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# Customer information packet

## VFSWDM3546T-E

1HP, 1770RPM, 3PH, 60HZ, 143TC, 3522M, TENV, F1

Class - None

Division - Not Applicable

## Specifications

Enclosure	TENV
Frame	143TC
Frame Material	Stainless 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	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	3.340 A @ 230.0 V 3.300 A @ 208.0 V 1.670 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	E
Type	AC
Mech. spec.	35E4717
Base	
Status	PRD/A
Elec. spec.	35WGG184
Layout	35LYE4717
Eff. date	08-14-2023
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	01-10-2022

Heater Indicator	No Heater
High Voltage Full Load Amps	1.7 a
Insulation Class	H
Inverter Code	Inverter Ready
KVA Code	N
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Finish	UNPAINTED
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3522M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	12.84 IN
Power Factor	66
Product Family	WD All SD Non-Encapsulated
Pulley End Bearing Type	Sealed Bearing
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**

NP4427AAA01										
<b>CAT #</b>	VFSWDM3546T-E				<b>WT</b>	37	<b>LBS</b>			
<b>SPEC</b>	35E4717G184G1				<b>ENCL</b>	TENV				
<b>SER #</b>					<b>CC</b>	010A	<b>IP</b>	69		
<b>HP</b>	1	<b>MAG CUR</b>		2.5/1.25						
<b>VOLTS</b>	230/460				<b>NEMA NOM. EFF</b>		85.5			
<b>AMPS</b>	3.34/1.67				<b>PF</b>	66				
<b>RATING</b>	40C AMB-CONT									
<b>RPM</b>	1770				<b>MAX RPM</b>		2700			
<b>FRAME</b>	143TC	<b>HZ</b>	60	<b>CODE</b>	N	<b>CLASS</b>	H			
<b>SER.F.</b>	1.15	<b>SF AMP</b>	3.5/1.75		<b>PH</b>	3	<b>DES</b>	B		
<b>DE</b>	6205		<b>ODE</b>	6205						
<b>LUBRICATION</b>	POLYREX EM									
<b>ID LOGO</b>	<b>INVERTER TYPE</b>		<b>VPWM</b>	<b>CHP</b>	60	<b>TO</b>	90	1.5:1		
<b>ID LOGO</b>	<b>WK2</b>	0.159	<b>CT</b>	15	<b>TO</b>	60	4:1			
<b>ID LOGO</b>	<b>SL HZ</b>	1	<b>VT</b>	3	<b>TO</b>	60	20:1			
					<b>QR</b>					
<b>YR</b>										

## Parts list

Part number	Description	Quantity
SA402471	SA 35E4717G184G1	1.000 ea
RA393748	RA 35E4717G184G1	1.000 ea
35CB1017A02	5/36 MID SECT - 3 PC. CONDUIT BOX 3/4 N	1.000 ea
HA3424S48	STUD - M6X1.0 THDS X 3.00"	1.000 ea
RM1070A81	O-RING, -043 VITON/FKM .070CS X 3.489ID	1.000 ea
35CB1513A01	35-36-37 MACH. LID - 3 PC. CONDUIT BOX	1.000 ea
11XW1032G08	10-32 X .50, TAPTITE II, HEX WSHR SLTD U	1.000 ea
HW3001B02	BRASS CUP WASHER W/GROUND SYMBOL TAB,	1.000 ea
35EP1940A03	FRONT TENV 205 BRG (STAINLESS)	1.000 ea
RM1070A25	O-RING, VITON/FKM .070CS X 6.190ID	1.000 ea
HW4500S33	1/8 NPT STAINLESS #304 SS PLUG	4.000 ea
HW5100A05	WVY WSHR F/205 & 304 BRGS	1.000 ea
35EP1935A02	PULLEY 56C/143-5TC ENCL 205 BRG	1.000 ea
RM1070A25	O-RING, VITON/FKM .070CS X 6.190ID	1.000 ea
HW4600G01	.984X1.499X.25 VITON SLICK SERIES LIP	1.000 ea
HW4600E99	25 X 42 X 6 AFX SEAL, GRAPHITE INFUSED V	1.000 ea
HW4500S33	1/8 NPT STAINLESS #304 SS PLUG	4.000 ea
RM1070A26	O-RING,4.5MM I.D.X1.5MM C.S. (VITON)	4.000 ea
RM1070A81	O-RING, -043 VITON/FKM .070CS X 3.489ID	1.000 ea
HW2502D13	SS KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A04	KEY RETAINER 0.625 DIA SHAFTS	1.000 ea
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.005 qt
MJ5004A93	FOOD GRADE (H1 RATED) ANTISEIZE THRD COM	0.005 ea
HA1025A21	WSHR,FELT .125" THK	1.000 ea
HA5027A09	DRAIN KIT,(2)HA4002A03 BAGGED W/LABEL	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
WD5603A01	KIT, CLOSED-END LEAD SPLICE (18-14GA)	1.000 ea
HA3100FS25	THRUBOLT, 10-32 X 9.500 SS FOOD SAFE	4.000 ea
36PA1000	PKG GRP, PRINT PK1016A06	1.000 ea
PK3082	STYROFOAM CRADLE	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2100bx)4/22	1.000 ea

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PE-0000016	ZRTG PE ASSEMBLY	1.000 ea
FE-0000015	ZRTG FE ASSEMBLY	1.000 ea

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**AC Induction Motor Performance Data**

Record # 87470

Typical performance - not guaranteed values

<b>Winding:</b> 35WGG184-R004		<b>Type:</b> 3522M		<b>Enclosure:</b> TENV	
<b>Nameplate Data</b>			<b>460 V, 60 Hz: High Voltage Connection</b>		
<b>Rated Output (HP)</b>		1	<b>Full Load Torque</b>		2.99 LB-FT
<b>Volts</b>		230/460	<b>Start Configuration</b>		direct on line
<b>Full Load Amps</b>		3.34/1.67	<b>Breakdown Torque</b>		16.6 LB-FT
<b>R.P.M.</b>		1770	<b>Pull-up Torque</b>		7.42 LB-FT
<b>Hz</b>	60	<b>Phase</b>	3	<b>Locked-rotor Torque</b>	10.32 LB-FT
<b>NEMA Design Code</b>		<b>B KVA Code</b>	N	<b>Starting Current</b>	16.1 A
<b>Service Factor (S.F.)</b>			1.15	<b>No-load Current</b>	1.23 A
<b>NEMA Nom. Eff.</b>	85.5	<b>Power Factor</b>	66	<b>Line-line Res. @ 25°C</b>	14.4 Ω
<b>Rating - Duty</b>			40C AMB-CONT	<b>Temp. Rise @ Rated Load</b>	63°C
<b>S.F. Amps</b>				<b>Temp. Rise @ S.F. Load</b>	71°C
				<b>Locked-rotor Power Factor</b>	59.4
				<b>Rotor inertia</b>	0.159 lb-ft <sup>2</sup>

**Load Characteristics 460 V, 60 Hz, 1 HP**

<b>% of Rated Load</b>	<b>25</b>	<b>50</b>	<b>75</b>	<b>100</b>	<b>125</b>	<b>150</b>	<b>S.F.</b>
<b>Power Factor</b>	27	43	56	66	73	78	72
<b>Efficiency</b>	70.8	81.2	84.5	85.9	85.8	85.2	85.5
<b>Speed</b>	1793	1786	1781	1773	1766	1758	1768
<b>Line amperes</b>	1.25	1.34	1.49	1.67	1.87	2.12	1.75

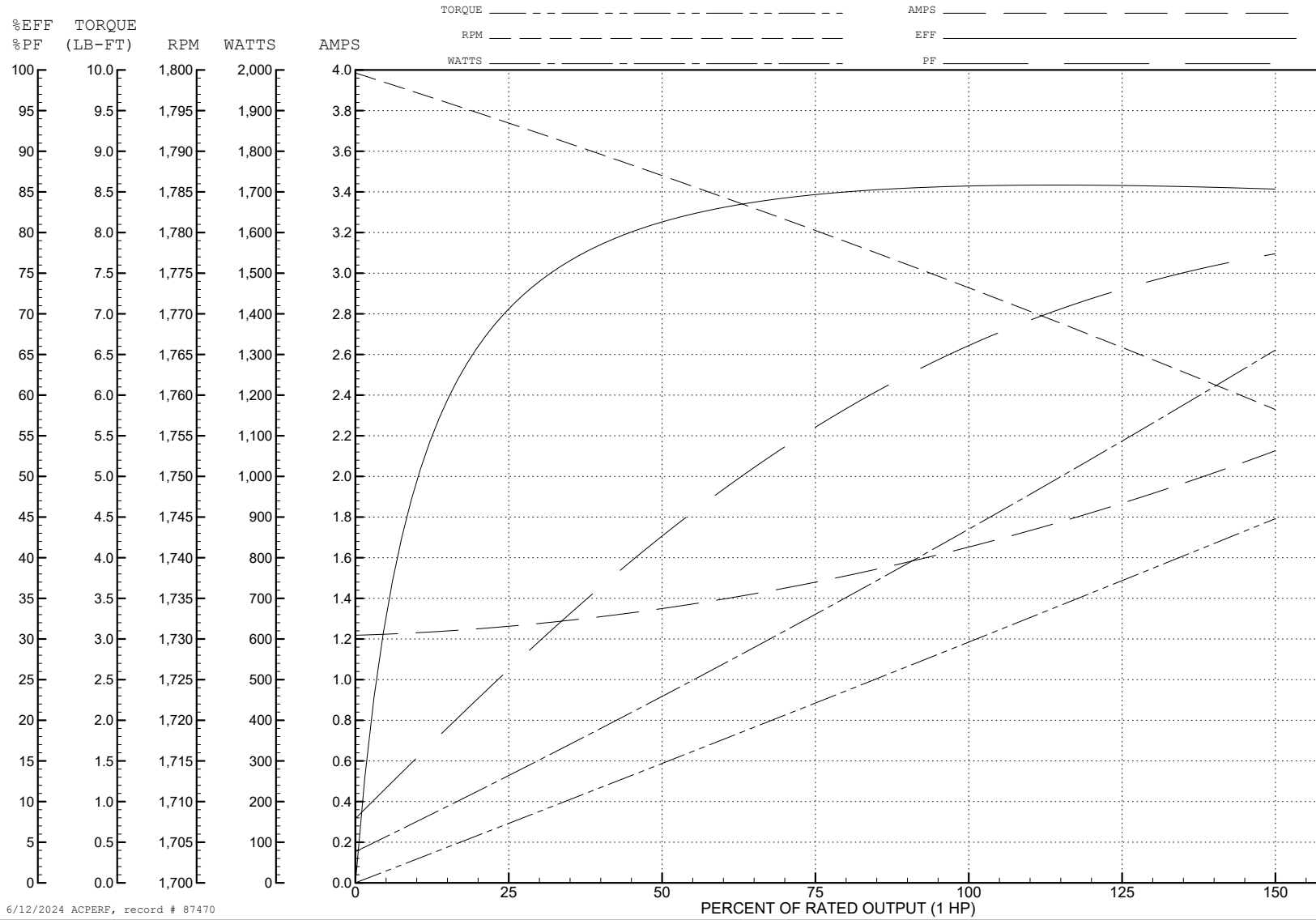
ABB Motors and Mechanical Inc.

WINDING # 35WGG184

1 HP 3 PH 60 HZ 1770 RPM 460 V 3522M

Typical performance - not guaranteed values.

TORQUES (LB-FT): PO=16.6 PU=7.42 LR=10.32 LRA=16.1



6/12/2024 ACPERF, record # 87470



**AC Induction Motor Performance Data**

Record # 89717

Typical performance - not guaranteed values

<b>Winding: 35WGG184-R010</b>		<b>Type: 3522M</b>		<b>Enclosure: TENV</b>	
<b>Nameplate Data</b>			<b>460 V, 60 Hz: High Voltage Connection</b>		
<b>Rated Output (HP)</b>		1	<b>Full Load Torque</b>		2.99 LB-FT
<b>Volts</b>		208-230/460	<b>Start Configuration</b>		direct on line
<b>Full Load Amps</b>		3.3-3.34/1.67	<b>Breakdown Torque</b>		16.6 LB-FT
<b>R.P.M.</b>		1770	<b>Pull-up Torque</b>		7.42 LB-FT
<b>Hz</b>	60	<b>Phase</b>	3	<b>Locked-rotor Torque</b>	10.32 LB-FT
<b>NEMA Design Code</b>		<b>B KVA Code</b>	N	<b>Starting Current</b>	16.1 A
<b>Service Factor (S.F.)</b>			1.15	<b>No-load Current</b>	1.23 A
<b>NEMA Nom. Eff.</b>	85.5	<b>Power Factor</b>	66	<b>Line-line Res. @ 25°C</b>	14.4 Ω
<b>Rating - Duty</b>			65C AMB-CONT	<b>Temp. Rise @ Rated Load</b>	63°C
<b>S.F. Amps</b>			3.6-3.5/1.75	<b>Temp. Rise @ S.F. Load</b>	71°C
				<b>Locked-rotor Power Factor</b>	59.3666
				<b>Rotor inertia</b>	0.159 lb-ft <sup>2</sup>

**Load Characteristics 460 V, 60 Hz, 1 HP**

<b>% of Rated Load</b>	<b>25</b>	<b>50</b>	<b>75</b>	<b>100</b>	<b>125</b>	<b>150</b>	<b>S.F.</b>
<b>Power Factor</b>	27	43	56	66	73	78	70
<b>Efficiency</b>	70.8	81.2	84.5	85.9	85.8	85.2	85.8
<b>Speed</b>	1793	1786	1781	1773	1766	1758	1769
<b>Line amperes</b>	1.25	1.34	1.49	1.67	1.87	2.12	1.79

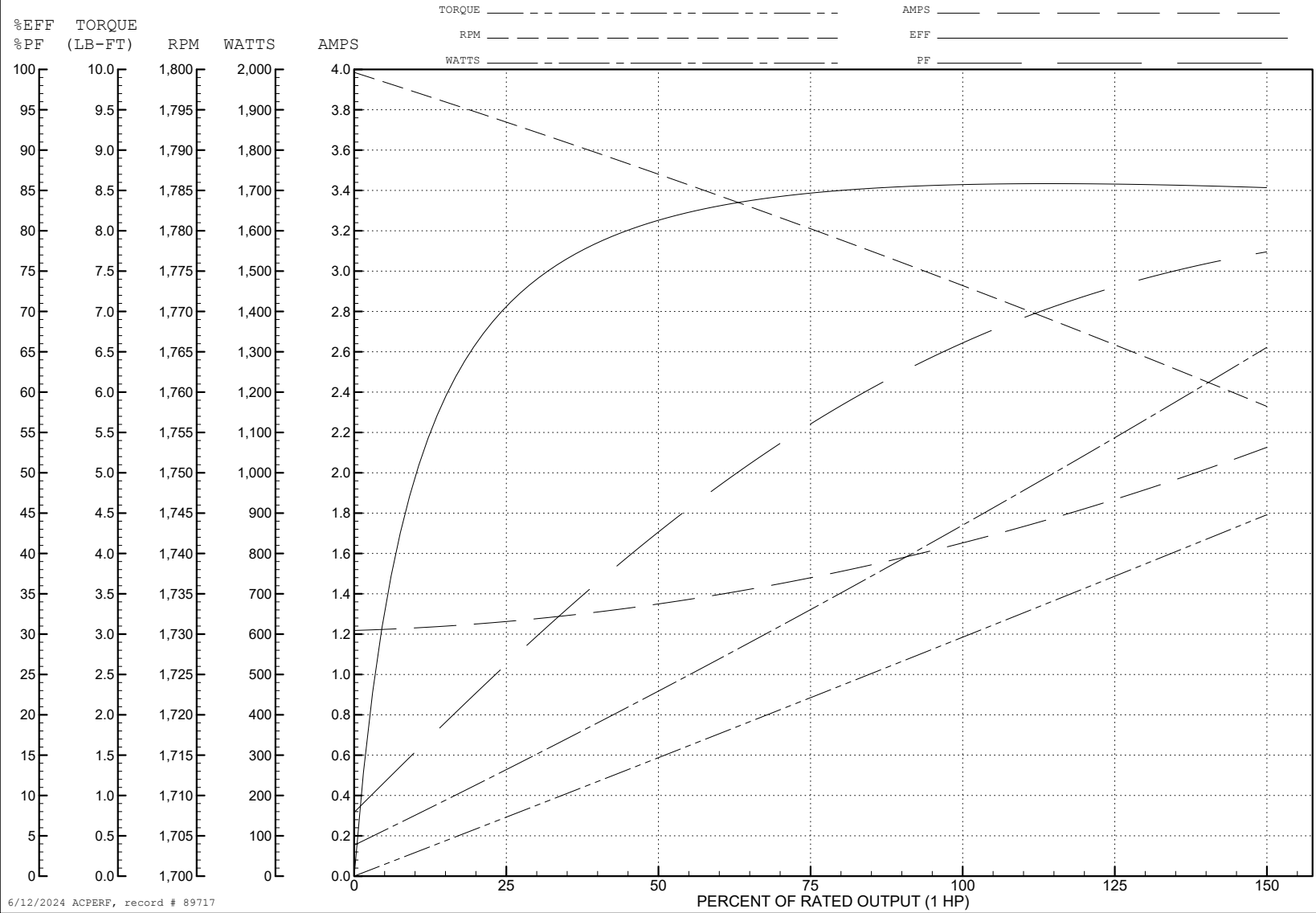
ABB Motors and Mechanical Inc.

WINDING # 35WGG184

Typical performance - not guaranteed values.

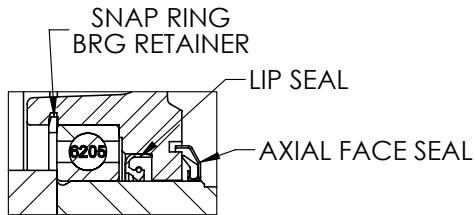
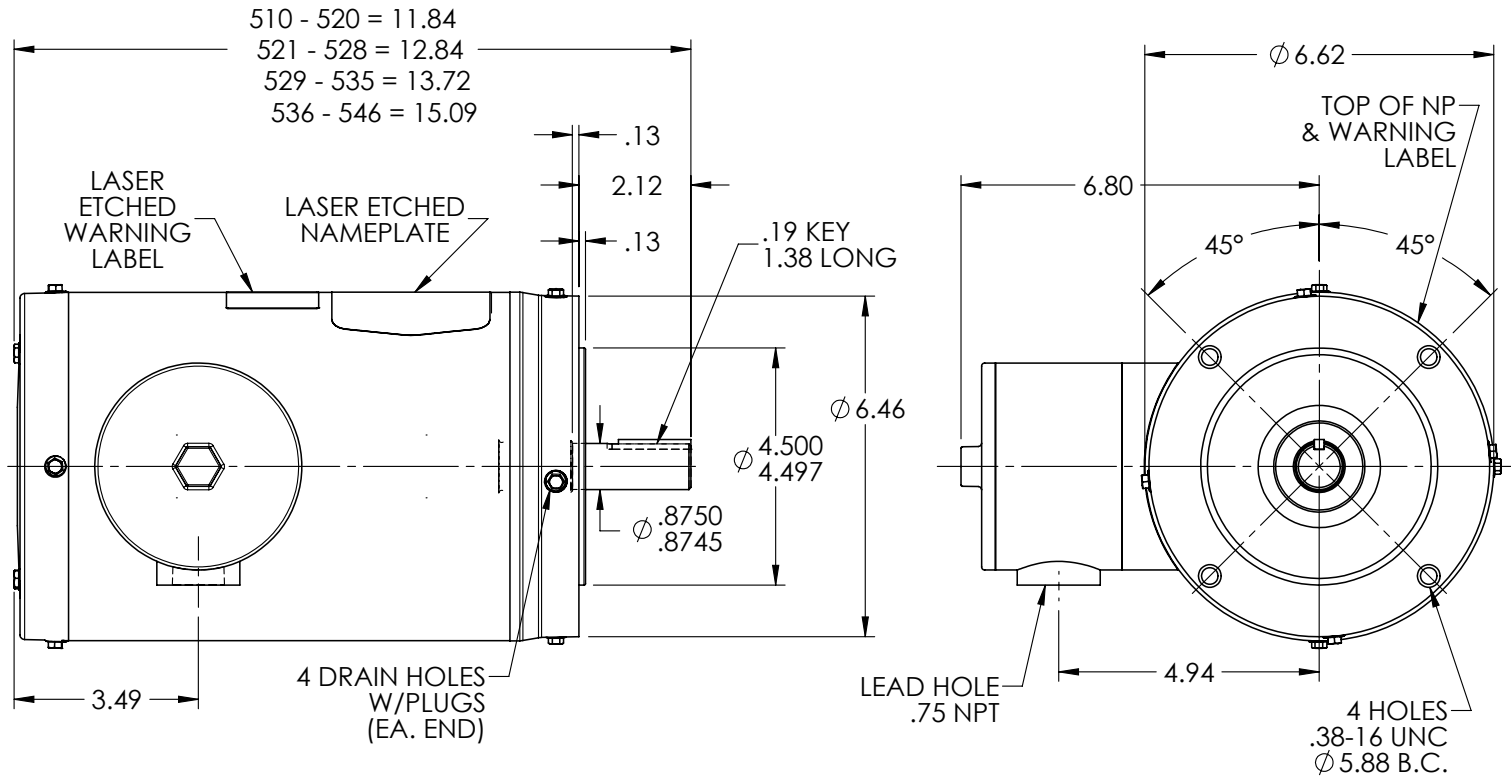
1 HP 3 PH 60 HZ 1770 RPM 460 V 3522M

TORQUES (LB-FT): PO=16.6 PU=7.42 LR=10.32 LRA=16.1



6/12/2024 ACPERF, record # 89717

35LYE4717



**PULLEY END DETAIL**

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION

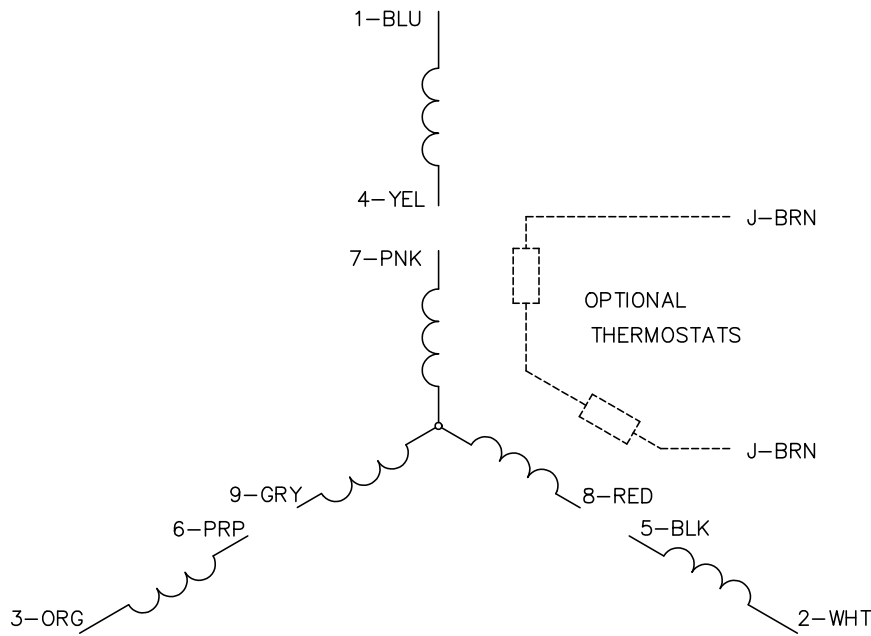
REV. DESC: REMOVE FACE DRAINS & DRAIN FTG; ADD DRAIN PLUG			
REV: C	VERSION: 03	REVISED: 03:47:08 01/26/2023	TDR: 000001202627
35LYE4717		MODEL NO. 35LYE4717	REF: -
		BY: ENSTEK0	

**BALDOR**

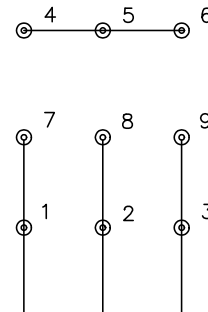
STD VER 143/5TC TENV 35M WD11/12

35LYE4717

CD0005

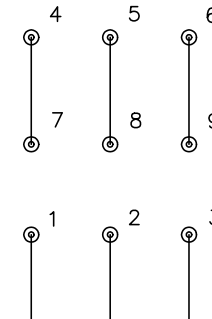


LOW VOLTAGE  
(2Y)



LINE

HIGH VOLTAGE  
(1Y)



LINE

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			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
S00000		FILE: AAA00005140	MDL: -
		MTL: -	

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS