



Customer information packet

ECS101M0H7FB4

7.5HP, 1800RPM, 3PH, 60HZ, 213TC, TEFC, N

Class - None

Division - Not Applicable

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	Rigid
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	E
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	37WGA0016
Layout	37LYQ466
Eff. date	06-16-2025
CD Diagram	CD0005A25
Poles	04
Leads	9#12
Proprietary	False
Created date	09-18-2020

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
RoHS Status	ROHS COMPLIANT
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™

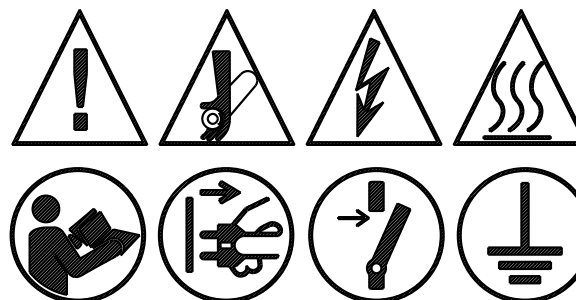
CAT. NO.	ECS101M0H7FB4										
SPEC.	37-0000-0293								YR	***	
FRAME	213TC				ENCL.		TEFC		IP	54	
HP	7.5		RATING		40C AMB-CONT						
NOM. EFF.	94.0			PF		92		SF		1.5	
VOLTS	230/460					FLA		17.74/8.87			
RPM	1800				RPM MAX			4000			
HZ	60				PH.		3		CLASS F		
BEMF (V)	113/225					Rs (Ω)		0.35/1.39			
Ld (mH)	6.97/28.09					Lq (mH)		20.19/80.586			
INV TYP	VPWM		CHP		60		TO 133		HZ		
	CT	6				TO 60 HZ		VT	1		TO 133 HZ
MATCHED INV	ACS380-04XX-[N/A]/12A6-4										
BEARING	DE	6307					ODE		6206		
SERIAL#	***										

ELECTRIC MOTOR FOR INDUSTRIAL USE



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

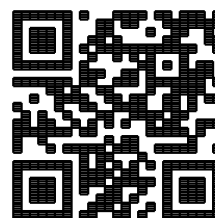
FERRITE ASSISTED
SYNCHRONOUS RELUCTANCE MOTOR
FOR INVERTER USE ONLY



PERMANENT MAGNET MOTOR. WHEN SHAFT IS
ROTATED, VOLTAGE WILL BE GENERATED AT
THE MOTOR TERMINALS.

MOTEUR À AIMANT PERMANENT. LORSQUE
L'ARBRE TOURNE, UNE TENSION SERA
GÉNÉRÉE AUX BORNES DU MOTEUR.

BALDOR-RELIANCE
SHAFT GROUNDING BRUSH INSTALLED



UL **us**
LISTED
E46145

Volts	460	Max RPM	3000	Conn Diag.	CD0006B03	Leads	3
Amps	8.7	Max Amps		Cs Diagram	CS1126	BEMF	216
HP	7.5	VFD#	EC14A9P5			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

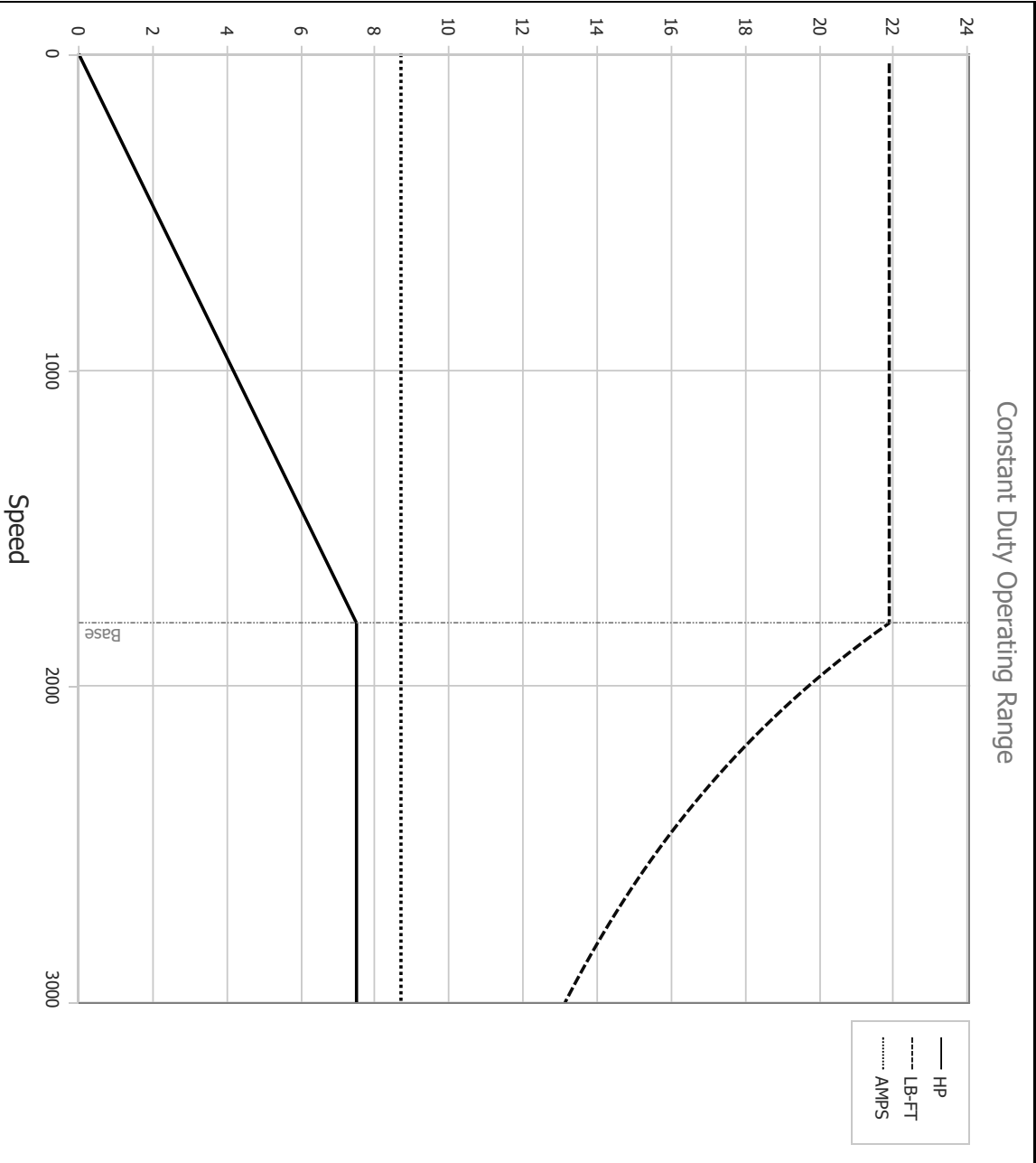
61800-9-2 PDS Performance at Reference Operating Points

	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

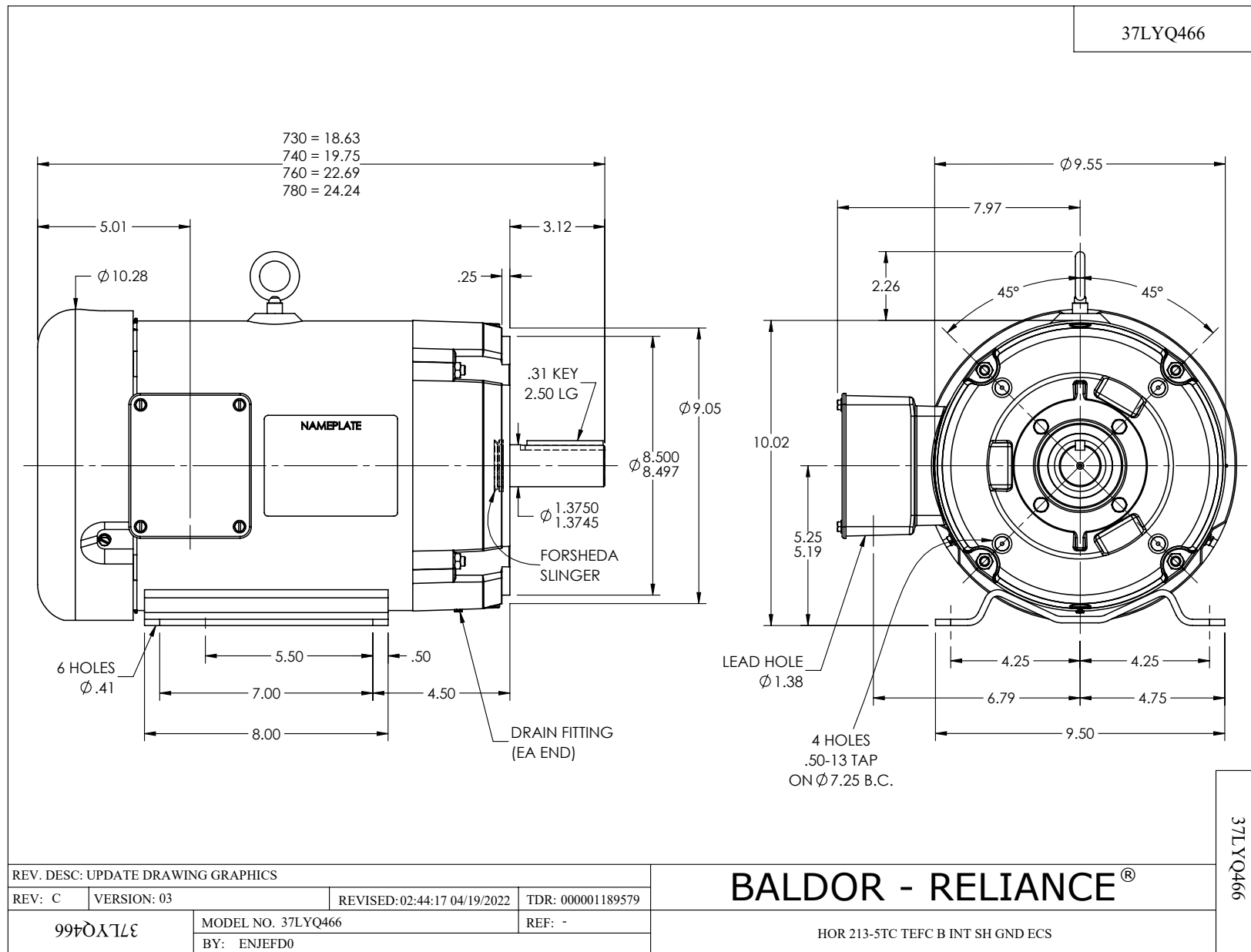
Points not taken in certified order.

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

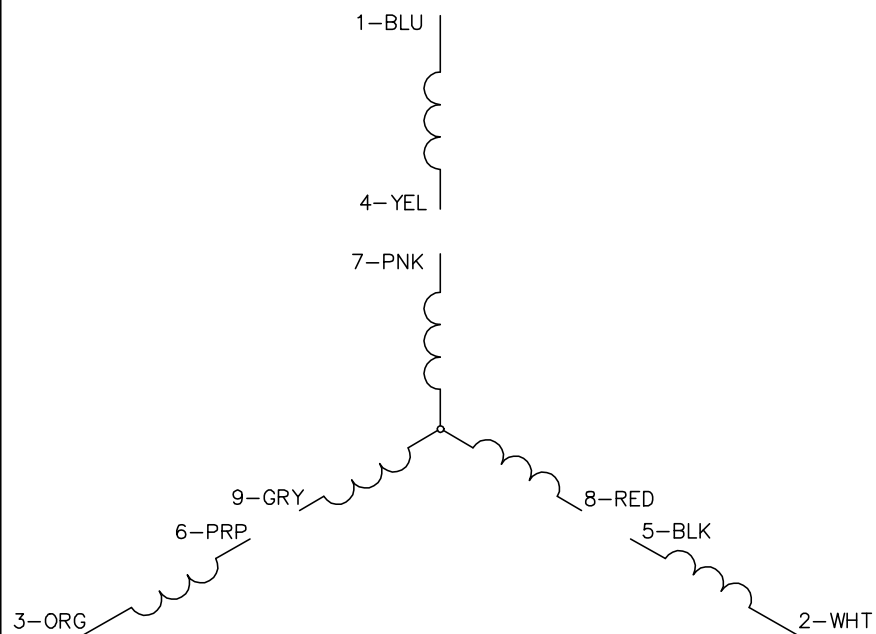
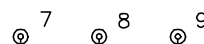
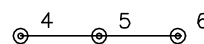
Volts	460	Max RPM	3000	Conn Diag.	CD0006B03	Leads	3
Amps	8.7	Max Amps		Cs Diagram	CS1126	BEMF	216
HP	7.5	VFD #	EC14A9P5			LD	28.09
RPM	1800	S.F.	1.00			LQ	80.586
Phase/Hz	3/60	Rating	40C AMB-CONT			Rs	1.4115 Meas L-L



BALDOR • RELIANCE	DR By: <u>R & D</u> CK By: <u>USJDRAD2</u> APP By: <u>USJAROB1</u> Date: <u>05/09/2024</u>	AC MOTOR PERFORMANCE CURVES	37WGA0020 37-0001565 Test - 110616
--------------------------	---	--	---



CD0005A25

LOW VOLTAGE
(2Y)

U V W

INVERTER

HIGH VOLTAGE
(1Y)

U V W

INVERTER

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.

REV. DESC: NEW

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

SH 1 of 1

CD0005A25