DIMMERPACK ACTOR SERIES

ACTOR 325

ACTOR 625

ACTOR 616

ACTOR 716

ACTOR 616 BYPASS

USER'S MANUAL V4.0

ELECTRON®

Introduction

The New Dimmer Pack ACTOR is of compact and robust construction using DMX-512 (1990) and analogue technology. It combines high quality and reliability and it is offered at a very competitive price. On the front panel of all ACTOR dimmers (except ACTOR 716) there are preset sliders and master control. The units are designed for 19" rack mounting either on fixed installations or on touring racks. The dimmer packs can be controlled with analogue input 0/+10V (all except ACTOR 716) or with DMX-512 (1990). The user has the capability of selecting whether the dimmer will hold or blackout the last DMX-512 data in case of failure of serial connection. The unit has twelve factory set chasers with capability of selecting the dimmer level and the speed. The user can also select one of the three waveforms (LAW) for each channel and at the same time can set Preheat Levels and Soft Start time for each channel, using the keyboard and the display mounted on the front panel. The keyboard is also used to select the DMX-512 start address, while the display shows the correct or fault DMX signal condition. The power supply is connected on a 5-pin CEE 5X32A or 5X63A (depending on the model) heavy duty inlet, provided with the dimmer. Many of the dimmers can be supplied with the following outlet sockets: Schuko, French, CEE-17, U.K., Wieland ST 18/3, Harting, Socapex, Swiss and Danish. The dimmers (not all models) are also available with screw terminals.

ELECTRON S.A. would like to thank you for choosing the dimmer ACTOR and assures you that this is an amazing tool for lighting control applications. We believe that using this dimmer will be very exciting for you.

For safe and correct operation, please read the instruction manual very carefully, before using this dimmer.

ELECTRON S.A

ACTOR DIMMERS ALSO AVAILABLE WITH RCCB

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Precautions and Operation Notes

Introduction

- Please, read this instruction manual very carefully.
- In case that something is not clear enough in this manual, please contact your local supplier.
- The dimmer installation should be realised by a qualified person.

Before Installation

Attention: The dimmer should be placed in a dry location with low levels of humidity and ambient temperature below 35◦C.

- Decide on the installation location.
- Make sure that the supply cable is connected to a mains switch and the appropriate circuit breaker, according to the total dimmer load.
- Check that the mains switch of the electrical distribution board is set at the OFF position.

Installation

- In case that you have any doubt about the wiring connections or the operating instructions of this device, please contact your supplier or a qualified person.
- This is a Class-I dimmer and should be grounded (earth wire).
- No matter where the dimmer is located, make sure that all the air cooling openings are free to let the air flow inside the device.
- Do not supply this dimmer with only one phase. The device is designed to operate under three phase power supply.
- The area where the dimmer is located should never get wet.
- ELECTRON S.A. is not responsible for any accident or damage caused by incorrect installation or improper use of the equipment.

After Installation and Power Supply Connection

- Before using the dimmer for the first time, make sure that the dimmer is installed and connected properly.
- Turn on the power.
- Do not use wet clothes to clean the dimmer during operation.
- To avoid danger, do not put flammable material near the dimmer.
- Do not use water to clean the dimmer.
- Do not try to open the dimmer box. There is danger of electric-shock.
- Do not try to repair the dimmer yourself by opening the dimmer box because there is danger of electric-shock and also because there are no extra parts or materials that you can replace. The service should always be performed by an authorized person.

Electrical Installation.

The electrical supply connection should always be realized by a specialist.

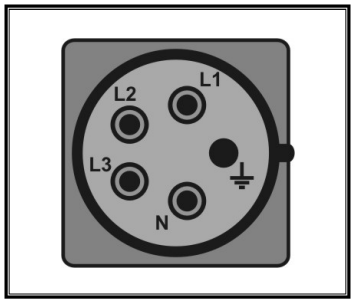
Attention: The power supply cable of the dimmer must ALWAYS have a mains switch and the appropriate circuit breaker (depending on the maximum power consumption of the dimmer).

Operating voltage.

The operating voltage for all ACTOR dimmers is the following:

400 / 230 V ~ 3 / N / PE / 50 Hz

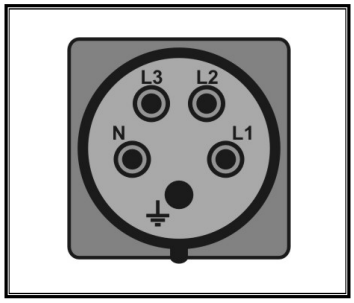
Power supply connections.



For all ACTOR dimmers supplied with CEE-17 inlet sockets do the following:

Connect the 5 power supply wires to the female CEE-17 socket which is included in the carton box of the dimmer. The connection should be realized according to the diagram of the socket (see left scheme). Beware that the cable cross section should be appropriate to hold the maximum power consumption of the dimmer.

Insert the female socket with the cable to the male CEE-17 plug at the rear side of the dimmer. Please, make sure that these are mounted correctly.

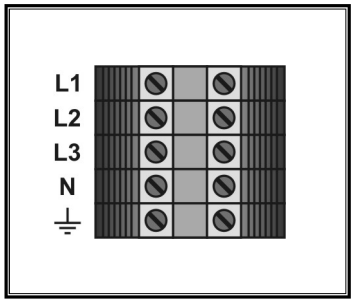


The schemes on the left indicate the connection of each terminal on the male plug CEE-17, at the rear side of the dimmers. The upper left scheme shows the rear side of the dimmers ACTOR 616, 325 and 716. The left scheme underneath shows the rear side of the dimmer ACTOR 625, where the CEE-17 **socket is turned by** 90 degrees.

For the ACTOR dimmers supplied with screw terminals do the following:

Remove the cover of the rear side of the dimmer with the appropriate screw driver. In the left side of the rear part of the dimmer there are 5 screw terminals.

Connect the power supply wires to the screw terminals, and the three phases (L1-L2-L3), the neutral and the ground to the respective bars according to the scheme on the left.



Fix the screws using the appropriate screw driver.

Attention: The cable gland should embrace the external cable insulation and not the five wires.

The scheme on the left indicates the five screw terminals.

For the ACTOR dimmers supplied with power cable, connect as follows:

The ground to the green-yellow cable.

The neutral top the blue cable.

Phase 1 to the brown cable.

Phase 2 to the black cable.

Phase 3 to the grey cable.

Maximum Power Consumption.

A dimmer has maximum power consumption when all channels are driven under maximum load.

Dimmerpack Actor 610 :

Max. power consumption : **13.821 W (4.607 W /phase) (≈20 A / phase)**

Dimmerpack Actor 616 :

Max. power consumption : **22.101 W (7.367W / phase) (≈32 A / phase)**

Dimmerpack Actor 325 :

Max. power consumption : **17.271 W (5.757 W / phase) (≈25 A / phase)**

Dimmerpack Actor 625 :

Max. power consumption : **34.521 W (11.507W / phase) (≈50A/ phase)**

Dimmerpack Actor 716 :

Max. power consumption : **43.500 W (14.500 W / phase) (≈63A/ phase)**

Dimmerpack Actor 710 :

Max. power consumption : **27.630 W (9.210 W / phase) (≈40A/ phase)**

Load connection.

Introduction.

All ACTOR dimmers are available with different types of outlet sockets (except ACTOR 616 ST which is supplied with screw terminals) placed at the rear side of the device for easy load connection and disconnection.

The load connection should always be realized by a specialist.

Attention: Each channel load should be connected to the dimmer separately. More particularly, the phase, the neutral and the ground of each channel load should be connected to the dimmer's socket. Do not use common neutral wire that ends to the distribution board.

The dimmers Actor 616 and 716 have 16A MCB on every output channel to protect the channels from short circuit or overload.

The dimmers Actor 610 and 710 have a 10A MCB.

The dimmers Actor 325 and 625 have a 25A MCB.

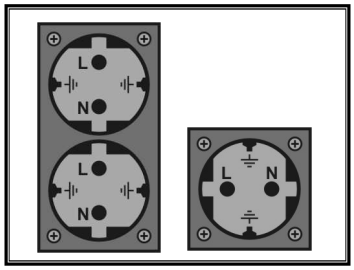
Load types.

The load types that can be connected to the ACTOR dimmers are:

- Resistive and inductive loads.
- Incandescent lamps.
- Iron core transformers to supply low voltage lamps (e.g.halogen).

Outlet sockets.

All the available types of outlet sockets and the electrical connections are listed below. The schematics show the exact reproduction of the outlet sockets.

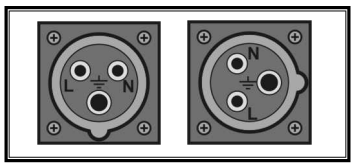


Schuco sockets.

Model : ACTOR 616 / 610 SCH.

ACTOR 616 SCH.

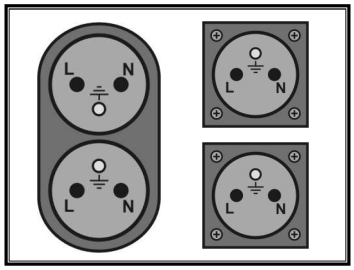
ACTOR 716 / 710 SCH.



CEE-17 sockets.

Model : ACTOR 616 / 610 CEE (CEE17 3x16A).

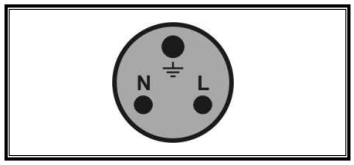
ACTOR 325 CEE and ACTOR 625 CEE (CEE17 3x32A).



French sockets.

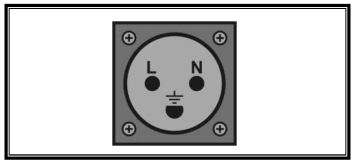
Model : ACTOR 616 / 610 FRS.

ACTOR 716 / 710 FRS.



UK sockets.

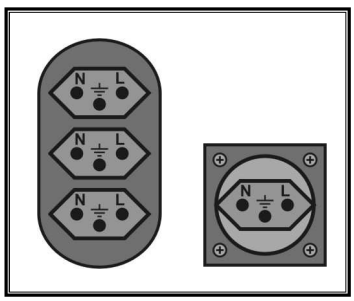
Model : ACTOR 616 / 610 GBS



Danish sockets.

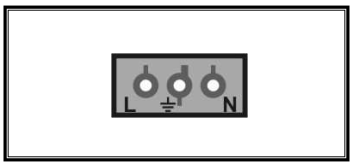
Model : ACTOR 616 / 610 DNS.

ACTOR 716 / 710 DNS



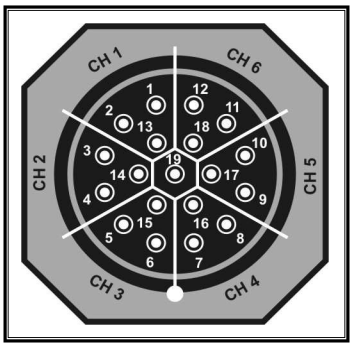
SWISS sockets.

Model : ACTOR 616 / 610 SWS



ST18/3 Wieland sockets.

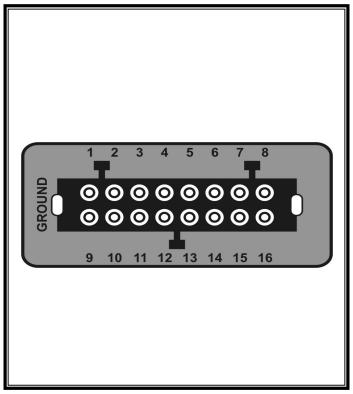
Model : ACTOR 616 / 610 WLD



19 PIN SOCAPEX sockets.

Model : ACTOR 616 / 610 SCP, ACTOR 716 / 710 SCP.

PIN DESCRIPTION							
	CHAN. 1	CHAN. 2	CHAN. 3	CHAN. 4	CHAN. 5	CHAN. 6	CHASSIS
LIVE	1	3	5	7	9	11	
NEUTRAL	2	4	6	8	10	12	
GROUND	13	14	15	16	17	18	19

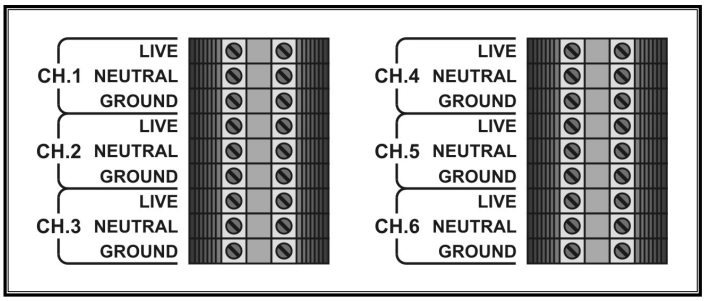


16 PIN HARTING sockets.

Model : ACTOR 616 / 610 HRT, ACTOR 716 / 710 HRT.

PIN DESCRIPTION						
	CHAN. 1	CHAN. 2	CHAN. 3	CHAN. 4	CHAN. 5	CHAN. 6
LIVE	1	2	3	4	5	6
NEUTRAL	9	10	11	12	13	14
GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND

Note: Pins 7, 8, 15 and 16 are not used.



Screw terminal outputs.

Model : ACTOR 616 / 610 ST.

ACTOR 325 ST.

The scheme on the left shows two series of screw terminals as in the rear side of the dimmer (Actor 325 has only the first series).

Distribution of the three phase power

The distribution of the three phase power supply in the ACTOR dimmers is as follows:

	Actor 610, 616, 625	Actor 716 / 710	Actor 325
Phase 1 :	channels 1 and 2.	channels 1,2,7 and 8.	channel 1.
Phase 2 :	channels 3 and 4.	channels 3,4,9 and 10.	channel 2.
Phase 3 :	channels 5 and 6.	channels 5,6,11 and 12.	channel 3.

Dimming Control

Introduction

This chapter presents the different ways of controlling the dimmer. These include the analogue input signal of 0-10V for each channel (ACTOR 610, 616, 325, 625), the serial digital control signal DMX-512 (all ACTOR dimmers), the use of the build-in sliders with master control placed at the front side of the dimmer (ACTOR 610, 616, 325, 625) and the use of the menu (ACTOR 716 / 710).

The channel level can be controlled in all the above ways at the same time depending on the dimmer. The final channel output level is the highest control level deriving either from the analogue input, the digital input, the build-in slider, or from the menu (in the case of ACTOR 716 / 710).

Bypass Switch.

(Concern only models with Bypass Switch)

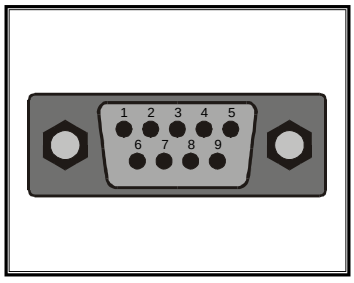
At the front side of the Actor dimmer there is a bypass switch for each channel, which is used to bypass the dimmer's circuits at the output. The switch has three positions:

DIMMER	-	The output is connected to the dimming circuits.
OFF	-	The output is disconnected.
BYPASS	-	The output is directly connected to mains.

Using the BYPASS switch enables the user to connect directly to the corresponding phase non dimmable loads, bypassing the dimmer's circuits. ACTOR's output is protected by the MCB fuse, whether the switch is located at DIMMER or BYPASS location.

Analogue Control.

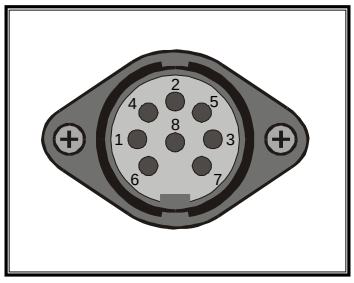
At the front side of every ACTOR dimmers 610, 616, 325 and 625, there is a male D-sub 9 pin plug which is used to control the dimmer by an analogue control desk (0/+10V). The same dimmer plug provides 15 VDC to supply a compact control desk (e.g. Control Desk E1115-6M of ELECTRON).



The scheme on the left shows the pin-distribution of a D-sub 9 pin interface. The electrical connection of this interface is as follows:

Pin 1:	Analogue Input 1	Pin 2:	Analogue Input 2
Pin 3:	Analogue Input 3	Pin 4:	Analogue Input 4
Pin 5:	Analogue Input 5	Pin 6:	Analogue Input 6
Pin 7:	Not used	Pin 8:	+15 VDC (Max. : 50mA)
Pin 9:	0 V (Common)		

ACTOR dimmers are also available with female DIN Locking 8 pin interface.

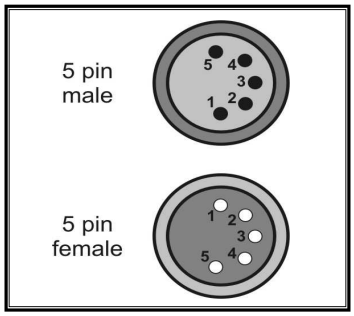


The scheme on the left shows the pin distribution of a DIN Locking 8 pin interface. The electrical connection of this interface is as follows:

Pin 1:	Analogue Input 1	Pin 2:	Analogue Input 2
Pin 3:	Analogue Input 3	Pin 4:	Analogue Input 4
Pin 5:	Analogue Input 5	Pin 6:	Analogue Input 6
Pin 7:	+15 VDC (Max. : 50mA)	Pin 8:	0 V (Common)

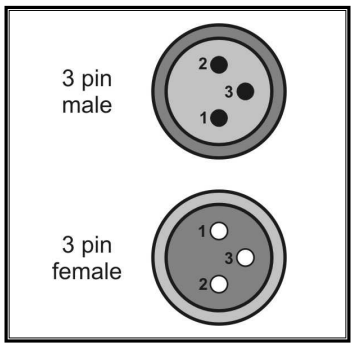
In ACTOR 325 the pins 4, 5 and 6 are not used.

Digital Control.



For digital control, the ACTOR dimmer uses the DMX-512 protocol (1990). This DMX-512 control signal is supplied to the dimmer from a male 5-pole (or 3-pole) XLR plug and goes out from a female socket of similar type to supply the next unit. Both socket and plug are placed at the front side of the dimmer.

The output DMX-512 signal is amplified by an integrated amplifier (repeater) in the ACTOR dimmer, allowing the user to connect an endless number of dimmers to the same control signal, without signal loss.



The schemes on the left site the pin distribution of a 5-pole and 3-pole male and female XLR input plug with pin numbering. The electrical connections of these plugs are listed below:

5-pin XLR:	Pin 1	: Common (0V)
	Pin 2	: Negative signal (data -)
	Pin 3	: Positive signal (data +)
	Pin 4, 5	: Not used
3-pin XLR:	Pin 1	: Common (0V)
	Pin 2	: Negative signal (data -)
	Pin 3	: Positive signal (data +)

For DMX-512 start address selection please refer to a following chapter.

On-board Control Panel.

The dimmer control can also be realized from the on-board control panel (except for ACTOR 716 / 710). This panel consists of 6 channel sliders and 1 master slider for the dimmer stand-alone operation. By using this panel, there is no need for an external control desk.

Control from menu

The control of the dimmer from the menu can be realised with the use of the keyboard located on the front panel of the dimmers ACTOR 716 and ACTOR 710 only. These models also have the ability of stand-alone operation without the need for an external control desk. For Channel Set please refer to the channel set chapter.

Automatic power control.

The ACTOR dimmers apart from the cooling fan that they have the power circuits, they also they have an automatic power control system which is activated whenever the dimmer temperature reaches high levels. In this case, the dimmer automatically reduces the output power (by reducing the channel light outputs), maintaining by this way the temperature of the power circuits in safe levels.

When the automatic power control is activated the display starts flashing showing the temperature of the power circuits.

Factory Chasers.

The ACTOR dimmers have 12 chasers pre-programmed by the manufacturer. These are called Factory Chasers. The user can activate or deactivate a chaser with the push of a button and can set the speed rate and the lighting level (dimmer) using the push buttons mounted on the front panel of the dimmer.

To activate a chaser:

- Press the ‘‘CHASER’’ button.

Indication of Factory

The display indicates that the chaser 1 is activated, as shown in the left picture. The “F.C.” means Factory Chaser and the number “01” is the number of the activated chaser.

(Note: The chaser that is activated is not necessarily the chaser 1. This depends on which chaser was operating last).

To activate another chaser:

- Press the buttons ‘‘-’’ or ‘‘+’’.

Each time you press the “-“ or “+” buttons you select the previous or the next chaser accordingly from the one that was operating last. The display always indicates the chaser that you select and operate each time.

To set another rate of speed to a chaser:

- Press the ‘‘MENU’’ button.

Indication of selecting another speed rate from

The display shows the indication of the left picture. The letter “r” in the middle indicates the rate of speed, while the two digits on the right of the letter “r” indicate the current value of the speed rate of the chaser.

(Note: The value of the speed rate is not necessarily 8. This depends on the value of the speed rate that the lastly operated chaser had).

- Press the button ‘‘-’’ or ‘‘+’’ to set another speed rate.

The values of the speed rate range from 1 (slow) to 16 (fast).

To set another lighting level (dimmer) to a chaser:

- Press the ‘‘MENU’’ button.

Indication of selecting another dimmer (lighting)

The display shows the picture on the left. The letter “d’’ in the middle indicates the dimmer (lighting) level, while the letters ‘‘FL’’ on the right indicate that the lighting level is at FULL.

(Note: Instead of the indication “FL” the display might show a two digit number which is the lighting level expressed as a percentage. This depends on the lighting level that the lastly operated chaser had).

Indication of selecting another dimmer (lighting) level from the current which is 75%.

- Press the button ‘‘-’’ or ‘‘+’’ to select another dimmer (lighting) level.

To deactivate a chaser:

- Press the ‘‘CHASER’’ button.

The chaser stops operating and the display shows the indication of the DMX-512 start address.

Useful Notes.

While the chaser is in operation you can press the ‘‘MENU’’ button as many times as necessary in order to move to the menu you want and change any settings you like.
When a chaser is deactivated then the chaser number, the value of the speed rate and the dimmer (lighting) level of this chaser are stored in the dimmer, so that when this chaser is reactivated it has the same speed rate and dimmer (lighting) level.
This information remains in the dimmer even in case that the power supply is cut off.

The chaser can operate in parallel with the digital input DMX-512, the analogue input and also with the build-in control panel.

Please note that when the chaser is in operation you cannot make any other adjustments. For example, you cannot change the DMX-512 start address or set a **P**reheat **L**evel to a channel etc.
When the power supply of the dimmer is cut off and the chaser is in operation, then when the dimmer turns on again the chaser will be automatically activated.

Table of the 12 Factory Chasers of the ACTOR 610, 616, 625, 716 and 710

(In ACTOR 716 the 12 channels are divided in two groups of 6 channels each. The first group consists of the channels 1-6 and the second group consists of the channels 7-12. Therefore the two groups operate in parallel as indicated from the table below).

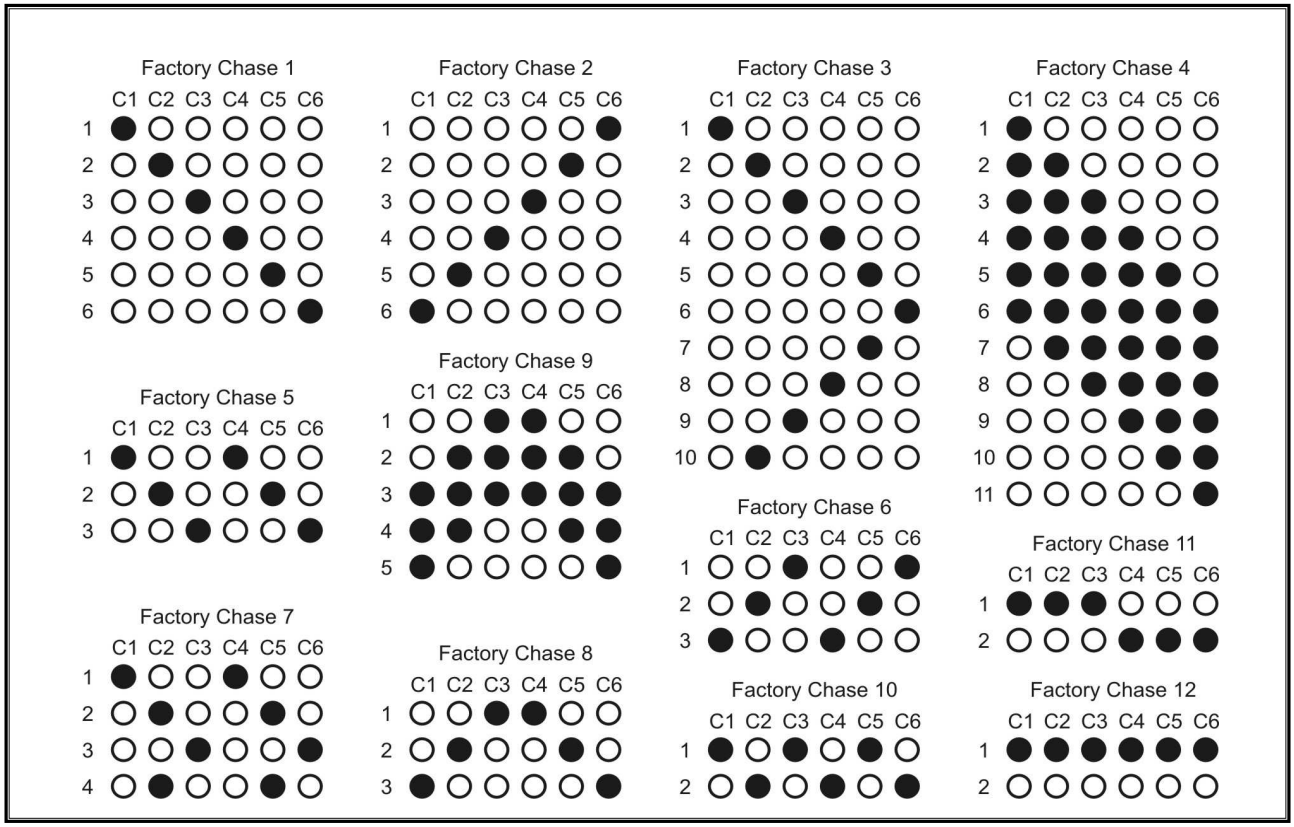
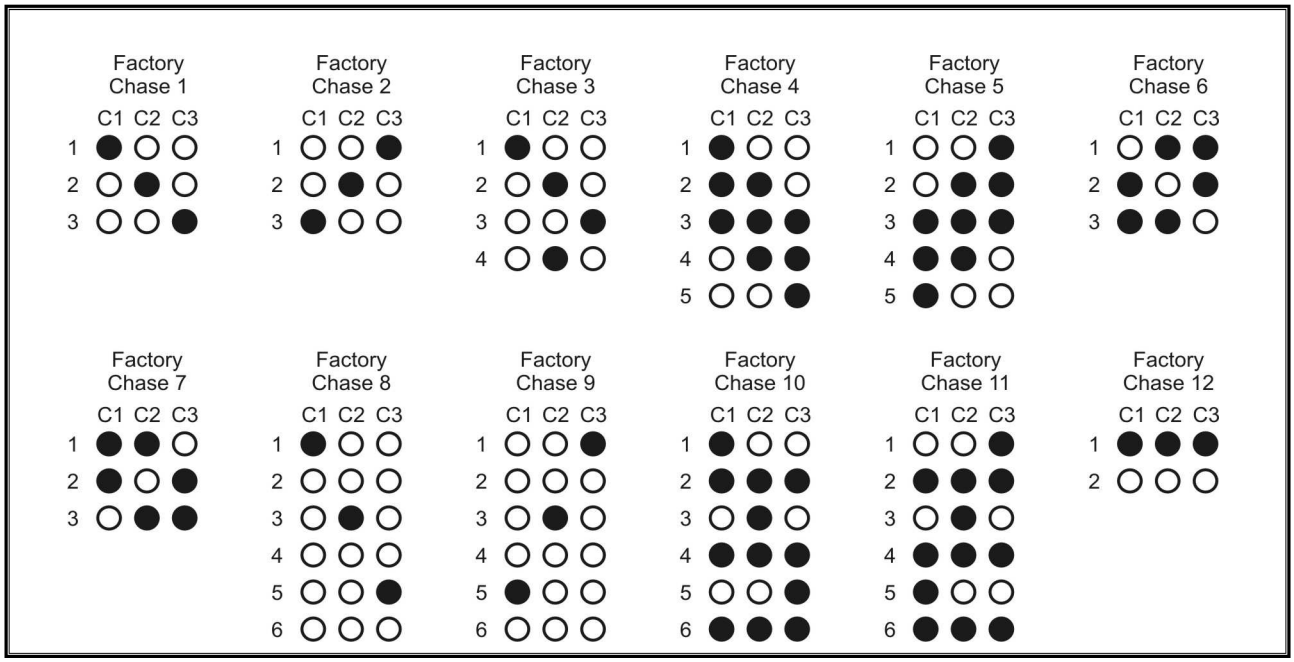


Table of the 12 Factory Chasers of the ACTOR 325



Dimmer Programming.

Introduction.

This chapter presents the ACTOR dimmer programming and adjustments that you can make according to your needs.

The dimmer adjustments you can make are the following:

- Programming of Channel Set (output channel level) from the keyboard (only for ACTOR 716 / 710).
- Programming of DMX-512 Start Address.
- Programming of waveforms (Law) for each dimmer channel.
- Programming of Preheat Level for each dimmer channel.
- Programming of Soft Start for each channel.
- Programming of dimmer response in case of DMX-512 signal loss.

The dimmer adjustments are stored in the dimmer and do not change unless you decide to make any further changes.

During the programming, the dimmer operates normally. In other words, any adjustments you make in the digital DMX-512 input, the analogue input or the control panel are shown in the dimmer outputs.

You should note that this programming is not necessary for the dimmer operation. The dimmer is provided to you with pre-programmed settings and is ready to use.

The default settings of these adjustments are presented in the following chapters.

Attention: No programming can take place if the chaser is activated. In order to do any programming, you should first deactivate the chaser.

Indication of DMX-512 signal condition.

Indication of correct DMX-512 start address ‘‘001’’.

Indication of incorrect or missing DMX-512 signal.

The indication of DMX-512 signal condition is the permanent display indication when the dimmer is not being programmed and the chaser is deactivated.

There are two possible signal conditions:

1. Indication of correct DMX-512 signal condition, which is similar to the picture on the left. The letter ‘‘d’’ means **d**mx and the digits “001” refer to the start address.

2. Indication of incorrect or missing DMX-512 signal condition, which is similar to the picture on the left. The letter ‘‘d’’ means **d**mx and the letters”FLd” mean that the DMX signal failed or is incorrect.

Channel Set.

Indication of Channel Set.

Indication of programming all dimmer

This programming option is available only for ACTOR 716 / 710 and can be used in order to increase or decrease each channel output level independently or all together simultaneously.
In all other ACTOR dimmers this is not an option as the dimmers are equipped with an on-board control panel with sliders.

To program the dimmer channels:

From the indication of correct DMX-512 signal condition,

- Press once the “MENU” button.

The display should be similar to picture on the left (CH.SEt).

- Press the “ENTER” button.

The display now shows that you can program all the dimmer channels simultaneously as indicated in the picture on the left.

The three first digits of the display indicate the word “ALL” and the two digits on the right indicate the percentage of the output level of all channels (the percentage can be different if any changes have previously been made).

- Press the button “+” or “-“ to change the percentage. The percentage indication changes and starts flashing indicating the change.

When you see the percentage you want in the display,

- Press the “ENTER” button to store the change.

The display stops flashing indicating that the percentage is stored and it then shows the next indication from which you can program channel 1 if you want.

Indication of programming channel 1 (current percentage 35%).

The first letter “c” of the display means channel. The next two digits show the number of the channel that you can program, while the last two digits show the current percentage of the channel.

To program the channel indicated in the display,

- Press the button “+” or “-“ and the percentage starts flashing.
- Press the “ENTER” button to store the change (the display now shows the next channel that you can program).

To program a following channel and not the one indicated in the display,

- Press the “ENTER” button as many times as necessary until you see the number of the channel you want to make changes to.

Once you make all the programming,

- Keep pressed the “MENU” button until the display shows the DMX-512 signal indication.

Note that the channel output levels that you have set are stored and are retained in the dimmer memory until you reset them to zero. Therefore, whenever the dimmer is turned off and then turned on again, the channel output levels will be the ones you have set and stored in the dimmer memory.

DMX-512 Start Address.

Indication of DMX-512 Start Address‘‘001’’.

The dimmer ACTOR is provided to you with DMX Start Address ‘‘001’’. To change the DMX Start Address please do the following:
From the indication of DMX-512 signal condition:

- Press the “MENU” button (twice for ACTOR 716 / 710).
- The display changes and shows the current start address, as indicated in the left picture (the DMX-512 start address indication can be different from the one shown in the left picture if the current start address is different).
- Use the buttons ‘‘-’’ and ‘‘+’’ to select the desired number. While you make changes, the 3 digits on the right side of the display are flashing, indicating that a change is being made. If you press one of these buttons continuously then the digits change faster.
- Press the ‘‘ENTER’’ button to store the change. The digits stop flashing indicating that the new start address is stored.
- Keep pressed the ‘‘MENU’’ button until the display shows the new DMX-512 start address that you have selected.

Indication of DMX-512 Start Address ‘‘139’’.

For example, if you choose 139 to be the new start address, then the dimmer display is similar to the picture on the left (as long as there is DMX signal connection).

Law Selection.

Using this command you can select the output waveform of every dimmer channel, depending on the connected output load type.

The waveforms of the ACTOR dimmers are:

1. **Linear:** The output voltage depends on the slider setting of a console or the integrated dimmer control panel.
2. **Incandescent:** Linear increase of the luminance of incandescent lamps.
3. **Switch:** For controlling non-dimmable loads (ON/OFF operation).

ACTOR dimmers are provided to you with Linear waveform in all channels.

Attention: When you select the Law Switch, depending on the kind of load, you might need to connect to the output in parallel a 50W-100W dummy load.

Indication of waveform programming.

Indication of Linear waveform in dimmer channel 1.

Indication of Linear waveform in channel 1 of ACTOR 716.

Indication of incandescent waveform in dimmer channel 1.

Indication of Switch waveform in dimmer channel 1.

To select another waveform:

- From the indication of DMX-512 signal condition, press the ‘‘MENU’’ button twice (three times for ACTOR 716 / 710). The display should be now similar to the left picture.

The display should be similar to the left picture (LA.SEt).

- Press the ‘‘ENTER’’ button.

The display shows that you can now select the waveform of channel 1 as indicated in the left picture (c.01 for ACTOR 716 / 710 as indicated in the left picture).

The third digit (second and third for ACTOR 716 / 710) indicates the number of the dimmer channel, while the two digits on the right of the display show the selected output waveform, e.g. Linear (the indication could be different depending on whether you have selected another waveform earlier).

- Press the button ‘‘+’’. The waveform indication changes and begins to flash. The display shows the indication **In**candescent.
- Press the button ‘‘+’’ again. The waveform indication changes and continues to flash. The display now shows the indication **S**witc**h**.
- Press the button ‘‘+’’ once again. The waveform indication changes and continues to flash. The display shows the indication **Li**n**e**ar.

Once you select the output signal waveform you want:

- Press the ‘‘ENTER’’ button to save the setting.

The display stops flashing indicating that the waveform is stored, and at the

same time it shows the next dimmer channel for which you can select the waveform.

When you complete the waveform programming of each channel:

- Press the ‘‘MENU’’ button until the display shows the indication of the DMX signal condition.

You should also know that you can select a channel, for example channel 5 and change the waveform that is already programmed for this channel, without the necessity of programming first the previous 4 channels. In this case:

- Press the ‘‘ENTER’’ button as many times as necessary until the display shows channel 5.

Preheat Levels.

This command is used to keep the filaments of some spotlights warm. By this way, the filament is not stressed upon power ignition, since it is warm and the ignition current is small.

Each dimmer channel, after programming this command, keeps a constant voltage level at the channel output, called Preheat Level. The voltage level is set by you and is used to keep the lamp filaments warm.

Attention: You cannot use the “Preheat Level” command if the waveform Switch has been selected for the specific channel.

ACTOR dimmers are provided to you with 0% Preheat Level in all channels.
To set the Preheat Level of a channel:

Indication of programming

- From the indication of DMX-512 signal condition, press three times the ‘‘MENU’’ button (four times for ACTOR 716 / 710).

The display should be similar to the left picture (PH.SEt).

- Press the ‘‘ENTER’’ button.

Indication of 0% Preheat Level in channel 1.

The display indicates that you can program another Preheat Level for channel 1, (ch.1) as shown in the left picture (c.01 for ACTOR 716 /710 as indicated in the left picture).

The third digit on the display (second and third for ACTOR 716 / 710) shows the number of the channel, while the two digits on the right show the Preheat Level expressed as a percentage, programmed in the specific channel, which in this case is 0% (the Preheat Level percentage could be different if you have previously set another preheat level for this channel).

Indication of 0% Preheat Level in channel 1 of ACTOR 716.

- Press the ‘‘-’’ or ‘‘+’’ button to decrease or increase the Preheat Level accordingly.

Indication of preheat level 12% in channel 1.

The percentage indication changes by 1% and begins to flash showing the change. If you press the button continuously, the indication changes faster.

The maximum preheat level you can set is 20% of the operating voltage of the dimmer.

When you see on the display the Preheat Level percentage you want, for example 12% as shown in the left picture:

- Press the ‘‘ENTER’’ button to save the setting.

The display stops flashing indicating that the Preheat Level for that channel has been stored and at the same time it shows the next dimmer channel for which you can program the Preheat Level.

Once you complete the Preheat Level programming for the channels you want,

- Keep pressed the ‘‘MENU’’ button until the display shows the indication of DMX-512 signal condition.

You should also know that you can select a channel, for example channel 5 and change the Preheat Level that is already programmed for this channel without the necessity of programming first the previous 4 channels. In this case:

- Press the ‘‘ENTER’’ button as many times as necessary until the display shows channel 5.

Soft start.

You can program the gradual increase of the dimmer outputs, depending on the Soft Start that you have set. You can use this setting to protect the lamp filaments from high ignition current, without consuming power by using the Preheat Levels in case you have many loads or you want the lamp filaments to be off.

Attention: You cannot use the “Soft Start” setting if the waveform Switch has been selected for the specific channel.

ACTOR dimmers are provided to you with zero Soft Start in all channels.

Indication of programming the Soft Start of an output.

To set the Soft Start of a dimmer channel:

- From the indication of DMX-512 signal condition, press four times the ‘‘MENU’’ button (five times for ACTOR 716 / 710).

The display should be similar to the left picture (SF.SEt).

Indication of Soft Start 0,0 sec. in channel 1.

Indication of Soft Start 0.0 sec in channel 1 of

Indication of Soft Start 1,2 sec in channel 1.

- Press the ‘‘ENTER’’ button.

The display indicates that you can now program another Soft Start for channel 1 as shown in the left picture (c.01 for ACTOR 716 /710 as indicated in the left picture).

The third digit (second and third for ACTOR 716 / 710) indicates the number of the current channel, while the two digits on the right show the Soft Start time in 1/10 sec. The Soft Start time in now set to 0,0 seconds (the Soft Start time could be different if you had previously set another soft start time for this channel).

- Press the ‘‘-’’ or ‘‘+’’ buttons to decrease or increase the Soft Start time accordingly. The Soft Start time indication changes by 0,1 sec. and begins to flash showing the change. If you press the button continuously the indication changes faster.

The maximum Soft Start time that can be selected is 25/10 or 2,5 seconds.

When you see on the display the Soft Start time you want, for example 1,2 seconds as shown in the left picture,

- Press the ‘‘ENTER’’ button to save the setting.

The display stops flashing indicating that the new Soft Start time has been stored and at the same time it shows the next dimmer channel for which you can program the Soft Start time.

Once you complete the Soft Start programming for the channels you want,

- Keep pressed the ‘‘MENU’’ button until the display shows the indication of DMX-512 signal condition.

You should also know that you can select a channel, for example channel 5, and change the soft start time that is already programmed for this channel, without the necessity of programming first the previous 4 channels. In this case:

- Press the ‘‘ENTER’’ button as many times as necessary until the display shows channel 5.

Selection of “Hold” or “Blackout” dimmer response.

With this setting you have the capability of selecting the dimmer response in case of failure of the serial DMX connection.

There are two options:

1. You can Hold the last DMX-512 data – HOLD operation.
2. You can clear the last DMX-512 data – BLACKOUT operation.

Please note that the Blackout refers only to the DMX input and not the general dimmer operation. This means that the integrated control panel, the analogue input and the chaser operate normally.

ACTOR dimmers are provided to you with the “Hold” operation active.

To program the “Hold” or “Blackout” operation:

- From the indication of DMX-512 signal condition, press five times the ‘‘MENU’’ button (six times for ACTOR 716 / 710).

Indication of “Hold” setting.

The display should be similar to the left picture (d.F.HOL).

- Press the ‘‘-’’ or ‘‘+’’ button to change from “Hold” to “Blackout”.

Indication of “Blackout” setting.

The display changes and begins to flash, indicating that you have selected a different dimmer response in case of failure of the serial DMX connection. The left picture shows that the display has now changed to “Blackout”.

- Press the ‘‘ENTER’’ button to save the setting.

The display stops flashing indicating the new setting you have selected.

Once you complete the programming,

- Keep pressed the ‘‘MENU’’ button until the display shows the indication of DMX-512 signal condition.

Resetting the dimmer. (Settings to Factory Defaults).

With the “Reset” command you can set the dimmer to the default settings (as provided to you by the manufacturer). Before you use this command, make sure that this is what you want, as the Reset command clears all settings that you have previously programmed in the dimmer memory.

To clear the dimmer memory:

- Set to zero the lighting output level in all dimmer channels.

From the indication of DMX-512 signal condition,

- Press six times the ‘‘MENU’’ button (seven times for ACTOR 716 / 710).

The display should be similar to the left picture (rESET).

Indication of Reset command.

- Keep pressed for approximately 5 seconds the “ENTER” button (stop pressing it when the display shows the indication of DMX-512 input condition).

While you keep pressed the “ENTER” button, notice that the display flashes indicating by this way the time measurement of 5 seconds. If you change your mind stop pressing the “ENTER” button and the time measurement freezes.

When the 5 seconds are over the dimmer memory is completely cleared and the display shows the indication of DMX-512 signal condition.

Indication of correct DMX-512 signal input.

The two pictures on the left show the two possible display indications depending on whether the DMX-512 signal is correct or incorrect.

Indication of incorrect DMX-512 signal input.

Attention: After the reset and before operating the dimmer, do not forget to select the waveform “switch” at the channels where you have connected loads that are non-dimmable.

Technical Specifications	Dimmer Models	Description
Channels	ACTOR 616 / 610 - *** *****	6
	ACTOR 325 - *** *****	3
	ACTOR 625 - *** *****	6
	ACTOR 716 / 710 - *** *****	12
Minimum channel load	ACTOR 616 / 610 / 716 / 710 ***	50 W (0.22 A @ 230V~)
	ACTOR 325 / 625 *** *****	100 W (0.44 A @ 230V~)
Maximum channel load	ACTOR 616 / 716 *** *****	3.680 W (16 A @ 230V~)
	ACTOR 610 / 710 - *** *****	2.300 W (10 A @ 230V~)
	ACTOR 325 / 625 - *** *****	5.750 W (25 A @ 230V~)
Maximum Total load	ACTOR 610 - *** *****	4.600 W (20 A @ 230V~)
	ACTOR 616 - *** *****	7.360 W / phase (32 A @ 230V~)
	ACTOR 325 - *** *****	5.750 W / phase (25 A @ 230V~)
	ACTOR 625 - *** *****	11.500 W / phase (50 A @ 230V~)
	ACTOR 716 - *** *****	14.490 W / phase (63 A @ 230V~)
	ACTOR 710 - *** *****	27.600 W / phase (40 A @ 230V~)
Triac drive	All models except ACTOR ***-*** ****2	Hard fired
Thyristor drive	ACTOR 610/616/325/625-*** ****2	Hard fired
Control waveform	All models	Linear, Incandescent, Switch
Load Types	All models	Incandescent lamps. Resistive Loads. Inductive Loads. Iron core transformers for Low Voltage Lamps.
Output fuse	ACTOR 616 / 716 - *** *****	Miniature Circuit breaker C16A
	ACTOR 610 / 710 - *** *****	Miniature Circuit breaker C10A
	ACTOR 325 / 625 - *** *****	Miniature Circuit breaker C25A
Output filter	ACTOR 610/616/716/710-*** 1****	50 µs
	ACTOR 610/616/716/710-*** 2**** ACTOR 325 / 625- *** 2****	100 µs
	ACTOR 610/616/325/625-*** 3****	200 µs
Output monitor	ACTOR *** - *** *****	1 Led / per channel
Outputs per channel	ACTOR 610 / 616 - SCH *****	2 Schuco sockets
	ACTOR 716 / 710 - SCH *****	1 Schuco socket
	ACTOR 610 / 616 - CEE *****	1 CEE-17 (3x16A) socket
	ACTOR 325 / 625- CEE *****	1 CEE-17 (3x32A) socket

Outputs per channel	ACTOR 610 / 616 - FRS *****	2 French sockets
	ACTOR 716 / 710 - FRS *****	1 French socket
	ACTOR 610 / 616 - GBS *****	1 UK-GB 15A socket
	ACTOR 610-SWS *****	1 or 3 Swiss sockets
	ACTOR 616 / 716 / 710-SWS ****	1 Swiss socket
	ACTOR 610 / 616 - DNS ***** ACTOR 710 / 716 - DNS *****	1 Danish socket
	ACTOR 610/616 - WLD *****	2 Wieland ST18/3 sockets
	ACTOR 610/616 - SCP *****	2x19 Pin Socapex plugs
	ACTOR 716 / 710 - SCP *****	2x19 Pin Socapex plugs
	ACTOR 610/616 - HRT *****	2x16 Pin Harting plugs
	ACTOR 716 / 710 - HRT *****	2x16 Pin Harting plugs
	ACTOR 610/616 - ST *****	4² Screw terminals
	ACTOR 325 - ST *****	4² Screw terminals
Analogue Input	ACTOR 610/616/325/625- *** *****	0 / +10VDC
Analogue input Impedance	ACTOR 610/616/325/625- *** *****	50 KΩ (min.)
Analogue input interface	ACTOR 610/616/325/625- *** *****	9 pin D-sub (male)
Supply voltage for control panel	ACTOR 610/616/325/625- *** *****	15VDC / 50 mA
Integrated control panel	ACTOR 610/616/325/625- *** *****	6 Sliders + Master
Manual Channel Set	ACTOR 716 / 710 - *** *****	From the keyboard
Digital input	All models	DMX-512 / 1990
Digital output	All models	DMX-512 / 1990 Buffered
Indication of fault DMX-512 signal	All models	Display indication
Condition of DMX-512 signal loss	All models	Hold of last DMX value or Blackout
Digital signal plugs	All models	Male 5 pin XLR : input Female 5 pin XLR : output
Programmable Preheat Levels	All models	Independent for each channel from 0-20%
Programmable Soft start	All models	Independent for each channel from
12 Factory set Chasers	All models	With adjustable rate and dimmer level
Operating voltage	All models	400 / 230 V~ 3 / N / PE / 50 Hz
Operating voltage Limits	All models	+10% / -15%

Power on Soft Start	All models	Soft Start time 2,5 sec.
Supply connection	ACTOR 610/616/325 - *** ***** Except ACTOR 610/616/325 ST	CEE-17 (5 x 32A)
	ACTOR 625 / 716 / 710- *** *****	CEE-17 (5 x 63A)
	ACTOR 610 / 616 / 325- ST *****	5 x 10 mm² Screw terminals
Minimum power consumption	ACTOR 610/616/325/625- *** *****	7 W / phase (without load)
	ACTOR 716 / 710 - *** *****	10 W / phase (without load)
Maximum power consumption	ACTOR 610 - *** *****	13.821 W
	ACTOR 616 - *** *****	22.101 W
	ACTOR 325 - *** *****	17.271 W
	ACTOR 625 - *** *****	34.521 W
	ACTOR 716 - *** *****	43.500 W
	ACTOR 710 - *** *****	27.630 W
Ambient temperature	All models	35° C
Cooling Fan	All models	Controlled by electronic temperature sensor
Dimensions (WxHxD / with handles / with handles and CEE-17 power inlet)	ACTOR 610 / 616 / 325- *** *****	482.6 mm x 132.5 mm x 322 / 357 / 404 mm
	ACTOR 610 / 616 / 325-ST *****	482.6 mm x 132.5 mm x 363 / 398 / - mm
	ACTOR 625- *** *****	482.6 mm x 177 mm x 343 / 378 / 455 mm
	ACTOR 716 / 710 - *** *****	482.6 mm x 132.5 mm x 365 / 400 / 477 mm
Compatibility Norms	All models	IEC 61347-1 / 2003 EN 61347-2-11 / 2001 EN 61000-6-1 / 2007 EN 61000-6-3 / 2007

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