Motor Parameters ILM115x25

Performance characteristics (interconnection star–serial)

Rated power (P)	[W]	735
Rated torque (T_{rated})	[Nm]	5,4
Peak torque (T_{max}) (20% linearity deviation)	[Nm]	12,2
Rated voltage (V_{rated})	[V]	48
Rotational speed (s_{max})* @ U_{rated}	[1/min]	1300
Rated current (I_{rated}) (phase current amplitude)	[A]	20
Loss from standstills ($P_{L,rated}$) @ T_{rated}	[W]	38
Torsional constant (phase current amplitude) (k_T)	[Nm/A]	0,27
Motor constant (k_M) @ 20°C	[Nm/√W]	0,88
Terminal resistance (R) @ 20°C	[mΩ]	125
Terminal inductance (L)	[µH]	525
Rotor inertia (I)	[kgcm²]	3,65
Number of polpairs	–	15
Max. efficiency (η)	%	92
Weight of stator rotor kit (m)	[g]	1200

* Theoretically achievable no–load speed

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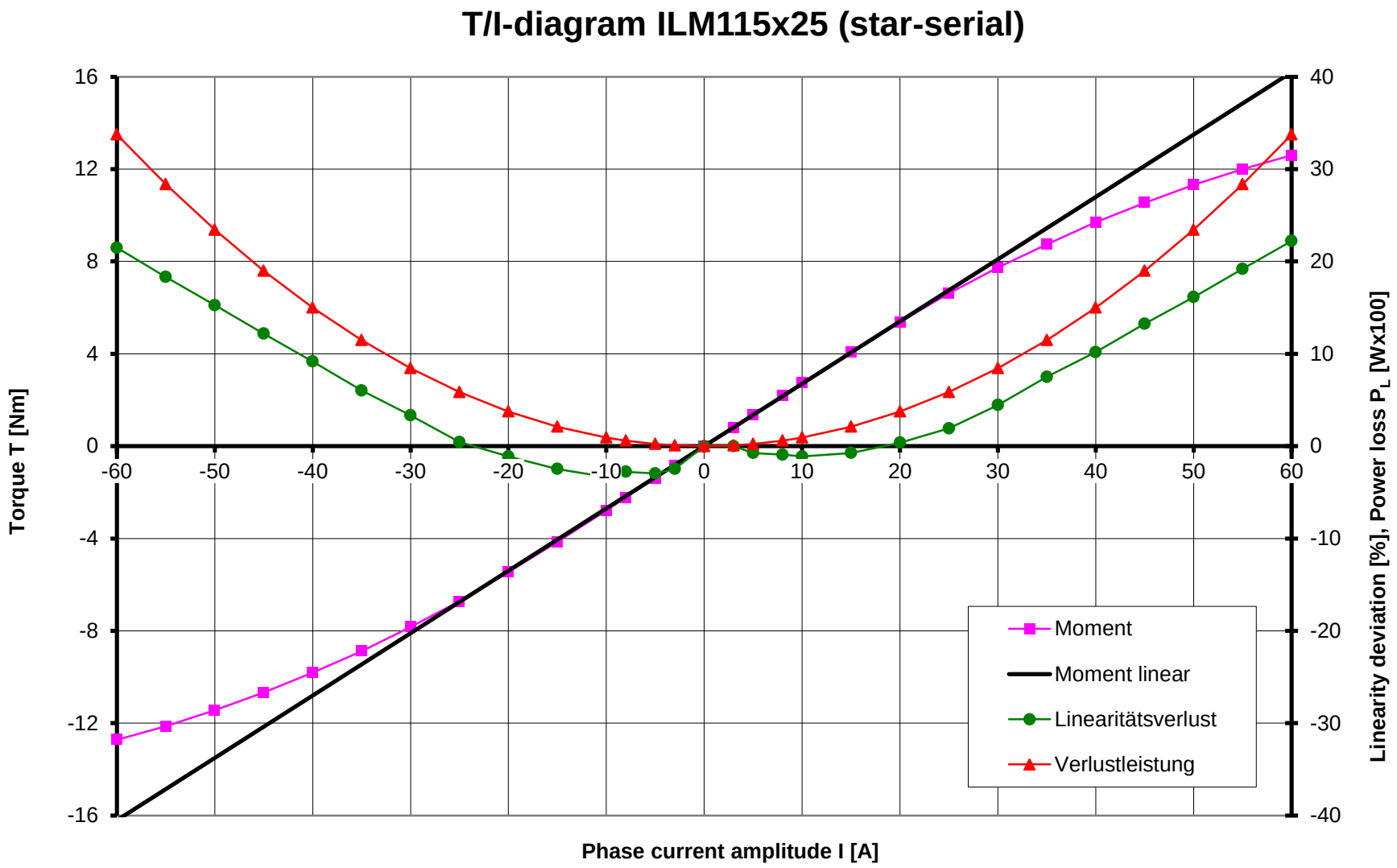
Specific Parameters

Interconnection	V_{rated}	I_{rated}	k_T	R	L
	[V]	[A]	[Nm/A]	[mR]	[µH]
star–serial	48,00	20,00	0,2700	125,00	525,00
delta–serial	27,71	34,64	0,1559	41,67	175,00
star–parallel	16,00	60,00	0,0900	31,25	131,25
delta–parallel	9,24	103,92	0,0520	10,42	43,75

Maximal rotation speeds

	star-serial	**delta-serial**	**star-parallel**	**delta-parallel**
Intermediate circuit voltage	s_{max}*	s_{max}*	s_{max}*	s_{max}*
[V]	[1/min]	[1/min]	[1/min]	[1/min]
48,00	1300	2250	3900	6750
36,00	970	1680	2920	5060
24,00	650	1120	1950	3370
14,40	390	670	1170	2020
12,00	320	560	970	1680
9,00	240	420	730	1260

* Theoretically achievable no-load speeds; Variances may arise by operation of various inverters.

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