

I/O expansion, 240VAC, 12DI, 6DO relays, easyLink



Powering Business Worldwide™

Part no. **EASY618-AC-RE**
Catalog No. **212314**

EL-Nummer **4520945**
(Norway)

Delivery program

Product range		Control relay easyRelay Multi-function-display MFD-Titan
Product range		Remote I/O systems Compact PLCs
Subrange		I/O expansions digital
Basic function		Expansions
Description		Can be used through easyLink
Function		Expansions EASY...
Accessories		I/O expansions, digital
Inputs		
Inputs expansion (number)		digital: 12
Supply voltage		100 - 240 V AC
For use with		easy700 easy800 EC4P MFD-CP8..

Technical data

General

Weight	kg	0.3
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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	%	5 - 95
Air pressure (operation)	hPa	795 - 1080

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
Free fall, packaged (IEC/EN 60068-2-32)		m
Mounting position		Vertical or horizontal

Electromagnetic compatibility (EMC)

Overvoltage category/pollution degree		II/2
Electrostatic discharge (ESD)		
applied standard		IEC/EN 61000-4-2, Level 3
Air discharge	kV	8
Contact discharge	kV	6
Burst	kV	according to IEC/EN 61000-4-4 Supply cables: 2 Signal cables: 2
power pulses (Surge)		2 kV (supply cables, symmetrical, EASY...AC) 0.5 kV (supply cables, symmetrical, easy-DC) according to IEC/EN 61000-4-5
Immunity to line-conducted interference to (IEC/EN 61000-4-6)	V	10

Insulation resistance

Insulation resistance		EN 50178
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Power supply

Rated operational voltage	U _e	V	100/110/115/120/230/240 AC (-15/+10%)
Rated operational voltage	U _e	V	100/110/115/120/230/240 AC (+10/-15 %)
Permissible range	U _e		85 - 264 V AC
Frequency		Hz	50/60 (\pm 5%)
Voltage dips		ms	\leq 20
Heat dissipation	P		normally 10 VA at 115/120 V AC normally 10 VA at 115/230 V AC

Digital inputs 115/230 V AC

Number			12
Status Display			LCD-Display
Potential isolation			from the outputs: yes
Input voltage (sinusoidal)	U _e	V AC	Signal 0: 0 - 40 Signal 1: 79 - 264
Rated frequency		Hz	50/60
Input current on 1 signal			
Input current at signal 1		mA	12 x 0.25 (R1 to R12)
at 230 V AC, 50 Hz		mA	12 x 0.5 (R1 to R12)
Deceleration time		ms	80.66% (0 -> 1/1 -> 0, debounce ON 50/60Hz, I1 - I6, I9 - I12, R1 - R12) 20.16% (0 -> 1/1 -> 0, debounce OFF 50/60Hz, I1 - I6, I9 - I12, R1 - R12) 80.66% (1 -> 0, debounce ON 50/60Hz, I7, I8) 20.16% (1 - 0, I7, I8, debounce OFF 50/60Hz) 80.66% (0 - 1, I7, I8, debounce ON 50/60Hz) 20.16% (0 - 1, I7, I8, debounce OFF 50/60Hz)
Cable length		m	Normally 40 R1 to R12 (max. permissible per input) Normally 40 I1 to I6 (max. permissible per input) Normally 100 I7, I8 (max. permissible per input) Normally 40 I9 to I12 (max. permissible per input)

Relay outputs

Number			6
Outputs in groups of			1
Parallel switching of outputs for increased output			Not permissible
Protection of an output relay			Miniature circuit-breaker B16 or fuse 8 A (slow)
Potential isolation			from power supply: yes From the inputs: yes in groups Safe isolation according to EN 50178: 300 V AC Basic isolation: 600 V AC
Lifespan, mechanical	Operations	$\times 10^6$	10
Contacts			
Conventional thermal current (10 A UL)		A	8
Recommended for load: 12 V AC/DC		mA	> 500
Short-circuit-proof $\cos \varphi = 1$, characteristic B16 at 600 A		A	16
Short-circuit-proof $\cos \varphi = 0.5$ to 0.7, characteristic B16 at 900 A		A	16
Rated impulse withstand voltage U_{imp} of contact coil		kV	6
Rated operational voltage	U _e	V AC	250
Rated insulation voltage	U _i	V AC	250
Safe isolation according to EN 50178		V AC	300 between coil and contact 300 between two contacts
Breaking capacity			
AC-15, 250 V AC, 3 A (600 Ops./h)	Operations		300000
DC-13, L/R \leq 150 ms, 24 V DC, 1 A (500 S/h)	Operations		200000
Filament bulb load			
1000 W at 230/240 V AC	Operations		25000
500 W at 115/120 V AC	Operations		25000
Fluorescent lamp load			
Fluorescent lamp load 10 x 58 W at 230/240 V AC			
With upstream electrical device	Operations		25000
Uncompensated	Operations		25000
Fluorescent lamp load 1 x 58 W at 230/240 V AC, conventional, compensated	Operations		25000
Switching frequency			

Mechanical operations	$\times 10^6$	10
Switching frequency	Hz	10
Resistive load/lamp load	Hz	2
Inductive load	Hz	0.5
UL/CSA		
Uninterrupted current at 240 V AC	A	10
Uninterrupted current at 24 V DC	A	8
AC		
Control Circuit Rating Codes (utilization category)		B 300 Light Pilot Duty
Max. rated operational voltage	V AC	300
max. thermal continuous current $\cos \phi = 1$ at B 300	A	5
max. make/break $\cos \phi \neq$ capacity 1 at B 300	VA	3600/360
DC		
Control Circuit Rating Codes (utilization category)		R 300 Light Pilot Duty
Max. rated operational voltage	V DC	300
Max. thermal uninterrupted current at R 300	A	1
Max. make/break capacity at R 300	VA	28/28

Design verification as per IEC/EN 61439

Technical data for design verification		
Rated operational current for specified heat dissipation	I_n	A 0
Heat dissipation per pole, current-dependent	P_{vid}	W 0
Equipment heat dissipation, current-dependent	P_{vid}	W 0
Static heat dissipation, non-current-dependent	P_{vs}	W 10
Heat dissipation capacity	P_{diss}	W 0
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 8.0

Supply voltage AC 50 Hz	V	85 - 264
Supply voltage AC 60 Hz	V	85 - 264
Supply voltage DC	V	0 - 0
Voltage type of supply voltage		AC
Switching current	A	8
Number of analogue inputs		0
Number of analogue outputs		0
Number of digital inputs		12
Number of digital outputs		6
With relay output		Yes
Number of HW-interfaces industrial Ethernet		0
Number of interfaces PROFINET		0
Number of HW-interfaces RS-232		0
Number of HW-interfaces RS-422		0
Number of HW-interfaces RS-485		0
Number of HW-interfaces serial TTY		0
Number of HW-interfaces USB		0
Number of HW-interfaces parallel		0
Number of HW-interfaces Wireless		0
Number of HW-interfaces other		1
With optical interface		No
Supporting protocol for TCP/IP		No
Supporting protocol for PROFIBUS		No
Supporting protocol for CAN		No
Supporting protocol for INTERBUS		No
Supporting protocol for ASI		No
Supporting protocol for KNX		No
Supporting protocol for Modbus		No
Supporting protocol for Data-Highway		No
Supporting protocol for DeviceNet		No
Supporting protocol for SUCONET		No
Supporting protocol for LON		No
Supporting protocol for PROFINET IO		No
Supporting protocol for PROFINET CBA		No
Supporting protocol for SERCOS		No
Supporting protocol for Foundation Fieldbus		No
Supporting protocol for EtherNet/IP		No
Supporting protocol for AS-Interface Safety at Work		No
Supporting protocol for DeviceNet Safety		No
Supporting protocol for INTERBUS-Safety		No
Supporting protocol for PROFIsafe		No
Supporting protocol for SafetyBUS p		No
Supporting protocol for other bus systems		No
Radio standard Bluetooth		No
Radio standard Wi-Fi 802.11		No
Radio standard GPRS		No
Radio standard GSM		No
Radio standard UMTS		No
IO link master		No
Redundancy		No
With display		No
Degree of protection (IP)		IP20
Basic device		No

Expandable		No
Expansion device		Yes
With time switch clock		No
Rail mounting possible		Yes
Wall mounting/direct mounting		Yes
Front built-in possible		No
Rack-assembly possible		No
Suitable for safety functions		No
SIL according to IEC 61508		None
Performance level according to EN ISO 13849-1		None
Appendant operation agent (Ex ia)		No
Appendant operation agent (Ex ib)		No
Explosion safety category for gas		None
Explosion safety category for dust		None
Width	mm	108
Height	mm	90
Depth	mm	71