TruDisk

Technical data

TRUMPF

	TruDisk 1000	TruDisk 2000	TruDisk 3000
LASER PARAMETERS			
LASER POWER	1000 W [1]	2000 W [1]	3000 W [1]
TYPICAL POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE	± 0.5 %	± 0.5 %	± 0.5 %
MAXIMUM POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE	± 1 %	± 1 %	± 1 %
CONTINUOUSLY ADJUSTABLE POWER RANGE	60 W - 1000 W with active power regulation	60 W - 2000 W with active power regulation	80 W - 3000 W with active power regulation
BEAM QUALITY AT THE INPUT COUPLING IN THE LLK	2 mm ▪ mrad	2 mm ▪ mrad	2 mm ▪ mrad
NUMERICAL APERTURE ON THE OUTPUT COUPLING AFTER LLK	0.1	0.1	0.1
WAVELENGTH	1030 nm	1030 nm	1030 nm
MINIMUM LASER LIGHT CABLE DIAMETER	50 µm	50 µm	50 µm
STRUCTURAL DESIGN			
WIDTH	1175 mm	1175 mm	1175 mm
HEIGHT	1430 mm	1430 mm	1430 mm
DEPTH	725 mm	725 mm	725 mm
MAXIMUM NUMBER OF LASER LIGHT CABLES	2	2	2
MAXIMUM NUMBER OF LASER LIGHT CABLES FOR EXTENDED DEVICE SIZE	4	4	4
INSTALLATION			
PROTECTION CLASS	IP54	IP54	IP54
AMBIENT TEMPERATURE	10 °C - 50 °C	10 °C - 50 °C	10 °C - 50 °C

	TruDisk 3001	TruDisk 3001 P	TruDisk 3002
LASER PARAMETERS			
LASER POWER	3000 W [1]	3000 W [1]	3000 W [1]
TYPICAL POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE	± 0.5 %	± 1 %	± 0.5 %
MAXIMUM POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE	± 1 %	± 2 %	± 1 %
CONTINUOUSLY ADJUSTABLE POWER RANGE	80 W - 3000 W with active power regulation	-	80 W - 3000 W with active power regulation
BEAM QUALITY AT THE INPUT COUPLING IN THE LLK	4 mm ▪ mrad	4 mm ▪ mrad	8 mm ▪ mrad
NUMERICAL APERTURE ON THE OUTPUT COUPLING AFTER LLK	0.1	0.1	0.1
WAVELENGTH	1030 nm	1030 nm	1030 nm
MINIMUM LASER LIGHT CABLE DIAMETER	100 µm	100 µm	200 µm

	TruDisk 3001	TruDisk 3001 P	TruDisk 3002
STRUCTURAL DESIGN			
WIDTH	1175 mm	1175 mm	1175 mm
HEIGHT	1430 mm	1430 mm	1430 mm
DEPTH	725 mm	725 mm	725 mm
MAXIMUM NUMBER OF LASER LIGHT CABLES	2	1	2
MAXIMUM NUMBER OF LASER LIGHT CABLES FOR EXTENDED DEVICE SIZE	4	-	4
INSTALLATION			
PROTECTION CLASS	IP54	IP54	IP54
AMBIENT TEMPERATURE	10 °C - 50 °C	10 °C - 45 °C	10 °C - 50 °C

	TruDisk 3006	TruDisk 4000	TruDisk 4001
LASER PARAMETERS			
LASER POWER	3000 W [1]	4000 W [1]	4000 W [1]
TYPICAL POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE	± 0.5 %	± 0.5 %	± 0.5 %
MAXIMUM POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE	± 1 %	± 1 %	± 1 %
CONTINUOUSLY ADJUSTABLE POWER RANGE	80 W - 3000 W with active power regulation	80 W - 4000 W with active power regulation	80 W - 4000 W with active power regulation
BEAM QUALITY AT THE INPUT COUPLING IN THE LLK	25 mm ▪ mrad	2 mm ▪ mrad	4 mm ▪ mrad
NUMERICAL APERTURE ON THE OUTPUT COUPLING AFTER LLK	0.1	0.1	0.1
WAVELENGTH	1030 nm	1030 nm	1030 nm
MINIMUM LASER LIGHT CABLE DIAMETER	600 µm	50 µm	100 µm
STRUCTURAL DESIGN			
WIDTH	1175 mm	1175 mm	1175 mm
HEIGHT	1430 mm	1430 mm	1430 mm
DEPTH	725 mm	725 mm	725 mm
MAXIMUM NUMBER OF LASER LIGHT CABLES	2	2	2
MAXIMUM NUMBER OF LASER LIGHT CABLES FOR EXTENDED DEVICE SIZE	4	4	4
INSTALLATION			
PROTECTION CLASS	IP54	IP54	IP54
AMBIENT TEMPERATURE	10 °C - 50 °C	10 °C - 50 °C	10 °C - 50 °C

	TruDisk 4001 P	TruDisk 4002	TruDisk 4006

	TruDisk 4001 P	TruDisk 4002	TruDisk 4006
LASER PARAMETERS			
LASER POWER	4000 W [1]	4000 W [1]	4000 W [1]
TYPICAL POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE	± 1 %	± 0.5 %	± 0.5 %
MAXIMUM POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE	± 2 %	± 1 %	± 1 %
CONTINUOUSLY ADJUSTABLE POWER RANGE	-	80 W - 4000 W with active power regulation	80 W - 4000 W with active power regulation
BEAM QUALITY AT THE INPUT COUPLING IN THE LLK	4 mm ▪ mrad	8 mm ▪ mrad	25 mm ▪ mrad
NUMERICAL APERTURE ON THE OUTPUT COUPLING AFTER LLK	0.1	0.1	0.1
WAVELENGTH	1030 nm	1030 nm	1030 nm
MINIMUM LASER LIGHT CABLE DIAMETER	100 µm	200 µm	600 µm
STRUCTURAL DESIGN			
WIDTH	1175 mm	1175 mm	1175 mm
HEIGHT	1430 mm	1430 mm	1430 mm
DEPTH	725 mm	725 mm	725 mm
MAXIMUM NUMBER OF LASER LIGHT CABLES	1	2	2
MAXIMUM NUMBER OF LASER LIGHT CABLES FOR EXTENDED DEVICE SIZE	-	4	4
INSTALLATION			
PROTECTION CLASS	IP54	IP54	IP54
AMBIENT TEMPERATURE	10 °C - 45 °C	10 °C - 50 °C	10 °C - 50 °C

	TruDisk 5000	TruDisk 5001	TruDisk 5002
LASER PARAMETERS			
LASER POWER	5000 W [1]	5000 W [1]	5000 W [1]
TYPICAL POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE	± 0.5 %	± 0.5 %	± 0.5 %
MAXIMUM POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE	± 1 %	± 1 %	± 1 %
CONTINUOUSLY ADJUSTABLE POWER RANGE	100 W - 5000 W with active power regulation	120 W - 5000 W with active power regulation	120 W - 5000 W with active power regulation
BEAM QUALITY AT THE INPUT COUPLING IN THE LLK	2 mm ▪ mrad	4 mm ▪ mrad	8 mm ▪ mrad
NUMERICAL APERTURE ON THE OUTPUT COUPLING AFTER LLK	0.1	0.1	0.1
WAVELENGTH	1030 nm	1030 nm	1030 nm
MINIMUM LASER LIGHT CABLE DIAMETER	50 µm	100 µm	200 µm

	TruDisk 5000	TruDisk 5001	TruDisk 5002
STRUCTURAL DESIGN			
WIDTH	1175 mm	1175 mm	1175 mm
HEIGHT	1430 mm	1430 mm	1430 mm
DEPTH	725 mm	725 mm	725 mm
MAXIMUM NUMBER OF LASER LIGHT CABLES	2	2	2
MAXIMUM NUMBER OF LASER LIGHT CABLES FOR EXTENDED DEVICE SIZE	4	4	4
INSTALLATION			
PROTECTION CLASS	IP54	IP54	IP54
AMBIENT TEMPERATURE	10 °C - 50 °C	10 °C - 50 °C	10 °C - 50 °C

	TruDisk 5006	TruDisk 6000	TruDisk 6001
LASER PARAMETERS			
LASER POWER	5000 W [1]	6000 W [1]	6000 W [1]
TYPICAL POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE	± 0.5 %	± 0.5 %	± 0.5 %
MAXIMUM POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE	± 1 %	± 1 %	± 1 %
CONTINUOUSLY ADJUSTABLE POWER RANGE	120 W - 5000 W with active power regulation	120 W - 6000 W with active power regulation	120 W - 6000 W with active power regulation
BEAM QUALITY AT THE INPUT COUPLING IN THE LLK	25 mm ▪ mrad	2 mm ▪ mrad	4 mm ▪ mrad
NUMERICAL APERTURE ON THE OUTPUT COUPLING AFTER LLK	0.1	0.1	0.1
WAVELENGTH	1030 nm	1030 nm	1030 nm
MINIMUM LASER LIGHT CABLE DIAMETER	600 µm	50 µm	100 µm
STRUCTURAL DESIGN			
WIDTH	1175 mm	1620 mm	1175 mm
HEIGHT	1430 mm	1475 mm	1430 mm
DEPTH	725 mm	920 mm	725 mm
MAXIMUM NUMBER OF LASER LIGHT CABLES	2	2	2
MAXIMUM NUMBER OF LASER LIGHT CABLES FOR EXTENDED DEVICE SIZE	4	-	4
INSTALLATION			
PROTECTION CLASS	IP54	IP54	IP54
AMBIENT TEMPERATURE	10 °C - 50 °C	10 °C - 50 °C	10 °C - 50 °C

	TruDisk 6001 P	TruDisk 6002	TruDisk 6006

	TruDisk 6001 P	TruDisk 6002	TruDisk 6006
LASER PARAMETERS			
LASER POWER	6000 W [1]	6000 W [1]	6000 W [1]
TYPICAL POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE	± 1 %	± 0.5 %	± 0.5 %
MAXIMUM POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE	± 2 %	± 1 %	± 1 %
CONTINUOUSLY ADJUSTABLE POWER RANGE	-	120 W - 6000 W with active power regulation	120 W - 6000 W with active power regulation
BEAM QUALITY AT THE INPUT COUPLING IN THE LLK	4 mm ▪ mrad	8 mm ▪ mrad	25 mm ▪ mrad
NUMERICAL APERTURE ON THE OUTPUT COUPLING AFTER LLK	0.1	0.1	0.1
WAVELENGTH	1030 nm	1030 nm	1030 nm
MINIMUM LASER LIGHT CABLE DIAMETER	100 µm	200 µm	600 µm
STRUCTURAL DESIGN			
WIDTH	1175 mm	1175 mm	1175 mm
HEIGHT	1430 mm	1430 mm	1430 mm
DEPTH	725 mm	725 mm	725 mm
MAXIMUM NUMBER OF LASER LIGHT CABLES	1	2	2
MAXIMUM NUMBER OF LASER LIGHT CABLES FOR EXTENDED DEVICE SIZE	-	4	4
INSTALLATION			
PROTECTION CLASS	IP54	IP54	IP54
AMBIENT TEMPERATURE	10 °C - 45 °C	10 °C - 50 °C	10 °C - 50 °C

	TruDisk 8000	TruDisk 8001	TruDisk 8002
LASER PARAMETERS			
LASER POWER	8000 W [1]	8000 W [1]	8000 W [1]
TYPICAL POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE	± 0.5 %	± 0.5 %	± 0.5 %
MAXIMUM POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE	± 1 %	± 1 %	± 1 %
CONTINUOUSLY ADJUSTABLE POWER RANGE	160 W - 8000 W with active power regulation	160 W with active power regulation	160 W with active power regulation
BEAM QUALITY AT THE INPUT COUPLING IN THE LLK	2 mm ▪ mrad	4 mm ▪ mrad	8 mm ▪ mrad
NUMERICAL APERTURE ON THE OUTPUT COUPLING AFTER LLK	0.1	0.1	0.1
WAVELENGTH	1030 nm	1030 nm	1030 nm
MINIMUM LASER LIGHT CABLE DIAMETER	50 µm	100 µm	200 µm

	TruDisk 8000	TruDisk 8001	TruDisk 8002
STRUCTURAL DESIGN			
WIDTH	1620 mm	1175 mm	1175 mm
HEIGHT	1475 mm	1430 mm	1430 mm
DEPTH	920 mm	725 mm	725 mm
MAXIMUM NUMBER OF LASER LIGHT CABLES	2	2	2
MAXIMUM NUMBER OF LASER LIGHT CABLES FOR EXTENDED DEVICE SIZE	-	4	4
INSTALLATION			
PROTECTION CLASS	IP54	IP54	IP54
AMBIENT TEMPERATURE	10 °C - 50 °C	10 °C - 50 °C	10 °C - 50 °C

	TruDisk 10001	TruDisk 12001	TruDisk 16001
LASER PARAMETERS			
LASER POWER	10000 W [1]	12000 W [1]	16000 W [1]
TYPICAL POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE	± 0.5 %	± 0.5 %	± 0.5 %
MAXIMUM POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE	± 1 %	± 1 %	± 1 %
CONTINUOUSLY ADJUSTABLE POWER RANGE	200 W - 10000 W with active power regulation	240 W - 12000 W with active power regulation	320 W - 16000 W with active power regulation
BEAM QUALITY AT THE INPUT COUPLING IN THE LLK	4 mm ▪ mrad	4 mm ▪ mrad	4 mm ▪ mrad
NUMERICAL APERTURE ON THE OUTPUT COUPLING AFTER LLK	0.1	0.1	0.1
WAVELENGTH	1030 nm	1030 nm	1030 nm
MINIMUM LASER LIGHT CABLE DIAMETER	100 µm	100 µm	100 µm
STRUCTURAL DESIGN			
WIDTH	1620 mm	1620 mm	2150 mm
HEIGHT	1475 mm	1475 mm	1600 mm
DEPTH	920 mm	920 mm	1200 mm
MAXIMUM NUMBER OF LASER LIGHT CABLES	2	2	2
MAXIMUM NUMBER OF LASER LIGHT CABLES FOR EXTENDED DEVICE SIZE	-	-	-
INSTALLATION			
PROTECTION CLASS	IP54	IP54	IP54
AMBIENT TEMPERATURE	10 °C - 50 °C	10 °C - 50 °C	10 °C - 50 °C

	TruDisk 20001	TruDisk 24001

	TruDisk 20001	TruDisk 24001
LASER PARAMETERS		
LASER POWER	20000 W [1]	24000 W [1]
TYPICAL POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE	± 0.5 %	± 0.5 %
MAXIMUM POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE	± 1 %	± 1 %
CONTINUOUSLY ADJUSTABLE POWER RANGE	400 W - 20000 W with active power regulation	480 W - 24000 W with active power regulation
BEAM QUALITY AT THE INPUT COUPLING IN THE LLK	4 mm ▪ mrad	4 mm ▪ mrad
NUMERICAL APERTURE ON THE OUTPUT COUPLING AFTER LLK	0.1	0.1
WAVELENGTH	1030 nm	1030 nm
MINIMUM LASER LIGHT CABLE DIAMETER	100 µm	100 µm
STRUCTURAL DESIGN		
WIDTH	2150 mm	2150 mm
HEIGHT	1600 mm	1600 mm
DEPTH	1200 mm	1200 mm
MAXIMUM NUMBER OF LASER LIGHT CABLES	2	2
MAXIMUM NUMBER OF LASER LIGHT CABLES FOR EXTENDED DEVICE SIZE	-	-
INSTALLATION		
PROTECTION CLASS	IP54	IP54
AMBIENT TEMPERATURE	10 °C - 50 °C	10 °C - 50 °C

Footnotes

1 — The laser power at the workpiece may deviate from the rated power depending on the optics configuration.