INTEGRITY series™

Tuned for performance, stability and longevity.

GRI® PUMPS
A GORMAN-RUPP COMPANY
The Pump People®

Welcome to Gorman-Rupp Industries, home of "The Pump People!"

Thank you for considering Gorman-Rupp Industries and our Integrity Series Circulation Pumps.

Since 1953, GRI has served OEMs worldwide with custom-engineered pumps. When an off-the-shelf pump will not satisfy your pumping requirements, count on GRI Pumps to design a pump specific to your OEM application.

Quality begins at home. Located 10 miles south of Gorman-Rupp's corporate headquarters, the Gorman-Rupp Industries (GRI) division continues the legacy and unmatched quality that Gorman-Rupp has been known for since its founding by J.C. Gorman and Herb Rupp in 1933.

Made in the U.S.A. GRI designs and manufactures all products in our Bellville, Ohio, 98,000 square foot facility. Our vertical manufacturing combined with 92% of our suppliers residing in the U.S. allows GRI to proudly claim, "Made in the U.S.A!"

Our Pump Teams welcome the opportunity to discuss and answer any questions regarding your fluid pump opportunity. You can contact GRI through a phone call, email, or our website.

Call: 419-886-3001 (We answer the phone!)

Email: grisales@gripumps.com

Online: www.GRIpumps.com/contact

Again, thank you for considering GRI Pumps - we look forward to serving you!

MARKETS AND APPLICATIONS

GRI collaborates with OEM engineers who are unable to fulfill their unique pump specifications with an off-the-shelf solution and require a custom-engineered pump specific to their application.

Alternative Energy
Prepared for the technological challenges with energy efficient pumping solutions.

Appliances
Long lasting, highly efficient, chemically resistant fluid circulation and metering pumps.

Chillers & Coolers
Leak-free, long-life, quiet operation and low power consumption.

Food & Beverage
Efficient, quiet, long-lasting, compact, NSF and FDA compliant pumps and components.

General Industrial
Designed to handle harsh fluids and chemicals in demanding high-pressure applications.

HVAC
Compact, quiet, leak-free, and energy efficient designs.

Laboratory & Analytical Instrumentation
Accurate, leak-free, chemically resistant OEM pumps.

Medical
Custom OEM pumps with accurate, chemically resistant, contamination-free designs.

Printing & Image Reproduction
Long lasting, leak-free, and accurate metering capabilities.

Server & Electronics Cooling
Leak-free, long-lasting, efficient pumps trusted around the world to safely pump fluid in critical applications.

Transportation
Compact, lightweight, long-lasting, hydraulically efficient OEM pumps.

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INTEGRITY series™

Tuned for performance, stability and longevity.

Designed for the circulation and transfer of fluids, GRI's Integrity Series Pumps offer a flexible, safe and robust solution to moving fluid in critical high-tech OEM applications.

Equipped with an integrated brushless DC variable speed motor, with ranges of 12 to 48 volts, these seal-less, motor integrated centrifugal pumps incorporate the components into a compact, lightweight design. Fewer parts promote long life, quiet operation, and low power consumption.

Unlike its competition, GRI manufactures the pump's brushless DC motors, along with the majority of the components, in-house. Our vertical integration provides the ability to customize a pump's motor to an OEM's specific flow and pressure performance requirements.

Integrity Series Pumps are designed and manufactured specifically for OEM customization. If you don't immediately find a pump that meets your exact requirements, our dedicated Pump Team is ready to work with you in developing a solution specific to your application.

INTG1 Brushless-DC Magnetic Drive

12-36 VDC
Maximum System Pressure: 50 PSI
Maximum Flow: 3.0 GPM; 12.0 LPM
Maximum Head: 22.0 feet; 10.0 PSI

INTG3 Brushless-DC Magnetic Drive

12-24 VDC
Maximum System Pressure: 75 PSI
Maximum Flow: 8.85 GPM; 33.5 LPM
Maximum Head: 37.0 FT; 16.00 PSI

INTG5 Brushless-DC Magnetic Drive

12-24, 36, 48 VDC
Maximum System Pressure: 75 PSI
Maximum Flow: 10.0 GPM; 37.9 LPM
Maximum Head: 80.0 feet; 35.0 PSI

INTG7 Brushless-DC Magnetic Drive

12-48 VDC
Maximum System Pressure: 75 PSI
Maximum Flow: 22.0 GPM; 83.0 LPM
Maximum Head: 80.0 feet; 35.0 PSI

INTG8 Brushless-DC Magnetic Drive

12-48 VDC
Maximum System Pressure: 75 PSI
Maximum Flow: 39.0 GPM; 145.0 LPM
Maximum Head: 70.0 feet; 30.0 PSI

GRI PUMPS
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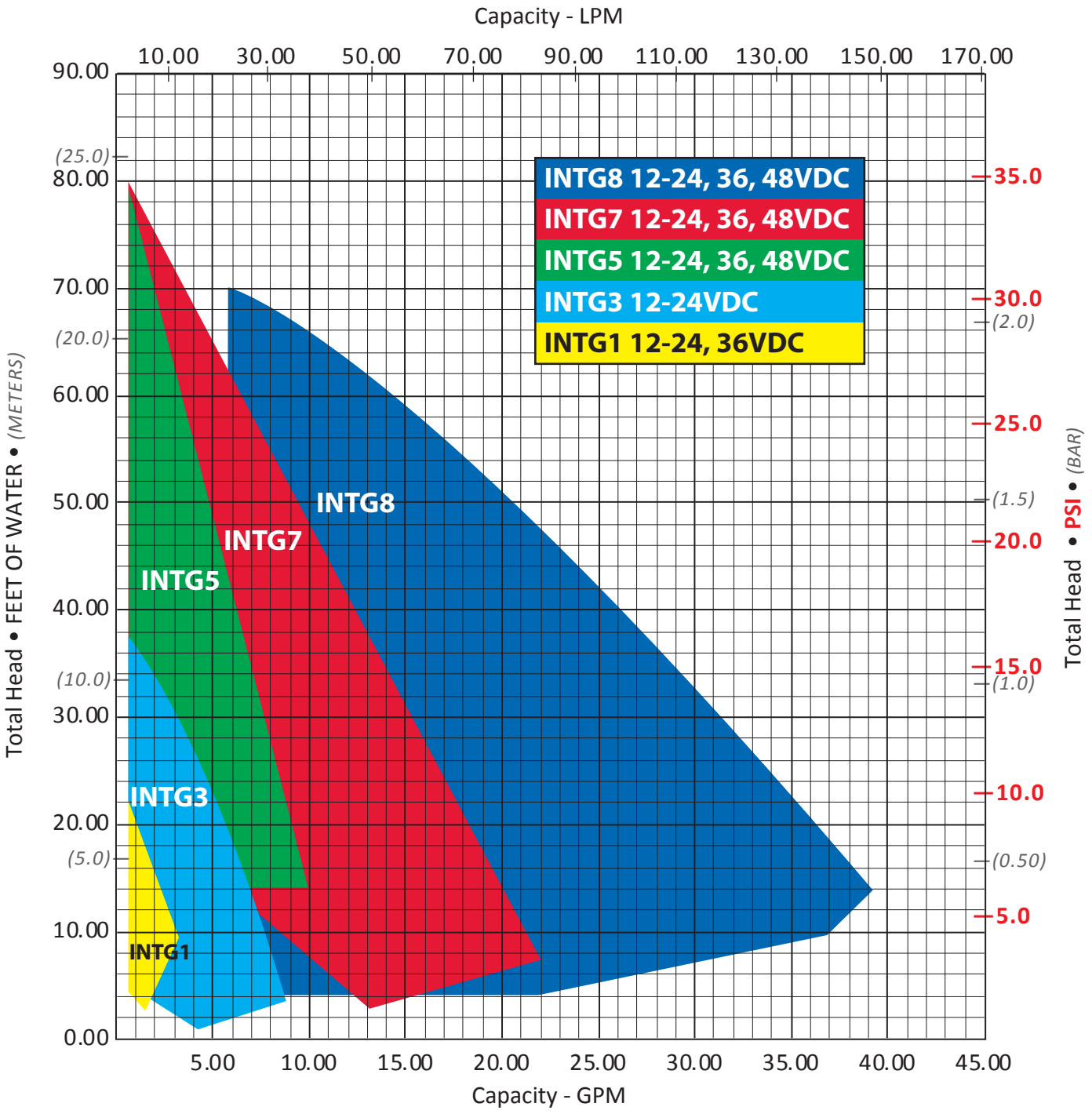
The Pump People

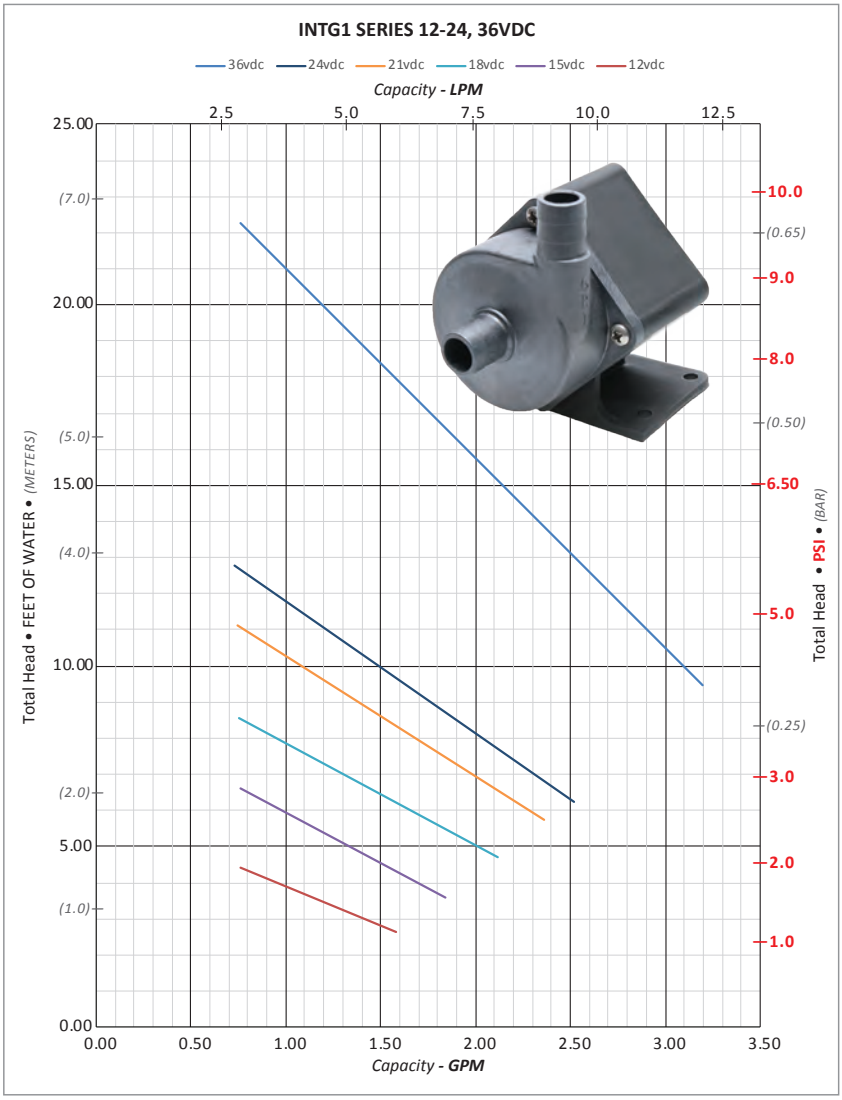
INTEGRITY series™

Integrated Magnetic Drive Circulation Pumps
Series Comparison



To protect the control board, each Integrity Series pump will be issued with a Maximum Power limit (Watts).
To stay within this limit, the recommended fuse size (Amps) will be based on the voltage supplied. (Watts = Voltage X Amps)

INTG1 Series •Maximum flow per voltage						
Voltage	**Flow (GPM)**	**Flow (L)**	**Ttl. Hd. (Ft)**	**Ttl. Hd. (PSI)**	**Ttl. Hd. (BAR)**	**Ttl. Hd. (M)**
36vdc	3.20	12.10	9.49	4.11	0.28	2.89
24vdc	2.52	9.55	6.26	2.71	0.19	1.91
21vdc	2.36	8.92	5.76	2.50	0.17	1.76
18vdc	2.12	8.02	4.73	2.05	0.14	1.44
15vdc	1.84	6.98	3.58	1.55	0.11	1.09
12vdc	1.58	5.98	2.65	1.15	0.08	0.81



Note: Testing performed in a controlled laboratory environment. Actual performance may vary (+) or (-) 10% from the information shown.

Do Not Run Pumps Dry. Pumps must be in a continuous flooded suction environment.

Specifications

Maximum System Pressure: 50 psi

Approximate Weight: .8 LBS (362.9 grams)

Ports: 1/2" MHB, 3/8" MPT
OEM Customization Available

Materials In Contact With Solution

Body: PPS	**Impeller Shaft:** Stainless Steel or Ceramic	
Impeller: PPS	**Housing:** PPS	**Static O-Ring:** EPDM, FKM

Motor Specifications

Motor: Integrated, Brushless DC

Supply Voltage: 12-36 VDC

Electronics Maximum Power: 18 Watts
To protect the control board, each Integrity Series pump will be issued with a Maximum Power limit (Watts). To stay within this limit, the recommended fuse size (Amps) will be based on the voltage supplied. (Watts = Voltage X Amps)

Control Options

- **Direct Supply Voltage:** Speed of the pump determined by the voltage supplied
- **Analog:** 0-5v DC signal
- **Tachometer:** Feedback option available

Maximum Fluid Rating Chart

Controller Position	Maximum Fluid Temp Rating
Separate from pump	Not Applicable
Within pump's housing	149°F (65°C)

Various factors influence the recommended maximum temperature rating. These factors play a role in determining the pump's life and applied warranties. In some applications, a higher maximum fluid temperature rating may be warranted.

Factors influencing maximum temperature rating include, but are not limited to:

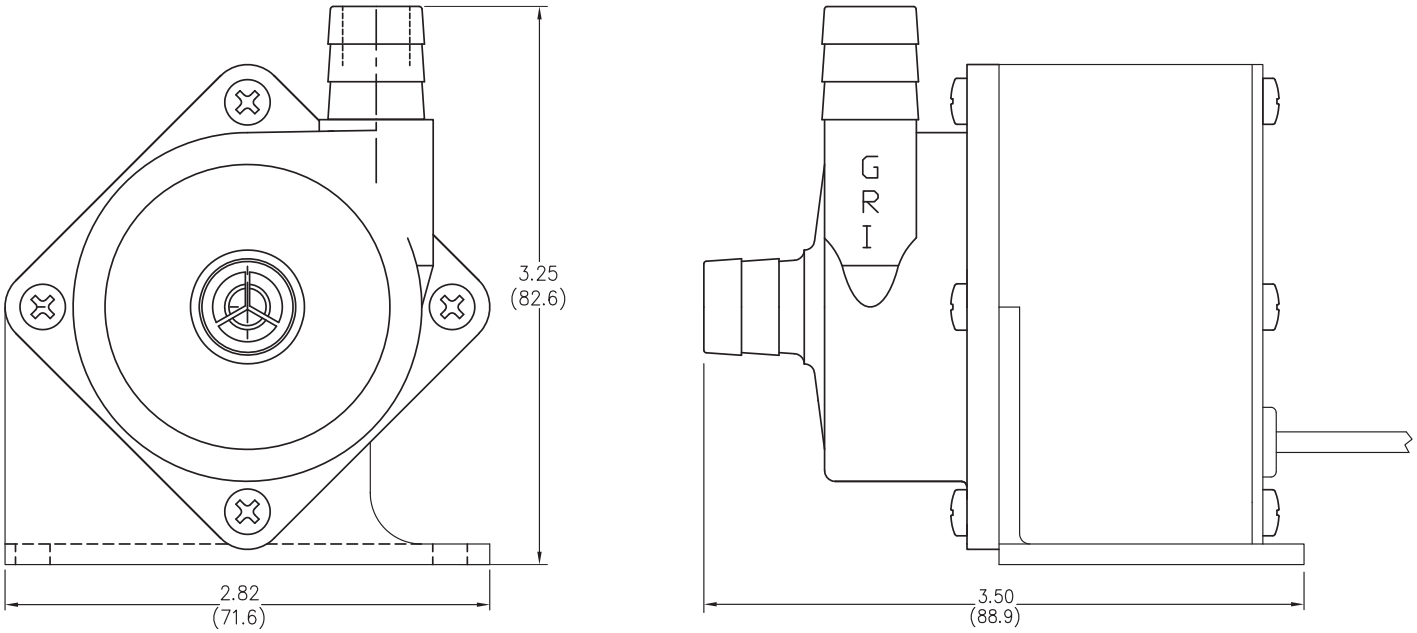
- Starting temperature of fluid in system
- Ambient temperature
- Required performance, application's specifications
- Run time

Optional Agency Approvals

UL778: Motor-Operated Water Pumps
NSF 61: Potable Water
NSF 169: Food Grade

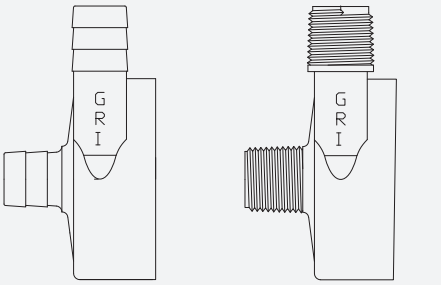
RoHS/REACH

Many GRI pumps are RoHS & REACH compliant. For declarations by specific model numbers, please contact GRI.



INTG1 Series Typical Dimensional Drawing.
Many other OEM port options and configurations are available. Please contact GRI to discuss.

Port Options

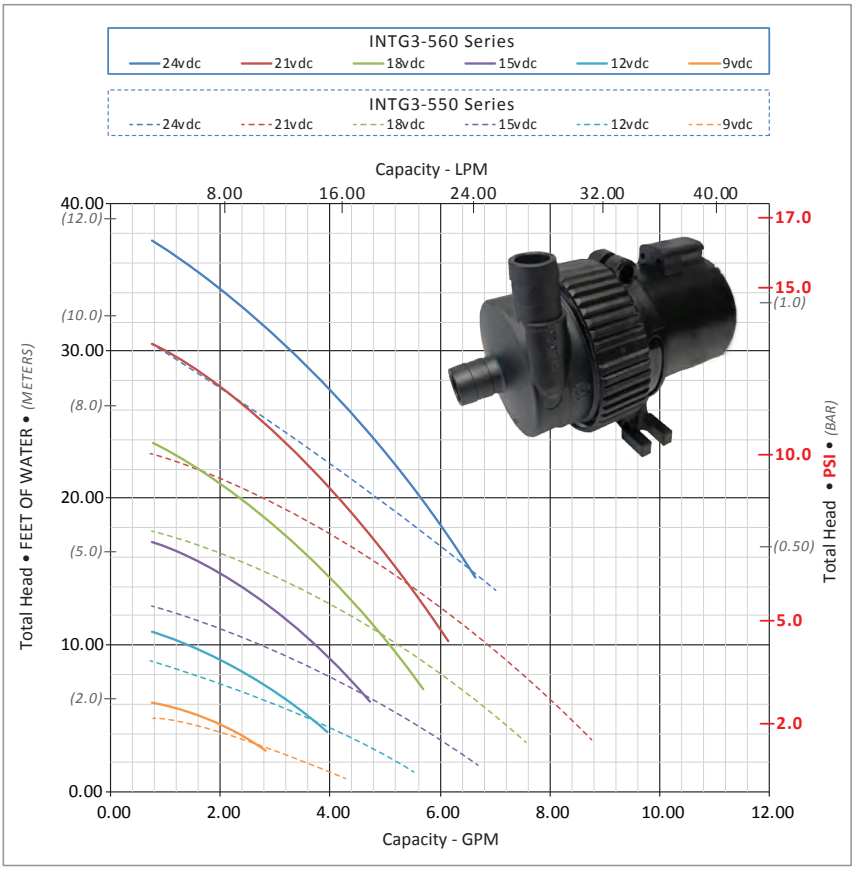


1/2"MHB 3/8"MPT

Integrity Series Pumps are designed and manufactured specifically for OEM customization. If you don't immediately find a pump that meets your exact requirements, our dedicated Pump Team is ready to work with you in developing a solution specific to your application.

INTG1 SERIES MODELS				Ports Inches	Max Flow GPM (LPM)	Max Head Ft. (PSI) (m)	Voltage
EPDM O-Ring		FKM O-Ring					
2 wire: (+), (-)	**3 wire:**(+), (-), Speed Control	**2 wire:** (+), (-)	**3 wire:** (+), (-), Speed Control				
INTG1S-280	INTG1S-380	INTG1S-281	INTG1S-381	1/2" MHB	2.50 (9.50)	12.80 (5.5) (3.90)	12-24
INTG1S-284	INTG1S-384	INTG1S-285	INTG1S-385	3/8" MPT			
Connectors: MHB = Male Hose Barb; MPT = Male Pipe Thread | **O-Ring Material:** EPDM = Ethylene Propylene Diene Monomer, FKM = Fluoroelastomer.							

Max Flow Per INTG3 Model Series							
Series	**Voltage**	**Flow (GPM)**	**Flow (L)**	**Ttl. Hd. (Ft)**	**Ttl. Hd. (PSI)**	**Ttl. Hd. (BAR)**	**Ttl. Hd. (M)**
INTG3-550 Series	21vdc	8.85	33.50	2.36	1.02	0.07	0.72
INTG3-560 Series	24vdc	6.70	25.40	14.87	6.45	0.44	4.53



Note: Testing performed in a controlled laboratory environment. Actual performance may vary (+) or (-) 10% from the information shown.

Do Not Run Pumps Dry. Pumps must be in a continuous flooded suction environment.

Specifications

Maximum System Pressure: 75 psi

Approximate Weight: .8 LBS (362.9 grams)

Ports: 1/2", 3/4" MHB, 3/8" MPT / OEM Customization Available

Materials In Contact With Solution

Body: PPS	**Housing:** PPS	**Static O-Ring:** EPDM, FKM
Impeller: PPS	**Pump Shaft:** Ceramic	

Motor Specifications

Motor: Integrated, Brushless DC

Supply Voltage: 12-24 VDC

Electronics Maximum Power: 60 Watts
To protect the control board, each Integrity Series pump will be issued with a Maximum Power limit (Watts). To stay within this limit, the recommended fuse size (Amps) will be based on the voltage supplied.
(Watts = Voltage X Amps)

Control Options

- **Direct Supply Voltage:** Speed of the pump determined by the voltage supplied
- **Analog:** 0-5v DC signal
- **Digital:** PWM
- **Tachometer:** Feedback option available

Maximum Fluid Rating Chart

Controller Position	Maximum Fluid Temp Rating
Separate from pump	225°F (107°C)
Within pump's housing	149°F (65°C)

Various factors influence the recommended maximum temperature rating. These factors play a role in determining the pump's life and applied warranties. In some applications, a higher maximum fluid temperature rating may be warranted.

Factors influencing maximum temperature rating include, but are not limited to:

- Starting temperature of fluid in system
- Ambient temperature
- Required performance, application's specifications
- Run time

Optional Agency Approvals

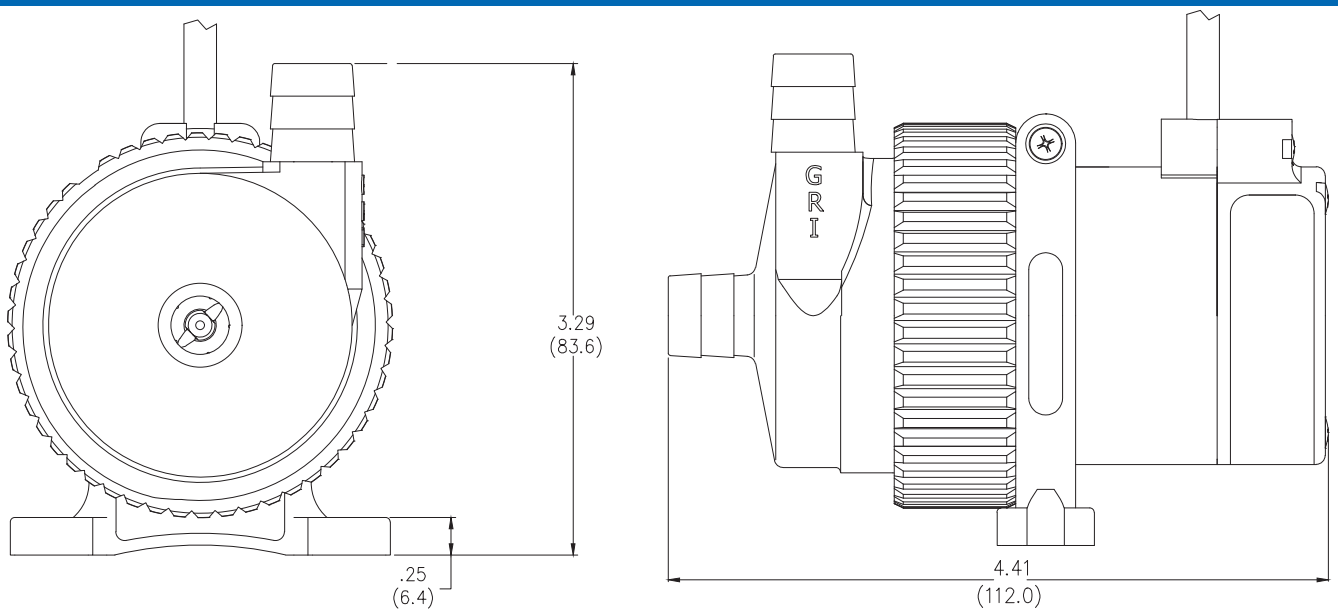
UL778: Motor-Operated Water Pumps
NSF61: Potable Water
NSF372: Lead Content

RoHS/REACH

Many GRI pumps are RoHS & REACH compliant. For declarations by specific model numbers, please contact GRI.

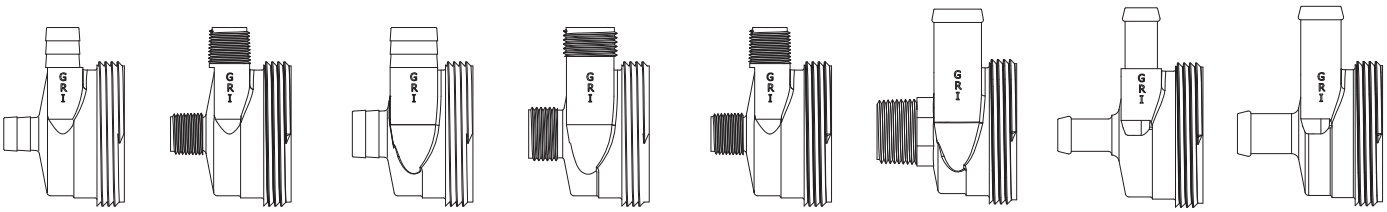
IP (Ingress Protection)

IP66: No ingress of dust, protection against powerful water jets.
IP67: No ingress of dust, protection against temporary water immersion.
IP68: No ingress of dust, protection against continuous water immersion.



INTG3 Series Typical Dimensional Drawing. Many other OEM port options and configurations are available. Please contact GRI to discuss.

Base Model Options



Suction: 1/2" MHB
Discharge: 1/2" MHB

Suction: 3/8" MPT
Discharge: 3/8" MPT

Suction: 3/4" MHB
Discharge: 3/4" MHB

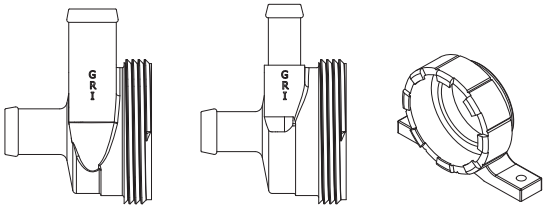
Suction: 7/8" 14UNF
Discharge: 7/8" 14UNF

Suction: 1/2" MHB
Discharge: 3/8" MHB

Suction: 3/4" MPT
Discharge: 3/4" MHB Tr

Suction: 1/2" MHB Tr
Discharge: 1/2" MHB Tr

Suction: 5/8" MHB Tr
Discharge: 5/8" MHB Tr



Suction: 3/4" MHB Tr
Discharge: 3/4" MHB Tr

Suction: 5/8" MHB Tr
Discharge: 1/2" MHB Tr

Neoprene Rubber Base

MHB = Male Hose Barb, MPT = Male Pipe Thread, Tr = Transportation

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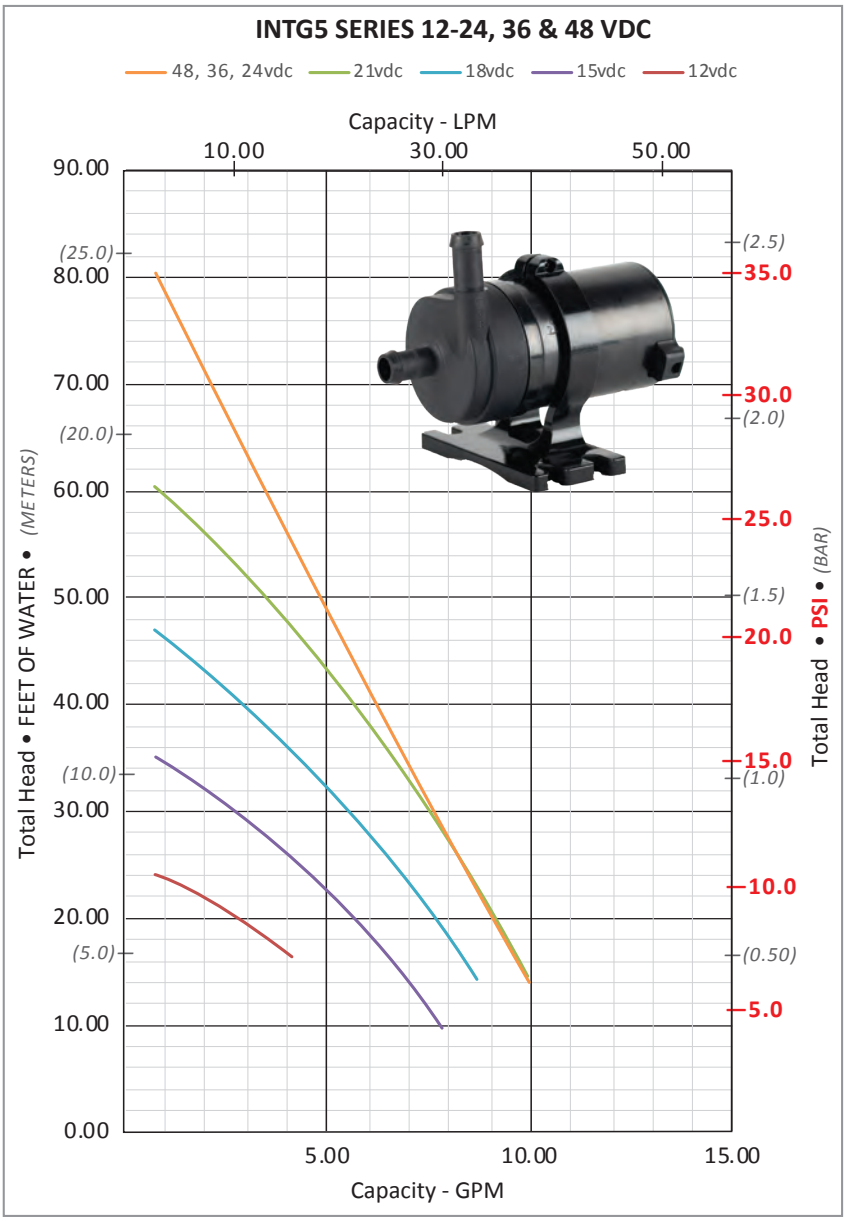
INTG3 SERIES MODELS				Ports Inches	Max Flow GPM (LPM)	Max Head Ft. (PSI) (m)	Voltage
EPDM O-Ring		FKM O-Ring					
2 wire: (+), (-)	**3 wire:** (+), (-), Speed Control	**2 wire:** (+), (-)	**3 wire:** (+), (-), Speed Control				
INTG3-550	INTG3-552	INTG3-551	INTG3-553	3/4 MHB	8.85 (33.5)	32.00 (13.9) (17.7)	12-24
INTG3-560	INTG3-562	INTG3-561	INTG3-563	1/2 MHB	6.70 (25.4)	37.00 (16.0) (11.3)	
INTG3-564	INTG3-566	INTG3-565	INTG3-567	3/8 MPT			

Connectors: MHB = Male Hose Barb; MPT = Male Pipe Thread | **O-Ring Material:** EPDM = Ethylene Propylene Diene Monomer, FKM = Fluoroelastomer.

INTG5 Series • Maximum flow per voltage						
Voltage	**Flow (GPM)**	**Flow (L)**	**Ttl. Hd. (Ft)**	**Ttl. Hd. (PSI)**	**Ttl. Hd. (BAR)**	**Ttl. Hd. (M)**
24 I 36 I 48vdc	10.00	37.85	14.41	6.25	0.43	4.39
21vdc	9.97	37.73	14.48	6.28	0.43	4.41
18vdc	8.80	33.31	13.93	6.04	0.42	4.25
15vdc	7.87	29.79	9.63	4.18	0.29	2.94
12vdc	4.13	15.63	16.33	7.08	0.49	4.98



Note: Testing performed in a controlled laboratory environment. Actual performance may vary (+) or (-) 10% from the information shown.

Do Not Run Pumps Dry. Pumps must be in a continuous flooded suction environment.

Specifications

Maximum System Pressure: 75 psi

Approximate Weight: 3.0 LBS (1361.0 grams)

Ports: 1/2" MHBT, 3/4" MHB, 3/4" MPT, 7/8"-14 UNF
OEM Customization Available

Motor specifications

Motor: Integrated, Brushless DC

Supply Voltage: 12-48 VDC

Electronics Maximum Power: 250 Watts
To protect the control board, each Integrity Series pump will be issued with a Maximum Power limit (Watts). To stay within this limit, the recommended fuse size (Amps) will be based on the voltage supplied. (Watts = Voltage X Amps)

Control Options

- **Direct Supply Voltage:** Speed of the pump determined by the voltage supplied
- **Analog:** 0-5v DC Signal
- **Digital:** PWM
- **CAN-Bus:** Option available
- **Tachometer:** Feedback option available

Materials in contact with solution

Body: PPS	**Housing:** PPS
Impeller: PPS	**Pump Shaft:** Ceramic

Maximum Fluid Rating Chart

Controller Position	Maximum Fluid Temp Rating
Separate from pump	225°F (107°C)
Within pump's housing	149°F (65°C)

Various factors influence the recommended maximum temperature rating. These factors play a role in determining the pump's life and applied warranties. In some applications, a higher maximum fluid temperature rating may be warranted.

Factors influencing maximum temperature rating include, but are not limited to:

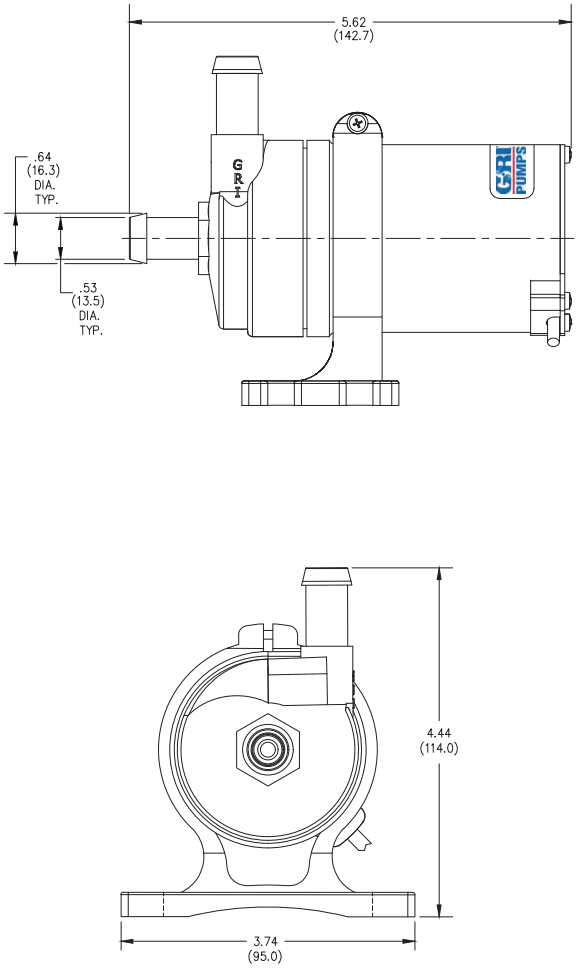
- Starting temperature of fluid in system
- Ambient temperature
- Required performance, application's specifications
- Run time

Optional Agency Approvals

Contact GRI

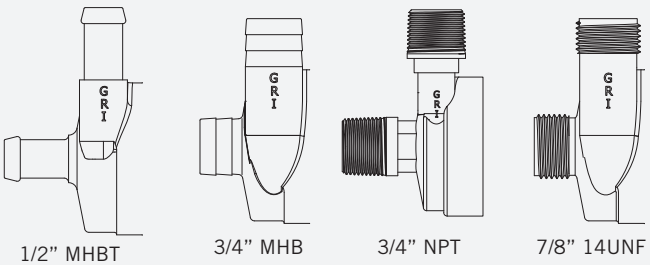
RoHS/REACH

Many GRI pumps are RoHS & REACH compliant. For declarations by specific model numbers, please contact GRI.



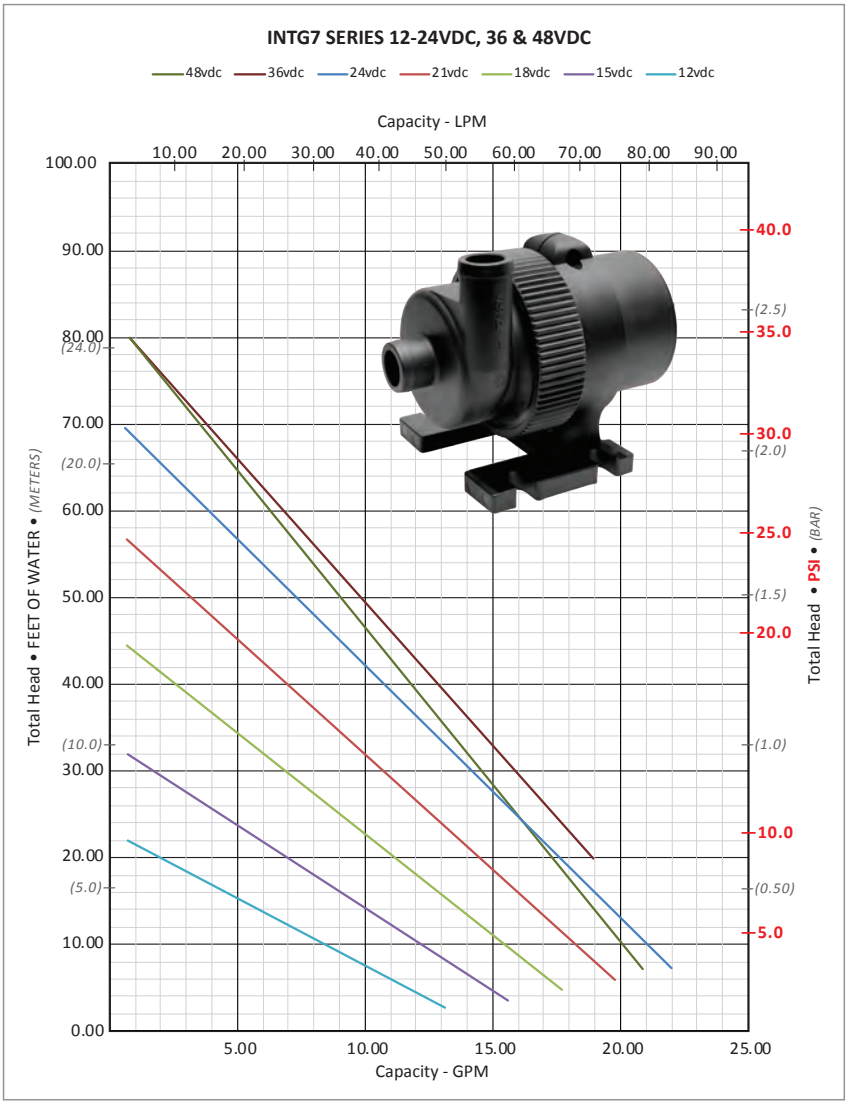
INTG5 Series Typical Dimensional Drawing.
Many other OEM port options and configurations are available.
Please contact GRI to discuss.

Port Options



Integrity Series Pumps are designed and manufactured specifically for OEM customization. If you don't immediately find a pump that meets your exact requirements, our dedicated Pump Team is ready to work with you in developing a solution specific to your application.

INTG7 Series • Maximum flow per voltage						
Voltage	Flow (GPM)	Flow (L)	Ttl. Hd. (Ft)	Ttl. Hd. (PSI)	Ttl. Hd. (BAR)	Ttl. Hd. (M)
48vdc	21.99	83.25	7.52	3.26	0.22	2.29
36vdc	18.98	71.85	19.80	8.58	0.59	6.04
24vdc	22.08	83.59	7.25	3.14	2.21	5.50
21vdc	19.81	75.00	5.76	2.50	1.76	4.14
18vdc	17.73	67.13	4.73	2.05	1.44	2.94
15vdc	15.58	58.96	3.55	1.54	1.08	7.01
12vdc	13.16	49.83	2.49	1.08	0.76	1.24



Note: Testing performed in a controlled laboratory environment. Actual performance may vary (+) or (-) 10% from the information shown.

Do Not Run Pumps Dry. Pumps must be in a continuous flooded suction environment.

Specifications

Maximum System Pressure: 75 psi

Approximate Weight: 3.52 lbs (1596.645 grams)

Ports: 1" MHB

Materials In Contact With Solution

Body: PPS	**Housing:** PPS	**Static O-Ring:** EPDM, FKM
Impeller: PPS	**Pump Shaft:** Ceramic	

Motor Specifications

Motor: Integrated, Brushless DC

Supply Voltage: 12-48 VDC

Electronics Maximum Power: 300 Watts

To protect the control board, each Integrity Series pump will be issued with a Maximum Power limit (Watts). To stay within this limit, the recommended fuse size (Amps) will be based on the voltage supplied. (Watts = Voltage X Amps)

Control Options

- **Direct Supply Voltage:** Speed of the pump determined by the voltage supplied
- **Analog:** 0-5v DC Signal
- **Digital:** PWM
- **CAN-Bus:** Option available
- **Tachometer:** Feedback option available

Maximum Fluid Rating Chart

Controller Position	Maximum Fluid Temp Rating
Separate from pump	225°F (107°C)
Within pump's housing	Not Applicable

Various factors influence the recommended maximum temperature rating. These factors play a role in determining the pump's life and applied warranties. In some applications, a higher maximum fluid temperature rating may be warranted.

Factors influencing maximum temperature rating include, but are not limited to:

- Starting temperature of fluid in system
- Ambient temperature
- Required performance, application's specifications
- Run time

Optional Agency Approvals

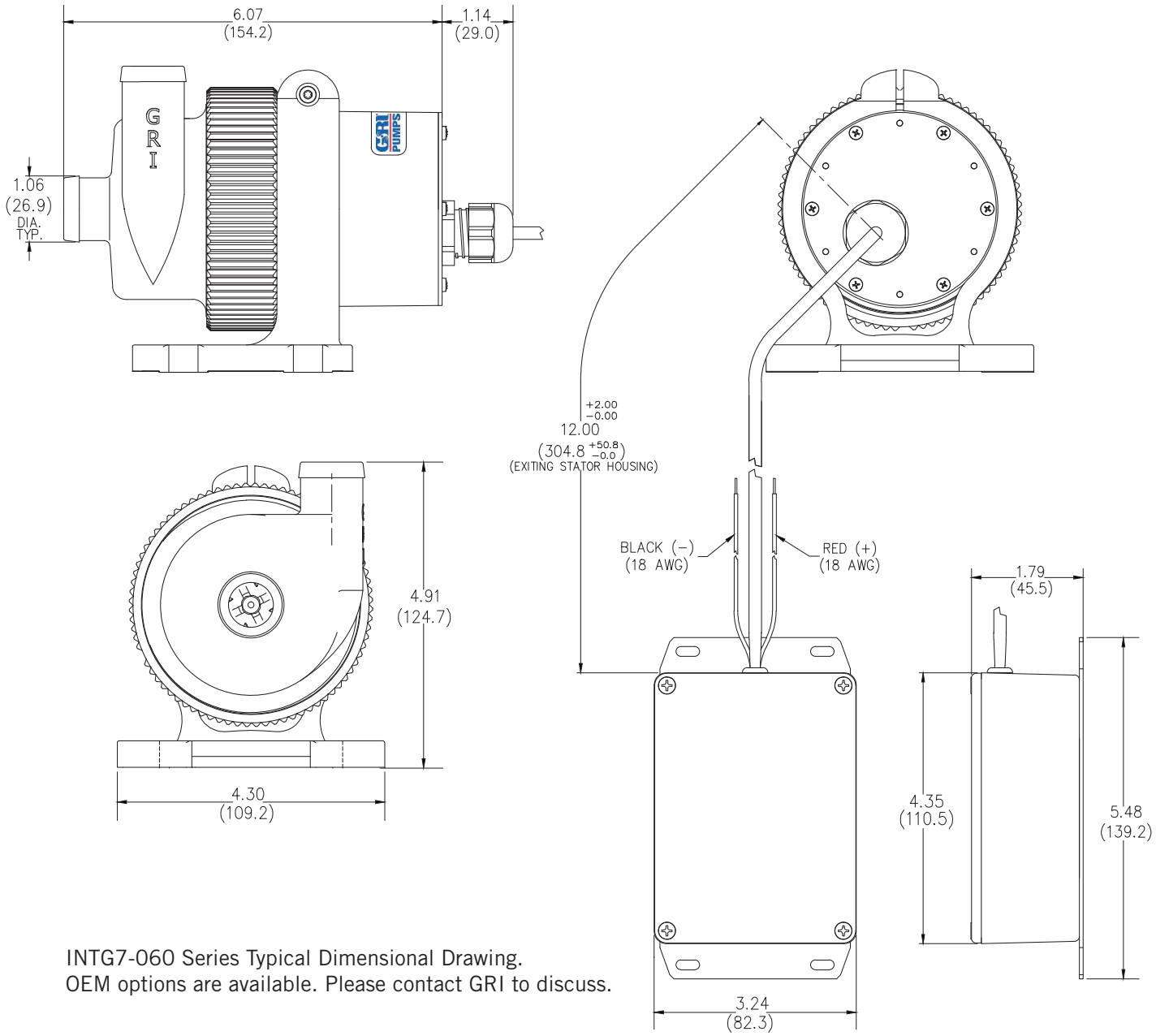
UL778: Motor-Operated Water Pumps
NSF61: Potable Water
NSF372: Lead Content

RoHS/REACH

Many GRI pumps are RoHS & REACH compliant. For declarations by specific model numbers, please contact GRI.

IP (Ingress Protection)

IP66: No ingress of dust, protection against powerful water jets.
IP67: No ingress of dust, protection against temporary water immersion.
IP68: No ingress of dust, protection against continuous water immersion.



INTG7-060 Series Typical Dimensional Drawing.
OEM options are available. Please contact GRI to discuss.

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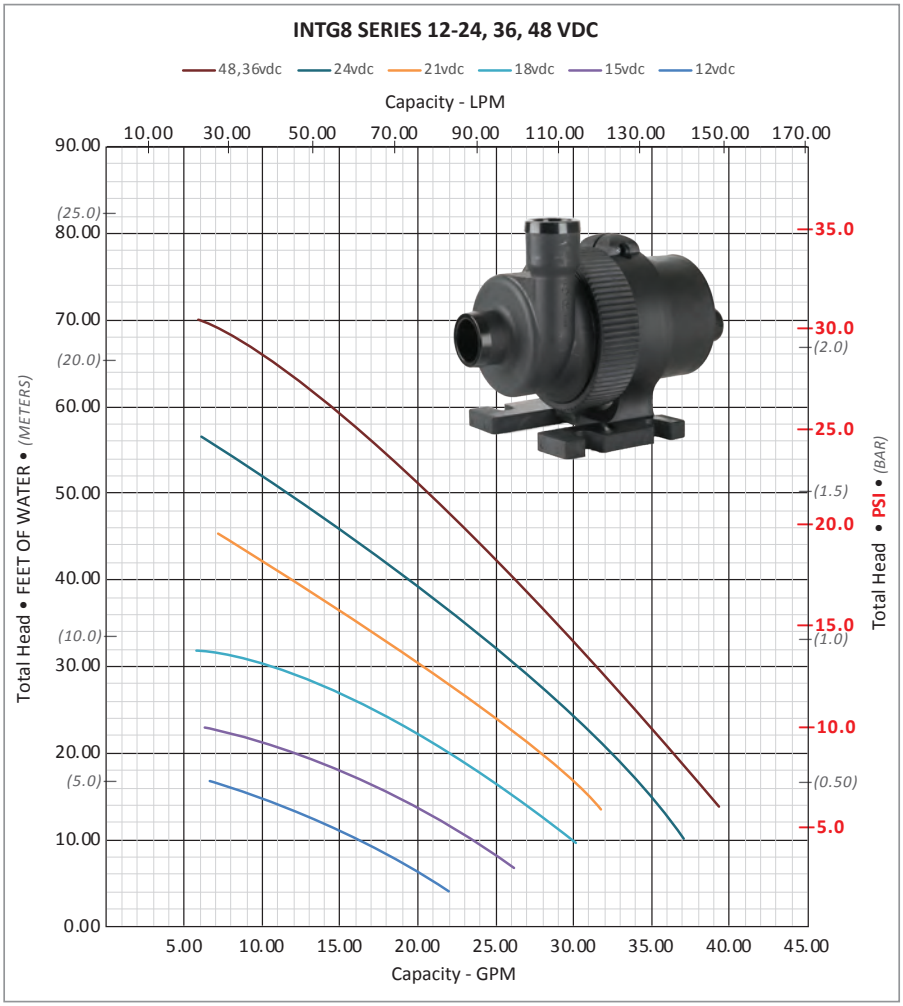
INTG7 SERIES MODELS				Ports Inches	Max Flow GPM (LPM)	Max Head Ft. (PSI) (m)	Voltage
EPDM O-Ring		FKM O-Ring					
2 wire: (+), (-)	**3 wire:**(+), (-), Speed Control	**2 wire:** (+), (-)	**3 wire:** (+), (-), Speed Control				
INTG7-060	INTG7-062	INTG7-061	INTG7-063	1" MHB	22.0 (83.3)	70.0 (30.3) (21.3)	**12-24**
Connectors: MHB = Male Hose Barb; I **O-Ring Material:** EPDM = Ethylene Propylene Diene Monomer, FKM = Fluoroelastomer.							

INTG8 Series • Maximum flow per voltage						
Voltage	**Flow (GPM)**	**Flow (L)**	**Ttl. Hd. (Ft)**	**Ttl. Hd. (PSI)**	**Ttl. Hd. (BAR)**	**Ttl. Hd. (M)**
48 I 36vdc	39.29	148.74	13.84	6.00	0.41	4.22
24vdc	37.41	141.62	9.95	4.31	0.30	3.03
21vdc	31.77	120.27	13.58	5.89	0.41	4.14
18vdc	30.12	114.00	9.64	4.18	0.29	2.94
15vdc	26.20	99.19	6.70	2.90	0.20	2.04
12vdc	21.97	83.17	4.07	1.76	0.12	1.24



Specifications

Maximum System Pressure: 75 psi

Approximate Weight: 3.5 lbs (1596.645 grams)

Ports: 1.25" MHB

Materials In Contact With Solution

Body: PPS	**Housing:** PPS	**Static O-Ring:** EPDM, FKM
Impeller: PPS	**Pump Shaft:** Ceramic	

Motor Specifications

Motor: Integrated, Brushless DC

Supply Voltage: 12-48 VDC

Electronics Maximum Power: 600 Watts

To protect the control board, each Integrity Series pump will be issued with a Maximum Power limit (Watts). To stay within this limit, the recommended fuse size (Amps) will be based on the voltage supplied.
(Watts = Voltage X Amps)

Control Options

- **Direct Supply Voltage:** Speed of the pump determined by the voltage supplied
- **Analog:** 0-5v DC signal
- **Digital:** PWM
- **CAN-Bus:** Option available
- **Tachometer:** Feedback option available

Maximum Fluid Rating Chart

Controller Position	Maximum Fluid Temp Rating
Separate from pump	225°F (107°C)
Within pump's housing	Not Applicable

Various factors influence the recommended maximum temperature rating. These factors play a role in determining the pump's life and applied warranties. In some applications, a higher maximum fluid temperature rating may be warranted.

Factors influencing maximum temperature rating include, but are not limited to:

- Starting temperature of fluid in system
- Ambient temperature
- Required performance, application's specifications
- Run time

Available Agency Approvals

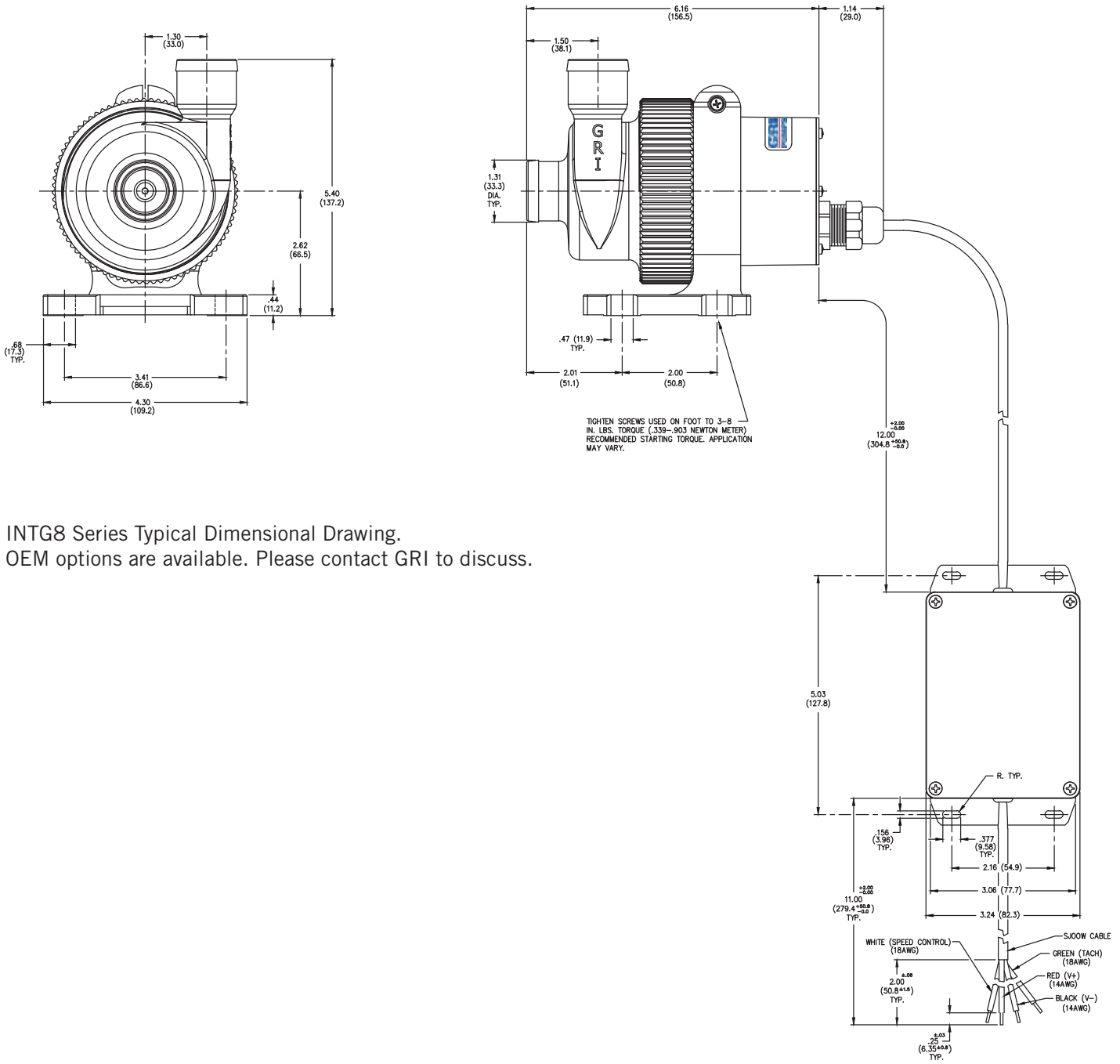
Contact GRI

RoHS/REACH

Many GRI pumps are RoHS & REACH compliant. For declarations by specific model numbers, please contact GRI.

Note: Testing performed in a controlled laboratory environment. Actual performance may vary (+) or (-) 10% from the information shown.

Do Not Run Pumps Dry. Pumps must be in a continuous flooded suction environment.



INTG8 Series Typical Dimensional Drawing.
OEM options are available. Please contact GRI to discuss.

Integrity Series Pumps are designed and manufactured specifically for OEM customization. If you don't immediately find a pump that meets your exact requirements, our dedicated Pump Team is ready to work with you in developing a solution specific to your application.

Model	Voltage	Speed Control	Lead Wires	Max. Flow GPM (LPM)	Max. Head Feet (PSI)	Connections Inlet/ Outlet (Inches)	O-Ring Material
INTG8-244	9-36 VDC	PWM / Analog (0-5v Nominal)	4 wires (+), (-), Speed Control, Tach	34.0 (130.0)	58.0 (25.0)	1.25 MHB	EPDM
INTG8-484	36-60 VDC	PWM / Analog (0-5v Nominal)	4 wires (+), (-), Speed Control, Tach	38.0 (146.0)	75.0 (32.5)	1.25 MHB	EPDM
Connectors: MHB = Male Hose Barb | **O-Ring Material:** EPDM = Ethylene Propylene Diene Monomer, FKM = Fluoroelastomer (Available on request)							