



# $\alpha$ -Power Series Metering Pump

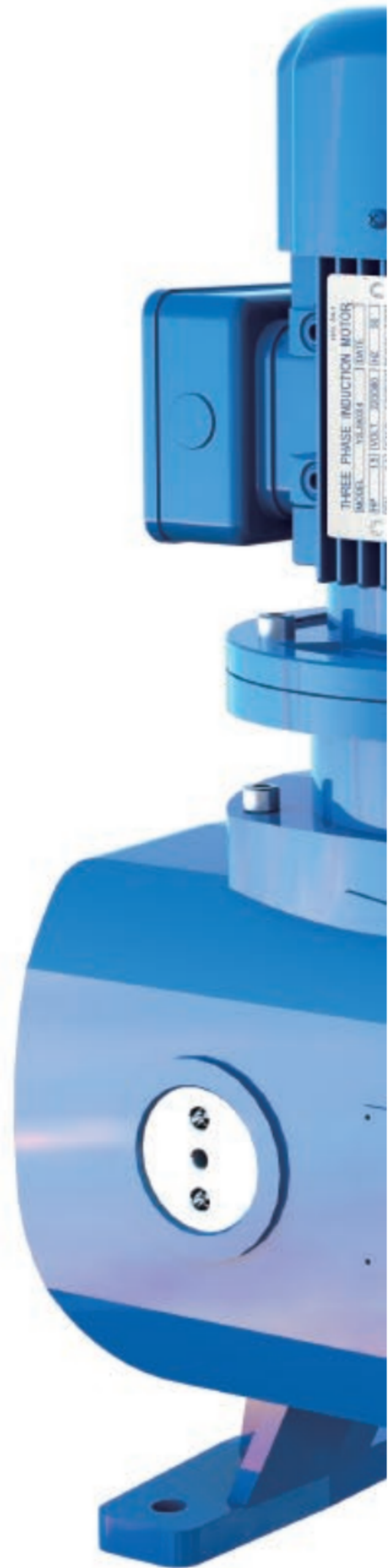
*Hydraulically Actuated Diaphragm Liquid End*

## Technical Specification

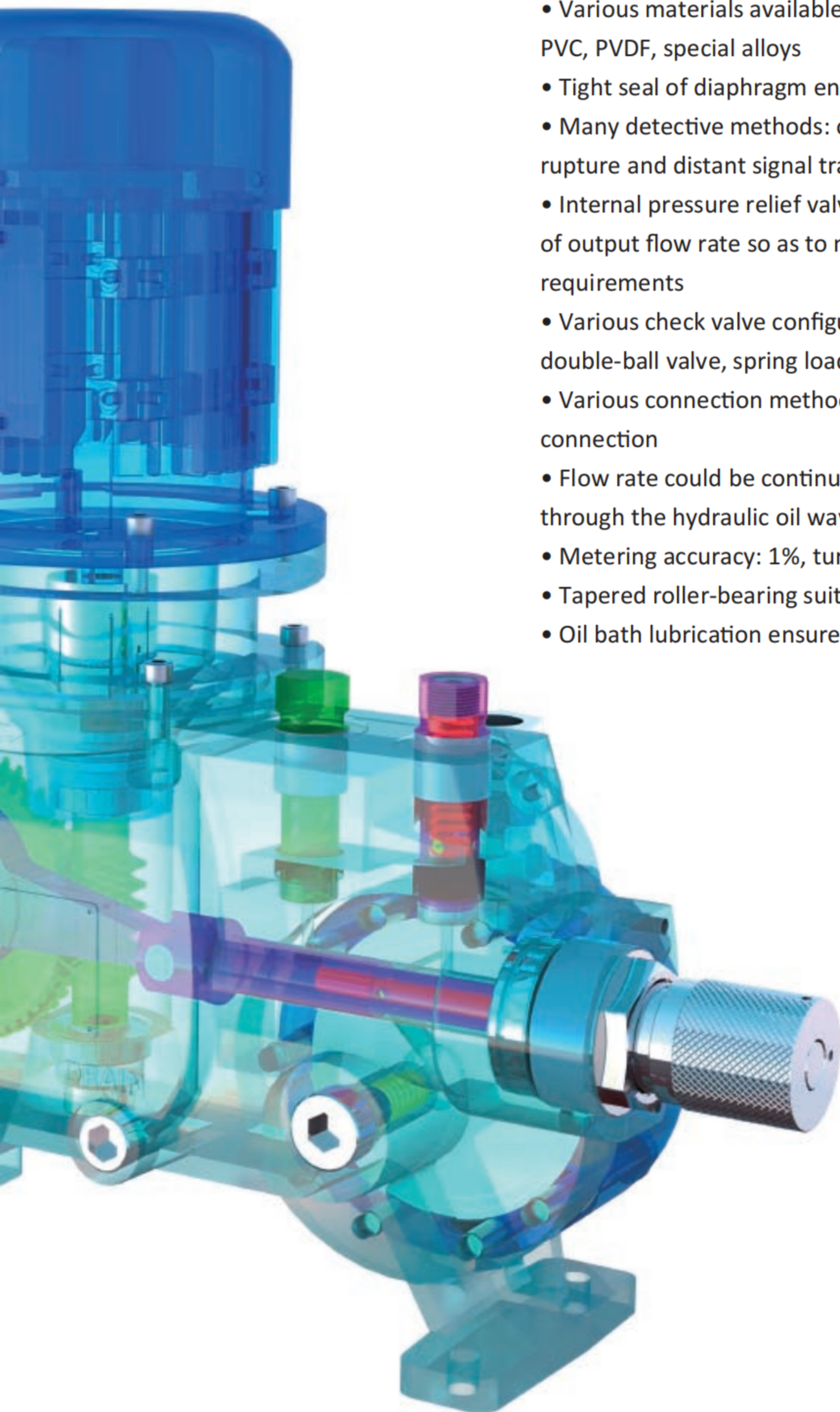
- Flow rate: 1.6~326 L/h
- Max. discharge pressure: 160 Bar
- Turndown Ratio: 10:1
- Stability accuracy:  $\pm 1\%$
- Max. liquid temperature: 90 $^{\circ}$
- Max. viscosity: up to 1200cP

## Typical Dosing Applications

- Ammonia
- Hydrazine
- Scale inhibitor
- Water treatment additives
- Chemical process additives
- Oil industry additives
- Edible pigment and food flavor







## The Technical Features

- Designed for continuous delivery of various special mediums
  - Various materials available for the pump head: 316SS, PVC, PVDF, special alloys
  - Tight seal of diaphragm ensures no leakage
  - Many detective methods: on-site signs of diaphragm rupture and distant signal transmission
  - Internal pressure relief valve which ensures the stability of output flow rate so as to meet the accuracy requirements
  - Various check valve configuration: single-ball valve, double-ball valve, spring loaded valve
  - Various connection methods: threaded connection, flange connection
  - Flow rate could be continuous adjusted from 0% to 100% through the hydraulic oil way control
  - Metering accuracy: 1%, turndown ratio: 10:1
  - Tapered roller-bearing suit high loads operation condition
  - Oil bath lubrication ensures low wear and high reliability
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  - High-efficiency worm gear and worm shaft decelerating mechanism works steadily with low noise
  - Compact structure and small volume, suit limited installation space
  - The design and manufacture complies with the API 675 standards

# $\alpha$ -Power Series Metering Pump Code

Frame Size	Plunger Diameter	Diaphragm	Check Valve	Pressure	Options
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Frame Size:
 

ET Drive Unit
 EV Drive Unit

Plunger Diameter:
 

Plunger Diameter(mm)

Diaphragm:
 

S - Single Diaphragm
 D - Double Diaphragm

Check Valve:
 

V - Single Ball
 W - Double Ball

Pressure:
 

Discharge Pressure(Bar)



Diaphragm Rupture Detection



High Precision Check Valve

## Flow rate adjustment methods

**Manual adjustment:** change the stroke length through handwheel

- Adjust flow rate is available either during running or at standstill
- Minimum adjustment scale is 1%

**Electric actuated stroke controller:** receive external control signal to adjust the stroke length

- Power source: 220V-50Hz-single phase
- Input signal: 4-20mA simulated signal
- Output signal: 4-20mA/1-5V simulated signal, used for record display and control system

**Frequency conversion controller:** receive external control signal to adjust the stroke speed

- Power supply: 220V-50Hz-single phase or 380V-50Hz-three phase
- Input signal: 4-20mA simulated signal



Automaticly Stroke Length Adjustment



# $\alpha$ -Power Series Data Sheet

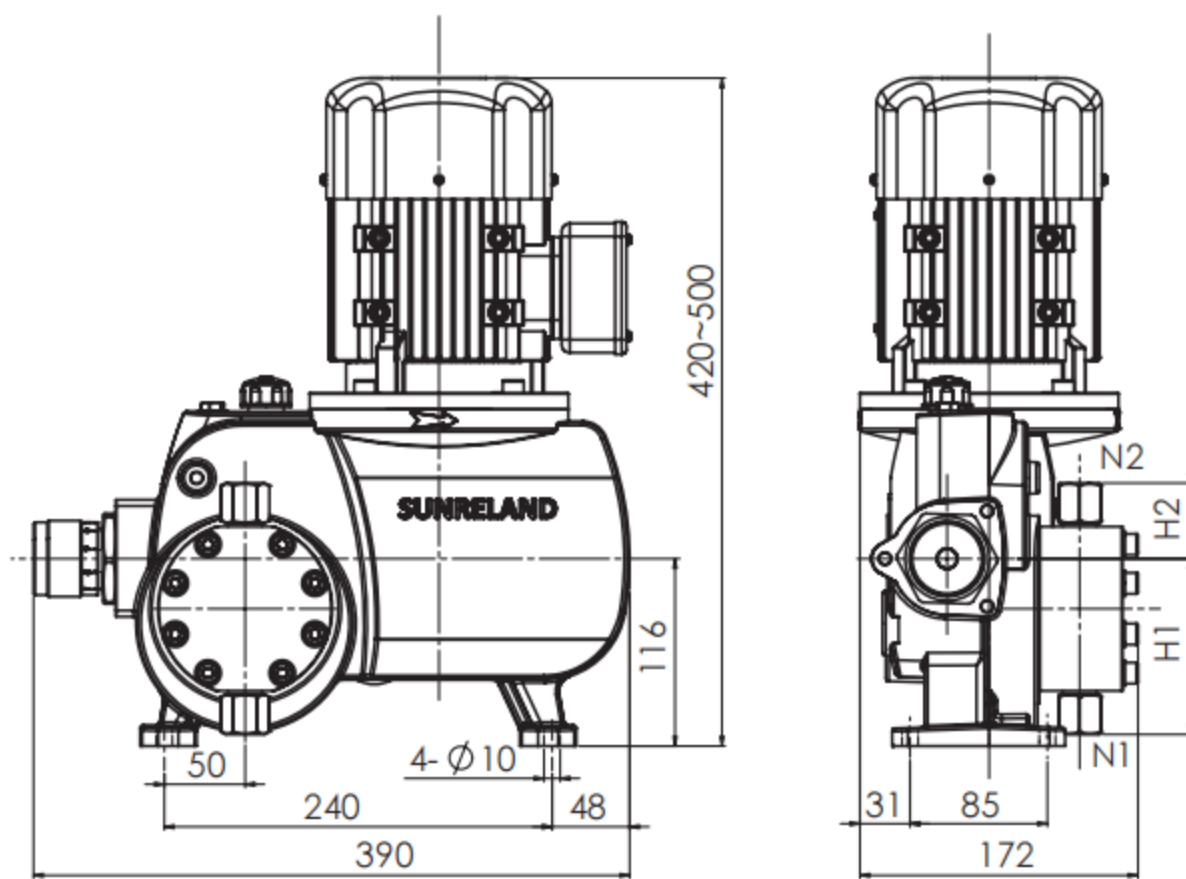
Frame Size : ET

Plunger mm	Speed spm	Flow rate L/h	Pressure bar	Connection
Φ15	47	2	125	Suction: NPT 1/2"F Horizontal
	72	3		
	110	5		
	144	7		
	175	8		
Φ17	47	4	106	Discharge: NPT 1/4"F Horizontal
	72	6		
	110	9		
	144	12		
	175	15		
Φ19.5	47	7	67	Suction: NPT 1/2"F Horizontal
	72	11		
	110	17		
	144	22		
	175	27		
Φ23	47	13	42	Discharge: NPT 1/4"F Horizontal
	72	19		
	110	29		
	144	38		
	175	47		
Φ28	47	22	25	Suction: NPT 1/2"F Horizontal
	72	33		
	110	51		
	144	66		
	175	81		

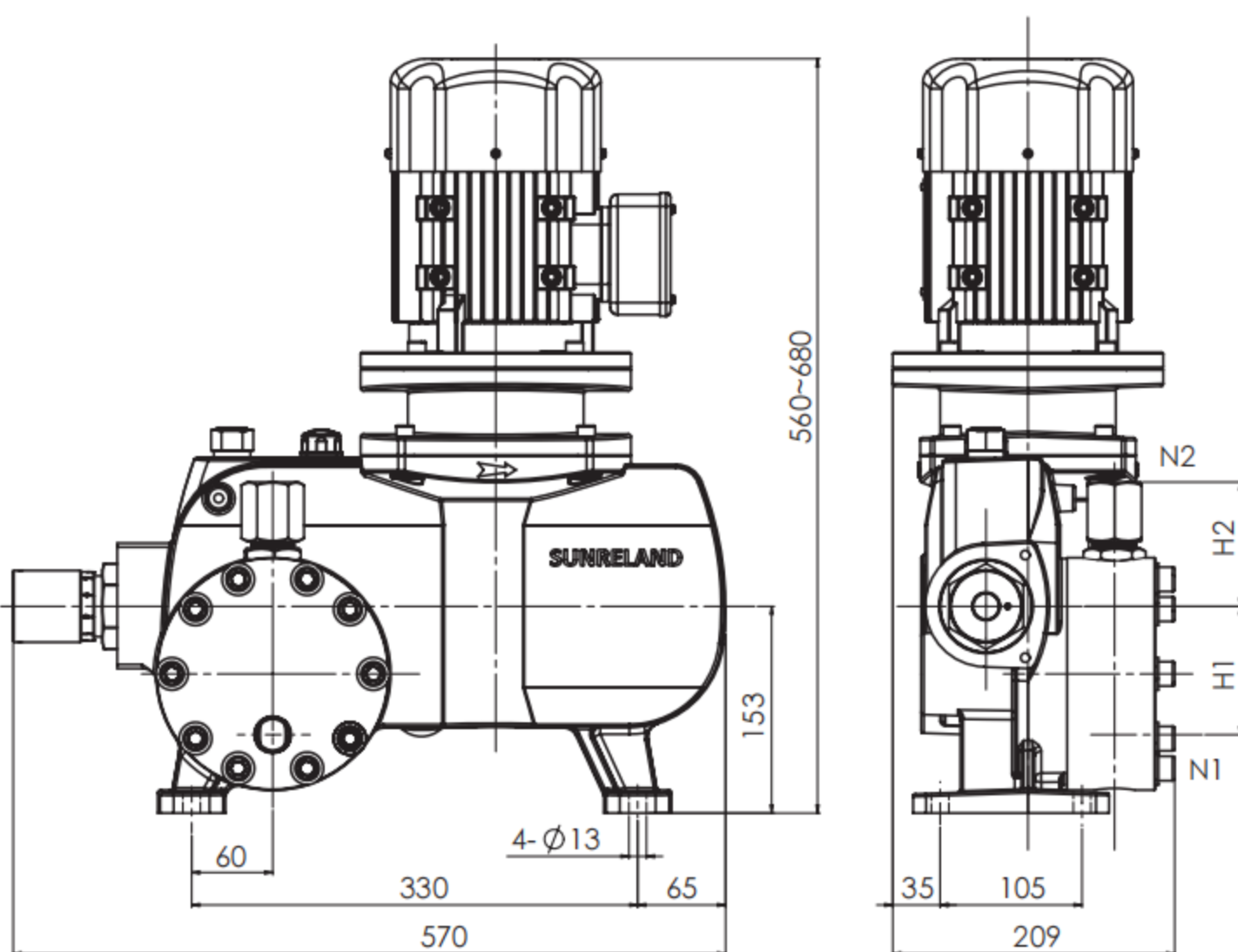
Frame Size: EV

Plunger mm	Speed spm	Flow rate L/h	Pressure bar	Connection
Φ19	47	11	160	Suction: NPT 1/2"F Horizontal
	72	16		
	106	24		
	145	33		
Φ22	47	18	105	Discharge: NPT 1/4"F Horizontal
	72	27		
	106	40		
	145	55		
Φ26	47	33	68	Suction: NPT 1/2"F Vertical
	72	51		
	106	75		
	145	103		
Φ32	47	64	41	Discharge: NPT 1/2"F Vertical
	72	98		
	106	144		
	145	197		
Φ38	47	105	25	Suction: NPT 1/2"F Vertical
	72	161		
	106	237		
	145	325		





GA drawing of ET



GA drawing of EV



Alpha-Flow Series Hydraulically Actuated Diaphragm Pump  
Capacity up to 10000L/h Pressure Max. 700bar



Alpha-Dose Series Mechanically Actuated Diaphragm Pump  
Capacity up to 5500L/h Pressure Max. 10bar



Package System