



Medical



Industrial



Test

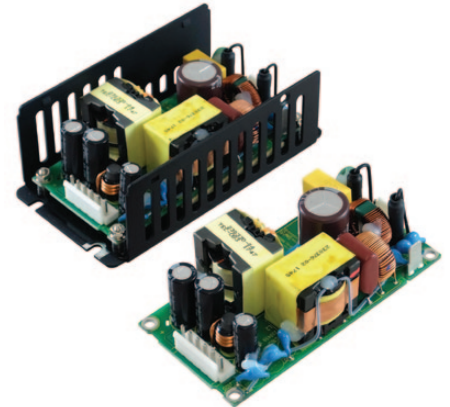


LED



Broadcast

2 x 4" 100W AC-DC Power Supplies



Features	Benefits
• 100W Convection Rating	• Quiet Operation
• 75W With 1m/s Airflow at 85°C Ambient	• Suitable for High Ambient Temperature Environments
• ITE & Medical Certifications (2 x MOPP)	• Suitable for B & BF Rated Equipment
• Suitable for Class I and Class II installations	• Flexible Utilisation
• Class B Conducted and Radiated EMI	• Easier System Compliance

Specification		
Model	CUS100ME	
Input Voltage range		85 - 264VAC (47 - 440Hz ⁽¹⁾). Derate linearly to 90% load from 90 to 85VAC input
Inrush Current (Cold start at 230VAC input)	A	<65A
Input Current (100W load)	A	1.4A at 100VAC input
Hold Up Time (Typ)	ms	>24ms
Harmonic Compliance	-	EN/IEC61000-3-2 Class A. Minimum PF 0.97/0.89 (115/230Vac, 100% load)
Leakage Current	uA	<250uA at 230VAC 63Hz
Touch Current (enclosure leakage)	uA	<100uA
Temperature Coefficient	%/°C	±0.02%/°C
No Load Power Draw at 230VAC input	W	<0.5W
Output Adjustment	-	No adjustment
Ripple & Noise	mV (pk-pk)	≤1%
Load Regulation	mV	≤1% (0 - 100% load)
Line Regulation	mV	≤0.5% (85 - 264VAC)
Short Circuit Protection	%	110 - 190%. Hiccup mode, automatic recovery
Overvoltage Protection	V	Latching (unit shutdown), cycle AC input to reset
Efficiency	%	Up to 94%
Active Average Efficiency	%	>87%
Operating Temperature	-	-20°C to +85°C, see derating curves for operation above +50°C ⁽²⁾
Storage Temperature	°C	-40 to +85°C
Operational Altitude	m	5000m
Humidity (non condensing)	%RH	5 - 95%RH
Cooling	-	Convection, conduction (coldplate) or forced air cooling ⁽²⁾
Withstand Voltage	VAC	Input to Ground 1.5kVAC (1xMOPP), Input to Output 4kVAC (2xMOPP), Output to Ground 1.5kVAC (1xMOPP)
Isolation Resistance	MΩ	>100MΩ at 25°C & 70%RH, Output to Ground 500VDC
Insulation Class	-	Construction suitable for Class I or Class II installation
Vibration (non operating)	-	2G, 10-500Hz for 1 hour
Shock	-	30G, 11ms half sine
Safety Agency Certifications ⁽³⁾	-	IEC/EN/UL60950-1 and 60601-1. ES60601-1. Designed to meet IEC61010-1
Conducted & Radiated EMI	-	EN55011 / EN55032-B (See application notes for conditions)
Immunity	-	Compliant with EN60601-1-2, 2015 (Ed4), see immunity table on page 3
Weight (Typ)	g	Open Frame: 180g; /U: 240g; /A: 255g; /B: 220g
Size (WxLxH)	mm	Open frame version: 50.8 x 101.6 x 31.5
Warranty	yrs	5
Connectors	-	Input: JST B2P3-VH, Output: JST B6P-VH

Note (1): For operation at 400-440Hz, please contact Technical Sales **Note (2):** See website for full derating curves and all case styles

Note (3): EN60335-1 Compliant versions available subject to MOQ. Please contact Sales.

Style	Cooling	Output Power / Ambient Temperature			
		-20 to 50°C	70°C	80°C	85°C
Open frame	Convection	100W	60W	20W	-
/U or /B	Conduction	100W	100W	50W	-
All versions	1m/s air	100W	100W	83.3W	75W

Model Selector			
Model	Nominal Output Voltage (V)	Maximum ⁽²⁾ Current Convection (A)	Maximum ⁽²⁾ Power (W)
CUS100ME-12	12	8.33	100
CUS100ME-12/U	12	8.33	100
CUS100ME-12/A	12	8.33	100
CUS100ME-12/B	12	8.33	100
CUS100ME-15	15	6.66	100
CUS100ME-15/U	15	6.66	100
CUS100ME-15/A	15	6.66	100
CUS100ME-15/B	15	6.66	100
CUS100ME-18	18	5.55	100
CUS100ME-18/U	18	5.55	100
CUS100ME-18/A	18	5.55	100
CUS100ME-18/B	18	5.55	100
CUS100ME-24	24	4.16	100
CUS100ME-24/U	24	4.16	100
CUS100ME-24/A	24	4.16	100
CUS100ME-24/B	24	4.16	100
CUS100ME-28	28	3.57	100
CUS100ME-28/U	28	3.57	100
CUS100ME-28/A	28	3.57	100
CUS100ME-28/B	28	3.57	100
CUS100ME-36	36	2.77	100
CUS100ME-36/U	36	2.77	100
CUS100ME-36/A	36	2.77	100
CUS100ME-36/B	36	2.77	100
CUS100ME-48	48	2.08	100
CUS100ME-48/U	48	2.08	100
CUS100ME-48/A	48	2.08	100
CUS100ME-48/B	48	2.08	100

Note 2: See website for full derating curves and all case styles
Non-standard outputs can be requested within the following ranges.

Model Voltage Range	CUS100ME-12 12 - 13.2	CUS100ME-15 15 - 16.5	CUS100ME-18 18 - 19.8	CUS100ME-24 24 - 26.4	CUS100ME-28 28 - 30.8	CUS100ME-36 36 - 39.6	CUS100ME-48 48 - 50
Non-standard output versions may be subject to minimum order quantities and variations to specification. For all non-standard output voltage settings please consult Sales.							

Part Numbering Scheme

CUS100ME- 12 / U E M

Output voltage 12, 15, 18, 24, 28, 36, 48

blank U
A
B

open pcb
U channel
U channel with cover
baseplate

blank E dual fuses
Single input fuse in line line

(these options subject to MOQ, please consult Sales)

blank M JST connectors
Molex connectors

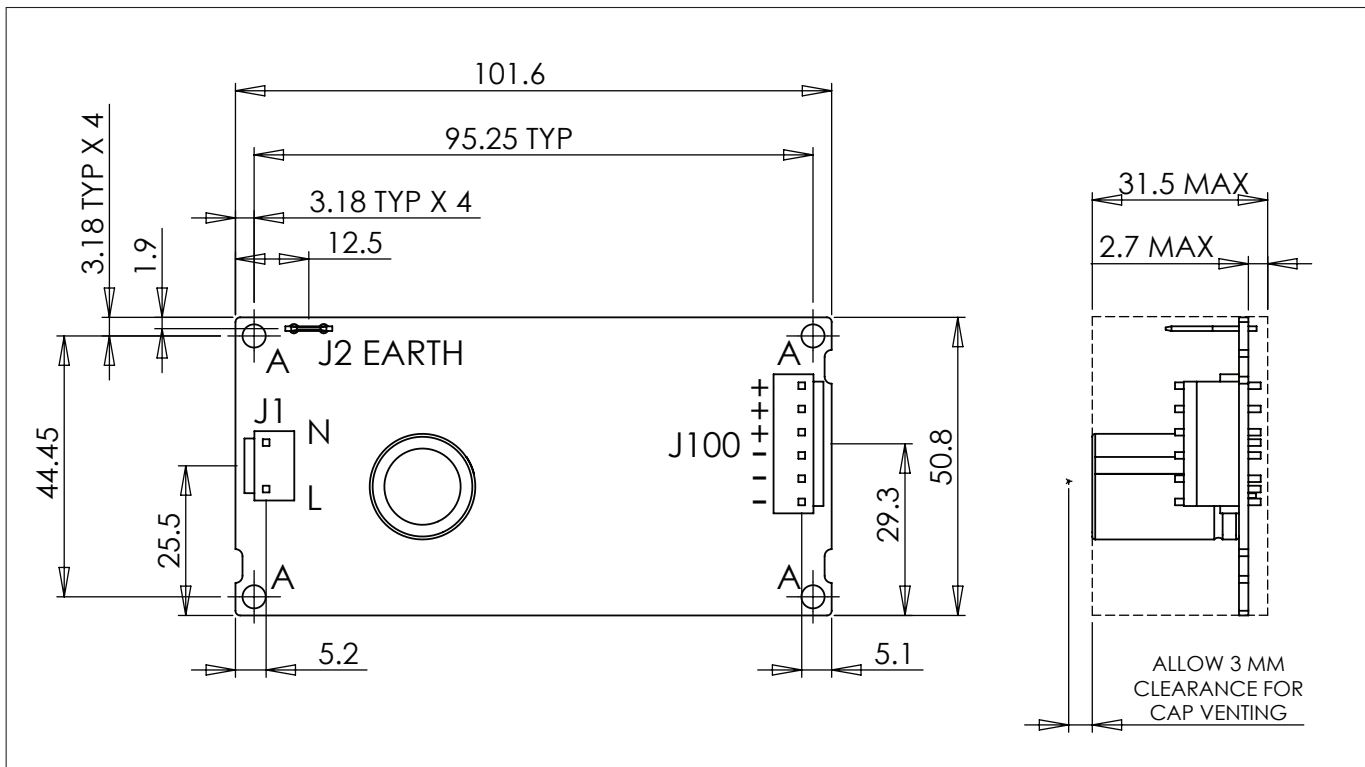
Examples; CUS100ME-24/UEM, CUS100ME-12V5/A

Immunity Levels

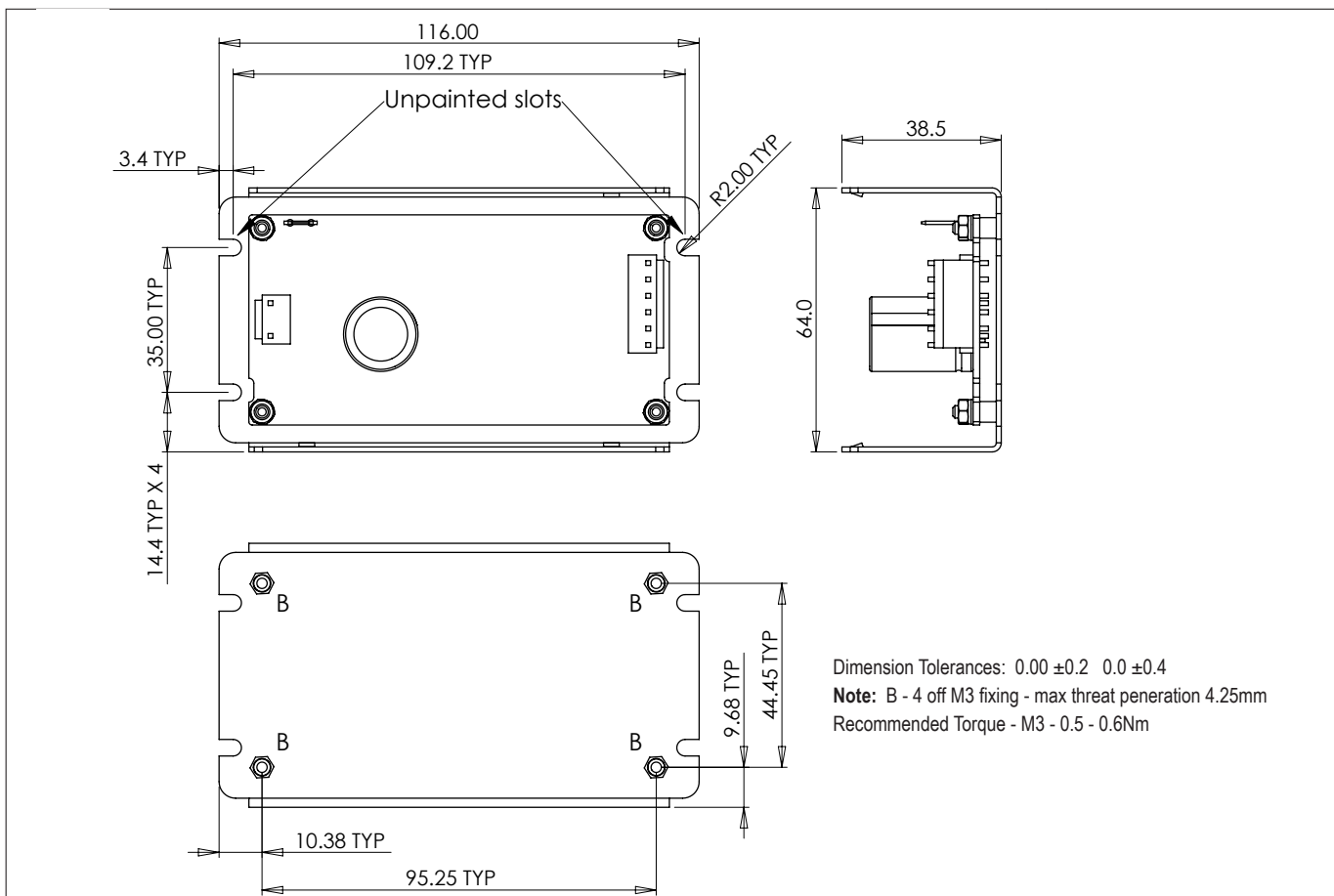
Test	Standard	Test Level	Criteria	Notes The power stated below is total power (main output + fan output)
ESD	EN61000-4-2	4	A	
Radiated Susceptibility	EN61000-4-3	3	A	inc proximity field requirements of EN60601-1-2:2015
Electrical Fast Transient Burst	EN61000-4-4	4	A	(AC Port, 5kHz and 100KHz)
Surge	EN61000-4-5	3	A	-
Conducted Susceptibility	EN61000-4-6	3	A	-
Magnetic fields	EN61000-4-8	4	A	-
Voltage Dips & Interruptions	EN61000-4-11 Class 3 Industrial inc EN55024 (100VAC)	0% for 1/2 cycle	A	-
		0% for 1 cycle	A	-
		40% for 10/12 cycles	B	-
		70% for 25/30 cycles	A	-
		80% for 250/300 cycles	A	-
		0% for 250/300 cycles	B	-
	EN61000-4-11 Class 3 Industrial inc EN55024 (240VAC)	0% for 1/2 cycle	A	-
		0% for 1 cycle	A	-
		40% for 10/12 cycles	A	-
		70% for 25/30 cycles	A	-
		80% for 250/300 cycles	A	-
		0% for 250/300 cycles	B	-
	EN60601-1-2:2015 (100VAC)	0% for 1/2 cycle	A	-
		0% for 1 cycle	A	-
		70% for 25/30 cycles	A	-
		0% for 250/300 cycles	B	-
	EN60601-1-2:2015 (240VAC)	0% for 1/2 cycle	A	-
		0% for 1 cycle	A	-
		70% for 25/30 cycles	A	-
		0% for 250/300 cycles	B	-
Ringwave Test	EN61000-4-12	3	A	-
Voltage Fluctuations	EN61000-4-14	Class 3	A	-

Criteria A definition: the output stays within +/-5% of regulation

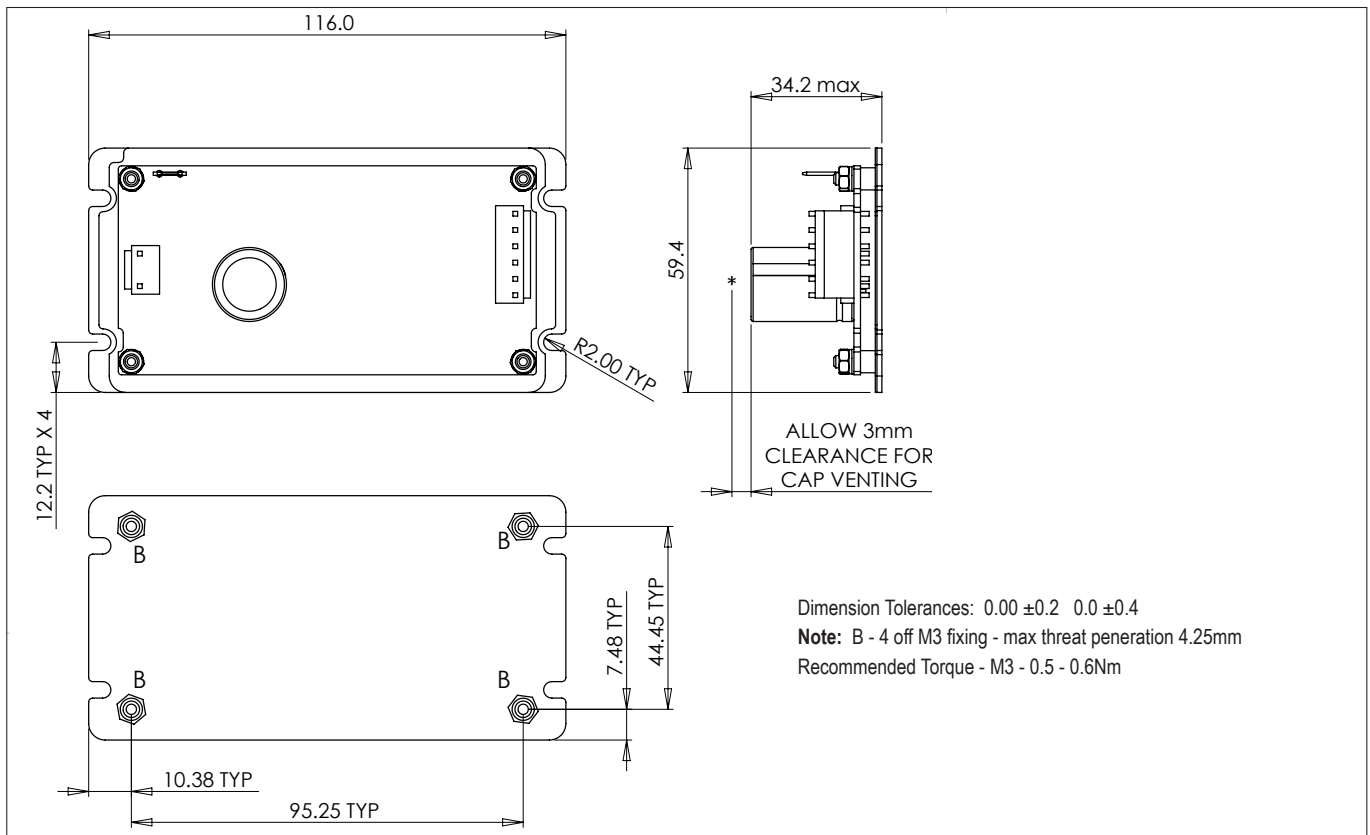
Outline drawing CUS100ME (Open Frame unit)



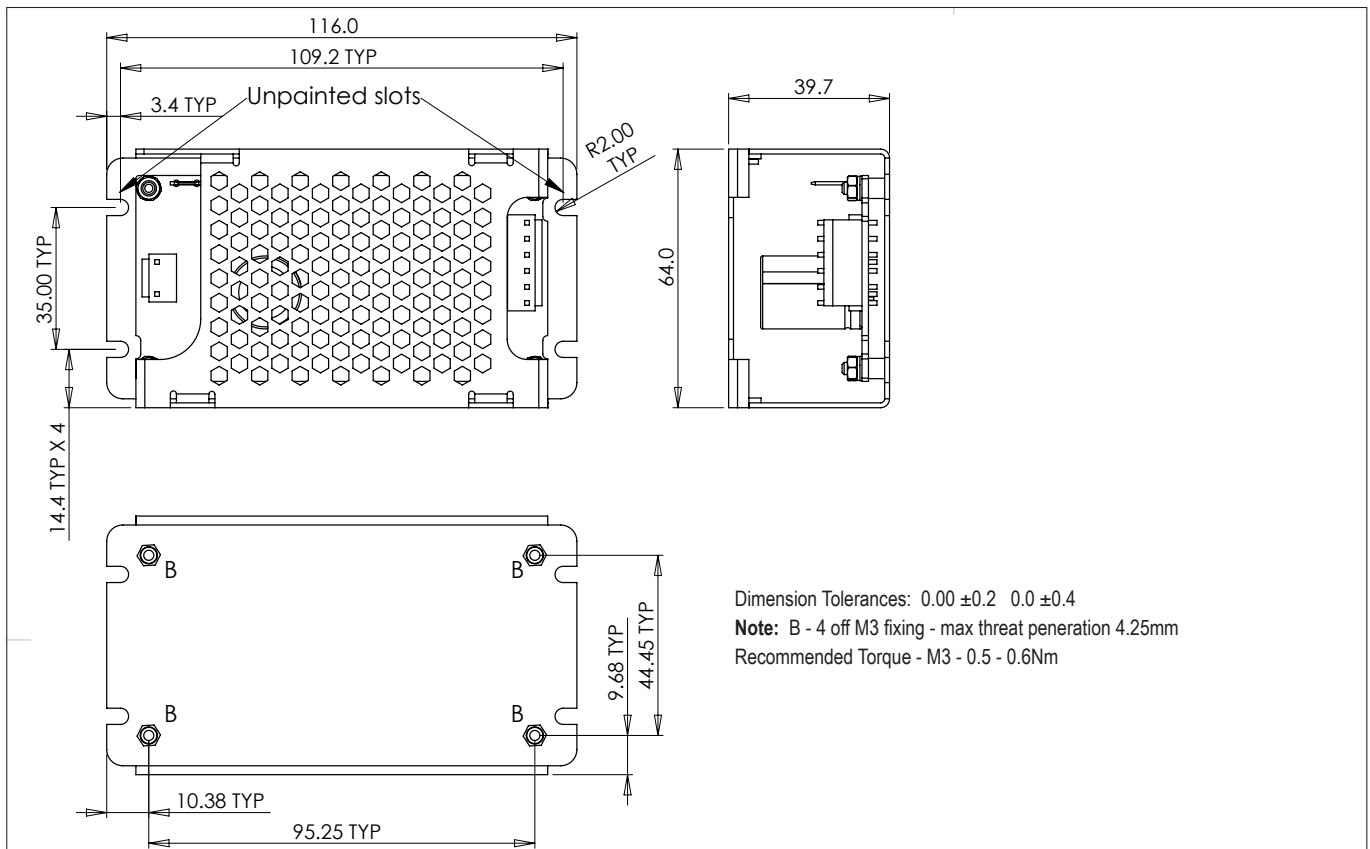
Outline drawing CUS100ME/U (U Channel) Option



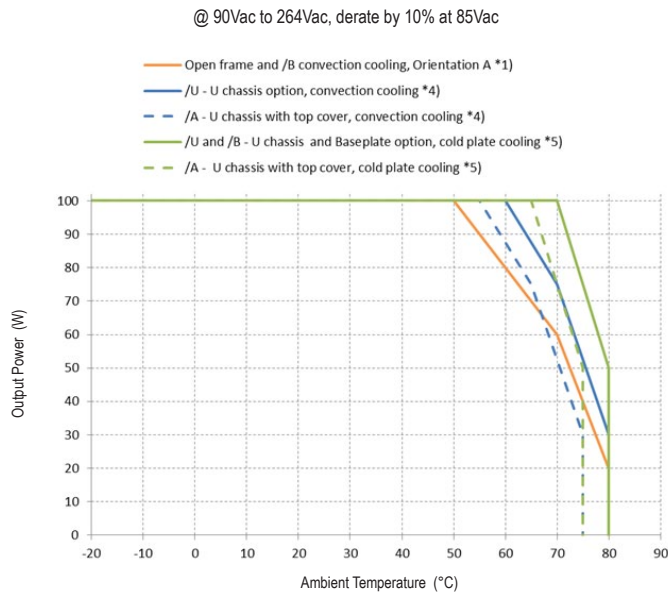
Outline drawing CUS100ME/B (Baseplate) Option



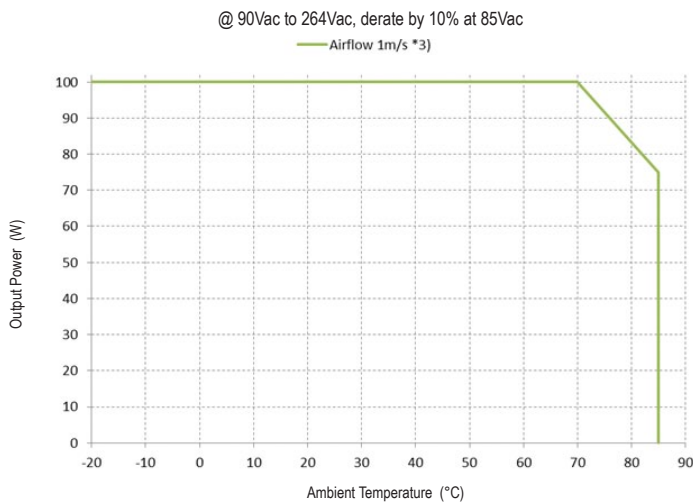
Outline drawing CUS100ME/A (U Channel with cover) Option



Output Power vs Ambient Temperature (Convection/Conduction Cooled)



Output Power vs Ambient Temperature (Forced Air Cooled)



Notes:

- 1) 50mm above surface
- 2) Not applicable
- 3) Tested with airflow direction G (see Application Note)
- 4) 50mm above surface, orientation A (see Application Note) no additional coldplate
- 5) U chassis or Baseplate fixed on a coldplate (system chassis), orientation A (see Application Note)
/B baseplate option performance is the same as with the U chassis option for coldplate cooling



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