

ABB BALDOR RELIANCE III

Customer information packet CEM2542T

50HP, 3525RPM, 3PH, 60HZ, 324TSC, OPSB, F1

Specifications

Enclosure	OPSB
Frame	324TSC
Frame Material	Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	50.000 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	CURUSEEV NEMA PREMIUM
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	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
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

Part Detail

Revision	C
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	40WGW803
Layout	40LYE218
Eff. date	02-12-2024
CD Diagram	CD0180
Poles	02
Leads	9#8
Proprietary	False
Created date	03-06-2020

Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	4058M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	25.68 IN
Power Factor	90
Product Family	General Purpose
Pulley Face Code	C-Face
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Speed	3525 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

NP2138L																
CAT.NO.	CEM2542T			P/N					ENCLOSURE		OPSB					
SPEC.	40-0000842		CC	010A		FRAME		324TSC		S/N						
HP	50			CLASS		F		HZ		60						
RPM	3525			PH		3		DES		A						
VOLT	230/460							KVA-CODE		G		ODE BRG		6309	DE BRG	6312
AMP	112/56															
RATING	40C AMB-CONT					GREASE		POLYREX EM								
NEMA-NOM-EFF	93	PF	90	SER.F.		1.15										
HTR-VOLTS	HTR-AMPS															

AC Induction Motor Performance Data

Record # 52622

Typical performance - not guaranteed values

Winding: 40WGW803-R005			Type: 4058M		Enclosure: OPSB		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		50	Full Load Torque		74.7 LB-FT		
Volts		230/460	Start Configuration		direct on line		
Full Load Amps		112/56	Breakdown Torque		168 LB-FT		
R.P.M.		3525	Pull-up Torque		115 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		135 LB-FT	
NEMA Design Code		A	KVA Code	G	Starting Current		376 A
Service Factor (S.F.)		1.15		No-load Current		14.2 A	
NEMA Nom. Eff.		93	Power Factor	90	Line-line Res. @ 25°C		0.1415 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		47°C	
S.F. Amps				Temp. Rise @ S.F. Load		60°C	
				Locked-rotor Power Factor		23.2	
				Rotor inertia		2.49 LB-FT2	

Load Characteristics 460 V, 60 Hz, 50 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	66	83	88	90	90	90	90
Efficiency	92.9	94.4	94.1	93.3	92.2	90.5	92.6
Speed	3581.7	3565.2	3545.9	3526.6	3505.2	3475.1	3514
Line amperes	20	30.4	42.8	56.3	70.7	89.9	64.9

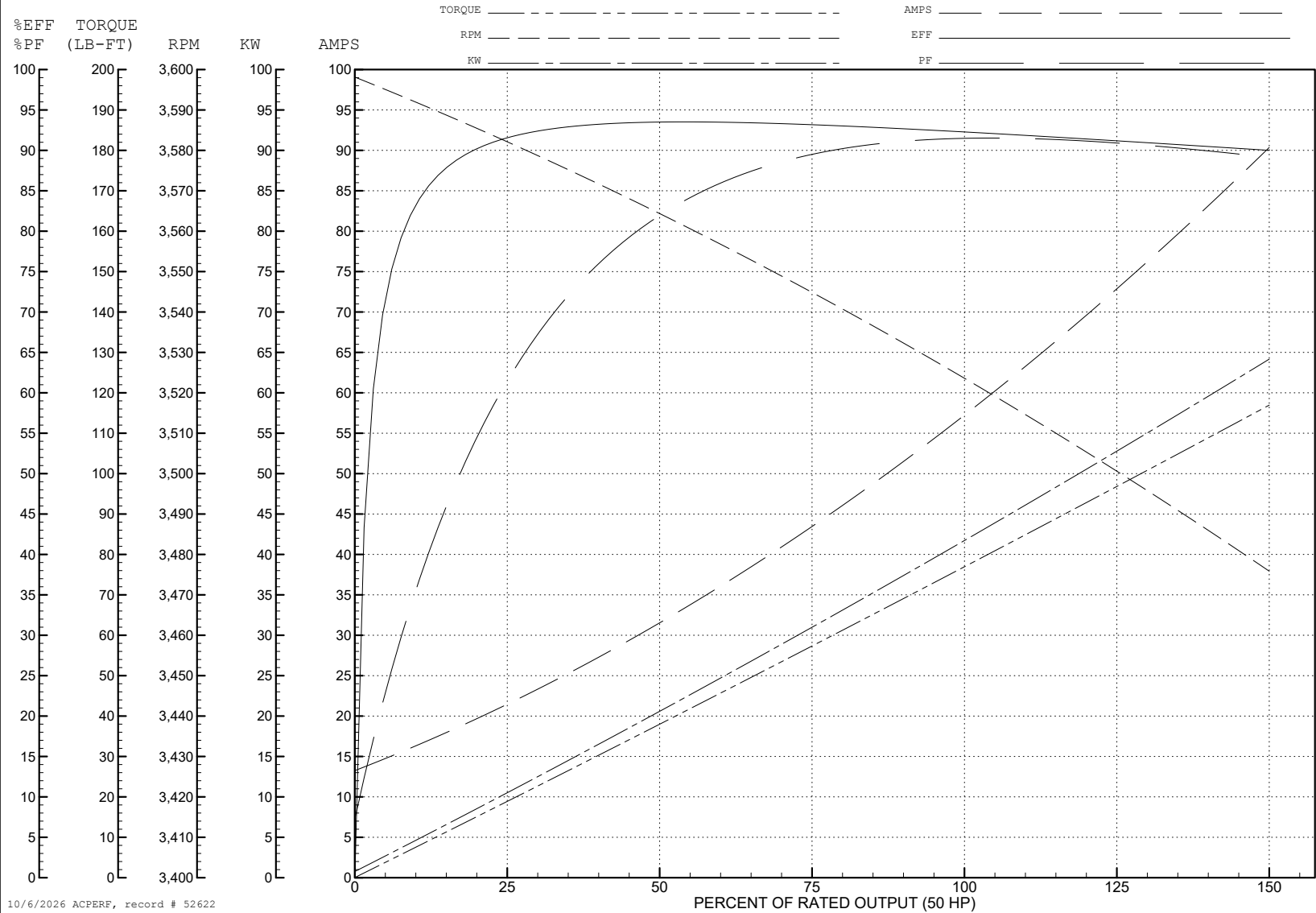
ABB Motors and Mechanical Inc.

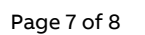
WINDING # 40WGW803

Typical performance - not guaranteed values.

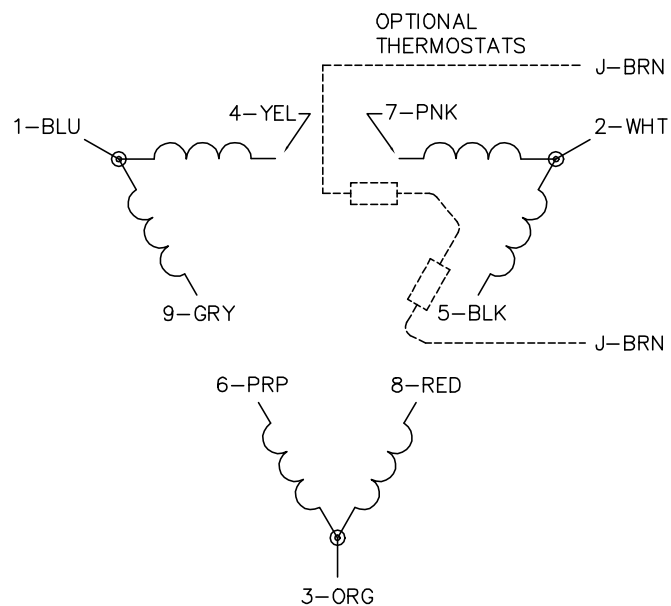
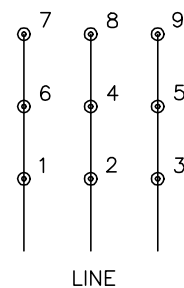
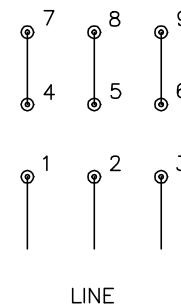
50 HP 3 PH 60 HZ 3525 RPM 460 V 4058M

TORQUES (LB-FT): PO=168 PU=115 LR=135 LRA=376





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