TW Size 7

07A20C.40.4, 07A30C.30.4, 07A40C.20.4

Reference data (winding independent)	Symbol	07A20C.40.4	07A30C.30.4	07A40C.20.4	Units
Nominal Torque, S1, low speed, water cooled H20	T_{nc}	36	55	80	Nm
Nominal Torque, S1, $\omega = \omega_n$, flanged	T_n	33	55	75	Nm
Peak torque, S6 40% [1]	T_{pk}	57	74	107	Nm
Maximum Structural Speed	ω_p	6000	5000	3000	rpm

Physical data (winding independent)	Symbol	07A20C.40.4	07A30C.30.4	07A40C.20.4	Units
Rotor inertia	J_m	$1,29 \cdot 10^{-3}$	$1,85 \cdot 10^{-3}$	$2,41 \cdot 10^{-3}$	kgm^2
Acceleration at peak torque	A_{pk}	$5,07 \cdot 10^{4}$	$5,30 \cdot 10^{4}$	$5,42 \cdot 10^{4}$	rad/s^2
Mass	M_{sta}	13	18	23	Kg
Insulation			Class H		
Class protection			IP 67		

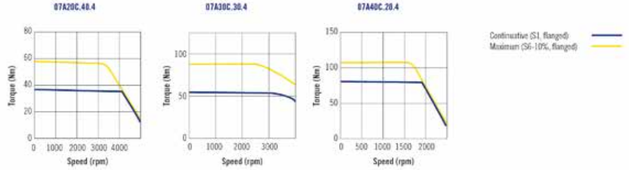
Thermal data (winding independent)	Symbol	07A20C.40.4	07A30C.30.4	07A40C.20.4	Units
Thermal time constant, water-cooled H20 [1]	T_c	372	329	308	s
Motor loss at T_{nc}	$L0_c$	$0.86 \cdot 10^3$	$1.29 \cdot 10^3$	$1.71 \cdot 10^3$	W
Threshold of built-in PTC	PTCt	130	130	130	°C
Drive thermal protection			120		°C
Module thermal protection			130		°C

Each size of TW7 motor requires a different coolant flow (water) with a max inlet temperature of 30°C:
- » TW720 needs 1.3 liter/min
- » TW730 needs 1.9 liter/min
- » TW740 needs 2.5 liter/min

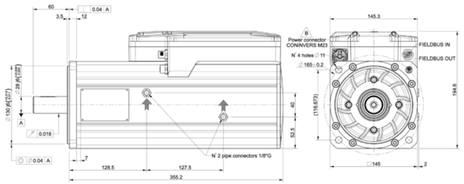
1) Motor water-cooled with 30°C water temperature
Connector cooling water-pipe: opposite inlet and outlet version

Electrical data (winding dependent)	Symbol	07A20C.40.4	07A30C.30.4	07A40C.20.4	Units
Power supply (typical)	V_n		310 - 700		Vdc
Digital power supply	V_{supply}		10 - 30		Vdc
Nominal speed	ω_n	4000	3000	2000	rpm
Maximum speed	ω_{max}	5000	4000	2500	rpm
Peak current, $T=T_{pk}$	I_{pk}	48	48	48	Arms
Nominal current, $T=T_n$	I_n	30	36	36	Arms
Nominal power, $\omega = \omega_n$	P_{nw}	14	17	20	kW
Torque constant	K_t	1,35	1,71	2,50	Nm/A

TW Servodrive Operational Area



Overall Dimensions

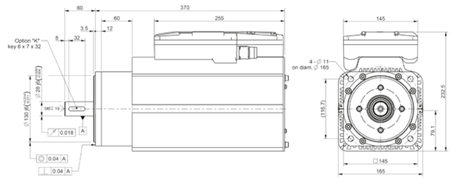


Drawing referred to the TW07A30C.30.4 model. For the other drawings model please visit our website www.phase.eu

Preliminary data informations

TW07 Fan cooling models

Reference	Symbol	07A20F.40.4	07A30F.30.4	07A40F.20.4	Units
Nominal Torque, S1, $\omega = \omega_n$, flanged	T_{nc}	30.0	45.0	66.0	Nm
Peak Torque, S6 40%	T_{pk}	45.0	75.0	90.0	Nm



Drawing referred to the 07A30F.30.4 model. For the other drawings model please visit our website www.phase.eu