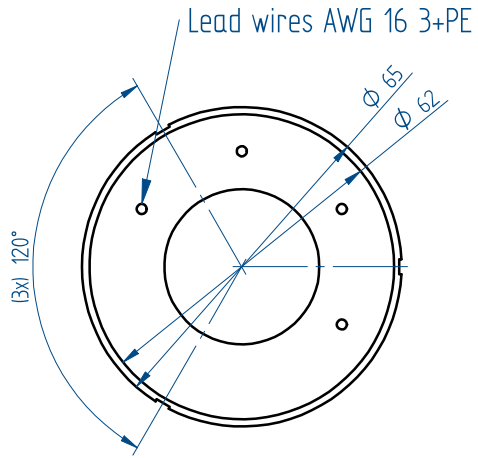
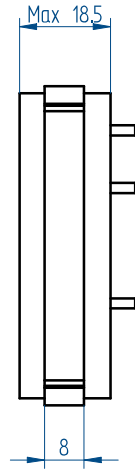


Mounting instructions and tolerances can be found in the torque installation manual. Manuals and 3D CAD files can be downloaded from our website.

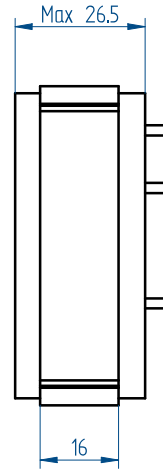
STATOR



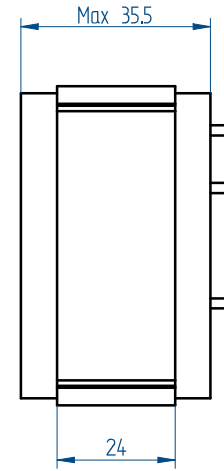
QTR-A 65-17



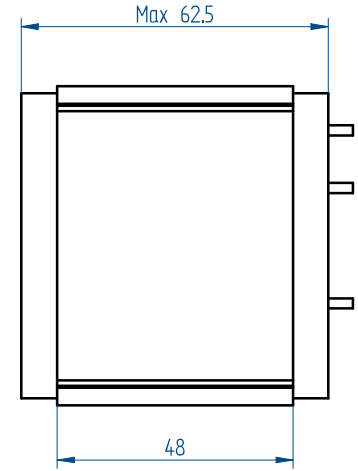
QTR-A 65-25



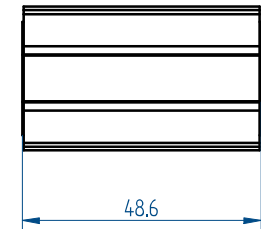
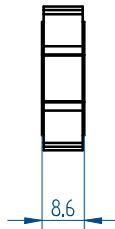
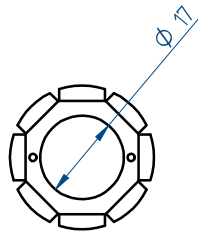
QTR-A 65-34



QTR-A 65-60



ROTOR



* All sizes are in mm

	Parameter	Remarks	Symbol	Unit	QTR-A 65-17	QTR-A 65-25	QTR-A 65-34	QTR-A 65-60
Performance	Winding type				N	N	Y	Y
	Motortype max. voltage ph-ph	3-phase synchronous		$V_{acrms} (V_{dc})$	420 (600)			
	Ultimate torque @ 20°C/s increase	magnet @ 25°C	T_u	Nm	0.64	1.31	2.25	5.47
	Peak torque @ 6°C/s increase	magnet @ 25°C	T_p	Nm	0.42	0.85	1.43	3.82
	Continuous torque	coil @ 100°C	T_c	Nm	0.29	0.66	1.08	2.31
	Maximum speed ⁽³⁾ @ 48 Volt	@ Tc	n_{max}	rpm	5735	2673	3456	910
	Maximum speed @ max. voltage	@ Tc	n_{max}	rpm	28000	28000	28000	16960
	Motor torque constant	up to Ic	K_t	Nm/A _{rms}	0.060	0.118	0.098	0.267
	Motor constant	coils @ 25°C	K_m	(Nm) ² /W	0.0021	0.0059	0.0111	0.0321
	Electrical	Ultimate current	magnet @ 25°C	I_u	A _{rms}	13.84	13.84	27.98
Peak current		magnet @ 25°C	I_p	A _{rms}	7.58	7.58	15.32	15.05
Maximum continuous current ⁽¹⁾		coils @ 100°C	I_c	A _{rms}	4.86	5.61	11.07	8.65
Back EMF phase-phase _{peak}			K_e	V/krpm	5.1	10.1	8.4	22.8
Back EMF phase-phase _{RMS}			K_e	V/krpm	3.6	7.2	5.9	16.1
Coil resistance per phase		coils @ 25°C ex. cable	R	Ω	0.575	0.799	0.287	0.741
Coil induction per phase		$l < 0.6 l_p$	L	mH	0.86	1.62	0.69	2.10
Electrical time constant		coils @ 25°C	τ_e	ms	1.5	2.0	2.4	2.8
Poles			N_{mgn}	nr	8	8	8	8
Thermal		Continuous power loss	coils @ 100°C	P_c	W	53	99	138
	Thermal resistance ⁽²⁾	coils to mount. sfc.	R_{th}	°C/W	1.50	0.81	0.58	0.37
	Thermal time constant	up to 63% max. coiltemp.	τ_{th}	s	21	16	16	38
	Temperature cut-off / sensor				No temperature sensor			
Mechanical	Stator OD		OD _s	mm	65			
	Rotor ID		ID _R	mm	17			
	Motor height		H _{motor}	mm	18	26	35	62
	Lamination stack height		H _{arm}	mm	8	16	24	48
	Rotor inertia		J _R	kg*m ²	3.8E-06	7.5E-06	1.1E-05	2.3E-05
	Stator mass	excluding cables	M _S	g	149	248	361	717
	Rotor mass		M _R	g	27	54	80	160
	Total mass	excluding cables	M _T	g	176	302	441	877
	Cable mass	all cables	m	g	36			
Cable type (power)	length 0.5 m	d	mm (AWG)	2.06 (16)				



QTR-A 65 Stator and rotor shown with a height of 17 mm

1. 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.
2. R_{th} based on radial mounting of stator lamination stack.
3. MAXIMUM allowable speed for QTR-A 65 series motors is 28.000 rpm. If you plan a high speed application, please contact Tecnotion.

All specifications ±0%