

ABB BALDOR RELIANCE III

Customer information packet

VEM3158T

3HP, 3450RPM, 3PH, 60HZ, 145TC, 3528M, ODP, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	OPEN
Frame	145TC
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	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	3.800 A @ 460.0 V 7.600 A @ 230.0 V 8.000 A @ 208.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	85.5 %
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	Q
Type	AC
Mech. spec.	35Z413
Base	
Status	PRD/A
Elec. spec.	35WGL051
Layout	35LYZ413
Eff. date	01-05-2026
CD Diagram	CD0005
Poles	02
Leads	9#18
Proprietary	False
Created date	07-15-2016

High Voltage Full Load Amps	3.8 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	3528M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	13.25 IN
Power Factor	89
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	1.15
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

NP3553LUA									
CAT.NO.	VEM3158T								
SPEC.	35Z413L051G1								
HP	3								
VOLTS	230/460								
AMPS	7.6/3.8								
RPM	3450								
FRAME	145TC		HZ	60		PH	3		
SF	1.15	CODE	K	DES	B	CLASS	F		
NEMA NOM. EFF	85.5	PF	89						
RATING	40C AMB-CONT								
CC	010A								
ENCL	OPEN	SN							
DE	6205		ODE	6203					
VPWM INVERTER READY									
CT30-60(2:1) VT3-60(20:1)									
USABLE AT	50HZ 3HP 190/380V 9/4.5A						SF1.0		

Parts List

Part number	Description	Quantity
SA324119	SA 35Z413L051G1	1.000 ea
RA311952	RA 35Z413L051G1	1.000 ea
NS2512A01	INSULATOR, CONDUIT BOX X	1.000 ea
35CB3009	35 CB W/1.09 DIA. LEAD HOLE @ 6:	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
35EP3209A02	A00 W/DRIP COVER	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
35EP3402B00	MASTER DE,205 BRG,OPEN,W/GREASER	1.000 ea
35AD2000	AIR BAFFLE - GALVANNEAL	1.000 ea
60XW0632A06	6-32 X 3/8 TORX HEAD SCREW TAPTITE II	4.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	2.000 ea
35FH4006A09	DRIP COVER W/FLAT, W/ PRIMER	1.000 ea
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	2.000 ea
35CB4521	35 LIPPED CB LID (GALV & PHOSPH)	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
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.017 ga
HA3100A15	THRUBOLT 10-32 X 8.375	4.000 ea
LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
NP3553LUA	ALUM SUPER-E VPWM INV READY UL CC NEMA P	1.000 ea
36PA1000	PKG GRP, PRINT PK1016A08	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
PK3083	STYROFOAM PACKING CRADLE	1.000 ea
PK3088	MICROFOAM, 8"X"8 PERF. SHEETS	1.000 ea

FE-0000001	ZRTG FE ASSEMBLY	1.000 ea
PE-0000011	ZRTG PE ASSEMBLY	1.000 ea

AC Induction Motor Performance Data

Record # 48297

Typical performance - not guaranteed values

Winding: 35WGL051-R004			Type: 3528M		Enclosure: ODP		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		3	Full Load Torque		4.65 LB-FT		
Volts		230/460	Start Configuration		direct on line		
Full Load Amps		7.6/3.8	Breakdown Torque		18.7 LB-FT		
R.P.M.		3450	Pull-up Torque		12.2 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		17.3 LB-FT	
NEMA Design Code		B	KVA Code	K	Starting Current		32 A
Service Factor (S.F.)		1.15	No-load Current		1.36 A		
NEMA Nom. Eff.		85.5	Power Factor	89	Line-line Res. @ 25°C		4.7021 Ω
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		

Load Characteristics 460 V, 60 Hz, 3 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	55	76	85	89	92	93	91
Efficiency	82.1	87	87.4	86.2	84.6	82.2	85.2
Speed	3566.3	3535	3499.4	3457.2	3415.1	3364.7	3432
Line amperes	1.63	2.16	2.88	3.74	4.57	5.58	4.24

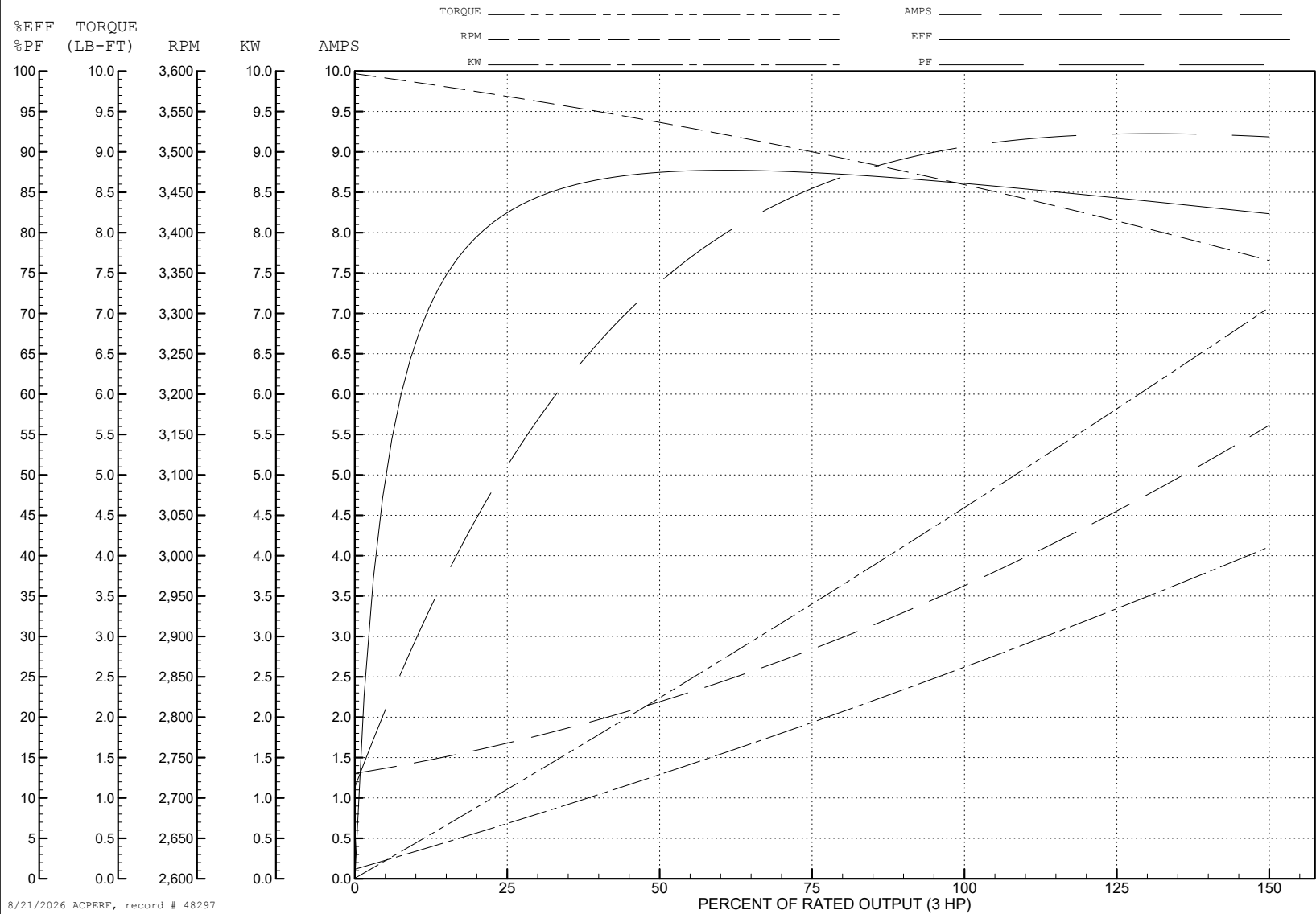
ABB Motors and Mechanical Inc.

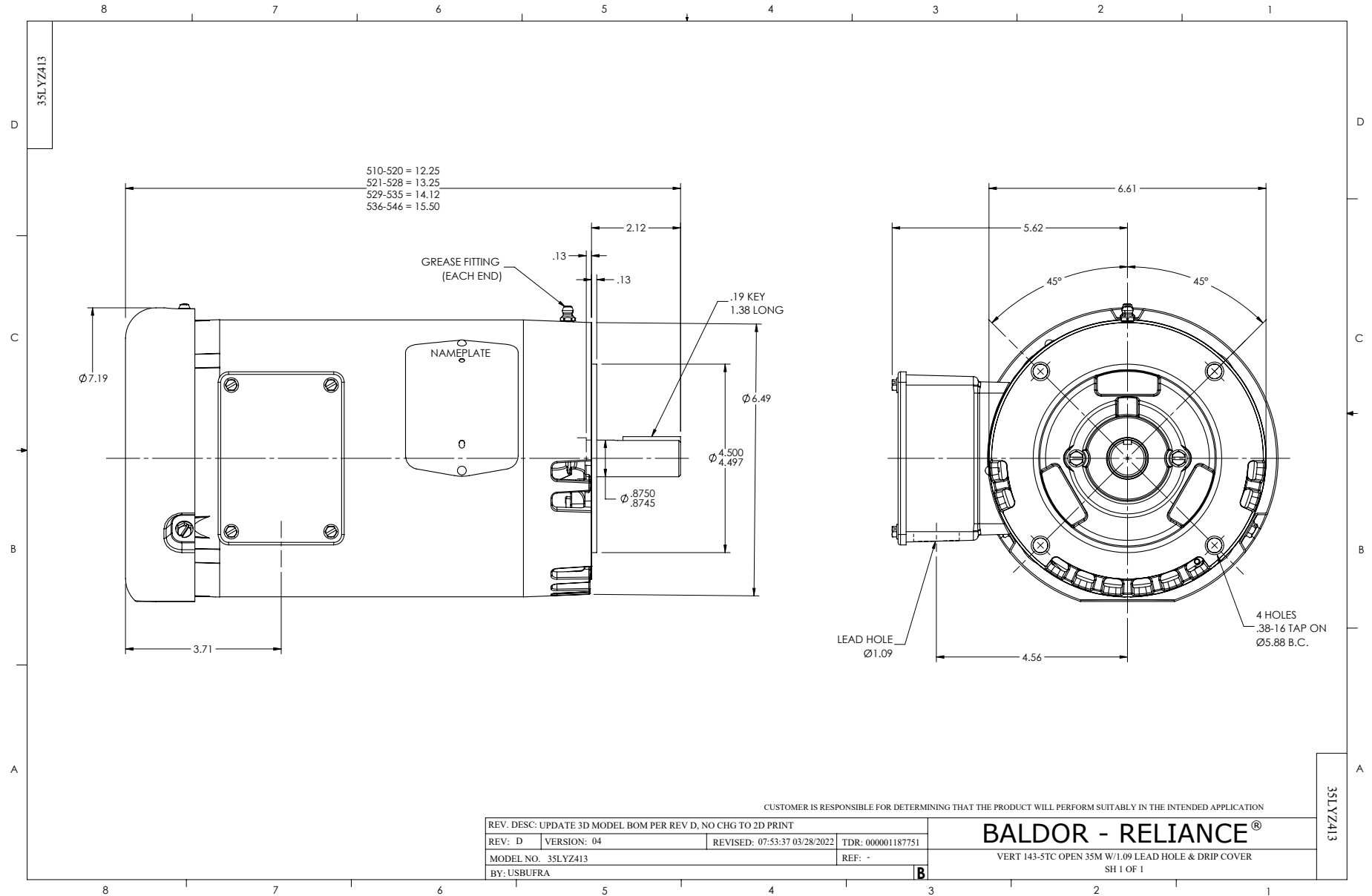
WINDING # 35WGL051

Typical performance - not guaranteed values.

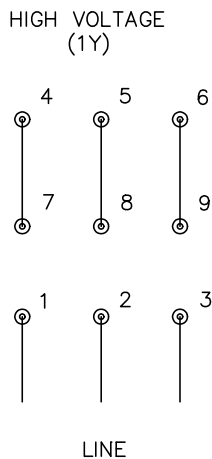
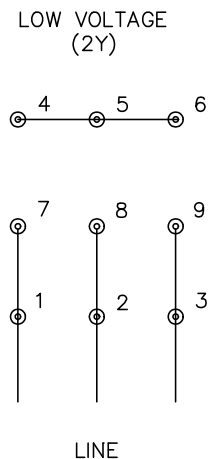
3 HP 3 PH 60 HZ 3450 RPM 460 V 3528M

TORQUES (LB-FT): PO=18.7 PU=12.2 LR=17.3 LRA=32





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.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
900000		FILE: AAA00005140	MDL: -
		MTL: -	

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

CD0005