

ABB BALDOR RELIANCE III

Customer information packet

ECS101T3K1P5DC4

1.5KW, 1500RPM, 3PH, 50HZ, D90C, 3524B, TEFC, B

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	D90C
Frame Material	Steel
Frequency	50.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Brushless Wound Field PM Rotor
Output @ Frequency	1.500 KW @ 50 HZ
Phase	3
Synchronous Speed @ Frequency	1500 RPM @ 50 HZ
Voltage @ Frequency	380.0 V @ 50 HZ
Agency Approvals	CE CULUS UKCA 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	5
Current @ Voltage	2.360 A @ 380.0 V
Design Code	-
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	87.7 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Frame Prefix	D
Heater Indicator	No Heater
High Voltage Full Load Amps	2.4 a

Part Detail

Revision	B
Type	AC
Mech. spec.	35EE435
Base	
Status	PRD/A
Elec. spec.	35WGG963
Layout	35LYEE435
Eff. date	11-15-2024
CD Diagram	CD0006B03
Poles	04
Leads	3#16 13" LONG LEADS Y
Proprietary	False
Created date	04-16-2024

Insulation Class	F
Inverter Code	03
KVA Code	-
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Quantity/Wire Size	3 @ 16 AWG
Motor Lead Termination	Flying Leads
Motor Standards	IEC
Motor Type	3524B
Mounting Arrangement	B14
Number of Poles	4
Overall Length	12.84 IN
Power Factor	95
Product Family	General Purpose
Pulley Face Code	C-Face
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	0.945 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Speed	1500 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

NP3968B01A01									
CAT.NO.	ECS101T3K1P5DC4								
SPEC.	35EE435G963			YR					
FRAME	D90C		IP	55	WT.	44			
KW	1.5	HZ	50	PH	3	DUTY-IPM	CONT		
INS CL	F	CLASS RISE				AMB-C	40		
EFF. CL	IE5	EFF	87.7	COSφ	95				
VOLTS	380		FLA	2.36					
1/MIN	1500		1/MIN MAX	3000					
BEMF (V)	247		RS (OHMS)	11.7					
LD (MH)	78.9		LQ (MH)	406					
VPWM	CP =	50	TO	133					
CT	5	TO	50	VT	5	TO	50		
MATCHED INV	ECIN4A5P8								
DE	6206		ODE	6203					
SERIAL #									

NP3978A00

PART NO.	ECIN4A5P8				
U1	400	PH	3	HZ	50
I1	2.9	W/EXT. CHOKE			2.7
SERIAL #					

Volts	380	Max RPM	4000	Conn Diag.	CD0006B03	Leads	3
Amps	2.2	Max Amps		Cs Diagram	CS1126	BEMF	296
KW	1.5	VFD#	ECIN4A44P1			LD	78.9
RPM	1500	S.F.	1.00			LQ	406
Phase/Hz	3/50	Rating	40C AMB-CONT			Rs	11.7387 Meas. L-L

60034-2-3 Motor Performance at Standardized Operating Points

	RPM	% Speed	LB-FT	% Torque	KW	Efficiency	Loss (% FL)	Watts Loss (W)
P1	1361	90%	7.0	100%	1.4	88.8	11.51%	173
P2	755	50%	7.0	100%	0.8	84.6	9.15%	137
P3	363	25%	7.0	100%	0.4	74.2	8.40%	126
P4	1358	90%	3.5	50%	0.7	91.2	4.40%	66
P5	755	50%	3.5	50%	0.4	87.8	3.50%	53
P6	755	50%	1.8	25%	0.2	89.4	1.51%	23
P7	363	25%	1.8	25%	0.1	84.3	1.13%	17

61800-9-2 PDS Performance at Reference Operating Points

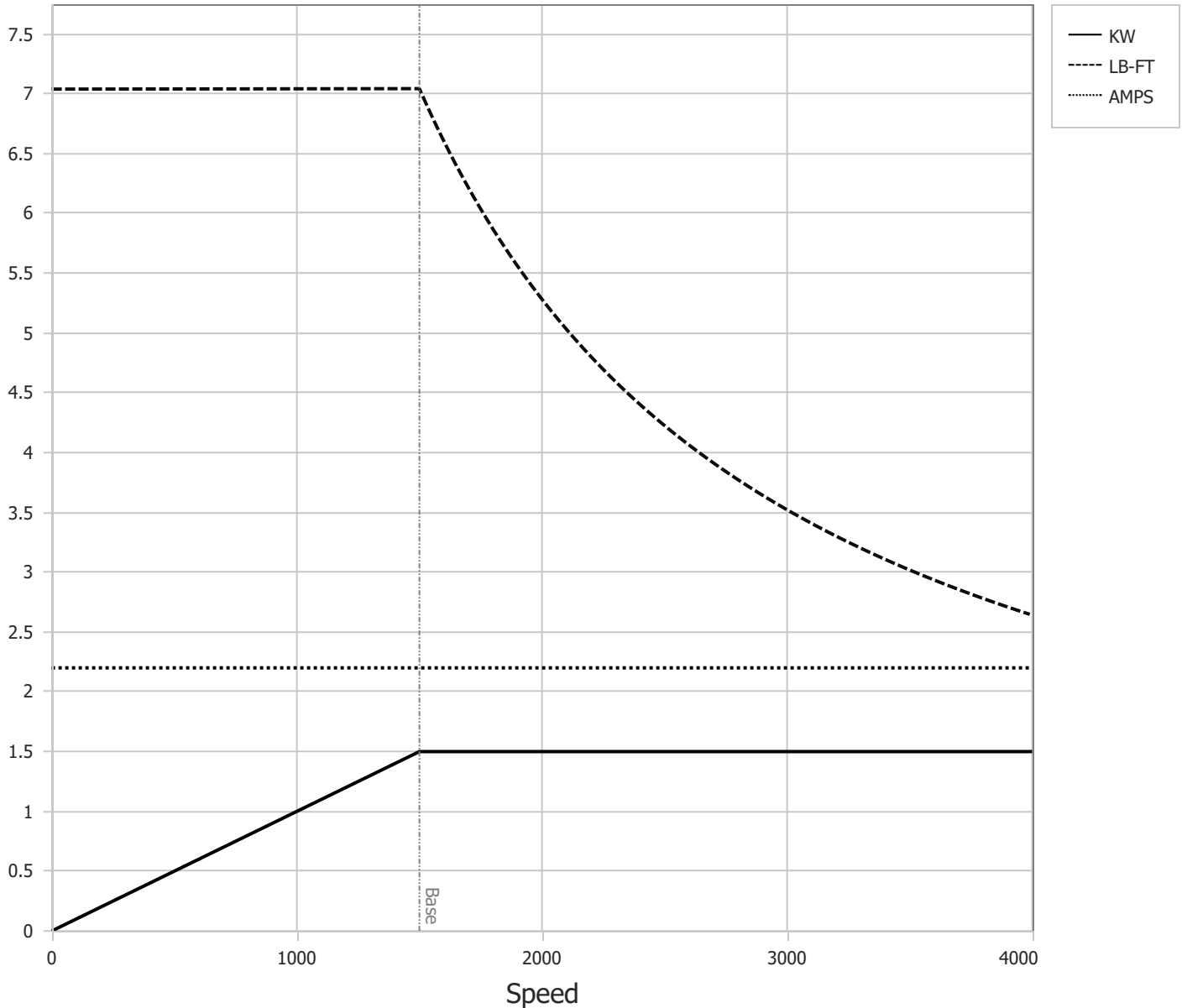
	RPM	% Speed	LB-FT	% Torque	KW	System Efficiency	Loss (% FL)	Watts Loss (W)
P1	1511	100%	7.0	100%	1.5	85.4	17.18%	258
P2	755	50%	7.0	100%	0.8	81.3	11.59%	174
P3	245	17%	7.0	100%	0.2	61.1	10.37%	155
P4	1509	100%	3.5	50%	0.8	88.4	6.59%	99
P5	755	50%	3.5	50%	0.4	82.9	5.18%	78
P6	245	17%	3.5	50%	0.1	65.2	4.36%	65
P7	755	50%	1.8	25%	0.2	81.9	2.80%	42
P8	245	17%	1.8	25%	0.1	64.1	2.29%	34

Points not taken in certified order.

BALDOR • RELIANCE	DR By: <u>R & D</u>	AC MOTOR PERFORMANCE CURVES	35WGG963 35E5209G963 Test - 111107
	CK By: <u>USTOSAN</u>		
	APP By: <u>USJAROB1</u>		
	Date: <u>08/08/2024</u>		

Volts	380	Max RPM	4000	Conn Diag.	CD0006B03	Leads	3
Amps	2.2	Max Amps		Cs Diagram	CS1126	BEMF	296
KW	1.5	VFD #	ECIN4A44P1			LD	78.9
RPM	1500	S.F.	1.00			LQ	406
Phase/Hz	3/50	Rating	40C AMB-CONT			Rs	11.7387 Meas L-L

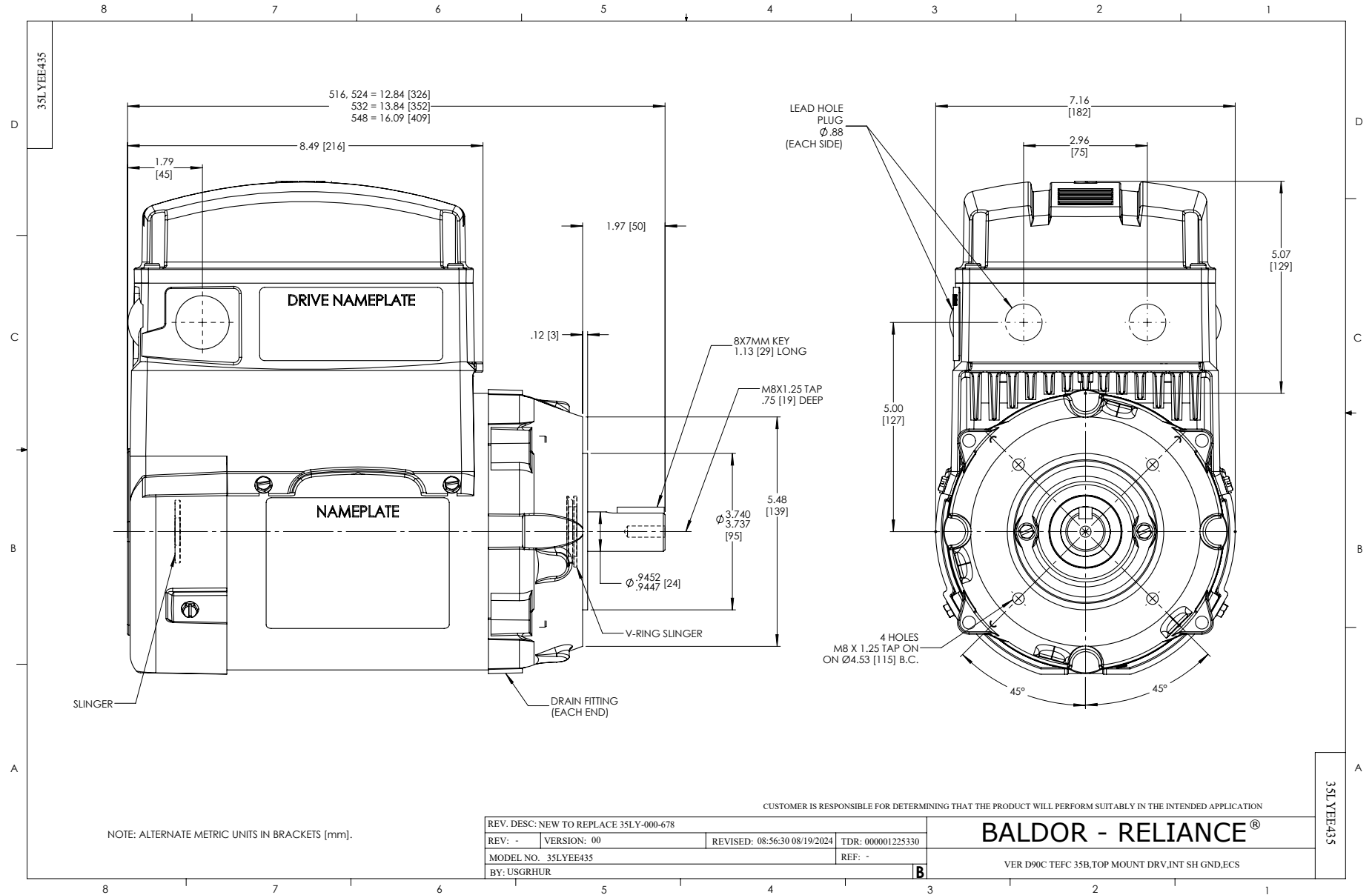
Constant Duty Operating Range



DR By: R & D
 CK By: USTOSAN
 APP By: USJAROB1
 Date: 08/08/2024

**AC MOTOR
PERFORMANCE
CURVES**

35WGG963
 35E5209G963
 Test - 111107



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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