

Specifications



Eaton 116309

Eaton EU5C SWD power supply for powering contactors

General specifications

PRODUCT NAME	Eaton EU5C Accessory Power supply
CATALOG NUMBER	116309
MODEL CODE	EU5C-SWD-PF1-1
EAN	4015081160495
PRODUCT LENGTH/DEPTH	125 mm
PRODUCT HEIGHT	90 mm
PRODUCT WIDTH	35 mm
PRODUCT WEIGHT	0.109 kg
CERTIFICATIONS	UL Category Control No.: NKCR IEC/EN 61131-2 CSA CSA File No.: 2324643 UL UL File No.: E29184 CSA Class No.: 3211-07 EN 50178
CATALOG NOTES	SmartWire-DT power supply for additionally feeding the control voltage for motor starters and contactors, as well as for establishing emergency stop groups

Ambient conditions, mechanical

CONSTANT ACCELERATION	1 g, 8.4 - 150 Hz, according to IEC/EN 61131-2, Vibrations
CONSTANT AMPLITUDE	3,5 mm, 5 - 8.4 Hz, according to IEC/EN 61131-2, Vibrations
DROP AND TOPPLE	50 mm Drop height, Drop to IEC/EN 60068-2-31
HEIGHT OF FALL (IEC/EN 60068-2-32) - MAX	0.3 m
MOUNTING POSITION	As required
SHOCK RESISTANCE	15 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 11 ms, 9 Impacts

Communication

CONNECTION	2 x SmartWire-DT blade terminal SWD4-8MF2
CONNECTION TO SMARTWIRE-DT	Yes
CONNECTION TYPE	SWD: 2 x plug, 8-pole Push in terminals, Supply voltage
PROTOCOL	Other bus systems

Climatic environmental conditions

AIR PRESSURE	795 - 1080 hPa (operation)
AMBIENT OPERATING TEMPERATURE - MAX	55 °C
AMBIENT STORAGE TEMPERATURE - MAX	70 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
AMBIENT STORAGE TEMPERATURE - MIN	-40 °C
CLIMATIC PROOFING	Dry heat to IEC 60068-2-2 Damp heat, constant, to IEC 60068-2-3
ENVIRONMENTAL CONDITIONS	Condensation: prevent with appropriate measures
OPERATING TEMPERATURE - MAX	55 °C
OPERATING TEMPERATURE - MIN	-25 °C
RELATIVE HUMIDITY	5 - 95 % (non-condensing, IEC/EN 60068-2-30)

Design verification

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.
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 RESIST. OF INSUL. MAT. TO	Meets the product standard's requirements.

ABNORMAL HEAT/FIRE BY INTERNAL ELECT. EFFECTS	
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.
10.9.2 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.
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	0 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	0 W
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	0 A
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	1 W

Electrical rating

POWER LOSS	Normally 1 W
RATED CONTROL SUPPLY VOLTAGE	24 V DC (UAUX, -15 %/+20 %)
RATED OPERATIONAL VOLTAGE	Typically UAUX -0.2 V (for 24 V DC slaves)
SHORT-CIRCUIT PROTECTION	No, external fuse FAZ Z3, Supply voltage UAux
SUPPLY CURRENT	3 A, I _{max} , Supply voltage UAux
SUPPLY VOLTAGE AT DC - MAX	28.8 VDC
SUPPLY VOLTAGE AT DC - MIN	20.4 VDC

Features & functions

ELECTRIC CONNECTION TYPE	Flat plug-in connection
FEATURES	Fieldbus connection over separate bus coupler possible Fieldbus connection over separate bus coupler possible
FITTED WITH:	Power supply module
FUNCTIONS	For feeding control voltage in order to connect additional motor starters and contactors to the SmartWire-DT ribbon cable For the formation of emergency switching off groups for motor starters and contactors

Electro magnetic compatibility

AIR DISCHARGE	8 kV, according to IEC 61131-2, level 3, ESD
BURST IMPULSE	2 kV, Supply cable, according to IEC/EN 61131-2, Level 3 1 kV, SmartWire-DT cable, according to IEC/EN 61131-2, Level 3
CONTACT DISCHARGE	4 kV, according to IEC/EN 61131-2, Level 2, ESD
ELECTROMAGNETIC FIELDS	3 V/m at 1.4 - 2 GHz (according to IEC/EN 61131-2:2008) 10 V/m at 80 - 1000 MHz (according to IEC/EN 61131-2:2008) 1 V/m at 2.0 - 2.7 GHz (according to IEC/EN 61131-2:2008)
RADIATED RFI	10 V (IEC/EN 61131-2:2008, Level 3)
RADIO INTERFERENCE CLASS	Class A (EN 55011)
SURGE RATING	0.5 kV, Supply cables/CAN/DP bus cable, Surge power cables, Surge (IEC/EN 61131-2:2008, Level 1), EMC

General information

DEGREE OF PROTECTION	IP20
MOUNTING METHOD	Rail mounting possible Top-hat rail fixing (according to IEC/EN 60715, 35 mm) Wall mounting/direct mounting
OVERVOLTAGE CATEGORY	II
POLLUTION DEGREE	2
PRODUCT CATEGORY	SmartWire-DT accessories
RESIDUAL RIPPLE	≤ 5 % (input voltage)
SUITABLE AS	Segment module
TERMINAL CAPACITY	0.2 - 1.5 mm ² , solid 24 - 16 AWG, solid or stranded 0.25 - 1.5 mm ² , flexible with ferrule
VOLTAGE TYPE	DC

Safety

EXPLOSION SAFETY CATEGORY FOR DUST	None
EXPLOSION SAFETY CATEGORY FOR GAS	None
POTENTIAL ISOLATION	Supply voltage UAUX: no
PROTECTION AGAINST POLARITY REVERSAL	Yes Yes, for supply voltage (Siemens MPI optional)

Resources

BROCHURES	eaton-smartwire-dt-intelligent-wiring-brochure-br120001en-en-us.pdf
CATALOGUES	eaton-drives-soft-starter-catalog-ca04020001zen-us.pdf eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf
DECLARATIONS OF CONFORMITY	eaton-accessory-declaration-of-conformity-eu250511en.pdf eaton-accessory-declaration-of-conformity-uk250994en.pdf
DRAWINGS	eaton-modular-plc-smartwire-eu5c-communication-module-dimensions.eps eaton-modular-plc-smartwire-eu5c-power-supply-dimensions-002.eps eaton-modular-plc-power-feeder-module-eu5c-power-supply-3d-drawing.eps eaton-general-easy-control-relays-symbol-002.tif eaton-general-approval-easy-control-relays-standards.jpg eaton-general-eu5e-i-o-module-symbol.eps
ECAD MODEL	DA-CE-ETN.EU5C-SWD-PF1-1
INSTALLATION INSTRUCTIONS	eaton-smartwire-dt-module-instruction-leaflet-il05006001Z.pdf
INSTALLATION VIDEOS	SmartWire-DT in Application
MANUALS AND USER GUIDES	MN05006002Z_EN
MCAD MODEL	eaton-eu5c_swd_pf1_1-3d-model.stp

	eaton-power-supply-modules-mcad-drawings-eu5c-swd-pf1-1.dwg
MULTIMEDIA	SmartWire-DT Overview and how to use in easySoft Z easyE4 SmartWire-DT module with Remote Touch Display and RMQ multi color indicator How to process SmartWire-DT modules using the EASY-COM-SWD-C1 module connected to an easyE4?
SALES NOTES	eaton-electro-hydraulic-module-eu1h-flyer-fl120003en-en-us.pdf eaton-rmq-chemical-resistance-flyer-fl047011en-en-us.pdf
WIRING DIAGRAMS	eaton-modular-plc-connection-eu5c-power-supply-wiring-diagram.eps

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

DATE:



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