

MAC TW1 specifications

PHYSICAL

Base length	454 mm (17.9 in.)
Base width	362 mm (14.3 in.)
Height, head straight up, no accessories mounted	709 mm (27.9 in.)
Height, head at maximum protrusion, no accessories mounted	735 mm (28.9 in.)
Weight, Multi-voltage IGBT Dimmer model	26.8 kg (59.1 lbs.)
Weight, 80 V Dimmer model	27.4 kg (60.4 lbs.)

LAMP

Type	1200 W tungsten-halogen
Base	PGJX-50
Approved models	Philips Hi-Brite 1200/80 FastFit 80 V
	Philips 1200/115 FastFit 115 V
	Philips 1200/230 FastFit 230 V
	Philips 1200/240 FastFit 240 V

DYNAMIC EFFECTS

Color mixing	CMY, independently variable 0 - 100%, 8- or 16-bit control
Electronic dimming	Full range via internal or external dimmer
Mechanical shutter	Full range dimming, strobe effect variable 2 to 10 Hz, 8- or 16-bit control
Zoom	20° - 41°, 8- or 16-bit control
Pan	540°, 16-bit control
Tilt	242°, 16-bit control
Position correction system	Yes

CONTROL AND PROGRAMMING

DMX channels	14 (16-bit basic mode) or 20 (16-bit extended mode)
Setting and addressing	Control panel with LED display or MP-2 uploader
Pan/tilt resolution	16-bit
CMY resolution	8- and 16-bit
Zoom resolution	8- and 16-bit
Movement control options	Tracking and vector
Protocol	USITT DMX 512-A
Receiver	Opto-isolated RS-485
Firmware update	Serial upload (MUF)

DIMMING SYSTEM OPTIONS

Internal multi-voltage IGBT dimmer	0 - 100%, 8- or 16-bit dimming resolution, controlled via DMX
Internal 80 V dimmer	0 - 100%, 8- or 16-bit dimming resolution, controlled via DMX
External dimmer input	Intelligent lamp power control

PHOTOMETRIC DATA

80 V lamp, standard lens

Total output (max.)	13 600 lm
One-tenth peak output (max.)	12 900 lm
Zoom range (one-tenth peak angles)	20° - 41°

115 V lamp, standard lens

Total output (max.)	10 900 lm
One-tenth peak output (max.)	10 400 lm
Zoom range (one-tenth peak angles)	19° - 40°

230 and 240 V lamps, standard lens

Total output (max.)	8900 lm
One-tenth peak output (max.)	8500 lm
Zoom range (one-tenth peak angles)	20° - 41°

Full photometric data and reports are available from <http://www.martin.com/service>

CONSTRUCTION

Color	Black
Housing	UV-resistant fiber-reinforced composite shell
Chassis	Steel and aluminum, shock-resistant design
Reflector	Glass, cold light
Handling	Ergonomic carrying handles
Protection factor	IP 20

INSTALLATION

Orientation	Any
Mounting points	2 pairs of 1/4-turn locks
Minimum distance from illuminated surface	0.5 m (20 in.)
Minimum distance from combustible materials	0.5 m (20 in.)
Minimum center-to-center distance, no accessories installed	550 mm (21.7 in.)

CONNECTIONS

AC power input	3 m (9.8 ft.) cable tail without plug
DMX data in/out	Locking 3-pin & 5-pin XLR, pin 1 shield, pin 2 cold (-), pin 3 hot (+)
External dimmer	Neutrik PowerCon®

ELECTRICAL

AC power	100-120/200-240 V nominal, 50/60 Hz
Power supply	Auto-ranging electronic switch-mode
Main fuse	20 AT (slow blow)

Typical power and current

115 V, 60 Hz	1226 W, 10.7 A, PF 0.998
230 V, 50 Hz	1220 W, 5.3 A, PF 0.995
240 V, 50 Hz	1233 W, 5.2 A, PF 0.996
230 V, 50 Hz using internal 80 V dimmer	1219 W, 5.5 A, PF 0.970
230 V, 50 Hz using external dimmer, figures for fixture only	93 W, 1.0 A, PF 0.420

PF = Power Factor.

Figures are valid at nominal voltage and are typical, not maximum. Allow for +/- 10% variation.

THERMAL

Lamp cooling	Patent-pending low noise ducted forced air system
Cooling	Filtered forced air (temperature-regulated, low noise)
Maximum ambient temperature (T_a max.)	40° C (104° F)
Minimum ambient temperature (T_a min.)	0° C (32° F)
Maximum surface temperature, steady state, $T_a = 40° C (104° F)$	200° C (392° F)
Total heat dissipation (calculated, 230 V, 50 Hz / 110 V, 60 Hz)	4160 / 4180 BTU/hr.

ACOUSTIC

Noise level < 40 dBA at 1 m (3.3 ft.), $T_a = 20° C (68° F)$, steady state, lamp on, effects static

APPROVALS



US safety	ANSI/UL 1573
Canadian safety	CSA C22.2 NO 166
EU safety	EN 60598-2-17
EU EMC	EN 55 015, EN 55 103-1, EN 61 547

INCLUDED ITEMS

Two 20 AT main fuses (installed)	2 x P/N 05020051
Two 20 AT external dimmer circuit fuses (installed)	2 x P/N 05020051
Two omega clamp attachment brackets with quarter-turn fasteners	2 x P/N 91602001

ACCESSORIES

Super wide angle lens kit	P/N 91610032
Front accessory holder	P/N 91611260
Internal 80 V dimmer	P/N 91614026
Flight case (holds 2 fixtures)	P/N 91510019
Half-coupler clamp	P/N 91602005
G-clamp	P/N 91602003
Quick trigger clamp	P/N 91602007
Omega bracket	P/N 91602001
Safety wire, universal, 50 kg safe work load	P/N 91604003
DMX cable, STP, 1 pair + shield, IEC/UL-CL, 1 m	P/N 91611242
DMX cable, STP, 1 pair + shield, IEC/UL-CL, 2 m	P/N 91611243
DMX cable, STP, 1 pair + shield, IEC/UL-CL, 5 m	P/N 91611244
DMX cable, STP, 1 pair + shield, IEC/UL-CL, 10 m	P/N 91611245
DMX cable, STP, 1 pair + shield, IEC/UL-CL, 20 m	P/N 91611246
Neutrik Powercon [®] cable connector for external dimmer cable	P/N 05342804
Narrow angle lens	Contact Martin for availability details
Gel frame	Contact Martin for availability details
Mesh frame	Contact Martin for availability details
Egg crate	Contact Martin for availability details
Concentric rings	Contact Martin for availability details
Top hat	Contact Martin for availability details
Barndoors	Contact Martin for availability details

RELATED ITEMS

MP-2 Uploader	P/N 90758420
DABS1 Hardware Interface (USB-XLR)	P/N 91611144

SPARE PARTS

Philips Hi-Brite 1200/80 FastFit 80 V lamp	P/N 97000006
Philips 1200/115 FastFit 115 V lamp	P/N 97000112
Philips 1200/230 FastFit 230 V lamp	P/N 97000113
Philips 1200/240 FastFit 240 V lamp	P/N 97000114

ORDERING INFORMATION

MAC TW1, Multi-voltage, IGBT dimmer, cardboard packing case	P/N 90202000
MAC TW1, Multi-voltage, IGBT dimmer, double flightcase	P/N 90202001
MAC TW1, Multi-voltage, 80 V dimmer, cardboard packing case	P/N 90202400
MAC TW1, Multi-voltage, 80 V dimmer, double flightcase	P/N 90202401

Specifications subject to change without notice.