

ABB BALDOR RELIANCE III

Customer information packet

ECP84102T-4

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

Class - CLI GP A,B,C,D

Division - Division II

Specifications

Enclosure	TEFC
Frame	286T
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	CL I GP A,B,C,D
Haz Area Division	Division II
Motor Letter Type	Three Phase
Output @ Frequency	20.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1200 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	CCSA US CSA EEV NEMA PREMIUM 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
Constant Torque Speed Range	1.3
Current @ Voltage	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	841
Feedback Device	NO FEEDBACK
Haz Area Temp Code	T3C

Part Detail

Revision	N
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	10WGZ429
Layout	10LYH231
Eff. date	09-26-2025
CD Diagram	CD0006
Poles	06
Leads	3#10
Proprietary	False
Created date	12-06-2018

Heater Indicator	No Heater
High Voltage Full Load Amps	26.0 a
Insulation Class	F
Inverter Code	Inverter Duty
IP Rating	IP56
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	1800 rpm
Motor Lead Termination	Ring Terminals
Motor Standards	NEMA
Motor Type	1056M
Mounting Arrangement	F1
Number of Poles	6
Overall Length	28.00 IN
Power Factor	78
Product Family	Chem Process S/P 32-8 IEEE 841
Pulley Face Code	Standard
Rodent Screen	None
Service Factor	1.15
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
NP4332

CAT.NO.	ECP84102T-4			P/N		ENCLOSURE			TEFC				
SPEC.	10-0000-0394			CC	010A	FRAME	286T	S/N					
HP	20			CLASS	F	HZ	60	ODE BRG	6311	DE BRG	6311		
RPM	1175	RPM MAX	1800	PH	3	DES	B	D.E. BRG.	55BC03X30X				
VOLT	460			KVA-CODE	G		O.D.E. BRG.	55BC03X30X					
AMP	26			MOTOR WEIGHT			442	GREASE	POLYREX EM				
RATING	40C AMB-CONT			MAX. KVAR			7.7	BLANK					
NEMA-NOM-EFF	91.7	# OF ROTOR BARS			42	SER.F.	1.15	IP	56				
G.MIN.EFF	90.2	# OF STATOR SLOTS			54	PF	78	INV.TYPE	PWM				
TEMP CODE	T3C	INVERTER-TEMP-CODE			180								
TEMP =	160	C HP FR	60	C HP TO	90								
CT HZ FROM	1.3	CT HZ TO	60										
HTR-VOLTS		HTR-AMPS		HTR-WATTS		MAX. SPACE HEATER TEMP.				VT HZ FROM	O	VT HZ TO	60

AC Induction Motor Performance Data

Record # 53389

Typical performance - not guaranteed values

Winding: 10WGZ429-R001				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		460		Start Configuration		direct on line	
Full Load Amps		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		G	
Service Factor (S.F.)		1.15		Starting Current		143 A	
NEMA Nom. Eff.		91.7		Power Factor		78	
Rating - Duty		40C AMB-CONT		Line-line Res. @ 25°C		0.475 Ω	
S.F. Amps				Temp. Rise @ Rated Load		63°C	
				Temp. Rise @ S.F. Load		78°C	
				Locked-rotor Power Factor		31.8	
				Rotor inertia		6.86 LB-FT2	

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	88.4	92.1	92.3	91.8	91	89	91.2
Speed	1195	1189	1184	1177	1170	1161	1173
Line amperes	13.1	16.4	20.7	26.1	32	39.1	29.6

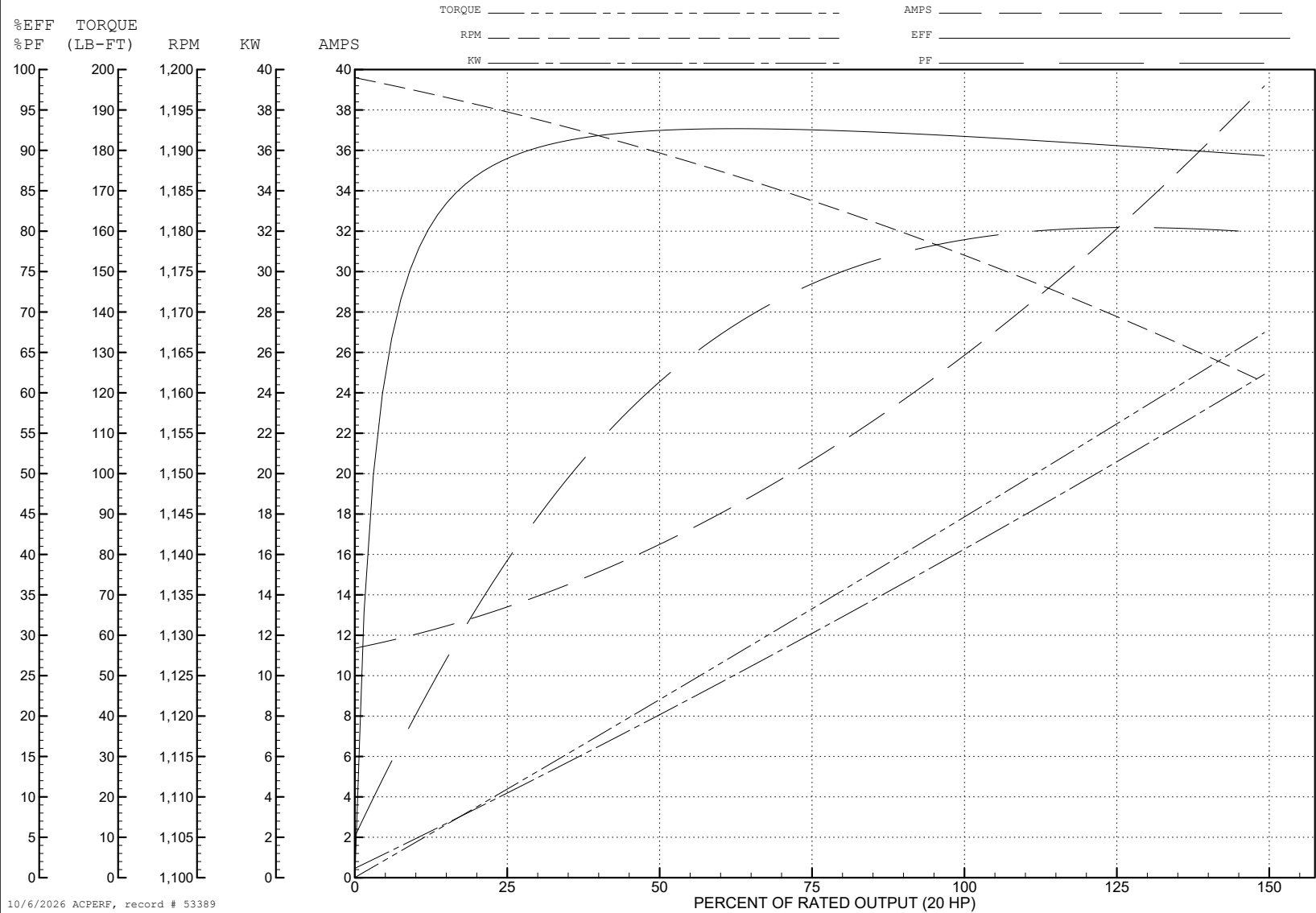
ABB Motors and Mechanical Inc.

WINDING # 10WGZ429

Typical performance - not guaranteed values.

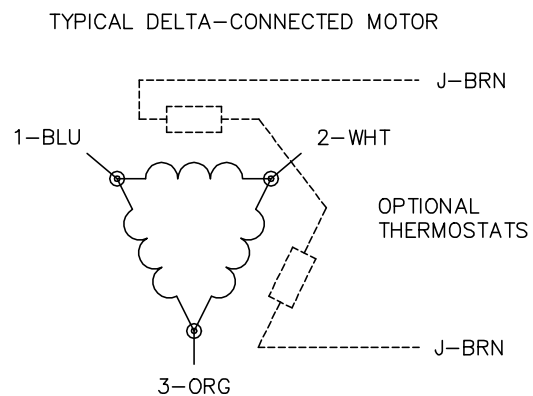
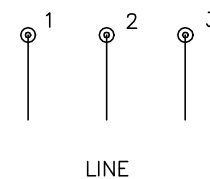
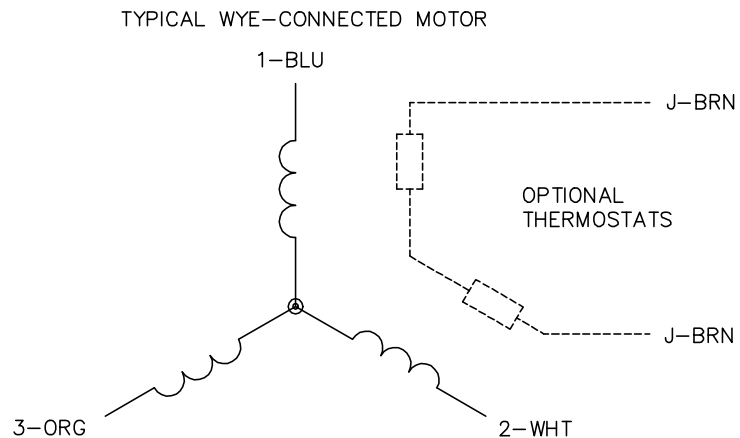
20 HP 3 PH 60 HZ 1175 RPM 460 V 1056M

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





CD0006


NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

REV. DESC: ADD CLASS CONN00000007

REV. LTR: E

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\141

REVISED: 10:24:49 02/19/2019

BY: ENBRIRO

MTL: —


BALDOR - RELIANCE®

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

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