

ABB BALDOR RELIANCE III

Customer information packet

VEM3545-5

1HP, 3450RPM, 3PH, 60HZ, 56C, 3516M, TEFC, F1, N

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	56C
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	1.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	575.0 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	1.100 A @ 575.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	77.0 %
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	1.1 a
Insulation Class	F
Inverter Code	Inverter Ready

Part Detail

Revision	N
Type	AC
Mech. spec.	35A013
Base	
Status	PRD/A
Elec. spec.	35WGL509
Layout	35LYA013
Eff. date	09-21-2026
CD Diagram	CD0006
Poles	02
Leads	3#18
Proprietary	False
Created date	03-01-2016

KVA Code	K
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	3 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3516M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	12.23 IN
Power Factor	85
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	1.25
Shaft Diameter	0.625 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

NP3441L										
CAT.NO.	VEM3545-5									
SPEC.	35A013L509G1									
HP	1									
VOLTS	575									
AMP	1.1									
RPM	3450									
FRAME	56C		HZ	60			PH	3		
SER.F.	1.25	CODE	K	DES	B	CL	F			
NEMA-NOM-EFF	77	PF	85							
RATING	40C AMB-CONT									
CC	010A									
DE	6205	ODE	6203							
ENCL	TEFC	SN								
VPWM INVERTER READY										
CT6-60H(10:1)VT3-60H(20:1										
	SFA 1.3									

AC Induction Motor Performance Data

Record # 61758

Typical performance - not guaranteed values

Winding: 35WGL509-R002				Type: 3516M		Enclosure: TEFC	
Nameplate Data				575 V, 60 Hz: Single Voltage Motor			
Rated Output (HP)		1		Full Load Torque		1.47 LB-FT	
Volts		575		Start Configuration		direct on line	
Full Load Amps		1.1		Breakdown Torque		6.14 LB-FT	
R.P.M.		3450		Pull-up Torque		2.83 LB-FT	
Hz		60		Phase		3	
NEMA Design Code		B		KVA Code		K	
Service Factor (S.F.)		1.25		No-load Current		0.471 A	
NEMA Nom. Eff.		77		Power Factor		85	
Rating - Duty		40C		AMB-CONT		Temp. Rise @ Rated Load	
S.F. Amps		1.3		Temp. Rise @ S.F. Load		47°C	
				Locked-rotor Power Factor		59.6	
				Rotor inertia		0.0443 LB-FT2	

Load Characteristics 575 V, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	54	71	81	85	89	90	89
Efficiency	57.9	71.2	76.3	78.1	78.5	77.2	78.5
Speed	3564	3534	3501	3462	3423	3374	3423
Line amperes	0.547	0.682	0.862	1.09	1.31	1.58	1.31

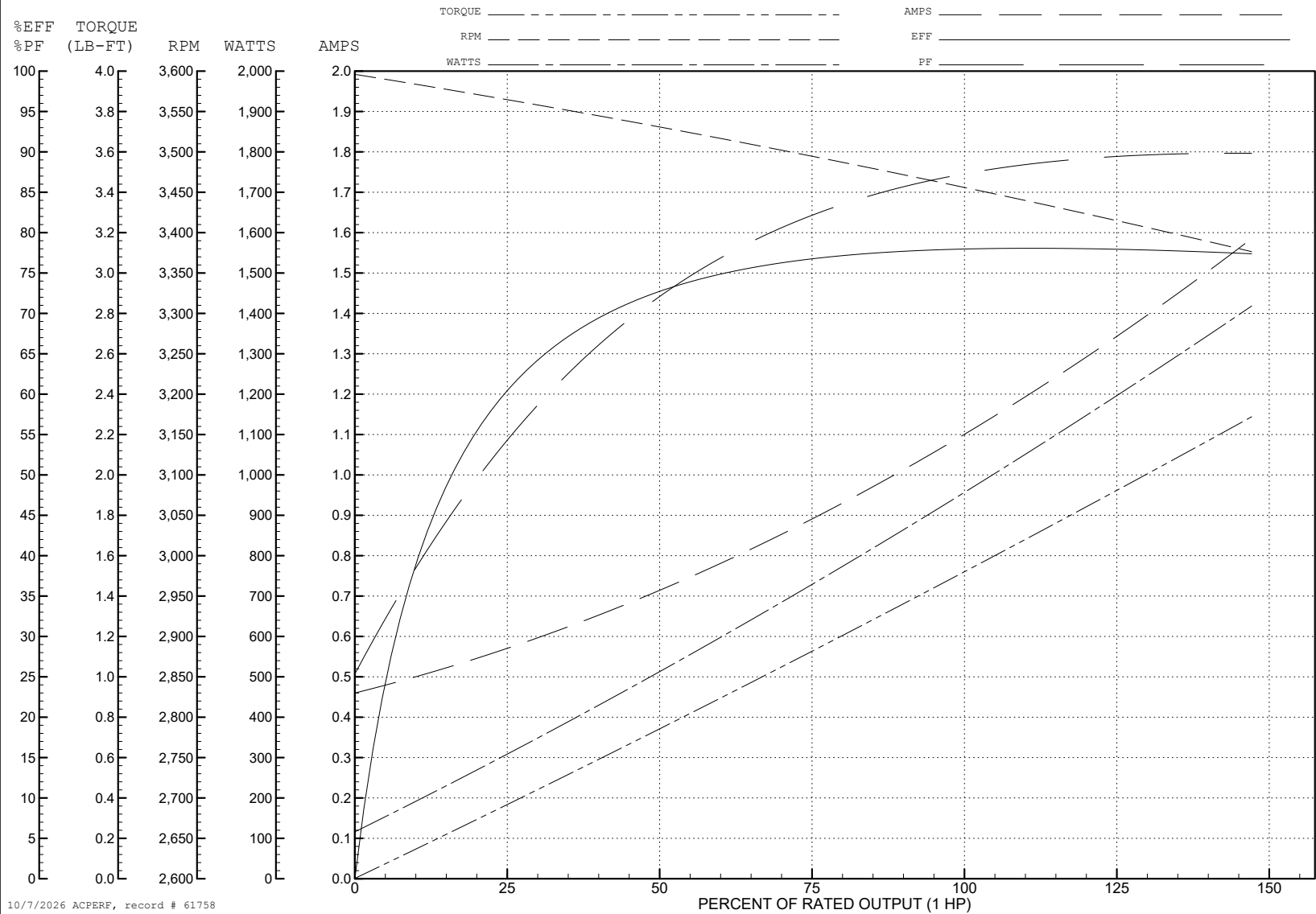
ABB Motors and Mechanical Inc.

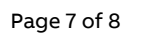
WINDING # 35WGL509

Typical performance - not guaranteed values.

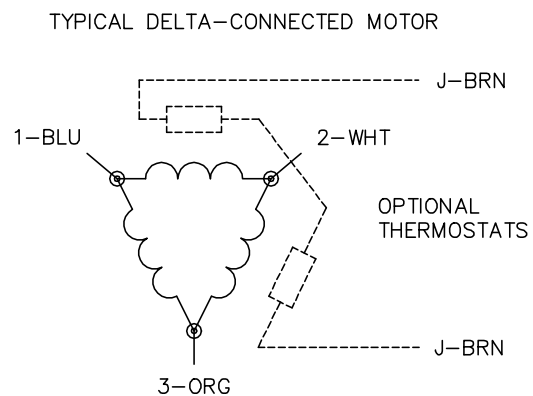
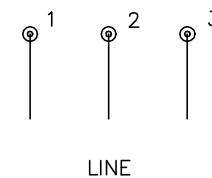
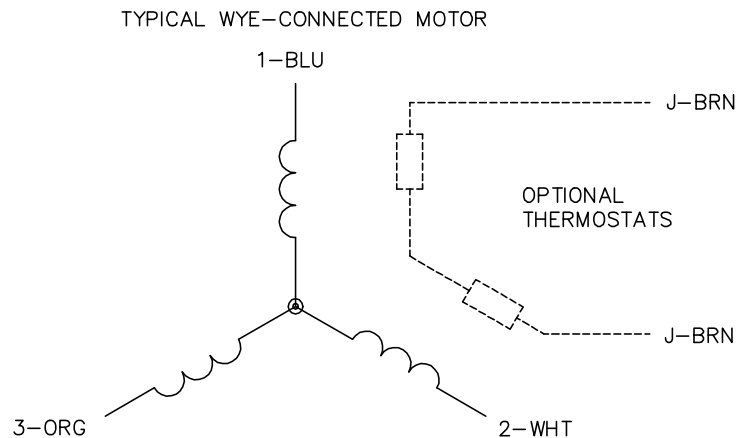
1 HP 3 PH 60 HZ 3450 RPM 575 V 3516M

TORQUES (LB-FT): PO=6.14 PU=2.83 LR=5.1 LRA=8.83





CD0006


NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

REV. DESC: ADD CLASS CONN00000007

REV. LTR: E

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\141

REVISED: 10:24:49 02/19/2019

BY: ENBRIRO

MTL: -


BALDOR - RELIANCE®

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

SH 1 of 1