SECTION 3

Motor Information for Gravity Filter Backwash Pump A/B

00GNB31AP101
00GNB32AP101

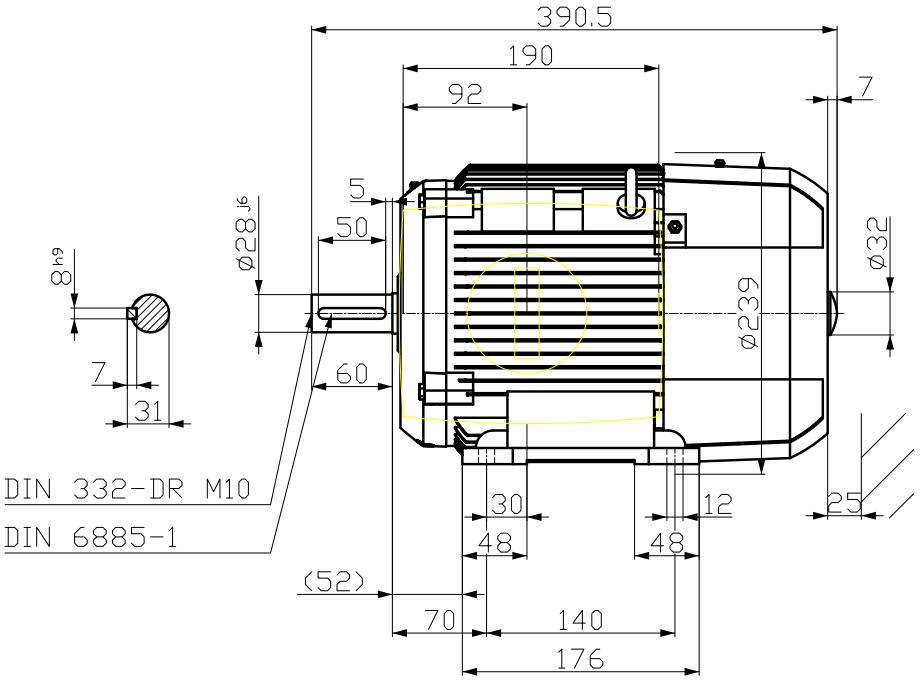
Motor Data sheets

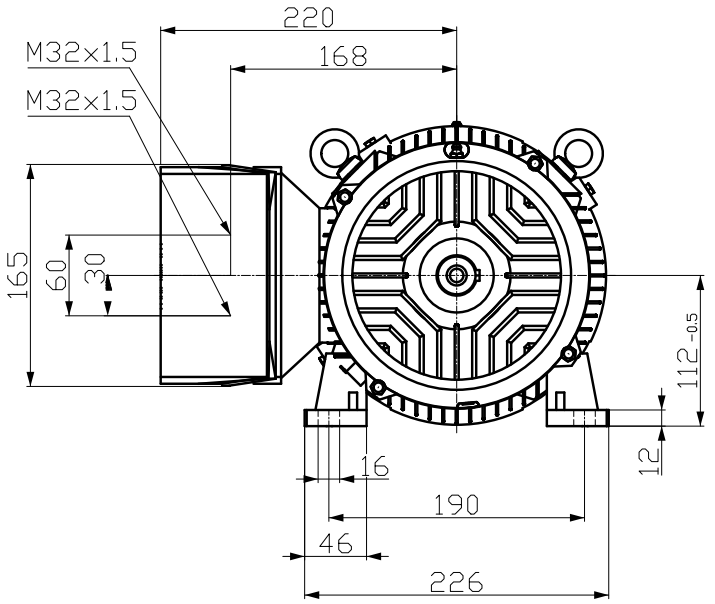
1. Name of motor	-	GRAVITY FILTER BACKWASH PUMP MOTORS
2. Manufacturer	-	SIEMENS
3. Country of origin	-	EUROPE / CHINA
4. Type/machine code	-	SQUIRREL CAGE INDUCTION
5. Applied standard (characteristics)	-	IEC 60034-1
6. Ratings		
(1) Rated output	kW	4
(2) Service factor	-	1
(3) Number of pole	-	2
(4) Rated speed	min^{-1}	2905
(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
7. Service Conditions		
(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)	-	HORIZONTAL
(7) Design ambient temperature	ºC	-20 to 40
(8) Explosion proof (Required / Not required)	-	NOT REQUIRED
(9) Noise level (at full-load condition)	dB (A)	71
8. Characteristics		
(1) Current		
(a) Normal current	A	9.21
(b) No-load current	A	
(c) Starting current	A	<650% rated current

(2) Torque		
(a) Starting torque	%	230
(b) Maximum torque	%	330
(3) Slip at rated output		0.0316
(4) Efficiencies		
(a) At 100% load	%	84.6
(b) At 75% load	%	85.5
(c) At 50% load	%	84.6
(d) At 25% load	%	-
(5) Power factor		
(a) At rated load	%	78
(b) At starting load	%	
(6) GD2 coupled with driven equipment	kg-m^2	0.0044
(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	
9. Constructions		
(1) Stator winding connection (Wye / Delta)	-	DELTA
(2) Type of bearing (DE / NDE)	-	6206 2Z C3 / 6206 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^3/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^3/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	32
10. Attached document numbers		SEE PAGE 23 TO 27
(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	-	

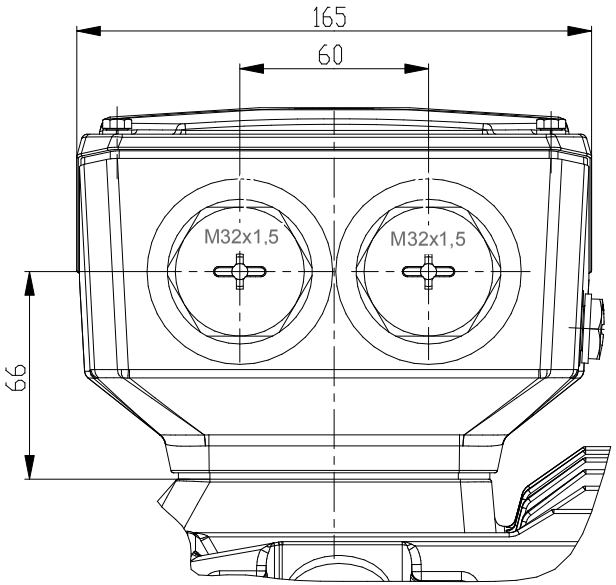
10.1 MOTOR OUTLINE DRAWING

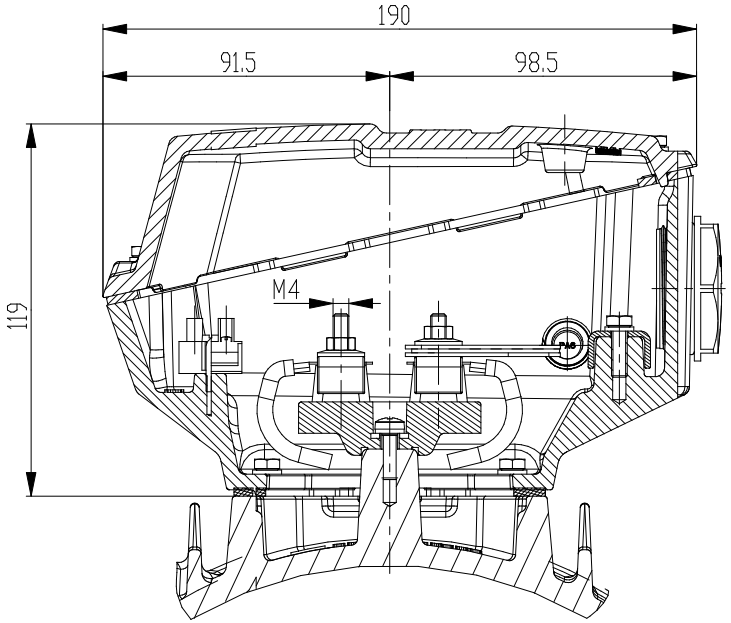


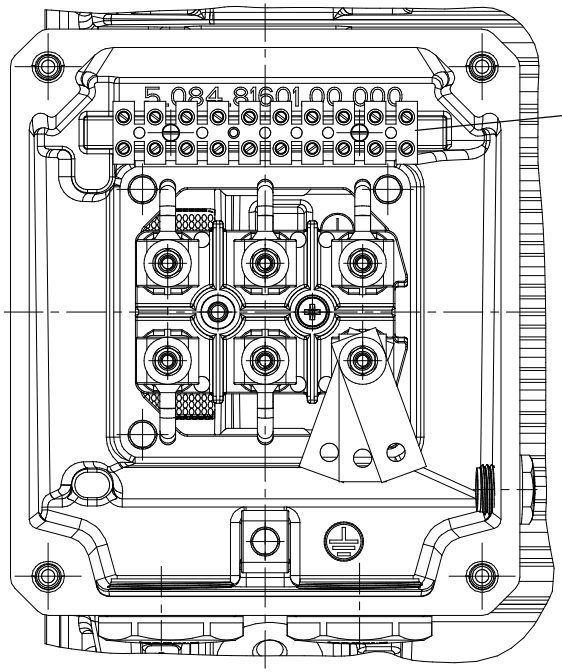


Tolerance	Surface	Material	Weight: -	Scale: mm
1LE1501-1BA29-0AA6-Z B02+L23+M1Y+N30+R11+R50+S05	Author Creator: DTK Approval Department Change Order	Dimensional drawing Maßzeichnung		
SIEMENS	Doc State: 1/19/18 Revision Index RS	MLFB Item No Doc No	Doc Type / Paper Size: A3 1st Language: en 2nd Language: de	
© Siemens AG 2016	Project No -	Ref No -	Sheet: 1 of 1	

Massbild unverbindlich. Aenderungen konstruktiver Einzelheiten vorbehalten.
Dimension drawing subject to change. We reserve the right to change constructional details.



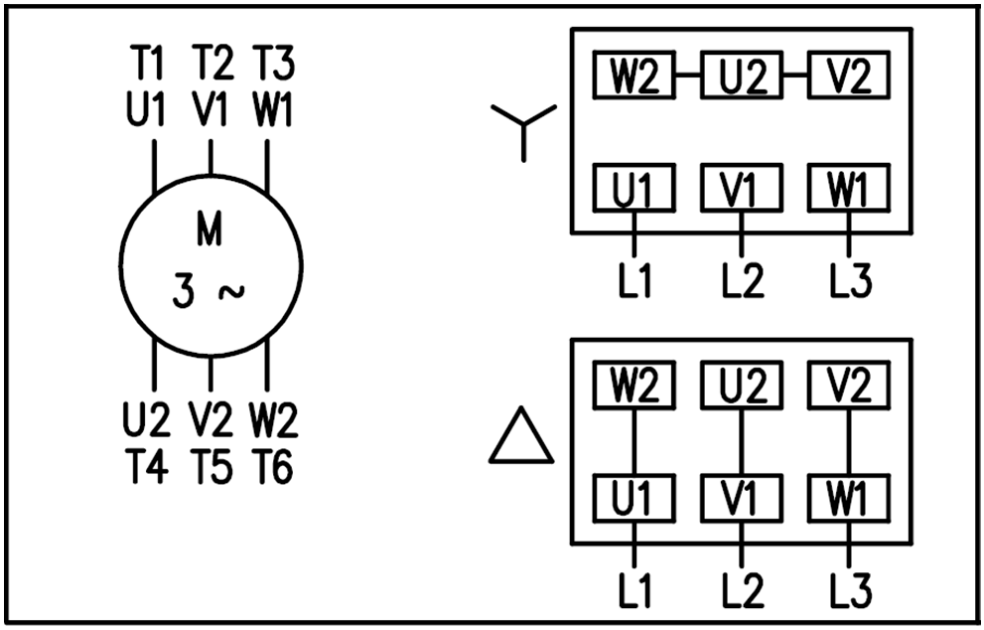




Klemmen fuer Hilfseinrichtung
terminals for auxiliry equipment
falls notwendig
if necessary

10.2 MOTOR TERMINAL BOX DRAWING

	Angebot-Nr.: Offer No.:
PD LD	Anlage: Projekt:
Datum/Date: 03.2016	Terminal box TB1 J01 (R50) Standard
Einheit / unit: mm	
SIEMENS	Anschlusskasten TB1 J01 (R50) Standard



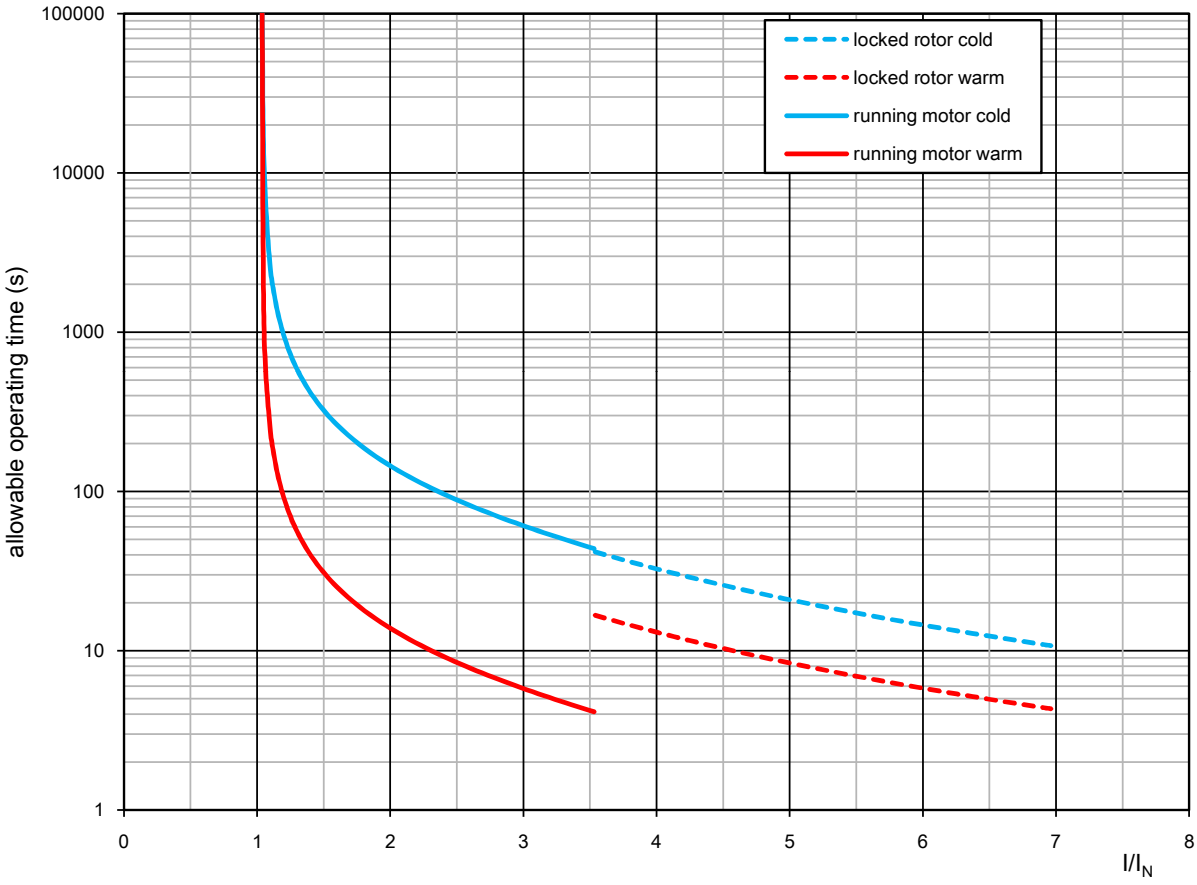
Verantwortliche Abt.	Technische Referenz	Erstellt von	Genehmigt von	Projekt			
PD LD P R&D		DTK					
SIEMENS	Dokumenttyp: Circuit diagram		Dokumentstatus: released		Kunde		
	Titel: Circuit diagram main		Dokumentnummer: 53258100600000_000				
			Rev.	Erstelldatum	Sprache	Blatt	
© Siemens AG 2017			AA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

Operating and Installation Data

10.5 MOTOR THERMAL CAPACITY CURVE

Rated-					
-power	P_N	4 kW	Connection		Y
-voltage	U_N	380 V	Class of rating		S1
-frequency	f_N	50 Hz	Absolute altitude		<1000 m ab.s.l.
-current	I_N	7,8 A	Coolant temperature		40 °C
-speed	n_N	2920 1/min	Therm. class (designed/util.)		155 (F) / 130 (B)
-torque	M_N	13 Nm			
Power factor	cosφ	0,91			

Standard: IEC/EN 60034-1
Tolerances: IEC/EN 60034-1



Additional Technical Ratings and Information

IA/IN<6.0

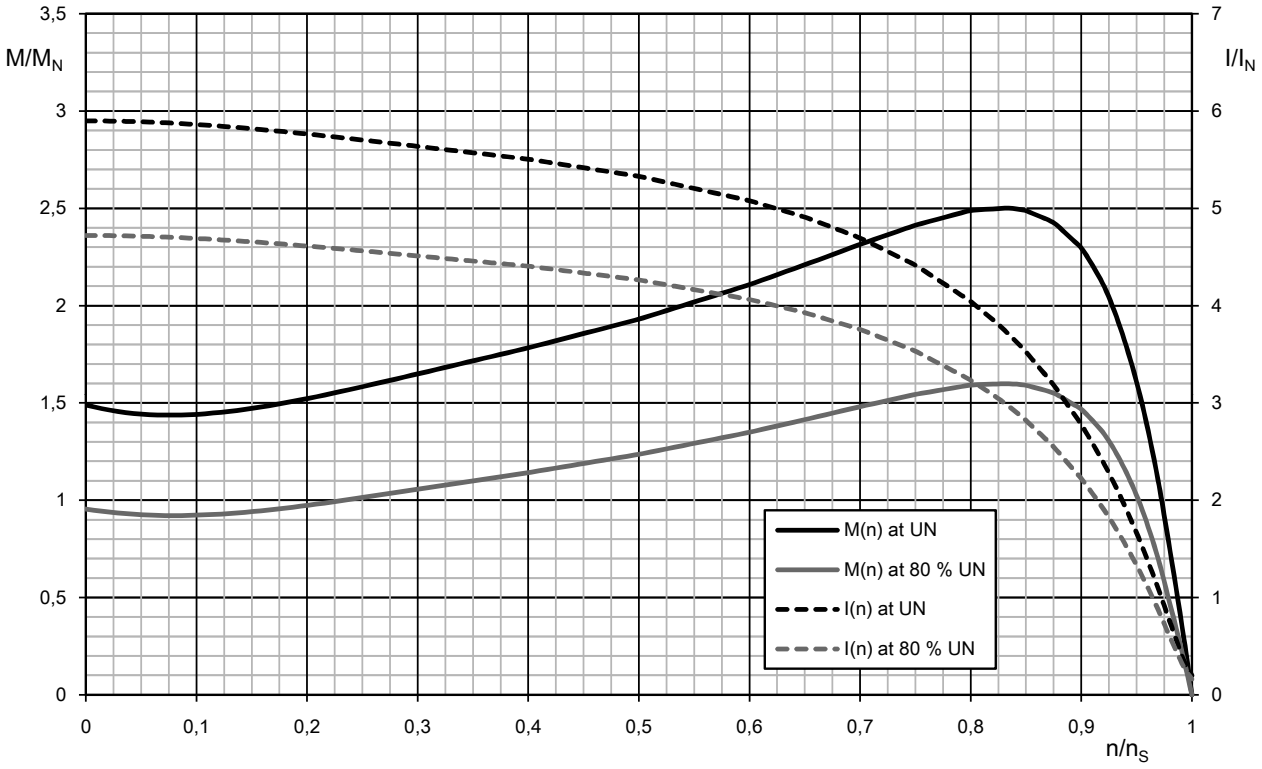
Responsible dept.	Technical reference	Created by	Approved by	Project	
PD LD P R&D 2 MOH 4	TRA 320120	KRATOCHVILOVÁ	KRATOCHVILOVÁ		
S	Document type: Thermal Limit Curve		Document state: released	Customer	
	Title: 3~ Asynchronous motor with Squirrel Cage Rotor		Document no.		
unrestricted	1LE1501-1BA29-0AA6-Z		Rev.	Date of issue: 2018-01-18	Language: en / Sheet: 1/1
	2019329/5				

10.6 MOTOR STARTING AND SPEED TORQUE CHARACTERISTIC

Operating and Installation Data

Rated-					
-power	P_N	4 kW	Connection		Y
-voltage	U_N	380 V	Class of rating		S1
-frequency	f_N	50 Hz	Absolute altitude		<1000 m ab.s.l.
-current	I_N	7,8 A	Coolant temperature		40 °C
-speed	n_N	2920 1/min	Therm. class (designed/util.)		155 (F) / 130 (B)
-torque	M_N	13 Nm			
Power factor	cosφ	0,91			

Standard: IEC/EN 60034-1
Tolerances: IEC/EN 60034-1



Additional Technical Ratings and Information

IA/IN<6.0

Responsible dept. PD LD P R&D 2 MOH 4	Technical reference TRA 320120	Created by KRATOCHVILOVÁ	Approved by KRATOCHVILOVÁ	Project		
S	Document type Starting Data M=f(n), I=f(n)		Document state released	Customer		
	Title 3~ Asynchronous motor with Squirrel Cage Rotor		Document no.			
unrestricted © SIEMENS AG 2018	1LE1501-1BA29-0AA6-Z 2019329/5		Rev.	Date of issue 2018-01-18	Language en	Sheet 1/1