

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :				
Product line : W22 IE4 Three-Phase		Product code : 12774317		
Frame	: 225S/M	Cooling method	: IC411 - TEFC	
Insulation class	: F	Mounting	: B3T	
Duty cycle	: S1	Rotation <sup>1</sup>	: Both (CW and CCW)	
Ambient temperature	: -20°C to +40°C	Starting method	: Direct On Line	
Altitude	: 1000 m.a.s.l.	Approx. weight <sup>3</sup>	: 428 kg	
Protection degree	: IP55	Moment of inertia (J)	: 0.3641 kgm <sup>2</sup>	
Design	: NE			
Output [kW]	45		45	
Poles	2		2	
Frequency [Hz]	50		60	
Rated voltage [V]	400/690		460	
Rated current [A]	77.7/45.0		68.7	
L. R. Amperes [A]	676/392		660	
LRC [A]	8.7		9.6	
No load current [A]	26.0/15.1		25.0	
Rated speed [RPM]	2970		3575	
Slip [%]	1.00		0.69	
Rated torque [Nm]	145		120	
Locked rotor torque [%]	310		380	
Breakdown torque [%]	380		450	
Service factor	1.00		1.00	
Temperature rise	80 K		80 K	
Locked rotor time	30s (cold) 17s (hot)		36s (cold) 20s (hot)	
Noise level <sup>2</sup>	74.0 dB(A)		79.0 dB(A)	
Efficiency (%)	25%			
	50%	93.9	93.2	
	75%	94.5	94.0	
	100%	95.0	94.5	
Power Factor	25%			
	50%	0.75	0.73	
	75%	0.84	0.83	
	100%	0.88	0.87	
Losses at normative operating points (speed;torque), in percentage of rated output power				
Losses (%)	P1 (0,9;1,0)		4.9	5.5
	P2 (0,5;1,0)		3.6	4.0
	P3 (0,25;1,0)		3.2	3.5
	P4 (0,9;0,5)		2.8	3.1
	P5 (0,5;0,5)		1.6	1.8
	P6 (0,5;0,25)		1.1	1.2
	P7 (0,25;0,25)		0.6	0.7
Bearing type	: Drive end 6314 C3 Non drive end 6314 C3	Foundation loads		
Sealing	: WSeal WSeal	Max. traction	: 3984 N	
Lubrication interval	: 5000 h 5000 h	Max. compression	: 8178 N	
Lubricant amount	: 27 g 27 g			
Lubricant type	: Mobil Polyrex EM			
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.		
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Notes

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### Thermal protection

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

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