



Product type designation	Product designation			Power contactor
Number of poles         Nr.         3           Rated insulation voltage Ui IEC/EN         V         690           Rated insulation voltage Uimp         kV         6           Operational frequency         min         Hz         25           max         Hz         400         400           IEC Conventional free air thermal current lth         A         28           Operational current le         AC-1 (≤40°C)         A         28           AC-1 (≤55°C)         A         23         AC-1 (≤55°C)         A         23           AC-1 (≤55°C)         A         20         AC-3 (≤440°V ≤55°C)         A         12         AC-4 (400°V)         A         7.9         AT-1				BF12
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         28           Operational current Ie         AC-1 (≤40°C)         A         28           AC-1 (≤55°C)         A         20           AC-3 (≤440V ≤55°C)         A         20           AC-3 (≤440V ≤55°C)         A         20           AC-4 (400V)         A         7.9           Rated operational power AC-3 (T≤55°C)         230V         kW         3.2           440V         kW         5.7         415V         kW         6.2           440V         kW         5.5         500V         kW         5           809V         kW         5         8         690V         kW         1           400V         kW         5.8         690V         kW         5         6         6         6         6         6         6         6         6         6         6         6         6         6         7         8         1         1         7         8         <				
Rated impulse withstand voltage Ulimp				3
Operational frequency           min max         Hz hz hz         25 max         Hz hz         400           IEC Conventional free air thermal current lith         A 28           Operational current le           AC-1 (≤40°C) A 28 AC-1 (≤55°C) A 23 AC-1 (≤70°C) A 20 AC-3 (≤4400 ≤55°C) A 12 AC-4 (4000) A 7.9           Rated operational power AC-3 (T≤55°C)           230V kW 5.7 A 15 VkW 6.2 A400 VkW 5.7 A15 VkW 6.2 A400 VkW 5.5 S000 VkW 5.5 S000 VkW 5.5 S000 VkW 5.8 A600 VkW 3.2 VkW 10 A400 VkW 18 A600 VkW 32 VkW	Rated insulation voltage Ui IEC/EN		V	690
Min	Rated impulse withstand voltage Uimp		kV	6
EC Conventional free air thermal current Ith	Operational frequency			
EC Conventional free air thermal current Ith		min	Hz	25
Operational current le         AC-1 (≤40°C) A 28         AC-1 (≤55°C) A 20         AC-1 (≤70°C) A 20         AC-4 (400V) ≤55°C) A 12         AC-4 (400V) A 7.9         Rated operational power AC-3 (T≤55°C)         230V kW 3.2         400V kW 5.7         415V kW 5.5         500V kW 5.5         500V kW 5.5         500V kW 18         500V kW 18         500V kW 23         690V kW 32         IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series         ≤24V A 17         48V A 15         75V A 13         110V A 6         220V A -         IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series         ≤24V A 20         48V A 20         48V A 20         48V A 20         110V A 13         220V A 1         IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series         ≤24V A 20         48V A 21         48V A 22         48V A 22		max	Hz	400
AC-1 (≤40°C) A 28 AC-1 (≤55°C) A 23 AC-1 (≤55°C) A 20 AC-3 (≤440V ≤55°C) A 12 AC-4 (400V) A 7.9  Rated operational power AC-3 (T≤55°C)  230V kW 3.2 400V kW 5.7 415V kW 6.2 440V kW 5.5 500V kW 5.5 500V kW 5.5 690V kW 5.5 690V kW 5.5 690V kW 10 400V kW 18 500V kW 23 690V kW 32  IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series  ≤24V A 17 48V A 15 75V A 13 110V A 6 220V A −  IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series  ≤24V A 20 48V A 20 75V A 18 110V A 13	IEC Conventional free air thermal current Ith		Α	28
AC-1 (≤55°C)	Operational current le			_
AC-1 (≤70°C) A 20 AC-3 (≤440V ≤55°C) A 12 AC-4 (400V) A 7.9  Rated operational power AC-3 (T≤55°C)  230V kW 3.2 400V kW 5.7 415V kW 6.2 440V kW 5.5 500V kW 5 690V kW 5 690V kW 5  Rated operational power AC-1 (T≤40°C)  Rated operational power AC-1 (T≤40°C)  230V kW 10 400V kW 18 500V kW 23 690V kW 32  IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series  ≤24V A 17 48V A 15 75V A 13 110V A 6 220V A −  IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series  ≤24V A 20 48V A 20 75V A 18 110V A 13 110V A 12 110V A 12 110V A 13 110V A 13 110V A 13 110V A 12 110V A 12 110V A 13 110V A 13 110V A 13 110V A 13 110V A 12 110V A 13 110V A 13 110V A 13 110V A 13 110V A 12 110V A 12 110V A 13 110V A 13 110V A 12 110V A 13 110V A 13 110V A 13 110V A 13 110V A 12 110V A 12 110V A 12 110V A 13 110V A 13 110V A 13 110V A 14 110V A 13 110V A 14 110V A 13 110V A 12 110V A 13 110V A 12 110V A 1		AC-1 (≤40°C)	Α	28
AC-3 (≤440V ≤55°C) A 12 AC-4 (400V) A 7.9  Rated operational power AC-3 (T≤55°C)  230V kW 3.2 400V kW 5.7 415V kW 6.2 440V kW 5.5 500V kW 5 690V kW 5 690V kW 5  Rated operational power AC-1 (T≤40°C)  230V kW 10 400V kW 18 500V kW 23 690V kW 23 690V kW 32  IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series  ≤24V A 17 48V A 15 75V A 13 110V A 6 220V A -  IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series  ≤24V A 20 48V A 20 75V A 18 110V A 13 220V A 1  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		AC-1 (≤55°C)	Α	23
AC-4 (400V)       A 7.9         Rated operational power AC-3 (T≤55°C)         230V       kW       3.2         400V       kW       5.7         415V       kW       6.2         440V       kW       5.5         500V       kW       5         Rated operational power AC-1 (T≤40°C)         230V       kW       10         400V       kW       18         500V       kW       23         690V       kW       32         IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series         ≤24V       A       17         48V       A       15         75V       A       13         110V       A       6         220V       A       -         IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series         ≤24V       A       20         48V       A       20         75V       A       18         110V       A       13         120V       A       13         120V       A       13         220V       A       1 <tr< td=""><td></td><td>AC-1 (≤70°C)</td><td>Α</td><td>20</td></tr<>		AC-1 (≤70°C)	Α	20
Rated operational power AC-3 (T≤55°C)  230V kW 3.2 400V kW 5.7 415V kW 6.2 440V kW 5.5 500V kW 5 690V kW 5 690V kW 5  Rated operational power AC-1 (T≤40°C)  230V kW 10 400V kW 18 500V kW 23 690V kW 32  IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series  ≤24V A 17 48V A 15 75V A 13 110V A 6 220V A -  IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series  ≤24V A 20 48V A 20 75V A 18 110V A 13 110V A 14 110V A 1		AC-3 (≤440V ≤55°C)	Α	12
230V   kW   3.2   400V   kW   5.7   415V   kW   6.2   440V   kW   5.5   500V   kW   5   500V   kW   10   400V   kW   18   500V   kW   23   690V   kW   32   500V   k		AC-4 (400V)	Α	7.9
400V   kW   5.7     415V   kW   6.2     440V   kW   5.5     500V   kW   5     690V   kW   5     690V   kW   5     690V   kW   5     690V   kW   10     400V   kW   18     500V   kW   23     690V   kW   32    IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series	Rated operational power AC-3 (T≤55°C)			
		230V	kW	3.2
A40V   kW   5.5   500V   kW   5   690V   kW   10   400V   kW   18   500V   kW   23   690V   kW   32   690V   kW		400V	kW	5.7
Soov   kW   5   690V   kW   5		415V	kW	6.2
Rated operational power AC-1 (T≤40°C)   230V   kW   10   400V   kW   18   500V   kW   23   690V   kW   32		440V	kW	5.5
Rated operational power AC-1 (T≤40°C)  230V kW 10 400V kW 18 500V kW 23 690V kW 32  IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series  ≤24V A 17 48V A 15 75V A 13 110V A 6 220V A -  IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series  ≤24V A 20 48V A 20 75V A 18 110V A 13 110V A 14 110V A		500V	kW	5
		690V	kW	5
A00V   kW   18   500V   kW   23   690V   kW   32	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   17   48V   A   15   75V   A   13   110V   A   6   220V   A   -      IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series   S24V   A   20   48V   A   20   75V   A   18   110V   A   18   110V   A   13   220V   A   1      IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series   S24V   A   20   220V   A   1   220V   A   1   220V   A   1   220V   A   22   48V   A   22	, ,	230V	kW	10
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series		400V	kW	18
Section   Sec		500V	kW	23
		690V	kW	32
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
		≤24V	Α	17
110V		48V	Α	15
EC max current le in DC1 with L/R $\leq$ 1ms with 2 poles in series   $\leq$ 24V   A   20   48V   A   20   75V   A   18   110V   A   13   220V   A   1		75V	Α	13
Section   Sec		110V	Α	6
		220V	Α	_
	IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		≤24V	Α	20
		48V	Α	20
		75V	Α	18
		110V	Α	
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series  ≤24V A 22  48V A 22			Α	
≤24V A 22 48V A 22	IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			_
48V A 22	·	≤24V	Α	22
75V A 20		75V	Α	20
110V A 16				



	220V	Α	11
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	20
	48V	Α	20
	75V	Α	20
	110V	Α	16
	220V	Α	12
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
·	≤24V	Α	12
	48V	Α	11
	75V	Α	10
	110V	Α	2
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
120 max carrent to in 200 200 mar 2/11 = 10 ma mar 2 poise in conse	≤24V	Α	15
	48V	A	13
	75V	A	12
	110V	A	8
	220V	A	2
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	ZZU V		
TEO MAX current le in 200-2003 with E/K > 13ms with 3 poles in series	≤24V	۸	18
		A	
	48V	A	18
	75V	A	15
	110V	A	12
	220V	Α	6
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series		_	
	≤24V	Α	15
	48V	Α	15
	75V	Α	15
	110V	Α	16
	220V	Α	7
Short-time allowable current for 10s (IEC/EN60947-1)		Α	150
Protection fuse			
	gG (IEC)	Α	32
	aM (IEC)	Α	12
Making capacity (RMS value)		Α	120
Breaking capacity at voltage			
	440V	Α	96
	500V	Α	96
	690V	Α	94
Resistance per pole (average value)		mΩ	2.5
Power dissipation per pole (average value)			
	lth	W	2
	AC-3	W	0.4
Tightening torque for terminals	, 10 0	• •	<b>U.</b> 1
rightening torque for terminale	min	Nm	1.5
	max	Nm	1.8
	min	Ibin	1.1
Tightoning targue for call terminal	max	lbin	1.5
Tightening torque for coil terminal		<b>N</b> I .	0.0
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.8



May a make a of wines	simultan asuahu asua satah la	max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	AWG/Kcmil			
	AWG/RCIIII	max		10
	Flexible w/o lug conductor section	IIIax		10
	Ticklible w/o lag conductor section	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section	max		
	. Ionale of a ray conductor cooler	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			
	,	min	mm²	1
		max	mm²	4
Dower terminal prote	etion according to IEC/EN COECO			IP20 when
Power terminal protec	ction according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
_		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	360
Conductor section			9	
oonaaotor oootion	AWG/kcmil conductor section			
	, tive en addition desirent	max		10
Auxiliary contact char	acteristics			
Thermal current Ith			А	10
IEC/EN 60947-5-1 de	esignation			A600 - P600
Operating current AC	~			
		230V	Α	3
		400V	Α	1.9
		500V	Α	1.4
Operating current DC	12			
		110V	Α	5.7
	13			
Operating current DC				
Operating current DC		24V	Α	5.7
Operating current DC		24V 48V	A A	5.7 2.9
Operating current DC				
Operating current DC		48V	Α	2.9
Operating current DC		48V 60V	A A	2.9 2.3
Operating current DC		48V 60V 110V	A A A	2.9 2.3 1.25
Operating current DC		48V 60V 110V 125V	A A A	2.9 2.3 1.25 1.1
· •		48V 60V 110V 125V 220V	A A A A	2.9 2.3 1.25 1.1 0.55
Operations		48V 60V 110V 125V 220V	A A A A	2.9 2.3 1.25 1.1 0.55
Operations Mechanical life		48V 60V 110V 125V 220V	A A A A	2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC  Operations  Mechanical life  Electrical life  Safety related data		48V 60V 110V 125V 220V	A A A A A cycles	2.9 2.3 1.25 1.1 0.55 0.2
Operations Mechanical life Electrical life Safety related data	I0d according to EN/ISO 13489-1	48V 60V 110V 125V 220V	A A A A A cycles	2.9 2.3 1.25 1.1 0.55 0.2
Operations Mechanical life Electrical life Safety related data		48V 60V 110V 125V 220V	A A A A A cycles	2.9 2.3 1.25 1.1 0.55 0.2
Operations Mechanical life Electrical life Safety related data	10d according to EN/ISO 13489-1	48V 60V 110V 125V 220V 600V	A A A A A cycles	2.9 2.3 1.25 1.1 0.55 0.2 20000000 20000000
Operations Mechanical life Electrical life Safety related data Performance level B1	10d according to EN/ISO 13489-1	48V 60V 110V 125V 220V 600V	A A A A A Cycles cycles	2.9 2.3 1.25 1.1 0.55 0.2 20000000 20000000
Operations Mechanical life Electrical life Safety related data Performance level B1	10d according to EN/ISO 13489-1	48V 60V 110V 125V 220V 600V	A A A A A Cycles cycles	2.9 2.3 1.25 1.1 0.55 0.2 20000000 20000000 20000000 200000000



Rated AC voltage at 5	50/60Hz		V	42
C operating voltage				
	of 50/60Hz coil powered at 50H			
	pick-up	o Mir	n %Us	80
		ma:		110
	drop-o		,,,,,	
	·	mir	n %Us	20
		max	x %Us	55
	of 50/60Hz coil powered at 60H			
	pick-up			
		mir		85
	drop o	ma:	x %Us	110
	drop-o	ut Mir	n %Us	20
		ma		55
AC average coil cons	umption at 20°C		,,,,,,	
<u> </u>	of 50/60Hz coil powered at 50H	Hz		
		in-rusł	n VA	75
		holding	g VA	9
	of 50/60Hz coil powered at 60H			
		in-rusł		70
		holding	g VA	6.5
	of 60Hz coil powered at 60Hz	in mod	- \/A	7.5
		in-rusł		75
		holding	n \//\	a
Dissination at holding	<20°C 50Hz	holding		9
Dissipation at holding Max cycles frequency		holding	g VA W	2.5
Max cycles frequency		holding	W	2.5
Max cycles frequency Mechanical operation		holding	W	
Max cycles frequency Mechanical operation Operating times		holding	W	2.5
Max cycles frequency Mechanical operation Operating times	ontrol in AC		W	2.5
Max cycles frequency Mechanical operation Operating times	ontrol	g NO	W cycles/l	2.5 n 3600
Max cycles frequency Mechanical operation Operating times	ontrol in AC	g NO	W cycles/l	2.5 n 3600
Max cycles frequency Mechanical operation Operating times	ontrol in AC Closino	g NO mir ma:	W cycles/l	2.5 n 3600
Max cycles frequency Mechanical operation Operating times	ontrol in AC	g NO mir ma: ng NO	W cycles/l	2.5 n 3600 8 24
Max cycles frequency Mechanical operation Operating times	ontrol in AC Closino	g NO mir ma: ng NO mir	w cycles/l	2.5 n 3600 8 24 10
Max cycles frequency Mechanical operation Operating times	ontrol in AC Closino Openir	g NO mir ma: ng NO mir ma:	w cycles/l	2.5 n 3600 8 24
Max cycles frequency Mechanical operation Operating times	ontrol in AC Closino	g NO min max ng NO min max g NC	cycles/l	2.5 n 3600 8 24 10 20
Max cycles frequency Mechanical operation Operating times	ontrol in AC Closino Openir	g NO mir ma: ng NO mir ma:	w cycles/l	2.5 n 3600 8 24 10
Max cycles frequency Mechanical operation Operating times	ontrol in AC Closino Openir	g NO mir max ng NO mir max g NC mir max	w cycles/l	2.5 n 3600 8 24 10 20
Max cycles frequency Mechanical operation Operating times	ontrol in AC Closing Openin Closing	g NO mir max ng NO mir max g NC mir max	cycles/les ms m	2.5 n 3600 8 24 10 20 14 28 7
Max cycles frequency Mechanical operation Operating times Average time for Us c	ontrol in AC Closing Openin Closing	g NO min max ng NO min max g NC min max	cycles/l	2.5 n 3600 8 24 10 20 14 28
Max cycles frequency Mechanical operation Operating times Average time for Us c	ontrol in AC Closing Openin Closing Openin	g NO min max ng NO min max g NC min max	cycles/l	2.5 n 3600 8 24 10 20 14 28 7
Max cycles frequency Mechanical operation Operating times Average time for Us c	ontrol in AC Closing Openin Closing	g NO min max ng NO min max g NC min max ng NC	w cycles/l	2.5 n 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Derating times Average time for Us c	ontrol in AC Closing Openin Closing Openin	g NO min max ng NO min max g NC min max ng NC min max ng NC	cycles/long ms	2.5 n 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Operating times Average time for Us of	ontrol in AC Closing Openin Closing Openin	g NO min max ng NO min max g NC min max ng NC	cycles/long ms	2.5 n 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Operating times Average time for Us c	ontrol in AC Closing Openin Closing Openin Openin  ) for three-phase AC motor erformance	g NO min max ng NO min max g NC min max ng NC min max ng NC	cycles/long ms	2.5 n 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Operating times Average time for Us of	ontrol in AC Closing Openin Closing Openin	g NO min max ng NO min max g NC min max ng NC min max at 480\ at 600\	cycles/l	2.5 n 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Operating times Average time for Us of	ontrol in AC Closing Openin Closing Openin Openin  ) for three-phase AC motor erformance	g NO min max ng NO min max g NC min max ng NC  at 480\ at 600\	cycles/l cycles/l ms	2.5 n 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Operating times Average time for Us of	ontrol in AC Closing Openin Closing Openin Openin  ) for three-phase AC motor erformance	g NO min max ng NO min max g NC min max ng NC min max at 480\ at 600\	cycles/l cycles/l ms	2.5 n 3600 8 24 10 20 14 28 7 18



		220/230V	HP	5
		460/480V	HP	7.5
		575/600V	HP	10
General USE				
	Contactor			
		AC current	Α	28
	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	30
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	70
Contact rating of auxiliary 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 & Protecti	on			
Pollution degree				3
=				