ABB BALDOR RELIANCE

Customer information packet

ECS100T4H10FC4

10HP, 1800RPM, 3PH, 60HZ, 215TC, 3740B, TEFC, F
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	215TC
Frame Material	Steel
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	10.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	UL
	WEEE
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Constant Torque Speed Range	6
Current @ Voltage	11.000 A @ 460.0 V
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	94.8 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	11.0 a
Insulation Class	F
Inverter Code	Inverter Duty
IP Rating	NONE
Lifting Lugs	Standard Lifting Lugs

Part Detail

Revision	H
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	37WGA0021
Layout	37LYQ489
Eff. date	05-14-2026
CD Diagram	CD0006B03
Poles	04
Leads	3#12 19" LONG LEADS
Proprietary	False
Created date	09-28-2020

Locked Bearing Indicator	Locked Bearing
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3740B
Mounting Arrangement	F1
Number of Poles	4
Overall Length	19.23 IN
Power Factor	94
Product Family	General Purpose
Pulley Face Code	C-Face
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	1.375 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Speed	1800 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

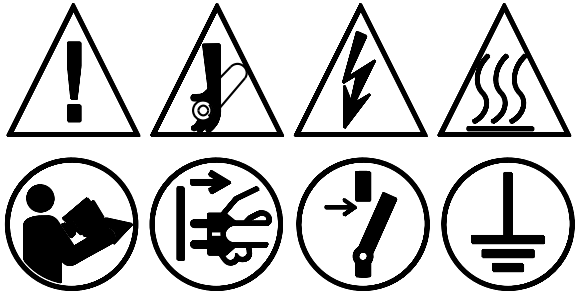
BALDOR·RELIANCE

EC-Titanium™

CAT. NO.	ECS100T4H10FC4						
SPEC.	37-0001718				YR	***	
FRAME	215TC		ENCL.	TEFC	IP	54	
HP	10	RATING	40C AMB-CONT				
NOM. EFF.	94.8	PF	94	SF	1.0		
VOLTS	460		FLA	11.22			
RPM	1800		RPM MAX	3000			
HZ	60		PH.	3	CLASS	F	
BEMF (V)	231.36		Rs (Ω)	0.93			
Ld (mH)	23.214		Lq (mH)	75.933			
INV TYP	VPWM	CHP	60 TO 120 HZ				
	CT	6 TO 60 HZ	VT	1 TO 120 HZ			
MATCHED INV	EC14A12P0						
BEARING	DE	6307	ODE	6206			
SERIAL#	***						

ELECTRONICALLY PROTECTED MOTOR
FOR INDUSTRIAL USE

FERRITE ASSISTED
SYNCHRONOUS RELUCTANCE MOTOR
FOR INVERTER USE ONLY



PERMANENT MAGNET MOTOR. WHEN SHAFT IS ROTATED, VOLTAGE WILL BE GENERATED AT THE MOTOR TERMINALS.
MOTEUR Á AIMANT PERMANENT. LORSQUE L'ARBRE TOURNE, UNE TENSION SERA GÉNÉRÉE AUX BORNES DU MOTEUR.

BALDOR-RELIANCE
SHAFT GROUNDING BRUSH INSTALLED

c UL us LISTED
E46145

ABB MOTORS AND MECHANICAL INC.
5711 R.S. BOREHAM JR. ST., FORT SMITH, AR. MFG IN U.S.A.

BALDOR • RELIANCE

EC-Titanium™

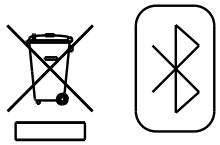
PART NO.	EC14A12P0				
U1	480	PH	3	HZ	60
I1 MAX	10.1	W/EXT. CHOKE		9.0	
SERIAL #	***				



POWER DOWN FOR
5 MINUTES BEFORE
REMOVING COVER

METTRE HORS TENSION
PENDANT 5 MINUTES
AVANT DE RETIRER LE
COUVERCLE

ABB MOTORS AND MECHANICAL
INC. FORT SMITH, AR.
MFG. IN U.S.A.



Volts	460	Max RPM	3000	Conn Diag.	CD0005	Leads	9
Amps	11	Max Amps		Cs Diagram	CS0576	BEMF	116/231
HP	10	VFD#	ECIN4A12P0			LD	5.8/23.2
RPM	1800	S.F.	1.50			LQ	19/75.9
Phase/Hz	3/60	Rating	40 C AMB			Rs	0.9625 Meas. L-L

60034-2-3 Motor Performance at Standardized Operating Points

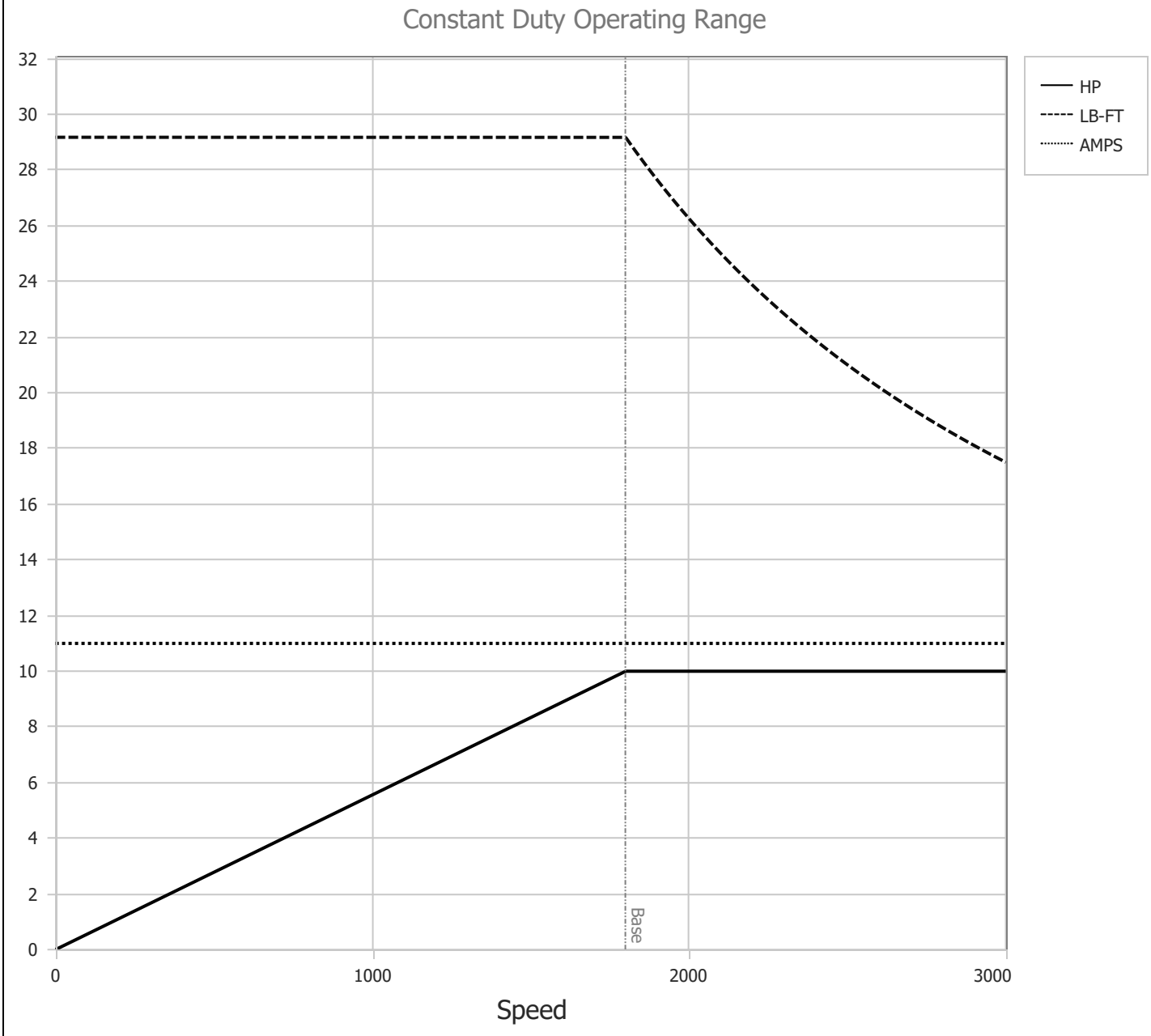
	RPM	% Speed	LB-FT	% Torque	HP	Efficiency	Loss (% FL)	Watts Loss (W)
P1	1622	90%	29.2	100%	9.0	93.1	6.65%	502
P2	902	50%	29.2	100%	5.0	90.9	5.01%	378
P3	451	25%	29.2	100%	2.5	85.5	4.22%	318
P4	1624	90%	14.6	50%	4.5	91.8	3.98%	300
P5	903	50%	14.6	50%	2.5	90.3	2.68%	202
P6	903	50%	7.3	25%	1.3	86.9	1.88%	142
P7	451	25%	7.3	25%	0.6	81.6	1.40%	106

61800-9-2 PDS Performance at Reference Operating Points

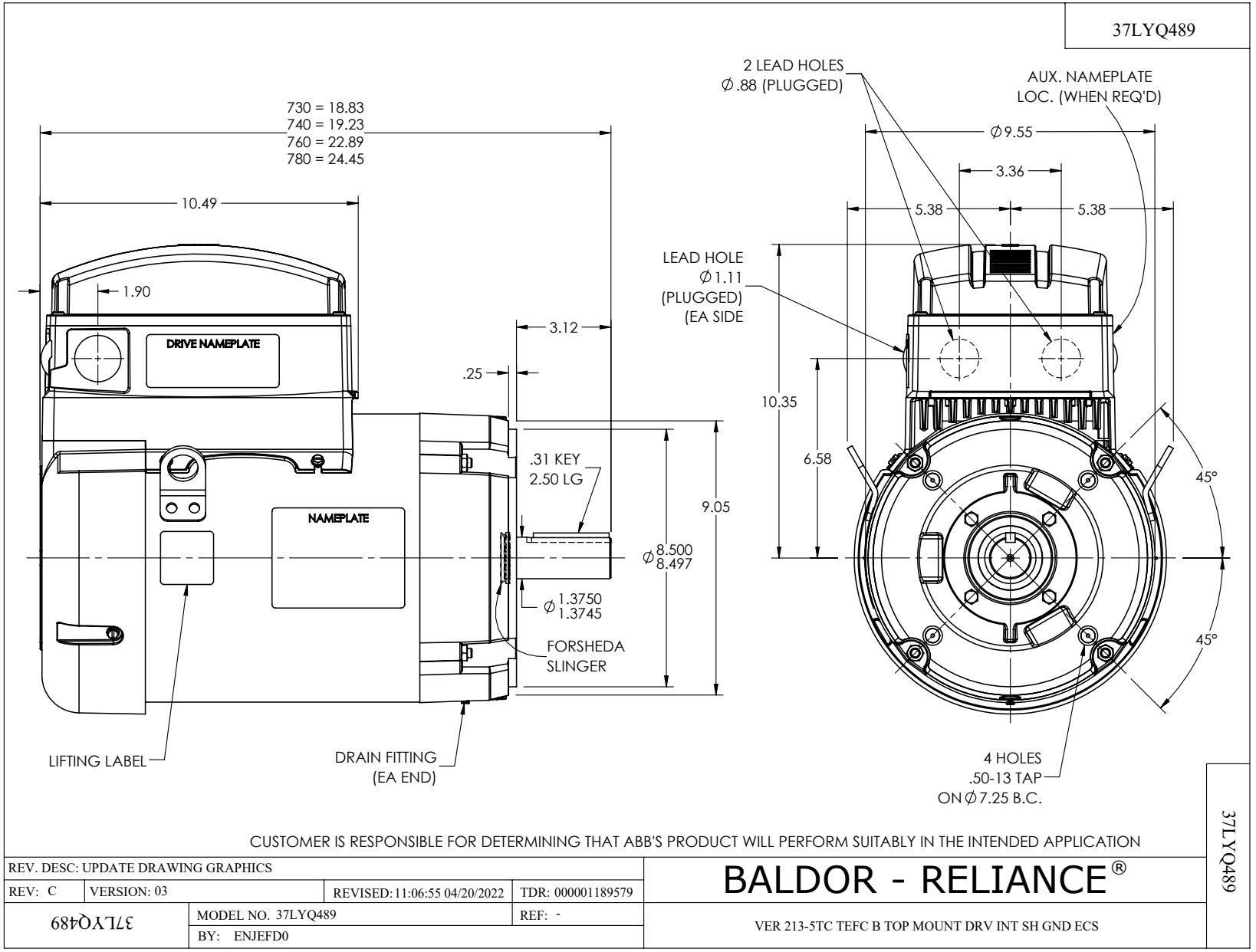
	RPM	% Speed	LB-FT	% Torque	HP	System Efficiency	Loss (% FL)	Watts Loss (W)
P1	1806	100%	29.2	100%	10.0	92.7	7.79%	588
P2	902	50%	29.2	100%	5.0	89.0	6.13%	463
P3	300	17%	29.2	100%	1.7	77.0	4.93%	372
P4	1802	100%	14.6	50%	5.0	91.5	4.58%	346
P5	903	50%	14.6	50%	2.5	89.3	2.97%	224
P6	300	17%	14.6	50%	0.8	78.6	2.25%	170
P7	903	50%	7.3	25%	1.3	87.3	1.80%	136
P8	301	17%	7.3	25%	0.4	76.4	1.27%	96

Points not taken in certified order.

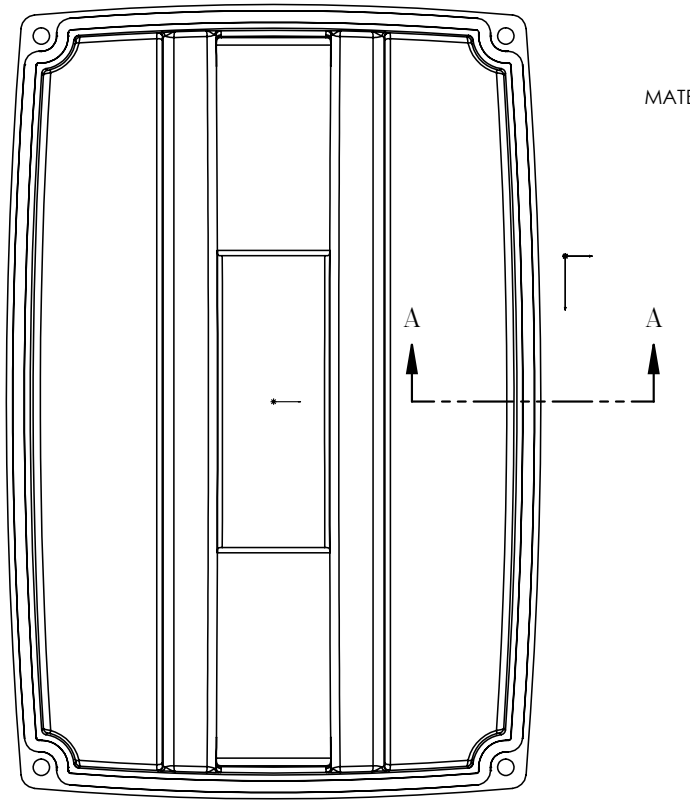
Volts	460	Max RPM	3000	Conn Diag.	CD0005	Leads	9
Amps	11	Max Amps		Cs Diagram	CS0576	BEMF	116/231
HP	10	VFD #	ECIN4A12P0			LD	5.8/23.2
RPM	1800	S.F.	1.50			LQ	19/75.9
Phase/Hz	3/60	Rating	40 C AMB			Rs	0.9625 Meas L-L



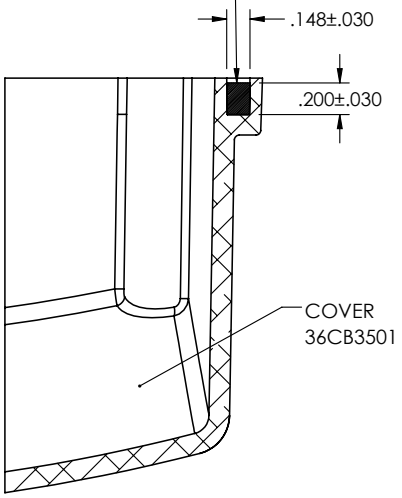
BALDOR • RELIANCE	DR By: R & D CK By: USGAHIL APP By: Date: 03/13/2025	**AC MOTOR PERFORMANCE CURVES**	**37WGL001** 37Q435L001G1 *Test - 112056*


37LYQ489
2 LEAD HOLES
Ø.88 (PLUGGED)
AUX. NAMEPLATE
LOC. (WHEN REQ'D)
730 = 18.83
740 = 19.23
760 = 22.89
780 = 24.45
10.49
1.90
DRIVE NAMEPLATE
NAMEPLATE
3.12
.25
.31 KEY
2.50 LG
9.05
Ø8.500
8.497
Ø1.3750
1.3745
FORSHEDA
SLINGER
LIFTING LABEL
DRAIN FITTING
(EA END)
Ø9.55
3.36
5.38
5.38
LEAD HOLE
Ø1.11
(PLUGGED)
(EA SIDE
10.35
6.58
45°
45°
4 HOLES
.50-13 TAP
ON Ø7.25 B.C.
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT ABB'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: UPDATE DRAWING GRAPHICS
REV: C
VERSION: 03
REVISED: 11:06:55 04/20/2022
TDR: 000001189579
BALDOR - RELIANCE®
MODEL NO. 37LYQ489
REF: -
BY: ENJEFD0
VER 213-5TC TEFC B TOP MOUNT DRV INT SH GND ECS
37LYQ489

36CB3501A00



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



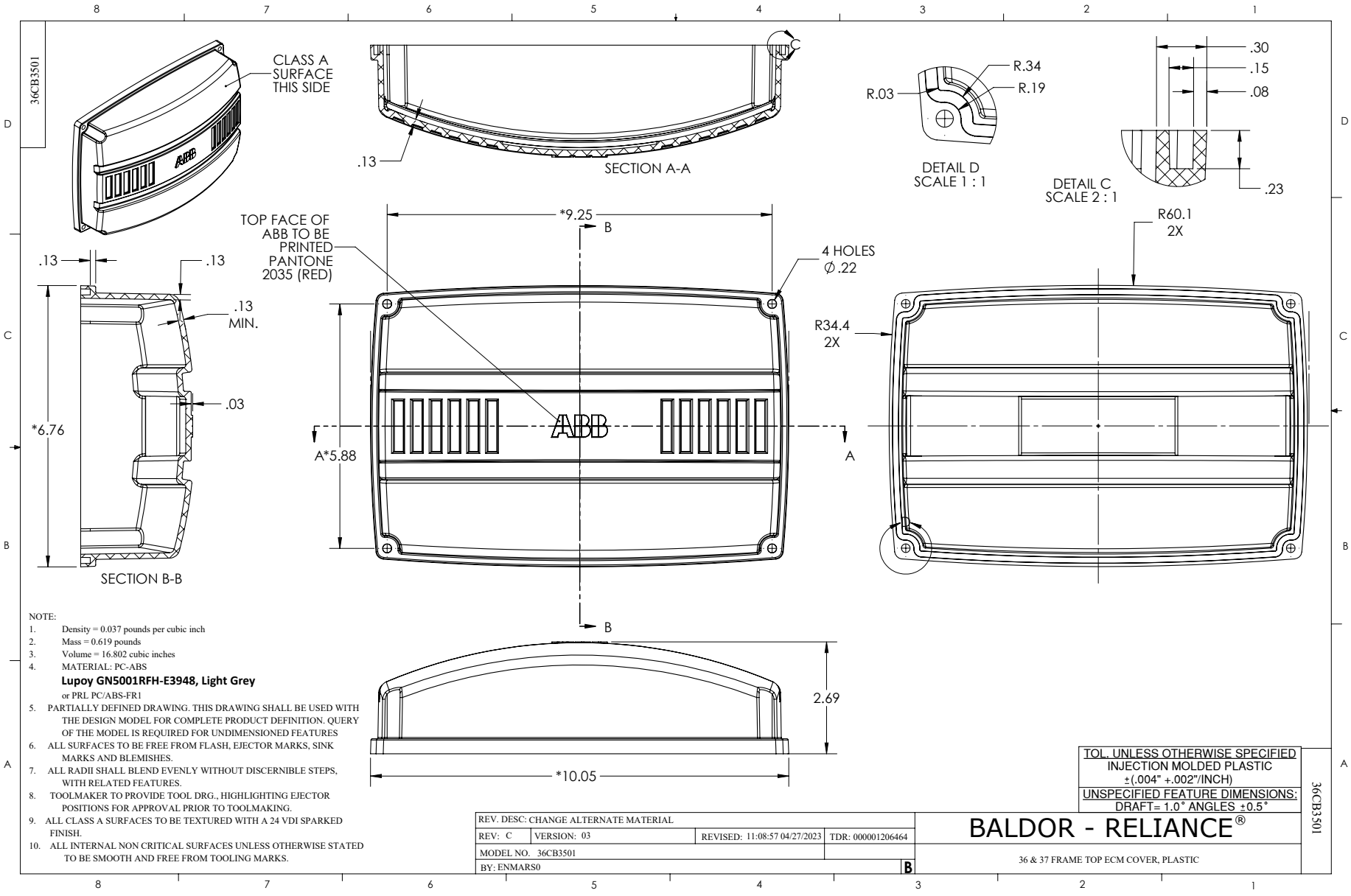
SECTION A–A

36CB3501A00

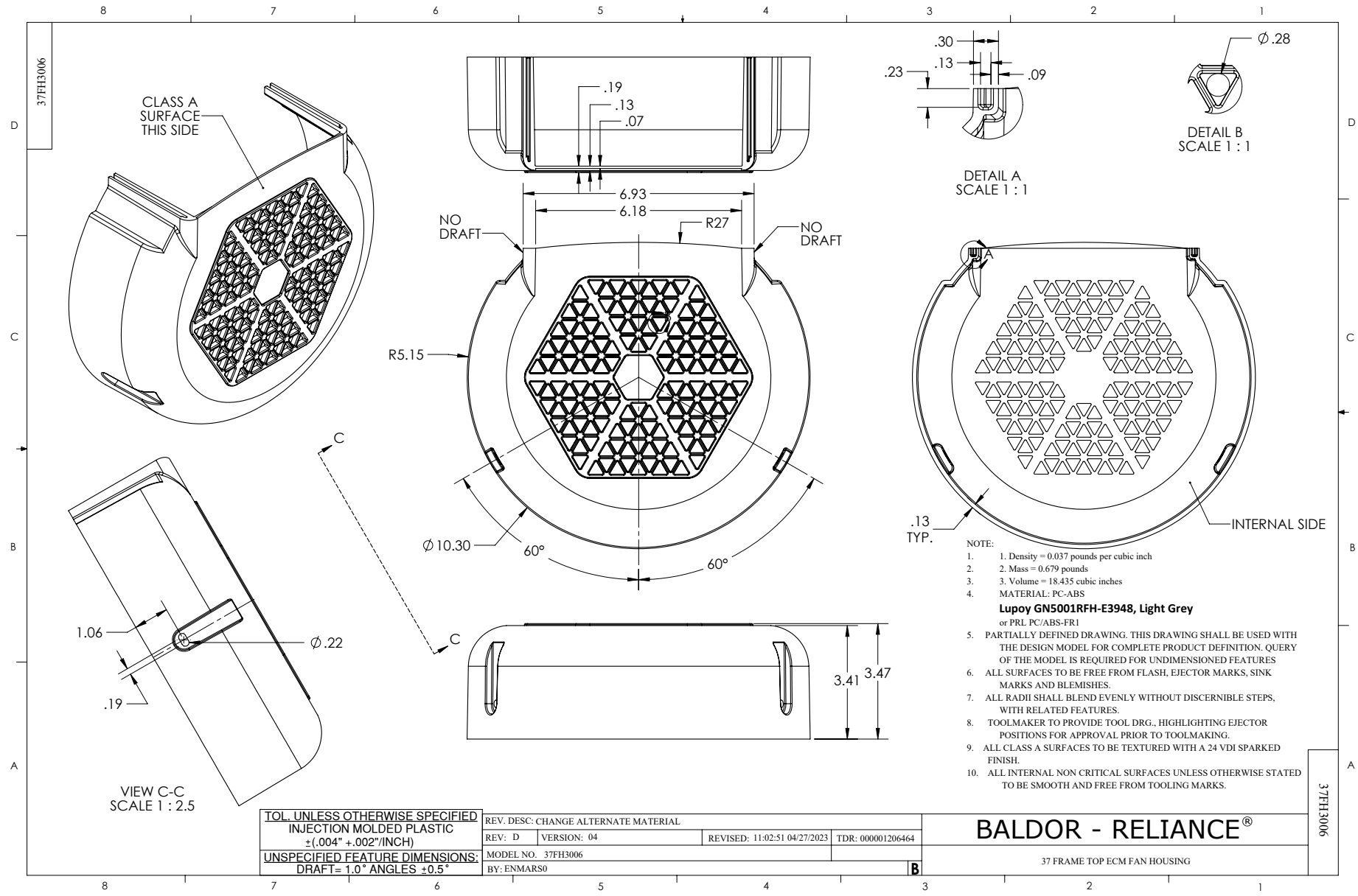
REV. DESC: UPDATE MATERIAL			
REV: A	VERSION: 01	REVISED: 10:46:37 03/29/2019	TDR: 000001101646
	MODEL NO. 36CB3501A00		REF: -
	BY: ENMARS0	Material: -	

BALDOR - RELIANCE®

36 & 37 FRAME TOP ECM COVER WITH FOAM SEAL



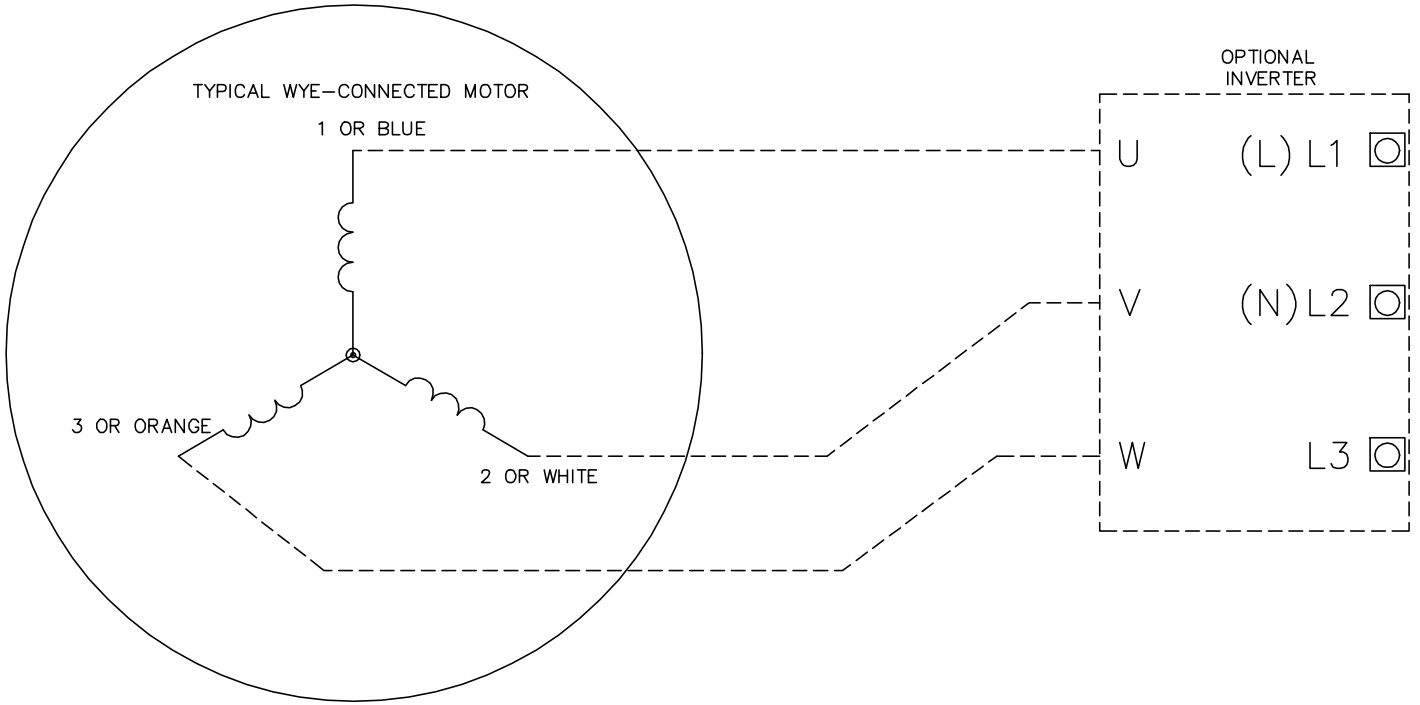
NOTE:
1. Density = 0.037 pounds per cubic inch
2. Mass = 0.619 pounds
3. Volume = 16.802 cubic inches
4. MATERIAL: PC-ABS
   Lupoy GN5001RFH-E3948, Light Grey
   or PRL PC/ABS-FR1
5. PARTIALLY DEFINED DRAWING. THIS DRAWING SHALL BE USED WITH THE DESIGN MODEL FOR COMPLETE PRODUCT DEFINITION. QUERY OF THE MODEL IS REQUIRED FOR UNDIMENSIONED FEATURES
6. ALL SURFACES TO BE FREE FROM FLASH, EJECTOR MARKS, SINK MARKS AND BLEMISHES.
7. ALL RADII SHALL BLEND EVENLY WITHOUT DISCERNIBLE STEPS, WITH RELATED FEATURES.
8. TOOLMAKER TO PROVIDE TOOL DRG., HIGHLIGHTING EJECTOR POSITIONS FOR APPROVAL PRIOR TO TOOLMAKING.
9. ALL CLASS A SURFACES TO BE TEXTURED WITH A 24 VDI SPARKED FINISH.
10. ALL INTERNAL NON CRITICAL SURFACES UNLESS OTHERWISE STATED TO BE SMOOTH AND FREE FROM TOOLING MARKS.



NOTE:
1. 1. Density = 0.037 pounds per cubic inch
2. 2. Mass = 0.679 pounds
3. 3. Volume = 18.435 cubic inches
4. MATERIAL: PC-ABS
   Lupoy GN5001RFH-E3948, Light Grey
   or PRL PC/ABS-FR1
5. PARTIALLY DEFINED DRAWING. THIS DRAWING SHALL BE USED WITH THE DESIGN MODEL FOR COMPLETE PRODUCT DEFINITION. QUERY OF THE MODEL IS REQUIRED FOR UNDIMENSIONED FEATURES
6. ALL SURFACES TO BE FREE FROM FLASH, EJECTOR MARKS, SINK MARKS AND BLEMISHES.
7. ALL RADII SHALL BLEND EVENLY WITHOUT DISCERNIBLE STEPS, WITH RELATED FEATURES.
8. TOOLMAKER TO PROVIDE TOOL DRG., HIGHLIGHTING EJECTOR POSITIONS FOR APPROVAL PRIOR TO TOOLMAKING.
9. ALL CLASS A SURFACES TO BE TEXTURED WITH A 24 VDI SPARKED FINISH.
10. ALL INTERNAL NON CRITICAL SURFACES UNLESS OTHERWISE STATED TO BE SMOOTH AND FREE FROM TOOLING MARKS.

TOL. UNLESS OTHERWISE SPECIFIED INJECTION MOLDED PLASTIC ±(.004" +.002"/INCH)	REV. DESC: CHANGE ALTERNATE MATERIAL		BALDOR - RELIANCE®
	REV: D VERSION: 04	REVISED: 11:02:51 04/27/2023 TDR: 000001206464	
UNSPECIFIED FEATURE DIMENSIONS: DRAFT= 1.0° ANGLES ±0.5°	MODEL NO. 37FH3006		37 FRAME TOP ECM FAN HOUSING
	BY: ENMARS0	B	37FH3006

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