

ABB BALDOR RELIANCE III

Customer information packet 1458

5HP, 1500/1800RPM, 3PH, 50/60HZ, 3735M, BUFF

Specifications

Enclosure	TENV
Frame Material	Steel
Frequency	50.00 Hz
	60.00 Hz
	50.00 Hz
	60.00 Hz
Motor Letter Type	Three Phase
Nameplate Output	5
Number of Poles	4
	4
Output @ Frequency	5.000 HP @ 60 HZ
	5.000 HP @ 50 HZ
Phase	3
	3
Product Style	GRINDER
Speed	1500 rpm
	1800 rpm
	1500 rpm
	1800 rpm
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage	208 V
	230 V
	460 V
Voltage @ Frequency	208.0 V @ 60 HZ
	230.0 V @ 50 HZ
	230.0 V @ 60 HZ
	460.0 V @ 50 HZ
	460.0 V @ 60 HZ
	208.0 V @ 50 HZ
Agency Approvals	CSA
	UR
Ambient Temperature	40 °C
Base Indicator	Rigid

Part Detail

Revision	Y
Type	AC
Mech. spec.	G14-117
Base	
Status	PRD/A
Elec. spec.	G4WG0036
Layout	G4LY0117
Eff. date	02-11-2022
CD Diagram	CD0258
Poles	04
Leads	9#14 11"FROM ENDTURN Y
Proprietary	False
Created date	01-01-0001

Current @ Voltage	6.800 A @ 460.0 V
	6.800 A @ 230.0 V
	15.000 A @ 208.0 V
	13.600 A @ 230.0 V
Design Code	B
Duty Rating	CONT
Insulation Class	B
KVA Code	H
Motor Lead Quantity/Wire Size	9 @ 14 AWG
Motor Standards	Other
Motor Type	3735M
Mounting Arrangement	F1
Product Family	Buffer
Service Factor	1.00
Shaft Extension Location	Double Shaft
Shaft Rotation	Phase Seq-Opp Std Rot (CWOE)
Speed Code	Single Speed
Starting Method	Direct on line

Nameplate

NP3411L			
CAT.NO.	1458		
HP	5	VOLTS	230
PHASE	3	AMPS	13.6
HZ	50//60	RPM	1500//1800
SER.NO			
SPEC.	G14-117C-0036G1		
BLANK			

Accessories

Part number	Description	Multiplier
GA20	PEDESTAL INDUSTRIAL, CAST IRON 8"-14"	A8

AC Induction Motor Performance Data

Record # 23658

Preliminary Data Sheet

Winding: G4WG0036-R001		Type: 3735M	Enclosure: TENV
Nameplate Data		460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	5	Full Load Torque	15.1 LB-FT
Volts	208-230/460	Start Configuration	direct on line
Full Load Amps	15-13.6/6.8//15/6.8	Breakdown Torque	50.4 LB-FT
R.P.M.	1500//1800	Pull-up Torque	21.4 LB-FT
Hz	50//60 Phase	Locked-rotor Torque	29.1 LB-FT
NEMA Design Code	B KVA Code	Starting Current	38.7 A
Service Factor (S.F.)	1	No-load Current	2.43 A
NEMA Nom. Eff.	0 Power Factor	Line-line Res. @ 25°C	2.24 Ω
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	
		Locked-rotor Power Factor	40
		Rotor inertia	0.74 LB-FT ²

Load Characteristics 460 V, 60 Hz, 5 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	53	74	83	87	90	90
Efficiency	76.9	84.7	86.7	87.1	86.5	85.5
Speed	1784	1770	1755	1739	1721	1702
Line amperes	2.87	3.74	4.87	6.15	7.56	9.09

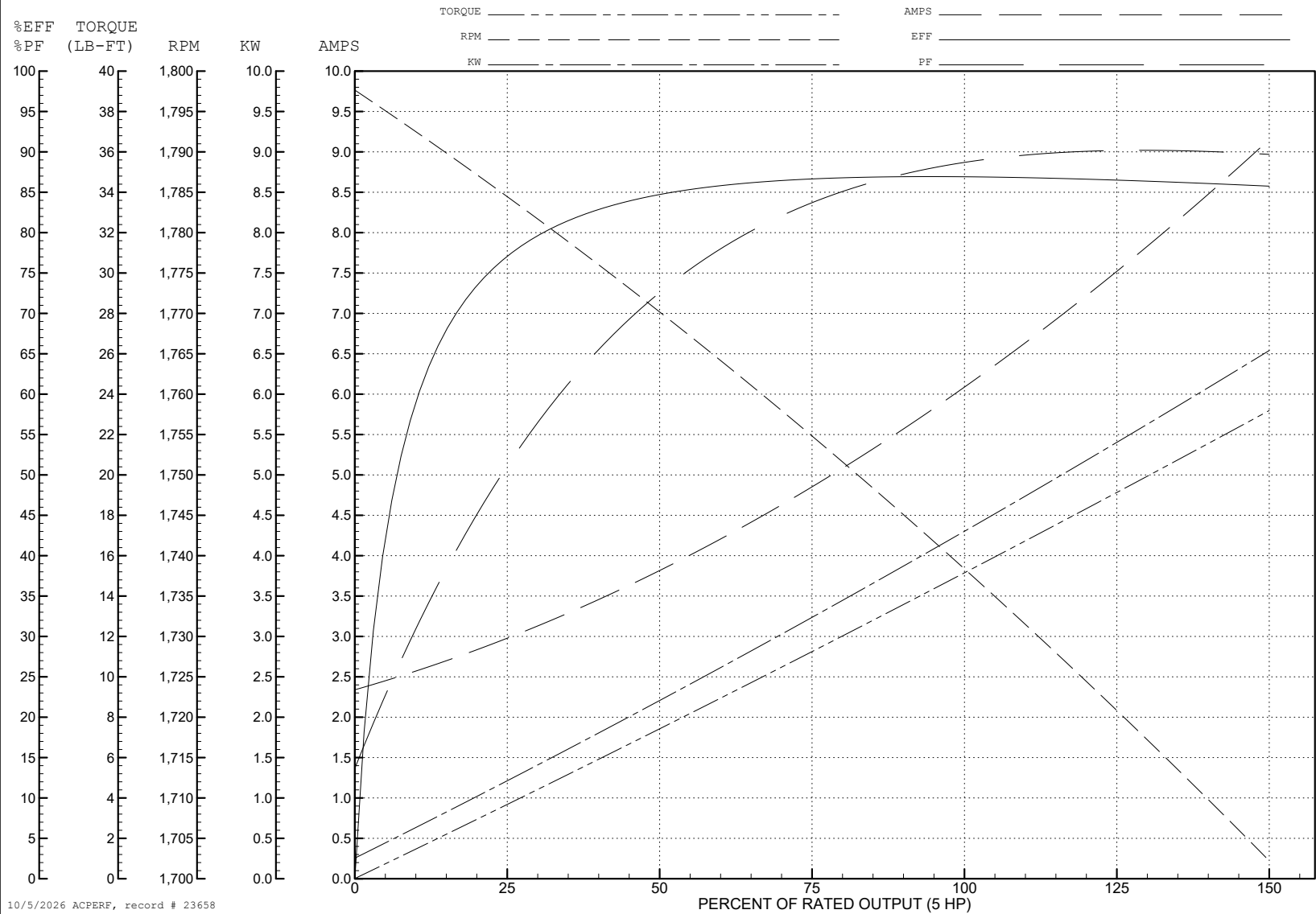
ABB Motors and Mechanical Inc.

WINDING # G4WG0036

Typical performance - not guaranteed values.

5 HP 3 PH 60 HZ 1739 RPM 460 V 3735M

TORQUES (LB-FT): PO=50.4 PU=21.4 LR=29.1 LRA=38.7



AC Induction Motor Performance Data

Record # 23659

Preliminary Data Sheet

Winding: G4WG0036-R001		Type: 3735M	Enclosure: TENV
Nameplate Data		460 V, 50 Hz: High Voltage Connection	
Rated Output (HP)	5	Full Load Torque	18.1 LB-FT
Volts	208-230/460	Start Configuration	direct on line
Full Load Amps	15-13.6/6.8//15/6.8	Breakdown Torque	71.6 LB-FT
R.P.M.	1500//1800	Pull-up Torque	35.3 LB-FT
Hz	50//60 Phase	Locked-rotor Torque	47.8 LB-FT
NEMA Design Code	B KVA Code	Starting Current	46 A
Service Factor (S.F.)	1	No-load Current	3.33 A
NEMA Nom. Eff.	0 Power Factor	Line-line Res. @ 25°C	2.24 Ω
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	
		Locked-rotor Power Factor	47
		Rotor inertia	0.74 LB-FT2

Load Characteristics 460 V, 50 Hz, 5 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	43	64	76	83	86	88
Efficiency	73.7	82.7	85.4	86	85.7	84.9
Speed	1487	1475	1462	1449	1434	1419
Line amperes	3.67	4.4	5.4	6.58	7.91	9.36

ABB Motors and Mechanical Inc.

WINDING # G4WG0036

Typical performance - not guaranteed values.

5 HP 3 PH 50 HZ 1449 RPM 460 V 3735M

TORQUES (LB-FT): PO=71.6 PU=35.3 LR=47.8 LRA=46

