ABB BALDOR RELIANCE

Customer information packet

ECR584506-PPN

M3BN 587MLB 6P 450HP

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Driven Motor:

Catalog Number		**ECR584506-PPN**		
Motor type code		M3BN 587 MLB 6G		
Motor product code		3GBN983420-ADGBA02		
Motor type		Squirrel cage Motor		
Mounting designation		IM1001 (B3)		
Protected by enclosure		IP66		
Method of cooling		TEFC		
Insulation		Class F (Shock Resistant)		
Service factor		SF1.15 TEMP RISE CLASS F		
Standards		NEMA		
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		450 HP		
Voltage		460 V		
Frequency		60 Hz		
Speed		1193 r/min		
Current		530 Amps		
Locked rotor Amps		770 %	Code K	
Locked rotor torque		260 %		
Breakdown torque		280 %		
No load current		200 Amps		
Rated torque		1983 lb-ft		
Load characteristics	Load %	Current Amps	Efficiency %	Power Factor
	100	530	95.0	0.83
	75	421	94.9	0.79
	50	320	94.0	0.70

Typical calculated values to NEMA. -

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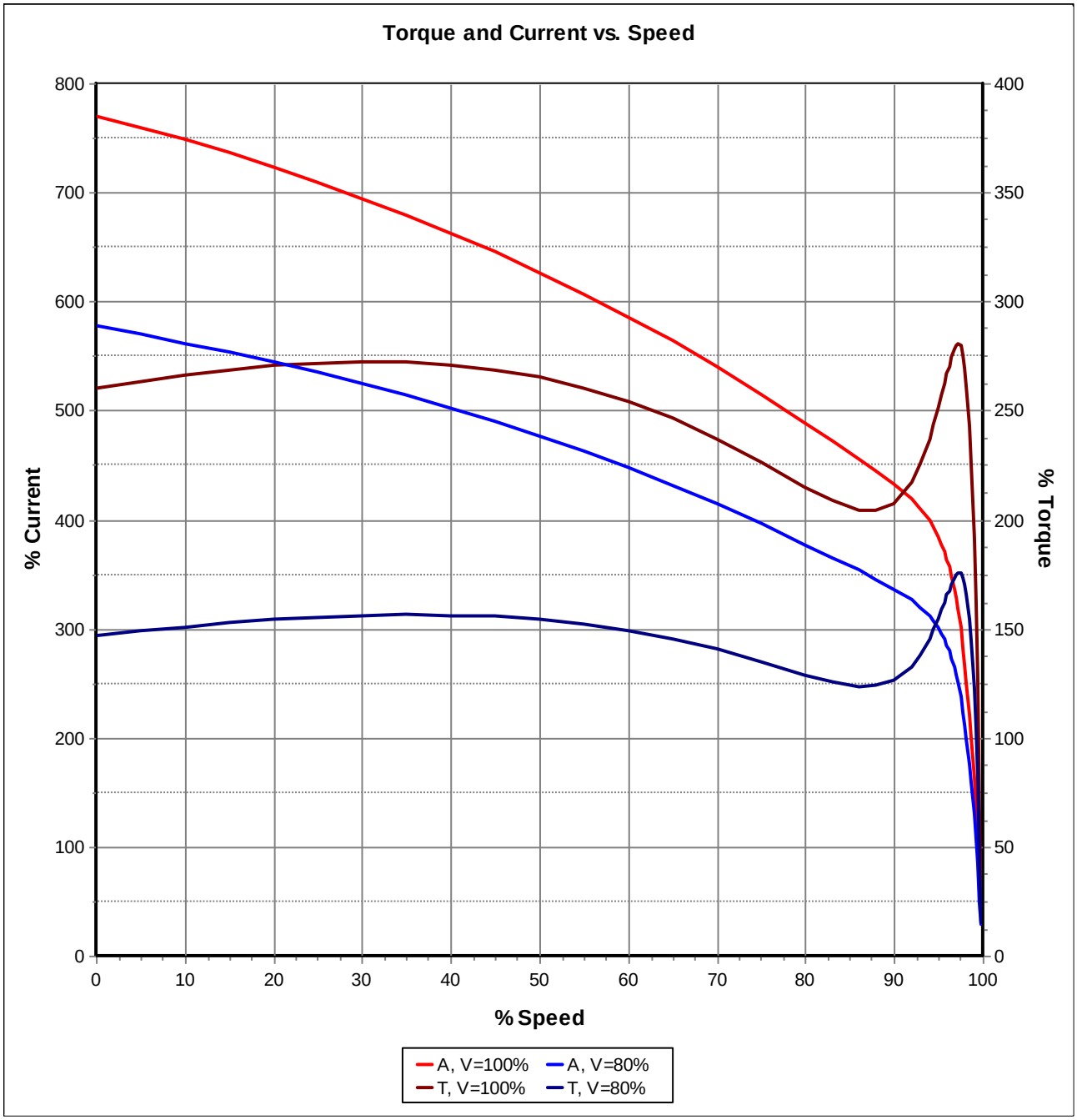
Motor type code: M3BN 587 MLB 6G

Rated output	450 HP	Power Factor	0.83
Voltage	460 V	Rated torque	1983 lb-ft
Frequency	60 Hz	Locked rotor Amps	770 %
Speed	1193 r/min	Locked rotor torque	260 %
Current	530 Amps	Breakdown torque	280 %



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

Drive1

Rated power	112,5 HP
Rated voltage	118 V
Nominal frequency	15,4 Hz
Type of connection	Delta
Rated torque	1971 lb-ft
Speed	300 rpm
Current	533 Amps

Drive2

Rated power	450 HP
Rated voltage	460 V
Nominal frequency	60,5 Hz
Type of connection	Delta
Rated torque	1971 lb-ft
Speed	1200 rpm
Current	585 Amps

Constant torque 300 – 1200rpm

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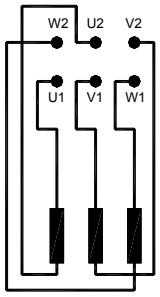
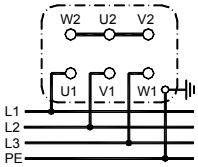
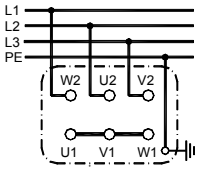
Diagram of connection
Anschluss-Schema
Schema de branchement

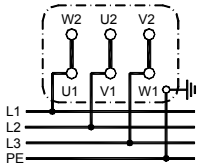


Connection of terminals
Anschluss des Motors
Branchement des bornes

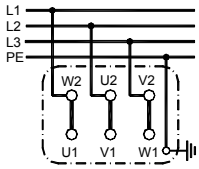


Y-connection
Y-Schaltung
Connection etoile





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

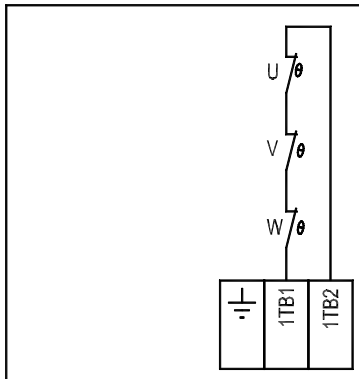
Direction of rotation with reversed phase sequence
Drehrichtung mit umgekehrter Phasenfolge
Direction de rotation avec sequence de phase reversée

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:	ABB



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

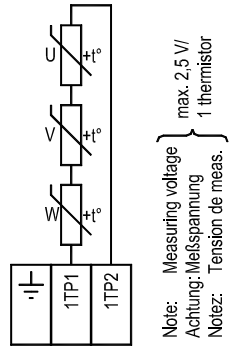
Accessory Connection Diagram

Document No: 3GZF321200-35 B

Description: BIMETAL DETECTORS

Unit:	Electrical Machines, LV Motors	Issued by:	K.Högkvist	Replaces:
Date:	16.01.2002	Approved by:	M.Prusi	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

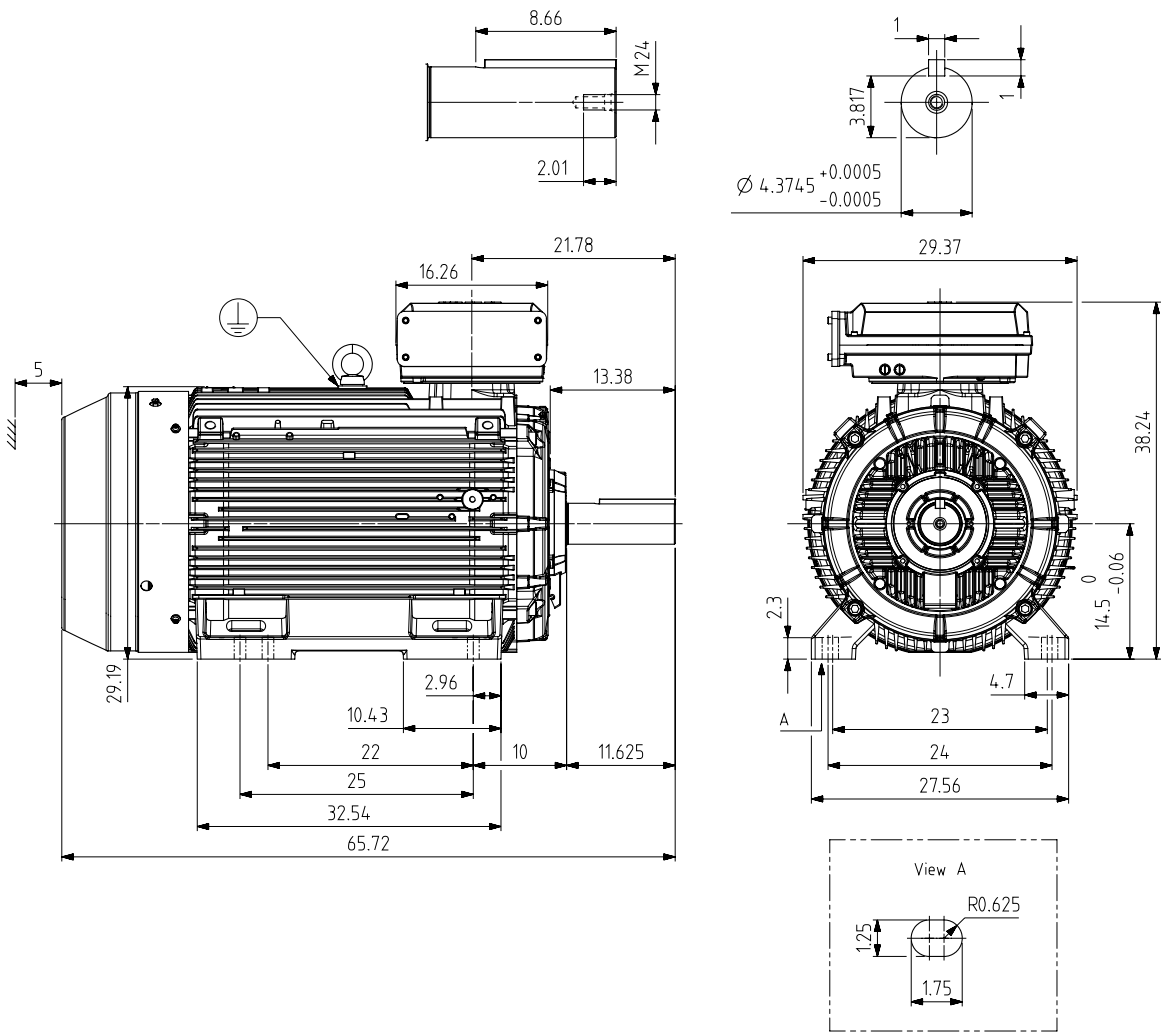
Accessory Connection Diagram

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:	ABB