

COMPALARM A

RACK ALARM ANNUNCIATOR

GENERAL

The system is composed by:

- [Alarm card](#)
- [Power supply and flashing card](#)
- [Relay card](#)
- [Timing card](#)
- [Card holder unit](#)
- [Power transformers and Dc/Dc converters](#)
- [Signalling cells, SQ type \(with LED on request\)](#)

It's available in 2 different executions:

- The first one being supplied with its various components unassembled, but fitted with their corresponding wiring terminals.
- The second is being supplied as a prewired solution in a flush mounting rack.

The first solution is the most versatile either for assembling or displaying.

As far as its operation is concerned, the alarm unit (optical and acoustic signalling) is excited, when its input contact changes its status (i.e. When it changes from open or normal condition to close or alarm condition).

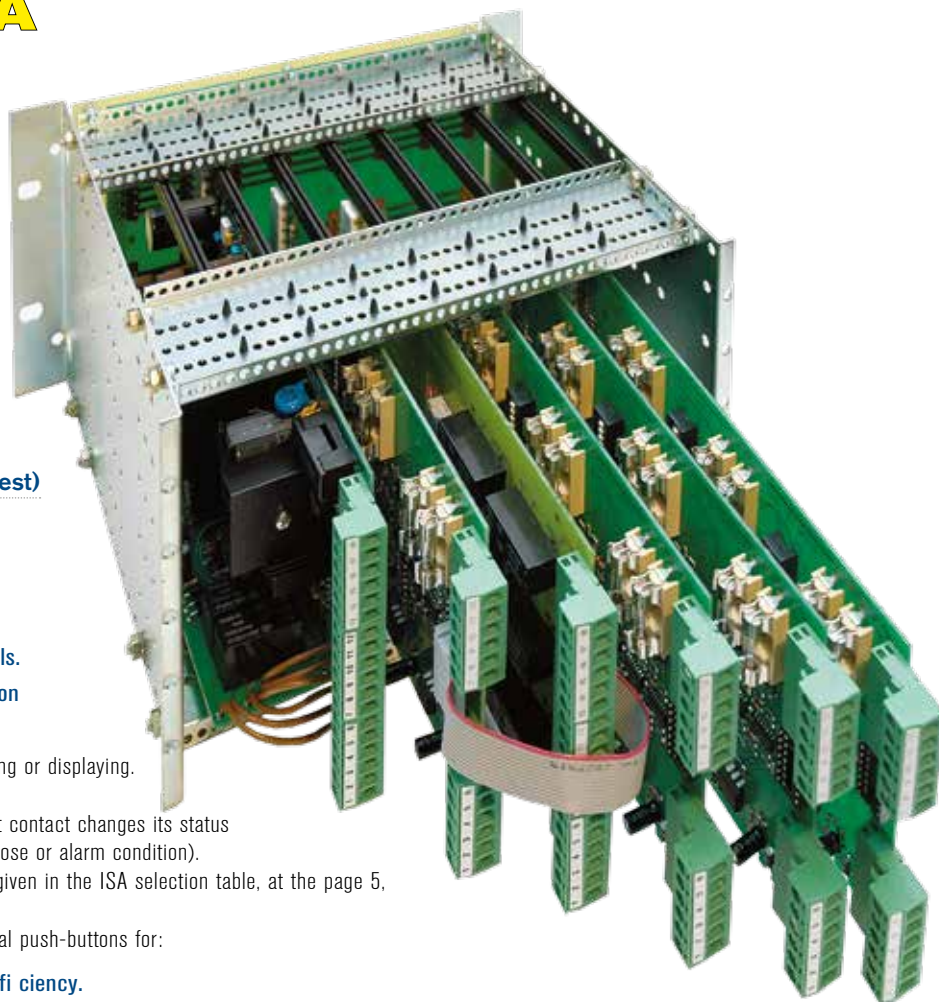
The alarm action behaviour follows the detailed patterns given in the ISA selection table, at the page 5, according with the selected sequence.

The system is also fitted with terminals for wiring external push-buttons for:

- [Sequence test](#), in order to control the system's efficiency.
- [Acknowledge](#), in order to intervene on the siren during its normal operation.
- [Resetting the cards](#), which memorize the tripping of the functions.

An interesting feature of the COMPALARM A, are the interconnections available at its splittable terminal, which makes the wiring much easier, as it allows to wire the terminal block detached from the card.

The particular position of the terminal block allows also to optimize the available space at the board.



TECHNICAL CHARACTERISTICS		A
Auxiliary power supply		24-48-110-220-380
Operating contact voltage		18 ÷ 38 V
Current input		4mA Approximately
Electronic circuits consumption		Negligible compared to that of the lamps
Optical signalling output		250 mA max
1 change-over contact for acoustic signalling		10 A - 250 Va.c. Resistive load
Output relay for remote control 1 change-over		10 A - 250 Va.c. Resistive load
Remote repeating output relay (for all points) 1 change-over load		10 A - 250 Va.c. Resistive
Static output for remote control of the relay		24 Vc.c - 250 mA max
Flashing frequency	1F Slow frequency	1÷1,5 Hz
	2F Fast frequency	2÷3 Hz
Power of transformers a.c./a.c.		30-50-100-200 VA
Power of converters d.c./d.c.		50-100-250 W
Working temperature		-10°C ÷ 60°C
Storing temperature		-20°C ÷ +80°C
Relative Humidity		90%
Isolation test		2kV 60 seg

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SEQUENCE TABLE														
ALARM SEQUENCE		TYPE OF SIGNAL	NORMAL CONDITION (NO ALARM)	MAINTAINED ALARM				RETURN TO NORMAL	RESET OR RETURN TO NORMAL	MOMENTARY ALARM				
ISA-18.1				FIRST TO ABNORMAL	AFTER ACKNOWLEDGED		RETURN TO NORMAL			RESET OR RETURN TO NORMAL	FIRST TO ABNORMAL	AFTER ACKNOWLEDGED		RESET OR RETURN TO NORMAL
					ACKNOWLEDGE	FIRST OUT RESET						ACKNOWLEDGE	FIRST OUT RESET	
A	⊗	OFF	FLASHING	ON SLOW	-	OFF	-	FLASHING	OFF	-	-			
	▶▶	SILENT	AUDIBLE	SILENT	-	SILENT	-	AUDIBLE	SILENT	-	-			
F1A	⊗	1	OFF	FLASHING	ON SLOW	-	OFF	-	FLASHING	OFF	-	-		
		2	OFF	ON SLOW	ON SLOW	-	OFF	-	ON SLOW*	OFF	-	-		
	▶▶	SILENT	AUDIBLE	SILENT	-	SILENT	-	AUDIBLE	SILENT	-	-			
M	⊗	OFF	FLASHING	ON SLOW	-	ON SLOW	OFF	FLASHING	ON SLOW	-	OFF			
	▶▶	SILENT	AUDIBLE	SILENT	-	SILENT	SILENT	AUDIBLE	SILENT	-	SILENT			
F1M	⊗	1	OFF	FLASHING	ON SLOW	-	ON SLOW	OFF	FLASHING	ON SLOW	-	-		
		2	OFF	ON SLOW	ON SLOW	-	ON SLOW	OFF	ON SLOW	ON SLOW	-	OFF		
	▶▶	SILENT	AUDIBLE	SILENT	-	SILENT	SILENT	AUDIBLE	SILENT	-	SILENT			
R8	⊗	OFF	FAST FLASHING	ON SLOW	-	FLASHING	OFF	FAST FLASHING	FLASHING	-	OFF			
	▶▶	SILENT	AUDIBLE	SILENT	-	AUDIBLE	SILENT	AUDIBLE	AUDIBLE	-	SILENT			
F1R8	⊗	1	OFF	FLASHING	ON SLOW	-	FLASHING	OFF	FAST FLASHING	FLASHING	-	OFF		
		2	OFF	ON SLOW	ON SLOW	-	FLASHING	OFF	ON SLOW*	FLASHING	-	OFF		
	▶▶	SILENT	AUDIBLE	SILENT	-	AUDIBLE	SILENT	AUDIBLE	AUDIBLE	-	SILENT			
F3A	⊗	1	OFF	INTERMITTENT FC.	FLASHING	ON SLOW	OFF	-	INTERMITTENT FC.	FLASHING	OFF	-		
		2	OFF	FAST FLASHING	ON SLOW	ON SLOW	OFF	-	FAST FLASHING	OFF	OFF	-		
	▶▶	SILENT	AUDIBLE	SILENT	SILENT	SILENT	-	AUDIBLE	SILENT	SILENT	-			
F3M	⊗	1	OFF	INTERMITTENT FC.	FLASHING	ON SLOW	ON SLOW	OFF	INTERMITTENT FC.	FLASHING	ON SLOW	OFF		
		2	OFF	FAST FLASHING	ON SLOW	ON SLOW	ON SLOW	OFF	FAST FLASHING	ON SLOW	ON SLOW	OFF		
	▶▶	SILENT	AUDIBLE	SILENT	SILENT	SILENT	SILENT	AUDIBLE	SILENT	SILENT	SILENT			
M5	⊗	OFF	ON SLOW	ON SLOW	-	ON SLOW	OFF	ON SLOW	ON SLOW	-	OFF			
	▶▶	SILENT	AUDIBLE	SILENT	-	SILENT	SILENT	AUDIBLE	SILENT	-	SILENT			
⊗	VISUAL DISPLAY		SLOW FLASHING: 1HZ											
	1 = FIRST TO ABNORMAL		FAST FLASHING: 2HZ											
	2 = SUBSEQUENT TO ABNORMAL													
▶▶	ALARM AUDIBLE DEVICE		RELAY OUTPUT S.A.											

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ALARM CARD

MODELS		
AC61	6 channel inputs	ISA A alarm sequence
AC41	4 channel inputs	ISA A alarm sequence
AC62	6 channel inputs	ISA M alarm sequence
AC42	4 channel inputs	ISA M alarm sequence
AC43	4 channel inputs	ISA R8 alarm sequence
AC44	4 channel inputs	ISA F3A alarm sequence
AC65	6 channel inputs	ISA F3M alarm sequence
OPTIONS		
F	First out function	
485	RS485 communication port	

With 100 x 190 mm size, it is capable of governing up to 6 alarm points (4-alarm point card is also available). This card is subdivided in 6 or 4 different sections, in order to allow them a totally independent operation, to prevent that good working of more than one alarm point can be affected by failure of one single component. This card is capable of accepting either normally open input contacts (NO) or normally closed contacts (NC). Selection is made by means of dipswitches, placed on the card and can be varied at any instant without involving the electronics circuitry. The selection of the input contact is independent for each point and therefore, the card operation is being possible partly with some normally open contacts (NO) and other normally closed contacts (NC). In a few applications it can be of use to discriminate which of a certain group of alarms has tripped first. To check this, it is necessary to resort to a different behavior between the first tripped alarm and the subsequent alarms, by using the first out. Successive alarms show to be in already acknowledged, in this case. The lamp does not flash and siren remains still when tripping of successive alarm, this until the first tripped alarm has been acknowledged. The first out is applicable to the sequences ISA 1 - ISA2C - ISA2A (A-M-R8), whilst it is of no use if applied to sequences ISA1 A, ISA1 B, ISA1C - ISA1 D (A5-A4-A45 -M5). The ISA1 is the most used sequence with first out and it is identified with the reference ISA4A (F 1A). When the card is arranged to operate with first-out sequence, adequate dipswitches are fitted to it. It allows the eventual exclusion of the function for each alarm, thus ensuring the possibility of miscellaneous rating on same card and in the meantime allowing variations in the rating logic during normal use without variations on the electronic circuitry. The operated alarm sequences are all those as per ISAS18.1 specifications, the most common of which are those indicated in the table at page 4.

POWER SUPPLY AND FLASHING CARD

MODELS	
2FT-VDC	Flash card with power supply 24 VDC
2FT-VAC	Flash card with power supply 24 VAC

With 100 x 190 mm overall size, it can produce 2 flashing types, 1-1.5Hz and 2-3Hz frequency. On the flashing card is located also the relay for the acoustic signaling, the capacity of which is featured by 10 A 250 Vac and 2500 VA as max commutable power. There is also possibility of inserting in same card the remote control cumulative relay for distance detection of a tripped system, having the same characteristics as for the acoustic signaling relay. The auxiliary power supply is also signaled by means of green LED on the flashing card. Whilst the simple and double flashing are visualized by two red LEDs, which show the alarm condition.

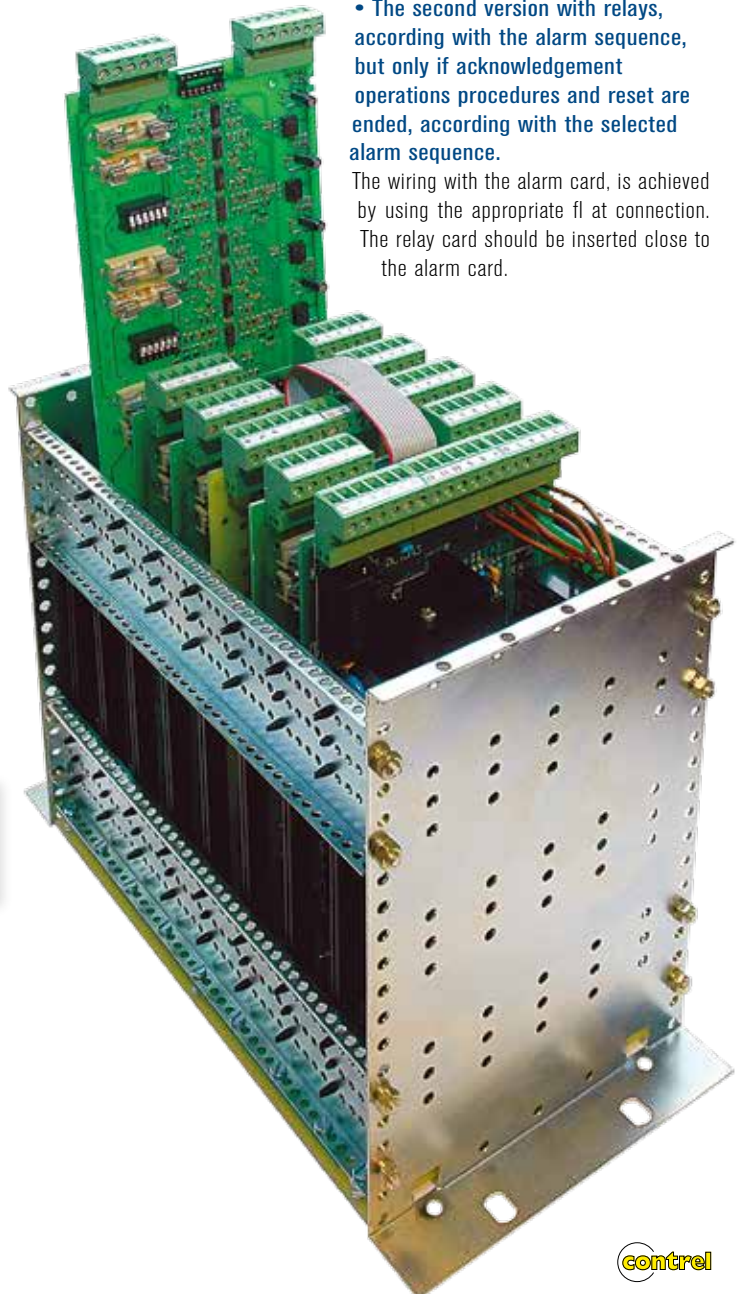
RELÉ CARD

MODELS	
RC65	6 repeat relays without memory
RC45	4 repeat relays without memory
RC65M	6 repeat relays with memory
RC45M	4 repeat relays with memory
RC65M1	6 repeat relays with memory and reflash pulse feature
RC45M1	4 repeat relays with memory and reflash pulse feature

With 100 x 190 mm size, it is capable of housing C6 relays with the following electric characteristics of capacity: 10A, 250Vac and 2500VA, as commuting power. Said card is used when it is necessary to remotely detect the signals of all single alarm points. There are 2 different versions available:

- The first one with repeating relays of the alarm condition input contact, i.e. they are deenergized when the alarm signal appears, independently from effected operations.
- The second version with relays, according with the alarm sequence, but only if acknowledgement operations procedures and reset are ended, according with the selected alarm sequence.

The wiring with the alarm card, is achieved by using the appropriate fl at connection. The relay card should be inserted close to the alarm card.



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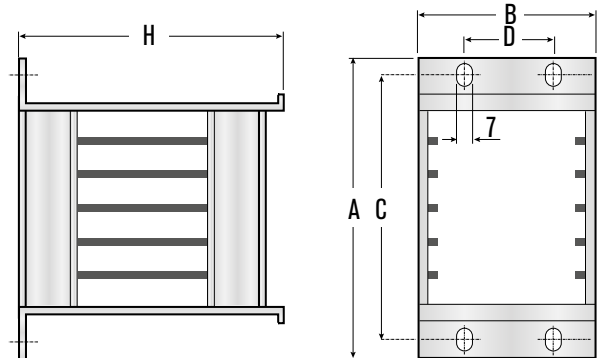
RELAY CARD

MODELS	
CH4	Card holder 4+1 locations
CH7	Card holder 7+1 locations
CH11	Card holder 11+1 locations\
CH15	Card holder 15+1 locations
CH5	Card holder 4 with interconnection card
CH8	Card holder 7 with interconnection card
CH12	Card holder 11 with interconnection card
CH16	Card holder 15 with interconnection card

They are available for 4-7-11-15 card locations, in basic versions. They have the same dimensions as those given in table here below.

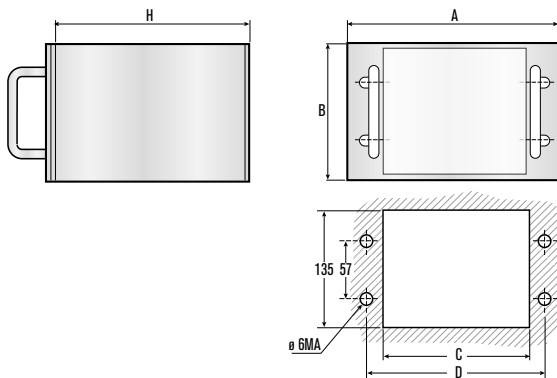
These locations can be combined so as to reach the desired number of card locations (by using the interconnection card).

DIMENSIONS



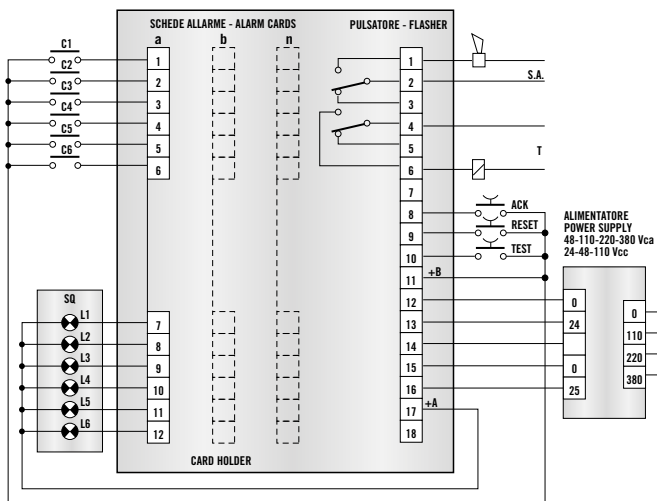
MODELS	A	B	C	D	E
CH4/CH5	200	132,5	183	57	200
CH7/CH8	270	132,5	253	57	200
CH11/CH12	375	132,5	360	57	200
CH15/CH16	484	132,5	467	57	200

VERSIONS PRE-WIRED RACK - DIMENSIONS



MODELS	N° OF POINT	A	B	C	D	E	H
EP12	12	200	150	170	183	135	300
EP18	18	270	150	240	253	135	300
EP24	24	270	180	240	253	165	300
EP30	30	375	150	347	360	135	300
EP39	39	484	150	454	467	135	300
EP48	48	484	180	454	467	165	300
EP60	60	484	210	454	467	165	300

WIRING DIAGRAM



CHARACTERISTICS

a, b ... n	Alarm cards (1...6 channel inputs - 7...12 lamp outputs)
Flasher	Power supply card and flashing lamps
S.A.	Audible relay output
T	Alarm remote output
ACK	Ack key
RESET	Reset key
TEST	Test alarm sequence key
+A	Common return for all lamps
+B	Common return for all channel inputs and keys

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TRANSFORMERS

When the provided auxiliary power supply is different from 24 VAC or 24 VDC, you cannot power the alarm directly on the card flasher 2ft but you have to use upstream power transformers series TR or converters DC series.

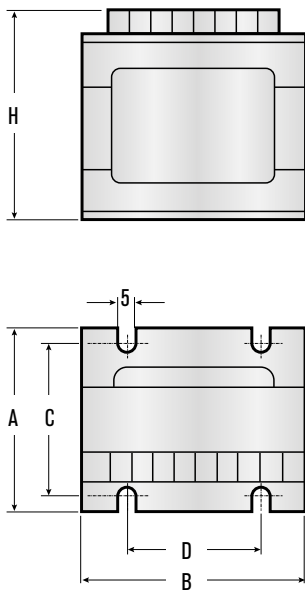
If the auxiliary power supply is 110 VAC or 230 VAC or 400 VAC are used transformers TR series with the secondary 24 VAC which then feed then the card flasher 2FT VAC. The transformers are available in various capacities from 50 VA to 300 VA.

If the auxiliary power supply is 48 VDC, 110 VDC or 220 VDC are used DC converters with secondary 24 VDC which then feed into the card flasher 2FT VDC.

MODELS

TR 5	50 VA	110-230-400 Vca / 24 Vca
TR 10	100 VA	110-230-400 Vca / 24 Vca
TR 15	150 VA	110-230-400 Vca / 24 Vca
TR 20	200 VA	110-230-400 Vca / 24 Vca
TR 25	250 VA	110-230-400 Vca / 24 Vca
TR 30	300 VA	110-230-400 Vca / 24 Vca

TRANSFORMERS - DIMENSIONS



MODELS	POWER	A	B	C	D	H
TR 5	50 VA	80	85	70	60	95
TR 10	100 VA	85	85	70	60	95
TR 15	150 VA	86	85	70	60	95
TR 20	200 VA	86	85	70	60	95
TR 25	250 VA	86	85	70	60	95
TR 30	300 VA	100	85	70	60	95

CONVERTERS

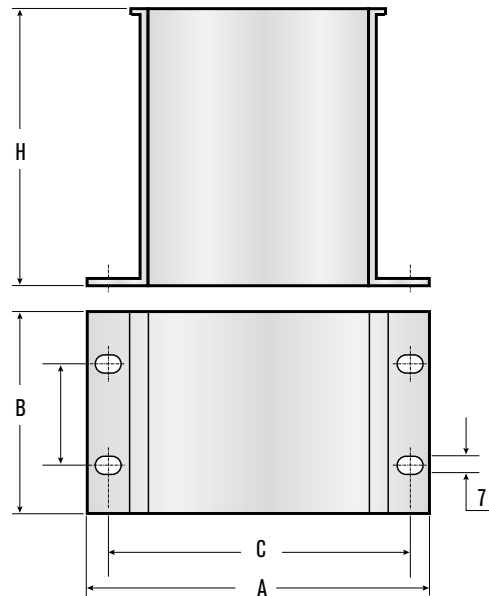
The converters are available in power ratings from 30W, 100W and 250W. The first two running on card to be inserted in the card holder CH, while the last one in the outer card holder.

In 30W and 100W versions of card is not necessary to use the card flasher 2FT, since the same is incorporated in the converter card. In case you use the external converter 250W must consider the use of the card flasher 2FT VDC in the card holder.

MODELS

DC3F-48	30 W	48 Vcc / 24 Vcc	with flasher card intergrate
DC3F-110	30 W	110 Vcc / 24 Vcc	with flasher card intergrate
DC3F-220	30 W	220 Vcc / 24 Vcc	with flasher card intergrate
DC10F-48	100 W	48 Vcc / 24 Vcc	with flasher card intergrate
DC10F-110	100 W	110 Vcc / 24 Vcc	with flasher card intergrate
DC10F-220	100 W	220 Vcc / 24 Vcc	with flasher card intergrate
DC25-48	250 W	48 Vcc / 24 Vcc	-
DC25-110	250 W	110 Vcc / 24 Vcc	-
DC25-220	250 W	220 Vcc / 24 Vcc	-

CONVERTERS - DIMENSIONS



MODELS	POWER	A	B	C	D	H
DC3F- 48/110/220	30 VA	EXECUTION ON BOARD				
DC10F- 48/110/220	100 VA	EXECUTION ON BOARD				
DC25 - 48	250 VA	200	132,5	183	57	200
DC25 - 110	250 VA	200	132,5	183	57	200
DC25 - 220	250 VA	200	132,5	183	57	200
-	-	-	-	-	-	-