

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : QUANTUM CONTROLS

Product line : W22 - IE4 Super Premium Efficiency
(Multivoltage)

Frame	: 280S/M	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	: 724 kg
Protection degree	: IP55	Moment of inertia (J)	: 1.60 kgm ²
Design	: NE		

Output	90 kW	90 kW	90 kW	90 kW
Poles	2	2	2	2
Frequency	50 Hz	50 Hz	50 Hz	60 Hz
Rated voltage	380/660 V	400/690 V	415 V	460 V
Rated current	162/93.4 A	156/90.4 A	152 A	136 A
L. R. Amperes	1152/663 A	1309/759 A	1292 A	1184 A
LRC	7.1	8.4	8.5	8.7 x Code J
No load current	45.0/25.9 A	49.0/28.4 A	52.0 A	45.0 A
Rated speed	2976 rpm	2979 rpm	2981 rpm	3583 rpm
Slip	0.80 %	0.70 %	0.63 %	0.47 %
Rated torque	289 Nm	289 Nm	288 Nm	240 Nm
Locked rotor torque	220 %	230 %	250 %	280 %
Pull up torque	185 %	195 %	210 %	235 %
Breakdown torque	280 %	320 %	350 %	370 %
Service factor	1.00	1.00	1.00	1.00
Noise level ²	77.0 dB(A)	77.0 dB(A)	77.0 dB(A)	81.0 dB(A)
Locked rotor time (hot)	33 s	29 s	27 s	41 s
Locked rotor time (cold)	59 s	52 s	49 s	74 s
Efficiency (%)	50%	94.3	94.3	94.0
	75%	95.2	95.2	95.0
	100%	95.8	95.8	95.4
Power Factor	50%	0.80	0.77	0.76
	75%	0.86	0.85	0.84
	100%	0.88	0.87	0.87

Losses at normative operating points (speed;torque), in percentage of rated output power

Losses (%)	P1(0,9;1,0)	4.1	4.1	4.1	4.5
	P2(0,5;1,0)	2.9	2.9	2.9	3.2
	P3(0,25;1,0)	2.5	2.5	2.5	2.7
	P4(0,9;0,5)	2.5	2.5	2.5	2.7
	P5(0,5;0,5)	1.3	1.3	1.3	1.4
	P6(0,5;0,25)	0.9	0.9	0.9	1.0
	P7(0,25;0,25)	0.5	0.5	0.5	0.5

Bearing type	Drive end 6314-C3	Non drive end 6314-C3	Foundation loads	
Lubrication interval	5000 h	5000 h	Max. traction	: 5288 N
Lubricant amount	27 g	27 g	Max. compression	: 12386 N
Lubricant type	MOBIL POLYREX EM		Load type	: -
			Load torque	: -
			Load inertia (J=GD ² /4)	: -

Notes
See notes on page 2.

Rev.	Changes Summary		Rev.	Checked	Date
Performed by	ghodgetts	1753958430			
Checked by	AUTOMATICO				
Date	17/09/2025				
			Page	Rev.	
			1 / 2	0	

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : QUANTUM CONTROLS

Product line : W22 - IE4 Super Premium Efficiency (Multivoltage)

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: 117-156/97-139 W

Notes

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.

Rev.	Changes Summary		Rev.	Checked	Date
Performed by	ghodgetts			1753958430	
Checked by	AUTOMATICO			Page	Rev.
Date	17/09/2025			2 / 2	0

