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# Customer information packet

## ECS100A2H2DB4

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

Class - None

Division - Not Applicable

## Specifications

Enclosure	TEFC
Frame	145TC
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	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	4.800 A @ 230.0 V
Design Code	-
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	90.4 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	4.8 a
Insulation Class	F
Inverter Code	03

## Part detail

Revision	C
Type	AC
Mech. spec.	35E5351
Base	
Status	PRD/A
Elec. spec.	35WGG964
Layout	35LYE5351
Eff. date	10-31-2024
CD Diagram	CD0006B03
Poles	04
Leads	3#16 13" LONG LEADS Y
Proprietary	False
Created date	05-09-2024

<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>	17.71 IN
<b>Power Factor</b>	93
<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

**Nameplate**

<b>NP3968A01A01</b>									
<b>CAT.NO.</b>	ECS100A2H2DB4								
<b>SPEC.</b>	35E5351G964								
<b>FRAME</b>	145TC		<b>ENCL.</b>	TEFC	<b>IP</b>	54			
<b>HP</b>	2	40	<b>C AMB</b>		<b>CONT</b>				
<b>NOM. EFF.</b>	91.3	<b>PF</b>	93	<b>SF</b>	1.5				
<b>VOLTS</b>	230		<b>FLA</b>	4.8					
<b>RPM</b>	1800		<b>RPM-MAX</b>	4000					
<b>HZ</b>	60		<b>PH.</b>	3	<b>CLASS</b>	F			
<b>BEMF (V)</b>	148		<b>RS (OHMS)</b>	2.94					
<b>LD (MH)</b>	22.1			<b>LQ (MH)</b>	97.1				
<b>VPWM</b>	<b>CHP</b>	60	<b>TO</b>	133					
<b>CT</b>	6	<b>TO</b>	60	<b>VT</b>	6	<b>TO</b>	60		
<b>MATCHED INV</b>	ECI2A7P0								
<b>DE</b>	6205		<b>ODE</b>	6203					
<b>SERIAL #</b>									

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**NP3978A01**

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<b>PART NO.</b>	ECI2A7P0				
<b>U1</b>	240	<b>PH</b>	3	<b>HZ</b>	60
<b>I1</b>	6.2	<b>W/EXT. CHOKE</b>			5.9
<b>SERIAL #</b>					

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Volts	230	Max RPM	4000	Conn Diag.	CD0006B03	Leads	3
Amps	4.8	Max Amps		Cs Diagram	CS1127	BEMF	95
HP	2	VFD#	OPC-2-120070-1			LD	15.2
RPM	1800	S.F.	1.00			LQ	63.5
Phase/Hz	3/60	Rating	40C AMB-CONT			Rs	9.5595 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	1619	90%	5.8	100%	1.8	84.2	16.73%	252
P2	906	50%	4.2	100%	0.7	62.7	21.27%	321
P3	440	25%	2.8	100%	0.2	36.4	20.56%	310
P4	1627	90%	2.9	50%	0.9	83.8	8.66%	131
P5	902	50%	2.9	50%	0.5	69.3	10.98%	166
P6	901	50%	1.5	25%	0.3	76.0	3.93%	59
P7	455	25%	1.5	25%	0.1	61.2	3.96%	60

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

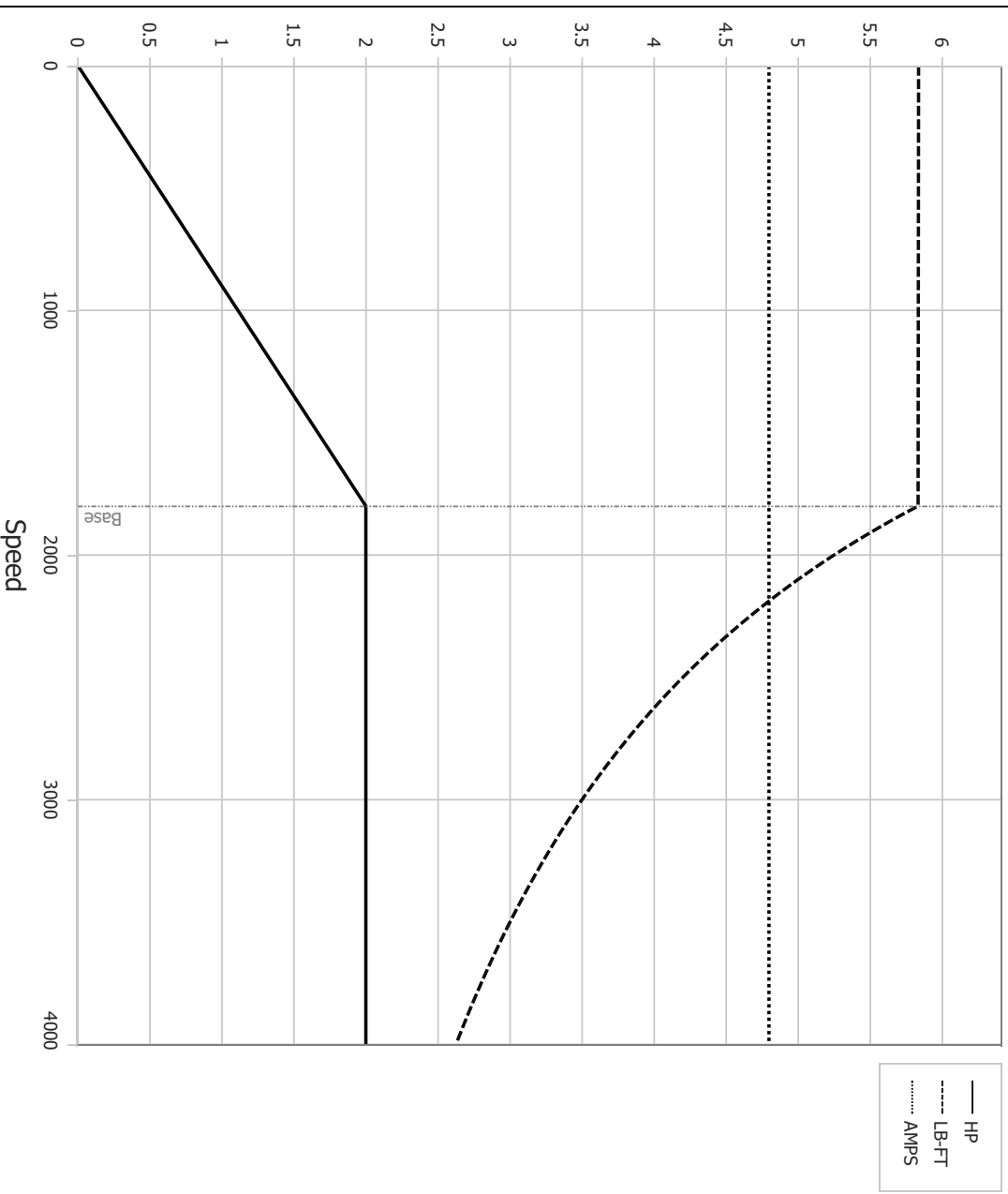
	RPM	% Speed	LB-FT	% Torque	HP	System Efficiency	Loss (% FL)	Watts Loss (W)
P1	1784	100%	5.8	100%	2.0	81.2	22.62%	341
P2	906	50%	4.2	100%	0.7	58.0	25.91%	391
P3	298	17%	2.2	100%	0.1	26.7	16.78%	253
P4	1790	100%	2.9	50%	1.0	79.0	13.05%	197
P5	902	50%	2.9	50%	0.5	63.9	14.02%	212
P6	299	17%	2.2	50%	0.1	26.7	16.62%	251
P7	901	50%	1.5	25%	0.3	68.7	5.66%	85
P8	311	17%	1.5	25%	0.1	40.6	6.26%	94

Points not taken in certified order.

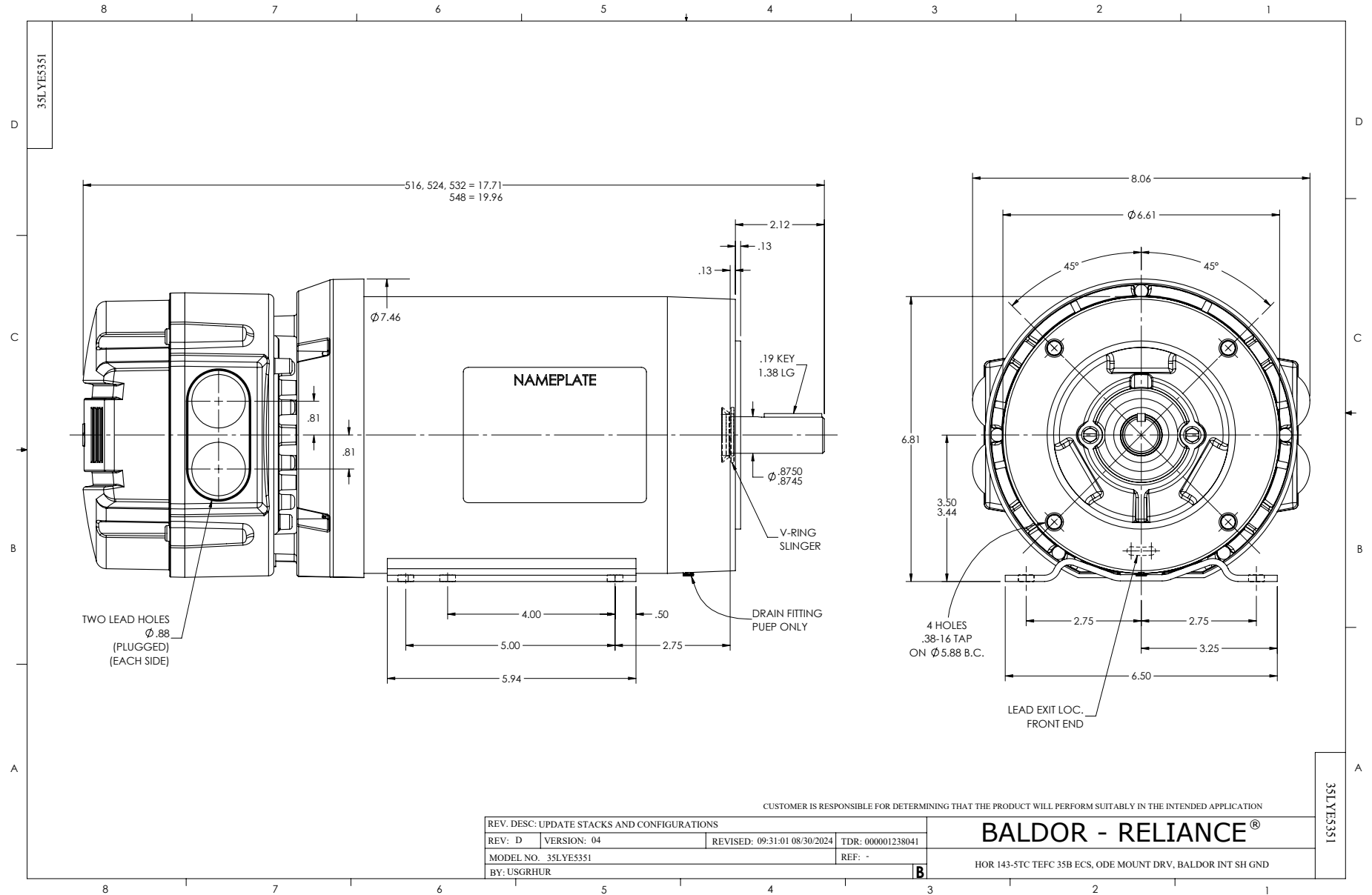
<b>BALDOR • RELIANCE</b>	DR By: <u>R &amp; D</u>	<b>AC MOTOR PERFORMANCE CURVES</b>	<b>35WGA0050</b> 35-0000-1619 Test - 111860
	CK By: <u>USTOSAN</u>		
	App By: <u>USJAROB1</u>		
Date: <u>01/29/2025</u>			

Volts	230	Max RPM	4000	Conn Diag.	CD0006B03	Leads	3
Amps	4.8	Max Amps		Cs Diagram	CS1127	BEMF	95
HP	2	VFD #	OPC-2-120070-1			LD	15.2
RPM	1800	S.F.	1.00			LQ	63.5
Phase/Hz	3/60	Rating	40C AMB-CONT			Rs	9.5595 Meas L-L

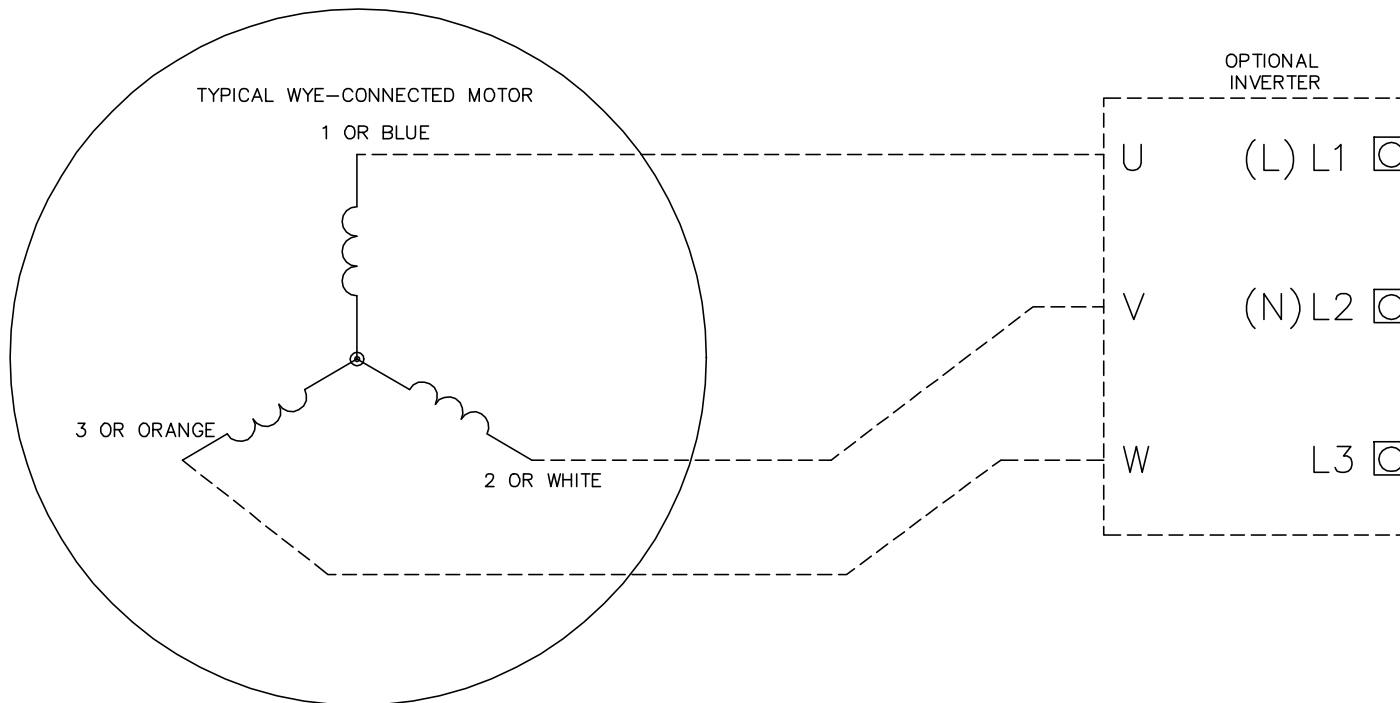
Constant Duty Operating Range



<p><b>BALDOR • RELIANCE</b></p>	DR By: <u>R &amp; D</u>	<p><b>AC MOTOR PERFORMANCE CURVES</b></p>	<p><b>35WGA0050</b> 35-0000-1619 Test - 117860</p>
	CK By: <u>USTOSAN</u>		
	APP By: <u>USJAROB1</u>		
Date: <u>01/29/2025</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

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