Single Output 350W/420W Medical & ITE Power Supplies

Features

- High Efficiency, up to 94%
- 1.6” high
- 350W Convection Cooled, 420W Forced Air Rating
- BF Rated
- 5V Standby & 12V Fan Output

Key Market Segments & Applications

Medical Industrial Test COMM Broadcast

RoHS

Specifications

Model		CUS350M/F
AC Input Voltage	VAC	85 - 265VAC(1)
Input Frequency	Hz	47 - 63Hz
DC Input Voltage	VDC	120 - 370VDC (No safety certification)
Inrush Current (cold start)	A	20A at 115VAC, 40A at 230VAC
Power Factor	-	Meets EN61000-3-2 (Typical PF 0.99/0.95)(2)
Input Current (115/230VAC)	A	350W: 4 / 2A; 420W: 4.5 / 2.3A (typical)
Off-load Power Draw	W	<0.5W at 230VAC (In standby mode using remote on/off)
Temperature Coefficient	%/°C	<0.02%/°C
Overcurrent Protection	-	12V: >38A, 18V: > 26A, 24V: > 20A, 36V: >13A, 48V: > 10A
Overvoltage Protection (3)	V	12V: 13.8-16.2V, 18V: 20.7-24.3V, 24V: 27.6-32.4V, 36V: 41.4-48.6V, 48V: 55.2-64.8V
Hold Up Time (115 / 230V input)	ms	20ms typical at 350W output
Leakage Current	mA	<0.3mA at 265VAC, 60Hz
Ripple and Noise	%	1%
Line Regulation	%	0.5%
Load Regulation	%	1%
Remote Sense	-	Yes, compensates for 0.5V total cable drop
Remote On/Off	-	Apply voltage to isolated terminals to shut unit down
Power Good (/F or /PG option)	-	Isolated transistor, On = Good. Gives >5ms warning of AC power loss
Standby Voltage	-	5V 0.5A
Fan Supply (/F or /FN options)	-	12V 0.3A
Operating Temperature	°C	-20 to +70°C. See derating curves
Storage Temperature	°C	-40 to +85°C
Humidity (non condensing)	%RH	10 - 95%RH (Operating & Storage)
Cooling	-	Convection or Forced Air Cooled (1.5m/s across terminals)
Withstand Voltage	-	Input to Ground 2kVAC (1xMOPP), Input to Output 4kVAC (2xMOPPs), Output to Ground 1.5kVAC (1xMOPP) BF Rated
Isolation Resistance	-	>100MΩ at 25°C & 70%RH, Output to Ground 500VDC
Vibration (non operating)	-	10 - 55Hz: 19.6m/s^2 constant sweep 1 min X, Y, Z for 1 hour
Shock	-	< 196.1 m/s^2 (20G)
Immunity	-	IEC61000-4-2 (lv 2, 3), -3 (lv3), -4 (lv 3), -5 (lv3, 4), -6 (lv 3), -8 (lv 4), -11, EN60601-1-2:2015 (Ed4)
Safety Agency Certifications	-	EN/IEC/UL/ES/CSA 60601-1, EN/IEC/UL/CSA60950-1, CE Mark
Conducted & Radiated EMI	-	EN55011-B, FCC Class B (Radiated Class A) 350W output
Weight (Typ)	g	850
Size (LxWxH)	mm(in)	190 x 87 x 40mm (7.5 x 3.4 x 1.6”)
Warranty	yrs	Three Years

Notes:

See specification for conditions and test methods

(1) Derate linearly to 80% load from 115 to 85VAC input (convection); derate linearly to 90% load from 95 to 85VAC (forced air cooling)

(2) 115 / 230VAC input

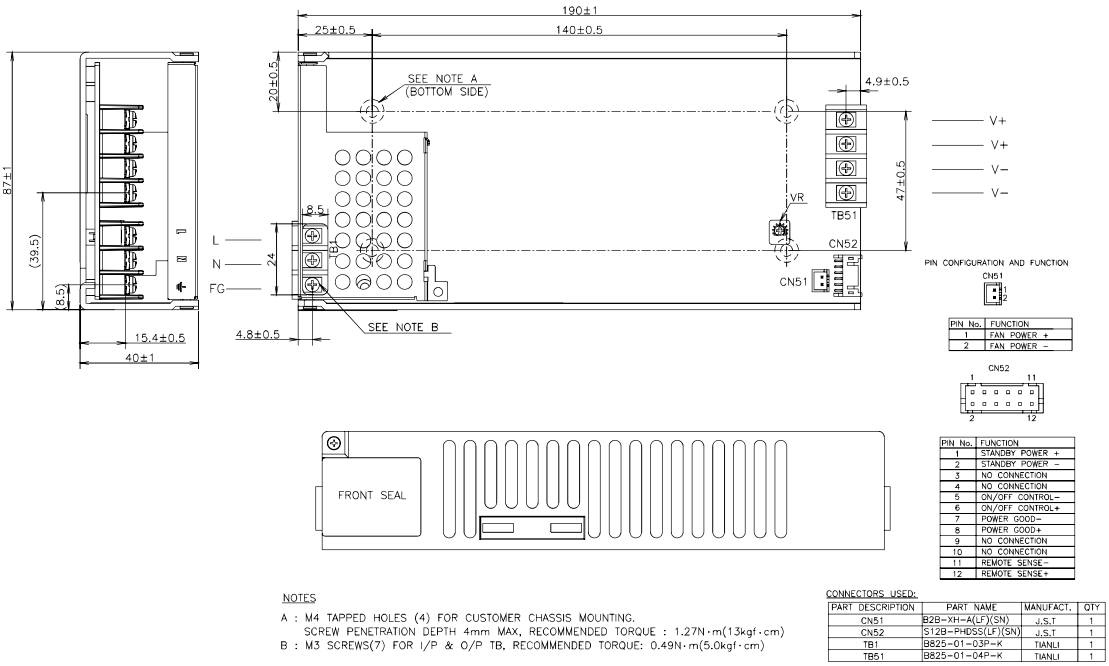
(3) Cycle AC to reset

Model Selector

Model	Voltage	Adjust Range (V)	Max Current (A) Convection	Max Power (W) Convection	Max Current (A) Forced Air	Max Power (W) Forced Air	Ripple Noise (mV)	Efficiency (typ) % (4)
CUS350M-12/F	12V	11.4 - 12.6	29.0	348.0	34.5	414.0	120	91 / 93
CUS350M-18/F	18V	17.1 - 18.9	19.4	349.2	23.0	414.0	180	91 / 94
CUS350M-24/F	24V	22.8 - 25.2	14.7	352.8	17.5	420.0	240	91 / 94
CUS350M-36/F	36V	34.2- 37.8	9.7	349.2	11.5	414.0	240	91 / 94
CUS350M-48/F	48V	45.6 - 50.4	7.3	350.4	8.7	417.6	480	91 / 94

Notes:
See specification for conditions and test methods
(4) 115 / 230VAC input. Convection and forced air ratings

Outline Drawing



PIN No.	FUNCTION
1	FAN POWER +
2	FAN POWER −

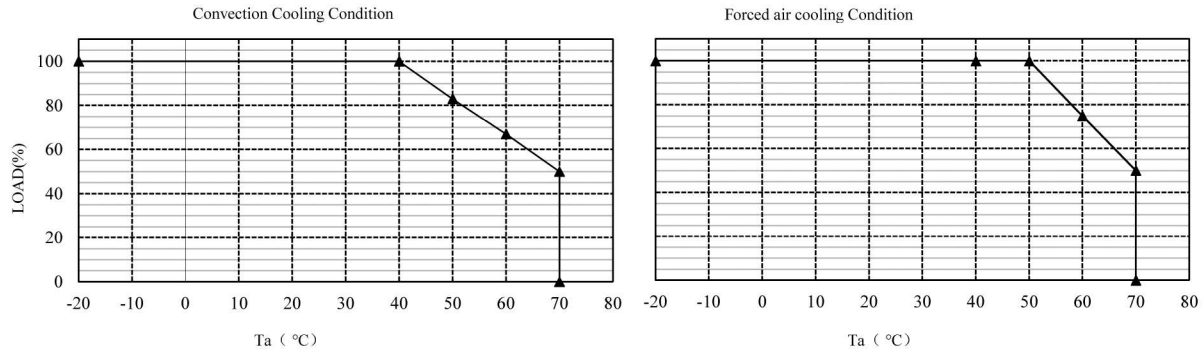
PIN No.	FUNCTION
1	STANDBY POWER +
2	STANDBY POWER −
3	NO CONNECTION
4	NO CONNECTION
5	ON/OFF CONTROL−
6	ON/OFF CONTROL+
7	POWER GOOD−
8	POWER GOOD+
9	NO CONNECTION
10	NO CONNECTION
11	REMOTE SENSE−
12	REMOTE SENSE+

NOTES
A : M4 TAPPED HOLES (4) FOR CUSTOMER CHASSIS MOUNTING.
SCREW PENETRATION DEPTH 4mm MAX, RECOMMENDED TORQUE : 1.27N·m(13kgf·cm)
B : M3 SCREWS(7) FOR I/P & O/P TB, RECOMMENDED TORQUE: 0.49N·m(5.0kgf·cm)

CONNECTORS USED:

PART DESCRIPTION	PART NAME	MANUFACT.	QTY
CN51	B2B-XH-A(LF)(SN)	J.S.T	1
CN52	S12B-PHDSS(LF)(SN)	J.S.T	1
TB1	B825-01-03P-K	TIANLI	1
TB51	B825-01-04P-K	TIANLI	1

Derating Curve



For Additional Information, please visit
us.tdk-lambda.com/lp/products/cus-m-series