



E-Star Power Development Co., Ltd. (E-STAR)

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12~15W Module DC to Dc power supply < ESD15

FEATURES

- 15W DIL PACKAGE
- INDUSTRY STANDARD PACKAGE
- 9-18V,18-36V,36-72V,9-27V,18-54V, 9-36V,18-72V WIDE INPUT RANGE
- NO EXTERNAL COMPONENTS REQUIRED
- REGULATED OUTPUT
- 100% BURNED IN
- HIGH EFFICIENCY
- UL 94-V0 PACKAGE MATERIAL
- CUSTOM SOLUTIONS AVAILABLE
- RoHS COMPLIANT
- 3 YEARS WARRANTY



OUTPUT SPECIFICATIONS		INPUT SPECIFICATIONS	
Voltage Setpoint Accuracy	+/-2% max	Input Voltage Range	2:1 3:1 4:1 Input Range
Temperature Coefficient	+/-0.05%/°C	Input Filter	Pi Network
Ripple & Noise(20MHz BW)	100mVp-p max	Protection	Fuse Recommended
Line Regulation	+/-0.5% max	GENERAL SPECIFICATIONS	
Load Regulation	+/-0.5% max	Efficiency	70% min
Minimum Load	10% of Full Load	Isolation Voltage	1000 VDC min Standard Models
Short Circuit Protection	Continuous		3000 VDC min Suffix "3K" Models
Short Circuit Restart	Automatic	Isolation Resistance	10 ⁹ ohms min
Over Load Protection	180% Typ	Isolation Capacitance	550pF max
Transient Response	200uS max	Switching Frequency	150 KHz min
		MTBF	>320,000 Hours
		Weight	60.0g Typ
ENVIRONMENTAL SPECIFICATIONS		Case Material	Six-Side Shielded Case
Operating Temperature	-25°C to +71°C	Case Size	50.8mm*50.8mm*11mm
Operating Temperature Case	-25°C to +90°C	Potting Material	Epoxy(UL94-V0)
Storage Temperature	-55°C to +125°C	Conducted Emissions	EN55022 Class A
Humidity	95% max	Radiated Emissions	EN55022 Class A
Cooling	Free-Air Convection		

ALL SPECIFICATIONS TYPICAL AT NOMINAL LINE, FULL LOAD , AND 25° C UNLESS OTHERWISE NOTED.

● **SELECTION GUIDE(1)**
2:1 12W-15W OUTPUT

MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT CURRENT(mA)		EFF (%)	ISOLATION (VDC)
				FULL LOAD	NO LOAD		
				ESD15S-1203.3(-3)	9-18		
ESD15S-1205(-3)	9-18	5	3000	1623	40	77	1000 or 3000
ESD15S-1209(-3)	9-18	9	1670	1580	30	79	1000 or 3000
ESD15S-1212(-3)	9-18	12	1250	1563	40	80	1000 or 3000
ESD15S-1215(-3)	9-18	15	1000	1545	38	81	1000 or 3000
ESD15S-1224(-3)	9-18	24	625	1543	38	81	1000 or 3000
ESD15D-1205(-3)	9-18	+/-5	+/-1500	1623	40	77	1000 or 3000
ESD15D-1212(-3)	9-18	+/-12	+/-625	1563	40	80	1000 or 3000
ESD15D-1215(-3)	9-18	+/-15	+/-500	1525	38	82	1000 or 3000
ESD15D-1224(-3)	9-18	+/-24	+/-313	1510	40	83	1000 or 3000
ESD15S-2403.3(-3)	18-36	3.3	3600	643	20	77	1000 or 3000
ESD15S-2405(-3)	18-36	5	3000	780	20	80	1000 or 3000
ESD15S-2409(-3)	18-36	9	1670	770	20	81	1000 or 3000
ESD15S-2412(-3)	18-36	12	1250	762	18	82	1000 or 3000
ESD15S-2415(-3)	18-36	15	1000	762	18	82	1000 or 3000
ESD15S-2424(-3)	18-36	24	625	753	18	83	1000 or 3000
ESD15S-2427(-3)	18-36	27	556	749	21	83	1000 or 3000
ESD15D-2405(-3)	18-36	+/-5	+/-1500	750	20	83	1000 or 3000
ESD15D-2412(-3)	18-36	+/-12	+/-625	762	18	82	1000 or 3000
ESD15D-2415(-3)	18-36	+/-15	+/-500	753	18	83	1000 or 3000
ESD15D-2424(-3)	18-36	+/-24	+/-313	750	35	83	1000 or 3000
ESD15S-4803.3(-3)	36-72	3.3	3600	321	10	77	1000 or 3000
ESD15S-4805(-3)	36-72	5	3000	396	10	79	1000 or 3000
ESD15S-4809(-3)	36-72	9	1670	385	10	81	1000 or 3000
ESD15S-4812(-3)	36-72	12	1250	381	9	82	1000 or 3000
ESD15S-4815(-3)	36-72	15	1000	381	9	82	1000 or 3000
ESD15S-4824(-3)	36-72	24	625	375	9	83	1000 or 3000
ESD15D-4805(-3)	36-72	+/-5	+/-1500	375	10	83	1000 or 3000
ESD15D-4812(-3)	36-72	+/-12	+/-625	381	9	82	1000 or 3000
ESD15D-4815(-3)	36-72	+/-15	+/-500	381	17	82	1000 or 3000
ESD15D-4824(-3)	36-72	+/-24	+/-313	375	9	83	1000 or 3000

Note: Other input to output voltages may be available. Please contact factory.

ORDERING INFORMATION:

FOR EXAMPLE: **ESD15x-xxxx-3(Isolation Voltage For 3000VDC)**

SELECTION GUIDE(2)

3:1 15W OUTPUT

MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT CURRENT(mA)		EFF (%)	ISOLATION (VDC)
				FULL LOAD	NO LOAD		
				ESD15S-1205G(-3)	9-27		
ESD15S-1209G(-3)	9-27	9	1670	1600	30	78	1000 or 3000
ESD15S-1212G(-3)	9-27	12	1250	1562	40	80	1000 or 3000
ESD15S-1215G(-3)	9-27	15	1000	1562	38	80	1000 or 3000
ESD15S-1224G(-3)	9-27	24	625	1562	28	80	1000 or 3000
ESD15D-1205G(-3)	9-27	+/-5	+/-1500	1623	40	77	1000 or 3000
ESD15D-1212G(-3)	9-27	+/-12	+/-625	1562	40	80	1000 or 3000
ESD15D-1215G(-3)	9-27	+/-15	+/-500	1562	38	80	1000 or 3000
ESD15S-2405G(-3)	18-54	5	3000	791	20	79	1000 or 3000
ESD15S-2409G(-3)	18-54	9	1670	782	20	80	1000 or 3000
ESD15S-2412G(-3)	18-54	12	1250	771	18	81	1000 or 3000
ESD15S-2415G(-3)	18-54	15	1000	762	18	82	1000 or 3000
ESD15S-2424G(-3)	18-54	24	625	762	15	82	1000 or 3000
ESD15D-2405G(-3)	18-54	+/-5	+/-1500	791	20	79	1000 or 3000
ESD15D-2412G(-3)	18-54	+/-12	+/-625	771	18	81	1000 or 3000
ESD15D-2415G(-3)	18-54	+/-15	+/-500	762	18	82	1000 or 3000

Note: Other input to output voltages may be available. Please contact factory.

ORDERING INFORMATION:

FOR EXAMPLE: **ESD15x-xxxx-3(Isolation Voltage For 3000VDC)**

● **SELECTION GUIDE(3)**
4:1 15W OUTPUT

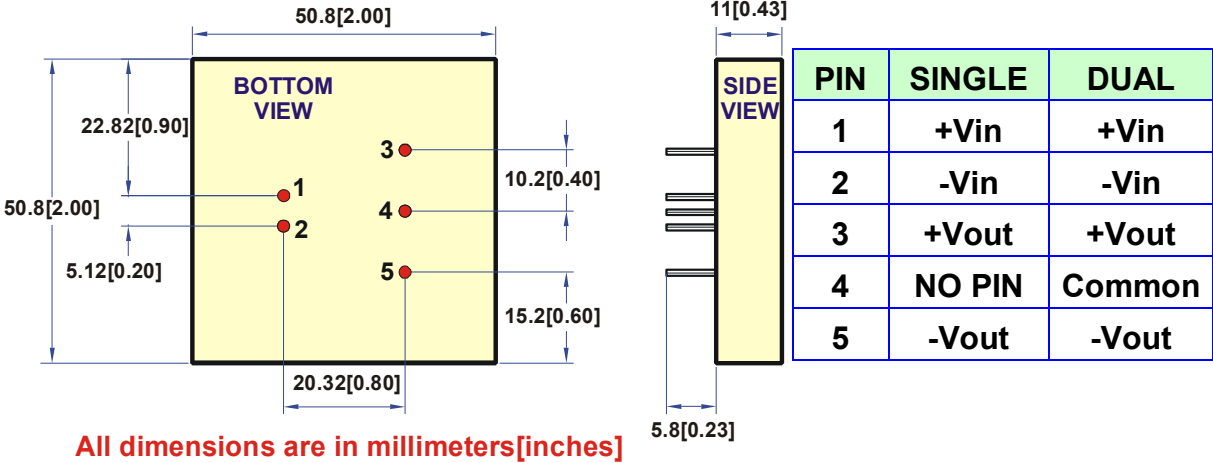
MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT CURRENT(mA)		EFF (%)	ISOLATION (VDC)
				FULL LOAD	NO LOAD		
				ESD15S-1203.3TA	9-36		
ESD15S-1205T(-3)	9-36	5	3000	1623	40	77	1000 or 3000
ESD15S-1209T(-3)	9-36	9	1670	1600	30	78	1000 or 3000
ESD15S-1212T(-3)	9-36	12	1250	1562	40	80	1000 or 3000
ESD15S-1215T(-3)	9-36	15	1000	1562	38	80	1000 or 3000
ESD15S-1224T(-3)	9-36	24	625	1562	28	80	1000 or 3000
ESD15D-1205T(-3)	9-36	+/-5	+/-1500	1623	40	77	1000 or 3000
ESD15D-1212T(-3)	9-36	+/-12	+/-625	1562	40	80	1000 or 3000
ESD15D-1215T(-3)	9-36	+/-15	+/-500	1562	38	80	1000 or 3000
ESD15S-2405T(-3)	18-72	5	3000	791	20	79	1000 or 3000
ESD15S-2409T(-3)	18-72	9	1670	782	20	80	1000 or 3000
ESD15S-2412T(-3)	18-72	12	1250	771	18	81	1000 or 3000
ESD15S-2415T(-3)	18-72	15	1000	762	18	82	1000 or 3000
ESD15S-2424T(-3)	18-72	24	625	780	18	80	1000 or 3000
ESD15D-2405T(-3)	18-72	+/-5	+/-1500	791	20	79	1000 or 3000
ESD15D-2412T(-3)	18-72	+/-12	+/-625	771	18	81	1000 or 3000
ESD15D-2415T(-3)	18-72	+/-15	+/-500	762	18	82	1000 or 3000

Note: Other input to output voltages may be available. Please contact factory.

ORDERING INFORMATION:

FOR EXAMPLE: **ESD15x-xxxx-3(Isolation Voltage For 3000VDC)**
ESD15x-1203.3A(PACKAGE "A" For REMOTE CONTROL)

MECHANICAL DIMENSIONS & RECOMMENDED FOOTPRINT DETAILS



Note: Certain applications may require the installation of external fuse in front of the input.