

ABB BALDOR RELIANCE III

Customer information packet

SUM70154SM

1.5HP, 1770RPM, 3PH, 60HZ, 180TY, XPNV, V1

Class - CLI GP C,D

Division - Not Applicable

Specifications

Enclosure	XPNV
Frame	180TY
Frequency	60.00 Hz
Haz Area Class and Group	CLI GP C,D
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Phase	3
Agency Approvals	CCSA US
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Haz Area Temp Code	T3C
Heater Indicator	No Heater
Insulation Class	F
Inverter Code	Not Inverter
IP Rating	IP68
KVA Code	M
Lifting Lugs	Standard Lifting Lugs
Motor Standards	NEMA
Motor Type	M
Mounting Arrangement	V1
Number of Poles	4
Product Family	Pump - Centrifugal
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.15
Shaft Diameter	0.875 IN
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed Code	Single Speed

Part Detail

Revision	B
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	86081
Layout	619738-002
Eff. date	12-10-2024
CD Diagram	
Poles	///
Leads	
Proprietary	False
Created date	10-27-2021

Starting Method

Direct on line

Thermal Device - Winding

Normally Closed Thermostat

Nameplate

000613007MS

CAT.NO.	SUM70154SM	SPEC NO.	S18-CWS0-0014			
SER.NO.		FRAME SIZE	180TY			
	HP	RPM	VOLTS	AMPS	HZ	S.F.
	1.5	1770	230/460	4.4/2.2	6-60	1.00
	1.5	1770	230/460	4.4/2.2	60	1.15
CONSTANT HP RPM		@	HZ	CODE	M	
TYPE	P	INSUL.CLASS	F	TORQUE	10:1_VT	DESIGN B
D.E. BRG.	50BC02JPP30A	ENCL	TENV	DUTY	15 MIN	PH 3
O.D.E. BRG.	25BC02JPG30A	MOTOR WEIGHT		AMB	40	
FINAL CONN VOLTAGE = 230 *15						
MIN IN AIR ;SUB. IN SEWAGE /						
WATER ONLY						

000613007RC

CLASS I GROUP	C D X	NO.	
CLASS II GROUP	X X X		
OPERATING TEMP CODE	T3C		

000692000MB

SUITABLE FOR OPERATION ON PWM
INVERTER EQUIPPED WITH IGBT
DEVICES AND CAPABLE OF
CARRIER
FREQUENCY OF 2 KHZ MINIMUM

000613007MS

CAT.NO.	SUM70154SM	SPEC NO.	S18-CWS0-0014			
SER.NO.		FRAME SIZE	180TY			
	HP	RPM	VOLTS	AMPS	HZ	S.F.
	1.5	1770	230/460	4.4/2.2	6-60	1.00
	1.5	1770	230/460	4.4/2.2	60	1.15
CONSTANT HP RPM		@	HZ	CODE	M	
TYPE	P	INSUL.CLASS	F	TORQUE	10:1_VT	DESIGN B
D.E. BRG.	50BC02JPP30A	ENCL	TENV	DUTY	15 MIN	PH 3
O.D.E. BRG.	25BC02JPG30A	MOTOR WEIGHT		AMB	40	
	FINAL CONN VOLTAGE = 230 *15					
	MIN IN AIR ;SUB. IN SEWAGE /					
	WATER ONLY					

AC Induction Motor performance data

Record #86081 - Typical performance - not guaranteed values

Winding	06WGA0014
Type	3630M
Enclosure	TENV

Nameplate data

Rated Output			1.5
Volts			230/460
Full Load Amps			4.4/2.2
R.P.M.			1770
Hz	60	Phase	3
KVA Code			M
S.F.			1.15
NEMA Nom. Eff.	86.5	Power Factor	71
Duty			15 MIN
S.F. Amps			

460 V, 60 Hz:

High Voltage Connection

Full Load Torque	4.47 LB-FT
Start Configuration	direct on line
Breakdown Torque	21.47 LB-FT
Pull-up Torque	10.67 LB-FT
Locked-rotor Torque	12.6 LB-FT
Starting Current	19.49 A
No-load Current	1.4
Line-line Res. @ 25°C	7.07 Ω
Temp. Rise @ Rated Load	17°C
Temp. Rise @ S.F. Load	20°C
Locked-rotor Power Factor	43.1
Rotor inertia	0.279 lb-ft ²

Load Characteristics 460 V, 60 Hz, 1.5 HP

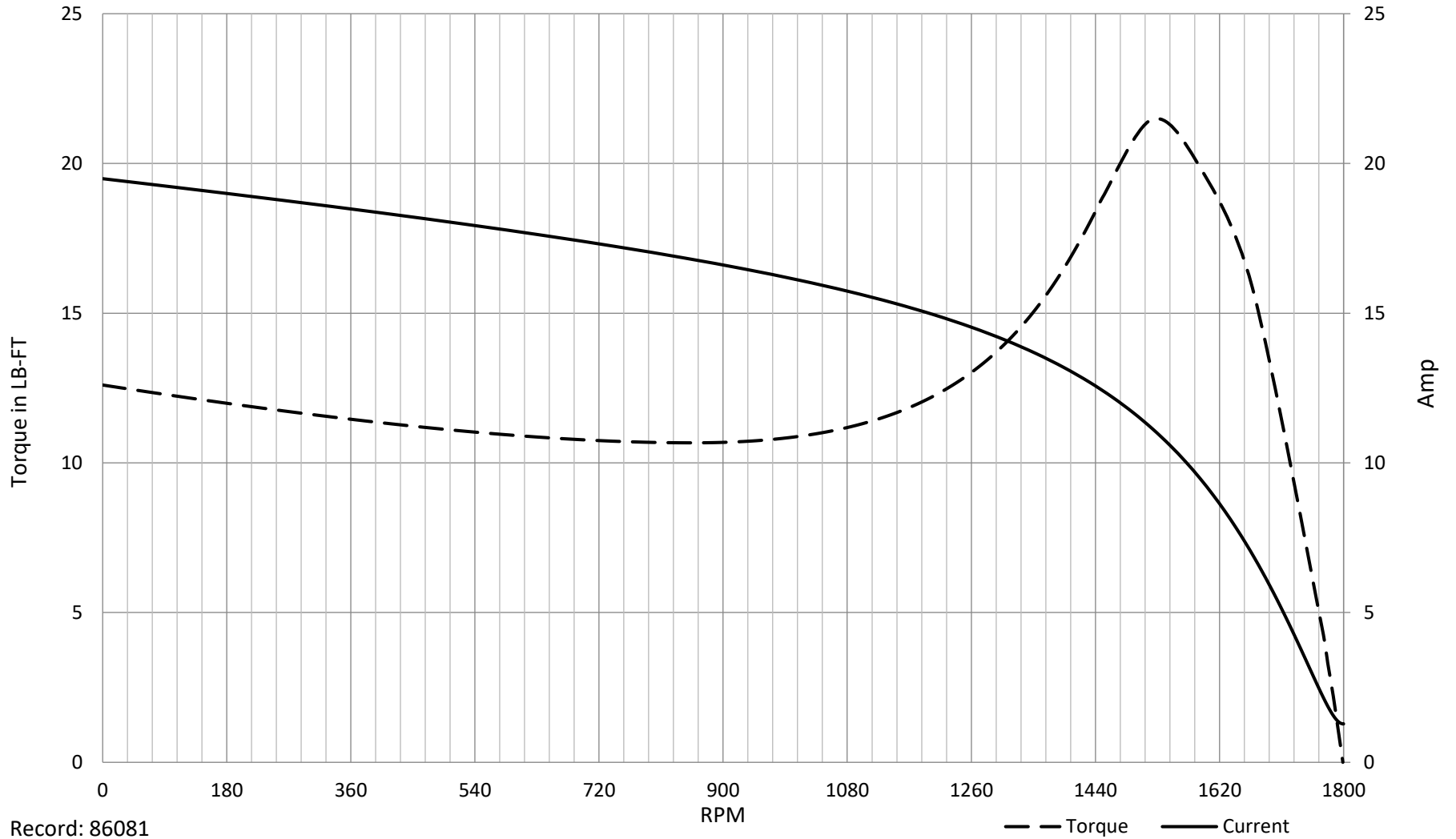
% of Rated Load	NL	25	50	75	100	125	150	SF
Power Factor	7	32	50	62	71	77	80	75
Efficiency	0	74.1	84.6	87.7	88.8	88.1	84.4	88.4
Speed	1799	1792	1785	1777	1769	1760	1748	1764
Line amperes	1.4	1.5	1.66	1.92	2.23	2.6	3.1	2.45

SPEED TORQUE / SPEED CURRENT CURVES

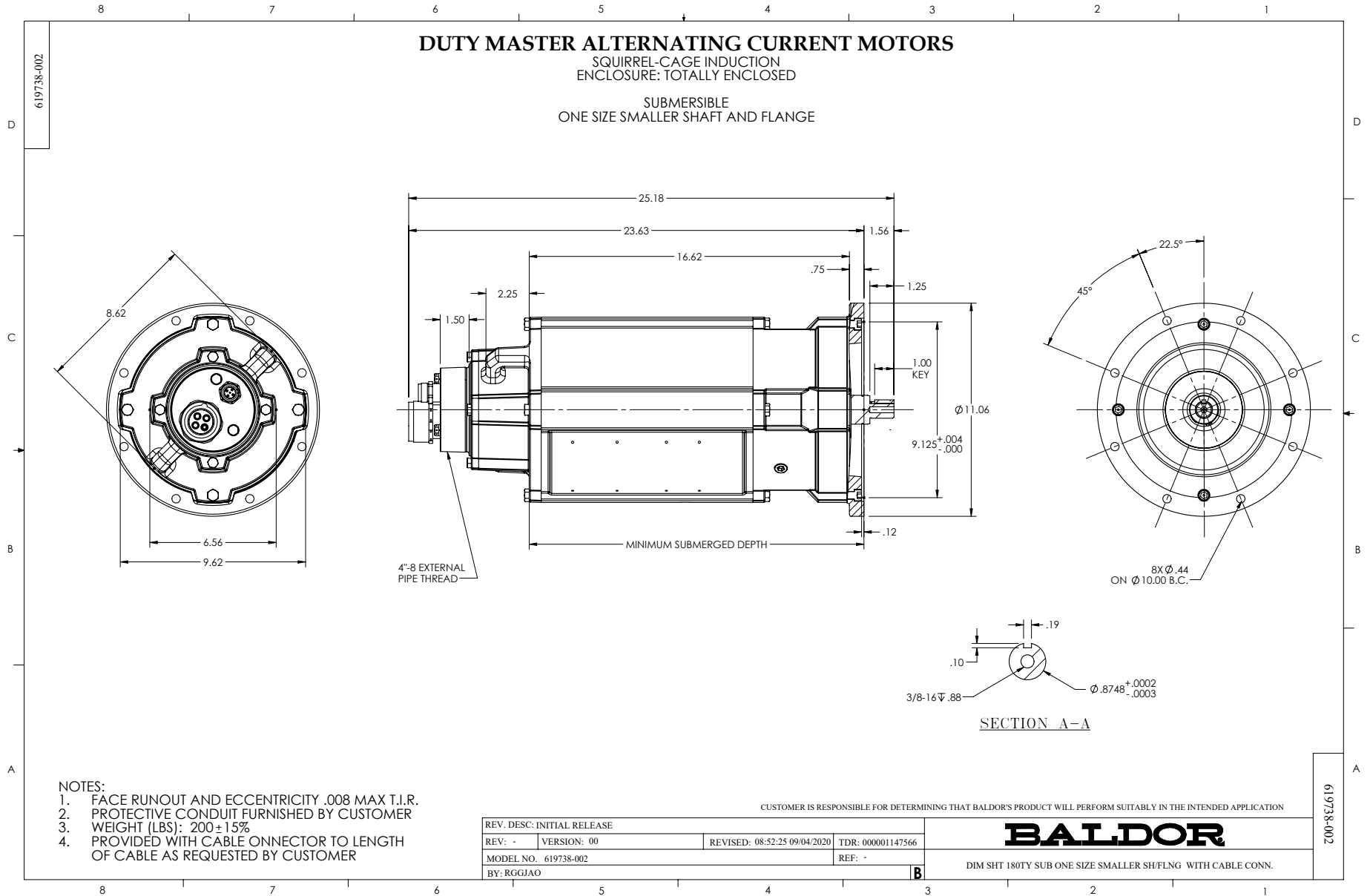


06WGA0014

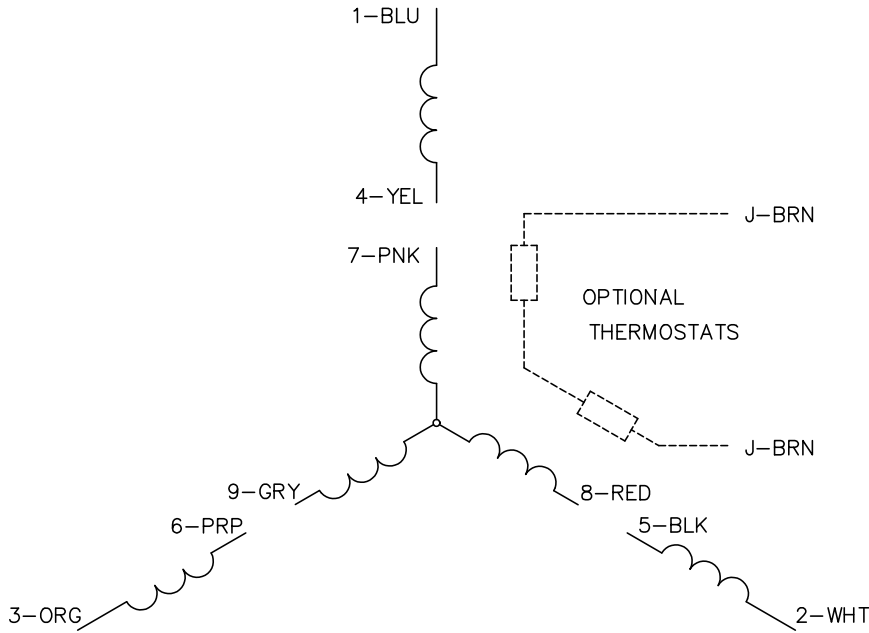
1.5HP 460V 60HZ



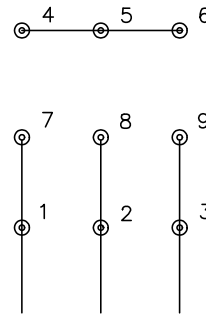
Record: 86081



CD0005

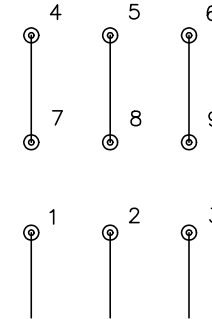


LOW VOLTAGE
(2Y)



LINE

HIGH VOLTAGE
(1Y)



LINE

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.

CD0005

REV. DESC: REVISE TO SHOW OPTIONAL COLORS

REV. LTR: E BY: JLP REVISED: 01/19/99 10:15 TDR: 0171435

500000

FILE: AAA00005140

MDL: -

MTL: -

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS