

40-80 (1.5×1.25×3) 3280-00.75 SUBMITTAL

File No: 103.5750IEC

Date: MARCH 14, 2023

Supersedes: 103.5750IEC

Date: NOVEMBER 08, 2021

Job: Represe		resentative:		
	Order N	0:	Date:	
Engineer:	Submitt	ed by:	Date:	
Contractor: Appro		ed by:	Date:	
PUMP DESIGN DATA	:	DEPM MOTOR AND CO	ONTROL DATA	
No. of pumps: Tag:		kW:	0.75	
Capacity:L/s (USgpm) Head:	m (ft)	RPM:	3600	
Liquid: Viscosit	v:	Motor enclosure:	TEFC	
Temperature: °C (°F) Specific	•	Volts / Phase:	□ 200-240V/1ph □ 380-480V/3p	
Suction: 40 mm (1.5") Discharge: 30 mm (1.25)			For 200-240V/3ph or 575V/3ph, see File #:103.5701IEC	
MEI ≥ 0.70		Efficiency:		
MATERIALS OF CONSTRUCTION		Protocol (standard):	_	
□ PN 16			☐ Modbus RTU	
CONSTRUCTION: LPDESF		Control enclosure:	☐ Indoor - IP 55	
E-coated ductile iron A536 Gr 65-45-12	2, stainless fitted	Fused disconnect switch:		
□ PN 25		емі/RFI control:	: Integrated filter designed to meet	
CONSTRUCTION: HPDESF E-coated ductile iron A536 Gr120-90-	2, stainless fitted	Harmonic suppression:	EN61800-3 Equivalent: 5% AC line reactor - Sup-	
MAXIMUM PUMP OPERATING CONI	DITIONS		porting IEEE 519-1992 requirements*	
□ PN 16		_	Fan-cooled, surface cooling	
16 bar at 49°C (232 psig at 120°F)		Ambient temperature:	-10°C to +40°C up to 1000 meters abo	
7 bar at 150°C (100 psig at 300°F)			sea level (+14°F to +104°F, 3300 ft)	
□ PN 25		Analog I/o:	Two inputs, one output. Output can be configured for voltage	
25 bar at 65°c (362 psig at 149°F)			or current	
21 bar at 150°C (304 psig at 300°F)		Digital 1/0:	Two inputs, two outputs. Outputs ca	
FLOW READOUT ACCURACY		g, v.	be configured as inputs	
The Design Envelope model selected will provide flow reading		Relay outputs:	Two programmable	

Communication port: 1-RS485

on the controls local keypad & digitally for the BMS. The model

Stationary seat: Silicone carbide

readout will be factory tested to ensure ±5% accuracy.

MECHANICAL SEAL DESIGN DATA

Rotating hardware: Stainless steel

Secondary seal: EPDM Spring: Stainless steel

^{**} If supplied with the system electrical details, Armstrong will run a computer simulation of the system wide harmonics. If system harmonic levels are exceeded Armstrong can also recommend additional harmonic mitigation and the costs for such mitigation.

ALL GLYCOLS > 30% WT CONC FLUID TYPE ALL OTHER NON-POTABLE FLUIDS POTABLE (DRINKING) WATER **Temperature** up to 93°C / 200°F over 93°C / 200°F up to 93°C / 200°F over 93°C / 200°F up to 93°c / 200°F over 93°C / 200°F Resin bonded carbon Rotating face Silicone carbide Antimony loaded carbon Resin bonded carbon EPDM (L-cup) Seat elastomer EPDM (L-cup) EPDM (o-ring) EPDM (L-cup) EPDM (o-ring) EPDM (o-ring) Material code SCsc L EPSS 2A SCsc o epss 2A C-SC L EPSS 2A ACsc o epss 2A C-SC L EPSS 2A C-SC O EPSS 2A

OPTIONS

SENSORLESS BUNDLE (STANDARD)



Operation of pump without a remote sensor. Includes:

- Sensorless control
- Flow readout
- Constant flow
- Constant pressure

Minimum system pressure to be maintained m (ft)

* If minimum maintained system pressure is not known: Default to 40% of design head

☐ PARALLEL SENSORLESS



Operation of multiple pumps without a remote sensor

Minimum system pressure to be maintained m (ft)

* If minimum maintained system pressure is not known: Default to 40% of design head

☐ ENERGY PERFORMANCE BUNDLE



Provides energy savings on oversized systems by adjusting pump parameters to on-site conditions. Includes:

- Auto-flow balancing Automatically determines control curve between design flow at on-site system head, and minimum (zero-head) flow for energy savings
- Maximum flow control Limits flow rate to pre-set maximum for potential energy savings

Maximum flow rate L/s (gpm)

□ PROTECTION BUNDLE



Protects other flow sensitive equipment by setting limits of pump operation. Includes:

- Minimum flow control Attempts to maintain flow rate to pre-set minimum to protect equipment in system
- Bypass valve control Actuates a bypass valve to protect flow sensitive equipment if pre-set minimum flow rate is reached

Minimum flow rate L/s (gpm)

☐ DUAL SEASON SETUP



Pre-sets heating and cooling parameters for pumps in 2-pipe systems

Cooling

Duty point	L/s (gpm) at m (ft)
, ,	essure to be maintained
Heating	
Duty point	L/s (gpm) at m (ft)
Minimum system pre	essure to be maintained m (ft)

OPTIONAL SERVICES

ON-SITE PUMP COMMISSIONING



PUMP MANAGER



Online service for sustained pump performance and enhanced reliability.

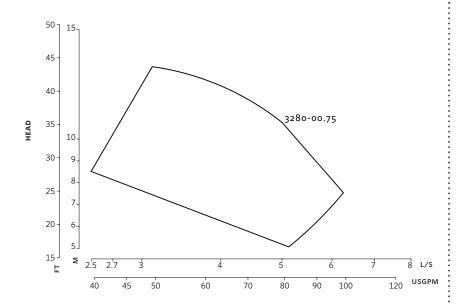
- * Requires an internet connection to be provided by building
- * Includes an extended warranty for parts and labour (wearable parts excluded)

^{*}Only available if sensorless bundle is enabled

^{*}Available in single pump operation only

^{*}Only available if sensorless bundle is enabled

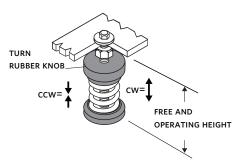
^{*}Available in single pump operation only



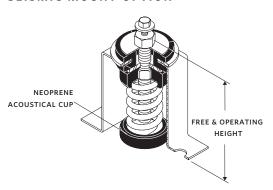
Performance curves are for reference only.

Confirm current performance data with Armstrong ADEPT Quote or ADEPT Select selection software.

STANDARD



SEISMIC MOUNT OPTION



DIMENSION DATA

STANDARD

Size: 1.5×1.25×3

κW: 0.75

RPM: 3600

Frame: 71

HA: 294 (11.58)

HD: 190 (7.50)

HI: 343 (13.50)

HV: 160 (6.31)

x: 115 (4.53)

y: 97 (3.81)

Free & operating height: 95 (3.75)

Weight: 30.0 (66)

SPRING DATA

Rated Capacity per spring kgs (lbs): 25.0 (54)

Rated Deflection

mm (inch): 30 (1.20)

Mount Constant

kg/mm (lbs/in): 0.8 (45)

SEISMIC MOUNT OPTION

2E: 16 (8.50)

F: 102 (4.00)

G: 114 (4.50)

H: 12 (0.50)

HA: 273 (10.75)

HD: 222 (8.75)

N: 98 (3.85)

Free & operating 127 (5.00)

height:

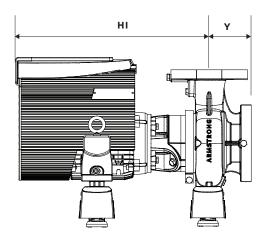
Max. horizontal 6.7 static G rating:

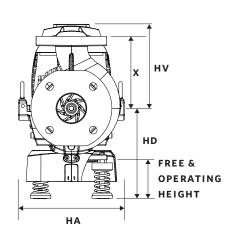
- Dimensions mm (inch)
- Weight kg (lbs)
- Tolerance of ±3 mm (±0.125") should be used
- For exact installation, data please write factory for certified dimensions

NOTE:

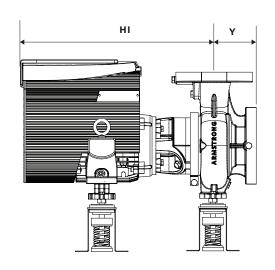
All springs have additional travel to solid equal to 50% of the rated deflection.

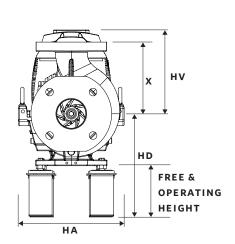
STANDARD





SEISMIC MOUNT OPTION





TORONTO

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MANCHESTER

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ARMSTRONG FLUID TECHNOLOGY® ESTABLISHED 1934

H DIA 8 HOLES

2E



40-80 (1.5×1.25×3) 3280-001.1 SUBMITTAL

File No: 103.5751IEC

Date: MARCH 14, 2023

Supersedes: 103.5751IEC

Date: NOVEMBER 08, 2021

Job: Represe		resentative:		
	Order N		Date:	
Engineer:		itted by:	Date:	
Contractor: Appro		oved by:	Date:	
PUMP DESIGN DATA		DEPM MOTOR AND CO	ONTROL DATA	
No. of pumps:	Tag:	kW:	1.1	
Capacity:L/s (USgpm)	Head:m (ft)	: RPM:	4500	
Liquid:		: Motor enclosure:	TEFC	
Temperature: °C (°F)		Volts / Phase:	□ 200-240V/1ph □ 380-480V/3pl	
Suction: 40 mm (1.5")	Discharge: 30 mm (1.25")		For 200-240V/3ph or 575V/3ph,	
		:	see File #:103.5703IEC	
MEI ≥ 0.70		Efficiency:	_	
MATERIALS OF CONSTRUCT	TON	Protocol (standard):		
□ pn 16		:	□ BACnet [™] TCP/IP	
CONSTRUCTION: LPDESF		: Control enclosure:	☐ Modbus RTU	
E-coated ductile iron A536 Gr	65-45-12, stainless fitted	Fused disconnect switch:		
□ PN 25			Integrated filter designed to meet	
CONSTRUCTION: HPDESF			EN61800-3	
E-coated ductile iron A536 Gr	120-90-2, stainless fitted	Harmonic suppression:	Equivalent: 5% Ac line reactor - Sup-	
MAXIMUM PUMP OPERATION	NG CONDITIONS		porting IEEE 519-1992 requirements*	
□ PN 16		Cooling:	Fan-cooled, surface cooling	
16 bar at 49°C (232 psig at 120°F)		Ambient temperature:	-10°C to +40°C up to 1000 meters above	
7 bar at 150°C (100 psig at 300°F)			sea level (+14°F to +104°F, 3300 ft)	
□ PN 25		: Analog I/o:	Two inputs, one output. Output	
25 bar at 65°C (362 psig at 149°F)			can be configured for voltage or current	
21 bar at 150°C (304 psig at 300°F)		: Digital 1/0:	Two inputs, two outputs. Outputs ca	
FLOW READOUT ACCURACY			be configured as inputs	
The Design Envelope model selected will provide flow reading		Relay outputs:	Two programmable	
on the controls local keypad & digitally for the BMS. The model		Communication port:		

readout will be factory tested to ensure ±5% accuracy.

Stationary seat: Silicone carbide

MECHANICAL SEAL DESIGN DATA

Rotating hardware: Stainless steel

Secondary seal: EPDM Spring: Stainless steel

^{**} If supplied with the system electrical details, Armstrong will run a computer simulation of the system wide harmonics. If system harmonic levels are exceeded Armstrong can also recommend additional harmonic mitigation and the costs for such mitigation.

FLUID TYPE ALL GLYCOLS > 30% WT CONC ALL OTHER NON-POTABLE FLUIDS POTABLE (DRINKING) WATER **Temperature** up to 93°C / 200°F over 93°C / 200°F up to 93°C / 200°F over 93°C / 200°F up to 93°c / 200°F over 93°C / 200°F Resin bonded carbon Antimony loaded carbon Rotating face Silicone carbide Resin bonded carbon EPDM (L-cup) Seat elastomer EPDM (L-cup) EPDM (o-ring) EPDM (L-cup) EPDM (o-ring) EPDM (o-ring) Material code SCsc L EPSS 2A SCsc o epss 2A C-SC L EPSS 2A ACsc o epss 2A C-SC L EPSS 2A C-SC O EPSS 2A

OPTIONS

SENSORLESS BUNDLE (STANDARD)



Operation of pump without a remote sensor. Includes:

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- Flow readout
- Constant flow
- Constant pressure

Minimum system pressure to be maintained m (ft)

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Operation of multiple pumps without a remote sensor

Minimum system pressure to be maintained m (ft)

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- Auto-flow balancing Automatically determines control curve between design flow at on-site system head, and minimum (zero-head) flow for energy savings
- Maximum flow control Limits flow rate to pre-set maximum for potential energy savings

Maximum flow rate L/s (gpm)

□ PROTECTION BUNDLE



Protects other flow sensitive equipment by setting limits of pump operation. Includes:

- Minimum flow control Attempts to maintain flow rate to pre-set minimum to protect equipment in system
- Bypass valve control Actuates a bypass valve to protect flow sensitive equipment if pre-set minimum flow rate is reached

Minimum flow rate L/s (gpm)

☐ DUAL SEASON SETUP



Pre-sets heating and cooling parameters for pumps in 2-pipe systems

Cooling

Duty point	L/s (gpm) at m (ft)
, ,	essure to be maintained (ft)
Heating	
Duty point	L/s (gpm) at m (ft)
Minimum system pre	essure to be maintained m (ft)

OPTIONAL SERVICES

ON-SITE PUMP COMMISSIONING



PUMP MANAGER



Online service for sustained pump performance and enhanced reliability.

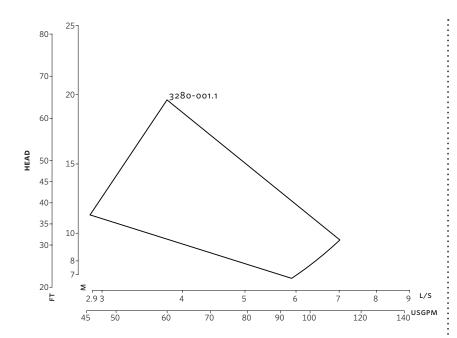
- * Requires an internet connection to be provided by building
- * Includes an extended warranty for parts and labour (wearable parts excluded)

^{*}Only available if sensorless bundle is enabled

^{*}Available in single pump operation only

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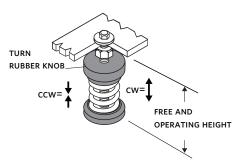
^{*}Available in single pump operation only



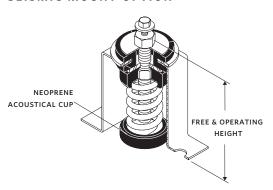
Performance curves are for reference only.

Confirm current performance data with Armstrong ADEPT Quote or ADEPT Select selection software.

STANDARD



SEISMIC MOUNT OPTION



DIMENSION DATA

STANDARD

Size: 1.5×1.25×3

κW: 1.1

RPM: 3600

Frame: 71

HA: 294 (11.58)

190 (7.50) HD:

343 (13.50)

160 (6.31)

x: 115 (4.53)

97 (3.81)

Free & operating

95 (3.75) height:

Weight: 30.0 (66)

SPRING DATA

Rated Capacity 25.0 (54) per spring kgs (lbs):

Rated Deflection

30 (1.20)

mm (inch):

Mount Constant 0.8 (45)

kg/mm (lbs/in):

SEISMIC MOUNT OPTION

2E: 16 (8.50)

F: 102 (4.00)

114 (4.50)

12 (0.50)

HA: 273 (10.75)

222 (8.75) HD:

98 (3.85)

127 (5.00) Free & operating

height:

Max. horizontal 6.7 static G rating:

• Dimensions - mm (inch)

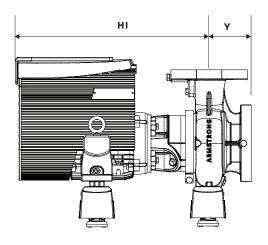
• Weight - kg (lbs)

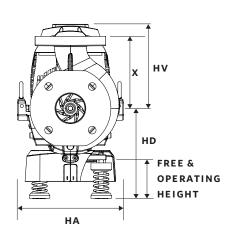
• Tolerance of ±3 mm (±0.125") should be used

• For exact installation, data please write factory for certified dimensions

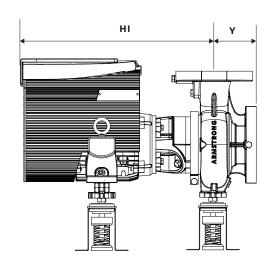
All springs have additional travel to solid equal to 50% of the rated deflection.

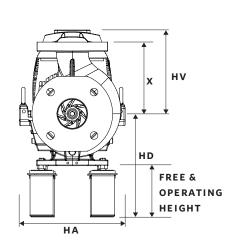
STANDARD





SEISMIC MOUNT OPTION





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BEIJING

+86 21 5237 0909

SÃO PAULO

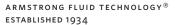
+55 11 4785 1330

DUBAI

+971 4 887 6775

JIMBOLIA

+40 256 360 030



H DIA 8 HOLES

2E



50-125 (2×1.5×5) | 4012-001.1 | SUBMITTAL

File No: 103.5752IEC

Date: MARCH 14, 2023

Supersedes: 103.5752IEC

Date: NOVEMBER 08, 2021

Job: Represe		presentative:		
	Order N	lo:	Date:	
Engineer: Subn Contractor: Appr		ed by:	Date:	
		ed by:	Date:	
PUMP DESIGN DATA	:	DEPM MOTOR AND CO	ONTROL DATA	
No. of pumps: Tag:		kW:	1.1	
Capacity:L/s (USgpm) Head:	m (ft)	RPM:	3000	
Liquid: Viscosity:		Motor enclosure:	TEFC	
Temperature: °c (°F) Specific gravir		Volts / Phase:	□ 200-240V/1ph □ 380-480V/3pl	
Suction: 50 mm (2") Discharge: 40	•		For 200-240V/3ph or 575V/3ph,	
MEI ≥ 0.70			see File #:103.5705IEC	
		Efficiency: 1E5		
MATERIALS OF CONSTRUCTION		Protocol (standard):		
□ PN 16			☐ BACnet [™] TCP/IP ☐ Modbus RTU	
CONSTRUCTION: LPDESF	:	Control enclosure:		
E-coated ductile iron A536 Gr 65-45-12, stainless fitted		Fused disconnect switch:		
□ PN 25			: Integrated filter designed to meet	
CONSTRUCTION: HPDESF	•	Limy Kir Control	EN61800-3	
E-coated ductile iron A536 Gr 120 - 90 - 2, sta	inless fitted	Harmonic suppression:	Equivalent: 5% Ac line reactor - Sup-	
MAXIMUM PUMP OPERATING CONDITION	ONS :		porting IEEE 519-1992 requirements*	
□ PN 16	•	Cooling:	Fan-cooled, surface cooling	
16 bar at 49°C (232 psig at 120°F)		Ambient temperature:	-10°C to +40°C up to 1000 meters above	
7 bar at 150°C (100 psig at 300°F)			sea level (+14°F to +104°F, 3300 ft)	
□ PN 25		Analog ı/o:	Two inputs, one output. Output	
25 bar at 65°C (362 psig at 149°F)			can be configured for voltage	
21 bar at 150°C (304 psig at 300°F)		Digital : /o.	or current Two inputs, two outputs. Outputs ca	
FLOW READOUT ACCURACY		Digital I/O:	be configured as inputs	
The Design Envelope model selected will provide flow reading		Relay outputs:	Two programmable	

Communication port: 1-RS485

on the controls local keypad & digitally for the BMS. The model

Stationary seat: Silicone carbide

readout will be factory tested to ensure ±5% accuracy.

MECHANICAL SEAL DESIGN DATA

Rotating hardware: Stainless steel

Secondary seal: EPDM Spring: Stainless steel

^{**} If supplied with the system electrical details, Armstrong will run a computer simulation of the system wide harmonics. If system harmonic levels are exceeded Armstrong can also recommend additional harmonic mitigation and the costs for such mitigation.

ALL GLYCOLS > 30% WT CONC FLUID TYPE ALL OTHER NON-POTABLE FLUIDS POTABLE (DRINKING) WATER **Temperature** up to 93°C / 200°F over 93°C / 200°F up to 93°C / 200°F over 93°C / 200°F up to 93°c / 200°F over 93°C / 200°F Resin bonded carbon Rotating face Silicone carbide Antimony loaded carbon Resin bonded carbon Seat elastomer EPDM (L-cup) EPDM (L-cup) EPDM (o-ring) EPDM (L-cup) EPDM (o-ring) EPDM (o-ring) Material code SCsc L EPSS 2A SCsc o epss 2A C-SC L EPSS 2A ACsc o epss 2A C-SC L EPSS 2A C-SC O EPSS 2A

OPTIONS

SENSORLESS BUNDLE (STANDARD)



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- Flow readout
- Constant flow
- Constant pressure

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☐ PARALLEL SENSORLESS



Operation of multiple pumps without a remote sensor

Minimum system pressure to be maintained m (ft)

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☐ ENERGY PERFORMANCE BUNDLE



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- Maximum flow control Limits flow rate to pre-set maximum for potential energy savings

Maximum flow rate L/s (gpm)

☐ PROTECTION BUNDLE



Protects other flow sensitive equipment by setting limits of pump operation. Includes:

- Minimum flow control Attempts to maintain flow rate to pre-set minimum to protect equipment in system
- Bypass valve control Actuates a bypass valve to protect flow sensitive equipment if pre-set minimum flow rate is reached

Minimum flow rate L/s (gpm)

☐ DUAL SEASON SETUP



Pre-sets heating and cooling parameters for pumps in 2-pipe systems

Cooling

Duty point	L/s (gpm) at m (ft)
, ,	essure to be maintained (ft)
Heating	
Duty point	L/s (gpm) at m (ft)
Minimum system pre	essure to be maintained m (ft)

OPTIONAL SERVICES

ON-SITE PUMP COMMISSIONING



PUMP MANAGER



Online service for sustained pump performance and enhanced reliability.

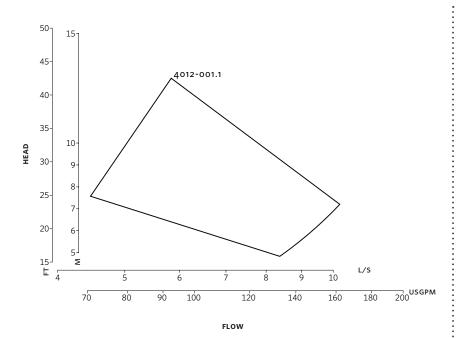
- * Requires an internet connection to be provided by building
- * Includes an extended warranty for parts and labour (wearable parts excluded)

^{*}Only available if sensorless bundle is enabled

^{*}Available in single pump operation only

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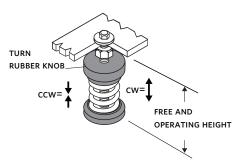
^{*}Available in single pump operation only



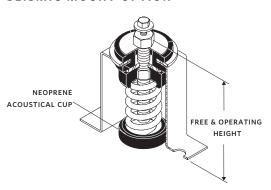
Performance curves are for reference only.

Confirm current performance data with Armstrong ADEPT Quote or ADEPT Select selection software.

STANDARD



SEISMIC MOUNT OPTION



STANDARD

DIMENSION DATA

Size: 2×1.5×5 **κW:** 1.1

RPM: 3000

Frame: 71

> **HA:** 262 (10.32) 222 (8.75) HD:

369 (14.53)

152 (5.97)

178 (7.00) 102 (4.00)

Free & operating 95 (3.75) height:

Weight: 31.0 (68)

SPRING DATA

Rated Capacity 25.0 (54) per spring kgs (lbs): **Rated Deflection** 30 (1.20) mm (inch): **Mount Constant** 0.8 (45) kg/mm (lbs/in):

SEISMIC MOUNT OPTION

2E: 146 (5.75)

F: 102 (4.00)

152 (6.00)

H: 12 (0.50)

HA: 262 (10.32)

254 (10.00) HD:

126 (4.96) N:

127 (5.00) Free & operating

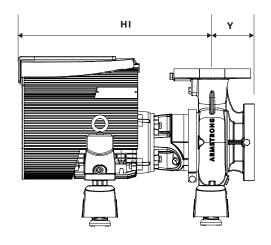
height:

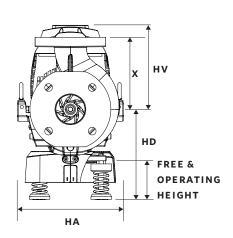
Max. horizontal 6.7 static G rating:

- Dimensions mm (inch)
- Weight kg (lbs)
- Tolerance of ±3 mm (±0.125") should be used
- For exact installation, data please write factory for certified dimensions

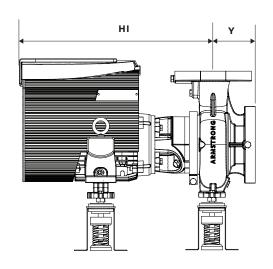
All springs have additional travel to solid equal to 50% of the rated deflection.

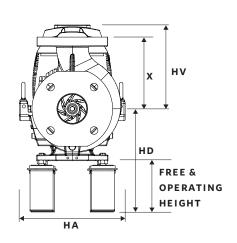
STANDARD





SEISMIC MOUNT OPTION





TORONTO

+1 416 755 2291

BUFFALO

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MANCHESTER

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H DIA 8 HOLES

2E



50-125 (2×1.5×5) | 4012H-001.1 | SUBMITTAL

File No: 103.5753IEC

Date: MARCH 14, 2023

Supersedes: 103.5753IEC

Date: NOVEMBER 08, 2021

Job: Represe		esentative:		
	Order l	No:	Date:	
Engineer:	Submit	ted by:	Date:	
Contractor: Appro		ved by:	Date:	
PUMP DESIGN DATA		DEPM MOTOR AND CO	ONTROL DATA	
No. of pumps:	Tag:	kW:	1.1	
Capacity:L/s (USgpm)	Head:m (ft)	RPM:	3000	
Liquid:	Viscosity:	Motor enclosure:	TEFC	
Temperature: °C (°F)		Volts / Phase:	□ 200-240V/1ph □ 380-480V/3pl	
Suction: 50 mm (2") Discharge: 40 mm (1.5")			For 200-240V/3ph or 575V/3ph, see File #:103.5707IEC	
MEI ≥ 0.70		Efficiency:	IE5	
MATERIALS OF CONSTRUCTION		Protocol (standard):	: ☐ BACnet™ MS/TP ☐ BACnet™ TCP/IP	
□ PN 16		•	☐ Modbus RTU	
CONSTRUCTION: LPDESF		Control enclosure:	☐ Indoor - IP 55	
E-coated ductile iron A536 Gr ☐ PN 25	65-45-12, stainless fitted	Fused disconnect switch:	See File 10 0 . 8131	
CONSTRUCTION: HPDESF		EMI/RFI control:	Integrated filter designed to meet	
E-coated ductile iron A536 Gr		Harmonic suppression:	Equivalent: 5% Ac line reactor - Sup	
MAXIMUM PUMP OPERATIN	NG CONDITIONS	Cooling	porting IEEE 519-1992 requirements* Fan-cooled, surface cooling	
□ PN 16		•	-10°C to +40°C up to 1000 meters above	
16 bar at 49°c (232 psig at 120°F) 7 bar at 150°c (100 psig at 300°F)			sea level (+14°F to +104°F, 3300 ft)	
□ PN 25		Analog ı/o:	Two inputs, one output. Output	
25 bar at 65°C (362 psig at 149°F)		•	can be configured for voltage	
21 bar at 150°C (304 psig at 300°F)		•	or current	
FLOW READOUT ACCURACY		Digital ı/o:	Two inputs, two outputs. Outputs cabe configured as inputs	
The Design Envelope model selected will provide flow reading		•	Two programmable	
on the controls local keypad & digitally for the BMS. The model		Communication port:	1-RS485	

readout will be factory tested to ensure ±5% accuracy.

Stationary seat: Silicone carbide

MECHANICAL SEAL DESIGN DATA

Rotating hardware: Stainless steel

Secondary seal: EPDM Spring: Stainless steel

^{**} If supplied with the system electrical details, Armstrong will run a computer simulation of the system wide harmonics. If system harmonic levels are exceeded Armstrong can also recommend additional harmonic mitigation and the costs for such mitigation.

FLUID TYPE ALL GLYCOLS > 30% WT CONC ALL OTHER NON-POTABLE FLUIDS POTABLE (DRINKING) WATER **Temperature** up to 93°C / 200°F over 93°C / 200°F up to 93°C / 200°F over 93°C / 200°F up to 93°c / 200°F over 93°C / 200°F Silicone carbide Resin bonded carbon Antimony loaded carbon Rotating face Resin bonded carbon Seat elastomer EPDM (L-cup) EPDM (L-cup) EPDM (o-ring) EPDM (L-cup) EPDM (o-ring) EPDM (o-ring) Material code SCsc L EPSS 2A SCsc o epss 2A C-SC L EPSS 2A ACsc o epss 2A C-SC L EPSS 2A C-SC O EPSS 2A

OPTIONS

SENSORLESS BUNDLE (STANDARD)



Operation of pump without a remote sensor. Includes:

- Sensorless control
- Flow readout
- · Constant flow
- Constant pressure

Minimum system pressure to be maintained m (ft)

* If minimum maintained system pressure is not known: Default to 40% of design head

☐ PARALLEL SENSORLESS



Operation of multiple pumps without a remote sensor

Minimum system pressure to be maintained m (ft)

* If minimum maintained system pressure is not known: Default to 40% of design head

☐ ENERGY PERFORMANCE BUNDLE



Provides energy savings on oversized systems by adjusting pump parameters to on-site conditions. Includes:

- Auto-flow balancing Automatically determines control curve between design flow at on-site system head, and minimum (zero-head) flow for energy savings
- Maximum flow control Limits flow rate to pre-set maximum for potential energy savings

Maximum flow rate L/s (gpm)

□ PROTECTION BUNDLE



Protects other flow sensitive equipment by setting limits of pump operation. Includes:

- Minimum flow control Attempts to maintain flow rate to pre-set minimum to protect equipment in system
- Bypass valve control Actuates a bypass valve to protect flow sensitive equipment if pre-set minimum flow rate is reached

Minimum flow rate L/s (gpm)

☐ DUAL SEASON SETUP



Pre-sets heating and cooling parameters for pumps in 2-pipe systems

Cooling

Duty point	L/s (gpm) at m (ft)
, ,	essure to be maintained
Heating	
Duty point	L/s (gpm) at m (ft)
Minimum system pre	essure to be maintained m (ft)

OPTIONAL SERVICES

ON-SITE PUMP COMMISSIONING



PUMP MANAGER



Online service for sustained pump performance and enhanced reliability.

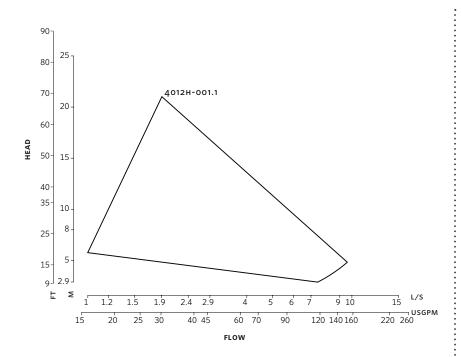
- * Requires an internet connection to be provided by building
- * Includes an extended warranty for parts and labour (wearable parts excluded)

^{*}Only available if sensorless bundle is enabled

^{*}Available in single pump operation only

^{*}Only available if sensorless bundle is enabled

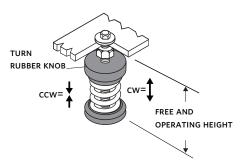
^{*}Available in single pump operation only



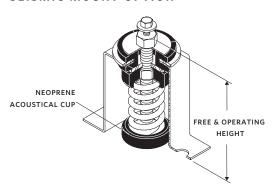
Performance curves are for reference only.

Confirm current performance data with Armstrong ADEPT Quote or ADEPT Select selection software.

STANDARD



SEISMIC MOUNT OPTION



DIMENSION DATA

STANDARD

Size: 2×1.5×5

kW: 1.1 **RPM:** 3000

Frame: 71

HA: 262 (10.32)

HD: 222 (8.75)

HI: 369 (14.53)

HV: 152 (5.97)

x: 178 (7.00)

Y: 102 (4.00)

Free & operating height: 95 (3.75)

Weight: 31.0 (68)

SPRING DATA

Rated Capacity per spring kgs (lbs): 25.0 (54)

Rated Deflection

n 30 (1.20)

mm (inch): **Mount Constant**

kg/mm (lbs/in): 0.8 (45)

SEISMIC MOUNT OPTION

2E: 146 (5.75)

F: 102 (4.00)

G: 152 (6.00)

H: 12 (0.50)

HA: 262 (10.32)

HD: 254 (10.00)

N: 126 (4.96)

Free & operating 127 (5.00)

height:

Max. horizontal 6.7

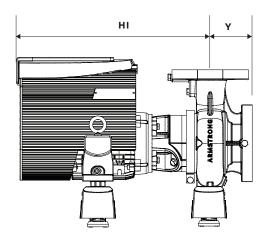
static G rating:

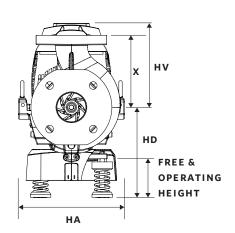
- Dimensions mm (inch)
- Weight kg (lbs)
- Tolerance of ±3 mm (±0.125") should be used
- For exact installation, data please write factory for certified dimensions

NOTE:

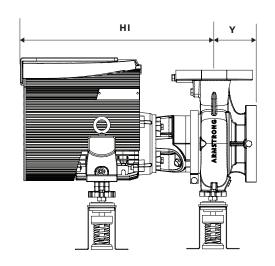
All springs have additional travel to solid equal to 50% of the rated deflection.

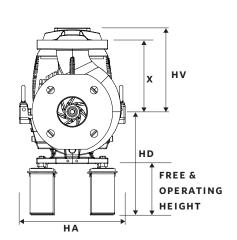
STANDARD





SEISMIC MOUNT OPTION





TORONTO

+1 416 755 2291

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MANCHESTER

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+971 4 887 6775

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ARMSTRONG FLUID TECHNOLOGY® ESTABLISHED 1934

H DIA 8 HOLES

2E



50-125 (2×1.5×5) | 4012-001.5 | SUBMITTAL

File No: 103.5754IEC

Date: MARCH 14, 2023

Supersedes: 103.5754IEC

Date: NOVEMBER 08, 2021

Job: Repres		resentative:		
	Orde	er No:	Date:	
Engineer:	Subn	nitted by:	Date:	
Contractor:	Аррі	roved by:	Date:	
PUMP DESIGN DATA		DEPM MOTOR AND CO	ONTROL DATA	
No. of pumps:	Tag:	kW:	1.5	
Capacity:L/s (USgpm)	Head:m (ft)	RPM:	3000	
Liquid:	Viscosity:	Motor enclosure:	TEFC	
Temperature: °C (°F)	Specific gravity:	Volts / Phase:	□ 200-240V/1ph □ 380-480V/3ph	
Suction: 50 mm (2") Discharge: 40 mm (1.5")			For 200-240V/3ph or 575V/3ph, see File #:103.5709IEC	
MEI ≥ 0.70		Efficiency:		
MATERIALS OF CONSTRUCTION		Protocol (standard):	_	
□ pn 16			☐ Modbus RTU	
CONSTRUCTION: LPDESF		Control enclosure:	: ☐ Indoor - IP 55	
E-coated ductile iron A536 Gr	65-45-12, stainless fitted	Fused disconnect switch:	See File 100.8131	
□ PN 25		EMI/RFI control:	: Integrated filter designed to meet	
CONSTRUCTION: HPDESF E-coated ductile iron A536 Gr 120-90-2, stainless fitted		Harmonic suppression:	EN61800-3 Equivalent: 5% AC line reactor - Sup	
MAXIMUM PUMP OPERATION	NG CONDITIONS		porting IEEE 519-1992 requirements*	
□ PN 16		•	: Fan-cooled, surface cooling	
16 bar at 49°C (232 psig at 120°F)		: Ambient temperature:	-10°C to +40°C up to 1000 meters above	
7 bar at 150°C (100 psig at 300°F)		. Analog (/o	sea level (+14°F to +104°F, 3300 ft) Two inputs, one output. Output	
□ PN 25		Allalog 1/0:	can be configured for voltage	
25 bar at 65°C (362 psig at 149°F) 21 bar at 150°C (304 psig at 300°F)			or current	
		Digital ı/o:	Two inputs, two outputs. Outputs ca	
FLOW READOUT ACCURACY			be configured as inputs	
The Design Envelope model selected will provide flow reading		Relay outputs:	Two programmable	

Communication port: 1-RS485

FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
Temperature	up to 93°C / 200°F	over 93°C / 200°F	up to 93°c / 200°F	over 93°C / 200°F	up to 93°c / 200°F	over 93°C / 200°F
Rotating face	Silicone	carbide	Resin bonded carbon	Antimony loaded carbon	Resin bond	ed carbon
Seat elastomer	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (0-ring)	EPDM (L-cup)	EPDM (0-ring)
Material code	SCsc L EPSS 2A	SCsc o epss 2A	C-SC L EPSS 2A	ACsc o epss 2A	C-SC L EPSS 2A	C-SC O EPSS 2A

on the controls local keypad & digitally for the BMS. The model

Stationary seat: Silicone carbide

readout will be factory tested to ensure ±5% accuracy.

MECHANICAL SEAL DESIGN DATA

Rotating hardware: Stainless steel

Secondary seal: EPDM **Spring:** Stainless steel

^{**} If supplied with the system electrical details, Armstrong will run a computer simulation of the system wide harmonics. If system harmonic levels are exceeded Armstrong can also recommend additional harmonic mitigation and the costs for such mitigation.

OPTIONS

SENSORLESS BUNDLE (STANDARD)



Operation of pump without a remote sensor. Includes:

- Sensorless control
- Flow readout
- Constant flow
- Constant pressure

Minimum system pressure to be maintained m (ft)

* If minimum maintained system pressure is not known: Default to 40% of design head

☐ PARALLEL SENSORLESS



Operation of multiple pumps without a remote sensor

Minimum system pressure to be maintained m (ft)

* If minimum maintained system pressure is not known: Default to 40% of design head

☐ ENERGY PERFORMANCE BUNDLE



Provides energy savings on oversized systems by adjusting pump parameters to on-site conditions. Includes:

- Auto-flow balancing Automatically determines control curve between design flow at on-site system head, and minimum (zero-head) flow for energy savings
- Maximum flow control Limits flow rate to pre-set maximum for potential energy savings

Maximum flow rate L/s (gpm)

□ PROTECTION BUNDLE



Protects other flow sensitive equipment by setting limits of pump operation. Includes:

- Minimum flow control Attempts to maintain flow rate to pre-set minimum to protect equipment in system
- Bypass valve control Actuates a bypass valve to protect flow sensitive equipment if pre-set minimum flow rate is reached

Minimum flow rate L/s (gpm)

☐ DUAL SEASON SETUP



Pre-sets heating and cooling parameters for pumps in 2-pipe systems

Cooling

Duty point	L/s (gpm) at m (ft)
, ,	essure to be maintained (ft)
Heating	
Outy point	L/s (gpm) at m (ft)
Minimum system pre	essure to be maintained m (ft)

OPTIONAL SERVICES

ON-SITE PUMP COMMISSIONING



PUMP MANAGER



Online service for sustained pump performance and enhanced reliability.

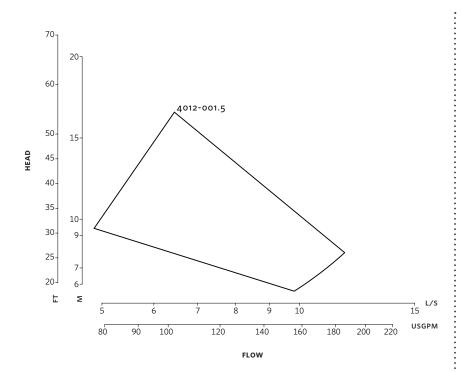
- * Requires an internet connection to be provided by building
- * Includes an extended warranty for parts and labour (wearable parts excluded)

^{*}Only available if sensorless bundle is enabled

^{*}Available in single pump operation only

^{*}Only available if sensorless bundle is enabled

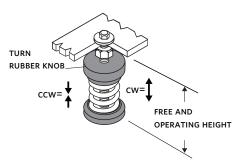
^{*}Available in single pump operation only



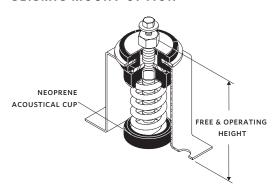
Performance curves are for reference only.

Confirm current performance data with Armstrong ADEPT Quote or ADEPT Select selection software.

STANDARD



SEISMIC MOUNT OPTION



All springs have additional travel to solid equal to 50% of the rated deflection.

DIMENSION DATA

STANDARD

Size: 2×1.5×5

κW: 1.5

RPM: 3000

Frame: 71

HA: 262 (10.32)

HD: 222 (8.75)

369 (14.53)

152 (5.97)

x: 178 (7.00)

102 (4.00)

Free & operating 95 (3.75) height:

Weight: 32 (70.5)

SPRING DATA

Rated Capacity 25.0 (54) per spring kgs (lbs):

Rated Deflection 30 (1.20) mm (inch):

Mount Constant 0.8 (45) kg/mm (lbs/in):

SEISMIC MOUNT OPTION

2E: 146 (5.75)

F: 102 (4.00)

152 (6.00)

H: 12 (0.50)

HA: 262 (10.32)

254 (10.00) HD:

126 (4.96) N:

127 (5.00) Free & operating

height:

Max. horizontal 6.7 static G rating:

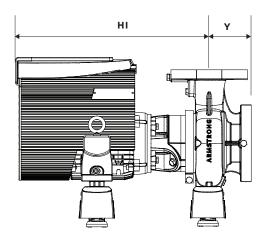
• Dimensions - mm (inch)

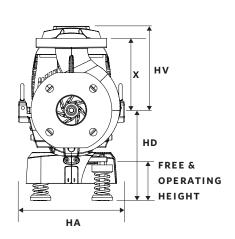
• Weight - kg (lbs)

• Tolerance of ±3 mm (±0.125") should be used

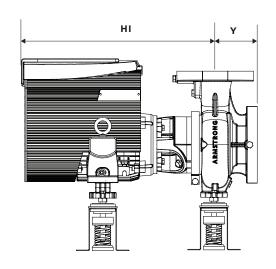
• For exact installation, data please write factory for certified dimensions

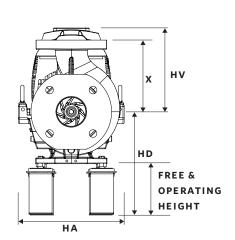
STANDARD





SEISMIC MOUNT OPTION





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ARMSTRONG FLUID TECHNOLOGY® ESTABLISHED 1934

H DIA 8 HOLES

2E



50-125 (2×1.5×5) | 4012H-001.5 | SUBMITTAL

File No: 103.57551EC

Date: MARCH 14, 2023

Supersedes: 103.57551EC

Date: NOVEMBER 08, 2021

Job: Represe		resentative:		
	Order N		Date:	
Engineer:	Subm	itted by:	Date:	
Contractor: Appro		oved by:	Date:	
PUMP DESIGN DATA		DEPM MOTOR AND CO	ONTROL DATA	
No. of pumps:	Tag:	kW:	1.5	
Capacity:L/s (USgpm)	Head:m (ft)	: RPM:	3000	
Liquid:		: Motor enclosure:	TEFC	
Temperature: °C (°F)		Volts / Phase:	□ 200-240V/1ph □ 380-480V/3pl	
Suction: 50 mm (2")	Discharge: 40 mm (1.5")		For 200-240V/3ph or 575V/3ph,	
MEI ≥ 0.70		:	see File #:103.5711IEC	
		Efficiency:	_	
MATERIALS OF CONSTRUCT	TON	Protocol (standard):		
PN 16			□ BACnet [™] TCP/IP	
CONSTRUCTION: LPDESF		Control enclosure:	☐ Modbus RTU	
E-coated ductile iron A536 Gr	65-45-12, stainless fitted	Fused disconnect switch:		
□ PN 25			Integrated filter designed to meet	
CONSTRUCTION: HPDESF		,	EN61800-3	
E-coated ductile iron A536 Gr	120-90-2, stainless fitted	: Harmonic suppression:	Equivalent: 5% AC line reactor - Sup-	
MAXIMUM PUMP OPERATION	NG CONDITIONS		porting IEEE 519-1992 requirements*	
□ PN 16		Cooling:	Fan-cooled, surface cooling	
16 bar at 49°C (232 psig at 120°F)		Ambient temperature:	-10°C to +40°C up to 1000 meters above	
7 bar at 150°C (100 psig at 300°F)			sea level (+14°F to +104°F, 3300 ft)	
□ PN 25		Analog I/o:	Two inputs, one output. Output	
25 bar at 65°C (362 psig at 149°F)			can be configured for voltage or current	
21 bar at 150°C (304 psig at 300°F)		: Digital (/o:	Two inputs, two outputs. Outputs ca	
FLOW READOUT ACCURACY		Digital 1/0.	be configured as inputs	
The Design Envelope model selected will provide flow reading		: Relay outputs:	Two programmable	
on the controls local keypad & digitally for the BMS. The model		Communication port:		

^{**} If supplied with the system electrical details, Armstrong will run a computer simulation of the system wide harmonics. If system harmonic levels are exceeded Armstrong can also recommend additional harmonic mitigation and the costs for such mitigation.

FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
Temperature	up to 93°C / 200°F	over 93°C / 200°F	up to 93°C / 200°F	over 93°C / 200°F	up to 93°C / 200°F	over 93°C / 200°F
Rotating face	Silicone	carbide	Resin bonded carbon	Antimony loaded carbon	Resin bond	led carbon
Seat elastomer	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (0-ring)	EPDM (L-cup)	EPDM (0-ring)
Material code	SCsc L EPSS 2A	SCsc o epss 2A	C-SC L EPSS 2A	ACsc o epss 2A	C-SC L EPSS 2A	C-SC O EPSS 2A

readout will be factory tested to ensure ±5% accuracy.

Stationary seat: Silicone carbide

MECHANICAL SEAL DESIGN DATA

Rotating hardware: Stainless steel

Secondary seal: EPDM **Spring:** Stainless steel

OPTIONS

SENSORLESS BUNDLE (STANDARD)



Operation of pump without a remote sensor. Includes:

- Sensorless control
- Flow readout
- Constant flow
- Constant pressure

Minimum system pressure to be maintained m (ft)

* If minimum maintained system pressure is not known: Default to 40% of design head

☐ PARALLEL SENSORLESS



Operation of multiple pumps without a remote sensor

Minimum system pressure to be maintained m (ft)

* If minimum maintained system pressure is not known: Default to 40% of design head

☐ ENERGY PERFORMANCE BUNDLE



Provides energy savings on oversized systems by adjusting pump parameters to on-site conditions. Includes:

- Auto-flow balancing Automatically determines control curve between design flow at on-site system head, and minimum (zero-head) flow for energy savings
- Maximum flow control Limits flow rate to pre-set maximum for potential energy savings

Maximum flow rate L/s (gpm)

□ PROTECTION BUNDLE



Protects other flow sensitive equipment by setting limits of pump operation. Includes:

- Minimum flow control Attempts to maintain flow rate to pre-set minimum to protect equipment in system
- Bypass valve control Actuates a bypass valve to protect flow sensitive equipment if pre-set minimum flow rate is reached

Minimum flow rate L/s (gpm)

☐ DUAL SEASON SETUP



Pre-sets heating and cooling parameters for pumps in 2-pipe systems

Cooling

Duty point	L/s (gpm) at m (ft)
, ,	essure to be maintained (ft)
Heating	
Duty point	L/s (gpm) at m (ft)
Minimum system pro	essure to be maintained m (ft)

OPTIONAL SERVICES

ON-SITE PUMP COMMISSIONING



PUMP MANAGER



Online service for sustained pump performance and enhanced reliability.

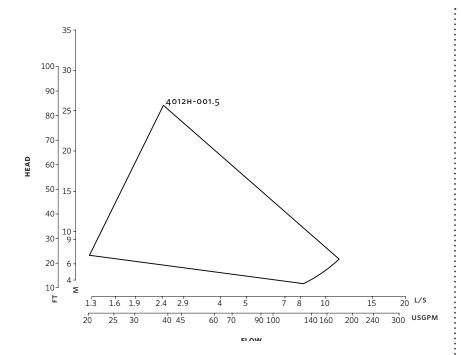
- * Requires an internet connection to be provided by building
- * Includes an extended warranty for parts and labour (wearable parts excluded)

^{*}Only available if sensorless bundle is enabled

^{*}Available in single pump operation only

 $^{^\}star Only$ available if sensorless bundle is enabled

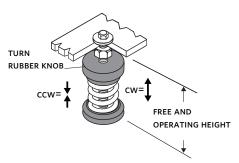
^{*}Available in single pump operation only



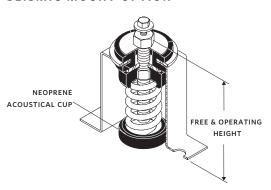
Performance curves are for reference only.

Confirm current performance data with Armstrong ADEPT Quote or ADEPT Select selection software.

STANDARD



SEISMIC MOUNT OPTION



STANDARD

DIMENSION DATA

Size: 2×1.5×5 **κW:** 1.5 **RPM:** 3000 Frame: 71 **HA:** 262 (10.32) 222 (8.75) HD: 369 (14.53) 152 (5.97) x: 178 (7.00) 102 (4.00) Free & operating 95 (3.75) height:

Weight: 32 (70.5)

SPRING DATA

Rated Capacity per spring kgs (lbs):

Rated Deflection mm (inch):

Mount Constant kg/mm (lbs/in):

25.0 (54)
30 (1.20)
0.8 (45)

SEISMIC MOUNT OPTION

2E: 146 (5.75)
F: 102 (4.00)
G: 152 (6.00)
H: 12 (0.50)
HA: 262 (10.32)
HD: 254 (10.00)
N: 126 (4.96)

Free & operating height:

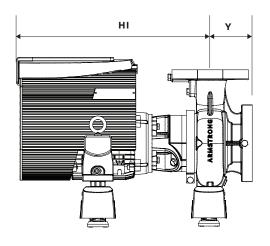
Max. horizontal static G rating:

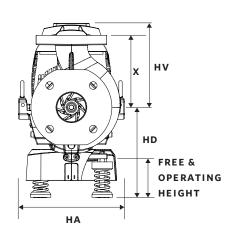
- Dimensions mm (inch)
- Weight kg (lbs)
- Tolerance of ±3 mm (±0.125") should be used
- For exact installation, data please write factory for certified dimensions

NOTE:

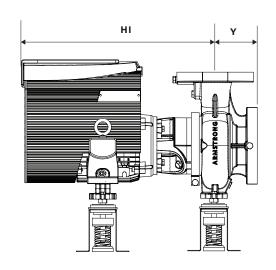
All springs have additional travel to solid equal to 50% of the rated deflection.

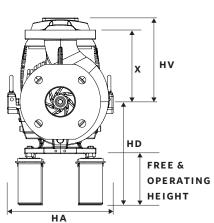
STANDARD





SEISMIC MOUNT OPTION





TORONTO

+1 416 755 2291

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MANCHESTER

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DUBAI

+971 4 887 6775

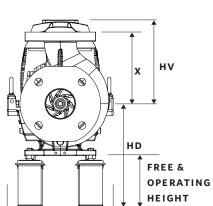
JIMBOLIA

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ARMSTRONG FLUID TECHNOLOGY $^{\circledR}$ ESTABLISHED 1934

H DIA 8 HOLES

2E





65-125 (2.5×2×5) | 5012-001.1 | SUBMITTAL

File No: 103.5756IEC

Date: MARCH 14, 2023

Supersedes: 103.5756IEC

Date: NOVEMBER 08, 2021

Job: Re		Representative:		
	Order N	lo:	Date:	
Engineer:	Submitt	ed by:	Date:	
Contractor:	Approv	ed by:	Date:	
PUMP DESIGN DATA	:	DEPM MOTOR AND CO	ONTROL DATA	
No. of pumps: Tag:		kW:	1.1	
Capacity:L/s (USgpm) Head:	m (ft)	RPM:	3000	
Liquid: Viscosity:		Motor enclosure:	TEFC	
Temperature: °C (°F) Specific grav		Volts / Phase:	□ 200-240V/1ph □ 380-480V/3pl	
Suction: 65 mm (2.5") Discharge: 5			For 200-240V/3ph or 575V/3ph,	
			see File #:103.5723IEC	
MEI ≥ 0.70		Efficiency:	_	
MATERIALS OF CONSTRUCTION		Protocol (standard):): ☐ BACnet™ MS/TP	
□ PN 16			☐ BACnet™ TCP/IP ☐ Modbus RTU	
CONSTRUCTION: LPDESF		Control enclosure:		
E-coated ductile iron A536 Gr 65-45-12, sta	inless fitted	Fused disconnect switch:		
☐ PN 25			ol: Integrated filter designed to meet	
CONSTRUCTION: HPDESF		,	EN61800-3	
E-coated ductile iron A536 Gr 120 - 90 - 2, sta	ainless fitted	Harmonic suppression:	Equivalent: 5% Ac line reactor - Sup-	
MAXIMUM PUMP OPERATING CONDITI	ONS		porting IEEE 519-1992 requirements*	
□ PN 16		Cooling:	Fan-cooled, surface cooling	
16 bar at 49°c (232 psig at 120°F)		Ambient temperature:	-10°C to +40°C up to 1000 meters above	
7 bar at 150°C (100 psig at 300°F)			sea level (+14°F to +104°F, 3300 ft)	
□ PN 25		Analog I/o:	Two inputs, one output. Output	
25 bar at 65°c (362 psig at 149°F)			can be configured for voltage or current	
21 bar at 150°c (304 psig at 300°F)		Digital 1/01	Two inputs, two outputs. Outputs ca	
FLOW READOUT ACCURACY		Digital I/O.	be configured as inputs	
The Design Envelope model selected will provide fl	low reading	Relay outputs:	Two programmable	

Communication port: 1-RS485

on the controls local keypad & digitally for the BMS. The model

Stationary seat: Silicone carbide

readout will be factory tested to ensure ±5% accuracy.

MECHANICAL SEAL DESIGN DATA

Rotating hardware: Stainless steel

Secondary seal: EPDM Spring: Stainless steel

^{**} If supplied with the system electrical details, Armstrong will run a computer simulation of the system wide harmonics. If system harmonic levels are exceeded Armstrong can also recommend additional harmonic mitigation and the costs for such mitigation.

ALL GLYCOLS > 30% WT CONC FLUID TYPE ALL OTHER NON-POTABLE FLUIDS POTABLE (DRINKING) WATER **Temperature** up to 93°C / 200°F over 93°C / 200°F up to 93°C / 200°F over 93°C / 200°F up to 93°c / 200°F over 93°C / 200°F Resin bonded carbon Rotating face Silicone carbide Antimony loaded carbon Resin bonded carbon Seat elastomer EPDM (L-cup) EPDM (L-cup) EPDM (o-ring) EPDM (L-cup) EPDM (o-ring) EPDM (o-ring) Material code SCsc L EPSS 2A SCsc o epss 2A C-SC L EPSS 2A ACsc o epss 2A C-SC L EPSS 2A C-SC O EPSS 2A

OPTIONS

SENSORLESS BUNDLE (STANDARD)



Operation of pump without a remote sensor. Includes:

- Sensorless control
- Flow readout
- Constant flow
- Constant pressure

Minimum system pressure to be maintained m (ft)

* If minimum maintained system pressure is not known: Default to 40% of design head

☐ PARALLEL SENSORLESS



Operation of multiple pumps without a remote sensor

Minimum system pressure to be maintained m (ft)

* If minimum maintained system pressure is not known: Default to 40% of design head

☐ ENERGY PERFORMANCE BUNDLE



Provides energy savings on oversized systems by adjusting pump parameters to on-site conditions. Includes:

- Auto-flow balancing Automatically determines control curve between design flow at on-site system head, and minimum (zero-head) flow for energy savings
- Maximum flow control Limits flow rate to pre-set maximum for potential energy savings

Maximum flow rate L/s (gpm)

□ PROTECTION BUNDLE



Protects other flow sensitive equipment by setting limits of pump operation. Includes:

- Minimum flow control Attempts to maintain flow rate to pre-set minimum to protect equipment in system
- Bypass valve control Actuates a bypass valve to protect flow sensitive equipment if pre-set minimum flow rate is reached

Minimum flow rate L/s (gpm)

☐ DUAL SEASON SETUP



Pre-sets heating and cooling parameters for pumps in 2-pipe systems

Cooling

Duty point	L/s (gpm) at m (ft)
, ,	essure to be maintained (ft)
Heating	
Duty point	L/s (gpm) at m (ft)
Minimum system pre	essure to be maintained m (ft)

OPTIONAL SERVICES

ON-SITE PUMP COMMISSIONING



PUMP MANAGER



Online service for sustained pump performance and enhanced reliability.

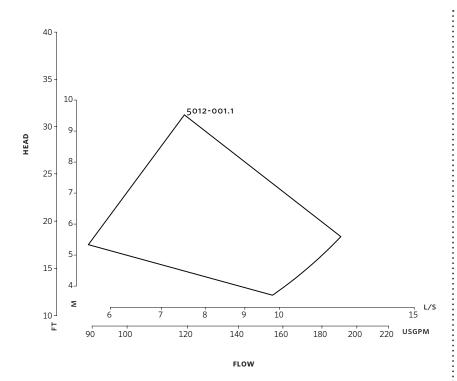
- * Requires an internet connection to be provided by building
- * Includes an extended warranty for parts and labour (wearable parts excluded)

^{*}Only available if sensorless bundle is enabled

^{*}Available in single pump operation only

^{*}Only available if sensorless bundle is enabled

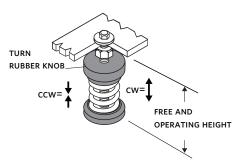
^{*}Available in single pump operation only



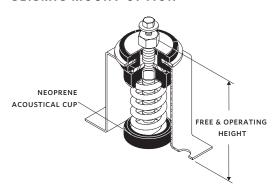
Performance curves are for reference only.

Confirm current performance data with Armstrong ADEPT Quote or ADEPT Select selection software.

STANDARD



SEISMIC MOUNT OPTION



All springs have additional travel to solid equal to 50% of the rated deflection.

DIMENSION DATA

STANDARD

Size: 2.5×2×5

κW: 1.1

RPM: 3000

Frame: 71

HA: 262 (10.32)

HD: 222 (8.75)

HI: 360 (14.16)

HV: 127 (4.99)

x: 178 (7.00)

Y: 102 (4.00)

Free & operating height: 95 (3.75)

Weight: 26.9 (59)

SPRING DATA

Rated Capacity 25.0 (54)

per spring kgs (lbs):

Rated Deflection 30 (1.20)

mm (inch): **Mount Constant**

kg/mm (lbs/in): 0.8 (45)

SEISMIC MOUNT OPTION

2E: 146 (5.75)

F: 102 (4.00)

G: 152 (6.00)

H: 12 (0.50)

HA: 262 (10.32)

HD: 254 (10.00)

N: 127 (5.00)

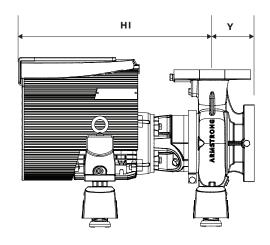
Free & operating 127 (5.00)

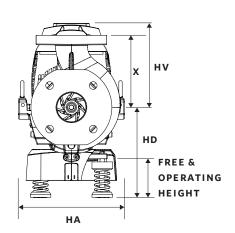
height:

Max. horizontal 6.7 static G rating:

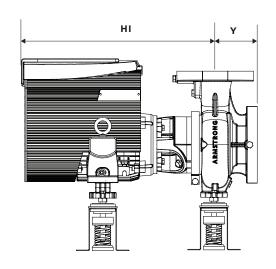
- Dimensions mm (inch)
- Weight kg (lbs)
- Tolerance of ±3 mm (±0.125") should be used
- For exact installation, data please write factory for certified dimensions

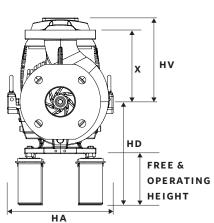
STANDARD





SEISMIC MOUNT OPTION





TORONTO

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DROITWICH SPA

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MANCHESTER

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BANGALORE

+91 80 4906 3555

SHANGHAI

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BEIJING

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SÃO PAULO

+55 11 4785 1330

DUBAI

+971 4 887 6775

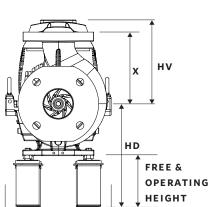
JIMBOLIA

+40 256 360 030

ARMSTRONG FLUID TECHNOLOGY $^{\circledR}$ ESTABLISHED 1934

H DIA 8 HOLES

2E





65-125 (2.5×2×5) | 5012-001.5 | SUBMITTAL

File No: 103.5757IEC

Date: MARCH 14, 2023

Supersedes: 103.5757IEC

Date: NOVEMBER 08, 2021

Job:	Repre	Representative:		
	Orde	r No:	Date:	
Engineer:	Subm	nitted by:	Date:	
Contractor:	Appr	oved by:	Date:	
PUMP DESIGN DATA		DEPM MOTOR AND CO	ONTROL DATA	
No. of pumps:	Tag:	kW:	1.5	
Capacity:L/s (USgpm)	Head:m (ft)	RPM:	3000	
Liquid:	Viscosity:	Motor enclosure:	TEFC	
Temperature: °C (°F)		Volts / Phase:	□ 200-240V/1ph □ 380-480V/3pl	
	Discharge: 50 mm (2")	:	For 200-240V/3ph or 575V/3ph,	
	Discharge. Je (2)	:	see File #:103.5725IEC	
MEI ≥ 0.70		Efficiency:	_	
MATERIALS OF CONSTRUCT	TION	Protocol (standard):		
□ pn 16		•	☐ BACNet™ TCP/IP ☐ Modbus RTU	
CONSTRUCTION: LPDESF		Control enclosure:		
E-coated ductile iron A536 Gr	65-45-12, stainless fitted	Fused disconnect switch:		
□ PN 25			l: Integrated filter designed to meet	
CONSTRUCTION: HPDESF			EN61800-3	
E-coated ductile iron A536 Gr	120-90-2, stainless fitted	Harmonic suppression:	Equivalent: 5% Ac line reactor - Sup-	
MAXIMUM PUMP OPERATION	NG CONDITIONS	:	porting IEEE 519-1992 requirements*	
□ PN 16		•	Fan-cooled, surface cooling	
16 bar at 49°c (232 psig at 120°	PF)	Ambient temperature:	-10°c to +40°c up to 1000 meters abov	
7 bar at 150°c (100 psig at 300°	°F)	A 1	sea level (+14°F to +104°F, 3300 ft)	
□ PN 25	•	: Analog I/o:	Two inputs, one output. Output can be configured for voltage	
25 bar at 65°C (362 psig at 149°		:	or current	
21 bar at 150°C (304 psig at 300	U F)	: Digital 1/0:	Two inputs, two outputs. Outputs ca	
FLOW READOUT ACCURACY	•		be configured as inputs	
The Design Envelope model selecte	d will provide flow reading	Relay outputs:	Two programmable	
on the controls local keypad & digita		Communication port:	1-RS485	

readout will be factory tested to ensure ±5% accuracy.

Stationary seat: Silicone carbide

MECHANICAL SEAL DESIGN DATA

Rotating hardware: Stainless steel

Secondary seal: EPDM Spring: Stainless steel

^{**} If supplied with the system electrical details, Armstrong will run a computer simulation of the system wide harmonics. If system harmonic levels are exceeded Armstrong can also recommend additional harmonic mitigation and the costs for such mitigation.

FLUID TYPE ALL GLYCOLS > 30% WT CONC ALL OTHER NON-POTABLE FLUIDS POTABLE (DRINKING) WATER **Temperature** up to 93°C / 200°F over 93°C / 200°F up to 93°C / 200°F over 93°C / 200°F up to 93°c / 200°F over 93°C / 200°F Resin bonded carbon Antimony loaded carbon Rotating face Silicone carbide Resin bonded carbon Seat elastomer EPDM (L-cup) EPDM (L-cup) EPDM (o-ring) EPDM (L-cup) EPDM (o-ring) EPDM (o-ring) Material code SCsc L EPSS 2A SCsc o epss 2A C-SC L EPSS 2A ACsc o epss 2A C-SC L EPSS 2A C-SC O EPSS 2A

OPTIONS

SENSORLESS BUNDLE (STANDARD)



Operation of pump without a remote sensor. Includes:

- Sensorless control
- Flow readout
- Constant flow
- Constant pressure

Minimum system pressure to be maintained m (ft)

* If minimum maintained system pressure is not known: Default to 40% of design head

☐ PARALLEL SENSORLESS



Operation of multiple pumps without a remote sensor

Minimum system pressure to be maintained m (ft)

* If minimum maintained system pressure is not known: Default to 40% of design head

☐ ENERGY PERFORMANCE BUNDLE



Provides energy savings on oversized systems by adjusting pump parameters to on-site conditions. Includes:

- Auto-flow balancing Automatically determines control curve between design flow at on-site system head, and minimum (zero-head) flow for energy savings
- Maximum flow control Limits flow rate to pre-set maximum for potential energy savings

Maximum flow rate L/s (gpm)

□ PROTECTION BUNDLE



Protects other flow sensitive equipment by setting limits of pump operation. Includes:

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Minimum flow rate L/s (gpm)

☐ DUAL SEASON SETUP



Pre-sets heating and cooling parameters for pumps in 2-pipe systems

Cooling

Duty point	L/s (gpm) at m (ft)
, ,	essure to be maintained (ft)
Heating	
Duty point	L/s (gpm) at m (ft)
Minimum system pre	essure to be maintained m (ft)

OPTIONAL SERVICES

ON-SITE PUMP COMMISSIONING



PUMP MANAGER



Online service for sustained pump performance and enhanced reliability.

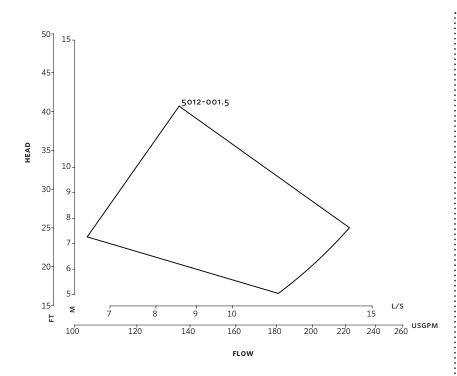
- * Requires an internet connection to be provided by building
- * Includes an extended warranty for parts and labour (wearable parts excluded)

^{*}Only available if sensorless bundle is enabled

^{*}Available in single pump operation only

^{*}Only available if sensorless bundle is enabled

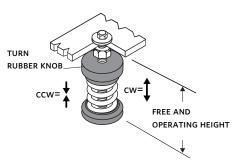
^{*}Available in single pump operation only



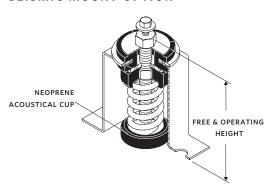
Performance curves are for reference only.

Confirm current performance data with Armstrong ADEPT Quote or ADEPT Select selection software.

STANDARD



SEISMIC MOUNT OPTION



DIMENSION DATA

STANDARD

Size: 2.5×2×5

kW: 1.5 **RPM:** 3000

F...... 71

Frame: 71

HA: 262 (10.32)

HD: 222 (8.75)

HI: 360 (14.16)

HV: 127 (4.99)

x: 178 (7.00)

y: 102 (4.00)

Free & operating 95 (3.75)

height: 93 (3.73)
Weight: 27.5 (61)

SPRING DATA

Rated Capacity per spring kgs (lbs): 25.0 (54)

Rated Deflection

mm (inch): 30 (1.20)

Mount Constant

kg/mm (lbs/in): 0.8 (45)

SEISMIC MOUNT OPTION

2E: 146 (5.75)

F: 102 (4.00)

G: 152 (6.00)

H: 12 (0.50)

HA: 262 (10.32)

HD: 254 (10.00)

N: 127 (5.00)

Free & operating 127 (5.00)

height:

Max. horizontal 6.7 static G rating:

• Dimensions - mm (inch)

• Weight - kg (lbs)

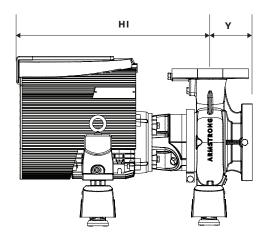
• Tolerance of ±3 mm (±0.125") should be used

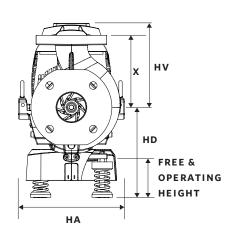
• For exact installation, data please write factory for certified dimensions

NOTE:

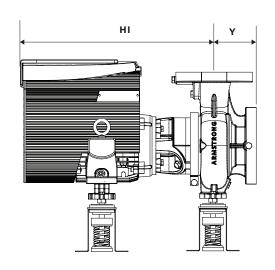
All springs have additional travel to solid equal to 50% of the rated deflection.

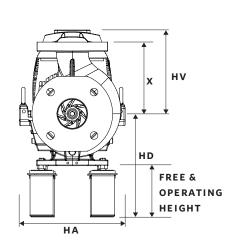
STANDARD





SEISMIC MOUNT OPTION





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H DIA 8 HOLES

2E