

# TECHNICAL CHARACTERISTICS

## Motors wound for 330 Vac phase to phase

		300STK2M		300STK4M		300STK6M		300STK8M		
NATURAL CONVECTION	Rated speed	Rpm	200	800	200	800	200	800	200	800
	Continuous torque	(1)(4) N.m	98		170		235		295	
	Current at continuous torque	(1) A	7.3	18.3	11.8	39.9	16.3	55.5	20.3	69.5
	Peak torque	(2)(3) N.m	387		774		1,161		1,548	
	Current at peak torque	(2) A	36.7	92.6	66.5	212.9	96.8	304.1	133.1	425.8
	Rater power	(1) kW	1.89	7.06	3.05	10.92	4.20	13.86	5.25	15.12
	Inertia	10 <sup>-3</sup> kg.m <sup>2</sup>	52.7		105.5		158.2		211.0	
	Weight	kg	18		31		44		57	
	Thermal time constant	(1) s	669		1,145		1,621		2,097	
	Thermal resistance	(1) °C / W	0.164		0.135		0.115		0.100	
	Phase resistance at 20°C	(2) Ω	2.82	0.44	1.286	0.126	0.808	0.082	0.534	0.052
	Phase inductance at I continuous	mH	17.7	2.8	11.1	1.1	7.8	0.8	5.5	0.53
	Electrical time constant	(2) ms	6.3		8.6		9.7		10.2	
	Power cable square section	(7) nxmm <sup>2</sup>	4x1.5	4x4	4x1.5	4x10	4x1.5	4x10	4x2.5	4x10
	Power cable diameter	(7) mm	Ø10.2	Ø13.1	Ø10.2	Ø18.8	Ø10.2	4xØ9.5	Ø11.4	4xØ9.5

		300STK2M		300STK4M		300STK6M		300STK8M		
COMPLEMENTARY DATA FOR FLUID-COOLED MOTORS WINDING AT 60°C	Continuous torque	(4) N.m	170		323		484		677	
	Current at continuous torque	A	12.7	40.5	22.8	77.1	34.2	116.5	45.8	156.8
	Fluid input temperature	(5)(6) °C	20		20		20		20	
	Fluid temperature rise	°C	10		10		10		10	
	Housing temperature	°C	< 30		< 30		< 30		< 30	
	Fluid flow	l / mn	3		4		5		7	
	Losse	W	1,430		2,075		2,910		3,730	
	Pressure	Bar	0.2		0.5		1.6		3.8	
	Power cable square section	(7) nxmm <sup>2</sup>	4x1.5	4x10	4x4	4x16	4x6	4x25	4x10	4x50
	Power cable diameter	(7) mm	Ø10.2	Ø18.8	Ø13.1	4xØ11	Ø15.9	4xØ13.5	Ø18.8	4xØ17.1

		300STK2M		300STK4M		300STK6M		300STK8M		
COMPLEMENTARY DATA FOR FLUID-COOLED MOTORS WINDING AT 140°C	Continuous torque	(4) N.m	235		453		679		910	
	Current at continuous torque	A	20.8	66.4	37.8	127.7	56.2	191.5	74.7	255.8
	Fluid input temperature	(5)(6) °C	20		20		20		20	
	Fluid temperature rise	°C	8		13		17		17	
	Housing temperature	°C	30		31		33		33	
	Fluid flow	l / mn	9		9		9		10	
	Losse	W	3,999		5,987		7,975		9,964	
	Pressure	Bar	2.3		4.3		6.3		10	
	Power cable square section	(7) nxmm <sup>2</sup>	4x2.5	4x10	4x6	4x35	4x10	4x50	4x16	4x95
	Power cable diameter	(7) mm	Ø11.4	4xØ9.5	Ø15.9	4xØ15.1	4xØ9.5	4xØ17.1	4xØ11	Ø22.6

- (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/CFN>
- (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 curenrs lower than 53 Amps, one shielded cable  
 For curenrs over 53 Amps, four single shielded wires output (highlighted in the table)

Other speed characteristics are available, please contact us.