



HLF190S

MCB 1P 10kA C-100A 1.5M

Technical properties

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Architecture	
Number of protected poles	1
Number of poles	1 P
Type of pole	1 P
Curve	С
Functions	
Concurrently switching N-neutral	No
Configuration	
Number of modules	1.5
Connectivity	
Top connection alignement for modular devices	Aligned terminal
Bottom connection alignement for modular devices	Aligned terminal
Main electrical features	
Rated short circuit breaking capacity Icn AC according IEC60898-1	10 kA
Rated operational voltage Ue	240 / 415 V
Type of supply voltage	AC
Frequency	50/60 Hz
Voltage	
Rated insulation voltage	500 V
Rated impulse withstand voltage	6000 V
Electric current	
Rated current	100 A
Rated service breaking capacity Ics AC according IEC 60898-1	7.5 kA
min/maxi threshold value of the AC thermal operation	1.13 / 1.45 In
Magnetic regulating currrent	5 / 10 In
Rating current 10°C according to IEC 60947	124 A
Rating current 150°C according to IEC 60947	120 A
Rating current 20°C according to IEC 60947	116 A
Rating current 25°C according to IEC 60947	112 A
Rating current 30°C according to IEC 60947	108 A

Rating current 35°C according to IEC 60947	104 A
Rating current 40°C according to IEC 60947	100 A
Rating current 45°C according to IEC 60947	96.6 A
Rating current 50°C according to IEC 60947	93.1 A
Rating current 55°C according to IEC 60947	89.4 A
Rating current 60°C according to IEC 60947	85.6 A
Rating current 65°C according to IEC 60947	81.6 A
Rating current 70°C according to IEC 60947	77.5 A
Breaking capacity on 1 pole for IT 400V NF 60947-2	4.5 kA
Breaking capacity on 1 pole for IT 415V NF 60947-2	4.5 kA
Rated short circuit breaking capacity Icn under 230V AC according IEC60898-1	10 kA
Rated short circuit breaking capacity Icn under 400V AC according IEC60898-1	10 kA
Rated service breaking capacity lcs AC according IEC 60947-2	75 %
Rated ultimate short-circuit breaking capacity Icu under 230V AC IEC 60947-2	10 kA
Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2	10 kA
Rated ultimate short-circuit breaking capacity Icu under 400V AC IEC 60947-2	10 kA
Rated ultimate short-circuit breaking capacity Icu under 415V AC IEC 60947-2	10 kA
Electric current / temperature	
Rating current 0°C	124 A
Rating current 5°C	120 A
Rating current 10°C	116 A
Rating current 15°C	112 A
Rating current 20°C	108 A
Rating current 25°C	
	104 A
Rating current 30°C	104 A 100 A
Rating current 30°C Rating current 35°C Rating current 40°C	100 A
Rating current 35°C	100 A 96.6 A
Rating current 35°C Rating current 40°C	100 A 96.6 A 93.1 A
Rating current 35°C Rating current 40°C Rating current 45°C Rating current 50°C	100 A 96.6 A 93.1 A 89.4 A
Rating current 35°C Rating current 40°C Rating current 45°C	100 A 96.6 A 93.1 A 89.4 A 85.6 A
Rating current 35°C Rating current 40°C Rating current 45°C Rating current 50°C Rating current 55°C Rating current 60°C	100 A 96.6 A 93.1 A 89.4 A 85.6 A 81.6 A
Rating current 35°C Rating current 40°C Rating current 45°C Rating current 50°C Rating current 55°C Rating current 60°C Current correction factors Correction factor of rating current for 2	100 A 96.6 A 93.1 A 89.4 A 85.6 A 81.6 A
Rating current 35°C Rating current 40°C Rating current 45°C Rating current 50°C Rating current 55°C Rating current 60°C Current correction factors Correction factor of rating current for 2 devices placed side-by-side Correction factor of rating current for 3	100 A 96.6 A 93.1 A 89.4 A 85.6 A 81.6 A 77.5 A
Rating current 35°C Rating current 40°C Rating current 45°C Rating current 50°C Rating current 55°C Rating current 60°C Current correction factors Correction factor of rating current for 2 devices placed side-by-side Correction factor of rating current for 3 devices placed side-by-side Correction factor of rating current for 4 and	100 A 96.6 A 93.1 A 89.4 A 85.6 A 81.6 A 77.5 A
Rating current 35°C Rating current 40°C Rating current 45°C Rating current 50°C Rating current 55°C Rating current 60°C Current correction factors Correction factor of rating current for 2 devices placed side-by-side Correction factor of rating current for 3 devices placed side-by-side Correction factor of rating current for 4 and	100 A 96.6 A 93.1 A 89.4 A 85.6 A 81.6 A 77.5 A
Rating current 40°C Rating current 40°C Rating current 45°C Rating current 50°C Rating current 55°C Rating current 60°C Current correction factors Correction factor of rating current for 2 devices placed side-by-side Correction factor of rating current for 3 devices placed side-by-side Correction factor of rating current for 4 and 5 devices placed side-by-side Correction factor of rating current for 6	100 A 96.6 A 93.1 A 89.4 A 85.6 A 81.6 A 77.5 A

Depth of installed product	70 mm
Height of installed product	90 mm
Width of installed product	27 mm
Frequency	
Frequency	50 to 60 Hz
Power	
Total power loss under IN	6.48 W
Power loss per pole at In	6.48 W
Endurance	
Electric endurance in number of cycles	4000
Number of mechanical operations	20000
Installation, mounting	
Type of top connection for modular devices	with screw
Tightening torque	3,5 to 5Nm
Type of top rail clip for modular devices	Plastic
Type of bottom rail clip for modular devices	plastic
Type of Bottom Connection for modular devices	with screw
Top removability for modular devices	Yes
Bottom removability for modular devices Connection	Yes
Connection Connection cross-section at output with screw, for flexible conductor	1 / 50 mm ²
Connection Connection cross-section at output with	
Connection Connection cross-section at output with screw, for flexible conductor Connection cross-section at output with	1 / 50 mm ² 1 / 70 mm ²
Connection Connection cross-section at output with screw, for flexible conductor Connection cross-section at output with screw, for massive conductor	1 / 50 mm ² 1 / 70 mm ² 50mm ²
Connection Connection cross-section at output with screw, for flexible conductor Connection cross-section at output with screw, for massive conductor Connection cross-sect. flexible conductor	1 / 50 mm ² 1 / 70 mm ² 50mm ²
Connection Connection cross-section at output with screw, for flexible conductor Connection cross-section at output with screw, for massive conductor Connection cross-sect. flexible conductor Connection cross-sect. rigid cable Connection cross-section for rigid	1 / 50 mm ² 1 / 70 mm ² 50mm ²
Connection Connection cross-section at output with screw, for flexible conductor Connection cross-section at output with screw, for massive conductor Connection cross-sect. flexible conductor Connection cross-sect. rigid cable Connection cross-section for rigid conductor, upstream terminals with screws Connection cross-section of the access with	1 / 50 mm ² 1 / 70 mm ² 50mm ² 70mm ² 1 / 70 mm ²
Connection Connection cross-section at output with screw, for flexible conductor Connection cross-section at output with screw, for massive conductor Connection cross-sect. flexible conductor Connection cross-sect. rigid cable Connection cross-section for rigid conductor, upstream terminals with screws Connection cross-section of the access with screws, with flexible conductor Connection cross-section of input and	1 / 50 mm ² 1 / 70 mm ² 50mm ² 70mm ² 1 / 70 mm ² 1 / 50 mm ²
Connection Connection cross-section at output with screw, for flexible conductor Connection cross-section at output with screw, for massive conductor Connection cross-sect. flexible conductor Connection cross-sect. rigid cable Connection cross-section for rigid conductor, upstream terminals with screws Connection cross-section of the access with screws, with flexible conductor Connection cross-section of input and output with screws, for massive conductors Connection cross section of access and exit	1 / 50 mm ² 1 / 70 mm ² 50mm ² 70mm ² 1 / 70 mm ² 1 / 50 mm ² 1 / 50 mm ²
Connection Connection cross-section at output with screw, for flexible conductor Connection cross-section at output with screw, for massive conductor Connection cross-sect. flexible conductor Connection cross-sect. rigid cable Connection cross-section for rigid conductor, upstream terminals with screws Connection cross-section of the access with screws, with flexible conductor Connection cross-section of input and output with screws, for massive conductors Connection cross section of access and exit with screws, for flexible conductor	1 / 50 mm ² 1 / 70 mm ² 50mm ² 70mm ² 1 / 70 mm ² 1 / 50 mm ² 1 / 50 mm ²
Connection Connection cross-section at output with screw, for flexible conductor Connection cross-section at output with screw, for massive conductor Connection cross-sect. flexible conductor Connection cross-sect. rigid cable Connection cross-section for rigid conductor, upstream terminals with screws Connection cross-section of the access with screws, with flexible conductor Connection cross-section of input and output with screws, for massive conductors Connection cross section of access and exit with screws, for flexible conductor	1 / 50 mm ² 1 / 70 mm ² 50mm ² 70mm ² 1 / 70 mm ² 1 / 50 mm ² 1 / 50 mm ² 1 / 50 mm ²
Connection Connection cross-section at output with screw, for flexible conductor Connection cross-section at output with screw, for massive conductor Connection cross-sect. flexible conductor Connection cross-sect. rigid cable Connection cross-section for rigid conductor, upstream terminals with screws Connection cross-section of the access with screws, with flexible conductor Connection cross-section of input and output with screws, for massive conductors Connection cross section of access and exit with screws, for flexible conductor Type of connection	1 / 50 mm ² 1 / 70 mm ² 50mm ² 70mm ² 1 / 70 mm ² 1 / 50 mm ² 1 / 50 mm ² 1 / 50 mm ² EN 60898-1, IEC 60947-2
Connection Connection cross-section at output with screw, for flexible conductor Connection cross-section at output with screw, for massive conductor Connection cross-sect. flexible conductor Connection cross-sect. rigid cable Connection cross-section for rigid conductor, upstream terminals with screws Connection cross-section of the access with screws, with flexible conductor Connection cross-section of input and output with screws, for massive conductors Connection cross section of access and exit with screws, for flexible conductor Type of connection Standards Standards	1 / 50 mm ² 1 / 70 mm ² 50mm ² 70mm ² 1 / 70 mm ² 1 / 50 mm ² 1 / 50 mm ² 1 / 50 mm ² EN 60898-1, IEC 60947-2
Connection Connection cross-section at output with screw, for flexible conductor Connection cross-section at output with screw, for massive conductor Connection cross-sect. flexible conductor Connection cross-sect. rigid cable Connection cross-section for rigid conductor, upstream terminals with screws Connection cross-section of the access with screws, with flexible conductor Connection cross-section of input and output with screws, for massive conductors Connection cross section of access and exit with screws, for flexible conductor Type of connection Standards Standard text European directive WEEE	1 / 50 mm² 1 / 70 mm² 50mm² 70mm² 1 / 70 mm² 1 / 50 mm² 1 / 50 mm² 1 / 50 mm² terminal with tightening compensation system EN 60898-1, IEC 60947-2 concerned
Connection Connection cross-section at output with screw, for flexible conductor Connection cross-section at output with screw, for massive conductor Connection cross-sect. flexible conductor Connection cross-sect. rigid cable Connection cross-section for rigid conductor, upstream terminals with screws Connection cross-section of the access with screws, with flexible conductor Connection cross-section of input and output with screws, for massive conductors Connection cross section of access and exit with screws, for flexible conductor Type of connection Standards Standard text European directive WEEE	1 / 70 mm² 50mm² 70mm² 1 / 70 mm² 1 / 50 mm² 1 / 70 mm² 1 / 50 mm² 1 / 50 mm² terminal with tightening compensation system
Connection Connection cross-section at output with screw, for flexible conductor Connection cross-section at output with screw, for massive conductor Connection cross-sect. flexible conductor Connection cross-sect. rigid cable Connection cross-section for rigid conductor, upstream terminals with screws Connection cross-section of the access with screws, with flexible conductor Connection cross-section of input and output with screws, for massive conductors Connection cross section of access and exit with screws, for flexible conductor Type of connection Standards Standards Standard text European directive WEEE	1 / 50 mm² 1 / 70 mm² 50mm² 70mm² 1 / 70 mm² 1 / 50 mm² 1 / 50 mm² 1 / 50 mm² terminal with tightening compensation system EN 60898-1, IEC 60947-2 concerned

Altitude	2000 m
Air humidity protection	for all climates
temperatur	
Temperature of calibration	30 °C
Identification	
meta_keyword	Miniature circuit breaker;mini automatic;