TW Size 3

03A02A.40.4

Reference data (winding independent)	Symbol	03A02A.40.4	Units
Nominal Torque, S1, low speed, free air [1]	T_{nc}	2.40	Nm
Nominal Torque, S1, low speed, flanged [2]	T_{nw}	2.90	Nm
Nominal Torque, S1, $\omega = \omega_n$, flanged	T_n	1.96	Nm
Peak Torque, S6 40% [1]	T_{pk}	7.10	Nm
Maximum Structural Speed	ω_p	7161	rpm

Physical data (winding independent)	Symbol	03A02A.40.4	Units
Rotor inertia	J_m	$0.085 \cdot 10^{-3}$	kgm^2
Acceleration at peak torque	A_{pk}	67000	rad/s^2
Mass	M_{sta}	2.65	Kg
Insulation		Class H-F	
Class Protection		IP67	

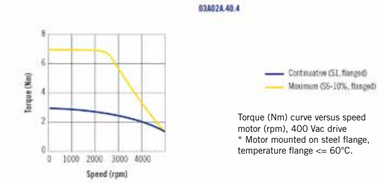
1) Motor in free still air (worst case), ambient 40 °C, copper 130 °C, frame 105 °C.
2) Motor mounted on steel flange, temperature flange <= 60°C.

Thermal data (winding independent)	Symbol	03A02A.40.4	Units
Thermal time constant	T_c	400	sec
Motor loss at T_{nc}	LO_c	100	W
Threshold of built-in PTC	PTCt	130	°C
Drive thermal protection		120	°C
Module thermal protection		150	°C

Electrical data (winding dependent)	Symbol	03A02A.40.4	Units
Power supply (typical)	V_n	310 - 700	Vdc
Digital power supply	V_{supply}	10 - 30	Vdc
Nominal speed	ω_n	4000	rpm
Maximum speed	ω_{max}	5000	rpm
Peak current $T=T_{pk}$	I_{pk}	6.07	Arms
Nominal current, $T=T_n$	I_n	1.80	Arms
Nominal power at $\omega=\omega_n$	P_{nw}	821	W
Torque constant	K_t	1.17	Nm/A

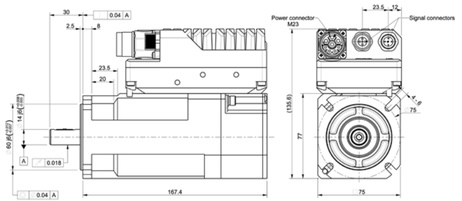
Brake Data (optional)	Symbol	03A02A.40.4	Units
Supply voltage	U_n	24	Vdc
Power consumption	P20	13	W
Stall braking torque (20°C)	TB_k	7.0	Nm
Rated torque	TB_{kn}	3.8	Nm
Additional Inertia	JBk	$0.041 \cdot 10^{-3}$	kgm^2

TW Servodrive Operational Area



Torque (Nm) curve versus speed motor (rpm), 400 Vac drive
* Motor mounted on steel flange, temperature flange <= 60°C.

Overall Dimensions



Drawing referred to the TW03A02A.40.4 model. For the other drawings model please visit our website www.phase.eu