Customer information packet

ECR585004-PPN

M3BN 587MLA 4P 500HP

Copyright © All product information within this document is subject to ABB Motors and Mechanical Inc. copyright © protection, unless otherwise noted.
11/15/2026 8:29:10 AM

Driven Motor:

Catalog Number		**ECR585004-PPN**		
Motor type code		M3BN 587 MLA 4K		
Motor product code		3GBN982410-ADKBA05		
Motor type		Squirrel cage Motor		
Mounting designation		IM 1001 (B3)		
Protected by enclosure		IP66		
Method of cooling		TEFC		
Insulation		Class F (Shock Resistant)		
Service factor		SF1.15 TEMP RISE CLASS F		
Standards		NEMA		
International efficiency classification (IEC 60034-30)		IE3		
Ambient temperature, max.		40 °C		
Altitude, max.		3280 ft.a.s.l.		
Duty type		Continuous		
Temp. rise		Class B		
Connection of stator winding		Delta		
Rated output		500 HP		
Voltage		460 V		
Frequency		60 Hz		
Speed		1791 r/min		
Current		576 Amps		
Locked rotor Amps		780 %	Code J	
Locked rotor torque		280 %		
Breakdown torque		310 %		
No load current		208 Amps		
Rated torque		1466 lb-ft		
Load characteristics	Load %	Current Amps	Efficiency %	Power Factor
	100	576	96,2	0,84
	75	453	96,5	0,80
	50	340	96,0	0,71
NEMA nominal efficiency			96,2 %	

Typical calculated values to NEMA. -

ABB Oy

Motors & Generators
Visiting Address
Strömbergin puistotie 5 A
VAASA
FINLAND
Postal Address
P.O.Box 633
FI-65101 VAASA
FINLAND
Telephone
+358 10 222 000
Telefax
+358 10 224 7372

We reserve all rights in this document and in the information contained therein. Reproduction, use or disclosure to third parties without express authority is strictly forbidden.
©Copyright 2018 ABB

Motor type code: M3BN 587 MLA 4K

Rated output	500 HP	Power Factor	0,84
Voltage	460 V	Rated torque	1466 lb-ft
Frequency	60 Hz	Locked rotor Amps	780 %
Speed	1791 r/min	Locked rotor torque	280 %
Current	576 Amps	Breakdown torque	310 %

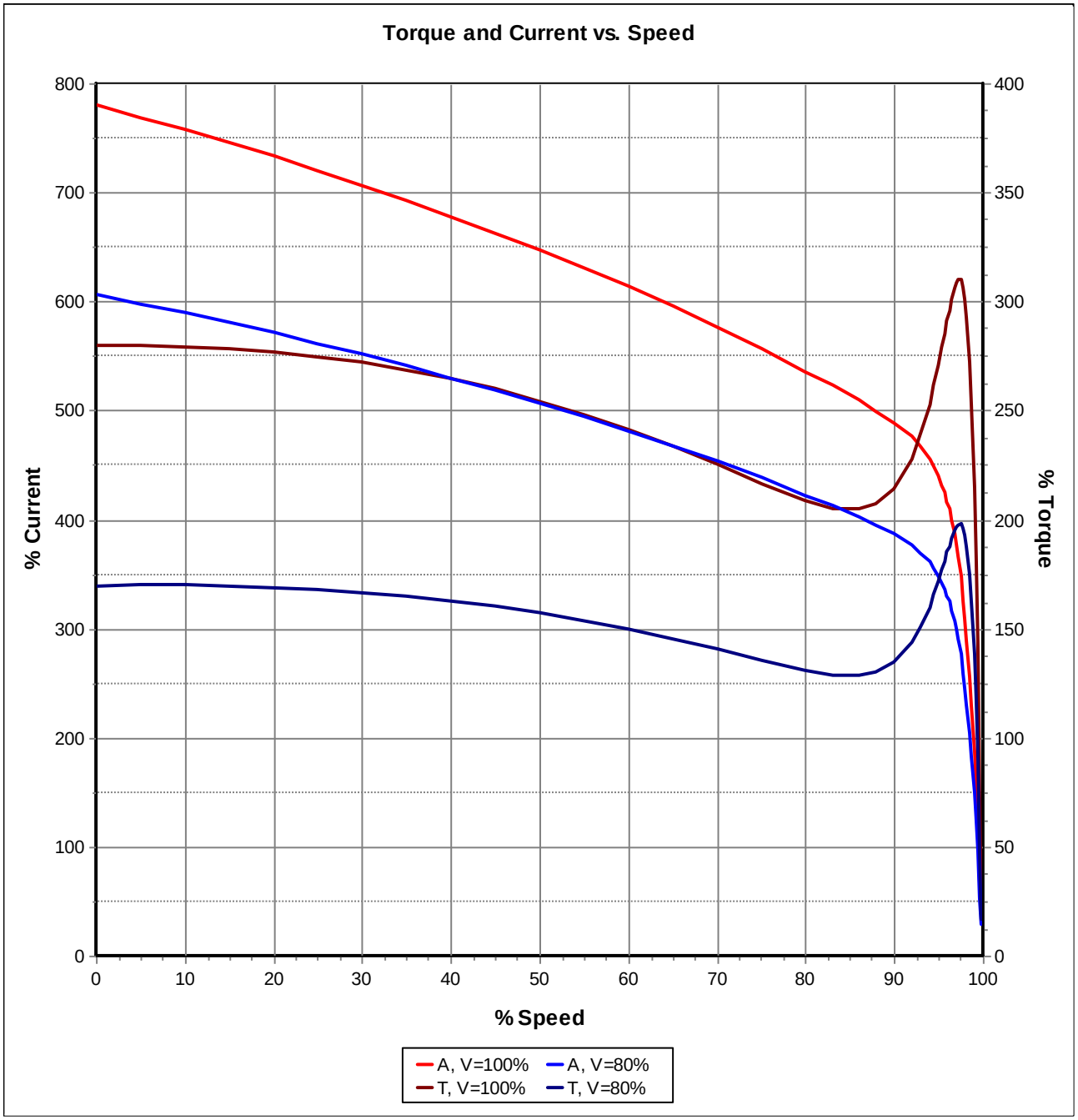


ABB Oy

Motors & Generators
Visiting Address
Strömbergin puistotie 5 A
VAASA
FINLAND

Postal Address
P.O.Box 633
FI-65101 VAASA
FINLAND

Telephone
+358 10 222 000

Telefax
+358 10 224 7372

We reserve all rights in this document and in the information contained therein. Reproduction, use or disclosure to third parties without express authority is strictly forbidden.
©Copyright 2018 ABB

PWM
Switch. freq. 3kHz
FWP 460VD 60Hz
VSD-duty: Temp. rise class F

Drive1

Rated power	125 HP
Rated voltage	117 V
Nominal frequency	15,3 Hz
Type of connection	Delta
Rated torque	1455 lb-ft
Speed	450 rpm
Current	574 Amps

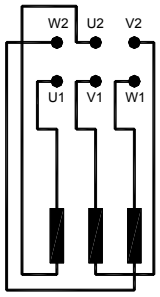
Drive2

Rated power	500 HP
Rated voltage	460 V
Nominal frequency	60,4 Hz
Type of connection	Delta
Rated torque	1459 lb-ft
Speed	1800 rpm
Current	627 Amps

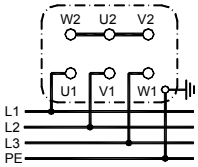
Constant torque 450 – 1800rpm

We reserve all rights in this document and in the information contained therein. Reproduction, use or disclosure to third parties without express authority is strictly forbidden.
©Copyright 2018 ABB

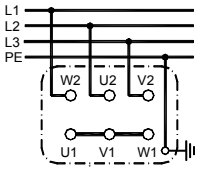
Diagram of connection
Anschluss-Schema
Schema de branchement

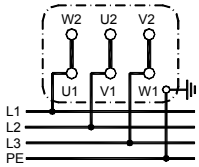


Connection of terminals
Anschluss des Motors
Branchement des bornes

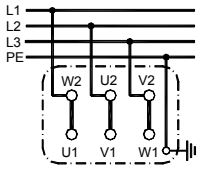


Y-connection
Y-Schaltung
Connection etoile





D-connection
D-Schaltung
Connection triangle





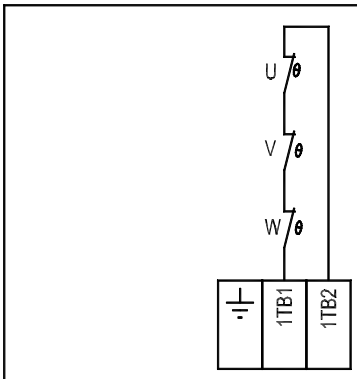
Direction of rotation with phase sequence shown in picture
Drehrichtung nach Schaltbild
Direction de rotation avec branchement ci-dessus



Direction of rotation with reversed phase sequence
Drehrichtung mit umgekehrter Phasenfolge
Direction de rotation avec sequence de phase reversée

Motor No Maschine Nr No du moteur	
ABB Oy, Motors	3GZF321100-1 E

Connection Diagram				Document No: 3GZF321100-1 E
Description:	3-PHASE SQUIRREL-CAGE MOTOR			
Unit:	Motors	Issued by:	M Prusi	Replaces:
Date:	21.09.2005	Approved by:	Jari Raittila	Replaced by:
ABB Oy	Customer Reference:			



1TB1...1TB2 BIMETAL DETECTORS, TYPE NCC
BIMETALL-THERMOSCHALTER, TYP NCC
SONDES BIMETALLIQUES, TYPE NCC

Motor No
Maschine Nr
Moteur No

ABB Oy, Electrical Machines
LV Motors

3GZF321200-35 B

Accessory Connection Diagram

Document No: 3GZF321200-35 B

Description: BIMETAL DETECTORS

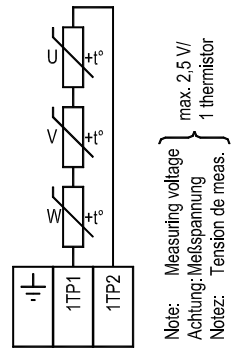
Unit: Electrical Machines, LV Motors
Date: 16.01.2002

Issued by: K.Högkvist
Approved by: M.Prusi

Replaces:
Replaced by:

ABB Oy

Customer Reference:



PTC-THERMISTORS
PTC-TEMPERATURFÜHLER
SONDES THERMIQUE PTC

Motor No
Maschine Nr
Moteur No

ABB Oy, Motors | 3GZF321200-1 D

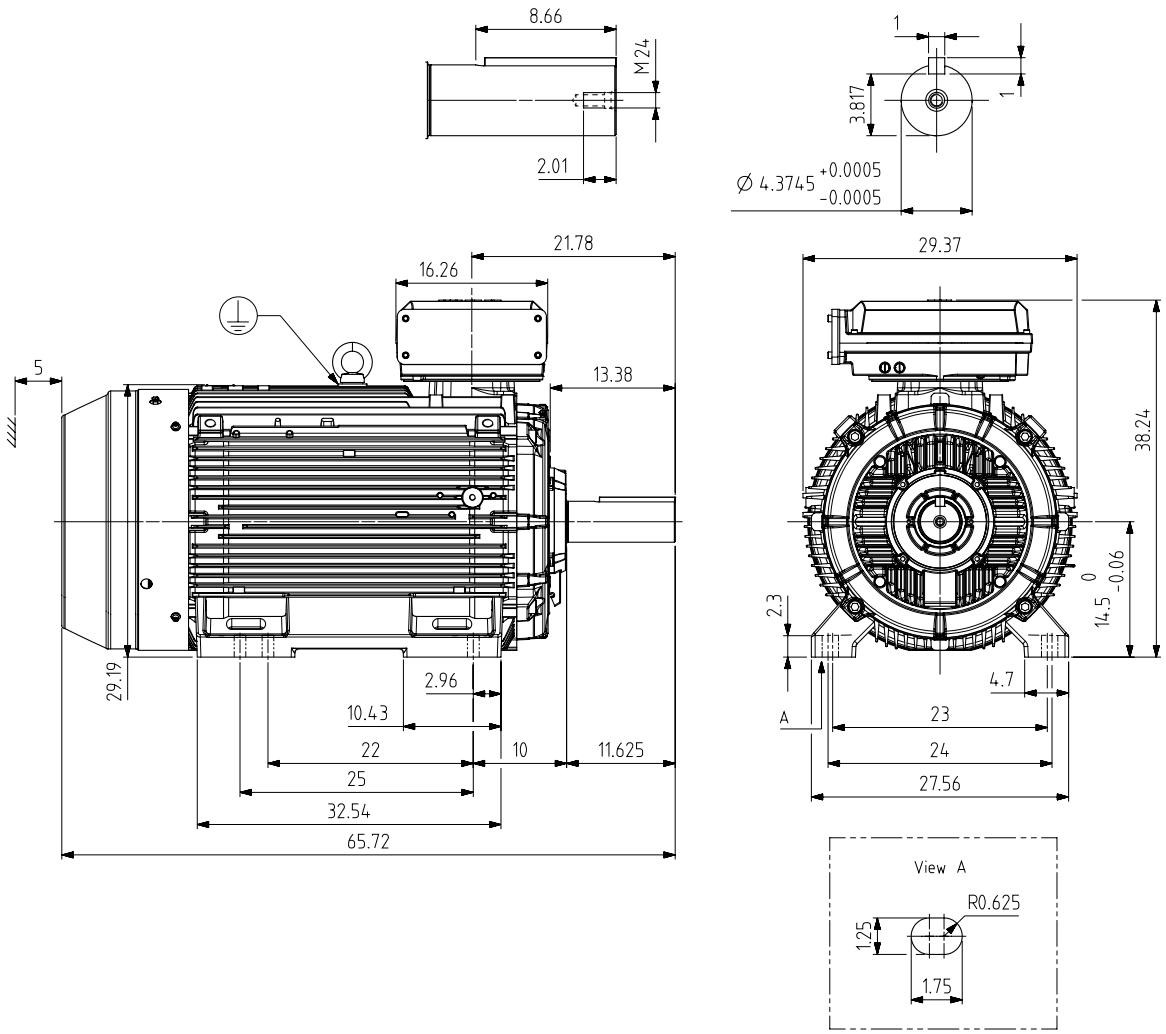
Accessory Connection Diagram

Document No: 3GZF321200-1 D

Description: PTC-THERMISTORS

Unit:	Motors	Issued by:	K.Högkvist	Replaces:
Date:	30.11.2005	Approved by:	M.Prusi	Replaced by:

ABB Oy | Customer Reference:



Additional information:

Dimension Print	Motor Type: M3BN 587ML_4.. B3, B6, B7, B8, V5, V6	Document No: 3GZF500098-174 A 14 BN 587 A
Description: SQUIRREL CAGE MOTOR, CABLE ENTRY LHS, SPECIAL SHAFT, SLOTTED FEET HOLES. DIMENSIONS IN INCHES, MOTOR SIZES 586/587.		

Unit:	ABB Oy, Motors and Generators	Issued by:	N.Palokangas	Replaces:
Date:	21.11.2019	Approved by:	S.Tikkanen	Replaced by:

ABB Oy	Customer Reference:	