

ABB BALDOR RELIANCE III

Customer information packet

EWDM4102T

20HP, 1175RPM, 3PH, 60HZ, 286T, TEFC, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	286T
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	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	CSA EEV NEMA PREMIUM 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	52.000 A @ 230.0 V 26.000 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.7 %
Electrically Isolated Bearing	Not Electrically Isolated
Enclosure Modification	Severe Duty Features
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	26.0 a

Part Detail

Revision	J
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	10WGZ467
Layout	10LYN057
Eff. date	02-14-2024
CD Diagram	CD0180
Poles	06
Leads	9#10
Proprietary	False
Created date	08-19-2019

Insulation Class	F
Inverter Code	Inverter Duty
IP Rating	IP55
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	1800 rpm
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1056M
Mounting Arrangement	F1
Number of Poles	6
Overall Length	27.56 IN
Power Factor	78
Product Family	Washdown Features
Pulley Face Code	Standard
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	1.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Speed	1175 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

NP1669L											
CAT.NO.	EWDM4102T										
SPEC.	10-0000-1005										
HP	20										
VOLTS	230/460										
AMP	52/26										
RPM	1175										
FRAME	286T		HZ	60				PH	3		
SER.F.	1.15	CODE	G	DES	B	CLASS	F				
NEMA-NOM-EFF	91.7	PF	78								
RATING	40C AMB-CONT										
CC	010A										
DE	6311		ODE	6309							
ENCL	TEFC	SN									
BLANK	20:1 VT/CT @ 1.00SF										

Parts List

Part number	Description	Quantity
SA373159	SA 10-0000-1005	1.000 ea
RA362943	RA 10-0000-1005	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0181	CONNECTION LABEL	1.000 ea
NP1669L	SS WD SUPER-E UL PREM REV MTG	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
10FH1007WP	FAN COVER, W/WHITE EPOXY, PRIMED CASTING	1.000 ea
HW1001S31	WASHER, 5/16 SPLT LK, STAINLESS STEEL	3.000 ea
10XN3118S24	5/16-18 X 1 1/2 HEX HD SS	3.000 ea
09FN3001C02	EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO	1.000 ea
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.130 lb
WD4100A02	DP-1000 HEYCO PLUG OR 62MP1000 MICRO PL	1.000 ea
10EP1104A61WP	FREP, MACH W/O GRSRS & RET HLS W/WHITE E	1.000 ea
10XN3816S28	3/8-16 X 1 3/4 HEX HD CAP SCREW, STAINLE	4.000 ea
HW1001S38	WASHER, 3/8 SPLT LK, STAINLESS STEEL	4.000 ea
HW4600B67	V-RING SLINGER 1.770 X 2.170 X .28 VITON	1.000 ea
HW5100A11	W3917-042 WVY WSHR (WB)	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
10EP1105A11P	MACH. - W/ SEAL, NO GRSRS. - EPOXY PRIME	1.000 ea
HW1001S38	WASHER, 3/8 SPLT LK, STAINLESS STEEL	4.000 ea
10XN3816S28	3/8-16 X 1 3/4 HEX HD CAP SCREW, STAINLE	4.000 ea
HW4600B40	V-RING SLINGER 2.000 X 2.680 X .28 VITON	1.000 ea
HW4600A53	SEAL 2.00 X 3.00 X 0.313 SINGLE LIP	1.000 ea
10XN3118S40	5/16-18X2 1/2 HEX HD SS	4.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
10CB3000A05P	SPL CO BOX MACH. W/2" PIPE TAP, EPOXY PR	1.000 ea
09GS1010	GASKET, DWG, LEADWIRE SEPERATOR	1.000 ea
10XN3118K12	5/16-18 X .75 GRADE 5, ZINC PLATED	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 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
10CB3500P	CONDUIT BOX LID, CAST - EPOXY PRIMED	1.000 ea
10GS1000A01	CONDUIT BOX LID GASKET NEOPRENE	1.000 ea
19XT2520S12	1/4-20X3/4 HWH NO SLOT TY.23 18-8 S.S.	4.000 ea
HW1001S25	WASHER, 1/4 SPLT LK, STAINLESS STEEL	4.000 ea
MG1025W01	WILKOFAST, 781.01, SIGNAL WHITE #9003	0.125 ga
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.031 qt
MJ5002A01	SILICON RUBBER SEALANT, 732CL 10.3 OZ TU	0.033 ea
MJ5002A01	SILICON RUBBER SEALANT, 732CL 10.3 OZ TU	0.025 ea
10PA1000	PACKAGING GROUP COMBINED PRINT PK1023A07	1.000 ea
HW2502H28	#303 SS,SQ KEY 1/2 X 3.250	1.000 ea
51XB1214S20	12-14X1.25 HXWSSLD SERTYB, SS	1.000 ea

AC Induction Motor Performance Data

Record # 59571

Typical performance - not guaranteed values

Winding: 10WGZ467-R003			Type: 1056M		Enclosure: TEFC	
Nameplate Data				460 V, 60 Hz: Single Voltage Motor		
Rated Output (HP)		20		Full Load Torque		89.1 LB-FT
Volts		230/460		Start Configuration		direct on line
Full Load Amps		52/26		Breakdown Torque		236 LB-FT
R.P.M.		1175		Pull-up Torque		95.1 LB-FT
Hz	60	Phase	3	Locked-rotor Torque		137 LB-FT
NEMA Design Code		B	KVA Code	Starting Current		143 A
Service Factor (S.F.)		1.15		No-load Current		11.6 A
NEMA Nom. Eff.		91.7	Power Factor	Line-line Res. @ 25°C		0.47101 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		63°C
S.F. Amps				Temp. Rise @ S.F. Load		79°C
				Locked-rotor Power Factor		31.8

Load Characteristics 460 V, 60 Hz, 20 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	41	63	73	78	80	80	79
Efficiency	88.6	92.1	92.5	91.9	90.8	89.2	91.2
Speed	1194.6	1189.1	1183.8	1177.1	1169.8	1160.7	1173
Line amperes	13.1	16.4	20.7	26.1	32	39.1	29.6

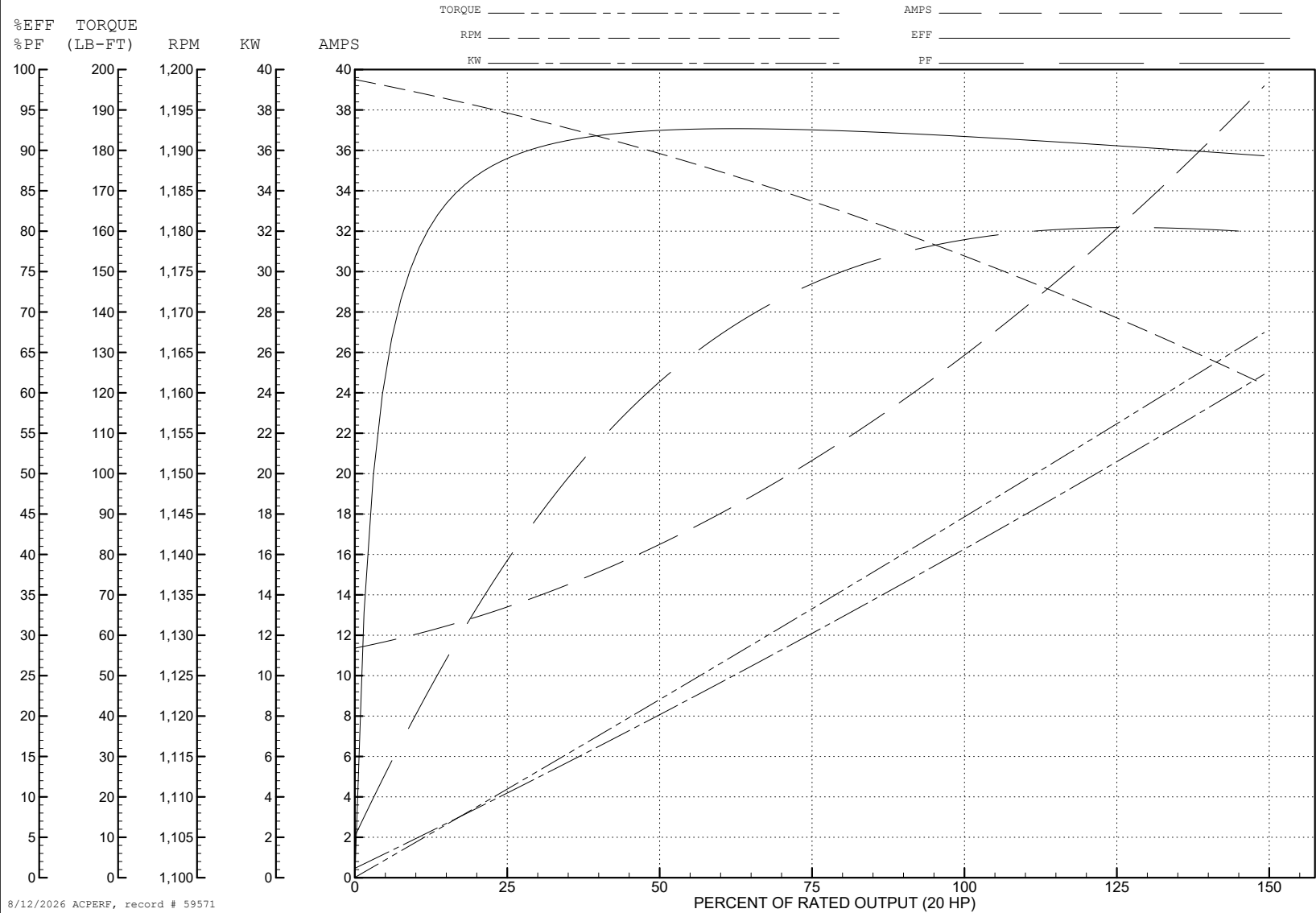
ABB Motors and Mechanical Inc.

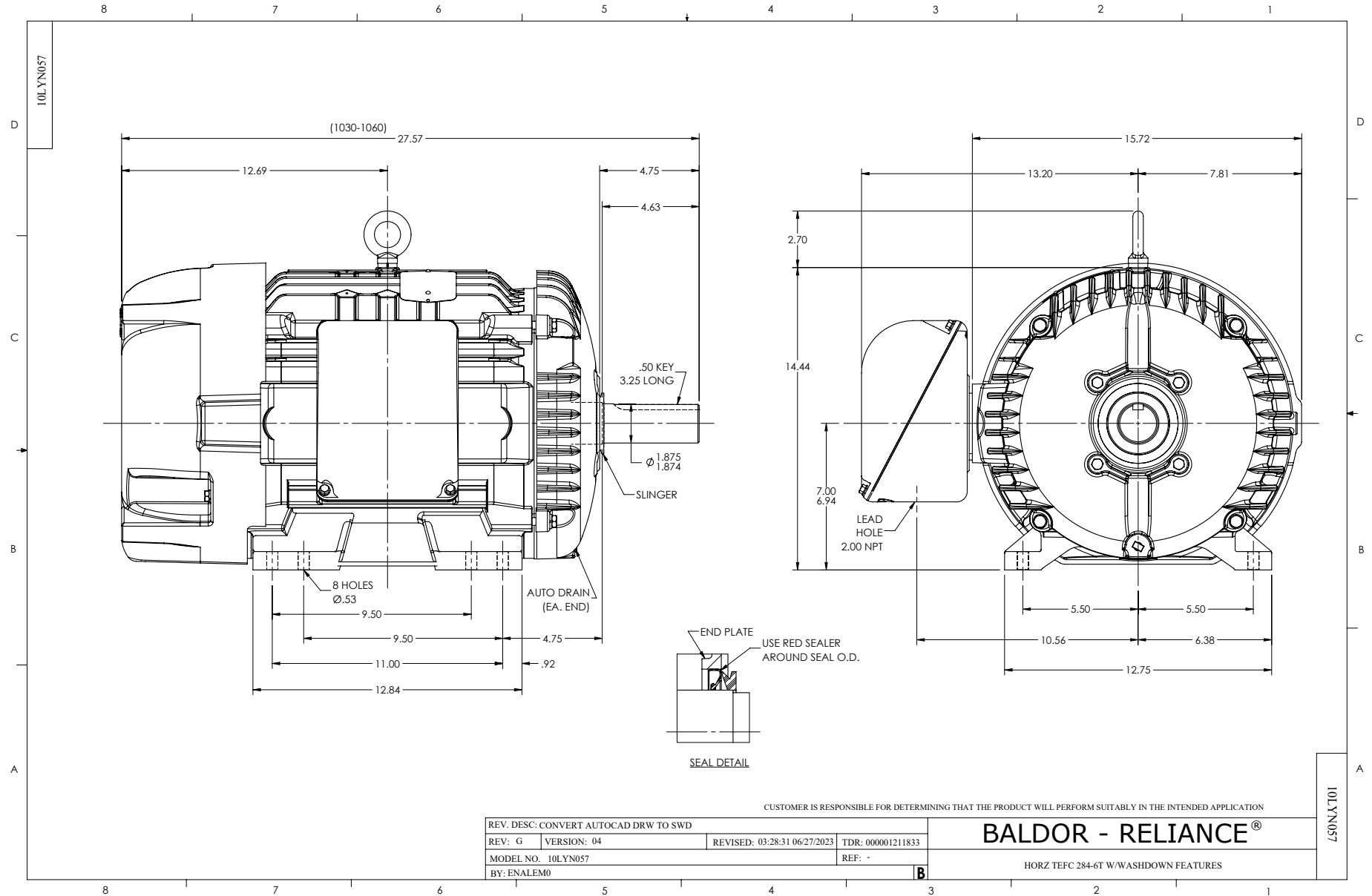
WINDING # 10WGZ467

Typical performance - not guaranteed values.

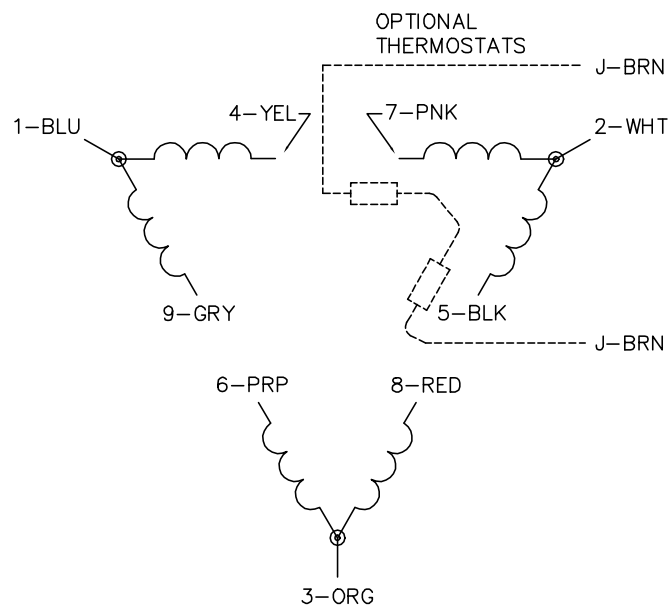
20 HP 3 PH 60 HZ 1175 RPM 460 V 1056M

TORQUES (LB-FT): PO=236 PU=95.1 LR=137 LRA=143

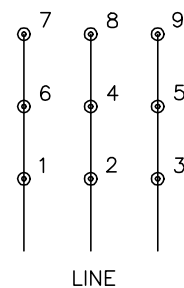




CD0180



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

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