

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 #					

Parts List

Part number	Description	Quantity
SA427917	SA 35E5247G965G1	1.000 ea
RA420070	RA 35E5247G965G1	1.000 ea
ECI4A2P2SP	380-480V, 1.0HP, 2.2A, NO BK CHOP, RTC,	1.000 ea
35EP3123C00	MASTER DE,205 BRG, .998 SH, #26 DRN, LCK BR	1.000 ea
HA4067A01	PUSH IN DRAIN FITTING (BLACK)	1.000 ea
51XN1032A18	10-32 X 1 1/8 HX WS SL SR (ESKAY)	2.000 ea
XY1032A02	10-32 HEX NUT DIRECTIONAL SERRATION	4.000 ea
34FN3002A01SP	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	1.000 ea
35FH3005	35 FRAME ODE ECM FAN HOUSING	1.000 ea
15XN1032A08	SCREW PAN HD 10-32 X 1/2 (PHILLIPS)	4.000 ea
GS0026	ECM GASKET, 35 ODE MOUNT, HEATSINK TO FAN	1.000 ea
15XN0832A12	SCREW, 8/32 X 3/4" PAN HDPHIL, MS	3.000 ea
HS0051A00	35 FRAME ODE ECM HEATSINK MACHINING	1.000 ea
11XW1032A10	10-32 X .62, TAPTITE II, HEX WSHR SLTD	4.000 ea
GS0026	ECM GASKET, 35 ODE MOUNT, HEATSINK TO FAN	1.000 ea
WD4100A30	HEYCO #3833 RUBBER PLUG KOS-LT - 1/2	4.000 ea
15XN1032A10	SCREW PAN HD 10-32 X .625 (PHILLIPS)	4.000 ea
MJ5002A02	NON-CORROSIVE SILICONE, DOW 748, 10.3 OZ	0.001 ea
HW4600B32SP	V-RING SLINGER 1.000 X 1.540 X .24 VITON	1.000 ea
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A01	KEY RETAINER 7/8" DIA SHAFT	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
35EP3120B01	FREP TEFC 203 BRG ECS W/LEAD SLOT @ 6 (C	1.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
35CB3504A00	35 FRAME ODE ECM PLASTIC COVER WITH FOAM	1.000 ea
HA3100A13	THRUBOLT 10-32 X 7.750	4.000 ea
MG1050G01	CELEROL MEDIUM CHARCOAL METALLIC GRAY	0.017 ga
NP3968A01A01	NP LABEL WEE, SH GND, C-UL-US, QR, ECS	1.000 ea
NP3978A01	MYLAR BALDOR-RELIANCE SYNC IPM DRIVE 4.3	1.000 ea
36PA1001	PKG GRP, PRINT PK1017A07	1.000 ea
MN451	EC Titanium Quick Start 06/22	1.000 ea

PE-0000001

ZRTG PE ASSEMBLY

1.000 ea

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

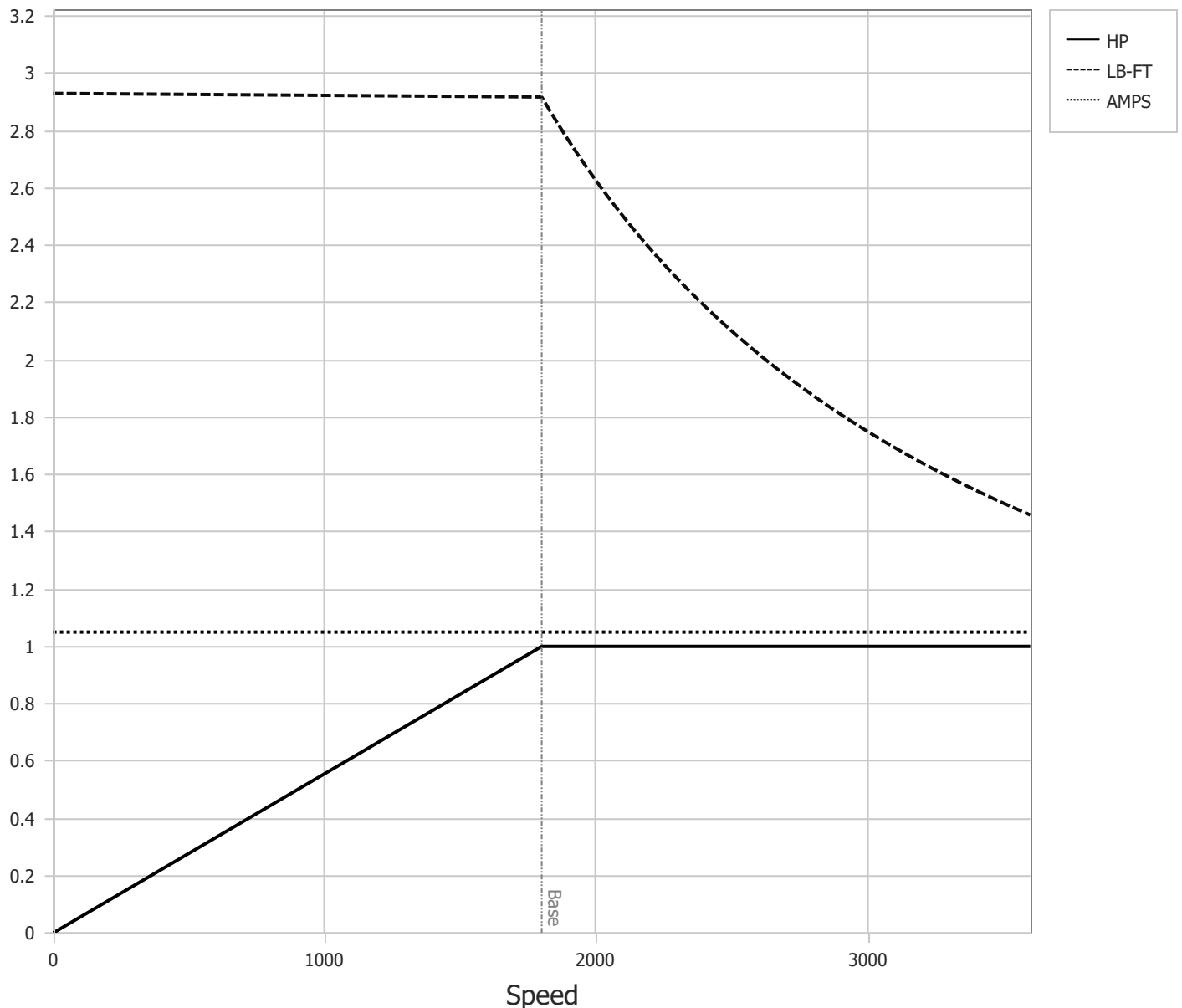
	RPM	% Speed	LB-FT	% Torque	HP	System Efficiency	Loss (% FL)	Watts Loss (W)
P1	1799	100%	2.9	100%	1.0	87.0	14.73%	111
P2	900	50%	2.9	100%	0.5	81.0	11.61%	88
P3	300	17%	2.9	100%	0.2	63.2	9.59%	72
P4	1802	100%	1.5	50%	0.5	83.5	9.78%	74
P5	900	50%	1.5	50%	0.2	79.4	6.41%	48
P6	300	17%	1.5	50%	0.1	61.5	5.17%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

