

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : QUANTUM CONTROLS

Product line : W22 - IE3 Premium Efficiency Multivoltage Product code : 15838619

Frame	: 80	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: B5T
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 ⁹	: 14.1 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.0008 kgm ²
Design	: N		

Output	0.75 kW	0.75 kW	0.75 kW
Poles	2	2	2
Frequency	50 Hz	50 Hz	50 Hz
Rated voltage	220/380 V	230/400 V	240/415 V
Rated current	2.90/1.68 A	2.87/1.65 A	2.82/1.63 A
L. R. Amperes	21.2/12.3 A	21.5/12.4 A	21.7/12.6 A
LRC	7.3	7.5	7.7
No load current	1.55/0.900 A	1.74/1.00 A	1.90/1.10 A
Rated speed	2840 rpm	2860 rpm	2870 rpm
Slip	5.33 %	4.67 %	4.33 %
Rated torque	2.52 Nm	2.51 Nm	2.50 Nm
Locked rotor torque	290 %	320 %	350 %
Pull up torque	245 %	270 %	295 %
Breakdown torque	290 %	320 %	350 %
Service factor	1.00	1.00	1.00
Noise level ²	59.0 dB(A)	59.0 dB(A)	59.0 dB(A)
Locked rotor time (hot)	18 s	18 s	18 s
Locked rotor time (cold)	32 s	32 s	32 s
Efficiency (%)	50%	80.0	79.1
	75%	80.5	81.0
	100%	80.7	81.1
Power Factor	50%	0.65	0.56
	75%	0.77	0.70
	100%	0.84	0.79

Bearing type	Drive end	Non drive end	Foundation loads
	6204-ZZ	6203-ZZ	
Lubrication interval	-	-	Max. compression : 348 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 V
Output: 6.3-8.4 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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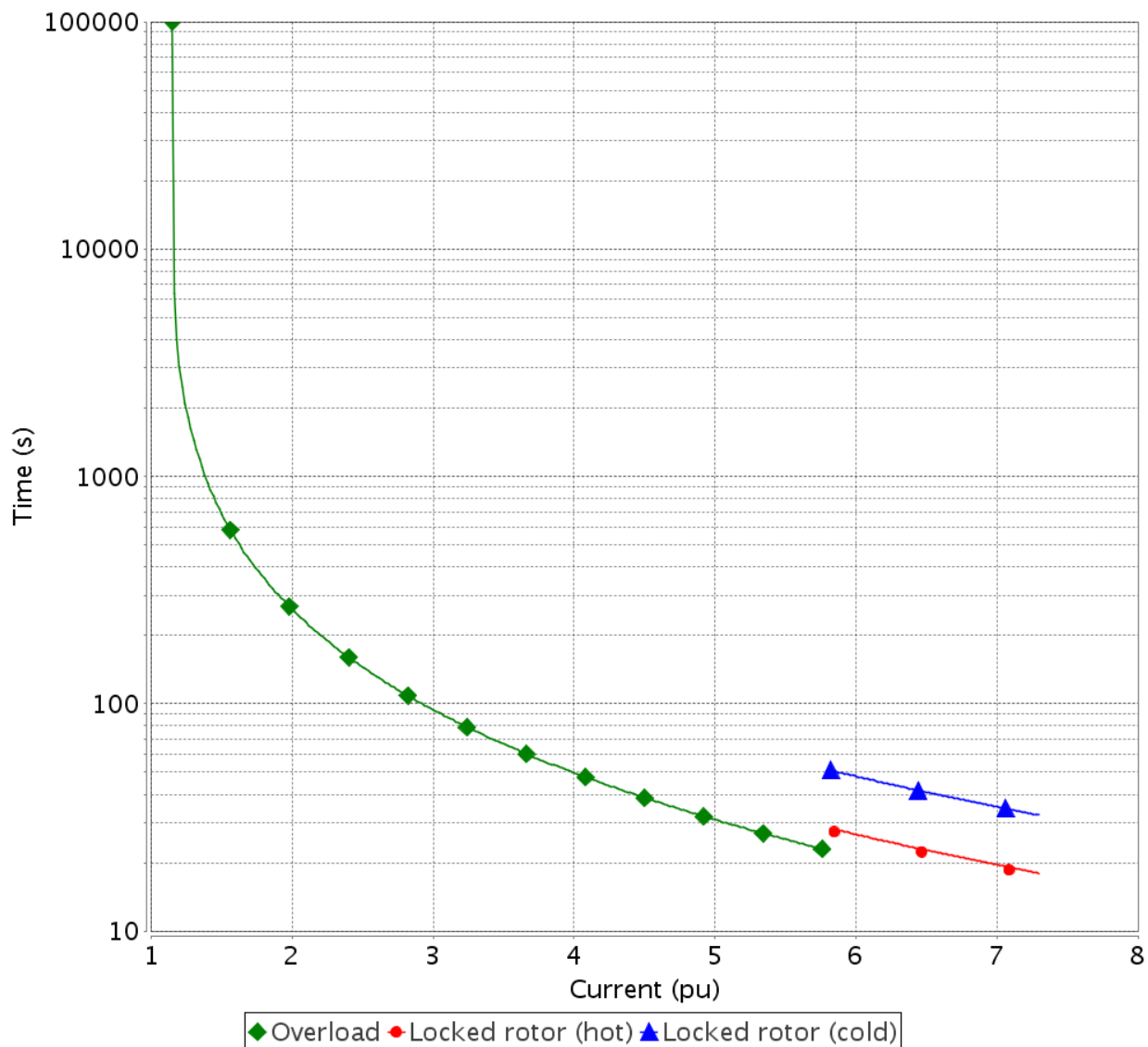
THERMAL LIMIT CURVE

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Performance : 0.75 kW 220/380 V 50 Hz 2P 80

Rated current	: 2.90/1.68 A	Moment of inertia (J)	: 0.0008 kgm ²
LRC	: 7.3	Duty cycle	: S1
Rated torque	: 2.52 Nm	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 2840 rpm	Design	: N
Heating constant	: 12.6 min		
Cooling constant	: 37.8 min		

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LOAD PERFORMANCE CURVE

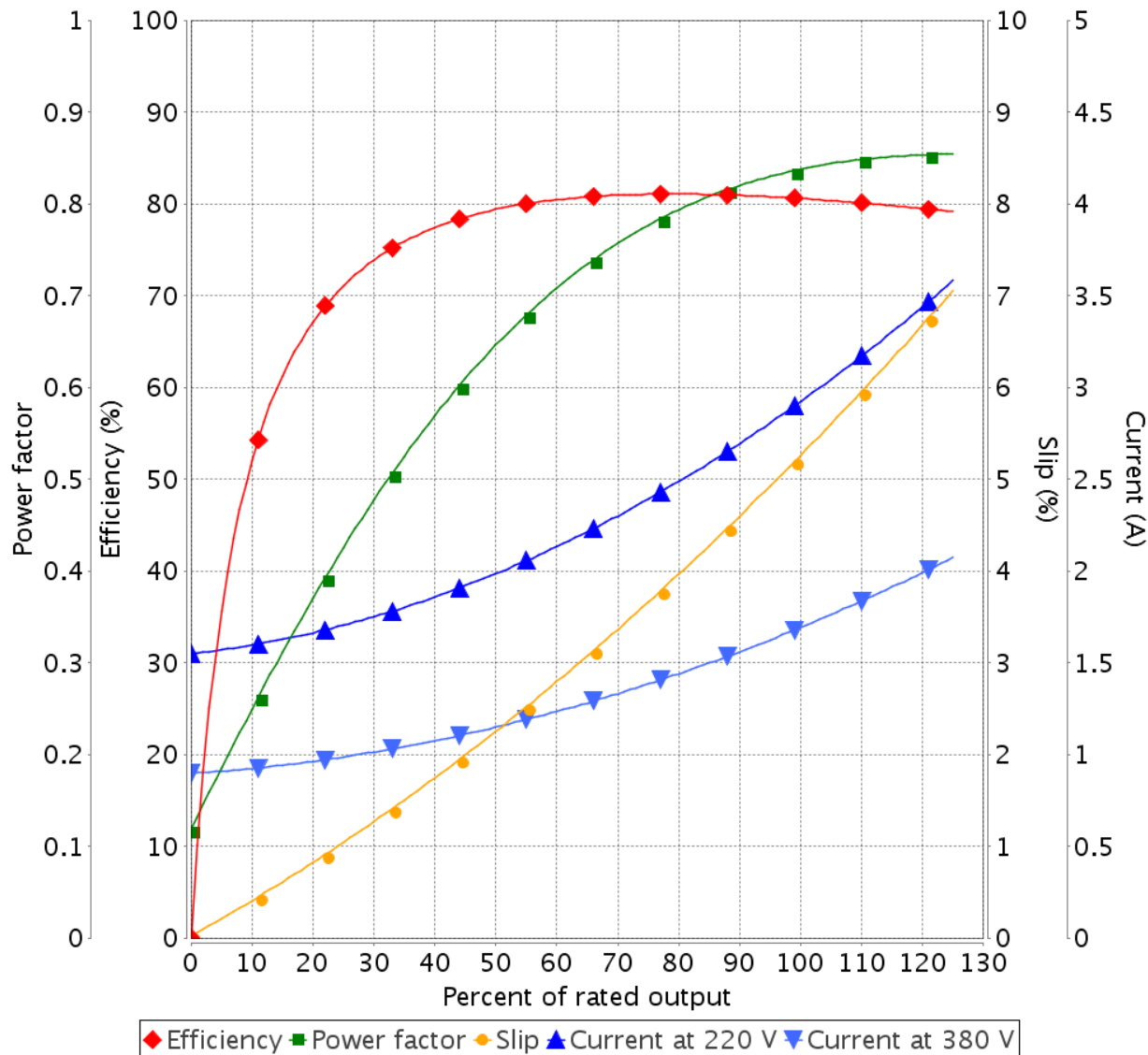
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Performance : 0.75 kW 220/380 V 50 Hz 2P 80

Rated current : 2.90/1.68 A
 LRC : 7.3
 Rated torque : 2.52 Nm
 Locked rotor torque : 290 %
 Breakdown torque : 290 %
 Rated speed : 2840 rpm

Moment of inertia (J) : 0.0008 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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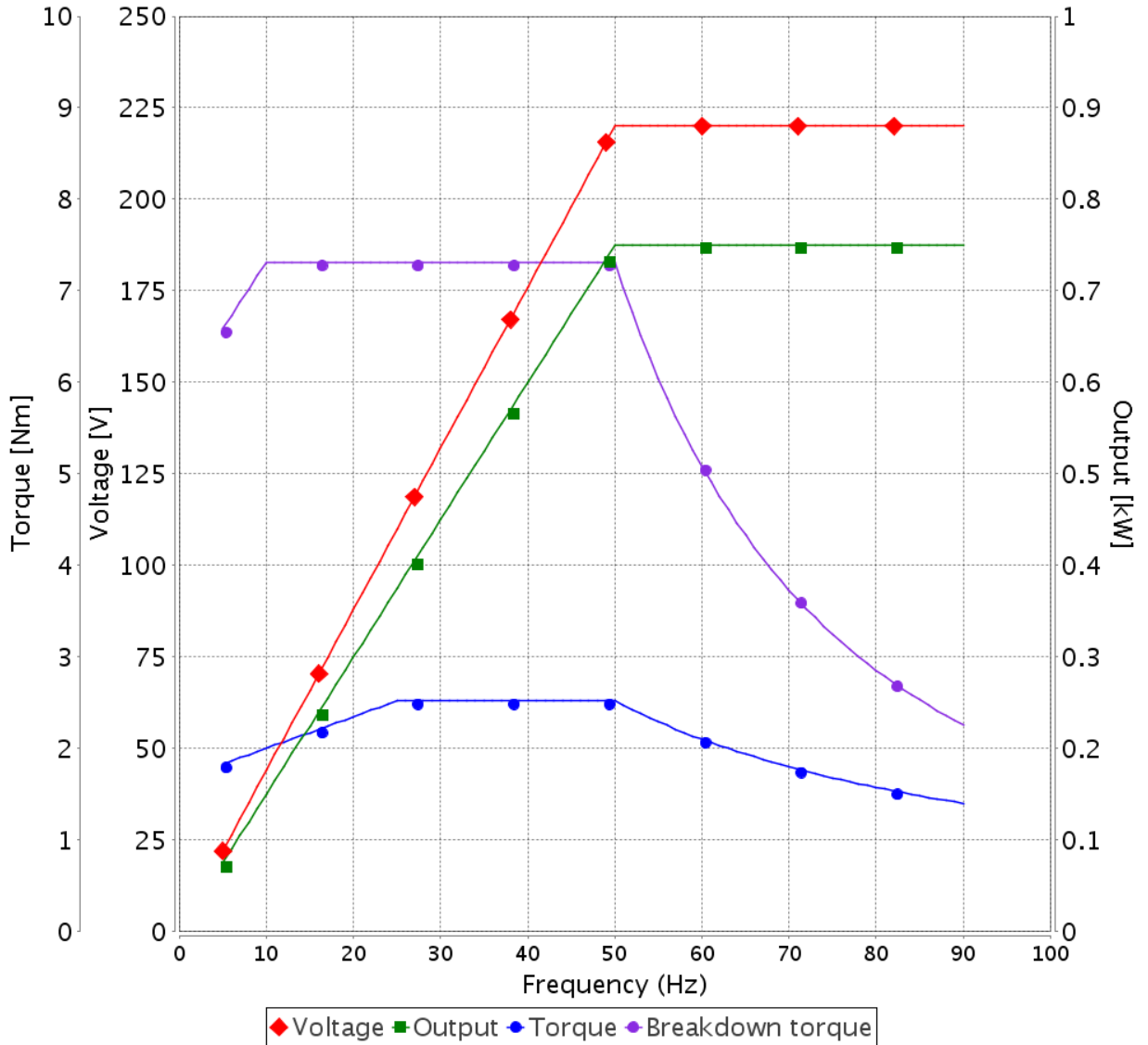
VFD OPERATION CURVE

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 LRC : 7.3
 Rated torque : 2.52 Nm
 Locked rotor torque : 290 %
 Breakdown torque : 290 %
 Rated speed : 2840 rpm

Moment of inertia (J) : 0.0008 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Voltage Peak Phase-Phase = 2000.0
 dV/dt = 6500.0
 Rise time = 0.1

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TORQUE AND CURRENT VS SPEED CURVE

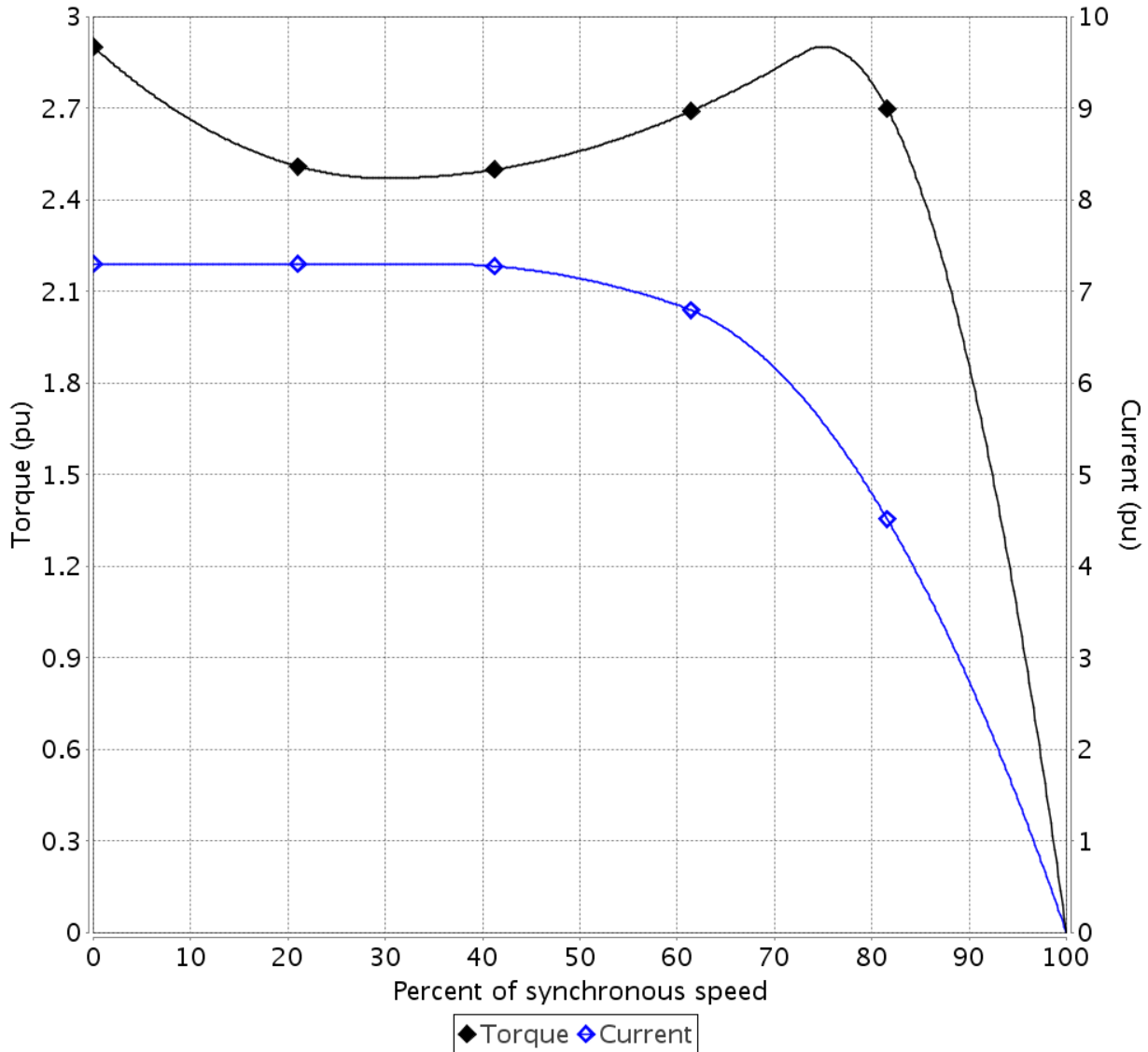
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Rated current : 2.90/1.68 A

LRC : 7.3

Rated torque : 2.52 Nm

Locked rotor torque : 290 %

Breakdown torque : 290 %

Rated speed : 2840 rpm

Moment of inertia (J) : 0.0008 kgm²

Duty cycle : S1

Insulation class : F

Service factor : 1.00

Temperature rise : 80 K

Design : N

Locked rotor time 100% : 18 s (hot) 32 s (cold)

Load inertia (J=GD²/4) : 0.0008 kgm²

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