Customer information packet

EM3116T

1HP, 1770RPM, 3PH, 60HZ, 143T, 3520M, OPSB, F1
Class - None
Division - Not Applicable

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Specifications

Enclosure	OPSB
Frame	143T
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	1.000 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	CURUSEEV
	NEMA PREMIUM
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
Current @ Voltage	1.600 A @ 460.0 V
	3.200 A @ 208.0 V
	3.200 A @ 230.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	85.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	1.6 a

Part Detail

Revision	H
Type	AC
Mech. spec.	35L405
Base	
Status	PRD/A
Elec. spec.	35WGG004
Layout	35LYL405
Eff. date	01-05-2026
CD Diagram	CD0005
Poles	04
Leads	9#18 Y
Proprietary	False
Created date	07-16-2021

Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	N
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3520M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	11.13 IN
Power Factor	69
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.15
Shaft Diameter	0.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1770 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

NP3553LUA									
CAT.NO.	EM3116T								
SPEC.	35L405G004G1								
HP	1								
VOLTS	230/460								
AMPS	3.2/1.6								
RPM	1770								
FRAME	143T	**HZ**	60			**PH**	3		
SF	1.15	**CODE**	N	**DES**	B	**CLASS**	F		
NEMA NOM. EFF	85.5	**PF**	69						
RATING	40C AMB-CONT								
CC	010A								
ENCL	OPSB	**SN**							
DE	6205	**ODE**	6203						
VPWM INVERTER READY	SFA 3.4/1.7								
CT30-60(2:1) VT3-60(20:1)									
USABLE AT	50HZ 1HP 190/380V 3.6/1.8A								SF1.0

Accessories

Part number	Description	Multiplier
35-8764	C FACE KIT	A8
35EP1604A01SP	D-FLANGE KIT	

AC Induction Motor Performance Data
Record # 91625
Typical performance - not guaranteed values

Winding: 35WGG004-R001	**Type:** 3520M	**Enclosure:** TEFC

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			1	**Full Load Torque**	2.982 LB-FT
Volts			230/460	**Start Configuration**	direct on line
Full Load Amps			3.2/1.6	**Breakdown Torque**	14.6 LB-FT
R.P.M.			1770	**Pull-up Torque**	7.57 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	9.17 LB-FT
NEMA Design Code	B	**KVA Code**	N	**Starting Current**	14.6 A
Service Factor (S.F.)			1.15	**No-load Current**	1.2 A
NEMA Nom. Eff.	85.5	**Power Factor**	69	**Line-line Res. @ 25ºC**	16.049 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	36°C
S.F. Amps			3.4/1.7	**Temp. Rise @ S.F. Load**	41°C
				Locked-rotor Power Factor	61.549
				Rotor inertia	0.144 lb-ft²

Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	29	45	58	67	73	78	71
Efficiency	71.1	81.2	84.7	85.8	86	85.6	85.9
Speed	1794	1787.3	1781.1	1774.3	1767.4	1759.4	1770
Line amperes	1.22	1.31	1.46	1.64	1.86	2.11	1.77

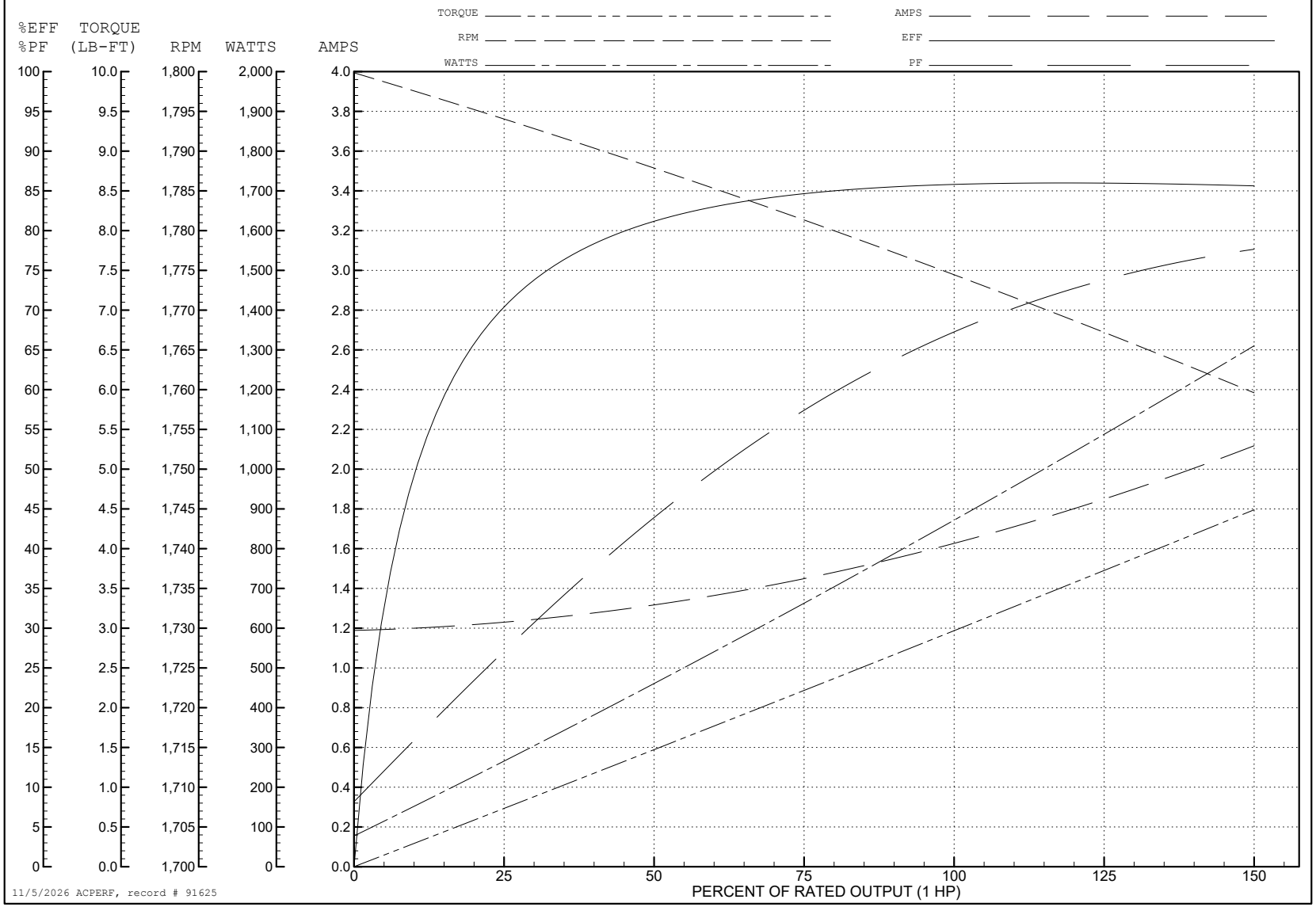
ABB Motors and Mechanical Inc.

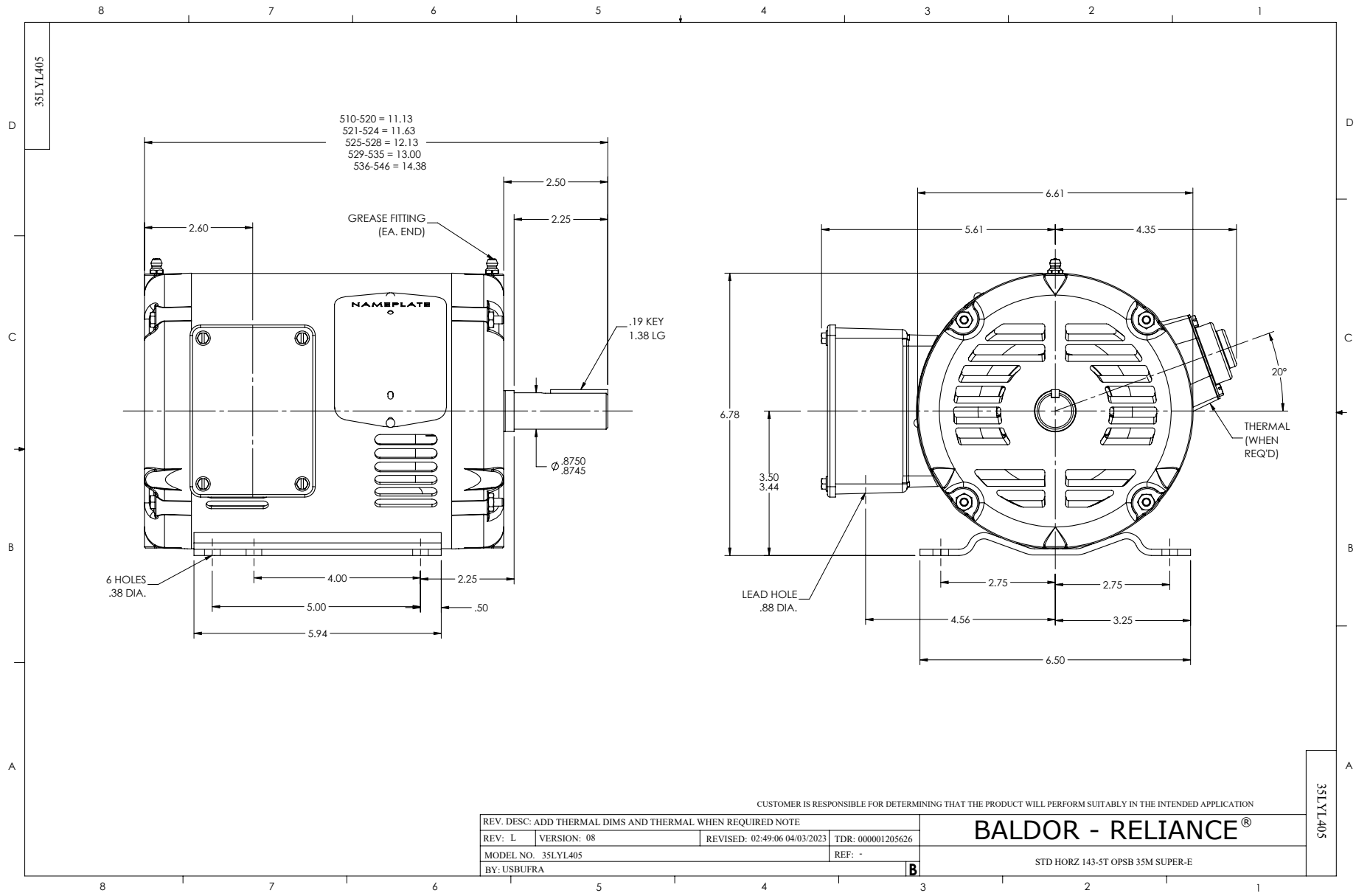
WINDING # 35WGG004

1 HP 3 PH 60 HZ 1770 RPM 460 V 3520M

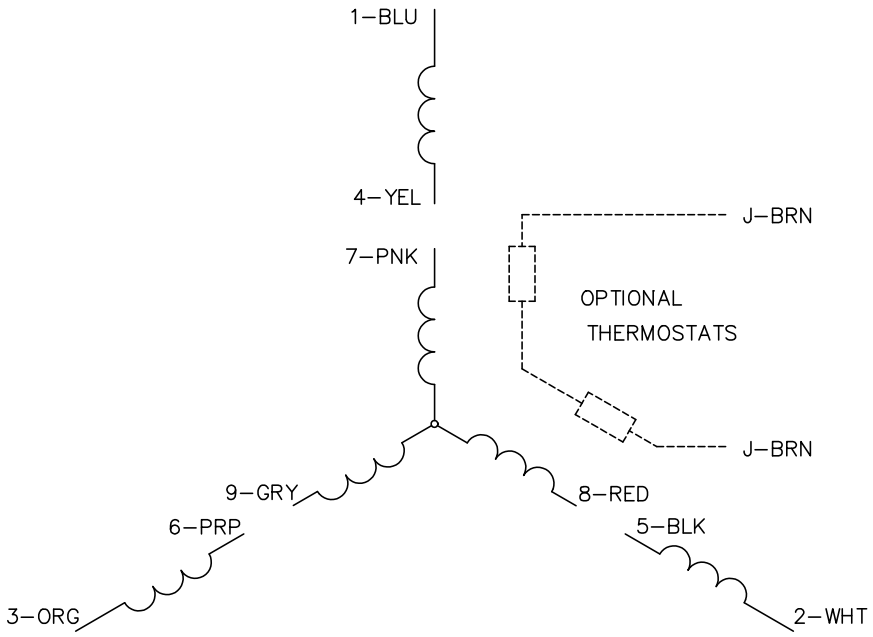
Typical performance - not guaranteed values.

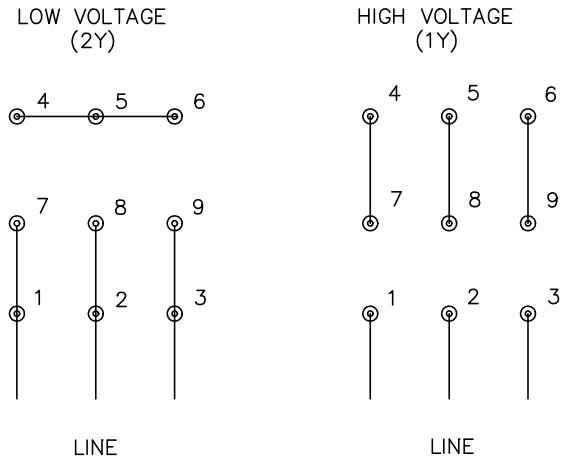
TORQUES(LB-FT): PO=14.6 PU=7.57 LR=9.17 LRA=14.6




35LYL405
510-520 = 11.13
521-524 = 11.63
525-528 = 12.13
529-535 = 13.00
536-546 = 14.38
2.50
2.25
2.60
GREASE FITTING (EA. END)
NAMEPLATE
.19 KEY
1.38 LG
Ø .8750
.8745
6 HOLES
.38 DIA.
4.00
2.25
5.00
.50
5.94
6.61
5.61
4.35
6.78
20°
THERMAL (WHEN REQ'D)
3.50
3.44
LEAD HOLE
.88 DIA.
2.75
2.75
4.56
3.25
6.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: ADD THERMAL DIMS AND THERMAL WHEN REQUIRED NOTE
REV: L
VERSION: 08
REVISED: 02:49:06 04/03/2023
TDR: 000001205626
MODEL NO. 35LYL405
REF: -
BY: USBUFRA
B
BALDOR - RELIANCE®
STD HORZ 143-5T OPSB 35M SUPER-E
35LYL405

CD0005





NOTES:

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

CD0005

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			BALDOR ELECTRIC Co.
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
CD0005		FILE: AAA00005140	MDL: –
		MTL: –	3PH, DV, 9 LEADS