

3LM05-Series - 60 Hz

Optional
Heavy-duty
Quick-connect
cords



Terminal block for internal wiring

Rotor shaft grounding brush
protects bearings during VFD
operation (3-phase models)

Upper deep groove ball bearing

Heavy-duty class 30 cast iron
motor housing

Press fit stator enhances heat
transfer allowing for cooler
motor temperatures

Protective powder coat finish

Buna-N O-rings seal all joints

Lower bearing double row
angular contact ball bearing

Bronze shaft bushing

MidTherm™ Cooling

Allows oil to be cooled by
pumped media

High-efficiency solids handling
monovane impeller Class 30
cast iron

SS lifting bale - sized for ease of use

Standard Quick-connect cords

All hardware 316 SS

Oil-filled motor chamber cools motor
and lubricates bearings

Inverter duty rated Class H insulation

NEMA® IE3 Premium Efficiency motor
construction

Stator locking pin prevents stator
movement

One piece 416 SS rotor shaft

Bearing locking ring eliminates axial
shaft movement

Upper (inner) seal - graphite impregnated
carbon on silicon carbide with Viton®
elastomers and SS components

Seal leak detection, 2-probe
sensor with resistor

Lower (outer) seal - silicon
carbide on silicon carbide
with Viton elastomers and SS
components (other options
available)

4" 150# ANSI® (DIN 100-PN10)
flange

ClearNotch™ Technology
Material cleanout slots

Serviceable impeller wear ring

Patent: See
www.LibertyPumps.com/LEP/patents

Model Number	3LM052A	3LM053A	3LM054A	3LM055A
HP	5	5	5	5
Volts	230	200/230*	460	575
Phase	1**	3	3	3
Hz	60	60	60	60
RPM	1750	1750	1750	1750
FLA	24.5	17.6/16	8.0	6.5
SFA	28	21.2/19.2	9.4	7.8
LRA	129	120	59.3	38.9
Max kW Input	5.4	5.2	5.2	5.2
NEMA Code	—	A	A	A
Service Factor	1.3	1.3	1.3	1.3
Power Factor (%)	98	80	80	80
KVA Code	F	M	M	K
Motor Efficiency @ Full Load (%)	85.6	89.5	89.5	88.7
Std Impeller Diameter (in)	7.25	7.25	7.25	7.25
Shut-Off Head w/Std Impeller (ft)	54	54	54	54
Max Usable Head w/Std Impeller (ft)	46	46	46	46
Min Head w/Std Impeller (ft)	12	12	12	12
Max Flow @ Min Head (GPM)	630	630	630	630
Power Cord Type & Diameter	Type W, 1 in	SOOW, 0.72 in	SOOW, 0.72 in	SOOW, 0.72 in

* System voltages: 208 and 240 volts with utilization voltages: 200 and 230 volts. These pumps are able to be rewired to 460 volts in the field.

** Single-phase motors require capacitors. Liberty Pumps control panel or capacitor kits are recommended for proper operation and warranty. Refer to "Control Panel" section.

Motor Insulation Class	H 180°C
Impeller Type	Precision Balanced Monovane
Impeller Material	Class 30 Cast Iron
Control Cord Type & Diameter	18/5 SOOW, 0.375 in
Power Cord Length (Options)	35, 50, 100 ft
Standard Quick-connect Cords	Standard
Heavy-duty Quick-connect Cords	Optional
Upper (Inner) Seal Material	Graphite Impregnated Carbon - Rotating Silicon Carbide - Stationary Viton Elastomers
Lower (Outer) Seal Material (Standard)	Silicon Carbide on Silicon Carbide Viton Elastomers
Lower (Outer) Seal Material (Optional)	Tungsten Carbide on Tungsten Carbide Viton Elastomers
Max Water Temp for Continuous Duty	40°C
Min Fluid Level for Continuous Operation	Motor Housing Fully Submerged
Fluid pH Range	4–10
Starts Per Hour	30
Shaft Material	416 Stainless Steel

Fastener Material	316 Stainless Steel
O-Ring Elastomers	Buna-N
Upper Bearing	Single Row Deep Groove
Lower Bearing	Double Row Angular Contact
Oil Type	ISO VG10 Turbine Oil
Max Submersion Depth	75 ft
Solids Handling	3 in
Discharge	Horizontal 4 in 150# ANSI (DIN 100-PN10)
Protective External Finish	Powder Coat
Seal Fail Detection	Dual Probe - 2 Wire with Resistor 200K ohm Resistance
Thermal Protection	1-phase - 2 Hermetically Sealed Thermostats 3-phase - 3 Hermetically Sealed Thermostats 125°C Opening Temperature 105°C Closing Temperature 3A @ 120VAC, 1A @ 240 VAC
Volute Material	Class 30 Cast Iron
Pump Weight	340 lbs (approx)
Certifications	CSA Certified to CSA and UL® Standards CAN/CSA C22.2 No. 108-14 ANSI/UL 778 6th Ed