DATASHEET - EU5C-SWD-PF2-1



SWD power supply for SWD modules and contactors

Part no.	**EU5C-SWD-PF2-1**
Catalog No.	**116380**
EL-Nummer (Norway)	**4519781**

Delivery program

Product range			SmartWire-DT accessories
Basic function			SmartWire-DT power supply
Function			For feeding supply voltage in order to connect additional SmartWire-DT modules to the SmartWire-DT ribbon cable For additional control voltage feeder for the motor starter and contactors For the formation of emergency switching off groups for motor starters and contactors
Description			SmartWire-DT power supply for SmartWire-DT modules and for additionally feeding the control voltage for motor starters and contactors, as well as for establishing emergency stop groups
Connection to SmartWire-DT			yes
Information relevant for export to North America			
UL File No. E29184			
UL Category Control No. NKCR			
CSA File No. 2324643			
CSA Class No. 3211-07			
North America Certification UL listed, CSA certified			

Technical data

General

Standards			IEC/EN 61131-2 EN 50178
Approvals			
Approvals			UL CSA
shipping classification			BV LRS
Dimensions (W x H x D)		mm	35 x 90 x 124
Weight		kg	0.17
Mounting			Top-hat rail IEC/EN 60715, 35 mm
Mounting position			As required

Ambient conditions, mechanical

Protection type (IEC/EN 60529, EN50178, VBG 4)			IP20
Vibrations (IEC/EN 61131-2:2008)			
Constant amplitude 3,5 mm		Hz	5 - 8.4
Constant acceleration 1 g		Hz	8.4 - 150
Mechanical shock resistance (IEC/EN 60068-2-27) semi-sinusoidal 15 g/11 ms		Impacts	9
Drop to IEC/EN 60068-2-31	Drop height	mm	50
Free fall, packaged (IEC/EN 60068-2-32)		m	0.3

Electromagnetic compatibility (EMC)

Overvoltage category			II
Pollution degree			2
Electrostatic discharge (IEC/EN 61131-2:2008)			

Air discharge (Level 3)		kV	8
Contact discharge (Level 2)		kV	4
Electromagnetic fields (IEC/EN 61131-2:2008)			
80 - 1000 MHz		V/m	10
1.4 - 2 GHz		V/m	3
2 - 2.7 GHz		V/m	1
Radio interference suppression (SmartWire-DT)			Class A
Burst (IEC/EN 61131-2:2008, Level 3)			
Supply cable		kV	2
SmartWire-DT cable		kV	1
Surge (IEC/EN 61131-2:2008, Level 1)			
Supply cables/CAN/DP bus cable			
Surge power cables		kV	0.5
Surge			Supply cables 0.5 kV
Radiated RFI (IEC/EN 61131-2:2008, Level 3)		V	10

Climatic environmental conditions

Climatic proofing			Dry heat to IEC 60068-2-2 Damp heat as per EN 60068-2-3
Air pressure (operation)		hPa	795 - 1080
Ambient temperature			
Operating ambient temperature (IEC 60068-2)		°C	-25 - +55
Storage		°C	- 40 - + 70
Relative humidity			
Condensation			Take appropriate measures to prevent condensation
Relative humidity, non-condensing (IEC/EN 60068-2-30)		%	5 - 95

Supply voltage U_{Aux}

Rated operational voltage	U_{Aux}	V	24 V DC (-15/+20%)
Residual ripple on the input voltage		%	≦ 5
Protection against polarity reversal			Yes
Max. current	I_{max}	A	3
Short-circuit rating			no, external fuse FAZ Z3
Power loss	P	W	Normally 2.7
Potential isolation			No
Rated operating voltage of 24-V-DC slaves		V	typ. U_{Aux} - 0.2

Supply voltage U_{Pow}

Supply voltage	U_{Pow}	V	24 DC -15 % + 20 %
Input voltage ripple		%	≦ 5
Protection against polarity reversal			yes
Rated current	I	A	0.7
Overload proof			yes
Inrush current and duration		A	12.5 A/6 ms
Heat dissipation at 24 V DC		W	3.8
Potential isolation between U_{Pow} and 15 V SmartWire-DT supply voltage			Yes
Bridging voltage dips		ms	10
Repetition rate		s	1
Status indication		LED	yes

SmartWire-DT supply voltage

Rated operating voltage	U_e	V	14,5 ± 3 %
max. current	I_{max}	A	0.7
Short-circuit rating			Yes

Connection supply voltages

Connection type			Push in terminals
Solid		mm^2	0.2 - 1.5
Flexible with ferrule		mm^2	0.25 - 1.5
UL/CSA solid or stranded		AWG	24 - 16

SmartWire-DT network

Connections			2 x plug, 8-pole
Plug connector			2 blade terminals SWD4-8MF2

Technical data in sheet catalogue

Other technical data (sheet catalogue)			Technical data

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	2.7
Heat dissipation capacity	P_{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	55
Degree of Protection			IP20
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

Programmable logic controllers PLC (EG000024) / Fieldbus, decentr. periphery - power supply/segment module (EC001600)

Electric engineering, automation, process control engineering / Control / Field bus, decentralized peripheral / Field bus, decentralized peripheral - feed and segment module (ecl@ss10.0.1-27-24-26-10 [BAA071013])

Supply voltage AC 50 Hz		V	0 - 0
Supply voltage AC 60 Hz		V	0 - 0
Supply voltage DC		V	20.4 - 28.8
Voltage type of supply voltage			DC
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

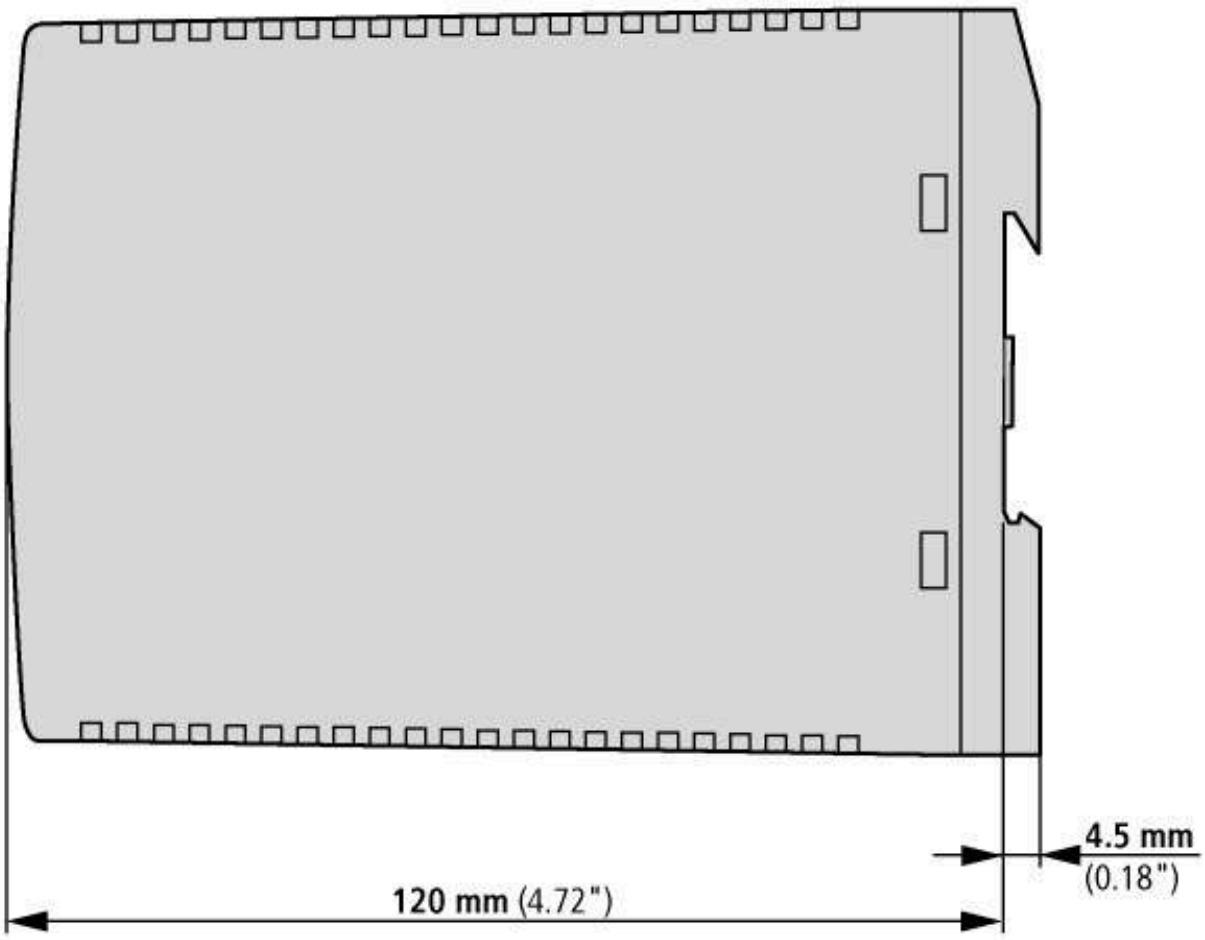
Number of HW-interfaces serial TTY		0
Number of HW-interfaces parallel		0
Number of HW-interfaces Wireless		0
Number of HW-interfaces USB		0
Number of HW-interfaces other		1
With optical interface		No
Supporting protocol for TCP/IP		No
Supporting protocol for PROFIBUS		No
Supporting protocol for CAN		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		Yes
Radio standard Bluetooth		No
Radio standard Wi-Fi 802.11		No
Radio standard GPRS		No
Radio standard GSM		No
Radio standard UMTS		No
System accessory		Yes
Degree of protection (IP)		IP20
Type of electric connection		Flat plug-in connection
With potential separation		Yes
With power supply module		Yes
Suitable as segment module		Yes
Remote module		No
Fieldbus connection over separate bus coupler possible		Yes
Bus diagnosis possible		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	35
Height	mm	90

Depth		mm	125

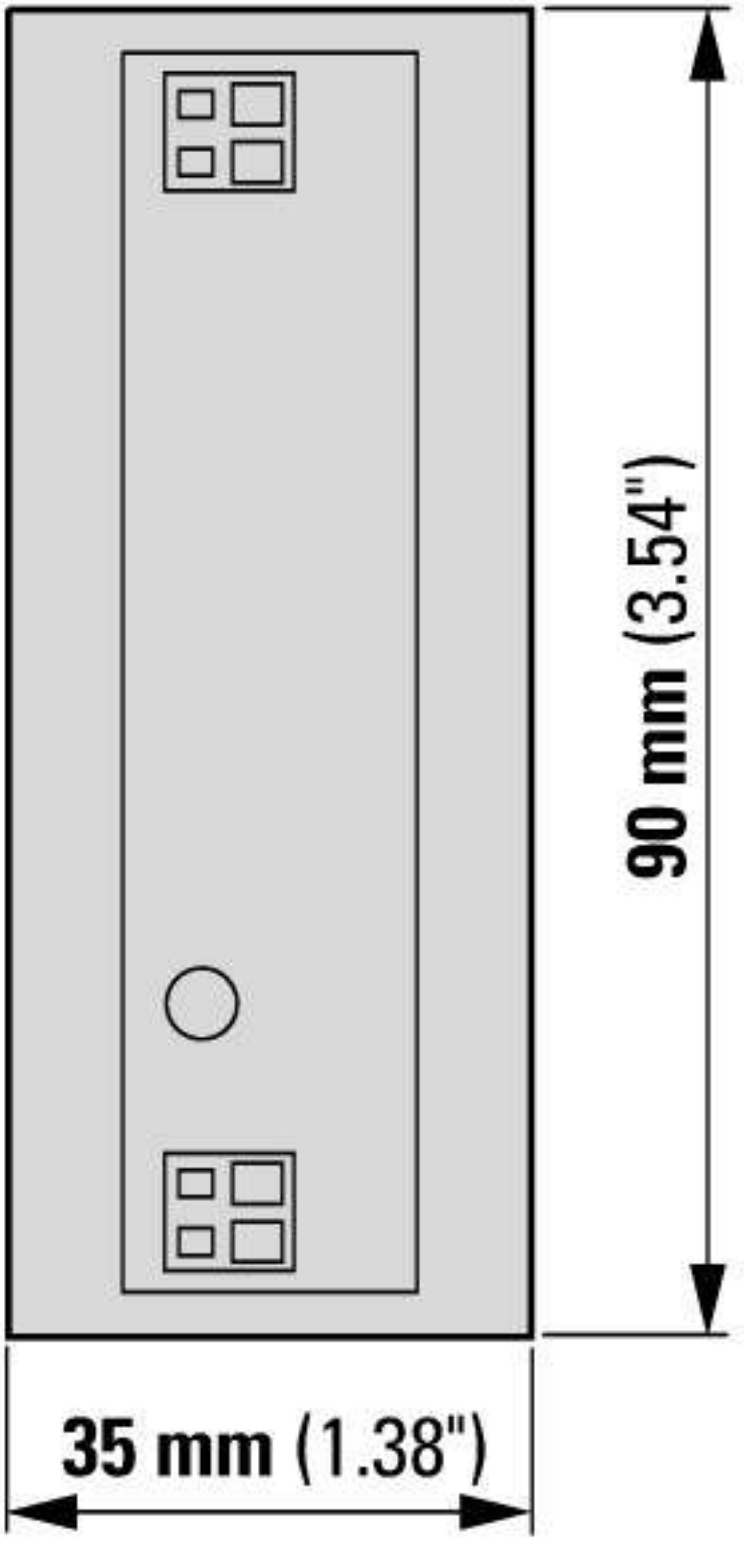
Approvals

UL File No.			E29184
UL Category Control No.			NKCR
CSA File No.			2324643
CSA Class No.			3211-07
North America Certification			UL listed, CSA certified
Specially designed for North America			No

Dimensions



Power feeder module in control panel



Additional product information (links)

Instruction leaflet "SWD gateways and power feeder module: PROFIBUS-DP, CANopen, Powerfeed, Modbus" IL05006001Z	
Instruction leaflet "SWD gateways and power feeder module: PROFIBUS-DP, CANopen, Powerfeed, Modbus" IL05006001Z	https://es-assets.eaton.com/DOCUMENTATION/AWA_INSTRUCTIONS/IL05006001Z.pdf
SmartWire-DT manual, The System MN05006002Z	
Handbuch SmartWire-DT, Das System MN05006002Z - Deutsch	https://es-assets.eaton.com/DOCUMENTATION/AWB_MANUALS/MN05006002Z_DE.pdf
SmartWire-DT manual, The System MN05006002Z - English	https://es-assets.eaton.com/DOCUMENTATION/AWB_MANUALS/MN05006002Z_EN.pdf
Manuale SmartWire-DT, il sistema MN05006002Z - italiano	https://es-assets.eaton.com/DOCUMENTATION/AWB_MANUALS/MN05006002Z_IT.pdf
SmartWire-DT product range catalog	http://ecat.moeller.net/flip-cat/?edition=SWKAT&startpage=Titel
Technical data	http://ecat.moeller.net/flip-cat/?edition=SWKAT&startpage=90
f1=1457&f2=1181&f3=1530;Download Wizard SWD-ASSIST	http://applications.eaton.eu/sdlc?LX=11&amp

Product overview WEB)	http://www.eaton.eu/swd

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