

SINGLE PHASE
POWER RANGE: 50 - 2400W

EC NOVA DRIVES

COMPACT, FLEXIBLE AND ENERGY SAVING DRIVES
CUSTOMIZED FOR HIGH EFFICIENCY MOTOR APPLICATIONS



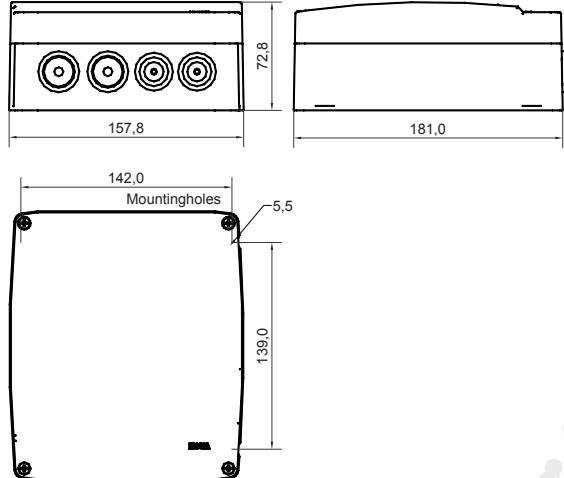
 eltwin

EC

NOVA DRIVES / SINGLE PHASE INPUT

TYPE	NOVA-200	NOVA-550	NOVA-1100 Planned for release	NOVA-1500 Planned for release	NOVA-2400 Planned for release
OVERALL RATINGS					
Power level	50-200 W	200-550 W	550-1100 W	1100-1500 W	1500 – 2400 W
Efficiency	> 94% @ 230 VAC rms, 50 Hz in; nominal power and current output; Ta 77 °F (25 °C)				
PFC strategy	Passive			Active	
Power factor @ max load	> 0.7 Cos Θ			> 0,99 Cos Θ	
INPUT SUPPLY (GRID)					
Nominal voltage			1 x 230 Vrms +/-10%		
Supply connection			Single phase (phase-to-neutral or phase-to-phase) + earth/ground		
Frequency			50 or 60 Hz ±2 Hz		
Max input current @ 230V supply	1.5 Arms	3.6 Arms	5.5 Arms	7.5 Arms	TBD
Input fuse size	3 Arms	6 Arms	9 Arms	12 Arms	TBD
Minimum supply @ reduced speed			205 Vrms		
Inrush system (Arms)	Limited from internal PFC choke / NTC			NTC/Relay	
Fuse	All NOVA drives includes an PCB fuse on the input				
EMC filter			Integrated		
DRIVE OUTPUT					
Maximum output current	1.0 Arms	2.5 Arms	4.0 Arms	5.5 Arms	TBD
Maximum output frequency			250 Hz (FOC)		
Output voltage			0-230 Vrms (input supply dependent)		
Motor type			Permanent Magnet Synchronous (PMS) motor, Brushless Direct Current (BLDC) motor		
Min. motor control input reference			200 rpm		
Max. motor control input reference			3200 rpm		
Motor control method			Sensorless Field Oriented Control (PMS motor)		
Features	<ul style="list-style-type: none"> - Start on the fly at 50% of nominal speed - Minimum and maximum speed (frequency) - Ramping functions - Stall prevention (only FOC) 				

NOVA-200:

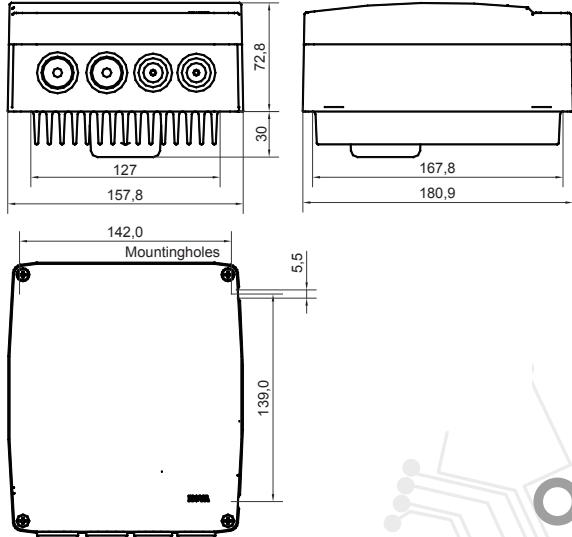


EC

NOVA DRIVES / SINGLE PHASE INPUT

TYPE	NOVA-200	NOVA-550	NOVA-1100 Planned for release	NOVA-1500 Planned for release	NOVA-2400 Planned for release				
PROTECTION									
Module temperature protection			Derate: 194 °F (90 °C) Shutdown: 212 °F (100 °C)						
Circuit board temperature protection (enclosure temperature)			Derate: 158 °F (70 °C) Shutdown: 176 °F (80 °C)						
Overcurrent protection on input	2 Arms	4 Arms	6 Arms	8 Arms	TBD				
Overcurrent protection on output	1.5 Arms	3 Arms	4.5 Arms	6 Arms	TBD				
Input over and under voltage			205 Vrms and 265 Vrms						
Motor start in sensorless mode			Restart on failure						
Protection functions			Over/under voltage, temperature and over current						
CONTROL INTERFACE									
Analog input			0-10 volt						
Analog input impedance			Approx. 150 kOhm						
Digital input			1 x Digital input – On/Off (0-10 volt)						
Communication interface			1 x Modbus (on RS485)						
Control interface alarm			1 x Alarm relay NC/C/NO 2A/250 V~MAX						
Indicators		Red/Green/Yellow LED on PCB (only visible with the enclosure top off)							
Settings		Dipswitch for the Modbus address (address 1 or 2)							
Galvanic isolation		Double layer protection							
AUXILIARY POWER SUPPLY									
Direction		An auxiliary supply is available from the Nova drive							
External auxiliary power supply		10 volt DC (@ input: 230 VAC +/-10%)							
External auxiliary power supply		Maximum 20 mA							
ENCLOSURE									
Material	Aluminium Alloy - No painting – Plastic cover								
Mounting	4 x Ø 5.5 mm holes								
Mounting direction	Vertical								
Protection Ingress	IP 54 standard								
Size (L x W x H)	181 x 158 x 73 mm	181 x 158 x 93 mm	-	-					
Weight	-	-	-	-					
Connections	5 mm and 3.5 mm screw less terminal blocks all over								
Cable fixing/fastening	Metal bar with screws including shielded cable fixing								
Cable entry rubber grommets	2 x M16 2 x M20	2 x M16 2 x M20	3 x M16 2 x M20						
GENERAL									
CE	2014/30/EU (EMC) - 2014/35/EU (LVD) - 2006/42/EU (MD) - 2011/65/EC (RoHS)								

NOVA-550:



CONTACT INFO



Eltwin A/S
Torsøvej 1b
8240 Risskov
+45 86 21 61 00
eltwin@eltwin.dk
www.eltwin.dk

Eltwin
1390 Gateway Drive
Elgin, IL 60124
+1(847) 931-1304
eltwinusa@eltwin.com
www.eltwin.com