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# Customer information packet

## ECR584504-PPN

M3BN 587MLA 4P 450HP

**ABB Oy****Motors & Generators****PERFORMANCE DATA OF MOTOR**

Department/Author MLA000/TISA	Date of Issue 11.10.2018	Lang. En	Rev. date	Our ref. 3GZFE021035-1236
Customer ref.		Saving Ident TMAA-ASUG9J-TISA31	Rev./Changed by A	Pages 1/3

**Driven Motor:**

Catalog Number Motor type code Motor product code Motor type Mounting designation Protected by enclosure Method of cooling Insulation Service factor Standards International efficiency classification (IEC 60034-30) Ambient temperature, max. Altitude, max.	<b>ECR584504-PPN</b> M3BN 587 MLA 4K 3GBN982410-ADKBA04 Squirrel cage motor IM 1001 (B3) IP66 TEFC Class F (Shock Resistant) SF1.15 TEMP RISE CLASS B NEMA IE3 40 °C 3280 ft.a.s.l.
Duty type Temp. rise Connection of stator winding Rated output Voltage Frequency Speed Current	Continuous Class B Delta 450 HP 460 V 60 Hz 1791 r/min 519 Amps
Locked rotor Amps Locked rotor torque Breakdown torque No load current Rated torque	800 % 290 % 300 % 183 Amps 1321 lb-ft Code K
Load characteristics	Load % 100 75 50 Current Amps 519 405 306 Efficiency % 96.2 96.5 95.8 Power Factor 0.84 0.81 0.72

Typical calculated values to NEMA. –  
-NEMA Nominal Efficiency 96.2%

Motors & Generators Visiting Address  
Stroinbergin puistotie 5 A  
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FINLAND

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**PERFORMANCE DATA OF MOTOR**

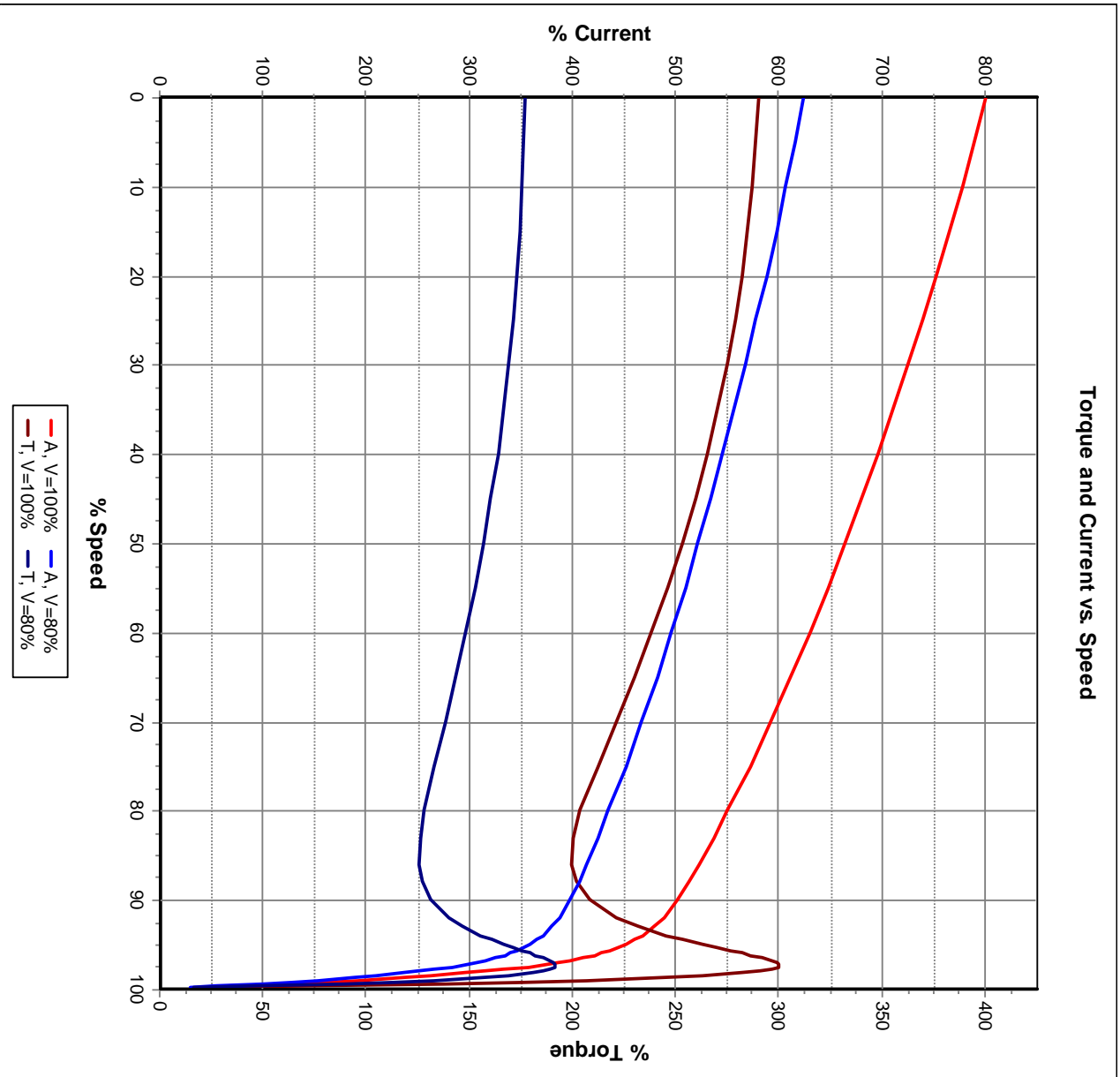


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Motor type code: M3BN 587 MLA 4K

Rated output	450 HP	Power Factor	0.84
Voltage	460 V	Rated torque	1321 lb-ft
Frequency	60 Hz	Locked rotor Amps	800 %
Speed	1791 r/min	Locked rotor torque	290 %
Current	519 Amps	Breakdown torque	300 %

**Torque and Current vs. Speed**




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PWM  
Switch. freq. 3KHz  
FWP 460VD 60Hz

<b>Drive1</b>	
Rated power	113 HP
Rated voltage	117 V
Nominal frequency	15,3 Hz
Type of connection	Delta
Rated torque	1314 lb-ft
Speed	450 rpm
Current	519 Amps

<b>Drive2</b>	
Rated power	450 HP
Rated voltage	460 V
Nominal frequency	60,4 Hz
Type of connection	Delta
Rated torque	1314 lb-ft
Speed	1800 rpm
Current	565 Amps

Constant torque 450 – 1800rpm

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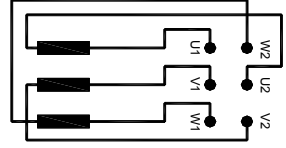
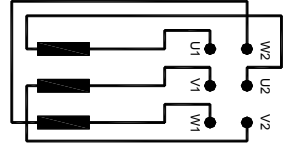
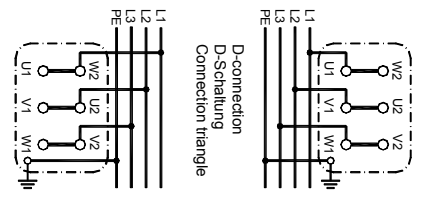
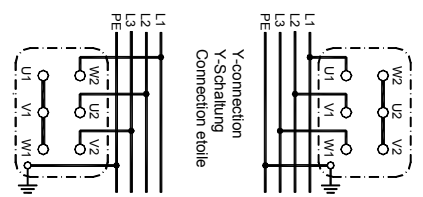
<p>Diagram of connection Anschluss-Schema Schema de branchement</p> 		<p>Direction of rotation with phase sequence shown in picture Drehrichtung nach Schaltbild Direction de rotation avec branchement ci-dessus</p> 		<p>Motor No Machine Nr No du moteur</p> <p><b>ABB Oy, Motors</b></p>	
				<p>Document No: <b>3GZF321100-1 E</b></p>	
<p><b>Connection Diagram</b></p>					
<p>Description: <b>3-PHASE SQUIRREL-CAGE MOTOR</b></p>					
<p>Unit: <b>Motors</b></p> <p>Date: <b>21.09.2005</b></p>		<p>Issued by: <b>M Prusi</b></p> <p>Approved by: <b>Jari Raitila</b></p>		<p>Replaces:</p> <p>Replaced by:</p>	
<p><b>ABB Oy</b></p>		<p>Customer Reference:</p>		<p><b>ABB</b></p>	

Diagram of connection  
Anschluss-Schema  
Schema de branchement



Connection of terminals  
Anschluss des Motors  
Branchement des bornes



Direction of rotation with reversed phase sequence  
Drehrichtung umgekehrt Phasefolge  
Direction de rotation avec sequence de phase renversee



Motor No  
Machine Nr  
No du moteur

**ABB Oy, Motors**

**3GZF321100-1 E**

**Connection Diagram**

Description: **3-PHASE SQUIRREL-CAGE MOTOR**



Unit: **Motors**  
Date: **21.09.2005**

Issued by: **M Prusi**  
Approved by: **Jari Raitila**

Replaces:  
Replaced by:

**ABB Oy**

Customer Reference:



<h2 style="margin: 0;">Accessory Connection Diagram</h2>				Document No: <b>3GZF321200-35 B</b>
Description: <b>BIMETAL DETECTORS</b>				
Unit:	Electrical Machines, LV Motors	Issued by:	K. Höglkvist	Replaces:
Date:	16.01.2002	Approved by:	M. Prusi	Replaced by:
<b>ABB Oy</b>		Customer Reference:		

<p style="margin: 0;">                     BIMETAL DETECTORS, TYPE NCC                      1TB1...1TB2 BIMETALL-THERMOSCHALTER, TYP NCC                      SONDES BIMETALLIQUES, TYPE NCC                 </p>	
Motor No Maschine Nr Moteur No	<b>ABB Oy, Electrical Machines</b> <b>LV Motors</b>
<b>3GZF321200-35 B</b>	<b>B</b>

<h2 style="margin: 0;">Accessory Connection Diagram</h2>		Document No: <b>3GZF321200-1 D</b>
Description: PTC-THERMISTORS		
Unit: <b>Motors</b> Date: <b>30.11.2005</b>	Issued by: <b>K. Höglkvist</b> Approved by: <b>M. Prusi</b>	Replaces: Replaced by:
<b>ABB Oy</b>	Customer Reference:	

Motor No Maschine Nr Moteur No	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; text-align: center;"> </td> <td style="width: 20%; text-align: center;"> <b>1TP1</b> </td> <td style="width: 20%; text-align: center;"> <b>1TP2</b> </td> <td style="width: 40%; text-align: center;"> </td> </tr> </table>		<b>1TP1</b>	<b>1TP2</b>	
	<b>1TP1</b>	<b>1TP2</b>			
<b>ABB Oy, Motors</b>	<b>3GZF321200-1 D</b>				

PTC-THERMISTORS  
 PTC-TEMPERATURFÜHLER  
 SONDES THERMIQUE PTC

Note: Measuring voltage } max. 2,5 V/  
 Achtung: Meßspannung } 1 thermistor  
 Notez: Tension de meas. }

<p>Additional Information:</p>		<p>Motor Type: M3BN 587ML_4.. B3, B6, B7, B8, V5, V6</p>		<p>Document No: 3GZF500098-174 A 14 BN 587 A</p>	
		<p>Dimension Print</p>			
<p>Description: SQUIRREL CAGE MOTOR, CABLE ENTRY LHS, SPECIAL SHAFT, SLOTTED FEET HOLES. DIMENSIONS IN INCHES, MOTOR SIZES 586/587.</p>					
Unit:	ABB Oy, Motors and Generators	Issued by:	N. Palokangas	Replaces:	
Date:	21.11.2019	Approved by:	S. Tikkanen	Replaced by:	
<p>Customer Reference:</p>		<p>ABB Oy</p>			

