

BALDOR • RELIANCE

Customer information packet

VEM3545

1HP, 3450RPM, 3PH, 60HZ, 56C, 3516M, TEFC, F1, N

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	56C
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	3600 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	3.000 A @ 208.0 V 2.800 A @ 230.0 V 1.400 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	77.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard

Part detail

Revision	AB
Type	AC
Mech. spec.	35J302
Base	
Status	PRD/A
Elec. spec.	35WGY474
Layout	35LYJ302
Eff. date	04-30-2024
CD Diagram	CD0005
Poles	02
Leads	9#18
Proprietary	False
Created date	05-05-2010

Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	1.4 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	K
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3516M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	12.23 IN
Power Factor	87
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.25
Shaft Diameter	0.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3450 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.	VEM3545						
SPEC	35J302Y474G1						
HP	1						
VOLTS	230/460						
AMPS	2.8/1.4						
RPM	3450						
FRAME	56C		HZ	60		PH	3
SF	1.25	CODE	K	DES	B	CLASS	F
NEMA NOM. EFF	77	PF	87				
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 3.4/1.7A						SF1.0

AC Induction Motor Performance Data

Record # 56197

Typical performance - not guaranteed values

Winding: 35WGY474-R008		Type: 3516M		Enclosure: TEFC	
Nameplate Data			460 V, 60 Hz: High Voltage Connection		
Rated Output (HP)	1	Full Load Torque	1.47 LB-FT		
Volts	230/460	Start Configuration	direct on line		
Full Load Amps	2.8/1.4	Breakdown Torque	5.6 LB-FT		
R.P.M.	3450	Pull-up Torque	2.56 LB-FT		
Hz	60 Phase	3	Locked-rotor Torque	4.62 LB-FT	
NEMA Design Code	B KVA Code	K	Starting Current	10.5 A	
Service Factor (S.F.)		1.25	No-load Current	0.585 A	
NEMA Nom. Eff.	77 Power Factor	87	Line-line Res. @ 25°C	19.5 Ω	
Rating - Duty	40C AMB-CONT		Temp. Rise @ Rated Load	41°C	
S.F. Amps	3.4/1.7		Temp. Rise @ S.F. Load	52°C	
			Locked-rotor Power Factor	64.1	
			Rotor inertia	0.0443 LB-FT ²	

Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	55	72	82	86	90	91	90
Efficiency	57.7	70.5	75.4	77	77	75.8	77
Speed	3564	3533	3500	3460	3418	3366	3418
Line amperes	0.68	0.851	1.08	1.37	1.65	2.01	1.65

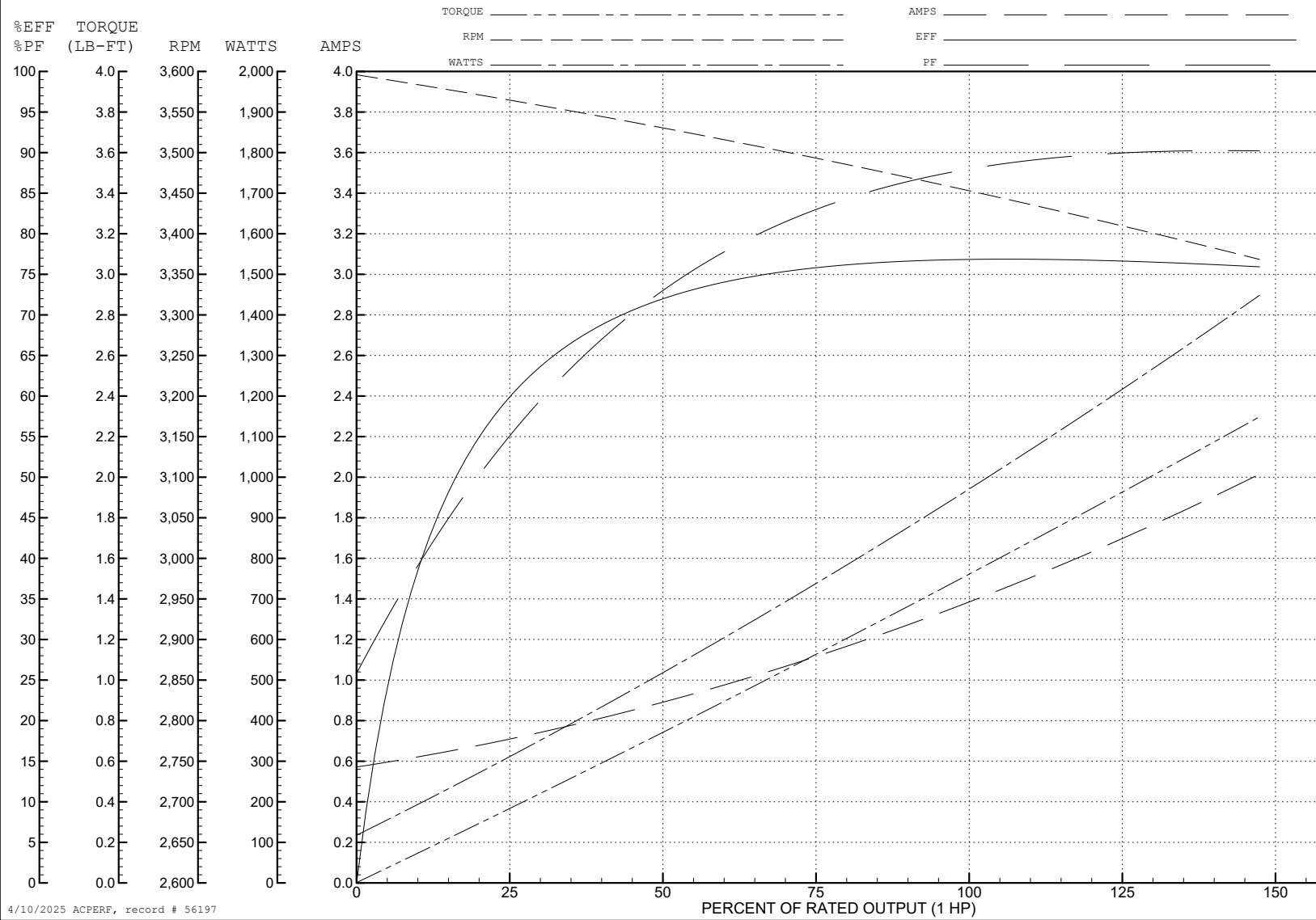
ABB Motors and Mechanical Inc.

WINDING # 35WGY474

Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 3450 RPM 460 V 3516M

TORQUES (LB-FT): PO=5.6 PU=2.56 LR=4.62 LRA=10.5



AC Induction Motor Performance Data

Record # 59169

Typical performance - not guaranteed values

Winding: 35WGY474-R008		Type: 3516M	Enclosure: TEFC		
Nameplate Data			230 V, 60 Hz: Low Voltage Connection		
Rated Output (HP)	1	Full Load Torque	1.5 LB-FT		
Volts	230/460	Start Configuration	direct on line		
Full Load Amps	2.8/1.4	Breakdown Torque	5.6 LB-FT		
R.P.M.	3450	Pull-up Torque	3.9 LB-FT		
Hz	60 Phase	3	Locked-rotor Torque	4 LB-FT	
NEMA Design Code	B	KVA Code	K	Starting Current	18 A
Service Factor (S.F.)	1.25	No-load Current	1.32 A		
NEMA Nom. Eff.	77	Power Factor	87	Line-line Res. @ 25°C	4.88 Ω
Rating - Duty	40C	AMB-CONT	Temp. Rise @ Rated Load	47°C	
S.F. Amps	3.4/1.7	Temp. Rise @ S.F. Load	60°C		
		Locked-rotor Power Factor	64.1		
		Rotor inertia	0.0443 LB-FT ²		

Load Characteristics 230 V, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	57	74	81	85	87	87	87
Efficiency	54	67.8	73.5	75.1	75.6	74.6	75.6
Speed	3549	3513	3474	3432	3384	3330	3384
Line amperes	1.54	1.88	2.34	2.86	3.44	4.12	3.44

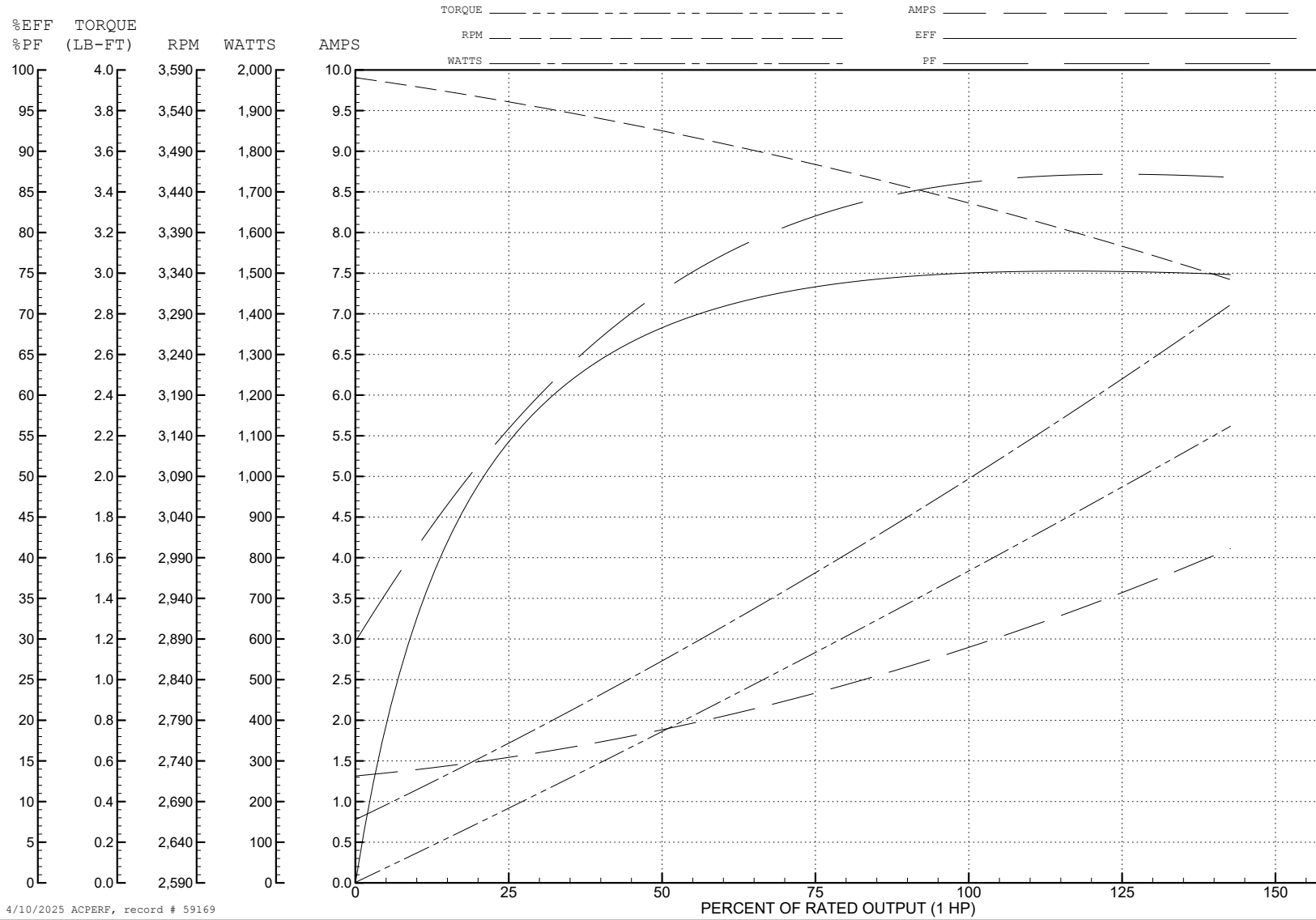
ABB Motors and Mechanical Inc.

WINDING # 35WGY474

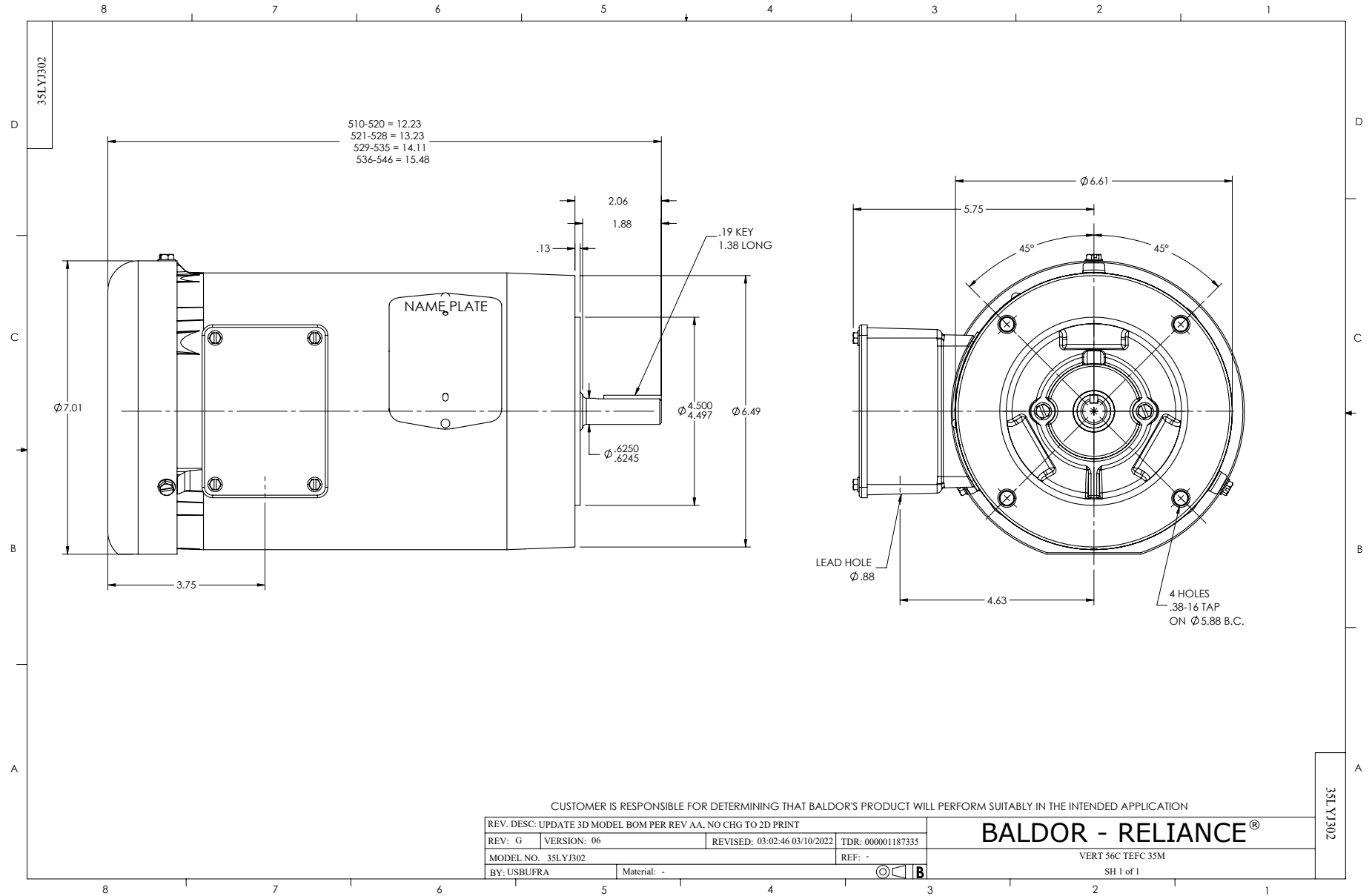
Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 3450 RPM 230 V 3516M

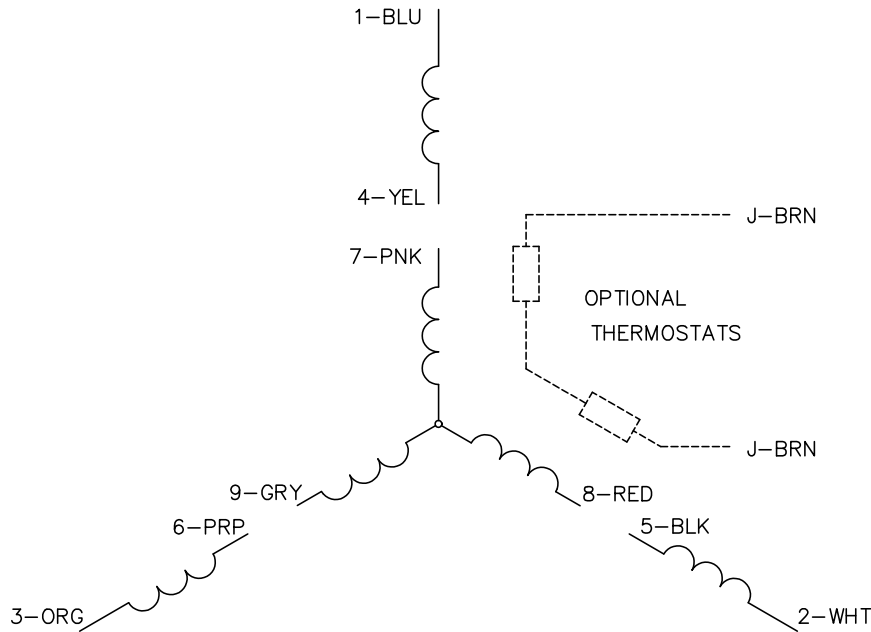
TORQUES (LB-FT): PO=5.6 PU=3.9 LR=4 LRA=18



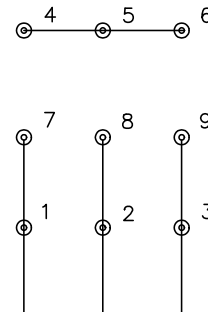
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CD0005

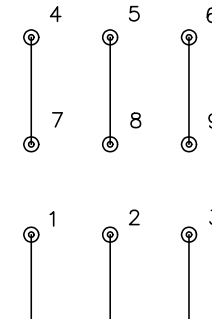


LOW VOLTAGE
(2Y)



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