

3P Power

Passion Profession Perfection



PRODUCT CATALOGUE



Excellence IND Series UPS is suitable for Industrial environment



-Industrial process (and control system, industrial machinery, instrument and measurement, process monitoring and control, security and transport systems...)



-Infrastructures (Hospital, airport, semiconductor, water treatment, metallurgy)



-Energy industry (gas and oil, nuclear power)



-Military application

• True online double conversion with DSP control

Double isolation between input/output ,and bypass is applied to totally isolate power line noise, spikes and transients.

A Digital Signal Processor (DSP) control provides an improved solution with high performance.

• Robust electrical performance to prevent damage from top and bottom connections

This UPS is designed to accept wide input voltage and frequency range to cope with the worst utility conditions. It can eliminates harmful distortion from utility power and withstand all kinds of severe impacts from various loads. It's capable to support heavy duty equipment, production equipment and DCS (Distributed Control System) system.

• Colourful Multifunctional Panel

The 7 inch colourful multifunctional panel allows easy and humanized operation of the UPS. It gives access to the most important parameters: status and alarms, control commands, input, output, battery measurements (power, current, voltage, frequency and temperature) and settings. The PV(II) series' diagnostics system includes up to 128 alarms or messages allowing precise and detailed identification of any event.



• Eco Function

Unique energy efficiency design under good power condition, UPS can work in ECO mode, efficiency reach 98%, green and energy saving;



• Flexible battery configuration adapts different applications

The number of batteries can be adjusted flexibly according to different power demands

• Accepts dual-mains inputs

Excellent UPS series is allowed to connect two separate power inputs to increase operation reliability.

• Front access makes maintenance and replacement easily

Its considerate to allow access to all of the electronic cards and power components in the unit through the front panel for further maintenance and replacement.



• Maximum Safety Features

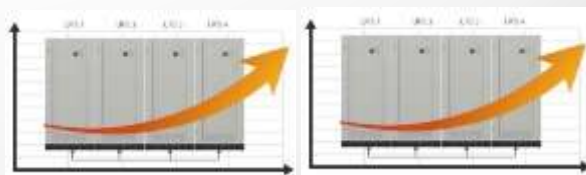
The back feed protection device prevents any voltage back feed in the upstream distribution board, thus ensuring the safety of the maintenance personnel.

• Easy integration into existing electrical networks or generator

During wiring connection, Excellent Series can be accessible either from top or from bottom under different environmental condition. Besides, this UPS is fully compatible with generator.

• Parallel capacity up to 8 units

Up to 8 units in parallel can be operated without adding additional hardware, increasing system capacity as well as operation reliability for power redundancy.



Model	EIND 31101	EIND 31015	EIND 31020	EIND 31030	EIND 31040	EIND 31060	EIND 31080	EIND 31100	EIND 31120
Capacity	10KVA	15KVA	20KVA	30KVA	40KVA	60KVA	80KVA	100KVA	120KVA
SYSTEM									
Output PF	0.8(lag)								
System efficiency (inverter mode)	92%(@ 100% load) ,90% @50%load;								
System efficiency (ECO mode)	95%(@ 100%load)								
Maximum leakage current	100 (mA)								
MTBF	Above 200,000hours								
Dry contact	Standard: 3 types signal(BAT. low, battery mode, bypass /failure); Optional:14 dry contact ; output: 12Vdc 80mA								
Communication interface	Standard RS232,optional: RS485 / MODBUS								
Operation temperature	0 ~ 40 °C								
Humidity	95 % (non-condense)								
Cooling	Forced air (speed varying according to load percent)								
Max. altitude	Within 1000m (every 100m increase ,capacity decrease -1%) ,Maximum 4000m								
Noise (dB)	52 ~ 58								
IP protection (EN 60529)	IP20								
Input/output way	Bottom /rear								
Safety standard	safety:GB4943 ,EN 50091-1; EMI:GB7260.2,GB/T 17626.2~5EMC, EN 50091-2								
PHYSICAL									
W *D*H(mm)	600*600*1280			800*800*1480			800*800*1800		
Weight(Kg)	195	210	220	305	340	500	600	800	950
INPUT RECTIFIER PARAMETERS									
Rated voltage	380/400/415VAC Three-phase four-wires								
Input voltage range	± 15 % - ± 25 % adjustable)								
Rate frequency	50 / 60 Hz auto-sense								
Frequency range	50/60Hz+/-5Hz								
Input soft start function	0 - 100%,10-300s(settable)								
Input power factor	Reachable 0.99 (plus harmonic filter)								
Input current harmonic distortion (THDi)	Can <5% (plus harmonic filter)								
Max. input current [A]	18	27	36	54	72	108	144	180	216
OUTPUT PARAMETERS									
Maintain the voltage (20°C)	Battery type1 and 2 :V =435Vdc (2.266 x eI.) Battery type 3 :V =424Vdc (2.21 x eI.) Battery type 0:the voltage value between type 1and 2, Voltage regulating range: V =400~460Vdc								
	Battery type1 and 2 :V (%recharging<95%) = 445Vdc (2.32 x eI.) Battery type 3 :V (%recharging<95%) = 460Vdc (2.4 x eI.) Battery type 0: the voltage value between type 1and 2, Voltage regulating range: V =400~460Vdc								
The highest charging voltage	445V								
The charger output voltage regulation accuracy	1%								
DC ripple voltage component	≤1%								
BATTERY									
Unit number (rated voltage)	384VDC(360-384v,selectable)								
Charging current settings	0.1C(battery capacity)								
The battery discharge end voltage	Battery type 1,2 and 3:no-load discharge current,V min=346 [V dc] Battery type 1,2 and 3:output current =Ah capacity,V min=316 [V dc] Battery type 1,2 and 3:output current >Ah capacity,V min=306 [V dc] Battery type 0: the factory set the default values,V min=320 [V dc] Regulating range: V min=300~360[V dc]								
INVERTER OUTPUT									
Rated capacity [KVA]	10	15	20	30	40	60	80	100	120
Rated power [KW]	8	12	16	24	32	48	64	80	96
Rated voltage [V]	220/230/240VAC single-phase two-wire								
Rated current [A]	12	18	24	36	48	72	96	120	144
Phase voltage setting	200 ~ 244 V (control board)								
Peak factor	3:1								
Waveform	Sine wave								
Steady-state voltage stability	± 1 %								
Transient voltage response	± 5 % within 10ms								
Rated frequency	Same as input								
Frequency stability	When asynchronous,± 0.5 %: synchronous,± 2 % (can be set to ± 1~5 % ,by the panel operation)								
Overload	600' / 10' / 1' (110/125/150% rated current)								
Short circuit 0.1s	Double input								
Inverter efficiency (load 100%)	98%								
BYPASS									
Rated capacity [KVA]	10	15	20	30	40	60	80	100	120
Rated voltage [V]	380/400/415VAC Three-phase four-wires								
Input voltage range	±15 % (can be adjusted from the control panel ± 10 %,± 20%)								
Rated frequency [Hz]	50 / 60								
Frequency range	±2 % (can be adjusted from the control panel ± 5 %)								
“STAND-BY ON” (Eco mode, the bypass switch to inverter) transfer time	2~5ms								
Inverter/bypass transfer time	<1ms								
Overload	10'/1'/18" (150/175/200% Rated current)								
Standard configuration	Feed flow protection, bypass independently isolated								

Model	EIND 33010	EIND 33015	EIND 33020	EIND 33030	EIND 33040	EIND 33060	EIND 33080	EIND 33100	EIND 33120
Capacity	10KVA	15KVA	20KVA	30KVA	40KVA	60KVA	80KVA	100KVA	120KVA
SYSTEM									
Output PF	0.8(lag)								
System efficiency (inverter mode)	92%(@100% load) ;90% @50%load;								
System efficiency (ECO mode)	95%(@100%load)								
Maximum leakage current	100 (mA)								
MTBF	Above 200,000hours								
Dry contact	Standard: 3 types signal(BAT. low, battery mode, bypass /failure); Optional:14 dry contact ; output: 12Vdc 80mA								
Communication interface	Standard RS232,optional: RS485 / MODBUS								
Operation temperature	0 ~ 40 °C								
Humidity	95 % (non-condense)								
Cooling	Forced air (speed varying according to load percent)								
Max. altitude	Within 1000m (every 100m increase,capacity decrease -1%) ,Maximum 4000m								
Noise (dB)	52 ~ 58								
IP protection (EN 60529)	IP20								
Input/output way	Bottom /rear								
Safety standard	safety:GB4943 ,EN 50091-1; EMI:GB7260.2,GB/T 17626.2~5EMC, EN 50091-2								
PHYSICAL									
W *D*H(mm)	600*600*1280					800*800*1480		800*800*1800	
Weight(Kg)	195	210	220	305	340	500	600	800	950
AC INPUT									
Rated voltage	380/400/415VAC Three-phase four-wires								
Input voltage range	± 15 %- ± 25 % adjustable)								
Rate frequency	50 / 60 Hz auto-sense								
Frequency range	50/60Hz+/-5Hz								
Input soft start function	0 - 100%,10-300s(settable)								
Input power factor	Reachable 0.99 (plus harmonic filter)								
Input current harmonic distortion (THDi)	Can <5% (plus harmonic filter)								
Max. input current [A]	18	27	36	54	72	108	144	180	216
OUTPUT PARAMETERS									
Maintain the voltage (20°C)	Battery type1 and 2 :V =435Vdc (2.266 x el.) Battery type 3 :V =424Vdc (2.21 x el.)								
	Battery type 0:the voltage value between type 1and 2, Voltage regulating range: V =400~460Vdc								
Charging voltage (20°C)	Battery type1 and 2 :V (%recharging<95%) = 445Vdc (2.32 x el.) Battery type 3 :V (%recharging<95%) = 460Vdc (2.4 x el.)								
	Battery type 0: the voltage value between type 1and 2, Voltage regulating range: V =400~460Vdc								
The highest charging voltage	445V								
The charger output voltage regulation accuracy	1%								
DC ripple voltage component	≤1%								
BATTERY									
Unit number (rated voltage)	384VDC(360-384v,selectable)								
Charging current settings	0.1C(battery capacity)								
The battery discharge end voltage	Battery type 1,2 and 3:no-load discharge current,V min=346 [V dc]								
	Battery type 1,2 and 3:output current =Ah capacity,V min=316 [V dc]								
	Battery type 1,2 and 3:output current >Ah capacity,V min=306 [V dc]								
	Battery type 0: the factory set the default values,V min=320 [V dc] Regulating range: V min =300~360[V dc]								
INVERTER OUTPUT									
Rated capacity [KVA]	10	15	20	30	40	60	80	100	120
Rated power [KW]	8	12	16	24	32	48	64	80	96
Rated voltage [V]	380/400/415VAC three-phase four-wire								
Rated current [A]	12	18	24	36	48	72	96	120	144
Phase voltage setting	200 ~ 244 V (control board)								
Peak factor	3:1								
Waveform	Sine wave								
Steady-state voltage stability	± 1 %								
Transient voltage response	± 5 % within 10ms								
Rated frequency	Same as input								
Frequency stability	When asynchronous,± 0.5 %; synchronization,± 2 % (can be set to ± 1~5 %,by the panel operation)								
Overload	600' / 10' / 1' (110/125/150% rated current)								
Short circuit 0.1s	Double input								
Inverter efficiency (load 100%)	98%								
BYPASS									
Rated capacity [KVA]	10	15	20	30	40	60	80	100	120
Rated voltage [V]	380/400/415VAC Three-phase four-wires								
Input voltage range	±15 % (can be adjusted from the control panel ± 10 %,± 20%)								
Rated frequency [Hz]	50 / 60								
Frequency range	±2 % (can be adjusted from the control panel ± 5 %)								
“STAND-BY ON” (Eco mode, the bypass switch to inverter) transfer time	2~5ms								
Inverter/bypass transfer time	<1ms								
Overload	10'/1'/18" (150/175/200% Rated current)								
Standard configuration	Feed flow protection, bypass independently isolated								

Model		EIND 33160		EIND 33200		EIND 33250		EIND 33300		EIND 33350		EIND 33400	
Capacity		160KVA		200KVA		250KVA		300KVA		350KVA		400KVA	
		6 pulse	12 pulse	6 pulse	12 pulse	6 pulse	12 pulse	6 pulse	12 pulse	6 pulse	12 pulse	6 pulse	12 pulse
SYSTEM													
Output power factor		0.8(lag)											
Overall efficiency（normal model）Load 100%		94%											
Load 50%		92%											
Overall efficiency: （ECO mode）Load 100%		95%											
Maximum leakage current（mA）		100											
Standby economic model		Standard functions											
Mean time before failure（MTBF）		Above 200,000 hours											
Dry contact signal		Standard three control signal (battery low, battery discharge, bypass/breakdown):											
Computer monitors port		Optional 14 control signal: output 12Vdc 80mA											
Running temperature		Standard RS232,optional MOD-BUS											
Maximum relative humidity		0~40℃											
Cooling		95%(non-condensing)											
Maximum altitude		Forced ventilation (fan speed changing with load)											
Noise dB		1000m rated power(Rising 100m lower 1%) maximum 4000m											
Protection class （EN 60529）		54~62											
Inlet and outlet of the wire way		IP20											
Safety standard		Bottom /rear Safety: GB4943,EN 50091-1: EMC: GB7260.2, GB/T 17626.2~5EMC,EN 50091-2											
PHYSICAL													
Wide (mm)		1100	1400	1100	1400	1400	1400	1400	1400	1600	1600	1600	1600
Deep*high (mm)		800*1800				1000*2000				1100*2000			
Weight(kg)		1200	1550	1350	1750	1500	1950	1650	2150	1850	2400	2100	2700
INPUT RECTIFIER PARAMETERS													
Rated voltage		380/400/415VAC Three-phase four wires											
Voltage range		±15%（±25%adjustable）											
Rated frequency		50 / 60 Hz automatic identification											
Frequency range		45~65											
Input power slow start function		Yes,0 - 100%,can be set to 10-300 seconds											
Input power factors cosφ		Reachable 0.99（plus harmonic filter）											
Input current harmonic distortion component（THDI）		can<5%(plus harmonic filter)											
Max.input current [A]		250		315		400		500		550		630	
OUTPUT PARAMETERS													
Maintain the voltage（20℃）		Battery type1 and 2 :V =435Vdc (2.266 x el.)								Battery type1 and 2 : V =544Vdc (2.266 x el.)			
		Battery type 3 :V =424Vdc (2.21 x el.)								Battery type 3 : V =530Vdc (2.21 x el.)			
		Battery type 0:the voltage value between type 1 and 2, Voltage regulating range: V =400~460Vdc								Battery type 0:the voltage value between type 1 and 2, Voltage regulating range: V =500~575Vdc			
Charging voltage（20℃）		Battery type1 and 2 :V (%recharging<95%)=445Vdc (2.32 x el.)								Battery type1 and 2 : V (%recharging<95%) =557Vdc (2.32 x el.)			
		Battery type 3 :V (%recharging<95%)=460Vdc (2.4 x el.)								Battery type 3 :V (%recharging<95%) =576Vdc (2.4 x el.)			
		Battery type 0:the voltage value between type 1 and 2, Voltage regulating range: V =400~460Vdc								Battery type 0:the voltage value between type 1 and 2, Voltage regulating range: V =500~575Vdc			
The highest charging voltage		445V								556V			
The charger output voltage regulation accuracy		1%											
DC ripple voltage component		≤1%											
BATTERY													
Unit number（rated voltage）		192 cells（384VDC）								240 cells（480VDC）			
Charging current settings		0.1 C(battery capacity)											
The battery discharge end voltage		Battery type 1,2 and 3:no-load discharge current, Vmin=346[V dc]								Battery type 1、2 and 3:no-load discharge current,Vmin=433[V dc]			
		Battery type1,2 and 3:output current =Ah capacity, Vmin=316[V dc]								Battery type 1、2 and 3: output current =Ah capacity, Vmin=395[V dc]			
		Battery type 1,2,3:output current >Ah capacity, Vmin=306[V dc]								Battery type 1、2 and 3: output current >Ah capacity, Vmin=383[V dc]			
		Battery type 0:the factory set the default values,Vmin=320[Vdc] Regulating range: Vmin =300~360V[V dc]								Battery type 0:the factory set the default values,Vmin=400[V dc] Regulating range: Vmin =375~450V[V dc]			
INVERTER OUTPUT													
Rated capacity [KVA]		160		200		250		300		350		400	
Rated power [KW]		128		160		200		240		280		320	
Rated voltage [V]		380/400/415VAC three-phase four-wire											
Rated current [A]		195		243		304		365		426		486	
Phase voltage setting		200~244 V (control board)											
Peak factor		3:1											
Waveform		Sine wave											
Steady-state voltage stability		±1%											
Transient voltage response		±5% within 10ms											
Rated frequency		Same as input											
Frequency stability		When asynchronous,±0.5%；synchronization,±2% can be set to ±1~5%,by the panel operation）											
Overload		600' / 10' / 1'（110/125/150% rated current）											
Short circuit 0.1s		Double input											
Inverter efficiency（load 100%）		98%											
Bypass													
Rated capacity [KVA]		160		200		250		300		350		400	
Rated voltage [V]		380/400/415VAC three-phase four-wires											
Input voltage range		±15%（can be adjusted from the control panel±10%,±20%）											
Rated frequency [Hz]		50 / 60											
Frequency range		±2%（can be adjusted from the control panel±5%）											
“STAND-BY ON”（Economic mode, the bypass switch to inverter） transfer time		2~5ms											
Inverter/bypass transfer time		<1ms											
Overload		10'/1'/18”（150/175/200% rated current）											
Standard configuration		Feed flow protection, bypass independently isolated											

3P Power One Stop Solution



Authorised Reseller:



NexWave Technologies Pte Ltd
6 Serangoon North Avenue 5 #03-16
Singapore 554910
T +65 6826 3600 & F +65 6826 3610
E info@nexwave.com.sg
www.telechoice.com.sg