ABB BALDOR RELIANCE

Customer information packet

ECS101A3K4EF4

4KW, 1500RPM, 3PH, 50HZ, D112S, 3632B, TEFC, B3
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	D112S
Frame Material	Steel
Frequency	50.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Brushless Wound Field PM Rotor
Output @ Frequency	4.000 KW @ 50 HZ
Phase	3
Synchronous Speed @ Frequency	1500 RPM @ 50 HZ
Voltage @ Frequency	380.0 V @ 50 HZ
Agency Approvals	WEEE
	UKCA
	CULUS
	CE
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Constant Torque Speed Range	5
Current @ Voltage	6.800 A @ 380.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	S1
Efficiency @ 100% Load	91.6 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Frame Prefix	D
Heater Indicator	No Heater
High Voltage Full Load Amps	6.8 a

Part Detail

Revision	D
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	36WGA0022
Layout	36LYT346
Eff. date	11-15-2024
CD Diagram	CD0006B03
Poles	04
Leads	3#12 15" LONG LEADS
Proprietary	False
Created date	01-11-2023

Insulation Class	F
Inverter Code	Inverter Duty
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Termination	Flying Leads
Motor Standards	IEC
Motor Type	3632B
Mounting Arrangement	B3
Number of Poles	4
Overall Length	21.87 IN
Power Factor	97
Product Family	General Purpose
Pulley Face Code	Standard
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	1.103 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Speed	1500 rpm
Speed Code	Single Speed
Starting Method	INVERTER SPECIAL
Thermal Device - Bearing	None
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP3978A00							
PART NO.	ECIN4A9P5						
U1	400	**PH**	3	**HZ**	50		
I1	8	**W/EXT. CHOKE**				6.8	
SERIAL #							

NP3968B01A01							
CAT.NO.	ECS101A3K4EF4						
SPEC.	36-0000-3643			**YR**			
FRAME	D112S	**IP**	55	**WT.**	97		
KW	4	**HZ**	50	**PH**	3	**DUTY-IPM**	S1
INS CL	F	**CLASS RISE**			**AMB-C**	40	
EFF. CL	IE5	**EFF**	91.6	**COS0**	97		
VOLTS	380	**FLA**	6.8				
1/MIN	1500		**1/MIN MAX**	3000			
BEMF (V)	210		**RS (OHMS)**	3.3			
LD (MH)	54		**LQ (MH)**	191			
VPWM	**CP =**	50	**TO**	100			
CT	5	**TO**	50	**VT**	1	**TO**	50
MATCHED INV	ECIN4A9P5						
DE	6206	**ODE**	6205				
SERIAL #							

Volts	190/380	Max RPM	3000	Conn Diag.	CD0005A25	Leads	9
Amps	13.6/6.8	Max Amps		Cs Diagram	CS0576	BEMF	105/210
KW	4	VFD#	ACS380-040S-09			LD	13.5/54.0
RPM	1500	S.F.	1.00			LQ	47.8/191.0
Phase/Hz	3/50	Rating	40C AMB-S1			Rs	3.3231 Meas. L-L

60034-2-3 Motor Performance at Standardized Operating Points

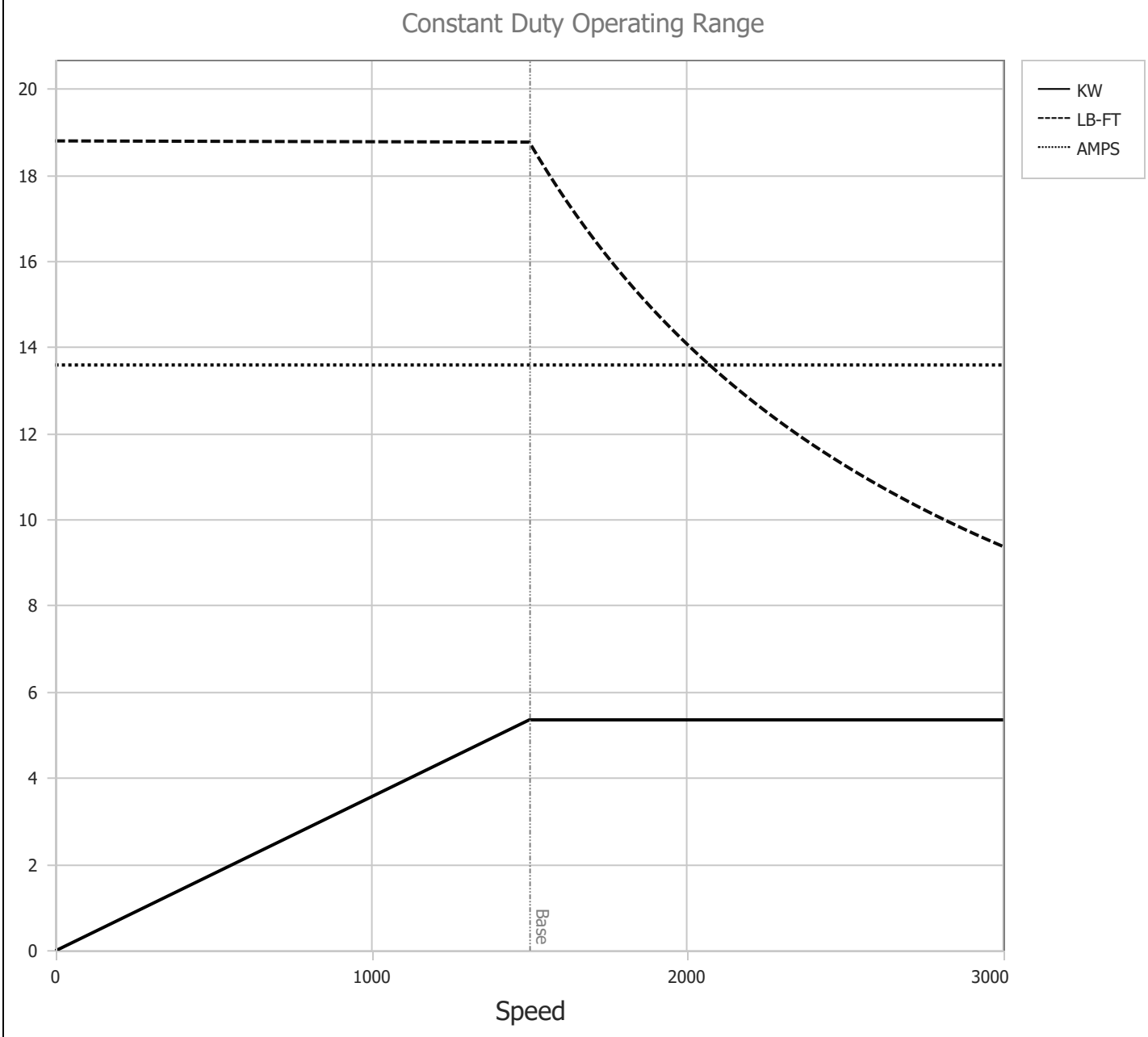
	RPM	% Speed	LB-FT	% Torque	KW	Efficiency	Loss (% FL)	Watts Loss (W)
P1	1350	90%	18.8	100%	4.8	90.4	9.48%	383
P2	750	50%	18.8	100%	2.7	86.5	7.72%	312
P3	375	25%	18.8	100%	1.3	78.3	6.87%	278
P4	1350	90%	9.4	50%	2.4	92.4	3.67%	149
P5	750	50%	9.4	50%	1.3	89.2	2.98%	121
P6	750	50%	4.7	25%	0.7	89.8	1.40%	57
P7	375	25%	4.7	25%	0.3	84.7	1.12%	45

61800-9-2 PDS Performance at Reference Operating Points

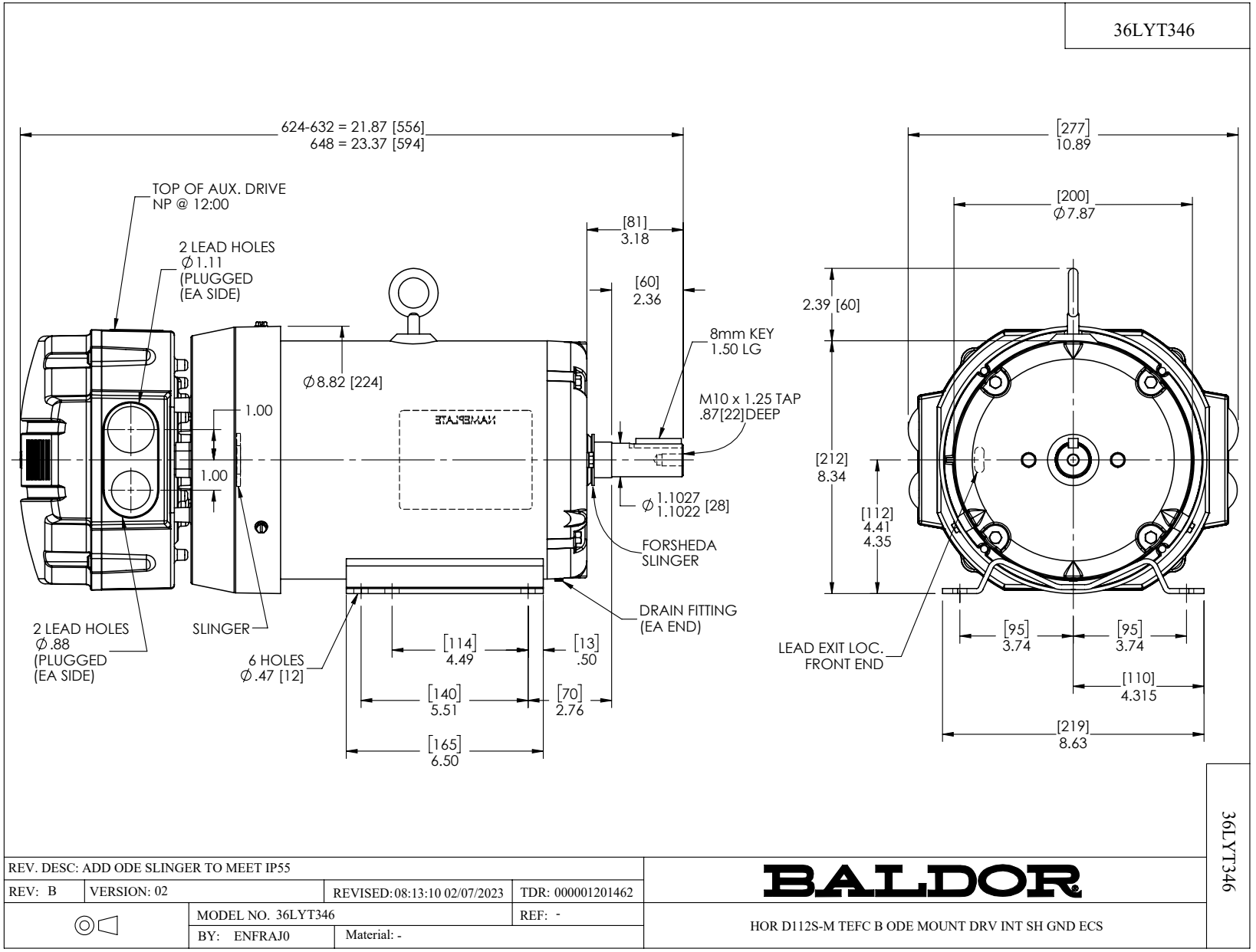
	RPM	% Speed	LB-FT	% Torque	KW	System Efficiency	Loss (% FL)	Watts Loss (W)
P1	1500	100%	18.8	100%	5.4	87.9	13.58%	549
P2	750	50%	18.8	100%	2.7	84.1	9.35%	378
P3	255	17%	18.8	100%	0.9	67.7	8.02%	324
P4	1500	100%	9.4	50%	2.7	91.1	4.85%	196
P5	750	50%	9.4	50%	1.3	86.1	3.99%	162
P6	255	17%	9.4	50%	0.5	71.8	3.30%	133
P7	750	50%	4.7	25%	0.7	85.2	2.14%	87
P8	255	17%	4.7	25%	0.2	71.1	1.71%	69

Points not taken in certified order.

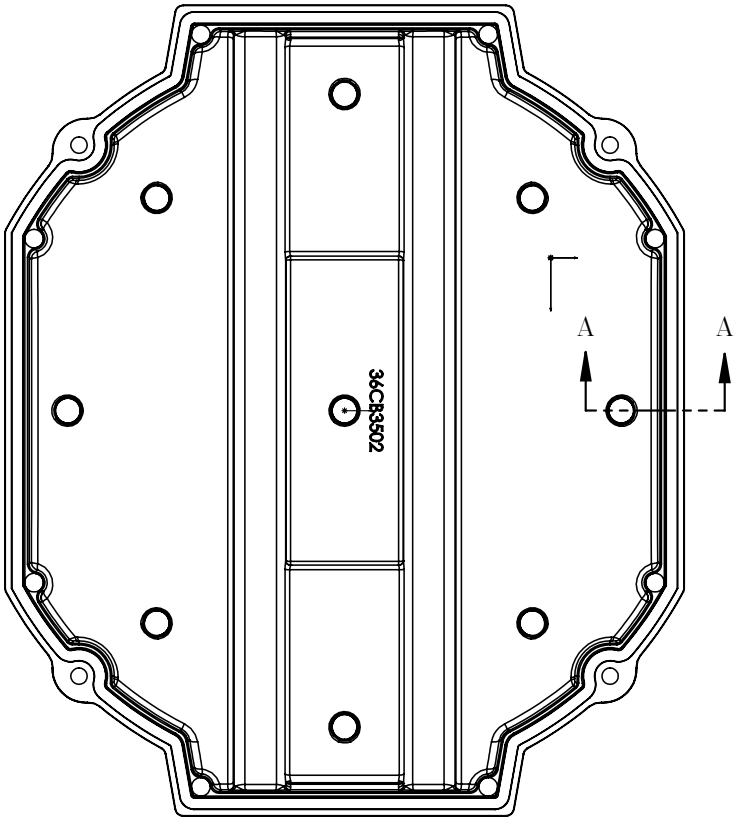
Volts	190/380	Max RPM	3000	Conn Diag.	CD0005A25	Leads	9
Amps	13.6/6.8	Max Amps		Cs Diagram	CS0576	BEMF	105/210
KW	4	VFD #	ACS380-040S-09			LD	13.5/54.0
RPM	1500	S.F.	1.00			LQ	47.8/191.0
Phase/Hz	3/50	Rating	40C AMB-S1			Rs	3.3231 Meas L-L

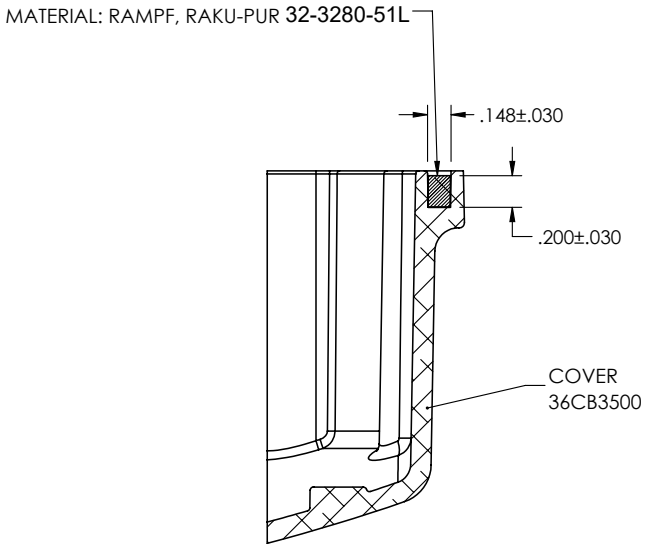


BALDOR • RELIANCE	DR By: R & D CK By: USGAHIL APP By: Date: 04/09/2025	**AC MOTOR PERFORMANCE CURVES**	**36WGA0020** 36-0000-3634 *Test - 112234*


36LYT346
624-632 = 21.87 [556]
648 = 23.37 [594]
TOP OF AUX. DRIVE
NP @ 12:00
2 LEAD HOLES
∅1.11
(PLUGGED
(EA SIDE)
[81]
3.18
[60]
2.36
8mm KEY
1.50 LG
∅8.82 [224]
M10 x 1.25 TAP
.87[22]DEEP
1.00
1.00
NAMEPLATE
∅1.1027
1.1022 [28]
FORSHEDA
SLINGER
DRAIN FITTING
(EA END)
2 LEAD HOLES
∅.88
(PLUGGED
(EA SIDE)
SLINGER
6 HOLES
∅.47 [12]
[114]
4.49
[13]
.50
[140]
5.51
[70]
2.76
[165]
6.50
[277]
10.89
[200]
∅7.87
2.39 [60]
[212]
8.34
[112]
4.41
4.35
LEAD EXIT LOC.
FRONT END
[95]
3.74
[95]
3.74
[110]
4.315
[219]
8.63
36LYT346
REV. DESC: ADD ODE SLINGER TO MEET IP55
REV: B
VERSION: 02
REVISED: 08:13:10 02/07/2023
TDR: 000001201462
BALDOR
MODEL NO. 36LYT346
REF: -
BY: ENFRAJ0
Material: -
HOR D112S-M TEFC B ODE MOUNT DRV INT SH GND ECS

36CB3502A00





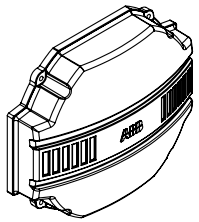
SECTION A–A

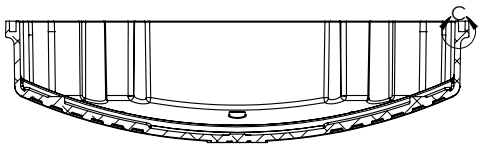
36CB3502A00

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REV: -	VERSION: 00	REVISED: 09:16:43 01/15/2020	TDR: 000001129989
	MODEL NO. 36CB3502A00		REF: -
	BY: ENMARS0	Material: -	

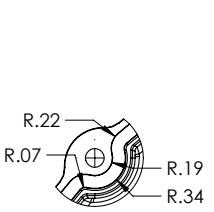
BALDOR - RELIANCE®

36 FRAME ODE ECM ALUMINUM COVER WITH FOAM SEAL

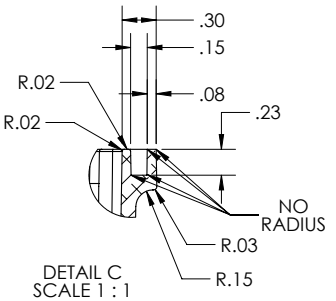




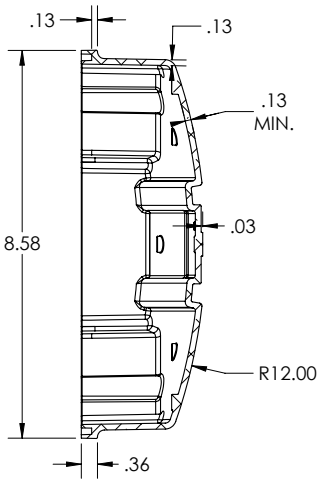
SECTION A-A



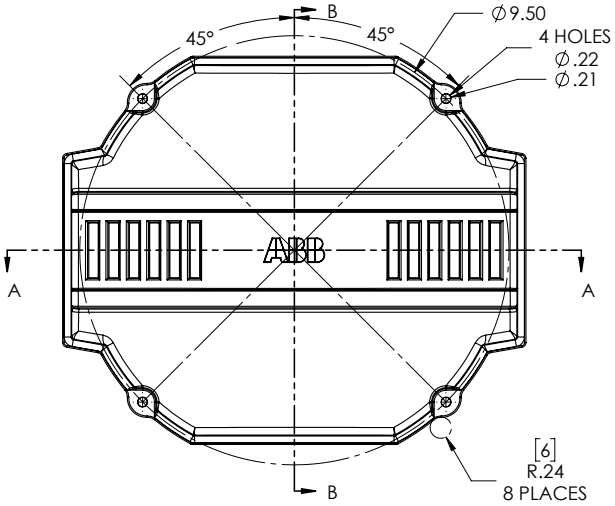
DETAIL D
SCALE 2 : 2.5

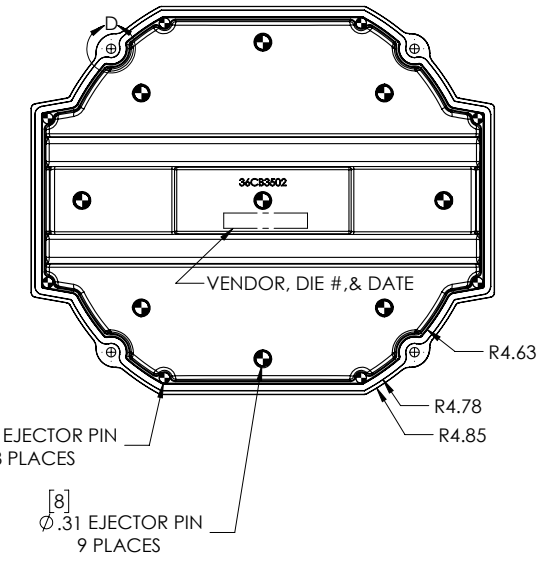


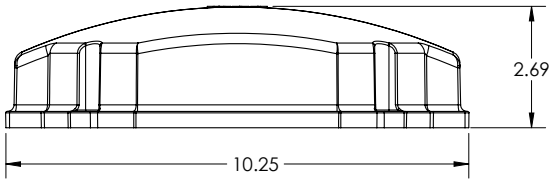
DETAIL C
SCALE 1 : 1



SECTION B-B







DIE CAST ALUMINUM TOLERANCES UNLESS OTHERWISE SPECIFIED	
2 PLCS 0-1" ±.010 3 PLCS 0-1" ±.004	R FLASH GROWTH ALLOWANCE .015"
ABOVE 1" ±.001/INCH	ANGLES ±0.5°
UNSPECIFIED FEATURE DIMENSIONS: RADII=.06 DRAFT ANGLES = 1.5°	

NOTES:
1. Density = 0.097 pounds per cubic inch
2. Mass = 1.843 pounds
3. Volume = 19.001 cubic inches
4. MAT'L SPEC = SEE DOCUMENT MA9002A02 OR MA9007
5. PARTIALLY DEFINED DRAWING SHALL BE USED WITH THE 3D DESIGN MODEL FOR COMPLETE PRODUCT DEFINITION. QUERY OF THE 3D MODEL IS REQUIRED FOR UNDERDIMENSIONED FEATURES.
6. TOOLMAKER TO PROVIDE TOOL DRAWING HIGHLIGHTING EJECTOR POSITIONS (WHEN APPLICABLE) FOR APPROVAL PRIOR TO TOOL MAKING.

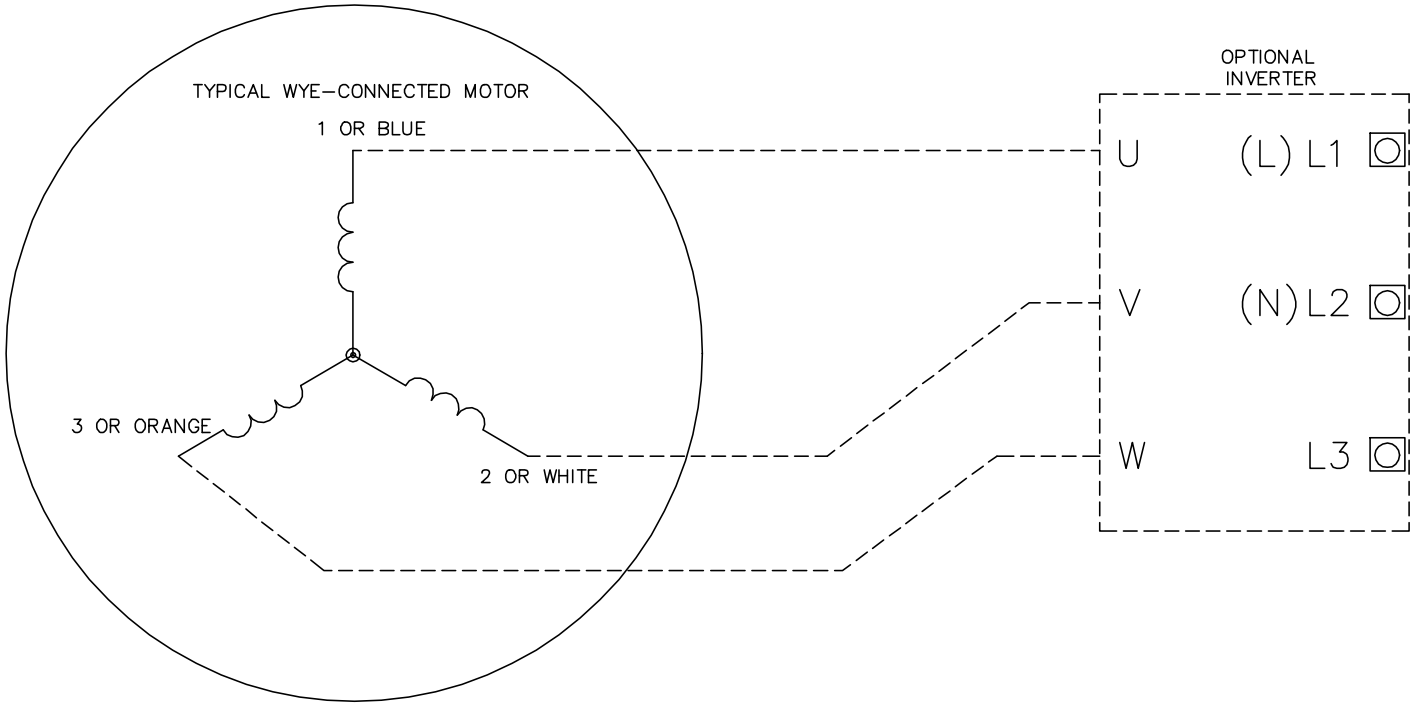
REV. DESC: NEW			
REV: -	VERSION: 00	REVISED: 02:32:09 09/23/2019	TDR: 000001108372
MODEL NO. 36CB3502			
BY: ENMARS0			B

BALDOR - RELIANCE®

36 FRAME ODE ECM COVER, ALUMINUM

36CB3502

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