BALDOR • RELIANCE

Customer information packet

EHM3116T

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

3/29/2025 2:22:36 PM

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	CSA
	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	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	F
Type	AC
Mech. spec.	35VV807
Base	
Status	PRD/A
Elec. spec.	35WGG004
Layout	35LYVV807
Eff. date	07-31-2024
CD Diagram	CD0005
Poles	04
Leads	9#18 Y
Proprietary	False
Created date	01-10-2022

Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	N
Lifting Lugs	Vertical 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	11.12 IN
Power Factor	69
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
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

NP2094C06B03											
CAT.NO.	EHM3116T										
SPEC.	35VV807G004G1										
HP	1										
VOLTS	230/460										
AMPS	3.2/1.6										
RPM	1770										
FRAME	143T	**HZ**	60	**PH**	3						
SER.F.	1.15	**CODE**	N	**DES**	B	**CL**	F				
NEMA-NOM-EFF	85.5	**PF**	69								
RATING	40C AMB-CONT										
CC	010A										
DE	6205	**ODE**	6203								
AUTO	N	**MANUAL**	N	**NONE**	Y						
ENCL	OPSB	**SN**									
BLANK	SFA 3.4/1.7										

Parts list

Part number	Description	Quantity
SA402508	SA 35VV807G004G1	1.000 ea
RA393785	RA 35VV807G004G1	1.000 ea
34FN3002B01	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	1.000 ea
NS2512A01	INSULATOR, CONDUIT BOX X	1.000 ea
35CB4004A17	SHEET METAL KOBX 35 (STAMPED) 35CB4004 L	1.000 ea
51XT1032A04	10-32X1/4 HX WA SL SR TYT (F/S)	4.000 ea
11XT1032G04	10-32 X 1/4" GRD SCREW	1.000 ea
HW3001B01	BRASS CUP WASHER, FOR #10 SCREW	1.000 ea
35EP3209B00	MASTER ODE,203 BRG,GRSR,RLF	1.000 ea
HW4500A19	1/4-28X1/4 SLOTTED PLUG F/S	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
35EP3210D00	MASTER DE,205 BRG,GRSR,STD SH,AEGIS HALF	1.000 ea
91XN0540J08	SCREW, 5-40 X 1/2", FHC, AS	2.000 ea
91XN0632J04	SCREW, 6-32 X 1/4", FHC, AS	2.000 ea
HW4500A19	1/4-28X1/4 SLOTTED PLUG F/S	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
XY1032A02	10-32 HEX NUT DIRECTIONAL SERRATION	4.000 ea
35CB4509	BOX LID MODEL 35 FOR 35CB4004-GALV & PHO	1.000 ea
51XB1016A08	10-16X 1/2HXWSSLD SERTYB	4.000 ea
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A01	KEY RETAINER 7/8" DIA SHAFT	1.000 ea
HA6362ZP	LIFTING LUG FOR 36 FRAME MOTORS.	2.000 ea
HW1000A10	#10 FLAT WASHER (SAE)	2.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
MG1050G01	CELEROL MEDIUM CHARCOAL METALLIC GRAY	0.017 ga
HA3100A37	THRUBOLT 10-32 X 8.500	4.000 ea
35AD2005A01	BAFFLE PLATE,MOD 35-SLTD BAND MTRS TDR	2.000 ea
LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 ea
NP2094C06B03	NP LABEL W/BARCODE (FOR HVAC MOTOR)	1.000 ea
35PA1066	PKG GRP, PRINT PK1008A06	1.000 ea

MN416A01	TAG-INSTAL-MAINT no wire (2500bx)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

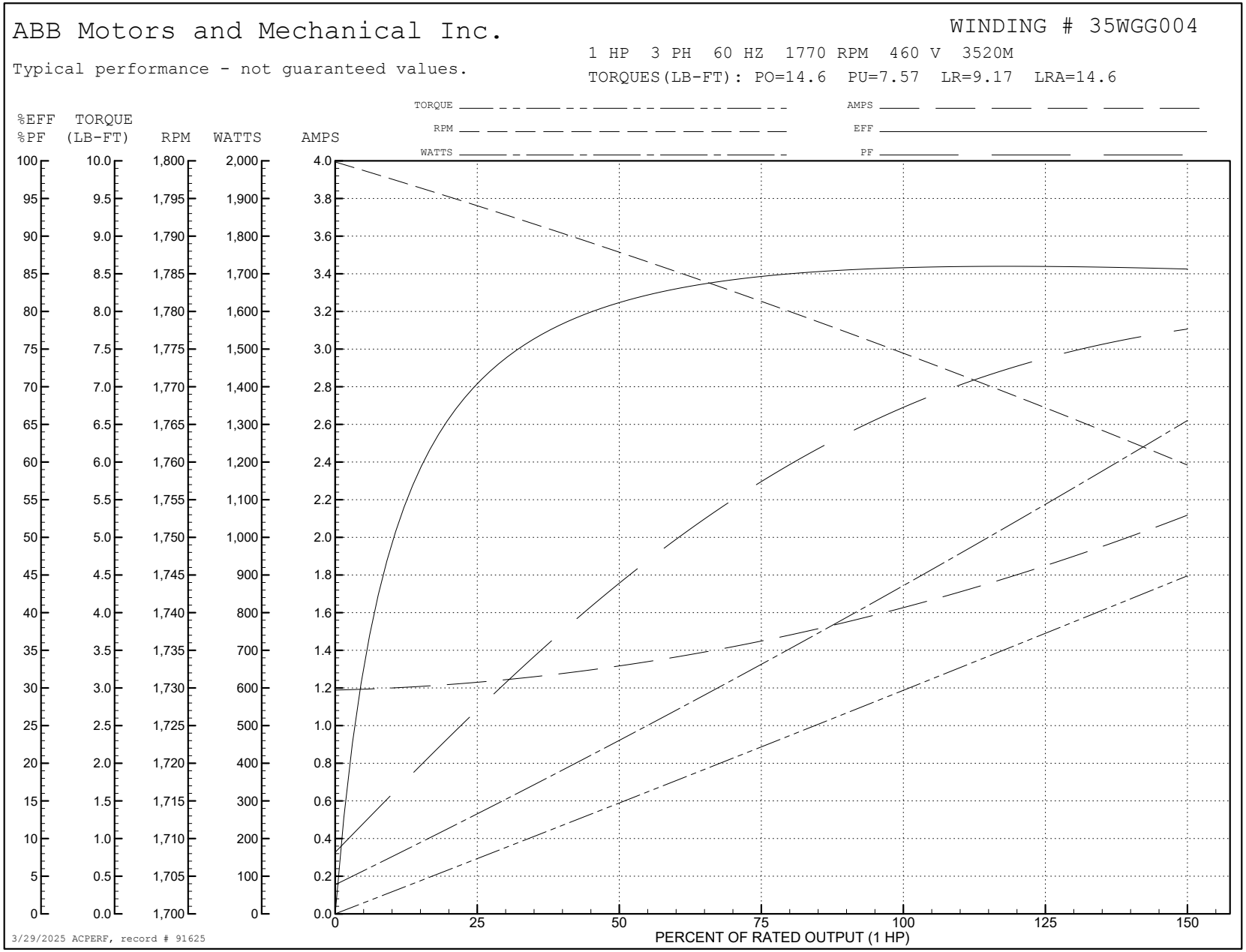
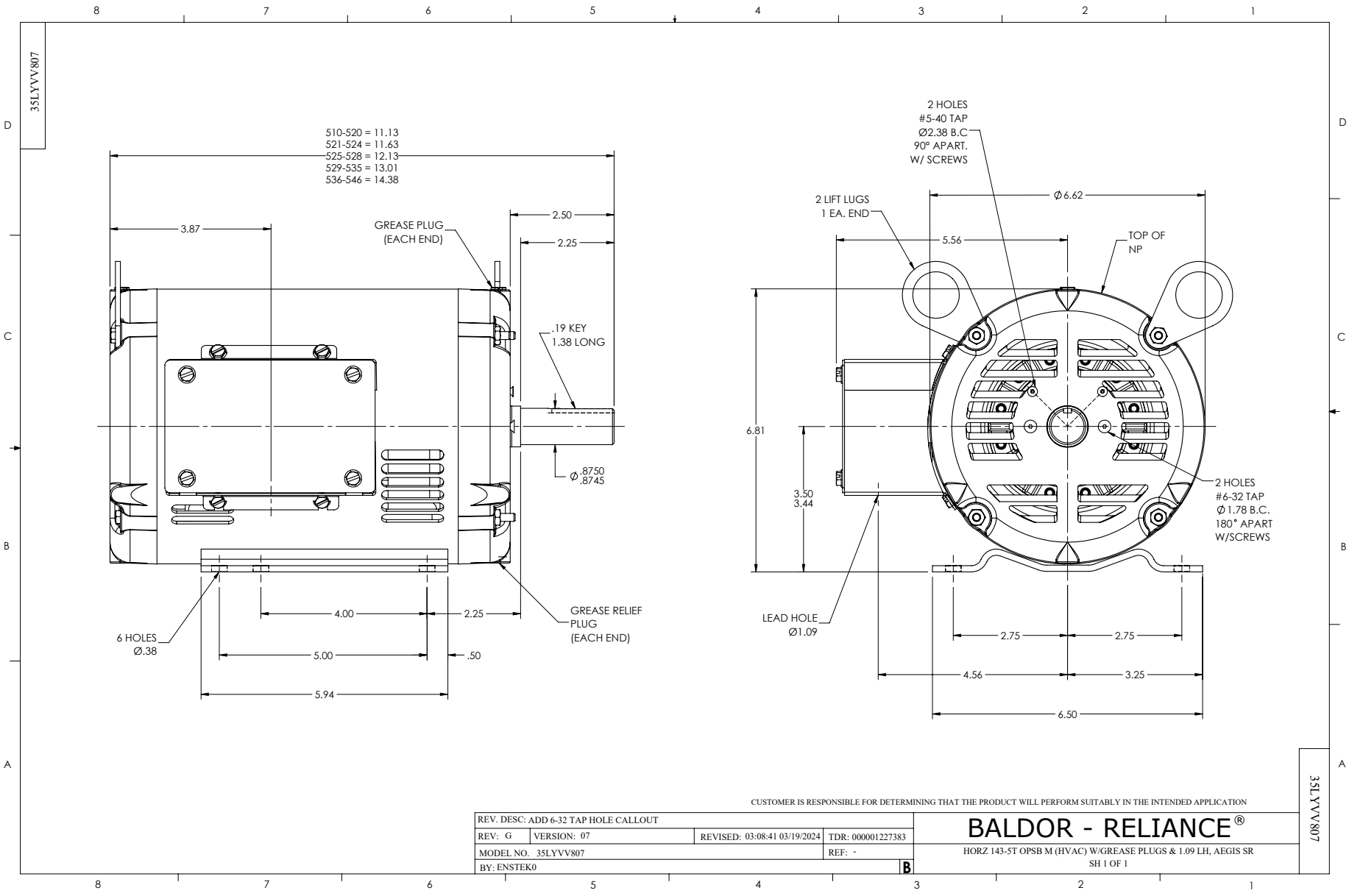
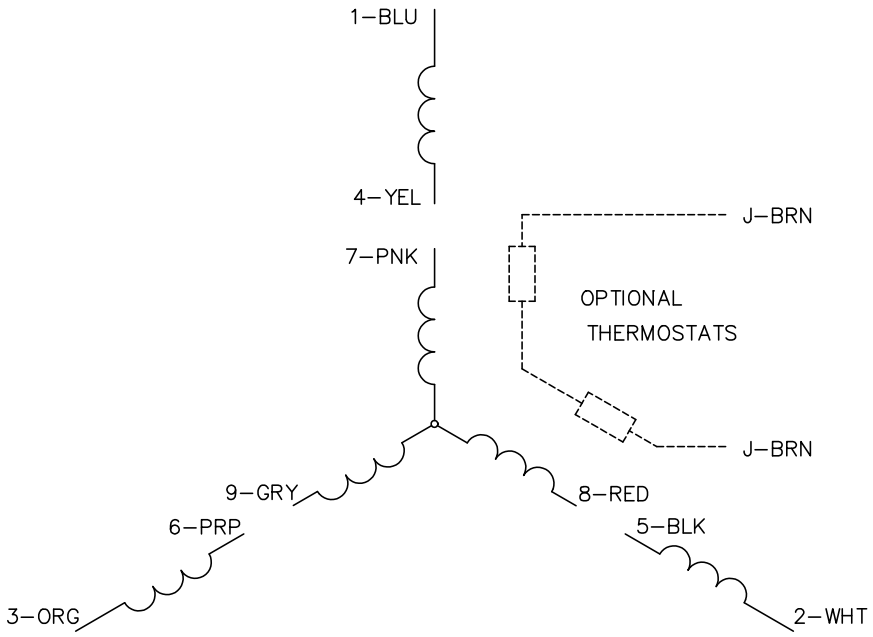
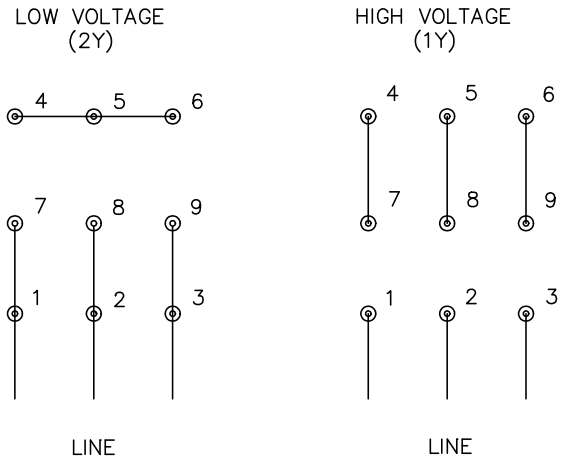


ABB Motors and Mechanical Inc.
WINDING # 35WGG004
Typical performance - not guaranteed values.
1 HP 3 PH 60 HZ 1770 RPM 460 V 3520M
TORQUES(LB-FT): PO=14.6 PU=7.57 LR=9.17 LRA=14.6
TORQUE
RPM
WATTS
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
WATTS
AMPS
100 95 90 85 80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0
10.0 9.5 9.0 8.5 8.0 7.5 7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 0.5 0.0
1,800 1,795 1,790 1,785 1,780 1,775 1,770 1,765 1,760 1,755 1,750 1,745 1,740 1,735 1,730 1,725 1,720 1,715 1,710 1,705 1,700
2,000 1,900 1,800 1,700 1,600 1,500 1,400 1,300 1,200 1,100 1,000 900 800 700 600 500 400 300 200 100 0
4.0 3.8 3.6 3.4 3.2 3.0 2.8 2.6 2.4 2.2 2.0 1.8 1.6 1.4 1.2 1.0 0.8 0.6 0.4 0.2 0.0
0 25 50 75 100 125 150
PERCENT OF RATED OUTPUT (1 HP)
3/29/2025 ACPERF, record # 91625


35LYVV807
510-520 = 11.13
521-524 = 11.63
525-528 = 12.13
529-535 = 13.01
536-546 = 14.38
3.87
GREASE PLUG
(EACH END)
2.50
2.25
.19 KEY
1.38 LONG
Ø .8750
.8745
4.00
2.25
6 HOLES
Ø.38
5.00
.50
5.94
GREASE RELIEF
PLUG
(EACH END)
2 HOLES
#5-40 TAP
Ø2.38 B.C
90° APART.
W/ SCREWS
2 LIFT LUGS
1 EA. END
Ø 6.62
5.56
TOP OF
NP
6.81
3.50
3.44
2 HOLES
#6-32 TAP
Ø 1.78 B.C.
180° APART
W/SCREWS
LEAD HOLE
Ø1.09
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 6-32 TAP HOLE CALLOUT
REV: G
VERSION: 07
REVISED: 03:08:41 03/19/2024
TDR: 000001227383
MODEL NO. 35LYVV807
REF: -
BY: ENSTEK0
B
BALDOR - RELIANCE®
HORZ 143-5T OPSB M (HVAC) W/GREASE PLUGS & 1.09 LH, AEGIS SR
SH 1 OF 1
35LYVV807

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