

Project Planning Sheet

Torque motors



(1) CONTACT

Name: _____ Company: _____ Phone: _____ Mail: _____

(2) MOTOR COMPONENTS

2.1 TYPECODE (see product: www.hiwin.de)

torque motor type and winding type: e.g. TM-2-25-PB0

2.2 BASE DATA (for designing a customer-specific motor)

continuous current; I_c [A]	<input type="text"/>	peak current; I_p [A]	<input type="text"/>	stall current; I_s [A]	<input type="text"/>
continuous torque; M_c [Nm]	<input type="text"/>	peak torque; M_p [Nm]	<input type="text"/>	stall torque; M_s [Nm]	<input type="text"/>
rated speed. at M_c ; n_c [1/s]	<input type="text"/>	speed at M_p ; n_{max} [1/s]	<input type="text"/>	working point; $M @ n$ [Nm @ 1/min]	<input type="text"/>
outer diameter; [mm]	<input type="text"/>	stator height; [mm]	<input type="text"/>	rotor height; [mm]	<input type="text"/>

2.3 MOTOR TEMPERATURE PROTECTION

temperature sensors (number according to catalog) additional sensors: type: _____ | amount: _____ pcs.

2.4 OPTIONS

rotor and stator separate (standard) assembled (assembly claw) cable outlet cable length [m]
(letter according to catalogue) (standard: 2 m)

(3) APPLICATION

3.1 DESCRIPTION: (application, machine type)

3.2 ADDITIONAL INFORMATION

cooling system air | liquid ambient temperature _____ [°C] installation position (motor axle) horizontal vertical
cooling flow rate [l/min] cooling medium / additive

CYCLE DESCRIPTION (position, speed, acceleration, jerk, time, moved mass, mass moment of inertia, torque)

1	
2	
3	
4	
5	

3.4 OPERATON MODE

torque [M]; operation time [t]; operation with constant torque [dt_p]; standstill with unpowered motor [dt_R]; standstill with powered motor [dt_v]

<input type="checkbox"/> S1	M [Nm]	<input type="text"/>	<input type="checkbox"/> S3	M [Nm]	<input type="text"/>	<input type="checkbox"/> S6	M [Nm]	<input type="text"/>
	t [s]	<input type="text"/>		dt _p [s]	<input type="text"/>		dt _p [s]	<input type="text"/>
				dt _R [s]	<input type="text"/>		M dt _v [Nm]	<input type="text"/>
							dt _v [s]	<input type="text"/>

(4) INFORMATION ON INSTALLATION SITUATION

4.1 POWERSUPPLY AND FILTERS

supply voltage U_N [V] net type TN | TT net filter, choke used?: no | yes (which?)
 IT motor-filter, -choke used?: no | yes (which?)

4.2 MACHINE CONTROL

manufacturer type

4.3 POWER UNIT

drive manufacturer	<input type="text"/>	drive type	<input type="text"/>	switching frequency [kHz]	<input type="text"/>
coupled DC-Link	<input type="checkbox"/> yes <input type="checkbox"/> no	max. DC Link $U_{ZK,max}$ [V]	<input type="text"/>	cable type	<input type="text"/>
motor protection I ² t	<input type="checkbox"/> yes <input type="checkbox"/> no	DC Link voltage U_{ZK} [V]	<input type="text"/>	cable length [m]	<input type="text"/>
motors per drive?	<input type="checkbox"/> 1 pcs <input type="checkbox"/> 2 pcs	coupled axis?	<input type="checkbox"/> mech. <input type="checkbox"/> electrical	brake / clamp?	<input type="checkbox"/> yes <input type="checkbox"/> no

4.4 MOTOR TERMINAL VOLTAGE (empirical values)

phase-phase [V] phase-ground [V] gradient [kV/μs]

(5) COMMENTS: (amount / needs etc.)