IDED Thermal Overload Relays RW Series – Bi-Metallic



Overview

An extended operational service life is one of the main features you'll find in RW overload relays. WEG's RW Thermal Overload Relays are designed for use with, and as perfect complement to, WEG contactors. RW overload relays can be mounted directly under WEG contactors, assuring electrical and mechanical operation as an open across-the-line starter. Accessories are also available for separate mounting.

Features

- 3-pole version available
- Direct mounting to WEG contactors with no accessory required (accessories also available for separate mounting)
- Phase-loss and current unbalance sensitivity protection
- Class 10 trip characteristics
- Selectable RESET button (auto or manual)
- Isolated 1NO and 1NC auxiliary contacts



UL File No. E189202

RW67-5D3-U040

RW Series Contactor Catalog Number Sequence

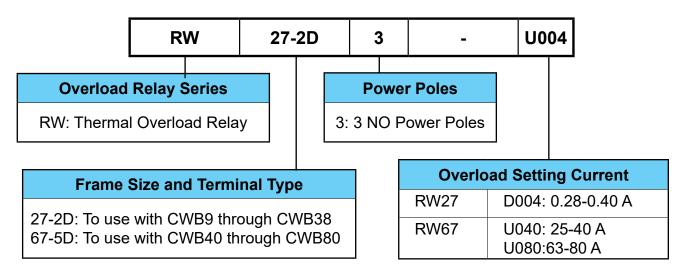


Table intended as reference only and not to create part numbers.

For complete list of overload setting ranges, refer to selection guide tables.

LIED Thermal Overload Relays RW Series – Bi-Metallic

Multifunction Reset/Test Button

The thermal overload relay has a multifunction RESET/TEST button that can be set in four different positions:

A - Automatic RESET only AUTO - Automatic RESET / TEST HAND - Manual RESET / TEST H - Manual RESET only



In HAND and AUTO positions, when the RESET button is pressed, both NO (97-98) and NC (95-96) contacts change states.

Operation



RW67-5D3-U040

In the H (manual RESET only) or A (automatic RESET only) position, the test function is blocked. However, in the HAND (manual RESET/ TEST) or AUTO (automatic RESET/TEST) positions it is possible to simulate the test and the trip functions by pressing the RESET button.

When set in the H or HAND position, the RESET button must be pressed manually to reset the overload relay after a tripping event. On the other hand, when set in A or AUTO position, the overload relay will reset automatically after a tripping event.

The H, HAND, AUTO or A function settings are selected by rotating without pressing the red button and placing it in the desired position.

When changing from HAND to AUTO, the RESET button must be slightly pressed while the red button is rotated.

Function	н	HAND	AUTO	А
Relay Reset	Manual1	Manual1	Automatic	Automatic
Auxiliary Contact Trip Test 95-96 (NC)	Function is disabled	Test is allowed	Test is allowed	Function is disabled
Auxiliary Contact Trip Test 97-98 (NO)	Function is disabled	Test is allowed	Test is allowed	Function is disabled

Note: A recovery time of a few minutes is necessary before resetting the thermal overload relay.

Recovery Time

The RW thermal overload relays have thermal memory. After tripping due to an overload, the relay requires a certain period of time (the "recovery time") for the bimetal strips to cool down. The relay can only be reset once it has cooled down. The recovery time depends on the characteristic tripping curves and the level of the tripping current. After tripping due to overload, the recovery time allows the load to cool down.

Dial FLA Setting

The trip current is set via a continuously adjustable dial designed with the motor's full load current (FLA) in mind.

Temperature compensation

Because RW thermal overload relays include a forth bimetallic strip in addition to the three that are directly heated by the motor current, ambient temperature variations in the range of $-4^{\circ}F$ to $+140^{\circ}F$ [$-20^{\circ}C$ to $+60^{\circ}C$] are no obstacle for accurate protection of your motors even in the toughest conditions.

Phase Failure Sensitivity

WEG overload relays include phase failure sensitivity protection as a standard. This feature ensures fast tripping in case of phase-loss, protecting your motor and avoiding expensive repairs/corrective maintenance.

IDED Thermal Overload Relays RW Series – Bi-Metallic

Three-Pole Thermal Overload Relay Class 10 For Use With CWB Contactors



RW27-2D3-D008



RW67-5D3-U080



RW117-3D3-U140

Features

- Adjustable trip current
- Phase-loss sensitivity
- Trip Class 10
- Built-in auxiliary contacts: 1 NO and 1 NC
- Ambient temperature compensation (-4°F to +140°F [-20°C to +60°C])
- Multi-function button: Hand/ Auto/Reset

	RW Series Bi-Metallic Thermal Overload Relays Selection Guide						
Part Number	Price	Motobing Contactor	Setting I	Range (A)	Mox Fuee (A)	Drowing	
	FIICE	Matching Contactor	Minimum	Maximum	Max. Fuse (A)	Drawing	
RW27-2D3-D008	\$4q81:		0.56	0.80	15	PDF	
<u>RW27-2D3-D012</u>	\$4q82:		0.8	1.20	15	PDF	
RW27-2D3-D018	\$4q83:		1.2	1.80	15	PDF	
<u>RW27-2D3-D028</u>	\$4q84:		1.8	2.80	15	PDF	
RW27-2D3-U004	\$4q85:	CWB9 CWB12	2.8	4	15	PDF	
RW27-2D3-D063	\$4q86:	CWB12 CWB18	4	6.30	25	PDF	
RW27-2D3-U008	\$4q87:	CWB25	5.6	8	30	PDF	
RW27-2D3-U010	\$4q88:	CWB32 CWB38	7	10	40	PDF	
<u>RW27-2D3-D125</u>	\$4q89:		8	12.5	50	PDF	
<u>RW27-2D3-U017</u>	\$4q8a:		11	17	60	PDF	
<u>RW27-2D3-U023</u>	\$4q8b:		15	23	90	PDF	
RW27-2D3-U032	\$4q8c:		22	32	90	PDF	
<u>RW27-2D3-U040</u>	\$4q8d:		32	40	90	PDF	
<u>RW67-5D3-U040</u>	\$4q8e:		25	40	90	PDF	
<u>RW67-5D3-U050</u>	\$;4q8f:	CWB40	32	50	125	PDF	
<u>RW67-5D3-U057</u>	\$4q8g:	CWB50	40	57	150	PDF	
<u>RW67-5D3-U063</u>	\$4q8h:	CWB65	50	63	150	PDF	
<u>RW67-5D3-U070</u>	\$-4q8i :	CWB80	57	70	175	PDF	
<u>RW67-5D3-U080</u>	\$-4q8 j:		63	80	200	PDF	
<u>RW117-3D3-U080</u>	\$;-05]i4:		63	80	200	PDF	
<u>RW117-3D3-U097</u>	\$;-05]i5:	CWB95-CWB125	75	97	225	PDF	
<u>RW117-3D3-U112</u>	\$;-05]i6:	GWD3J-GWD120	90	112	250	PDF	
RW117-3D3-U140	\$;-05]i7:		110	140	315	PDF	

IDED Thermal Overload Relays RW Series – Bi-Metallic

Separate Mounting Bracket



RW Series Bi-Metallic Thermal Overload Relays Mounting Bracket Selection Guide					
Part Number	Price	Description	Mounting on Overload Relays (2- or 3-Pole)	Drawing	
<u>BF27-2D</u>	\$4q9p:	Enables overload relay to be directly mounted to a back panel via screws or DIN rail	RW27-2D	<u>PDF</u>	
<u>BF67-5D</u>	\$4q9q:	Enables overload relay to be directly mounted to a back panel via screws or DIN rail	RW67-5D	PDF	
<u>BF117-3D</u>	\$;-5]i#:	35mm DIN rail/panel mount adapter, for use with RW117-3D series thermal overload relays.	RW117-3D	PDF	

BF27-2D

Thermal Overload Relays RW Series – Bi-Metallic

RW Series Bi-Metall	ic Thermal Over	rload Re	lays Specifications – General	Data and Main Contacts	
			RW27	RW67	
Standards			IEC 60947	7 / UL 508	
Setting Current		Α	0.28-40	25-80	
Tripping Class			1	0	
Temperature Compensation			Contin	nuous	
Rated Insulation Voltage U _i	IEC 60947	V	69	90	
(Pollution Degree 3)	UL/CSA	V	60	00	
Rated Impulse Withstand Voltag	e U _{imp}	kV	6		
Rated Operational Frequency	•	Hz	0-400		
Degree of protection Protection against direct contact from the front when actuated by a perpendicular test finger (IEC 536)		IP20 Finger and back-of-hand proof			
Ambient Temperature	Operating temperatu	ire	-25°C to +60°C [-13°F to +140°F]		
Ambient Temperature	Storage temperature	!	-40°C to +70°C [-40°F to +158°F]		
Environmental Testing (IEC 60 068-2-3, IEC 60 068-2-30)			Damp heat. Constant		
		C	Current Heat Loss		
Lower Value of Setting Range		W	0.9	1.5	
Higher Value of Setting Range W			1.7	4.7	

RW Series Bi-M	etallic Ther	mal Overl	oad Relays Specifications –	Auxiliary Contacts
			RW27	RW67
Standards			IEC 60947-	4-1, UL 508
Rated Insulation Voltage U _i	IEC	V	65	90
(Pollution Degree 3)	UL/CSA	V	60	00
Rated Operational Voltage U _e	IEC	V	69	90
	UL/CSA	V	60	00
Rated Thermal Current I _{th} (θ≤55°C)		A	6	6
		Rated	Operational Current I _e	
AC-14 / AC-15 (IEC 60947-5-1)	24V	Α	4	
	60V	Α	3.5	
	125V	Α	3	
	230V A			2
	400V	A	1.5	
	500V	A	0.5	
	690V	Α	0.3	
UL, CSA			C6	00
DC-13 / DC-14 (IEC 60947-5-1)	24V	A		1
	60V	A	0.5	
	110V	A	0.25	
220V A		0.1		
UL, CSA			R3	00
Short-Circuit Protection With Fuse (RK5)	A		6
Minimum Voltage / Admissible Curre	ent (IEC 60947-5	5-4)	17V /	5ma

LIED Thermal Overload Relays RW Series – Bi-Metallic

RW Series Bi-Metallic Thermal Overload Relays Specifications Terminal Capacity and Tightening Torque – Main Contacts							
	RW27 RW67						
Current Setting		A	0.28-40	25-80			
		Cable Size	(75°C [167°F]) / Cu Cable)				
	1 cable	mm ²	1.5-10	6.0-35			
Flexible Cable	2 cables	mm ²	1.5-10	_			
Ochia With Tourning Low Divid Ochia	1 cable	mm ²	1.5-6	6.0-35			
Cable With Terminal or Rigid Cable	2 cables	mm ²	1.5-6	_			
Busbar		mm ²	_	-			
Tightening Torque		N•m [lb•ft]	2.3 [1.69]	4.0 [2.95]			
UL Cable Size (75°C [167°F]) / Cu Cable		AWG	16 to 8	10 to 3			
Tightening Torque (UL) N•m [Ib•in]			2.26 [20]	3.95 [35]			

RW Series Bi-Metallic Thermal Overload Relays Specifications Terminal Capacity and Tightening Torque – Auxiliary Contacts							
	RW27 RW67						
Type of Screws			M3.5x10 Philips	M3.5x10 Philips			
	Cable Size (75°C [167°F]) / Cu Cable)						
Cable With or Without Terminal	mm ²	ΠρωηΠ	2 x 1-2.5	2 x 1-2.5			
Wire	AWG		16-12	16-12			
Tightening Torque	N•m [lb∙in]		1.5 [13]	1.5 [13]			

LIED Thermal Overload Relays RW Series – Bi-Metallic

RW Series Bi-Metallic Thermal Overload Relays Specifications – General Technical Data					
			RW27		
Standards			IEC 60947-1, UL 508		
Rated insulation voltage U _i	IEC/EN 60947-4-1	V	690		
(Pollution Degree 3)	UL, CSA	V	600		
Rated impulse withstand voltage U	imp (IEC 60947-1)	kV	6		
Rated operational frequency		Hz	25-400		
Use with direct current?			Yes		
Maximum operation per hour ops/h		ops/h	15		
	Main contacts		IP10		
Protection degree (IEC 60529)	Auxiliary contacts		IP20		
	Frontal		IP20		
Mounting			Direct on the contactor		
Resistance to Impact (IEC 60068-2-	27 - 1/2 sinusoid)	g/ms	10/11		
Transport and storage			-50°C to +80°C [-58°F to +176°F]		
Ambient Temperature	Operating		-20°C to +70°C [-4°F to +158°F]		
	Temperature compens	ation	-20°C to +60°C [-4°F to +140°F]		
Altitude		m [ft]	2000 [6562]		

RW Series Bi-Metallic Thermal Overload Relays Specifications – Main Contacts				
			RW27	
Poted Operational Valtage II	IEC 60947-4-1	V	690	
Rated Operational Voltage U _e	UL, CSA	V	600	
			0.28-0.4 / 2	
			0.43-0.63 /2	
			0.56-0.8 / 2	
			0.8-1.2 / 4	
			1.2-1.8 / 6	
		A	1.8-2.8 / 6	
			2.8-4 / 10	
Setting Current / Max Fuse (Class RK:	5)		4-6.3 / 16	
Setting Current / Max Fuse (Class KK	"		5.6- 8 / 20	
			7-10 / 25	
			8-12.5 / 25	
			10-15 / 35	
			11-17 / 40	
			15-23 / 50	
			22-32 / 63	
			32-40 / 90	
Average Power Dissipation Per Pole		W	≤3	

Thermal Overload Relays RW Series – Bi-Metallic

RW Tripping Characteristics

These tripping characteristics show the tripping of RW in relation to the current. They show the mean values of the tolerance ranges at on ambient temperature of 68°F (20°C), starting from cold stats. The tripping time of the overload releases at operational temperature is reduced to approximately 25% of the values shown. Under normal operational conditions, all Three-Phases of the RWs should be loaded.

Altitude and Temperature Derating

Derating of an RW overload relay is based on two possible factors.

Ambient temperature:

Temperature compensation considers a factor according to which the rated current must be reduced when ambient temperature is higher than 60°C [140°F].

Altitude:

Altitude compensation involves both rated current and voltage.

- Current compensation considers a factor according to the rated current must be reduced.
- For voltage, altitude limits the higher operating voltage the overload relay can be used.

Derating Calculation

The derating of the permissible operating current for installation altitudes above 2000m (6667 ft) and ambient temperatures over 60°C (140°F) is calculated according to the following formula:

Total derating = Derating altitude x Derating ambient temperature

Derating Example

Here is an example of how derating is calculated.

- Altitude: 3000m (10,000 ft)
- K1 = 0.96
- Ambient temperature: 70°C (158°F)
- K2 = 0.87

Total current derating = 0.96 x 0.87 = 0.84 x Ie

In this case, the maximum rated voltage that can be connected to the RW overload relay is 550V.

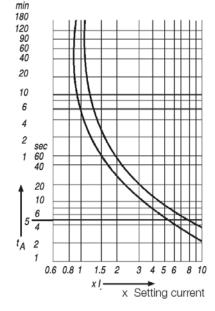
In order to select the proper overload relay, choose a device with a current range that accommodates the following:

Overload Setting Point = FLA motor / (K1 x K2)

As in the example above, K1 x K2 = 0.84

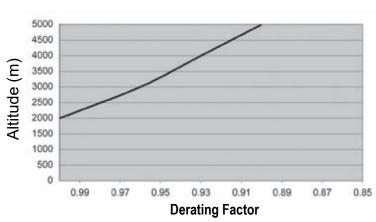
For a motor with FLA = 20A:

Overload Setting Point = 20 / 0.84 = 23.8A



Temperature Compensation (F [C])	Current Correction Factor
149 [65]	0.94
158 [70]	0.87
167 [75]	0.81
176 [80]	0.73

Altitude	Voltage Correction (U _e)
Up to 2000m (6667ft)	690
Up to 3000m (10,000 ft)	550
Up to 4000m (13,333 ft)	480
Up to 5000m (16,667ft)	420



UPD Thermal Overload Relays RW Series – Bi-Metallic

RW117 Technical Specifications				
Compliance With Standards		IEC 60947-1 and UL 508		
Frequency Limits		25 - 400 Hz		
Use in Direct Current		Yes		
Maximum Frequency of Operation Cycles		15 operations per hour		
	Main terminals	IP10		
Protection Rating (IEC 60529)	Auxiliary contacts	IP10		
	Other regions	IP20		
Mounting		Directly to contactors or with screws and DIN rail 35mm (EN 50022) using an accessory		
Resistance to Mechanical Shocks (IEC 60068-2-27, 1/2 sine wave)		10 / 11 g/ms		
Ambient Temperature	Transport and storage	-50°C to 80°C [-58°F to 176°F]		
	Operation	-20°C to 70°C [-4°F to 158°F]		
Maximum operation altitude without modification in the rated values	Temperature compensation	-20°C to 60°C [-4°F to 140°F]		
Maximum Operation Altitude Without Modification of the Rated Values		2000m		

RW117 Main Contacts Specifications					
Rated Insulation Voltage U _i	IEC 60947-4-1	690V			
Pollution Degree 3	UL, CSA	600V			
Rated Impulse Withstand Voltage Uimp		6kV			
		63-80 / 200 A			
Oursent Cotting of Marineum Fund (al. (a)	N	75 - 97 / 225 A			
Current Settings / Maximum Fuse (gL/gG)	90 - 112 / 250 A			
		110 - 140 / 315 A			
Average Power Dissipation Per Pole		≤5.5 W			

RW117 Auxiliary Circuit Technical Specifications							
Compliance With Standards		IEC 60947-1 and UL 508					
Rated Insulation Voltage U _i	IEC	690V					
Pollution Degree 3	UL, CSA	600V					
Rated Operational Voltage U _i	IEC	690V					
	UL, CSA	600V					
Conventional Thermal Current I _{th} ($\theta \le 55^{\circ}$ C)		6A					
	Rated Operation	nal Current					
	24V	4A					
	60V	3.5 A					
	125V	3A					
AC-14/AC-15 (IEC 60947-5-1)	230V	2A					
	400V	1.5 A					
	500V	0.5A					
	690V	0.3A					
UL, CSA	1	C600					
	24V	1A					
DC-13/DC-14 (IEC 60947-5-1)	60V	0.5A					
	110V	0.25A					
	220V	0.1A					
UL, CSA		R300					
Short Circuit Protection With Fuse (gl/gG)		6A					
Minimum Voltage/Permissible Current (IEC	60947-5-4)	17V / 5mA					

¹⁻⁸⁰⁰⁻⁶³³⁻⁰⁴⁰⁵ Thermal Overload Relays RW Series – Bi-Metallic

RW117 Terminal Capacity and Tightening Torque (Power Circuit) Specifications						
Mounting System Screw Type		M10 Allen				
	Conductor Connecti	on at the Bottom				
Flexible Conductor		25 - 36 mm ²				
Conductor With Terminal/Ferrules		25 - 36 mm ²				
Flexible Conductor		25 - 36 mm ²				
Wire / Cable AWG		8 - 1/0 AWG				
Torque		6 N•m				
	Mounting Systen	n Screw Type				
Screw Type		M12 Hexagonal				
Cable With Terminal/Ferrules		-				
Busbars (mm) - Maximum Size		2 x (60x10 mm ²)				
Torque	ш	26 N•m				
RW117 Terminal Capacity and Tightening Torque (Auxiliary Contacts) Specifications						
Mounting System Screw Type		M3.5x10				

mounting system screw type		Philips
	Conductor Cro	ss-Section
Wire / Conductor With or Without Terminal/Ferrules		2 x (1-2.5 mm ²)
Torque		1.5 N•m

UPD RW-E Series Solid State Overload Relays



RWB40E-3-A4U002

Overview

RW-E Series Solid State Overload relays are developed with cutting-edge technology to meet the most demanding standards worldwide. With their wide current/AMP setting range, RW-E Series OL Relays can be used for protection of electric motors of different power ratings. The benefit is versatility and flexibility for manufacturers due to the possibility of standardization of control panels. This Solid State Overload Relay can be directly mounted on WEG Contactors (CWB line) providing very reliable and flexible motor starter units. The RW-E Series counts on two independent and highly reliable built in auxiliary contacts that assure the motor is switched off when a failure occurs.

Features

- 3-pole solid state overload relays with adjustable trip class: 10, 20 and 30
- Self-powered
- Wide 5:1 adjustment range
- Thermal memory
- Phase-loss protection (less than 5s)
- Phase unbalance protection (>40% between phases)
- Temperature compensated (-20°C [-4°F] up to +60°C [+140°F])
- Manual or automatic reset modes
- Direct mounting on CWB9-38 contactor
- Separate mounting is possible with accessories
- 1NO + 1NC built in auxiliary contacts



UL File No. E189202

RW-E Solid-State Overload Relay Catalog Number Sequence

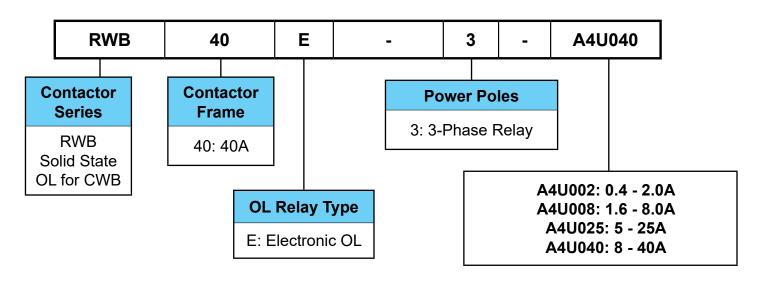


Table intended as reference only and not to create part numbers.

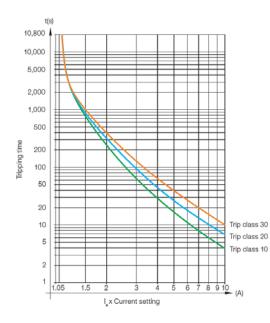
UPD RW-E Series Solid State Overload Relays

Suitable for a Wide Range of Applications

RW-E Series solid-state overload relays are suitable for protecting motors in a wide range of industrial applications including those where long starting time is required. Motors used in low, medium or heavy duty applications can be properly protected just by selecting the proper trip class (10, 20 or 30 according to IEC 60947-4-1) on the DIP-switches.

Additionally, the microprocessor electronic circuits of RW Series solid-state overload relays are temperature compensated according to IEC 60947-4-1, which means that throughout the temperature range of -20° C [-4° F] up to $+60^{\circ}$ C [140° F], the tripping point is not affected and performs consistently without undesirable tripping.

The RW-E Series also features thermal memory which assures that the heating and cooling effects of motors are modeled and that proper protection is guaranteed even after downtime periods.



Trin Olaco	Multiples of Current Setting						
Trip Class	1.05 x I _r	1.2 x I _r	1.5 x I _r	7.2 x I _r			
10	-	T _p <2h	T _p <4min	4 <t<sub>p≤10s</t<sub>			
20	-	T _p <2h	T _p <8min	6 <t<sub>p≤20s</t<sub>			
30	-	T _p <2h	T _p <12min	9 <t<sub>p≤30s</t<sub>			







RWB40E-3-A4U002



RWB40E-3-A4U040

RW-E Series Solid-State Overload Relays Selection Guide								
Part Number	Price	For Direct Mounting on Contactors	Current Range A	Max. Fuse (gL/gG) A	Diagram	Weight (kg [lb])	Dimensional Drawing	
<u>RWB40E-3-A4U002</u>	\$4q8k:		0.4-2	16	Test Reset		<u>PDF</u>	
<u>RWB40E-3-A4U008</u>	\$-4q8l:		1.6-8	32	1 I.I.I.I.I.I.I.I.I.I.I.I.I.I.I.I.I.I.I.	0.05 (0.55)	<u>PDF</u>	
<u>RWB40E-3-A4U025</u>	\$4q8q:	CWB9 through CWB38	5-25	63		0.25 [0.55]	PDF	
<u>RWB40E-3-A4U040</u>	\$4q8s:		8-40	125	2T1 4T2 6T3 96 98		<u>PDF</u>	

Note: Not to be used in single-phase applications.

RWB-E Series Solid State Overload Relays

Mounting Kit



RW-E Series Solid-State Overload Relays Mounting Kit Selection Guide							
Part Number	Price	Description	For Use With	Weight (kg [lb])	Dimensional Drawing		
<u>BF27-2D</u>	\$4q9p:	Enables the overload relay to be mounted directly to a panel via screws or 35mm DIN rail	RWB40E	0.05 [0.11]	<u>PDF</u>		

BF27-2D

IDED RW-E Series Solid State Overload Relays

RW-E Series	s Series Solid	State Ove	erload Relays Specifications – General Data
			RWB40E
Standards			IEC 60947-4-1, IEC 60947-5-1, IEC 60947-1, UL 60947-1, UL 60947-4-1A and UL 508
Rated Insulation Voltage U;	IEC 60947-4-1	V	690
(Pollution Degree 3)	UL/CSA	V	600
Rated impulse withstand voltage	U _{imp}	kV	6
Rated Operational Frequency (Sin Networks)	,	Hz	50/60
	Three-phase loa	ads	Yes
Suitable for use	Single-phase/tw loads	vo-phase	No
	DC current load	ls	No
Trip class (IEC 60947-4-1)			10, 20 or 30, selectable
Additional featured protections	Phase-loss		Yes, <5s
Additional realured protections	Phase unbalance	ce	Yes, >40%
Reset	Manual/minimum downtime for reset		Yes / instantaneous
Resel	Automatic/minimum downtime for reset		Yes / ≥90s
Maximum Operations Per Hour			30
Protection degree (IEC 60529)	Main contacts		IP10
Frotection degree (IEC 00323)	Auxiliary contac	cts	IP20
Mounting			Direct mounting on contactor or directly on the panel via screws or 35mm DIN rail when using the mounting kit accessory (BF27-2D)
Mechanical shock resistance 1/2	sinusoid		15g / 11ms
Vibration resistance (IEC 60068-2-6)			6g / 30-300 Hz
	Transport and s	storage	-50°C to +80°C [-58°F to +176°F]
Ambient Temperature	Operating		-20°C to +60°C [-4°F to +140°F]
	Temperature co	ompensation	-20°C to +60°C [-4°F to +140°F]
Altitude			2000m [6562ft]

RW Series S	RW Series Series Solid State Overload Relays Specifications – Main Contacts					
			RWB40E			
Rated Operational Voltage U _e IEC 60947-4-1		V	690			
(Pollution Degree 3)	UL/CSA	V	600			
Current Setting / Max Fuse (RK5)		A	0.4-2 / 16 1.6-8 / 32 5-25 / 63 8-40 / 125			
Setting Current / Average Power Dissipation Per Pole W		W	0.4-2 / 0.07 1.6-8 / 0.06 5-25 / 0.38 8-40 / 1.5			

RW-E Series Solid State Overload Relays

RW-E Series S	Series Solid St	tate Overl	oad Relays Specifications – Auxiliary Contacts
			RWB40E
Rated Insulation Voltage U _i	IEC 60947-4-1	V	250
(Pollution Degree 3)	UL/CSA	V	600
Rated Impulse Withstand Voltage (IEC 60947-1)	e U _{imp}	kV	4
Potod Operational Voltage II	IEC 60947-4-1	V	250
Rated Operational Voltage U _e	UL/CSA	V	600
Rated Thermal Current Ith ≤60°C		A	5
		Rated (Operational Current I _e
	24V	A	3
AC-14/AC-15 (IEC 60947-5-1)	120V	A	3
	250V	A	1.5
	24V	A	2
	60V	A	0.4
DC-13 (IEC 60947-5-1)	110V	A	0.22
	125V	A	0.22
	250V	Α	0.1
NEMA Control Circuit Ratings	UL, CSA		C300 / R300
Short-Circuit Protection With Fus	se	Α	6
Minimum Voltage / Admissible Cu	urrent (IEC 60947-5	5-4)	12V / 10mA

RW-E Series Series Solid State Overload Relays Specifications Terminal Capacity and Tightening Torque – Main Contacts							
			RWB40E				
Turne of Seren			M3.5				
Type of Screw			Flat / Phillips #2				
Cable Size							
Flexible Cable	mm ²		_				
Cable With Terminal / Rigid Cable	mm ²		-				
AWG Wire			-				
Tightening Torque	N•m [lb•ft]		_				
Flexible Cable	mm ²		1-10				
Cable With Terminal / Rigid Cable	mm ²		1-10				
Wire	AWG		16-8				
Tightening Torque	N•m [lb•ft]		1.7				

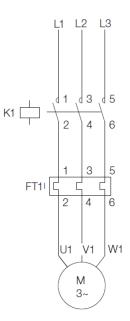
RW-E Series Series Solid State Overload Relays Specifications Terminal Capacity and Tightening Torque – Auxiliary Contacts						
			RWB40E			
Type of Screw			Flat / Phillips #1			
	Cable Size					
Cable With or Without Terminal	mm ²		1 x 1-2.5			
Wire	AWG		16-12			
Tightening Torque	N•m [lb•ft]		0.8 [0.59]			

UED RW-E Series Solid State Overload Relays

Technical Data

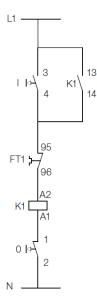
Motor Protection – Alternating Current



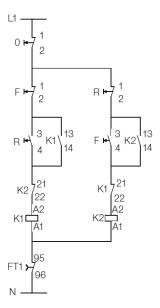


Typical Connection – Contactor + Overload Relay

Direct On Line Starter (1 Direction of Rotation)

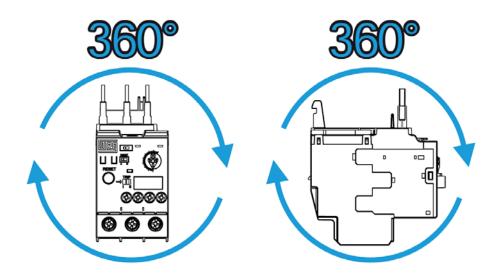


Direct On Line Starter (2 Directions of Rotation)



UED RW-E Series Solid State Overload Relays

RWB40E Mounting Position



Mounting Position