

Description

The 3120 switch serves for switching devices and machinery on or off. It is available in a range of design versions and meets the requirements of the relevant standard IEC/EN 61058 for switches for appliances. Type 3120 is also available as a circuit breaker for equipment protection in accordance with IEC/EN 60934 (see data sheet thermal circuit breaker 3120-F).

Product characteristics:

- rocker or push button actuation
- single pole and double pole versions
- convenient snap-in mounting
- international approvals

Optional:

- illumination
- water splash protection
- push-in terminals

Upon request:

Switch with undervoltage release module:
This version protects the user against bodily harm as an inadvertent start-up of machinery after a power failure is reliably excluded.

Typical applications

Medical and laboratory equipment, apparatus and machine construction, professional tools, household and garden appliances, offices machines, audio equipment, machine tools

Approvals

| Approval authority | Standard | Voltage rating | Current rating | Approval logos |
|--------------------|--------------|---------------------|-------------------|---|
| VDE | IEC/EN 61058 | AC 240 V DC 50 V | 16 (4) A 16 A: |  |
| CQC | GB 17701 | AC 240 V DC 50 V | 0.1 - 20 A |  |

Schematic diagrams



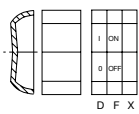
Technical data

| | | |
|---|---|-------------------------|
| Voltage ratings | AC 240 V, DC 50 V | |
| Interrupting capacity: | | |
| AC 240 V: | 16 (4) A | 25,000 switching cycles |
| DC 50 V: | 16 A | 50,000 switching cycles |
| Ambient temperature | 0...55 °C | |
| Insulation coordination (IEC 60664) | 2.5 kV /2 reinforced insulation at operating area | |
| Dielectric strength | | |
| Operating area | test voltage AC 3,000 V | |
| Pole to pole (2-pole) | test voltage AC 1,500 V | |
| Insulation resistance | > 100 MΩ (DC 500 V) | |
| Degree of protection (IEC 60529) | | |
| Operating area | IP40 with water splash cover IP54 or IP66 | |
| Terminal area | IP00 with water splash cover IP64 | |
| Environmental tests (IEC 60068) | | |
| Vibration | 8 g (57-500 Hz), ± 0.61 mm (10-57 Hz) | |
| Shock | 30 g (11 ms) | |
| Corrosion | 96 hours at 5 % salt mist | |
| Humidity | 240 hrs in 95 % RH | |
| Mass | approx. 33 g (2-pole) approx. 27 g (1-pole) approx. 42 g (2-pole with PT terminals) | |

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1

Order numbering code

| | |
|---|--|
| Type No. | |
| 3120 switch with rocker actuation | |
| Mounting | |
| F3 snap-in, mounting cut-out 50.5 x 21.5 mm | |
| F5 snap-in, mounting cut-out 44.5 x 22 mm | |
| Number of poles | |
| 0 2-pole | |
| 6 1-pole | |
| Style | |
| 1 standard | |
| 3 with actuator guard | |
| 4 with water splash protection (IP54) | |
| Terminal design | |
| PT push-in terminals | |
| N7 blade terminals 6.3 x 0.8 | |
| G7 as N7, terminals 11 and 21 with additional flat head screws M3.5 | |
| Version | |
| Q1 switch only | |
| Actuator style | |
| W rocker | |
| Rocker colour/illumination | |
| 01. black opaque without illumination | |
| 02. white opaque without illumination | |
| 14. R red translucent with LED illumination | |
| 19. G green translucent with LED illumination | |
| Marking | |
| D F Q X |  <p>Q: 0 and 1 moulded in</p> |
| Illumination voltage range (= operating voltage) | |
| 1 DC 12 V | |
| 2 DC 24 V | |
| 3 AC 115 V | |
| 4 AC 230 V | |
| Current rating | |
| 16 A: | |
| 3120 - F 5 0 4 - N7 Q1 - W01Q - 16 A ordering example | |

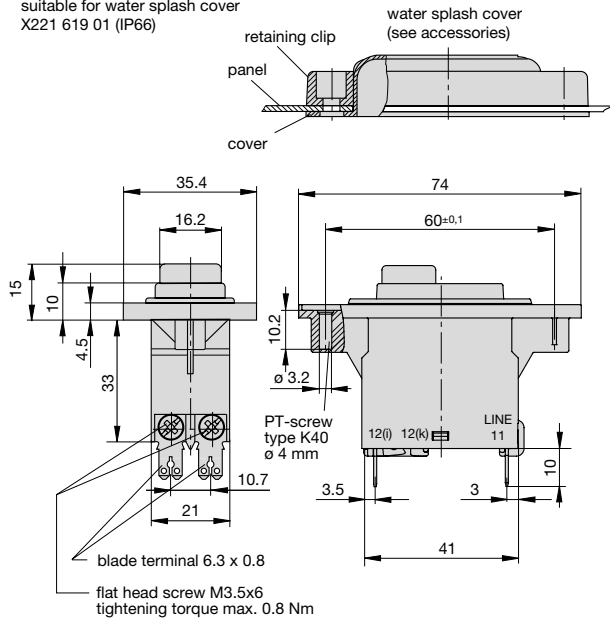
Order numbering code

| | |
|---|--|
| Type No. | |
| 3120 switch with push button actuation | |
| Mounting | |
| F2 flange mounting, mounting cut-out 50.5 x 26 mm, suitable for water splash cover X221 619 01 (IP66) | |
| F3 snap-in, mounting cut-out 50.5 x 21.5 mm | |
| Number of poles | |
| 0 2-pole | |
| 6 1-pole | |
| Style | |
| F frame with 2 push buttons | |
| Terminal design | |
| PT push-in terminals | |
| N7 blade terminals 6.3 x 0.8 | |
| G7 as N7, terminals 11 and 21 with additional flat head screws M3.5 | |
| Version | |
| Q1 switch only | |
| Actuator style | |
| S two push buttons | |
| Colour of push button/illumination | |
| GRX green/red without illumination | |
| GRXG green translucent with LED illumination/red opaque without illumination | |
| Illumination voltage range (= operating voltage) | |
| 1 DC 12 V | |
| 2 DC 24 V | |
| 3 AC 115 V | |
| 4 AC 230 V | |
| Current rating | |
| 16 A | |
| 3120 - F 2 0 F - N7 Q1 - SGRX - 16 A ordering example | |

Dimensions

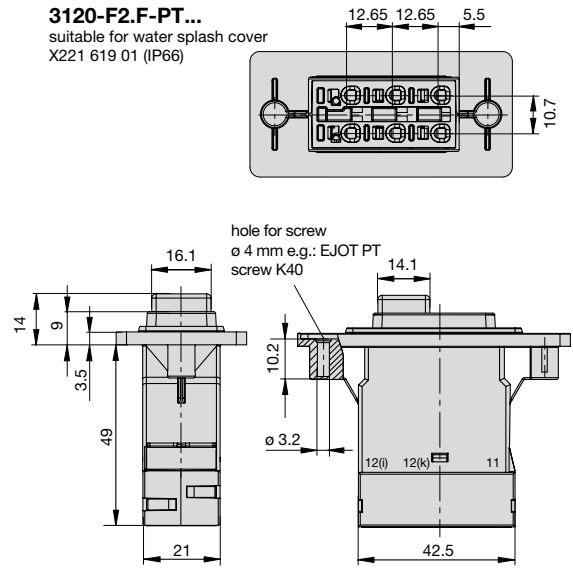
3120-F2.F-...

suitable for water splash cover
X221 619 01 (IP66)



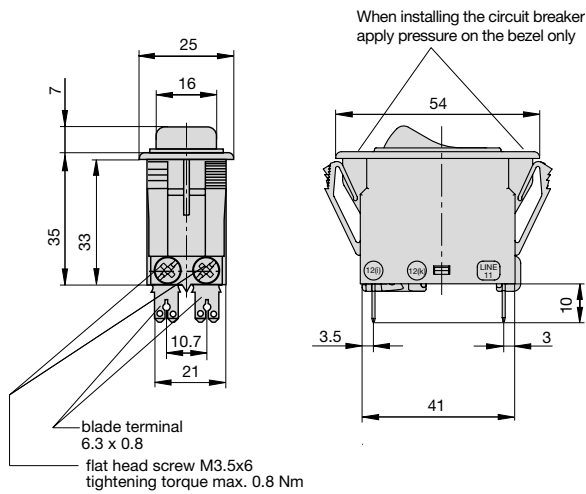
3120-F2.F-PT...

suitable for water splash cover
X221 619 01 (IP66)



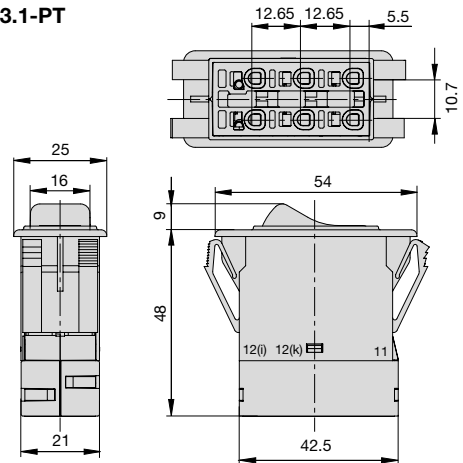
3120-F3.1

standard



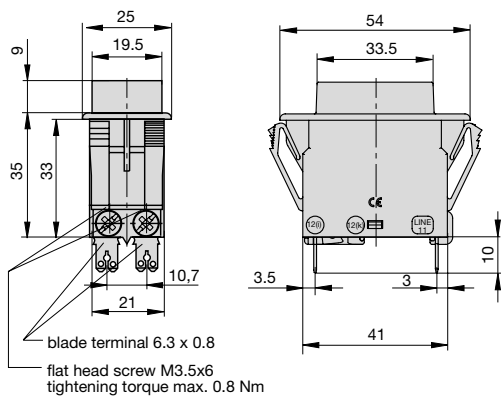
3120-F3.1-PT

standard



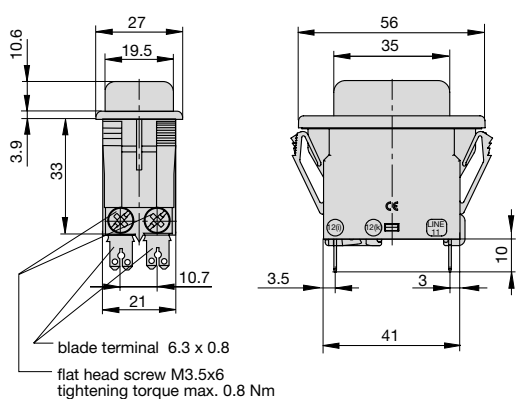
3120-F 3.3

with actuator guard



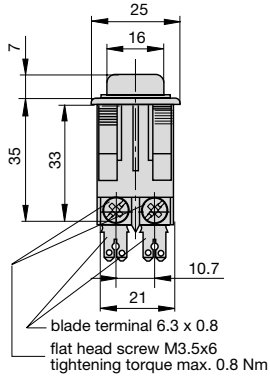
3120-F 3.4

with water splash protection (IP54)

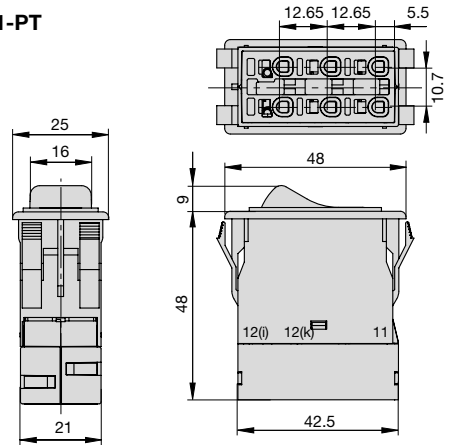


Dimensions

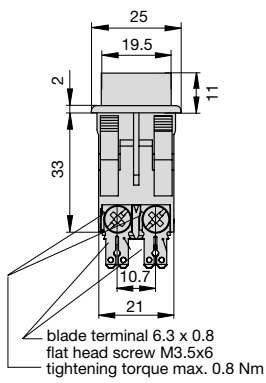
3120-F 5.1
standard



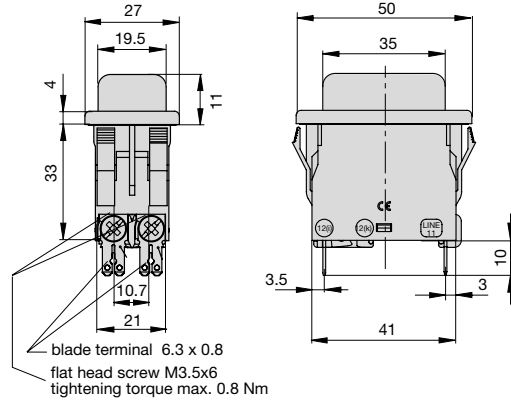
3120-F5.1-PT
standard



3120-F5.3
with actuator guard

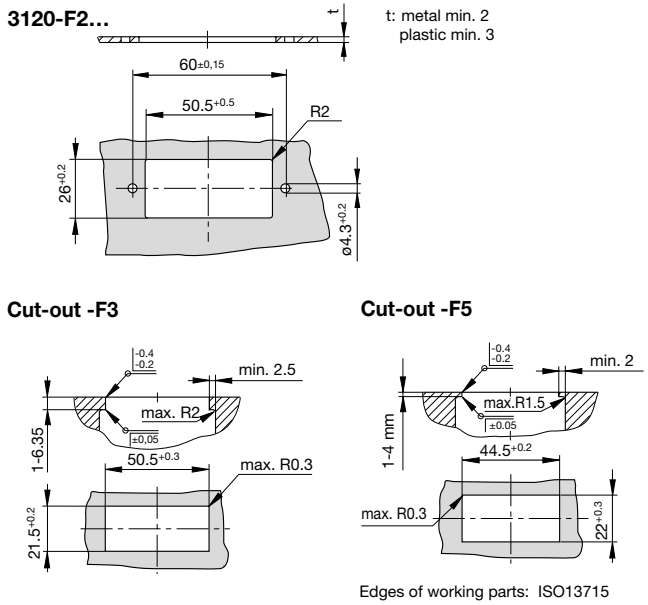


3120-F5.4
with water splash protection (IP54)



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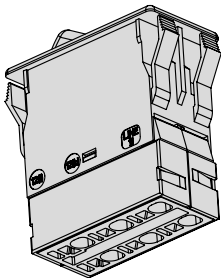
Cut-out dimensions



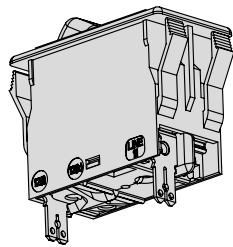
Terminal types

1-pole version

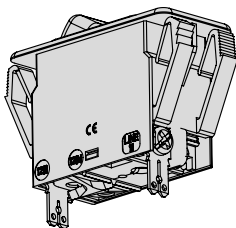
3120-F561-PT



3120-F561-N7

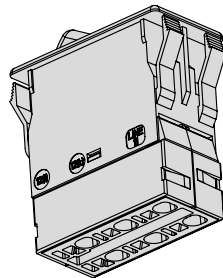


3120-F361-G7

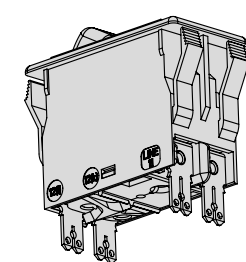


2-pole version

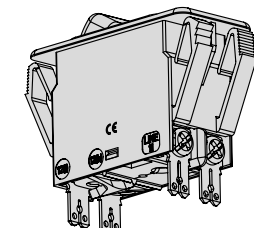
3120-F501-PT



3120-F501-N7

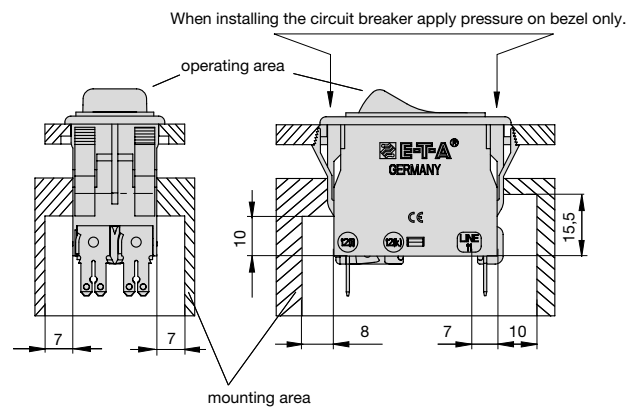


3120-F301-G7

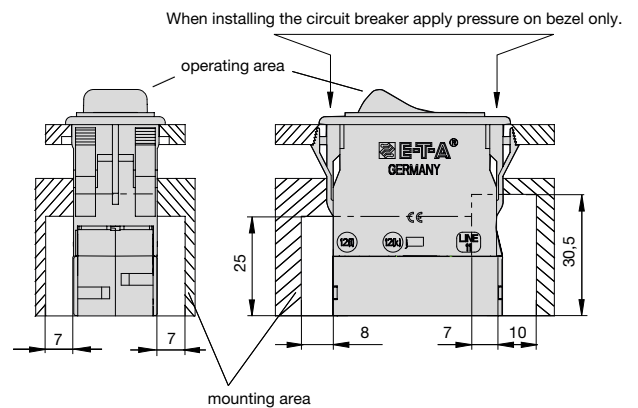


Installation drawing

3120 with blade terminals



3120 with push-in terminals

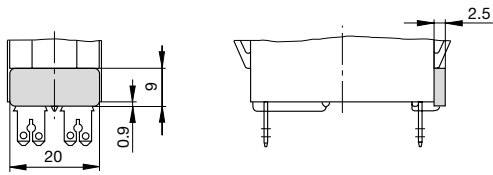


Cable cross sections PT terminals

| cable | cross section with direct push-in wiring |
|--|--|
| rigid | 1...4 mm ² (stripping length: 10 mm) |
| flexible with wire end ferrule (with or without plastic sleeve) | 0.5...2.5 mm ² |
| cable | cross section when opening the push-in terminals |
| rigid | 0.5...4 mm ² (stripping length: 10 mm) |
| flexible without wire end ferrule | 0.5...2.5 mm ² |

Accessories

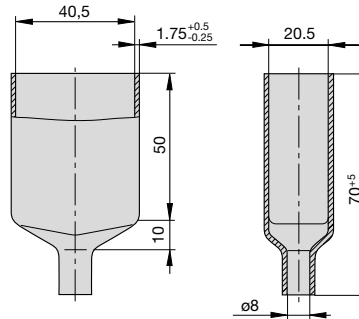
**Insulated cover
Y 303 068 01**



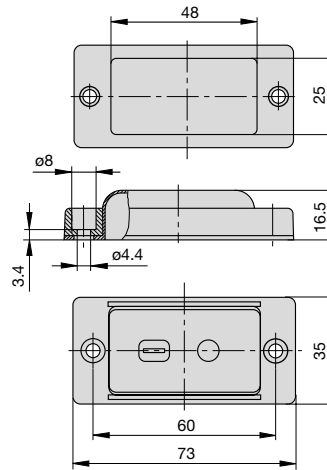
**Terminal adapter
Y 303 862 01**



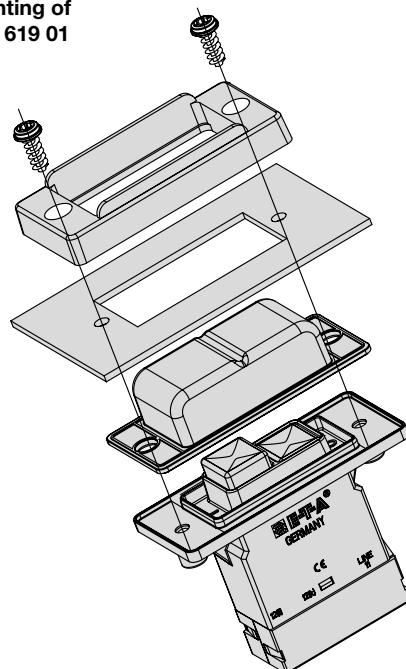
**Rear terminal shroud black (IP64)
Y 304 275 01**



**Water splash cover, transparent (IP66)
for style -F2...
X 221 619 01**



**Mounting of
X221 619 01**



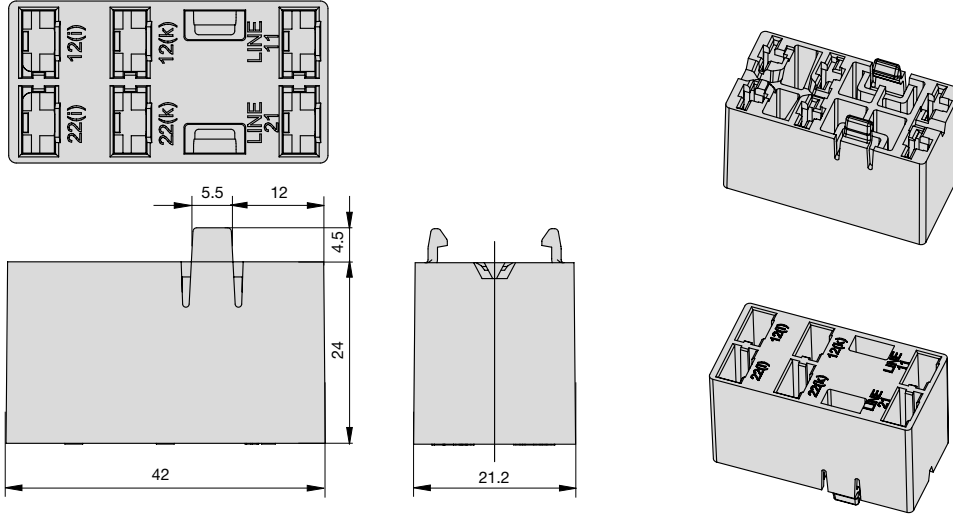
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Accessories

Plug-in connector (for connection types N7 and G7)

Y 31214001

Connecting cables can be pre-wired. Two retaining clips ensure a tight fit.



Benefits:

- Reduced installation time and costs for final assembly
- Quick replacement of devices

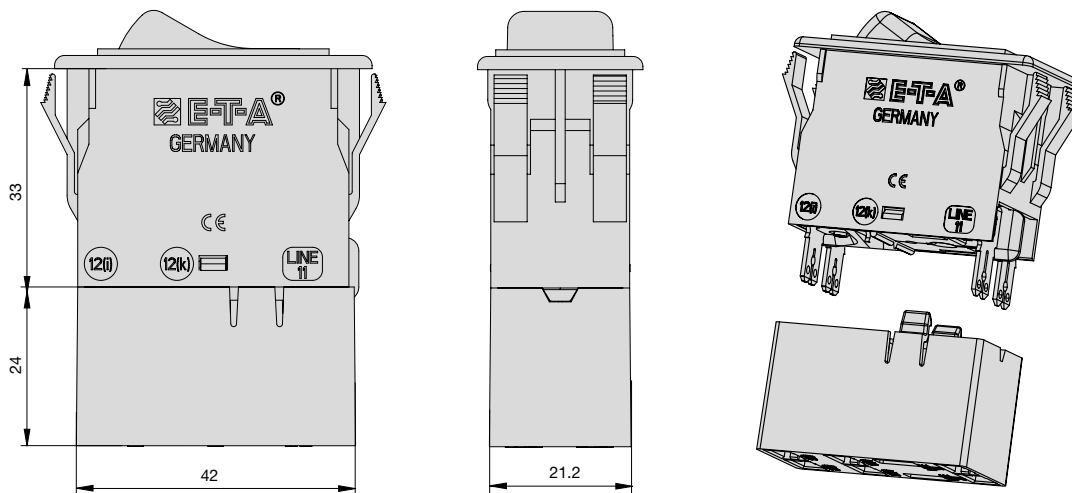
Note:

Delivery without receptacles.

Dimensions of receptacles (width 6.3 mm) are in accordance with DIN 46340 part 3, shape A.

Examples of suitable receptacles: Stocko RSB 7916 F6,3-1 / Klauke type 2730 / Vogt type 3832d.67 / TE FASTON Terminals 250 Series / Delphi Packard 58 Series

Plug-in connector mounted on circuit breaker:





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- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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