

# ABB BALDOR RELIANCE III

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## Customer information packet

### SUM70304SM

3HP, 1755RPM, 3PH, 60HZ, 180TY, XPNV, V1

Class - CLI GP C,D

Division - Not Applicable

**Specifications**

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

**Part Detail**

<b>Revision</b>	B
<b>Type</b>	AC
<b>Mech. spec.</b>	
<b>Base</b>	
<b>Status</b>	PRD/A
<b>Elec. spec.</b>	86079
<b>Layout</b>	619738-002
<b>Eff. date</b>	12-10-2024
<b>CD Diagram</b>	
<b>Poles</b>	///
<b>Leads</b>	
<b>Proprietary</b>	False
<b>Created date</b>	10-27-2021

**Speed Code**

Single Speed

**Starting Method**

Direct on line

**Thermal Device - Winding**

Normally Closed Thermostat

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**Nameplate**

**000613007MS**

<b>CAT.NO.</b>	SUM70304SM	<b>SPEC NO.</b>	S18-CWS0-0012				
<b>SER.NO.</b>		<b>FRAME SIZE</b>	180TY				
	<b>HP</b>	<b>RPM</b>	<b>VOLTS</b>	<b>AMPS</b>	<b>HZ</b>	<b>S.F.</b>	
	3	1755	230/460	8.6/4.3	6-60	1.00	
	3	1755	230/460	8.6/4.3	60	1.15	
<b>CONSTANT HP RPM</b>		@	<b>HZ</b>	<b>CODE</b>	J		
<b>TYPE</b>	P	<b>INSUL.CLASS</b>	F	<b>TORQUE</b>	10:1_VT	<b>DESIGN</b>	B
<b>D.E. BRG.</b>	50BC02JPP30A	<b>ENCL</b>	TENV	<b>DUTY</b>	15 MIN	<b>PH</b>	3
<b>O.D.E. BRG.</b>	25BC02JPG30A	<b>MOTOR WEIGHT</b>		<b>AMB</b>	40		
	FINAL CONN VOLTAGE = 230 *15						
	MIN IN AIR ;SUB. IN SEWAGE /						
	WATER ONLY						

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**000613007RC**

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<b>CLASS I GROUP</b>	C D X	<b>NO.</b>	
<b>CLASS II GROUP</b>	X X X		
<b>OPERATING TEMP CODE</b>	T3C		

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**000692000MB**

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

**000613007MS**

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	<b>HP</b>	<b>RPM</b>	<b>VOLTS</b>	<b>AMPS</b>	<b>HZ</b>	<b>S.F.</b>
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	MIN IN AIR ;SUB. IN SEWAGE /					
	WATER ONLY					

**AC Induction Motor performance data**

Record #86079 - Typical performance - not guaranteed values

Winding	06WGA0018
Type	0636M
Enclosure	TENV

Nameplate data

Rated Output			3
Volts			230/460
Full Load Amps			8.4/4.2
R.P.M.			1760
Hz	60	Phase	3
KVA Code			K
S.F.			1.15
NEMA Nom. Eff.	90.2	Power Factor	75
Duty			15 MIN
S.F. Amps			

460 V, 60 Hz:

High Voltage Connection

Full Load Torque	8.99 LB-FT
Start Configuration	direct on line
Breakdown Torque	36.03 LB-FT
Pull-up Torque	17.84 LB-FT
Locked-rotor Torque	21.06 LB-FT
Starting Current	32.22 A
No-load Current	2.28
Line-line Res. @ 25°C	3.88 Ω
Temp. Rise @ Rated Load	33°C
Temp. Rise @ S.F. Load	41°C
Locked-rotor Power Factor	41.4
Rotor inertia	0.335 lb-ft <sup>2</sup>

Load Characteristics 460 V, 60 Hz, 3 HP

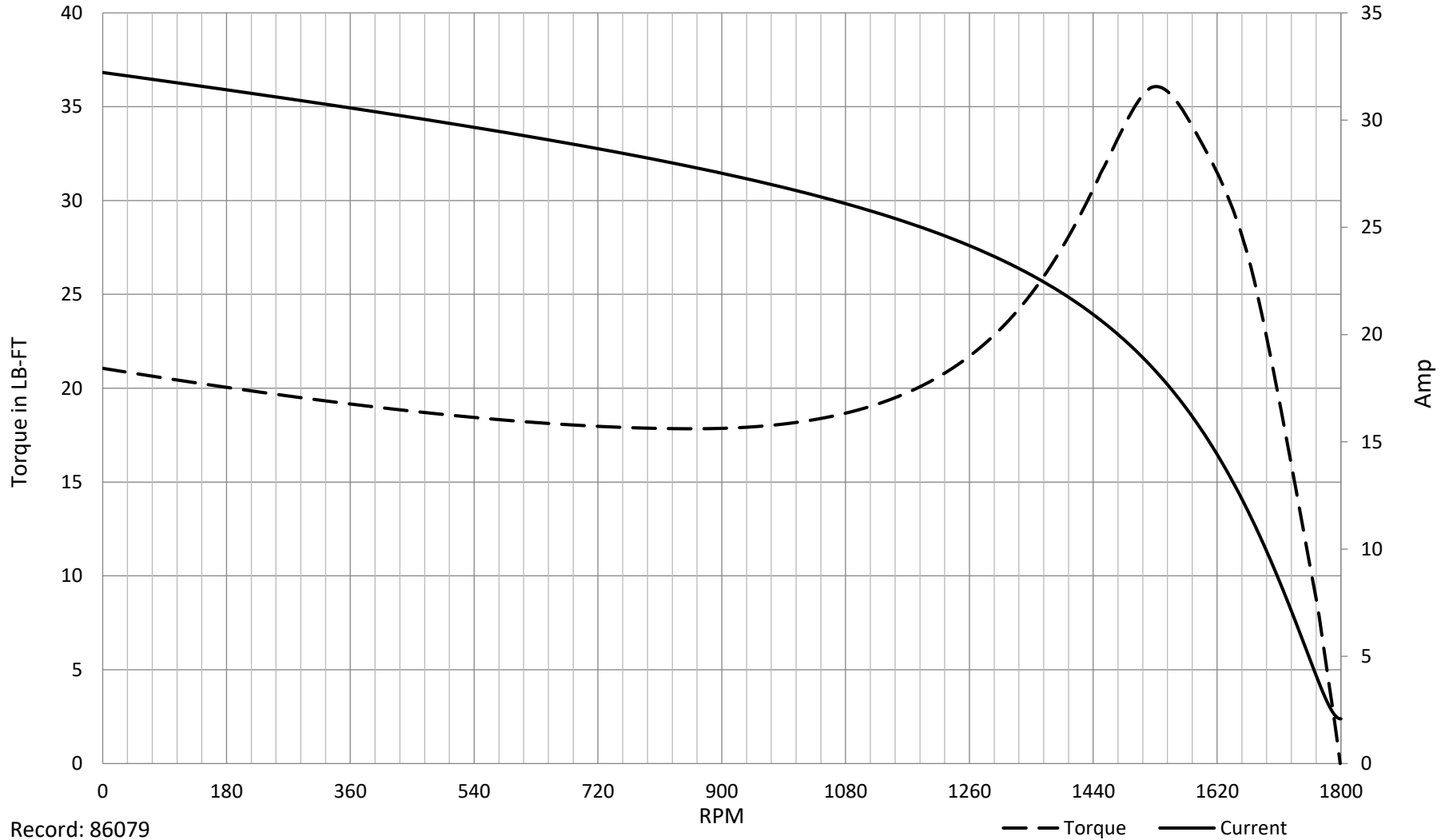
% of Rated Load	NL	25	50	75	100	125	150	SF
Power Factor	6	36	56	68	75	80	82	78
Efficiency	0	78.8	87.6	89.8	90.2	88.8	84.6	89.4
Speed	1799	1791	1782	1773	1763	1752	1738	1756
Line amperes	2.28	2.49	2.88	3.48	4.17	4.96	6.02	4.64

**SPEED TORQUE / SPEED CURRENT CURVES**

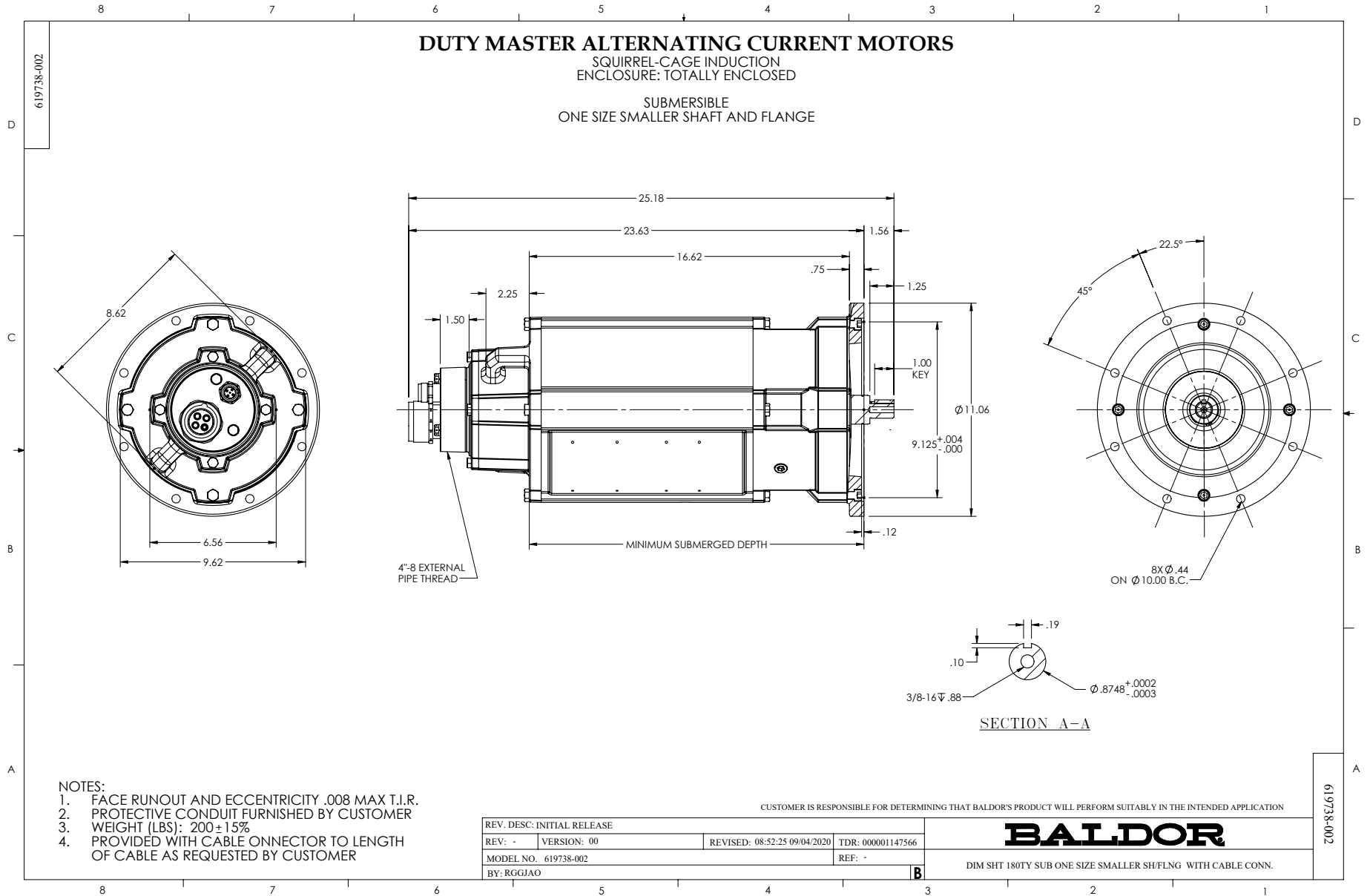


06WGA0018

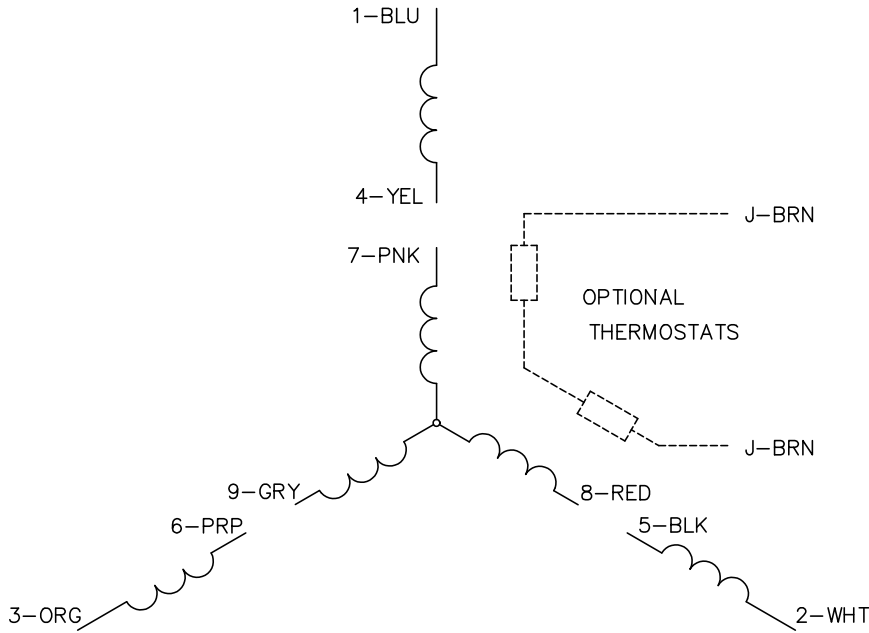
3HP 460V 60HZ



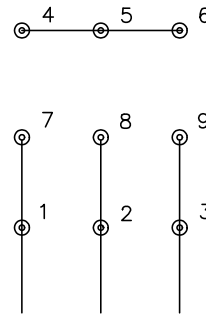
Record: 86079



CD0005

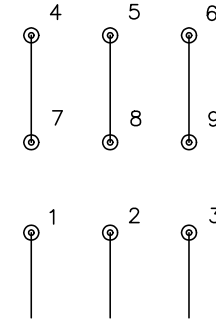


LOW VOLTAGE  
(2Y)



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