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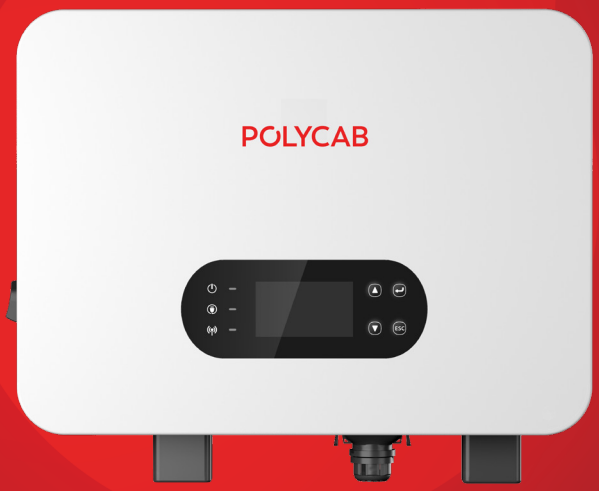

IEC 10 YR WARRANTY*

Future-Ready Hybrid Inverters for Next-Generation PM Surya Ghar Rooftop Solar Systems

Single Phase - Single / Dual MPPT

Models: PHIS-3K0-ESUQ | 3K6-ESUQ | 5K0-ESUQ | 6K0-ESUQ

Leading Features

Flexible & Adaptable Applications	3-in-1 Port: Generator, Smart Loads & On-grid Inverter Micro-grid Operation with PV Inverter Supports On and Off-Grid Parallel Operation of up to 6 units
Superb Safety & Reliability	AI-driven AFCI*[5] IP66 Ingress Protection
Higher Power Generation	Max. 20A DC Input Current per String 200% PV Input Oversizing*
Smart Control & Monitoring	Smart Load Control Seamless Switching to Backup <4ms

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SINGLE PHASE & SINGLE MPPT HYBRID INVERTER

PHIS-3K0-ESUQ | 3K6-ESUQ | 5K0-ESUQ | 6K0-ESUQ

TECHNICAL SPECIFICATIONS				
MODEL	**PHIS-3K0-ESUQ**	**PHIS-3K6-ESUQ**	**PHIS-5K0-ESUQ**	**PHIS-6K0-ESUQ**
Rating	3.0 kW	3.6 kW	5.0 kW	6.0 kW
BATTERY INPUT DATA				
Battery Type*1	Li-Ion / Lead-acid			
Nominal Battery Voltage (V)	48			
Battery Voltage Range (V)	40 ~ 60			
Start-up Voltage (V)	44.2			
Number of Battery Input	1			
Max. Continuous Charging Current (A)	70	90	120	140
Max. Continuous Discharging Current (A)	70	90	120	140
Max. Charging Power (kW)	3.0*[2]	3.6*[2]	5.0*[2]	6.0*[2]
Max. Discharging Power (kW)	3.3*[2]	3.96*[2]	5.5*[2]	6.6*[2]
PV STRING INPUT DATA				
Max. Input Power (kW)	6.0	7.2	10.0	12.0
Max. Input Voltage (V)*3	600			
MPPT Operating Voltage Range (V)*4	60 ~ 550			
Start-up Voltage (V)	58			
Nominal Input Voltage (V)	360			
Max. Input Current per MPPT (A)	20			
Max. Short Circuit Current per MPPT (A)	26			
Number of MPPT Trackers	1	2		
Number of Strings per MPPT	1			
AC OUTPUT DATA (ON-GRID)				
Nominal Output Power (kW)	3.0	3.6	5.0	6.0
Nominal Apparent Power Output to Utility Grid (kVA)	3.0	3.6	5.0	6.0
Max. AC Active Power (kW)	3.3	3.96	5.5	6.6
Max. Apparent Power Output to Utility Grid (kVA)	3.3	3.96	5.5	6.6
Max. Apparent Power from Utility Grid (kVA)	7.04	7.04	8.8	8.8
Nominal Output Voltage (V)	220 / 230 / 240			
Output Voltage Range (V)①	170 ~ 280			
Nominal AC Grid Frequency (Hz)	50 / 60			
AC Grid Frequency Range (Hz)②	45 ~ 55 / 55 ~ 65			
Max. AC Current Output to Utility Grid (A)	15	18	25	30
Max. AC Current from Utility Grid (A)	32	32	40	40
Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)			
Max. Total Harmonic Distortion	< 3%			
AC OUTPUT DATA (BACK-UP)				
Back-up Nominal Apparent Power (kVA)	3.0	3.6	5.0	6.0
Max. Output Apparent Power without Grid (kVA)	3.3 (6.0, 10s)	3.96 (7.2, 10s)	5.5 (10.0, 10s)	6.6 (12.0, 10s)
Max. Output Apparent Power with Grid (kVA)	7.04	7.04	8.8	8.8
Max. Output Current without Grid (A)	15	18	25	30
Max. Output Current with Grid (A)	32		40	
Nominal Output Voltage (V)	220 / 230 / 240			
Nominal Output Frequency (Hz)	50 / 60			

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SINGLE PHASE & SINGLE MPPT HYBRID INVERTER

PHIS-3K0-ESUQ | 3K6-ESUQ | 5K0-ESUQ | 6K0-ESUQ

Output THDv (@Linear Load)	< 3%			
AC DATA (GENERATOR)				
Nominal Apparent Power from AC Generator (kVA)	3.0	3.6	5.0	6.0
Max. Apparent Power from AC Generator (kVA)	3.3	3.96	5.5	6.6
Nominal Input Voltage (V)	220 / 230 / 240			
Input Voltage Range (V)	170 ~ 280			
Nominal AC Generator Frequency (Hz)	50 / 60			
AC Generator Frequency Range (Hz)	45 ~ 55 / 55 ~ 65			
Max. AC Current from AC Generator (A)	32.0		40.0	
Nominal AC Current from AC Generator (A)	13.7 at 220V 13.1 at 230V 12.5 at 240V	16.4 at 220V 15.7 at 230V 15.0 at 240V	22.8 at 220V 21.8 at 230V 20.9 at 240V	27.3 at 220V 26.1 at 230V 25.0 at 240V
Nominal Input Current (A)	13.7 at 220V 13.1 at 230V 12.5 at 240V	16.4 at 220V 15.7 at 230V 15.0 at 240V	22.8 at 220V 21.8 at 230V 20.9 at 240V	27.3 at 220V 26.1 at 230V 25.0 at 240V
EFFICIENCY				
Max. Efficiency	97.6%			
European Efficiency	96.2%			
Max. Battery to AC Efficiency	95.5%			
MPPT Efficiency	99.9%			
PROTECTION				
PV String Current Monitoring	Integrated			
PV Insulation Resistance Detection	Integrated			
Residual Current Monitoring	Integrated			
PV Reverse Polarity Protection	Integrated			
Anti-islanding Protection	Integrated			
AC Overcurrent Protection	Integrated			
AC Short Circuit Protection	Integrated			
AC Overvoltage Protection	Integrated			
DC Switch	Integrated			
DC Surge Protection	Type III			
AC Surge Protection	Type III			
AFCI	Optional			
Rapid Shutdown	Optional			
Remote Shutdown	Integrated			
GENERAL DATA				
Operating Temperature Range (°C)	-35 ~ +60			
Relative Humidity	0 ~ 95%			
Max. Operating Altitude (m)	3000			
Noise Emission (dB)	<30			
Cooling Method	Natural Convection			
User Interface	LCD, WLAN + APP			
Communication with BMS	CAN			
Communication	RS485, Wi-Fi + LAN + Bluetooth			
Communication Protocols	Modbus-RTU, Modbus-TCP			
Dimension (W × H × D mm)	560 × 415 × 204			
Weight (Kg)	14.5	15.5		
Self-consumption at Night (W)	<10			

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SINGLE PHASE & SINGLE MPPT HYBRID INVERTER

PHIS-3K0-ESUQ | 3K6-ESUQ | 5K0-ESUQ | 6K0-ESUQ

Topology	Non-isolated
Ingress Protection Rating	IP66
Mounting Method	Wall Mounted
CERTIFICATION	
IEC Standard(s)	IEC 62109, IEC 50530, IEC 62891, IEC 61727, IEC 62116, IEC 60068, IEC 61683, IEC 61000
WARRANTY*	
Polycab Inverter + Polycab Battery - Combo (Years)	10
Polycab Inverter + 3rd Party Battery (Years)	5

①②The range of output voltage and frequency may vary depending upon different grid codes as per the government regulations.
*Conditions Apply based on PV Module Rating.
*1: The Li-Ion battery usually contains two mainstream types: LFP and Ternary Lithium battery.
*2: When the PV input voltage is higher than 500V, the battery charging and discharging power will be gradually limited, and the power limitation will be lifted after the input voltage is lowered.
*3: When the input voltage is 560V-600V, the inverter will enter standby mode. The inverter will return to normal operation state when the voltage returns to the MPPT working voltage range.
*4: Please refer to the user manual for the MPPT Voltage Range at Nominal Power.
*5: Optional functions or devices are to be purchased separately.
Specifications are subject to change without advance notice.

For Consumer Complaint Contact: Officer, Corporate Care Cell
POLYCAB INDIA LIMITED #29, The Ruby, 21st Floor, Senapati Bapat Marg, Tulsi Pipe Road, Dadar (West),Mumbai - 400 028, Maharashtra, India.
Tel.: +91-22-2432 7070/4, 6735 1400 I Fax: 91-22-24327075
Email: customercare@polycab.com I Website: www.polycab.com I Toll Free No.: 1800 267 0008
For Product Inquiry, Email: solar@polycab.com

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