

- NOTES:
1. MAIN CONDUIT BOX MAY BE ROTATED IN 90~INCREMENTS
 2. STANDARD PRODUCT USE BI-DIRECTIONAL FAN. OPPOSITE ROTATION AVAILABLE ONLY BY CONNECTION CHANGE.
 3. KEY DIMENSIONS EQUAL (MOTOR SUPPLIED WITH KEY)

UNITS: mm

TOSHIBA RESERVES THE RIGHT TO MAKE CHANGES OF TECHNICAL IMPROVEMENT WITHOUT NOTICE. DO NOT USE FOR CONSTRUCTION, INSTALLATION, OR APPLICATION PURPOSES UNLESS THE DRAWING IS CERTIFIED.

PERMANENT MAGNET 112M IEC
TEFC (IP55) B3 ALUMINUM FRAME

MDSLE024-07

TOLERANCES
.X .1
.XX .03
.XXX .005
.XXXX .0005

MAXIMUM
MOTOR WEIGHT
XXX kgs.
(XXX lbs.)

Tosh-ECO PM

DRAWN BY: _____
CHECK BY: _____
APPROVED BY: _____

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TOSHIBA INTERNATIONAL CORPORATION

0	FIRST ISSUE	R. Roth	08/24/16		
NO	REVISION	DRAWN BY	DATE	CHECK	



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TYPICAL MOTOR PERFORMANCE DATA

Model: PM31

	kW	Pole	r/min	Frame	BEMF K_E Volt. (V)	Hz	Phase	I_N Amps (A)
	11	6	3600	112M	288	180	3	22
	IP	Ins. Class		Duty	Nom. Eff.			Ambient (°C)
	55	F		S1	93.6			40

Load		kW	Amperes (A)	Efficiency (%)
Full Load		11.00	21.9	93.6
¾ Load		7.75	17.1	92.5
½ Load		5.50	11.9	90.2
¼ Load		2.25	6.55	83.6
No Load			2.95	

Torque				Rotor wk² Inertia (kg-m²)
Full Load (N-m)			Breakdown (% FLT)	
29.1			260	0.014

	Sound Pressure dB(A) @ 1M	Bearings*		Approx. Motor Weight (kg)
		DE	NDE	
	80	6306-2Z/C3	6205-2Z/C3	32

*Bearings are the only recommended spare part(s).

Motor Options:

Customer	
Customer PO	
Sales Order	
Project #	

Tag:

All characteristics are average expected values. The declared locked rotor current has a tolerance of 20%.

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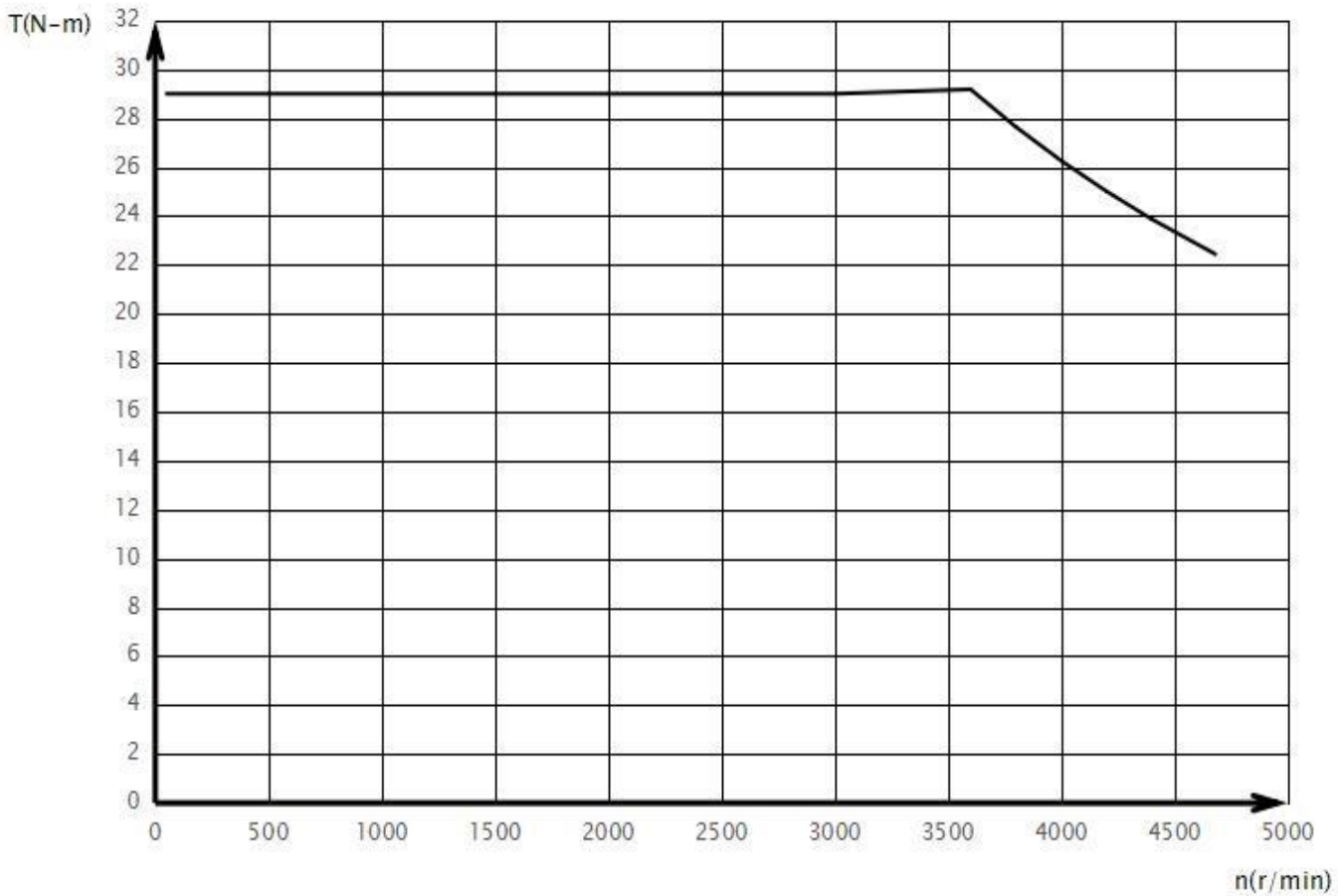
SPEED TORQUE/CURRENT CURVE

Model: PM31

	kW	Pole	r/min	Frame	BEMF K_E Volt. (V)	Hz	Phase	I_N Amps (A)
	11	6	3600	112M	288	180	3	22
	IP	Ins. Class		Duty	Nom. Eff.			Ambient (°C)
	55	F		S1	93.6			40
	Rotor wk² Inertia (kg-m²)	Torque					Breakdown (%)	
		Full Load (N-m)						
	0.014	29.1						260

CHARACTERISTIC CURVES RELATED TO SPEED

Three-phase synchronous motor



Customer		wk² Load Inertia (kg-m²)		
Customer PO			Load Type	CONT
Sales Order			Voltage (%)	
Project #			Accel. Time	10-15S

Tag:

All characteristics are average expected values. The declared locked rotor current has a tolerance of 20%.

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SPARE PARTS LIST*

Model: PM31

	kW	Pole	r/min	Frame	BEMF K _E Volt. (V)	Hz	Phase	I _N Amps (A)
	11	6	3600	112M	288	180	3	22
	IP	Ins. Class		Duty	Nom. Eff.			Ambient (°C)
	55	F		S1	93.6			40

DE Bearing:	6306-2Z/C3
NDE Bearing:	6205-2Z/C3

*Bearings are the only recommended spare part(s).

Other than the grease used for regreasable bearings and the oil used for oil-lubricated bearings, Toshiba advises that there are no "use" parts. The only insurance spares that Toshiba suggests for these squirrel-cage induction motors are industry-standard and commercially available off-the-shelf bearings as noted above.

Motor components such as terminal boxes, fan covers and other machined parts are available on special request. In these cases, please advise our order entry department of the model and serial numbers found on the motor nameplate and a description of the needed components. With this information they will be able to furnish the current part number, price and availability.

Note: Our internal part numbers are subject to change without notice and are not published.

Customer	
Customer PO	
Sales Order	
Project #	

Tag:

All characteristics are average expected values.

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NAMEPLATE DATA

Model: PM31

	kW	Pole	r/min	Frame	BEMF K _E Volt. (V)	Hz	Phase	I _N Amps (A)
	11	6	3600	112M	288	180	3	22
	IP	Ins. Class		Duty	Nom. Eff.			Ambient (°C)
	55	F		S1	93.6			40

Drive End Bearing: 6306-2Z/C3

Non-Drive End Bearing: 6205-2Z/C3

Rated Torque: 29.1 Nm

Voltage Constant (K_e): 0.766 VS

Torque Constant (K_t): 1.33 Nm/A

BEMF at: 3600 r/min

Comments 1:

Customer	
Customer PO	
Sales Order	
Project #	

Tag:

All characteristics are average expected values.

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Motor Connection Diagrams

