

# ABB BALDOR RELIANCE III

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## Customer information packet

ECS101T3K2P2EC4

2.2KW, 1500RPM, 3PH, 50HZ, D112C, 3624B, TEFC

Class - None

Division - Not Applicable

**Specifications**

<b>Enclosure</b>	TEFC
<b>Frame</b>	D112C
<b>Frame Material</b>	Steel
<b>Frequency</b>	50.00 Hz
<b>Haz Area Class and Group</b>	None
<b>Haz Area Division</b>	Not Applicable
<b>Motor Letter Type</b>	Brushless Wound Field PM Rotor
<b>Output @ Frequency</b>	2.200 KW @ 50 HZ
<b>Phase</b>	3
<b>Synchronous Speed @ Frequency</b>	1500 RPM @ 50 HZ
<b>Voltage @ Frequency</b>	380.0 V @ 50 HZ
<b>Agency Approvals</b>	BLUETOOTH CE CULUS WEEE
<b>Ambient Temperature</b>	40 °C
<b>Auxiliary Box</b>	NO AUXILLARY BOX
<b>Auxiliary Box Lead Termination</b>	None
<b>Base Indicator</b>	No Mounting
<b>Bearing Grease Type</b>	Polyrex EM (-20F +300F)
<b>Blower</b>	None
<b>Constant Torque Speed Range</b>	5
<b>Current @ Voltage</b>	4.400 A @ 380.0 V
<b>Drip Cover</b>	No Drip Cover
<b>Duty Rating</b>	CONT
<b>Efficiency @ 100% Load</b>	91.4 %
<b>Electrically Isolated Bearing</b>	Not Electrically Isolated
<b>Feedback Device</b>	NO FEEDBACK
<b>Frame Prefix</b>	D
<b>Heater Indicator</b>	No Heater
<b>High Voltage Full Load Amps</b>	4.4 a
<b>Insulation Class</b>	F

**Part Detail**

<b>Revision</b>	E
<b>Type</b>	AC
<b>Mech. spec.</b>	
<b>Base</b>	
<b>Status</b>	PRD/A
<b>Elec. spec.</b>	36WGA0025
<b>Layout</b>	36LY-000-291
<b>Eff. date</b>	05-08-2024
<b>CD Diagram</b>	CD0006B03
<b>Poles</b>	04
<b>Leads</b>	3#16
<b>Proprietary</b>	False
<b>Created date</b>	05-24-2022

<b>Inverter Code</b>	Inverter Duty
<b>Lifting Lugs</b>	Standard Lifting Lugs
<b>Locked Bearing Indicator</b>	No Locked Bearing
<b>Motor Lead Termination</b>	Flying Leads
<b>Motor Standards</b>	IEC
<b>Motor Type</b>	3624B
<b>Mounting Arrangement</b>	B14
<b>Number of Poles</b>	4
<b>Overall Length</b>	16.05 IN
<b>Power Factor</b>	96
<b>Product Family</b>	General Purpose
<b>Pulley Face Code</b>	C-Face
<b>Rodent Screen</b>	None
<b>Service Factor</b>	1.00
<b>Shaft Diameter</b>	1.103 IN
<b>Shaft Ground Indicator</b>	Shaft Grounding
<b>Shaft Rotation</b>	Reversible
<b>Speed</b>	1500 rpm
<b>Speed Code</b>	Single Speed
<b>Starting Method</b>	Direct on line
<b>Thermal Device - Bearing</b>	None
<b>Thermal Device - Winding</b>	None
<b>Vibration Sensor Indicator</b>	No Vibration Sensor
<b>Winding Thermal 1</b>	None
<b>Winding Thermal 2</b>	None

**Nameplate**

<b>NP3978A01</b>					
<b>PART NO.</b>	ECIN4A5P8				
<b>U1</b>	400	<b>PH</b>	3	<b>HZ</b>	50
<b>I1</b>	5.2	<b>W/EXT. CHOKE</b>			4.3
<b>SERIAL #</b>					

**NP3968B01A01**

<b>CAT.NO.</b>	ECS101T3K2P2EC4										
<b>SPEC.</b>	36-0000-3628					<b>YR</b>					
<b>FRAME</b>	D112C		<b>IP</b>	55		<b>WT.</b>	39				
<b>KW</b>	2.2		<b>HZ</b>	50		<b>PH</b>	3		<b>DUTY-IPM</b>	CONT	
<b>INS CL</b>	F		<b>CLASS RISE</b>			B		<b>AMB-C</b>	40		
<b>EFF. CL</b>	IE5		<b>EFF</b>	91.4		<b>COS0</b>	96				
<b>VOLTS</b>	380			<b>FLA</b>	4.4						
<b>1/MIN</b>	1500				<b>1/MIN MAX</b>	3000					
<b>BEMF (V)</b>	212				<b>RS (OHMS)</b>	3.88					
<b>LD (MH)</b>	57.7				<b>LQ (MH)</b>	217.7					
<b>VPWM</b>	<b>CP =</b>		50		<b>TO</b>	100					
<b>CT</b>	5		<b>TO</b>	50		<b>VT</b>	1		<b>TO</b>	10	
<b>MATCHED INV</b>	ECIN4A5P8										
<b>DE</b>	6206		<b>ODE</b>	6205							
<b>SERIAL #</b>											

Volts	380	Max RPM	3000	Conn Diag.	CD0006B03	Leads	3
Amps	4.4	Max Amps		Cs Diagram	CS1126	BEMF	172
KW	2.2	VFD#	ECIN4A5P8			LD	51
RPM	1500	S.F.	1.00			LQ	177
Phase/Hz	3/50	Rating	40C AMB CONT			Rs	3.8250 Meas. L-L

**60034-2-3 Motor Performance at Standardized Operating Points**

	RPM	% Speed	LB-FT	% Torque	KW	Efficiency	Loss (% FL)	Watts Loss (W)
P1	1348	90%	10.3	100%	2.7	90.2	9.85%	217
P2	750	50%	10.3	100%	1.5	87.3	7.27%	160
P3	366	25%	10.3	100%	0.7	79.7	6.21%	137
P4	1350	90%	5.2	50%	1.3	92.2	3.83%	84
P5	750	50%	5.2	50%	0.7	89.6	2.91%	64
P6	750	50%	2.6	25%	0.4	89.4	1.48%	33
P7	366	25%	2.6	25%	0.2	84.8	1.09%	24

**61800-9-2 PDS Performance at Reference Operating Points**

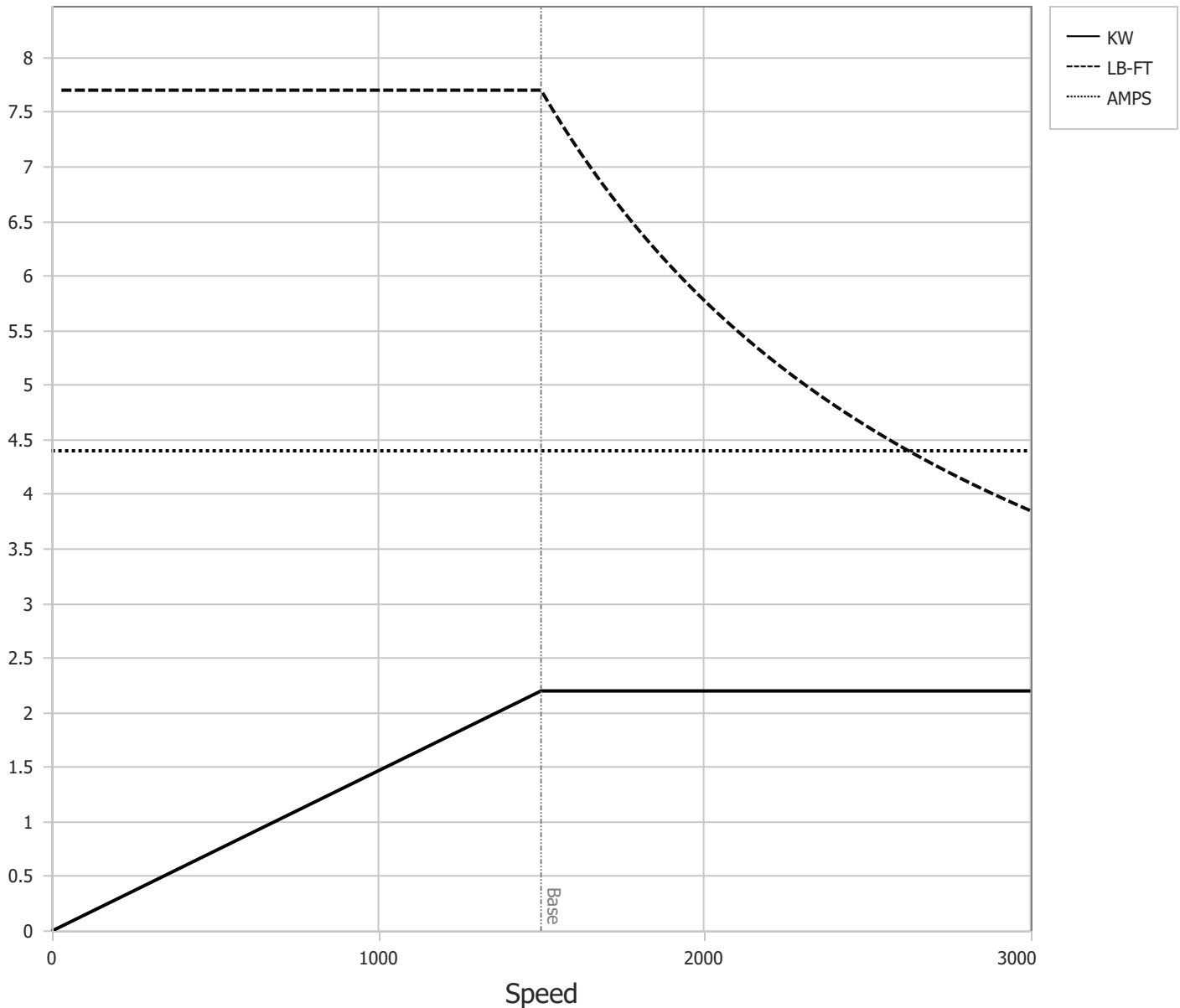
	RPM	% Speed	LB-FT	% Torque	KW	System Efficiency	Loss (% FL)	Watts Loss (W)
P1	1498	100%	10.3	100%	2.9	89.8	11.29%	248
P2	750	50%	10.3	100%	1.5	84.1	9.44%	208
P3	246	17%	10.3	100%	0.5	67.2	8.00%	176
P4	1500	100%	5.2	50%	1.5	90.2	5.41%	119
P5	750	50%	5.2	50%	0.7	85.5	4.24%	93
P6	246	17%	5.2	50%	0.2	69.9	3.53%	78
P7	750	50%	2.6	25%	0.4	83.9	2.40%	53
P8	246	17%	2.6	25%	0.1	68.2	1.91%	42

Points not taken in certified order.

<b>BALDOR • RELIANCE</b>	DR By:	<u>R &amp; D</u>	<b>AC MOTOR PERFORMANCE CURVES</b>	<b>36WGA0025</b> 36-0000-3655 Test - 111775
	CK By:	<u>USBIBAK</u>		
	APP By:	<u>USJAROB1</u>		
	Date:	<u>01/07/2025</u>		

Volts	380	Max RPM	3000	Conn Diag.	CD0006B03	Leads	3
Amps	4.4	Max Amps		Cs Diagram	CS1126	BEMF	172
KW	2.2	VFD #	ECIN4A5P8			LD	51
RPM	1500	S.F.	1.00			LQ	177
Phase/Hz	3/50	Rating	40C AMB CONT			Rs	3.8250 Meas L-L

Constant Duty Operating Range

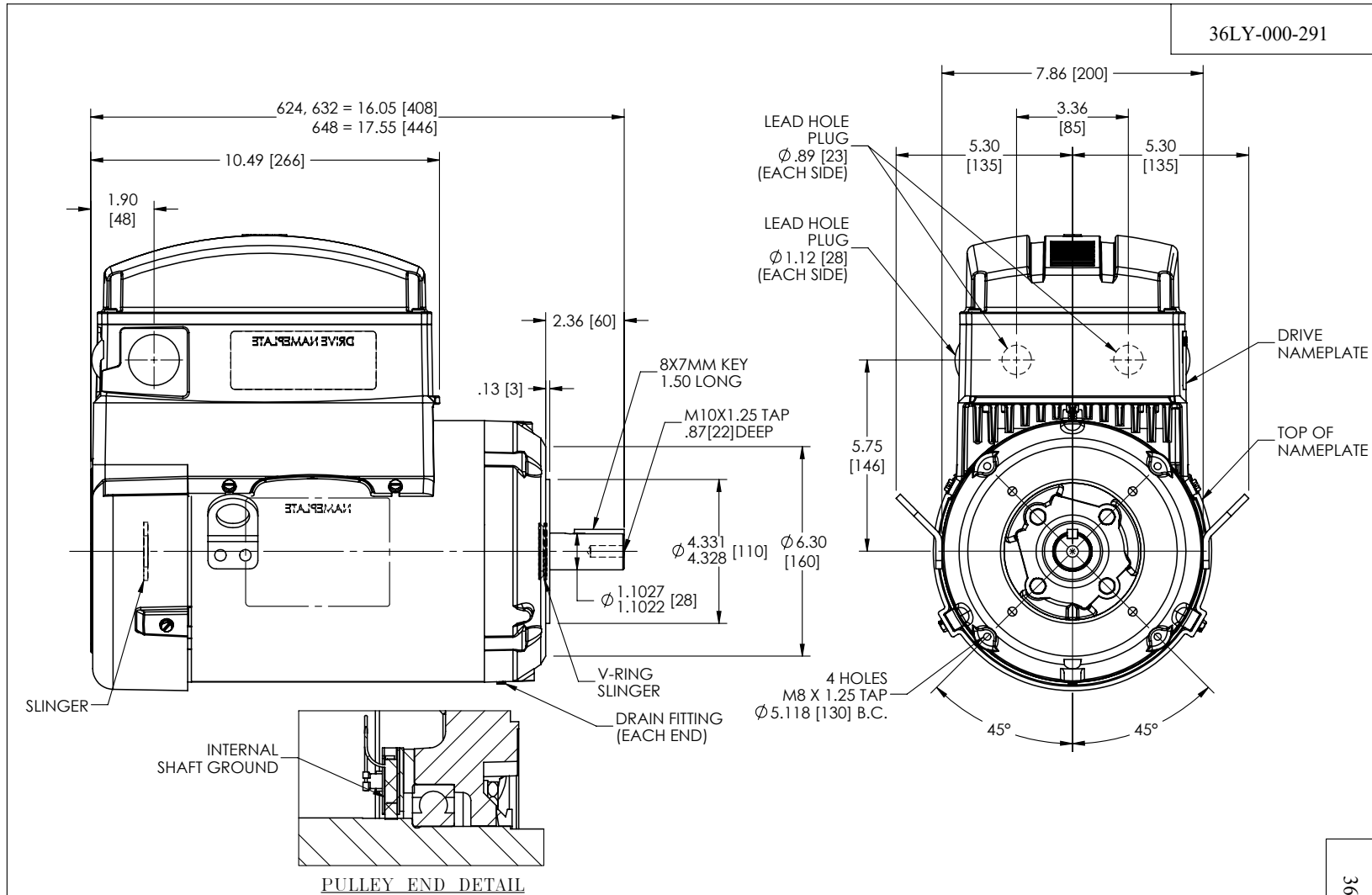


**BALDOR • RELIANCE**

DR By: R & D  
 CK By: USBIBAK  
 APP By: USJAROB1  
 Date: 01/07/2025

**AC MOTOR  
PERFORMANCE  
CURVES**

**36WGA0025**  
 36-0000-3655  
 Test - 111775



NOTE: ALTERNATE METRIC UNITS IN BRACKETS [mm]

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION

REV. DESC: NEW

REV: -    VERSION: 00    REVISED: 02:45:59 06/13/2022    TDR: 000001190317

167-000-λ79ε

MODEL NO. 36LY-000-291

REF: -

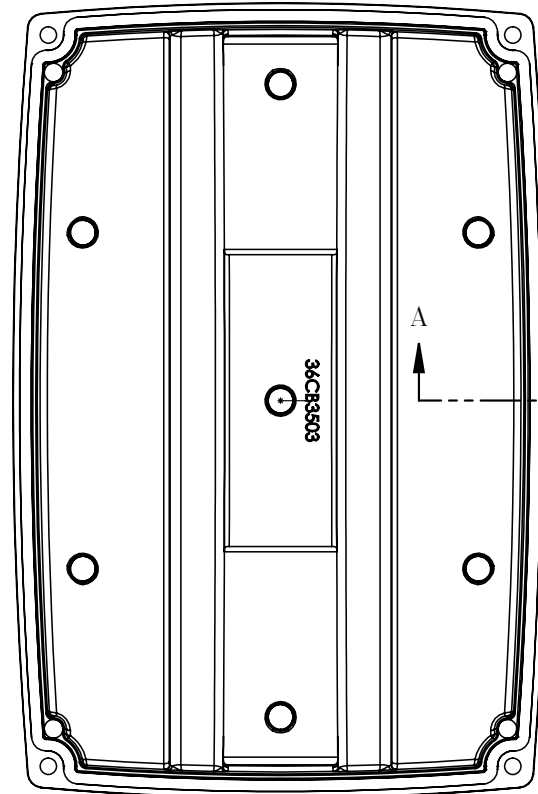
BY: USGRHUR

**BALDOR - RELIANCE®**

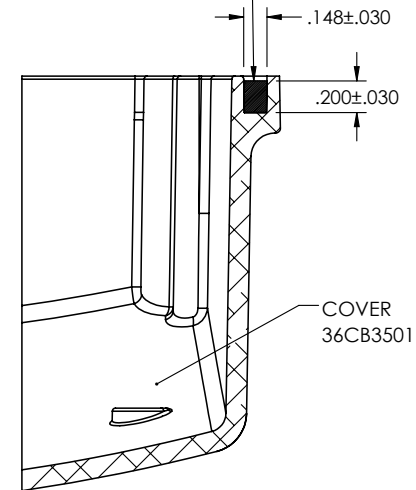
VER D112C B14 TEFC B INT SH GND ECS

36LY-000-291

36CB3503A00



MATERIAL: RAMPF, RAKU-PUR 32-3280-51L



SECTION A-A

36CB3503A00

REV. DESC: NEW

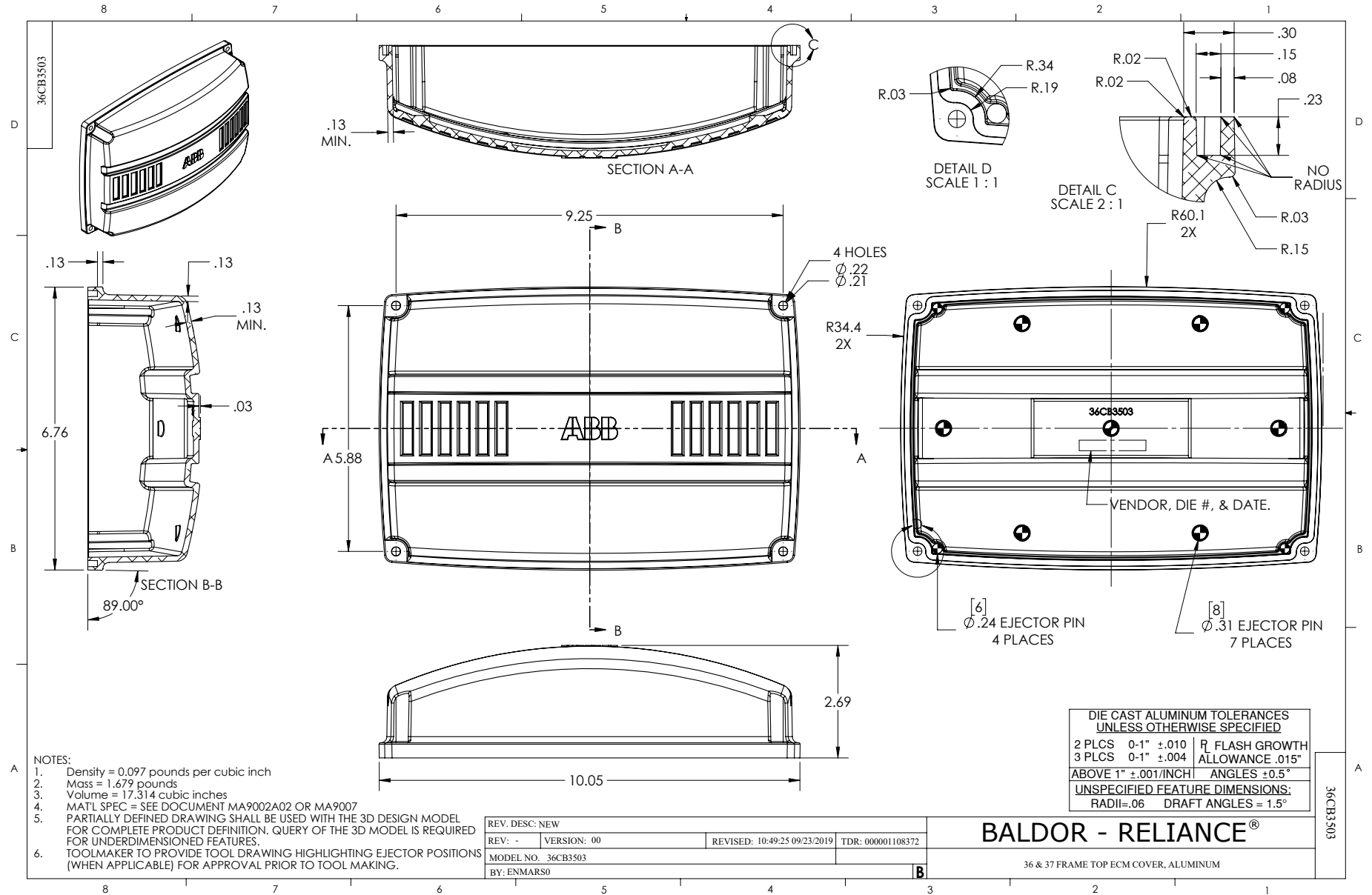
REV: -	VERSION: 00	REVISED: 09:13:16 01/15/2020	TDR: 000001129989
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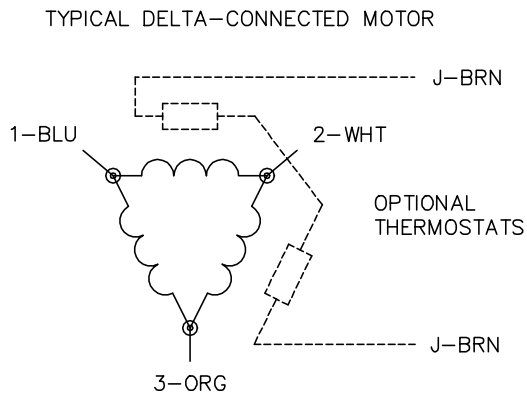
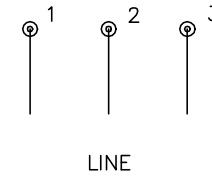
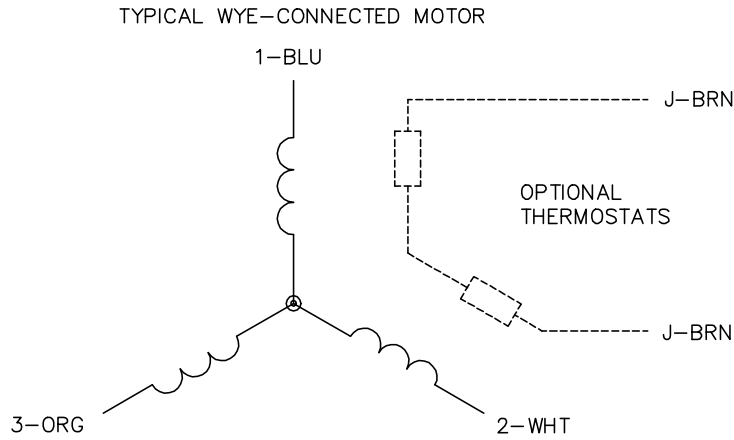
MODEL NO. 36CB3503A00	REF: -
BY: ENMARS0	Material: -

**BALDOR - RELIANCE®**

36 & 37 FRAME TOP ECM ALUMINUM COVER WITH FOAM SEAL



CD0006



NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

REV. DESC: ADD CLASS CONN00000007		
REV. LTR: E	VERSION: 01	TDR: 000001099922
FILE: \AAA\00005\141	REVISED: 10:24:49 02/19/2019	BY: ENBRIRO
MTL: -		© □

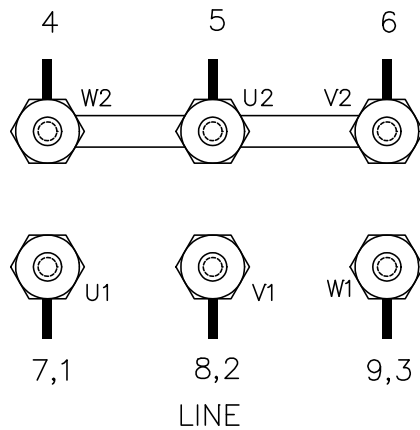
**BALDOR - RELIANCE®**

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

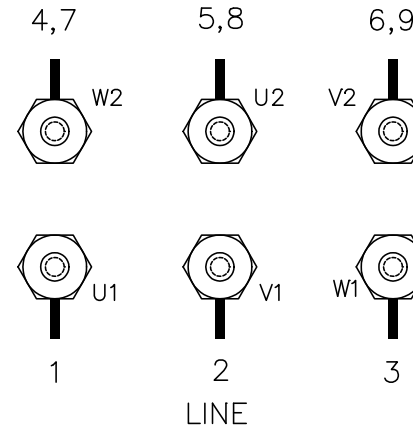
SH 1 of 1

SP0032

LOW VOLT CONNECTION



HIGH VOLT CONNECTION



TO REVERSE ROTATION  
INTERCHANGE ANY TWO  
LINE LEADS.

SP0032

MATL:

REV: A ADD CONN LABEL REF TO DESC

SP0032

SCALE: -

BY: JLP

REVISED: 12/17/96

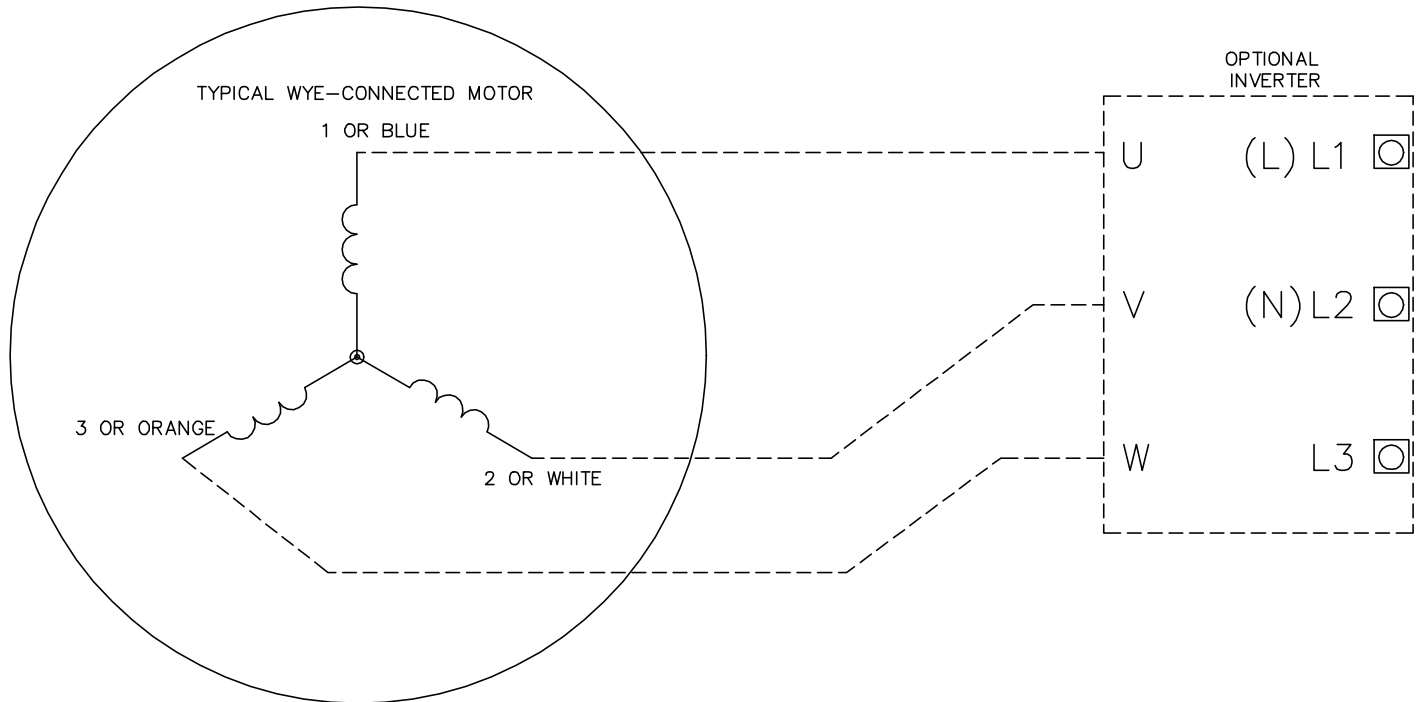
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TDR: 0111436

**BALDOR ELECTRIC Co.**

THREE PHASE, DUAL VOLTAGE, TERMINAL BLOCK, CD0005/LC0005C01

CD0006B03



**NOTES:**

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.

CD0006B03

REV. DESC: CHANGE LEAD COLORS TO BLUE WHITE ORANGE		
REV. LTR: A	VERSION: 01	TDR: 000001158598
FILE: \AAA\00252\917	REVISED: 11:01:03 01/19/2021	BY: ENMARSO
MTL: -	© □	

**BALDOR - RELIANCE®**

3PH, SV, 3 LEADS, WYE CONNECTED, ECS

SH 1 of 1