# TDK·Lambda

# **CSS65A Series**

## 2 x 4" 40-65W AC-DC Medical & ITE Power Supplies

### Features

- ♦ Wide Range AC Input
- ◆ Low profile, Industry Standard Footprint
- ◆ Global Safety Agency Compliance
- ♦ Remote Sense
- Dual Input Fuses
- ◆ <75mW Off-Load Power Consumption
- Suitable for BF Rated Equipment

### **Key Market Segments & Applications**



Specifications



Model   CS565     Input Voltage range   -   90 - 264VAC (47 - 63Hz)     Inrush Current (115/230VAC)   A   Less than 45A / 90A, 25°C ambient cold start     Input Current (115/230VAC)   A   2 / 1     Leakage Current   UA   <250UA 264VAC 63Hz     Touch Current   UA   <75mW     Average Efficiency   %   5V: 86%, 12-54V: 89%     Temperature Coefficient   %/°C   ±0.05%/°C     Output Voltage Accuracy   %   ±1%     Output Voltage Accuracy   %   5V: 86%, 12-54V: 89%     Remote Sense   -   Yes     Minimum Load   A   None     Output Adjustment Range   -   None     Output Regulation   %   5V: ±5%, 12-28V: ±3%, 48-54V: ±2%     Ripple & Noise   %   See Model Selector     Overcurent Protection   -   110 - 130% of nominal (Cycle input power to reset)     Operating Temperature   °C   -20 to +70°C dearate linearly to 50% load from 50 to 70°C     Storage Temperature   °C   -20 to +70°C dearate linearly to 50% load from 50 to 70°C	opeemeations		
Input Voltage range   -   90 - 264VAC (47 - 63Hz)     Inrush Current (115/230VAC)   A   Less than 45A / 90A, 25°C ambient cold start     Input Current (115/230VAC)   A   2/1     Leakage Current   UA   <250UA 264VAC 63Hz     Touch Current   UA   <100uA 264VAC 63Hz     Touch Current   UA   <75mW     Average Efficiency   %   55V:86%, 12-54V:89%     Temperature Coefficient   %/°C   ±1%     Output Voltage Accuracy   %   ±1%     Output Voltage Accuracy   %   ±1%     Output Voltage Accuracy   %   5V: 15%, 12-28V:12%     Minimum Load   A   None     Output Regulation   %   5V: 15%, 12-28V:12%     Vercurrent Protection   -   110 - 130% of nominal (Cycle input power to reset)     Oyerating Temperature   °C   -20 to +70°C derate linearly to 50% load from 50 to 70°C     Storage Temperature   °C   -20 to +70°C derate linearly to 50% load from 50 to 70°C     Storage Temperature   °C   -20 to +70°C derate linearly to 50% load from 50 to 70°C     Verovitage Protection <th>Model</th> <th></th> <th>CSS65</th>	Model		CSS65
	Input Voltage range	-	90 - 264VAC (47 - 63Hz)
Input Current (115/230VAC)   A   2/1     Leakage Current   uA   <250uA 264VAC 63Hz	Inrush Current (115/230VAC)	A	Less than 45A / 90A, 25°C ambient cold start
Leakage CurrentUA $<250uA 264VAC 63Hz$ Touch CurrentUA $<100uA 264VAC 63Hz$ Touch CurrentW $<75mW$ Average Efficiency% $5V: 86\%, 12-54V: 89\%$ Temperature Coefficient%/°C $\pm 0.05\%/°C$ Output Voltage Accuracy% $\pm 11\%$ Output Voltage Accuracy% $\pm 11\%$ Output Voltage Accuracy%NoneRemote Sense-YesMinimum LoadANoneOutput Voltage Voltage Accuracy%See Model SelectorOvercurent Protection%See Model SelectorOvercurent ProtectionV110 - 130% of nominal (Cycle input power to reset)Overcurent ProtectionV110 - 130% of nominal (Cycle input power to reset)Operating Temperature°C-20 to +70°C derate linearly to 50% load from 50 to 70°CStorage Temperature°C-20 to +30°C derate linearly to 50% load from 50 to 70°CVorturent NotageVACInput to Ground 1.5kVAC, Input to Output 4kVAC (Reinforced) (2 x MOPPS), Output to Ground 1.5kVAC (1xMOPPS).Isolation ResistanceMQ>20MQ at 25°C & 70%RH, Output to Ground 1.5kVAC (1xMOPPS).Safety Agency Certification-UL/CSA/IEC/EN60950-1, UL/CSA/IEC/EN60950-1, UL/CSA/IEC/EN60950-1	Input Current (115/230VAC)	A	2/1
Touch CurrentUA<100uA 264VAC 63HzOff-Load Power ConsumptionW<75mW	Leakage Current	uA	<250uA 264VAC 63Hz
Off-Load Power ConsumptionW<75mWAverage Efficiency%5V: 86%, 12-54V: 89%Temperature Coefficient%/°C $\pm 0.05\%$ °COutput Voltage Accuracy% $\pm 1\%$ Output Voltage Accuracy% $\pm 1\%$ Output Voltage Accuracy% $\pm 1\%$ Output Voltage Accuracy% $\pm 1\%$ NoneYesMinimum LoadANoneOutput Regulation% $5V: \pm 5\%, 12-28V: \pm 3\%, 48-54V: \pm 2\%$ Ninimum LoadANoneOutput Regulation% $5V: \pm 5\%, 12-28V: \pm 3\%, 48-54V: \pm 2\%$ Overcurrent Protection-110 - 180%, Auto-RecoveryOvercurrent Protection-110 - 130% of nominal (Cycle input power to reset)Operating Temperature°C-20 to +70°C derate linearly to 50% load from 50 to 70°CStorage Temperature°C-40 to +85°CHumidity (non condensing)%RH10 - 90%RHCooling-ConvectionWithstand VoltageVACInput to Ground 1.5kVAC, Input to Output 4k/AC (Reinforced) (2 x MOPPS), Output to Ground 1.5kVAC (1MOPPS).Isolation ResistanceMQ>20MQ at 25°C & 70%RH, Output to 500vDCVibration (non operating)-UL/CSA/IEC/EN6050-1, 1, UL/CSA/IEC/EN6050-1, 1, UL/CSA/IEC/EN6050-1, 1, UL/CSA/IEC/EN6050-1, 2, EC6100-4ShockEN505011-B, FCC class BImmunity-EN50501-B, FCC class BImmunity-EN50501-B, Cluding underside components)Weight (Typ)g136gSize (WxL	Touch Current	uA	<100uA 264VAC 63Hz
Average Efficiency%%Temperature Coefficient%/°C $\pm 0.05\%/°C$ Output Vidage Accuracy% $\pm 11\%$ Output Vidage Accuracy% $\pm 11\%$ Output Adjustment Range-NoneRemote Sense-YesMinimum LoadANoneOutput Regulation% $5V: \pm 5\%, 12-28V: \pm 3\%, 48-54V: \pm 2\%$ Ripple & Noise%See Model SelectorOvervoltage ProtectionV $110 - 180\%, Auto-Recovery$ Overvoltage ProtectionV $110 - 130\%$ of nominal (Cycle input power to reset)Operating Temperature°C-20 to $+70°C$ derate linearly to 50% load from 50 to 70°CStorage Temperature°C-20 to $-40$ to $+85°C$ Humidity (non condensing)%RH $10 - 90\%$ RHCooling-ConvectionWithstand VoltageVAClinput to Ground 1.5kVAC, Input to Output 4kVAC (Reinforced) $(2 \times MOPPS), Output to Ground 1.5kVAC (1xMOPPS).Isolation ResistanceMΩ>220MQ at 25°C & 70%RH, Output to Ground 500VDCVibration (non operating)-23.52m/s² (10 - 55Hz: constant sweep 1 min X, Y, Z for 1 hour)ShockShockConducted & Radiated EMI-ENS60601-1, AUSI/AMI ES60601-1, AUSI/AMI ES60601$	Off-Load Power Consumption	W	<75mW
Temperature Coefficient%/°C $\pm 0.05\%/°C$ Output Voltage Accuracy% $\pm 1\%$ Output Adjustment Range-NoneRemote Sense-YesMinimum LoadANoneOutput Regulation% $5V: \pm 5\%, 12-28V: \pm 3\%, 48-54V: \pm 2\%$ Ripple & Noise%See Model SelectorOvercurrent Protection-110 - 130% of nominal (Cycle input power to reset)Operating Temperature°C-20 to +70° C derate linearly to 50% load from 50 to 70° CStorage Temperature°C-40 to +85° CHumidity (non condensing)%RH10 - 90%RHCooling-ConvectionWithstand VoltageVACInput to Ground 1.5kVAC, Input to Oround 1.5kVAC (rainforced) (2 x MOPPS), Output to Ground 1.5kVAC (rainforced) (1 - 55%)ShockSafety Agency Certification-NutlcCSA/IEC/EN60601-1, ANSI/AAMI ES60601-1, UL/CSA/IEC/EN60505-1, UL/CSA/IEC/EN62368-1, CE MarkConducted & Radiated EMI-Immunity-Hordical: 3,000m, ITE: 5,000mWeight (Typ)gSize (WxLxH)in C 2 x 4 x 1.2" (including undersid	Average Efficiency	%	5V: 86%, 12-54V: 89%
Output Voltage Accuracy% $\pm 1\%$ Output Adjustment Range-NoneRemote Sense-NoneMinimum LoadANoneOutput Regulation% $5V: \pm 5\%, 12-28V: \pm 3\%, 48-54V: \pm 2\%$ Ripple & Noise%See Model SelectorOvercurrent Protection-110 - 180%, Auto-RecoveryOvercurrent ProtectionV110 - 130% of nominal (Cycle input power to reset)Overcurrent ProtectionV110 - 130% of nominal (Cycle input power to reset)Operating Temperature°C-20 to $\pm 70^\circ$ C derate linearly to 50% load from 50 to $70^\circ$ CStorage Temperature°C-20 to $\pm 70^\circ$ C derate linearly to 50% load from 50 to $70^\circ$ CCooling-ConvectionWithstand Voltage%RH10 - 90%RHCooling-Input to Ground 1.5kVAC (Input to Output 4kVAC (Reinforced) (2 x MOPPS), Output to Ground 1.5kVAC (1xMOPPS).Isolation ResistanceMQ>20MQ at 25°C & 70%RH, Output to Ground 500VDCVibration (non operating)-23.52m/s² (10 - 55Hz: constant sweep 1 min X, Y, Z for 1 hour)Shock-Conducted & Radiated EMI-UL/CSA/IEC/EN60601-1, ANSI/AAMI ES60601-1, UL/CSA/IEC/EN60601-1, ANSI/AAMI ES60601-1, UL/CSA/IEC/EN60601-1, AUSI/AAMI ES60601-1, UL/CSA/IEC/EN60601-1, 2, IEC61000-4Immunity-EN60601-1-2, IEC61000-4Meight (Typ)g136gSize (WxLxH)in $2 x 4 x 1.2''$ (including underside components) mmWarrantyyrsThree Years	Temperature Coefficient	%/°C	±0.05%/°C
Output Adjustment Range-NoneRemote Sense-YesMinimum LoadANoneOutput Regulation% $5V: \pm 5\%, 12-28V: \pm 3\%, 48-54V: \pm 2\%$ Ripple & Noise%See Model SelectorOvercurrent Protection- $-110 - 130\%$ of nominal (Cycle input power to reset)Operating Temperature°C $-20$ to $+70^\circ$ C derate linearly to 50% load from 50 to $70^\circ$ CStorage Temperature°C $-20$ to $+70^\circ$ C derate linearly to 50% load from 50 to $70^\circ$ CStorage Temperature°C $-20$ to $+70^\circ$ C derate linearly to 50% load from 50 to $70^\circ$ CStorage Temperature°C $-20$ to $+70^\circ$ C derate linearly to 50% load from 50 to $70^\circ$ CStorage Temperature°C $-20$ to $+70^\circ$ C derate linearly to 50% load from 50 to $70^\circ$ CStorage Temperature°C $-20$ to $+70^\circ$ C derate linearly to 50% load from 50 to $70^\circ$ CStorage Temperature°C $-20$ to $+70^\circ$ C derate linearly to 50% load from 50 to $70^\circ$ CStorage Temperature°C $-20$ to $+70^\circ$ C derate linearly to 50% load from 50 to $70^\circ$ CVibration (non operating)%RH $0$ Shock- $-20$ ConvectionVibration (non operating)- $23.52m/s^2$ (10 - 55Hz: constant sweep 1 min X, Y, Z for 1 hour)Shock- $-10E/SA/IEC/EN60601-1, ANSI/AAMI ES60601-1, UL/CSA/IEC/EN6050-1, UL/CSA/IEC/EN62368-1, CE MarkConducted & Radiated EMI-EN50601-1, L/CSA/IEC/EN60236-1, CE MarkImmunity-EN50601-1, L/CSA/IEC/EN60236-1, CE MarkWeight (Typ)g2 \times 4 \times 1.2^$	Output Voltage Accuracy	%	±1%
Remote Sense-YesMinimum LoadANoneOutput Regulation%Sty ±5%, 12-28V; ±3%, 48-54V; ±2%Ripple & Noise%See Model SelectorOvercurrent Protection-110 - 130%, Auto-RecoveryOvervoltage ProtectionV110 - 130% of nominal (Cycle input power to reset)Operating Temperature°C-20 to +70°C derate linearly to 50% load from 50 to 70°CStorage Temperature°C-40 to +85°CHumidity (non condensing)%RH10 - 90%RHCooling-ConvectionWithstand VoltageVACInput to Ground 1.5kVAC, Input to Output 4kVAC (Reinforced) (2 x MOPPS), Output to Ground 1.5kVAC (1xMOPPS).Isolation ResistanceMQ>20MQ at 25°C & 70%RH, Output to Ground 500VDCVibration (non operating)-23.52m/s² (10 - 55Hz: constant sweep 1 min X, Y, Z for 1 hour)Shock-UL/CSA/IEC/EN60950-1, UL/CSA/IEC/EN60368-1, CE MarkConducted & Radiated EMI-EN55011-B, FCC Class BImmunity-EN560601-1.2, IEC61000-4AltitudemMedical: 3,000m, ITE: 5,000mWeight (Typ)g136gSize (WxLxH)in2X 4 x 1.2" (including underside components)WarrantyyrsThree Years	Output Adjustment Range	-	None
Minimum LoadANoneOutput Regulation% $5V: \pm 5\%, 12-28V: \pm 3\%, 48-54V: \pm 2\%$ Ripple & Noise%See Model SelectorOvercurrent Protection- $110 - 180\%, Auto-Recovery$ Overvoltage ProtectionV110 - 130% of nominal (Cycle input power to reset)Operating Temperature°C-20 to +70°C derate linearly to 50% load from 50 to 70°CStorage Temperature°C-40 to +85°CHumidity (non condensing)%RH0.90%RHCooling-ConvectionWithstand VoltageVACInput to Ground 1.5kVAC, Input to Output 4kVAC (Reinforced) $(2 \times MOPPS)$ , Output to Ground 1.5kVAC (1xMOPPS).Isolation ResistanceMQ>20MQ at 25°C & 70%RH, Output to Ground 500VDCVibration (non operating)-23.52m/s² (10 - 55Hz: constant sweep 1 min X, Y, Z for 1 hour)Shock-196.1 m/s² (20G)Safety Agency Certification-UL/CSA/IEC/EN60601-1, ANS/IAAMI ES60601-1, UL/CSA/IEC/EN60361, UL/CSA/IEC/EN60368.1, CE MarkImmunity-EN55011-B, FCC Class BImmunity-EN5001-1.2, IEC61000-4AltitudemMedical: 3,000m, ITE: 5,000mWeight (Typ)g2 x 4 x 1.2" (including underside components)WarrantyyrsThree Years	Remote Sense	-	Yes
Output Regulation% $5V: \pm 5\%, 12-28V: \pm 3\%, 48-54V: \pm 2\%$ Ripple & Noise%See Model SelectorOvercurrent Protection-110 - 180%, Auto-RecoveryOvervoltage ProtectionV110 - 130% of nominal (Cycle input power to reset)Operating Temperature°C-20 to +70°C derate linearly to 50% load from 50 to 70°CStorage Temperature°C-40 to +85°CHumidity (non condensing)%RH10 - 90%RHCooling-ConvectionWithstand VoltageVACInput to Ground 1.5kVAC, Input to Output 4kVAC (Reinforced) (2 x MOPPS), Output to Ground 1.5kVAC (1xMOPPS).Isolation ResistanceMQ>20MQ at 25°C & 70%RH, Output to Ground 500VDCVibration (non operating)-Conducted & Radiated EMI-Conducted & Radiated EMI-Mumunity-EN560601-1, ANSI/AAMI ES60601-1, UL/CSA/IEC/EN60950-1, UL/CSA/IEC/EN60368-1, CE MarkConducted & Radiated EMI-EN56011-8, FCC Class BImmunity-EN60601-1-2, IEC61000-4AltitudemMedical: 3,000m, ITE: 5,000mWeight (Typ)g136gSize (WxLxH)in2 x 4 x 1.2" (including underside components)WarrantyyrsThree Years	Minimum Load	A	None
Ripple & Noise%See Model SelectorOvercurrent Protection-110 - 130%, Auto-RecoveryOvervoltage ProtectionV110 - 130% of nominal (Cycle input power to reset)Operating Temperature°C-20 to +70°C derate linearly to 50% load from 50 to 70°CStorage Temperature°C-40 to +85°CHumidity (non condensing)%RH10 - 90%RHCooling-ConvectionWithstand VoltageVACInput to Ground 1.5kVAC, Input to Output 4kVAC (Reinforced) (2 x MOPPS), Output to Ground 1.5kVAC (1xMOPPS).Isolation ResistanceMΩ>20MΩ at 25°C & 70%RH, Output to Ground 500VDCVibration (non operating)-23.52m/s² (10 - 55Hz: constant sweep 1 min X, Y, Z for 1 hour)Shock-Conducted & Radiated EMI-UL/CSA/IEC/EN60601-1, ANSI/AAMI ES60601-1, UL/CSA/IEC/EN60950-1, UL/CSA/IEC/EN62368-1, CE MarkConducted & Radiated EMI-EN50011-B, FCC Class BImmunity-EN60601-1-2, IEC61000-4AltitudemMedical: 3,000m, ITE: 5,000mWeight (Typ)g136gSize (WxLxH)in2 x 4 x 1.2" (including underside components)WarrantyyrsThree Years	Output Regulation	%	5V: ±5%, 12-28V: ±3%, 48-54V: ±2%
Overcurrent Protection-110 - 180%, Auto-RecoveryOvervoltage ProtectionV110 - 130% of nominal (Cycle input power to reset)Operating Temperature°C-20 to +70°C derate linearly to 50% load from 50 to 70°CStorage Temperature°C-40 to +85°CHumidity (non condensing)%RH10 - 90% RHCooling-ConvectionWithstand VoltageVACInput to Ground 1.5kVAC, Input to Output 4kVAC (Reinforced) (2 x MOPPS), Output to Ground 1.5kVAC (1xMOPPS).Isolation ResistanceMQ>20MQ at 25°C & 70% RH, Output to Ground 500VDCVibration (non operating)-23.52m/s² (10 - 55Hz: constant sweep 1 min X, YZ for 1 hour)Shock-UL/CSA/IEC/EN60601-1, ANSI/AAMI ES60601-1, UL/CSA/IEC/EN60601-1, ANSI/AAMI ES60601-1, UL/CSA/IEC/EN60601-1, 2, IEC61000-4Conducted & Radiated EMI-EN55011-B, FCC Class BImmunity-ImmunityVeight (Typ)g136gSize (WxLxH)in $2 x 4 x 1.2^{\circ}$ (including underside components) mmWarrantyyrsThree Years	Ripple & Noise	%	See Model Selector
Overvoltage ProtectionV110 - 130% of nominal (Cycle input power to reset)Operating Temperature°C-20 to +70°C derate linearly to 50% load from 50 to 70°CStorage Temperature°C-40 to +85°CHumidity (non condensing)%RH10 - 90%RHCooling-ConvectionWithstand VoltageVACInput to Ground 1.5kVAC, Input to Output 4kVAC (Reinforced) (2 x MOPPS), Output to Ground 1.5kVAC (1xMOPPS).Isolation ResistanceMQ>20MQ at 25°C & 70%RH, Output to Ground 500VDCVibration (non operating)-23.52m/s² (10 - 55Hz: constant sweep 1 min X, Y, Z for 1 hour)Shock-<196.1 m/s² (20G)	Overcurrent Protection	-	110 - 180%, Auto-Recovery
Operating Temperature°C-20 to +70°C derate linearly to 50% load from 50 to 70°CStorage Temperature°C-40 to +85°CHumidity (non condensing)%RH10 - 90%RHCooling-ConvectionWithstand VoltageVACInput to Ground 1.5kVAC, Input to Output 4kVAC (Reinforced) (2 x MOPPS), Output to Ground 1.5kVAC (1xMOPPS).Isolation ResistanceMΩ>20MΩ at 25°C & 70%RH, Output to Ground 500VDCVibration (non operating)-23.52m/s² (10 - 55Hz: constant sweep 1 min X, Y, Z for 1 hour)Shock-<196.1 m/s² (20G)	Overvoltage Protection	V	110 - 130% of nominal (Cycle input power to reset)
Storage Temperature°C-40 to +85°CHumidity (non condensing)%RH10 - 90%RHCooling-ConvectionWithstand VoltageVACInput to Ground 1.5kVAC, Input to Output 4kVAC (Reinforced) (2 x MOPPS), Output to Ground 1.5kVAC (1xMOPPS).Isolation ResistanceMΩ>20MΩ at 25°C & 70%RH, Output to Ground 500VDCVibration (non operating)-23.52m/s² (10 - 55Hz: constant sweep 1 min X, Y, Z for 1 hour)Shock-<196.1 m/s² (20G)	Operating Temperature	°C	-20 to +70°C derate linearly to 50% load from 50 to 70°C
Humidity (non condensing)%RH10 - 90%RHCooling-ConvectionWithstand VoltageVACInput to Ground 1.5kVAC, Input to Output 4kVAC (Reinforced) (2 x MOPPS), Output to Ground 1.5kVAC (1xMOPPS).Isolation ResistanceMΩ>20MΩ at 25°C & 70%RH, Output to Ground 500VDCVibration (non operating)-23.52m/s² (10 - 55Hz: constant sweep 1 min X, Y, Z for 1 hour)Shock-<	Storage Temperature	°C	-40 to +85°C
Cooling-ConvectionWithstand VoltageVACInput to Ground 1.5kVAC, Input to Output 4kVAC (Reinforced) (2 x MOPPS), Output to Ground 1.5kVAC (1xMOPPS).Isolation ResistanceMΩ>20MΩ at 25°C & 70%RH, Output to Ground 500VDCVibration (non operating)-23.52m/s² (10 - 55Hz: constant sweep 1 min X, Y, Z for 1 hour)Shock-< 196.1 m/s² (20G)	Humidity (non condensing)	%RH	10 - 90%RH
Withstand VoltageVACInput to Ground 1.5kVAC, Input to Output 4kVAC (Reinforced) (2 x MOPPS), Output to Ground 1.5kVAC (1xMOPPS).Isolation ResistanceMΩ>20MΩ at 25°C & 70%RH, Output to Ground 500VDCVibration (non operating)-23.52m/s² (10 - 55Hz: constant sweep 1 min X, Y, Z for 1 hour)Shock-< 196.1 m/s² (20G)	Cooling	-	Convection
Isolation ResistanceMΩ>20MΩ at 25°C & 70%RH, Output to Ground 500VDCVibration (non operating)- $23.52m/s^2$ (10 - 55Hz: constant sweep 1 min X, Y, Z for 1 hour)Shock-<196.1 m/s² (20G)	Withstand Voltage	VAC	Input to Ground 1.5kVAC, Input to Output 4kVAC (Reinforced) (2 x MOPPS), Output to Ground 1.5kVAC (1xMOPPS).
Vibration (non operating)-23.52m/s² (10 - 55Hz: constant sweep 1 min X, Y, Z for 1 hour)Shock-< 196.1 m/s² (20G)	Isolation Resistance	MΩ	>20MΩ at 25°C & 70%RH, Output to Ground 500VDC
Shock-<196.1 m/s² (20G)Safety Agency Certification-UL/CSA/IEC/EN60601-1, ANSI/AAMI ES60601-1, UL/CSA/IEC/EN60950-1, UL/CSA/IEC/EN62368-1, CE MarkConducted & Radiated EMI-EN55011-B, FCC Class BImmunity-EN60601-1-2, IEC61000-4AltitudemMedical: 3,000m, ITE: 5,000mWeight (Typ)g136gSize (WxLxH)in2 x 4 x 1.2" (including underside components) mmWarrantyyrsThree Years	Vibration (non operating)	-	23.52m/s <sup>2</sup> (10 - 55Hz: constant sweep 1 min X, Y, Z for 1 hour)
Safety Agency Certification-UL/CSA/IEC/EN60601-1, ANSI/AAMI ES60601-1, UL/CSA/IEC/EN60950-1, UL/CSA/IEC/EN62368-1, CE MarkConducted & Radiated EMI-EN55011-B, FCC Class BImmunity-EN60601-1-2, IEC61000-4AltitudemMedical: 3,000m, ITE: 5,000mWeight (Typ)g136gSize (WxLxH)in2 x 4 x 1.2" (including underside components) mmWarrantyyrsThree Years	Shock	-	< 196.1 m/s² (20G)
Conducted & Radiated EMI-UL/CSA/IEC/EN60950-1, UL/CSA/IEC/EN62368-1, CE MarkConducted & Radiated EMI-EN55011-B, FCC Class BImmunity-EN60601-1-2, IEC61000-4AltitudemMedical: 3,000m, ITE: 5,000mWeight (Typ)g136gSize (WxLxH)in2 x 4 x 1.2" (including underside components)mm50.8 x 101.6 x 30.5 (including underside components)Warrantyyrs	Safety Agency Certification	-	UL/CSA/IEC/EN60601-1, ANSI/AAMI ES60601-1,
Conducted & Radiated EMI-EN55011-B, FCC Class BImmunity-EN60601-1-2, IEC61000-4AltitudemMedical: 3,000m, ITE: 5,000mWeight (Typ)g136gSize (WxLxH)in2 x 4 x 1.2" (including underside components)mm50.8 x 101.6 x 30.5 (including underside components)WarrantyyrsThree Years			UL/CSA/IEC/EN60950-1, UL/CSA/IEC/EN62368-1, CE Mark
Immunity-EN60601-1-2, IEC61000-4AltitudemMedical: 3,000m, ITE: 5,000mWeight (Typ)g136gSize (WxLxH)in2 x 4 x 1.2" (including underside components)mm50.8 x 101.6 x 30.5 (including underside components)WarrantyyrsThree Years	Conducted & Radiated EMI	-	EN55011-B, FCC Class B
AltitudemMedical: 3,000m, ITE: 5,000mWeight (Typ)g136gSize (WxLxH)in2 x 4 x 1.2" (including underside components)mm50.8 x 101.6 x 30.5 (including underside components)WarrantyyrsThree Years	Immunity	-	EN60601-1-2, IEC61000-4
Weight (Typ)g136gSize (WxLxH)in2 x 4 x 1.2" (including underside components)mm50.8 x 101.6 x 30.5 (including underside components)WarrantyyrsThree Years	Altitude	m	Medical: 3,000m, ITE: 5,000m
Size (WxLxH) in 2 x 4 x 1.2" (including underside components)   mm 50.8 x 101.6 x 30.5 (including underside components)   Warranty yrs	Weight (Typ)	g	136g
mm50.8 x 101.6 x 30.5 (including underside components)WarrantyyrsThree Years	Size (WxLxH)	in	2 x 4 x 1.2" (including underside components)
Warranty yrs Three Years		mm	50.8 x 101.6 x 30.5 (including underside components)
	Warranty	yrs	Three Years

#### **Outline Drawings**



#### **Model Selector**

Model	Output (V)	Maximum Output (A)	Maximum Power (W)	Ripple and Noise Full Load (mV)	Ripple and Noise <30% Load (mV) (1)
CSS65A-5	5	8.0	40	100	200
CSS65A-12	12	5.42	65	120	200
CSS65A-15	15	4.34	65	120	300
CSS65A-19	19	3.43	65	120	300
CSS65A-24	24	2.71	65	200	300
CSS65A-28	28	2.33	65	200	350
CSS65A-48	48	1.36	65	200	480
CSS65A-54	54	1.21	65	200	480

Note:

(1) Ripple level increases at light loading to meet new efficiency standards

Options	
Suffix	Description
Blank	Molex Input and Output Connectors
/J	JST Input and Output Connectors

For Additional Information, please visit <u>https://product.tdk.com/en/power/</u>



# **Mouser Electronics**

Authorized Distributor

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**TDK-Lambda**:

CSS65A19 CSS65A48 CSS65A12 CSS65A24 CSS65A5 CSS65A28 CSS65A15 CSS65A54