

TP 100-250/2-A-F-A-BQQE 400D 50HZ Grundfos pump 96109192



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https://www.lenntech.com/grundfos/TP000/96109192/TP-100-250-2-A-F-A-BQQE.html

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Position | Qty. | Description

1

TP 100-250/2 A-F-A-BQQE



Product No.: On request

Single-stage, close-coupled, volute pump with in-line suction and discharge ports of identical diameter. The pump is of the top-pull-out design, i.e. the power head (motor, pump head and impeller) can be removed for maintenance or service while the pump housing remains in the pipework.

The pump is fitted with an unbalanced rubber bellows seal. The shaft seal is according to EN 12756. Pipework connection is via PN 16 DIN flanges (EN 1092-2 and ISO 7005-2).

The pump is fitted with a fan-cooled asynchronous motor.

Further product details

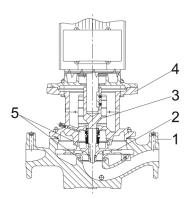
The product's minimum efficiency index (MEI) is greater or equal to 0.70. This is by the Commission Regulation (EU) considered as an indicative benchmark for best-performing water pump available on the market as from 1 January 2013.

Pump

Pump housing and pump head are electrocoated to improve the corrosion resistance.

Electrocoating includes:

- 1) Alkaline-based cleaning.
- 2) Pretreatment with zinc phosphate coating.
- 3) Cathodic electrocoating (epoxy).
- 4) Curing of paint film at 200-250 °C.



- 1: Pump housing
- 2: Impeller
- 3: Stub shaft
- 4: Pump head/motor stool
- 5: Wear rings

The pump housing is provided with a replaceable brass neck ring to reduce the amount of liquid running from the outlet side of the impeller to the inlet side. The impeller is secured to the shaft with a nut.

The pump is fitted with an unbalanced rubber bellows seal with torque transmission across the spring and around the bellows. Due to the bellows, the seal does not wear the shaft, and the axial movement is not prevented by deposits on the shaft.

Primary seal:

- Rotating seal ring material: silicon carbide (SiC)
- Stationary seat material: silicon carbide (SiC)

This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.

Secondary seal material: EPDM (ethylene-propylene rubber)

EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.

Position | Qty. | Description

A circulation of liquid through the duct of the air vent screw ensures lubrication and cooling of the shaft seal.

The flanges have tappings for mounting of pressure gauges.

The motor stool forms connection between the pump housing and the motor, and is equipped with a manual air vent screw for venting of the pump housing and the shaft seal chamber. The sealing between motor stool and pump housing is an O-ring.

The central part of the motor stool is provided with guards for protection against the shaft and coupling. The pump shaft is fastened directly on the motor shaft with key and set screws.

Motor

The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. Electrical tolerances comply with IEC 60034.

The motor is flange-mounted with free-hole flange (FF).

Motor-mounting designation in accordance with IEC 60034-7: IM B 5, IM V 1 (Code I) / IM 3001, IM 3011 (Code II).

The motor efficiency is classified as IE3 in accordance with IEC 60034-30-1.

The motor has thermistors (PTC sensors) in the windings in accordance with DIN 44081/DIN 44082. The protection reacts to both slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.

Thermal switches must be connected to an external control circuit in a way which ensures that the automatic reset cannot cause accidents. The motors must be connected to a motor-protective circuit breaker according to local regulations.

The motor can be connected to a variable speed drive for adjustment of pump performance to any duty point. Grundfos CUE offers a range of variable speed drives. Please find more information in Grundfos Product Center.

Technical data

Liquid:

Pumped liquid: Water
Liquid temperature range: -25 .. 120 °C
Liquid temperature during operation: 20 °C
Density: 998.2 kg/m³

Technical:

Rated flow: 135 m³/h
Rated head: 20.1 m
Actual impeller diameter: 145 mm
Primary shaft seal: BQQE

Curve tolerance: ISO9906:2012 3B

Materials:

Impeller:

Pump housing: Cast iron

EN-JL1040

ASTM A48-40 B

Cast iron

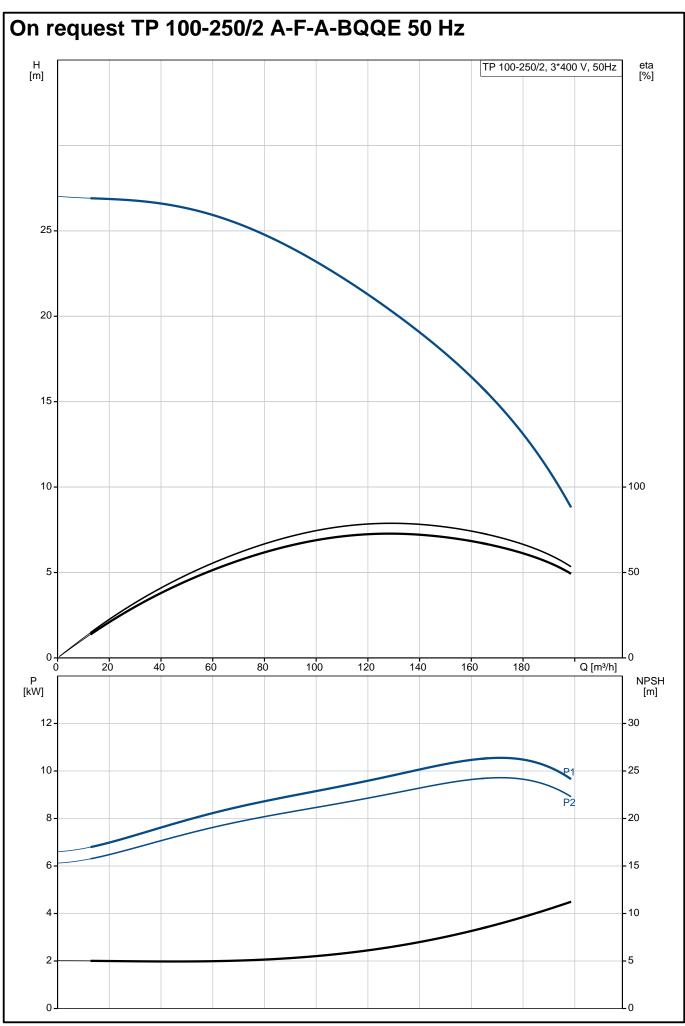
EN-JL1030 ASTM A48-30 B

Installation:

Range of ambient temperature: -30 .. 60 °C Maximum operating pressure: 16 bar Flange standard: DIN Pipe connection: **DN 100** Pump inlet: **DN 100** Pump outlet: **DN 100** Pressure rating: **PN 16** (@):550 mm Flange size for motor: FF300

Electrical data:

Position	Qtv.	Description	
	4.7	Motor type:	160MB
		IE Efficiency class:	IE3
		Rated power - P2: Power (P2) required by pump:	11 kW
		Mains frequency:	50 Hz
		Rated voltage:	3 x 380-415D/660-690Y V
		Rated current:	20,8-19,8/12,0-11,8 A
		Starting current: Cos phi - power factor:	660-780 % 0.88-0.84
		Rated speed:	2940-2950 rpm
		Efficiency:	IE3 91,2%
		Motor efficiency at full load: Motor efficiency at 3/4 load:	91.2 % 91.8 %
		Motor efficiency at 1/2 load:	91.3 %
		Number of poles:	2 FF. Durat/Latting
		Enclosure class (IEC 34-5): Insulation class (IEC 85):	55 Dust/Jetting F
		Others: Minimum efficiency index, MEI	: 0.70
		ErP status:	EuP Standalone/Prod.
		Net weight: Gross weight:	179 kg 208 kg
		Shipping volume:	200 kg 1.12 m ³
		Danish VVS No.:	381706250



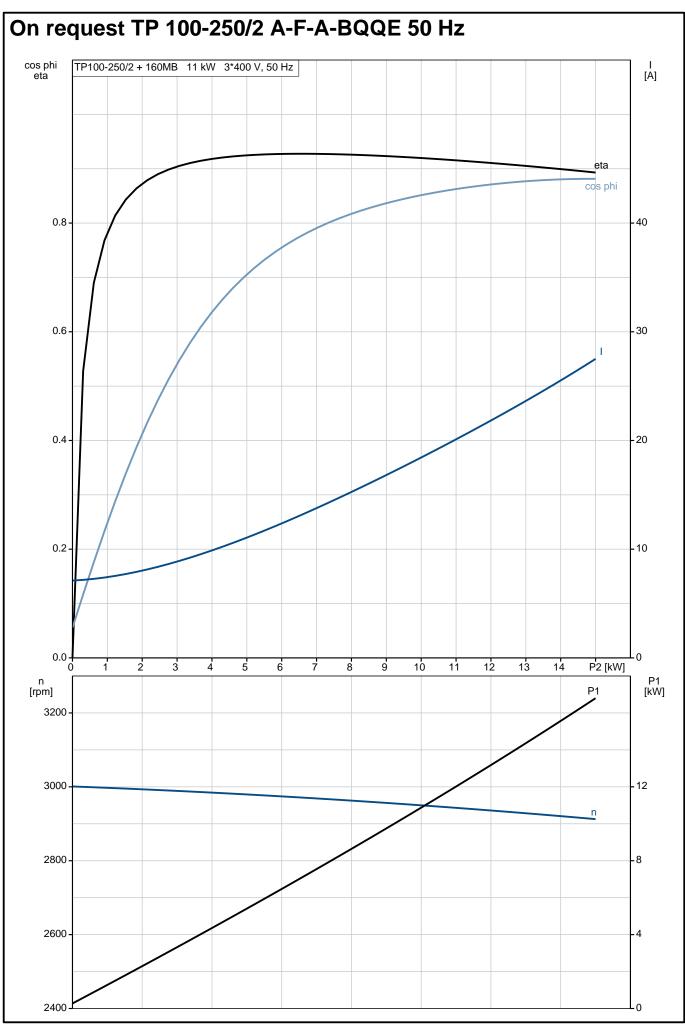
Description	Value	H [m]	TP 100-250/2, 3*400 V, 5
General information:		-	
Product name:	TP 100-250/2 A-F-A-BQQE		
Product No:	On request	-	
EAN number:	On request		
	On request	25 -	
Technical:	405 2/1	- 23	
Rated flow:	135 m³/h	-	
Rated head:	20.1 m	20	
Head max:	250 dm	20 -	
Actual impeller diameter:	145 mm		
Primary shaft seal:	BQQE	4.5	
Curve tolerance:	ISO9906:2012 3B	15 -	
Pump version:	A	-	
Model:	A	-	
Materials:		10	
Pump housing:	Cast iron	_	
r ump nousing.	EN-JL1040	-	
		5 -	
	ASTM A48-40 B	-	
Impeller:	Cast iron	. /	
	EN-JL1030	0 1	50 100 150 Q [r
	ASTM A48-30 B	0 - P	50 100 150 Q [r
Material code:	A	[kW]	
Installation:		+	
Range of ambient temperature:	-30 60 °C	10	P
Maximum operating pressure:	16 bar	``	
Flange standard:	DIN	8-	Pź
Pipe connection:	DN 100		
Pump inlet:	DN 100	6-	
Pump outlet:	DN 100	4 -	
		_	
Pressure rating:	PN 16	2 -	
(@)	550 mm		
Flange size for motor:	FF300		
Connect code:	F	in the state of th	
Liquid:		204 204	350
Pumped liquid:	Water	204	314
Liquid temperature range:	-25 120 °C		
Liquid temperature during operation:	20 °C		
Density:	998.2 kg/m³	· ; [<u>]</u>	
Electrical data:	333. <u> </u>		***
Motor type:	160MB	-	Rp 1/4
* *			
IE Efficiency class:	IE3		\$
Rated power - P2:	11 kW	100	550 kg
Power (P2) required by pump:	11 kW	190 151	
Mains frequency:	50 Hz		M1 <u>6</u>
Rated voltage:	3 x 380-415D/660-690Y V		
Rated current:	20,8-19,8/12,0-11,8 A		← 2 ← 8
Starting current:	660-780 %		
Cos phi - power factor:	0.88-0.84		275
Rated speed:	2940-2950 rpm		
Efficiency:	IE3 91,2%		
Motor efficiency at full load:	91.2 %	-	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
		-	
Motor efficiency at 3/4 load:	91.8 %	. [
Motor efficiency at 1/2 load:	91.3 %	- ₽,⊤	\$ ·- \$ ·-
Number of poles:	2	.	
Enclosure class (IEC 34-5):	55 Dust/Jetting	_ #	
Insulation class (IEC 85):	F	နြိ	W W W W W W W W W W W W W W W W W W W
Motor protec:	PTC	TO AMPLIFIER RELAY	MANN S
Motor No:	87420021	-	L1 12 13 60.00 M 90.00
Others:			EN THE CONTRACTOR OF THE CONTR
Minimum efficiency index, MEI :	0.70	-	Target Man
-		- h ₊ -	Marker Ma
ErP status:	EuP Standalone/Prod.	_	M M PUFFE
N I = 4 · · · · · · · · · · · · · · · · · ·	179 kg		
_	_		
Net weight: Gross weight:	208 kg	88	
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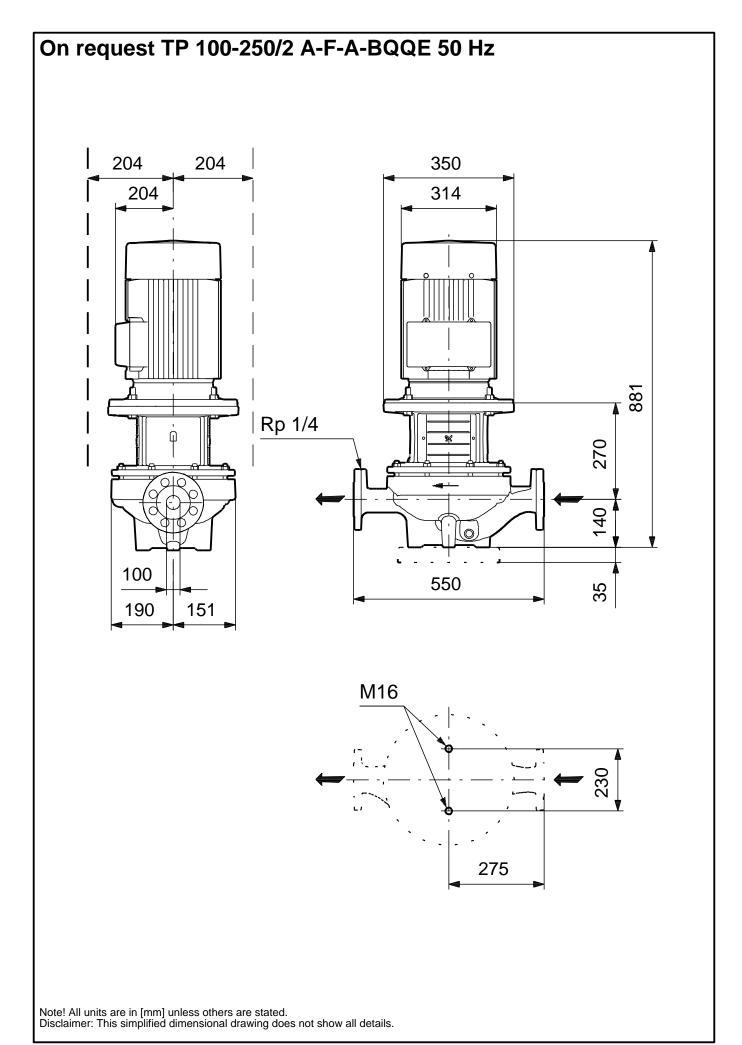
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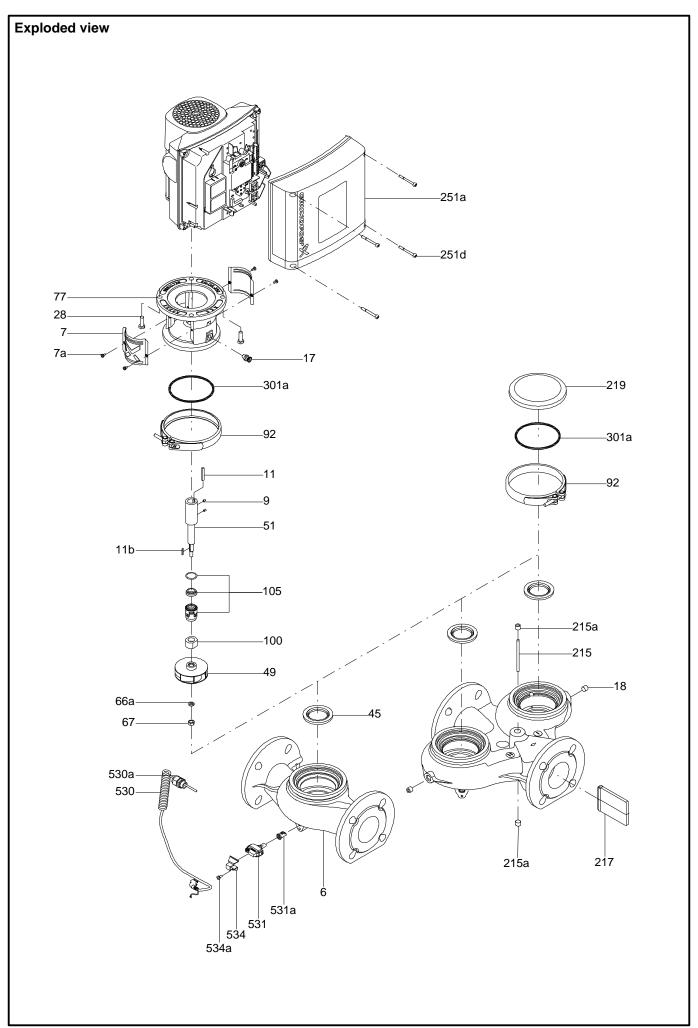
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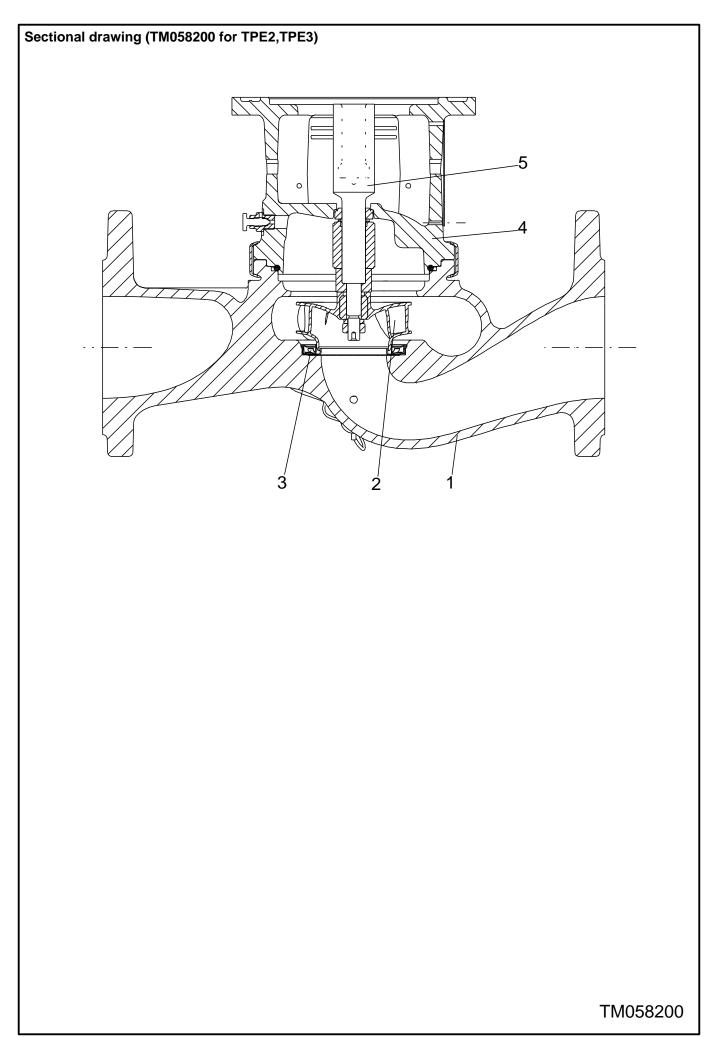
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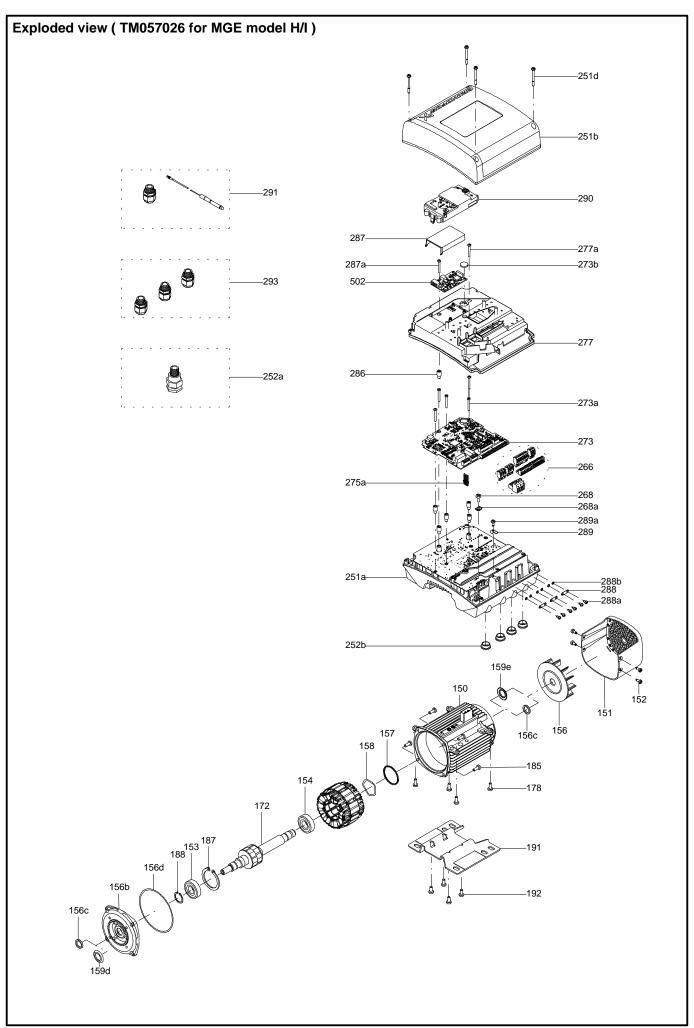
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Parts list TP 100-250/2, Product No. On request Valid from 1.1.2011 (1152)

	Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
+		Motor				1	pcs
-		Nut				1	pcs
	66	Washer				1	
	66a	Spring lock washer				1	
	67	Nut		Thread: M14		1	
-		Motor stool cpl.				1	pcs
	1a	Motor stool				1	
	7	Coupling guard				2	
	77a	Pan head screw				4	
-		Shaft seal cpl.				1	pcs
	72a	O-ring		Diameter: 177,39		1	
				Material type: EPDM			
				Thickness: 3,53			
	105	Shaft seal				1	
-		Stub shaft				1	pcs
	9	Socket set screw		Length (mm): 6		2	
				Thread: M8			
	11	Parallel key		Dimension: 6X6X35		1	
	51	Pump shaft				1	
-		Base plate cpl.				1	pcs
	28g	Hex head cap screw		Length (mm): 30 MM		2	
				Thread: M16			
	56	Base plate				1	
-	6	Pump housing w/wear ring				1	pcs
	6	Pump housing				1	
	36	Nut		Thread: M10		6	
	19	Plug				2	pcs
	49	Impeller				1	pcs

Disclaimer: The information about the Grundfos pump in this document may be outdated. Data may be subject to alterations without further notice.

Please contact us to verify the data above is still accurate/up-to-date.

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