

TECHNICAL CHARACTERISTICS

Windings for 400V / 460Vac drives (See Application note)

			800STK1M		800STK2M		800STK4M		800STK6M	
NATURAL CONVECTION	Rated speed	rpm	30	250	30	250	30	250	30	-
	Continuous torque at stall (1)(4)	N.m	610		1127		2010		2708	
	Current at continuous torque (1)	A	13.9	43.2	19	65.6	26.5	106	33.5	-
	Peak torque (2)(3)	N.m	1885		3770		7540		11310	
	Current at peak torque (2)	A	50.8	158	74.9	258.6	118.5	474.2	167.4	-
	Rated power (1)	kW	1.92	15.01	3.5	22.6	6.3	33.1	8.53	-
	Inertia	10 ⁻³ kg.m ²	1270		2540		5080		7620	
	Weight	kg	55		82		138		193	
	Thermal time constant (1)	s	444		685		1166		1656	
	Thermal resistance (1)	°C / W	0.035		0.033		0.03		0.028	
	Phase resistance at 20°C (2)	Ω	3.16	0.326	1.66	0.139	0.95	0.06	0.585	-
	Phase inductance at I continuous	mH	15.4	1.6	14.2	1.2	11.3	0.7	8.6	-
	Electrical time constant (2)	ms	4.9		8.5		11.9		14.7	
	Back emf constant (line to line) (2)	V/rad.s	28.6	9.2	38.9	11.2	48.94	12.3	52.1	-
	Power cable square section (7)	nxmm ²	4x1.5	4x10	4x2.5	4x10	4x4	4x25	4x6	-
	Power cable diameter (7)	mm	Ø8.6	Ø17.6	Ø10.8	4xØ9.5	Ø12.2	4xØ13	Ø14	-
Number of poles		48								

			800STK1M		800STK2M		800STK4M		800STK6M	
COMPLEMENTARY DATA FOR FLUID-COOLED MOTORS WINDING AT 60°C	Continuous torque at stall (4)	N.m	803		1580		3160		4720	
	Current at continuous torque	A	18.2	53.6	26.3	90.9	41.5	166	58.5	-
	Fluid input temperature (5)(6)	°C	20		20		20		20	
	Fluid temperature rise	°C	10		10		10		10	
	Housing temperature	°C	32		30		< 30		< 30	
	Fluid flow	l / mn	7		8		11		15	
	Losses	W	3710		4110		5830		7400	
	Pressure drop	Bar	< 0.1		0.1		0.3		0.7	
	Power cable square section (7)	nxmm ²	4x2.5	4x10	4x4	4x16	4x10	4x50	4x10	-
	Power cable diameter (7)	mm	Ø10.8	4xØ9.5	Ø12.2	4xØ11	Ø17.6	4xØ17	4xØ9.5	-

			800STK1M		800STK2M		800STK4M		800STK6M	
COMPLEMENTARY DATA FOR FLUID-COOLED MOTORS WINDING AT 140°C	Continuous torque at stall (4)	N.m	1039		2057		4100		6100	
	Current at continuous torque	A	24	74.7	35.2	121.6	55.5	222	77.4	-
	Fluid input temperature (5)(6)	°C	20		20		20		20	
	Fluid temperature rise	°C	10		10		10		10	
	Housing temperature	°C	31		< 30		< 30		< 30	
	Fluid flow	l / mn	14		16		23		29	
	Losses	W	7940		9060		12830		15850	
	Pressure drop	Bar	0.2		0.3		1.2		2.1	
	Power cable square section (7)	nxmm ²	4x4	4x16	4x6	4x25	4x10	4x70	4x16	-
	Power cable diameter (7)	mm	Ø12.2	4xØ11	Ø14	4xØ13	4xØ9.5	4xØ20	4xØ11	-

(1) Thermal conditions:

Ambient temperature 20°C

Winding temperature rise 120°C

Stator housing in contact with the ambient air or integral on all its peripheral area with a metallic armature in contact with the ambient air.

Stator housing secured on a metallic frame having an area equal to twice the cross section of the housing.

(2) Cold motor at 20°C.

(3) See torque vs speed characteristics on :

<http://www.alxion.com/>

(4) Torque at stall or low speed.

(5) Fluid input temperature should not be lower for avoiding condensation inside the motor.

(6) For cooling fluid, use softened glycol-added water or fluids approved for closed cooling circuits.

(7) For currents lower than 53 Amps, one shielded cable

For currents over 53 Amps, four single shielded wires output (highlighted in the table)

Other speed characteristics are available, please contact us.