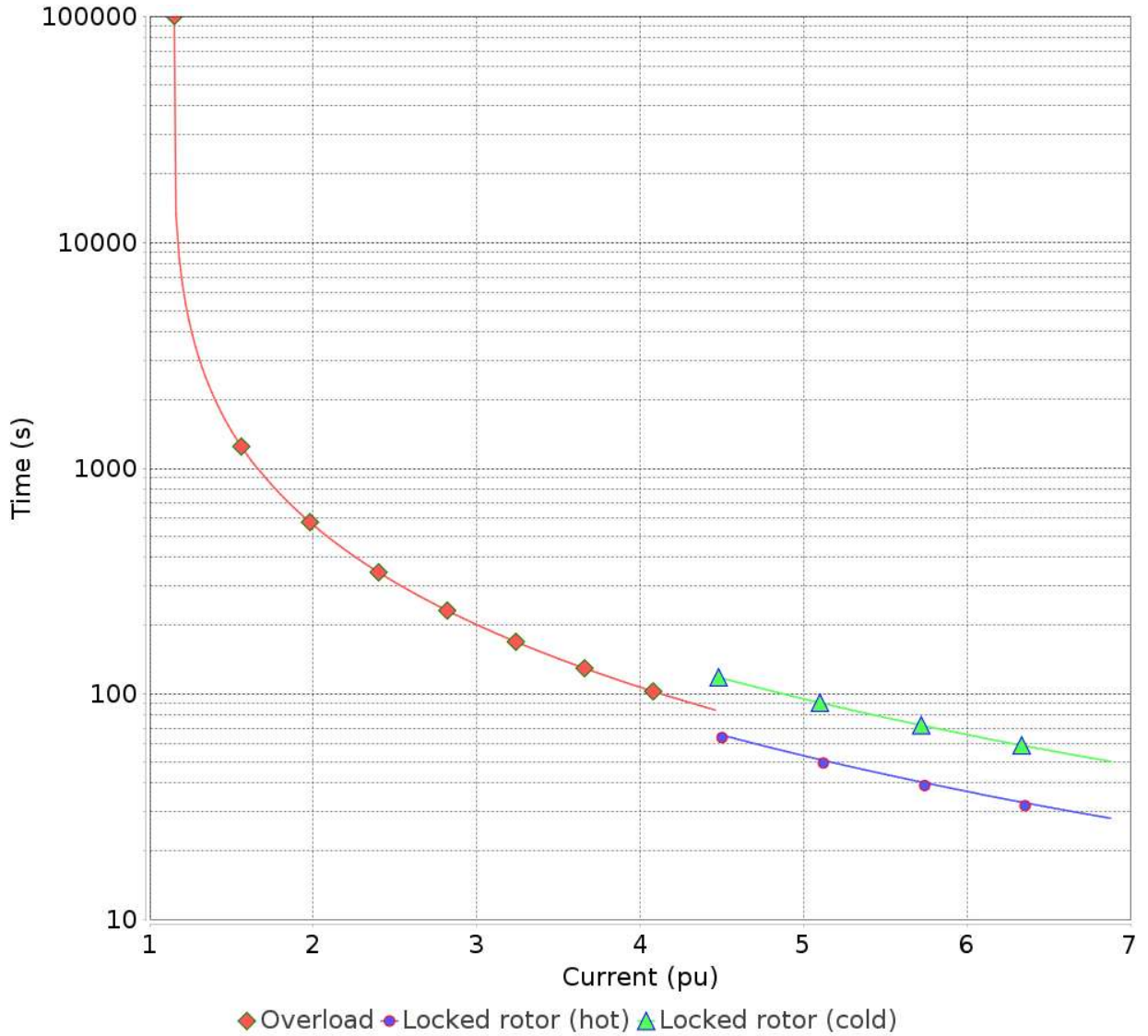
# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



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Product line : Special Motor



Performance : 5.5 kW 415 V 50 Hz 6P 132M

Rated current	: 12.4 A	Moment of inertia (J)	: 0.0600 kgm <sup>2</sup>
LRC	: 6.9	Duty cycle	: S1
Rated torque	: 54.1 Nm	Insulation class	: H
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 65 K
Rated speed	: 970 rpm	Design	: N

Heating constant : 27.2 min  
Cooling constant : 81.6 min

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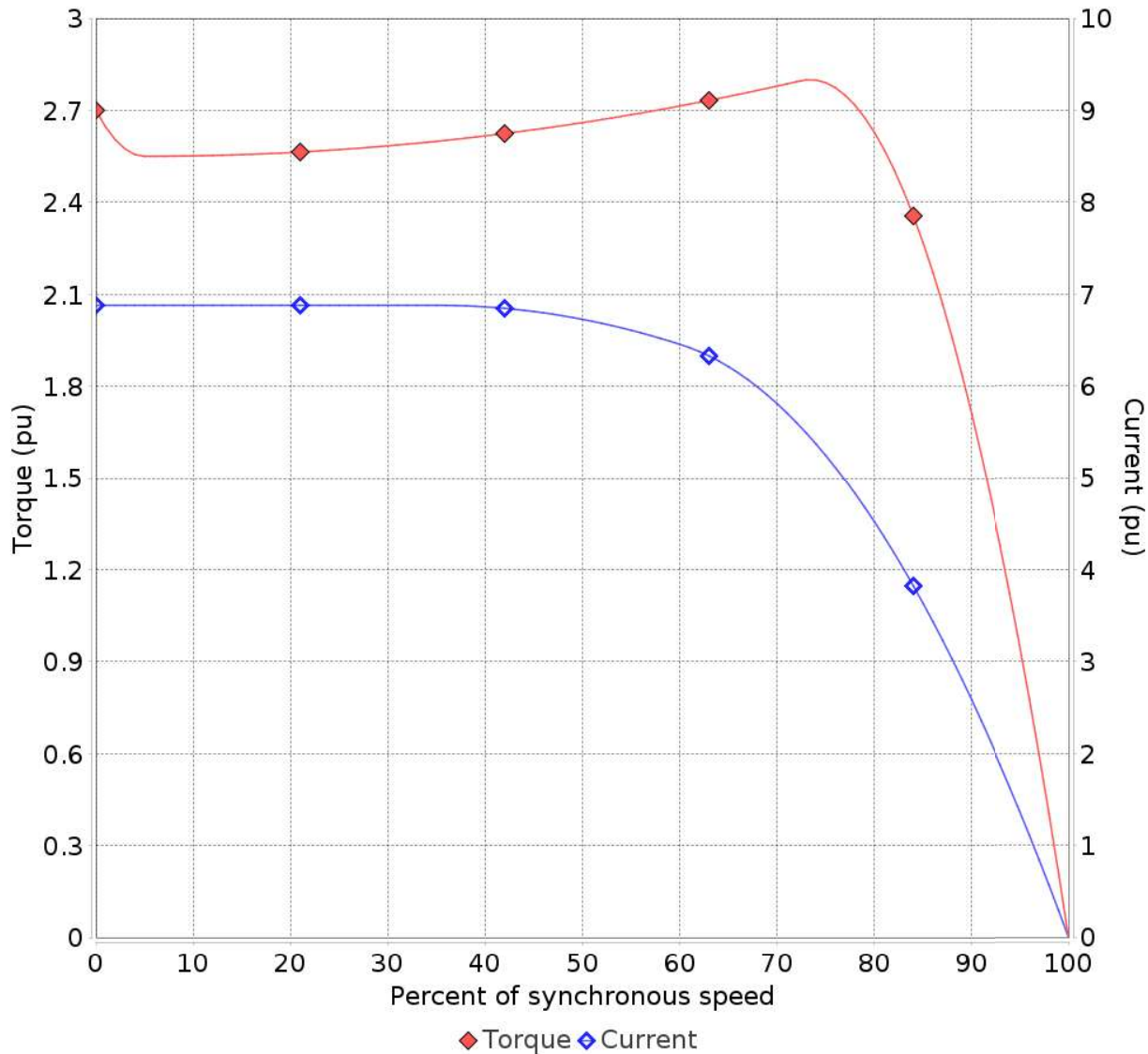
# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : THE INVERTER DRIVE SUPERMARKET LTD

Product line : Special Motor

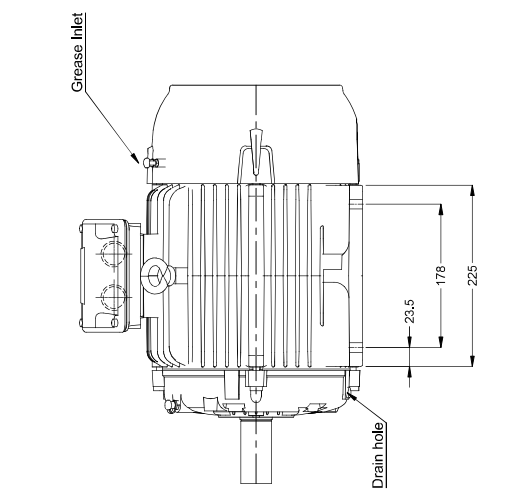
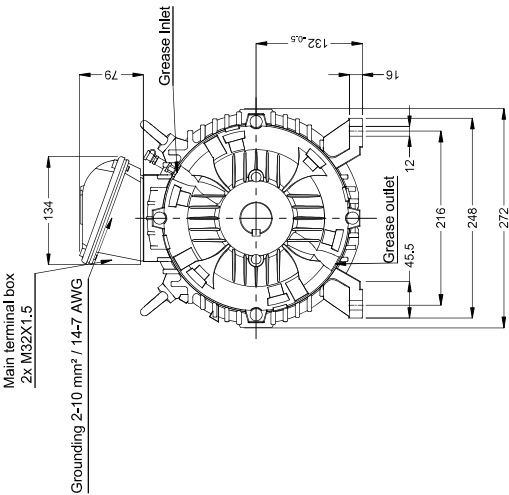
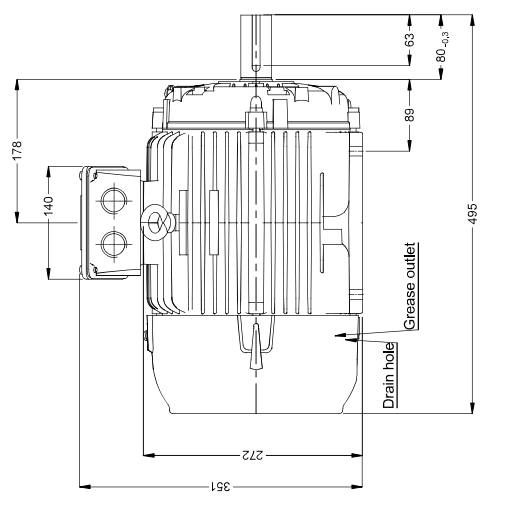


Performance : 5.5 kW 415 V 50 Hz 6P 132M

Rated current	: 12.4 A	Moment of inertia (J)	: 0.0600 kgm <sup>2</sup>
LRC	: 6.9	Duty cycle	: S1
Rated torque	: 54.1 Nm	Insulation class	: H
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 65 K
Rated speed	: 970 rpm	Design	: N

Locked rotor time 100%	: 28 s (hot) 50 s (cold)
Load inertia (J=GD <sup>2</sup> /4)	: 0.06 kgm <sup>2</sup>
Allowable run up time 100%	: 22 s (hot) 40 s (cold)

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Main terminal box  
2x M32X1.5  
Grounding 2-10 mm<sup>2</sup> / 14-7 AWG

5.5 kW		06 Poles		50 Hz		A	
<b>THE INVERTER DRIVE SUPERMARKET LTD</b>							
Scale				2 : 13			
PIRWBUSER	EXECUTED	CHECKED	RELEASED	DATE	VER		
SUMMARY OF MODIFICATIONS				PREVIEW			
ECM	LOC	PIRWBUSER		THREE PH. MOTOR W22 IE3		WDD	01
EXECUTED				FRAME 132M IP55 TEFC		SHEET	1 / 1
CHECKED						[Operational]	
RELEASED							
REL DATE		WEG		REDDITCH			

Cast iron fan cover	
Grease - Krytox GPL 225	
Bearing cap	
With grease fitting	
Aluminum fan	
Color RAL 5009	
Painting plan 207A	
Mounting V6T	

