TV. VIDEO. AUDIO. MECABLITZ

MECABLITZ 36 AF-3 C/M/N

Bedienungsanleitung
Mode d'emploi
Handleiding

Operating Instructions
Norme per l'uso
Instrucciones del manejo

Contents

Indice

Contenido

Contents
Indice
Contenido

Foreword

Welcome to the large family of Metz customers! We congratulate you on purchasing this flash unit and thank you for your confidence in our products.

It is only natural that you should want to use your flash unit straight away. However, we recommend that you study these Operating Instructions beforehand to be able to fully exploit and utilize all the capabilities offered.

This flash unit is only suitable for the following camera brands:

- mecablitz **36 AF-3 C** only for **Canon EOS** cameras
- mecablitz **36 AF-3 M** only for **Minolta Dynax** or. **Minolta Maxxum** cameras
- mecablitz **36 AF-3 N** only for **Nikon** cameras.

Please refer to section 2 of this manual for the suitable camera types.

1. Safety instructions

- The flash unit is exclusively intended and approved for photographic use!
- Never fire a flash in the vicinity of flammable gases or liquids (petrol, solvents, etc.)! DANGER OF EXPLOSION!
- Never take flash shots of car, bus or train drivers, or of motorcycle and bicycle riders, whilst they are travelling. They could be blinded by the light and cause an accident!
- Never fire a flash in the immediate vicinity of the eyes! Flash fired directly in front of the eyes of a person or animal can damage the retina and lead to severe visual disorders - even blindness!
- Only use the approved power sources listed in the Operating Instructions!
- Do not expose batteries to excessive heat, sunshine, fire and the like!
- Never throw exhausted batteries on to a fire!

- Exhausted batteries should be immediately removed from the flash unit. Lye leaking out of spent batteries will damage the unit.
- Never recharge dry-cell batteries!
- Do not expose the flash unit or battery charger to dripping or splashing water (such as rain)!
- Protect the flash unit from excessive heat and humidity! Do not store the flash unit in the glove compartment of a car!
- Never place material that is impervious to light in front of, or directly on, the reflector screen. The reflector screen must be perfectly clean when a flash is fired. The high energy of the flash light will burn the material or damage the reflector screen if this is not observed.
- Do not touch the reflector screen after a series of flash shots. Danger of burns!

Safety instructions

Per la vostra sicurezza

Instrucciones de seguridad

- Never disassemble the flashgun! DANGER: HIGH VOLTAGE! There are no components inside the flashgun that can be repaired by a layman.
- When taking a series of flash shots at full light output and fast recycling times as provided by NiCad battery operation, make sure to observe an interval of at least 10 minutes after 15 flashes, otherwise the flash unit will be overloaded.
- The mecablitz may only be used in combination with a camera-integrated flash unit if the latter can completely be folded out!
- Quick changes in temperature may cause condensation. Therefore give the flashgun time to acclimatize!

2. Supported dedicated functions

2.1 mecablitz 36 AF-3 C

• = Dedicated function is supported

x = Dedicated function is performed by the camera or must be set on the camera

Canon camera type Camera Canon Tipo de cámara Canon	EOS 1, 1N, 100, 100QD, 600, 620, 630, 650, 650QD, 1000, 1000N, 1000F, 1000FN, 3000, REBEL, REBEL S, REBEL SII,EOS ELAN, EOS RT, EOS 88	EOS 700, 750, 850	EOS 1V, 3, 30, 33, 50, 50E, EOS 300, 500N, EOS ELAN II, ELAN IIE, ELAN 7E, EOS REBEL 2000, REBEL G, EOS New Kiss, Kiss III, EOS IX, IX E, IX 7, IX Lite, IX 50	EOS 5, 10, 10S, 500, 5000, EOS A2, A2E, Kiss, 888, EOS REBEL X, REBEL XS	
	•		•	•	Flash ready indication in camera viewfinder
	•	•	•	•	Automatic flash sync speed
	•	•	•	•	TTL flash control
			x		Manual TTL-flash exposure correction
	•	•	•	x	AF measuring beam control
	•	•	•	•	Programmed auto flash mode

2.2 mecablitz 36 AF-3 M

• = Dedicated function is supported

x = Dedicated function is performed by the camera or must be set on the camera

◊ = Only in the camera modes A, S and M

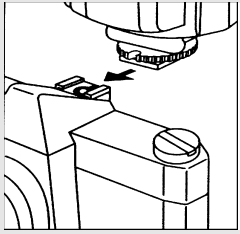
Minolta camera type Camera Minolta Tipo de cámara Minolta Dynax / Maxxum	5, 7, 800si	700si, 650si, 600si	4, 505si super, 505si, XTsi, HTsi, 500si super, 500si, 400si, 404si,303si, 7xi, 5xi, 3xi, SPxi, 5000i, 5700i, Vectis S-1
Flash ready indication in camera viewfinder	•	•	•
Automatic flash sync speed	◊	◊	◊
TTL flash control	•	•	•
Automatic TTL flash exposure correction	•	•	•
Manual TTL-flash exposure correction	x	x	
1st or 2nd curtain synchronisation	x	x	
AF measuring beam control	•	•	•
Programmed auto flash mode	•	•	•

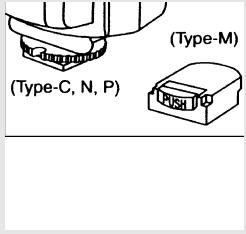
2.3 mecablitz 36 AF-3 N

• = Dedicated function is supported

x = Dedicated function is performed by the camera or must be set on the camera

Nikon camera type Camera Nikon Tipo de cámara Nikon	F70, N70, Pronea 600i, Pronea 6i	F601, N6006	F601M, N6000	F5, F4s, F4, F100, F90X, N90S, F90, N90, F801s, F801, N8008s, N8008	F501, N2020, F401, N4004, F401s, N4004s, F301, N2000	F60, N60, F50, N50	FA, FE-2, FG, EM	FM-3A	
	•	•	•	•	•	•	•	•	Flash ready indication in camera viewfinder
	•	•	•	•	•	•	•	•	Automatic flash sync speed
	•	•	•	•	•	•	•	•	TTL flash control
	•	•	•	•		•			Automatic TTL flash exposure correction
		x	x			x			Matrix controlled TTL fill-in flash mode
	x	x	x					x	Manual TTL-flash exposure correction
	x	x	x						1st or 2nd curtain synchronisation
	•	•		•	•	•			AF measuring beam control
	•	•	•	•	•	•			Programmed auto flash mode





3. Mounting the mecablitz

3.1 Mounting the mecablitz on the camera

☞ ***Turn off the camera and the mecablitz by their main switch.***

mecablitz 36 AF-3 C and 36 AF-3 N

- Turn the knurled nut against the mecablitz housing until the stop point is reached.
- Slide the mecablitz foot completely into the camera's accessory shoe.
- Turn the knurled nut against the camera body as far as possible, thereby clamping the mecablitz.

mecablitz 36 AF-3 M

- Slide the mecablitz foot completely into the camera's accessory shoe.
- Lightly press the unlatching button "PUSH" upward to clamp the mecablitz in the camera's accessory shoe.

3.2 Removing the mecablitz from the camera

☞ ***Turn off the camera and the mecablitz by their main switch.***

mecablitz 36 AF-3 C and 36 AF-3 N

- Turn the knurled nut against the mecablitz housing until the stop point is reached.
- Withdraw the mecablitz from the camera's accessory shoe.

mecablitz 36 AF-3 M

- Press the unlatching button "PUSH" towards the flash unit and at the same time hold it lightly down until the "PUSH" button locks in place.
- Withdraw the mecablitz from the camera's accessory shoe.

4. Power supply

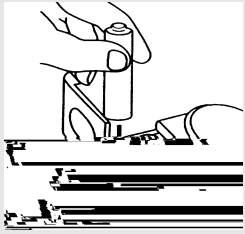
4.1 Suitable batteries

The mecablitz can be operated with any of the following batteries:

- 4 NiCad batteries, type IEC KR 15/51. They permit very fast recycling and are economical in use because they are rechargeable.
- 4 nickel metal hydride batteries. They have a significantly higher capacity than NiCad batteries and are less harmful to the environment (no cadmium).
- 4 alkaline manganese dry-cell batteries, type IEC LR6. Maintenance-free power source for moderate power requirements.

☞ ***Do not use lithium batteries! Their higher cell voltage may damage the electronic system of the flash unit.***

Remove the batteries from the mecablitz if the flash unit is not going to be used for an extended period of time.



4.2 Replacing batteries

The batteries are exhausted if the recycling time (elapsing from the triggering of a full-power flash to the moment the flash ready indicator lights up again) exceeds 60 seconds.

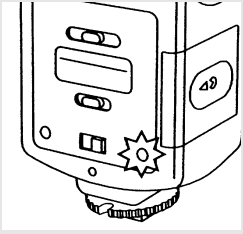
- Turn off the mecablitz by its main switch.
- Slide the battery compartment cover in the direction of the arrow and fold open.
- Insert the batteries lengthwise in conformity with the indicated battery symbols and close the battery compartment cover.

☞ ***When loading batteries ensure correct polarity, as indicated by the symbols in the battery compartment. Mixed up battery poles may destroy the flash unit! Replace all batteries at a time and make sure that the batteries are of the same brand and type and have the same capacity!***

☞ ***Exhausted batteries must not be thrown in the dustbin! Help protect the environment and dispose of run-down batteries at the appropriate collecting points.***

4.3 Switching the flash unit on and off

The flash unit is switched on by its main switch. In the right "ON" position, the mecablitz is on. To turn off the flash unit reset the main switch to its "OFF" position.



5. Dedicated functions and flash mode

5.1 Flash readiness indication

The flash readiness symbol ϟ lights up on the mecablitz when the flash capacitor is charged, thereby indicating that flashes can be fired for the next shot. Flash readiness is transmitted to the camera and displayed in the viewfinder (see camera manual).

If a picture is shot before flash readiness is signalled in the camera's viewfinder, then the flash unit will not be triggered so that the exposure may be incorrect.

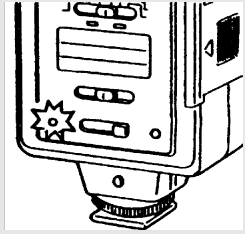
☞ ***If flash readiness is established, a full-power test flash can be triggered with the manual firing button on the mecablitz.***

5.2 Automatic flash sync speed control

Depending on the camera model and the selected mode, the camera's shutter speed automatically changes to flash sync speed when flash readiness is reached (see operating instructions for the given camera).

Shutter speeds faster than the flash sync speed cannot be set or will automatically be changed to flash sync speed. Various cameras feature a sync speed range, e.g. 1/30th sec. to 1/125th sec. (see the camera's operating instructions). The actual sync speed used by the camera depends on the camera mode, the prevailing ambient light and the focal length of the lens.

Shutter speeds that are slower than the flash sync speed can be used, depending on the operating mode selected on the camera.



Only mecablitz 36 AF-3 M:

When the flash unit is switched on with bright ambient light, ensure that in the Program P and Programmed Image Control Modes the shutter speed is not faster than the flash sync speed. In the event that the camera selects a faster speed, this can be limited to the flash sync speed by pressing the key for exposure control on the camera. An alternative way to overcome the problem is to set the "A", "S" or "M" mode on the camera.

5.3 Correct exposure indication

The "o.k." correct exposure confirmation briefly lights up on the mecablitz when the shot was correctly exposed in TTL flash mode.

If "o.k." is not indicated after an exposure, then this means that the shot was underexposed. The shot will then have to be repeated with the next smaller f-number (e.g. f/8 instead of f/11) or the distance to the subject or the reflecting surface (e.g. when bouncing the flash) must be shortened.

Please refer to the maximum flash range indicated on the aperture calculator of the mecablitz.

Only mecablitz 36 AF-3 M:

Following correct exposure the mecablitz transmits a signal to the camera with the result that correct exposure is additionally indicated in the viewfinder of some cameras (see operating instructions for the given camera).

5.4 Displays in the camera viewfinder

☞ ***The actual display in the camera viewfinder can deviate from the subsequent description or some symbols are only possible with certain camera models (see operating instructions for the given camera).***

5.4.1 mecablitz 36 AF-3 C

- Flash symbol ⚡ flashes:
  User is requested to use or switch on the flash unit.
- Flash symbol ⚡ lights up: mecablitz is ready for operation.

Some cameras have a warning function in the viewfinder to indicate incorrect exposure. For instance, if the f-number or shutter speed or both of them flash in the viewfinder, then this will indicate either under- or overexposure.

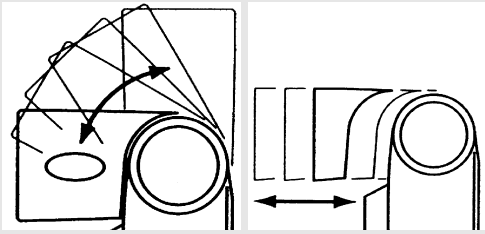
Basic information concerning incorrect exposure:

- In the event of overexposure: Do not use the flash!
- In the event of underexposure: Switch on the flash unit or mount the camera on a tripod and set a slower shutter speed.

The reasons for incorrect exposure can vary in the different exposure and automatic programmes.

5.4.2 mecablitz 36 AF-3 M

- Flash symbol ϟ lights up (Flash readiness indication): Display is permanently illuminated or flashes slowly to indicate that the mecablitz is ready for firing. A flash will be fired when the camera's shutter is released.
- Flash symbol ≷ϟ≶ flashes (Correct exposure indication): Display flashes rapidly after shooting to confirm correct exposure.
- Display ≷◻ϟ≶ flashes: Flash is required for the existing exposure situation.



5.4.3 mecablitz 36 AF-3 N

- Green flash symbol ϟ illuminated:
  User is requested to use or switch on the flash unit.
- Red flash symbol ϟ illuminated:
  Flash unit is ready for firing.
- Red flash symbol ϟ remains illuminated after shooting or is briefly switched off:
  The shot was correctly exposed.

5.5 Zoom reflector

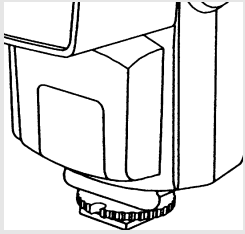
The zoom reflector of the mecablitz has four zoom positions for optimal light coverage and adaptation of the guide number to the focal length of the lens.

28 mm Wide-angle illumination for focal lengths as of 28 mm

35 mm Wide-angle illumination for focal lengths as of 35 mm

50 mm Normal illumination for focal lengths as of 50 mm

85 mm Telelens illumination for focal lengths as of 85 mm



The zoom reflector can be swivelled upwards into four locking positions (e.g. for bounce flashes):

30°, 45°, 60° and 90°.

For normal flash operation the reflector is in the horizontal position: 0°.

5.6 AF measuring beam

The AF measuring beam is activated by the camera electronics when the ambient lighting conditions are insufficient for automatic focusing. The AF beam emitter then projects a striped pattern on to the subject, and the camera uses this pattern to focus automatically.

☞ ***To enable activation of the AF measuring beam by the camera, the camera lens must be set to AF. On the camera, the AF mode "Single-AF" or "ONE-SHOT-AF" must be selected. Low-speed zoom lenses may significantly reduce the distance range of the AF measuring beam.***

The striped pattern of the AF measuring beam only supports the camera's central AF sensor. When using cameras with several AF metering areas we therefore recommend to activate the camera's central AF metering zone.

Some cameras may only activate the AF illuminator integrated in the camera. In such an event, the AF measuring beam emitter of the mecablitz will not be activated.

Please refer to the corresponding information given in operating instructions for the individual camera.

5.7 TTL flash mode

The mecablitz 36AF-3 is only suitable for the TTL flash mode.

The TTL flash mode is a very simple way to achieve excellent flash shots. In this mode exposure readings are taken by a sensor built into the camera which measures the light reaching the film through the camera lens (TTL). The electronic control circuit within the camera transmits a stop signal to the mecablitz as soon as the film has been exposed by the correct amount of light, thereby instantly interrupting the flash. The advantage of this flash mode is that all factors influencing correct exposure of the film (filters, change of aperture and focal length with zoom lenses, extensions for close-ups, etc.) are automatically taken into account. You need not worry about setting the flash, the camera's electronic system automatically determines the correct amount of flash light required.

If flash exposure was correct, the "o.k." exposure confirmation lights up.

The TTL flash mode is supported by all camera modes (e.g. Full Auto Mode, Program P, Aperture Priority Mode "Av" or "A", Shutter Priority Mode "Tv" or "S", Programmed Image Control Modes, Manual Mode "M", etc.).

☞ ***To test the TTL function a film must be loaded in the camera. When selecting the film please check whether limits regarding maximum film speed are applicable to the given camera when in TTL mode (refer to the camera's operating instructions). The mecablitz supports the TTL flash mode for film speeds from ISO 25 to ISO 800.***

5.7.1 Automatic TTL fill-in flash in daylight

Most camera models automatically activate the fill-in flash mode when in Full Auto Mode, Program P, and the Programmed Image Control Modes in daylight (see the camera's operating instructions).

Fill-in flash overcomes troublesome dense shadows and produces a more balanced exposure between subject and back-

ground with contre-jour shots. The camera's computer-controlled metering system sets the most suitable combination of shutter speed, working aperture and flash output.

☞ ***Ensure that the contre-jour light source does not shine directly into the lens as this will mislead the camera's TTL metering system!***

In this instance there is no setting or display on the mecablitz for automatic TTL fill-in flash.

5.7.2 Matrix-controlled fill-in flash (Nikon)

☞ ***Only with mecablitz 36 AF-3 N***

In this flash mode the subject and the background lighting are automatically balanced without overexposing the subject. The camera establishes the exposure setting for the ambient light by matrix metering.

This operating mode is either set on the camera or automatically activated by the camera (see operating instructions for the given camera).

5.7.3 Manual TTL flash exposure correction

The TTL auto flash mode of most cameras is matched to a 25 % degree of light reflection by the subject (average amount of light reflected by flash-shot subjects). Consequently, a dark background that absorbs a great deal of light, or a bright background that reflects a great deal of light, can result in under- or overexposure, respectively.

To offset this effect a correction value can be set on some cameras to manually match the TTL flash exposure to the photographic situation. The actual extent of correction depends on the contrast prevailing between subject and background. The correction value is set on the camera. Please refer to the camera's operating instructions for details concerning the settings.

☞ ***A dark subject in front of a bright background: Positive correction value (approx. 1 to 2 EV). Light subject in front of a dark background: Negative correction value (approx. -1 to -2 EV).***

Exposure correction by changing the lens diaphragm is not possible because the camera's automatic exposure system will automatically regard the changed diaphragm as the normal working aperture.

☞ ***After the exposure do not forget to reset the TTL flash exposure correction back to the normal value on the camera!***

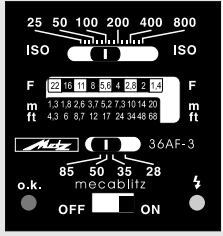
5.8 Establishing the maximum flash range with the aperture calculator

The maximum flash range of the mecablitz can be established by way of the aperture calculator in the control panel.

- Set the "ISO" upper slide at the ISO speed of the film loaded in the camera.
- Set the lower slide at the selected zoom position of the reflector (28 mm, 35 mm, 50 mm or 85 mm).
- Select in the "F" line of the aperture calculator the f-stop set on the camera/lens.
- The maximum flash range of the mecablitz in meters (m) and feet (ft) is indicated underneath the f-stop.

A minimum distance to the subject should be maintained to avoid overexposure. The minimum distance is approximately 10 per cent of the maximum flash range.

Ideally, the subject should be located in the middle third of the distance between minimum distance and maximum flash



range to give the electronic circuit sufficient leeway for light control.

Example:

Settings: ISO 100, 50 mm, f/4

- The aperture calculator will indicate a maximum flash range of approx. 7.3 m.
- The minimum distance to the subject is therefore approx. 0.7 m.
- Ideally, the subject should be at a distance of between 2.9 m and 5.1 m.

6. Programmed Auto Flash Mode

In the programmed auto flash mode the camera automatically controls the aperture, the shutter speed, and the mecablitz for optimal results in most photographic situations, including fill-in flash.

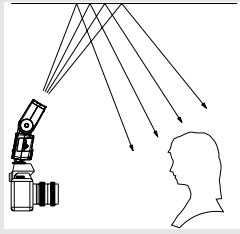
Settings on the camera

Set your camera to Full Auto Mode, Program P or a Programmed Image Control Mode (landscape, portraiture, sport, etc.). Select the auto-focus mode on the camera.

Settings on the flash unit

Adjust the zoom position of the reflector to the focal length of the lens or set the reflector straightaway to “28 mm”.

Having completed the above settings, you can commence flash photography as soon as the mecablitz indicates flash readiness.



7. Flash techniques

7.1 Bounce flash

Photos shot with full frontal flash are easily recognized by their harsh, dense shadows. This is often associated with a sharp drop in light from the foreground to the background. This phenomenon can be avoided with bounce flash because the diffused light will produce a soft and uniform rendition of both the subject and the background. For this situation the reflector is turned in such a manner that the flash is bounced off a suitable reflective surface (e.g. ceiling or wall of the room).

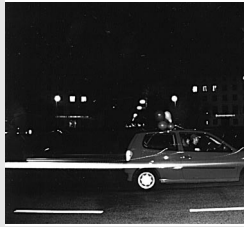
The reflector can be turned vertically up to 90°.

When turning the reflector vertically, it is essential to ensure that it is moved by a sufficiently wide angle so that direct light can no longer fall on the subject. Consequently, always turn the reflector at least to the 60° lock-in position.

The light bounced off the reflecting surfaces produces a soft and uniform illumination of the subject. The reflecting surface must be white or have a neutral colour, and it must not be structured, e.g. wooden beams in a ceiling as these might cause shadows. For colour effects just select the reflective surface in the desired colour.

☞ ***Take into account that the maximum flash range is considerably diminished when bouncing the flash. The following rule of thumb will help you determine the maximum flash range for a room of normal height:***

$$\textit{Maximum flash range} = \frac{\textit{guide number}}{\textit{(flash-to-subject distance x 2)}}$$



7.2 Flash synchronisation

7.2.1 Normal synchronisation

In normal synchronisation the mecablitz is triggered at the beginning of the exposure time (1st curtain synchronisation). Normal synchronisation is the standard mode on all cameras, and is suitable for most flash shots. Depending upon the given mode, the camera is changed over to flash sync speed, the customary one being between 1/30th sec. and 1/125th sec. (see the camera's operating instructions). No settings have to be made on the mecablitz, nor is there any display for this mode.

7.2.2 REAR - Second-curtain synchronisation

Some cameras offer the facility of second-curtain synchronisation (REAR mode) triggering the mecablitz by the end of the exposure time. Second-curtain synchronisation is particularly advantageous when using slow shutter speeds (slower than 1/30 sec.) or when shooting moving objects that have their own source of light. Second-curtain synchronisation

gives a more realistic impression of movement because the light streaks behind the light source instead of building up in front of it, as is the case when the flash is synchronised with the 1st shutter curtain! Depending on its operating mode, the camera uses shutter speeds slower than its sync speed.

☞ ***The REAR function is only possible with cameras featuring this facility. The corresponding setting is made on the camera (see operating instructions of the given camera).***

7.2.3 Slow synchronisation / SLOW

In certain operating modes, some cameras permit slow flash synchronisation (SLOW) which will provide added prominence to the background at lower ambient light levels. This is achieved by matching the shutter speed to the ambient light. Accordingly, shutter speeds slower than the flash sync speed are automatically adjusted by the camera. Some cameras automatically activate SLOW synchronisation in connection with certain programs (e.g. aperture priority "Av" or "A",

night shots program, etc.) or permit slow synchronisation to be set (see camera's instruction manual).

☞ ***Use a tripod to avoid camera shake with slow shutter speeds!***

8. Maintenance and care

Remove any grime and dust with a soft, dry or silicon-treated cloth. Never use detergents that could damage plastic parts.

Forming the flash capacitor

The flash capacitor incorporated in the flash unit undergoes a physical change when the flash unit is not switched on for prolonged periods of time. For this reason it is necessary to switch on the mecablitz for approx. 10 minutes every 3 months. The batteries must supply sufficient power for flash readiness to be indicated within 1 minute after the mecablitz was switched on.

☞ ***Metz does not accept any liability for faulty functions or damage to the mecablitz caused by the use of accessories from other manufacturers!***

9. Technical data

Zoom reflector positions: 28 mm - 35 mm - 50 mm - 85 mm

Tilting range and locking positions of flash head:
vertically 30° - 45° - 60° - 90°

Flash duration: 1/500 s - 1/30,000 s

Colour temperature: approx. 5500 K

Film speed: ISO 25 to ISO 800

Synchronisation: Low-voltage ignition

Number of flashes (at full light output):

approx. 160 with NiCad batteries (600 mAh)

approx. 450 with high-capacity alkaline manganese batteries

Technical Data
Dati tecnici
Características técnicas

Recycling time (at full light output):
approx. 5 s with NiCad batteries
approx. 5 s with high-capacity alkaline manganese batteries
Dimensions (w x h x d): 73 x 110 x 87 mm
Weight: 205 g without batteries
Included: mecablitz, Operating Instructions

Guide number (ft) =Guide number (m) x 3.3
Numero guida (ft) = numero guida (m) x 3,3
Número guía (ft) = número guía (m) x 3,3

9.1 Guide number table for full light output, metric system

ISO / DIN	Zoom position of reflector			
	28.0	35.0	50.0	85.0
25/15°	10.0	12.0	15.0	18.0
32/16°	11.3	13.6	17.0	20.4
40/17°	12.6	15.2	21.5	22.8
50/18°	14.1	16.9	21.1	25.4
64/19°	16.0	19.2	24.0	28.8
80/20°	17.9	21.5	26.8	32.2
100/21°	**20.0**	**24.0**	**30.0**	**36.0**
125/22°	22.4	26.8	33.5	40.2
160/23°	25.3	30.4	37.9	45.5
200/24°	28.3	33.9	42.4	50.9
250/25°	31.6	37.9	47.4	56.9
320/26°	35.8	42.9	53.7	64.4
400/27°	40.0	48.0	60.0	72.0
500/28°	44.7	53.7	67.1	80.5
650/29°	50.6	60.7	75.9	91.1
800/30°	56.6	67.9	84.8	101.8