

ABB BALDOR RELIANCE III

Customer information packet

SUM70504SM-4

5HP, 1755RPM, 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	J
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.	86086
Layout	619738-002
Eff. date	07-21-2025
CD Diagram	
Poles	///
Leads	
Proprietary	False
Created date	10-25-2021

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

Nameplate

000613007MS									
CAT.NO.	SUM70504SM-4			SPEC NO.	S18-CWS0-0008				
SER.NO.					FRAME SIZE	180TY			
CONSTANT HP RPM	HP	RPM	VOLTS	AMPS	HZ		S.F.		
	5	1755	230/460	13.8/6.9		6-60	1.00		
	5	1755	230/460	13.8/6.9		60	1.15		
	@			HZ	CODE	J			
	TYPE	P	INSUL.CLASS		F	TORQUE	10:1_VT		DESIGN
D.E. BRG.	50BC02JPP30A			ENCL	TENV	DUTY	15 MIN	PH	3
O.D.E. BRG.	25BC02JPG30A			MOTOR WEIGHT			AMB	40	
	FINAL CONN VOLTAGE = 460 *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

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AC induction motor performance data

Record #86086 - Typical performance - not guaranteed values

Winding	06WGA0017
Type	0640M
Enclosure	TENV

Nameplate data

Rated Output	5		
Volts	230/460		
Full Load Amps	13.8/6.9		
R.P.M.	1755		
Hz	60	Phase	3
KVA Code	J		
S.F.	1.15		
NEMA Nom. Eff.	89.5	Power Factor	76
Duty	15 MIN		
S.F. Amps			

460 V, 60 Hz:

High Voltage Connection

Full Load Torque	14.92 LB-FT
Start Configuration	direct on line
Breakdown Torque	53.26 LB-FT
Pull-up Torque	26.84 LB-FT
Locked-rotor Torque	31.7 LB-FT
Starting Current	47.59 A
No-load Current	3.62
Line-line Res. @ 25°C	2.57 Ω
Temp. Rise @ Rated Load	56°C
Temp. Rise @ S.F. Load	69°C
Locked-rotor Power Factor	41.4
Rotor inertia	0.372 lb-ft²

Load Characteristics 460 V, 60 Hz, 5 HP

% of Rated Load	NL	25	50	75	100	125	150	SF
Power Factor	5	36	57	68	76	80	82	78
Efficiency	0	81	88.6	90.2	89.8	88.6	84.1	89.1
Speed	1799	1790	1780	1770	1758	1745	1729	1750
Line amperes	3.62	3.96	4.65	5.68	6.87	8.26	10.11	7.7

SPEED TORQUE / SPEED CURRENT CURVES



06WGA0017

5HP 460V 60HZ





