

# TECHNICAL CHARACTERISTICS

## Motors wound for 330 Vac phase to phase

		400STK2M		400STK4M		400STK6M		400STK8M		
NATURAL CONVECTION	Rated speed	Rpm	200	800	200	800	200	800	200	-
	Continuous torque	(1)(4) N.m	225		400		550		700	
	Current at continuous torque	(1) A	15.8	53.3	26.8	94.7	35.7	128.1	45.6	-
	Peak torque	(2)(3) N.m	880		1,760		2,640		3,520	
	Current at peak torque	(2) A	78.1	252.3	149.1	468.6	218.7	656	273.3	-
	Rater power	(1) kW	4.3	15.5	7.6	25.2	9.5	35	11.3	-
	Inertia	10 <sup>-3</sup> kg.m <sup>2</sup>	163		325		488		650	
	Weight	kg	35		58		81		104	
	Thermal time constant	(1) s	1,307		1,756		2,218		2,547	
	Thermal resistance	(1) °C / W	0.098		0.078		0.071		0.063	
	Phase resistance at 20°C	(2) Ω	0.981	0.094	0.390	0.040	0.236	0.026	0.187	-
	Phase inductance at I continuous	mH	8.7	0.83	4.8	0.49	3.4	0.37	2.9	-
	Electrical time constant	(2) ms	8.9		12.3		14.4		15.5	
	Power cable square section	(7) nxmm <sup>2</sup>	4x1.5	<u>4x10</u>	4x4	<u>4x25</u>	4x6	<u>4x35</u>	4x10	-
	Power cable diameter	(7) mm	Ø10.2	<u>4xØ9.5</u>	Ø13.1	<u>4xØ13.5</u>	Ø15.9	<u>4xØ15.1</u>	Ø18.8	-

		400STK2M		400STK4M		400STK6M		400STK8M		
COMPLEMENTARY DATA FOR FLUID-COOLED MOTORS WINDING AT 60°C	Continuous torque	(4) N.m	396		780		1,133		1,428	
	Current at continuous torque	A	27.5	92.7	52.5	151.2	73.6	264	97.4	-
	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	5		7		8		9	
	Losse	W	2,400		3,550		4,400		5,540	
	Pressure	Bar	0.6		1.8		2.6		5.1	
	Power cable square section	(7) nxmm <sup>2</sup>	4x4	<u>4x16</u>	4x10	<u>4x35</u>	<u>4x16</u>	<u>4x95</u>	<u>4x25</u>	-
	Power cable diameter	(7) mm	Ø13.1	<u>4xØ11</u>	Ø18.8	<u>4xØ15.1</u>	<u>4xØ11</u>	<u>4xØ22.6</u>	<u>4xØ13.5</u>	-

		400STK2M		400STK4M		400STK6M		400STK8M		
COMPLEMENTARY DATA FOR FLUID-COOLED MOTORS WINDING AT 140°C	Continuous torque	(4) N.m	467		935		1,384		1,846	
	Current at continuous torque	A	36	121	69	243	94	-	126	-
	Fluid input temperature	(5)(6) °C	20		20		20		20	
	Fluid temperature rise	°C	8		17		17		17	
	Housing temperature	°C	30		34		33		32	
	Fluid flow	l / mn	11		8		10		10	
	Losse	W	5,040		7,220		9,400		11,580	
	Pressure	Bar	1.9		2		4.4		5.5	
	Power cable square section	(7) nxmm <sup>2</sup>	4x6	<u>4x25</u>	<u>4x10</u>	<u>4x70</u>	<u>4x16</u>	-	<u>4x25</u>	-
	Power cable diameter	(7) mm	Ø15.9	<u>4xØ13.5</u>	<u>4xØ9.5</u>	<u>4xØ20.1</u>	<u>4xØ11</u>	-	<u>4xØ13.5</u>	-

- (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.