

ATESS HPS30/50/100/120/150



LEADING - EDGE TECHNOLOGY

Overview

Large capacity all-in-one hybrid inverter for commercial application, supporting up to 600kW system capacity

Features



All in one hybrid inverter



Seamless on/off grid transfer



Programmable working mode



Supports remote control of DG

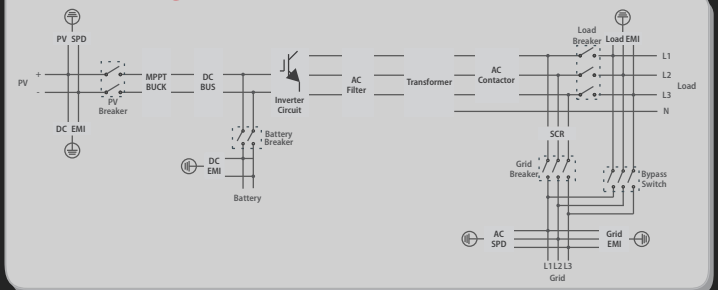


Touchscreen LCD



Quadruple capacity by paralleling 4 units

Block Diagram



Datasheet

ATESS HPS30

ATESS HPS50

ATESS HPS100

ATESS HPS120

ATESS HPS150

AC (Grid-connected)

Apparent power	33kVA	55kVA	110kVA	132kVA	165kVA
Rated power	30kW	50kW	100kW	120kW	150kW
Rated voltage	400V	400V	400V	400V	400V
Rated current	43A	72A	144A	173A	217A
Voltage range	360V - 440V	360V - 440V	360V - 440V	360V - 440V	360V - 440V
Rated frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Frequency range	45~55/55~65Hz	45~55/55~65Hz	45~55/55~65Hz	45~55/55~65Hz	45~55/55~65Hz
THDI	<3%	<3%	<3%	<3%	<3%
PF	0.8lagging~0.8leading	0.8lagging~0.8leading	0.8lagging~0.8leading	0.8lagging~0.8leading	0.8lagging~0.8leading
AC connection	3/N/PE	3/N/PE	3/N/PE	3/N/PE	3/N/PE
AC input	60kVA	100kVA	200kVA	240kVA	240kVA

AC(Off-grid)

Apparent power	33kVA	55kVA	110kVA	132kVA	165kVA
Rated power	30kW	50kW	100kW	120kW	150kW
Rated voltage	400V	400V	400V	400V	400V
Rated current	43A	72A	144A	173A	217A
THDU	≤2%linear	≤2%linear	≤2%linear	≤2%linear	≤2%linear
Rated frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Overload capability	110%-10 mins 120%-1 min	110%-10 mins 120%-1 min	110%-10 mins 120%-1 min	110%-10 mins 120%-1 min	110%-10 mins 120%-1 min

DC (Battery and PV)

Max. PV open-circuit voltage	1000V DC	1000V DC	1000V DC	1000V DC	1000V DC
Max. PV power	45kWp	75kWp	150kWp	180kWp	225kWp
PV MPPT voltage range	480V-800V DC	480V-800V DC	480V-800V DC	480V-800V DC	480V-800V DC
Battery voltage range at Max. charge power	450V-600V	500V-600V	500V-600V	517V-600V	500V-600V
Battery voltage range	352-600V	352-600V	352-600V	352-600V	352-600V
Max. charge power	45kW	75kW	150kW	180kW	225kW
Max. discharge power	33kW	55kW	110kW	132kW	165kW
Max. charge current	100A	150A	300A	350A	450A
Max. discharge current	93A	156A	313A	374A	467A

General Information

Protection degree	IP20	IP20	IP20	IP20	IP20
Noise emission	<65dB(A)@1m	<65dB(A)@1m	<65dB(A)@1m	<65dB(A)@1m	<65dB(A)@1m
Operating temperature	-25 °C~+55 °C	-25 °C~+55 °C	-25 °C~+55 °C	-25 °C~+55 °C	-25 °C~+55 °C
Cooling	Forced-air	Forced-air	Forced-air	Forced-air	Forced-air
Relative humidity	0-95% non-condensing	0-95% non-condensing	0-95% non-condensing	0-95% non-condensing	0-95% non-condensing
Maximum altitude	6000m (derate over 3000m)	6000m (derate over 3000m)	6000m (derate over 3000m)	6000m (derate over 3000m)	6000m (derate over 3000m)
Dimension (W/H/D)	700/1660/600mm	950/1860/750mm	1200/1900/800mm	1200/1900/800mm	1200/1900/800mm
Weight	355kg	610kg	948kg	1025kg	1230kg
Build-in transformer	Yes	Yes	Yes	Yes	Yes
Transfer between on/off grid	Automatic≤10ms	Automatic≤10ms	Automatic≤10ms	Automatic≤10ms	Automatic≤10ms
Standby consumption	<30W	<30W	<30W	<30W	<30W

Communication

Display	Touch screen	Touch screen	Touch screen	Touch screen	Touch screen
Communication	RS485/CAN	RS485/CAN	RS485/CAN	RS485/CAN	RS485/CAN

Certificate CE, MEA, PEA, AS 4777.2, EN 61000-6-4:2007+A1:2011, EN61000-6-2:2005, EN62109-1:2010, EN62109-2:2011, EN 50549-1:2019, IEC62109.1, IEC62109.2, NRS 097-2-1:2017, G99, VDE-AR-N 4105:2018, DIN VDE V 0124-100:2020-06

* Battery voltage is determined by the following equation:

$V_{min} = 352 \times V_n / V_1$, $V_{Max} = (V_{mpp} - 100) \times V_n / V_2$, $V_{Max} < 600VDC$

V_1 is battery cell discharge cut-off voltage, V_2 is battery cell boost charge voltage, V_n is battery cell nominal voltage.