

**Energy Flow GmbH**

Germany: 4 Friedrichstraße,  
45128 Essen, NRW  
Bulgaria: 12 Gen. Skobelev Str.,  
6100 Kazanlak, Stara Zagora

# Hybrid Solar Dispatcher



GSMs: Martin Zhelev +359 885 74 44 50  
Stoyan Zhelev +359 887 26 28 27  
Volen Makedonski +359 899 10 99 69  
Fax: +359 431 6 44 28  
e-mail: energyflow.org@gmail.com  
website: www.energy-flow.org  
www.ef-panels.com



- Pure sine wave inverter
- Selectable input voltage range for home appliances and personal computers
- Selectable charging current based on applications
- Configurable AC/Solar input priority via LCD setting
- Compatible to mains voltage or generator power
- Parallel operation with up to 6 units only available for 4KVA/5KVA
- Auto restart while AC is recovering
- Overload and short circuit protection
- Smart battery charger design for optimized battery performance
- Cold start function
- Optional Remote Control Panel available

INVERTER/CHARGER

## Hybrid solar Dispatcher Selection Guide

MODEL	HSD EF PWM 1K-12	HSD EF PWM 2K-24	HSD EF PWM 3K-24	HSD EF PWM 4K-48	HSD EF PWM 5K-48
Rated Power	1000VA / 800W	2000VA/1600W	3000VA / 2400W	4000VA / 3200W	5000VA / 4000W
<b>INPUT</b>					
Voltage	230 VAC				
Selectable Voltage Range	170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances)				
Frequency Range	50 Hz/60 Hz (Auto sensing)				
<b>OUTPUT</b>					
AC Voltage Regulation (Batt. Mode)	230VAC ± 5 %				
Surge Power	2000VA	4000VA	6000VA	8000VA	10000VA
Efficiency (Peak)	90%	93%			
Transfer Time	10 ms (For Personal Computers) 20 ms (For Home Appliances)				
Waveform	Pure sine wave				
<b>BATTERY</b>					
Battery Voltage	12 VDC	24 VDC		48 VDC	
Floating Charge Voltage	13.5 VDC	27 VDC		54 VDC	
Overcharge Protection	15 VDC	30 VDC		60 VDC	
<b>SOLAR CHARGER &amp; AC CHARGER</b>					
Maximum PV Array Open Circuit Voltage	40VDC	60VDC		105VDC	
Standby Power Consumption	1 W	2 W		2W	
Maximum Solar Charge Current	50A	50A		50 A	
Maximum AC Charge Current	10 A or 20 A	20 A or 30 A		60 A	
Maximum Charge Current	50 A		110 A		
<b>PHYSICAL</b>					
Dimension, D x W x H (mm)	95 x 240 x 316	100 x 272 x 355		120 x 295 x 468	
Net Weight (kgs)	5.0	6.4	6.9	9.8	9.8
<b>OPERATING ENVIRONMENT</b>					
Humidity	5% to 95% Relative Humidity(Non-condensing)				
Operating Temperature	0°C - 55°C				
Storage Temperature	-15°C - 60°C				

\*Typical transfer time for parallel operation is 30ms.  
Product specifications are subject to change without further notice