

ABB BALDOR RELIANCE III

Customer information packet

ECS100A4H1DF4

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

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	143T
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	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	1.050 A @ 460.0 V
Design Code	-
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	90.3 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	1.1 a
Insulation Class	F
Inverter Code	03

Part Detail

Revision	J
Type	AC
Mech. spec.	35E5247
Base	
Status	PRD/A
Elec. spec.	35WGG965
Layout	35LYE5247
Eff. date	07-27-2026
CD Diagram	CD0006B03
Poles	04
Leads	3#14 13" LONG LEADS Y
Proprietary	False
Created date	05-06-2024

KVA Code	-
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Quantity/Wire Size	3 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3516B
Mounting Arrangement	F1
Number of Poles	4
Overall Length	16.71 IN
Power Factor	97
Product Family	General Purpose
Pulley Face Code	Standard
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

NP3968A01A01									
CAT.NO.	ECS100A4H1DF4								
SPEC.	35E5247G965G1								
FRAME	143T			ENCL.		TEFC		IP	54
HP	1	40	C AMB			CONT			
NOM. EFF.	89.5	PF	97	SF		1			
VOLTS	460			FLA		1.2			
RPM	1800			RPM-MAX			3600		
HZ	60			PH.	3	CLASS		F	
BEMF (V)	269			RS (OHMS)				19.7	
LD (MH)	117				LQ (MH)				500
VPWM	CHP	60	TO		120				
CT	6	TO	60		VT	6	TO	60	
MATCHED INV	ECI4A2P2								
DE	6205			ODE		6203			
SERIAL #									

NP3978A01					
PART NO.	ECI4A2P2				
U1	480	PH	3	HZ	60
I1	1.8	W/EXT. CHOKE			1.7
SERIAL #					

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

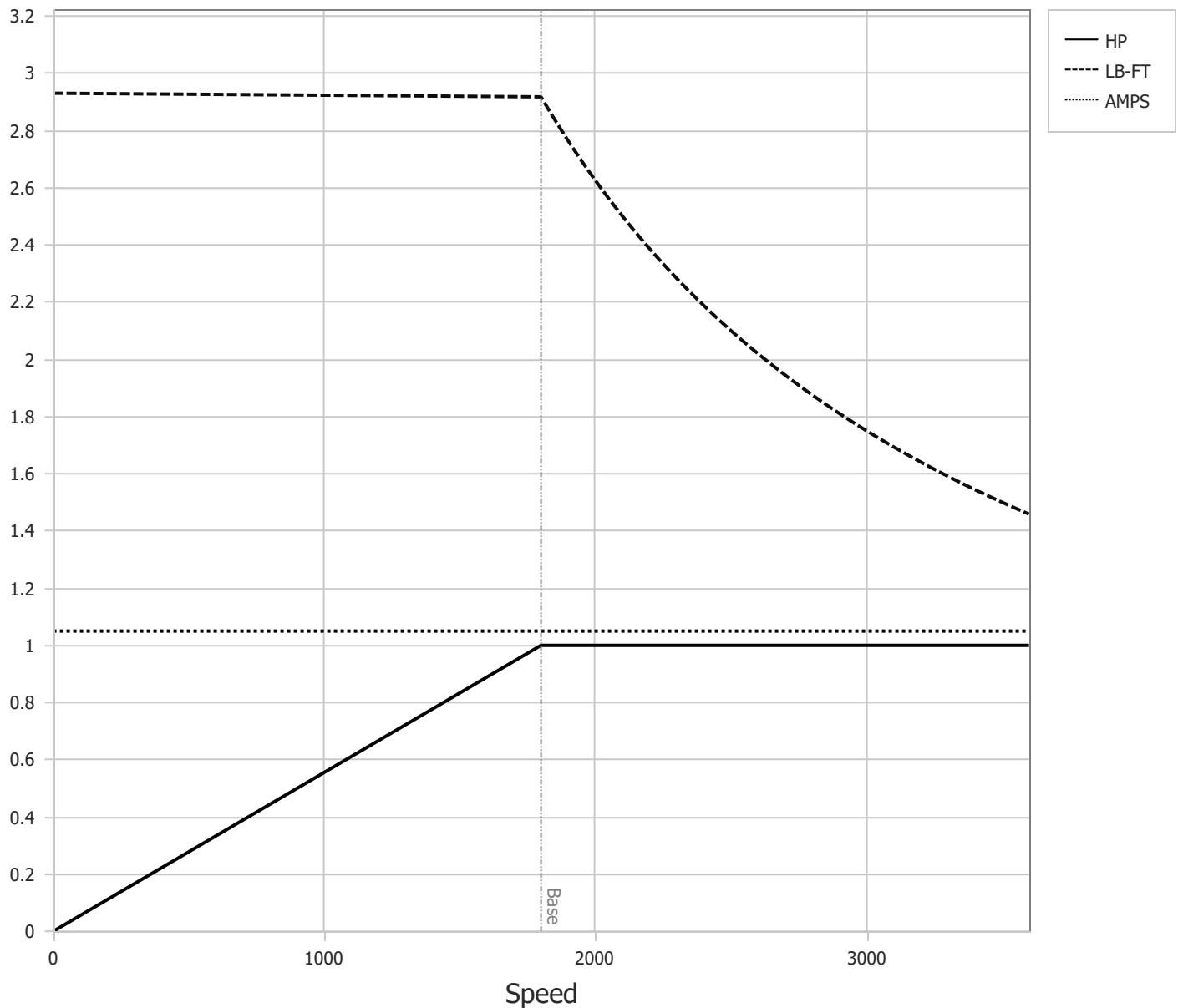
	RPM	% Speed	LB-FT	% Torque	HP	System Efficiency	Loss (% FL)	Watts Loss (W)
P1	1799	100%	2.9	100%	1.0	87.0	14.73%	111
P2	900	50%	2.9	100%	0.5	81.0	11.61%	88
P3	300	17%	2.9	100%	0.2	63.2	9.59%	72
P4	1802	100%	1.5	50%	0.5	83.5	9.78%	74
P5	900	50%	1.5	50%	0.2	79.4	6.41%	48
P6	300	17%	1.5	50%	0.1	61.5	5.17%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

	DR By:	<u>R & D</u>	AC MOTOR PERFORMANCE CURVES	35WGG965 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



BALDOR • RELIANCE

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

**AC MOTOR
PERFORMANCE
CURVES**

35WGG965
 35-0000-1623
 Test - 111577

