

Compact air-contactors

Air-contactors ELSM





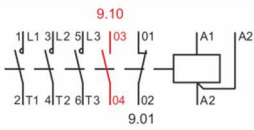
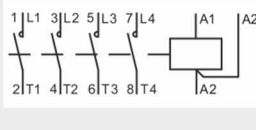
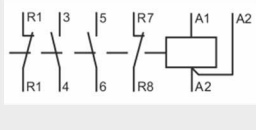
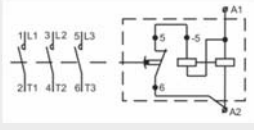
Thermal overload protection ETRM

Capacitor contactor ECSM

Accessories






datasheet **ELSM9**

EXECUTION	AIR-CONTACTORS		AIR-CONTACTORS	
Typ	ELSM9.XX	ELSM9.0040	ELSM9.0022	ELSM9.00
Figure				
Function				
Rated insulation voltage U_i	690 V	690 V	690 V	690 V
Rated operational current I_e				
AC-1/400V	25 A	25 A	25 A	25 A
AC-3/400V	9 A	9 A	9 A	9 A
AC-4/400V	4,7 A	4,7 A	4,7 A	4,7 A
Conventional thermal current I_{th}	32 A	32 A	32 A	32 A
Max. output controlled motor in AC-3(AC-4)				
230 V	2,2 kW	2,2 kW	2,2 kW	2,2 kW
400 V	4 (2) kW	4 (2) kW	4 (2) kW	4 (2) kW
500 V	5,5 (2,5) kW	5,5 (2,5) kW	5,5 (2,5) kW	5,5 (2,5) kW
690 V	5,5 kW	5,5 kW	5,5 kW	5,5 kW
1000 V	-	-	-	-
Max. number of op. cycles mech./electr. (AC-3)	10.000.000/1.500.000	10.000.000/1.500.000	10.000.000/1.500.000	10.000.000/1.500.000
Operational voltage	AC	AC or DC*	AC or DC*	DC**
Main contacts	NO/NC 3/0	NO/NC 4/0	NO/NC 2/2	NO/NC 3/0
Auxiliary contacts	1/0 or 0/1	0/0	0/0	0/0
Control voltage	AC 12V ... 500V, 50 Hz	AC 12V ... 500V, 50 Hz DC 12V ... 220V	AC 12V ... 500V, 50 Hz DC 12V ... 220V	DC 12V ... 220V
Dimensions in mm	45 x 78,5 x 73	45 x 78,5 x 73	45 x 78,5 x 73	45 x 78,5 x 73
Mass	0,3 kg	0,3 kg	0,3 kg	0,3 kg
Standard	DIN EN 60947-4-1	DIN EN 60947-4-1	DIN EN 60947-4-1	DIN EN 60947-4-1
Operating conditions	DIN EN 60721-2-1	DIN EN 60721-2-1	DIN EN 60721-2-1	DIN EN 60721-2-1
Protection class	IP20	IP20	IP20	IP20

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch




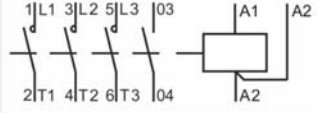
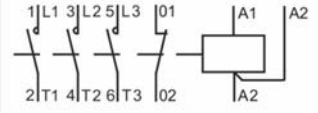
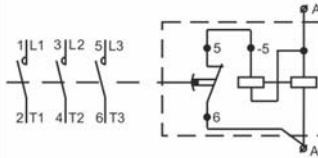
** For this type of DC-operating conductors is an integrated delay break contact applied

EXECUTION	THERMAL OVERLOAD PROTECTION		
Typ	ETAM25/50	ETRM25 I	ETRM25 II
Figure			
Rated insulation voltage U_i main/aux.	690 V	690V/500V	690V/500V
Max. number of op. cycles mech./electr.	-	3000/3000	3000/3000
Trip class	-	10 A	20
Current setting range	-	$(0,69 \dots 1) \times I_n$	$(0,69 \dots 1) \times I_n$
Range of tripping current I_n	$I_{th} = 25 \text{ A}$	0,17A ... 25A	0,17A ... 25A
Temperature compensation range	-	-30°C ... +60°C	-30°C ... +60°C
Auxiliary contacts	-	1/1	1/1
Outline dimensions in mm	45 x 74 x 81	45 x 68,7 x 89,3	45 x 68,7 x 89,3
Mass	0,08 kg	0,14 kg	0,14 kg

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch




** For this type of DC-operating conductors is an integrated delay break contact applied

datasheet **ELSM12**

EXECUTION	AIR-CONTACTORS		
Typ	ELSM12.10	ELSM12.01	ELSM12.00
Figure			
Function			
Rated insulation voltage U_i	690 V	690 V	690 V
Rated operational current I_e			
AC-1/400V	25 A	25 A	25 A
AC-3/400V	12 A	12 A	12 A
AC-4/400V	5,6 A	5,6 A	5,6 A
Conventional thermal current I_{th}	32 A	32 A	32 A
Max. output controlled motor in AC-3(AC-4)			
230 V	3 kW	3 kW	3 kW
400 V	5,5 (2,5) kW	5,5 (2,5) kW	5,5 (2,5) kW
500 V	7,5 (3) kW	7,5 (3) kW	7,5 (3) kW
690 V	7,5 kW	7,5 kW	7,5 kW
1000 V	-	-	-
Max. number of op. cycles mech./electr. (AC-3)	10.000.000/1.500.000	10.000.000/1.500.000	10.000.000/1.500.000
Operational voltage	AC	AC	DC**
Main contacts	NO/NC 3/0	NO/NC 3/0	NO/NC 3/0
Auxiliary contacts	1/0	0/1	0/0
Control voltage	AC 12V ... 500 V, 50 Hz	AC 12V ... 500 V, 50 Hz	DC 12V ... 220 V
Dimensions in mm	45 x 78,5 x 73	45 x 78,5 x 73	45 x 78,5 x 73
Mass	0,3 kg	0,3 kg	0,3 kg
Standard	DIN EN 60947-4-1	DIN EN 60947-4-1	DIN EN 60947-4-1
Operating conditions	DIN EN 60721-2-1	DIN EN 60721-2-1	DIN EN 60721-2-1
Protection class	IP20	IP20	IP20

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch




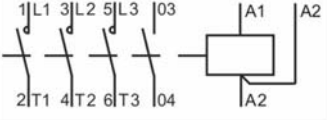
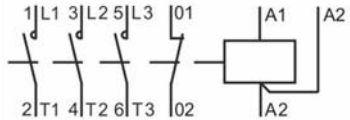
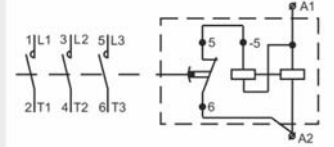
** For this type of DC-operating conductors is an integrated delay break contact applied

EXECUTION	THERMAL OVERLOAD PROTECTION		
Typ	ETAM25/50	ETRM25 I	ETRM25 II
Figure			
Rated insulation voltage U_i main/aux.	690 V	690V/500V	690V/500V
Trip class	-	10 A	20
Current setting range	-	$(0,69 \dots 1) \times I_n$	$(0,69 \dots 1) \times I_n$
Range of tripping current I_n	$I_{th} = 25 \text{ A}$	0,17 A ... 25 A	0,17 A ... 25 A
Temperature compensation range	-	- 30°C ... +60°C	- 30°C ... +60°C
Auxiliary contacts	-	1/1	1/1
Outline dimensions in mm	45 x 74 x 81	45 x 68,7 x 89,3	45 x 68,7 x 89,3
Mass	0,08 kg	0,14 kg	0,14 kg

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch




** For this type of DC-operating conductors is an integrated delay break contact applied

datasheet **ELSM17**

EXECUTION	AIR-CONTACTORS		
Typ	ELSM17.10	ELSM17.01	ELSM17.00
Figure			
Function			
Rated insulation voltage U_i	690 V	690 V	690 V
Rated operational current I_e			
AC-1/400V	25 A	25 A	25 A
AC-3/400V	16 A	16 A	16 A
AC-4/400V	6,5 A	6,5 A	6,5 A
Conventional thermal current I_{th}	32 A	32 A	32 A
Max. output controlled motor in AC-3(AC-4)			
230 V	4 kW	4 kW	4 kW
400 V	7,5 (3) kW	7,5 (3) kW	7,5 (3) kW
500 V	9 (3,7) kW	9 (3,7) kW	9 (3,7) kW
690 V	9 kW	9 kW	9 kW
1000 V	-	-	-
Max. number of op. cycles mech./electr. (AC-3)	10.000.000/1.500.000	10.000.000/1.500.000	10.000.000/1.500.000
Operational voltage	AC	AC	DC**
Main contacts	NO/NC 3/0	NO/NC 3/0	NO/NC 3/0
Auxiliary contacts	1/0	0/1	0/0
Control voltage	AC 12V ... 500 V, 50 Hz	AC 12V ... 500 V, 50 Hz	DC 12V ... 220 V
Dimensions in mm	45 x 78,5 x 73	45 x 78,5 x 73	45 x 78,5 x 73
Mass	0,3 kg	0,3 kg	0,3 kg
Standard	DIN EN 60947-4-1	DIN EN 60947-4-1	DIN EN 60947-4-1
Operating conditions	DIN EN 60721-2-1	DIN EN 60721-2-1	DIN EN 60721-2-1
Protection class	IP20	IP20	IP20

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch





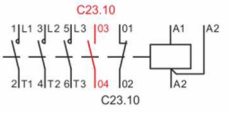
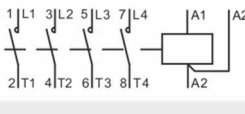
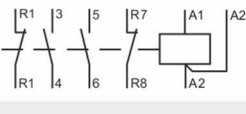
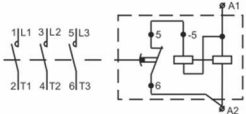
** For this type of DC-operating conductors is an integrated delay break contact applied

EXECUTION	THERMAL OVERLOAD PROTECTION		
Typ	ETAM25/50	ETRM25 I	ETRM25 II
Figure			
Rated insulation voltage U_i main/aux.	690 V	690V/500V	690V/500V
Trip class	-	10 A	20
Current setting range	-	$(0,69 \dots 1) \times I_n$	$(0,69 \dots 1) \times I_n$
Range of tripping current I_n	$I_{th} = 25 \text{ A}$	0,17 A ... 25 A	0,17 A ... 25 A
Temperature compensation range	-	- 30°C ... +60°C	- 30°C ... +60°C
Auxiliary contacts	-	1/1	1/1
Outline dimensions in mm	45 x 74 x 81	45 x 68,7 x 89,3	45 x 68,7 x 89,3
Mass	0,08 kg	0,14 kg	0,14 kg

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch




** For this type of DC-operating conductors is an integrated delay break contact applied

datasheet **ELSM23**

EXECUTION	AIR-CONTACTORS			
Typ	ELSM23.XX	ELSM23.0040	ELSM23.0022	ELSM23.00
Figure				
Function				
Rated insulation voltage U_i	690 V	690 V	690 V	690 V
Rated operational current I_e				
AC-1/400V	25 A	25 A	25 A	25 A
AC-3/400V	23 A	23 A	23 A	23 A
AC-4/400V	8 A	8 A	8 A	8 A
Conventional thermal current I_{th}	32 A	32 A	32 A	32 A
Max. output controlled motor in AC-3(AC-4)				
230 V	5,5 kW	5,5 kW	5,5 kW	5,5 kW
400 V	11 (3,7) kW	11 (3,7) kW	11 (3,7) kW	11 (3,7) kW
500 V	15 (4,5) kW	15 (4,5) kW	15 (4,5) kW	15 (4,5) kW
690 V	9 kW	9 kW	9 kW	9 kW
1000 V	-	-	-	-
Max. number of op. cycles mech./electr. (AC-3)	10.000.000/1.000.000	10.000.000/1.000.000	10.000.000/1.000.000	10.000.000/1.000.000
Operational voltage	AC	AC or DC*	AC or DC*	DC**
Main contacts	NO/NC 3/0	NO/NC 4/0	NO/NC 2/2	NO/NC 3/0
Auxiliary contacts	1/0 or 0/1	0/0	0/0	0/0
Control voltage	AC 12 V ... 500 V, 50 Hz	AC 12 V ... 500 V, 50 Hz DC 12 V ... 220 V	AC 12 V ... 500 V, 50 Hz DC 12 V ... 220 V	DC 12 V ... 220 V
Dimensions in mm	45 x 78,5 x 73	45 x 78,5 x 73	45 x 78,5 x 73	45 x 78,5 x 73
Mass	0,3 kg	0,3 kg	0,3 kg	0,3 kg
Authorisation	DIN EN 60947-4-1	DIN EN 60947-4-1	DIN EN 60947-4-1	DIN EN 60947-4-1
Operating conditions	DIN EN 60721-2-1	DIN EN 60721-2-1	DIN EN 60721-2-1	DIN EN 60721-2-1
Protection class	IP20	IP20	IP20	IP20

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch



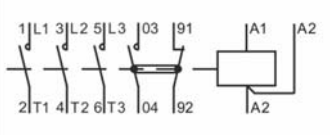
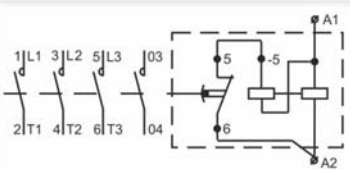
** For this type of DC-operating conductors is an integrated delay break contact applied

EXECUTION	THERMAL OVERLOAD PROTECTION		
Typ	ETAM25/50	ETRM25 I	ETRM25 II
Figure			
Rated insulation voltage U_i main/aux.	690 V	690V/500V	690V/500V
Trip class	-	10 A	20
Current setting range	-	$(0,69 \dots 1) \times I_n$	$(0,69 \dots 1) \times I_n$
Range of tripping current I_n	$I_{th} = 25 \text{ A}$	0,17 A ... 25 A	0,17 A ... 25 A
Temperature compensation range	-	- 30°C ... +60°C	- 30°C ... +60°C
Auxiliary contacts	-	1/1	1/1
Outline dimensions in mm	45 x 74 x 81	45 x 68,7 x 89,3	45 x 68,7 x 89,3
Mass	0,08 kg	0,14 kg	0,14 kg

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch



** For this type of DC-operating conductors is an integrated delay break contact applied

datasheet **ELSM20**

EXECUTION	AIR-CONTACTORS	
Typ	ELSM20.11	ELSM20.10
Figure		
Function		
Rated insulation voltage U_i	1000 V	1000 V
Rated operational current I_e	25 A AC-1/400V 20 A AC-3/400V 7 A AC-4/400V	25 A 20 A 7 A
Conventional thermal current I_{th}	80 A	80 A
Max. output controlled motor in AC-3(AC-4)	230 V 400 V 500 V 690 V 1000 V	230 V 400 V 500 V 690 V 1000 V
	5,5 kW 10 (3) kW 10 (4) kW 11 kW -	5,5 kW 10 (3) kW 10 (4) kW 11 kW -
Max. number of op. cycles mech./electr. (AC-3)	10.000.000/1.200.000	10.000.000/1.200.000
Operational voltage	AC	DC
Main contacts	NO/NC 3/0	NO/NC 3/0
Auxiliary contacts	1/1	1/0
Control voltage	AC 12V ... 690 V, 50 Hz	DC 12V ... 220 V
Dimensions in mm	56 x 90 x 91	56 x 90 x 91
Mass	0,45 kg	0,45 kg
Authorisation	DIN EN 60947-4-1	DIN EN 60947-4-1
Operating conditions	DIN EN 60721-2-1	DIN EN 60721-2-1
Protection class	IP20	IP20

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch



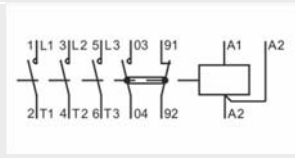
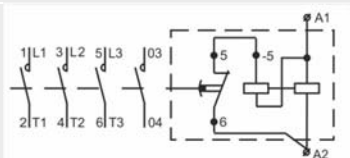
** For this type of DC-operating conductors is an integrated delay break contact applied

EXECUTION	THERMAL OVERLOAD PROTECTION	
Typ	ETRM50 I	ETRM50 II
Figure		
Rated insulation voltage U_i main/aux.	690V/500V	690V/500V
Trip class	10 A	20
Current setting range	$(0,69 \dots 1) \times I_n$	$(0,69 \dots 1) \times I_n$
Range of tripping current I_n	25 A ... 50 A	25 A ... 50 A
Temperature compensation range	- 30°C ... +60°C	- 30°C ... +60°C
Auxiliary contacts	1/1	1/1
Outline dimensions in mm	55,7 x 72,5 x 91,3	55,7 x 72,5 x 91,3
Mass	0,20 kg	0,20 kg

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch



** For this type of DC-operating conductors is an integrated delay break contact applied

datasheet **ELSM25**

EXECUTION	AIR-CONTACTORS	
Typ	ELSM25.11	ELSM25.10
Figure		
Function		
Rated insulation voltage U_i	1000 V	1000 V
Rated operational current I_e		
AC-1/400V	32 A	32 A
AC-3/400V	25 A	25 A
AC-4/400V	8 A	8 A
Conventional thermal current I_{th}	80 A	80 A
Max. output controlled motor in AC-3(AC-4)		
230 V	7,5 kW	7,5 kW
400 V	11 (3,7) kW	11 (3,7) kW
500 V	11 (4,5) kW	11 (4,5) kW
690 V	11 kW	11 kW
1000 V	-	-
Max. number of op. cycles mech./electr. (AC-3)	10.000.000/1.000.000	10.000.000/1.000.000
Operational voltage	AC	DC**
Main contacts	NO/NC 3/0	NO/NC 3/0
Auxiliary contacts	1/1	1/0
Control voltage	AC 12V ... 690 V, 50 Hz	DC 12V ... 220 V
Dimensions in mm	56 x 90 x 91	56 x 90 x 91
Mass	0,45 kg	0,45 kg
Authorisation	DIN EN 60947-4-1	DIN EN 60947-4-1
Operating conditions	DIN EN 60721-2-1	DIN EN 60721-2-1
Protection class	IP20	IP20

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch



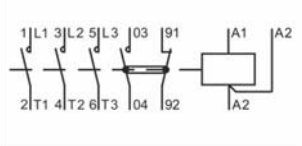
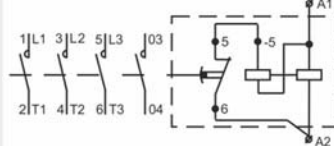
** For this type of DC-operating conductors is an integrated delay break contact applied

EXECUTION	THERMAL OVERLOAD PROTECTION	
Typ	ETRM50 I	ETRM50 II
Figure		
Rated insulation voltage U _i main/aux.	690V/500V	690V/500V
Trip class	10 A	20
Current setting range	(0,69 ... 1) x I _n	(0,69 ... 1) x I _n
Range of tripping current I _n	25 A ... 50 A	25 A ... 50 A
Temperature compensation range	- 30°C ... +60°C	- 30°C ... +60°C
Auxiliary contacts	1/1	1/1
Outline dimensions in mm	55,7 x 72,5 x 91,3	55,7 x 72,5 x 91,3
Mass	0,20 kg	0,20 kg

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch



** For this type of DC-operating conductors is an integrated delay break contact applied

datasheet **ELSM32**

EXECUTION	AIR-CONTACTORS	
Typ	ELSM32.11	ELSM32.10
Figure		
Function		
Rated insulation voltage U_i	1000 V	1000 V
Rated operational current I_e		
AC-1/400V	44 A	44 A
AC-3/400V	32 A	32 A
AC-4/400V	9,5 A	9,5 A
Conventional thermal current I_{th}	80 A	80 A
Max. output controlled motor in AC-3(AC-4)		
230 V	11 kW	11 kW
400 V	15 (4,5) kW	15 (4,5) kW
500 V	18,5 (5,5) kW	18,5 (5,5) kW
690 V	18,5 kW	18,5 kW
1000 V	-	-
Max. number of op. cycles mech./electr. (AC-3)	10.000.000/1.000.000	10.000.000/1.000.000
Operational voltage	AC	DC**
Main contacts	NO/NC 3/0	NO/NC 3/0
Auxiliary contacts	1/1	1/0
Control voltage	AC 12V ... 690 V, 50 Hz	DC 12V ... 220 V
Dimensions in mm	56 x 90 x 91	56 x 90 x 91
Mass	0,45 kg	0,45 kg
Authorisation	DIN EN 60947-4-1	DIN EN 60947-4-1
Operating conditions	DIN EN 60721-2-1	DIN EN 60721-2-1
Protection class	IP20	IP20

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch



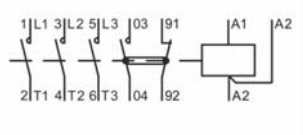
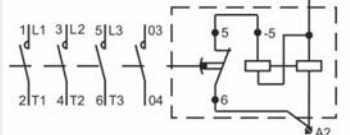
** For this type of DC-operating conductors is an integrated delay break contact applied

EXECUTION	THERMAL OVERLOAD PROTECTION	
Typ	ETRM50 I	ETRM50 II
Figure		
Rated insulation voltage U _i main/aux.	690V/500V	690V/500V
Trip class	10 A	20
Current setting range	(0,69 ... 1) x I _n	(0,69 ... 1) x I _n
Range of tripping current I _n	25 A ... 50 A	25 A ... 50 A
Temperature compensation range	- 30°C ... +60°C	- 30°C ... +60°C
Auxiliary contacts	1/1	1/1
Outline dimensions in mm	55,7 x 72,5 x 91,3	55,7 x 72,5 x 91,3
Mass	0,20 kg	0,20 kg

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch



** For this type of DC-operating conductors is an integrated delay break contact applied

datasheet **ELSM40**

EXECUTION	AIR-CONTACTORS	
Typ	ELSM40.11	ELSM40.10
Figure		
Function		
Rated insulation voltage U_i	1000 V	1000 V
Rated operational current I_e		
AC-1/400V	50 A	50 A
AC-3/400V	40 A	40 A
AC-4/400V	11,3 A	11,3 A
Conventional thermal current I_{th}	80 A	80 A
Max. output controlled motor in AC-3(AC-4)		
230 V	12,5 kW	12,5 kW
400 V	20 (5,5) kW	20 (5,5) kW
500 V	25 (7,5) kW	25 (7,5) kW
690 V	18,5 kW	18,5 kW
1000 V	-	-
Max. number of op. cycles mech./electr. (AC-3)	10.000.000/900.000	10.000.000/900.000
Operational voltage	AC	DC**
Main contacts	NO/NC 3/0	NO/NC 3/0
Auxiliary contacts	1/1	1/0
Control voltage	AC 12V ... 690 V, 50 Hz	DC 12V ... 220 V
Dimensions in mm	56 x 90 x 91	56 x 90 x 91
Mass	0,52 kg	0,52 kg
Authorisation	DIN EN 60947-4-1	DIN EN 60947-4-1
Operating conditions	DIN EN 60721-2-1	DIN EN 60721-2-1
Protection class	IP20	IP20

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch



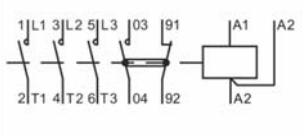
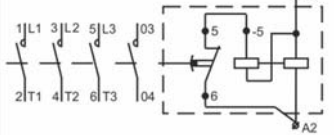
** For this type of DC-operating conductors is an integrated delay break contact applied

EXECUTION	THERMAL OVERLOAD PROTECTION	
Typ	ETRM50 I	ETRM50 II
Figure		
Rated insulation voltage U _i main/aux.	690V/500V	690V/500V
Trip class	10 A	20
Current setting range	(0,69 ... 1) x I _n	(0,69 ... 1) x I _n
Range of tripping current I _n	25 A ... 50 A	25 A ... 50 A
Temperature compensation range	- 30°C ... +60°C	- 30°C ... +60°C
Auxiliary contacts	1/1	1/1
Outline dimensions in mm	55,7 x 72,5 x 91,3	55,7 x 72,5 x 91,3
Mass	0,20 kg	0,20 kg

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch




** For this type of DC-operating conductors is an integrated delay break contact applied

datasheet **ELSM50**

EXECUTION	AIR-CONTACTORS	
Typ	ELSM50.11	ELSM50.10
Figure		
Function		
Rated insulation voltage U_i	1000 V	1000 V
Rated operational current I_e		
AC-1/400V	60 A	60 A
AC-3/400V	50 A	50 A
AC-4/400V	15,2 A	15,2 A
Conventional thermal current I_{th}	115 A	115 A
Max. output controlled motor in AC-3(AC-4)		
230 V	15 kW	15 kW
400 V	22 (7,5) kW	22 (7,5) kW
500 V	30 (9) kW	30 (9) kW
690 V	30 kW	30 kW
1000 V	-	-
Max. number of op. cycles mech./electr. (AC-3)	10.000.000/1.000.000	5.000.000/1.000.000
Operational voltage	AC	DC**
Main contacts	NO/NC 3/0	NO/NC 3/0
Auxiliary contacts	1/1	1/0
Control voltage	AC 24V ... 690 V, 50 Hz	DC 24V ... 220 V
Dimensions in mm	70 x 107 x 116	70 x 107 x 116
Mass	0,89 kg	0,89 kg
Authorisation	DIN EN 60947-4-1	DIN EN 60947-4-1
Operating conditions	DIN EN 60721-2-1	DIN EN 60721-2-1
Protection class	IP20	IP20

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch



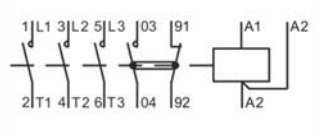
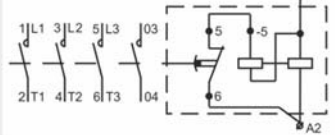
** For this type of DC-operating conductors is an integrated delay break contact applied

EXECUTION	THERMAL OVERLOAD PROTECTION		
Typ	ETAM80	ETRM80 I	ETRM80 II
Figure			
Rated insulation voltage U_i main/aux.	690V	690V/500V	690V/500V
Trip class	-	10 A	20
Current setting range	-	$(0,69 \dots 1) \times I_n$	$(0,69 \dots 1) \times I_n$
Range of tripping current I_n	$I_{th} = 80 \text{ A}$	14,5 A ... 80 A	14,5 A ... 80 A
Temperature compensation range	-	- 30°C ... +60°C	- 30°C ... +60°C
Auxiliary contacts	-	1/1	1/1
Outline dimensions in mm	60 x 85 x 100	60 x 77 x 97,3	60 x 77 x 97,3
Mass	0,13 kg	0,28 kg	0,28 kg

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch




** For this type of DC-operating conductors is an integrated delay break contact applied

datasheet **ELSM65**

EXECUTION	AIR-CONTACTORS	
Typ	ELSM65.11	ELSM65.10
Figure		
Function		
Rated insulation voltage U_i	1000 V	1000 V
Rated operational current I_e		
AC-1/400V	75 A	75 A
AC-3/400V	65 A	65 A
AC-4/400V	18 A	18 A
Conventional thermal current I_{th}	115 A	115 A
Max. output controlled motor in AC-3(AC-4)		
230 V	18,5 kW	18,5 kW
400 V	30 (9) kW	30 (9) kW
500 V	37 (11) kW	37 (11) kW
690 V	37 kW	37 kW
1000 V	-	-
Max. number of op. cycles mech./electr. (AC-3)	10.000.000/1.000.000	5.000.000/1.000.000
Operational voltage	AC	DC**
Main contacts	NO/NC 3/0	NO/NC 3/0
Auxiliary contacts	1/1	1/0
Control voltage	AC 24V ... 690 V, 50 Hz	DC 24V ... 220 V
Dimensions in mm	70 x 107 x 116	70 x 107 x 116
Mass	0,89 kg	0,89 kg
Authorisation	DIN EN 60947-4-1	DIN EN 60947-4-1
Operating conditions	DIN EN 60721-2-1	DIN EN 60721-2-1
Protection class	IP20	IP20

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch



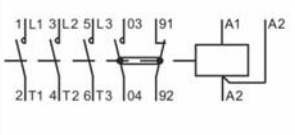
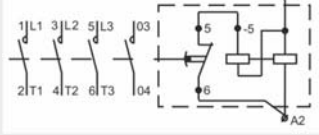
** For this type of DC-operating conductors is an integrated delay break contact applied

EXECUTION	THERMAL OVERLOAD PROTECTION		
Typ	ETAM80	ETRM80 I	ETRM80 II
Figure			
Rated insulation voltage U_i main/aux.	690V	690V/500V	690V/500V
Trip class	-	10 A	20
Current setting range	-	$(0,69 \dots 1) \times I_n$	$(0,69 \dots 1) \times I_n$
Range of tripping current I_n	$I_{th} = 80 \text{ A}$	14,5 A ... 80 A	14,5 A ... 80 A
Temperature compensation range	-	- 30°C ... +60°C	- 30°C ... +60°C
Auxiliary contacts	-	1/1	1/1
Outline dimensions in mm	60 x 85 x 100	60 x 77 x 97,3	60 x 77 x 97,3
Mass	0,13 kg	0,28 kg	0,28 kg

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch




** For this type of DC-operating conductors is an integrated delay break contact applied

datasheet **ELSM80**

EXECUTION	AIR-CONTACTORS	
Typ	ELSM80.11	ELSM80.10
Figure		
Function		
Rated insulation voltage U_i	1000 V	1000 V
Rated operational current I_e		
AC-1/400V	85 A	85 A
AC-3/400V	80 A	80 A
AC-4/400V	20 A	20 A
Conventional thermal current I_{th}	115 A	115 A
Max. output controlled motor in AC-3(AC-4)		
230 V	22 kW	22 kW
400 V	37 (10) kW	37 (10) kW
500 V	45 (12,5) kW	45 (12,5) kW
690 V	45 kW	45 kW
1000 V	-	-
Max. number of op. cycles mech./electr. (AC-3)	10.000.000/900.000	5.000.000/900.000
Operational voltage	AC	DC**
Main contacts	NO/NC 3/0	NO/NC 3/0
Auxiliary contacts	1/1	1/0
Control voltage	AC 24V ... 690 V, 50 Hz	DC 24V ... 220 V
Dimensions in mm	70 x 107 x 116	70 x 107 x 116
Mass	0,91 kg	0,91 kg
Authorisation	DIN EN 60947-4-1	DIN EN 60947-4-1
Operating conditions	DIN EN 60721-2-1	DIN EN 60721-2-1
Protection class	IP20	IP20

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch

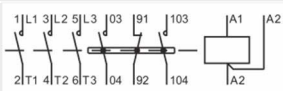
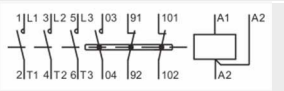
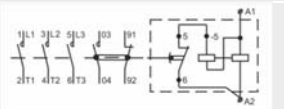
** For this type of DC-operating conductors is an integrated delay break contact applied

EXECUTION	THERMAL OVERLOAD PROTECTION		
Typ	ETAM80	ETRM80 I	ETRM80 II
Figure			
Rated insulation voltage U _i main/aux.	690V	690V/500V	690V/500V
Trip class	-	10 A	20
Current setting range	-	(0,69 ... 1) x I _n	(0,69 ... 1) x I _n
Range of tripping current I _n	I _{th} = 80 A	14,5 A ... 80 A	14,5 A ... 80 A
Temperature compensation range	-	- 30°C ... +60°C	- 30°C ... +60°C
Auxiliary contacts	-	1/1	1/1
Outline dimensions in mm	60 x 85 x 100	60 x 77 x 97,3	60 x 77 x 97,3
Mass	0,13 kg	0,28 kg	0,28 kg

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch





** For this type of DC-operating conductors is an integrated delay break contact applied

datasheet **ELSM95**

EXECUTION	AIR-CONTACTORS		
Typ	ELSM95.21	ELSM95.12	ELSM95.11
Figure			
Function			
Rated insulation voltage U_i	1000 V	1000 V	1000 V
Rated operational current I_e AC-1/400V AC-3/400V AC-4/400V	110 A 95 A -	110 A 95 A -	110 A 95 A -
Conventional thermal current I_{th}	150 A	150 A	150 A
Max. output controlled motor in AC-3(AC-4)	230 V 400 V 500 V 690 V 1000 V	230 V 400 V 500 V 690 V 1000 V	230 V 400 V 500 V 690 V 1000 V
	25 kW 45 (15) kW 55 (18,5) kW 55 kW -	25 kW 45 (15) kW 55 (18,5) kW 55 kW -	25 kW 45 (15) kW 55 (18,5) kW 55 kW -
Max. number of op. cycles mech./electr. (AC-3)	5.000.000/900.000	5.000.000/900.000	5.000.000/900.000
Operational voltage	AC	AC	DC**
Main contacts	NO/NC 3/0	NO/NC 3/0	NO/NC 3/0
Auxiliary contacts	2/1	1/2	1/1
Control voltage	AC 24V ... 690 V, 50 Hz	AC 24V ... 690 V, 50 Hz	DC 24V ... 220 V
Dimensions in mm	85 x 120 x 127	85 x 120 x 127	85 x 120 x 127
Mass	1,6 kg	1,6 kg	1,6 kg
Authorisation	DIN EN 60947-4-1	DIN EN 60947-4-1	DIN EN 60947-4-1
Operating conditions	DIN EN 60721-2-1	DIN EN 60721-2-1	DIN EN 60721-2-1
Protection class	IP20	IP20	IP20

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch




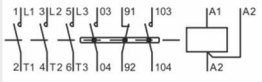
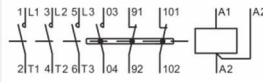
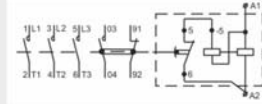
** For this type of DC-operating conductors is an integrated delay break contact applied

EXECUTION	THERMAL OVERLOAD PROTECTION			
Typ	ETAM80	ETRM80 N	ETRM80 S	ESWM100
Figure				
Rated insulation voltage U_i main/aux.	690V	690V/500V	690V/500V	690 V
Nominal primary current	-	-	-	100
Nominal secondary current	-	-	-	1
Trip class	-	10 A	20	-
Current setting range	-	$(0,69 \dots 1) \times I_n$	$(0,69 \dots 1) \times I_n$	-
Range of tripping currents I_n	$I_{th} = 80$ A	14,5 A ... 80 A	14,5 A ... 80 A	-
Current setting range with ETRM80 N/S	-	-	-	69 A .. 100 A
Temperature compensation range	-	- 30°C ... +60°C	- 30°C ... +60°C	-
Auxiliary contacts	-	1/1	1/1	-
Accuracy class	-	-	-	10P5
Outline dimensions in mm	60 x 85 x 100	60 x 77 x 97,3	60 x 77 x 97,3	75 x 25 x 82
Mass	0,13 kg	0,28 kg	0,28 kg	0,28 kg

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch





** For this type of DC-operating conductors is an integrated delay break contact applied

datasheet **ELSM115**

EXECUTION	AIR-CONTACTORS		
Typ	ELSM115.21	ELSM115.12	ELSM115.11
Figure			
Function			
Rated insulation voltage U_i	1000 V	1000 V	1000 V
Rated operational current I_e	AC-1/400V AC-3/400V AC-4/400V	AC-1/400V AC-3/400V AC-4/400V	AC-1/400V AC-3/400V AC-4/400V
	130 A 115 A -	130 A 115 A -	130 A 115 A -
Conventional thermal current I_{th}	150 A	150 A	150 A
Max. output controlled motor in AC-3(AC-4)	230 V 400 V 500 V 690 V 1000 V	230 V 400 V 500 V 690 V 1000 V	230 V 400 V 500 V 690 V 1000 V
	30 kW 55 (18,5) kW 75 (25) kW 55 kW -	30 kW 55 (18,5) kW 75 (25) kW 55 kW -	30 kW 55 (18,5) kW 75 (25) kW 55 kW -
Max. number of op. cycles mech./electr. (AC-3)	5.000.000/700.000	5.000.000/700.000	5.000.000/700.000
Operational voltage	AC	AC	DC**
Main contacts	NO/NC 3/0	NO/NC 3/0	NO/NC 3/0
Auxiliary contacts	2/1	1/2	1/1
Control voltage	AC 24V ... 690 V, 50 Hz	AC 24V ... 690 V, 50 Hz	DC 24V ... 220 V
Dimensions in mm	85 x 120 x 127	85 x 120 x 127	85 x 120 x 127
Mass	1,6 kg	1,6 kg	1,6 kg
Authorisation	DIN EN 60947-4-1	DIN EN 60947-4-1	DIN EN 60947-4-1
Operating conditions	DIN EN 60721-2-1	DIN EN 60721-2-1	DIN EN 60721-2-1
Protection class	IP20	IP20	IP20

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch



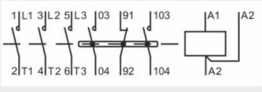
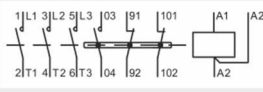
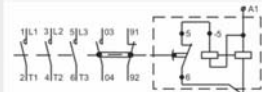
** For this type of DC-operating conductors is an integrated delay break contact applied

EXECUTION	THERMAL OVERLOAD PROTECTION			
Typ	ETAM80	ETRM80 N	ETRM80 S	ESWM145
Figure				
Rated insulation voltage U_i main/aux.	690V	690V/500V	690V/500V	690 V
Nominal primary current	-	-	-	145
Nominal secondary current	-	-	-	1
Trip class	-	10 A	20	-
Current setting range	-	$(0,69 \dots 1) \times I_n$	$(0,69 \dots 1) \times I_n$	-
Range of tripping currents I_n	$I_{th} = 80 \text{ A}$	14,5 A ... 80 A	14,5 A ... 80 A	-
Current setting range with ETRM80 N/S	-	-	-	100 A ... 145 A
Temperature compensation range	-	- 30°C ... +60°C	- 30°C ... +60°C	-
Auxiliary contacts	-	1/1	1/1	-
Accuracy class	-	-	-	10P5
Outline dimensions in mm	60 x 85 x 100	60 x 77 x 97,3	60 x 77 x 97,3	75 x 25 x 82
Mass	0,13 kg	0,28 kg	0,28 kg	0,217 kg

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch





** For this type of DC-operating conductors is an integrated delay break contact applied

datasheet **ELSM150**

EXECUTION	AIR-CONTACTORS		
Typ	ELSM150.21	ELSM150.12	ELSM150.11
Figure			
Function			
Rated insulation voltage U_i	1000 V	1000 V	1000 V
Rated operational current I_e			
AC-1/400V	150 A	150 A	150 A
AC-3/400V	150 A	150 A	150 A
AC-4/400V	-	-	-
Conventional thermal current I_{th}	150 A	150 A	150 A
Max. output controlled motor in AC-3(AC-4)			
230 V	45 kW	45 kW	45 kW
400 V	75 (25) kW	75 (25) kW	75 (25) kW
500 V	83 (30) kW	83 (30) kW	83 (30) kW
690 V	55 kW	55 kW	55 kW
1000 V	-	-	-
Max. number of op. cycles mech./electr. (AC-3)	5.000.000/500.000	5.000.000/500.000	5.000.000/500.000
Operational voltage	AC	AC	DC**
Main contacts	NO/NC 3/0	NO/NC 3/0	NO/NC 3/0
Auxiliary contacts	2/1	1/2	1/1
Control voltage	AC 24V ... 690 V, 50 Hz	AC 24V ... 690 V, 50 Hz	DC 24V ... 220 V
Dimensions in mm	85 x 120 x 127	85 x 120 x 127	85 x 120 x 127
Mass	1,6 kg	1,6 kg	1,6 kg
Authorisation	DIN EN 60947-4-1	DIN EN 60947-4-1	DIN EN 60947-4-1
Operating conditions	DIN EN 60721-2-1	DIN EN 60721-2-1	DIN EN 60721-2-1
Protection class	IP20	IP20	IP20

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch





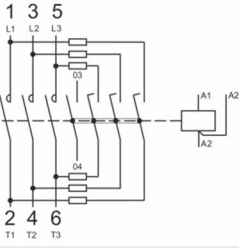
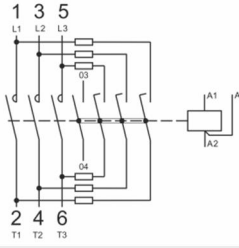
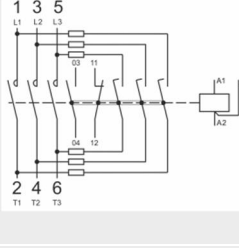
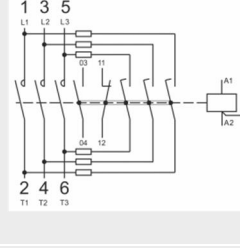
** For this type of DC-operating conductors is an integrated delay break contact applied




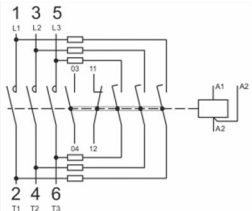
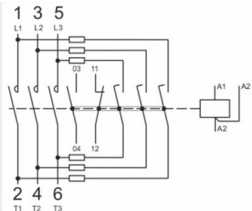
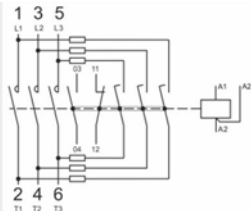
EXECUTION	THERMAL OVERLOAD PROTECTION			
Typ	ETAM80	ETRM80 N	ETRM80 S	ESWM145
Figure				
Rated insulation voltage U_i main/aux.	690V	690V/500V	690V/500V	690 V
Nominal primary current	-	-	-	145
Nominal secondary current	-	-	-	1
Trip class	-	10 A	20	-
Current setting range	-	$(0,69 \dots 1) \times I_n$	$(0,69 \dots 1) \times I_n$	-
Range of tripping currents I_n	$I_{th} = 80 \text{ A}$	14,5 A ... 80 A	14,5 A ... 80 A	-
Current setting range with ETRM80 N/S	-	-	-	100 A ... 145 A
Temperature compensation range	-	- 30°C ... +60°C	- 30°C ... +60°C	-
Auxiliary contacts	-	1/1	1/1	-
Accuracy class	-	-	-	10P5
Outline dimensions in mm	60 x 85 x 100	60 x 77 x 97,3	60 x 77 x 97,3	75 x 25 x 82
Mass	0,13 kg	0,28 kg	0,28 kg	0,217 kg

* For this type of DC-operating conductors must be used a delayed break contact in a PK21T auxiliary switch




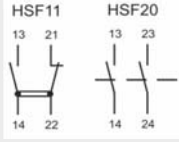
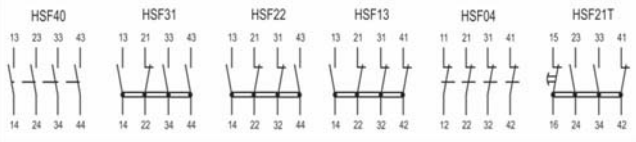
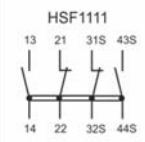
** For this type of DC-operating conductors is an integrated delay break contact applied






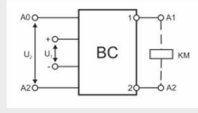
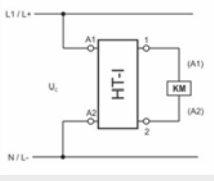
datasheet ECSM12-80

EXECUTION	CAPACITOR CONTACTORS		CAPACITOR CONTACTORS	
Typ	ECSM12.10	ECSM17.10	ECSM25.11	ECSM32.11
Figure				
Function				
Rated insulation voltage U_i	690 V	690 V	690 V	690 V
Rated operational current I_e	12 A	17 A	25 A	32 A
Conventional thermal current I_{th}	32 A	32 A	80 A	80 A
Max. output controlled motor in AC-6b				
230 V	7 kVAr	8 kVAr	10 kVAr	15 kVAr
400 V	10 kVAr	12,5 kVAr	17 kVAr	25 kVAr
500 V	13 kVAr	15 kVAr	20 kVAr	30 kVAr
690 V	15 kVAr	17 kVAr	25 kVAr	34 kVAr
Max. number of op. cycles mech./electr.	3.000.000/100.000	3.000.000/100.000	3.000.000/100.000	3.000.000/100.000
Main contacts	NO/NC 3/0	NO/NC 3/0	NO/NC 3/0	NO/NC 3/0
Auxiliary contacts	1/0	1/0	1/1	1/1
Control voltage	220V-230V, 380V-400V	220V-230V, 380V-400V	220V-230V, 380V-400V	220V-230V, 380V-400V
Dimensions in mm	45 x 90 x 105	45 x 90 x 105	56 x 105 x 122,5	56 x 105 x 122,5
Mass	0,38 kg	0,38 kg	0,61 kg	0,61 kg
Authorisation	DIN EN 60947-4-1	DIN EN 60947-4-1	DIN EN 60947-4-1	DIN EN 60947-4-1
Operating conditions	DIN EN 60721-2-1	DIN EN 60721-2-1	DIN EN 60721-2-1	DIN EN 60721-2-1
Protection class	IP20	IP20	IP20	IP20

EXECUTION	CAPACITOR CONTACTORS		
Typ	ECSM50.11	ECSM65.11	ECSM80.11
Figure			
Function			
Rated insulation voltage U_i	690 V	690 V	690 V
Rated operational current I_e	50 A	65 A	80 A
Conventional thermal current I_{th}	115 A	115 A	115 A
Max. output controlled motor in AC-6b			
230 V	25 kVAr	30 kVAr	35 kVAr
400 V	40 kVAr	50 kVAr	60 kVAr
500 V	50 kVAr	60 kVAr	70 kVAr
690 V	60 kVAr	70 kVAr	80 kVAr
Max. number of op. cycles mech./electr.	3.000.000/100.000	3.000.000/100.000	3.000.000/100.000
Main contacts	NO/NC 3/0	NO/NC 3/0	NO/NC 3/0
Auxiliary contacts	1/1	1/1	1/1
Control voltage	220V-230V, 380V-400V	220V-230V, 380V-400V	220V-230V, 380V-400V
Dimensions in mm	70 x 120 x 147	70 x 120 x 147	70 x 120 x 147
Mass	0,95 kg	0,95 kg	0,95 kg
Authorisation	DIN EN 60947-4-1	DIN EN 60947-4-1	DIN EN 60947-4-1
Operating conditions	DIN EN 60721-2-1	DIN EN 60721-2-1	DIN EN 60721-2-1
Protection class	IP20	IP20	IP20

datasheet Accessories

EXECUTION	TWO-POLE AUXILIARY CONTACT BLOCKS	FOUR-POLE AUXILIARY CONTACT BLOCK	AUXILIARY CONTACT BLOCKS FOR SMALL VOLTAGE
Typ	HSF11; HSF20	HSF22; HSF40; HSF13; HSF31; HSF04; HSF21T	HSF1111
Figure			
Function			
Rated insulation voltage U_i	690 V	690 V	690 V
Rated operational current I_e AC-15 / 220 V..230 V AC-15 / 380 V..400 V	4 A 2 A	4 A 2 A	4 A 2 A
Conventional thermal current I_{th}	12 A	12 A	12 A
Impulse withstand voltage	8 kW	8 kW	8 kW
Max. cross section of copper wire [mm ²] rigid / flexible	1 - 2,5	1 - 2,5	1 - 2,5
Auxiliary contacts NO/NC	HSF11 = 1/1; HSF20 = 2/0	HSF22 = 2/2; HSF40 = 4/0; HSF13 = 1/3; HSF31 = 3/1; HSF04 = 0/4; HSF21T = 2/1	HSF1111 = 2/2
Dimensions in mm	27,7 x 45,5 x 37,5	44,4 x 45,5 x 37,5	44,4 x 45,5 x 37,5
Mass	0,3 kg	0,52 kg	0,52 kg
Protection class	IP20	IP20	IP20

EXECUTION	SIDE MOUNTED AUXILIARY CONTACT UNIT	MECHANICAL INTERLOCK	INTERFACE UNIT FOR CONTACTOR COIL	COIL SUPPRESSOR	ELECTRONIC TIMERS
Typ	HSS	HMV	HI12; HI24; HI48; HI60	HRC	HT-EV 0,3-3; HT-AV 0,3-3; HT-I 0,3-3
Figure					
Function		-		-	
Rated insulation voltage U_i	690 V	-	300 V	-	250 V
Rated operational current I_e AC-15 / 220 V..230 V AC-15 / 380 V..400 V	4 A 2 A	-	0,4 A -	-	-
Control voltage	-	-	12 V DC; 24 V DC; 48 V DC; 60 V DC	110 V - 230 V AC/DC	24 V AC; 110 V - 127 V AC; 220 V - 230 V AC;
Input power	-	-	0,4 W; 0,45 W; 0,6 W; 0,7 W	-	-
Time setting range	-	-	-	-	0,3 - 3 sec
Impulse withstand voltage	8 kW	-	-	-	-
Trigger function	-	-	-	-	HT-EV = delay ON; HT-AV = delay OFF; HT-I = impulse relay
Max. cross section of copper wire [mm ²] rigid / flexible	1 - 2,5	-	-	-	-
Auxiliary contacts NO/NC	1/1	-	-	-	-
Dimensions in mm	12 x 71,6 x 58,7	14 x 65 x 60	25 x 58 x 44,5	20 x 35 x 35	25 x 58 x 44,5
Mass	0,43 kg	0,45 kg	0,67 kg	0,38 kg	0,59 kg
Protection class	IP20	-	IP20	IP20	IP20

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