

TRUMPF



TruPulse nano

Technical data

TRUMPF



**TruPulse 1002 nano
(FK10-EP)****TruPulse 1002 nano
(FK10-HS)****TruPulse 1003 nano
(FK10-HS)****LASER PARAMETERS**

AVERAGE OUTPUT POWER	20 W	20 W	30 W
MAXIMUM PEAK PULSE POWER	> 7 kW	> 7 kW	> 7 kW
BEAM QUALITY (M ²)	< 1.3	< 1.3	< 1.3
WAVELENGTH	1062 nm ± 3 nm	1062 nm ± 3 nm	1062 nm ± 3 nm
MAXIMUM PULSE ENERGY	> 0.6 mJ	> 0.6 mJ	> 0.6 mJ
PULSE DURATION RANGE	3 ns - 500 ns	10 ns - 240 ns	10 ns - 240 ns
PULSE REPETITION FREQUENCY	1 kHz - 1000 kHz	1 kHz - 1000 kHz	1 kHz - 1000 kHz
WAVELENGTH SPECTRUM			

STRUCTURAL DESIGN

DIMENSIONS (W X H X D)	347 mm x 201 mm x 95 mm	347 mm x 201 mm x 95 mm	347 mm x 201 mm x 95 mm
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INSTALLATION

AMBIENT TEMPERATURE	0 °C - 45 °C	0 °C - 45 °C	0 °C - 45 °C
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**TruPulse 1005 nano
(FK10-HS)****TruPulse 1010 nano
(FK10-EP)****TruPulse 2002 nano
(FK10-EP)****LASER PARAMETERS**

AVERAGE OUTPUT POWER	50 W	100 W	20 W
MAXIMUM PEAK PULSE POWER	> 7 kW	> 7 kW	> 10 kW
BEAM QUALITY (M ²)	< 1.3	< 1.3	< 1.6
WAVELENGTH	1062 nm ± 3 nm	1062 nm ± 3 nm	1062 nm ± 3 nm
MAXIMUM PULSE ENERGY	> 0.6 mJ	> 1 mJ	> 1 mJ
PULSE DURATION RANGE	11 ns - 220 ns	4 ns - 2000 ns	3 ns - 500 ns
PULSE REPETITION FREQUENCY	1 kHz - 1000 kHz	1 kHz - 4000 kHz	1 kHz - 1000 kHz
WAVELENGTH SPECTRUM			

STRUCTURAL DESIGN

DIMENSIONS (W X H X D)	347 mm x 201 mm x 95 mm	377 mm x 249 mm x 115 mm	347 mm x 201 mm x 95 mm
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INSTALLATION

AMBIENT TEMPERATURE	0 °C - 42 °C	5 °C - 40 °C	0 °C - 45 °C
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**TruPulse 2002 nano
(FK10-RM)****TruPulse 2003 nano
(FK10-RM)****TruPulse 2005 nano
(FK10-EP)****LASER PARAMETERS**

AVERAGE OUTPUT POWER	20 W	30 W	50 W
MAXIMUM PEAK PULSE POWER	> 10 kW	> 10 kW	> 10 kW
BEAM QUALITY (M ²)	< 1.6	< 1.6	< 1.6
WAVELENGTH		1062 nm ± 3 nm	1062 nm ± 3 nm
MAXIMUM PULSE ENERGY	> 1 mJ	> 1 mJ	> 1 mJ

**TruPulse 2002 nano
(FK10-RM)****TruPulse 2003 nano
(FK10-RM)****TruPulse 2005 nano
(FK10-EP)**

PULSE DURATION RANGE	26 ns - 250 ns	26 ns - 250 ns	6 ns - 500 ns
PULSE REPETITION FREQUENCY	1 kHz - 500 kHz	1 kHz - 500 kHz	1 kHz - 1000 kHz
WAVELENGTH SPECTRUM	1059 nm - 1065 nm		

STRUCTURAL DESIGN

DIMENSIONS (W X H X D)	347 mm x 201 mm x 95 mm	347 mm x 201 mm x 95 mm	347 mm x 201 mm x 95 mm
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INSTALLATION

AMBIENT TEMPERATURE	0 °C - 45 °C	0 °C - 45 °C	0 °C - 40 °C
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**TruPulse 2005 nano
(FK10-RM)****TruPulse 2007 nano
(FK10-EP)****TruPulse 2007 nano
(FK10-RM)****LASER PARAMETERS**

AVERAGE OUTPUT POWER	50 W	70 W	70 W
MAXIMUM PEAK PULSE POWER	> 10 kW	> 10 kW	> 10 kW
BEAM QUALITY (M ²)	< 1.6	< 1.6	< 1.6
WAVELENGTH	1062 nm ± 3 nm	1062 nm ± 3 nm	1062 nm ± 3 nm
MAXIMUM PULSE ENERGY	> 1 mJ	> 1 mJ	> 1 mJ
PULSE DURATION RANGE	26 ns - 250 ns	9 ns - 500 ns	28 ns - 260 ns
PULSE REPETITION FREQUENCY	1 kHz - 500 kHz	1 kHz - 1000 kHz	1 kHz - 500 kHz
WAVELENGTH SPECTRUM			

STRUCTURAL DESIGN

DIMENSIONS (W X H X D)	347 mm x 201 mm x 95 mm	377 mm x 249 mm x 95 mm	377 mm x 249 mm x 95 mm
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INSTALLATION

AMBIENT TEMPERATURE	0 °C - 40 °C	0 °C - 40 °C	0 °C - 40 °C
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**TruPulse 2010 nano
(FK10-EP)****TruPulse 2013 nano
(FK10-EP)****TruPulse 2020 nano
(FK10-EP)****LASER PARAMETERS**

AVERAGE OUTPUT POWER	100 W	130 W	200 W
MAXIMUM PEAK PULSE POWER	> 10 kW	> 10 kW	> 10 kW
BEAM QUALITY (M ²)	< 1.6	< 1.6	< 1.6
WAVELENGTH	1062 nm ± 3 nm	1062 nm ± 3 nm	
MAXIMUM PULSE ENERGY	> 1.3 mJ	> 1.5 mJ	> 1.5 mJ
PULSE DURATION RANGE	4 ns - 2000 ns	3 ns - 2000 ns	9 ns - 2000 ns
PULSE REPETITION FREQUENCY	1 kHz - 4000 kHz	1 kHz - 4000 kHz	1 kHz - 4000 kHz
WAVELENGTH SPECTRUM			1059 nm - 1065 nm

STRUCTURAL DESIGN

DIMENSIONS (W X H X D)	377 mm x 249 mm x 115 mm	423 mm x 417 mm x 133 mm	423 mm x 417 mm x 133 mm
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INSTALLATION

**TruPulse 2010 nano
(FK10-EP)****TruPulse 2013 nano
(FK10-EP)****TruPulse 2020 nano
(FK10-EP)**

AMBIENT TEMPERATURE

0 °C - 40 °C

10 °C - 45 °C

10 °C - 40 °C

**TruPulse 3002 nano
(FK10-EP)****TruPulse 3002 nano
(FK10-HS)****TruPulse 4007 nano
(FK10-HS)****LASER PARAMETERS**

AVERAGE OUTPUT POWER

20 W

20 W

70 W

MAXIMUM PEAK PULSE POWER

> 12 kW

> 12 kW

> 20 kW

BEAM QUALITY (M²)

< 1.8

1.8

3

WAVELENGTH

1062 nm ± 3 nm

1062 nm ± 3 nm

1062 nm ± 3 nm

MAXIMUM PULSE ENERGY

> 1 mJ

> 0.8 mJ

> 1.25 mJ

PULSE DURATION RANGE

10 ns - 220 ns

2 ns - 500 ns

10 ns - 250 ns

PULSE REPETITION FREQUENCY

1 kHz - 1000 kHz

1 kHz - 1000 kHz

1 kHz - 1000 kHz

WAVELENGTH SPECTRUM

STRUCTURAL DESIGN

DIMENSIONS (W X H X D)

347 mm x 201 mm x 95 mm

347 mm x 201 mm x 95 mm

377 mm x 249 mm x 95 mm

INSTALLATION

AMBIENT TEMPERATURE

0 °C - 45 °C

0 °C - 45 °C

0 °C - 40 °C

TruPulse 5020 nano (FK10-EP)**LASER PARAMETERS**

AVERAGE OUTPUT POWER

200 W

MAXIMUM PEAK PULSE POWER

> 50 kW

BEAM QUALITY (M²)

< 5

WAVELENGTH

1062 nm ± 3 nm

MAXIMUM PULSE ENERGY

> 5 mJ

PULSE DURATION RANGE

12 ns - 2000 ns

PULSE REPETITION FREQUENCY

1 kHz - 4000 kHz

WAVELENGTH SPECTRUM

STRUCTURAL DESIGN

DIMENSIONS (W X H X D)

473 mm x 417 mm x 133 mm

INSTALLATION

AMBIENT TEMPERATURE

10 °C - 40 °C