

SUNNY TOWER 36 / 42

- > UL 1741/IEEE 1547 compliant
- > 10 yr. standard warranty
- > Prewired at factory for 3-phase utility interconnection
- > Integrated load-break rated AC/DC disconnect switch
- > Internet ready with Sunny WebBox
- > Improved CEC efficiency
- > Integrated fused series string combiner
- > Sealed electronics enclosure & Opticool
- > Ideal for commercial applications
- > Rugged stainless steel outdoor rated enclosure



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The flexible solution for commercial PV systems

SMA brings you the best in commercial inverter solutions: The Sunny Tower. Designed with the installer in mind, we've combined ease of installation, lowest specific cost (\$/Watt), and the highest efficiency to maximize rebates and power production while minimizing your payback period. The Sunny Tower combines all the advantages of string inverters with the installation advantages of central inverters. The Sunny Tower offers you the flexibility and reliability you've come to expect from SMA.



Technical Data

SUNNY TOWER 36 / 42

	ST 36	ST 42
Recommended Max. PV Power (Module STC)	45.0 kW	52.5 kW
Max. DC Voltage	600 V	600 V
Peak Power Tracking Voltage	250 - 480 V	250 - 480 V
DC Max. Input Current	150 A	180 A
DC Voltage Ripple	< 5%	< 5%
Number of Fused String Inputs	24 x 15 A AC/DC disconnect	24 x 15 A AC/DC disconnect
PV Start Voltage (adjustable)	300 V	300 V
AC Nominal Power / Maximum Power	36.0 kW / 36.0 kW	42.0 kW / 42.0 kW
AC Maximum Output Current (per phase @ 208, 240, 277 V)	100 A, 87 A, 44 A	117 A, 101 A, 51 A
AC Nominal Voltage Range (3-Phase)	183 - 229 V @ 208 V Delta or WYE 211 - 264 V @ 240 V Delta or WYE 244 - 305 V @ 277 V WYE	183 - 229 V @ 208 V Delta or WYE 211 - 264 V @ 240 V Delta or WYE 244 - 305 V @ 277 V WYE
AC Frequency Range	60 Hz / 59.3 Hz - 60.5 Hz	60 Hz / 59.3 Hz - 60.5 Hz
Power Factor	0.99 @ nominal power	0.99 @ nominal power
Peak Inverter Efficiency	97.0 %	97.1 %
CEC weighted Efficiency	95.5 % @ 208 V, 240 V 96.0 % @ 277 V	95.5 % @ 208 V 96.0 % @ 240 V, 277 V
Dimensions W x H x D in inches	43.3 x 70.5 x 39	43.3 x 70.5 x 39
Weight: Tower / 6 Inverters / Total Shipping	330 lbs / 846 lbs / 1388 lbs	330 lbs / 846 lbs / 1388 lbs
Ambient temperature range	- 13 to +113 °F	- 13 to +113 °F
Power Consumption: standby / nighttime	< 42 W / 0.6 W	< 42 W / 0.6 W
Topology	Low frequency transformer, true sinewave	Low frequency transformer, true sinewave
Cooling Concept	OptiCool, forced active cooling	OptiCool, forced active cooling
Mounting Location Indoor / Outdoor (NEMA 3R)	● / ●	● / ●
LCD Display	●	●
Lid Color: aluminum / red / blue / yellow	● / ○ / ○ / ○	● / ○ / ○ / ○
Communication: RS485 / Wireless	○ / ○	○ / ○
Warranty: 10-year	●	●
Compliance: IEEE-929, IEEE-1547, UL 1741, UL 1998, FCC Part 15 A & B	●	●
Specifications for nominal conditions	● Included ○ Option – Not available	● Included ○ Option – Not available

Efficiency Curves

