Communication module/power supply unit for remote text display, 100-240VAC, easy800/EC4P/ES4P

Part no.	MFD-AC-CP4-800
Article no.	286824

Delivery program

Product range		Multi-function-display MFD-Titan
Basic function		Power supply unit/CPU modules
Description		Degree of protection IP20 With connection cable (5 m, can be cut to length)
Supply voltage		100 - 240 V AC
For use with		easy800 ES4P
Instructions		can be combined with display/operating unit MFD-80…as stand-alone display

Technical data
General

Standards		EN 61000-6-1/-2/-3/-4, IEC 60068-2-6, IEC 60068-2-27
Dimensions (W x H x D)	mm	107.5 x 90 x 30
Weight	kg	0.145
Mounting		Fitted on the fixing shaft of the display or on top-hat rail according to IEC/EN 60715, 35 mm deep (without display)

Terminal capacities

Solid	mm^2	0.2⁄4 (AWG 24 - 12)
Flexible with ferrule	mm^2	0.2⁄2.5 (AWG 24 - 12)
Standard screwdriver	mm	3.5 x 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)	%	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	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 Impulse (IEC/EN 61000-4-4, Level 3)		
Supply cable	kV	2
Signal lines	kV	2
Immunity to line-conducted interference to (IEC/EN 61000-4-6)	V	10

Insulation resistance

Clearance in air and creepage distances		EN 50178, UL 508, CSA C22.2, No. 142
Insulation resistance		EN 50178

Back-up of real-time clock

Accuracy of the real-time clock	s/day	Normally ±5 s/day (±0.5 h⁄Year)

Repetition accuracy of timing relays

Accuracy of timing relays (of values)		%	± 0.02
Resolution			
Range "S"		ms	5
Range "M:S"		s	1
Range "H:M"		min	1

Retentive memory

Write cycles of the retentive memory			10^{10} (read ⁄ write cycles)

Power supply

Rated operational voltage	U_e	V	100/110/115/120//230/240 AC (+10/-15 %)
Admissible range		V AC	85 … 264
Frequency		Hz	50⁄60 (± 5%)
Input current			
at 115/120 V AC 60 Hz		mA	Normally 90
at 230/240 V AC 50 Hz		mA	Normally 60
Power loss			
Heat dissipation at 24 V DC		W	17
at 115/120 V AC		VA	Normally 11
at 230⁄240 V AC		VA	Normally 15

Network easyNet

Stations		Number	max. 8
Data transfer rate/distance			1000 kBit/s, 6 m 500 Kbit/s, 25 m 250 Kbit/s, 40 m 125 kBit/s, 125 m 50 Kbit/s, 300 m 20 Kbit/s, 700 m 10 Kbit/s, 1000 m
Distance		m	5
Potential isolation			
From power supply			Yes
From the inputs			Yes
to PC interface, memory card, easyNet, easyLink			Yes
Bus termination (first and last station)			Yes
Connection technique			RJ45, 8-pole

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	17
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.

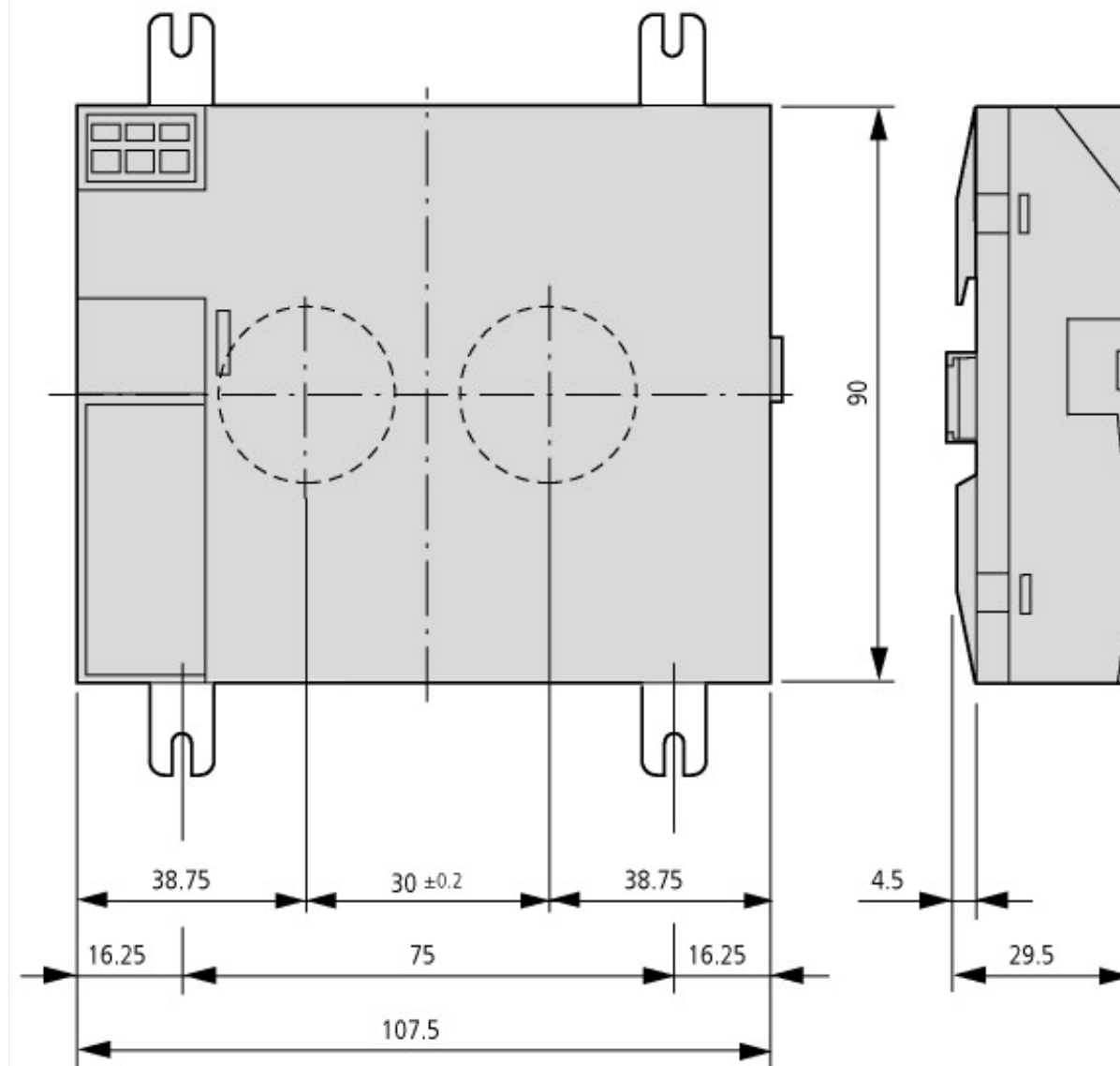|		
10.4 Clearances and creepage distances		Meets the product standard's requirements.
10.5 Protection against electric shock		Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components		Does not apply, since the entire switchgear needs to 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 6.0

PLC's (EG000024) / Text panel (EC001426)

Electric engineering, automation, process control engineering / Control / Operate and Observe (HMI) / Text panel (HMI) (ecl@ss8.1-27-24-23-04 [BAA724010])

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/DC
Number of HW-interfaces industrial Ethernet		0
Number of HW-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		2
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 WLAN 802.11			No
Radio standard GPRS			No
Radio standard GSM			No
Radio standard UMTS			No
IO link master			No
Type of display			LCD with background illumination
Number of display lines			4
Number of characters per line			16
Max. character height, display		mm	32
Useful project memory/user memory		kByte	0
With numeric keyboard			No
With alpha numeric keyboard			No
Number of function buttons, programmable			4
Number of buttons with LED			0
Number of system buttons			0
With message indication			Yes
With message system (incl. buffer and confirmation)			No
Process value representation (output) possible			Yes
Process default value (input) possible			Yes
With recipes			No
Number of password levels			1
Printer output available			No
Number of online languages			13
Degree of protection (IP), front side			IP65
Operation temperature		°C	-25 - 55
Graphic objects presentable			No
Suitable for safety functions			No
Width of the front		mm	86.5
Height of the front		mm	86.5
Built-in depth		mm	36.2

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

Additional product information (links)

12/16/2016

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286824 - HPL-ED2016 V27.0 EN

5 / 5