

QTR 65 series



QTR-A-65-17 stator and rotor

1. These values are only applicable when the mounting surface is at 20°C and the motor is driven at stall or 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



	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
	Motor type, max voltage ph-ph	3-phase synchronous	U_{max}	$V_{ac\ rms} (V_{dc})$	400 (565)			
	Ultimate torque @ 20 K/s increase	magnets @ 25°C	T_u	Nm	0.64	1.31	2.27	5.53
	Peak torque @ 6 K/s increase	magnets @ 25°C	T_p	Nm	0.41	0.84	1.44	3.89
	Continuous torque ¹	coils @ 100°C	T_c	Nm	0.28	0.65	1.04	2.30
	Maximum speed ²	@ 48V _{dc} @ T _c	n_{max}	rpm	5955	2757	3580	951
	Maximum speed ²	@ U _{max} @ T _c	n_{max}	rpm	10000	10000	10000	10000
	Motor torque constant	$I \leq I_c$	K_t	Nm/A _{rms}	0.059	0.118	0.099	0.271
	Motor constant	coils @ 25°C	K_m	(Nm) ² /W	0.0021	0.0059	0.0111	0.0331
Electrical	Ultimate current	magnets @ 25°C	I_u	A _{rms}	13.87	13.87	27.96	24.88
	Peak current	magnets @ 25°C	I_p	A _{rms}	7.49	7.49	15.32	15.10
	Continuous current ¹	coils @ 100°C	I_c	A _{rms}	4.78	5.50	10.54	8.49
	Back EMF ph-ph _{peak}		K_e	V/krpm	5.0	10.1	8.5	23.2
	Back EMF ph-ph _{rms}		K_e	V/krpm	3.6	7.1	6.0	16.4
	Resistance per phase	coils @ 25°C ex. cable	R_{ph}	Ω	0.563	0.781	0.294	0.740
	Induction per phase	$I < 0.6 I_p$	L_{ph}	mH	1.01	1.61	0.69	2.84
	Electrical time constant		τ_e	ms	1.8	2.1	2.4	3.8
	Continuous power loss ¹	coils @ 100°C	P_c	W	50	92	128	208
Thermal	Thermal resistance	coils to mount. sfc.	R_{th}	K/W	1.50	0.82	0.59	0.36
	Thermal time constant		τ_{th}	s	17	13	14	22
	Temperature sensor				none			
Mechanical	Stator OD		OD _s	mm	65			
	Rotor ID		ID _r	mm	17			
	Stator height		H _s	mm	18.3	26.3	34.8	62.3
	Lamination stack height		H _{arm}	mm	8	16	24	48
	Poles		N _{mgn}		8			
	Rotor inertia		J _r	kg m ²	3.8E-06	7.5E-06	1.1E-05	2.3E-05
	Stator mass	ex. cables	m _s	g	149	248	361	717
	Rotor mass		m _r	g	27	54	80	160
	Total mass	ex. cables	m	g	176	302	441	877
	Cable mass	all cables	m	g/m	72			
	Cable type (power)	length 0.5 m	d	mm (AWG)	4x 2.06 (16)			

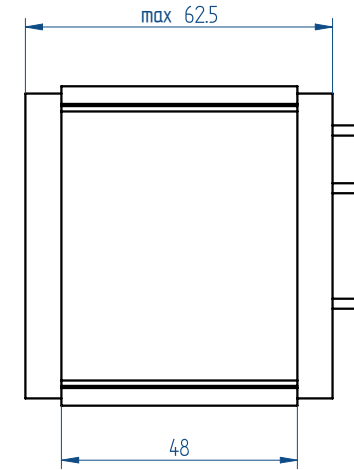
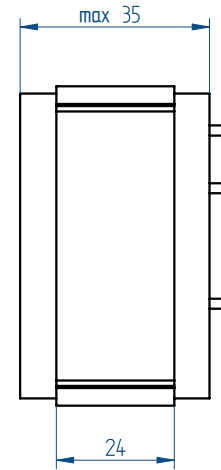
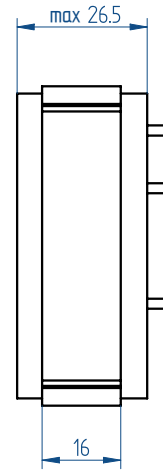
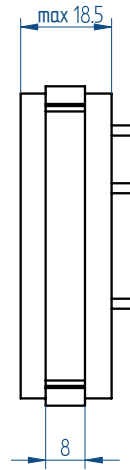
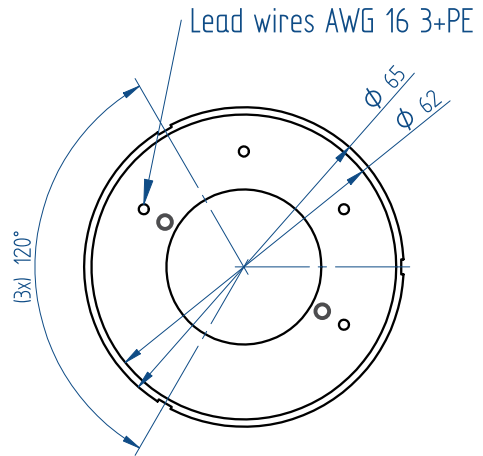
All specifications ±10%

QTR-A-65-17

QTR-A-65-25

QTR-A-65-34

QTR-A-65-60

Stator**Rotor**