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Installation Sheet

LifePlus ED Series AC/DC Output Pluggable SSRs

MOUNTING INSTRUCTIONS

Please read all installation instructions before using ED Series SSRs.

- Select mounting type. DIN rail mountable (DRSED) and PCB mountable (PCBSED) sockets are sold separately.
- Mounting an ED series SSR using a DIN rail mountable socket:
 - ◆ Insert ED series SSR into DRSED socket observing terminals' orientation (fig. 1).
 - ◆ Secure ED SSR using latching mechanism on socket until you hear a clicking sound.
 - ◆ Install the ED series SSR / socket on the DIN rail as shown in fig.1
 - ◆ Wire the socket DRSED to the input/output side (fig. 5). 24 AWG minimum, 2 x 14 AWG (stranded/solid) maximum, choose wire gauge according to load current. Maximum recommended terminal screw torque 5.3-8.85 in lbs (0.60-1.2 N m) on input/output terminations.
 - ◆ To retrieve the ED series SSR from socket, first unlock latching mechanism, as shown in fig.1, then gently pull the SSR.
 - ◆ Release DRSED socket from DIN rail using a screwdriver. See fig.1.
 - ◆ If multiple units are installed be sure to follow derating curve.
- Mounting an ED series SSR using a PCB mountable socket:
 - ◆ Before mounting the ED series SSR into the PCBSED socket, first solder PCBSED socket onto PC board.
 - ◆ When soldering the relay terminals, use a soldering iron of 30 to 60W, and quickly complete soldering (within approximately 3 seconds). Use a non-corrosive resin flux.
 - ◆ Insert ED series SSR into PCBSED socket observing terminals' orientation (fig. 2).
 - ◆ Secure ED SSR using latching mechanism on socket until you hear a clicking sound.
 - ◆ To retrieve the ED series SSR from socket, first unlock latching mechanism, as shown in fig.2, then gently pull the SSR.

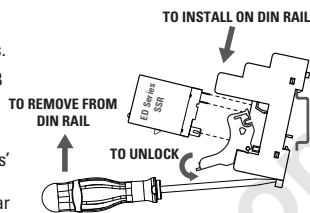


fig. 1 DRSED Socket Mounting/Dismounting

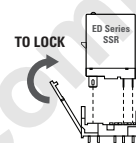


fig. 2 PCBSED Socket Mounting

PART NUMBER NOMENCLATURE

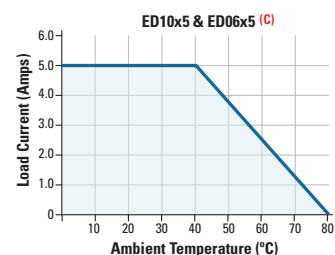
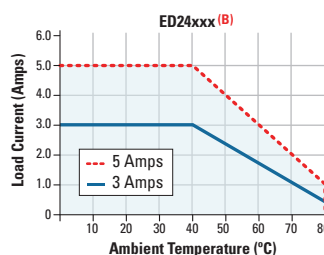
<p>Series</p> <p>ED</p>	<p>Output Voltage</p> <p>06: 1-48 VDC (5 Amps only) 10: 1-80 VDC (5 Amps only) 24: 24-280 VAC</p>	<p>Operational Current</p> <p>3: 3 Amps (not available with B & E suffixes) 5: 5 Amps</p>
<p>ED</p>	<p>24</p>	<p>C</p>
<p>5</p>	<p>R</p>	<p>Control Voltage</p> <p>B: 90-140 VAC C: 18-32 VDC D: 3-15 VDC * E: 18-36 VAC F: 48-72 VDC</p>
		<p>Switching Mode</p> <p>Blank: Zero Voltage Turn-On (AC Output only) R: Random Turn-On (AC Output only)</p>

● Required for valid part number
● For options only and not required for valid part number

* 5-15 VDC range for ED06D5 & ED10D5

DERATING CURVES (A)

The following derating curves must be observed before installation.



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WIRING DIAGRAM (D,E)

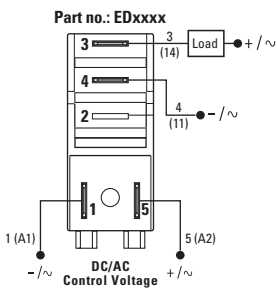


fig. 3 ED series relay (F,G)
(bottom view)

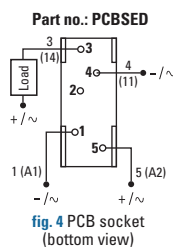


fig. 4 PCB socket
(bottom view)

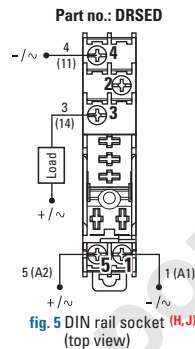


fig. 5 DIN rail socket (H,J)
(top view)

- (A) UL ratings are for relays only. 100% Duty Cycle.
- (B) Curve based on a minimum spacing between parts of 17mm for ED24x5 and 13mm for ED24x3. Maximum current @ 0mm spacing is 2.7A for ED24x5 and 2.3A for ED24x3 @ 40°C. Derating Value: ED24x5 = 0.135A per mm, ED24x3 = 0.054A per mm.
- (C) Curve based on a minimum spacing between parts of 16mm. Maximum current @ 0mm spacing is 3A. Derating Value: ED06x5, ED10x5 = 0.125A per mm.
- (D) DC inductive loads must be diode suppressed.
- (E) No grounding required.
- (F) For sockets intended for AC input control voltage, the AC line can be wired to either DRSED socket terminal 1 (A1-) or terminal 5 (A2+). Proper polarity must be observed for DC input control voltage sockets being terminal 5 (A2+) positive with respect to terminal 1 (A1-).
- (G) For AC loads, the AC line can be wired to either DRSED socket terminal 4 (11) or terminal 3 (14). The AC load may also be wired on either the line or neutral side of the SSR. For DC loads, the proper polarity must be observed for the power supply, load and DRSED socket with terminal 3 (14) being positive with respect to terminal 4 (11).
- (H) Minimum wire strip length 0.197 in (5 mm), maximum 0.256 in (6.5 mm).
- (J) Input / Output terminals screw M3 Combo Drive.

⚠ DANGER / DANGER / GEFARH / PELIGRO / PERICOLO / 危險

<p>HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH</p> <ul style="list-style-type: none"> • Turn off power supply before working on this equipment. <p>Failure to follow these instructions will result in death or serious injury.</p>	<p>RISQUE D'ELECTROCUTION, D'EXPLOSION OU D'ARC ELECTRIQUE</p> <ul style="list-style-type: none"> • Coupez l'alimentation avant de travailler sur cet appareil. <p>Le non-respect de ces instructions provoquera la mort ou des blessures graves.</p>	<p>STROMSCHLAG-, EXPLOSIONS- ODER LICHTBOGENGEFAHR</p> <ul style="list-style-type: none"> • Vor dem Arbeiten an dem Gerät dessen Stromversorgung abschalten. <p>Die Nichtbeachtung dieser Anweisungen führt zu Tod oder schwerer Körperverletzung.</p>
<p>RIESGO DE ELECTROCUCIÓN, EXPLOSIÓN O ARCO ELÉCTRICO</p> <ul style="list-style-type: none"> • Desconecte toda alimentación antes de realizar el servicio. <p>Si no se siguen estas instrucciones provocará lesiones graves o incluso la muerte.</p>	<p>RISCHIO DI SCOSSA ELETTRICA, DI ESPLOSIONE O DI OFTALMIA DA FLASH</p> <ul style="list-style-type: none"> • Scollegare l'apparecchio dalla presa di corrente prima di qualsiasi intervento. <p>Il mancato rispetto di queste istruzioni provocherà morte o gravi infortuni.</p>	<p>存在电击、爆炸或电弧闪烁危险</p> <ul style="list-style-type: none"> • 在操作此设备之前请先关闭电源。 <p>若不遵守这些说明，可能会导致严重的人身伤害甚至死亡。</p>

⚠ WARNING / AVERTISSEMENT / WARNUNG / ADVERTENCIA / AVVERTENZA / 警告

<p>RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE</p> <ul style="list-style-type: none"> • The product's side panels may be hot, allow the product to cool before touching. • Follow proper mounting instructions including torque values. • Do not allow liquids or foreign objects to enter this product. <p>Failure to follow these instructions can result in serious injury, or equipment damage.</p>	<p>RISQUE DE DOMMAGE MATERIEL ET DE SURCHAUFFE DU BOITIER</p> <ul style="list-style-type: none"> • Les panneaux latéraux du produit peuvent être chauds. Laisser le produit refroidir avant de le toucher. • Respecter les consignes de montage, et notamment les couples de serrage. • Ne pas laisser pénétrer de liquide ni de corps étrangers à l'intérieur du produit. <p>Le non-respect de cette directive peut entraîner, des lésions corporelles graves ou des dommages matériels.</p>	<p>GEFAHR VON MATERIALSCHÄDEN UND GEHÄUSEERHITZUNG</p> <ul style="list-style-type: none"> • Die Seitenwände können heiß sein. Lassen Sie das Produkt abkühlen, bevor Sie es berühren. • Beachten Sie die Montageanweisungen. • Führen Sie keine Flüssigkeiten oder Fremdkörper in das Produkt ein. <p>Die Nichtbeachtung dieser Anweisung kann Körperverletzung oder Materialschäden zur Folge haben.</p>
<p>RIESGO DE DAÑOS MATERIALES Y DE SOBRECALENTAMIENTO DE LA UNIDAD</p> <ul style="list-style-type: none"> • Los paneles laterales del producto pueden estar calientes. Esperar que el producto se enfríe antes de tocarlo. • Respetar las instrucciones de montaje, y en particular los pares de apretado. • No dejar que penetren líquidos o cuerpos extraños en el producto. <p>Si no se respetan estas precauciones pueden producirse graves lesiones, daños materiales.</p>	<p>RISCHIO DI DANNI MATERIALI E D'INVOLUCRO CALDO</p> <ul style="list-style-type: none"> • I pannelli laterali dell'apparecchio possono scottare; lasciar quindi raffreddare il prodotto prima di toccarlo. • Seguire le istruzioni di montaggio corrette. • Non far entrare liquidi o oggetti estranei in questo apparecchio. <p>La mancata osservanza di questa precauzione può causare gravi rischi per l'incolumità personale o danni alle apparecchiature.</p>	<p>材料损坏和高温外壳的危险性</p> <ul style="list-style-type: none"> • 产品的一侧面板可能很热，在其冷却前请不要触碰。 • 遵照正确的安装说明，包括扭矩值。 • 请勿让液体及其他异物进入本产品。 <p>如不能正确执行这些操作说明，极有可能造成严重人身伤害或者设备的损坏。</p>