ABB BALDOR RELIANCE

Customer information packet

CEM4104T-G

30HP, 1760RPM, 3PH, 60HZ, 286TC, TEFC, F1
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	286TC
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	30.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ
	460.0 V @ 60 HZ
Agency Approvals	CSA
	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	76.000 A @ 230.0 V
	38.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.6 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	38.0 a

Part Detail

Revision	J
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	10WGY538
Layout	10LYJ646
Eff. date	06-05-2026
CD Diagram	CD0180
Poles	04
Leads	9#8
Proprietary	False
Created date	12-16-2019

Insulation Class	H
Inverter Code	Inverter Duty
IP Rating	NONE
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1056M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	27.76 IN
Power Factor	80
Product Family	General Purpose
Pulley Face Code	C-Face
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.875 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Speed	1760 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

NP3443LUA											
CAT.NO.	CEM4104T-G			**CUST. P/N**						**ENCL**	TEFC
SPEC.	10-0000581	**CC**	010A	**FRAME**	286TC		**SER.NO.**				
HP	30		**CLASS**	H	**HZ**	60					
R.P.M.	1760		**PH.**	3	**DES.**	A					
VOLTS	230/460			**CODE**	J		**ODE BRG**	6309	**DE BRG**	6311	
AMPS	76/38										
RATING	40C AMB-CONT			**NEMA NOM. EFF.**	93.6			**GREASE**	POLYREX EM		
P.F.	80	**SER.F.**	1.15	**CT6-60H(10:1)VT3-60H(20:1**							
USABLE AT	50HZ 30HP 190/380V 88/44A			SF1.0							
VOLTS	**AMPS**			**MAX. SPACE HEATER TEMP.**							

AC Induction Motor Performance Data
Record # 35486
Typical performance - not guaranteed values

Winding: 10WGY538-R007	**Type:** 1056M	**Enclosure:** TEFC

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			30	**Full Load Torque**	88.7 LB-FT
Volts			230/460	**Start Configuration**	direct on line
Full Load Amps			76/38	**Breakdown Torque**	330 LB-FT
R.P.M.			1760	**Pull-up Torque**	142 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	178 LB-FT
NEMA Design Code	A	**KVA Code**	J	**Starting Current**	270 A
Service Factor (S.F.)			1.15	**No-load Current**	17.9 A
NEMA Nom. Eff.	93.6	**Power Factor**	80	**Line-line Res. @ 25ºC**	0.19377 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	64°C
S.F. Amps				**Temp. Rise @ S.F. Load**	76°C
				Locked-rotor Power Factor	31
				Rotor inertia	4.47 LB-FT2

Load Characteristics 460 V, 60 Hz, 30 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	41	63	73	80	82	85	81
Efficiency	87.6	92.3	93.5	93.7	93.4	92.9	93.5
Speed	1792.2	1787.6	1782.4	1776.5	1770.3	1762.1	1773
Line amperes	19.8	24.3	30.7	37.6	45.6	55.2	42.4

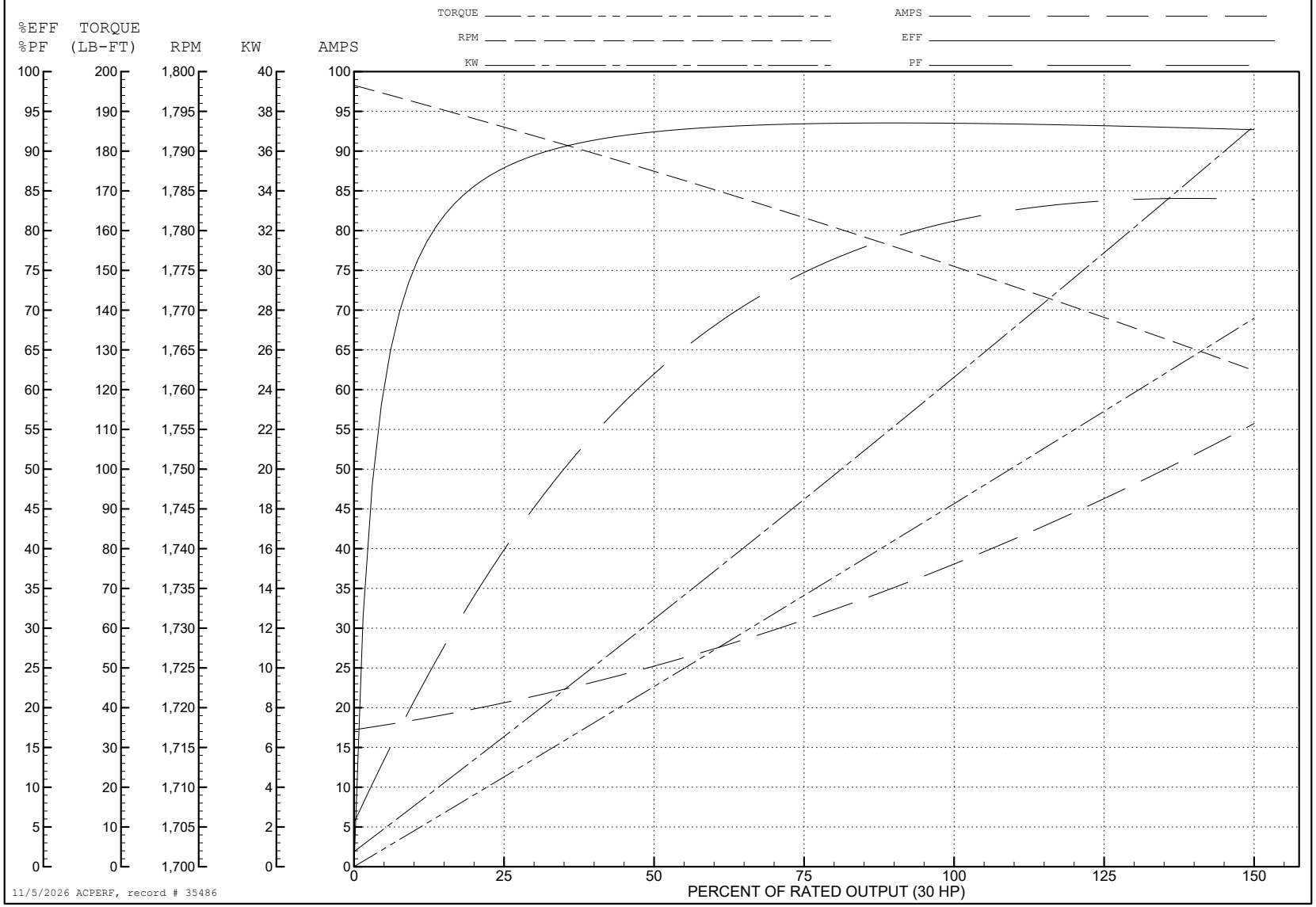
ABB Motors and Mechanical Inc.

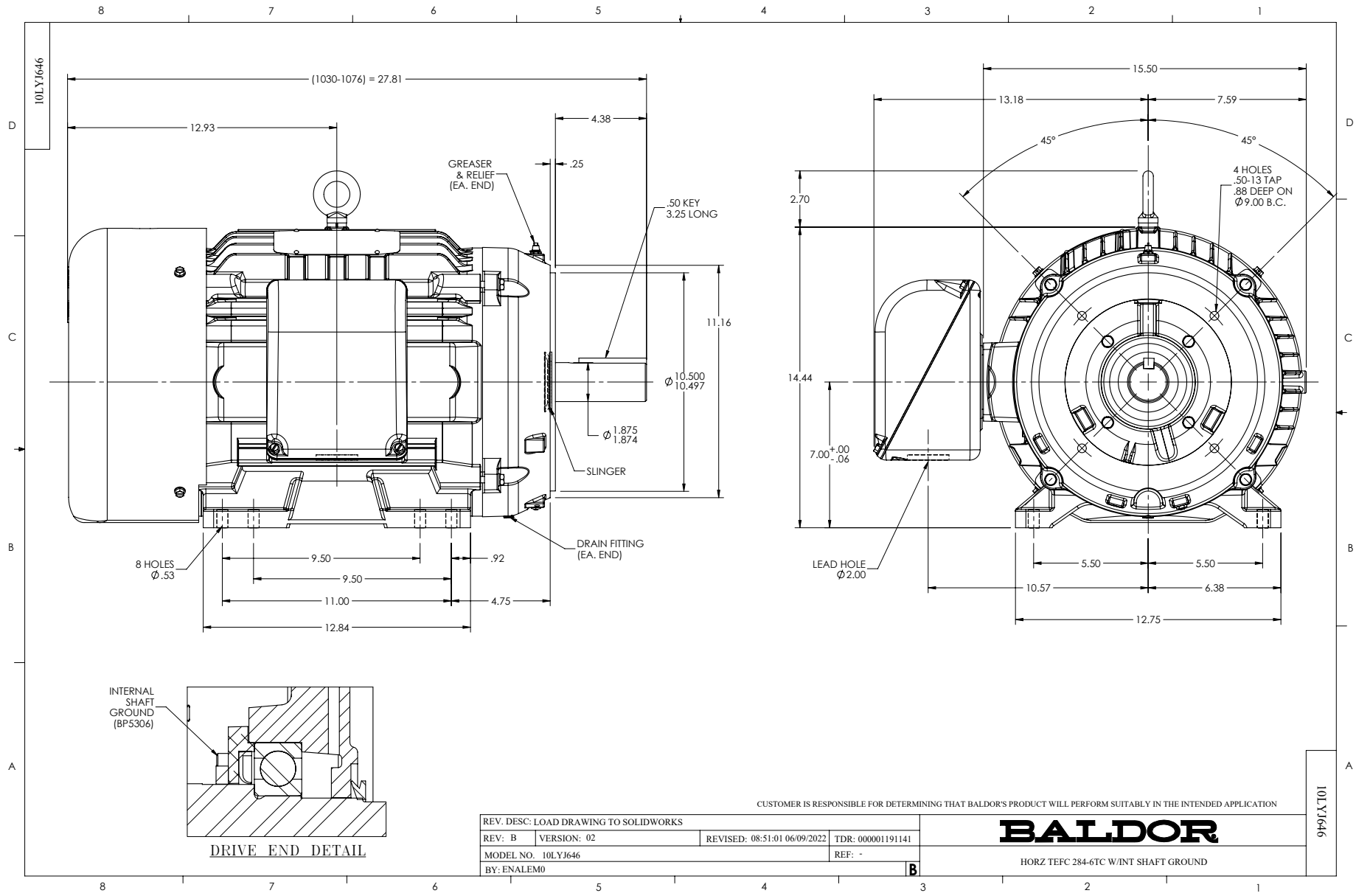
WINDING # 10WGY538

30 HP 3 PH 60 HZ 1760 RPM 460 V 1056M

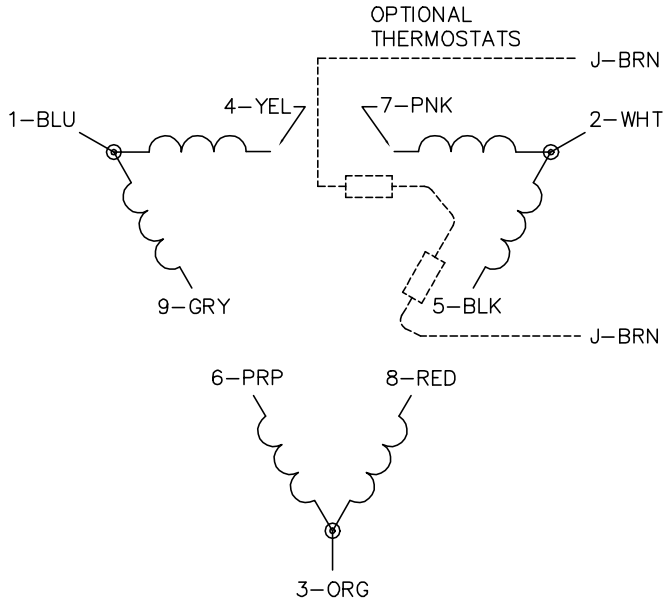
Typical performance - not guaranteed values.

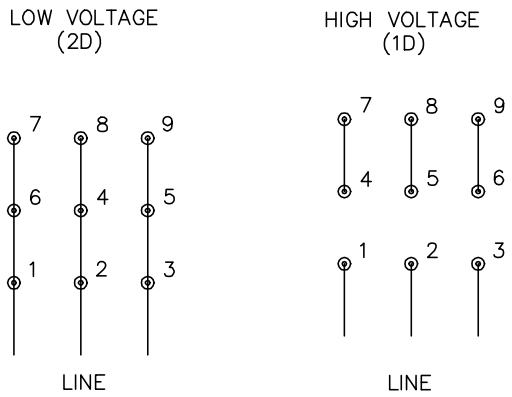
TORQUES(LB-FT): PO=330 PU=142 LR=178 LRA=270




10LYJ646
(1030-1076) = 27.81
12.93
4.38
.25
GREASER & RELIEF (EA. END)
.50 KEY 3.25 LONG
11.16
Ø 10.500 10.497
Ø 1.875 1.874
SLINGER
DRAIN FITTING (EA. END)
8 HOLES Ø .53
9.50
9.50
11.00
.92
4.75
12.84
15.50
13.18
7.59
45°
45°
4 HOLES .50-13 TAP .88 DEEP ON Ø 9.00 B.C.
2.70
14.44
7.00 +.00 -.06
LEAD HOLE Ø 2.00
5.50
5.50
10.57
6.38
12.75
INTERNAL SHAFT GROUND (BP5306)
DRIVE END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: LOAD DRAWING TO SOLIDWORKS
REV: B
VERSION: 02
REVISED: 08:51:01 06/09/2022
TDR: 000001191141
MODEL NO. 10LYJ646
REF: -
BY: ENALEM0
B
BALDOR
HORZ TEFC 284-6TC W/INT SHAFT GROUND
10LYJ646

CD0180





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: ENBRIR0
MTL: –		

BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1