

ABB BALDOR RELIANCE III

Customer information packet

ECS100A1H1DC4

1HP, 1800RPM, 3PH, 60HZ, 143TC, 3514B, 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	Three Phase
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	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	2.400 A @ 230.0 V
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	89.3 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	2.4 a
Insulation Class	F
Inverter Code	Inverter Duty
IP Rating	NONE
Lifting Lugs	No Lifting Lugs

Part Detail

Revision	B
Type	AC
Mech. spec.	
Base	
Status	NLA/A
Elec. spec.	35WGA0021
Layout	35LYE5253
Eff. date	01-19-2023
CD Diagram	CD0006B03
Poles	04
Leads	3#16 13" LONG LEADS
Proprietary	False
Created date	10-07-2020

Locked Bearing Indicator	Locked Bearing
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3514B
Mounting Arrangement	F1
Number of Poles	4
Overall Length	16.71 IN
Power Factor	97
Product Family	General Purpose
Pulley Face Code	C-Face
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	0.875 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

Nameplate

NP3978A01					
PART NO.	ECI1A3P2				
U1	120	PH	1	HZ	60
I1	10.3	W/EXT. CHOKE			8.9
SERIAL #					

NP3968A01A01												
CAT.NO.	ECS100A1H1DC4											
SPEC.	35-0000-0941											
FRAME	143TC			ENCL.		TEFC		IP		54		
HP	1	40	C AMB				CONT					
NOM. EFF.	89.3		PF	97		SF		1				
VOLTS	230			FLA		2.4						
RPM	1800		RPM-MAX				4000					
HZ	60		PH.	3	CLASS		F					
BEMF (V)	124			RS (OHMS)					5.98			
LD (MH)	48.7			LQ (MH)					180			
VPWM	CHP	60	TO		133							
CT	6	TO	60		VT	1	TO		133			
MATCHED INV	ECI1A3P2											
DE	6205			ODE		6205						
SERIAL #												

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

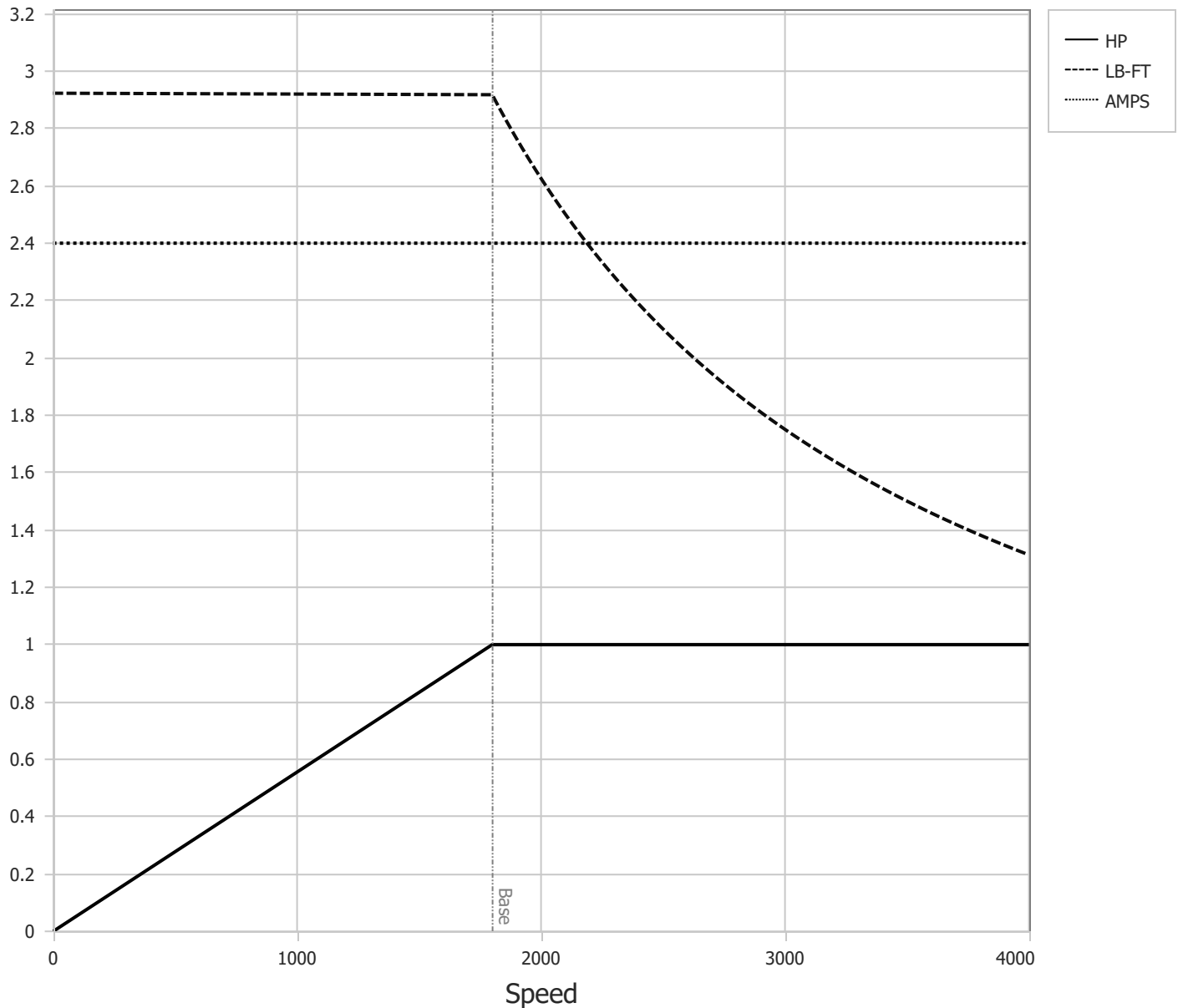
	RPM	% Speed	LB-FT	% Torque	HP	System Efficiency	Loss (% FL)	Watts Loss (W)
P1	1801	100%	2.9	100%	1.0	86.8	15.08%	114
P2	900	50%	2.9	100%	0.5	81.0	11.57%	87
P3	299	17%	2.9	100%	0.2	65.1	8.79%	66
P4	1799	100%	1.5	50%	0.5	85.7	8.23%	62
P5	900	50%	1.5	50%	0.2	82.0	5.43%	41
P6	300	17%	1.5	50%	0.1	67.1	4.03%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

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

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


BALDOR • RELIANCE

DR By: R & D
CK By: USBIBAK
APP By: USWEQUA1
Date: 12/07/2024

**AC MOTOR
PERFORMANCE
CURVES**

35WGG932
35-0000-1616
Test - 111671

