

ABB BALDOR RELIANCE III

Customer information packet

VFSWDM3545-4E

1HP, 3450RPM, 3PH, 60HZ, 56C, 3520M, TENV, F1, N

Class - None

Division - Not Applicable

Specifications

Enclosure	TENV
Frame	56C
Frame Material	Stainless 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	460.0 V @ 60 HZ
Agency Approvals	WEEE CURUSEEV NEMA PREMIUM
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	1.400 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	82.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	1.4 a
Insulation Class	H
Inverter Code	Inverter Duty

Part Detail

Revision	A
Type	AC
Mech. spec.	35E4656
Base	
Status	PRD/A
Elec. spec.	35WGK980
Layout	35LYE4656
Eff. date	09-13-2024
CD Diagram	CD0006
Poles	02
Leads	3#18
Proprietary	False
Created date	05-22-2024

KVA Code	N
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	5400 rpm
Motor Finish	UNPAINTED
Motor Lead Quantity/Wire Size	3 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3520M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	11.78 IN
Power Factor	82
Product Family	WD All SD Non-Encapsulated
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	Y
Service Factor	1.15
Shaft Diameter	0.625 IN
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

NP4427AAA02												
CAT #	VFSWDM3545-4E				WGT		LBS					
SPEC	35E4656K980				ENCL	TENV						
SER #					CC	010A	IP	69				
HP	1	MAG CUR			.72							
VOLTS	460					NEMA NOM. EFF				82.5		
AMPS	1.4					PF	82					
RATING	40C AMB-CONT											
RPM	3450				MAX RPM	5400						
FRAME	56C	HZ	60	CODE		N	CLASS	H				
SER.F.	1.15	SF AMP				PH	3	DES	B			
DE	6205	ODE		6205								
LUBRICATION	POLYREX EM											
ID LOGO	INVERTER TYPE		VPWM		CHP	60	TO	90	1.5:1			
ID LOGO	WK2	0.06	CT	15	TO	60	4:1					
ID LOGO	SL HZ	2.5	VT	3	TO	60	20:1					
								QR				
YR												

AC Induction Motor Performance Data

Record # 105463

Typical performance - not guaranteed values

Winding: 35W GK980-R001			Type: 3520M	Enclosure: TENV	
Nameplate Data			460 V, 60 Hz: Single Voltage Motor		
Rated Output (HP)		1	Full Load Torque		1.52 LB-FT
Volts		460	Start Configuration		direct on line
Full Load Amps		1.4	Breakdown Torque		8.51 LB-FT
R.P.M.		3450	Pull-up Torque		6.16 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	8.01 LB-FT
NEMA Design Code	B	KVA Code	N	Starting Current	15.1 A
Service Factor (S.F.)		1.15	No-load Current		0.722 A
NEMA Nom. Eff.	82.5	Power Factor	82	Line-line Res. @ 25°C	10.85 Ω
Rating - Duty		40C AMB-CONT	Temp. Rise @ Rated Load		91°C
S.F. Amps			Temp. Rise @ S.F. Load		105°C
			Locked-rotor Power Factor		51.3
			Rotor inertia		0.0553 lb-ft²

Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	44	64	76	82	86	88	84
Efficiency	67.8	79	82.4	83.4	83.4	82.5	83.4
Speed	3566.5	3536.9	3507.4	3477.1	3442.7	3405	3456
Line amperes	0.791	0.953	1.15	1.38	1.63	1.93	1.53

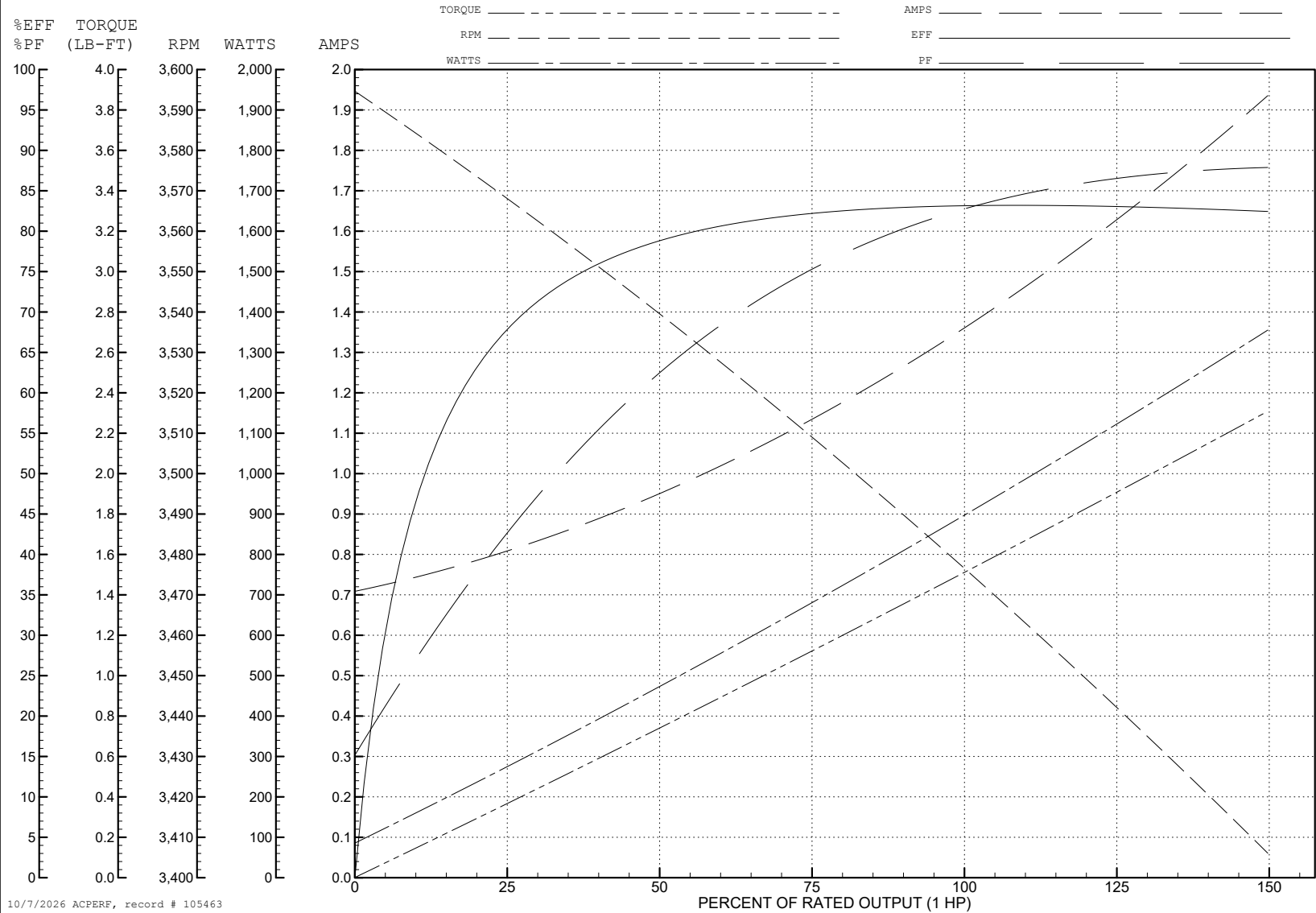
ABB Motors and Mechanical Inc.

WINDING # 35WGK980

Typical performance - not guaranteed values.

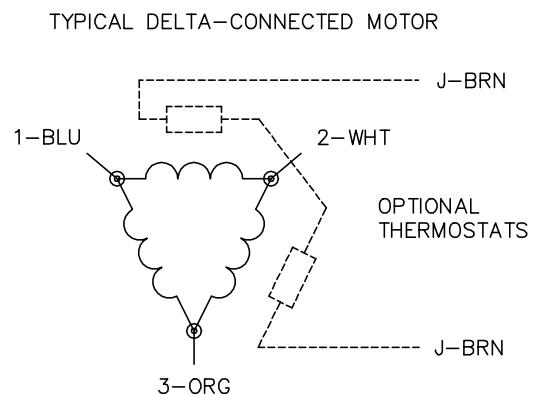
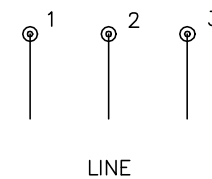
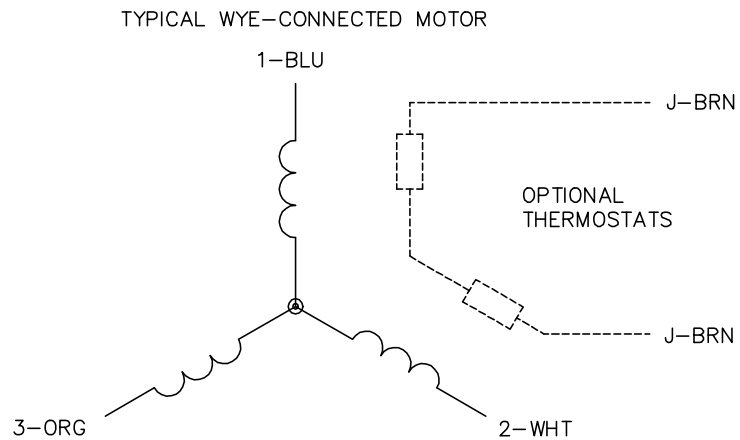
1 HP 3 PH 60 HZ 3450 RPM 460 V 3520M

TORQUES (LB-FT) : PO=8.51 PU=6.16 LR=8.01 LRA=15.1





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