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# Customer information packet

## ECS100T1H1DB4

1HP, 1800RPM, 3PH, 60HZ, 143TC, 3516B, TEFC, F1

Class - None

Division - Not Applicable

## Specifications

Enclosure	TEFC
Frame	143TC
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	1.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 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	2.500 A @ 230.0 V
Design Code	-
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	2.5 a
Insulation Class	F
Inverter Code	03

## Part detail

Revision	A
Type	AC
Mech. spec.	35E5291
Base	
Status	PRD/A
Elec. spec.	35WGG932
Layout	35LYE5291
Eff. date	06-16-2025
CD Diagram	CD0006B03
Poles	04
Leads	3#18
Proprietary	False
Created date	01-23-2025

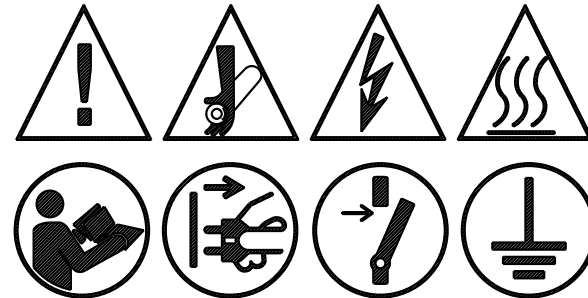
<b>KVA Code</b>	-
<b>Lifting Lugs</b>	No Lifting Lugs
<b>Locked Bearing Indicator</b>	Locked Bearing
<b>Motor Lead Quantity/Wire Size</b>	3 @ 18 AWG
<b>Motor Lead Termination</b>	Flying Leads
<b>Motor Standards</b>	NEMA
<b>Motor Type</b>	3516B
<b>Mounting Arrangement</b>	F1
<b>Number of Poles</b>	4
<b>Overall Length</b>	13.38 IN
<b>Power Factor</b>	98
<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>	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

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## EC-Titanium™

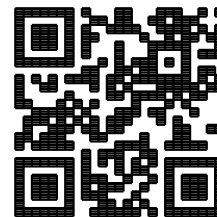
CAT. NO.	ECS100T1H1DB4										
SPEC.	35E5291G932G3							YR	***		
FRAME	143TC			ENCL.	TEFC	IP	54				
HP	1	RATING		40C AMB-CONT							
NOM. EFF.	91.0	PF	98	SF	1.00						
VOLTS	230			FLA	2.5						
RPM	1800		RPM MAX	3000							
HZ	60		PH.	3	CLASS	F					
BEMF (V)	135			Rs (Ω)	4.9						
Ld (mH)	30.8			Lq (mH)	135						
INV TYP	VPWM	CHP	60	TO	133	HZ					
	CT	6	TO	60 HZ	VT	6	TO	60 HZ			
MATCHED INV	EC11A3P2										
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

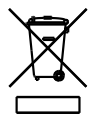


ABB MOTORS AND MECHANICAL INC.  
5711 R.S. BOREHAM JR. ST., FORT SMITH, AR. MFG IN U.S.A.

# BALDOR • RELIANCE

## EC-Titanium™

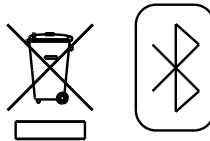
PART NO.	EC11A3P2			
U1	120	PH 1	HZ	60
I1 MAX	9.6	W /EXT. CHOKE		9.0
SERIAL #	***			



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	120	Max RPM	4000	Conn Diag.	CD0006B03	Leads	3
Amps	2.4	Max Amps		Cs Diagram	CS1127	BEMF	135
HP	1	VFD#	ECIN1A3P2			LD	29.3
RPM	1800	S.F.	1.00			LQ	136
Phase/Hz	3/60	Rating	40C AMB-CONT			Rs	4.8894 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	1618	90%	2.9	100%	0.9	89.8	10.17%	77
P2	900	50%	2.9	100%	0.5	85.4	8.48%	64
P3	450	25%	2.9	100%	0.2	78.7	6.68%	50
P4	1620	90%	1.5	50%	0.5	89.3	5.36%	40
P5	900	50%	1.5	50%	0.2	87.3	3.61%	27
P6	900	50%	0.7	25%	0.1	86.0	2.03%	15
P7	450	25%	0.7	25%	0.1	83.2	1.24%	9

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

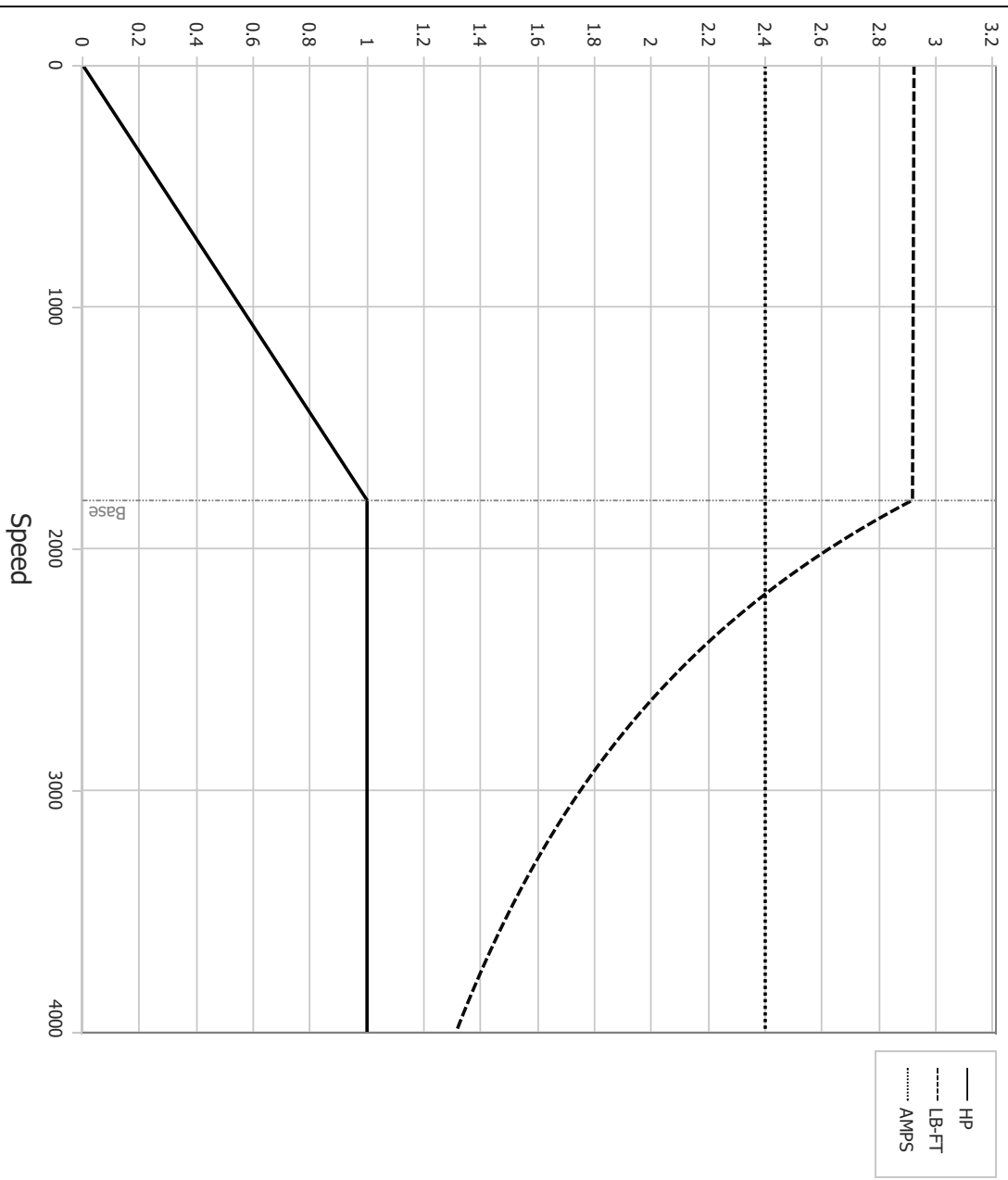
	RPM	% Speed	LB-FT	% Torque	HP	System Efficiency	Loss (% FL)	Watts Loss (W)
P1	1801	100%	2.9	100%	1.0	86.8	15.08%	114
P2	900	50%	2.9	100%	0.5	81.0	11.57%	87
P3	299	17%	2.9	100%	0.2	65.1	8.79%	66
P4	1799	100%	1.5	50%	0.5	85.7	8.23%	62
P5	900	50%	1.5	50%	0.2	82.0	5.43%	41
P6	300	17%	1.5	50%	0.1	67.1	4.03%	30
P7	900	50%	0.7	25%	0.1	78.9	3.32%	25
P8	300	17%	0.7	25%	0.0	64.6	2.25%	17

Points not taken in certified order.

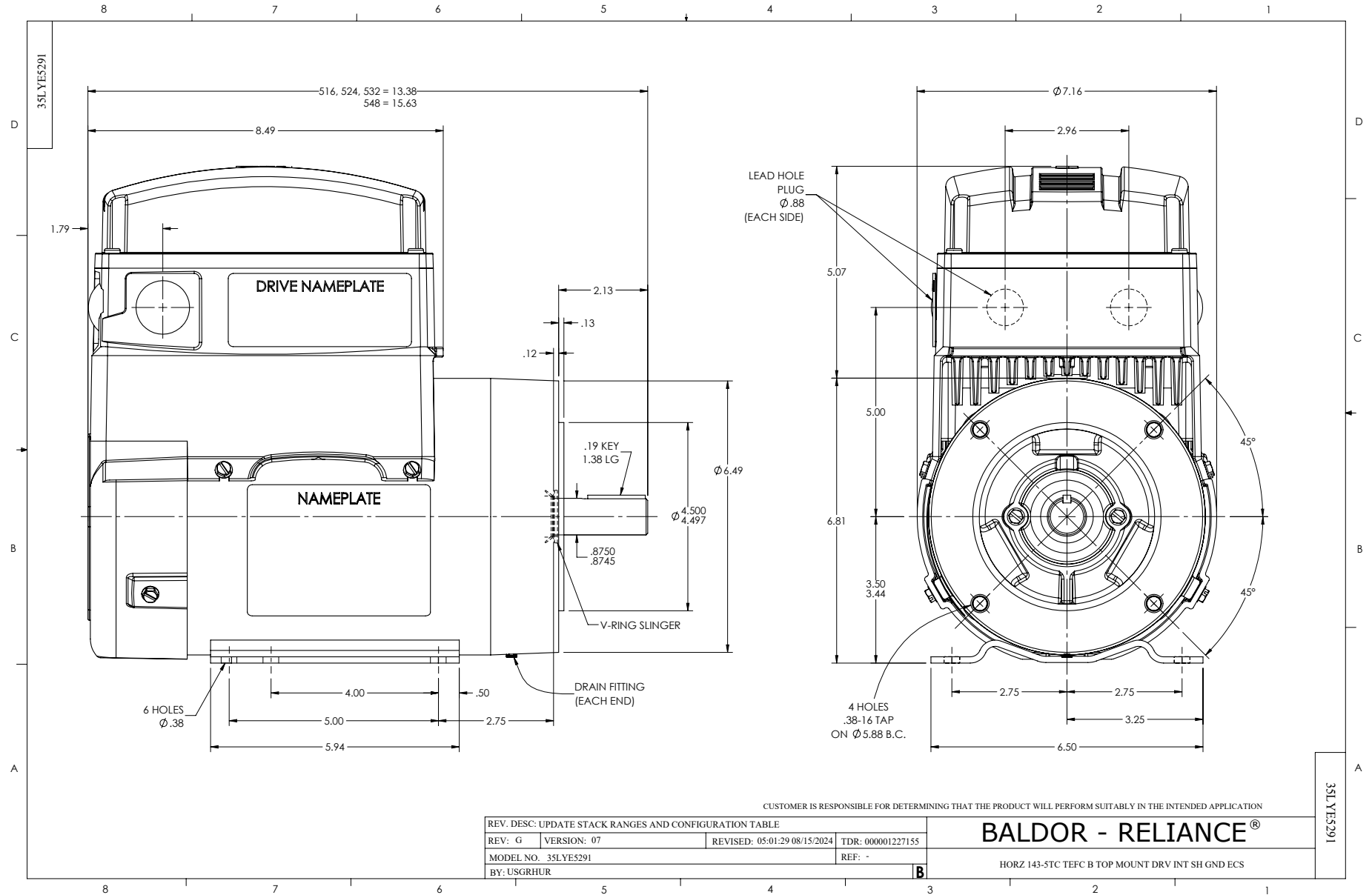
	DR By:	<u>R &amp; D</u>	<b>AC MOTOR PERFORMANCE CURVES</b>	<b>35WGG932</b> 35-0000-1616 Test - 111671
	CK By:	<u>USBIBAK</u>		
	App By:	<u>USWEQUA1</u>		
Date:		<u>12/07/2024</u>		

Volts	120	Max RPM	4000	Conn Diag.	CD0006B03	Leads	3
Amps	2.4	Max Amps		Cs Diagram	CS1127	BEMF	135
HP	1	VFD #	ECIN1A3P2			LD	29.3
RPM	1800	S.F.	1.00			LQ	136
Phase/Hz	3/60	Rating	40C AMB-CONT			Rs	4.8894 Meas L-L

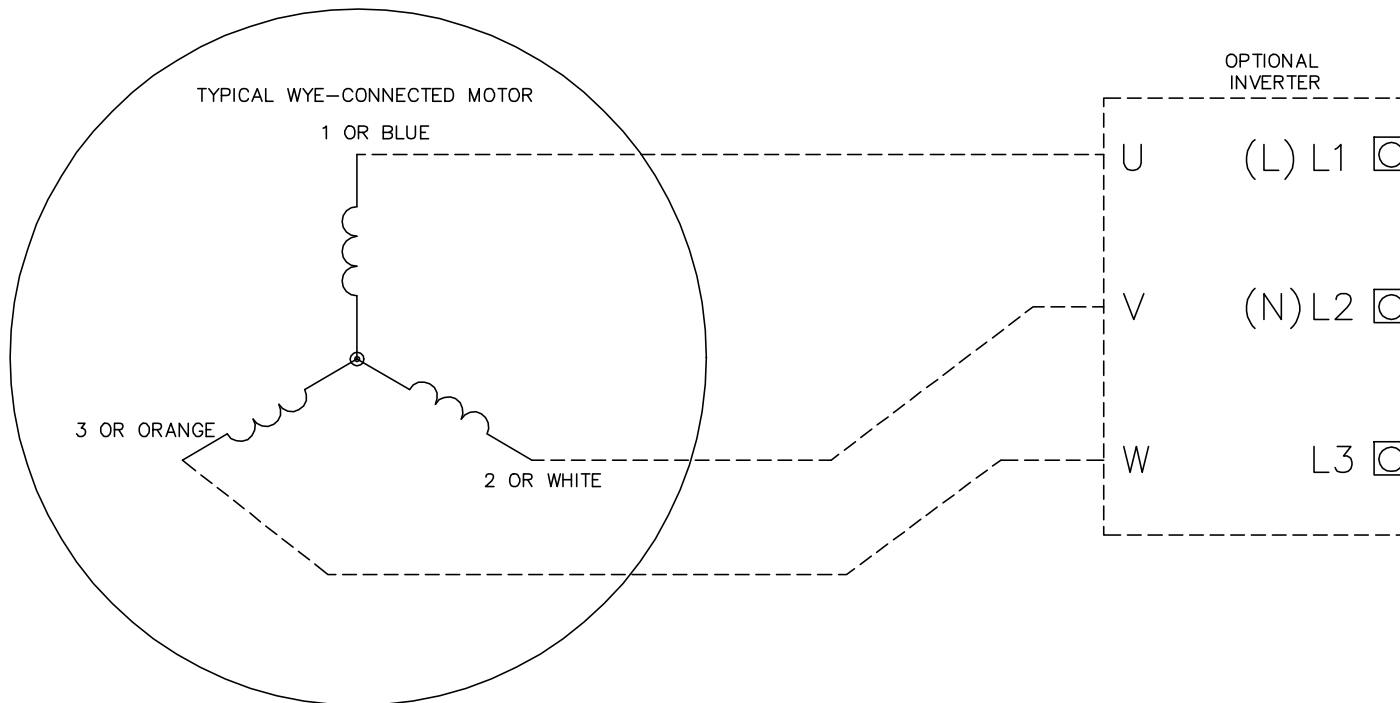
Constant Duty Operating Range



<p><b>BALDOR • RELIANCE</b></p>	DR By: <u>R &amp; D</u>	<p><b>AC MOTOR PERFORMANCE CURVES</b></p>	<p><b>35WGG932</b> 35-0000-1616 Test - 111671</p>
	<p>CK By: <u>USBIBAK</u> APP By: <u>USWEQUA1</u> Date: <u>12/07/2024</u></p>		



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