ABB BALDOR RELIANCE

Customer information packet

05E431W617G1

1HP, 1740RPM, 3PH, 60HZ, 143TC, 0524M, TEFC, F1
Class -
Division - Not Applicable

Copyright © All product information within this document is subject to ABB Motors and Mechanical Inc. copyright © protection, unless otherwise noted.
11/20/2026 2:47:37 AM

Specifications

Enclosure	TEFC
Frame	143TC
Frame Material	Iron
Frequency	60.00 Hz
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	460.0 V @ 60 HZ
	230.0 V @ 60 HZ
Agency Approvals	CE
	CSA
	UR
Ambient Temperature	55 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	1.600 A @ 460.0 V
	3.200 A @ 230.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	1.6 a
Insulation Class	F

Part Detail

Revision	R
Type	AC
Mech. spec.	05E431
Base	
Status	NLA/A
Elec. spec.	05WGW617
Layout	05LYE431
Eff. date	08-26-2009
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	01-01-0001

Inverter Code	Not Inverter
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	0524M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	12.53 IN
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 Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1740 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

NP1256L								
CAT.NO.								
SPEC.	05E431W617G1							
HP	1							
VOLTS	230/460							
AMP	3.2/1.6							
RPM	1740							
FRAME	143TC	**HZ**	60			**PH**	3	
SER.F.	1.15	**CODE**	K	**DES**	B	**CLASS**	F	
NEMA-NOM-EFF		**PF**						
RATING	55C AMB-CONT							
CC								
DE	6205	**ODE**	6203					
ENCL	TEFC	**SN**						

NP1372L									
CAT.NO.									
SPEC.	05E431W617G1								
HP	1								
VOLTS	220/380-415								
AMP	3.4/1.7								
FRAME	143TC	**HZ**	50			**PH**	3		
SER.F.	1.15	**CODE**	K	**DES**	B	**CL**	F		
NEMA-NOM-EFF		**PF**							
RATING	55C AMB-CONT								
CC									
DE	6205	**ODE**	6203						
ENCL	TEFC	**SN**							
	IP44								

AC Induction Motor Performance Data
Record # 237
Typical performance - not guaranteed values

Winding: 05WGW617-R001	**Type:** 0524M	**Enclosure:** TEFC

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			1	**Full Load Torque**	3 LB-FT
Volts			230/460	**Start Configuration**	direct on line
Full Load Amps			3.2/1.6	**Breakdown Torque**	13 LB-FT
R.P.M.			1740	**Pull-up Torque**	10 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	11 LB-FT
NEMA Design Code	B	**KVA Code**	K	**Starting Current**	12.4 A
Service Factor (S.F.)			1.15	**No-load Current**	0.9 A
NEMA Nom. Eff.	0	**Power Factor**	0	**Line-line Res. @ 25ºC**	0 Ω
Rating - Duty			55C AMB-CONT	**Temp. Rise @ Rated Load**	

Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	36	55	68	77	82	86	0
Efficiency	65.1	76.8	81	82.5	82.8	82.4	0
Speed	1785	1772	1758	1744	1728	1712	0
Line amperes	1	1.1	1.3	1.5	1.7	2	1.6

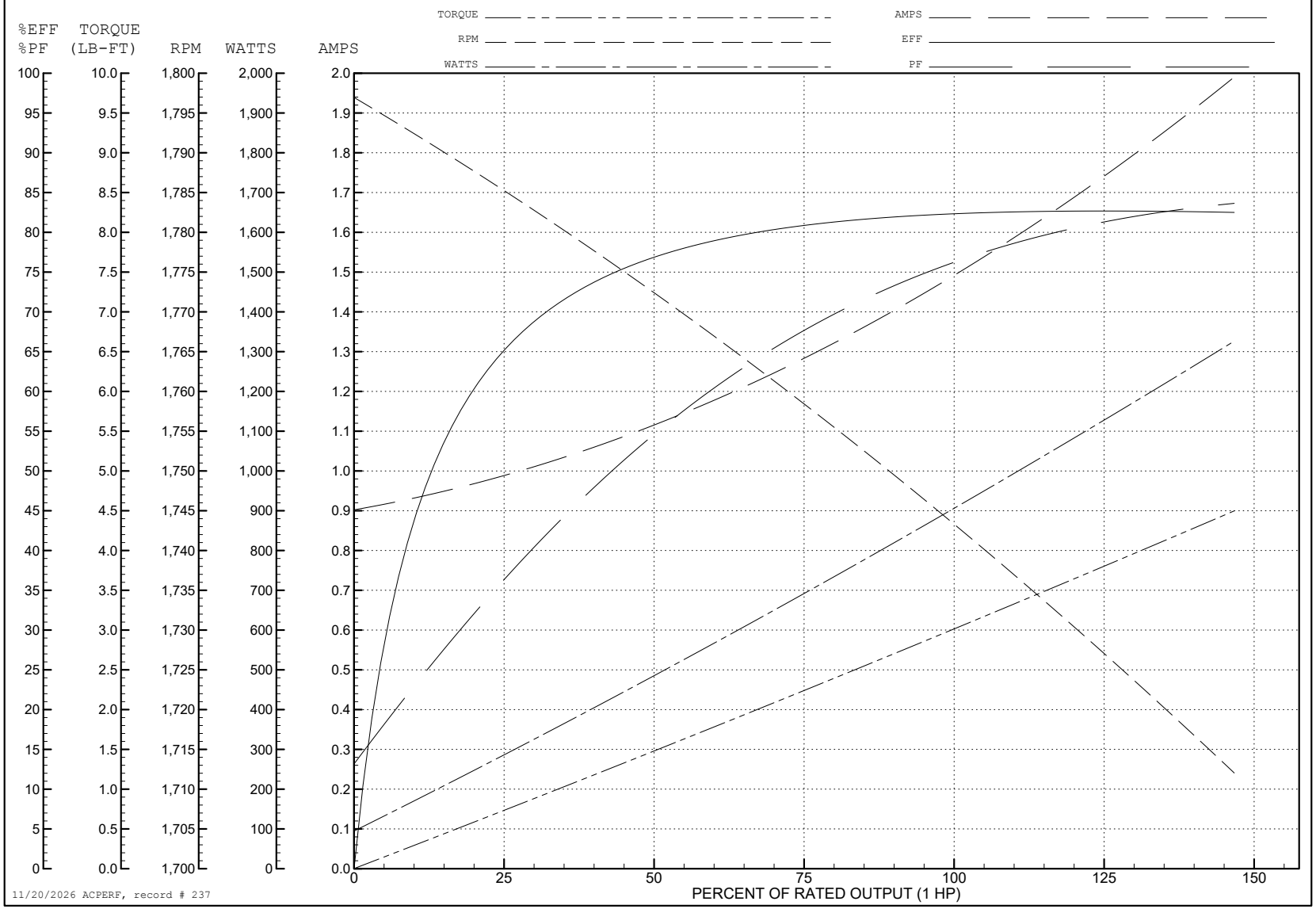
ABB Motors and Mechanical Inc.

WINDING # 05WGW617

1 HP 3 PH 60 HZ 1740 RPM 460 V 0524M

Typical performance - not guaranteed values.

TORQUES(LB-FT): PO=13 PU=10 LR=11 LRA=12.4



AC Induction Motor Performance Data
Record # 238
Typical performance - not guaranteed values

Winding: 05WGW617-R002	**Type:** 0524M	**Enclosure:** TEFC

Nameplate Data				**380 V, 50 Hz: High Voltage Connection**	
Rated Output (HP)			1	**Full Load Torque**	3.7 LB-FT
Volts			220/380-415	**Start Configuration**	direct on line
Full Load Amps			3.4/1.7	**Breakdown Torque**	12.6 LB-FT
R.P.M.			1425	**Pull-up Torque**	10 LB-FT
Hz	50	**Phase**	3	**Locked-rotor Torque**	10.5 LB-FT
NEMA Design Code	B	**KVA Code**	K	**Starting Current**	11 A
Service Factor (S.F.)			1.15	**No-load Current**	0.9 A
NEMA Nom. Eff.	0	**Power Factor**	0	**Line-line Res. @ 25ºC**	0 Ω
Rating - Duty			55C AMB-CONT	**Temp. Rise @ Rated Load**	

Load Characteristics 380 V, 50 Hz, 1 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	42	63	76	83	87	90	0
Efficiency	67.7	77.8	80.4	80.5	79.3	77.2	0
Speed	1481	1464	1445	1424	1400	1373	0
Line amperes	1	1.2	1.4	1.7	2	2.5	1.9

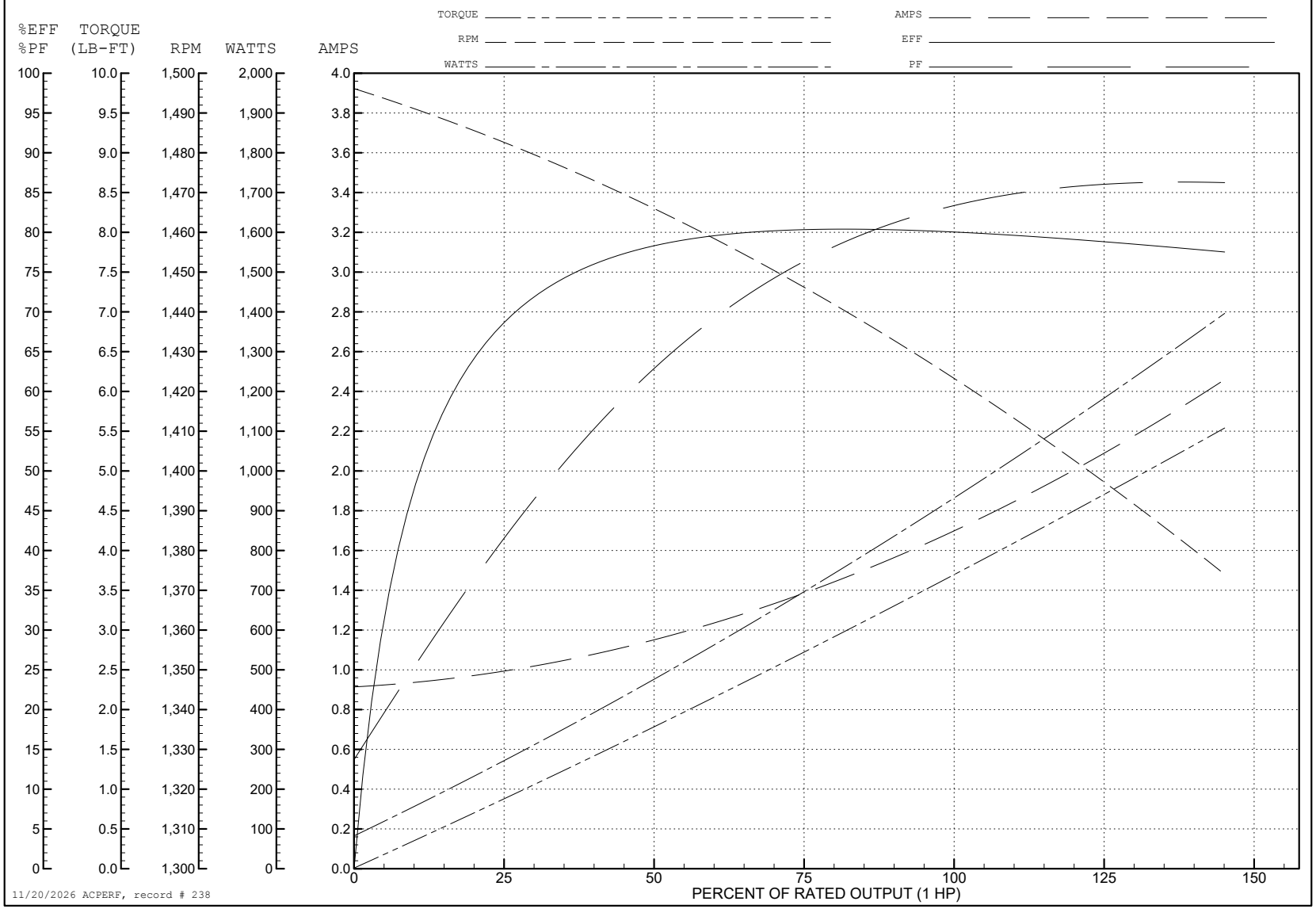
ABB Motors and Mechanical Inc.

WINDING # 05WGW617

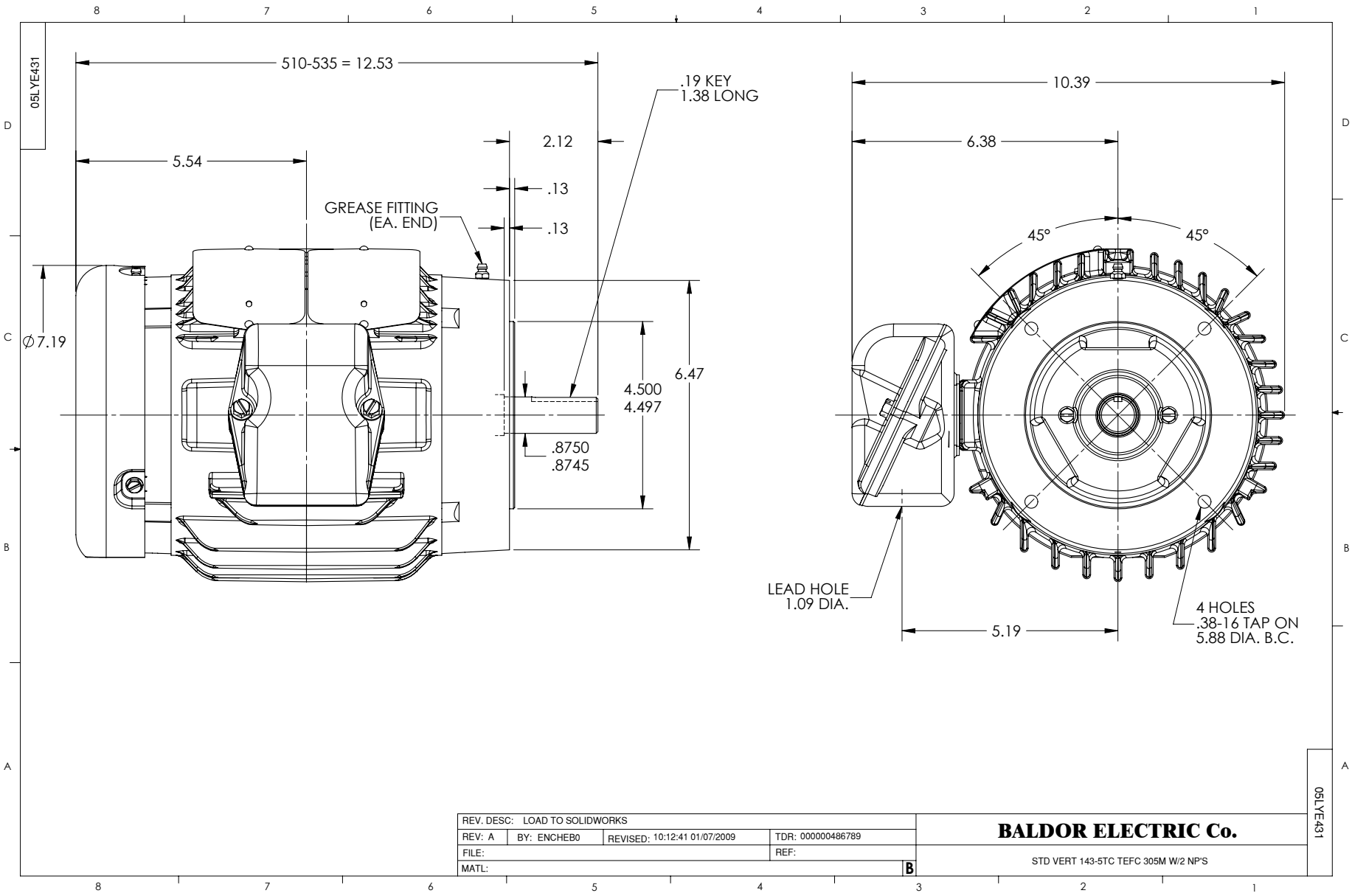
1 HP 3 PH 50 HZ 1425 RPM 380 V 0524M

Typical performance - not guaranteed values.

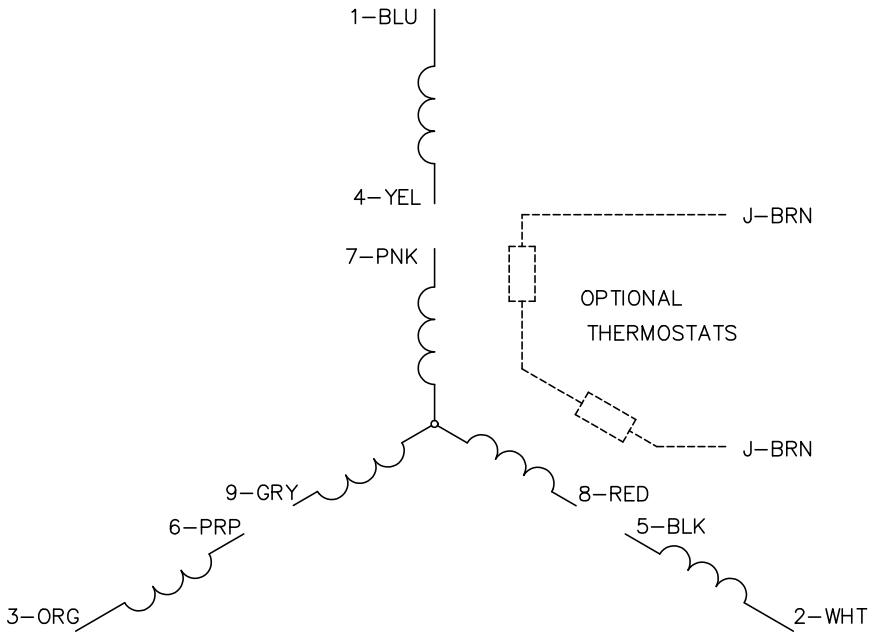
TORQUES(LB-FT): PO=12.6 PU=10 LR=10.5 LRA=11

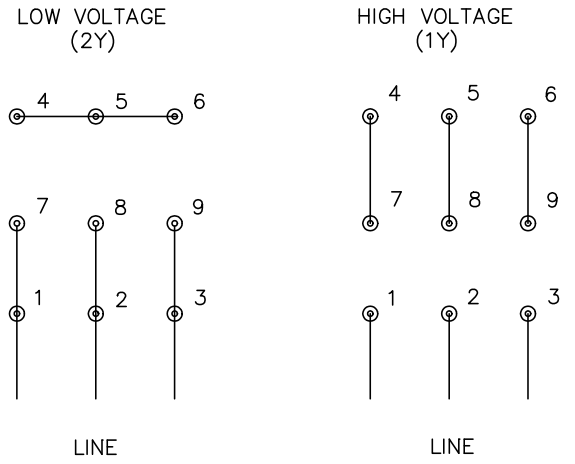


11/20/2026 ACPERF, record # 238


05LYE431
510-535 = 12.53
.19 KEY
1.38 LONG
2.12
.13
.13
5.54
GREASE FITTING
(EA. END)
∅7.19
4.500
4.497
6.47
.8750
.8745
10.39
6.38
45°
45°
LEAD HOLE
1.09 DIA.
5.19
4 HOLES
.38-16 TAP ON
5.88 DIA. B.C.
REV. DESC: LOAD TO SOLIDWORKS
REV: A
BY: ENCHEB0
REVISED: 10:12:41 01/07/2009
TDR: 000000486789
FILE:
REF:
MATL:
B
BALDOR ELECTRIC Co.
STD VERT 143-5TC TEFC 305M W/2 NP'S
05LYE431

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