



Hybrid Inverter

12kW-48V

3P-HYBRID



IP66
Ingress
Protection



Strong Overload
Capacity



Three Output
Function

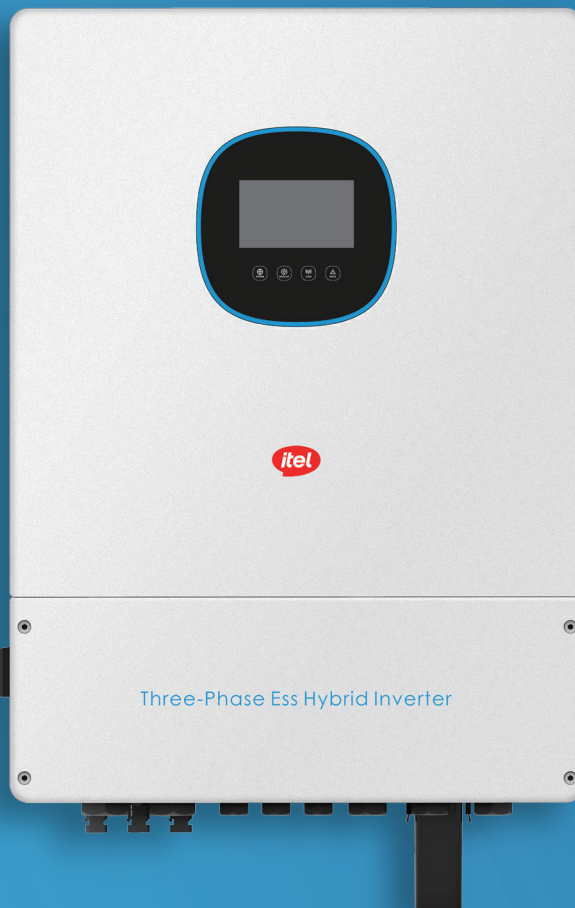


200% PV
Overmatching
Rate



150%
Unbalanced
Output

- ✓ 5 years replacement
- ✓ 5 years repair warranty



Three-Phase Ess Hybrid Inverter

+92 42 111 999 666

www.ess.itel-life.com

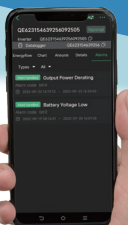
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Model	IHY-12KL3
Efficiency	
MPPT Tracking Efficiency	99.9%
Max. Conversion Efficiency (PV)	98.0%
European Efficiency	97.5%
PV String Input	
Max. PV Input Power	24000W
Max. DC Input Voltage	1000V
Start-up Voltage	150V
MPPT Voltage Range	200V-800V
Max. Input Current	36A/18A
Number of MPPT Trackers	2
AC Output (on-grid)	
Max. Grid Input Voltage (Absolute Maximum Ratings)	>380VAC (L-N)
Nominal Output Power	12000W
Max. Output Apparent Power	13200VA
Nominal Output Voltage	220/380VAC, 230/400VAC
Rated/Max. Output Current	18.2A/20A
Output Voltage Range	180~280VAC (L-N)
Output Frequency Range	45~65Hz
Power Factor Adjustment Range	0.8 Leading to 0.8 Lagging
Total Current Harmonic Distortion	<3%
AC Output (backup)	
Peak output power (15seconds)	24000VA
Load Capacity of Motor	3HP
Nominal Output Power	12000W
Max. Output Apparent Power	13200VA
Nominal Output Voltage	220/380VAC, 230/400VAC
Rated/Max. Output Current	18.2A/20A
Max. Three-phase Unbalanced Output Current	27.3A
Nominal Output Frequency	50/60Hz
Total Voltage Harmonic Distortion	<3%
Switch Time to Backup Mode	10ms
Battery	
Battery Type	Lead-acid/Li-ion/User Defined
Rated Battery Voltage	48VDC
Battery Voltage Range	40V-60V
Max. Charging/Discharging Current	250A
General	
Ingress Protection	IP66
Dimensions D*W*H (mm)	256*475*683
Net Weight (kg)	38
Operating Temperature Range	-25~60°C, >45°C Power Derating
Max. Operating Altitude	4000m, >2000m Power Derating
Diesel Generator Support	Yes
Smart Load Support	Yes
Number of Parallel	12
Cooling Method	Intelligent Fan Cooling
Noise	< 55dB
Communication	WiFi/RS485/CAN/Dry Contact
Authentication Level	IEC62109-1, IEC62109-2, IEC61683, IEC62116, IEC61727
Protection	
PV Reverse-Polarity Protection	Yes
Insulation Impedance Detection	Yes
Residual Current Monitoring	Yes
Overvoltage Protection	Yes
Overload Protection	Yes
Short Circuit Protection	Yes
Over Temperature Protection	Yes
Surge Protection	DC: TypeIII, AC: TypeIII