

ABB BALDOR RELIANCE III

Customer information packet

EM2542T-CI

50HP, 3540RPM, 3PH, 60HZ, 324TS, 1250M, OPEN, F

Class - None

Division - Not Applicable

Specifications

Enclosure	OPEN
Frame	324TS
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	50.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ 230.0 V @ 60 HZ
Agency Approvals	CURUSEEV NEMA PREMIUM NEMA PREMIUM (OLD LOGO)
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	124.000 A @ 208.0 V 56.000 A @ 460.0 V 112.000 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None

Part Detail

Revision	U
Type	AC
Mech. spec.	12E01
Base	
Status	PRD/A
Elec. spec.	12WGY256
Layout	12LYE001
Eff. date	06-27-2024
CD Diagram	CD0180
Poles	02
Leads	9#6
Proprietary	False
Created date	03-08-2010

Heater Indicator	No Heater
High Voltage Full Load Amps	56.0 a
Insulation Class	F
Inverter Code	Inverter Ready
IP Rating	NONE
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 6 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1250M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	24.63 IN
Power Factor	89
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.875 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3540 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

NP3554LUA											
CAT.NO.	EM2542T-CI			P/N						ENCL	OPEN
SPEC.	12E001Y256G1	CC	010A	FRAME		324TS	SER.NO.				
HP	50		CLASS		F	HZ	60				
RPM	3540		PH	3	DES		A				
VOLTS	230/460			CODE		G	ODE BRG	6311	DE BRG	6311	
AMPS	112/56										
RATING	40C AMB-CONT		NEMA-NOM-EFF				93	GREASE	POLYREX EM		
PF	89	SER.F.	1.15		CT30-60(2:1) VT3-60(20:1)						
USABLE AT	50HZ 50HP 190/380V 138/69A				SF 1.0						
HTR-VOLTS	HTR-AMPS	MAX. SPACE HEATER TEMP.									

AC Induction Motor Performance Data

Record # 53034

Typical performance - not guaranteed values

Winding: 12WGY256-R003			Type: 1250M		Enclosure: OPEN		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		50	Full Load Torque		74.1 LB-FT		
Volts		230/460	Start Configuration		direct on line		
Full Load Amps		112/56	Breakdown Torque		276 LB-FT		
R.P.M.		3540	Pull-up Torque		91.7 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		126 LB-FT	
NEMA Design Code		A	KVA Code	G	Starting Current		383 A
Service Factor (S.F.)		1.15		No-load Current		16.6 A	
NEMA Nom. Eff.		93	Power Factor	89	Line-line Res. @ 25°C		0.117 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		81°C	
S.F. Amps				Temp. Rise @ S.F. Load		100°C	
				Locked-rotor Power Factor		21	
				Rotor inertia		3.91 LB-FT2	

Load Characteristics 460 V, 60 Hz, 50 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	59	80	86	89	90	90	90
Efficiency	90.6	93.7	94.2	94	93.3	92.4	93.6
Speed	3584	3572	3560	3547	3535	3521	3540
Line amperes	21.6	31.4	43.1	56	69.8	83.7	64.3

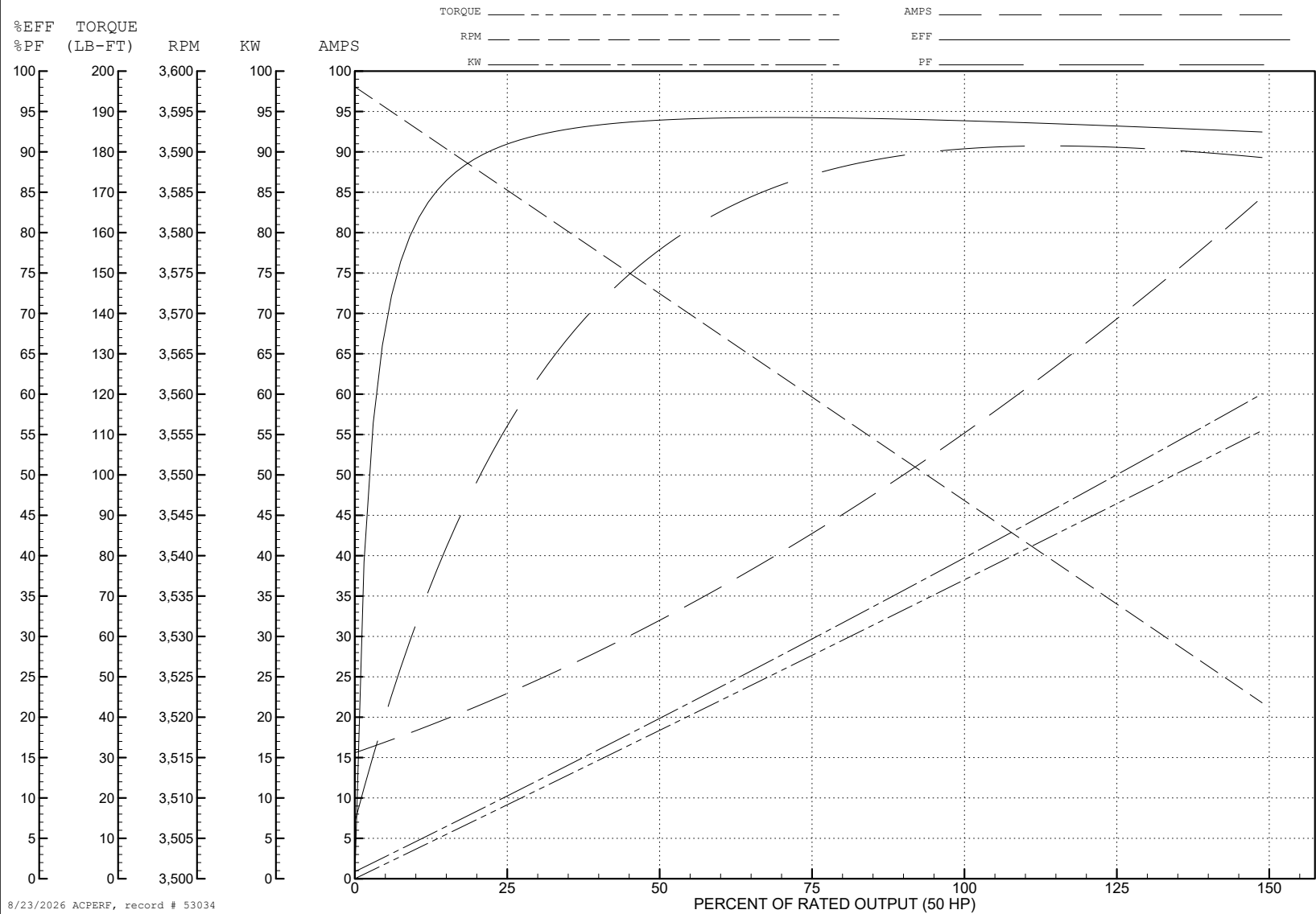
ABB Motors and Mechanical Inc.

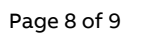
WINDING # 12WGY256

Typical performance - not guaranteed values.

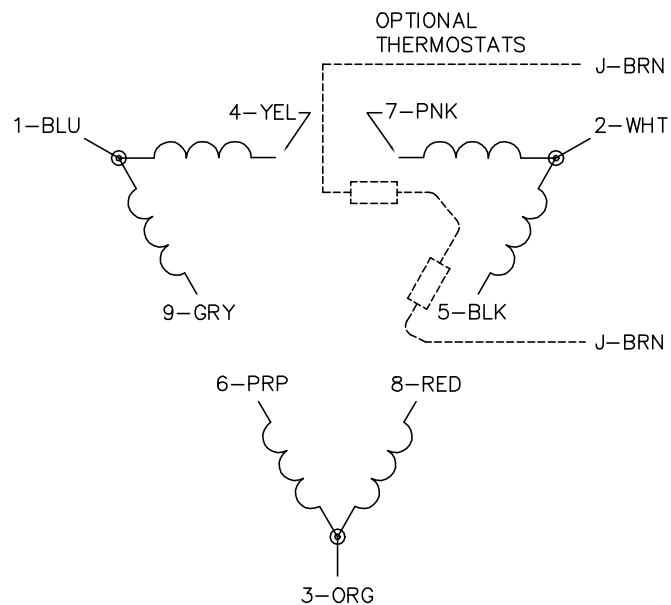
50 HP 3 PH 60 HZ 3540 RPM 460 V 1250M

TORQUES (LB-FT): PO=276 PU=91.7 LR=126 LRA=383

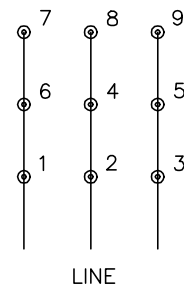




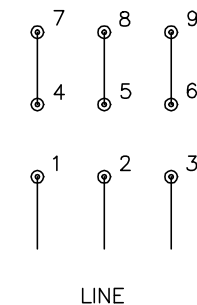
CD0180



LOW VOLTAGE
(2D)



HIGH VOLTAGE
(1D)



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: ADD CLASS CONN00000007

REV. LTR: D

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\148

REVISED: 10: 25: 29 02/19/2019

BY: ENBRIRO

MTL: —



BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1

CD0180