



FOR SMART USERS OF SOLAR

dldcompany IPCT & IPCL SERIES ARE
ONE STEP AHEAD FOR BEST OPTIMISATION
OF YOUR ENERGY HARVEST.

AN INTELLIGENT INVERTER IS THE KEY TO GET THE BEST FROM YOUR SOLAR INVESTMENT



These Solar Power Conditioning Units are the new generation of inverters. Designed to deliver Pure Sine Wave Output makes them ideal choice and safe for all appliances.

IPCT SERIES

SOLAR MAINS HYBRID INVERTERS

The IPCT series of inverters have Puresinewave output with solar priority logic and PWM Solar input to ensure maximum power input from solar panels.



Features

- Advance DSP technology
- Solar + mains integrated Inverter
- Pure sinewave output
- Better efficiency (as compared to normal home inverter)
- Priority for solar (Maximum utilization of solar energy from PV modules).
- Galvanic isolation between input & output.
- RTC Clock for better solar optimization as compared to normal solar inverters.
- Multi colour graphical LCD display
- Smart battery charging technology (For better & long battery life)
- UPS Function
- Cold start function
- Basic protections for solar PV input and battery.
- Low THD.
- 2 Years Warranty

TECHNICAL SPECIFICATION OF IPCT MODELS

MODELS	IPCT 650 VA	IPCT 850 VA	IPCT 1000 VA	IPCT 1500 VA	IPCT 2500 VA	IPCT 3500 VA
Rated Power (VA)	650	850	1000	1500	2500	3500
Output Voltage (VAC)				230 \pm 10%		
Output Frequency (Hz)				50.0 \pm 1 Hz		
Output type				Pure sinewave		
Max. AC (Mains/Grid) Charge Current			12 Amps (INV mode) / 9 Amps (UPS mode)			
Nominal battery voltage (VDC)	12V	12V	12V	24V	48V	48V
Max. solar PV open circuit voltage	25	25	25	50	100	100
AC Input voltage range			180-260 (UPS mode) / 100-280 (inverter mode)			
Transfer time			<10 ms (UPS mode) / <40 ms (inverter mode)			
Solar Controller Type			RTC clock based PWM solar controller			
Solar Controller Charging Current (Max)			50 Amps			
Battery low cut-off			10.5 \pm 0.2 VDC (Per 12V battery)			
Battery charging boost voltage			14.4 \pm 0.1 VDC (Per 12V battery)			
Battery charging float voltage			13.6 \pm 0.2 VDC (Per 12V battery)			
Total Harmonic Distortion (THD)			< = 3% @ resistive load			
Protections		PV short-circuit ; AC short circuit ; Battery low voltage ; Overload; Battery Short Circuit ; Surge ; Over / Under input voltage				
Display			LCD (Colour Changing back light)			
Dimension (mm)		275 x 250 x 110		276 x 305 x 205		276 x 305 x 295
Operating conditions			Temp : -10 to + 50 Deg. C : RH : 0 - 90% non condensing			
Cooling			Automatically control by cooling fan.			
Net Weight (Kgs)	8.6	9.5	9.9	15.8	17.3	19.8
Gross Weight (Kgs)	9.5	10.3	10.7	17	19	22.5

IPCL SERIES

OFF GRID INVERTERS WITH SOLAR MPPT CHARGER

The IPCL series of inverters have Pure sinewave output to ensure suitability to power all types of loads without any noise or damage to the AC equipment. They have in-built solar MPPT charger and have advanced priority algorithm to derive maximum power from solar array.

**1-10 kW &
10-100 kW**



**PREMIUM
AND ADVANCED**



**PROGRAMMABLE WITH
HIGHER EFFICIENCY**

Features

- Higher DC-AC efficiency.
- Pure Sinewave output
- Advanced priority logic for using solar energy first and to maximum extent possible
- Higher efficiency results in more power output delivered to loads
- Solar MPPT charger (Maximum power point tracker)
- UPS Function
- Programmability allows user to set various parameters.
- Galvanic isolation between input and output
- Various Protections on input, output & battery
- High surge capability.
- In-built mains / grid charger
- Large LCD display showing all system and input / output parameters.
- MCBs fan Solar, AC & Battery Integrated.
- 2 Years Warranty

TECHNICAL SPECIFICATION OF LOWER RATING IPCL MODELS (1 to 10 kw)

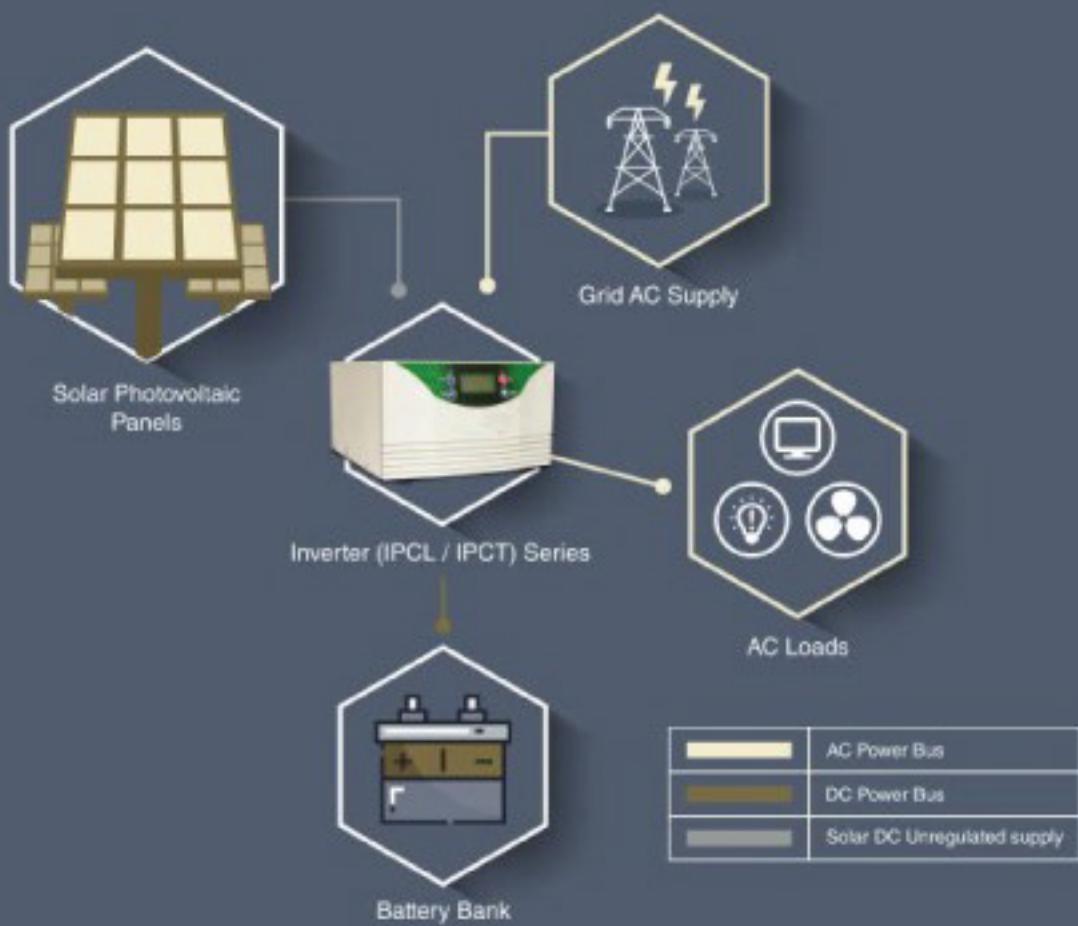
MODELS	IPCL-1	IPCL-2	IPCL-3	IPCL-5	IPCL-6	IPCL-7.5	IPCL-10		
POWER RATING									
KW (Output Load)	1	2	3	5	6	7.5	10		
INPUT									
Solar Array Input range (VDC)	36-90	72 – 180		144 – 360	180-450	180 – 450	270-450		
Max Voc (VDC)	45	180		360	450	450	450		
Max Solar PV input KW (STC)	1.05	2.10	3.15	5.25	6.30	7.88	10.50		
SOLAR CHARGER CONTROLLER									
Type	MPPT								
Switching element	IGBT								
Controller	DSP								
BATTERY									
Battery Nominal (VDC)	24	48		96	120	120	180		
Type	Tubular flooded / SMF / Gel / AGM								
Temperature compensation	@ 3mV per 2v cell								
INVERTER OUTPUT									
Power Capacity (KW)	1	2	3	5	6	7.5	10		
Load Power Factor	0.8 lag to Unity								
Nominal Voltage	220 VAC, Single phase 3 Wire								
Frequency	50HZ (+/- 1 Hz)								
Voltage Regulation	+/- 1%								
Waveform	True Sinewave								
Voltage Distortion	< 3 % at Linear Load								
Overload Capacity	300% for 1 sec ; 150% for 30 sec ; 125% for 1 min								
EFFICIENCY									
Inverter Efficiency (DC to AC)	>85%								
ENVIRONMENTAL									
Acoustic Noise @ 1mtr	60db.								
Ambient Temperature	0 to 50 Deg C								
Storage Temperature	-10 to +55 Deg C								
Humidity	Upto 95% RH, Non Condensing								
Altitude	< 1000 Mtrs. Above Sea Level								
PHYSICAL									
Enclosure Protection	IP – 21								
Cooling	Temperature controlled Forced Cooling								
Cable Entry	Back								
DIMENSIONS									
L x W x H (inch)	18 x 10 x 20			23 x 13 x 26			26x13x26		
Weight (kgs)	35	43	50	60	65	78	90		
LCD Display									
General :	Alpha numeric LCD display showing parameters from Solar PV array, Battery, Grid, Load like Power, Voltage, Current, etc. Fault display								

TECHNICAL SPECIFICATION OF HIGHER RATING IPCL MODELS (10 to 100 kw)

MODELS		IPCL 10 kw	IPCL 15 kw	IPCL 20 kw	IPCL 25 kw	IPCL 30 kw	IPCL 40 kw	IPCL 50 kw	IPCL 60 kw	IPCL 80 kw	IPCL 100 kw								
Parameters	Units	Rating																	
System Rating	KVA	10	15	20	25	30	40	50	60	80	100								
Operating DC Voltage	V	240		360															
Charging Voltage (Grid Mode)	V	260		390															
Charging Voltage (SPV Mode)	V	260		420															
Charging Current (Grid Mode)	A	2.5 - 10 (Adjustable)																	
Charging Current (SPV Mode)	A	5 - 20																	
Photovoltaic Input																			
Input Voltage Range (Min-Max)	VDC	360 - 450			540 - 675														
Maximum PV Power recommended	KW	10	15	20	25	30	40	50	60	80	100								
Number of charge controller		1																	
MPPT Based charge controller																			
Priority		Solar / Grid / Batt.																	
Switching Element		IGBT																	
Controller		DSP																	
Type of charger		PWM with MPPT																	
Peak Efficiency	%	95																	
Input																			
Input Voltage	V	360V to 480V 3 Phase 4 Wire																	
Frequency	Hz	50±10%																	
Input Power factor	Lag	>0.9																	
Charger Topology		BUCK																	
Electrical Connections R Y B	Sq. m	6	6	6	8	10	16	16	20	25	35								
Neutral	Sq. mm	2.5																	
Output																			
Voltage	V	380 / 400 / 415 V 3 Phase 4 Wire																	
Voltage Regulation	%	± 1																	
Frequency	Hz	50																	
Frequency Regulation	Hz	± 0.05																	
Power Factor	Lag	0.8																	
Waveform		Pure Sine Wave																	
Transient Response	%	<8 (10% - 90% Linear Load)																	
Voltage Harmonic	%	<3 (Linear Load)																	
Overload Capacity	%	100 - 110% : 5 min; 150 - 200% : 1 Sec; 110 - 120% : 2 min; 200 - 300% : 50 ms; 120 - 150 % : 30 sec; >300% : 20 ms																	
Crest Factor		3 : 1																	
Audible Warning																			
Battery Back-up Ending		Intermittent																	
Overload		Continuous																	
Display																			
Switches		Reset for System On / Off # Scroll Switch																	
LED		UPS on # Chg. On (spv / grid) # Overload (R, Y, B) # Output Low / High (R, Y, B) # Input Low / High (R, Y, B) # Batt. low / high																	
LCD Display		Input Voltage & Frequency - R, Y, B # Output Voltage and equency - R, Y, B # Batt. Voltage # Load Level # Working Statu																	
Interface		# Fault Status # SPV Voltage # SPV Current # SPV Power USB / Ethernet / SNMP (Optional)																	
Protections		Verload, Batt. low/high, Output high/low (R, Y, B), Output Short Ckt, Overheat, Under / Over frequency, SOLar Panel reverse																	
Others																			
Battery Start		Standard																	
Cabinet Wheels		Standard																	
Extended Battery Charging		Optional																	
Overall																			
Peak Efficiency (AC-AC)	%	90																	
Peak Efficiency (DC-AC)	%	92																	
Transfer Time	ms	0																	
Operating Temperature	*C	0 - 50																	
Humidity	%	0 - 95 %																	

*Specifications are subject to change without prior notice

SOLAR BATTERY BASED / HYBRID / OFF GRID DIAGRAM



Get green & sustainable architecture from Solar.
Contact a dldcompany Expert Today!

Write to business@dldcompany.com

Visit us at www.dldcompany.com