



Switched-mode power supply unit, 100-240VAC/24VDC/12VDC, 0.35A/0.02A, 1-phase, controlled



Part no. **EASY200-POW**
 Catalog No. **229424**
 EL-Nummer (Norway) **4520990**

Delivery program

Product range			Control relays easyE4 Control relay easyRelay Multi-function-display MFD-Titan
Product range			Switched-mode power supply units easyPOW
Basic function accessories			Accessories for remote monitoring unit
Description			primary chopper controlled
Phases			Single-phase
Input voltage range			85 - 264 V AC
Nominal input voltage			100 - 240 V AC
Rated output voltage			24 V DC (± 3%) 12 V DC (± 4%)
Rated output current		A	0.35 0.02
For use with			easy500 easy700 easy800 MFD-CP8 EC4P ES4P easyE4

Technical data

General

Standards			EN 55011, EN 55022, IEC/EN 61000-4, IEC 60068-2-6, IEC 60068-2-27
Dimensions (W x H x D)		mm	35.5 (2 PE) x 90 x 58
Weight		kg	0.1
Mounting			Top-hat rail IEC/EN 60715, 35 mm or screw fixing using fixing brackets ZB4-101-GF1 (accessories)

Terminal capacities

Solid		mm ²	0.2/4 (AWG 22 - 12)
Flexible with ferrule		mm ²	0.2/2.5 (AWG 22 - 12)
Standard screwdriver		mm	0.8 x 3.5
Max. tightening torque		Nm	0.6

Climatic environmental conditions

Operating ambient temperature		°C	-25 to 55, cold as per IEC 60068-2-1, heat as per IEC 60068-2-2
Condensation			Take appropriate measures to prevent condensation
Storage		°C	- 40 - 70
Relative humidity, non-condensing (IEC/EN 60068-2-30)		%	
Air humidity, non-condensing, min.		%	5
Air humidity, non-condensing, max.		%	95
Air pressure (operation)		hPa	795 - 1080
Max. installation altitude above sea level, observe derating with higher altitudes		m	2000

Ambient conditions, mechanical

Protection type (IEC/EN 60529, EN50178, VBG 4)			IP20
Vibrations (IEC/EN 60068-2-6)		Hz	
Constant amplitude 0.15 mm		Hz	10 - 57
Constant acceleration 2 g		Hz	57 - 150
Mechanical shock resistance (IEC/EN 60068-2-27) semi-sinusoidal 15 g/11 ms		Impacts	18
Drop to IEC/EN 60068-2-31	Drop height	mm	50
Free fall, packaged (IEC/EN 60068-2-32)		m	1

Mounting position			Vertical or horizontal
Electromagnetic compatibility (EMC)			
Electrostatic discharge (IEC/EN 61000-4-2, Level 3, ESD)		kV	
Air discharge		kV	8
Contact discharge		kV	6
Electromagnetic fields (RFI) to IEC EN 61000-4-3		V/m	10
Radio interference suppression			EN 55011 Class B, EN 55022 Class B
Burst pulses (IEC/EN 61000-4-4, level 3)		kV	2
Power pulses (surge) (IEC/EN 61000-4-5)		kV	2 (supply cables, symmetrical)
High-energy pulses (surge) (IEC/EN 61000-4-5, level 2), 24 V		kV	0.5 (outgoer cables symmetrical, EASY...DC)
Immunity to line-conducted interference to (IEC/EN 61000-4-6)		V	10
Surge voltage (EN 50178), 24 V		kV	6
Insulation resistance			
Clearance in air and creepage distances			EN 50178
Insulation resistance			EN 50178
Protection class U_{out} to U_{in}			Class II to IEC 60536
Potential isolation primary/secondary			Yes, SELV (VDE 0100 Part 410; IEC 60364-4-41, HD 384.4.41 S2) EN 60950, EN 50178
Input voltage			
Rated voltage		V	100/120/230/240 (-15/+10 %)
Protective switches AC			FAZ-C1/1 or FAZ-B6/1
Voltage range		V AC	85 - 264
Frequency range		Hz	47 - 63
Mains failure bridging 115/230 V (IEC/EN 61000-4-11)		ms	> 10/> 20
Fuse 115/230 V		A	1.5 slow
Rating data			
Efficiency		%	> 80
Power consumption		W	Normally 7
Power loss	P	W	Normally 1
Input current			
Input current nominal 115/240 V		mA	Approx. 170/80
Inrush current at 25 °C 230 V		A	< 5
Output voltage			
12 V DC (reference voltage)			
Rated value		V DC	12
Tolerance		%	± 4
Switching peaks		mV _{SS}	< 7
Effect of input voltage		%	± 1
Effect with 25 - 100 % load change		%	± 1
24 V DC			
Rated value		V DC	24
Tolerance		%	± 3
Switching peaks 115/230		mV _{PP}	< 50/30
Effect of input voltage		%	± 1
Effect with 25 - 100 % load change		%	± 1
Output current			
12 V DC (reference voltage)			
Output current		mA	0 - 20
Effectiveness of current limitation		mA	20
Reduction of output voltage after current limitation		V	< 12
Overload proof			Yes, by current limitation permanently short-circuit proof
Proof against sustained short circuit			Yes
24 V DC			
Output current		A	0 - 0.35
Effectiveness of current limitation		A	> 0.4
Overload proof			Yes, by current limitation
Proof against sustained short circuit			Yes, hickup-mode

Special load conditions

Lamp load, cold, 24 V DC	W	2
Base load present	W	1
Behaviour on emergency-stop in 24 V circuit, disconnection with contactor (contactor load, no damage)	W	6

Displays

Indication of output voltage (LED, continuous green light = OK)	V DC	24
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Design verification as per IEC/EN 61439

Technical data for design verification			
Static heat dissipation, non-current-dependent	P _{vs}	W	1
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	55
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures			Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat			Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects			Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation			Meets the product standard's requirements.
10.2.5 Lifting			Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact			Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions			Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES			Meets the product standard's requirements.
10.4 Clearances and creepage distances			Meets the product standard's requirements.
10.5 Protection against electric shock			Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components			Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections			Is the panel builder's responsibility.
10.8 Connections for external conductors			Is the panel builder's responsibility.
10.9 Insulation properties			
10.9.2 Power-frequency electric strength			Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage			Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material			Is the panel builder's responsibility.
10.10 Temperature rise			The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating			Is the panel builder's responsibility.
10.12 Electromagnetic compatibility			Is the panel builder's responsibility.
10.13 Mechanical function			The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Technical data ETIM 7.0

PLC's (EG000024) / PLC system power supply (EC000599)			
Electric engineering, automation, process control engineering / Control / Programmable logic control (SPS) / SPS system power supply (ecl@ss10.0.1-27-24-22-09 [AKE532014])			
Input voltage at AC 50 Hz	V		85 - 264
Input voltage at AC 60 Hz	V		85 - 264
Input voltage at DC	V		0 - 0
Type of voltage (input voltage)			AC
Max. input current AC 50 Hz	A		0
Max. input current AC 60 Hz	A		0
Max. input current DC	A		0
Type of output voltage			DC
Output voltage at AC 50 Hz	V		0 - 0
Output voltage at AC 60 Hz	V		0 - 0
Output voltage at DC	V		12 - 24
Max. output current AC 50 Hz	A		0
Max. output current AC 60 Hz	A		0

Max. output current DC	A	0.35
Power output	W	8.4
Redundancy		No
Suitable for safety functions		No
Width	mm	32
Height	mm	90
Depth	mm	60

Approvals

Product Standards		IEC/EN see Technical Data; UL 508; CSA C22.2 No. 142-M1987; CSA C22.2 No. 213-M1987; CE marking
UL File No.		E135462
UL Category Control No.		NRAQ
CSA File No.		012528
CSA Class No.		2252-01 + 2258-02
North America Certification		UL listed, CSA certified
Degree of Protection		IEC: IP20, UL/CSA Type: -

Dimensions



