

ABS/MBS400 Series

400 W AC-DC Power Supplies

Sealed IP67

The ABS/MBS400 Series of AC-DC power supplies provides up to 400 W of regulated output power through wide input voltage range 90 – 264 VAC in single outputs of 12, 24, 36 or 48 VDC.

The ABS/MBS400 Series comes in a 83.0 x 212.0 x 42.0 mm form factor, offering 12 and 5 VSB standby outputs and a full set of protection features. Available control signals include Power Good (Power_OK), remote On/off (PS_ON) and remote sense (+RS).

The sealed and full potted package allows an IP67 ingress protection index and can be installed in contact with thermo-conductive part of the system to transfer heat by conduction.

The ABS400/MBS Series complies with the latest international safety standards for IT and medical equipment, offering 2x MoPP protection grade and displays the CE-Mark for the European Low Voltage Directive (LVD).

Key Features & Benefits

- Universal input voltage range (90 – 264 V_{AC})
- Input surge current limiting
- 400 W rated power (440 W peak up to 10 s)
- High efficiency up to 94%
- Low stand-by consumption (<0.5 W)
- 12, 24, 36 and 48 V standard output voltages
- Active PFC, EN61000-3-2 compliant (Class C, >25% load).
- Low earth / touch leakage current
- Over temperature protection, OV, OC and SC protections
- Stand by +5 V, 2 A and auxiliary / fan 12 V_{DC}, 1 A outputs.
- Remote On / Off signal
- Power good and remote sense signals
- Sealed, potted package IP67 rated, fits 1U applications
- Medical safety approval to IEC 60601-1 3rd edition, 2x MoPP rated and BF appliances compatible.
- IT safety approval to UL/IEC 60950-1
- Medical version compatible with 4000 m altitude operation
- Optional heatsink accessory available (HSKIT-400-XBS)
- Suitable for harsh environments

Applications

- Video Wall Display & Entertainment
- Industrial Process Control
- Telecommunications
- Laboratory Equipment
- Test & Measurement Equipment
- Medical Applications



bel POWER SOLUTIONS & PROTECTION

a bel group

belfuse.com/power-solutions

1. MODEL SELECTION

MODEL NUMBER	PACKAGE & COOLING	INPUT VOLTAGE RANGE [VAC]	NOM. OUTPUT VOLTAGE [VDC]	MAX. OUTPUT POWER [W]	MAX. OUTPUT CURRENT [A]	DIMENSIONS
ABS400-1012 MBS400-1012	Sealed Chassis Convection / Conduction	90 - 264	12	400	33.3	Dimensions without heatsink: 83.0 x 212.0 x 42.0 mm 3.27 x 8.34 x 1.65 in
ABS400-1024 MBS400-1024	Sealed Chassis Convection / Conduction	90 - 264	24	400	16.7	
ABS400-1036 MBS400-1036	Sealed Chassis Convection / Conduction	90 - 264	36	400	11.1	Dimensions with heatsink: 83.0 x 212.0 x 70.1 mm 3.27 x 8.34 x 2.76 in
ABS400-1048 MBS400-1048	Sealed Chassis Convection / Conduction	90 - 264	48	400	8.3	
HSKIT-400-XBS	- Heatsink accessory (optional) Mounting kit includes 4x screws, M4x10, and the thermally conductive graphite sheet					

2. INPUT SPECIFICATIONS

PARAMETER	DESCRIPTION / CONDITION	MIN	NOM	MAX	UNIT	
AC Input Voltage	PS starts and operates at 90 V _{AC} at all load conditions	90	100-240	264	V _{RMS}	
DC Input Voltage		170	-	270	V _{DC}	
Input Frequency		47	50/60	440	Hz	
Input Current	RMS at 180 V _{AC} , maximum load, 50 / 60 Hz RMS at 90 V _{AC} , maximum load, 50 / 60 Hz	-	-	2.5 5.0	A	
Inrush Current	265 V _{AC} , 25 °C ambient, cold start.			20	A	
Fusing	2x Time Lag 6.3 A, 250 V on both L and N	-	-	6.3	A	
Efficiency	At 115 V _{AC}	20% rated load	90	-	-	%
		100 % load	92	-	-	
	At 230 V _{AC}	20% full load	90	-	-	
		50 – 100 % full load	94	-	-	
Input Power Consumption	Power on, 115-230 V _{RMS} , no load Stand by, 115-230 V _{RMS} , no load	- -	1 0.4	1.5 0.5	W	
Power Factor	At full rated load, 115 VAC, 60 Hz and 230 VAC, 50 Hz input voltages	0.95	-	-	-	
Harmonic Current Fluctuations and Flicker	Complies with EN-61000-3-2 Class C at 230 VAC 50 Hz, load >50 W. Complies with EN-61000-3-3 at nominal voltages and full load.					
Leakage Current	Normal conditions, 240 V _{RMS} , 60 Hz.			300	µA	