

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : QUANTUM CONTROLS

Product line : W22 - IE3 Premium Efficiency Multivoltage Product code : 15833945

Frame	: 132S	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: B3T
Duty cycle	: S1	Rotation ¹	: Both
Ambient temperature	: -20 °C to +40 °C	Starting method	: Direct On Line
Altitude	: 1000 m.a.s.l	Approx. weight ³	: 66.0 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.0491 kgm ²
Design	: N		

Output	5.5 kW	5.5 kW	5.5 kW
Poles	4	4	4
Frequency	50 Hz	50 Hz	50 Hz
Rated voltage	380/660 V	400/690 V	415 V
Rated current	10.8/6.22 A	10.5/6.09 A	10.4 A
L. R. Amperes	81.0/46.6 A	87.2/50.5 A	91.5 A
LRC	7.5	8.3	8.8
No load current	4.70/2.71 A	5.20/3.01 A	5.60 A
Rated speed	1460 rpm	1465 rpm	1470 rpm
Slip	2.67 %	2.33 %	2.00 %
Rated torque	36.0 Nm	35.9 Nm	35.7 Nm
Locked rotor torque	210 %	230 %	250 %
Pull up torque	175 %	195 %	210 %
Breakdown torque	300 %	330 %	360 %
Service factor	1.00	1.00	1.00
Noise level ²	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)
Locked rotor time (hot)	14 s	12 s	12 s
Locked rotor time (cold)	25 s	22 s	22 s
Efficiency (%)	50%	89.0	89.4
	75%	89.6	89.6
	100%	89.6	89.8
Power Factor	50%	0.71	0.63
	75%	0.81	0.75
	100%	0.86	0.82

Bearing type	Drive end	Non drive end	Foundation loads	
	6308-ZZ	6207-ZZ		Max. traction
Lubrication interval	-	-	Max. compression	: 2707 N
Lubricant amount	-	-	Load type	: -
Lubricant type	MOBIL POLYREX EM		Load torque	: -
			Load inertia (J=GD ² /4)	: -

Notes
See notes on page 2.

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.
- (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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Thermal protection

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

Space heater information
Voltage: 110-127/200-240 V
Output: 25-33/25-35 W

Notes

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

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THERMAL LIMIT CURVE

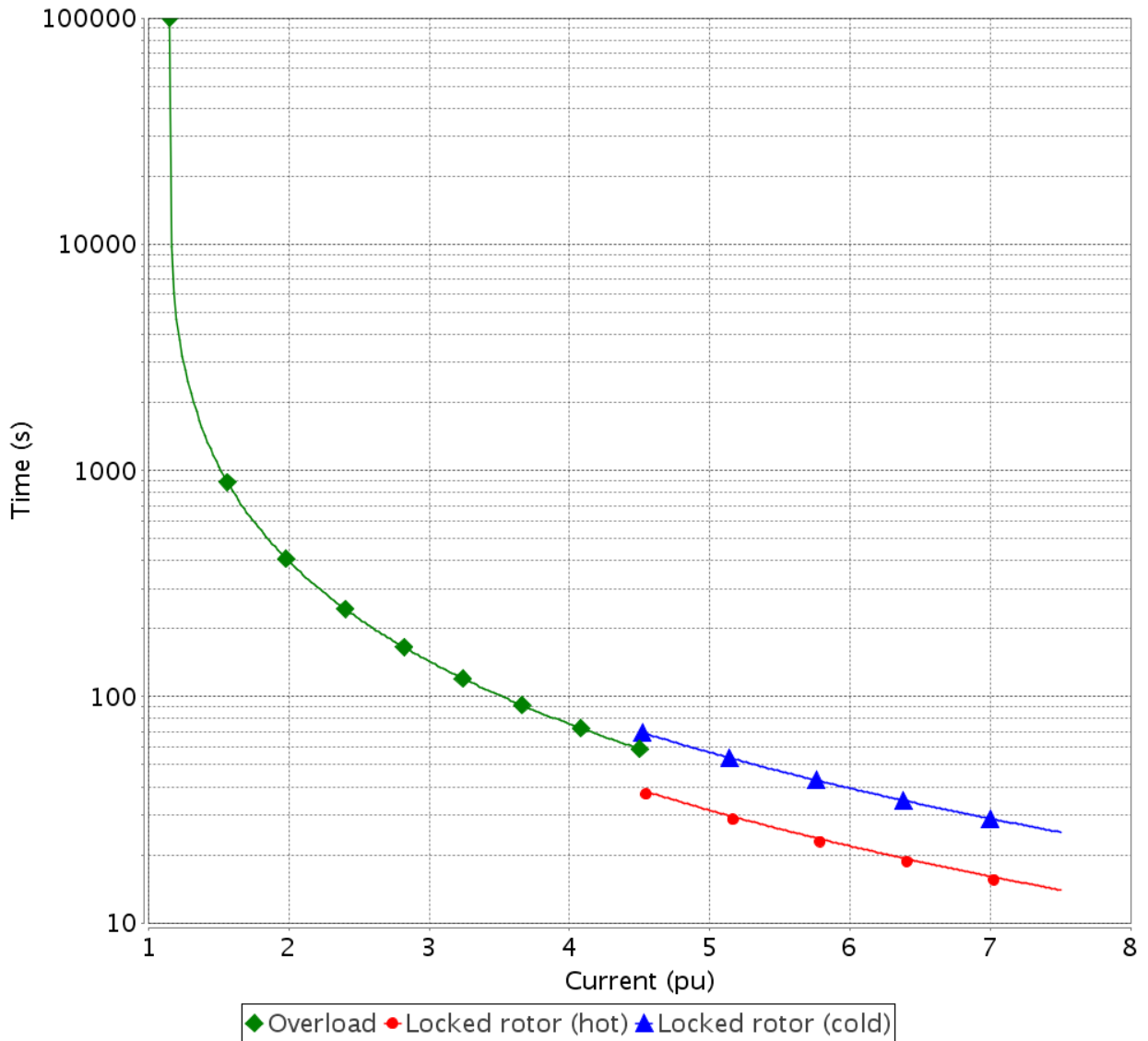
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Performance : 5.5 kW 380/660 V 50 Hz 4P 132S

Rated current	: 10.8/6.22 A	Moment of inertia (J)	: 0.0491 kgm ²
LRC	: 7.5	Duty cycle	: S1
Rated torque	: 36.0 Nm	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1460 rpm	Design	: N
Heating constant	: 19.2 min		
Cooling constant	: 57.6 min		

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LOAD PERFORMANCE CURVE

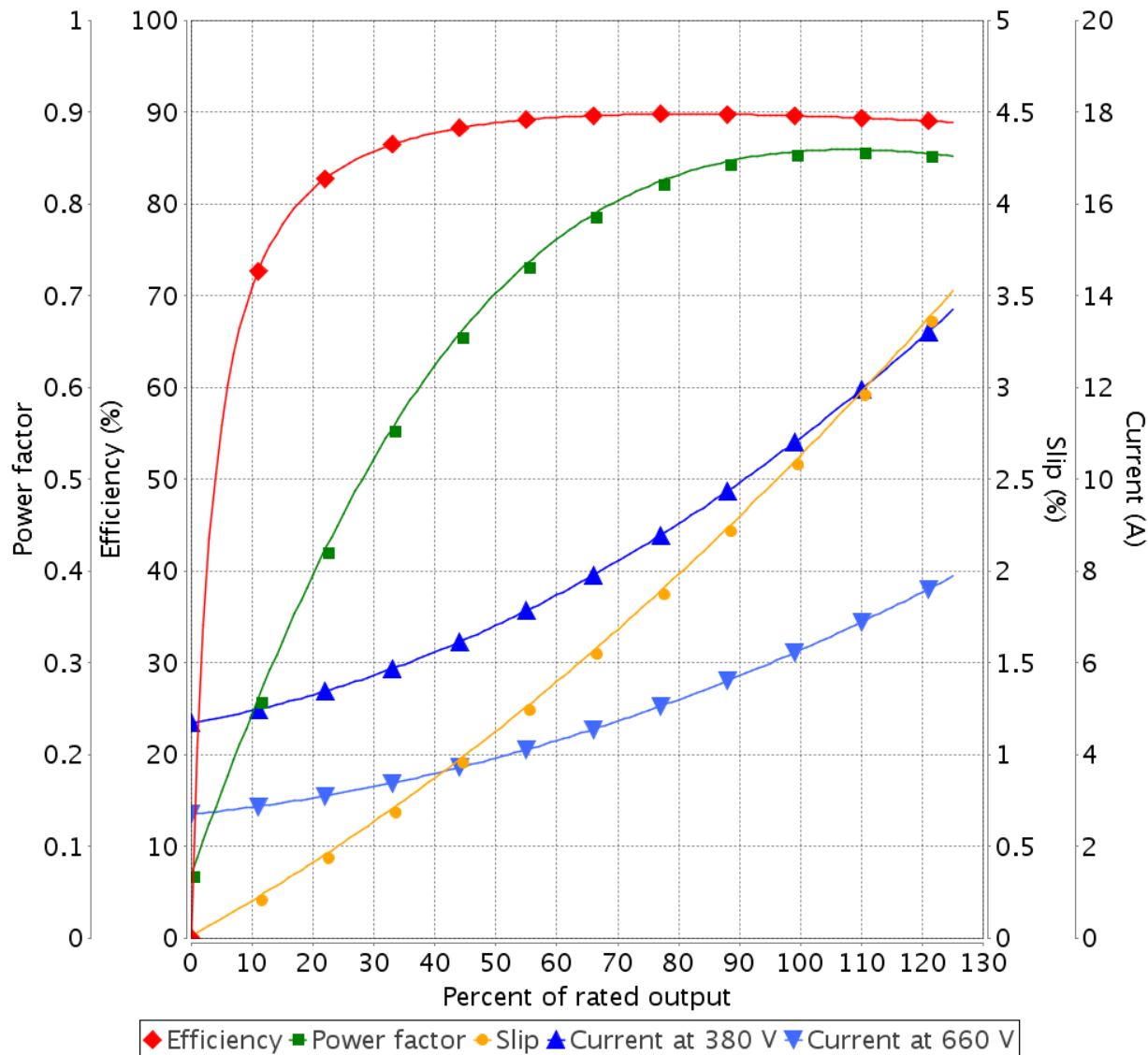
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Performance : 5.5 kW 380/660 V 50 Hz 4P 132S

Rated current : 10.8/6.22 A
 LRC : 7.5
 Rated torque : 36.0 Nm
 Locked rotor torque : 210 %
 Breakdown torque : 300 %
 Rated speed : 1460 rpm

Moment of inertia (J) : 0.0491 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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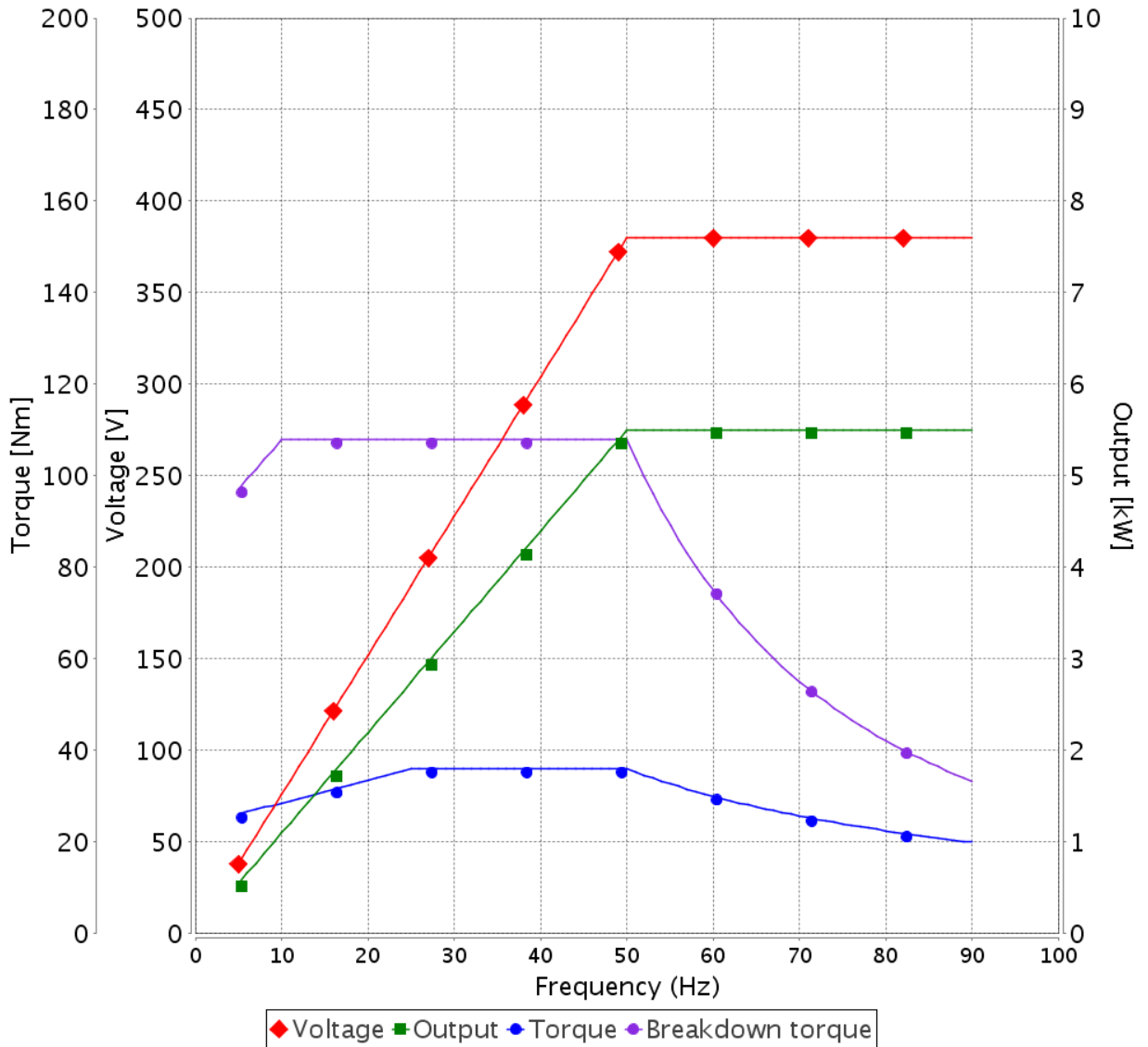
VFD OPERATION CURVE

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Rated torque	: 36.0 Nm	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1460 rpm	Design	: N

Voltage Peak Phase-Phase	= 1600.0
dV/dt	= 5200.0
Rise time	= 0.1

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TORQUE AND CURRENT VS SPEED CURVE

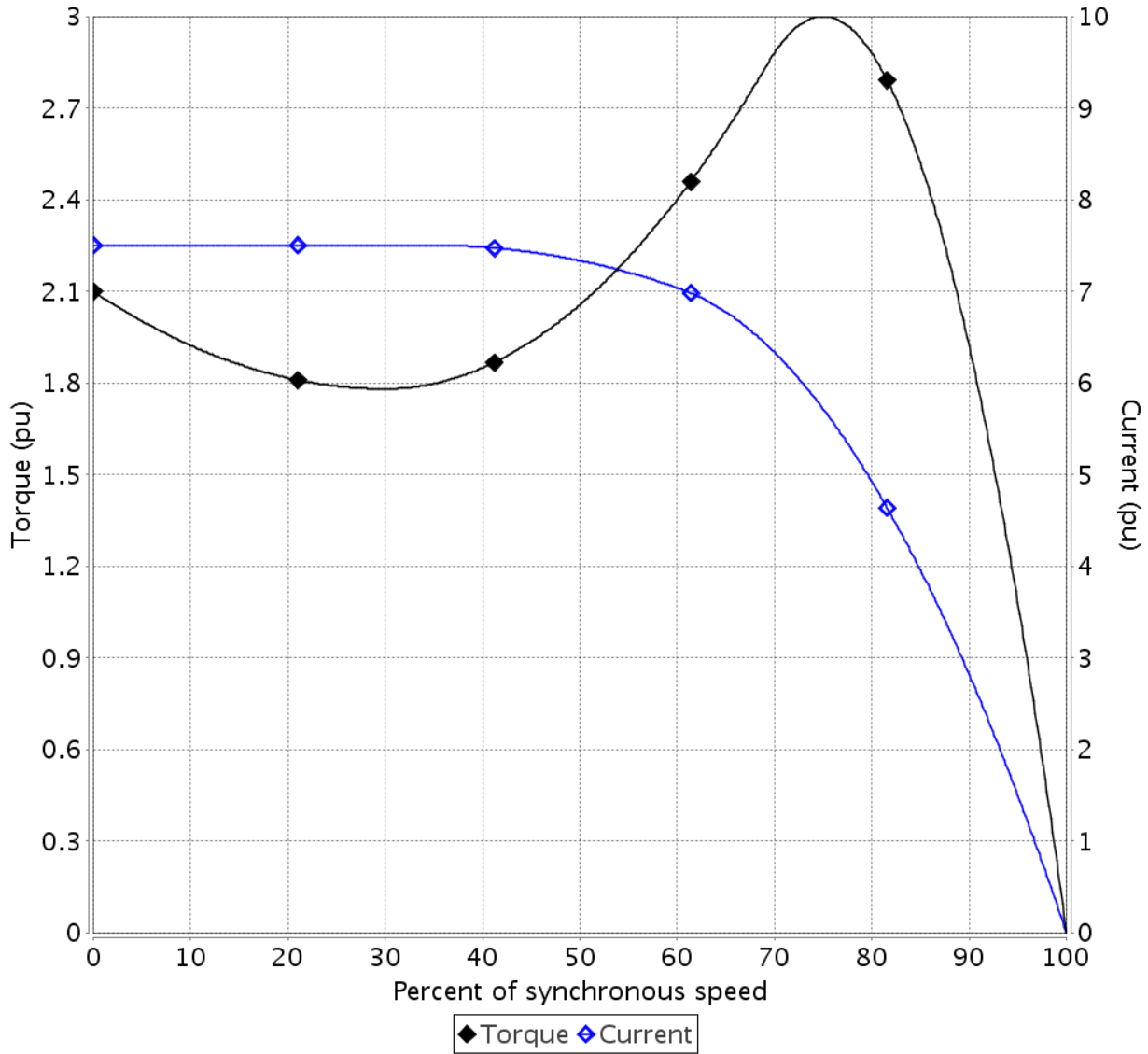
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Rated current : 10.8/6.22 A

LRC : 7.5

Rated torque : 36.0 Nm

Locked rotor torque : 210 %

Breakdown torque : 300 %

Rated speed : 1460 rpm

Moment of inertia (J) : 0.0491 kgm²

Duty cycle : S1

Insulation class : F

Service factor : 1.00

Temperature rise : 80 K

Design : N

Locked rotor time 100% : 14 s (hot) 25 s (cold)

Load inertia (J=GD²/4) : 0.0491 kgm²

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