

# ABB BALDOR RELIANCE III

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## Customer information packet

ECS100A4H1DB4

1HP, 1800RPM, 3PH, 60HZ, 145TC, 3516B, TEFC, F1

Class - None

Division - Not Applicable

**Specifications**

<b>Enclosure</b>	TEFC
<b>Frame</b>	145TC
<b>Frame Material</b>	Steel
<b>Frequency</b>	60.00 Hz
<b>Haz Area Class and Group</b>	None
<b>Haz Area Division</b>	Not Applicable
<b>Motor Letter Type</b>	Brushless Wound Field PM Rotor
<b>Output @ Frequency</b>	1.000 HP @ 60 HZ
<b>Phase</b>	3
<b>Synchronous Speed @ Frequency</b>	1800 RPM @ 60 HZ
<b>Voltage @ Frequency</b>	460.0 V @ 60 HZ
<b>Agency Approvals</b>	BLUETOOTH CULUS WEEE
<b>Ambient Temperature</b>	40 °C
<b>Auxiliary Box</b>	NO AUXILLARY BOX
<b>Auxiliary Box Lead Termination</b>	None
<b>Base Indicator</b>	Rigid
<b>Bearing Grease Type</b>	Polyrex EM (-20F +300F)
<b>Blower</b>	None
<b>Constant Torque Speed Range</b>	6
<b>Current @ Voltage</b>	1.050 A @ 460.0 V
<b>Design Code</b>	-
<b>Drip Cover</b>	No Drip Cover
<b>Duty Rating</b>	CONT
<b>Efficiency @ 100% Load</b>	90.3 %
<b>Electrically Isolated Bearing</b>	Not Electrically Isolated
<b>Feedback Device</b>	NO FEEDBACK
<b>Heater Indicator</b>	No Heater
<b>High Voltage Full Load Amps</b>	1.1 a
<b>Insulation Class</b>	F
<b>Inverter Code</b>	03

**Part Detail**

<b>Revision</b>	E
<b>Type</b>	AC
<b>Mech. spec.</b>	35E5351
<b>Base</b>	
<b>Status</b>	PRD/A
<b>Elec. spec.</b>	35WGG965
<b>Layout</b>	35LYE5351
<b>Eff. date</b>	09-24-2025
<b>CD Diagram</b>	CD0006B03
<b>Poles</b>	04
<b>Leads</b>	3#14 13" LONG LEADS Y
<b>Proprietary</b>	False
<b>Created date</b>	05-07-2024

<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 @ 14 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>	17.71 IN
<b>Power Factor</b>	97
<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>	ECS100A4H1DB4								
<b>SPEC.</b>	35E5351G965								
<b>FRAME</b>	145TC		<b>ENCL.</b>	TEFC	<b>IP</b>	54			
<b>HP</b>	1	40	<b>C AMB</b>		<b>CONT</b>				
<b>NOM. EFF.</b>	89.5	<b>PF</b>	97	<b>SF</b>	1				
<b>VOLTS</b>	460		<b>FLA</b>	1.2					
<b>RPM</b>	1800		<b>RPM-MAX</b>	3600					
<b>HZ</b>	60		<b>PH.</b>	3	<b>CLASS</b>	F			
<b>BEMF (V)</b>	269		<b>RS (OHMS)</b>	19.7					
<b>LD (MH)</b>	117		<b>LQ (MH)</b>	500					
<b>VPWM</b>	<b>CHP</b>	60	<b>TO</b>	120					
<b>CT</b>	6	<b>TO</b>	60	<b>VT</b>	6	<b>TO</b>	60		
<b>MATCHED INV</b>	ECI4A2P2								
<b>DE</b>	6205		<b>ODE</b>	6203					
<b>SERIAL #</b>									

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**NP3978A01**

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<b>PART NO.</b>	ECI4A2P2					
<b>U1</b>	480	<b>PH</b>	3	<b>HZ</b>	60	
<b>I1</b>	1.8	<b>W/EXT. CHOKE</b>				1.7
<b>SERIAL #</b>						

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Volts	460	Max RPM	3600	Conn Diag.	CD0006B03	Leads	3
Amps	1.05	Max Amps		Cs Diagram	CS1126	BEMF	269
HP	1	VFD#	ECIN4A2P2			LD	117
RPM	1800	S.F.	1.00			LQ	500
Phase/Hz	3/60	Rating	50C AMB-CONT			Rs	19.8095 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	88.2	11.94%	90
P2	900	50%	2.9	100%	0.5	86.0	8.08%	61
P3	450	25%	2.9	100%	0.3	79.2	6.50%	49
P4	1621	90%	1.5	50%	0.5	87.1	6.62%	50
P5	900	50%	1.5	50%	0.2	87.4	3.55%	27
P6	900	50%	0.7	25%	0.1	86.0	2.02%	15
P7	450	25%	0.7	25%	0.1	83.8	1.21%	9

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

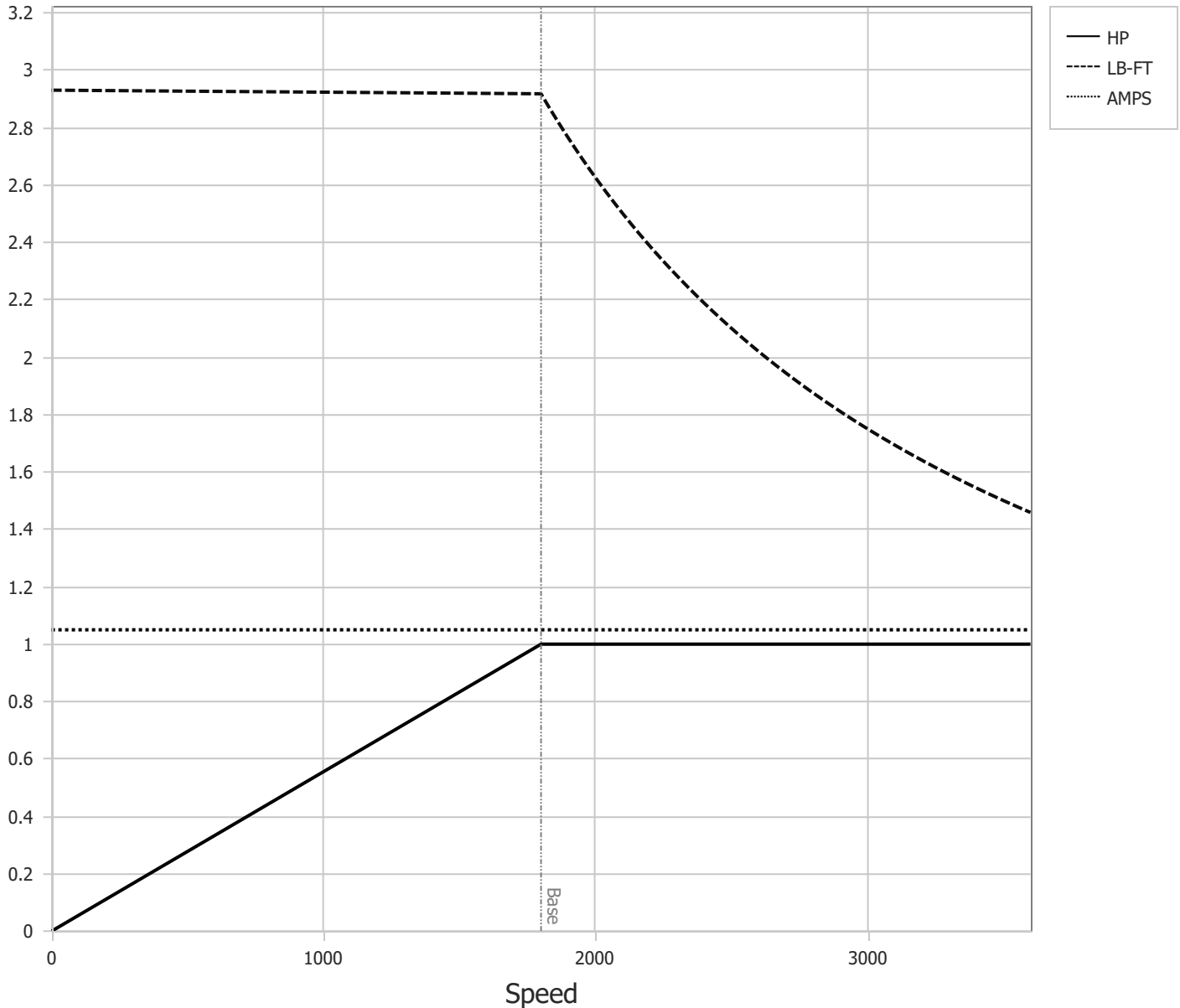
	RPM	% Speed	LB-FT	% Torque	HP	System Efficiency	Loss (% FL)	Watts Loss (W)
P1	1799	100%	2.9	100%	1.0	87.0	14.73%	111
P2	900	50%	2.9	100%	0.5	81.0	11.61%	88
P3	300	17%	2.9	100%	0.2	63.2	9.59%	72
P4	1802	100%	1.5	50%	0.5	83.5	9.78%	74
P5	900	50%	1.5	50%	0.2	79.4	6.41%	48
P6	300	17%	1.5	50%	0.1	61.5	5.17%	39
P7	900	50%	0.7	25%	0.1	73.2	4.53%	34
P8	300	17%	0.7	25%	0.0	53.7	3.56%	27

*Points not taken in certified order.*

<b>BALDOR • RELIANCE</b>	DR By:	<u>R &amp; D</u>	<b>AC MOTOR PERFORMANCE CURVES</b>	<b>35WGG965</b> 35-0000-1623 Test - 111577
	CK By:	<u>USTOSAN</u>		
	APP By:	<u>USWEQUA1</u>		
	Date:	<u>11/14/2024</u>		

Volts	460	Max RPM	3600	Conn Diag.	CD0006B03	Leads	3
Amps	1.05	Max Amps		Cs Diagram	CS1126	BEMF	269
HP	1	VFD #	ECIN4A2P2			LD	117
RPM	1800	S.F.	1.00			LQ	500
Phase/Hz	3/60	Rating	50C AMB-CONT			Rs	19.8095 Meas L-L

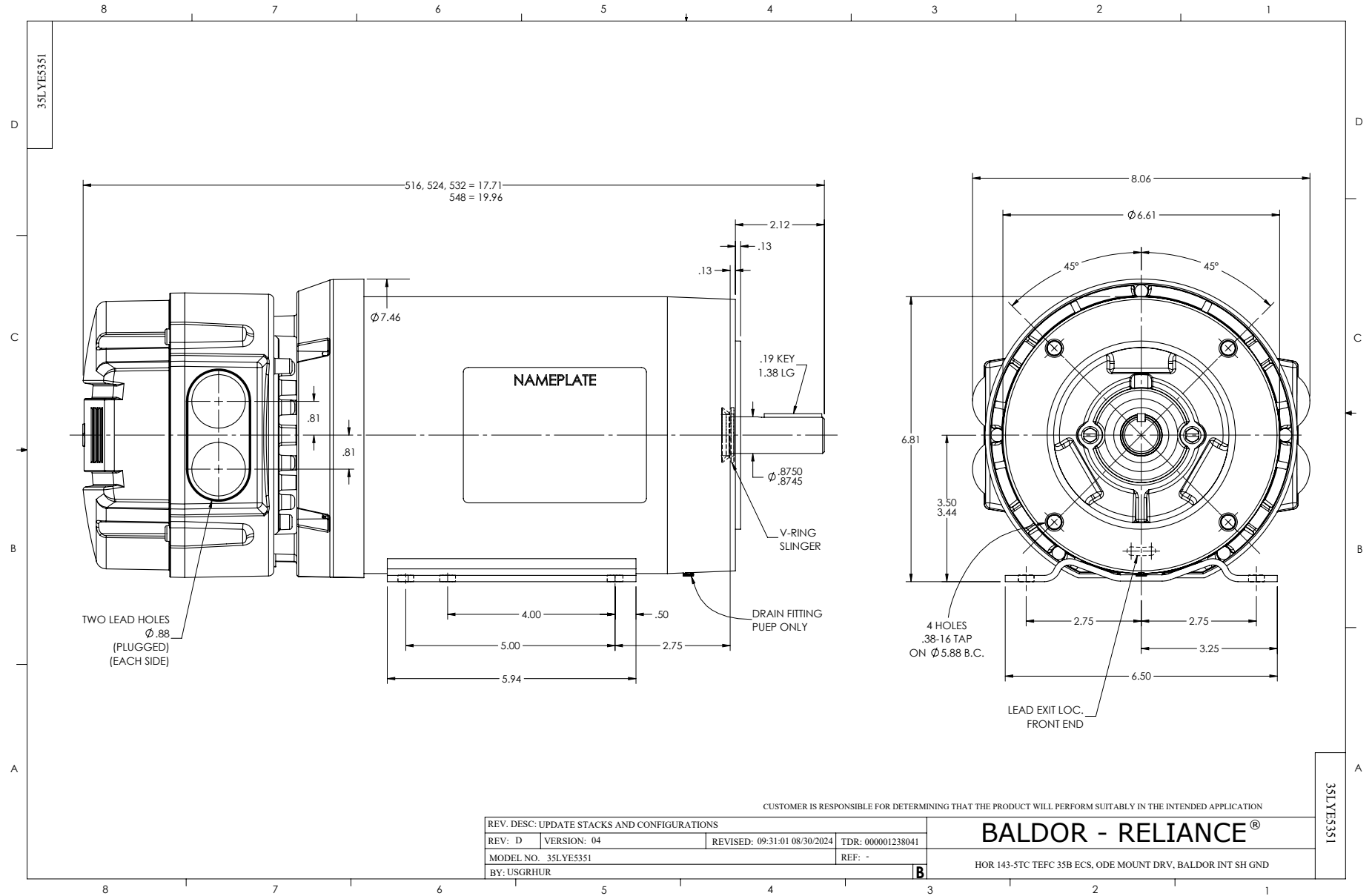
Constant Duty Operating Range



DR By: R & D  
 CK By: USTOSAN  
 APP By: USWEQUA1  
 Date: 11/14/2024

**AC MOTOR  
PERFORMANCE  
CURVES**

**35WGG965**  
 35-0000-1623  
 Test - 111577



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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