

**BALDOR® • RELIANCE** 

**Product Information Packet**

**CXM05242**

**2//1.5HP,1755//1455RPM,3PH,60HZ,56C,3540**

Part Detail							
Revision:	A	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	35WGA0038	CD Diagram:	CD0005	Mfg Plant:	
Mech. Spec:		Layout:	35LYE368	Poles:	04	Created Date:	04-22-2021
Base:		Eff. Date:	02-14-2022	Leads:	9#18		

Specs			
Catalog Number:	CXM05242	Duty Rating:	CONT
Enclosure:	XPFC	Electrically Isolated Bearing:	Not Electrically Isolated
Frame:	56C	Feedback Device:	NO FEEDBACK
Frame Material:	Steel	Heater Indicator:	No Heater
Output @ Frequency:	2.000 HP @ 60 HZ	Insulation Class:	F
	1.500 HP @ 60 HZ	Inverter Code:	Inverter Duty
Synchronous Speed @ Frequency:	1800 RPM @ 60 HZ	IP Rating:	NONE
Voltage @ Frequency:	190.0 V @ 50 HZ	KVA Code:	L
	460.0 V @ 60 HZ	Lifting Lugs:	No Lifting Lugs
	230.0 V @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
	380.0 V @ 50 HZ	Motor Lead Termination:	Flying Leads
XP Class and Group:	CLI GP D; CLII GP F,G	Motor Type:	3528M
XP Division:	Division I	Mounting Arrangement:	F1
Agency Approvals:	UR	Power Factor:	74
	CSA EEV	Product Family:	General Purpose
	CSA	Pulley Face Code:	C-Face
Auxillary Box:	No Auxillary Box	Rodent Screen:	None
Auxillary Box Lead Termination:	None	Shaft Ground Indicator:	No Shaft Grounding

<b>Base Indicator:</b>	Rigid	<b>Shaft Rotation:</b>	Reversible
<b>Bearing Grease Type:</b>	Polyrex EM (-20F +300F)	<b>Speed Code:</b>	Single Speed
<b>Blower:</b>	None	<b>Motor Standards:</b>	NEMA
<b>Constant Torque Speed Range:</b>	6	<b>Starting Method:</b>	Direct on line
<b>Current @ Voltage:</b>	5.800 A @ 230.0 V	<b>Thermal Device - Bearing:</b>	None
	5.400 A @ 190.0 V	<b>Thermal Device - Winding:</b>	Normally Closed Thermostat
	2.900 A @ 460.0 V	<b>Vibration Sensor Indicator:</b>	No Vibration Sensor
	2.700 A @ 380.0 V	<b>Winding Thermal 1:</b>	None
<b>Design Code:</b>	B	<b>Winding Thermal 2:</b>	None
<b>Drip Cover:</b>	No Drip Cover	<b>XP Temp Code:</b>	T3C

Nameplate NP0887XPSLEV										
NO.						CC	010A			
S/N						TEMP CODE	T3C			
SPEC.	35-0000-1142					INV.TYPE	PWM			
CAT.NO.	CXM05242					C HP FR	60		C HP TO	90
HP	2//1.5					CT HZ FROM	6		CT HZ TO	60
VOLTS	230/460//190/380					VT HZ FROM	6		VT HZ TO	60
AMPS	5.4/2.7//5.0/2.5					MAG CUR	1.4			
RPM	1755//1455					MX RPM	2700			
HZ	60//50		PH	3		CL	F			
SER.F.	1.00		DES	B		SL HZ	1.3		NOM.EFF.	88.5
FRAME	56C		RATING	40C AMB-CONT		WK2	0.236			
NEMA MG-1 PART 5, IP54										
1.15 SF ON SINE WAVE										

Parts List		
Part Number	Description	Quantity
SA393100	SA 35-0000-1142	1.000 EA
RA383718	RA 35-0000-1142	1.000 EA
LB1119N	WARNING LABEL	1.000 EA
LC0145B01	CONNECTION LABEL	1.000 EA
NP0887XPSLEV	SS XP INV UL CSA-EEV CC CL-I GP-D	1.000 EA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 EA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (2100/bx) 4/22	1.000 EA
NP0018F	ALUM UL XP CONDUIT BOX NAMEPLATE	1.000 EA
35FH4005A01SP	IEC FH NO GREASER W/PRIMED	1.000 EA
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 EA
35FN3002A05SP	EXFN, PLASTIC, 6.376 OD, .638 ID	1.000 EA
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	1.000 EA
MJ1000A02	GREASE, MOBIL POLYREX EM - 124047	0.050 LB
HA3104A34	THRUBOLT .31-18 X 11.625	4.000 EA
XY3118A12	5/16-18 HEX NUT DIRECTIONAL SERRATION	4.000 EA
35EP3700A01SP	FR ENDPLATE, XPFC	1.000 EA
HW5100A03	WAVY WASHER (W1543-017)	1.000 EA
35EP3702A01SP	PU EP-205 BRG-35X-56C-143-5TC	1.000 EA
84XN1032J20	SCREW, SOC 10-32 X 1 1/4"BMH4602	2.000 EA
HA3013A01	1/2-20X5/8 SPL.HX BOLT	2.000 EA
HW3021C06	3/32 DI X .625 PIN (F/S)	2.000 EA
35CB3001A01SP	EXPL CONDUIT BOX, MACH, 1/2" PIPE TAP LE	1.000 EA
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 EA

<b>Parts List (continued)</b>		
<b>Part Number</b>	<b>Description</b>	<b>Quantity</b>
HW3001B01	BRASS CUP WASHER, FOR #10 SCREW	1.000 EA
35CB3500A01SP	CONDUIT BOX LID, MACH	1.000 EA
51XN2520A16	SCREW, HEX WS SLT, ZN, 1/4-20 X 1.00	4.000 EA
MG1500Y02	WILKOPON PRIMER YELLOW	0.022 GA
MG1025G29	WILKOFASST, 789.229, DARK CHARCOAL GRAY	0.022 GA
36PA1001	PKG GRP, PRINT PK1017A06	1.000 EA
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 EA
HA7000A04	KEY RETAINER 0.625 DIA SHAFTS	1.000 EA

**AC Induction Motor Performance Data**

Record # 88083

Typical performance - not guaranteed values

<b>Winding: 35WGA0038-R001</b>			<b>Type: 3540M</b>			<b>Enclosure: XPFC</b>		
<b>Nameplate Data</b>						<b>460 V, 60 Hz: High Voltage Connection</b>		
<b>Rated Output (HP)</b>	2//1.5		<b>Full Load Torque</b>			5.993 LB-FT		
<b>Volts</b>	230/460//190/380		<b>Start Configuration</b>			direct on line		
<b>Full Load Amps</b>	5.4/2.7//5.0/2.50		<b>Breakdown Torque</b>			26.3 LB-FT		
<b>R.P.M.</b>	1755//1455		<b>Pull-up Torque</b>			11.2 LB-FT		
<b>Hz</b>	<b>60 Phase</b>	<b>3</b>	<b>Locked-rotor Torque</b>			18.5 LB-FT		
<b>NEMA Design Code</b>	<b>B KVA Code</b>	<b>L</b>	<b>Starting Current</b>			24.9 A		
<b>Service Factor (S.F.)</b>	1.15		<b>No-load Current</b>			1.43 A		
<b>NEMA Nom. Eff.</b>	<b>88.5 Power Factor</b>	<b>79</b>	<b>Line-line Res. @ 25°C</b>			6.6978 Ω		
<b>Rating - Duty</b>	40C AMB-CONT		<b>Temp. Rise @ Rated Load</b>			48°C		
<b>S.F. Amps</b>			<b>Temp. Rise @ S.F. Load</b>			58°C		
			<b>Locked-rotor Power Factor</b>			45.2		
			<b>Rotor inertia</b>			0.236 lb-ft <sup>2</sup>		

**Load Characteristics 460 V, 60 Hz, 2 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>	37	58	71	78	82	85	80
<b>Efficiency</b>	82.2	88.1	89.4	89.2	88.4	87.2	88.7
<b>Speed</b>	1790	1780.1	1769.7	1758.3	1746.4	1733.2	1751
<b>Line amperes</b>	1.56	1.84	2.23	2.7	3.21	3.79	3.01

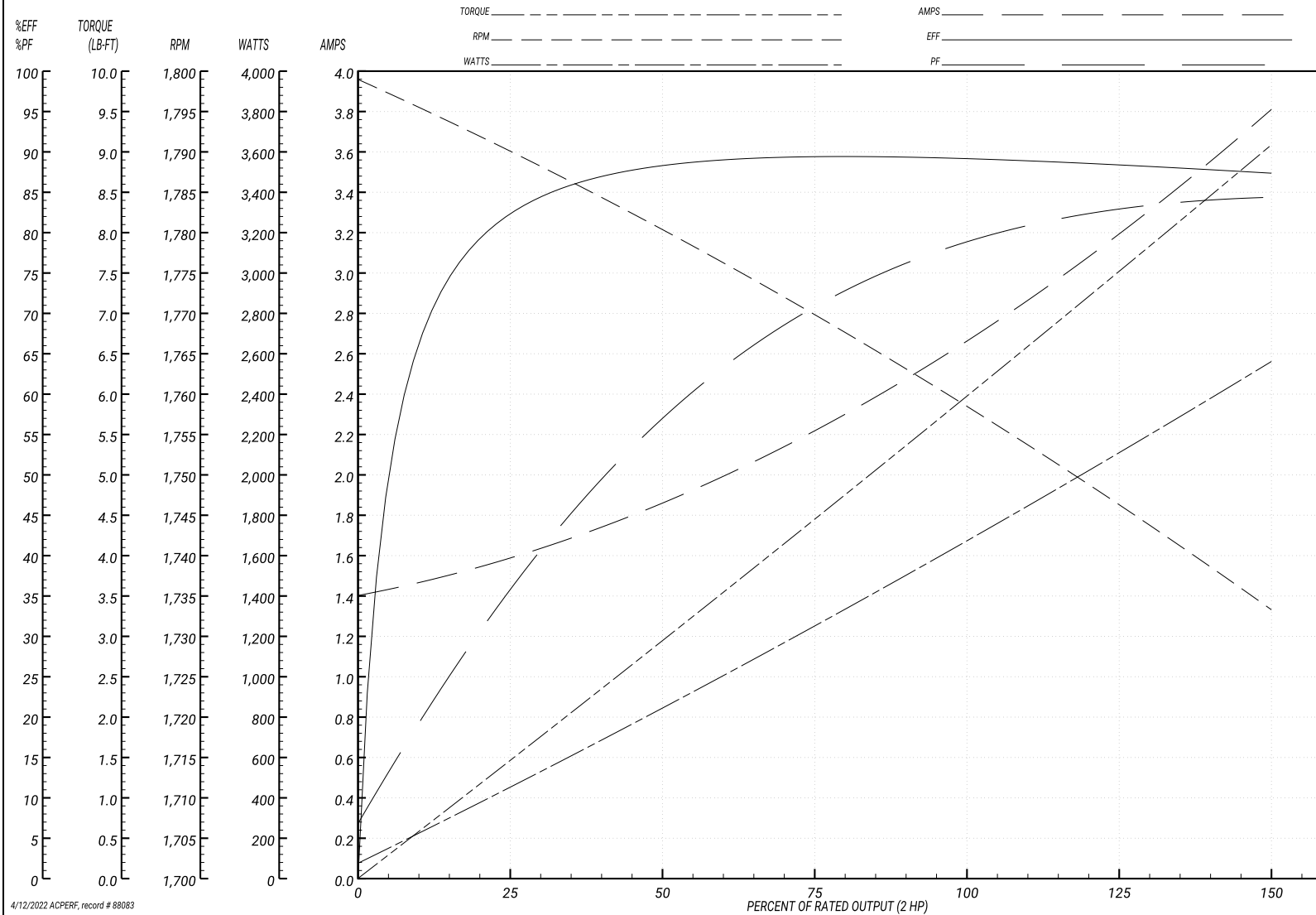
Performance Graph at 460V, 60Hz, 2.0HP Typical performance - Not guaranteed values

**BALDOR ELECTRIC COMPANY**

WINDING # 35WGA0038

Typical performance - not guaranteed values.

2 HP 3 PH 60 HZ 1758.3 RPM 460 V 3540M  
 TORQUES(LB-FT): PO=26.3 PU=11.2 LR=18.5 LRA=24.9



4/12/2022 ACPERF, record # 88083



**AC Induction Motor Performance Data**

Record # 88086

Typical performance - not guaranteed values

<b>Winding:</b> 35WGA0038-R001		<b>Type:</b> 3540M		<b>Enclosure:</b> XPFC	
<b>Nameplate Data</b>			<b>380 V, 50 Hz: High Voltage Connection</b>		
<b>Rated Output (HP)</b>	2//1.5		<b>Full Load Torque</b>	5.41 LB-FT	
<b>Volts</b>	230/460//190/380		<b>Start Configuration</b>	direct on line	
<b>Full Load Amps</b>	5.4/2.7//5.0/2.50		<b>Breakdown Torque</b>	24.66 LB-FT	
<b>R.P.M.</b>	1755//1455		<b>Pull-up Torque</b>	11.4 LB-FT	
<b>Hz</b>	<b>60 Phase</b>	<b>3</b>	<b>Locked-rotor Torque</b>	18.82 LB-FT	
<b>NEMA Design Code</b>	<b>B KVA Code</b>	<b>L</b>	<b>Starting Current</b>	23.82 A	
<b>Service Factor (S.F.)</b>	<b>1</b>		<b>No-load Current</b>	1.42 A	
<b>NEMA Nom. Eff.</b>	<b>88.5 Power Factor</b>	<b>79</b>	<b>Line-line Res. @ 25°C</b>	6.62 Ω	
<b>Rating - Duty</b>	<b>40C AMB-CONT</b>		<b>Temp. Rise @ Rated Load</b>	43°C	
			<b>Locked-rotor Power Factor</b>	50.4	
			<b>Rotor inertia</b>	0.236 lb-ft <sup>2</sup>	

**Load Characteristics 380 V, 50 Hz, 1.5 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>Power Factor</b>	35	56	69	77	82	85
<b>Efficiency</b>	80.1	86.7	88.2	88.2	87.3	86
<b>Speed</b>	1491	1482	1472	1462	1451	1439
<b>Line amperes</b>	1.53	1.76	2.11	2.52	2.98	3.5

Performance Graph at 380V, 50Hz, 1.5HP Typical performance - Not guaranteed values

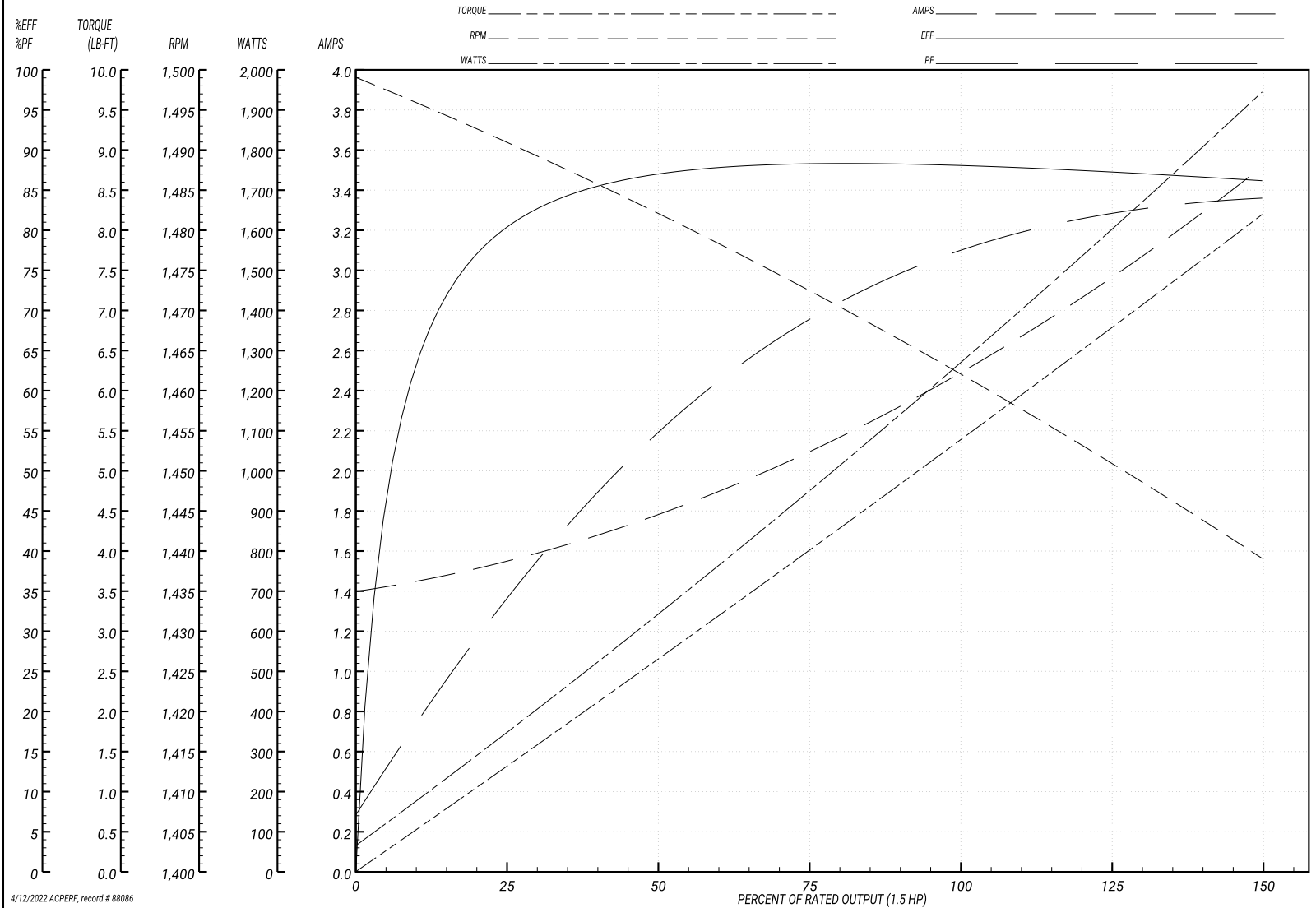
**BALDOR ELECTRIC COMPANY**

WINDING # 35WGA0038

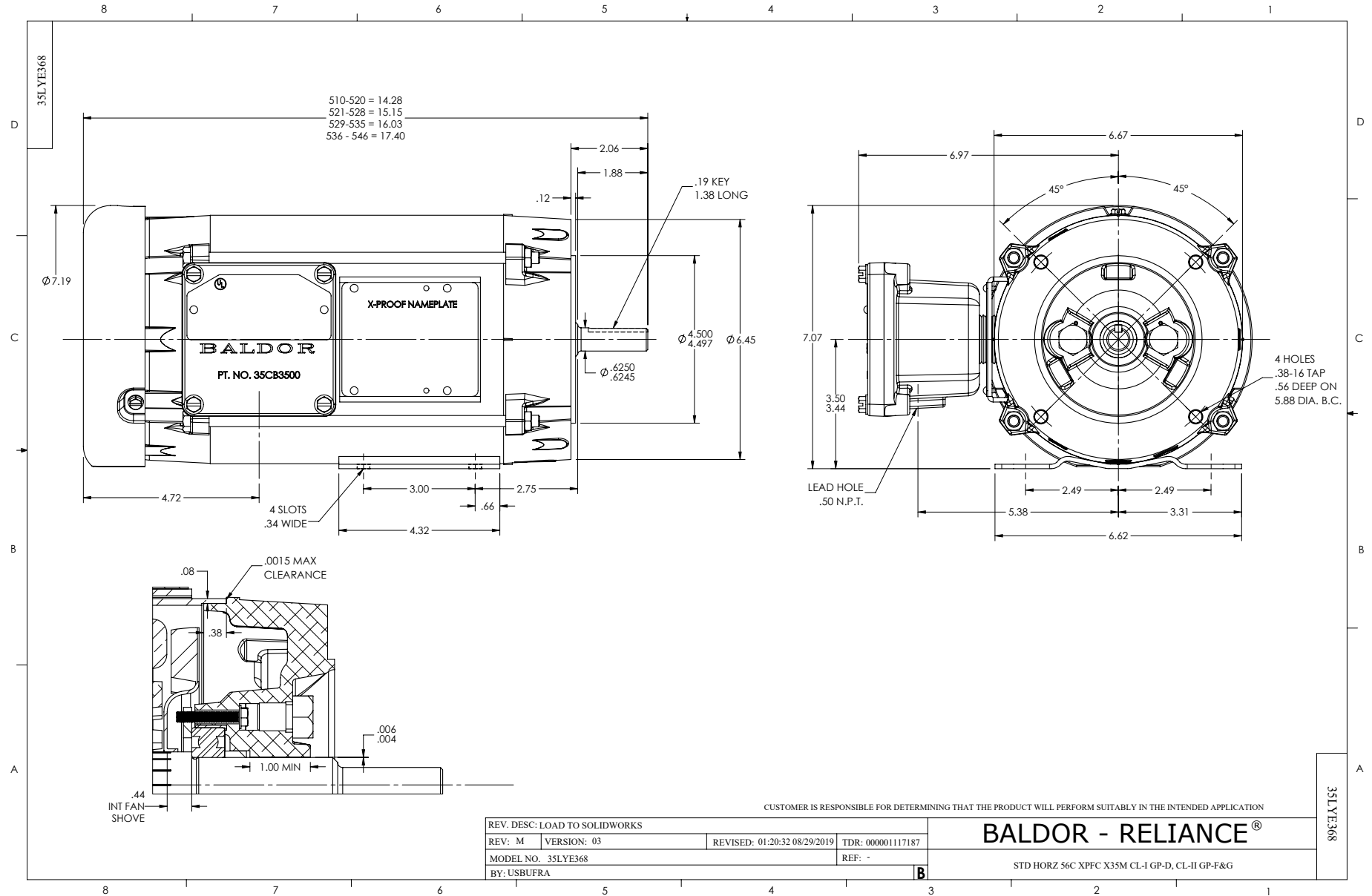
Typical performance - not guaranteed values.

1.5 HP 3 PH 50 HZ 1462 RPM 380 V 3540M

TORQUES(LB-FT): PO=24.66 PU=11.4 LR=18.82 LRA=23.82



4/12/2022 ACPERF, record # 88086



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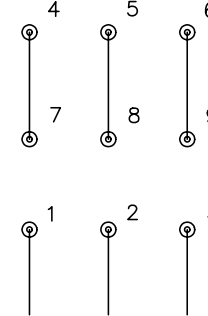


LOW VOLTAGE  
(2Y)



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.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS

REV. LTR: E BY: JLP

REVISED: 01/19/99 10:15

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3PH, DV, 9 LEADS

CD0005

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