

# ABB BALDOR RELIANCE III

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## Customer information packet

### SUM70754

7.5HP, RPM, 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>	H
<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>	1.250 IN
<b>Shaft Rotation</b>	Reversible
<b>Shaft Slinger Indicator</b>	No Slinger

**Part Detail**

<b>Revision</b>	E
<b>Type</b>	AC
<b>Mech. spec.</b>	
<b>Base</b>	
<b>Status</b>	PRD/A
<b>Elec. spec.</b>	85768
<b>Layout</b>	619738-001
<b>Eff. date</b>	12-16-2024
<b>CD Diagram</b>	
<b>Poles</b>	///
<b>Leads</b>	
<b>Proprietary</b>	False
<b>Created date</b>	10-25-2021

<b>Speed Code</b>	Single Speed
<b>Starting Method</b>	Direct on line
<b>Thermal Device - Winding</b>	Normally Closed Thermostat

**Nameplate**

**000613007MS**

<b>CAT.NO.</b>	SUM70754	<b>SPEC NO.</b>	S18-CWS0-0006			
<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>
	7.5	1745	230/460	22.2/11.1	6-60	1.00
	7.5	1745	230/460	22.2/11.1	60	1.15
<b>CONSTANT HP RPM</b>		@	<b>HZ</b>	<b>CODE</b>	H	
<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

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	FINAL CONN VOLTAGE = 230 *15					
	MIN IN AIR ;SUB. IN SEWAGE /					
	WATER ONLY					

**AC Induction Motor performance data**

Record #85768 - Typical performance - not guaranteed values

Winding	36WGA0034
Type	3634M
Enclosure	PART

Nameplate data

Rated Output			7.5
Volts			230/460
Full Load Amps			22.2/11.1
R.P.M.			1745
Hz	60	Phase	3
KVA Code			H
S.F.			1.15
NEMA Nom. Eff.	91.7	Power Factor	67
Duty			15 MIN
S.F. Amps			

460 V, 60 Hz:

High Voltage Connection

Full Load Torque	22.68 LB-FT
Start Configuration	direct on line
Breakdown Torque	71.3 LB-FT
Pull-up Torque	38.66 LB-FT
Locked-rotor Torque	45.66 LB-FT
Starting Current	65.32 A
No-load Current	7.43
Line-line Res. @ 25°C	2.17 Ω
Temp. Rise @ Rated Load	80°C
Temp. Rise @ S.F. Load	123°C
Locked-rotor Power Factor	50.7
Rotor inertia	0.317 lb-ft <sup>2</sup>

Load Characteristics 460 V, 60 Hz, 7.5 HP

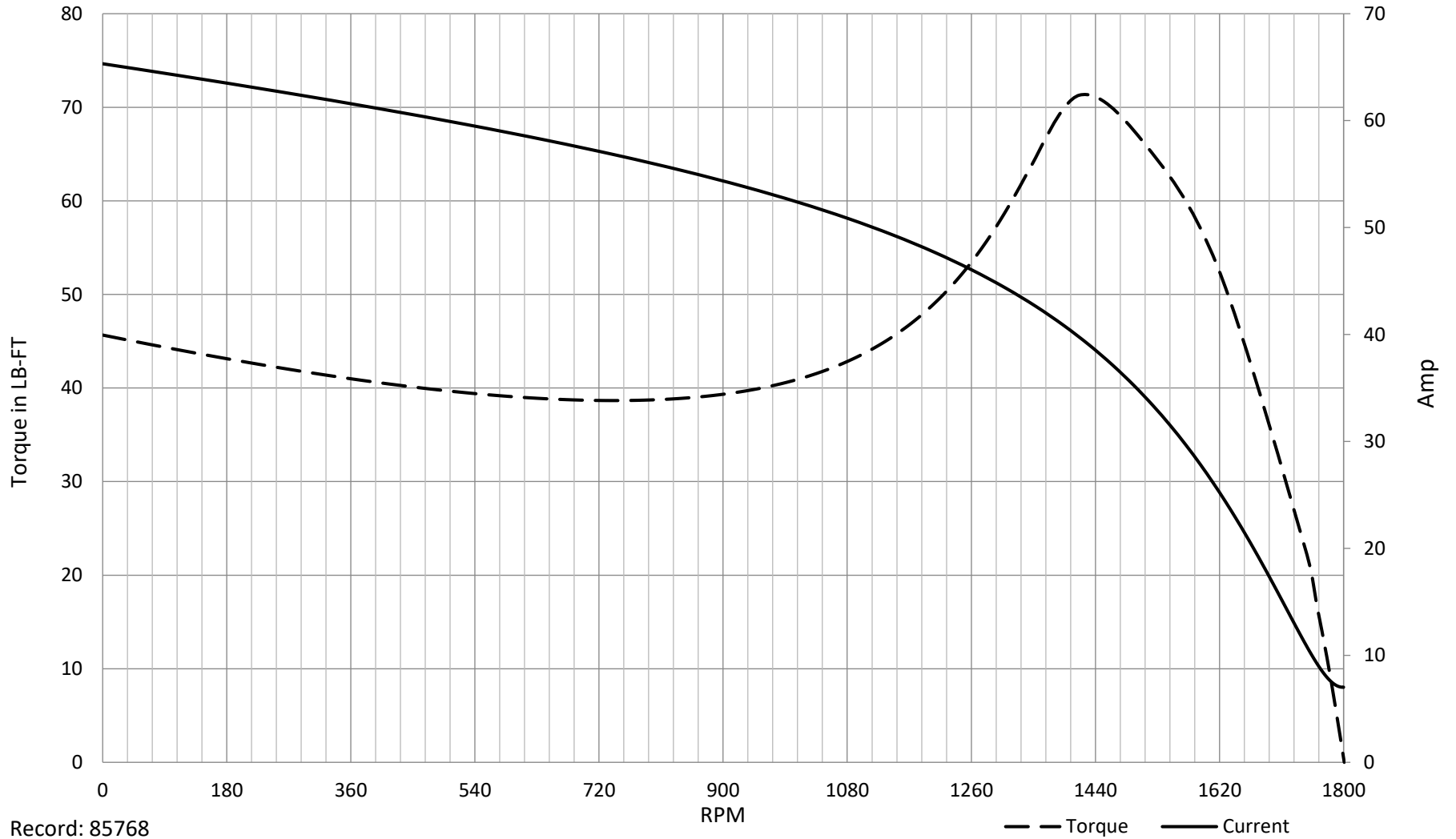
% of Rated Load	NL	25	50	75	100	125	150	SF
Power Factor	3	24	44	58	67	73	77	71
Efficiency	0	96.6	98.7	97.2	94.5	91.6	85.3	92.8
Speed	1801	1789	1776	1761	1745	1727	1703	1734
Line amperes	7.43	7.49	8.13	9.43	11.09	13.19	16.16	12.3

**SPEED TORQUE / SPEED CURRENT CURVES**

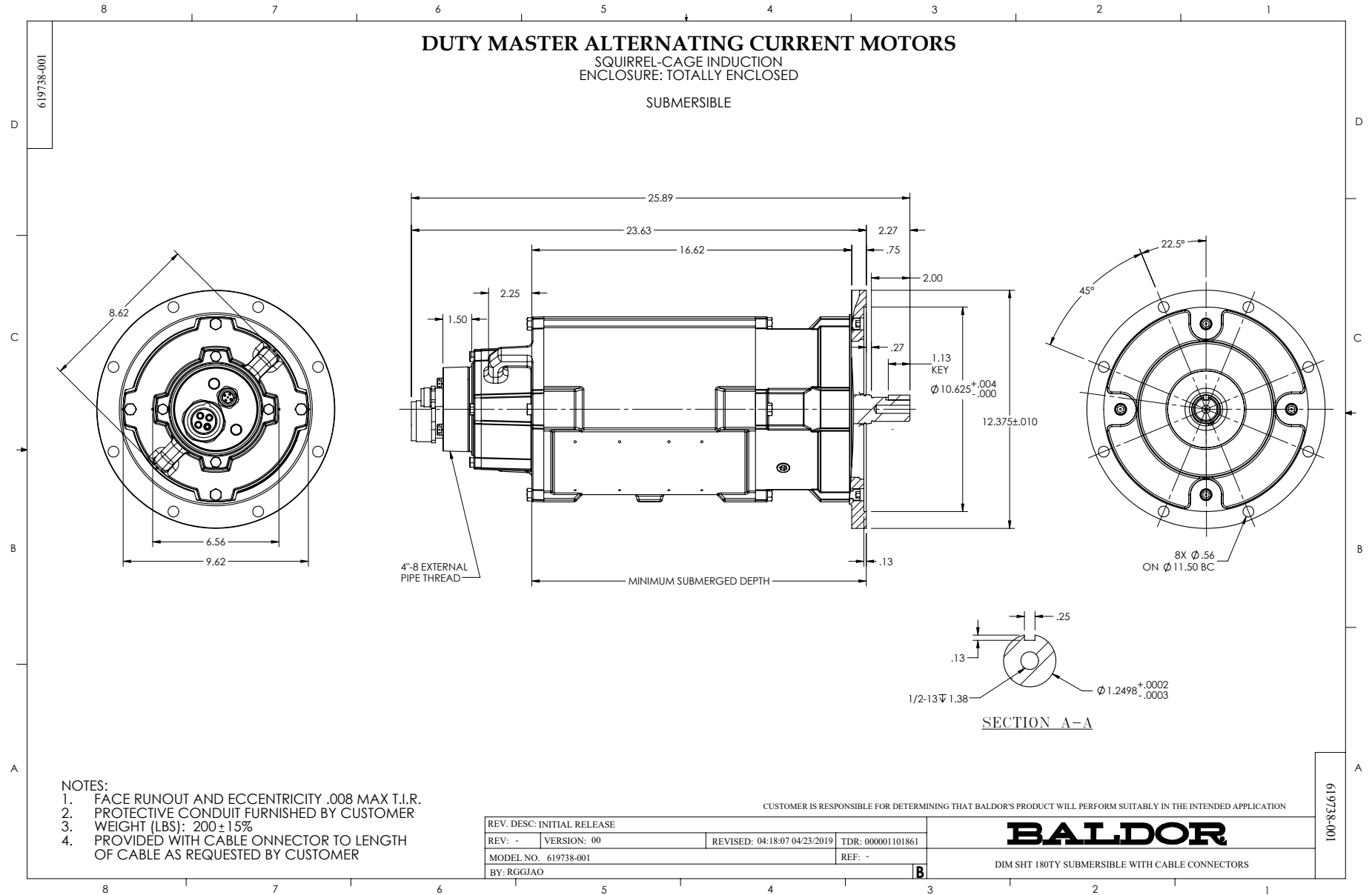


36WGA0034

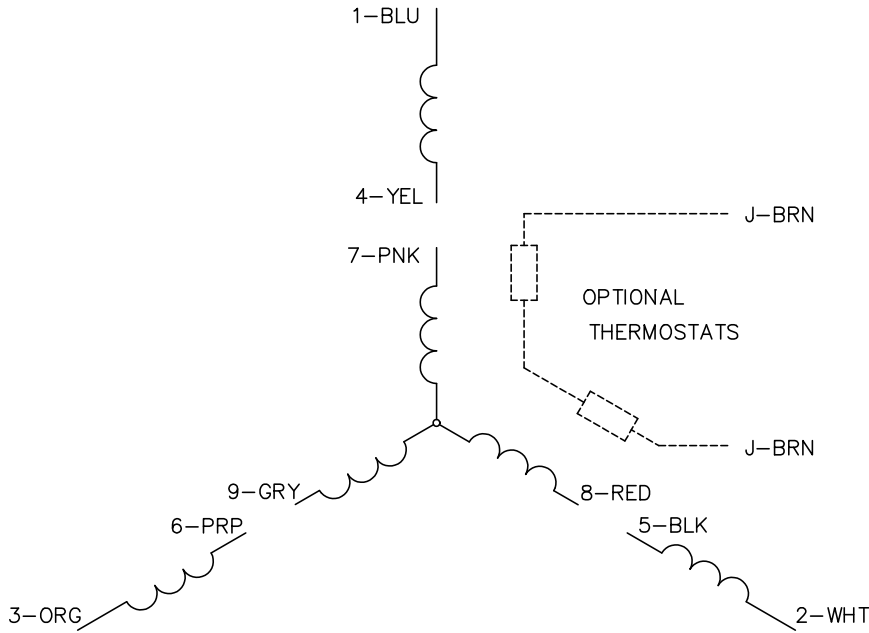
7.5HP 460V 60HZ



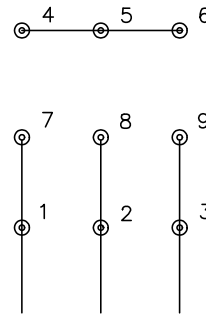
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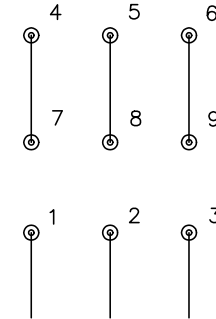
CD0005



LOW VOLTAGE  
(2Y)



HIGH VOLTAGE  
(1Y)



**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
S00000		FILE: AAA00005140	MDL: -
		MTL: -	

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS