ABB BALDOR RELIANCE

Customer information packet

VEM3709T-5

7.5HP, 3470RPM, 3PH, 60HZ, 213TC, 3646M, 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	3600 RPM @ 60 HZ
Voltage @ Frequency	575.0 V @ 60 HZ
Agency Approvals	NEMA PREMIUM (OLD LOGO) CURUSEEV NEMA PREMIUM
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
Current @ Voltage	6.800 A @ 575.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	89.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	6.8 a
Insulation Class	F

Part Detail

Revision	K
Type	AC
Mech. spec.	36H302
Base	
Status	PRD/A
Elec. spec.	36WGS478
Layout	36LYH302
Eff. date	12-29-2025
CD Diagram	CD0006
Poles	02
Leads	3#16
Proprietary	False
Created date	05-06-2010

Inverter Code	Inverter Ready
KVA Code	L
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	3 @ 16 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3646M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	19.28 IN
Power Factor	93
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.375 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3470 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

NP3441L										
CAT.NO.	VEM3709T-5									
SPEC.	36H302S478G1									
HP	7.5									
VOLTS	575									
AMP	6.8									
RPM	3470									
FRAME	213TC	**HZ**	60			**PH**	3			
SER.F.	1.15	**CODE**	L	**DES**	A	**CL**	F			
NEMA-NOM-EFF	89.5	**PF**	93							
RATING	40C AMB-CONT									
CC	010A									
DE	6307	**ODE**	6205							
ENCL	TEFC	**SN**								
VPWM INVERTER READY										
CT6-60H(10:1)VT3-60H(20:1										

AC Induction Motor Performance Data
Record # 31190
Typical performance - not guaranteed values

Winding: 36WGS478-R001	**Type:** 3646M	**Enclosure:** TEFC

Nameplate Data				**575 V, 60 Hz: Single Voltage Motor**	
Rated Output (HP)			7.5	**Full Load Torque**	11.4 LB-FT
Volts			575	**Start Configuration**	direct on line
Full Load Amps			6.8	**Breakdown Torque**	57.8 LB-FT
R.P.M.			3470	**Pull-up Torque**	39.8 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	48.1 LB-FT
NEMA Design Code	A	**KVA Code**	L	**Starting Current**	72.7 A
Service Factor (S.F.)			1.15	**No-load Current**	1.86 A
NEMA Nom. Eff.	89.5	**Power Factor**	93	**Line-line Res. @ 25ºC**	2.26 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	74°C
S.F. Amps				**Temp. Rise @ S.F. Load**	93°C
				Locked-rotor Power Factor	45
				Rotor inertia	0.205 LB-FT2

Load Characteristics 575 V, 60 Hz, 7.5 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	64	85	90	93	94	94	94
Efficiency	86.9	90.6	91	90	88.7	86.5	89.2
Speed	3571	3539	3505	3468	3429	3385	3445
Line amperes	2.51	3.67	5.14	6.74	8.41	10.3	7.74

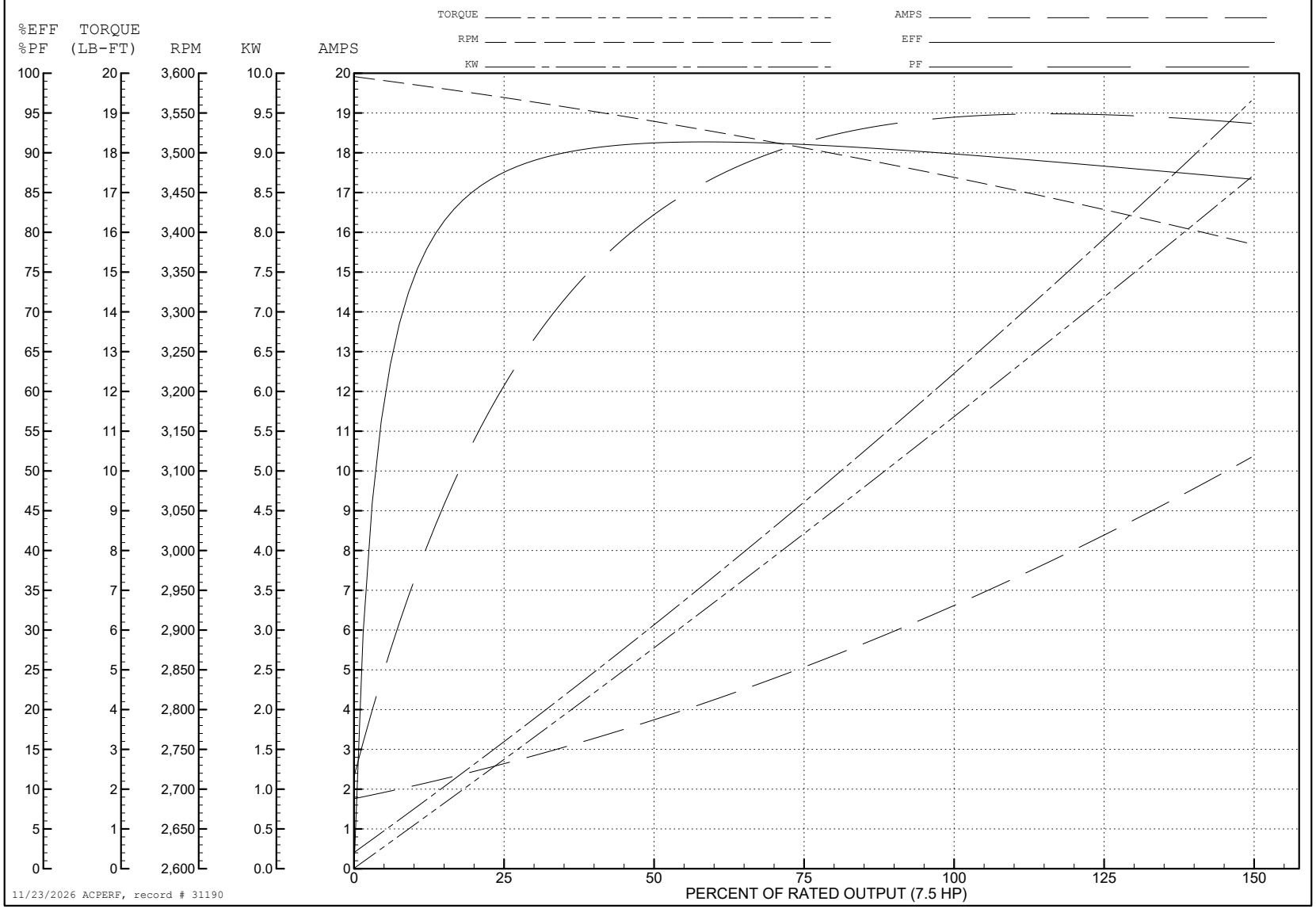
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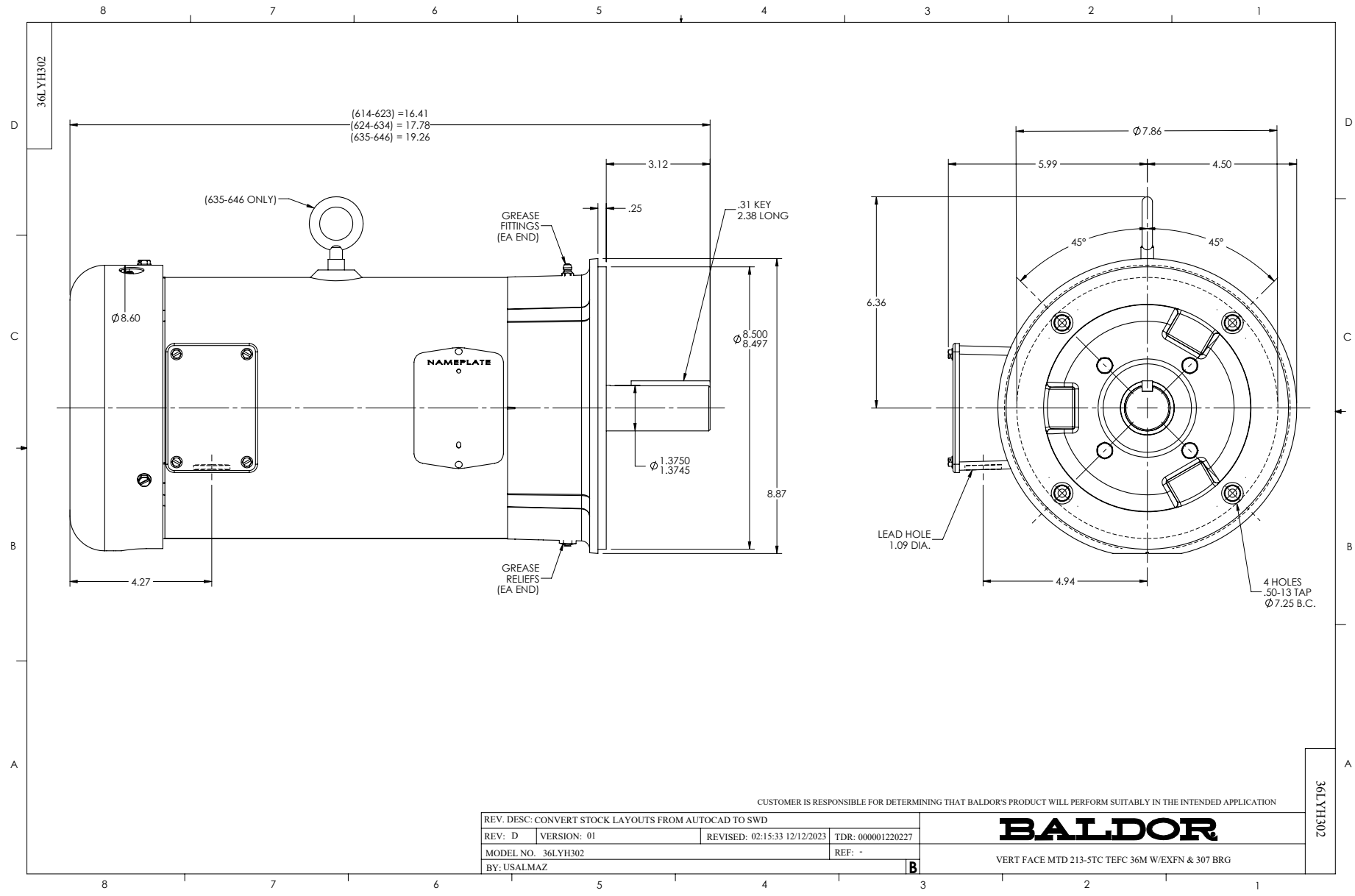
WINDING # 36WGS478

7.5 HP 3 PH 60 HZ 3470 RPM 575 V 3646M

Typical performance - not guaranteed values.

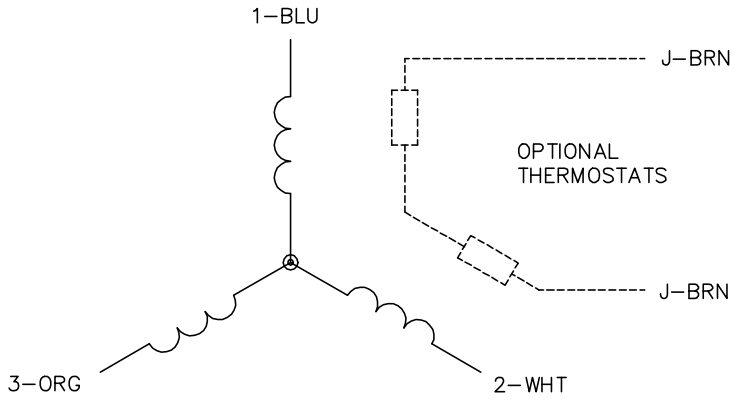
TORQUES(LB-FT): PO=57.8 PU=39.8 LR=48.1 LRA=72.7

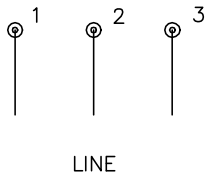



36LYH302
(614-623) =16.41
(624-634) = 17.78
(635-646) = 19.26
3.12
.25
.31 KEY
2.38 LONG
(635-646 ONLY)
GREASE
FITTINGS
(EA END)
Ø8.60
NAMEPLATE
Ø8.500
8.497
Ø1.3750
1.3745
8.87
4.27
GREASE
RELIEFS
(EA END)
Ø7.86
5.99
4.50
45°
45°
6.36
LEAD HOLE
1.09 DIA.
4.94
4 HOLES
.50-13 TAP
Ø7.25 B.C.
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CONVERT STOCK LAYOUTS FROM AUTOCAD TO SWD
REV: D
VERSION: 01
REVISED: 02:15:33 12/12/2023
TDR: 000001220227
MODEL NO. 36LYH302
REF: -
BY: USALMAZ
B
BALDOR
VERT FACE MTD 213-5TC TEFC 36M W/EXFN & 307 BRG
36LYH302

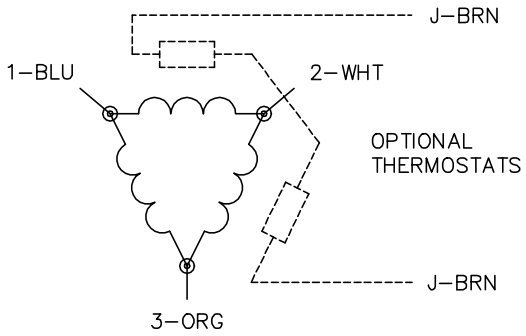
CD0006

TYPICAL WYE–CONNECTED MOTOR





TYPICAL DELTA–CONNECTED MOTOR



NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

REV. DESC: ADD CLASS CONN00000007		
REV. LTR: E	VERSION: 01	TDR: 000001099922
FILE: \AAA\00005\141	REVISED: 10:24:49 02/19/2019	BY: ENBRIR0
MTL: –		

BALDOR - RELIANCE®

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

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