

ABB BALDOR RELIANCE III

Customer information packet

EM2528T

20HP, 1180RPM, 3PH, 60HZ, 286T, 4056M, OPSB, F1

Specifications

Enclosure	OPSB
Frame	286T
Frame Material	Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	20.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1200 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 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	54.000 A @ 230.0 V 56.000 A @ 208.0 V 27.000 A @ 460.0 V
Design Code	A
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	27.0 a

Part Detail

Revision	W
Type	AC
Mech. spec.	40G48
Base	
Status	PRD/A
Elec. spec.	40WGX191
Layout	40LYG048
Eff. date	09-02-2025
CD Diagram	CD0180
Poles	06
Leads	9#10
Proprietary	False
Created date	10-14-2010

Insulation Class	F
Inverter Code	Inverter Ready
IP Rating	NONE
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 10 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	4056M
Mounting Arrangement	F1
Number of Poles	6
Overall Length	25.06 IN
Power Factor	74
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	1180 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

NP2138LUA												
CAT.NO.	EM2528T			P/N					ENCLOSURE			OPSB
SPEC.	40G048X191		CC	010A	FRAME		286T		S/N			
HP	20			CLASS		F	HZ		60			
RPM	1180			PH	3	DES		A				
VOLT	230/460			KVA-CODE			H		ODE BRG	6309	DE BRG	6311
AMP	54/27											
RATING	40C AMB-CONT			GREASE			POLYREX EM					
NEMA-NOM-EFF	92.4	PF	74	SER.F.	1.15							
	50hz 20 hp 190/380v 62/31a						sf 1.0					
HTR-VOLTS	HTR-AMPS											

Parts List

Part number	Description	Quantity
SA204467	SA 40G048X191	1.000 ea
RA191713	RA 40G048X191	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
40EP3200B05	STD PUEP OPEN 311 BRG	1.000 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
HW2501H28	KEY, 1/2 SQ X 3.250	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
40AD2002A01	LEXAN BAFFLE 40 FR OPEN	1.000 ea
HA3154A04	THRUBOLT STUD 3/8-16 X 18.750	4.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
40AD2002A01	LEXAN BAFFLE 40 FR OPEN	1.000 ea

LC0181	CONNECTION LABEL	1.000 ea
NP2138LUA	ALUM SUPER-E UL PREM CC (300SER)	1.000 ea
40PA1000	PACKAGING GROUP	1.000 ea

Accessories

Part number	Description	Multiplier
40-1400	C FACE KIT	A8

AC Induction Motor Performance Data

Record # 66052

Typical performance - not guaranteed values

Winding: 40WGX191-R001				Type: 4056M		Enclosure: OPSB	
Nameplate Data				460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		20		Full Load Torque		88.68 LB-FT	
Volts		230/460		Start Configuration		direct on line	
Full Load Amps		54/27		Breakdown Torque		291 LB-FT	
R.P.M.		1180		Pull-up Torque		110 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque		160 LB-FT	
NEMA Design Code		A	KVA Code	Starting Current		177 A	
Service Factor (S.F.)		1.15		No-load Current		14.1 A	
NEMA Nom. Eff.		92.4	Power Factor	Line-line Res. @ 25°C		0.38967 Ω	
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		29°C	
S.F. Amps				Temp. Rise @ S.F. Load		35°C	
				Locked-rotor Power Factor		31.3	

Load Characteristics 460 V, 60 Hz, 20 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	34	55	68	74	78	79	76
Efficiency	88.4	92.5	93.3	93.2	92.7	91.9	92.9
Speed	1195.7	1191.7	1187.5	1183.3	1178.5	1172.9	1180
Line amperes	15.4	18.3	22.2	27	32.4	38.5	30.2

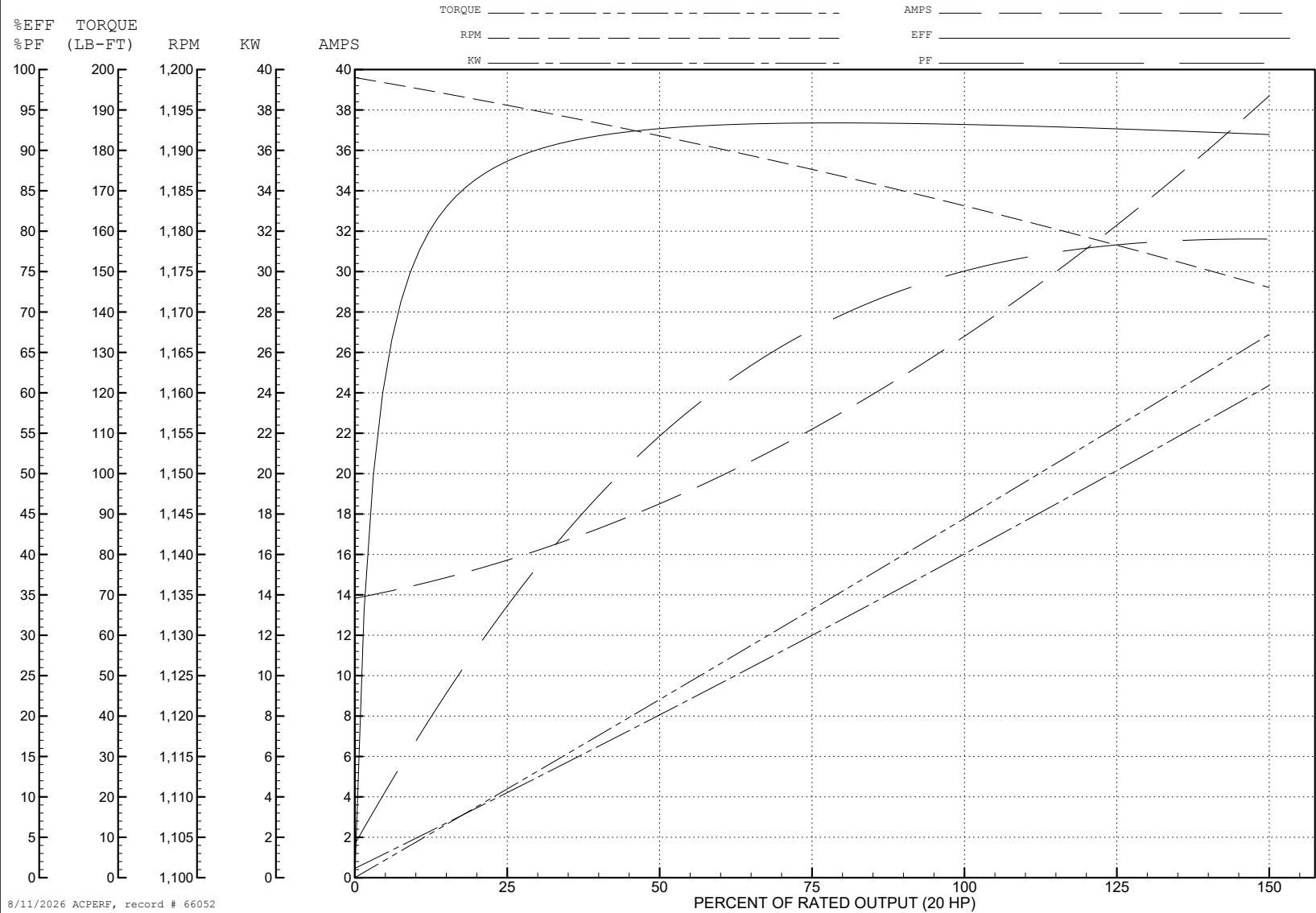
ABB Motors and Mechanical Inc.

WINDING # 40WGX191

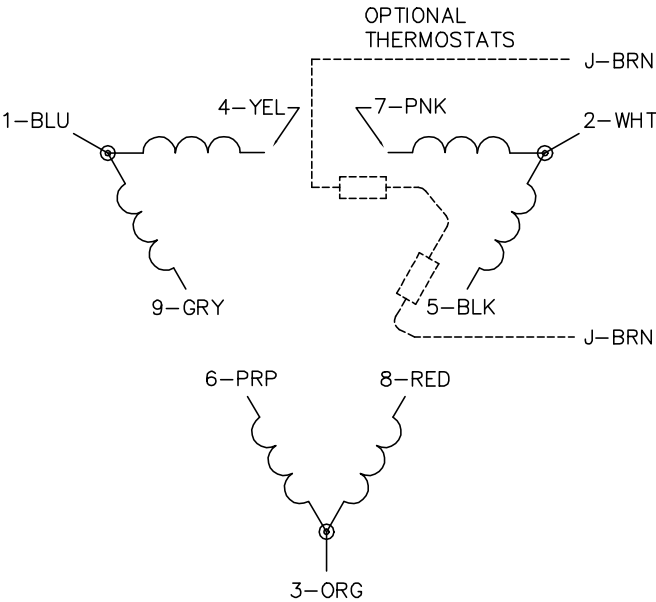
Typical performance - not guaranteed values.

20 HP 3 PH 60 HZ 1180 RPM 460 V 4056M

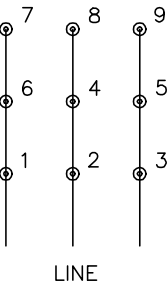
TORQUES (LB-FT): PO=291 PU=110 LR=160 LRA=177



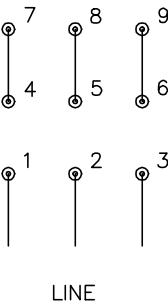
CD0180



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: ENBRIRO
MTL: —		

BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION
SH 1 of 1