BALDOR • RELIANCE

Customer information packet

CEM3546T

1HP, 1770RPM, 3PH, 60HZ, 143TC, 3520M, TEFC, F1
MDS OF MICHIGAN INC
Class - None
Division - Not Applicable

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9/19/2024 2:02:16 PM

Specifications

Enclosure	TEFC
Frame	143TC
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	CSA EEV
	NEMA PREMIUM
	NEMA_PREMIUM
	UR
Ambient Temperature	40 °C
Auxillary Box	No Auxillary Box
Auxillary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	3.200 A @ 230.0 V
	3.200 A @ 208.0 V
	1.600 A @ 460.0 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

Part detail

Revision	D
Type	AC
Mech. spec.	35AA002
Base	
Status	PRD/A
Elec. spec.	35WGG004
Layout	35LYAA002
Eff. date	06-07-2024
CD Diagram	CD0005
Poles	04
Leads	9#18 Y
Proprietary	False
Created date	01-10-2022

Heater Indicator	No Heater
High Voltage Full Load Amps	1.6 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	N
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	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	13.29 IN
Power Factor	69
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	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

NP3441LUA										
CAT.NO.	CEM3546T									
SPEC	35AA002G004G1									
HP	1									
VOLTS	230/460									
AMPS	3.2/1.6									
RPM	1770									
FRAME	143TC	**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	TEFC	**SER**								
DE	6205	**ODE**	6203							
VPWM INVERTER READY	SFA 3.4/1.7									
CT6-60H(10:1)VT3-60H(20:1										
	50HZ 1HP 190/380V 3.6/1.8A									SF1.0

Parts list

Part number	Description	Quantity
SA402431	SA 35AA002G004G1	1.000 ea
RA393708	RA 35AA002G004G1	1.000 ea
34FN3002B01	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	1.000 ea
NS2512A01	INSULATOR, CONDUIT BOX X	1.000 ea
35CB3009	35 CB W/1.09 DIA. LEAD HOLE @ 6:	1.000 ea
36GS1000SP	GASKET-CONDUIT BOX, .06 THICK #SV-330 LE	1.000 ea
51XB1016A07	10-16 X 7/16 HXWSSLD SERTYB	2.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
35EP3122A00	MASTER ODE,203 BRG,.683SH,#26 DRN,GRSR,F	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
35EP3307D00	MASTER DE,205 BRG,.998SH,#26 DRN,GRSR	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	2.000 ea
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	1.000 ea
35FH4005A84SP	IEC FH W/GRSR, NO DIMPLES PRIMED	1.000 ea
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 ea
35CB4521GX	CONDUIT BOX LID KIT **ORDER INDIV PARTS	1.000 ea
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 ea
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A01	KEY RETAINER 7/8" DIA SHAFT	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
MG1050Y01	CELEROL BALDOR GOLD *** NLA IN SINGLE GA	0.017 ga
HA3100A15	THRUBOLT 10-32 X 8.375	4.000 ea
LC0005E01	CONN.DIA./WARNING LABEL (LC0005/LB1119N)	1.000 ea
NP3441LUA	AL SUPER-E VPWM INV RDY,UL EEV,NEMA PREM	1.000 ea
36PA1000	PKG GRP, PRINT PK1016A06	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2100bx)4/22	1.000 ea
FE-0000001	ZRTG FE ASSEMBLY	1.000 ea
PE-0000001	ZRTG PE ASSEMBLY	1.000 ea

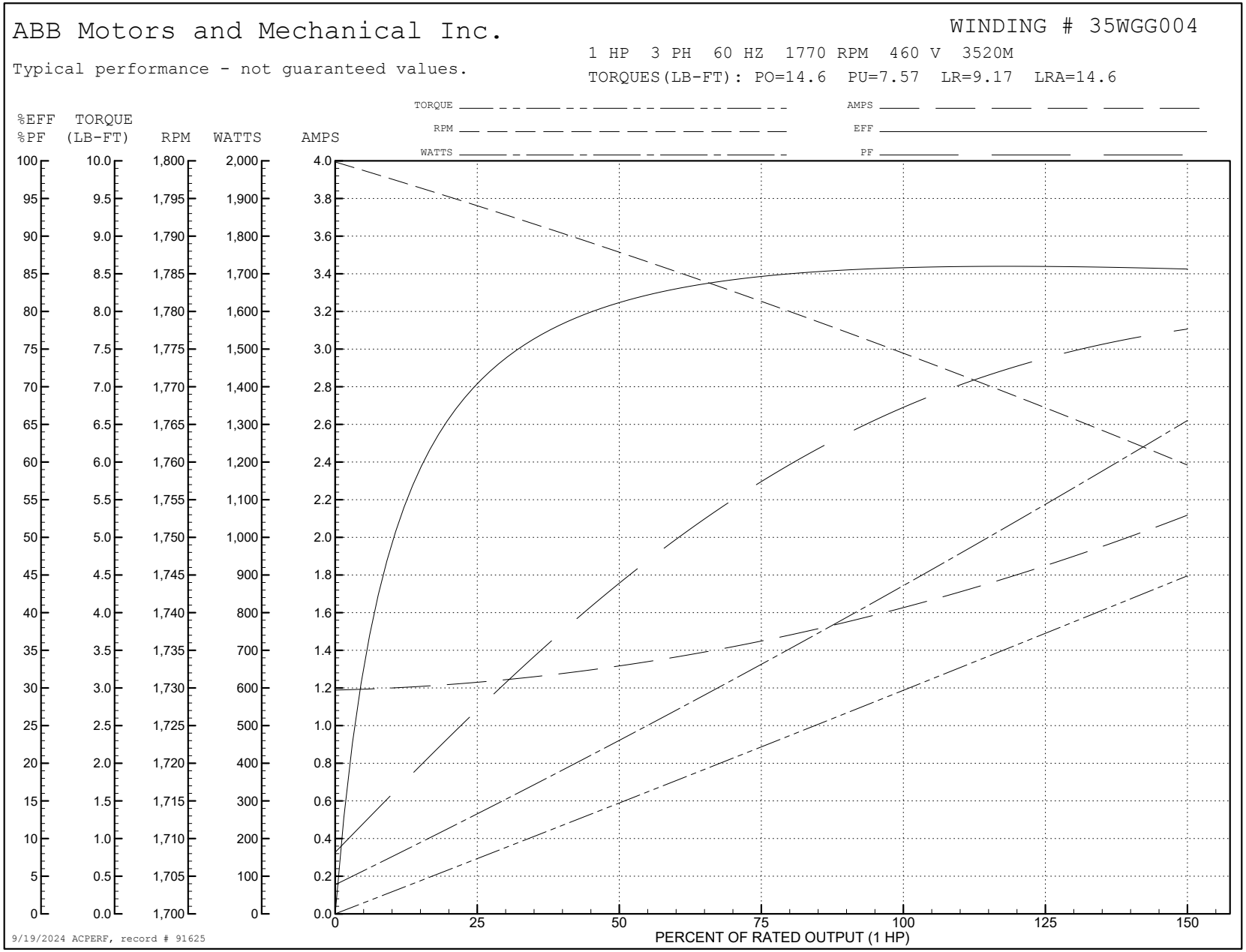
AC Induction Motor Performance Data
Record # 91625
Typical performance - not guaranteed values

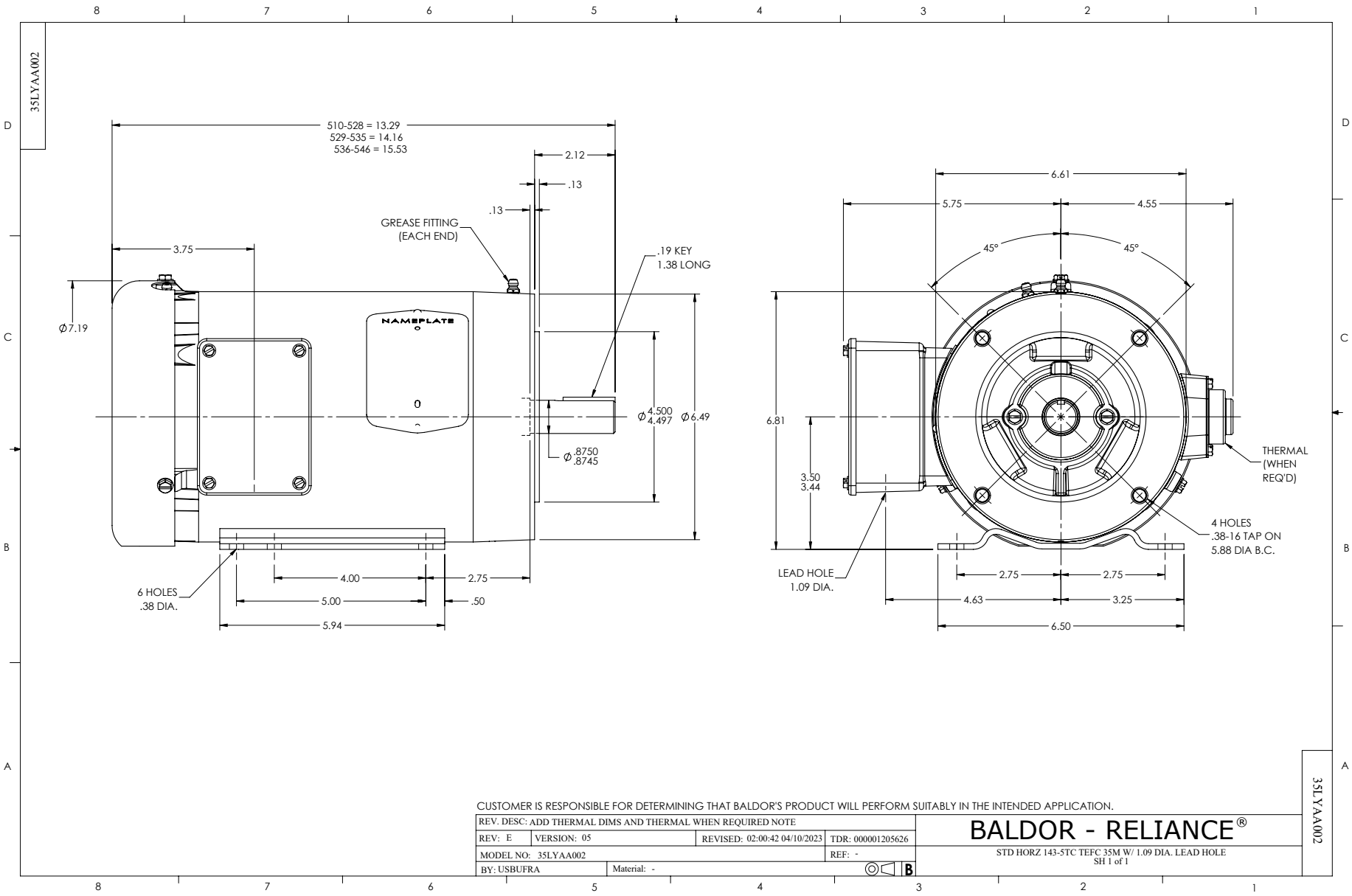
Winding: 35WGG004-R001	**Type:** 3520M	**Enclosure:** TEFC

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

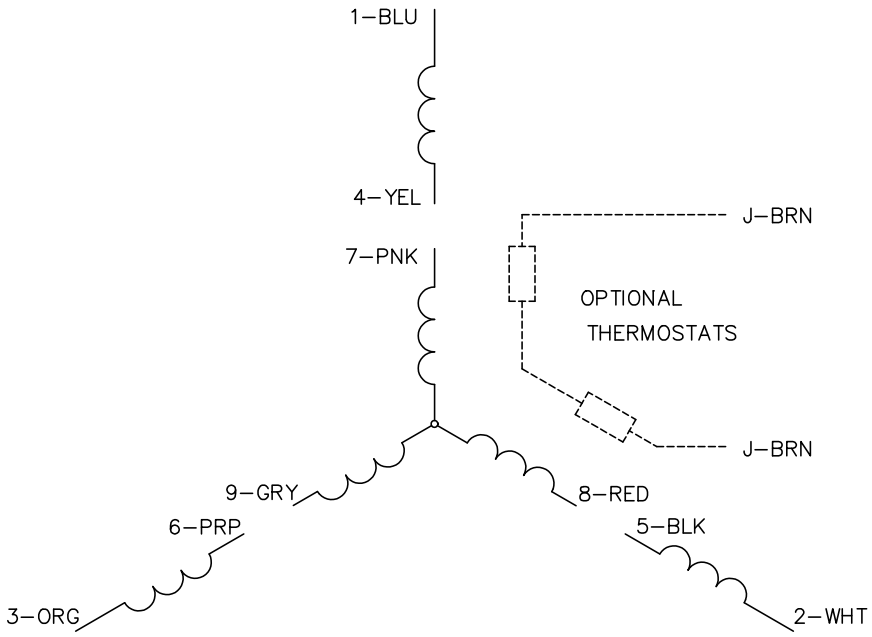
Load Characteristics 460 V, 60 Hz, 1 HP

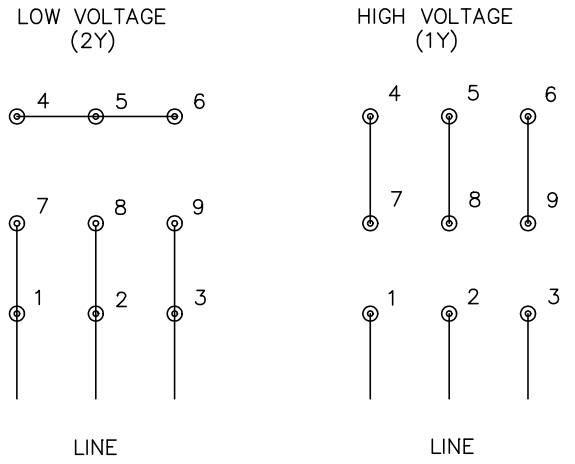
% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	29	45	58	67	73	78	71
Efficiency	71.1	81.2	84.7	85.8	86	85.6	85.9
Speed	1794	1787.3	1781.1	1774.3	1767.4	1759.4	1770
Line amperes	1.22	1.31	1.46	1.64	1.86	2.11	1.77


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
TORQUE
RPM
WATTS
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
WATTS
AMPS
PERCENT OF RATED OUTPUT (1 HP)
9/19/2024 ACPERF, record # 91625


35LYAA002
510-528 = 13.29
529-535 = 14.16
536-546 = 15.53
2.12
.13
.13
GREASE FITTING
(EACH END)
.19 KEY
1.38 LONG
3.75
Ø7.19
NAMEPLATE
Ø4.500
4.497
Ø6.49
Ø.8750
.8745
6 HOLES
.38 DIA.
4.00
2.75
5.00
.50
5.94
6.61
5.75
4.55
45°
45°
6.81
3.50
3.44
THERMAL
(WHEN
REQ'D)
4 HOLES
.38-16 TAP ON
5.88 DIA B.C.
LEAD HOLE
1.09 DIA.
2.75
2.75
4.63
3.25
6.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.
REV. DESC: ADD THERMAL DIMS AND THERMAL WHEN REQUIRED NOTE
REV: E
VERSION: 05
REVISED: 02:00:42 04/10/2023
TDR: 000001205626
MODEL NO: 35LYAA002
REF: -
BY: USBUFRA
Material: -
B
BALDOR - RELIANCE®
STD HORZ 143-5TC TEFC 35M W/ 1.09 DIA. LEAD HOLE
SH 1 of 1
35LYAA002

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