

ABB BALDOR RELIANCE III

Customer information packet

VDP3320

.33HP, 1750RPM, DC, 56C, 3327P, TENV, F1, N

Specifications

Armature Voltage	90 V
Base Speed	1750 rpm
Enclosure	TENV
Frame	56C
Frame Material	Steel
Output Power	0.330 HP
Ambient Temperature	40 °C
Armature Current	3.2 a
Armature Inertia	10.535 lb-ft ²
Base Indicator	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Drip Cover	No Drip Cover
Duty Rating	CONT
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
Insulation Class	F
Lifting Lugs	No Lifting Lugs
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	2 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Mounting Arrangement	F1
Overall Length	13.19 IN
Product Family	General Purpose
Pulley End Bearing Type	Sealed Bearing
RoHS Status	ROHS COMPLIANT
Service Factor	1.00
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger

Part Detail

Revision	D
Type	DC
Mech. spec.	33-2644
Base	
Status	PRD/A
Elec. spec.	33WGZ102
Layout	33LY2644
Eff. date	10-24-2024
CD Diagram	CD0194
Poles	00
Leads	
Proprietary	False
Created date	01-22-2018

Nameplate

NP0111L			
CAT.NO.	VDP3320		
SPEC.	33-2644Z102		
HP	.33	ENCL	TENV
RPM	1750		
FRAME	56C	TYPE	3327P
ARM V	90	ARM A	3.2
FLD V		FLD A	
INSUL	F	AMB.	40
DUTY	CONT	SUPPLY	1.3
BRG/DE	6203	BRG/ODE	6203
BRUSHES	2/BP5011T01		
	BLANK		
SER.			
BLANK			
APRV-CSA		APRV-UL	

DC Motor Performance Data

Record # 208

Typical performance - not guaranteed values

Winding: 33WGZ102-R001		Type: 3327P	Enclosure: TENV
Nameplate Data		General Characteristics	
Rated Output (HP)	0.33		
R.P.M.	1750		
Armature Volts	90		
Armature Amps	3.2		
Field Volts			
Field Amps			
Rating - Duty	40C AMB-CONT		
Form Factor	1.3		

Load Characteristics at 90 Armature Volts

Load Point	1	2	3	4	5	6	7
Armature Amps	0.25	0.85	1.55	2.25	2.9	3.3	4.2
R.P.M.	1831	1796	1745	1703	1665	1627	1592
Torque (LB-FT)	0	0.23	0.49	0.74	0.99	1.23	1.47

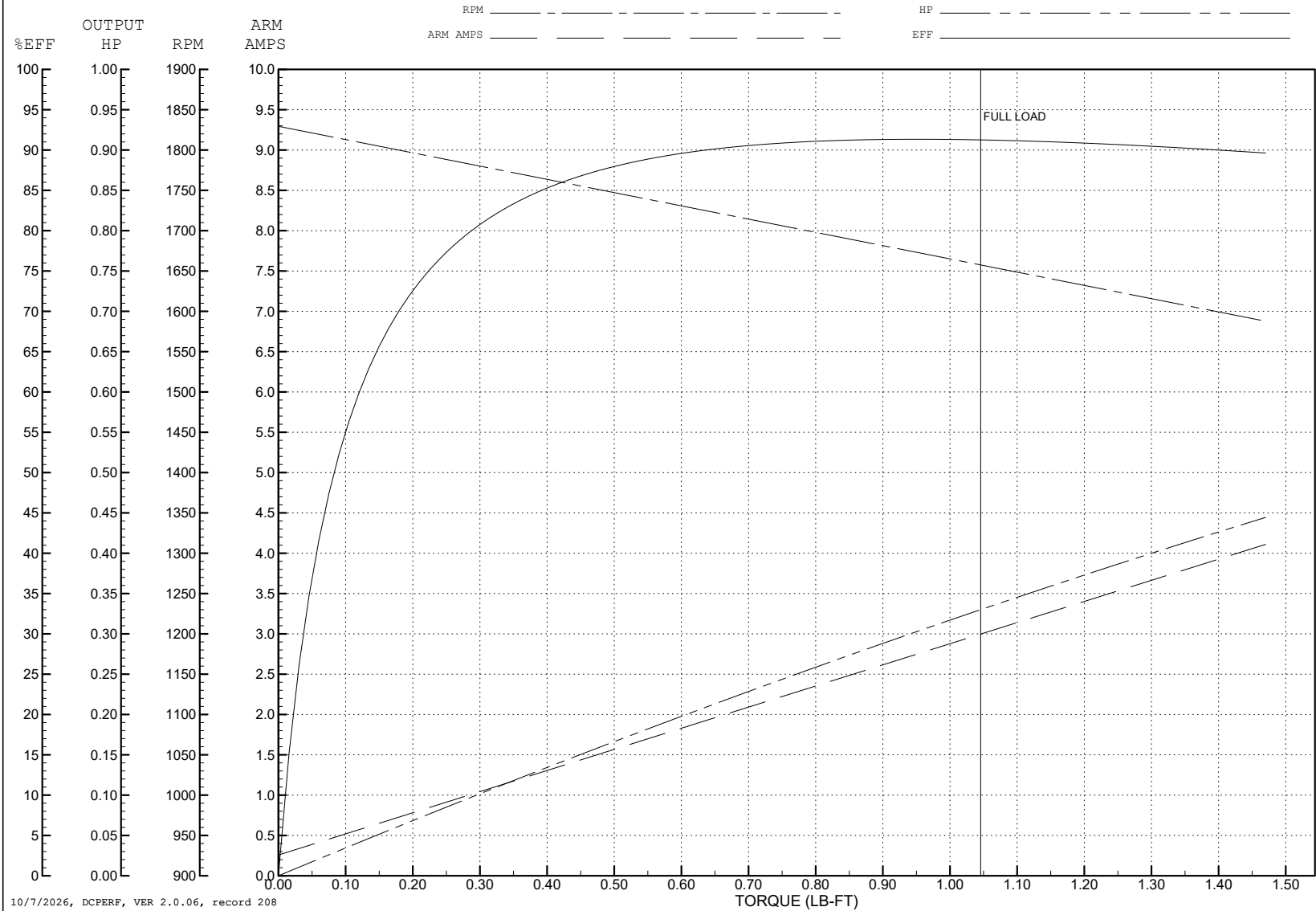
ABB Motors and Mechanical Inc.

WINDING # 33WGZ102

Typical performance - not guaranteed values.

0.33 HP DC 1750 RPM 90 V 3327P

ENCL: TENV DUTY: CONT CL: F



DC Motor Performance Data

Record # 209

Typical performance - not guaranteed values

Winding: 33WGZ102-R001		Type: 3327P	Enclosure: TENV
Nameplate Data		General Characteristics	
Rated Output (HP)	0.33		
R.P.M.	1750		
Armature Volts	90		
Armature Amps	3.2		
Field Volts			
Field Amps			
Rating - Duty	40C AMB-CONT		
Form Factor	1.3		

Load Characteristics at 90 Armature Volts

Load Point	1	2	3	4	5	6	7
Armature Amps	0.25	0.8	1.55	2.25	2.8	3.24	4
R.P.M.	1837	1801	1751	1718	1675	1630	1615
Torque (LB-FT)	0	0.23	0.49	0.74	0.99	1.23	1.47

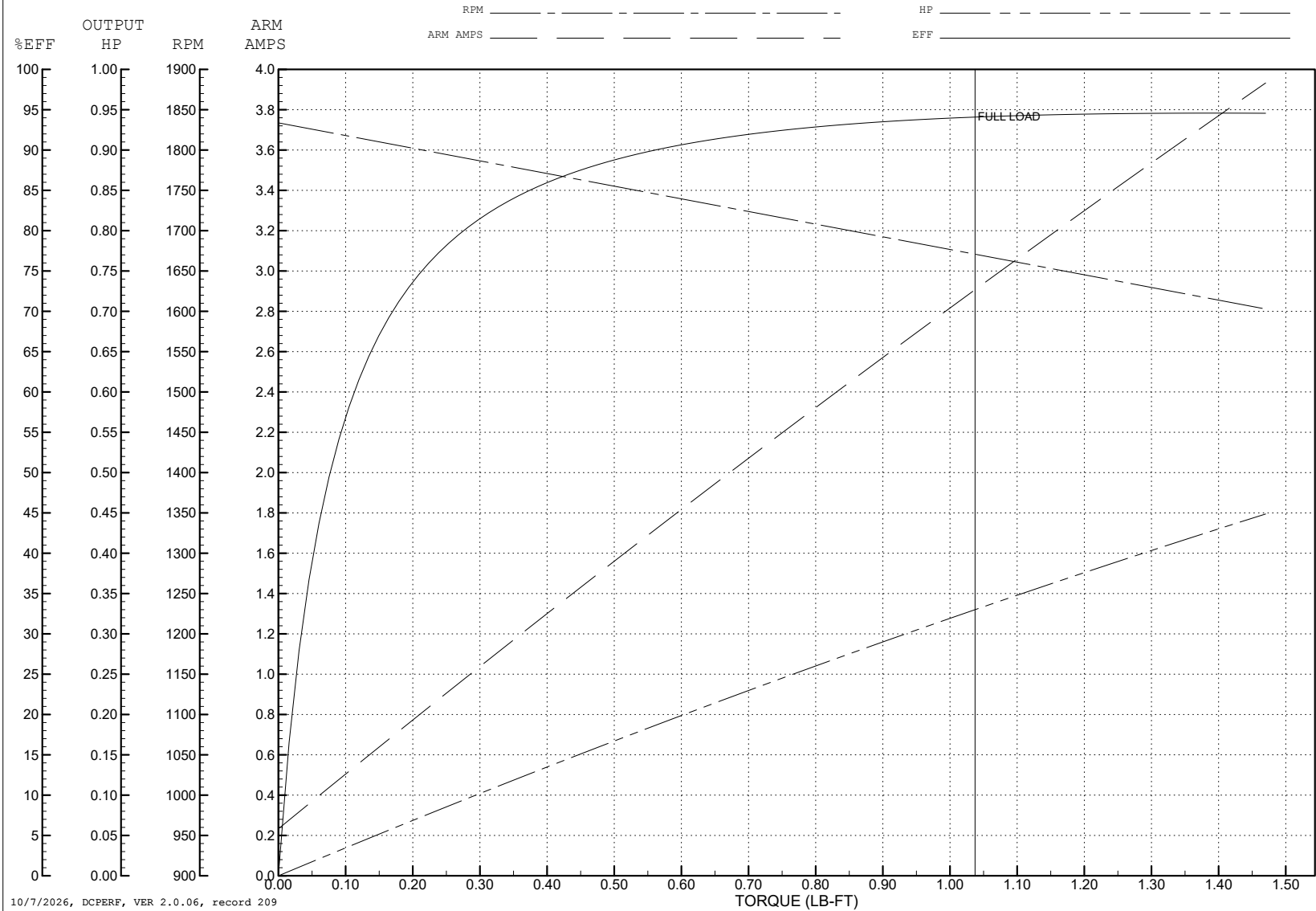
ABB Motors and Mechanical Inc.

WINDING # 33WGZ102

Typical performance - not guaranteed values.

0.33 HP DC 1750 RPM 90 V 3327P

ENCL: TENV DUTY: CONT CL: F



DC Motor Performance Data

Record # 210

Typical performance - not guaranteed values

Winding: 33WGZ102-R001		Type: 3327P	Enclosure: TENV
Nameplate Data		General Characteristics	
Rated Output (HP)	0.33		
R.P.M.	1750		
Armature Volts	90		
Armature Amps	3.2		
Field Volts			
Field Amps			
Rating - Duty	40C AMB-CONT		
Form Factor	1.3		

Load Characteristics at 90 Armature Volts

Load Point	1	2	3	4	5	6	7
Armature Amps	0.26	0.93	1.6	2.29	3.06	3.72	4.46
R.P.M.	1822	1781	1734	1676	1621	1576	1536
Torque (LB-FT)	0	0.25	0.5	0.73	1	1.23	1.48

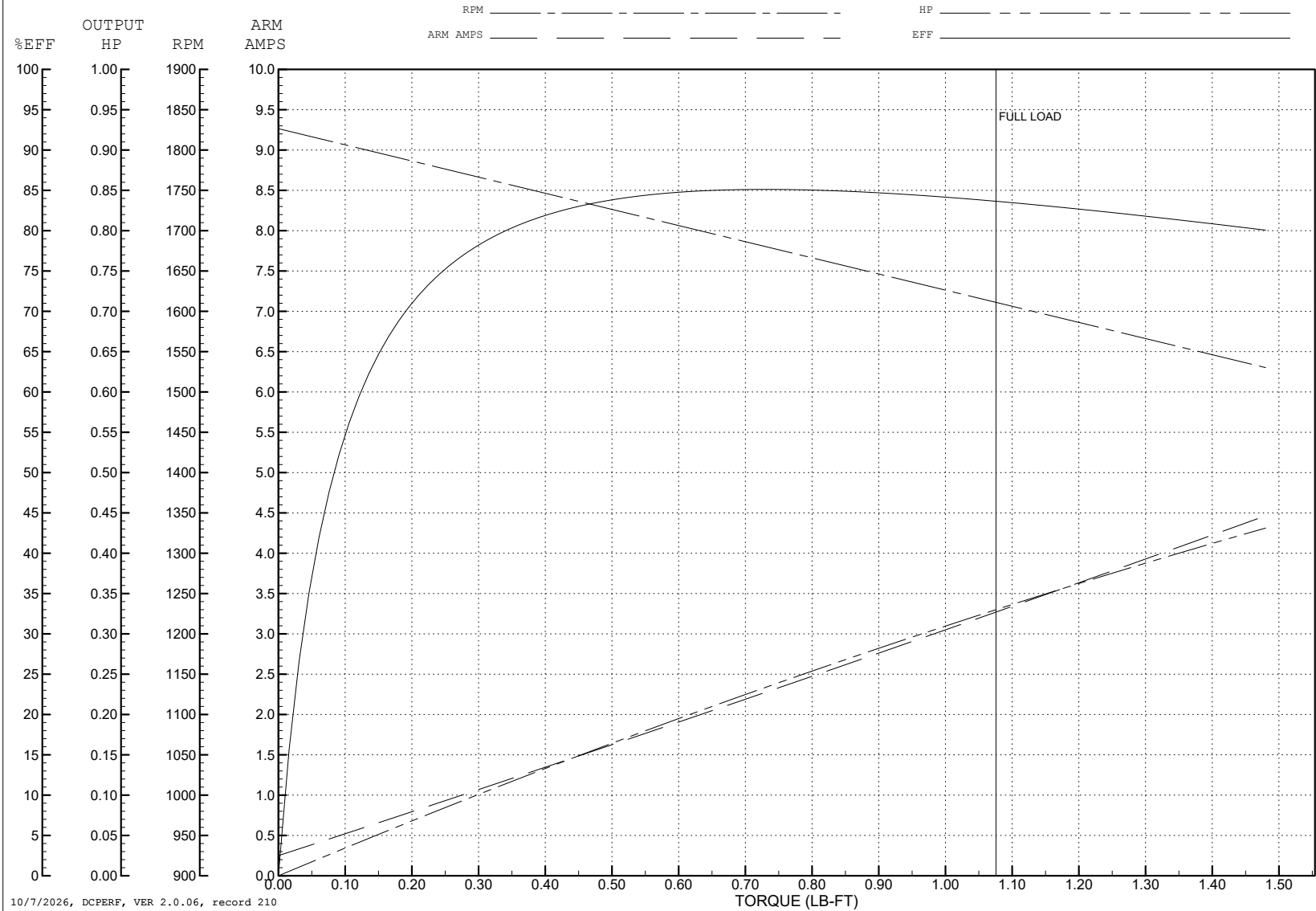
ABB Motors and Mechanical Inc.

WINDING # 33WGZ102

Typical performance - not guaranteed values.

0.33 HP DC 1750 RPM 90 V 3327P

ENCL: TENV DUTY: CONT CL: F



DC Motor Performance Data

Record # 211

Typical performance - not guaranteed values

Winding: 33WGZ102-R001		Type: 3327P	Enclosure: TENV
Nameplate Data		General Characteristics	
Rated Output (HP)	0.33		
R.P.M.	1750		
Armature Volts	90		
Armature Amps	3.2		
Field Volts			
Field Amps			
Rating - Duty	40C AMB-CONT		
Form Factor	1.3		

Load Characteristics at 90 Armature Volts

Load Point	1	2	3	4	5	6	7
Armature Amps	0.28	1.08	1.75	2.43	3.22	3.9	4.59
R.P.M.	1854	1782	1724	1692	1648	1590	1556
Torque (LB-FT)	0	0.25	0.5	0.73	1	1.23	1.48

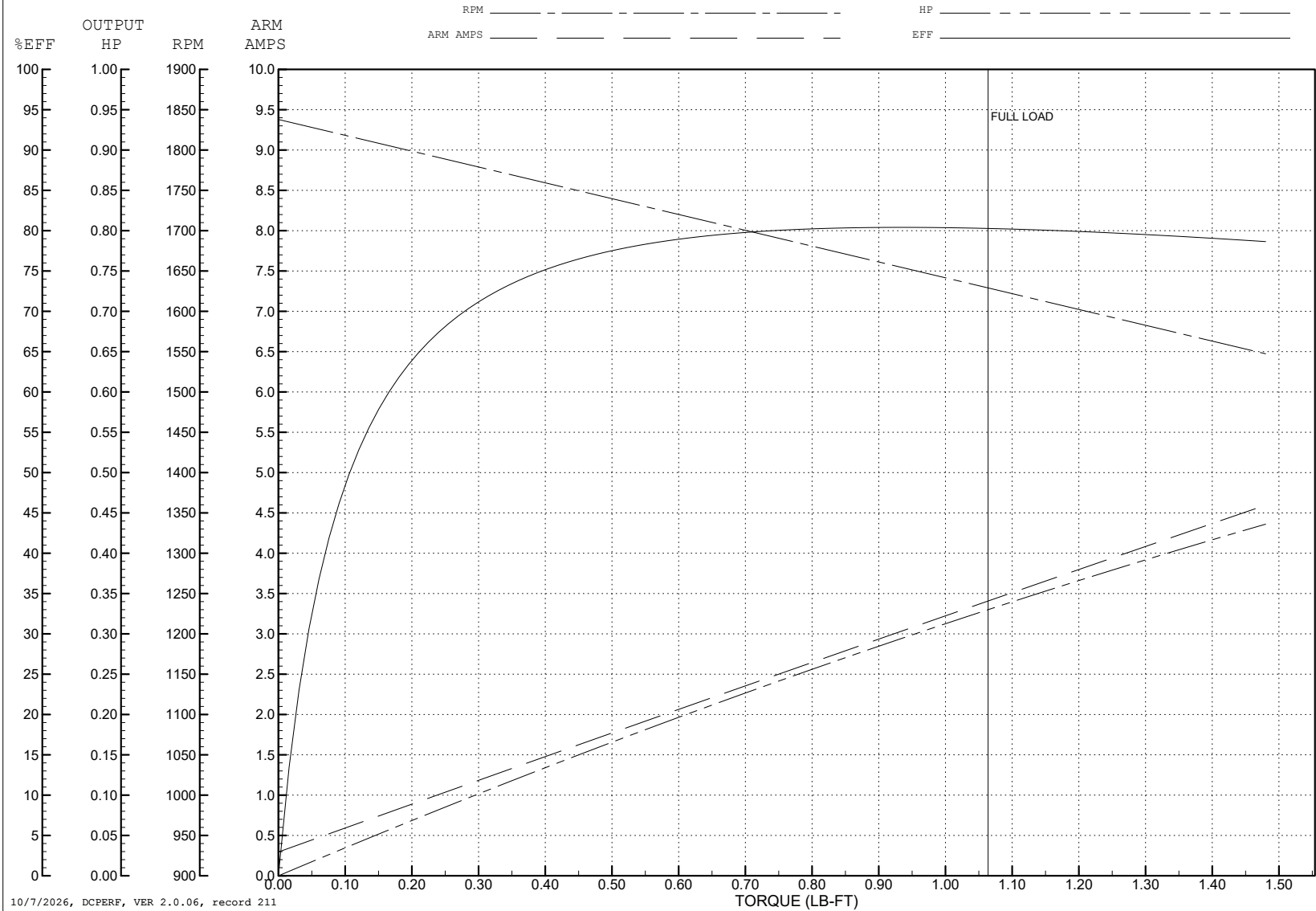
ABB Motors and Mechanical Inc.

WINDING # 33WGZ102

Typical performance - not guaranteed values.

0.33 HP DC 1750 RPM 90 V 3327P

ENCL: TENV DUTY: CONT CL: F



DC Motor Performance Data

Record # 212

Typical performance - not guaranteed values

Winding: 33WGZ102-R001		Type: 3327P	Enclosure: TENV
Nameplate Data		General Characteristics	
Rated Output (HP)	0.33		
R.P.M.	1750		
Armature Volts	90		
Armature Amps	3.2		
Field Volts			
Field Amps			
Rating - Duty	40C AMB-CONT		
Form Factor	1.3		

Load Characteristics at 90 Armature Volts

Load Point	1	2	3	4	5	6	7
Armature Amps	0.25	1.04	1.78	2.42	3.18	3.81	4.53
R.P.M.	1815	1752	1704	1666	1620	1576	1526
Torque (LB-FT)	0	0.25	0.5	0.73	1	1.23	1.48

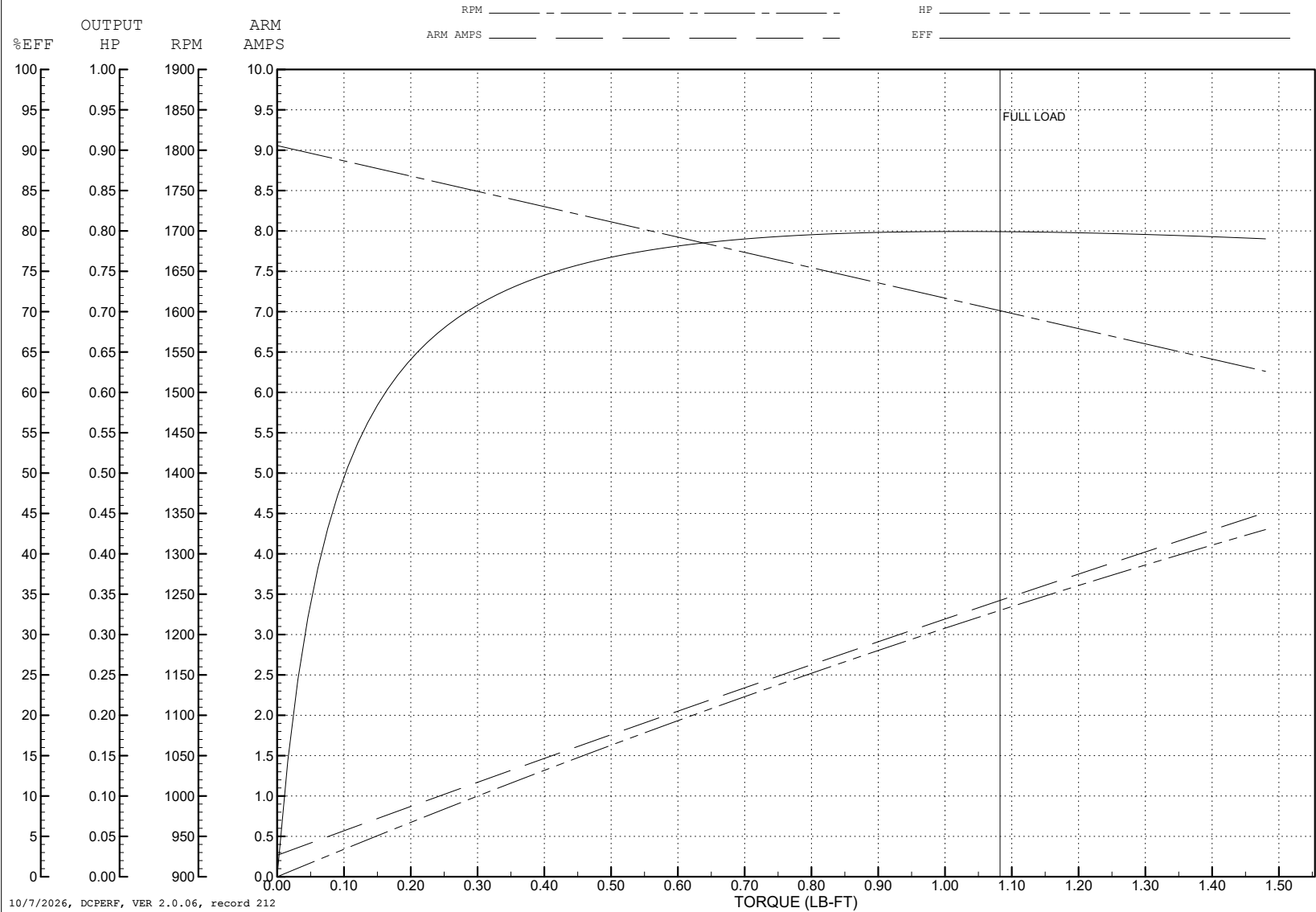
ABB Motors and Mechanical Inc.

WINDING # 33WGZ102

Typical performance - not guaranteed values.

0.33 HP DC 1750 RPM 90 V 3327P

ENCL: TENV DUTY: CONT CL: F



DC Motor Performance Data

Record # 213

Typical performance - not guaranteed values

Winding: 33WGZ102-R001		Type: 3327P	Enclosure: TENV
Nameplate Data		General Characteristics	
Rated Output (HP)	0.33		
R.P.M.	1750		
Armature Volts	90		
Armature Amps	3.2		
Field Volts			
Field Amps			
Rating - Duty	40C AMB-CONT		
Form Factor	1.3		

Load Characteristics at 90 Armature Volts

Load Point	1	2	3	4	5	6	7
Armature Amps	0.21	1.03	1.69	2.38	3.11	3.77	4.52
R.P.M.	1828	1756	1720	1664	1626	1578	1534
Torque (LB-FT)	0	0.25	0.5	0.73	1	1.23	1.48

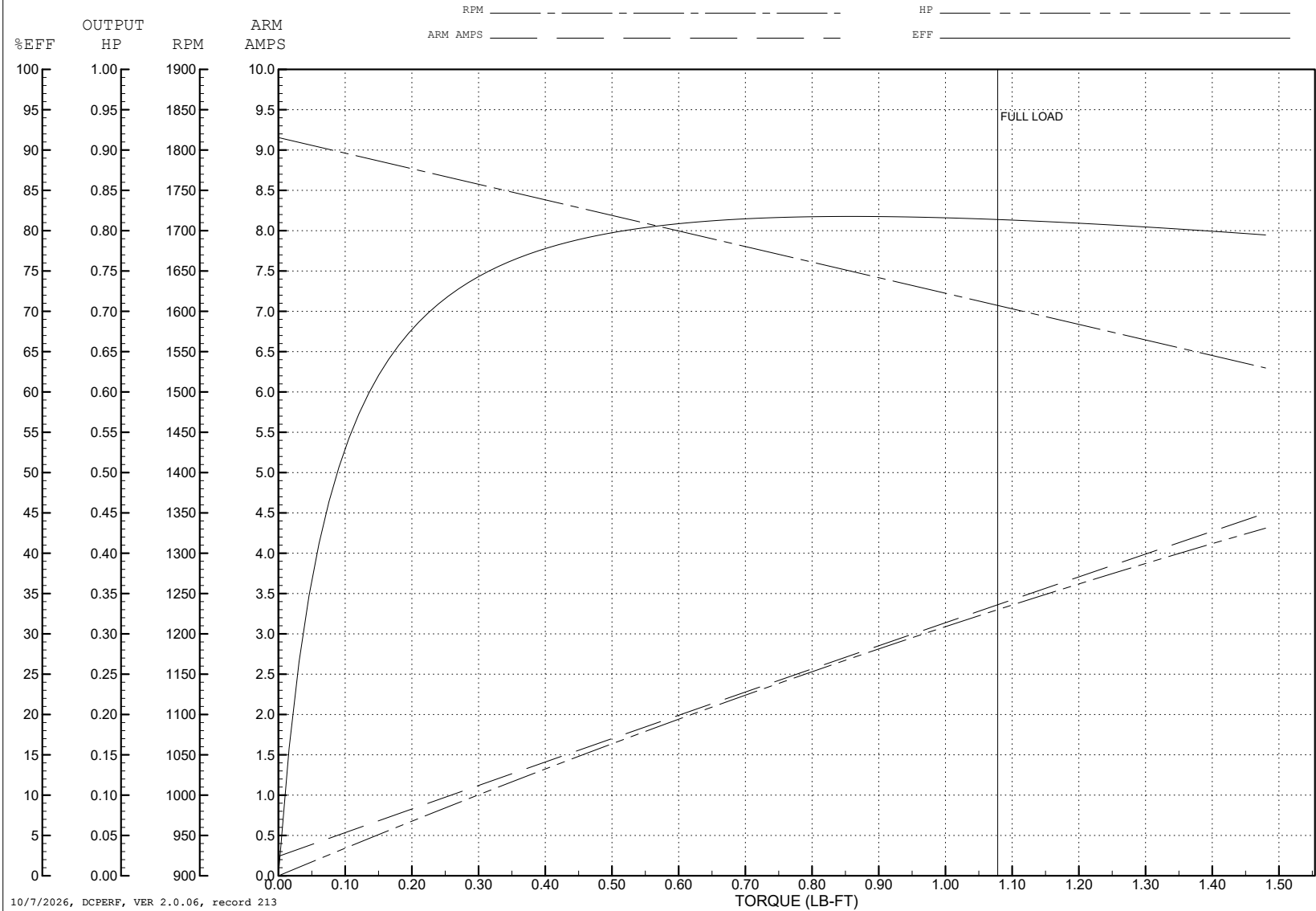
ABB Motors and Mechanical Inc.

WINDING # 33WGZ102

Typical performance - not guaranteed values.

0.33 HP DC 1750 RPM 90 V 3327P

ENCL: TENV DUTY: CONT CL: F



DC Motor Performance Data

Record # 579

Typical performance - not guaranteed values

Winding: 33WGZ102-R001		Type: 3327P	Enclosure: TENV
Nameplate Data		General Characteristics	
Rated Output (HP)	0.33	Armature Resistance @ 25°C	2.164 Ω
R.P.M.	1750		
Armature Volts	90	Voltage Constant	48.57 v/krpm
Armature Amps	3.2		
Field Volts			
Field Amps		Armature Inertia	10.5354 LI ²
Rating - Duty	40C AMB-CONT		
Form Factor	1.3		

Load Characteristics at 90 Armature Volts

Load Point	1	2	3	4	5	6	7
Armature Amps	0.28	1.02	1.35	1.85	2.39	2.95	3.5
R.P.M.	1783	1709	1682	1650	1611	1565	1550
Torque (LB-FT)	0	0.188	0.375	0.562	0.75	0.937	1.125

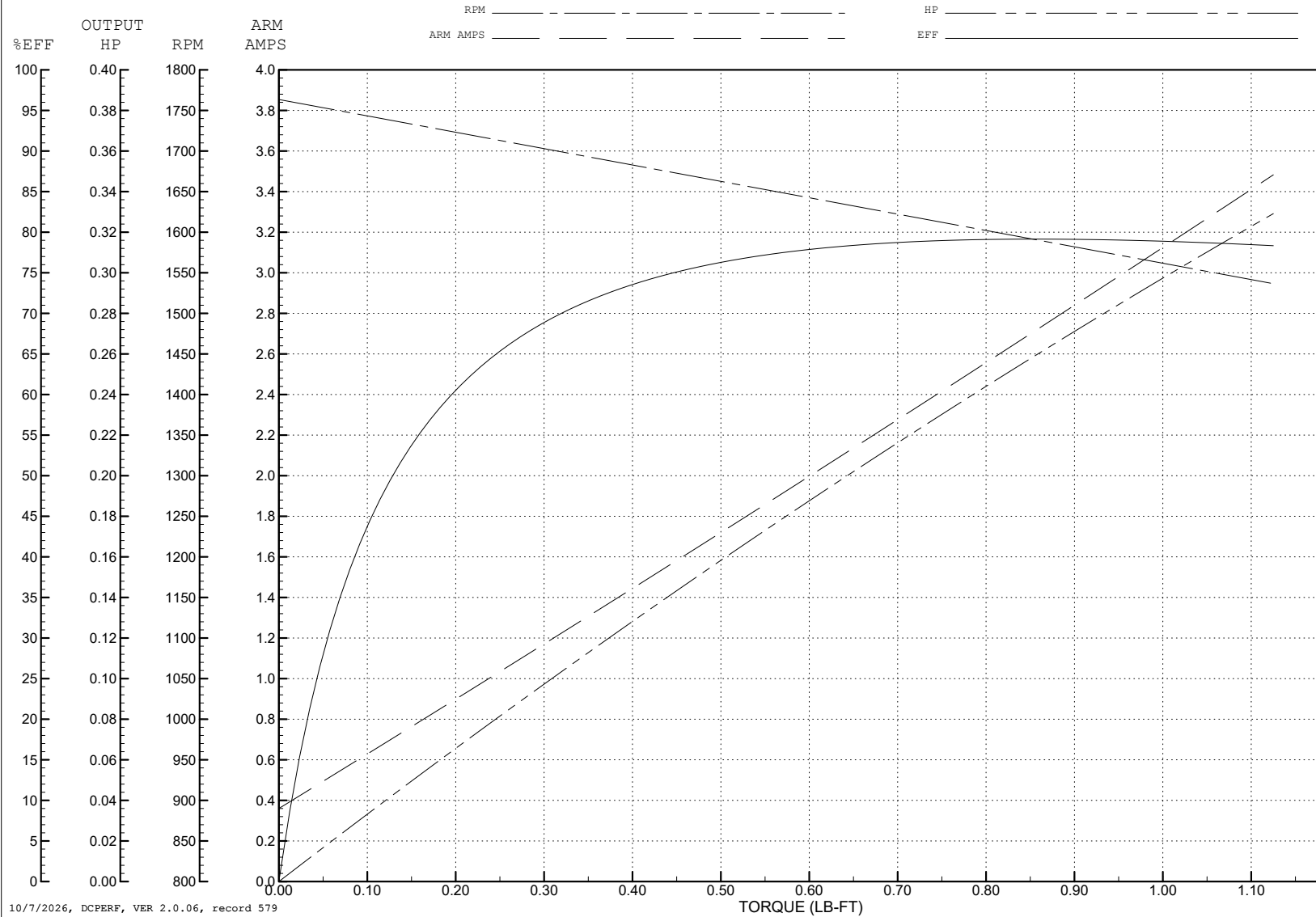
ABB Motors and Mechanical Inc.

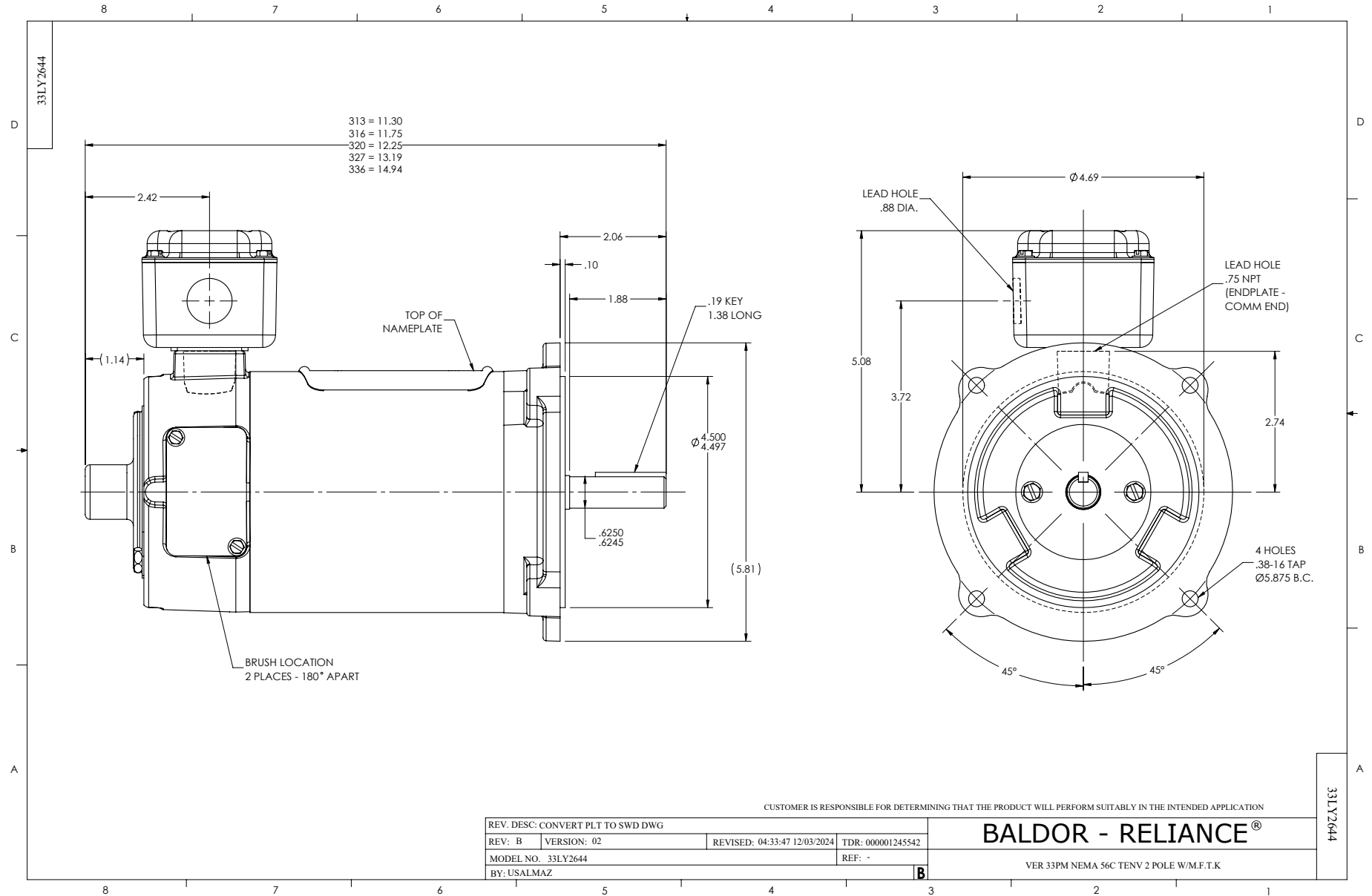
WINDING # 33WGZ102

Typical performance - not guaranteed values.

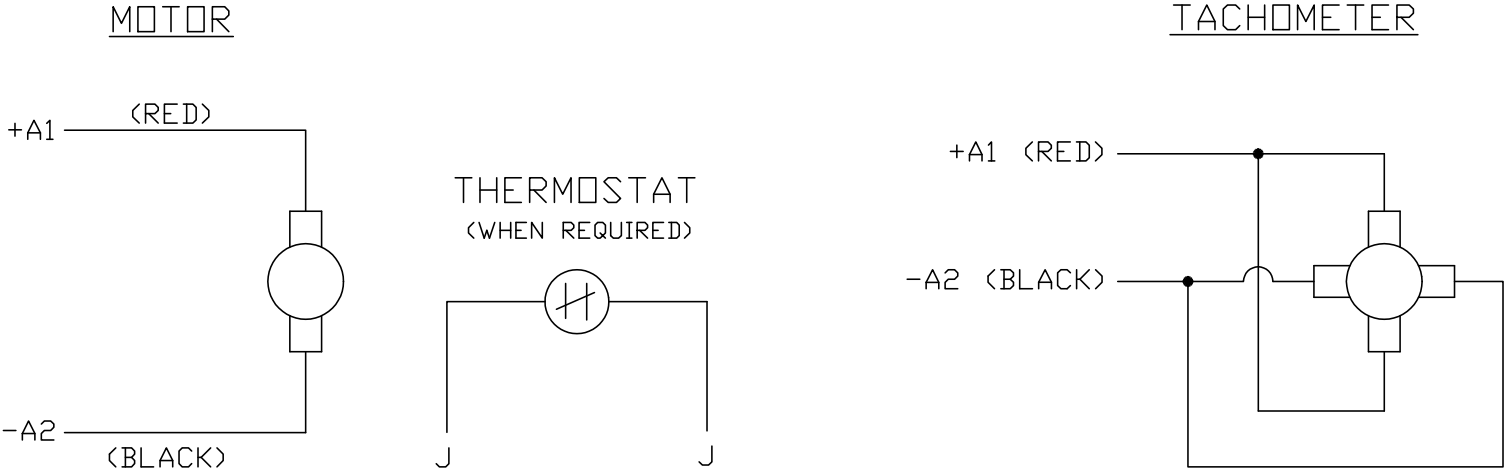
0.33 HP DC 1750 RPM 90 V 3327P

ENCL: TENV DUTY: CONT CL: F





CD0194



NOTES:

1. CCW ROTATION AS SHOWN FACING COMMUTATOR END. TO REVERSE MOTOR ROTATION OR TACHOMETER OUTPUT POLARITY INTERCHANGE LEADS A1(RED) & A2(BLACK)
2. LEAD COLORS FOR REFERENCE ONLY & NOT SPECIFIED BY THIS DRAWING. LEAD COLORS SPECIFIED BY LAYOUT DRAWING & BILL OF MATERIAL ONLY.

MATL: -

REV: E

ADDED NOTE "LEAD COLORS FOR REFERENCE ONLY &..."

CD0194

SCALE: -

BY: CK

REVISED: 07/28/95

FILE: AAA00004503

TDR: 0078737

BALDOR ELECTRIC Co.

CD TYPE P DC PERMANENT MAGNET MOTORS AND TACHOMETERS

CD0194