

ABB BALDOR RELIANCE III

Customer information packet

SUM70104SM

1HP, 1770RPM, 3PH, 60HZ, 180TY, XPNV, V1

Class - CLI GP C,D

Division - Not Applicable

Specifications

Enclosure	XPNV
Frame	180TY
Frame Material	Iron
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

Part Detail

Revision	C
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	85864
Layout	619738-002
Eff. date	12-10-2024
CD Diagram	
Poles	///
Leads	
Proprietary	False
Created date	10-22-2021

Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Winding	Normally Closed Thermostat

Nameplate

000613007RT									
CAT.NO.	SUM70104SM			SPEC NO.	S18-CWS0-0002				
SER.NO.				FRAME SIZE		180TY			
	HP	RPM	VOLTS	AMPS	HZ		S.F.		
	1	1770	230/460	3.6/1.8		6-60	1.00		
	1	1770	230/460	3.6/1.8		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.	SUM70104SM		SPEC NO.	S18-CWS0-0002		
SER.NO.			FRAME SIZE	180TY		
	HP	RPM	VOLTS	AMPS	HZ	S.F.
	1	1770	230/460	3.6/1.8	6-60	1.00
	1	1770	230/460	3.6/1.8	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					

Record #85864 - Typical performance - not guaranteed values

Winding	06WGA0013
Type	0620M
Enclosure	XPNV

Nameplate data

Rated Output	1		
Volts	230/460		
Full Load Amps	3.6/1.8		
R.P.M.	1770		
Hz	60	Phase	3
KVA Code	M		
S.F.	1.15		
NEMA Nom. Eff.	85.5	Power Factor	69
Duty	15 MIN		
S.F. Amps			

460 V, 60 Hz:

High Voltage Connection

Full Load Torque	2.98 LB-FT
Start Configuration	direct on line
Breakdown Torque	19.9 LB-FT
Pull-up Torque	7.1 LB-FT
Locked-rotor Torque	12.1 LB-FT
Starting Current	17.5 A
No-load Current	1.37
Line-line Res. @ 25°C	9.3 Ω
Temp. Rise @ Rated Load	2°C
Temp. Rise @ S.F. Load	3°C
Locked-rotor Power Factor	48.7
Rotor inertia	0.186 lb-ft ²

Load Characteristics 460 V, 60 Hz, 1 HP

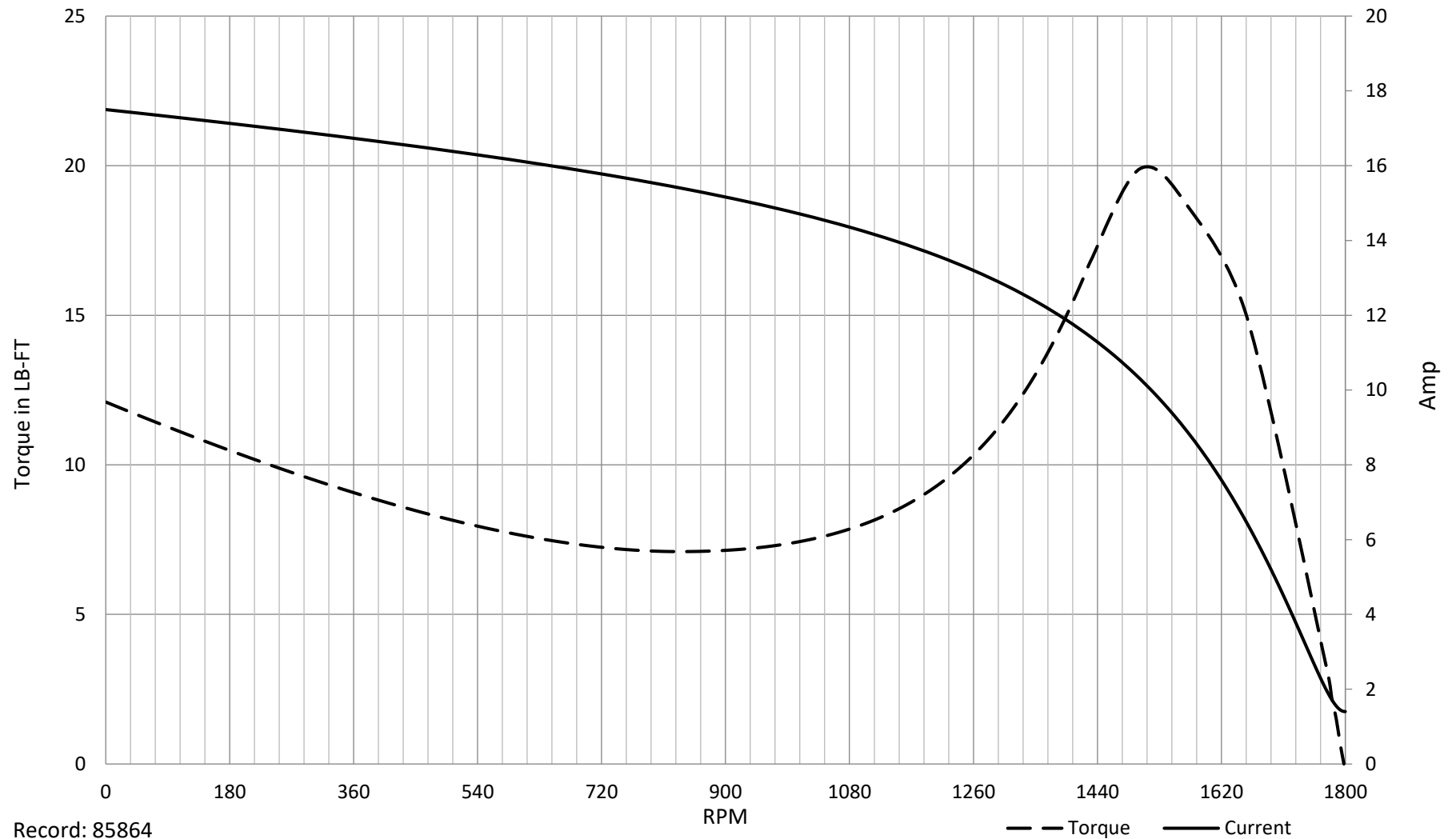
% of Rated Load	NL	25	50	75	100	125	150	SF
Power Factor	8	25	40	51	60	67	72	73
Efficiency	0	67.9	79.2	83.9	85.6	86.4	86.5	85.6
Speed	1798	1792	1787	1780	1775	1767	1760	1763
Line amperes	1.37	1.41	1.52	1.66	1.83	2.03	2.27	1.72

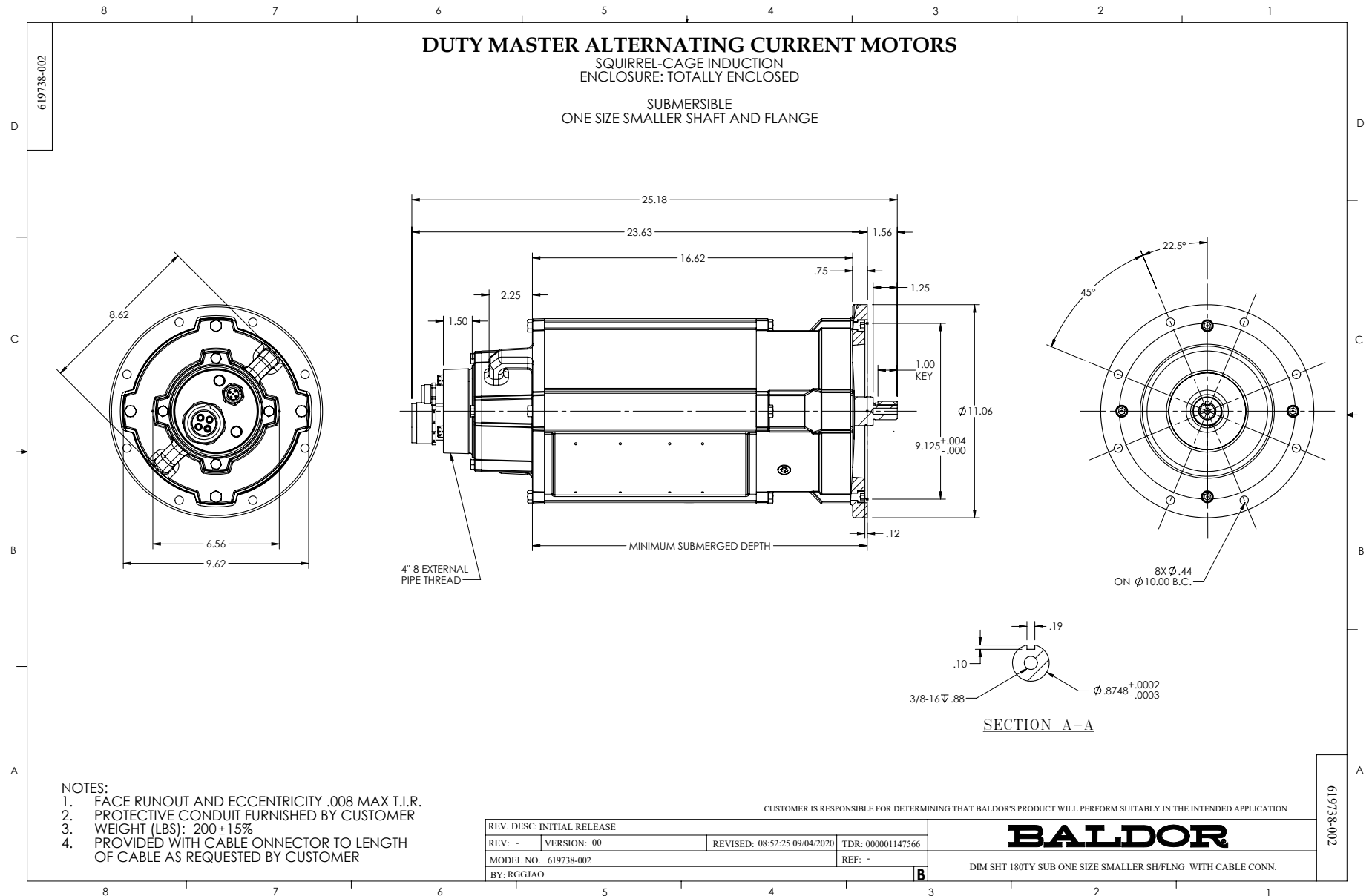
SPEED TORQUE / SPEED CURRENT CURVES



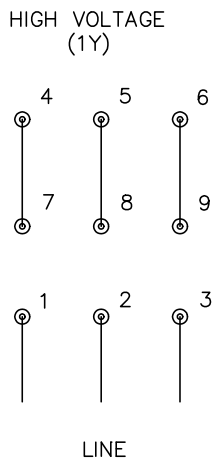
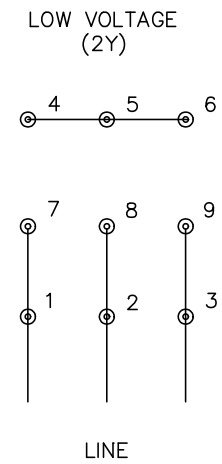
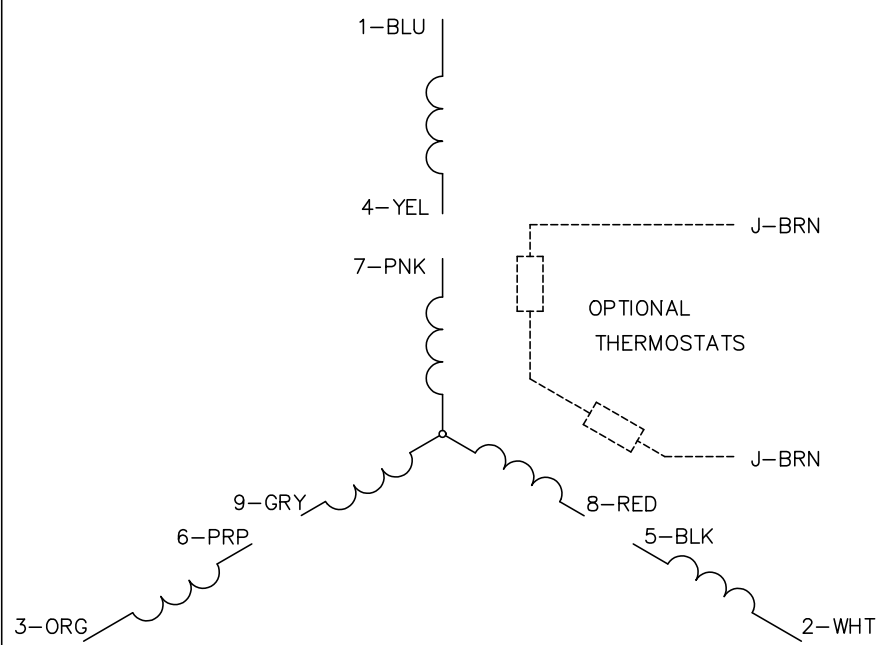
06WGA0013

1HP 460V 60HZ





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
S00000		FILE: AAA00005140	MDL: -
		MTL: -	

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

CD0005