ABB BALDOR RELIANCE

Customer information packet

ECS101M0H7FC4

7.5HP, 1800RPM, 3PH, 60HZ, 213TC, 3730B, TEFC
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	213TC
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	7.500 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ
	460.0 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	17.400 A @ 230.0 V
	8.700 A @ 460.0 V
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	94.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	8.7 a
Insulation Class	F
Inverter Code	Inverter Duty

Part Detail

Revision	G
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	37WGA0016
Layout	37LYQ488
Eff. date	05-14-2026
CD Diagram	CD0005A25
Poles	04
Leads	9#12
Proprietary	False
Created date	09-28-2020

IP Rating	NONE
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3730B
Mounting Arrangement	F1
Number of Poles	4
Overall Length	18.63 IN
Power Factor	92
Product Family	General Purpose
Pulley Face Code	C-Face
Rodent Screen	None
Service Factor	1.50
Shaft Diameter	1.375 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

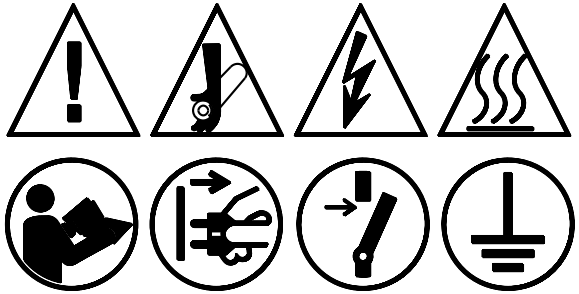
BALDOR·RELIANCE

EC-Titanium™

CAT. NO.	ECS101M0H7FC4						
SPEC.	37-0001736				YR	***	
FRAME	213TC		ENCL.	TEFC	IP	54	
HP	7.5	RATING	40C AMB-CONT				
NOM. EFF.	94.0	PF	92	SF	1.5		
VOLTS	230/460		FLA	17.74/8.87			
RPM	1800		RPM MAX	3000			
HZ	60		PH.	3	CLASS	F	
BEMF (V)	108/216		Rs (Ω)	0.35/1.39			
Ld (mH)	6.97/28.09		Lq (mH)	20.19/80.586			
INV TYP	VPWM	CHP	60 TO 100 HZ				
	CT	6 TO 60 HZ	VT	1 TO 100 HZ			
MATCHED INV	ACS380-04XX-[N/A]/09A4-4						
BEARING	DE	6307	ODE	6206			
SERIAL#	***						

ELECTRONICALLY PROTECTED MOTOR
FOR INDUSTRIAL USE

FERRITE ASSISTED
SYNCHRONOUS RELUCTANCE MOTOR
FOR INVERTER USE ONLY



PERMANENT MAGNET MOTOR. WHEN SHAFT IS ROTATED, VOLTAGE WILL BE GENERATED AT THE MOTOR TERMINALS.
MOTEUR Á AIMANT PERMANENT. LORSQUE L'ARBRE TOURNE, UNE TENSION SERA GÉNÉRÉE AUX BORNES DU MOTEUR.

BALDOR-RELIANCE
SHAFT GROUNDING BRUSH INSTALLED

c UL us LISTED
E46145

ABB MOTORS AND MECHANICAL INC.
5711 R.S. BOREHAM JR. ST., FORT SMITH, AR. MFG IN U.S.A.

Volts	460	Max RPM	3000	Conn Diag.	CD0006B03	Leads	3
Amps	8.7	Max Amps		Cs Diagram	CS1126	BEMF	216
HP	7.5	VFD#	ECI4A9P5			LD	28.09
RPM	1800	S.F.	1.00			LQ	80.586
Phase/Hz	3/60	Rating	40C AMB-CONT			Rs	1.4115 Meas. L-L

60034-2-3 Motor Performance at Standardized Operating Points

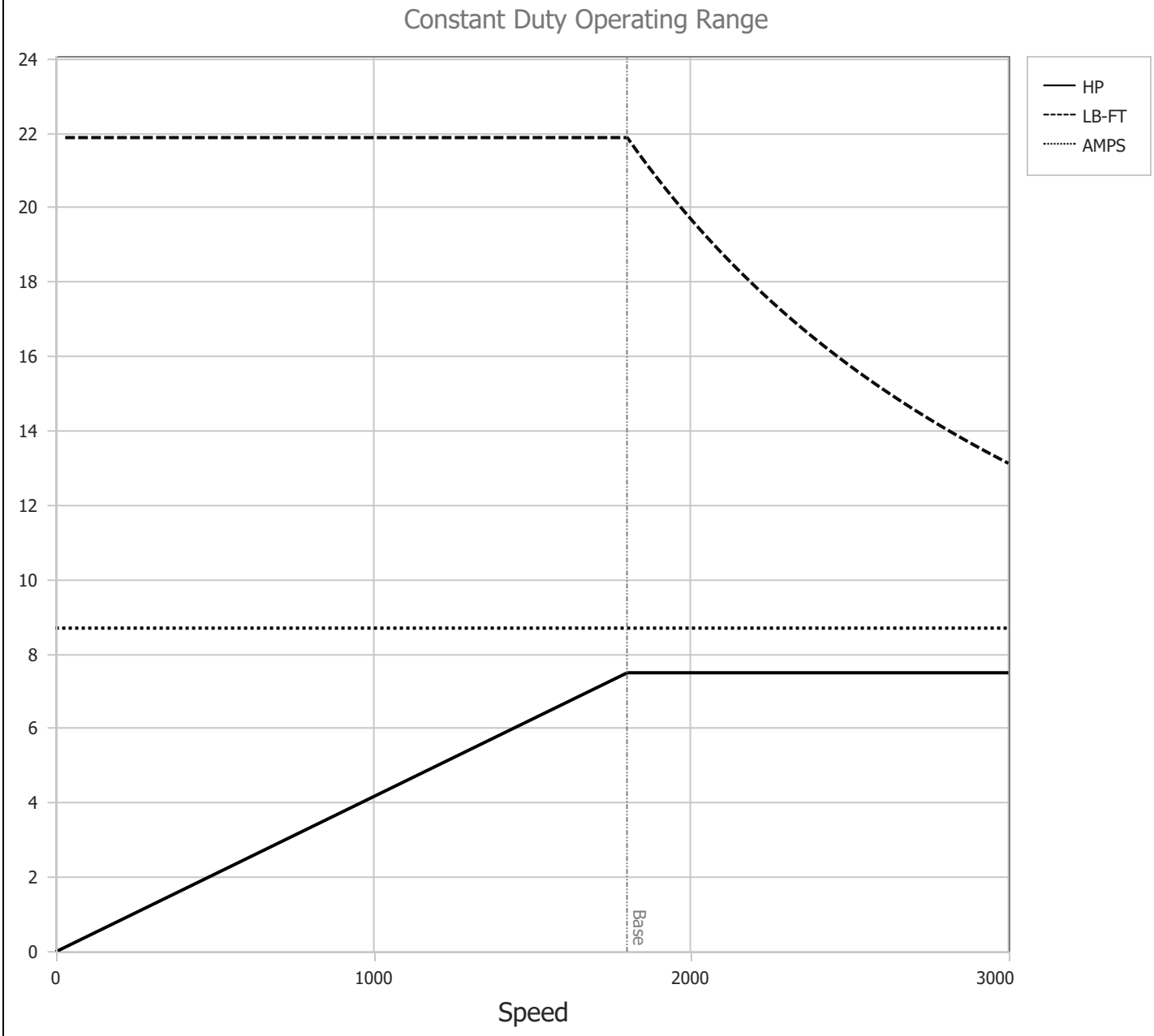
	RPM	% Speed	LB-FT	% Torque	HP	Efficiency	Loss (% FL)	Watts Loss (W)
P1	1622	90%	21.9	100%	6.8	92.4	7.32%	414
P2	901	50%	21.9	100%	3.8	90.4	5.26%	298
P3	449	25%	21.9	100%	1.9	85.0	4.35%	246
P4	1624	90%	10.9	50%	3.4	94.0	2.87%	163
P5	902	50%	10.9	50%	1.9	92.2	2.11%	119
P6	900	50%	5.5	25%	0.9	91.1	1.21%	69
P7	447	25%	5.5	25%	0.5	87.4	0.89%	50

61800-9-2 PDS Performance at Reference Operating Points

	RPM	% Speed	LB-FT	% Torque	HP	System Efficiency	Loss (% FL)	Watts Loss (W)
P1	1804	100%	21.9	100%	7.5	91.8	8.85%	501
P2	901	50%	21.9	100%	3.8	87.4	7.16%	405
P3	297	17%	21.9	100%	1.2	74.2	5.67%	321
P4	1803	100%	10.9	50%	3.8	92.2	4.16%	236
P5	902	50%	10.9	50%	1.9	88.6	3.18%	180
P6	296	17%	10.9	50%	0.6	76.0	2.56%	145
P7	900	50%	5.5	25%	0.9	86.4	1.94%	110
P8	295	17%	5.5	25%	0.3	73.5	1.46%	83

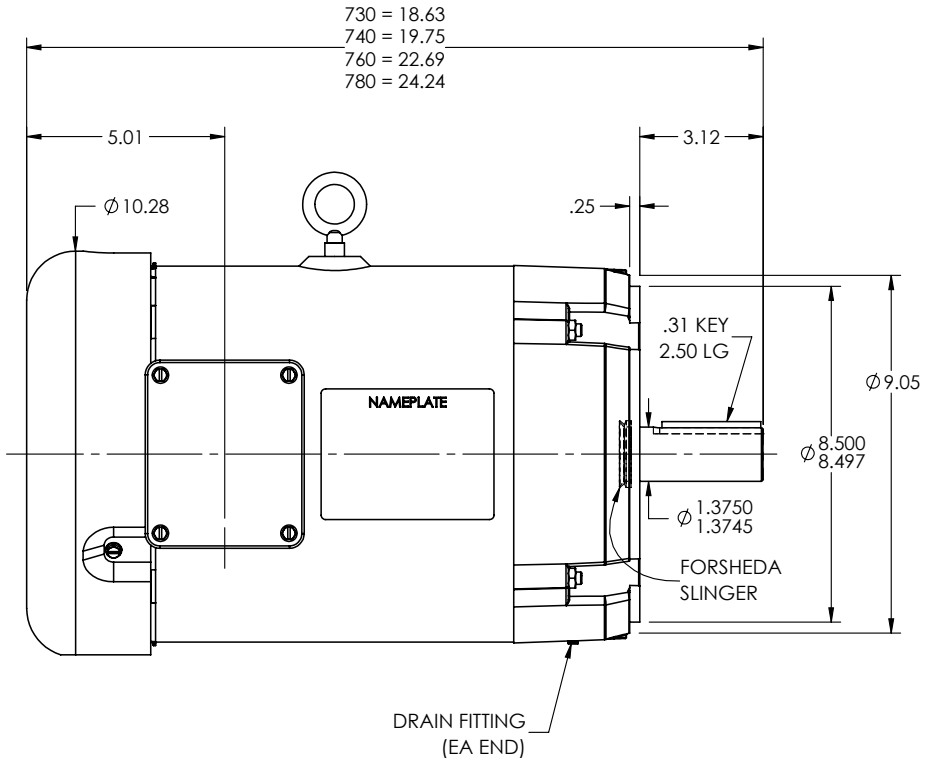
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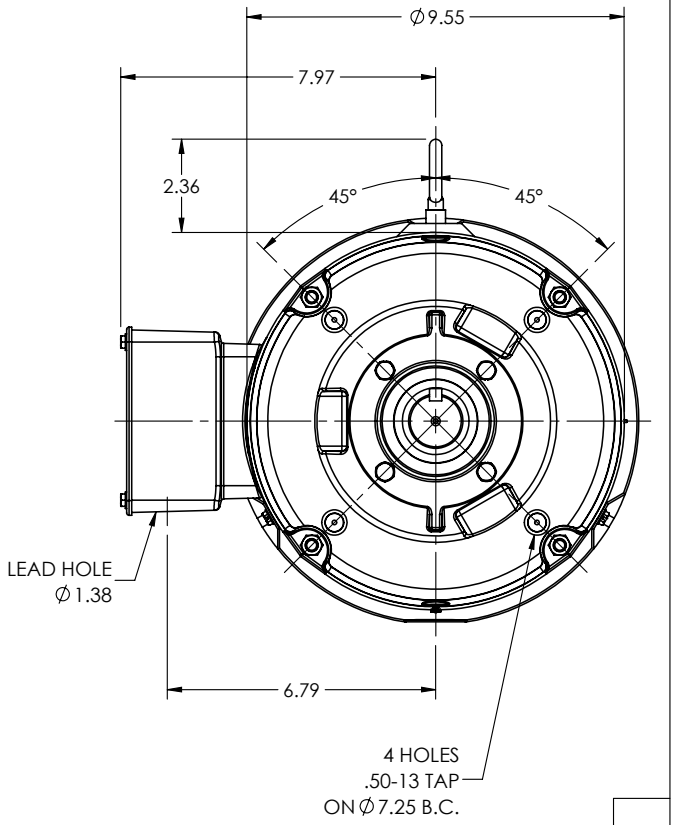
Volts	460	Max RPM	3000	Conn Diag.	CD0006B03	Leads	3
Amps	8.7	Max Amps		Cs Diagram	CS1126	BEMF	216
HP	7.5	VFD #	ECI4A9P5			LD	28.09
RPM	1800	S.F.	1.00			LQ	80.586
Phase/Hz	3/60	Rating	40C AMB-CONT			Rs	1.4115 Meas L-L



BALDOR • RELIANCE	DR By: R & D CK By: USJORAD2 APP By: USJAROB1 Date: 05/09/2024	**AC MOTOR PERFORMANCE CURVES**	**37WGA0020** 37-0001565 *Test - 110616*

37LYQ488





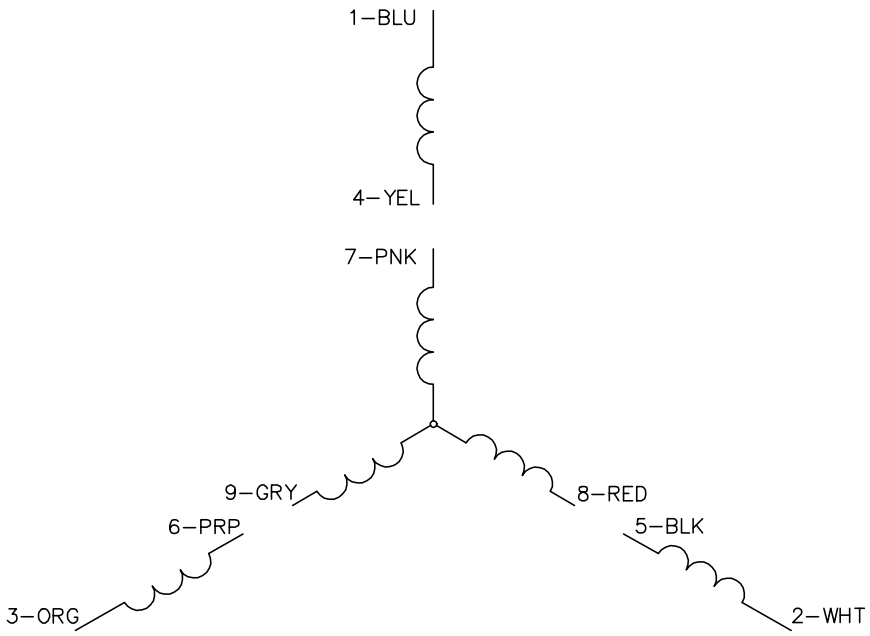
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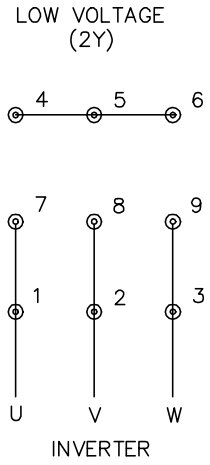
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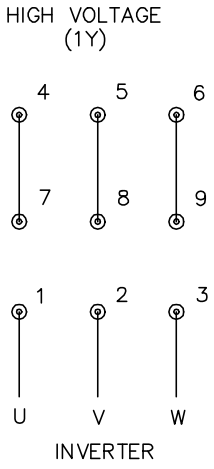
BALDOR - RELIANCE®

VER 213-5TC TEFC B INT SH GND ECS

CD0005A25







NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
3. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0005A25

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REV. LTR: –	VERSION: 00	TDR: 000001135746
FILE: \AAA\00253\082	REVISED: 01:10:57 03/30/2020	BY: ENMARSO
MTL: –		

BALDOR - RELIANCE®

3PH, DV, 9 LEADS, ECS

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