ABB BALDOR RELIANCE

Customer information packet

ECS101M0H7EC4

7.5HP, 1800RPM, 3PH, 60HZ, 184TC, 3648B, TEFC
Class - None
Division - Not Applicable

Copyright © All product information within this document is subject to ABB Motors and Mechanical Inc. copyright © protection, unless otherwise noted.
11/5/2026 10:57:56 AM

Specifications

Enclosure	TEFC
Frame	184TC
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	7.500 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ
	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	17.500 A @ 230.0 V
	8.800 A @ 460.0 V
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	94.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	8.8 a
Insulation Class	F
Inverter Code	Inverter Duty

Part Detail

Revision	L
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	36WGA0021
Layout	36LYT291
Eff. date	02-12-2026
CD Diagram	CD0005A25
Poles	04
Leads	9#12
Proprietary	False
Created date	09-28-2020

IP Rating	NONE
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3648B
Mounting Arrangement	F1
Number of Poles	4
Overall Length	18.04 IN
Power Factor	94
Product Family	General Purpose
Pulley Face Code	C-Face
Rodent Screen	None
Service Factor	1.50
Shaft Diameter	1.125 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

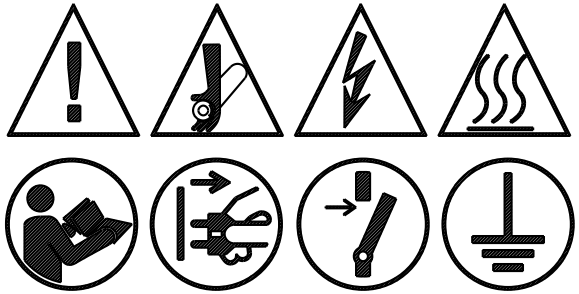
BALDOR·RELIANCE

EC-Titanium™

CAT. NO.	ECS101M0H7EC4						
SPEC.	36-0001737				YR	***	
FRAME	184TC		ENCL.	TEFC	IP	54	
HP	7.5	RATING	40C AMB-CONT				
NOM. EFF.	94.0	PF	94	SF	1.5		
VOLTS	230/460		FLA	17.5/8.8			
RPM	1800		RPM MAX	4000			
HZ	60		PH.	3	CLASS	F	
BEMF (V)	106/212		Rs (Ω)	0.32/1.26			
Ld (mH)	6.3/25.0		Lq (mH)	22.9/91.6			
INV TYP	VPWM	CHP	60 TO 133 HZ				
	CT	6 TO 60 HZ	VT	1 TO 133 HZ			
MATCHED INV	-						
BEARING	DE	6206	ODE	6205			
SERIAL#	***						

ELECTRIC 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.

Volts	460	Max RPM	4000	Conn Diag.	CD0006	Leads	3
Amps	9.0	Max Amps		Cs Diagram	CS1126	BEMF	212
HP	7.5	VFD#	ECI4A9P5			LD	25
RPM	1800	S.F.	1.00			LQ	91.6
Phase/Hz	3/60	Rating	40C AMB			Rs	1.3196 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	1620	90%	21.9	100%	6.8	92.4	7.39%	418
P2	901	50%	21.9	100%	3.8	90.5	5.23%	296
P3	451	25%	22.0	100%	1.9	85.2	4.31%	244
P4	1623	90%	10.9	50%	3.4	92.9	3.43%	194
P5	902	50%	10.9	50%	1.9	90.9	2.48%	140
P6	902	50%	5.5	25%	0.9	89.3	1.49%	84
P7	451	25%	5.5	25%	0.5	85.1	1.08%	61

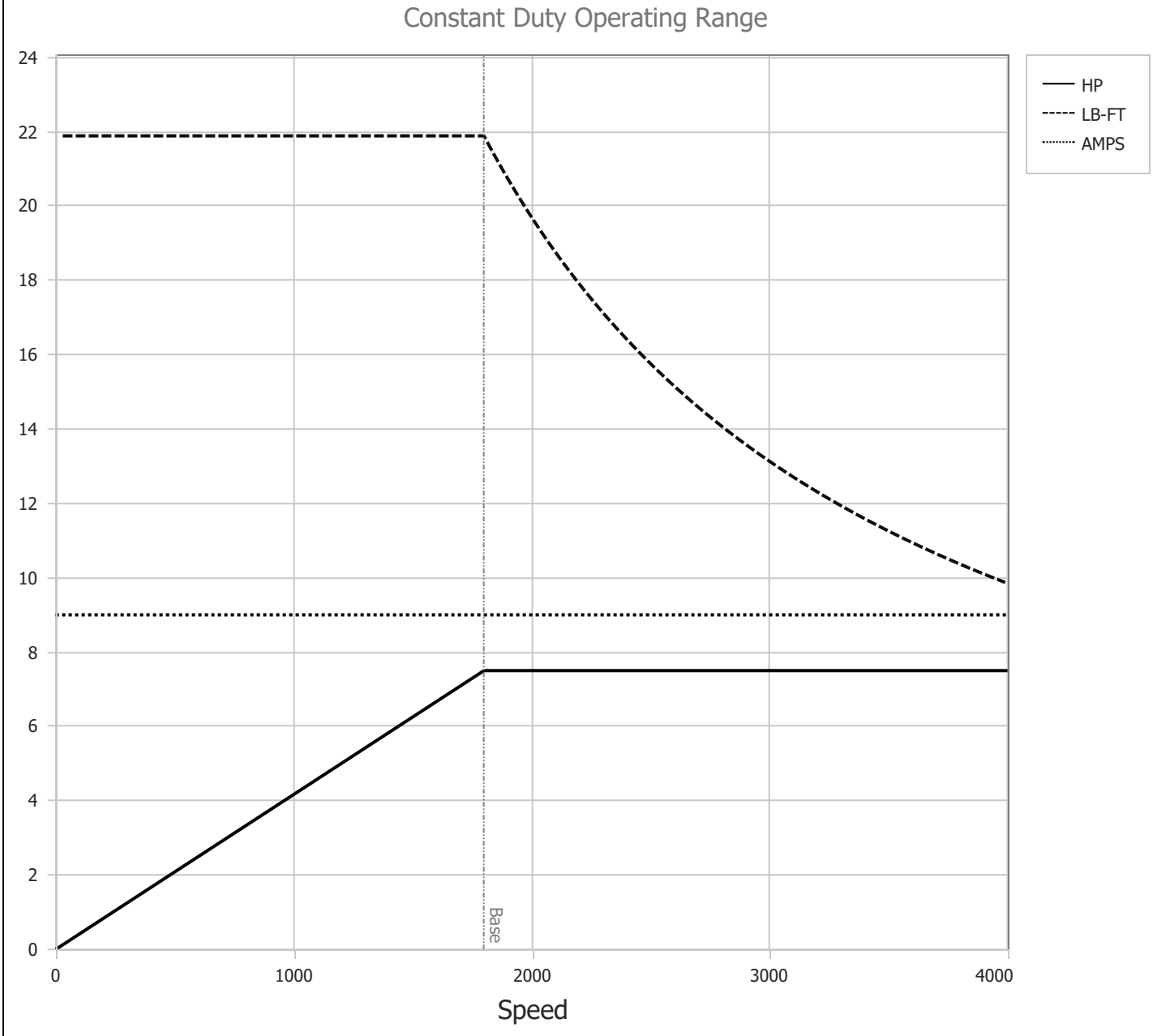
61800-9-2 PDS Performance at Reference Operating Points

	RPM	% Speed	LB-FT	% Torque	HP	System Efficiency	Loss (% FL)	Watts Loss (W)
P1	1802	100%	21.9	100%	7.5	91.5	9.22%	522
P2	901	50%	21.9	100%	3.8	87.1	7.36%	416
P3	300	17%	21.9	100%	1.3	73.5	5.95%	337
P4	1803	100%	10.9	50%	3.8	91.1	4.85%	275
P5	902	50%	10.9	50%	1.9	87.1	3.65%	207
P6	300	17%	10.9	50%	0.6	74.3	2.85%	161
P7	902	50%	5.5	25%	0.9	84.6	2.25%	128
P8	300	17%	5.5	25%	0.3	70.8	1.70%	96

Points not taken in certified order.

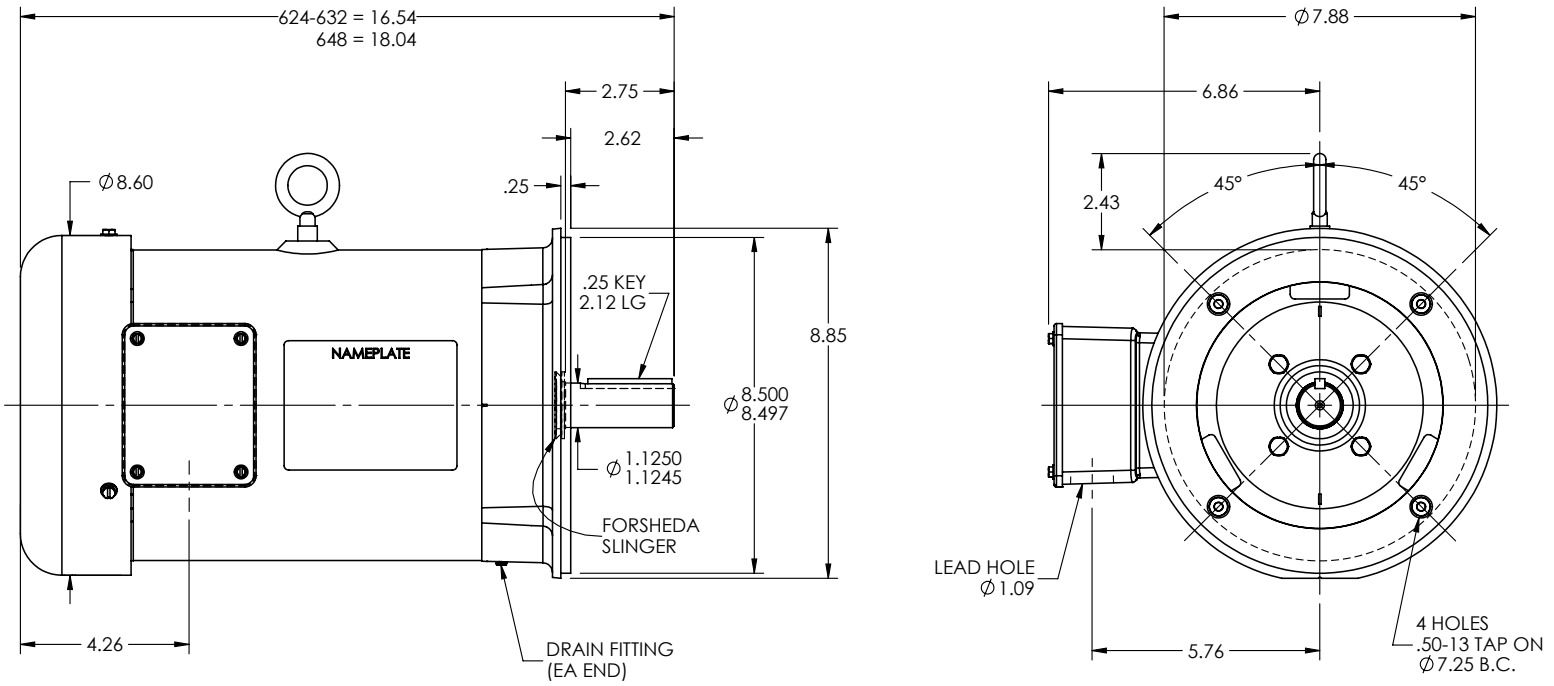
BALDOR • RELIANCE	DR By: R & D CK By: USTOSAN APP By: USJAROB1 Date: 09/12/2024	**AC MOTOR PERFORMANCE CURVES**	**36WGL111** 36T258L111G1 *Test - 111285*

Volts	460	Max RPM	4000	Conn Diag.	CD0006	Leads	3
Amps	9.0	Max Amps		Cs Diagram	CS1126	BEMF	212
HP	7.5	VFD #	ECI4A9P5			LD	25
RPM	1800	S.F.	1.00			LQ	91.6
Phase/Hz	3/60	Rating	40C AMB			Rs	1.3196 Meas L-L



BALDOR • RELIANCE	DR By: R & D CK By: USTOSAN APP By: USJAROB1 Date: 09/12/2024	**AC MOTOR PERFORMANCE CURVES**	**36WGL111** 36T258L111G1 *Test - 111285*

36LYT291



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

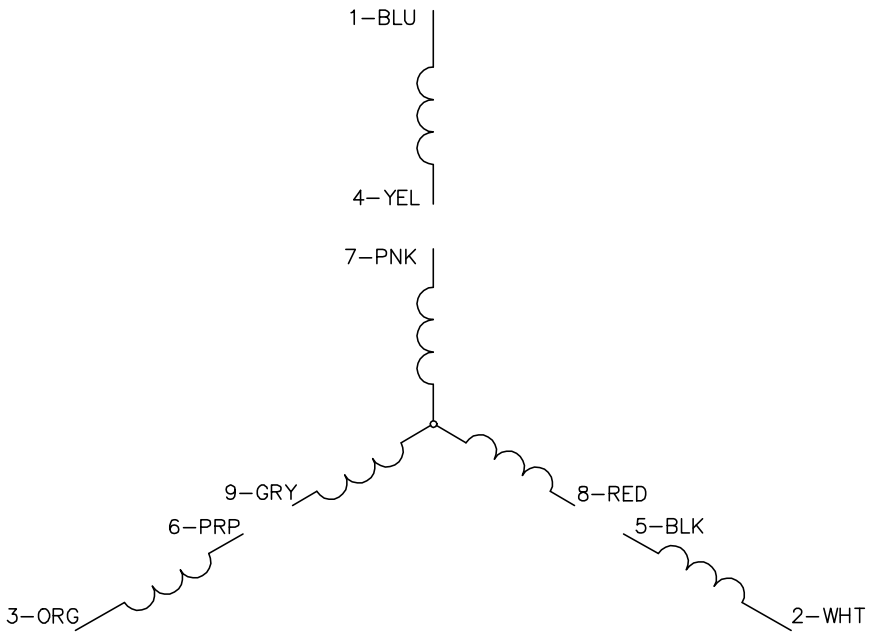
REV. DESC: UPDATE DRAWING GRAPHICS			
REV: A	VERSION: 01	REVISED: 10:42:36 03/21/2022	TDR: 000001187699
	MODEL NO. 36LYT291		REF: -
	BY: ENJEFD0	Material: -	

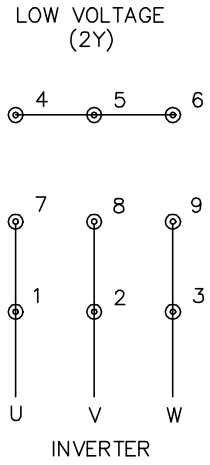
BALDOR

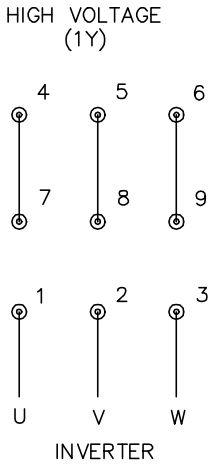
VER 182-4TC TEFC B EYEBOLT INT SH GND ECS

36LYT291

CD0005A25







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