

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line : W22 IE3 Three-Phase	Product code : 12959503				
Frame : 160L Insulation class : F Duty cycle : S1 Ambient temperature : -20°C to +40°C Altitude : 1000 m.a.s.l. Protection degree : IP55 Design : N	Cooling method : IC411 - TEFC Mounting : B5T Rotation <sup>1</sup> : Both (CW and CCW) Starting method : Direct On Line Approx. weight <sup>3</sup> : 154 kg Moment of inertia (J) : 0.1534 kgm <sup>2</sup>				
Output [kW]	15	15	15	15	
Poles	4	4	4	4	
Frequency [Hz]	50	50	50	60	
Rated voltage [V]	220/380	230/400	240/415	460	
Rated current [A]	50.3/29.1	49.1/28.3	48.4/28.0	25.0	
L. R. Amperes [A]	332/192	344/198	358/207	200	
LRC [A]	6.6	7.0	7.4	8.0	
No load current [A]	20.7/12.0	22.6/13.0	24.2/14.0	12.5	
Rated speed [RPM]	1470	1475	1477	1780	
Slip [%]	2.00	1.67	1.53	1.11	
Rated torque [Nm]	97.5	97.2	97.0	80.5	
Locked rotor torque [%]	240	270	300	320	
Breakdown torque [%]	260	300	320	330	
Service factor	1.00	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	19s (cold) 11s (hot)	19s (cold) 11s (hot)	18s (cold) 10s (hot)	21s (cold) 12s (hot)	
Noise level <sup>2</sup>	61.0 dB(A)	61.0 dB(A)	61.0 dB(A)	64.0 dB(A)	
Efficiency (%)	25%				
	50%	92.1	92.0	91.4	92.0
	75%	92.4	92.5	92.3	92.9
	100%	92.1	92.3	92.1	93.0
Power Factor	25%				
	50%	0.70	0.66	0.62	0.63
	75%	0.80	0.77	0.75	0.75
	100%	0.85	0.83	0.81	0.81
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	8.5	8.2	8.5	7.4
	P2 (0,5;1,0)	7.5	7.3	7.5	6.6
	P3 (0,25;1,0)	7.2	7.0	7.2	6.3
	P4 (0,9;0,5)	3.9	3.8	3.9	3.4
	P5 (0,5;0,5)	2.9	2.8	2.9	2.5
	P6 (0,5;0,25)	1.8	1.8	1.8	1.6
	P7 (0,25;0,25)	1.4	1.3	1.4	1.2
Bearing type	Drive end : 6309 ZZ C3	Non drive end : 6209 ZZ C3	Foundation loads		
Sealing	Oil Seal	Lip Seal	Max. traction	: 3431 N	
Lubrication interval	-	-	Max. compression	: 4937 N	
Lubricant amount	-	-			
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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