

ABB BALDOR RELIANCE III

Customer information packet

EM4112T

20HP, 880RPM, 3PH, 60HZ, 324T, 1256M, TEFC, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	324T
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	900 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ 230.0 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	60.000 A @ 230.0 V 62.000 A @ 208.0 V 30.000 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	90.2 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater

Part Detail

Revision	D
Type	AC
Mech. spec.	12C51
Base	
Status	PRD/A
Elec. spec.	12WGZ306
Layout	12LYC051
Eff. date	01-14-2025
CD Diagram	CD0005
Poles	08
Leads	9#10
Proprietary	False
Created date	04-18-2023

High Voltage Full Load Amps	30.0 a
Insulation Class	F
Inverter Code	Inverter Ready
IP Rating	NONE
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Quantity/Wire Size	9 @ 10 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1256M
Mounting Arrangement	F1
Number of Poles	8
Overall Length	30.28 IN
Power Factor	68
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	2.125 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	880 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

NP2138L

CAT.NO.	EM4112T				P/N						ENCLOSURE		TEFC				
SPEC.	12C051Z306			CC	010A		FRAME		324T		S/N						
HP	20				CLASS		F		HZ		60						
RPM	880				PH		3		DES		B						
VOLT	230/460								KVA-CODE		G		ODE BRG		6311	DE BRG	6312
AMP	60/30																
RATING	40C AMB-CONT				GREASE		POLYREX EM										
NEMA-NOM-EFF	90.2	PF	68	SER.F.		1.15											
HTR-VOLTS	HTR-AMPS																

AC Induction Motor Performance Data

Record # 92443

Typical performance - not guaranteed values

Winding: 12WGZ306-R001				Type: 1256M		Enclosure: TEFC	
Nameplate Data				460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		20		Full Load Torque		119 LB-FT	
Volts		230/460		Start Configuration		direct on line	
Full Load Amps		60/30		Breakdown Torque		278 LB-FT	
R.P.M.		880		Pull-up Torque		156 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque		164 LB-FT	
NEMA Design Code		B	KVA Code	G	Starting Current		141 A
Service Factor (S.F.)		1.15		No-load Current		17.47 A	
NEMA Nom. Eff.		90.2	Power Factor	68	Line-line Res. @ 25°C		0.37 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		56°C	
S.F. Amps				Temp. Rise @ S.F. Load		68°C	
				Locked-rotor Power Factor		34	
				Rotor inertia		7.46 lb-ft²	

Load Characteristics 460 V, 60 Hz, 20 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	30	49	61	68	72	73	68
Efficiency	85	90.1	91	90.7	89.9	88.5	90.4
Speed	894	890	885	881	875	868	878
Line amperes	18.32	20.94	25.08	30.17	36.38	43.47	34.9

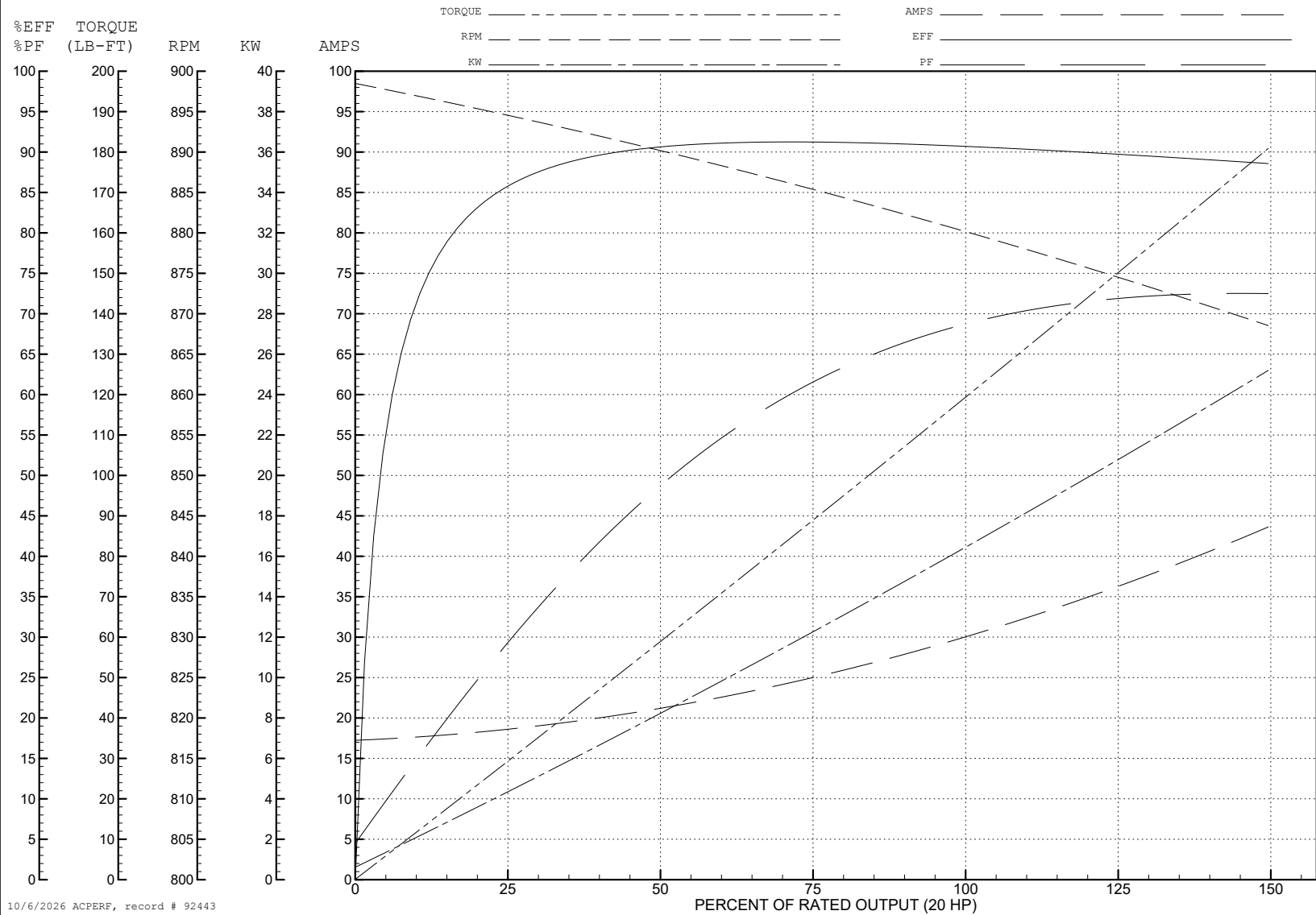
ABB Motors and Mechanical Inc.

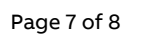
WINDING # 12WGZ306

Typical performance - not guaranteed values.

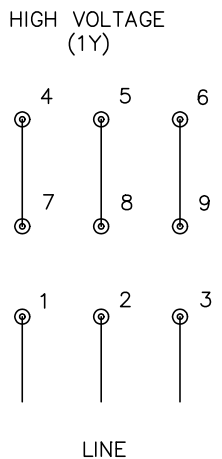
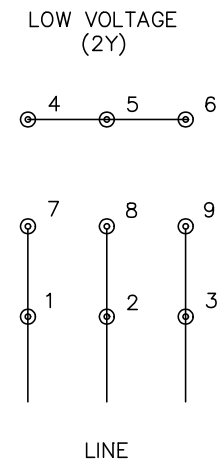
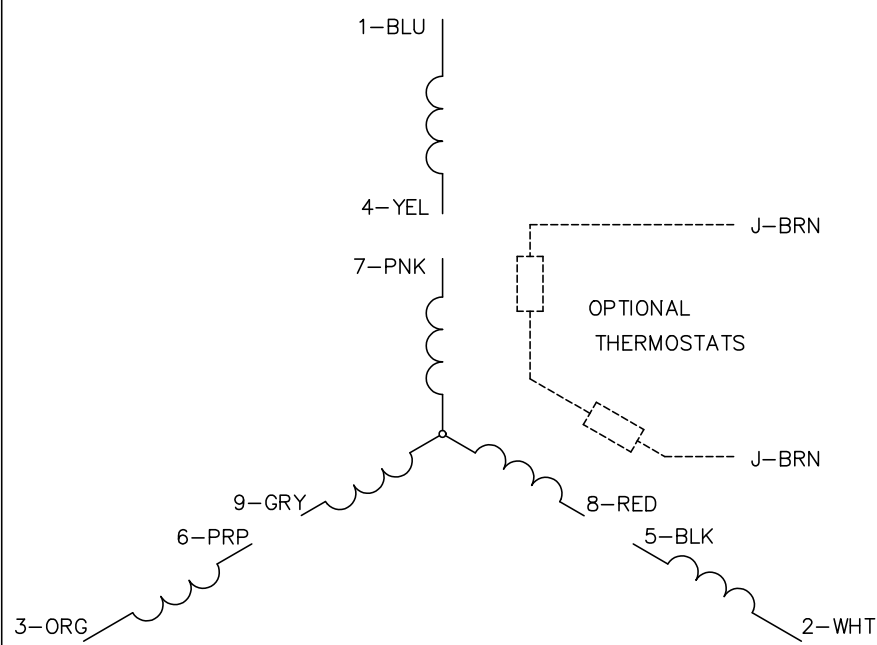
20 HP 3 PH 60 HZ 880 RPM 460 V 1256M

TORQUES (LB-FT): PO=278 PU=156 LR=164 LRA=141





CD0005



- 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: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
900000		FILE: AAA00005140	MDL: -
		MTL: -	

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

CD0005