

Input voltage range 85...264 V AC  
 1, 3 or 4 outputs 5...24 V DC  
 2600 V DC I/O electric strength test voltage



- EN 55002 conducted and radiated limits
- Overtemperature and overload protection
- EMC compliance to EN 61000-4-2/3/4

## Selection chart

Output 1		Output 2		Output 3		Output 4		Input voltage	Rated power	Type
$U_o \text{ nom}$ [V DC]	$I_o \text{ nom}$ [A]	$U_o \text{ nom}$ [V DC]	$I_o \text{ nom}$ [A]	$U_o \text{ nom}$ [V DC]	$I_o \text{ nom}$ [A]	$U_o \text{ nom}$ [V DC]	$I_o \text{ nom}$ [A]	$U_i$ [V AC]	$P_{o \text{ tot}}$ [W]	
5	22	-	-	-	-	-	-	85...264	110	MAP 110-1005
12	10	-	-	-	-	-	-	85...264	120	MAP 110-1012
15	8	-	-	-	-	-	-	85...264	120	MAP 110-1012
15	10	-	-	-	-	-	-	85...264	150	MAP 140-1012
24	5	-	-	-	-	-	-	85...264	120	MAP 110-1024
24	6.3	-	-	-	-	-	-	85...264	150	MAP 140-1024
48	3.1	-	-	-	-	-	-	85...264	120	MAP 140-1048
+5	20	+12	4	-12	1	-	-	85...264	140	MAP 140-3000P
+3.3	15	+5	8	-12	1	+12	1	85...264	110	MAP 110-4300
+5	12	+12	5	-5	1	-12	3	85...264	110	MAP 110-4010
+5	12	+12	5	-12	1	+5	1	85...264	110	MAP 110-4000
+5	12	+12	5	-12	1	+12	1	85...264	110	MAP 110-4002
+5	12	+12	5	-12	1	+24	1	85...264	110	MAP 110-4011
+5	12	+12	5	-15	1	+15	1	85...264	110	MAP 110-4015
+5	12	+15	5	-15	1	-5	1	85...264	110	MAP 110-4003
+5	12	+24	3	-12	1	+12	1	85...264	110	MAP 110-4001
+5	12	+24	3	-15	1	+15	1	85...264	110	MAP 110-4004
+12	9	+24	4.5	-12	1	+5	2.5	85...264	110	MAP 110-4200

**Input**

Input voltage	auto-ranging, continuous ranges	85...264 V
Input frequency		47...63 Hz
Inrush current	limited by thermistor, $U_i = 264$ V AC, 1 cycle, 25°C	<41 A

**Output**

Efficiency	230 V AC, $I_{o, nom}$	typ. 75%
Output voltage ripple and noise	$U_{i, nom}$ , $I_{o, nom}$ , 20 MHz bandwidth, peak-peak	<1%
Voltage regulation	line and load combined	typ. <1%
Minimum load	on MAP110, on multiple only	1 A
	on MAP140, on multiple only	2 A
Hold-up time	115 V AC, $I_{o, nom}$	>20 ms

**Protection**

Input fuse	non-user serviceable internal AC input line fuse
Output overload	overload and short circuit, automatic recovery
Output overvoltage	latch style
Overtemperature	option, automatic recovery

**Control**

Input power fail warning	optional TTL compatible signal.	
	minimum warning time	2.3 ms
Remote sense	voltage compensation	250 mV

**Safety**

Agency approvals	UL 1950; CSA 22.2 No. 234/950; EN 60950 (TÜV); CE to LVD	
Electric strength test voltage	I/O per EN 60950	2600 V DC

**EMC**

Electrostatic discharge	IEC/EN 61000-4-2, level 4	8 kV, criterion A
Radiated susceptibility	IEC/EN 61000-4-3, level 3	10 V/m, criterion A
Electr. fast transients/burst	IEC/EN 61000-4-4, level 3	±2 kV, criterion A
Input surge	IEC/EN 61000-4-5, level 3	2 kV, criterion A
Electromagnetic emissions	CISPR 22/EN 55022, conducted	class B
	CISPR 22/EN 55022, radiated	class A

**Environmental**

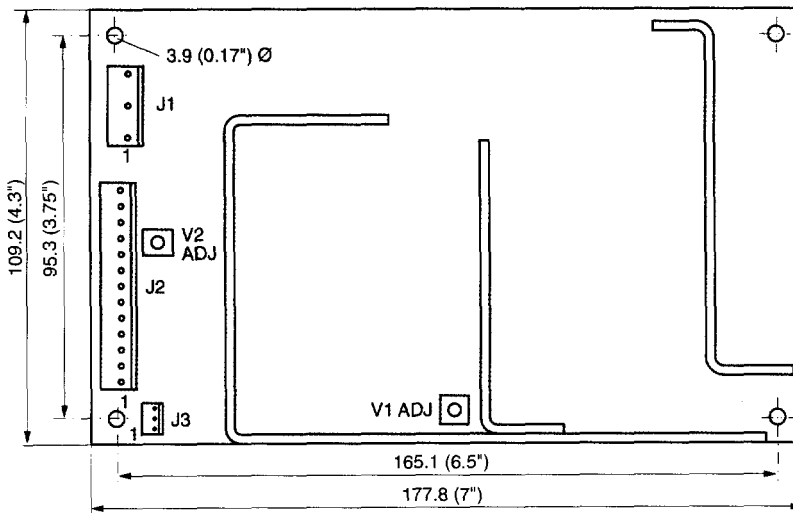
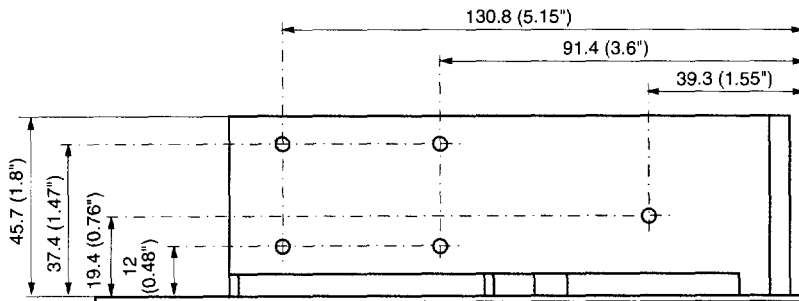
Operating temperature	with 200 LFM forced air cooled	0...50°C
	derate multiples with convection to	80 W
	linear derating above 50°C, 2.5%/°C	50...70°C
Storage temperature	non-operational	-40...85°C
Relative humidity	non-condensing	5...95%
Shock	peak acceleration	20 g <sub>n</sub>
Vibration, random	10 Hz to 2 kHz, 3 axes	6 g <sub>n rms</sub>

## Options

L-bracket	L
Cover (includes L-bracket)	C
Power-fail signal	P
Overtemperature protection: thermal shutdown	T

## Mechanical data

Tolerances  $\pm 0.3$  mm (0.012") unless otherwise indicated.



**Input terminal allocation J1**

Pin	J1
1	GND
3	N
5	L

**Output terminal allocation J3**

Pin	J3
1	+Sense
2	-Sense
3	n.c.

**Output terminal allocation J2**

Pin	J2
1	V1
2	V1
3	V1
4	RTN
5	RTN
6	RTN
7	RTN
8	V2
9	V2
10	P.F.
11	V3
12	n.c.
13	V4

When the V4 output is a positive (+) output, pin 12 on J2 is connected to RTN.

When the V4 output is a negative (-) output, pin 12 on J2 is connected to V4.

**Molex connector information**

Ref. design	Series	Molex P/N	Spacing	Pins square
J1	41671	26-48-1055	3.96 (0.156")	1.14 (0.045")
	41791	26-60-4050	3.96 (0.156")	1.14 (0.045")
J2	41671	26-48-1035	3.96 (0.156")	1.14 (0.045")
	41791	26-60-4130	3.96 (0.156")	1.14 (0.045")
J3	6373	22-23-2031	2.45 (01")	0.64 (00.25")