

**PSSR 24VDC/1PH AC75A HP****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Product image**

Similar to illustration

- Load circuit: 1-phase 26...600 V AC / 50 A or 75 A
- Zero-cross switch
- Wear-free and silent switching
- High capacity for handling surge currents ( $I^2t$ ) up to 6000 A<sup>2</sup>s (10 ms)
- Plug-in current-monitoring module
- Compact design for direct mounting on a metal surface or heat sink

**General ordering data**

|            |                                                                                                                                                                                                                                                          |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Version    | Power Solid-State Relais, Solid state contactor, 1 NO contact (Thyristor (zero-cross switch)), Rated control voltage: 3.5...32 V DC, Rated switching voltage: 24...600 V AC, Continuous current: 62 A (AC51) at 40 °C, mounted on heatsink with 0.75 K/W |
| Order No.  | <a href="#">1406250000</a>                                                                                                                                                                                                                               |
| Type       | PSSR 24VDC/1PH AC75A HP                                                                                                                                                                                                                                  |
| GTIN (EAN) | 4050118206852                                                                                                                                                                                                                                            |
| Qty.       | 2 pc(s).                                                                                                                                                                                                                                                 |

Creation date March 23, 2021 9:25:01 PM CET

## PSSR 24VDC/1PH AC75A HP

Weidmüller Interface GmbH &amp; Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

## Technical data

## Dimensions and weights

|                |            |                 |            |
|----------------|------------|-----------------|------------|
| Depth          | 29 mm      | Depth (inches)  | 1.142 inch |
| Height         | 58.5 mm    | Height (inches) | 2.303 inch |
| Net weight     | 88 g       | Width           | 45 mm      |
| Width (inches) | 1.772 inch |                 |            |

## Temperatures

|                     |                                    |                       |                 |
|---------------------|------------------------------------|-----------------------|-----------------|
| Storage temperature | -55 °C...125 °C                    | Operating temperature | -55 °C...100 °C |
| Humidity            | 40...85 % (indoor) no condensation |                       |                 |

## Environmental Product Compliance

|            |                |
|------------|----------------|
| REACH SVHC | Lead 7439-92-1 |
|------------|----------------|

## Rated data UL

|                         |         |
|-------------------------|---------|
| Certificate No. (cURus) | E360862 |
|-------------------------|---------|

## Control side

|                         |                       |                                |               |
|-------------------------|-----------------------|--------------------------------|---------------|
| Nominal control current | 13.4 mA DC $\pm 20$ % | Power rating                   | $\leq 280$ mW |
| Protective circuit      | Suppressor diode      | Pull-in/drop-out voltage, typ. | 3 V / 2 V DC  |
| Rated control voltage   | 3.5...32 V DC         | Status indicator               | Green LED     |

## Load side

|                                       |                                                        |                                               |                               |
|---------------------------------------|--------------------------------------------------------|-----------------------------------------------|-------------------------------|
| Continuous current                    | 62 A (AC 51) @ 40 °C mounted on heatsink with 0.75 K/W | Inrush current                                | 600 A (10 ms)                 |
| Leakage current                       | $\leq 1$ mA                                            | Load category                                 | AC 51                         |
| Load limit integral ( $I^2t$ ) <10 ms | 6,000 A <sup>2</sup> s                                 | Max. switching current                        | 90 A                          |
| Min. switching current                | 5 mA                                                   | Output voltage frequency range                | 50 / 60 Hz                    |
| Protective circuit, load side         | Varistor                                               | Pulse load, max. current                      | 1100 A (10 ms), non-recurrent |
| Rated switching voltage               | 24...600 V AC                                          | Short-circuit-proof                           | No                            |
| Switch-off delay                      | $\leq 10$ ms                                           | Switch-on delay                               | $\leq 10$ ms                  |
| Voltage drop at max. load             | $\leq 1.4$ V                                           | max. switching frequency (DC control voltage) | 10 Hz                         |

## Contact data

|              |                                              |
|--------------|----------------------------------------------|
| Contact type | 1 NO contact (Thyristor (zero-cross switch)) |
|--------------|----------------------------------------------|

## General data

|         |                                                             |        |       |
|---------|-------------------------------------------------------------|--------|-------|
| Version | Single-phase without heat sink (zero-voltage switch output) | Colour | black |
|---------|-------------------------------------------------------------|--------|-------|

## PSSR 24VDC/1PH AC75A HP

Weidmüller Interface GmbH &amp; Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

## Technical data

## Insulation coordination

Clearance and creepage distances for control side - load side  $\geq 8 \text{ mm}$ Dielectric strength for control side - load side  $4 \text{ kV}_{\text{eff}}$ 

Pollution severity 2

Surge voltage category III

Dielectric strength of load side - housing  $4 \text{ kV}_{\text{eff}}$ Impulse withstand voltage  $4 \text{ kV (1.2/50 } \mu\text{s)}$ 

Protection degree IP20

## Further details of approvals / standards

|           |                                     |                         |         |
|-----------|-------------------------------------|-------------------------|---------|
| Standards | EN 60947-4-3, EN 60950, IEC 60335-1 | Certificate No. (cURus) | E360862 |
|-----------|-------------------------------------|-------------------------|---------|

## Connection data (control side)

|                                                     |                               |                                                     |                    |
|-----------------------------------------------------|-------------------------------|-----------------------------------------------------|--------------------|
| Wire connection method (control side)               | Screw connection              | Nom. rated connection clamping range (control side) | $1.5 \text{ mm}^2$ |
| Min. rated connection clamping range (control side) | $0.75 \text{ mm}^2$           | Max. rated connection clamping range (control side) | $2.5 \text{ mm}^2$ |
| Wire connection method (control side)               | M4 ring cable lug (insulated) | Min. tightening torque (control side)               | $1.2 \text{ Nm}$   |
| Max. tightening torque (control side)               | $2 \text{ Nm}$                | Blade size (control side)                           | Gr. PZ2            |

## Connection data (load side)

|                                                  |                               |                                                  |                   |
|--------------------------------------------------|-------------------------------|--------------------------------------------------|-------------------|
| Wire connection method (load side)               | Screw connection              | Nom. rated connection clamping range (load side) | $10 \text{ mm}^2$ |
| Min. rated connection clamping range (load side) | $1.5 \text{ mm}^2$            | Max. rated connection clamping range (load side) | $10 \text{ mm}^2$ |
| Wire connection method (load side)               | M5 ring cable lug (insulated) | Min. tightening torque (load side)               | $2 \text{ Nm}$    |
| Max. tightening torque (load side)               | $3 \text{ Nm}$                | Blade size (load side)                           | Gr. PZ2           |

## Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC002055    | ETIM 7.0    | EC002055    |
| ECLASS 9.0  | 27-37-10-14 | ECLASS 9.1  | 27-37-10-14 |
| ECLASS 10.0 | 27-37-10-14 | ECLASS 11.0 | 27-37-10-14 |

## Approvals

Approvals



|                       |         |
|-----------------------|---------|
| ROHS                  | Conform |
| UL File Number Search | E360862 |

## Downloads

|                                             |                                                                         |
|---------------------------------------------|-------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">EU Konformitätserklärung / EU Declaration of Conformity</a> |
| Engineering Data                            | <a href="#">EPLAN, WSCAD</a>                                            |
| User Documentation                          | <a href="#">Beipackzettel / Package Insert - multilingual</a>           |

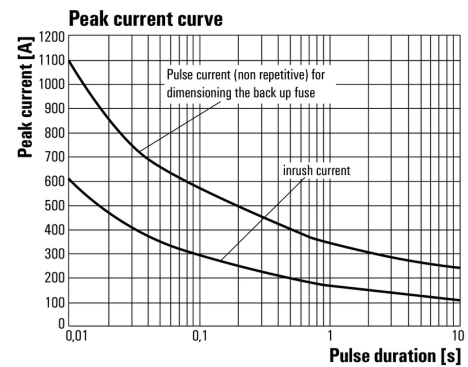
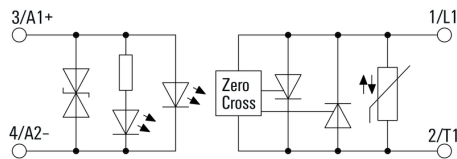
## PSSR 24VDC/1PH AC75A HP

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 26  
D-32758 Detmold  
Germany

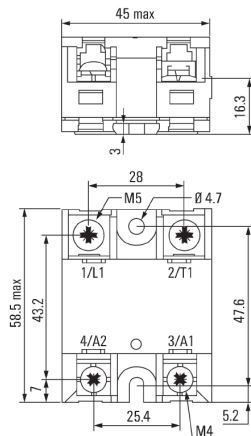
[www.weidmueller.com](http://www.weidmueller.com)

## Drawings

### Wiring diagram



### Dimensional drawing



## PSSR 24VDC/1PH AC75A HP

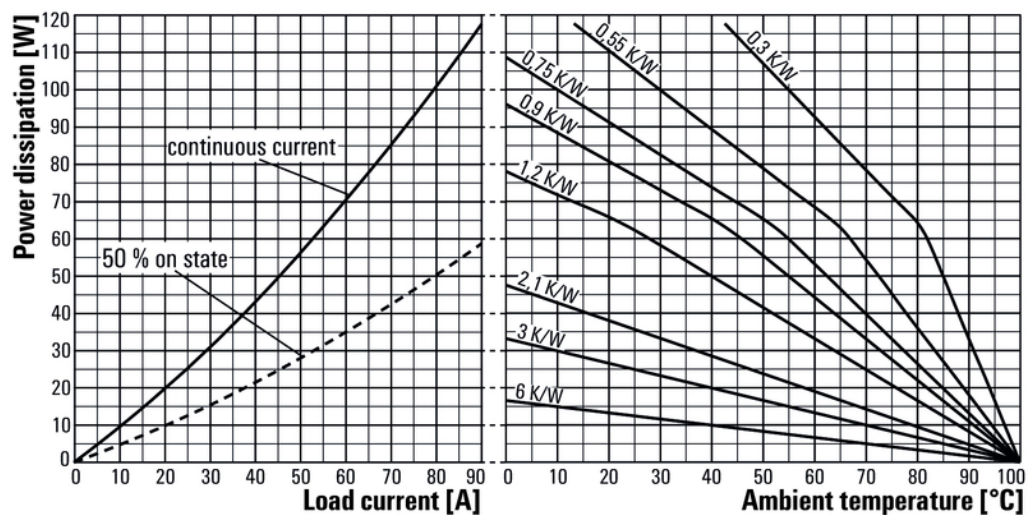
**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 26  
D-32758 Detmold  
Germany

[www.weidmueller.com](http://www.weidmueller.com)

# Drawings

## Derating curve

Thermal curves and heatsink choice



**PSSR 24VDC/1PH AC75A HP****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Drawings****Signal characteristics of zero cross switching PSSR**

shown at an example with resistive load

