



ED Series AC Output Pluggable SSRs

- 12 x 29 mm industry standard plug-in package
- 3 & 5 Amps output power rating available
- 3 to 15 VDC, 18 to 32 VDC, 48 to 72 VDC, 18 to 36 VAC & 90 to 140 VAC control input options available
- Plug in replacement of EMRs
- Convenient Quick Connect terminals for PCB or direct wiring
- Fits standard DIN rail & PCB mountable sockets, also available as accessories
- UL & IEC Resistive/Motor Ratings available
- LED input status indicator
- Zero Voltage for resistive loads and Random Turn-On for inductive loads versions available

Output Specifications (A)

	ED24x3	ED24x5
Operating Voltage Range (47-63 Hz) [Vrms]	24-280 VAC	
Transient Overvoltage [Vpk]	600	
Maximum Off-State Leakage Current @ Maximum Operating Voltage [mA _{rms}]	0.1	
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec]	500	500
Maximum Load Current [Arms]	3	5
Minimum Load Current [Arms]	150 mA	
1 Cycle Surge Current (50/60 Hz) [A _{pk}]	240 / 250 (B)	600 / 625 (A)
Maximum Pt for Fusing (50/60Hz) [A ² sec]	285 / 260	1780 / 1620
Maximum On-State Voltage Drop @ Rated Current [V _{pk}]	≤1.1	
Minimum Power Factor (with Maximum Load)	0.5	
UL 508 Resistive Load @ 280 VAC [Arms]	3	5
UL 508 Motor Controller @ 240 VAC [HP]	¼	½
IEC 62314 LC-A @ 280 VAC [FLA]	3	5
IEC 62314 LC-B @ 240 VAC [Kw]	0.37	0.55

Input Specifications (A)

	ED24Dx	ED24Cx	ED24Fx	ED24E5	ED24B5
Control Voltage Range	3-15 VDC	18-32 VDC	48-72 VDC	18-36 VAC	90-140 VAC
Minimum Turn-On Voltage	3 VDC	18 VDC	48 VDC	18 VAC	90 VAC
Must Turn-Off Voltage	1.9 VDC	10.5 VDC	24 VDC	10 VAC	48 VAC
Maximum Reverse Voltage [VDC]	6				
Minimum Input Current (for on-state)	3.8 mA @ 3 VDC	3.8 mA @ 18 VDC	3.8 mA @ 48 VDC	3.8 mA @ 18 VAC	3.2 mA @ 90 VAC
Maximum Input Current	33.8 mA @ 15 VDC	6.9 mA @ 32 VDC	5.8 mA @ 72 VDC	8.5 mA @ 36 VAC	4.9 mA @ 140 VAC
Nominal Input Impedance [Ohm]	500	4.8 K	12.5 K	4.5 K	28 K
Maximum Turn-On Time [msec] (Zero Voltage)				1/2 Cycle (C)	
Maximum Turn-Off Time [msec]				1/2 Cycle (D)	

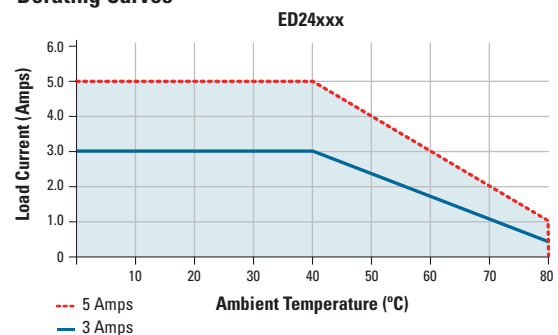
General Specifications (A)

	ED24x3	ED24x5
Dielectric Strength, Input to Output to Base (50/60Hz) [Vrms]	3750	
Minimum Insulation Resistance @ 500 VDC	10 ⁹	
Maximum Capacitance, Input to Output [pF]	10	
Ambient Operating Temperature Range [°C]	-30 to 80	
Ambient Storage Temperature Range [°C]	-40 to 125	
IP ratings	IP00 / IP10 when mounted in PCBSED / DRSED socket or equivalent	
Housing Material	PBT 30% GF, UL 94 V0	
Terminal Finish	Sulfamate Nickel	
LED Status Indicator for Control Input	On: Green	
Weight (typical) [oz] (gr)	0.705 (20)	1.06 (30)
Humidity	5 to 85% HR	
Terminal type / size [in] (mm)	Quick Connect / 0.187 x 0.02 (4.75 x 0.51)	

General Notes

- (A) All parameters at 25°C unless otherwise specified.
- (B) T_j = 25°C, time: 20 msec. (50 Hz) / 16.6 msec. (60 Hz).
- (C) Turn-On time for Random-type AC Output (R suffix) is 0.1 msec for DC Control Models, and for AC Control Models is 20 msec.
- (D) Turn-Off Time for AC output versions with AC control is 30 msec.
- (E) UL ratings are for relays only. To achieve maximum ratings, there must be a minimum spacing of 0.67 in (≥17 mm) between the devices in free air.
- (F) 100% Duty Cycle.

Derating Curves (E,F)





ED Series DC Output Pluggable SSRs

- 12 x 29 mm industry standard plug-in package
- 5 Amps output power rating
- 5 to 15 VDC, 18 to 32 VDC, 48 to 72 VDC, 18 to 36 VAC & 90 to 140 VAC control input options available
- Plug in replacement of EMRs
- Convenient Quick Connect terminals for PCB or direct wiring
- Fits standard DIN rail & PCB mountable sockets, also available as accessories
- UL & IEC Resistive/Motor Ratings available
- LED input status indicator

Output Specifications (A)

	ED06x5	ED10x5			
Absolute maximum operating voltage [VDC]	60	100			
Rated Voltage [VDC]	1-48	1-80			
	EDxxD5	EDxxC5	EDxxF5	EDxxE5	EDxxB5
Maximum Off-State Leakage Current @ Rated Voltage [μ A]			20 (P)		
Maximum Load Current [A]			5		
Minimum Load Current [A]			0.1		
Maximum Surge Current (10ms) [ADC]			60 (Q)		
Maximum On-State Voltage Drop @ 40°C Rated Current [VDC]			\leq 0.3		
Maximum On-State Resistance (RDS-ON) [Ohm]			0.034 (R)		
Maximum PWM (Hz)	500	500	500	N/A	N/A
UL 508 Resistive Load @ Rated Voltage [A]	5	5	5	5	5
UL 508 Motor Controller @ Rated Voltage [FLA]	2	2	2	1.5	1.5
IEC 60947-4-1 DC-1 @ Rated Voltage [ADC]	5	5	5	5	5
IEC 60947-4-1 DC-3 @ Rated Voltage [FLA]	5	5	5	5	5

Input Specifications (A)

	EDxxD5	EDxxC5	EDxxF5	EDxxE5	EDxxB5
Control Voltage Range	5-15 VDC	18-32 VDC	48-72 VDC	18-36 VAC	90-140 VAC
Minimum Turn-On Voltage	5 VDC	18 VDC	48 VDC	18 VAC	90 VAC
Must Turn-Off Voltage	1.3 VDC	2.0 VDC	4.0 VDC	4.0 VAC	11 VAC
Maximum Reverse Voltage [VDC]			3		
Minimum Input Current (for on-state)	11 mA @ 5 VDC	10.7 mA @ 18 VDC	10.8 mA @ 48 VDC	12 mA @ 18 VAC	7.3 mA @ 90 VAC
Maximum Input Current	42.8 mA @ 15 VDC	19.7 mA @ 32 VDC	16.3 mA @ 72 VDC	25.3 mA @ 36 VAC	10.9 mA @ 140 VAC
Nominal Input Impedance [Ohm]	350	1.6 K	4.4 K	1.5 K	12.5 K
Maximum Turn-On Time [msec]			0.6		
Maximum Turn-Off Time [msec]			0.3		

General Specifications (A)

	EDxxD5	EDxxC5	EDxxF5	EDxxE5	EDxxB5
Dielectric Strength, Input/Output/Base (50/60Hz) [Vrms]			2500		
Minimum Insulation Resistance @ 500 VDC			10^9		
Maximum Capacitance, Input/Output [pF]			10		
Ambient Operating Temperature Range [°C]			-30 to 80		
Ambient Storage Temperature Range [°C]			-40 to 125		
Housing Material			PBT 30% GF, UL 94 V0		
Terminal Finish			Sulfamate Nickel		
IP ratings			IP00 / IP10 when mounted in PCBSED / DRSED socket or equivalent		
LED Status Indicator for Control Input			On: Green		
Weight (typical) [oz] (gr)	0.705 (20)	0.705 (20)	0.705 (20)	1.06 (30)	1.06 (30)
Humidity			5 to 85% HR		
Terminal type / size [in] (mm)			Quick Connect / 0.187 x 0.020 (4.75 x 0.51)		

General Notes

- (A) All parameters at 25°C unless otherwise specified.
- (P) Output Voltage is Maximum Operating Voltage, Control Voltage = 0 V, $T_j = 25^\circ\text{C}$
- (Q) Output Voltage = 2.5 VDC
- (R) At maximum load current
- (S) UL ratings are for relays only. To achieve maximum ratings, there must be a minimum spacing of 0.63 in (≥ 16 mm) between the devices in free air
- (F) 100% Duty Cycle

Derating Curves (S,F)

