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# Customer information packet

## ECS100T4H2DF4

2HP, 1800RPM, 3PH, 60HZ, 145T, 3524B, TEFC, F1

Class - None

Division - Not Applicable

## Specifications

Enclosure	TEFC
Frame	145T
Frame Material	Steel
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Brushless Wound Field PM Rotor
Output @ Frequency	2.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	BLUETOOTH CULUS WEEE
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	6
Current @ Voltage	2.200 A @ 460.0 V
Design Code	-
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.9 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	2.2 a
Insulation Class	F
Inverter Code	03

## Part detail

Revision	E
Type	AC
Mech. spec.	35E5209
Base	
Status	PRD/A
Elec. spec.	35WGG963
Layout	35LYE5209
Eff. date	06-16-2025
CD Diagram	CD0006B03
Poles	04
Leads	3#16 13" LONG LEADS Y
Proprietary	False
Created date	05-06-2024

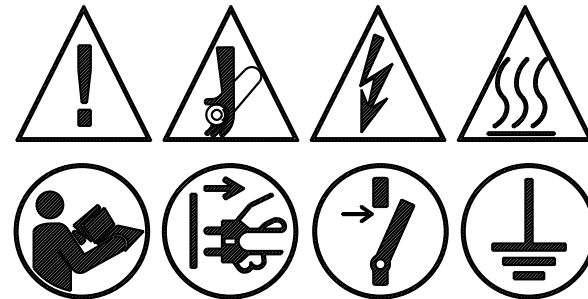
<b>KVA Code</b>	-
<b>Lifting Lugs</b>	No Lifting Lugs
<b>Locked Bearing Indicator</b>	Locked Bearing
<b>Motor Lead Quantity/Wire Size</b>	3 @ 16 AWG
<b>Motor Lead Termination</b>	Flying Leads
<b>Motor Standards</b>	NEMA
<b>Motor Type</b>	3524B
<b>Mounting Arrangement</b>	F1
<b>Number of Poles</b>	4
<b>Overall Length</b>	13.38 IN
<b>Power Factor</b>	93
<b>Product Family</b>	General Purpose
<b>Pulley Face Code</b>	Standard
<b>Rodent Screen</b>	None
<b>Service Factor</b>	1.00
<b>Shaft Diameter</b>	0.875 IN
<b>Shaft Ground Indicator</b>	Shaft Grounding
<b>Shaft Rotation</b>	Reversible
<b>Speed</b>	1800 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

# BALDOR • RELIANCE

## EC-Titanium™

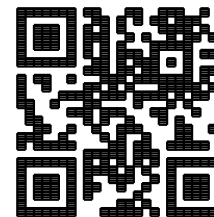
CAT. NO.	ECS100T4H2DF4						
SPEC.	35E5209G963G1					YR	***
FRAME	145T	ENCL.	TEFC	IP	54		
HP	2	RATING	40C AMB-CONT				
NOM. EFF.	91.9	PF	93	SF	1.00		
VOLTS	460	FLA	1.75				
RPM	1800	RPM MAX	4000				
HZ	60	PH.	3	CLASS	F		
BEMF (V)	296	Rs (Ω)	11.7				
Ld (mH)	78.9	Lq (mH)	406				
INV TYP	VPWM	CHP	60	TO	133	HZ	
	CT	6	TO	60 HZ	VT	6	TO 60 HZ
MATCHED INV	EC14A4P1						
BEARING	DE	6205	ODE	6203			
SERIAL#	***						

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 À AIMANT PERMANENT. LORSQUE L'ARBRE TOURNE, UNE TENSION SERA GÉNÉRÉE AUX BORNES DU MOTEUR.

BALDOR-RELIANCE  
SHAFT GROUNDING BRUSH INSTALLED



ELECTRONICALLY PROTECTED MOTOR  
FOR INDUSTRIAL USE

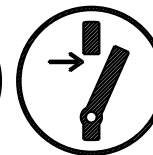


ABB MOTORS AND MECHANICAL INC.  
5711 R.S. BOREHAM JR. ST., FORT SMITH, AR. MFG IN U.S.A.

# BALDOR • RELIANCE

## EC-Titanium™

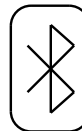
PART NO.	EC14A4P1			
U1	480	PH 3	HZ	60
I1 MAX	2.9	W /EXT. CHOKE		2.7
SERIAL #	***			



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	4000	Conn Diag.	CD0006B03	Leads	3
Amps	2.4	Max Amps		Cs Diagram	CS1126	BEMF	296
HP	2	VFD#	ECIN4A2P2			LD	78.9
RPM	1800	S.F.	1.00			LQ	406
Phase/Hz	3/60	Rating	40C AMB-CONT			Rs	11.7433 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	1627	90%	5.8	100%	1.8	91.9	7.92%	120
P2	903	50%	5.8	100%	1.0	88.1	6.71%	101
P3	453	25%	5.8	100%	0.5	81.6	5.62%	85
P4	1624	90%	2.9	50%	0.9	92.2	3.77%	57
P5	903	50%	2.9	50%	0.5	90.5	2.61%	39
P6	903	50%	1.5	25%	0.3	91.1	1.22%	18
P7	454	25%	1.5	25%	0.1	88.8	0.79%	12

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

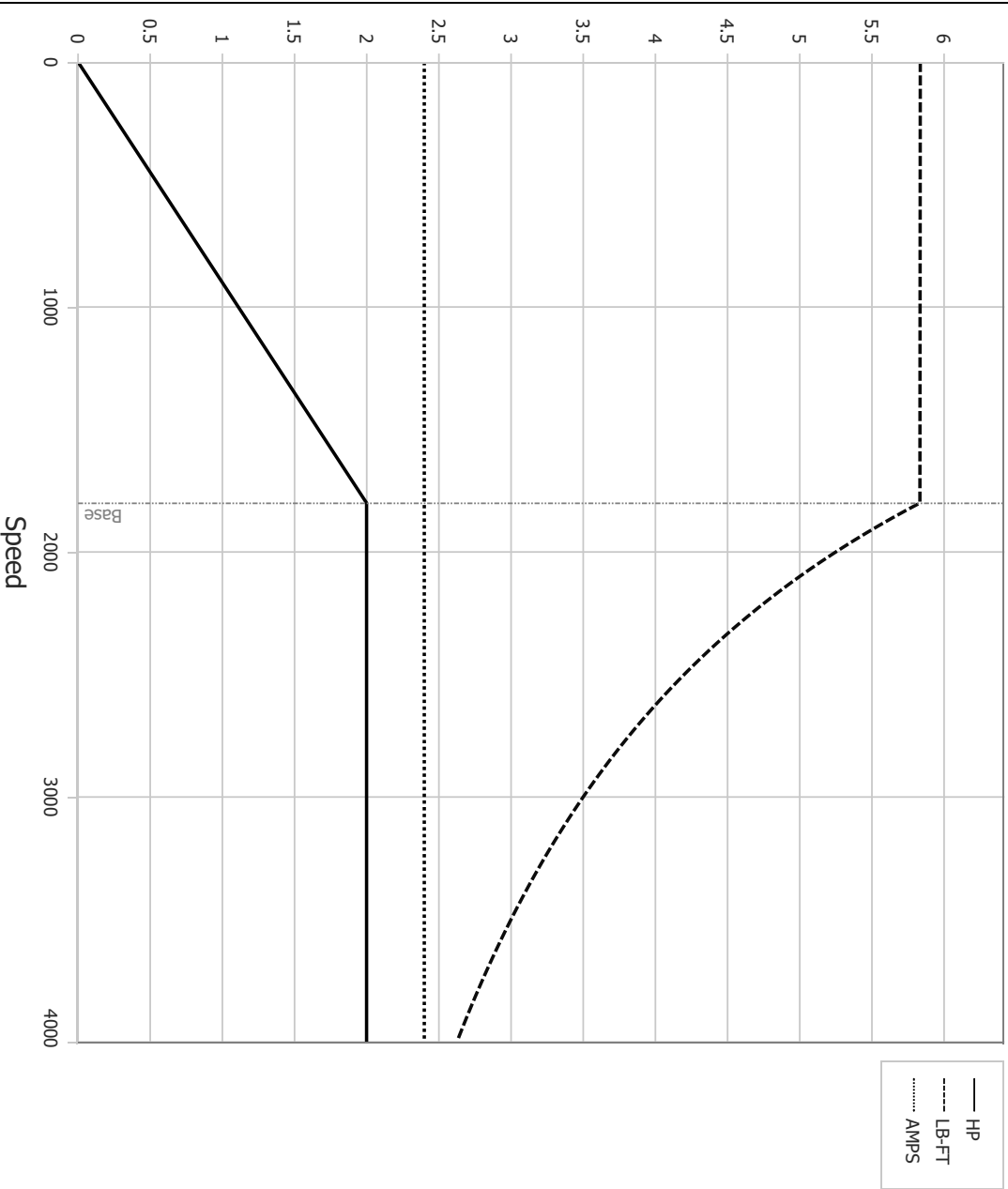
	RPM	% Speed	LB-FT	% Torque	HP	System Efficiency	Loss (% FL)	Watts Loss (W)
P1	1812	100%	5.8	100%	2.0	89.2	12.04%	182
P2	903	50%	5.8	100%	1.0	84.1	9.39%	142
P3	302	17%	5.8	100%	0.3	68.1	7.78%	117
P4	1804	100%	2.9	50%	1.0	89.1	6.06%	91
P5	903	50%	2.9	50%	0.5	84.6	4.53%	68
P6	302	17%	2.9	50%	0.2	69.3	3.67%	55
P7	903	50%	1.5	25%	0.3	81.9	2.75%	42
P8	302	17%	1.5	25%	0.1	65.2	2.21%	33

Points not taken in certified order.

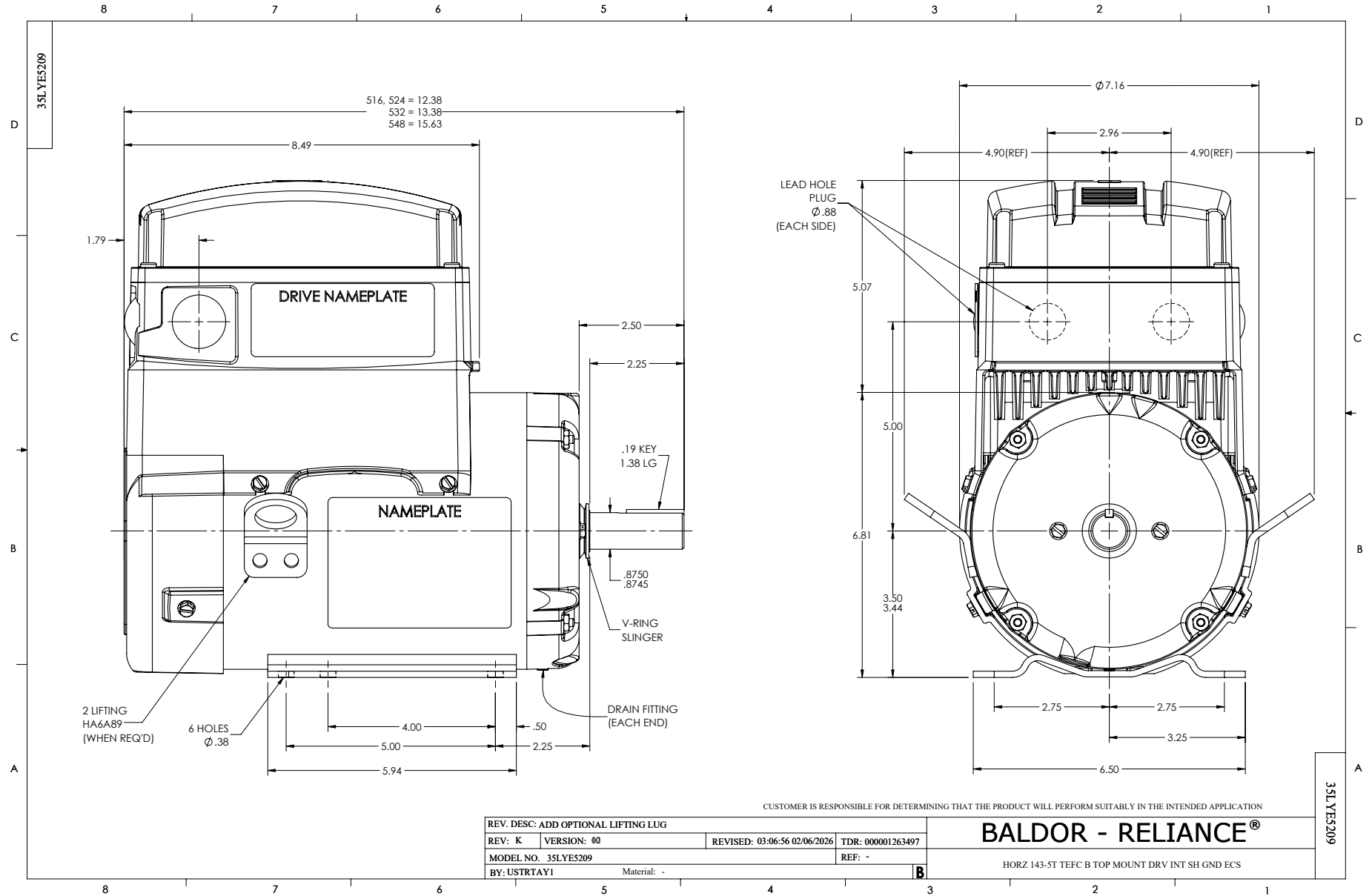
	DR By:	<u>R &amp; D</u>	<b>AC MOTOR PERFORMANCE CURVES</b>	<b>35WGG963</b> 35E5209G963 Test - 110893
	CK By:	<u>USTOSAN</u>		
	App By:	<u>USJAROB1</u>		
Date:		<u>07/03/2024</u>		

Volts	460	Max RPM	4000	Conn Diag.	CD0006B03	Leads	3
Amps	2.4	Max Amps		Cs Diagram	CS1126	BEMF	296
HP	2	VFD #	ECIN4A2P2			LD	78.9
RPM	1800	S.F.	1.00			LQ	406
Phase/Hz	3/60	Rating	40C AMB-CONT			Rs	11.7433 Meas L-L

Constant Duty Operating Range



<p><b>BALDOR • RELIANCE</b></p>	DR By: <u>        </u> R & D	<p><b>AC MOTOR PERFORMANCE CURVES</b></p>	<p><b>35WGG963</b> 35E5209G963 Test - 110893</p>
	CK By: <u>USTOSAN</u>		
	APP By: <u>USJAROB1</u>		
	Date: <u>07/03/2024</u>		



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