Motor Parameters ILM25x08

PERFORMANCE CHARACTERISTICS

(INTERCONNECTION STAR-SERIAL)

Power P	[W]	89
Rated torque T_r	[Nm]	0.063
Peak torque T_{max} @ 20% linearity deviation	[Nm]	0.204
Rated voltage U_r	[V]	24
Rotation speed n_{max}*	[rpm]	13492
Rated current I_r (phase current amplitude)	[A]	4.3
Copper losses $P_{L,r}$ @ T_r and 20°C	[W]	10.3
Torque constant k_T @ 20°C	[mNm/A]	14.7
Motor constant k_M @ 20°C	[Nm/√W]	0.0197
Terminal resistance R_{TT} @ 20°C	[mΩ]	740
Terminal inductance L_{TT}	[µH]	330
Rotor inertia J	[kgcm²]	0.0023
Number of pole pairs	-	7
Max. efficiency η	%	86
Weight m	[g]	25

* Theoretical no-load rotation speeds at rated voltage U_r. Variations can arise from operation with different inverters. Higher rotation speeds or change of the voltage level can be achieved by varying the interconnection scheme.

MAXIMAL ROTATION SPEEDS

DC link voltage [V]	48	36	24	14	12	9
star-serial n_{max}* [rpm]	26984**	20238	13492	8095	6746	5059
star-parallel n_{max}* [rpm]	53968**	40476**	26984**	16190	13492	10119

* Theoretical no-load rotation speeds at indicated voltage. Mechanical limits apply and must not be exceeded. Variations can arise from operation with different inverters.

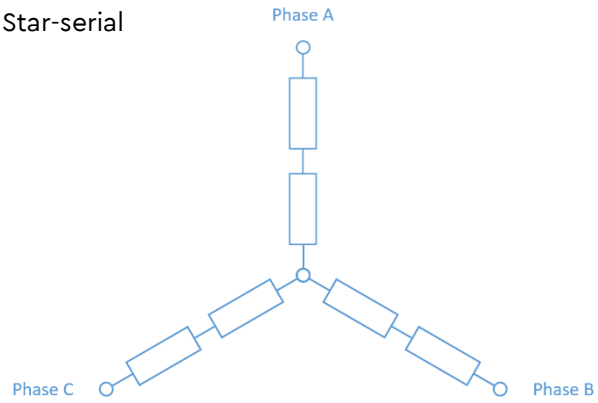
** $n_{max,mech}$ = 24000 rpm must not be exceeded.

CHARACTERISTICS INTERCONNECTION VARIANTS

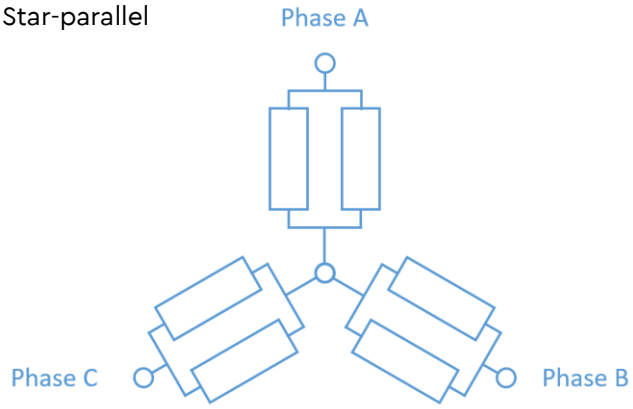
Interconnection	U_r [V]	I_r [A]	k_T [mNm/A]	R_{TT} [mΩ]	L_{TT} [µH]
star-serial	24	4.3	14.7	740	330
star-parallel	12	8.6	7.4	185	83

AVAILABLE INTERCONNECTION VARIANTS

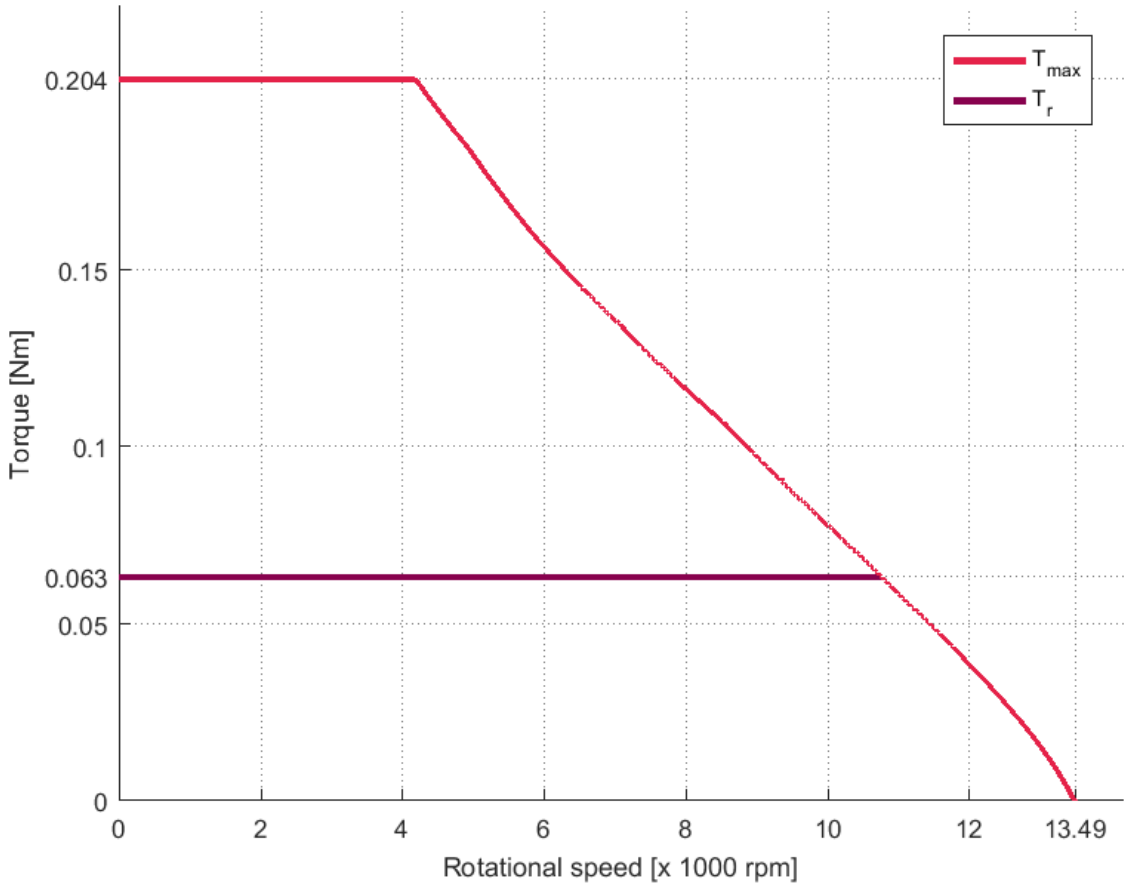
Star-serial



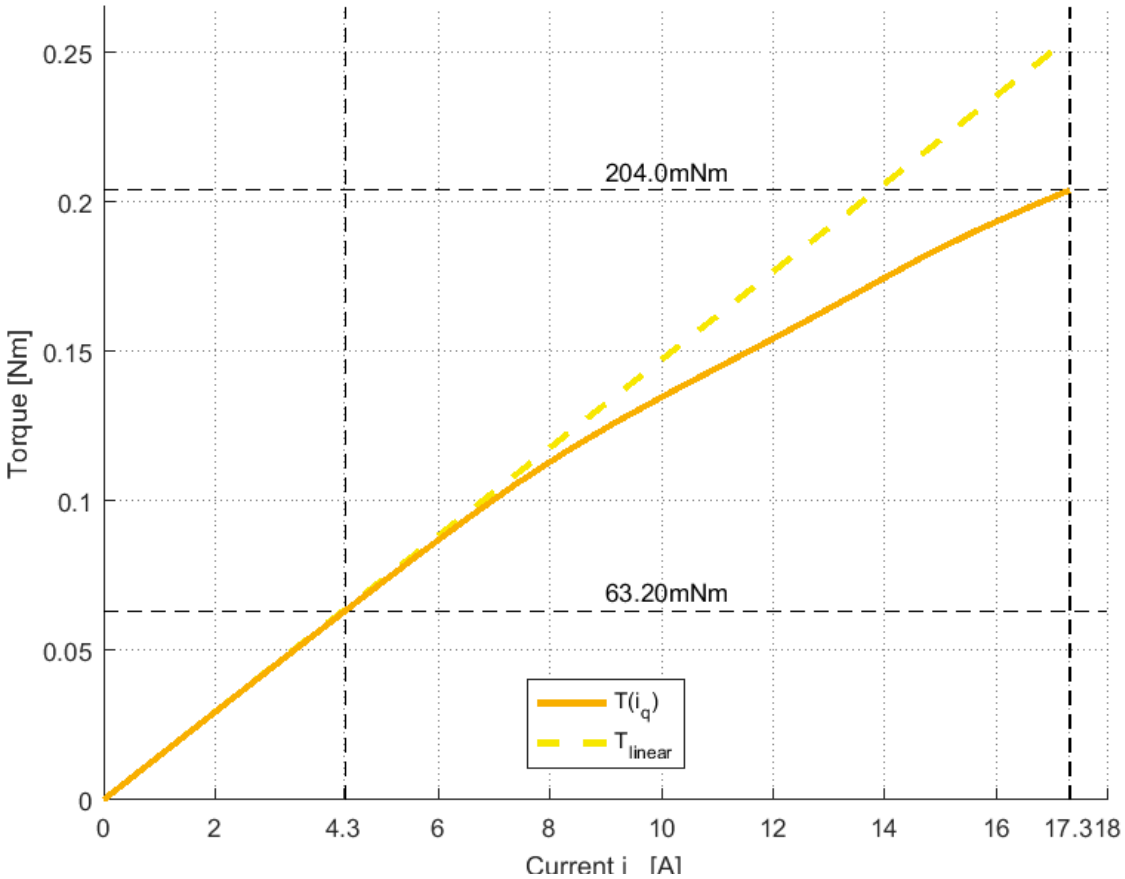
Star-parallel



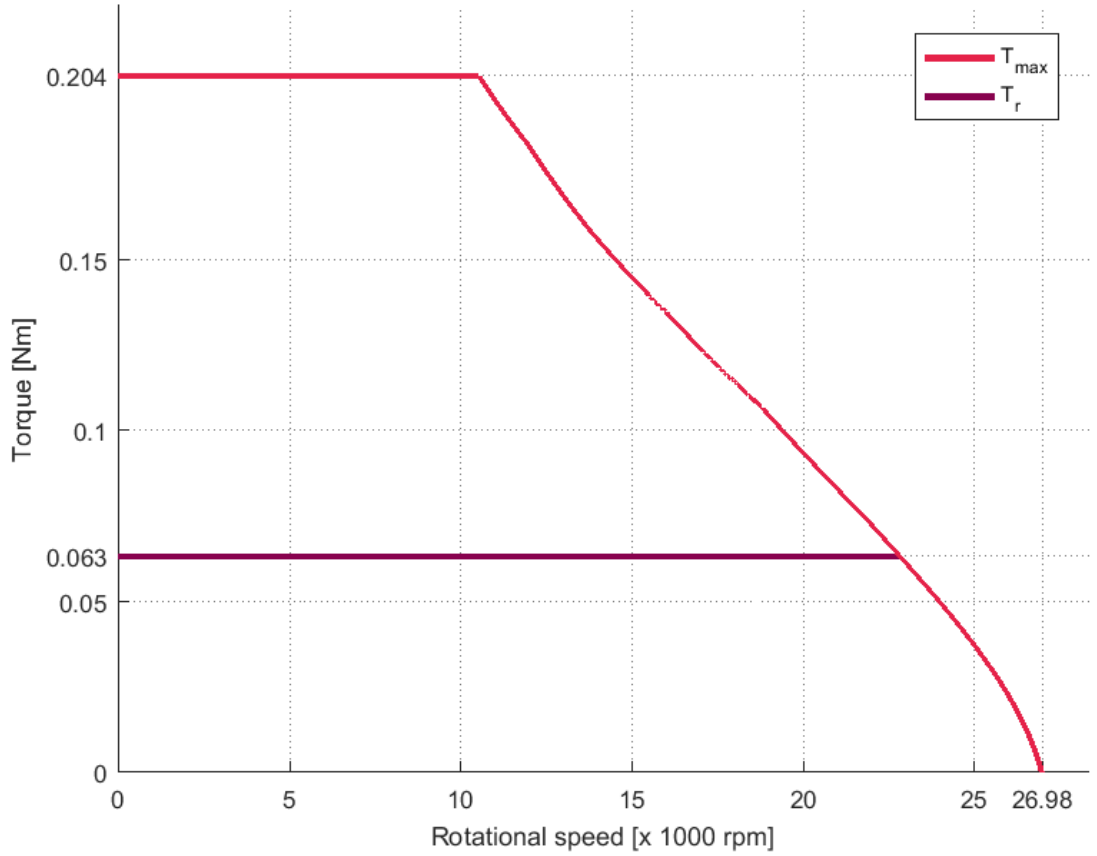
T/N-DIAGRAM ILM25X08 STAR-SERIAL @ 22 °C



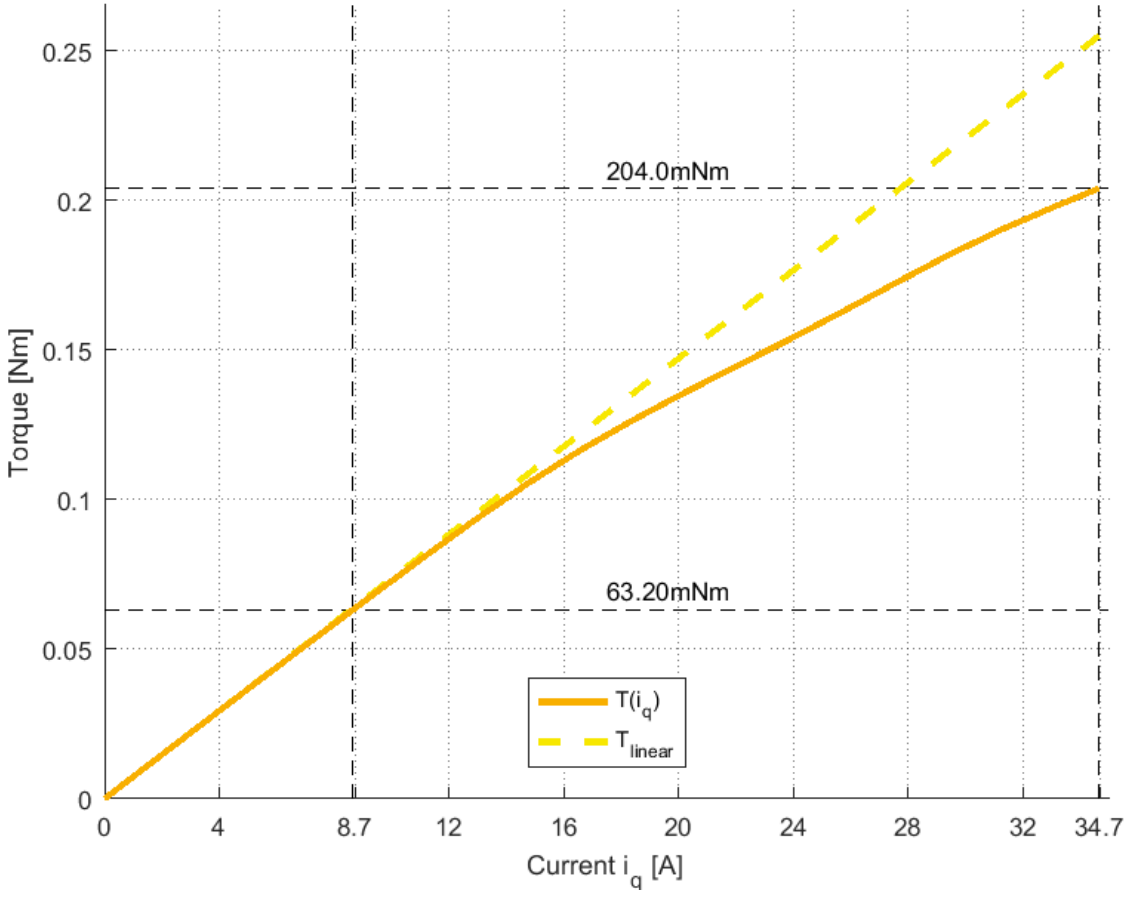
T/I-DIAGRAM ILM25X08 STAR-SERIAL @ 22 °C



T/N-DIAGRAM ILM25X08 STAR-PARALLEL @ 22 °C



T/I-DIAGRAM ILM25X08 STAR-PARALLEL @ 22 °C



FOR FURTHER INQUIRIES, PLEASE CONTACT:

TQ-SYSTEMS GMBH
GUT DELLING, MÜHLSTRAßE 2
82229 SEEFELD
DEUTSCHLAND

TEL. +49 8153 9308-0
FAX +49 8153 4223

E-MAIL INFO@TQ-ROBODRIVE.COM
INTERNET WWW.TQ-GROUP.COM