



Product type designation   SPE25	Product designation			Power contactor
Number of poles				BF25
Rated insulation voltage Ui IEC/EN         V         690           Rated impulse withstand voltage Uimp         kV         6           Operational frequency         min         Hz         25           IEC Conventional free air thermal current Ith         A         32           Operational current Ie         AC-1 (≤40°C)         A         22           AC-1 (≤55°C)         A         26         AC-1 (≤70°C)         A         23           AC-3 (≤440V ≤55°C)         A         25         AC-4 (400V)         A         10           Rated operational power AC-3 (T≤55°C)         230V kW         10         T         400V kW         12.5         415V kW         13.4         440V kW         13.4         440V kW         13.4         440V kW         13.4         500V kW         15         690V kW         11         15         690V kW         15         690V kW         21         500V kW         26         690V kW         26         690V kW         21         500V kW         26         690V kW         21         500V kW         23         48         48         48         48         48         48         48         48         48         48         48         48         48         48         48				
Rated impulse withstand voltage Uimp	·		Nr.	3
Operational frequency         min max bit max         Hz bit Hz bit Hz         25 bit Max           IEC Conventional free air thermal current lth         A 32           Operational current le           AC-1 (≤40°C) A 32 AC-1 (≤55°C) A 26 AC-1 (≤55°C) A 26 AC-1 (≤55°C) A 23 AC-3 (≤440V ≤55°C) A 25 AC-3 (4400V) ≤55°C) A 25 AC-4 (400V) A 10           Rated operational power AC-3 (T≤55°C)           230V kW 7           400V kW 12.5 AC-3 (1555°C)           415V kW 13.4 AC-3 (1555°C)           440V kW 13.4 AC-3 (1555°C)           45V kW 15 AC-3 (1555°C)           Rated operational power AC-1 (T≤40°C)           Rated operational power AC-1 (T≤40°C)           230V kW 12 AC-3 (1540°C)           Rated operational power AC-1 (T≤40°C)           EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series           ≤24V A 20 AC-3 (1540°C)           AC-3 (24V A 23 AC-3 (24V	Rated insulation voltage Ui IEC/EN			690
Fig. 25	Rated impulse withstand voltage Uimp		kV	6
EC Conventional free air thermal current Ith	Operational frequency			
EC Conventional free air thermal current lith		min	Hz	25
Operational current le         AC-1 (≤40°C)       A       32         AC-1 (≤55°C)       A       26         AC-3 (≤440V ≤55°C)       A       25         AC-3 (≤440V ≤55°C)       A       25         AC-4 (400V)       A       10         Rated operational power AC-3 (T≤5°C)         230V       kW       7         400V       kW       12.5         415V       kW       13.4         440V       kW       13.4         440V       kW       13.4         440V       kW       11         Rated operational power AC-1 (T≤40°C)         230V       kW       12         400V       kW       21         500V       kW       21         690V       kW       20		max	Hz	400
AC-1 (≤40°C)	IEC Conventional free air thermal current Ith		Α	32
AC-1 (≤55°C)   A   26   AC-1 (≤70°C)   A   23   AC-3 (≤440V ≤55°C)   A   25   AC-4 (400V)   A   10	Operational current le			
AC-1 (≤70°C)		AC-1 (≤40°C)	Α	32
AC-3 (≤440V ≤55°C) A 25 AC-4 (400V) A 10  Rated operational power AC-3 (T≤55°C)  230V kW 7 400V kW 12.5 415V kW 13.4 440V kW 13.4 500V kW 15 690V kW 11  Rated operational power AC-1 (T≤40°C)  230V kW 11  Rated operational power AC-1 (T≤40°C)  230V kW 12 400V kW 21 500V kW 26 690V kW 36  IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series  ≤24V A 20 48V A 18 75V A 18 110V A 6 220V A -  IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series  ≤24V A 23 48V A 23 75V A 16 220V A 1  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		AC-1 (≤55°C)	Α	26
AC-4 (400V)		AC-1 (≤70°C)	Α	23
Rated operational power AC-3 (T≤55°C)  230V kW 7 400V kW 12.5 415V kW 13.4 440V kW 13.4 500V kW 15 690V kW 15 690V kW 11  Rated operational power AC-1 (T≤40°C)  230V kW 12 400V kW 21 500V kW 21 500V kW 26 690V kW 36  IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series  \$\frac{\text{\$\frac{2}{4}\text{\$\text{\$\text{\$W\$}\$}}}{2} \$\text{\$\text		AC-3 (≤440V ≤55°C)	Α	25
230V   kW   7   400V   kW   12.5   415V   kW   13.4   440V   kW   13.4   500V   kW   15   690V   kW   15   690V   kW   11   11   11   11   11   11   12   12   13   14   14   14   15   15   15   690V   kW   11   11   12   13   14   15   15   15   15   15   15   15		AC-4 (400V)	Α	10
400V   kW   12.5   415V   kW   13.4   440V   kW   13.4   440V   kW   13.4   440V   kW   15   690V   kW   15   690V   kW   11   11   11   11   11   11   11	Rated operational power AC-3 (T≤55°C)			
A15V   kW   13.4   440V   kW   13.4   440V   kW   13.4   500V   kW   15   690V   kW   15   690V   kW   11   690V   kW   11   690V   kW   12   400V   kW   21   500V   kW   26   690V   kW   36		230V	kW	7
A440V   kW   13.4     500V   kW   15     690V   kW   11     Rated operational power AC-1 (T≤40°C)     230V   kW   12     400V   kW   21     500V   kW   26     690V   kW   36     IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series		400V	kW	12.5
Soov   kW   15   690V   kW   11		415V	kW	13.4
Rated operational power AC-1 (T≤40°C)   230V   kW   12   400V   kW   21   500V   kW   26   690V   kW   36		440V	kW	13.4
Rated operational power AC-1 (T≤40°C)  230V kW 12 400V kW 21 500V kW 26 690V kW 36  IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series  ≤24V A 20 48V A 18 75V A 18 110V A 6 220V A -  IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series  ≤24V A 23 48V A 23 75V A 23 110V A 16 220V A 1  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series  ≤24V A 23 48V A 23 110V A 16 220V A 1		500V	kW	15
		690V	kW	11
	Rated operational power AC-1 (T≤40°C)			
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series   S24V   A   20   48V   A   18   75V   A   18   110V   A   6   220V   A   -      IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series   S24V   A   23   48V   A   23   110V   A   16   220V   A   1      IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series   S24V   A   23   110V   A   16   220V   A   1      IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series   S24V   A   23   48V   A		230V	kW	12
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series		400V	kW	21
SEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series   S24V		500V	kW	26
		690V	kW	36
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
T5V		≤24V	Α	20
		48V	Α	18
EC max current le in DC1 with L/R $\leq$ 1ms with 2 poles in series   $\leq$ 24V   A   23   48V   A   23   75V   A   23   110V   A   16   220V   A   1		75V	Α	18
EC max current le in DC1 with L/R ≤ 1ms with 2 poles in series   ≤24V		110V	Α	6
		220V	Α	_
	IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
		≤24V	Α	23
		48V	Α	23
		75V	Α	23
IEC max current le in DC1 with L/R $\leq$ 1ms with 3 poles in series $ \leq 24V \qquad A \qquad 23 \\ 48V \qquad A \qquad 23 \\ 75V \qquad A \qquad 23 $		110V	Α	16
≤24V A 23 48V A 23 75V A 23		220V	Α	1
≤24V A 23 48V A 23 75V A 23	IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
48V A 23 75V A 23	·	≤24V	Α	23
		48V		
		75V	Α	
to the state of th		110V	Α	18



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	220V	۸	12
IFC many asymptotic in DC4 with L/D < 4 man with 4 males in particular	220 V	Α	12
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series	<0.4V/	^	
	≤24V	A	_
	48V	A	_
	75V	A	_
	110V	A	_
150 DOS DOS 211 1 D 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	220V	Α	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series		_	
	≤24V	Α	15
	48V	Α	13
	75V	Α	13
	110V	Α	2
	220V	Α	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	Α	18
	48V	Α	18
	75V	Α	16
	110V	Α	10
	220V	Α	2
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
·	≤24V	Α	22
	48V	Α	22
	75V	Α	18
	110V	Α	15
	220V	Α	8
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	Α	_
	48V	Α	_
	75V	A	_
	110V	A	_
	220V	Α	_
Short-time allowable current for 10s (IEC/EN60947-1)		A	200
Protection fuse			200
1 Total Culott Tube	aG (IEC)	Α	50
	gG (IEC) aM (IEC)		25
Making consoity (PMC value)	aivi (IEC)	A A	250
Making capacity (RMS value)		A	250
Breaking capacity at voltage	4.401.4	Δ.	000
	440V	A	200
	500V	A	184
Desistance records (suppose of the	690V	Α	102
Resistance per pole (average value)		mΩ	2.5
Power dissipation per pole (average value)			
	Ith	W	2.6
	AC3	W	1.6
Tightening torque for terminals			
	min	Nm	1.5
	max	Nm	1.8
	min	Ibin	13
	max	Ibin	16
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.8



		max	lbin	0.74
	simultaneously connectable		Nr.	2
Conductor section	AWG/Kcmil			
	AWO/Remii	max		10
	Flexible w/o lug conductor section	max		
	c	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section			
	9	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section	n		
		min	mm²	1
		max	mm²	4
Power terminal protect	ction according to IEC/EN 60529			IP20 when
	ction according to IEG/EN 00329			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
				35mm
Weight			g	368
Conductor section	ANA 0 / 1			
	AWG/kcmil conductor section			4.0
Auvilian, contact char	actoriation	max		10
Auxiliary contact chara Thermal current Ith	acteristics		Α	10
memai cunent iin			А	10
	signation			
IEC/EN 60947-5-1 de				A600 - P600
		230\/		A600 - P600
IEC/EN 60947-5-1 de		230V 400V	A	A600 - P600 3
IEC/EN 60947-5-1 de		400V	A A	A600 - P600 3 1.9
IEC/EN 60947-5-1 de Operating current AC	15		A	A600 - P600 3
IEC/EN 60947-5-1 de	15	400V 500V	A A A	3 1.9 1.4
Operating current AC  Operating current DC	12	400V	A A	A600 - P600 3 1.9
IEC/EN 60947-5-1 de Operating current AC	12	400V 500V	A A A	A600 - P600 3 1.9 1.4 5.7
Operating current AC  Operating current DC	12	400V 500V 110V	A A A	3 1.9 1.4
Operating current AC  Operating current DC	12	400V 500V 110V 24V	A A A	A600 - P600 3 1.9 1.4 5.7
Operating current AC  Operating current DC	12	400V 500V 110V 24V 48V	A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9
Operating current AC  Operating current DC	12	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1
Operating current AC  Operating current DC	12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55
Operating current DC  Operating current DC  Operating current DC	12	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1
Operating current DC	12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC	12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A Cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC  Electrical life	12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life Electrical life Safety related data	12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A Cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life Electrical life Safety related data	12	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 12000000
Operating current DC Operations Mechanical life Electrical life Safety related data	12 13 0d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 1200000
Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1	12 13 0d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 1200000 1200000
Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accord	12 13 0d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 1200000 1200000  1200000 yes
Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats according EMC compatibility	12 13 0d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 1200000 1200000
Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accord	12 13 0d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 1200000 1200000  1200000 yes

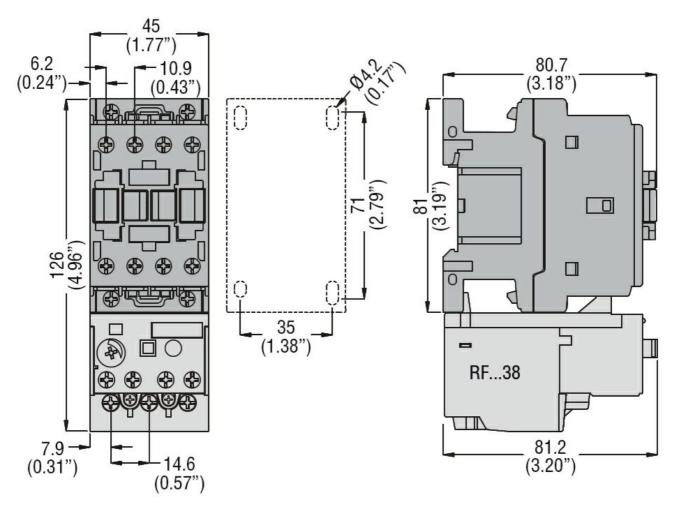


Rated AC voltage at			V	400
C operating voltage				
	of 50/60Hz coil powered at 50Hz			
	pick-up	min	0/110	9.0
		min max	%Us %Us	80 110
	drop-out	IIIdX	/003	110
	arop cut	min	%Us	20
		max	%Us	55
	of 50/60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	85
		max	%Us	110
	drop-out			
		min	%Us	20
0 "		max	%Us	55
C average coil cons				
	of 50/60Hz coil powered at 50Hz	in-rush	VA	75
		in-rush holding	VA VA	75 9
	of 50/60Hz coil powered at 60Hz	Holding	٧٨	3
	0. 00/00112 0011 poworou at 00112	in-rush	VA	70
		holding	VA	6.5
	of 60Hz coil powered at 60Hz			
	•	in ruch	VA	75
		in-rush	٧A	7 0
		holding	VA VA	9
Dissipation at holding	/	holding	VA W	9 2.5
Max cycles frequency Mechanical operation	/	holding	VA	9 2.5
Max cycles frequency Mechanical operation Operating times	/	holding	VA W	9 2.5
Max cycles frequency Mechanical operation Operating times	control	holding	VA W	9 2.5
Max cycles frequency Mechanical operation Operating times	control in AC	holding	VA W	9 2.5
Max cycles frequency Mechanical operation Operating times	control	holding	VA W cycles/h	9 2.5 3600
Max cycles frequency Mechanical operation Operating times	control in AC	holding	VA W cycles/h	9 2.5 3600
Max cycles frequency Mechanical operation Operating times	control in AC	holding	VA W cycles/h	9 2.5 3600
Max cycles frequency Mechanical operation Operating times	control in AC Closing NO	holding	VA W cycles/h	9 2.5 3600
Max cycles frequency Mechanical operation Operating times	control in AC Closing NO Opening NO	holding min max	VA W cycles/h ms ms	9 2.5 3600 8 24
Max cycles frequency Mechanical operation Operating times	control in AC Closing NO	min max min max	VA W cycles/h ms ms	9 2.5 3600 8 24 10 20
Max cycles frequency Mechanical operation Operating times	control in AC Closing NO Opening NO	min max min max	VA W cycles/h ms ms ms ms	9 2.5 3600 8 24 10 20
Max cycles frequency Mechanical operation Operating times	control in AC  Closing NO  Opening NO  Closing NC	min max min max	VA W cycles/h ms ms ms	9 2.5 3600 8 24 10 20
Max cycles frequency Mechanical operation Operating times	control in AC Closing NO Opening NO	min max min max min max	VA W cycles/h ms ms ms ms ms	9 2.5 3600 8 24 10 20 14 28
Max cycles frequency Mechanical operation Operating times	control in AC  Closing NO  Opening NO  Closing NC	min max min max min max min max	W cycles/h ms ms ms ms ms ms	9 2.5 3600 8 24 10 20 14 28
Max cycles frequency Mechanical operation Operating times Average time for Us o	control in AC  Closing NO  Opening NO  Closing NC	min max min max min max	VA W cycles/h ms ms ms ms ms	9 2.5 3600 8 24 10 20 14 28
Max cycles frequency Mechanical operation Operating times Average time for Us of	control in AC  Closing NO  Opening NO  Closing NC  Opening NC	min max min max min max min max	W cycles/h ms ms ms ms ms ms	9 2.5 3600 8 24 10 20 14 28
Max cycles frequency Mechanical operation Operating times Average time for Us of	control in AC  Closing NO  Opening NO  Closing NC	min max min max min max min max	VA W cycles/h ms ms ms ms ms ms	9 2.5 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Deprating times Average time for Us of	control in AC  Closing NO  Opening NO  Closing NC  Opening NC	min max min max min max amin max amin max	VA W cycles/h ms ms ms ms ms ms A	9 2.5 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Operating times Average time for Us of	control in AC  Closing NO  Opening NO  Closing NC  Opening NC  Opening NC	min max min max min max min max	VA W cycles/h ms ms ms ms ms ms	9 2.5 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Operating times Average time for Us of	control in AC  Closing NO  Opening NO  Closing NC  Opening NC  Opening NC  A) for three-phase AC motor  Derformance	min max min max min max amin max amin max	VA W cycles/h ms ms ms ms ms ms A	9 2.5 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Operating times Average time for Us of	control in AC  Closing NO  Opening NO  Closing NC  Opening NC  Opening NC	min max min max min max amin max amin max	VA W cycles/h ms ms ms ms ms ms A	9 2.5 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Operating times Average time for Us of	control in AC  Closing NO  Opening NO  Closing NC  Opening NC  Opening NC  A) for three-phase AC motor  Derformance	min max min max min max at 480V at 600V	VA W cycles/h ms ms ms ms ms ms A A	9 2.5 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Operating times Average time for Us of	control in AC  Closing NO  Opening NO  Closing NC  Opening NC  Opening NC  A) for three-phase AC motor  Derformance	min max min max min max at 480V at 600V	VA W cycles/h ms ms ms ms ms A A HP	9 2.5 3600 8 24 10 20 14 28 7 18

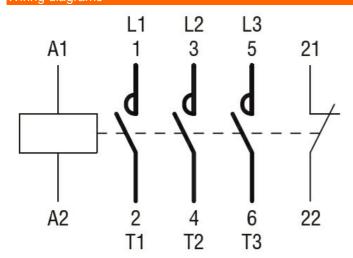


		220/230V	HP	7.5
		460/480V	HP	15
		575/600V	HP	15
General USE				
	Contactor			
		AC current	Α	32
	Auxiliary contacts			_
		AC voltage	V	600
		AC current	Α	10
		DC voltage	V	250
		DC current	Α	1
Short-circuit protection	n fuse, 600V			
	High fault			
	-	Short circuit current	kA	100
		Fuse rating	Α	60
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	100
Contact rating of auxili	ary contacts according to UL			A600 - P600
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protection	on			
Pollution degree				3
Dimensions				
	<u> </u>			





## Wiring diagrams



## Certifications and compliance

## Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN/BS 60947-1

IEC/EN/BS 60947-4-1

UL 60947-1

UL 60947-4-1

## Certificates





SCHÜTZ BF2501A, 3P+1Ö, 25A AC3, 400V 50/60HZ

CCC			
cULus			
FAC			

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching