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# Customer information packet

## ECR585004-PPN

M3BN 587MLA 4P 500HP

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

Department/Author MLA000/TISA	Date of Issue 11.10.2018	Lang. En	Rev. date	Our ref. 3GZFE021035-1238	Rev./Changed by A	Pages 1/3
Customer ref.	Saving Ident TMAA-ASUG9J-TISA32					

**Driven Motor:**

Catalog Number	<b>ECR585004-PPN</b>				
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. -

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**PERFORMANCE DATA OF MOTOR**

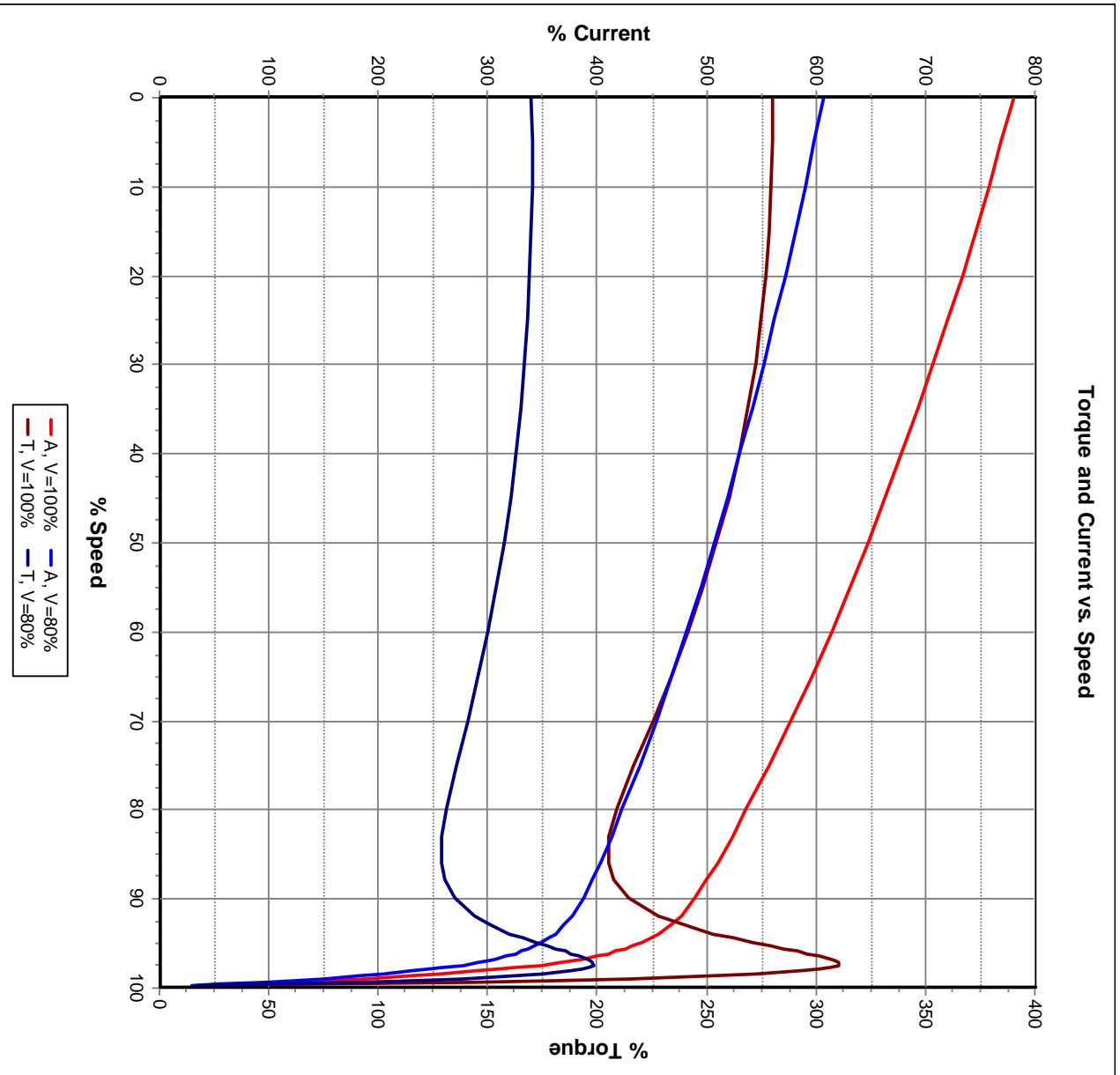


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Motor type code: M3BN 587 MLA 4K

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 %

**Torque and Current vs. Speed**




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

<b>Drive1</b>	
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

<b>Drive2</b>	
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

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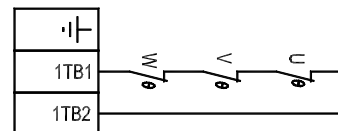
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<h2 style="margin: 0;">Accessory Connection Diagram</h2>				Document No: <b>3GZF321200-35 B</b>
Description: <b>BIMETAL DETECTORS</b>				
Unit:	Electrical Machines, LV Motors	Issued by:	K. Höglkvist	Replaces:
Date:	16.01.2002	Approved by:	M. Prusi	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: <b>PTC-THERMISTORS</b>		
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	<b>ABB Oy, Motors</b>
3GZF321200-1 D	<div style="text-align: center;"> <p style="font-size: small; margin-top: 5px;">                     PTC-THERMISTORS                      PTC-TEMPERATURFÜHLER                      SONDES THERMIQUE PTC                 </p> <p style="font-size: x-small; margin-top: 5px;">                     Note: Measuring voltage } max. 2,5 V/                      Achtung: Meßspannung } 1 thermistor                      Notez: Tension de meas. }                 </p> </div>

<p><b>Dimension Print</b></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>Description: SQUIRREL CAGE MOTOR, CABLE ENTRY LHS, SPECIAL SHAFT, SLOTTED FEET HOLES. DIMENSIONS IN INCHES, MOTOR SIZES 586/587.</p>			
<p>Unit: ABB Oy, Motors and Generators</p>	<p>Date: 21.11.2019</p>	<p>Issued by: N.Palokangas</p> <p>Approved by: S.Tikkanen</p>	<p>Replaces: Replaced by:</p>
<p>ABB Oy</p>		<p>Customer Reference:</p>	
<p>ABB</p>		<p>ABB</p>	

Additional Information:

