

ABB BALDOR RELIANCE III

Customer information packet

EM2538T-G

40HP, 3530RPM, 3PH, 60HZ, 286TS, 4046M, OPSB, F

Specifications

Enclosure	OPSB
Frame	286TS
Frame Material	Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	40.000 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	CSA CSA EEV 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	None
Current @ Voltage	46.000 A @ 460.0 V 92.000 A @ 230.0 V 100.000 A @ 208.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	92.4 %
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	46.0 a

Part Detail

Revision	U
Type	AC
Mech. spec.	40E275
Base	
Status	PRD/A
Elec. spec.	40WGX194
Layout	40LYE275
Eff. date	06-27-2024
CD Diagram	CD0180
Poles	02
Leads	9#8
Proprietary	False
Created date	11-29-2011

Insulation Class	H
Inverter Code	Inverter Ready
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	4046M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	22.44 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	1.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3530 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.	EM2538T-G				P/N						ENCL	OPSE
SPEC.	40E275X194G1		CC	010A		FRAME	286TS		SER.NO.			
HP	40			CLASS		H	HZ	60				
RPM	3530			PH	3		DES	B				
VOLTS	230/460				CODE		G	ODE BRG	6309	DE BRG	6311	
AMPS	92/46											
RATING	40C AMB-CONT			NEMA-NOM-EFF				92.4	GREASE	POLYREX EM		
PF	89	SER.F.	1.15			CT30-60(2:1) VT3-60(20:1)						
USABLE AT	50HZ 40HP 190/380V 112/56A					SF1.0						
HTR-VOLTS	HTR-AMPS	MAX. SPACE HEATER TEMP.										

Parts List

Part number	Description	Quantity
SA235120	SA 40E275X194G1	1.000 ea
RA222083	RA 40E275X194G1	1.000 ea
HA6361A01	LIFTING LUG FOR 37, 39 & 40 FRAME ZINC	2.000 ea
HA6017	CAST ADAPTER, 40,42 KOBX	1.000 ea
19XW3118A12	.31-18 X .75 HEX WASHER HEAD TAPTITE II	2.000 ea
WD1000B25	GND LUG, BURNDY L125HP OR T&B L125HP-BB	1.000 ea
19XW3118G08	.31-18X.50,HEX WSHR HD,TAPTITE 2,GREEN	1.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	2.000 ea
10CB3000SP	KOBX, CAST W/2.00 LEAD HOLE	1.000 ea
19XW3118A12	.31-18 X .75 HEX WASHER HEAD TAPTITE II	4.000 ea
40EP3200A02	STD FREP OPEN 309 BRG	1.000 ea
HW5100A11	W3917-042 WVY WSHR (WB)	1.000 ea
40EP3200B01	STD PUEP OPEN 311 LOCKED BRG W/AIR DEFLE	1.000 ea
10XN3118K40	5/16-18 X 2.25" HEX HD, GRADE 5	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 ea
XY3816A12	3/8-16 FINISHED NUT W/SERRATIONS	8.000 ea
10CB3500SP	CONDUIT BOX LID, CAST	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 ea
HW2501G17	KEY, 3/8 SQ X 1.875	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.070 ga
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 ea
40AD2002B01	LEXAN BAFFLE 40 FR OPEN	1.000 ea
40AD2002B01	LEXAN BAFFLE 40 FR OPEN	1.000 ea

HA3154A03	STUD, 3/8-16 X 17.75	4.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0181	CONNECTION LABEL	1.000 ea
NP3554LUA	SS SUPER-E VPWM INV READY,CURUS-EEV,PREM	1.000 ea
40PA1000	PACKAGING GROUP	1.000 ea

AC Induction Motor Performance Data

Record # 53043

Typical performance - not guaranteed values

Winding: 40WGX194-R006			Type: 4046M		Enclosure: OPSB		
Nameplate Data				460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		40		Full Load Torque		59.6 LB-FT	
Volts		230/460		Start Configuration		direct on line	
Full Load Amps		92/46		Breakdown Torque		207 LB-FT	
R.P.M.		3530		Pull-up Torque		74.8 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque		103 LB-FT	
NEMA Design Code		B	KVA Code	G	Starting Current		282 A
Service Factor (S.F.)		1.15		No-load Current		11.7 A	
NEMA Nom. Eff.		92.4	Power Factor	89	Line-line Res. @ 25°C		0.1848 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		35°C	
S.F. Amps				Temp. Rise @ S.F. Load		44°C	
				Locked-rotor Power Factor		24	
				Rotor inertia		1.97 LB-FT2	

Load Characteristics 460 V, 60 Hz, 40 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	66	82	88	89	90	90	90
Efficiency	91.4	93.7	93.7	93	92	90.7	92.4
Speed	3580.7	3565.4	3547.1	3527.4	3504.7	3481	3514
Line amperes	16.4	24.9	34.7	45.9	57	69.7	52.6

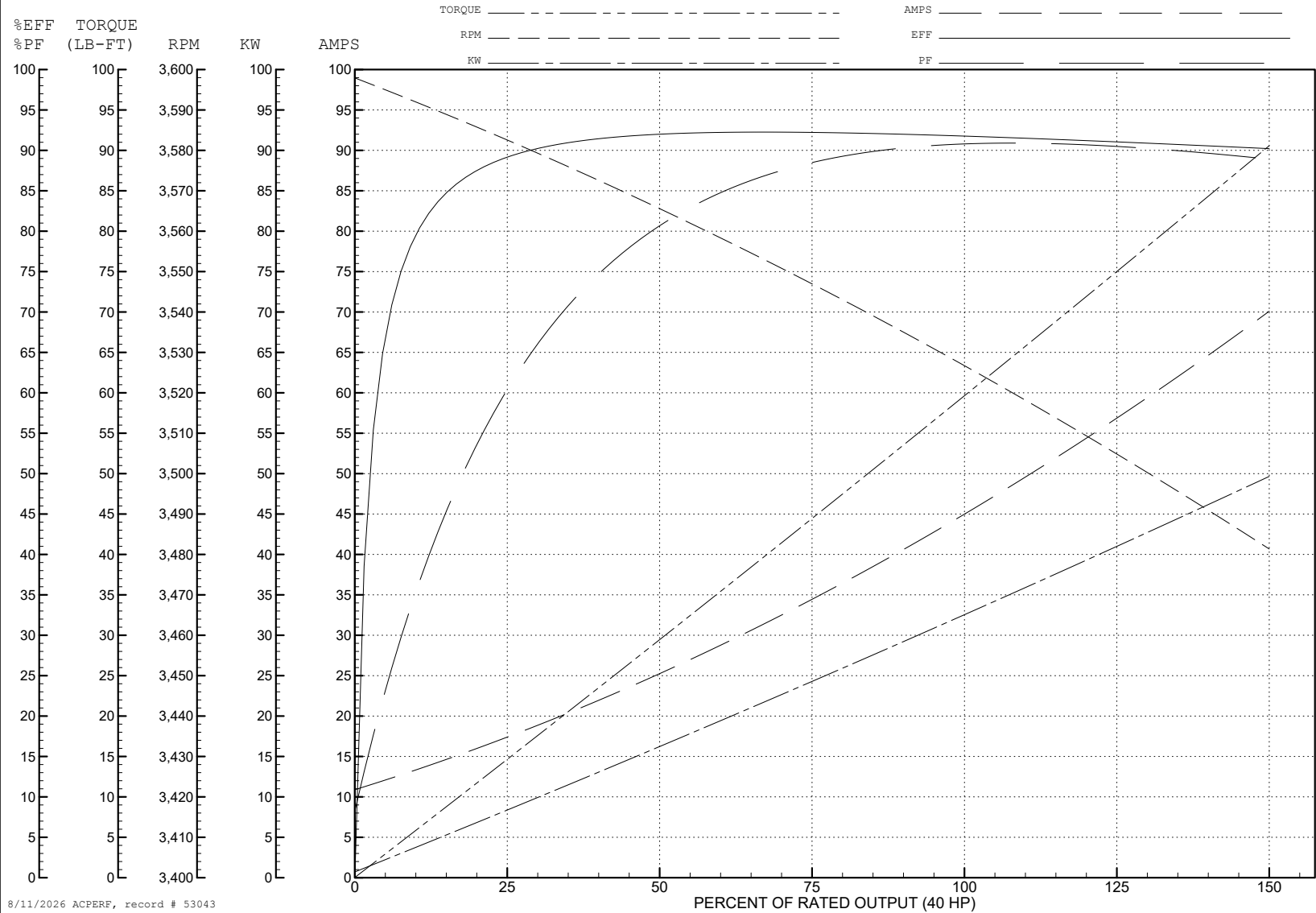
ABB Motors and Mechanical Inc.

WINDING # 40WGX194

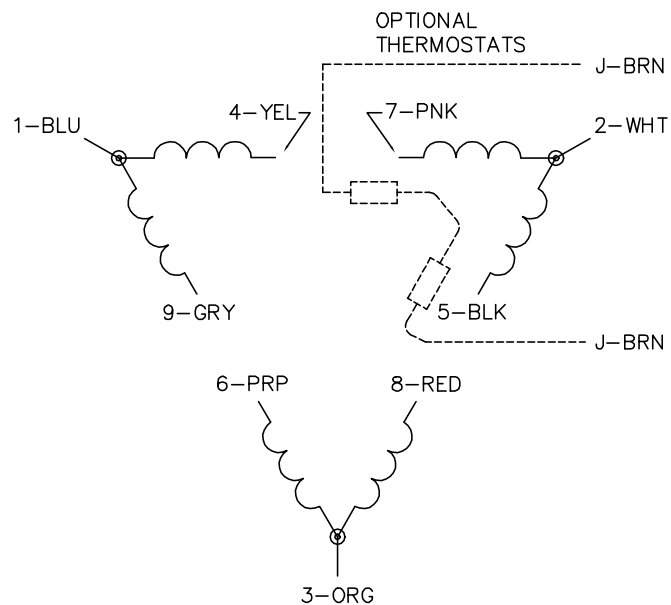
Typical performance - not guaranteed values.

40 HP 3 PH 60 HZ 3530 RPM 460 V 4046M

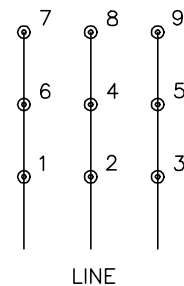
TORQUES (LB-FT): PO=207 PU=74.8 LR=103 LRA=282



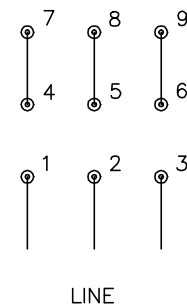
CD0180



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.

CD0180

REV. DESC: ADD CLASS CONN00000007

REV. LTR: D

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\148

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

BY: ENBRI0

MTL: -



BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

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