

ABB BALDOR RELIANCE III

Customer information packet

EM3559T

3HP, 3450RPM, 3PH, 60HZ, 145T, 3532M, TEFC, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	145T
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	3.000 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	NEMA PREMIUM CURUSEEV
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	3.600 A @ 460.0 V 7.200 A @ 230.0 V 7.900 A @ 208.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	86.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater

Part Detail

Revision	U
Type	AC
Mech. spec.	35TT638
Base	
Status	PRD/A
Elec. spec.	35WGQ060
Layout	35LYTT638
Eff. date	01-12-2026
CD Diagram	CD0005
Poles	02
Leads	9#18
Proprietary	False
Created date	01-10-2012

High Voltage Full Load Amps	3.6 a
Insulation Class	F
Inverter Code	Inverter Ready
IP Rating	NONE
KVA Code	L
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	No 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	3532M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	14.17 IN
Power Factor	92
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
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	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.	EM3559T								
SPEC	35TT638Q060G2								
HP	3								
VOLTS	230/460								
AMPS	7.2/3.6								
RPM	3450								
FRAME	145T		HZ	60		PH	3		
SF	1.15	CODE	L	DES	B	CLASS	F		
NEMA NOM. EFF	86.5	PF	92						
RATING	40C AMB-CONT								
CC	010A								
ENCL	TEFC	SER							
DE	6205		ODE	6203					
VPWM INVERTER READY									
CT6-60H(10:1)VT3-60H(20:1									
50Hz 3HP 190/380V 8.8/4.4A									
SF1.0									

Parts List

Part number	Description	Quantity
SA237039	SA 35TT638Q060G2	1.000 ea
RA223977	RA 35TT638Q060G2	1.000 ea
NS2512A01	INSULATOR, CONDUIT BOX X	1.000 ea
35CB3009	35 CB W/1.09 DIA. LEAD HOLE @ 6:	1.000 ea
36GS1000SP	GASKET-CONDUIT BOX, .06 THICK #SV-330 LE	1.000 ea
51XB1016A07	10-16 X 7/16 HXWSSLD SERTYB	2.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
35EP3122A00	MASTER ODE,203 BRG,.683SH,#26 DRN,GRSR,F	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
35EP3123F00	MASTER DE,205 BRG,.998SH,#26 DRN,GRSR	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
XY1032A02	10-32 HEX NUT DIRECTIONAL SERRATION	4.000 ea
35FH4005A84SP	IEC FH W/GRSR, NO DIMPLES PRIMED	1.000 ea
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 ea
35CB4521	35 LIPPED CB LID (GALV & PHOSPH)	1.000 ea
35GS1030	35 GS FOR CB LID - LEXIDE	1.000 ea
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 ea
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A01	KEY RETAINER 7/8" DIA SHAFT	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
34FN3002B01	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	1.000 ea
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	1.000 ea
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.017 ga
HA3100A22	THRUBOLT 10-32 X 10.125	4.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 ea
NP3441LUA	AL SUPER-E VPWM INV RDY,UL EEV,NEMA PREM	1.000 ea
36PA1000	PKG GRP, PRINT PK1016A08	1.000 ea

FE-0000001	ZRTG FE ASSEMBLY	1.000 ea
PE-0000001	ZRTG PE ASSEMBLY	1.000 ea

AC Induction Motor Performance Data

Record # 50261

Typical performance - not guaranteed values

Winding: 35WGQ060-R002			Type: 3532M		Enclosure: TEFC			
Nameplate Data			460 V, 60 Hz: High Voltage Connection					
Rated Output (HP)		3	Full Load Torque		4.5 LB-FT			
Volts		230/460	Start Configuration		direct on line			
Full Load Amps		7.2/3.6	Breakdown Torque		18 LB-FT			
R.P.M.		3450	Pull-up Torque		11 LB-FT			
Hz	60	Phase	3	Locked-rotor Torque		16 LB-FT		
NEMA Design Code		B	KVA Code	L	Starting Current		33 A	
Service Factor (S.F.)		1.15		No-load Current		1.2 A		
NEMA Nom. Eff.		86.5	Power Factor		92	Line-line Res. @ 25°C		4.72 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		61°C		
S.F. Amps				Temp. Rise @ S.F. Load		76°C		

Load Characteristics 460 V, 60 Hz, 3 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	62	81	88	92	93	94	93
Efficiency	83.7	87.9	88.2	87.2	85.6	83.5	86.2
Speed	3562	3531	3498	3462	3421	3375	3437
Line amperes	1.5	2.1	2.8	3.6	4.5	5.4	4.1

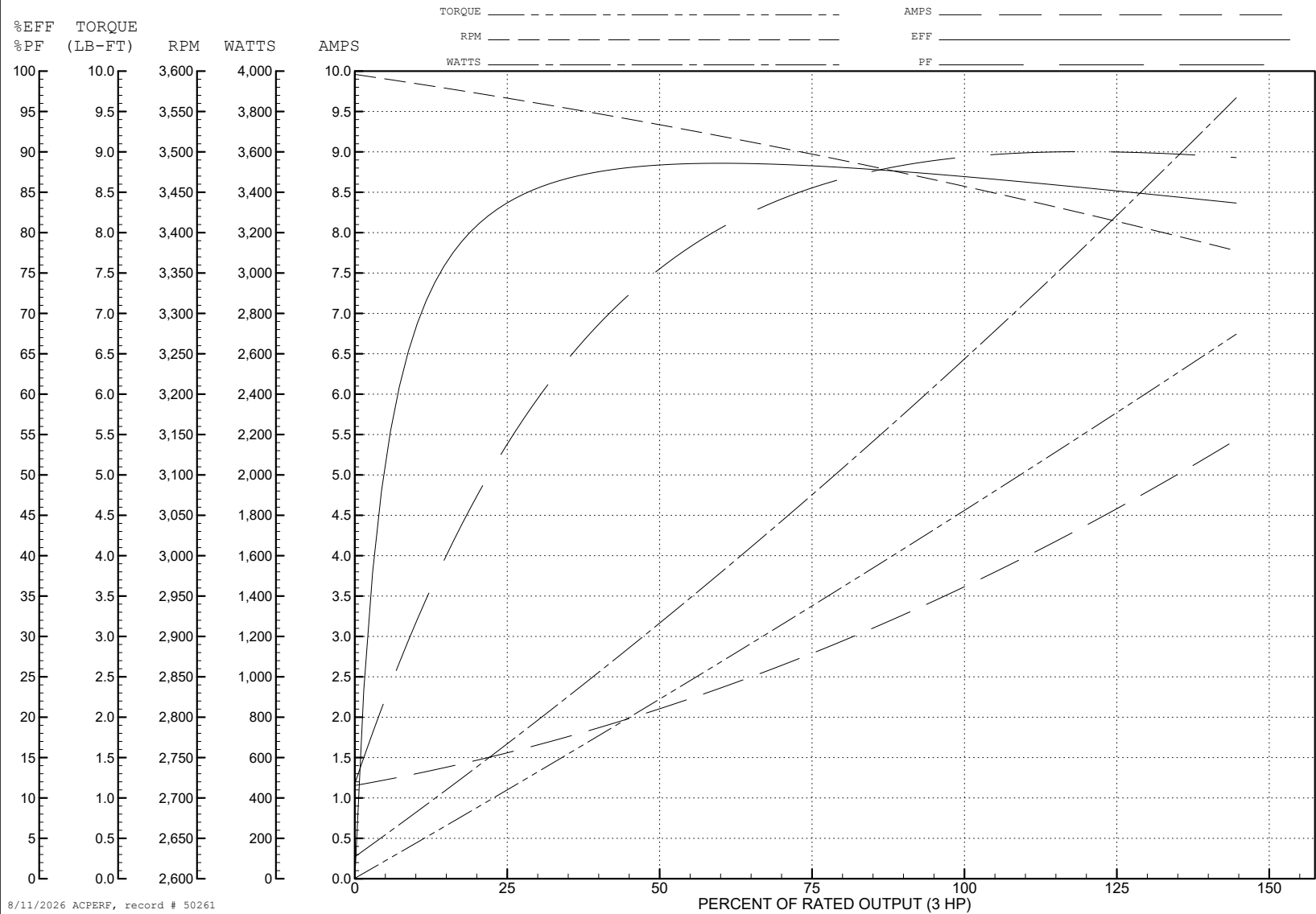
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WINDING # 35WGQ060

Typical performance - not guaranteed values.

3 HP 3 PH 60 HZ 3450 RPM 460 V 3532M

TORQUES (LB-FT): PO=18 PU=11 LR=16 LRA=33



AC Induction Motor Performance Data

Record # 59171

Typical performance - not guaranteed values

Winding: 35WGQ060-R002			Type: 3532M		Enclosure: TEFC	
Nameplate Data			230 V, 60 Hz: Low Voltage Connection			
Rated Output (HP)		3	Full Load Torque		4.5 LB-FT	
Volts		230/460	Start Configuration		direct on line	
Full Load Amps		7.2/3.6	Breakdown Torque		18 LB-FT	
R.P.M.		3450	Pull-up Torque		11 LB-FT	
Hz	60 Phase	3	Locked-rotor Torque		16 LB-FT	
NEMA Design Code		B KVA Code	L	Starting Current		66 A
Service Factor (S.F.)		1.15	No-load Current		2.4 A	
NEMA Nom. Eff.		86.5 Power Factor	92	Line-line Res. @ 25°C		1.17 Ω
Rating - Duty		40C AMB-CONT	Temp. Rise @ Rated Load		61°C	
S.F. Amps			Temp. Rise @ S.F. Load		73°C	
			Locked-rotor Power Factor		47.1	
			Rotor inertia		0.0885 LB-FT2	

Load Characteristics 230 V, 60 Hz, 3 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	57	77	85	88	89	90	89
Efficiency	84.1	87.9	88.4	87.2	85.7	83.5	86.3
Speed	3562	3531	3498	3462	3421	3375	3437
Line amperes	3	4.2	5.6	7.2	9	10.8	8.28

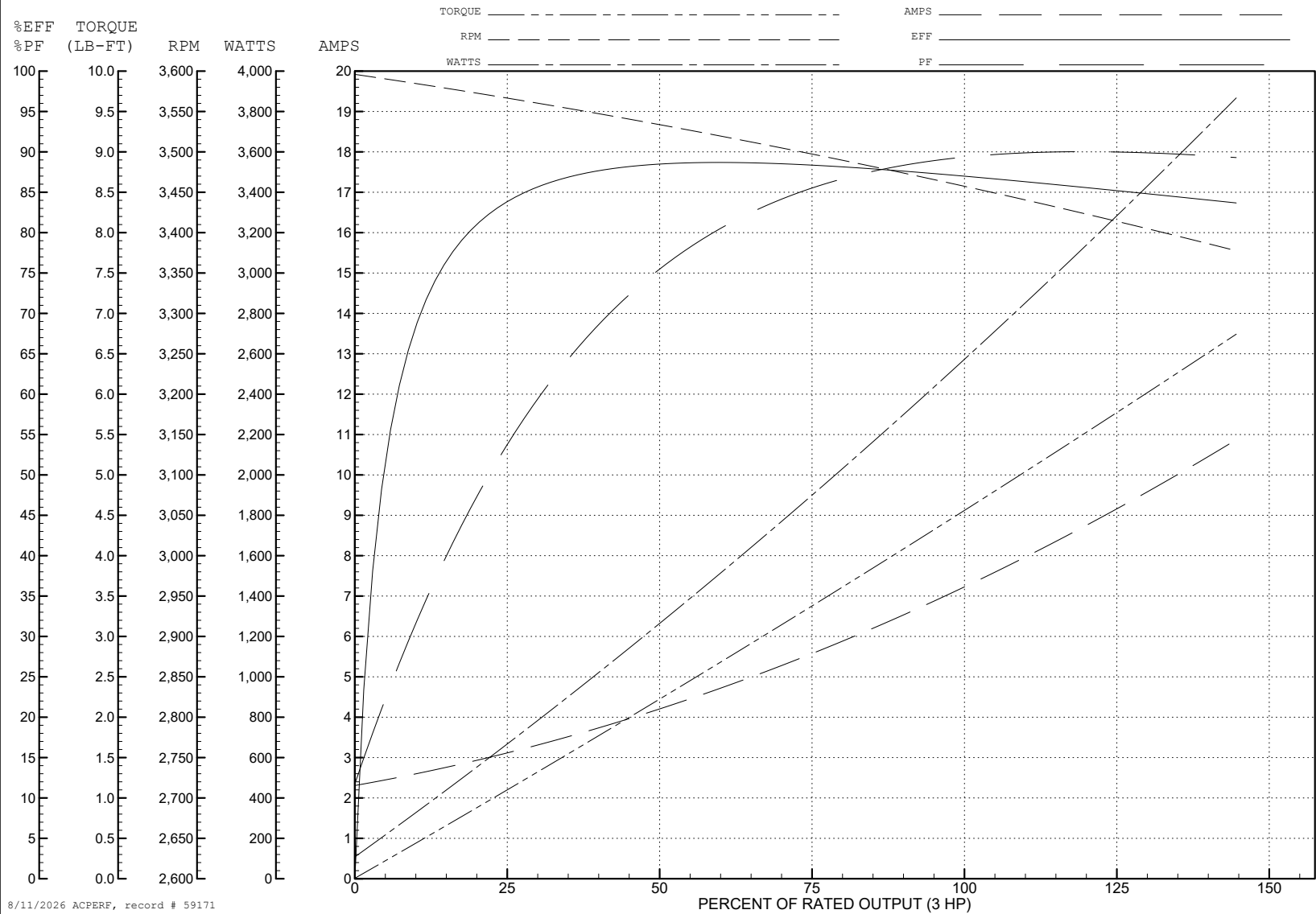
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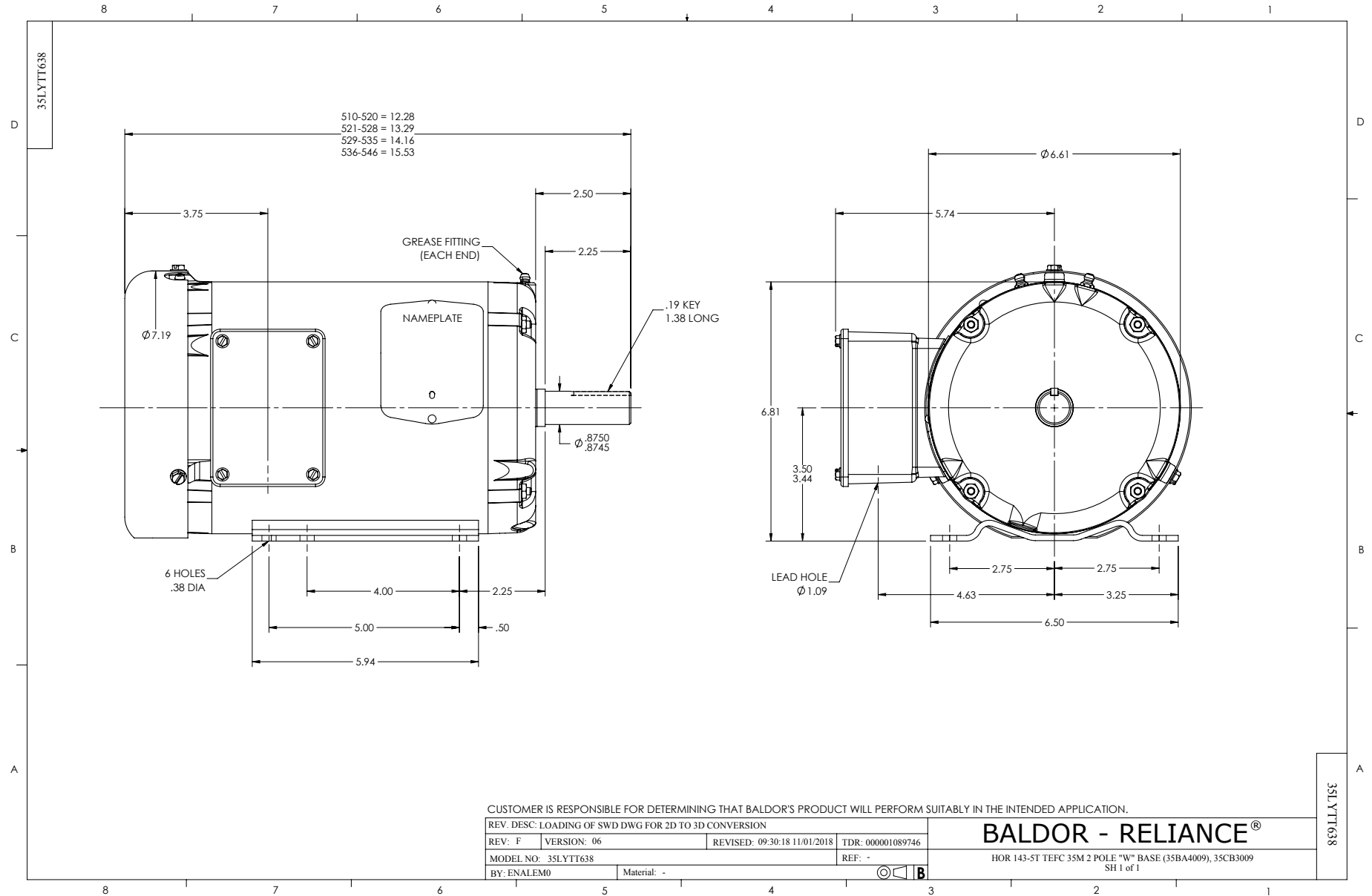
WINDING # 35WGQ060

Typical performance - not guaranteed values.

3 HP 3 PH 60 HZ 3450 RPM 230 V 3532M

TORQUES (LB-FT): PO=18 PU=11 LR=16 LRA=66







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.

3PH, DV, 9 LEADS