

# SECTION 1

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## Motor Information for Lift Pump A/B

00GNB02AP101

00GNB03AP101



BOUSTEAD SALCON WATER SOLUTIONS PTE LTD

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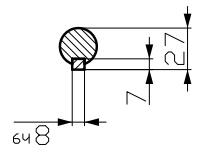
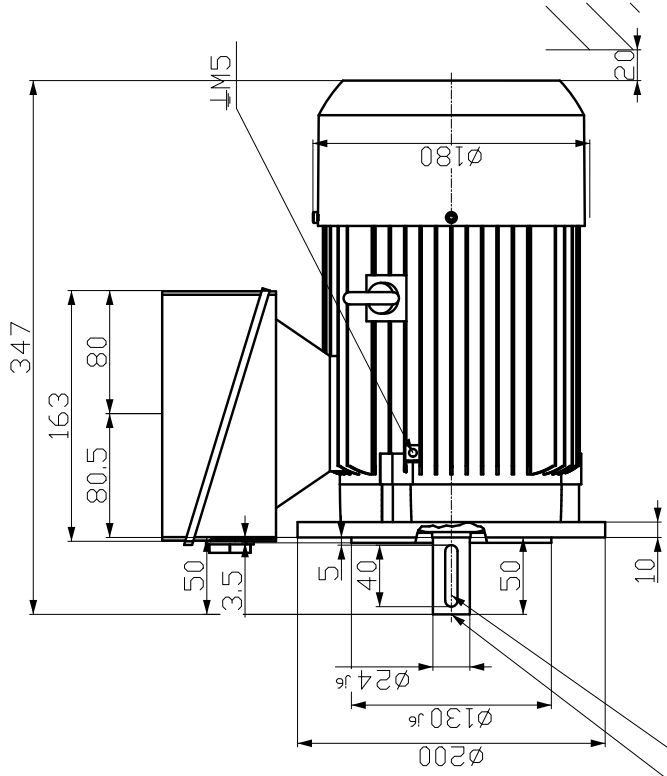
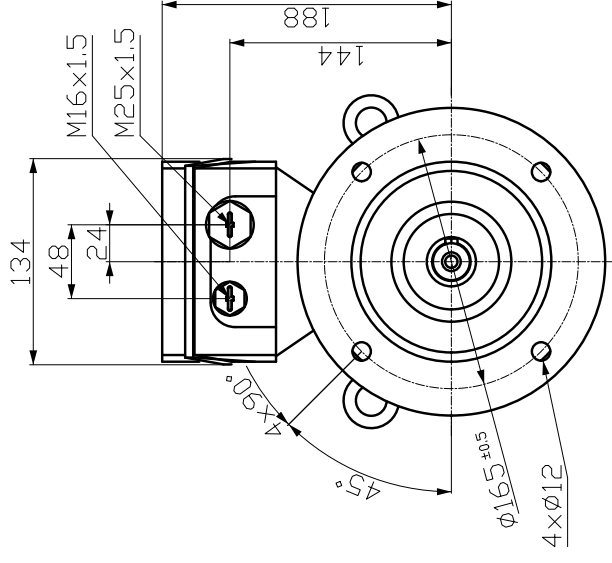
## Motor Data sheets

<b>1. Name of motor</b>	-	LIFT PUMP MOTORS
<b>2. Manufacturer</b>	-	SIEMENS
<b>3. Country of origin</b>	-	EUROPE
<b>4. Type/machine code</b>	-	SQUIRREL CAGE INDUCTION
<b>5. Applied standard (characteristics)</b>	-	IEC 60034-1
<b>6. Ratings</b>		
(1) Rated output	kW	2.2
(2) Service factor	-	1
(3) Number of pole	-	2
(4) Rated speed	min <sup>-1</sup>	2890
(5) Rated voltage	V	380
(6) Number of phases	-	3
(7) Rated frequency	Hz	50
(8) Insulation class	-	F
(9) Temperature rise	-	B
(10) Rated duty	-	S1
<b>7. Service Conditions</b>		
(1) Starting method	-	DOL
(2) Direction of rotation (viewed from DE)	-	CW
(3) Reverse rotation (Yes / No)	-	NO
(4) Location (Indoor / Outdoor)	-	OUTDOOR
(5) Enclosure IP rating		
(a) Motor frame	-	IP55
(b) Terminal boxes	-	IP55
(6) Installation (Horizontal / Vertical)	-	VERTICAL
(7) Design ambient temperature	°C	-20 to 40
(8) Explosion proof (Required / Not required)	-	NOT REQUIRED
(9) Noise level (at full-load condition)	dB (A)	65
<b>8. Characteristics</b>		
(1) Current		
(a) Normal current	A	5.22
(b) No-load current	A	
(c) Starting current	A	<650% rated current

(2) Torque		
(a) Starting torque	%	250
(b) Maximum torque	%	370
(3) Slip at rated output		0.0367
(4) Efficiencies		
(a) At 100% load	%	83.2
(b) At 75% load	%	83.7
(c) At 50% load	%	82
(d) At 25% load	%	-
(5) Power factor		
(a) At rated load	%	77
(b) At starting load	%	
(6) GD2 coupled with driven equipment	kg-m <sup>2</sup>	0.0021
(7) Starting time with driven equipment	s	< 5
(8) Consecutive number of starts		
(a) From cold condition per hour	-	3
(b) From hot condition per hour	-	2
(c) Minimum time between 2 starts (running state)	min	
(d) Minimum time between 2 starts (stop state)	min	
(9) Allowable locked-rotor time		
(a) At cold condition	s	
(b) At hot condition	s	
<b>9. Constructions</b>		
(1) Stator winding connection (Wye / Delta)	-	DELTA
(2) Type of bearing (DE / NDE)	-	6205 2Z C3 / 6204 2Z C3
(3) Lubricants		
(a) Recommended lubricant and brand name	-	ESSO UNIREX N3
(b) Pouring method	-	GREASE GUN
(c) Quantity of lubricant for initial filling	-	40g (DE) / 40g (NDE)
(d) Recommended interval for recharging	-	8000 HOURS
(e) Recharging quantity	-	10g (DE) / 10g (NDE)
(f) Location of pouring (indicated in the outline drawing)	-	GREASE NIPPLE
(4) Bearing cooling water requirement (if required)		NOT REQUIRED
(a) Quantity	m <sup>3</sup> /h	-
(b) Inlet water temperature	°C	-
(c) Required cooling water pressure	kPa	-
(d) Type of cooling water	-	-

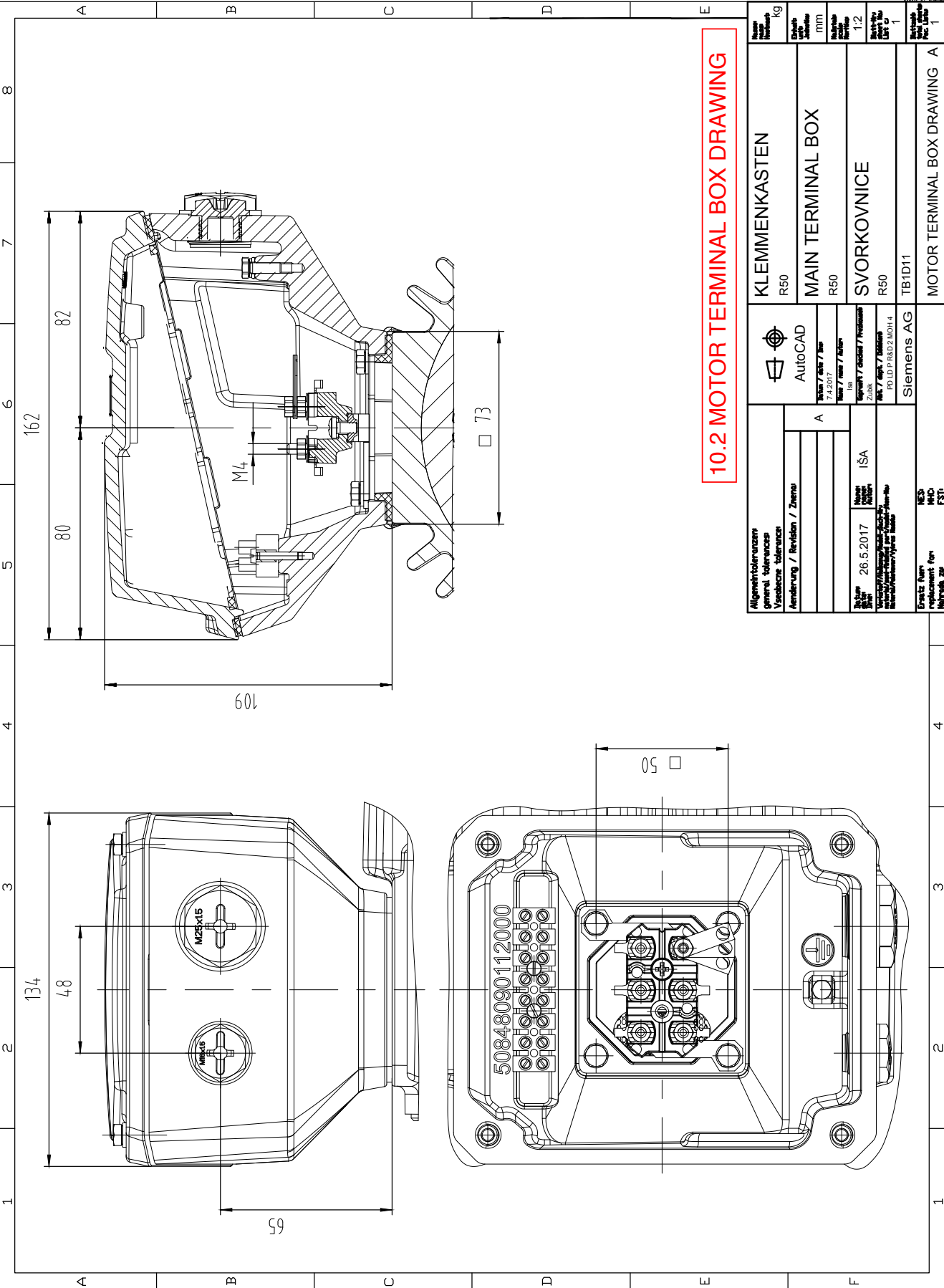
(5) Water to air heat exchanger (if applied)	m <sup>3</sup> /h	NOT APPLIED
(a) Quantity of cooling water	°C	-
(b) Inlet water temperature	kPa	-
(c) Required cooling water pressure	-	-
(d) Type of cooling water	-	-
(6) Space heater (AC 220V 1 phase)	W	NOT APPLICABLE
(7) Weight	kg	26
<b>10. Attached document numbers</b>		SEE PAGE 5 TO PAGE 9
(1) Motor outline drawing	-	
(2) Terminal box drawings		
(a) For main power	-	
(b) For instruments	-	
(c) For space heater	-	
(3) Current transformers (for MV motors only)		
(a) Characteristics curves	-	
(b) Outline drawing	-	
(4) Efficiency curves	-	
(5) Thermal capability curves		
(a) At cold condition	-	
(b) At hot condition	-	
(6) Starting and speed torque characteristics at 80%, 90% and 100% voltage	-	

# 10.1 MOTOR OUTLINE DRAWING



DIN 332-DR M8  
DIN 6885-1

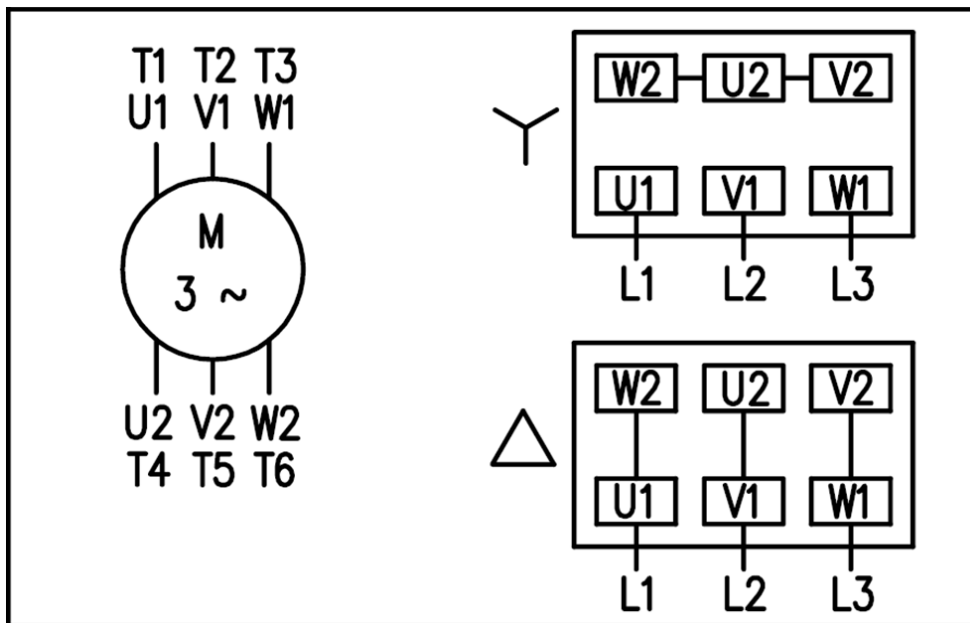
Reference	Surface	Material	Weight	Scale
1LE1501-0EA42-1GA4-Z B92+N30+R10+R50	Author Creator Approval Department	DTK	-	mm
	Change Order	Doc. No.	Doc. Type	
	Doc. State	1/22/18	Item No.	Paper Size A3
	Revision	IS	Doc. No.	1st Language EN
	Project No.	2016	Ref. No.	2nd Language DE
				Sheet 1 of 1



10.2 MOTOR TERMINAL BOX DRAWING

Allgemeine/obecná informace general information Všeobecné informácie General information		AutoCAD 7.4.2017 Name / nom / Názov Project / číslo / číslo 05 / 005 / 005 PD.LD.P.RAD.2.MOH.4		Weight / hmotnosť / Hmotnosť kg 1.2
Change / revízia / Zmena A		KLEMMENKASTEN R50		Sheet No / číslo / číslo List / list / list 1
Date / dátum / dátum 26.5.2017 Author / autor / autor IŠA Checked / skontrolovaný / skontrolovaný PD.LD.P.RAD.2.MOH.4		MAIN TERMINAL BOX R50		Scale / mierka / mierka 1:1
Ersatz Part / replacement part / náhradná časť M4C FST		SVORKOVNICE R50		Part No / číslo / číslo TBID11
Manufacturer / výrobca / výrobca Siemens AG		MOTOR TERMINAL BOX DRAWING A		Rev. No / číslo / číslo 1

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Verantwortliche Abt. PD LD P R&D	Technische Referenz	Erstellt von DTK	Genehmigt von	Projekt	
<b>SIEMENS</b>	Dokumenttyp Circuit diagram	Dokumentstatus released		Kunde	
	Titel Circuit diagram main		Dokumentnummer 53258100600000_000		
© Siemens AG 2017		Rev. AA	Erstelldatum 20.05.2017	Sprache en	Blatt 1/1

Operating and Installation Data

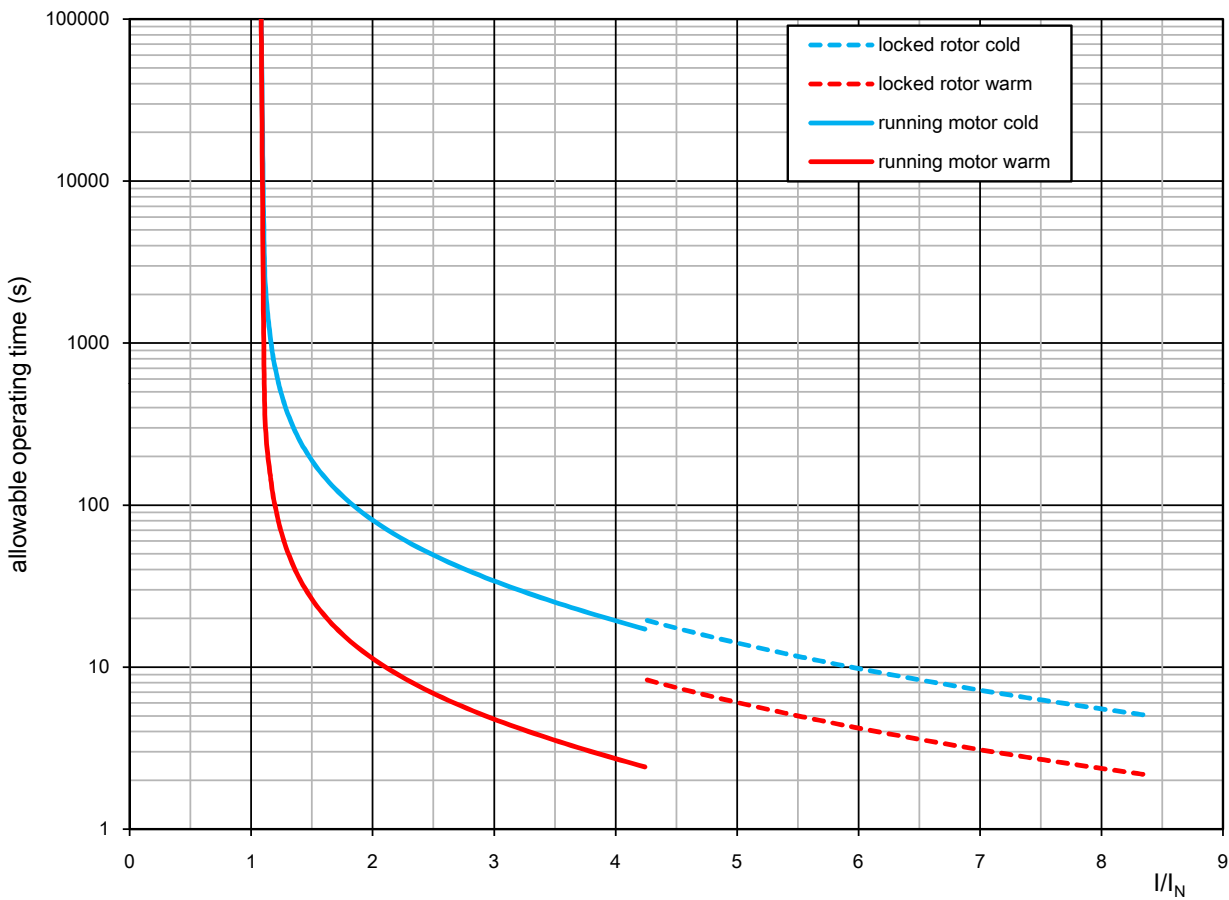
**10.5 MOTOR THERMAL CAPACITY CURVE**

Rated-

-power	$P_N$	2,2 kW	Connection	D/Y
-voltage	$U_N$	220/380 V	Class of rating	S1
-frequency	$f_N$	50 Hz	Absolute altitude	<1000 m ab.s.l.
-current	$I_N$	8,2/4,75 A	Coolant temperature	40 °C
-speed	$n_N$	2900 1/min	Therm. class (designed/util.)	155 (F) / 130 (B)
-torque	$M_N$	7 Nm		
Power factor	$\cos\varphi$	0,85		

Standard: IEC/EN 60034-1

Tolerances: IEC/EN 60034-1



Responsible dept. PD LD P R&D 2 MOH 4	Technical reference TRA 312852	Created by KRATOCHVILOVÁ	Approved by KRATOCHVILOVÁ	Project
S	Document type Thermal Limit Curve	Document state released		Customer
	Title 3~ Asynchronous motor with Squirrel Cage Rotor	Document no.		
unrestricted © SIEMENS AG 2018	1LE1501-0EA42-1GA4-Z 2019329/2	Rev.	Date of issue 2018-01-19	Language en
				Sheet 1/1



## 10.6 MOTOR STARTING AND SPEED TORQUE CHARACTERISTIC

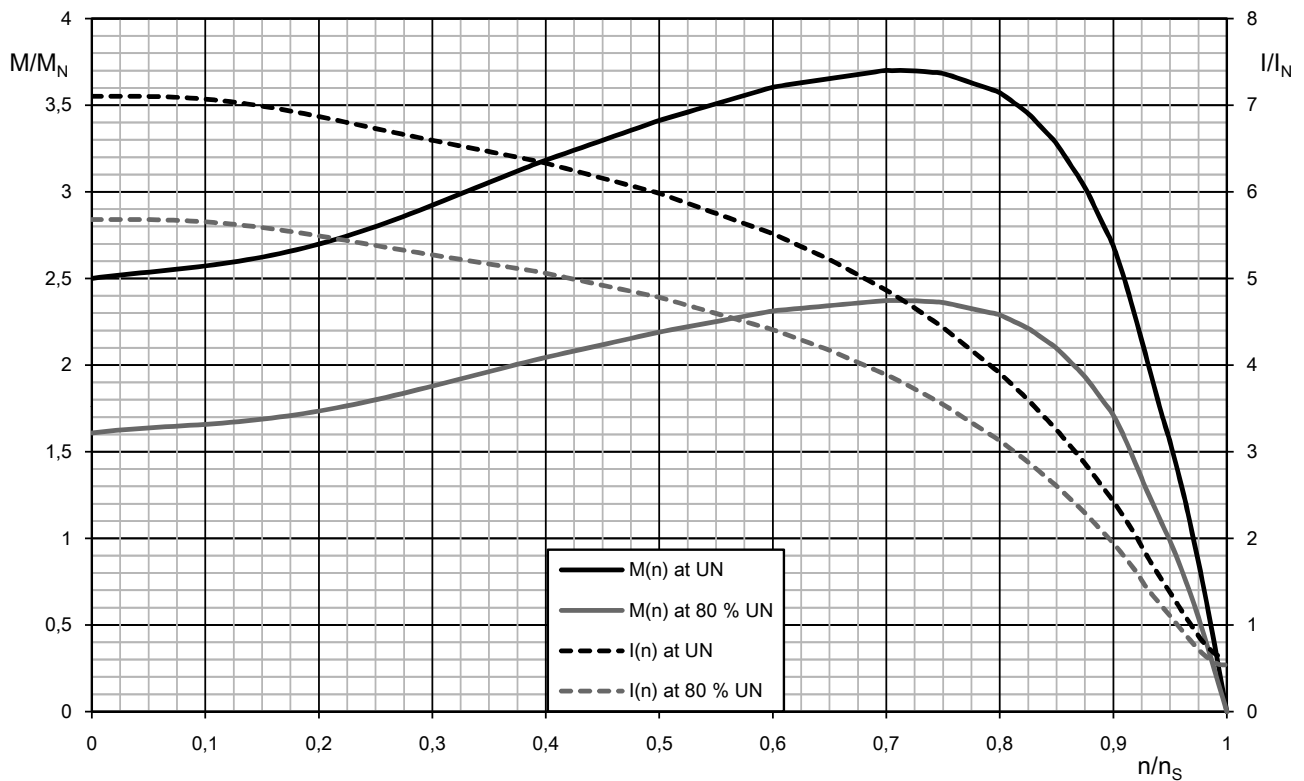
### Operating and Installation Data

Rated-

-power	$P_N$	2,2 kW	Connection	D/Y
-voltage	$U_N$	220/380 V	Class of rating	S1
-frequency	$f_N$	50 Hz	Absolute altitude	<1000 m ab.s.l.
-current	$I_N$	8,2/4,75 A	Coolant temperature	40 °C
-speed	$n_N$	2900 1/min	Therm. class (designed/util.)	155 (F) / 130 (B)
-torque	$M_N$	7 Nm		
Power factor	$\cos\varphi$	0,85		

Standard: IEC/EN 60034-1

Tolerances: IEC/EN 60034-1



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S	Document type Starting Data $M=f(n)$ , $I=f(n)$		Document state released	
	Title 3~ Asynchronous motor with Squirrel Cage Rotor		Document no.	
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			Language en	Sheet 1/1