

# EVOSTA 3

## WET ROTOR ELECTRONIC CIRCULATORS



in line with European Directive  
ErP 2009/125/EC (formerly EuP) of 2015

### TECHNICAL DATA

**Operating range:** 0,4-4,2 m<sup>3</sup>/h with head up to 8+ metres.

**Pumped liquid temperature range:** from -10 °C to +110°C

**Working pressure:** 10 bar (1000 kPa)

**Protection class:** IPX5

**Insulation class:** F

**Installation:** with horizontal motor axis.

**Standard power input:** single-phase 1x230 V~ 50/60 Hz

**Pumped liquid:** Clean, free of solids and mineral oils, non-viscous, chemically neutral, with properties similar to water (glycol max 30%).

### APPLICATIONS

Low energy consumption electronic pump for water circulation in all types of domestic heating and cooling systems.

### ADVANTAGES

The new range of **EVOSTA 3** circulators by DAB combines the strength of a mechanical circulator with the benefits of the electronic circulator.

Thanks to the permanent magnet synchronous motor, the frequency converter and the energy efficiency of  $EEL \leq 0.19$ , as well as the protection class IPX5 and the integrated bleeding plug, the **EVOSTA 3** family ranks as one of the best products in the category in terms of performance and reliability. The range of **EVOSTA 3** circulators is the perfect replacement for old three-speed circulators due to its compact size and all-round performance. The product is also extremely user-friendly, with a single button for sequential setting and direct access to the motor shaft for unlocking it when necessary.

**EVOSTA 3** version has a display showing the instantaneous flow rate, the instantaneous head and the instantaneous power consumption in Watts.

**EVOSTA 3** version also offers the new function of automatic degassing.

### CONSTRUCTION FEATURES

Cast iron pump body with cataphoresis paint coating and wet rotor motor. Steel motor casing, technopolymer impeller. Ceramic motor shaft on ceramic bushings lubricated by the pumped liquid. Stainless steel rotor liner, stator liner and closing flange. Graphite thrust ring.

EPDM seal ring and brass bleeding plug.

Thanks to the internal protection of the motor, the pump does not require any overload protection.

### CONTROL PANEL

The settings of the **EVOSTA 2**, **EVOSTA 3** circulators can be modified in the control panel on the face of the pump device. The pumps have nine settings that can be selected scrolling the **MODE** button. Three LED lights on the face show the current setting.

**EVOSTA 3** circulator has a display showing the following data:

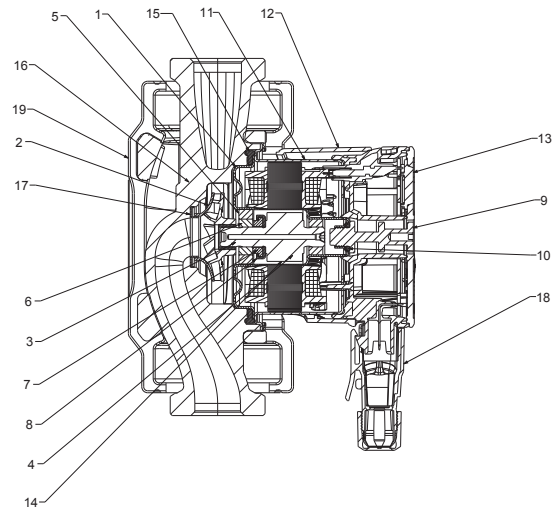
- Head of the selected curve
- Instantaneous power consumption in Watts.
- Instantaneous head in m
- Instantaneous flow rate in m<sup>3</sup>/h

# EVOSTA 3

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### MATERIALS

N°	PARTS	MATERIALS
1	ROTOR CAN FLANGE	AISI 316
2	IMPELLER	ULTRASON
3	SHAFT	ALUMINA
4	ROTOR	Fe
5	BEARING HOUSING	BRASS
6	BEARING	ALUMINA
7	AXIAL BEARING	GRAPHITE
8	AXIAL HOUSING	EPDM
9	PLUG	BRASS
10	O-ring	EPDM
11	STATOR HOUSING	AISI 304
12	ENCLOUSER SHELL	POLYCARBONATE
13	ENCLOUSER	POLYCARBONATE
14	ROTOR SLEEVE	AISI 304
15	SEAL	EPDM
16	PUMP HOUSING	CAST IRON
17	NECK RING	AISI 304
18	CONNECTOR	POLYCARBONATE
19	INSULATION SHELL	PPE






### REGULATION MODES

**PROPORTIONAL PRESSURE REGULATION MODE**




PP1
PP2
PP3

**CONSTANT PRESSURE REGULATION MODE**

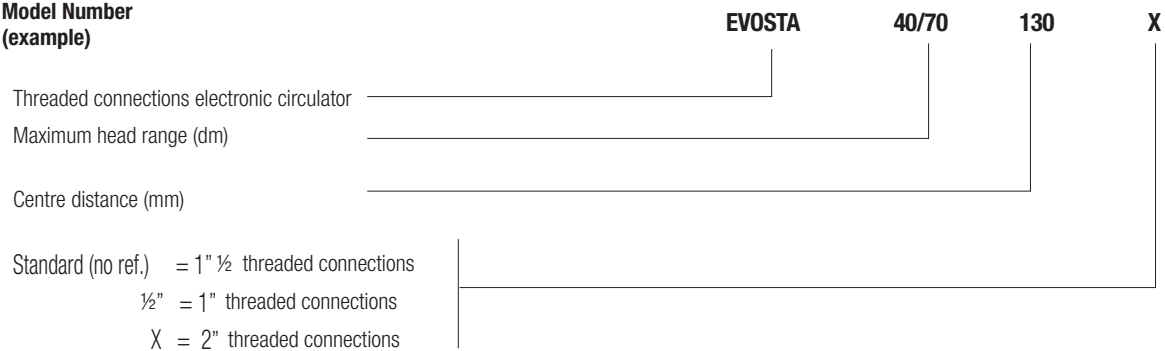
CP1
CP2
CP3

**FIXED CURVE REGULATION MODE**

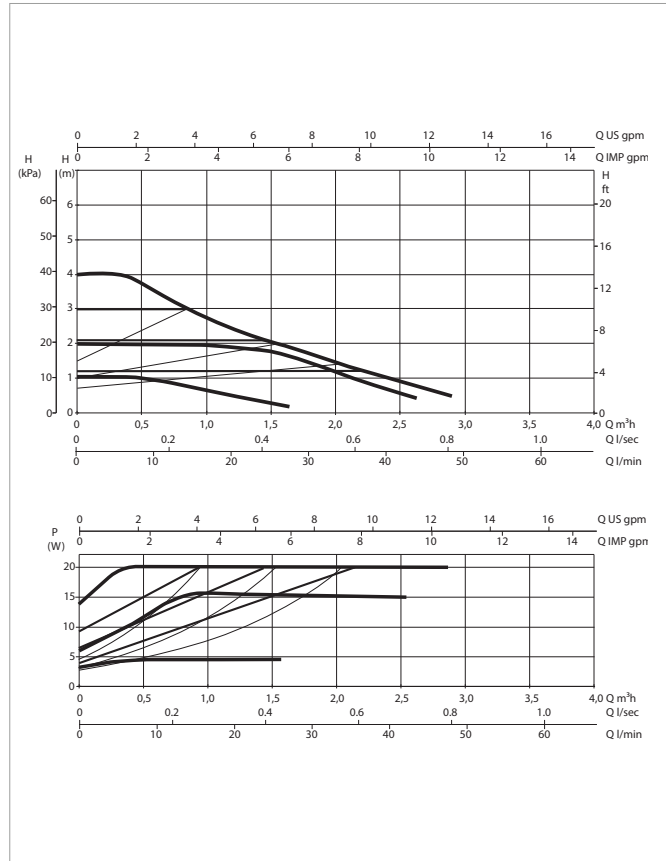
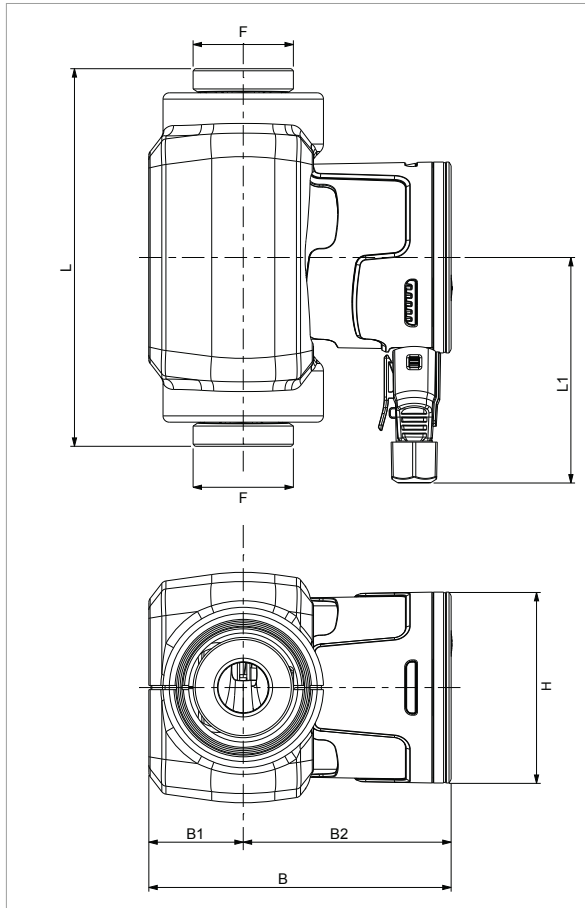
I
II
III

### Model Number (example)



# EVOSTA 3 - ELECTRONIC CIRCULATORS FOR DOMESTIC HEATING AND COOLING SYSTEMS - SINGLE, WITH UNIONS

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 10 bar (1000 kPa)



The performance curves are based on kinematic viscosity values = 1 mm<sup>2</sup>/s and density equal to 1000 kg/m<sup>3</sup>. Curve tolerance according to ISO 9906.

MODEL	Q=m <sup>3</sup> h	0	0,4	0,6	0,9	1,2	1,8	2,1	2,9
	Q=l/min	0	6	10	15	20	30	35	48
EVOSTA 3 40/130 1"	H (m)	4,0	4,0	3,5	2,9	2,5	1,7	1,3	0,5
EVOSTA 3 40/130 1/2"		4,0	4,0	3,5	2,9	2,5	1,7	1,3	0,5
EVOSTA 3 40/180 1"		4,0	4,0	3,5	2,9	2,5	1,7	1,3	0,5
EVOSTA 3 40/180 X 1" 1/4		4,0	4,0	3,5	2,9	2,5	1,7	1,3	0,5

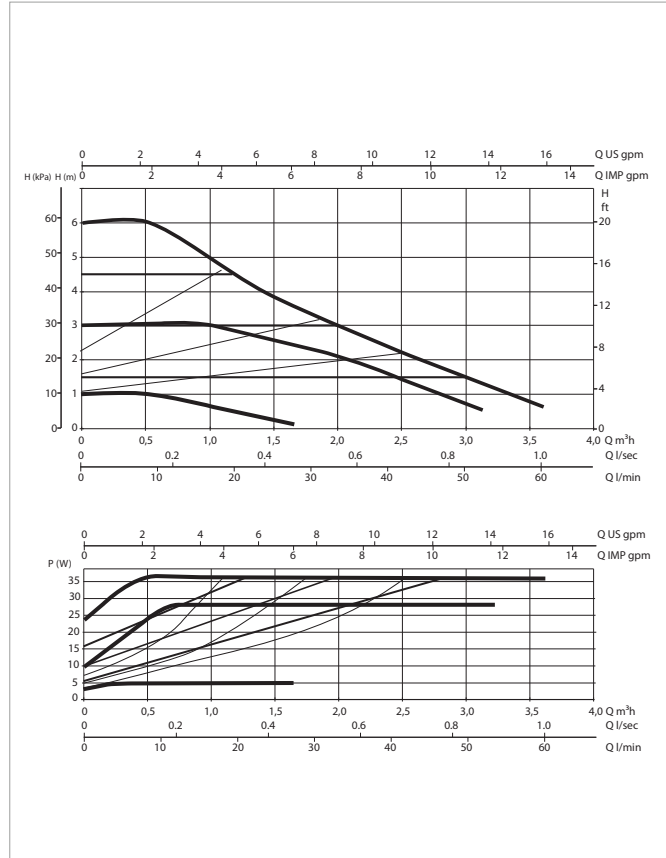
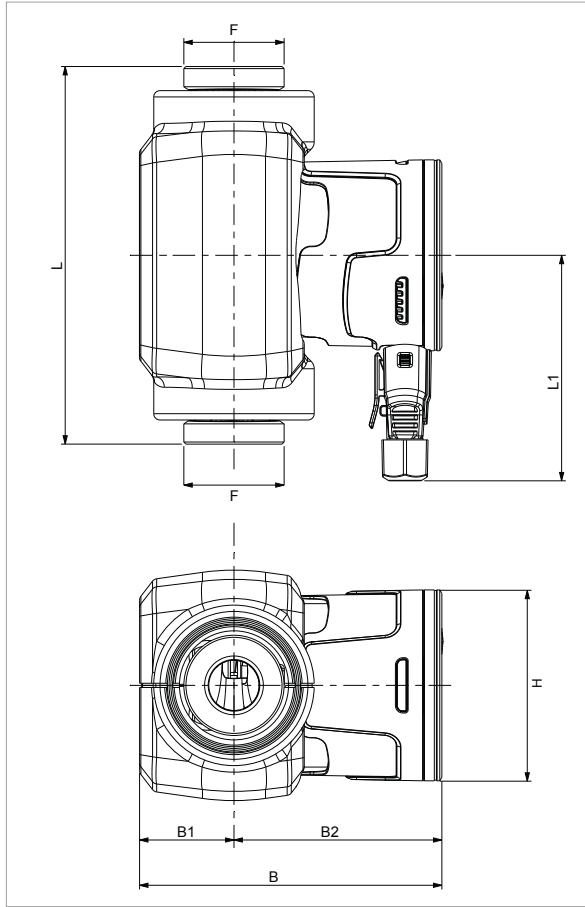
MODEL	CENTRE DISTANCE mm	PUMP CONNECTIONS	POWER INPUT 50 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE	
							t°	90 °
EVOSTA 3 40/130 1"	130	DN25 THREADED (G 1" ½)	1x230 V ~	20	0,034 - 0,18	0,17	m.c.a.	10
EVOSTA 3 40/130 1/2"	130	DN15 THREADED (G 1")	1x230 V ~	20	0,034 - 0,18	0,17	m.c.a.	10
EVOSTA 3 40/180 1"	180	DN25 THREADED (G 1" ½)	1x230 V ~	20	0,034 - 0,18	0,17	m.c.a.	10
EVOSTA 3 40/180 X 1" 1/4	180	DN30 THREADED (G 2")	1x230 V ~	20	0,034 - 0,18	0,17	m.c.a.	10

\*The parameter of reference for the more efficient circulators is EEI ≤ 0,19

MODEL	L	L1	B	B1	B2	H	F	PACKING DIMENSIONS			VOLUME m <sup>3</sup>	WEIGHT kg
								L	B	H		
EVOSTA 3 40/130 1"	130	107,5	144,1	45	99,1	91	1" ½	192	113,5	155	0,0034	2,05
EVOSTA 3 40/130 1/2"	130	107,5	144,1	45	99,1	91	1"	192	113,5	155	0,0034	1,9
EVOSTA 3 40/180 1"	180	107,5	144,1	45	99,1	91	1" ½	192	113,5	155	0,0034	2,22
EVOSTA 3 40/180 X 1" 1/4	180	107,5	144,1	45	99,1	91	2"	192	113,5	155	0,0034	2,38

# EVOSTA 3 - ELECTRONIC CIRCULATORS FOR DOMESTIC HEATING AND COOLING SYSTEMS - SINGLE, WITH UNIONS

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 10 bar (1000 kPa)



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	Q=m³h	0	0,6	1,2	1,5	2,1	2,4	3,0	3,6
	Q=l/min	0	9	20	25	35	40	50	60
EVOSTA 3 60/130 1"	H (m)	6,0	6,0	4,4	3,8	2,8	2,3	1,5	0,7
EVOSTA 3 60/130 1/2"		6,0	6,0	4,4	3,8	2,8	2,3	1,5	0,7
EVOSTA 3 60/180 1"		6,0	6,0	4,4	3,8	2,8	2,3	1,5	0,7
EVOSTA 3 60/180X 1" 1/4		6,0	6,0	4,4	3,8	2,8	2,3	1,5	0,7

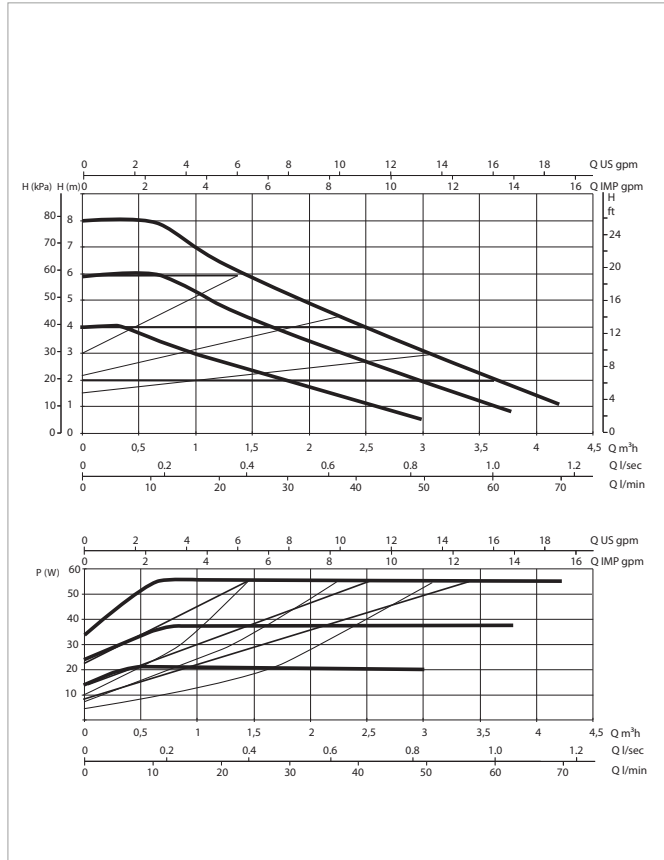
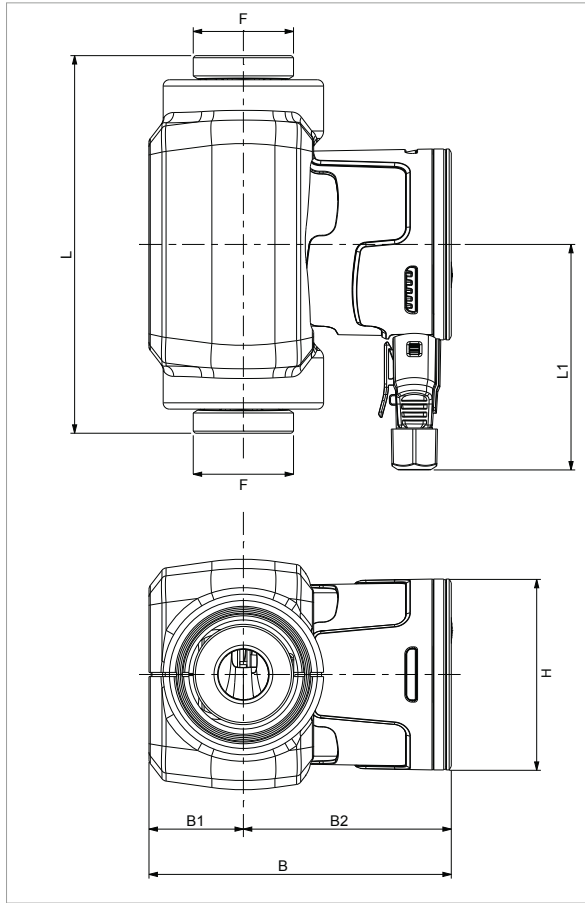
MODEL	CENTRE DISTANCE mm	PUMP CONNECTIONS	POWER INPUT 50 Hz	P1 MAX W	In A	EEI*	MINIMUM SUCTION PRESSURE	
							t°	90 °
EVOSTA 3 60/130 1"	130	DN25 THREADED (G 1" ½)	1x230 V ~	35	0,042 - 0,33	0,18	m.c.a.	10
EVOSTA 3 60/130 1/2"	130	DN15 THREADED (G 1")	1x230 V ~	35	0,042 - 0,33	0,18	m.c.a.	10
EVOSTA 3 60/180 1"	180	DN25 THREADED (G 1" ½)	1x230 V ~	35	0,042 - 0,33	0,18	m.c.a.	10
EVOSTA 3 60/180X 1" 1/4	180	DN30 THREADED (G 2")	1x230 V ~	35	0,042 - 0,33	0,18	m.c.a.	10

\*The parameter of reference for the more efficient circulators is EEI ≤ 0,19

MODEL	L	L1	B	B1	B2	H	F	PACKING DIMENSIONS			VOLUME m³	WEIGHT kg
								L	B	H		
EVOSTA 3 60/130 1"	130	107,5	144,1	45	99,1	91	1" ½	192	113,5	155	0,0034	2,05
EVOSTA 3 60/130 1/2"	130	107,5	144,1	45	99,1	91	1"	192	113,5	155	0,0034	1,9
EVOSTA 3 60/180 1"	180	107,5	144,1	45	99,1	91	1" ½	192	113,5	155	0,0034	2,22
EVOSTA 3 60/180X 1" 1/4	180	107,5	144,1	45	99,1	91	2"	192	113,5	155	0,0034	2,38

# EVOSTA 3 - ELECTRONIC CIRCULATORS FOR DOMESTIC HEATING AND COOLING SYSTEMS - SINGLE, WITH UNIONS

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 10 bar (1000 kPa)



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	Q=m³h	0	0,6	0,9	1,2	2,7	3,3	3,9	4,2
	Q=l/min	0	10	15	20	45	55	65	70
EVOSTA 3 80/130 1"	H (m)	8,0	8,0	7,2	6,5	3,7	2,6	1,6	1,0
EVOSTA 3 80/130 1/2"		8,0	8,0	7,2	6,5	3,7	2,6	1,6	1,0
EVOSTA 3 80/180 1"		8,0	8,0	7,2	6,5	3,7	2,6	1,6	1,0
EVOSTA 3 80/180X 1" 1/4		8,0	8,0	7,2	6,5	3,7	2,6	1,6	1,0

MODEL	CENTRE DISTANCE mm	PUMP CONNECTIONS	POWER INPUT 50 Hz	P1 MAX W	In A	EEI*	MINIMUM SUCTION PRESSURE	
							t°	90 °
EVOSTA 3 80/130 1"	130	DN25 THREADED (G - 1" ½)	1x230 V ~	55	0,053-0,47	0,19	m.c.a.	10
EVOSTA 3 80/130 1/2"	130	DN15 THREADED (G - 1")	1x230 V ~	55	0,053-0,47	0,19	m.c.a.	10
EVOSTA 3 80/180 1"	180	DN25 THREADED (G - 1" ½)	1x230 V ~	55	0,053-0,47	0,19	m.c.a.	10
EVOSTA 3 80/180X 1" 1/4	180	DN30 THREADED (G - 2")	1x230 V ~	55	0,053-0,47	0,19	m.c.a.	10

\*The parameter of reference for the more efficient circulators is EEI ≤ 0,19

MODEL	L	L1	B	B1	B2	H	F	PACKING DIMENSIONS			VOLUME m³	WEIGHT kg
								L	B	H		
EVOSTA 3 80/130 1"	130	107,5	144,1	45	99,1	91	1" ½	192	113,5	155	0,0034	2,05
EVOSTA 3 80/130 1/2"	130	107,5	144,1	45	99,1	91	1"	192	113,5	155	0,0034	1,9
EVOSTA 3 80/180 1"	180	107,5	144,1	45	99,1	91	1" ½	192	113,5	155	0,0034	2,22
EVOSTA 3 80/180X 1" 1/4	180	107,5	144,1	45	99,1	91	2"	192	113,5	155	0,0034	2,38

# DNA<sup>®</sup>

PUMPS SELECTOR



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