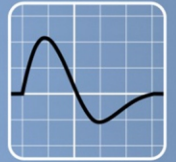


# BIPHASIC DEFIBRILLATION

GURVICH PULSE  
SINCE 1967



imPulse AND-P04



imPulse LCD AND-P05



imPulse PRO AND-P01

imPulse  
**AED**

Zelenograd  
innovation-technology center  
of medical equipment

[www.zitc-mt.ru](http://www.zitc-mt.ru)

**Technical specification**
**ImPulse AND-P04**
**imPulse LCD AND-P05**
**imPulse PRO AND-P01**

Defibrillator			
Operation mode	semi-automatic		semi-automatic, async manual and sync manual
Waveform	fixed duration biphasic quasi-sinusoidal (Gurvich pulse), with automatic impedance compensation		
Maximum energy	180J at 50Ω		
Energy sequence in semi-automatic mode (first – second – third and all subsequent shocks)			
with adult pads	130J – 180J – 180J		
with pediatric pads	50J – 70J – 70J		
Energy in manual mode	—	10J, 15J, 20J, 30J, 50J, 70J, 90J, 110J, 130J, 150J, 180J	
Maximal energy in manual mode with pediatric pads	—	70J	
Charge time	180J in less than 9 seconds with new nonrechargeable battery pack		180J in less than 8 seconds with new rechargeable battery pack
Safety classification	IEC 60601-1, internally powered equipment		
Electrical protection	type BF input protection against defibrillator according to IEC 60601-1		
Automatic defibrillation protocol	ERC 2005		
Controls	On/Off, Help, Shock		On/Off, Help, Shock, Up, Down, OK, Energy, Charge
Display			
Screen	—	color TFT LCD, LED backlight 320 pixels × 240 pixels, 73 × 55 mm	
Sweep speed	—	25 mm/sec	
ECG size	—	10 mm/mV	10 mm/mV ×0.5; ×1.0; ×1.5; ×2.0; ×3.0
Displayed information	highlighted guiding pictograms: connect cable, apply pads, do not touch patient; flashing Shock button	elapsed time, heart rate, selected energy, number of shocks, ECG waveform, ECG scale (always ×1.0), 1mV signal pulse, time from the CPR beginning, text prompts, battery status, memory card status, flashing Shock button	elapsed time, operation mode, heart rate, selected energy, number of shocks, ECG waveform, ECG scale, 1mV signal pulse, R-peak marks, time from the CPR beginning, text prompts, battery status, memory card status, flashing Shock button
Status display	defibrillator is ready or defibrillator is faulty, battery is charged or battery is unloaded or is absent		
Battery			
Type	Li-MnO2 nonrechargeable battery pack		Li-Ion rechargeable battery pack
Capacity	21V, 2.4 amp-hour		14.8V, 4.8 amp-hour
Typical performance	150 180J discharges or 16 hours of operating time		220 180J discharges or 20 hours of operating time
Physical characteristics			
Dimension	8.4 × 22.5 × 24.0 cm		
Weight with battery pack	2.3 kg		
Environmental			
Operating temperature	0 to +50 °C		
Relative humidity	5 to 95% (non-condensing)		
Storage temperature	–30 to +60 °C		
Protection from dust/water	IP55 according to IEC 60529, with battery pack installed		
Options	carry bag		
Accessories	—		charger with ac adapter for rechargeable battery pack