

ABB BALDOR RELIANCE III

Customer information packet

ECP4102T-4

20HP, 1180RPM, 3PH, 60HZ, 286T, 1054M, 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	1.0
Current @ Voltage	27.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.7 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None

Part Detail

Revision	L
Type	AC
Mech. spec.	10H292
Base	
Status	PRD/A
Elec. spec.	10WGY837
Layout	10LYH292
Eff. date	09-29-2025
CD Diagram	CD0006
Poles	06
Leads	3#10
Proprietary	False
Created date	08-11-2017

Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	27.0 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	1800 rpm
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	3 @ 10 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1054M
Mounting Arrangement	F1
Number of Poles	6
Overall Length	28.00 IN
Power Factor	77
Product Family	Super-E Chemical Processing
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	Shaft 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

NP3241																
CAT.NO.	ECP4102T-4			P/N						ENCLOSURE		TEFC				
SPEC.	10H292Y837G2		CC	010A	FRAME	286T		S/N								
HP	20			CLASS	F	HZ	60	DES	A							
RPM	1180			RPM MAX		1800		PH	3	KVA-CODE		H				
VOLT	460			MOTOR WEIGHT			450									
AMP	27			SER.F.	1.15	PF	77	ODE BRG		6311	DE BRG		6311			
RATING	40C AMB-CONT			NEMA-NOM-EFF			91.7		GREASE		POLYREX EM					

Accessories

Part number	Description	Multiplier
10-1305	C FACE KIT	A8

AC Induction Motor Performance Data

Record # 66237

Typical performance - not guaranteed values

Winding: 10WGY837-R016				Type: 1054M		Enclosure: TEFC	
Nameplate Data				460 V, 60 Hz: Single Voltage Motor			
Rated Output (HP)		20		Full Load Torque		90.1 LB-FT	
Volts		460		Start Configuration		direct on line	
Full Load Amps		27		Breakdown Torque		276 LB-FT	
R.P.M.		1180		Pull-up Torque		115 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque		166 LB-FT	
NEMA Design Code		A	KVA Code	H	Starting Current		165 A
Service Factor (S.F.)		1.15		No-load Current		13.1 A	
NEMA Nom. Eff.		91.7	Power Factor	77	Line-line Res. @ 25°C		0.425 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		65°C	
S.F. Amps				Temp. Rise @ S.F. Load		78°C	
				Locked-rotor Power Factor		31.8	
				Rotor inertia		6.61 LB-FT2	

Load Characteristics 460 V, 60 Hz, 20 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	39	60	71	77	79	80	78
Efficiency	84.1	89.6	91.1	91.7	90.2	89.7	90.8
Speed	1195	1190	1184	1178	1171	1164	1174
Line amperes	14.3	17.5	21.9	26.9	32.7	39.3	30.4

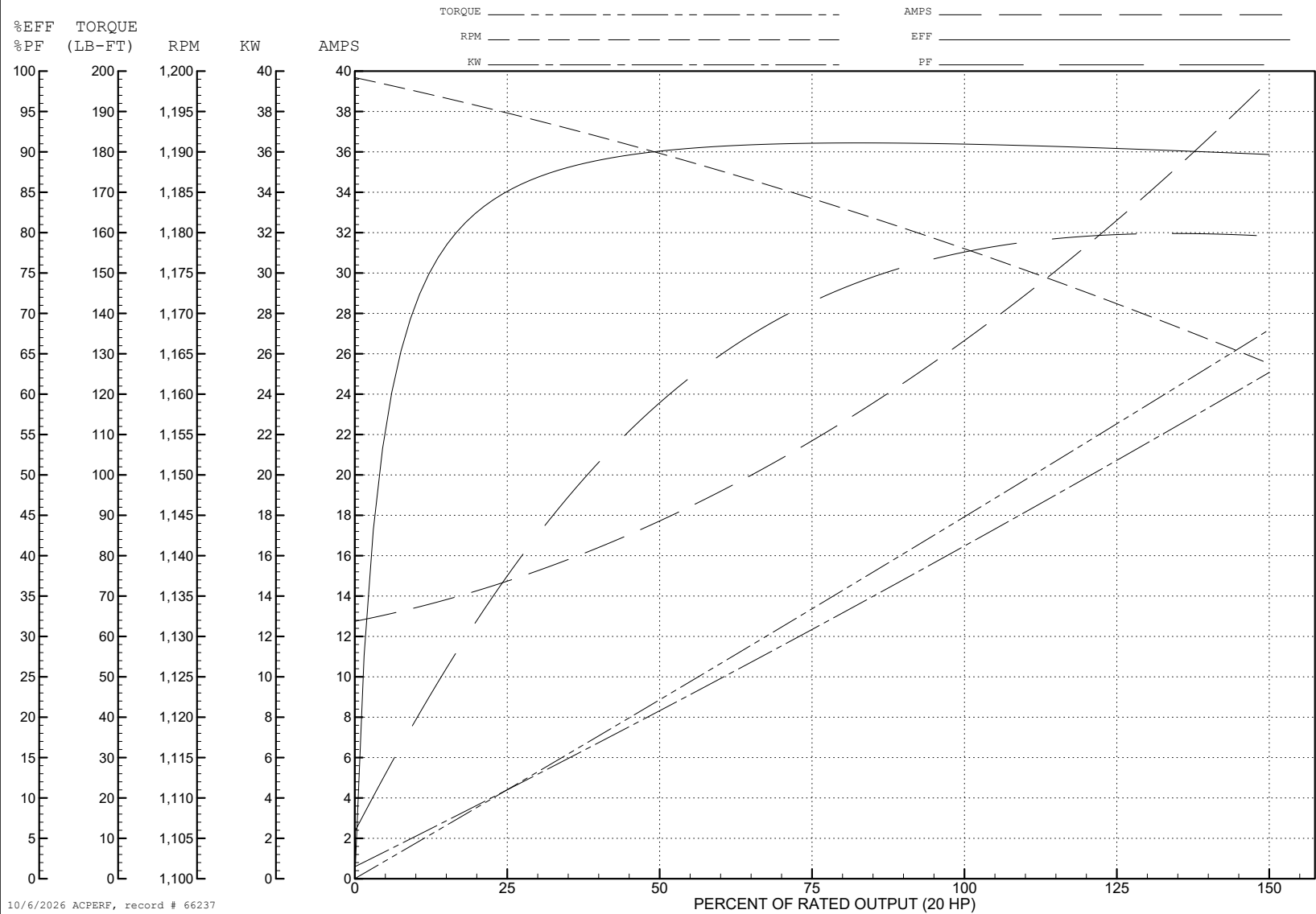
ABB Motors and Mechanical Inc.

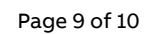
WINDING # 10WGY837

Typical performance - not guaranteed values.

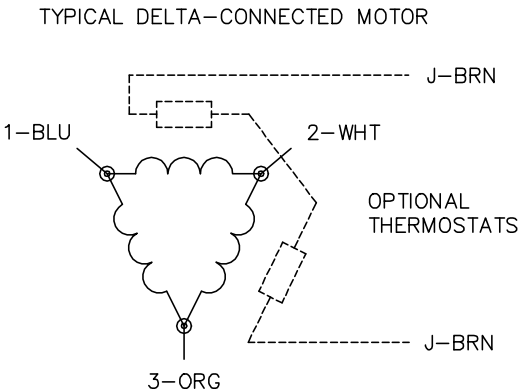
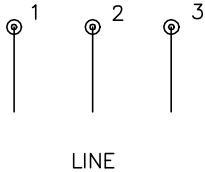
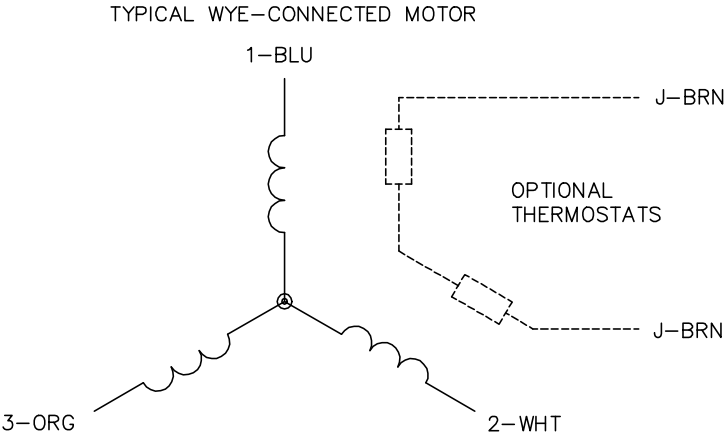
20 HP 3 PH 60 HZ 1180 RPM 460 V 1054M

TORQUES (LB-FT): PO=276 PU=115 LR=166 LRA=165





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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