

TECHNICAL CHARACTERISTICS

Motors wound for 330 Vac phase to phase

		145STK2M		145STK4M		145STK6M		145STK8M		
NATURAL CONVECTION	Rated speed	Rpm	500	1,500	500	1,500	500	1,500	500	1,500
	Continuous torque	(1)(4) N.m	14.6		26.4		37.3		47.4	
	Current at continuous torque	(1) A	2.3	5.2	3.7	9.2	5	12.7	6.4	15.7
	Peak torque	(2)(3) N.m	55		110		165		220	
	Current at peak torque	(2) A	10.2	23.1	17.8	45.5	27.3	68.3	35.6	91.1
	Rater power	(1) W	735	2,032	1,247	3,134	1,775	3,48	2,2	3,850
	Inertia	10^{-3} kg.m ²	1.28		2.24		3.19		4.14	
	Weight	kg	6.2		10.4		14.5		18.7	
	Thermal time constant	(1) s	1,012		1,399		1,667		1,866	
	Thermal resistance	(1) °C / W	0.394		0.324		0.275		0.239	
	Phase resistance at 20°C	(2) Ω	12.9	2.55	6.20	0.95	3.46	0.55	2.51	0.38
	Phase inductance at I continuous	mH	66.7	12.4	44.5	6.8	28.2	4.5	22.2	3.4
	Electrical time constant	(2) ms	5.1		7.2		8.2		8.9	
	Power cable square section	nxmm ²	4x1.5		4x1.5		4x1.5		4x1.5	
	Power cable diameter	mm	Ø10.2		Ø10.2		Ø10.2		Ø10.2	

		145STK2M		145STK4M		145STK6M		145STK8M		
COMPLEMENTARY DATA FOR FLUID-COOLED MOTORS WINDING AT 60°C	Continuous torque	(4) N.m	22.8		45.3		67.6		90	
	Current at continuous torque	A	3.5	8	6.3	15.6	9	22.8	12.1	29.8
	Fluid input temperature	(5)(6) °C	20		20		20		20	
	Fluid temperature rise	°C	5		5		7		8	
	Housing temperature	°C	< 30		< 30		< 30		< 30	
	Fluid flow	l / mn	3		3		3		3	
	Losse	W	620		930		1,220		1,510	
	Pressure	Bar	0.2		0.3		0.4		0.5	
	Power cable square section	nxmm ²	4x1.5		4x1.5		4x1.5	4x4	4x1.5	4x4
	Power cable diameter	mm	Ø10.2		Ø10.2		Ø10.2	Ø13.1	Ø10.2	Ø13.1

		145STK2M		145STK4M		145STK6M		145STK8M		
COMPLEMENTARY DATA FOR FLUID-COOLED MOTORS WINDING AT 140°C	Continuous torque	(4) N.m	29.9		59.8		90		120	
	Current at continuous torque	A	5.4	12.3	9.7	24	14	35.5	19	46.8
	Fluid input temperature	(5)(6) °C	20		20		20		20	
	Fluid temperature rise	°C	8		8		10		12	
	Housing temperature	°C	33		29		29		31	
	Fluid flow	l / mn	3		5		5		5	
	Losse	W	1,532		2,240		2,950		3,660	
	Pressure	Bar	0.2		0.7		1		1.3	
	Power cable square section	nxmm ²	4x1.5		4x1.5	4x4	4x1.5	4x6	4x2.5	4x10
	Power cable diameter	mm	Ø10.2		Ø10.2	Ø13.1	Ø10.2	Ø15.9	Ø11.4	Ø18.8

- (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.

Other speed characteristics are available, please contact us.