

ABB BALDOR RELIANCE III

Customer information packet

ZDM3581T-5

1HP, 1770RPM, 3PH, 60HZ, 143TC, 0520M, TEBC, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TEBC
Frame	143TC
Frame Material	Iron
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	1800 RPM @ 60 HZ
Voltage @ Frequency	575.0 V @ 60 HZ
Agency Approvals	CSA UR
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	BLOWER
Current @ Voltage	1.200 A @ 575.0 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	ENCODER
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	1.2 a
Insulation Class	H
Inverter Code	Inverter Duty
KVA Code	M

Part Detail

Revision	E
Type	AC
Mech. spec.	05E535
Base	
Status	PRD/A
Elec. spec.	05WGX567
Layout	05LYE535
Eff. date	09-30-2025
CD Diagram	CD0006
Poles	04
Leads	3#18
Proprietary	False
Created date	03-11-2022

Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	6000 rpm
Motor Lead Quantity/Wire Size	3 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0520M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	19.02 IN
Power Factor	72
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	0.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1770 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP4539L									
CAT.NO.	ZDM3581T-5								
SPEC.	05E535X567G2								
FRAME	143TC			H.P.	1 TE				
VOLTS	575								
MAG. CUR.	0.77			F.L. AMPS				1.2	
R.P.M.	1770			R.P.M. MAX		6000			
HZ.	60		PH.	3	CLASS			H	
SER.F.	1.00		DES.	B	SL HZ			1	
NEMA NOM. EFF.	85.5		WK2	0.144					
BLWR V		PH		HZ		AMPS			
RATING	40C AMB-CONT								
DE	6205	ODE	6203						
CC	010A	SN							
	1000:1 CT/VT								

AC Induction Motor Performance Data

Record # 89184

Typical performance - not guaranteed values

Winding: 05WGX567-R002				Type: 0520M		Enclosure: TEBC					
Nameplate Data				575 V, 60 Hz: Single Voltage Motor							
Rated Output (HP)		1		Full Load Torque		2.96 LB-FT					
Volts		575		Start Configuration		direct on line					
Full Load Amps		1.2		Breakdown Torque		11.89 LB-FT					
R.P.M.		1770		Pull-up Torque		7.42 LB-FT					
Hz		60 Phase		3		Locked-rotor Torque		9.63 LB-FT			
NEMA Design Code		B		KVA Code		M		Starting Current		10.72 A	
Service Factor (S.F.)		1		No-load Current		0.768 A					
NEMA Nom. Eff.		85.5		Power Factor		72		Line-line Res. @ 25°C		32.1 Ω	
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		31°C					
				Locked-rotor Power Factor		62.9842					
				Rotor inertia		0.144 lb-ft²					

Load Characteristics 575 V, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	33	51	64	72	78	82
Efficiency	72.5	82.2	85.1	85.4	85.1	84
Speed	1792	1784	1776	1768	1758	1748
Line amperes	0.803	0.9	1.04	1.21	1.41	1.63

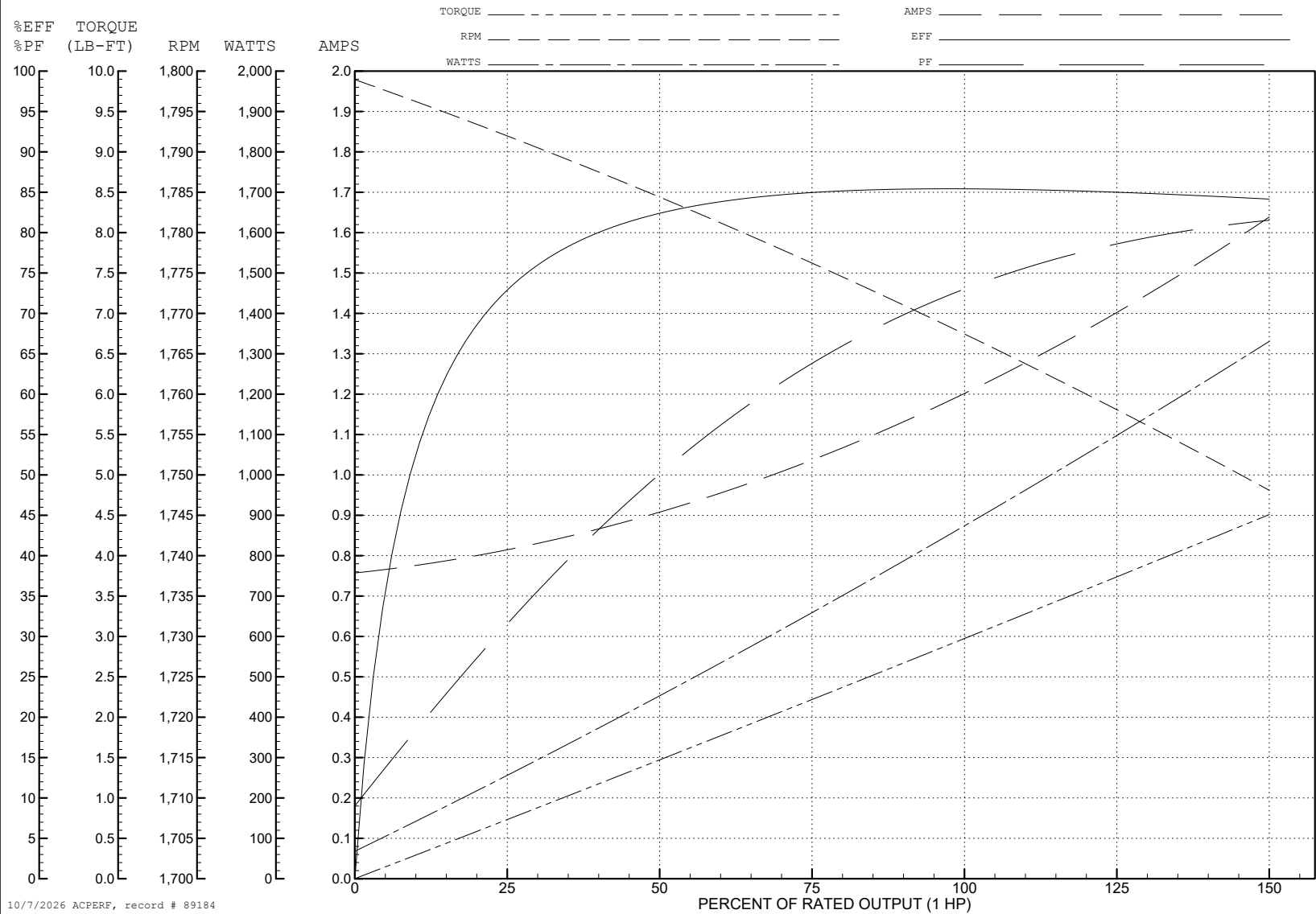
ABB Motors and Mechanical Inc.

WINDING # 05WGX567

Typical performance - not guaranteed values.

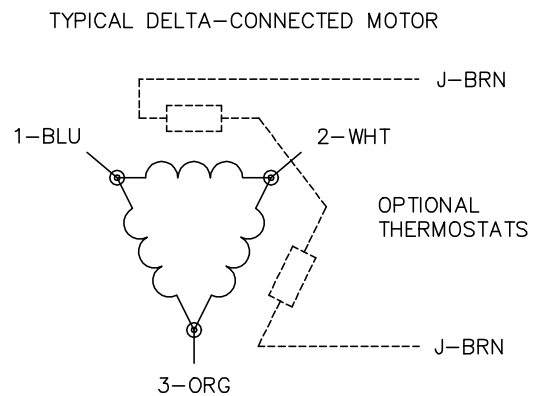
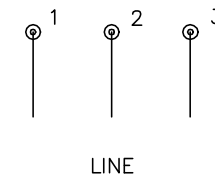
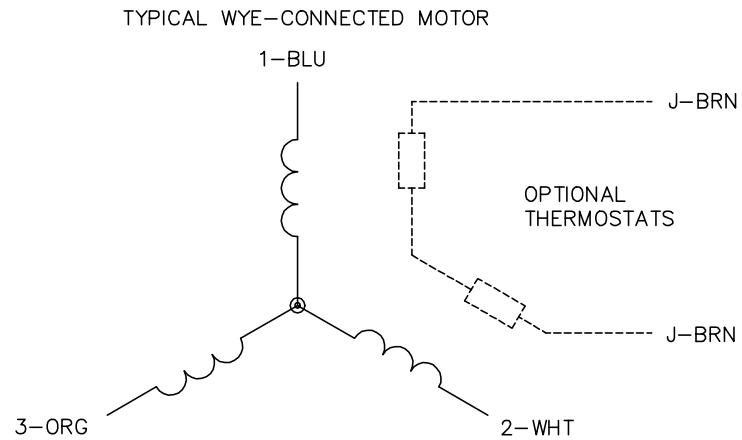
1 HP 3 PH 60 HZ 1770 RPM 575 V 0520M

TORQUES (LB-FT): PO=11.89 PU=7.42 LR=9.63 LRA=10.72





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

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