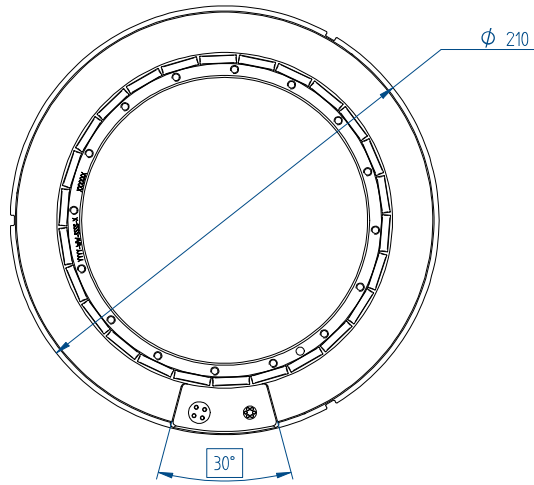
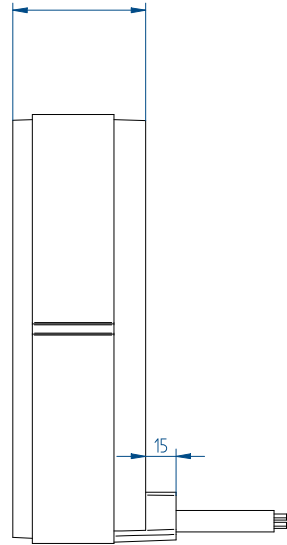


Mounting instructions and tolerances can be found in the torque installation manual. Manuals and 3D CAD files can be downloaded from our website.

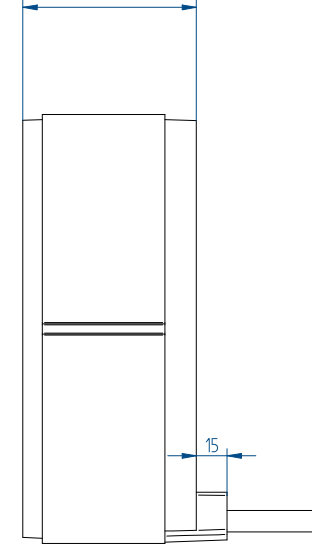
STATOR



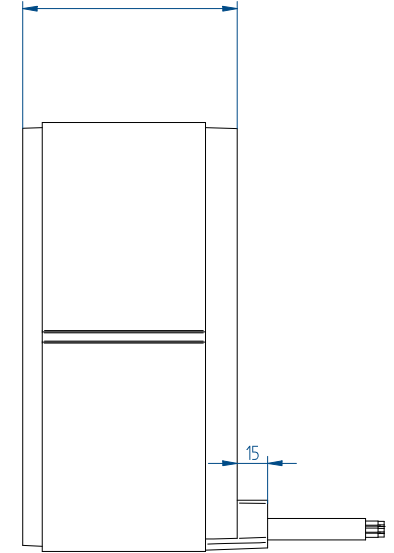
QTL-A 210-65



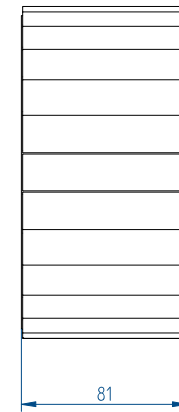
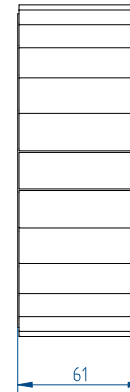
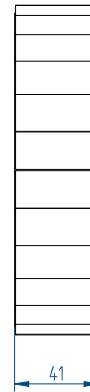
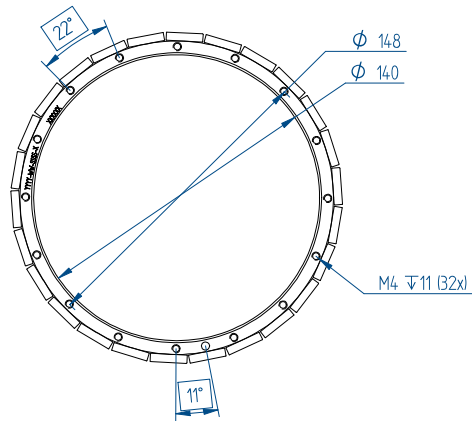
QTL-A 210-85



QTL-A 210-105



ROTOR



* All sizes are in mm

©2019 Tecnotion BV - All rights reserved - The contents of this document are subject to change without prior notice.



QTL 210 series, with a height of 65 mm

	Parameter	Remarks	Symbol	Unit	QTL-A 210-65	QTL-A 210-85	QTL-A 210-105
Performance	Winding type				N	N	N
	Motortype max. voltage ph-ph	3-phase synchronous		$V_{ac,rms} (V_{dc})$	480 (680)		
	Ultimate torque @ 20°C/s increase	magnet @ 25°C	T_u	Nm	173	259	346
	Peak torque @ 6°C/s increase	magnet @ 25°C	T_p	Nm	140	211	281
	Continuous torque	coil @ 100°C	T_c	Nm	65	103	142
	Stall torque	coil @ 100°C	T_s	Nm	46	73	100
	Maximum speed ⁽¹⁾	@ T_c @ 680 Vdc	n_{max}	rpm	716	457	326
	Motor torque constant	up to I_c	K_t	Nm/A _{rms}	8.7	13.1	17.5
	Motor constant	coils @ 25°C	K_m	(Nm) ² /W	8.0	13.5	19.2
	Electrical	Ultimate current	magnet @ 25°C	I_u	A _{rms}	22.0	22.0
Peak current		magnet @ 25 °C	I_p	A _{rms}	16.9	16.9	16.9
Maximum continuous current ⁽²⁾		coils @ 100°C	I_c	A _{rms}	7.45	7.88	8.11
Stall Current ⁽²⁾		coils @ 100°C	I_s	A _{rms}	5.27	5.57	5.74
Back EMF phase-phase _{peak}			K_e	V/krpm	747	1121	1494
Back EMF phase-phase _{RMS}			K_e	V/krpm	528	793	1057
Coil resistance per phase		coils @ 25°C ex. cable	R	Ω	3.18	4.25	5.31
Coil induction per phase		$l < 0.6$ lp	L	mH	16.0	22.3	28.7
Electrical time constant			τ_e	ms	5.0	5.3	5.4
Poles			N_{mgn}	nr	26	26	26
Thermal	Continuous power loss	coils @ 100°C	P_c	W	690	1028	1363
	Thermal resistance ⁽³⁾	coils to mount. sfc.	R_{th}	°C/W	0.116	0.078	0.059
	Thermal time constant		τ_{th}	s	53	47	45
	Temperature cut-off / sensor				PTC 1kΩ (3x) / PT1000 (3x)		
Mechanical	Stator OD		OD_s	mm	210		
	Rotor ID		ID_R	mm	140		
	Motor height		H_{motor}	mm	65	85	105
	Lamination stack height		H_{arm}	mm	40	60	80
	Rotor inertia		J_R	kg*m ²	0.009	0.014	0.019
	Stator mass	excluding cables	M_s	kg	4.2	5.9	7.5
	Rotor mass		M_R	kg	1.6	2.4	3.2
	Total mass	excluding cables	M_T	kg	5.8	8.3	10.7
	Cable mass	all cables	m	g	500		
	Cable type (power)	length 2 m	d	mm (AWG)	10.6 (13)		
Cable type (sensor)	length 2 m	d	mm (AWG)	6.4 (25)			

All specifications ±0%

1. Actual values depend on bus voltage. Please check the T/n diagram in our manual or online simulation tool.
2. These values are only applicable when the mounting surface is at 20°C and the motor is driven at maximum continuous current. If these values differ in your application, please check our simulation tool or manual.
3. R_{th} based on radial mounting of stator lamination stack.