



QMT-LA 230 series,
with a height of 90mm

Torque QMT-LA 230 series

	Parameter	Remarks	Symbol	Unit	QMT-LA 230-70	QMT-LA 230-90	QMT-LA 230-110	QMT-LA 230-140
Performance	Winding type				I	I	I	I
	Motor type, max voltage ph-ph	3-phase synchronous	U _{max}	V _{dc}	680			
	Ultimate torque @ 10 K/s increase	magnets @ 25°C	T _u	Nm	155	259	364	519
	Peak torque @ 6 K/s increase	magnets @ 25°C	T _p	Nm	136	228	320	456
	Continuous torque ¹	coils @ 130°C	T _c	Nm	68	124	182	269
	Stall torque ¹	coils @ 130°C	T _s	Nm	52	96	140	207
	Maximum speed ²	@ U _{max} @ T _c	n _{max}	rpm	712	387	211	152
	Motor torque constant	I ≤ I _c	K _t	Nm/A _{rms}	9.0	15.0	21.0	30.0
	Motor constant	coils @ 25°C	K _m	(Nm) ² /W	7.6	15.2	23.2	35.5
Electrical	Ultimate current	magnets @ 25°C	I _u	A _{rms}	22.5	22.5	22.5	22.5
	Peak current	magnets @ 25°C	I _p	A _{rms}	17.4	17.4	17.4	17.4
	Continuous current ¹	coils @ 130°C	I _c	A _{rms}	7.6	8.3	8.7	9.0
	Stall current ¹	coils @ 130°C	I _s	A _{rms}	5.8	6.4	6.7	6.9
	Back EMF ph-ph _{peak}		K _e	V _{dc} /krpm	766	1282	1798	2564
	Back EMF ph-ph _{rms}		K _e	V _{ac} /krpm	542	907	1272	1813
	Resistance per phase	coils @ 25°C ex. cable	R _{ph}	Ω	3.54	4.94	6.35	8.45
	Induction per phase	I < 0.6 I _p	L _{ph}	mH	12.5	20.9	29.3	41.7
	Electrical time constant	coils @ 25°C	τ _e	ms	3.5	4.2	4.6	4.9
Thermal	Continuous power loss ¹	coils @ 130°C	P _c	W	865	1447	2030	2895
	Thermal resistance	coils to mount. sfc.	R _{th}	K/W	0.127	0.076	0.054	0.038
	Thermal time constant			s	62	52	48	44
	Water cooling flow rate	for ΔT=8K	Φ _w	l/min	1.5	2.6	3.6	5.0
	Temperature cut-off / sensor				PTC130 (3x) / Pt1000 (3x)			
Mechanical	Stator OD		OD _s	mm	230			
	Rotor ID		ID _r	mm	140			
	Stator height		H _s	mm	70	90	110	140
	Rotor height		H _r	mm	31	51	71	101
	Poles		N _{mgn}		28			
	Rotor inertia		J _r	kgm ²	0.010	0.016	0.022	0.031
	Stator mass	ex. cables	m _s	kg	4.9	6.7	8.5	11.3
	Rotor mass		m _r	kg	1.6	2.6	3.7	5.2
	Total mass	ex. cables	m	kg	6.5	9.3	12.2	16.5
	Cable mass	all cables		kg/m	0.25			
	Cable type (power)	length 2 m	d	mm (AWG)	10.6 (13)			
	Cable type (sensor)	length 2 m	d	mm (AWG)	6.4 (25)			

¹ These values are only applicable when the mounting surface is at 20°C and the motor is driven at continuous current. If these values differ in your application, please check our simulation tool.

² Actual values depend on bus voltage. Please check the T/n diagram in our manual or online simulation tool.

Series approvals

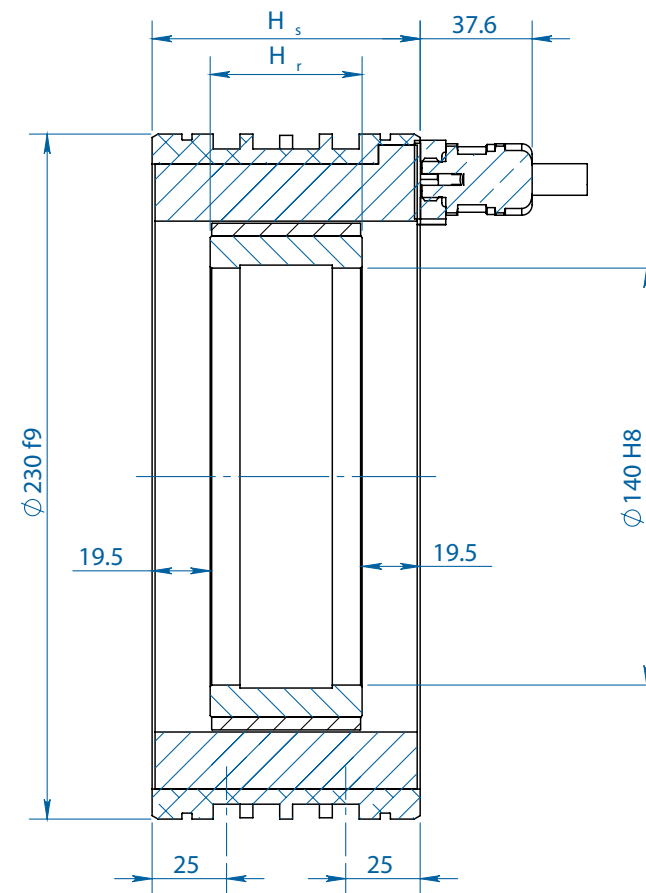
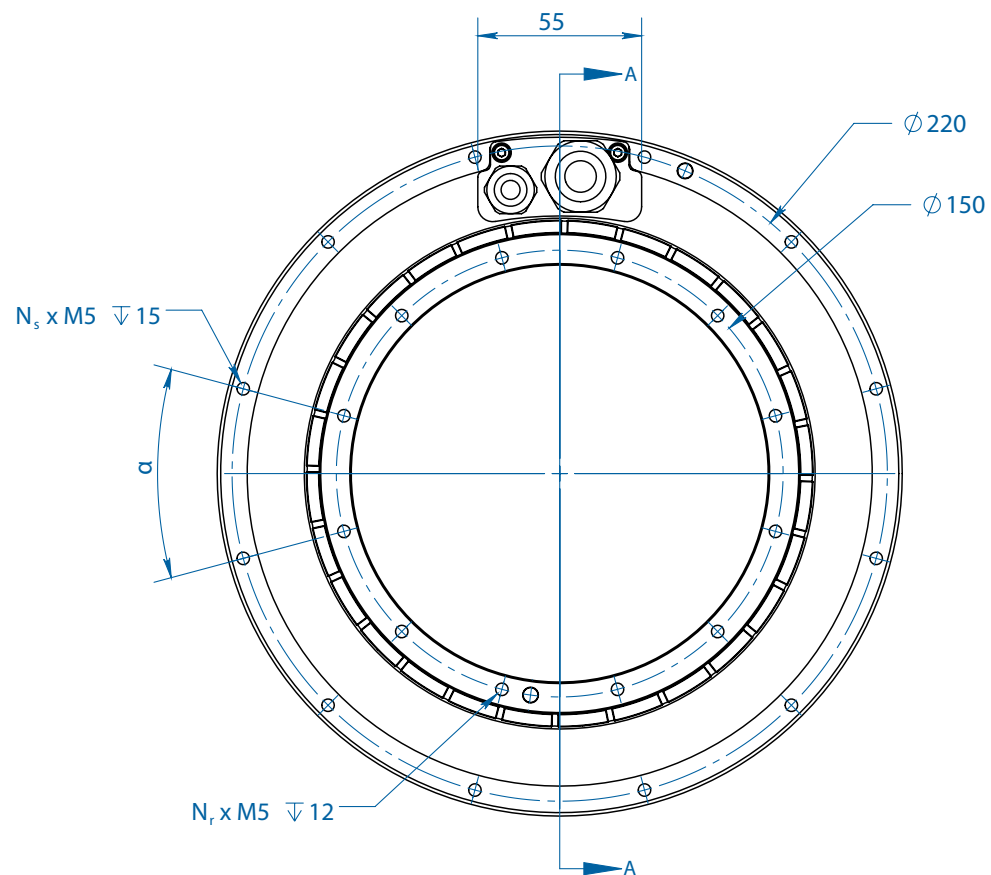


Series partly approved, full approval pending:

Please contact us for the latest status

All specifications $\pm 10\%$

QMT-LA 230



SECTION A-A

Motor type	H _s	H _r	N _s	N _r	α
QMT-LA 230-70	70	31	12	12	30
QMT-LA 230-90	90	51	12	12	30
QMT-LA 230-110	110	71	12	12	30
QMT-LA 230-140	140	101	23	24	15

* All sizes are in mm