

APPLICATION DEFINITION

Define the Application

Capture measurable duty before selecting a motor technology or supplier platform.

01 Project & equipment

Company

Project / equipment

Contact name

Email / telephone

Project stage

Target production quantity

02 Driven function & motion

Driven function

Success criterion

Continuous speed

Maximum speed

Continuous torque / force

Peak torque / force

Peak duration

Acceleration / deceleration

Accuracy / repeatability

Reversing requirement

03 Load & transmission

Load mass

Load inertia

Radial / axial load

Gear ratio

Transmission type

Transmission efficiency

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Define the Operating Duty

Separate continuous, intermittent and peak conditions and identify the complete heat-rejection path.

04 Electrical supply & control

Supply type	Nominal voltage
Voltage range	Continuous current
Peak current	Peak-current duration
Control mode	Controller / drive
Communications / I/O	Feedback type
Feedback resolution	Brake / holding

05 Duty cycle & thermal

Complete cycle time	On-time
Rest time	Starts per hour
Reversals per hour	Worst repeated condition
Minimum ambient	Maximum ambient
Maximum permitted temperature	Cooling method
Available airflow	Thermal interface

06 Environment

Required IP protection	Shock / vibration
Dust / moisture / washdown	

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Define Integration & Approval

Confirm the mechanical envelope, production interfaces and evidence required for release.

07 Mechanical integration

Maximum envelope	Mounting arrangement
Frame convention	Shaft diameter
Shaft length / key / flat	Output bearing load
Connector / cable	Installation orientation

08 Technology & lifecycle priorities

Purchase-cost priority	Efficiency priority
Maintenance priority	Noise / vibration priority
Expected service life	Annual operating hours
Maintenance interval	Target efficiency
Electricity cost	

09 Documents, compliance & release

Outline drawing	Performance data
CAD model	Test report
RoHS / REACH	Market compliance
PPAP / inspection evidence	Destination market
Applicable standards	Required approval date
Additional requirements	Attachments supplied

Send the completed checklist to SDT for engineering review.