

**BALDOR® • RELIANCE®**

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# Customer information packet

## ECR586004-PPN

M3BN 587MLA 4P 600HP

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

Department/author MLA000/TISA	Date of issue 3.4.2020	Lang EN	Rev. date Rev. date	Our ref. 20200402-2844964-TISA1
Customer ref. MLA000/TISA	Saving Ident 20200402-2844964-TISA1		Rev./Changed by A	Pages 1/3

**Driven Motor:**

Motor type code	M3BN 587 MLA 4K			
Motor product code	3GBN982410-ADK			
Motor type	Squirrel cage Motor			
Mounting designation	IM 1001			
Protected by enclosure	TEFC			
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	600 HP			
Voltage	460 V			
Frequency	60 Hz			
Speed	1789 r/min			
Current	679 Amps			
Locked rotor Amps	740 %			
Locked rotor torque	240 %			
Breakdown torque	260 %			
No load current	204 Amps			
Rated torque	1763 lb-ft.			
Load characteristics				
	Load %	Current Amps	Efficiency %	Power Factor
	100	679	96.2	0.86
	75	530	95.8	0.83
	50	383	95.3	0.77

Typical calculated values to NEMA. –

Motors & Generators Visiting Address  
Strömbergin puistoite 5 A  
VAASA  
FINLAND**ABB Oy**Postal Address  
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**ABB Oy**  
**Motors & Generators**

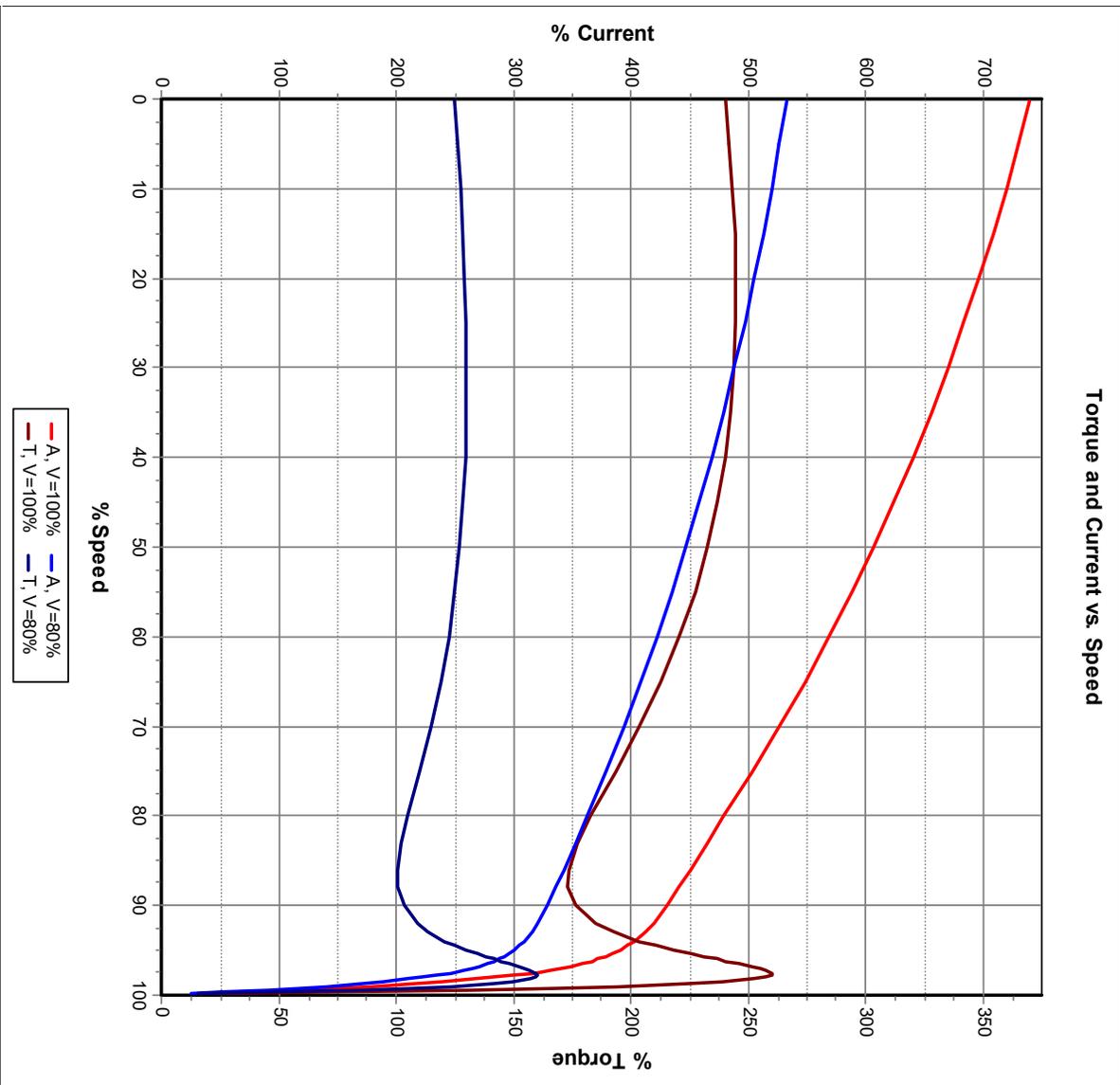
**PERFORMANCE DATA OF MOTOR**



Department/Author	Date of Issue	Lang	Rev. date	Our ref.
MLA000/TISA	3.4.2020	EN		20200402-2844964-TISA1
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				2/3

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**Torque and Current vs. Speed**



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

**Drive1**

Rated power	150 HP
Rated voltage	118 V
Nominal frequency	15,4 Hz
Type of connection	Delta
Rated torque	1752 lb-ft
Speed	450 rpm
Current	675 Amps

**Drive2**

Rated power	600 HP
Rated voltage	460 V
Nominal frequency	60,4 Hz
Type of connection	Delta
Rated torque	1752 lb-ft
Speed	1800 rpm
Current	735 Amps

Constant torque 450 – 1800rpm

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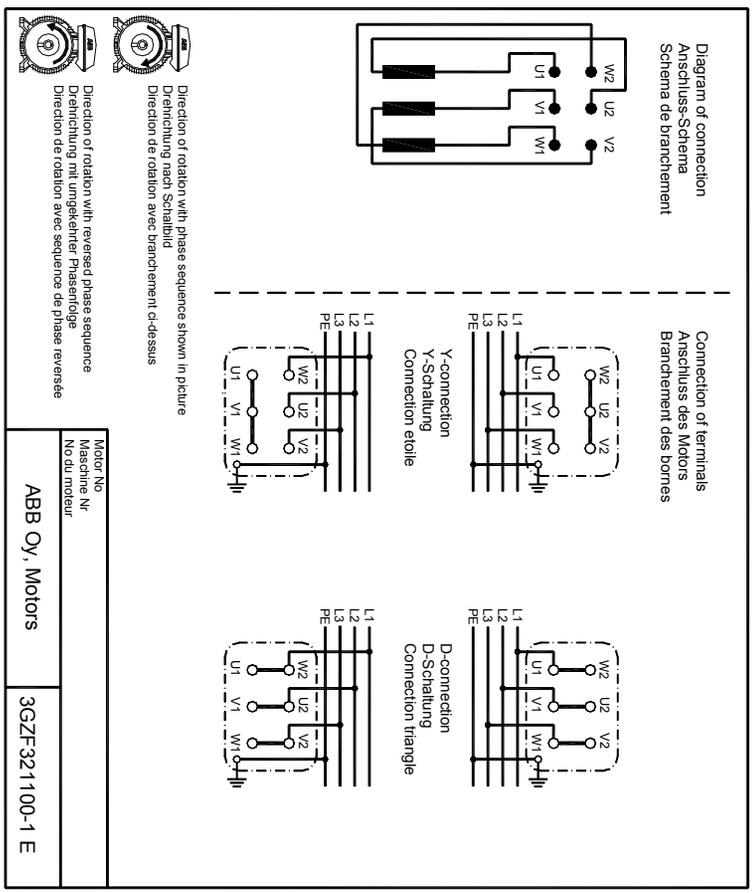
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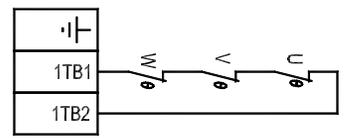
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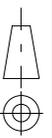
<p><b>Connection Diagram</b></p>		<p>Document No: 3GZF321100-1 E</p>	
		<p>Description: 3-PHASE SQUIRREL-CAGE MOTOR</p>	
<p>Unit: Motors</p>	<p>Issued by: M Prusi</p>	<p>Replaces:</p>	
<p>Date: 21.09.2005</p>	<p>Approved by: Jari Raitila</p>	<p>Replaced by:</p>	
<p>ABB Oy</p>		<p>Customer Reference: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



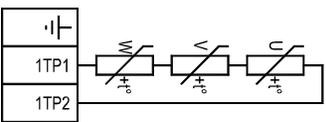
<h2 style="margin: 0;">Accessory Connection Diagram</h2>				Document No: <b>3GZF321200-35 B</b>
Description: <b>BIMETAL DETECTORS</b>				
Unit:	Electrical Machines, LV Motors	Issued by:	K. Höglkvist	Replaces:
Date:	16.01.2002	Approved by:	M. Prusi	Replaced by:
<b>ABB Oy</b>		Customer Reference:		

<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>3GZF321200-35 B</b>

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

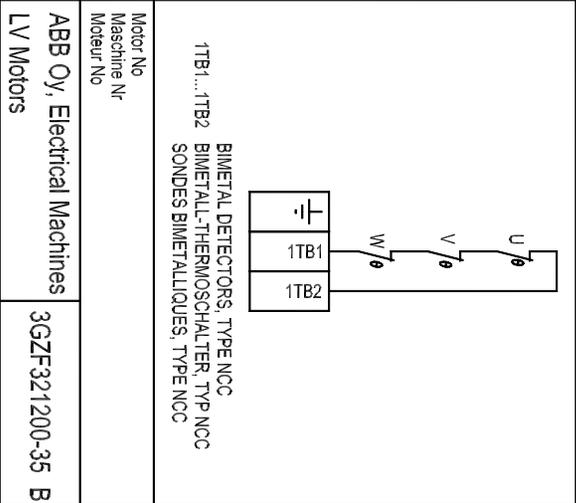
<p>Motor No Maschine Nr Moteur No</p>	<p>ABB Oy, Motors</p>	<p>3GZF321200-1 D</p>	<p>PTC-THERMISTORS PTC-TEMPERATURFÜHLER SONDES THERMIQUE PTC</p>  <p>Note: Measuring voltage } max. 2,5 V/ Achtung: Meßspannung } 1 thermistor Notez: Tension de meas. }</p>
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<h2 style="margin: 0;">Connection Diagram</h2>		Document No: <b>3GZF321100-1 E</b>
Description: <b>3-PHASE SQUIRREL-CAGE MOTOR</b>		
Unit:	Motors	
Date:	21.09.2005	
Issued by:		M Pusi
Approved by:		Jari Raitila
Replaces:		
Replaced by:		
Customer Reference:		

<p>Diagram of connection Anschluss-Schema Schéma de branchement</p>	<p>Connection of terminals Anschluss des Motors Branchement des bornes</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Y-connection Y-Schaltung Connection étoile</p> </div> <div style="text-align: center;"> <p>D-connection D-Schaltung Connection triangle</p> </div> </div>	<p>Direction of rotation with phase sequence shown in picture Drehrichtung nach Schaltbild Direction de rotation avec branchement ci-dessus</p> <p>Direction of rotation with reversed phase sequence Drehrichtung mit umgekehrter Phasenfolge Direction de rotation avec séquence de phase inversée</p>				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Motor No Maschine Nr No du moteur</td> <td style="width: 50%; text-align: center;">ABB Oy, Motors</td> </tr> <tr> <td colspan="2" style="text-align: center;">3GZF321100-1 E</td> </tr> </table>		Motor No Maschine Nr No du moteur	ABB Oy, Motors	3GZF321100-1 E		
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3GZF321100-1 E						



### Accessory Connection Diagram

Document No:  
 3GZF321200-35 B

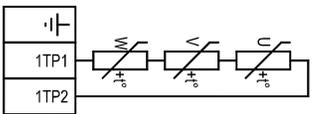
Description: BIMETAL DETECTORS



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<b>ABB Oy</b>	Customer Reference:	<b>ABB</b>

Motor No Maschine Nr Moteur No <b>ABB Oy, Motors</b>	<div style="text-align: center;">  </div> <p style="font-size: small; margin-top: 5px;">                     PTC-THERMISTORS                      PTC-TEMPERATURDÜHLER                      SONDES THERMIQUE PTC                 </p> <p style="font-size: small; margin-top: 5px;">                     Note: Measuring voltage } max. 2,5 V/                      Achtung: Meßspannung } 1 thermistor                      Notez: Tension de meas. }                 </p>
<b>3GZF321200-1 D</b>	

