

JOB: _____ REPRESENTATIVE: _____

UNIT TAG: _____ ORDER NUMBER: _____ DATE: _____
ENGINEER: _____ SUBMITTED BY: _____ DATE: _____
CONTRACTOR: _____ APPROVED BY: _____ DATE: _____



Laing Thermotech Series **ecocirc® | ecocirc+**

High Efficiency Wet Rotor Circulator with Electronically Commutated Motor (ECM)

DESCRIPTION

The ecocirc circulators are designed with a highly efficient electronically commutated permanent magnet motor (ECM Technology). Cast iron flanged models are designed for closed loop hydronic heating and cooling systems, and stainless steel flanged and union body pumps for plumbing systems or open loop heating and cooling systems.

CONSTRUCTION MATERIALS

Pump Body: Cast Iron or Stainless Steel

Impeller: Impact Modified PPE

Shaft: Ceramic/Alumina

Rotor Can: 316 Stainless Steel

Bearings: Ceramic/Alumina

O-Ring: EPDM

All Other Wetted Parts: 304 or 316 Stainless Steel

Motor Type: Electronically Commutated Permanent Magnet Motor

Insulation Class: F

Check Valve: 1" Noryl Check Valve shipped loose for field installation

OPERATING DATA

Maximum Working Pressure: 145 psi (10 Bar)

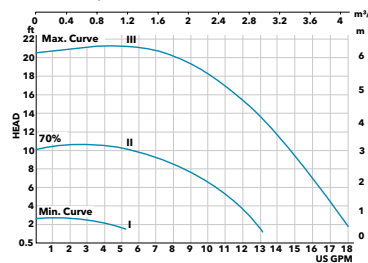
Minimum Working Temperature: 14°F (-10°C)

Maximum Working Temperature: 230°F (110°C)

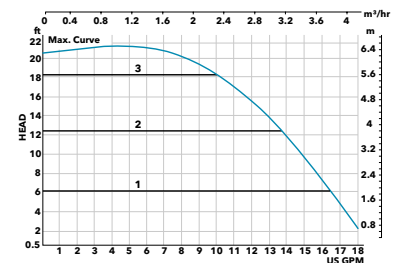
Ambient Temperature Range: 32°F - 104°F (0°C - 40°C)

PERFORMANCE

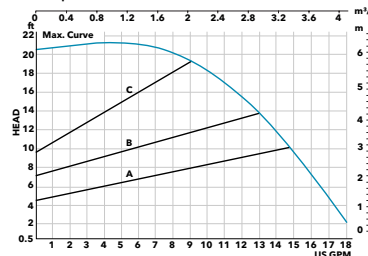
Fixed Speed Curve



Constant Pressure Curve



Proportional Pressure Curve



SCHEDULE ecocirc

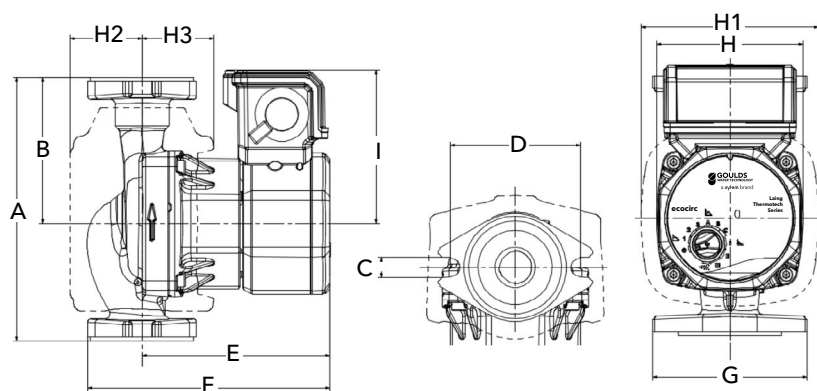
CAST IRON BODY (Flanged)		STAINLESS STEEL BODY (Flanged and Union)	RATED MOTOR CHARACTERISTICS				
MODEL	PART NUMBER	PART NUMBER	VOLTAGE	PHASE	Hz	WATTS RANGE	AMP RANGE
ecocirc flanged	60B0G1030	60B0G1031	115V	1	50/60	0-70	.06-1.02
ecocirc union	—	60B0G1032	115V	1	50/60	0-70	.06-1.02

Note: Where potable water is pumped, use a stainless steel circulator. ecocirc and ecocirc+ circulators are recommended for indoor use only.

SCHEDULE ecocirc+

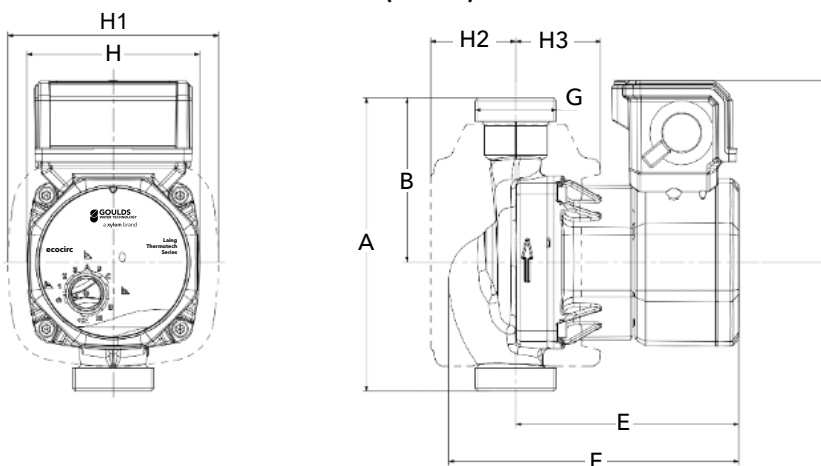
CAST IRON BODY (Flanged)		STAINLESS STEEL BODY (Flanged and Union)	RATED MOTOR CHARACTERISTICS				
MODEL	PART NUMBER	PART NUMBER	VOLTAGE	PHASE	Hz	WATTS RANGE	AMP RANGE
ecocirc+ flanged	60B0G1033	60B0G1034	115V	1	50/60	0-70	.06-1.02
ecocirc+ union	—	60B0G1035	115V	1	50/60	0-70	.06-1.02

Note: Where potable water is pumped, use a stainless steel circulator. ecocirc and ecocirc+ circulators are recommended for indoor use only.

ecocirc/ecocirc+ PUMP DIMENSIONS (FLANGED)

MODEL	DIMENSIONS - INCHES (mm)									APPROX. SHIPPING WEIGHT LB. (KG)	
	A	B	E	F	H	H1	H2	H3	I	CAST IRON	STAINLESS STEEL
ecocirc flanged	6.38" (162)	3.54" (90)	4.57" (116)	5.9" (150)	3.54" (90)	4.29" (109)	1.73" (44)	1.73" (44)	3.74" (95)	6.2 lb. (2.81)	5.86 lb. (2.66)
ecocirc+ flanged	6.38" (162)	3.54" (90)	4.57" (116)	5.9" (150)	3.54" (90)	4.29" (109)	1.73" (44)	1.73" (44)	3.74" (95)	6.2 lb. (2.81)	5.86 lb. (2.66)

MODEL	FLANGED SIZE INCHES - NPT	# OF BOLTS	DIMENSIONS - INCHES (mm)		
			C	D	G
ecocirc flanged	¾", 1", 1-¼", 1-½"	2	.47" (12)	3.15" (80)	3.74" (95)
ecocirc+ flanged	¾", 1", 1-¼", 1-½"	2	.47" (12)	3.15" (80)	3.74" (95)

ecocirc/ecocirc+ PUMP DIMENSIONS (UNION)

MODEL	DIMENSIONS - INCHES (mm)									APPROX. SHIPPING WEIGHT LB. (KG)	
	A	B	E	F	H	H1	H2	H3	I	CAST IRON	STAINLESS STEEL
ecocirc union	6" (152.4)	3.36" (85.4)	4.57" (116)	5.9" (150)	3.54" (90)	4.29" (109)	1.73" (44)	1.73" (44)	3.74" (95)	N/A	4.61 lb. (2.09)
ecocirc+ union	6" (152)	3.36" (85.4)	4.57" (116)	5.9" (150)	3.54" (90)	4.29" (109)	1.73" (44)	1.73" (44)	3.74" (95)	N/A	4.61 lb. (2.09)

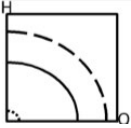
MODEL	UNION TAILPIECE SIZE INCHES - NPT	# OF BOLTS	DIMENSIONS - INCHES (mm)	
			G	CAST IRON PN
ecocirc union	½" Sweat, ¾" Sweat, ¾" NPT	0	1 ¼" NPSM	N/A
ecocirc+ union	½" Sweat, ¾" Sweat, ¾" NPT	0	1 ¼" NPSM	N/A

SAFETY STANDARDS AND PROTECTION

Enclosure: Class 1, IP44 (equivalent to NEMA Type 2)
UL Listed to UL 778; UL 1004-1, 1004-7; and UL 60730-1
cUL Listed to C22.2 #108
Electronically Thermally Protected (Integrated Motor Protection)
Motor Insulation Class: F
Stainless steel models are NSF/ANSI-61 certified

STANDARD OPERATING MODES

CONSTANT SPEED



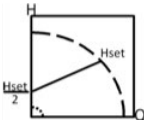
The pump maintains a constant speed at any flow rate. The desired speed is set on the interface panel of the pump.

CONSTANT PRESSURE (Δp -c)



The pump maintains a constant differential pressure at any flow demand until the maximum speed is reached. The desired head of the pump can be set via user interface. Recommended for use in systems with small or constant pressure losses.

PROPORTIONAL PRESSURE (Δp -v)



The differential pressure continuously increases or decreases based on the flow demand. The set point head can be set on the pump user interface. Use for systems with large pressure losses.

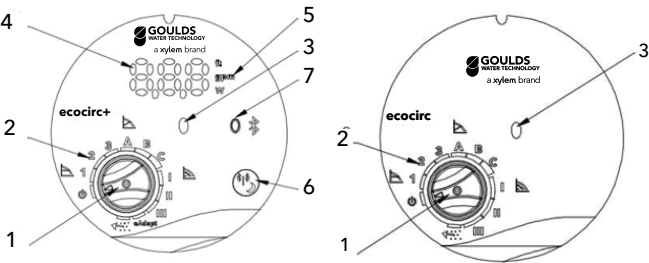
NIGHT MODE (ecocirc+ only)

The pump will automatically reduce speed when there is an abrupt change in fluid temperature. The change in fluid temperature is from a boiler operating in night time setback mode. The external temperature sensor is used. (Fixed Speed, Constant Pressure, Proportional Pressure)

INPUT SIGNALS (ecocirc+ only)

One 0-10V (Analog): Speed Control by external controller
Two external temperature sensor inputs for temperature control modes **Sensor Type:** KTY 82/110 UL, **P/N:** 002168554

ONBOARD USER INTERFACE



1	Control mode knob
2	Control mode indicators
3	Status/Fault indicators
4	Numeric display
5	Parameter indicators
6	Control mode button
7	Remote control status indicator

Xylem Product Cybersecurity

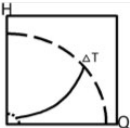
Xylem values your system security and the availability of your critical services. For more information on Xylem cybersecurity practices or to contact the cybersecurity team please visit xylem.com/security.



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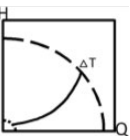
TEMPERATURE DEPENDENT OPERATING MODES (ecocirc+ only)

SET POINT TEMPERATURE (Δp -T) (ecocirc+ only)



The nominal differential pressure set point is modified based on the fluid temperature. Uses an external temperature sensor.

SET POINT TEMPERATURE (T or ΔT) (ecocirc+ only)



Uses one (1) external temperature sensor for the circulator to maintain a constant temperature in the system such as a domestic hot water system or single temperature heating system. Two (2) external temperature sensors are required to control the circulator motor speed to maintain a constant differential temperature.

eAdapt (ecocirc+ only)

The pump will optimize the energy consumption by identifying the ideal duty point.

Air Purge

Air purge will remove the dissolved gases from the pump.

Learn more about ecocirc

