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!

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 12-24, 36 and 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 Series

12-24, 36 VDC
Maximum System Pressure: 50 PSI
Maximum Flow: 2.5 GPM; 9.5 LPM
Maximum Head: 12.8 feet; 5.5 PSI

INTG3 Series

12-24 VDC, 115/230 VAC
Maximum System Pressure: 75 PSI
Maximum Flow: 8.85 GPM; 33.5 LPM
Maximum Head: 37.0 FT; 16.00 PSI

INTG6 Series

12-24, 48 VDC
Maximum System Pressure: 75 PSI
Maximum Flow: 15.0 GPM; 56.8 LPM
Maximum Head: 70.0 feet; 30.3 PSI

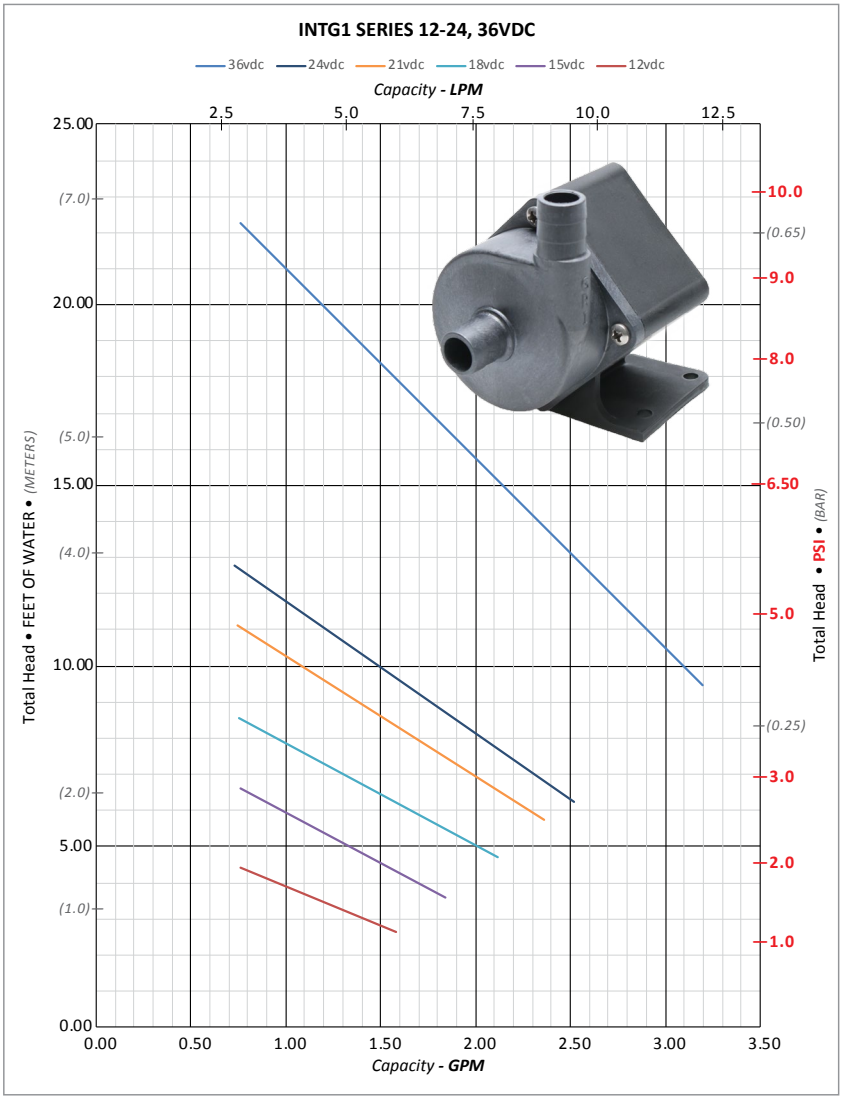
INTG7 Series

12-24, 36, 48 VDC
Maximum System Pressure: 75 PSI
Maximum Flow: 22.0 GPM; 83.3 LPM
Maximum Head: 70.0 feet; 30.3 PSI

INTG8 Series

12-24, 36, 48 VDC
Maximum System Pressure: 75 PSI
Maximum Flow: 39.0 GPM; 147.6 LPM
Maximum Head: 77.0 feet; 33.4 PSI

INTG1 Series • Performance @ Maximum Flow						
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	2.50	9.50	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: 12-24, 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 Temperature Rating Chart

Controller Position	Maximum Fluid Temp Rating
Separate from pump	Not Available
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

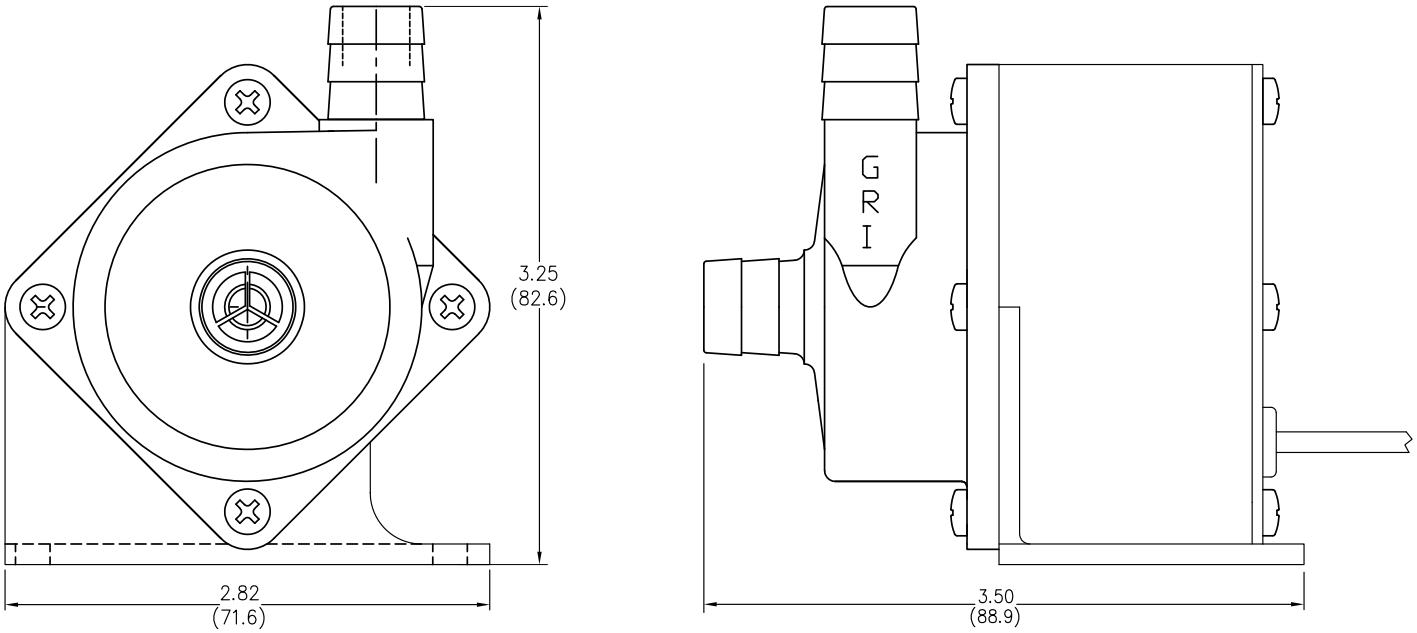
UL778: Motor-Operated Water Pumps
NSF 61: Potable Water (1/2" only)
NSF 169: Food Grade
NSF372: Lead Content (1/2" only)

RoHS/REACH

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

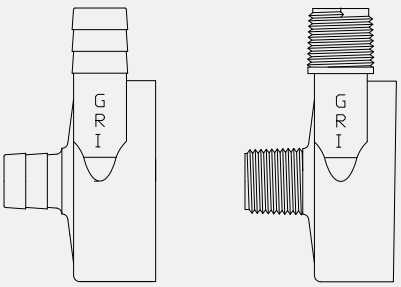
IP (Ingress Protection)

IP68: No ingress of dust, protection against continuous water immersion.*
* Upon request only. Minimum quantities may be required.



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

Port Options

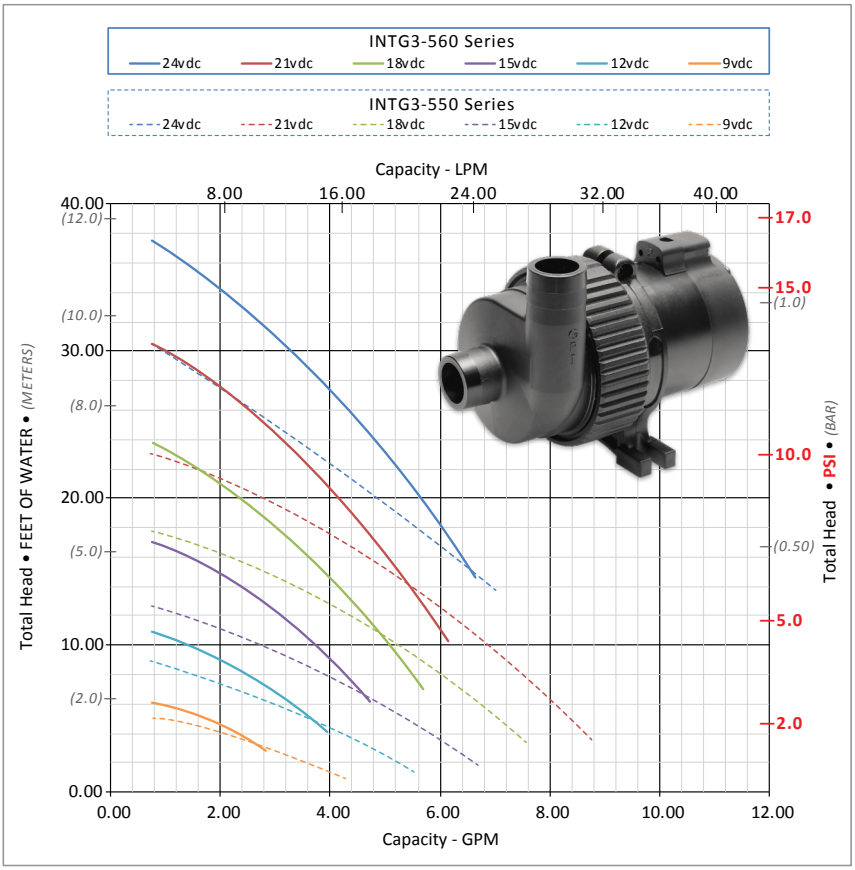


1/2"MHB 3/8"MPT

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 (VDC)
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.							

Performance @ Maximum 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	21 VDC	8.85	33.50	2.36	1.02	0.07	0.72
INTG3-560 Series	24 VDC	6.70	25.40	14.87	6.45	0.44	4.53
INTG3 AC Series	115/230 VAC	8.00	30.5	9.67	4.2	.29	2.95



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
- 115, 230 VAC (auto sensing technology), Optional with OEM quantities.

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 Temperature Rating Chart

Controller Position	Maximum Fluid Temp Rating
Separate from pump	221°F (105°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
NSF 61: 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)

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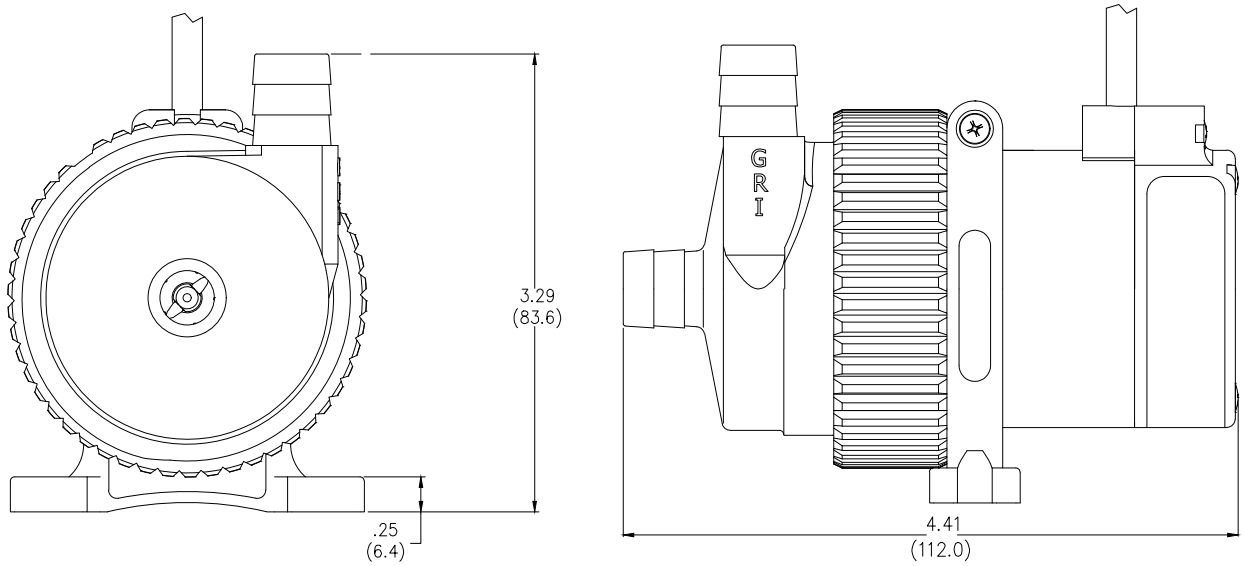
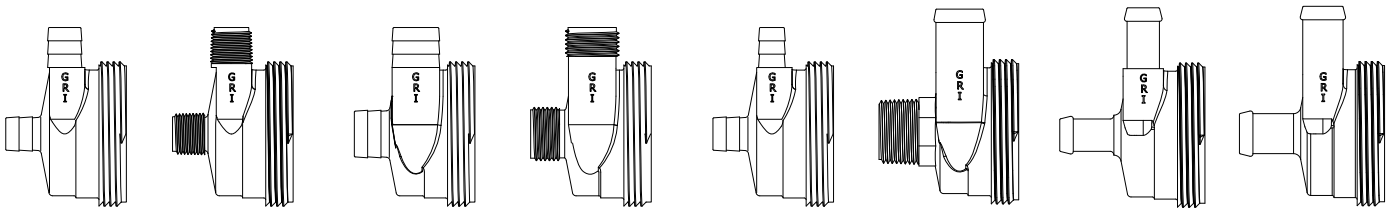


INTG3 Series Typical Dimensional Drawing. Many other OEM port options and configurations are available. Please contact GRI to discuss.

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

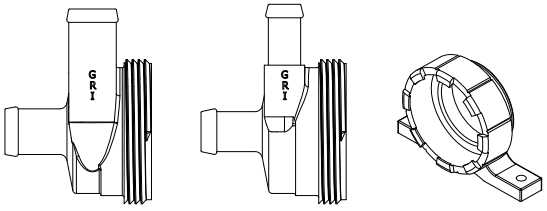
Suction: 7/8" 14UNF
Discharge: 7/8" 14UNF

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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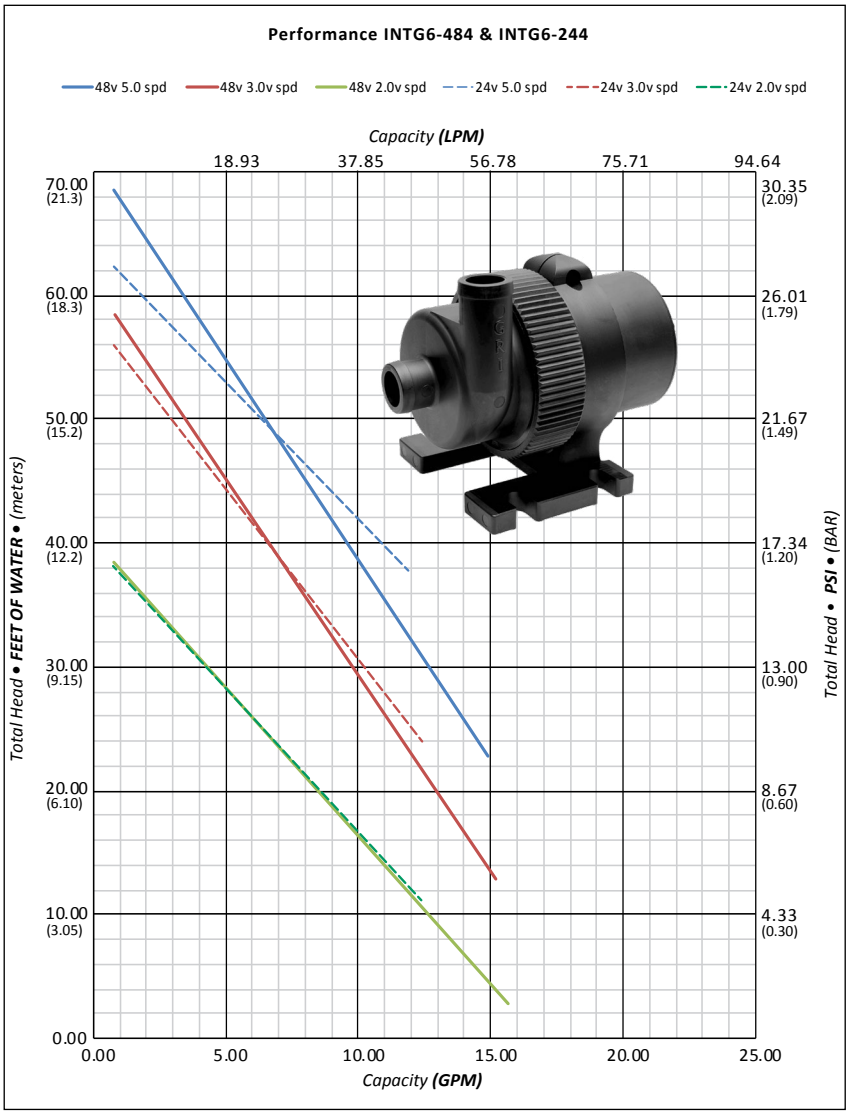
INTG3 SERIES MODELS				Voltage	Max Flow GPM (LPM)	Max Head Ft. (PSI) (m)	Ports Inches
EPDM O-Ring		FKM O-Ring					
2 wire: **DC** (+), (-) **AC** (Line), (Neutral)	**3 wire:** (+), (-), Speed Control	**2 wire:** **DC** (+), (-) **AC** (Line), (Neutral)	**3 wire:** (+), (-), Speed Control				
INTG3-550	INTG3-552	INTG3-551	INTG3-553	12-24 VDC	8.85 (33.5)	32.00 (13.9) (9.8)	3/4 MHB
INTG3-560	INTG3-562	INTG3-561	INTG3-563		6.70 (25.4)	37.00 (16.0) (11.3)	1/2 MHB
INTG3-564	INTG3-566	INTG3-565	INTG3-567				3/8 MPT
INTG3-860 AC	—	INTG3-861 AC	—	115 VAC 230 VAC	8.00 (30.3)	45.00 (19.5) (13.7)	1/2 MHB

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

INTG6 Series • Performance @ Maximum Flow						
Voltage	**Flow (GPM)**	**Flow (L)**	**Ttl. Hd. (Ft)**	**Ttl. Hd. (PSI)**	**Ttl. Hd. (BAR)**	**Ttl. Hd. (M)**
48vdc	15.00	56.8	25.33	10.98	0.76	7.72
24vdc	12.00	45.4	34.81	15.09	1.04	10.61



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 (w/ external box)**:** 4 lbs (1814.37 grams)

Ports: 1" MHB

Materials In Contact With Solution

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

Motor Specifications

Motor: Integrated, Brushless DC

Supply Voltage: 12-24, 48 VDC

Electronics Maximum Power: 200 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 Temperature Rating Chart

Controller Position	Maximum Fluid Temp Rating
Separate from pump	221°F (105°C)
Within pump's housing	Not available

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

IP (Ingress Protection)

IP68: No ingress of dust, protection against continuous water immersion.*

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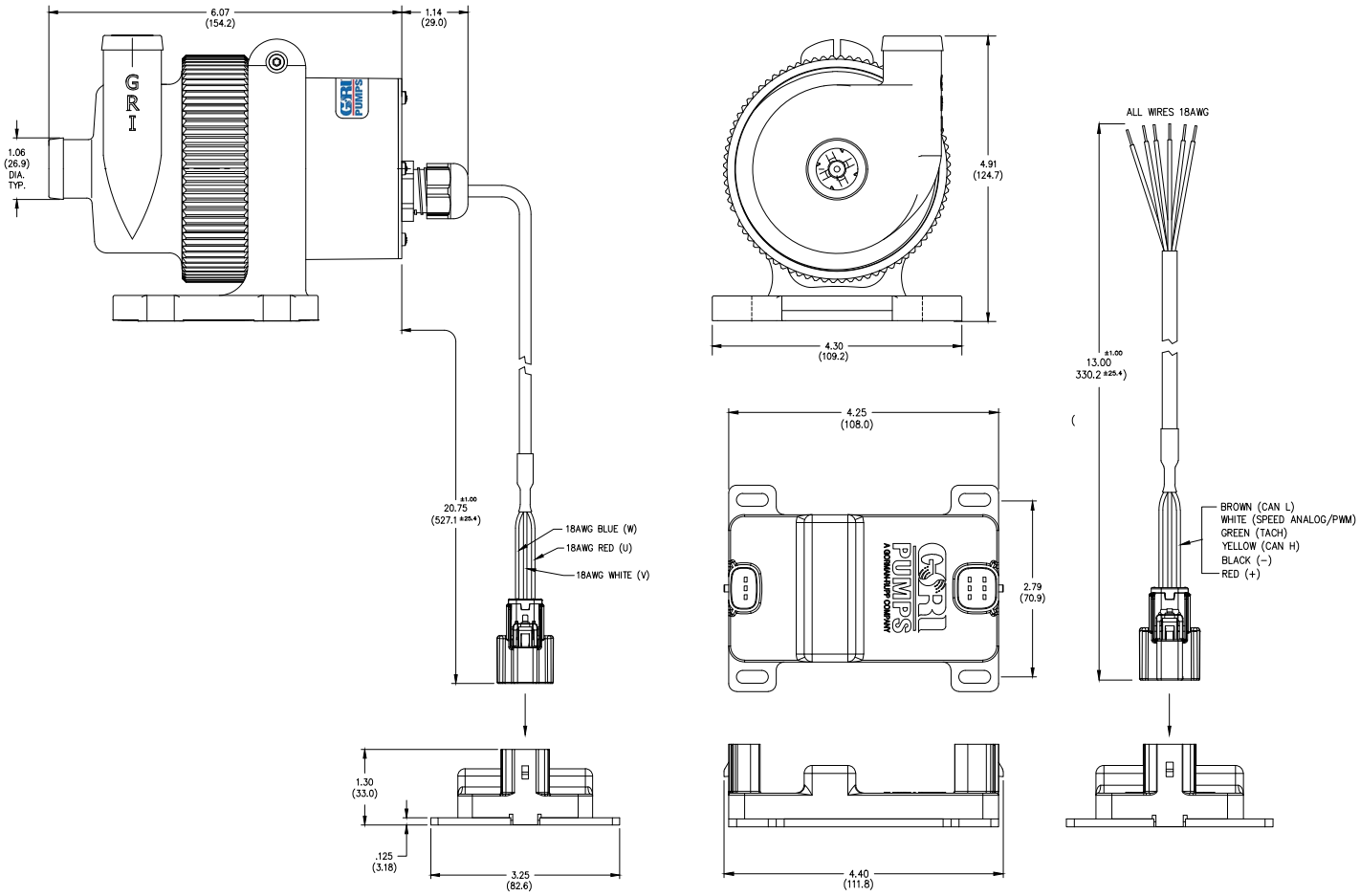

INTG6 Series Typical Dimensional Drawing.
OEM options are available. Please contact GRI to discuss.

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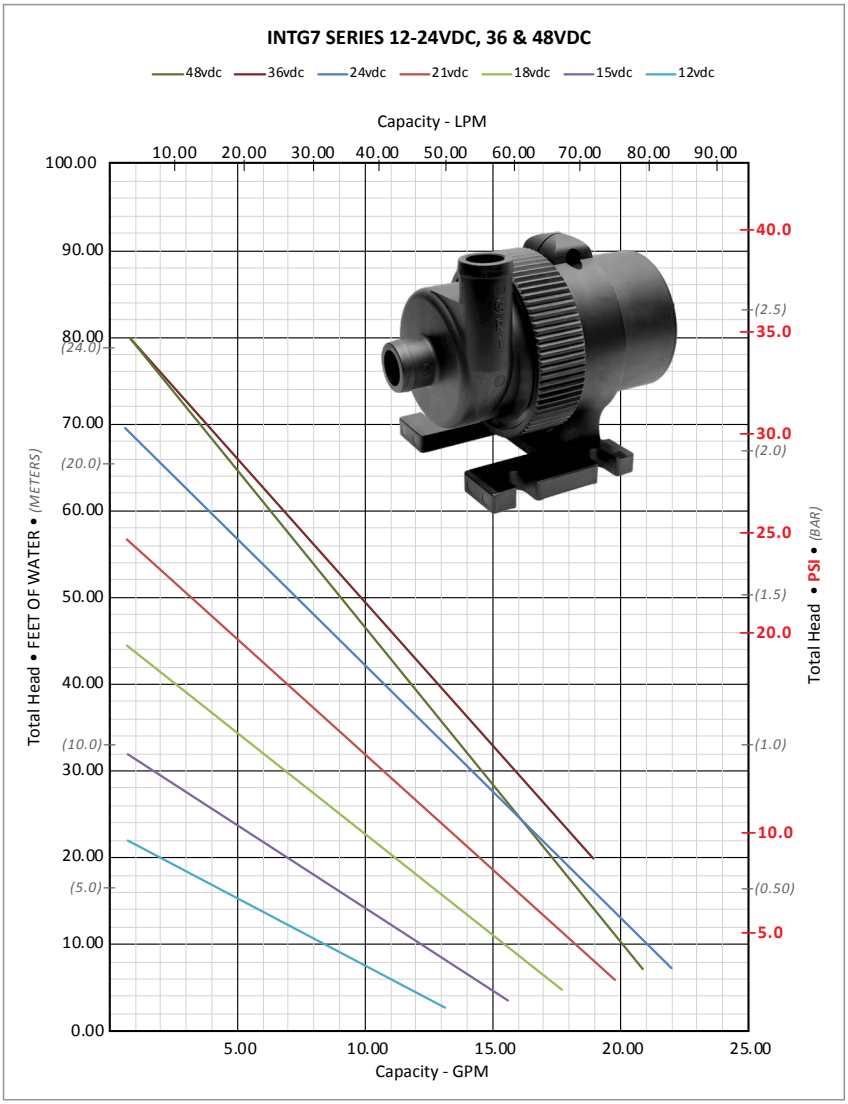
Model (O-RING)	**Voltage** (VDC)	**Speed Control**	**Lead Wires**	**Max Flow GPM** (LPM)	**Max Head Ft.** (PSI) (m)	**Connections Inlet/Outlet (Inches)**
INTG6-244 (EPDM)	12-24 Published performance based on 24v	Analog (0-5v Nominal) Digital (PWM) optional	4 wires (+), (-), Speed Control, Tach	12.00 (45.4)	59.00 (25.6) (18.0)	1" MHB
INTG6-484 (EPDM)	48	Analog (0-5v Nominal) Digital (PWM) optional	4 wires (+), (-), Speed Control, Tach	15.00 (56.8)	70.00 (30.3) (21.3)	1" MHB
Connectors: MHB = Male Hose Barb | **O-Ring Material:** EPDM = Ethylene Propylene Diene Monomer, FKM = Fluoroelastomer (Available on request)						

INTG7 Series • Performance @ Maximum Flow						
Voltage	**Flow (GPM)**	**Flow (L)**	**Ttl. Hd. (Ft)**	**Ttl. Hd. (PSI)**	**Ttl. Hd. (BAR)**	**Ttl. Hd. (M)**
48vdc	22.0	83.3	7.52	3.26	0.22	2.29
36vdc	19.0	72.0	19.80	8.58	0.59	6.04
24vdc	22.0	83.3	7.25	3.14	2.21	5.50
21vdc	20.0	75.7	5.76	2.50	1.76	4.14
18vdc	17.7	67.0	4.73	2.05	1.44	2.94
15vdc	15.6	59.0	3.55	1.54	1.08	7.01
12vdc	13.2	50.0	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 (w/ external box)**:** 4.3 lbs (1950.45 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: 12-24, 36, 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 Temperature Rating Chart

Controller Position	Maximum Fluid Temp Rating
Separate from pump	221°F (105°C)
Within pump's housing	Not available

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.

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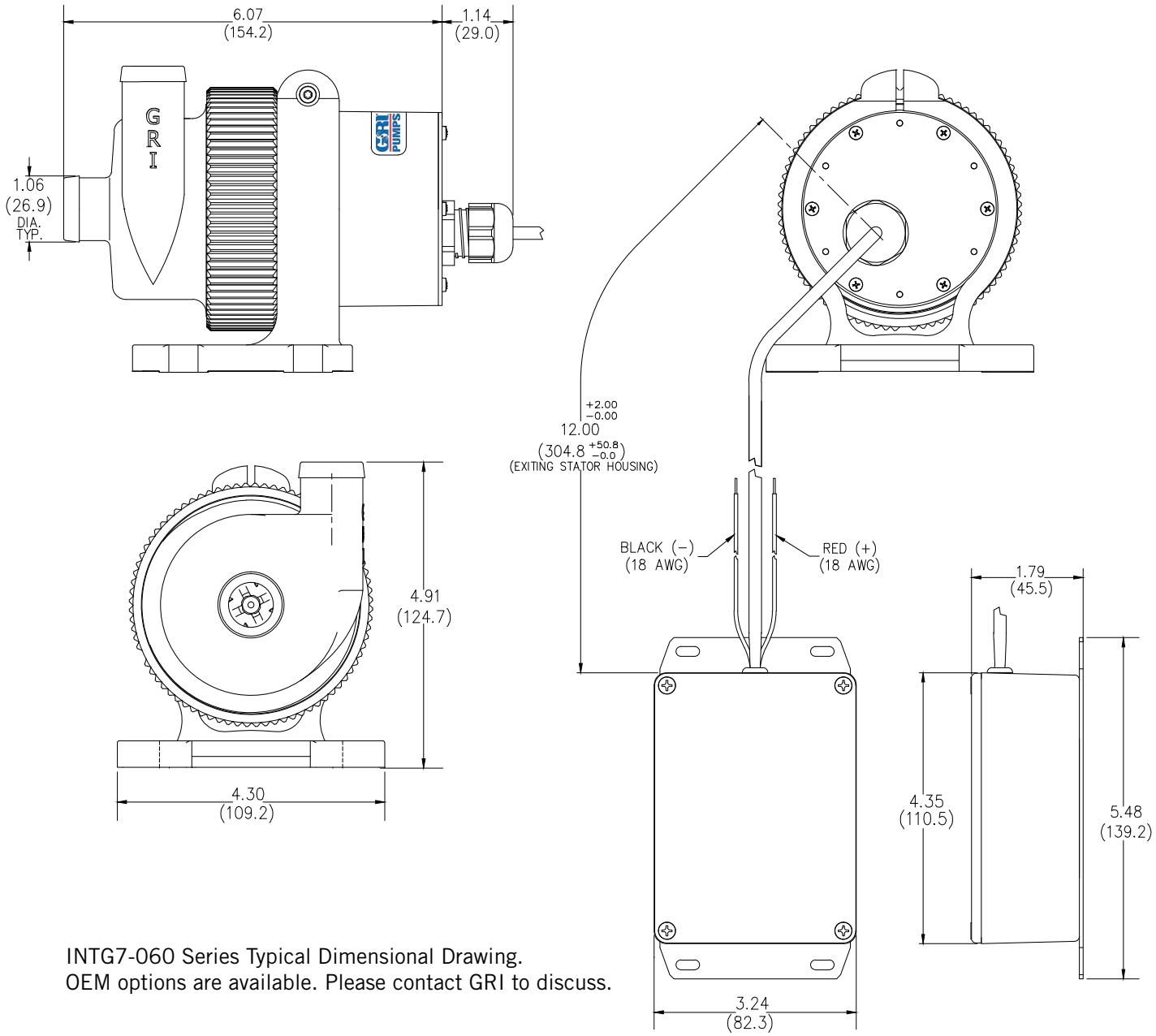

INTG7-060 Series Typical Dimensional Drawing.
OEM options are available. Please contact GRI to discuss.

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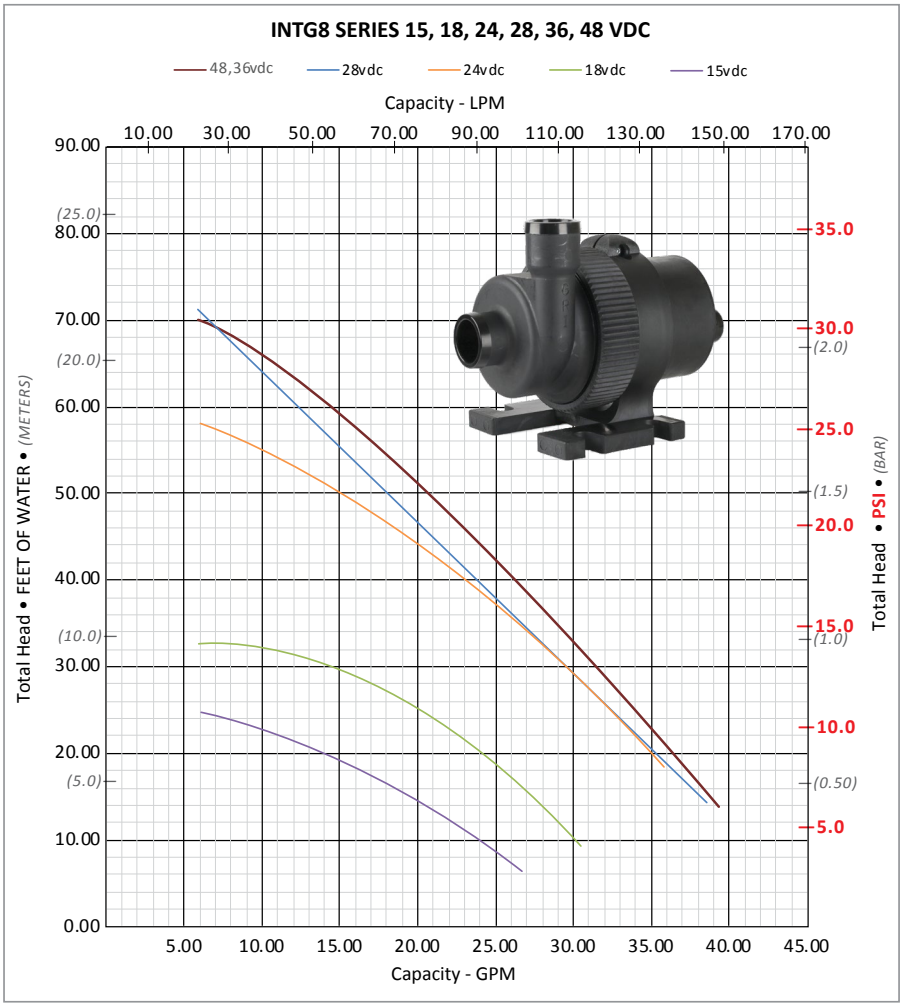
Model (O-RING)	**Voltage** (VDC)	**Speed Control**	**Lead Wires**	**Max Flow GPM** (LPM)	**Max Head Ft.** (PSI) (m)	**Connections Inlet/ Outlet (Inches)**
INTG7-060 (EPDM) **INTG7-061** (FKM)	12-24	Direct	2 wires (+), (-)	22.0 (83.3)	70.0 (30.3) (21.3)	1" MHB
INTG7-062 (EPDM) **INTG7-063** (FKM)	24	Analog (0-5v Nominal)	3 wires (+), (-), Speed Control	22.0 (83.3)	70.0 (30.3) (21.3)	1" MHB
INTG7-064 (EPDM) **INTG7-065** (FKM)	24	PWM or Analog (0-5v Nominal)	4 wires (+), (-), Speed Control, Tach	20.00 (75.7)	71.0 (30.8) (21.6)	1" MHB
Connectors: MHB = Male Hose Barb | **O-Ring Material:** EPDM = Ethylene Propylene Diene Monomer, FKM = Fluoroelastomer (Available on request)						

INTG8 Series • Performance @ Maximum Flow						
Voltage	**Flow (GPM)**	**Flow (L)**	**Ttl. Hd. (Ft)**	**Ttl. Hd. (PSI)**	**Ttl. Hd. (BAR)**	**Ttl. Hd. (M)**
48 I 36vdc	39.0	147.6	13.84	6.00	0.41	4.22
28vdc	39.0	147.6	14.19	6.50	0.42	4.32
24vdc	36.0	136.3	18.0	7.76	0.54	5.46
18vdc	31.0	117.3	9.00	3.90	0.27	2.75
15vdc	27.0	102.2	6.36	2.76	0.19	1.94



Specifications

Maximum System Pressure: 75 psi

Approximate Weight (w/ external box)**:** 5.1 lbs (2313.32 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: 12-24, 36, 48 VDC

Electronics Maximum Power: 390 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:** J1939 - Contact GRI.
- **Tachometer:** Feedback option available

Maximum Fluid Temperature Rating Chart

Controller Position	Maximum Fluid Temp Rating
Separate from pump	221°F (105°C)
Within pump's housing	Not available

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

UL778: Motor-Operated Water Pumps

SAE J1455: Contact GRI

RoHS/REACH

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

IP (Ingress Protection)

IP68: No ingress of dust, protection against continuous water immersion.*

* Upon request only. Minimum quantities may be required.

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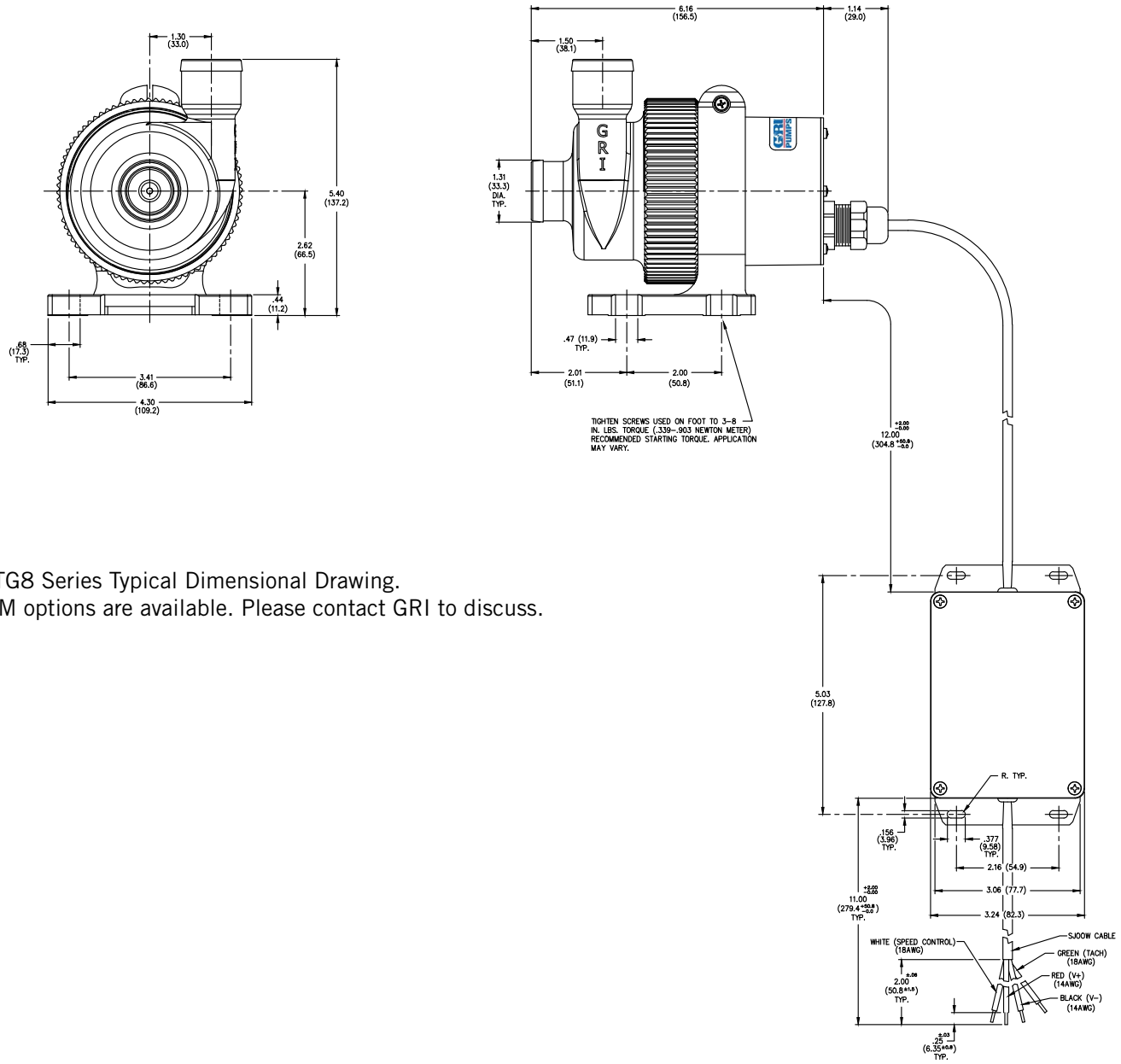
Do Not Run Pumps Dry. Pumps must be in a continuous flooded suction environment.



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 (VDC)	Speed Control	Lead Wires	Max. Flow GPM (LPM)	Max. Head Feet (PSI) (m)	Connections Inlet/ Outlet (Inches)	O-Ring Material
INTG8-242	15-28	Direct	2 wires (+), (-)	39.0 (147.6)	77.0 (33.4) (23.5)	1.25 MHB	EPDM
INTG8-244	24.0	PWM / Analog (0-5v Nominal)	4 wires (+), (-), Speed Control, Tach	36.0 (136.3)	59.0 (25.6) (18.0)	1.25 MHB	EPDM
INTG8-482	36, 48	Direct	2 wires (+), (-)	38.0 (143.8)	69.0 (30.0) (21.0)	1.25 MHB	EPDM
INTG8-484	48.0	PWM / Analog (0-5v Nominal)	4 wires (+), (-), Speed Control, Tach	38.0 (143.8)	75.0 (32.5) (22.8)	1.25 MHB	EPDM

Connectors: MHB = Male Hose Barb | **O-Ring Material:** EPDM = Ethylene Propylene Diene Monomer, FKM = Fluoroelastomer (Available on request)

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