



Customer information packet

ECR586004-PPN

M3BN 587MLA 4P 600HP

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

Department/author	Date of issue	Lang	Rev. date	Our ref.	Rev./Changed by	Pages
MLA000/TISA	3.4.2020	EN		20200402-2844964-TISA1		
Customer ref.	Saving Ident			20200402-2844964-TISA1	A	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	<table><tr><th>Load %</th><th>Current Amps</th><th>Efficiency %</th><th>Power Factor</th></tr><tr><td>100</td><td>679</td><td>96.2</td><td>0.86</td></tr><tr><td>75</td><td>530</td><td>95.8</td><td>0.83</td></tr><tr><td>50</td><td>383</td><td>95.3</td><td>0.77</td></tr></table>	Load %	Current Amps	Efficiency %	Power Factor	100	679	96.2	0.86	75	530	95.8	0.83	50	383	95.3	0.77
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

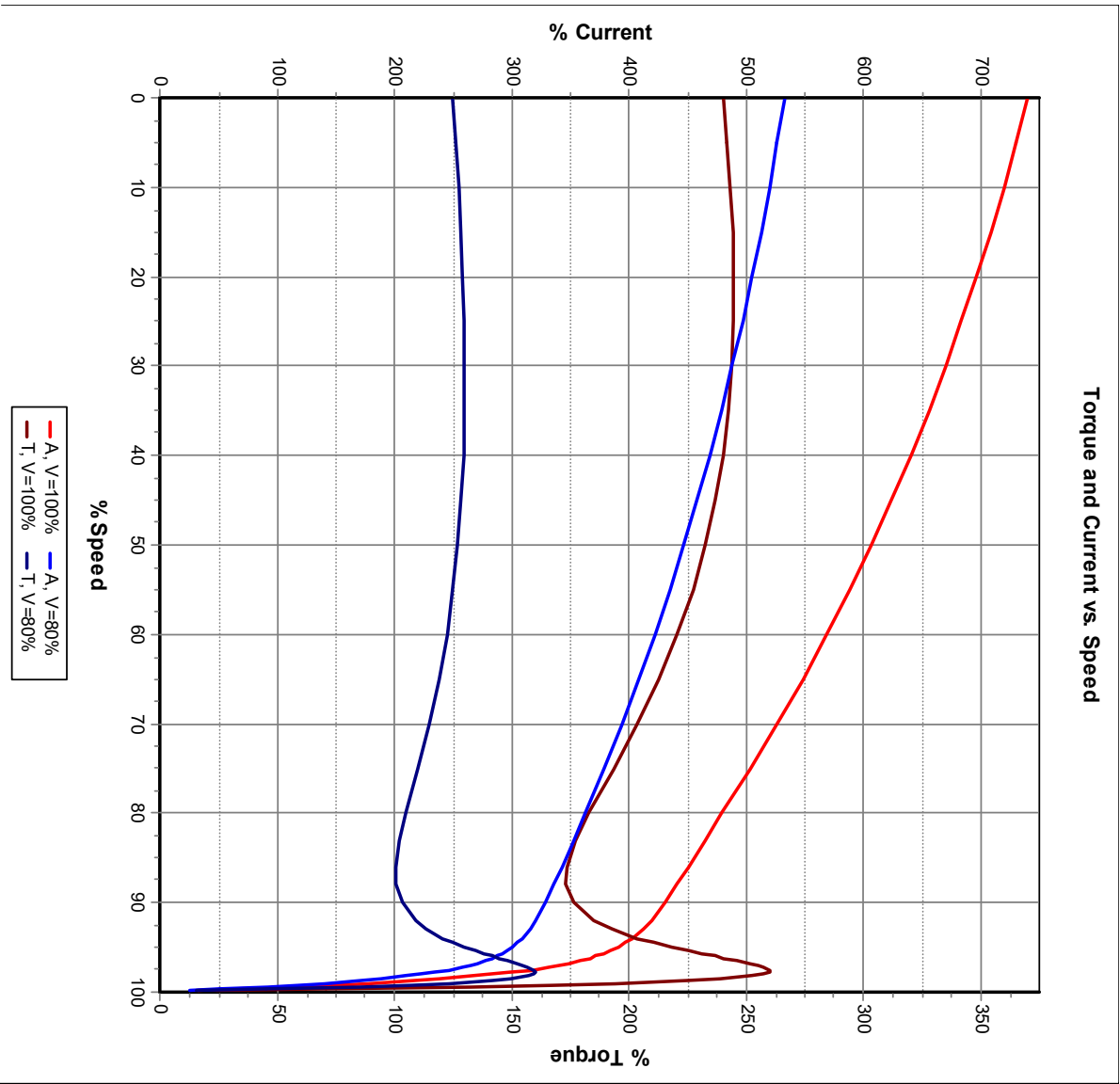
Strömbergin puistotie 5 A
VAASA
FINLAND**ABB Oy**Postal Address
P.O.Box 633
FI-65101 VAASA
FINLANDTelephone
+358 10 222 000Telefax
+358 10 224 7372



Motor type code: M3BN 587 MLA 4K

Rated output	600 HP	Power Factor	0,86
Voltage	460 V	Rated torque	1763 lb-ft
Frequency	60 Hz	Locked rotor Amps	740 %
Speed	1789 r/min	Locked rotor torque	240 %
Current	679 Amps	Breakdown torque	260 %

Torque and Current vs. Speed



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Classifying code or document type			PERFORMANCE DATA OF MOTOR				
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MLA000/TISA		3.4.2020		EN		20200402-2844964-TISA1	
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		20200402-2844964-TISA1		A		3/3	

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

ABB Oy

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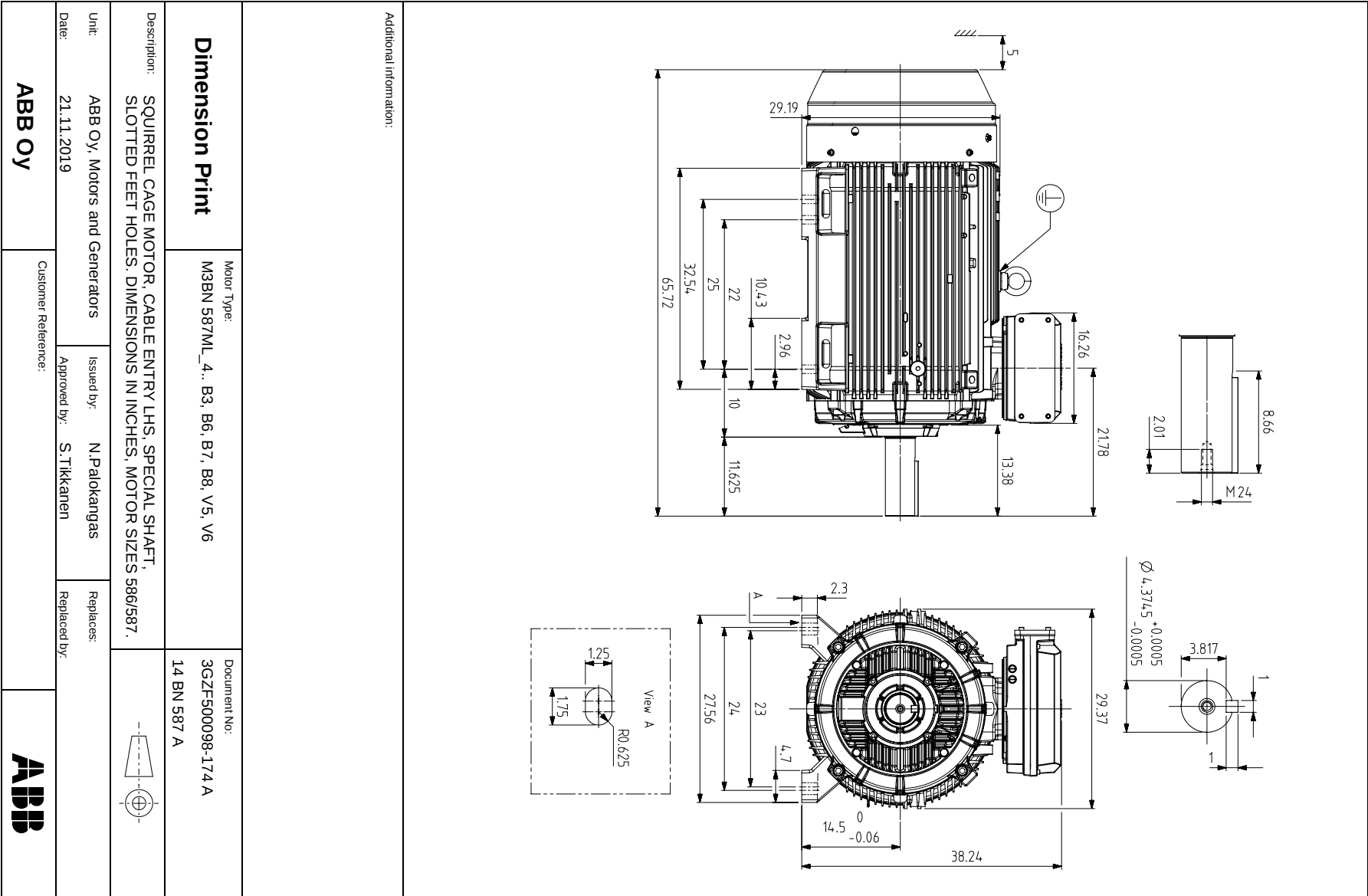


Document No:
3GZF321100-1 E

Replaced by:

Replaced by:

				Motor No Maschine Nr Moteur No ABB Oy, Motors 3GZF321200-1 D	
				PTC-THERMISTORS PTC-TEMPERATURFÜHLER SONDES THERMIQUE PTC 1TP1 1TP2 U V W Note: Measuring voltage Achtung: Meßspannung Notez: Tension de meas. max. 2,5 V/ 1 thermistor	
Accessory Connection Diagram				Document No: 3GZF321200-1 D	
Description: PTC-THERMISTORS					
Unit: Motors	Issued by: K. Höglkvist		Replaces:		
Date: 30.11.2005	Approved by: M. Prusi		Replaced by:		
ABB Oy		Customer Reference:			



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 Raitila	Replaced by:	
Customer Reference:		ABB Oy	

Diagram of connection
Anschluss-Schema
Schema de branchement

Connection of terminals
Anschluss des Motors
Branchement des bornes

Y-connection
Y-Schaltung
Connection étoile

D-connection
D-Schaltung
Connection triangle

Direction of rotation with reversed phase sequence
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 séquence de phase inversée

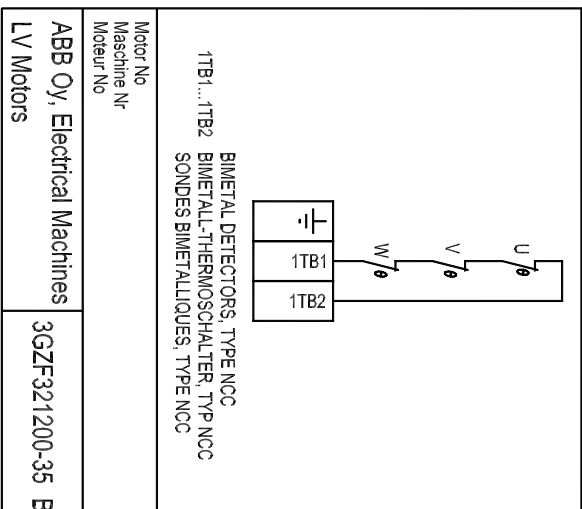
Motor No
Machine Nr
No du moteur

ABB Oy, Motors

3GZF321100-1 E

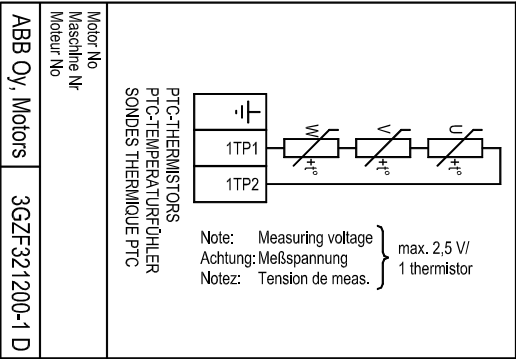
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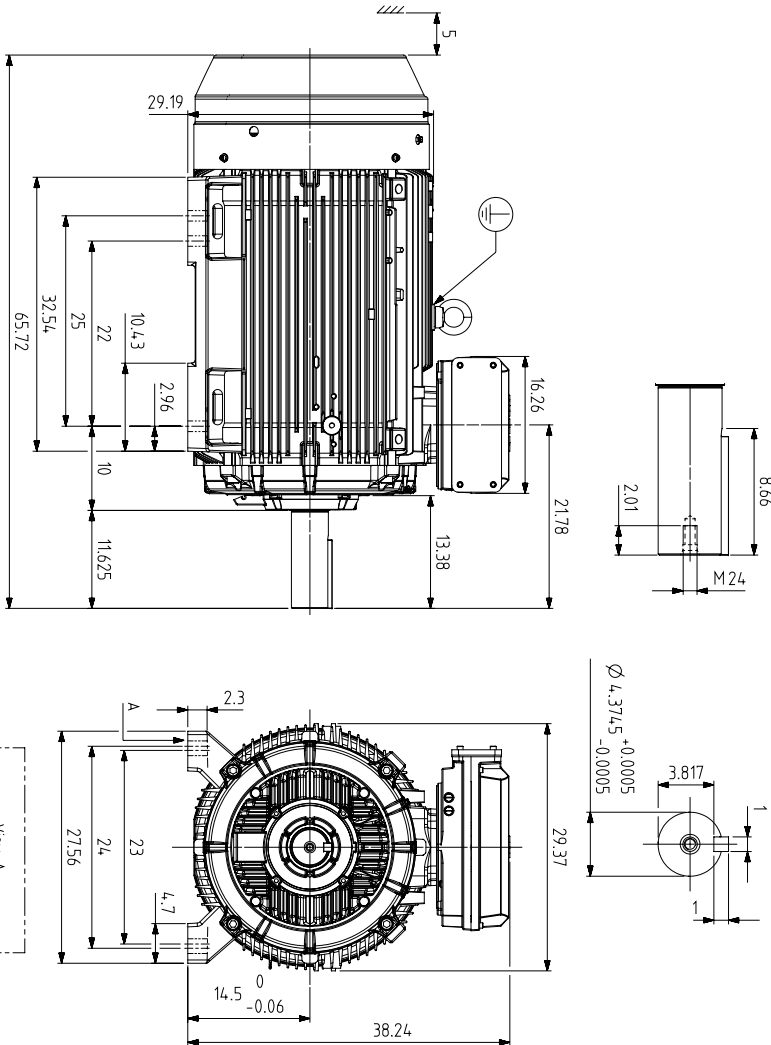
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Accessory Connection Diagram				Document No: 3GZF321200-35 B
Description: BIMETAL DETECTORS				
Unit: Electrical Machines, LV Motors	Issued by: K. Höglkvist	Replaces: Replaced by:		
Date: 16.01.2002	Approved by: M. Prusi			
ABB Oy		Customer Reference:		

Accessory Connection Diagram			Document No: 3GZF321200-1 D
Description: PTC-THERMISTORS			
Unit: Motors	Issued by: K. Hogkvist	Replaces: Replaced by:	
Date: 30.11.2005	Approved by: M. Piusi	Replaced by:	
Customer Reference: ABB Oy		ABB	





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:	
Customer Reference: ABB Oy		ABB	