ELECTRICAL MOTORS APPLICATIONS

MOTOR	ADVANTAGE	DISADVANTAGE	APPLICATION
Universal Motor	*High starting torque *compact *high speed.	*Maintenance(brushes) *Shorter lifespan *Noisy *Only small ratings are economical	*Handheld power tools *blenders *vacuum cleaners * blowers
Switched Reluctance Motor	*Long lifespan *Low maintenance *High efficiency *No permanent magnets *Low cost *Simple construction	*High iron losses	*Electric Vehicles *Textile mills *Aircraft applications
Three-phase Induction Motor	Self-starting Low cost Robust Reliable	High starting current Lower efficiency	*Fixed-speed *workhorse especially in low-performance applications *low-performance variable-torque pumps, *fans, *blowers and compressors. *high-performance constant-torque and constant-power or dynamic loads.
Split-Phase Capacitor-Start IM	*High power factor *High starting torque	*Speed slightly below synchronous speed *Starting switch or relay required	*Home Appliances *Stationary Power Tools
Split-Phase Capacitor-Run Im	*Moderate power *High starting torque *No starting switch *Comparatively long life	*Speed slightly below synchronous *Slightly more costly	*Industrial blowers *Industrial machinery
Split-Phase Auxiliary Start Winding	*Moderate power factor *Low starting torque	*Speed slightly below synchronous *Starting switch or relay required	*Home Appliances *Stationary power tools
Shaded-Pole Motor	*Low cost *Long life	*Speed slightly below synchronous *Low starting torque *Small ratings *low efficiency	*Fans *record players
Synchronous Motor	*Synchronous speed *more efficient *power factor correction	*More costly	*Industrial motors
Hysteresis Motor	*Accurate speed control	*Very low efficiency	*Clocks

ELECTRICAL MOTORS APPLICATIONS

	*Low noise *No vibration *High starting torque		*timers *sound producing or recording equipment hard drive *capstan drive
Synchronous Reluctance Motor	*more efficient *runs cooler *smaller footprint *Competes with PM	*Requires a controller *Not widely available *High cost	*Electric vehicles *Textile mills *Aircraft applications
Stepper Motor	*Precision *positioning *High holding torque	*costly *Require a controller	*Positioning in printers *floppy disc drives *industrial machine tools

Mr.R.K.RAMAN