

Accessories for ESS20-1..

Description

Module 17plus is a power distribution system for use with electronic circuit breaker ESS20-1..

Each module accommodates two breakers with an individual housing width of only 12.5 mm and fits onto all industry standard mounting rails.

The two-way modules can be interconnected to provide as many ways as required with a terminal block fitted at each end for connection of signalling circuits. A distribution busbar can be fitted on the supply side of the modules (positive pole) though each pole of multipole circuit breakers must be individually connected.

Electrical connections are by means of spring-loaded terminals. The reference potential for the ESS20-1.. (GND pin 11) is also looped through and connected to the terminals at the sides.

The integral signal output SF of the ESS20-124 may be picked off at terminal 12 of the corresponding channel (single signalisation). The reset input RE may be connected via terminal 13 or 14.



17plus

Ordering information

17PLUS-Q02-00	Module 17plus, centre piece, two-way
17PLUS-QA0-LR	one each left- and right-side terminal block for supply feed from the side by means of screw terminal, connection of signalisation etc.

Pin configuration, fitted with ESS20-1..

ESS20-124 Module 17 plus			
LINE (+)	(1)		operating voltage PLUS, DC 24 V
GND	(11)		operating voltage MINUS
RE	(13)		reset input RE
RE	(14)		reset input RE
SF	(12)		signal output SF
LOAD (+)	(2)		protected load output

Approvals

Authority	Voltage ratings	Current ratings
UL 60950	AC 250 V; DC 80 V	50 A

Technical data

Connection Spring-loaded terminals for solid conductors and stranded cables with and without wire end ferrules. Please use appropriate screw driver size (SD) for removing the spring loaded terminals.

cable	cross section of connecting cable	screw driver	stripped length
Line feed (1)	1.5-10 mm ²	3 (1.0 x 5.5)	12 mm
Load output (2)	0.25-4 mm ²	1 (0.6 x 3.5)	12 mm
Signalisation terminals (11, 13, 14)	0.25-2.5 mm ²	1 (0.6 x 3.5)	10 mm
Signalisation terminal (12)	0.25-1.5 mm ²	0 (0.4 x 2.5)	9 mm

Voltage rating (without ESS20-1..) AC 250 V; 3 AC 433 V; DC 65 V

Current rating (without ESS20-1..)
 LINE feed (1) 50 A
 LOAD output (2) 25 A
 Reference potential GND (11) 10 A
 Individual signal (12) 1 A (with ESS20-1..: 0.5 A)
 Group signal /(13-14) 1 A (with ESS20-1..: 0.5 A)

Internal resistance values (without ESS20-1..)
 LINE-LOAD (1-2) ≤ 5 mΩ
 Group signal (13-14) per module ≤ 8 mΩ per pole + 5 mΩ for each additional module

Vibration 5 g (57-500 Hz) ± 0.38 mm (10-57 Hz), to IEC 60068-2-6, test Fc, 10 frequency cycles/axis

Shock 25 g (11 ms) to IEC 60068-2-27, test Ea 11 ms half sine

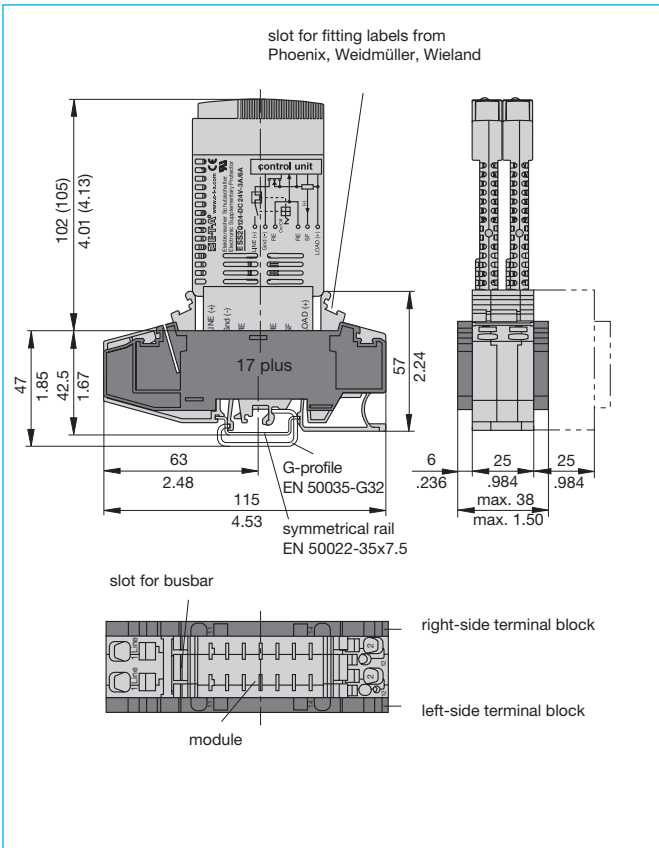
Corrosion 96 hours at 5 % salt mist, to IEC 60068-2-11, test Ka

Humidity 240 hours at 95 % RH to IEC 60068-2-78, test Cab

Dielectric strength of Module 17plus (without ESS20-1..)
 between main circuits (without busbar): 1,500 V
 main circuit to auxiliary circuit: 1,500 V
 between auxiliary circuits: 1,500 V

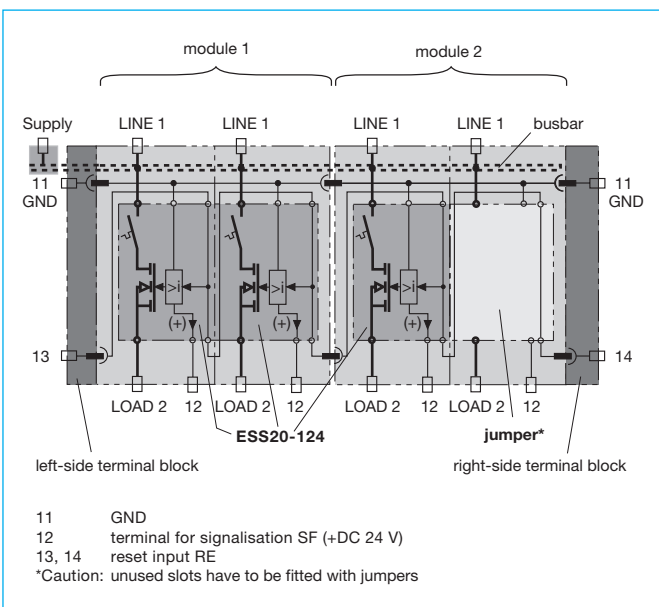
Mass: Module 17plus (centre piece) approx. 85 g
 terminal blocks (pair) approx. 30 g

Dimensions

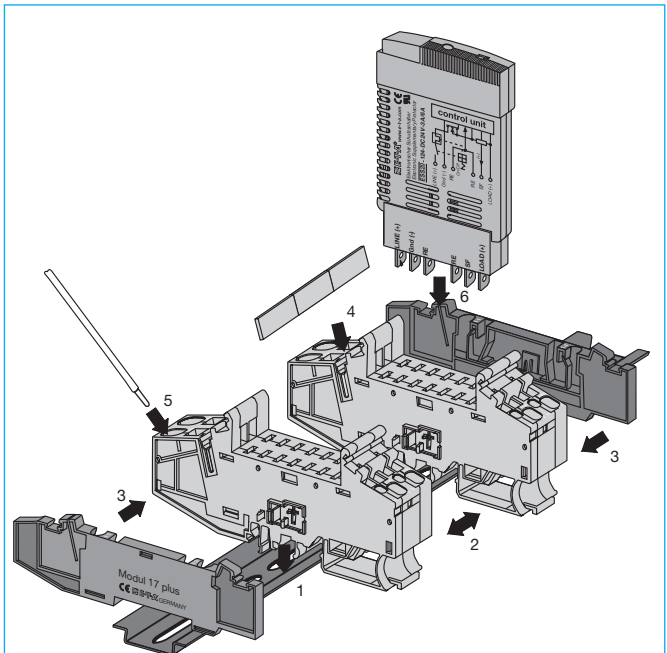


This is a metric design and millimeter dimensions take precedence (mm / inch)

Connection diagram pour ESS20-124

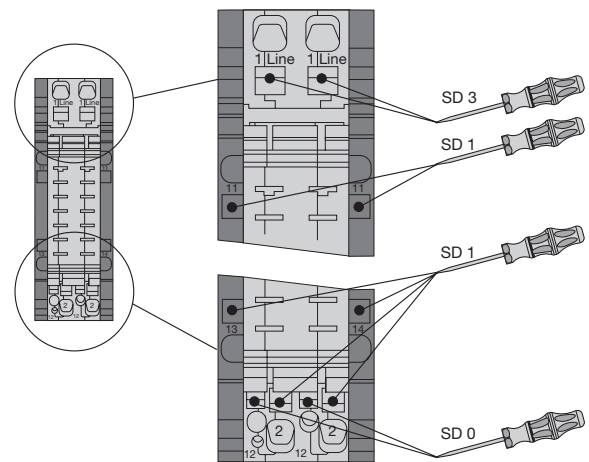


Installation example



Installation:

- 1 Clip modules onto DIN rails.
- 2 Push modules together (side-by-side).
- 3 Snap on right-side and left-side terminal blocks.
- 4 Cut busbar to required length and fit on supply side of the modules.
- 5 Connect line feed with spring-loaded terminals.
- 6 Plug in ESS20-1...

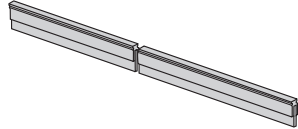


Connection and disconnection of cables with screw driver

Accessories

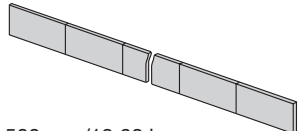
Busbar 32 A

- X 222 005 01 blue insulation, 500 mm/19.68 in.
 - X 222 005 02 red insulation, 500 mm/19.68 in.
 - X 222 005 03 grey insulation, 500 mm/19.68 in.
- "up to 32 A continuous load"



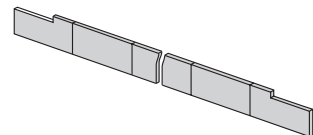
Busbar 50 A

- Y 307 016 01 non-insulated, 500 mm/19.68 in.
- "up to 50 A continuous load; plugged in completely, protected against brush contact"



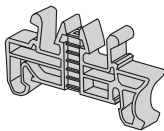
Busbar 50 A

- Y 307 016 11 non-insulated, 500 mm/19.68 in.
- "up to 50 A continuous load"



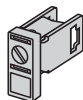
End bracket

- X 222 004 01
- Width 10 mm



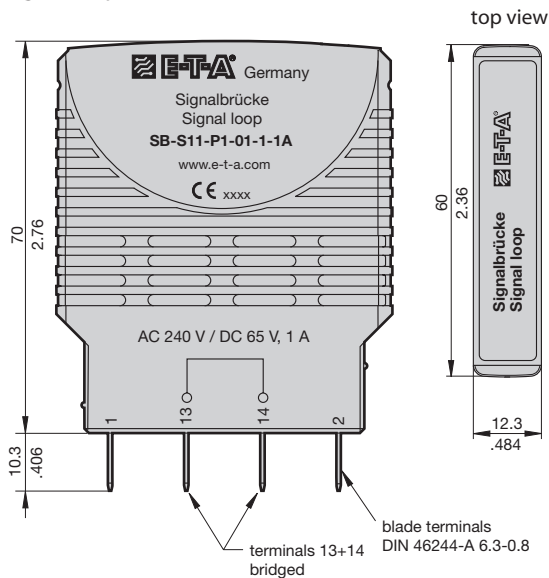
Screw terminal for busbar

- X 211 156 01 non insulated



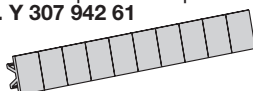
Jumper

- SB-S11-P1-01-1-1A



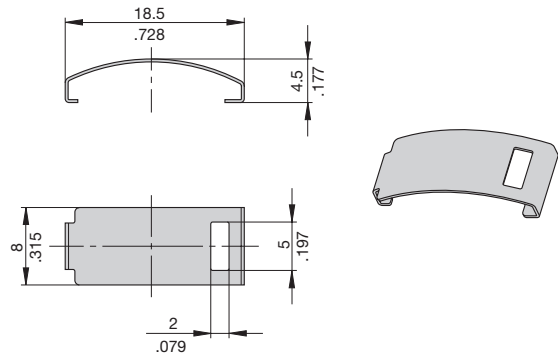
Labels

- marking area 6 x 10 mm
- (packing unit 10 pcs = 1 strip
- part. no. Y 307 942 61



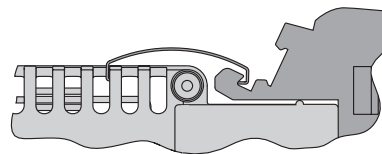
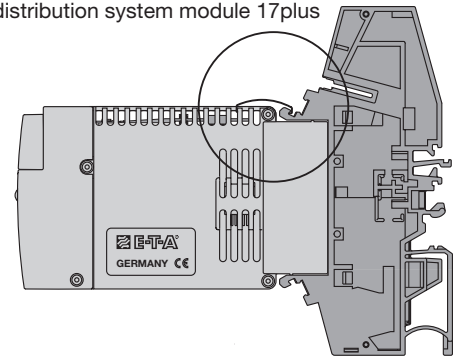
Accessories for ESS20-1..

Retaining clip Y 307 754 01

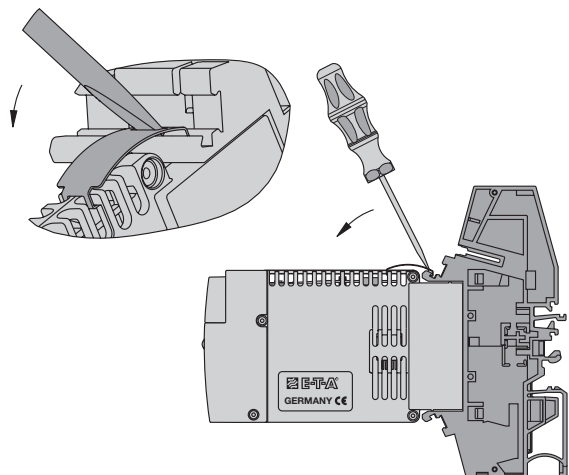


Accessories for ESS20-1..

ESS20 with retaining clip Y 307 754 01 for power distribution system module 17plus



Removal of retaining clip Y 307 754 01



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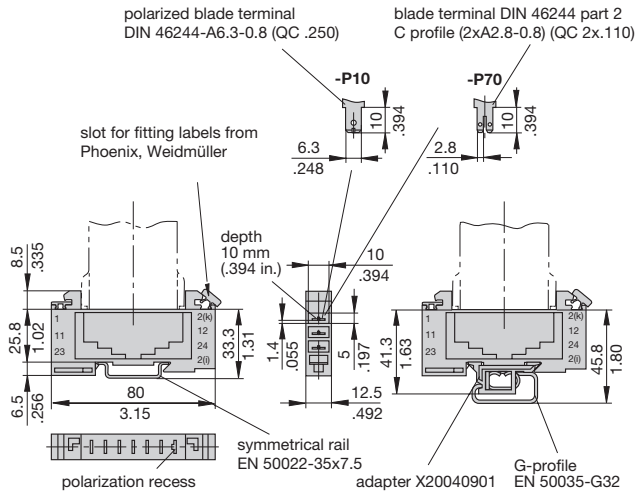
Accessories for ESS20-1..

Single mounting sockets (up to 16 A max. load)

17-P10-Si
17-P70-Si

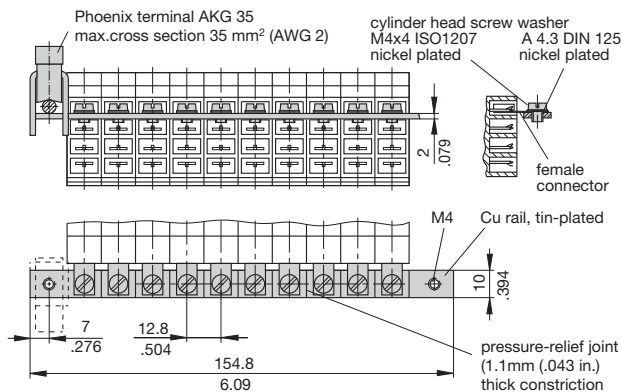
(with adapter)

17-P10-Si-20025
17-P70-Si-20025

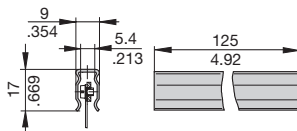


Busbar (10-way) (supplied as a complete package) for type 17 socket

(for max. 100 A continuous load),
more positions available on request
X 211 157 01 with terminal
X 211 157 02 without terminal



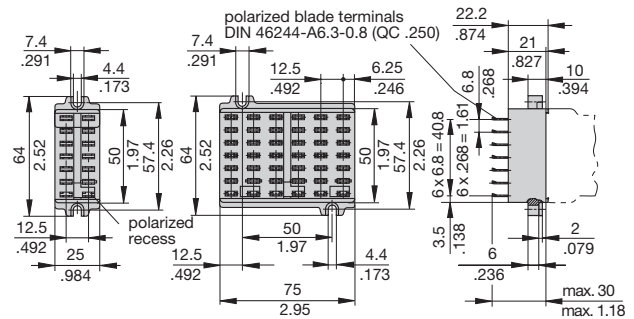
Insulating sleeving for busbar (10-way) Y 303 824 01



2-way mounting socket 23-P10-Si

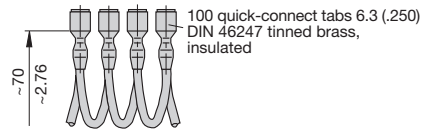
(retaining clip Y 300 581 03 available on request)

6-way mounting socket 63-P10-Si



Connector bus links -P10

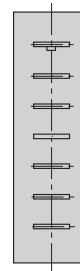
X 210 588 01/ 1.5 mm², (AWG 16), brown (up to 13 A max. load)
X 210 588 02/ 2.5 mm², (AWG 14), black (up to 20 A max. load)
X 210 588 03/ 2.5 mm², (AWG 14), red (up to 20 A max. load)
X 210 588 04/ 2.5 mm², (AWG 14), blue (up to 20 A max. load)



Pin selection, fitted with ESS20-124

ESS20-124 17-P10-Si

LINE (+)	[2(k)]
GND	[12]
RE	[24]
RE	[2(i)]
SF	[23]
LOAD (+)	[11]
	[1]



This is a metric design and millimeter dimensions take precedence ($\frac{\text{mm}}{\text{inch}}$)

All dimensions without tolerances are for reference only. In the interest of improved design, performance and cost effectiveness the right to make changes in these specifications without notice is reserved. Product markings may not be exactly as the ordering codes. Errors and omissions excepted.