



AGE3 high efficiency circulators

ERP
2015

SOLUTION OUTLINE

FILE NO: 10.129UK
DATE: MAY 2017

SUPERSEDES: AUGUST 2015
DATE: MAY 2017



The AGE3 circulator offers operating flexibility and an industry-leading feature set to support a wide range of heating and cooling applications. Design excellence combined with quality components and manufacturing make this a circulator that provides reliability, energy savings, long service life, low installed cost and low maintenance cost.



A FULL RANGE OF HIGH EFFICIENCY VARIABLE SPEED CIRCULATORS

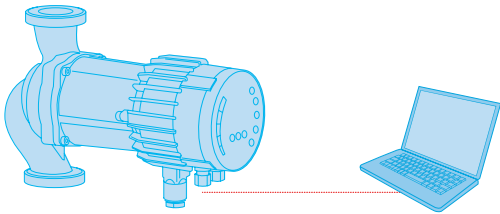
The AGE3 is a high-efficiency, glandless wet-rotor circulator equipped with ECM technology (electronically commutated, synchronous motor with permanent magnet rotor). Units are available in single head and twin head

versions to serve both heating and cooling applications. The connectivity feature will allow access to the specific data for faster and optimized system setup and trouble shooting.

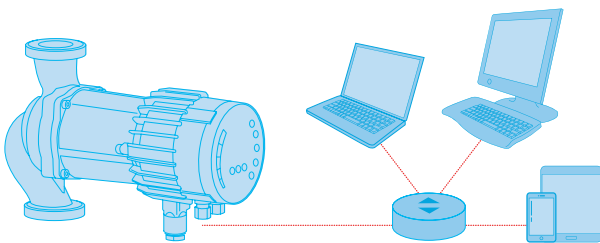
Reliability	Self-venting function Motor protection with integrated trip electronics Smart duty standby (ensuring even pump run hours)
Low maintenance cost	Maintenance free, replaceable BMS I/O module
Low installed cost	Easy installation, intuitive user interface
Versatility	Easy upgrade of existing circulator Six different operating modes Serial communication reference control Analogue reference 0-10V, External start/stop Auto mode Proportional pressure and constant pressure
Energy-saving	High-efficiency permanent-magnet motor combined with Advanced variable speed control
Connectivity	Embedded webpage MODBUS RTU Ethernet

EASY CONNECTIVITY, EASY ACCESS TO DATA

CONNECTING TO A COMPUTER WITH
A CROSS-OVER CABLE



CONNECTING TO A NETWORK
VIA ROUTER



ARMSTRONG EMBEDDED WEBPAGE

ARMSTRONG AGE3 80-120

Overview Pump Network Log More

Welcome!
You have reached **AGE3 80-120** circulating pump, named AGE3. It is connected to network with IP 192.168.0.99 and MAC 02:8A:7A:DA:97:1B

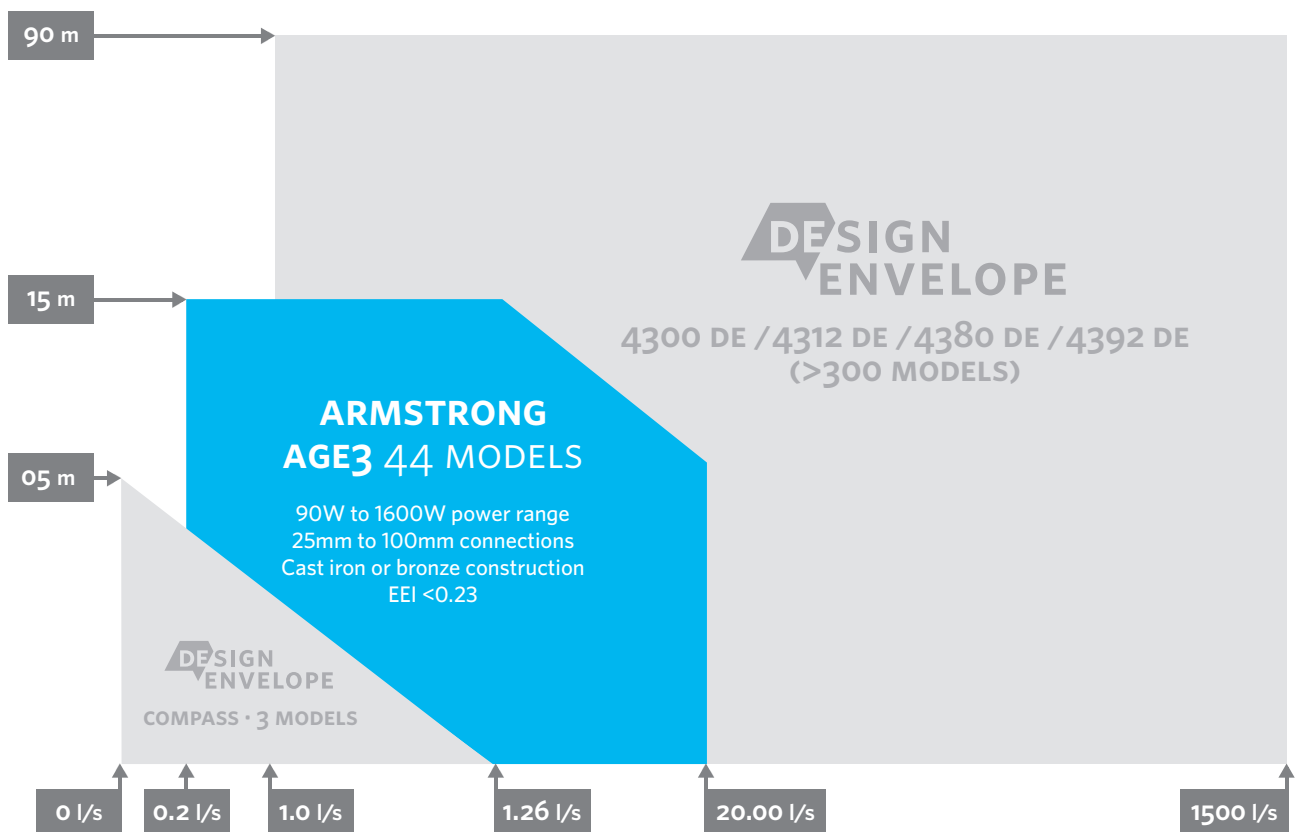
Operation data	
Op. mode:	CONSTANT PRESSURE
Power:	662 W (1550 W)
Head:	20.9 ft H2O (21.0 ft H2O)
Flow:	78.7 gpm (328.6 gpm)
RPM:	2122 /min (2900 /min)
Efficiency:	45 %

Control signals	
Setpoint:	--- % (USER)
Mode switch:	1
SET1:	ON 10.53V 0.46mA
SET2:	OFF 0.04V 0.03mA
SET3:	ON 10.49V 0.48mA
Relay:	ON

Status	
Error codes:	0
Twin pump:	NOT CONNECTED (-4)
Night mode:	OFF
Motor T:	142 °F
Heatsink T:	126 °F
Power cycles:	19

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AGE3 RANGE WITHIN ARMSTRONG PORTFOLIO



GENERAL HYDRAULIC SPECIFICATION

CHARACTERISTIC		VALUE
Flow rate	Q	Threaded: up to 9m ³ /h (2.5 l/s) Flanged: up to 72m ³ /h (20.0 l/s)
Head	H	Up to 16 m
Fluid temperature	tf	+2°C to +110°C
Ambient temperature	ta	0°C to +40°C
Flanged connection	P	Flanged connection: 6/10Bar, Threaded connector: 10Bar

GENERAL MECHANICAL SPECIFICATION

COMPONENT	MATERIAL
Volute casing	Cast iron or bronze (model with Z version)
Shaft	Stainless steel
Impeller	PES
Bearing	Graphite
Can	Stainless steel

GENERAL ELECTRICAL SPECIFICATION

Power range	90 w to 1600w
Control package	IP44 enclosure
Thermal class	Class F
EMC compliance	EN 61 000-6-3, EN 61 000-6-2
I/O interface	2 × digital I/O, 1 × analogue I/O, 1x Relay
Serial communication	1 × RS485 (modbus RTU) and 1x Ethernet

6 OPERATING MODES

Constant-pressure Δp or proportional-pressure Δp control

Auto Mode with dynamic differential pressure setpoint adjustment

Constant speed control with manual selection

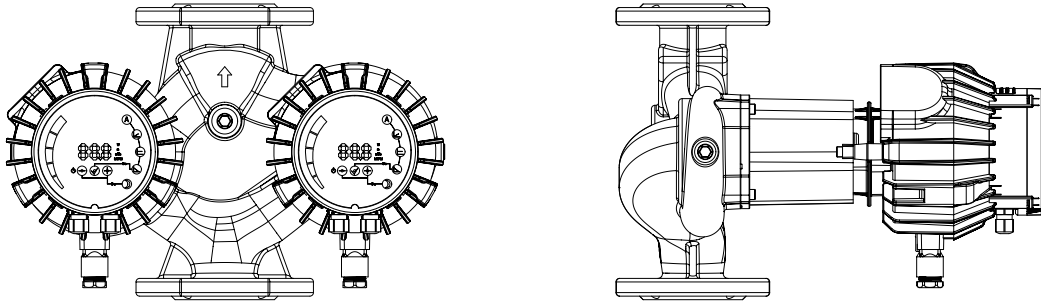
0-10 V external speed control

Multiple pump operation (duty/standby operation with automatic or change-over)

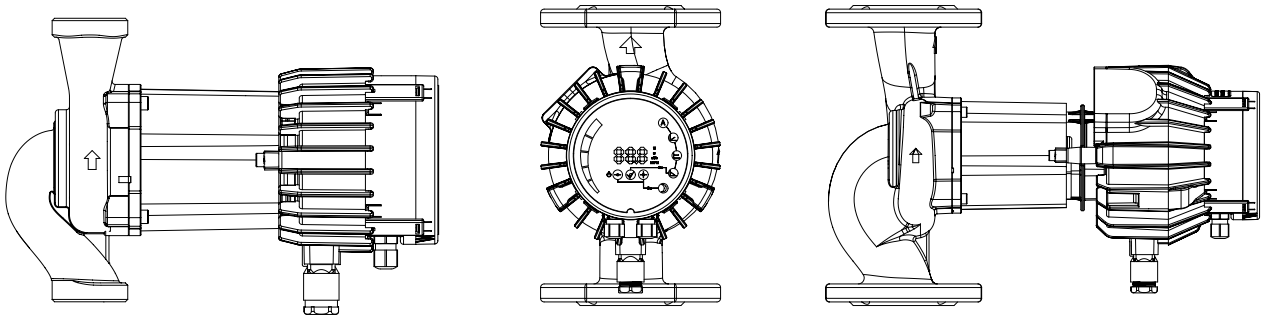
MODBUS or Ethernet speed control



TWIN / SINGLE HEAD



TWIN HEAD CIRCULATOR



SINGLE HEAD CIRCULATOR

SEE SUBMITTALS FOR MODELS SPECIFIC DIMENSIONS





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