

# ABB BALDOR RELIANCE III

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## Customer information packet

ECS101T3K5P5FC4

5.5KW, 1500RPM, 3PH, 50HZ, D132C, 3730B, TEFC

Class - None

Division - Not Applicable

**Specifications**

<b>Enclosure</b>	TEFC
<b>Frame</b>	D132C
<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>	5.500 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>	WEEE UKCA CULUS CE BLUETOOTH
<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>	10.500 A @ 380.0 V
<b>Design Code</b>	B
<b>Drip Cover</b>	No Drip Cover
<b>Duty Rating</b>	S1
<b>Efficiency @ 100% Load</b>	92.9 %
<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

**Part Detail**

<b>Revision</b>	C
<b>Type</b>	AC
<b>Mech. spec.</b>	
<b>Base</b>	
<b>Status</b>	PRD/A
<b>Elec. spec.</b>	37WGA0020
<b>Layout</b>	37LYT617
<b>Eff. date</b>	07-09-2024
<b>CD Diagram</b>	CD0006B03
<b>Poles</b>	04
<b>Leads</b>	3#12 19" LONG LEADS
<b>Proprietary</b>	False
<b>Created date</b>	01-11-2023

<b>High Voltage Full Load Amps</b>	10.5 a
<b>Insulation Class</b>	F
<b>Inverter Code</b>	Inverter Duty
<b>Lifting Lugs</b>	Vertical Lifting Lugs
<b>Locked Bearing Indicator</b>	Locked Bearing
<b>Motor Lead Termination</b>	Flying Leads
<b>Motor Standards</b>	IEC
<b>Motor Type</b>	3730B
<b>Mounting Arrangement</b>	B14
<b>Number of Poles</b>	4
<b>Overall Length</b>	17.89 IN
<b>Power Factor</b>	97
<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>	1.497 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>	INVERTER SPECIAL
<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>	ECIN4A12P0				
<b>U1</b>	400	<b>PH</b>	3	<b>HZ</b>	50
<b>I1</b>	11.1	<b>W/EXT. CHOKE</b>			9.7
<b>SERIAL #</b>					

**NP3968B01A01**

<b>CAT.NO.</b>	ECS101T3K5P5FC4										
<b>SPEC.</b>	37-0000-0495					<b>YR</b>					
<b>FRAME</b>	D132C		<b>IP</b>	55		<b>WT.</b>	162				
<b>KW</b>	5.5		<b>HZ</b>	50		<b>PH</b>	3		<b>DUTY-IPM</b>	S1	
<b>INS CL</b>	F		<b>CLASS RISE</b>			F		<b>AMB-C</b>	40		
<b>EFF. CL</b>	IE5		<b>EFF</b>	92.9		<b>COS0</b>		97			
<b>VOLTS</b>	380			<b>FLA</b>	10.71						
<b>1/MIN</b>	1500				<b>1/MIN MAX</b>		3000				
<b>BEMF (V)</b>	188				<b>RS (OHMS)</b>		1.39				
<b>LD (MH)</b>	28.09				<b>LQ (MH)</b>		80.586				
<b>VPWM</b>	<b>CP =</b>		50		<b>TO</b>		100				
<b>CT</b>	5		<b>TO</b>		50		<b>VT</b>		1 TO 50		
<b>MATCHED INV</b>	ECIN4A12P0										
<b>DE</b>	6208		<b>ODE</b>		6206						
<b>SERIAL #</b>											

Volts	380	Max RPM	3000	Conn Diag.	CD0006B03	Leads	3
Amps	10.71	Max Amps		Cs Diagram	CS1126	BEMF	180.48
KW	5.5	VFD#	ECIN4A12P0			LD	28.09
RPM	1500	S.F.	1.00			LQ	80.586
Phase/Hz	3/50	Rating	40C AMB-S1			Rs	1.4059 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	1351	90%	25.8	100%	6.6	91.2	8.59%	478
P2	750	50%	25.8	100%	3.7	86.8	7.52%	418
P3	363	25%	25.8	100%	1.8	80.6	5.78%	321
P4	1351	90%	12.9	50%	3.3	91.0	4.42%	246
P5	751	50%	12.9	50%	1.8	89.5	2.91%	162
P6	751	50%	6.5	25%	0.9	88.0	1.70%	94
P7	360	25%	6.5	25%	0.4	83.0	1.22%	68

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

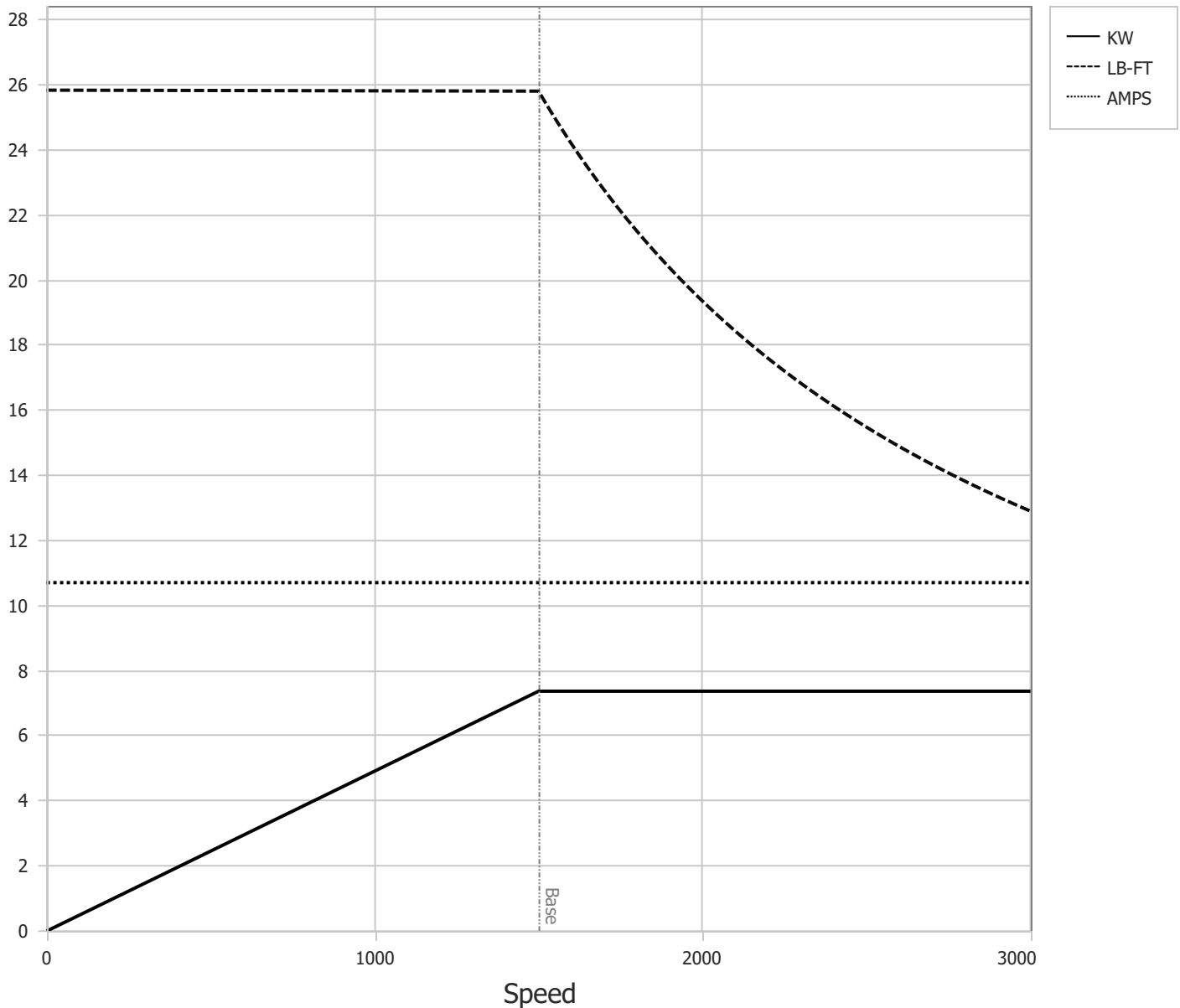
	RPM	% Speed	LB-FT	% Torque	KW	System Efficiency	Loss (% FL)	Watts Loss (W)
P1	1501	100%	25.8	100%	7.4	91.1	9.70%	540
P2	750	50%	25.8	100%	3.7	84.7	8.94%	497
P3	255	17%	25.8	100%	1.3	71.4	6.72%	374
P4	1501	100%	12.9	50%	3.7	90.7	5.07%	282
P5	751	50%	12.9	50%	1.8	87.8	3.45%	192
P6	255	17%	12.9	50%	0.6	75.7	2.69%	150
P7	751	50%	6.5	25%	0.9	86.8	1.88%	105
P8	255	17%	6.4	25%	0.3	75.8	1.34%	75

Points not taken in certified order.

<b>BALDOR • RELIANCE</b>	DR By:	<u>R &amp; D</u>	<b>AC MOTOR PERFORMANCE CURVES</b>	<b>37WGA0020</b> 37-0000-0494 Test - 112062
	CK By:	<u>USWEALE1</u>		
	APP By:			
	Date:	<u>03/14/2025</u>		

Volts	380	Max RPM	3000	Conn Diag.	CD0006B03	Leads	3
Amps	10.71	Max Amps		Cs Diagram	CS1126	BEMF	180.48
KW	5.5	VFD #	ECIN4A12P0			LD	28.09
RPM	1500	S.F.	1.00			LQ	80.586
Phase/Hz	3/50	Rating	40C AMB-S1			Rs	1.4059 Meas L-L

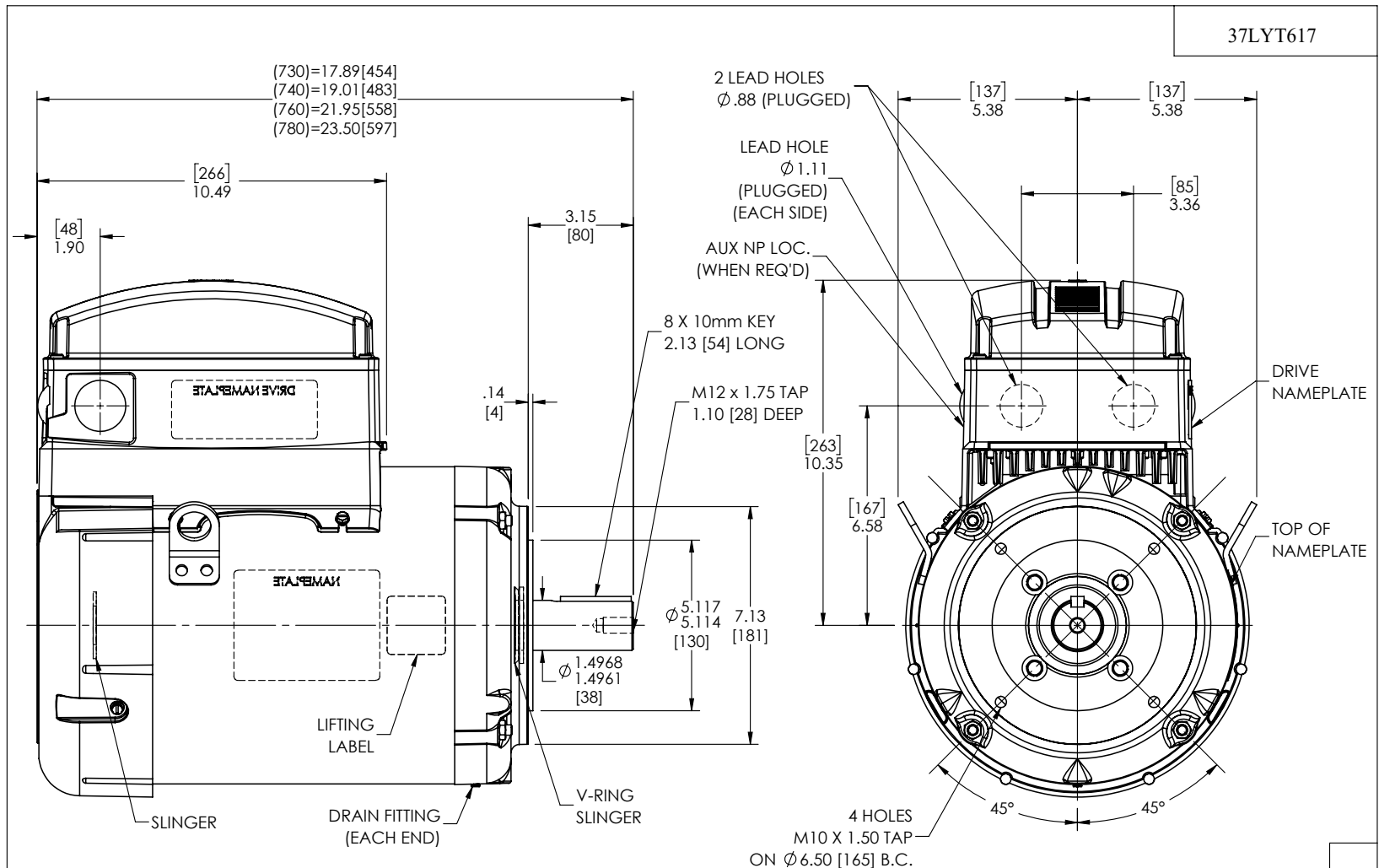
Constant Duty Operating Range



DR By: R & D  
 CK By: USWEALE1  
 APP By:  
 Date: 03/14/2025

**AC MOTOR  
PERFORMANCE  
CURVES**

**37WGA0020**  
 37-0000-0494  
 Test - 112062



37LYT617

NOTE: ALTERNATE METRIC UNITS IN BRACKETS [mm]

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

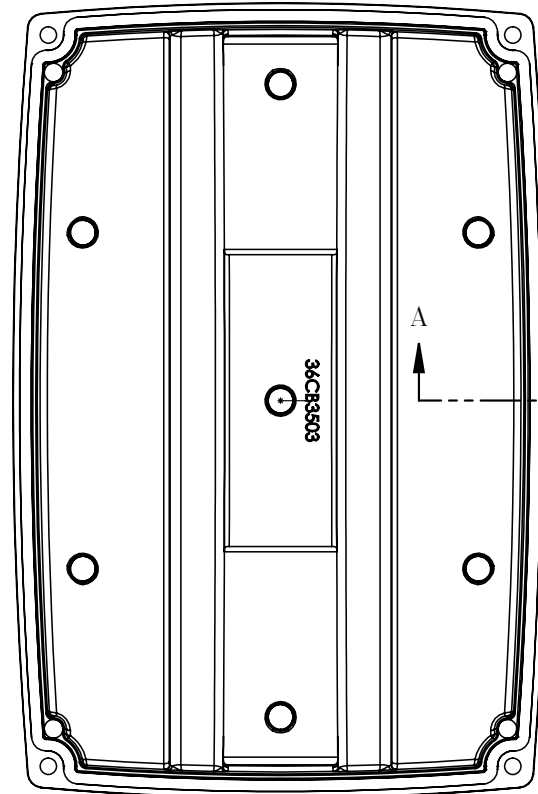
REV. DESC: NEW			
REV: -	VERSION: 00	REVISED: 01:57:47 01/20/2023	TDR: 000001201462
MODEL NO. 37LYT617		REF: -	
BY: ENFRAJ0			

**BALDOR - RELIANCE®**

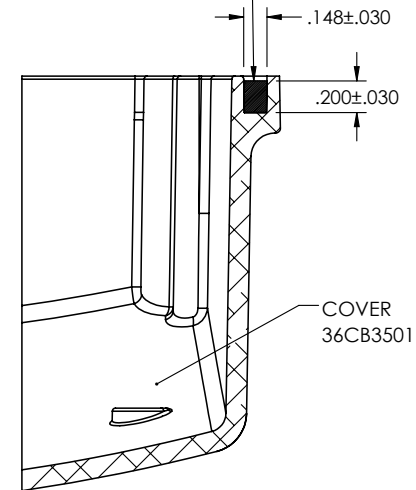
VERT D132C TEFC B B14 TOP MOUNT DRV INT SH GND ECS

37LYT617

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

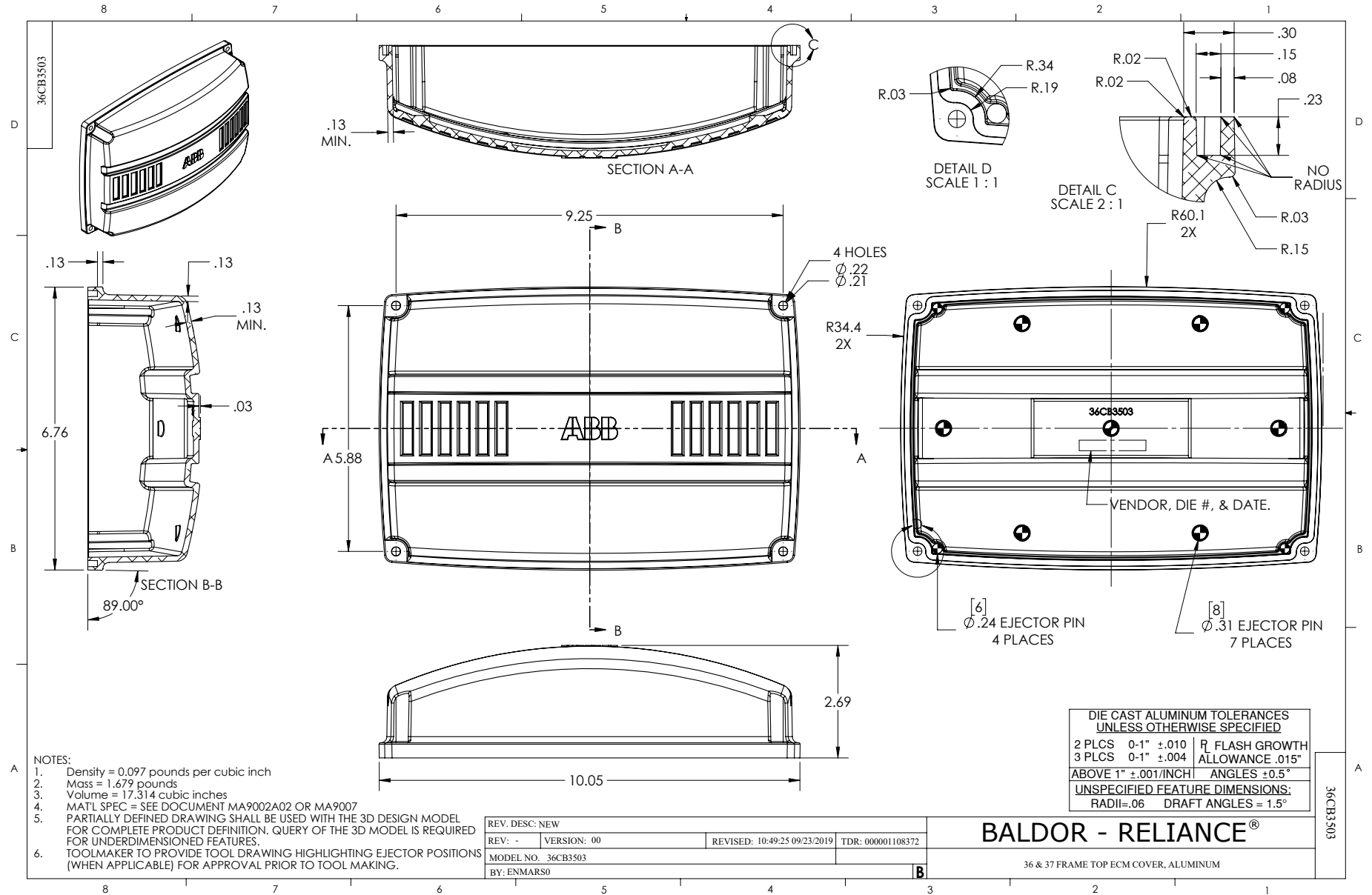
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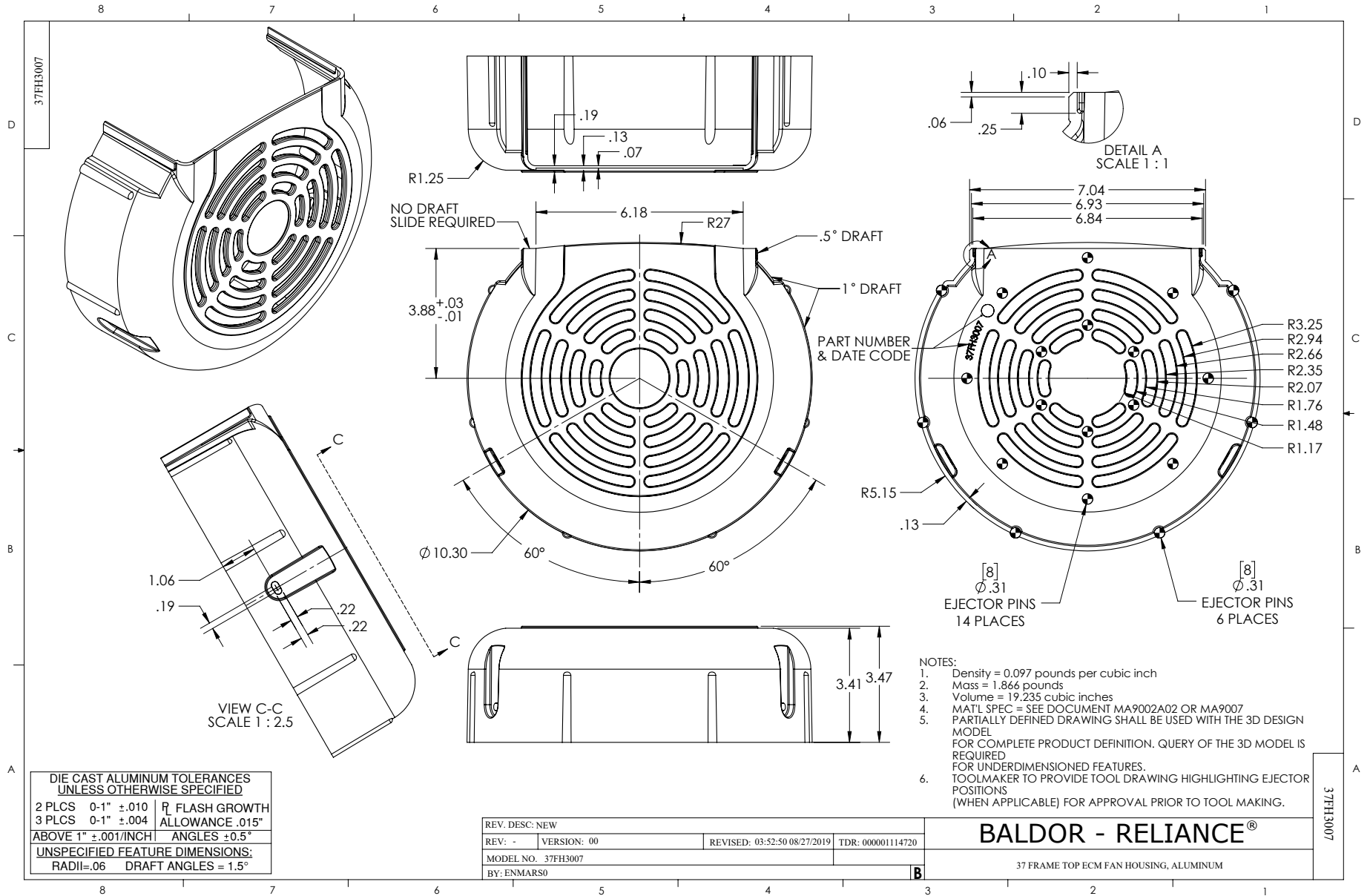
BY: ENMARS0

Material: -

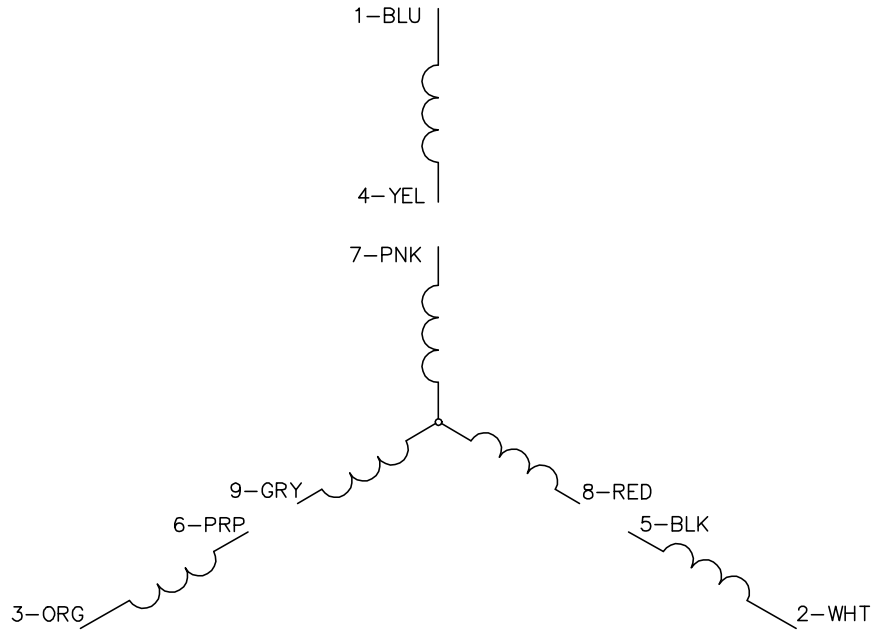
**BALDOR - RELIANCE®**

36 & 37 FRAME TOP ECM ALUMINUM COVER WITH FOAM SEAL

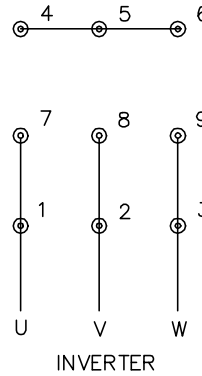




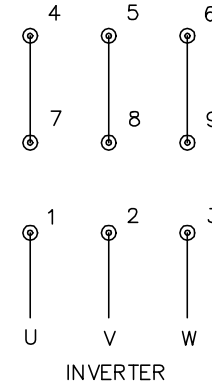
CD0005A25



LOW VOLTAGE  
(2Y)



HIGH VOLTAGE  
(1Y)



NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
3. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

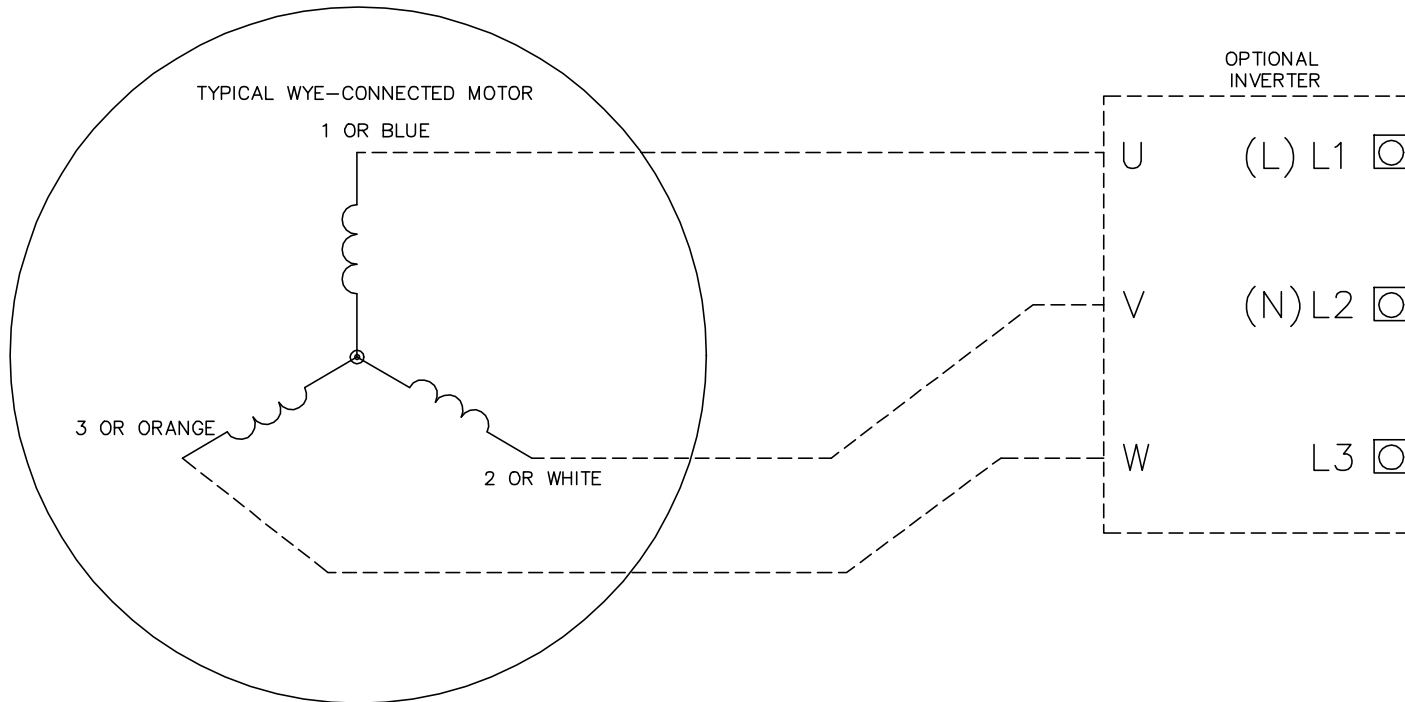
CD0005A25

REV. DESC: NEW		
REV. LTR: -	VERSION: 00	TDR: 000001135746
FILE: \AAA\00253\082	REVISED: 01:10:57 03/30/2020	BY: ENMARSO
MTL: -	© □	

**BALDOR - RELIANCE®**

3PH, DV, 9 LEADS, ECS  
SH 1 of 1

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