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

RW Series Contactor Catalog Number Sequence

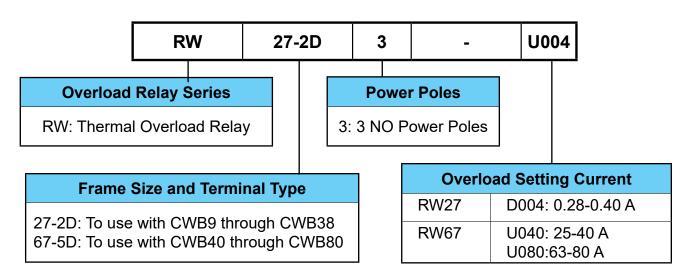


Table intended as reference only and not to create part numbers. For complete list of overload setting ranges, refer to selection guide tables.

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RW67-5D3-U040



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.



RW67-5D3-U040

Operation

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	Α
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.



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	Motohing Contactor	Setting I	Range (A)	Max Fuee (A)	Drowing
rait Nullibel	FIICE	Matching Contactor	Minimum	Maximum	Max. Fuse (A)	Drawing
RW27-2D3-D008	\$28.50		0.56	0.80	15	<u>PDF</u>
RW27-2D3-D012	\$28.50		0.8	1.20	15	<u>PDF</u>
RW27-2D3-D018	\$28.50		1.2	1.80	15	<u>PDF</u>
RW27-2D3-D028	\$28.50		1.8	2.80	15	<u>PDF</u>
RW27-2D3-U004	\$28.50	CWB9 CWB12	2.8	4	15	<u>PDF</u>
RW27-2D3-D063	\$28.50	CWB12 CWB18	4	6.30	25	<u>PDF</u>
RW27-2D3-U008	\$28.50	CWB25	5.6	8	30	<u>PDF</u>
RW27-2D3-U010	\$28.50	CWB32 CWB38	7	10	40	<u>PDF</u>
RW27-2D3-D125	\$28.50	CVVD30	8	12.5	50	<u>PDF</u>
RW27-2D3-U017	\$28.50		11	17	60	<u>PDF</u>
RW27-2D3-U023	\$28.50		15	23	90	<u>PDF</u>
RW27-2D3-U032	\$28.50		22	32	90	<u>PDF</u>
RW27-2D3-U040	\$31.50		32	40	90	<u>PDF</u>
RW67-5D3-U040	\$54.00		25	40	90	<u>PDF</u>
RW67-5D3-U050	\$54.00	CWB40	32	50	125	<u>PDF</u>
RW67-5D3-U057	\$54.00	CWB50	40	57	150	<u>PDF</u>
RW67-5D3-U063	\$54.00	CWB65	50	63	150	<u>PDF</u>
RW67-5D3-U070	\$63.00	CWB80	57	70	175	<u>PDF</u>
RW67-5D3-U080	\$63.00		63	80	200	<u>PDF</u>
RW117-3D3-U080	\$110.00		63	80	200	<u>PDF</u>
RW117-3D3-U097	\$124.00	CWD0E CWD10E	75	97	225	<u>PDF</u>
RW117-3D3-U112	\$130.00	CWB95-CWB125	90	112	250	<u>PDF</u>
RW117-3D3-U140	\$148.00		110	140	315	<u>PDF</u>



Separate Mounting Bracket



BF27-2D

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>	\$8.50	Enables overload relay to be directly mounted to a back panel via screws or DIN rail	RW27-2D	PDF		
<u>BF67-5D</u>	\$15.00	Enables overload relay to be directly mounted to a back panel via screws or DIN rail	RW67-5D	PDF		
<u>BF117-3D</u>	\$17.50	35mm DIN rail/panel mount adapter, for use with RW117-3D series thermal	RW117-3D	PDF		

Thermal Overload Relays RW Series – Bi-Metallic

RW Series Bi-Metall	ic Thermal Ove	rload Re	lays Specifications – Genera	Data and Main Contacts	
			RW27	RW67	
Standards			IEC 6094	7 / UL 508	
Setting Current		Α	0.28-40	25-80	
Tripping Class			1	0	
Temperature Compensation			Conti	nuous	
Rated Insulation Voltage Ui	Rated Insulation Voltage U; 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	ıre	-25°C to +60°C [-13°F to +140°F]		
Ambient Temperature	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-Metallic Thermal Overload Relays Specifications – Auxiliary Contacts				
			RW27	RW67
Standards			IEC 60947	-4-1, UL 508
Rated Insulation Voltage U _j	IEC	V	6	590
(Pollution Degree 3)	UL/CSA	V	(600
Rated Operational Voltage U _e	IEC	V	(90
Nated Operational Voltage 0	UL/CSA	V	(600
Rated Thermal Current I _{th} (θ≤55°C)		A		6
		Rated	Operational Current l _e	
AC-14 / AC-15 (IEC 60947-5-1)	24V	A		4
	60V	Α	;	3.5
	125V A		3	
	230V A		2	
	400V	Α	1.5	
	500V	Α	0.5	
	690V	Α	0.3	
UL, CSA			C600	
DC-13 / DC-14 (IEC 60947-5-1)	24V	Α		1
	60V	Α	0.5	
	110V	Α	0.25	
220V A		0.1		
UL, CSA			R	300
Short-Circuit Protection With Fuse (F		Α	6	
Minimum Voltage / Admissible Curre	nt (IEC 60947-5	5-4)	17V	/ 5ma



RW Series Bi-Metallic Thermal Overload Relays Specifications Terminal Capacity and Tightening Torque – Main Contacts						
RW27 RW67						
Current Setting		Α	0.28-40	25-80		
		Cable Size	(75°C [167°F]) / Cu Cable)			
Flowible Coble	1 cable	mm ²	1.5-10	6.0-35		
Flexible Cable	2 cables	mm ²	1.5-10	-		
Cable With Tampinal or Binid Cable	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 [lb•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	ПслП	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]			

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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 Ui	IEC/EN 60947-4-1	V	690	
(Pollution Degree 3)	UL, CSA	V	600	
Rated impulse withstand voltage Uin	np (IEC 60947-1)	kV	6	
Rated operational frequency		Hz	25-400	
Use with direct current?			Yes	
Maximum operation per hour		ops/h	15	
	Main contacts		IP10	
Protection degree (IEC 60529)	Auxiliary contacts		IP20	
	Frontal		IP20	
Mounting			Direct on the contactor	
Resistance to Impact (IEC 60068-2-2	7 - 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 compensa	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	
Batad Operational Voltage 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	
Satting Current / May Euga /Class B	VE)		4-6.3 / 16	
Setting Current / Max Fuse (Class Ri	No)		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.

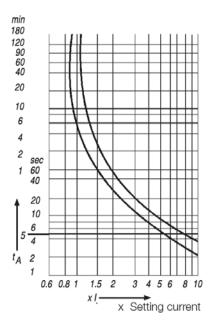
Ambient temperature:

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

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

Current Correction

Voltage Correction (U_e)

690

550

480

420

Temperature

Altitude

Up to 2000m (6667ft)

Up to 3000m (10,000 ft)

Up to 4000m (13,333 ft)

Up to 5000m (16,667ft)

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.

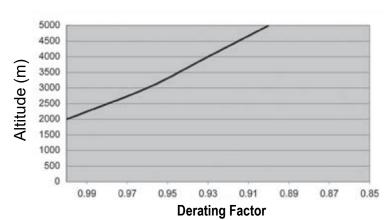
In order to select the proper overload relay, choose a device with a current range that accommodates the following:

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

As in the example above, $K1 \times K2 = 0.84$

For a motor with FLA = 20A:

Overload Setting Point = 20 / 0.84 = 23.8A



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 Temperature modification in the rated values 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		
Current Settings / Maximum Fuse (al /aC)		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 Ui	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		C600				
	24V	1A				
DC-13/DC-14 (IEC 60947-5-1)	60V	0.5A				
DO-13/DO-14 (IEO 00347-0-1)	110V	0.25A				
	220V	0.1A				
UL, CSA		R300				
Short Circuit Protection With Fuse (gl/gG)		6A				
Minimum Voltage/Permissible Current (IE	C 60947-5-4)	17V / 5mA				

Thermal Overload Relays RW Series – Bi-Metallic

RW117 Terminal Capac	ity and Tightening	Torque (Power Circuit) Specifications			
Mounting System Screw Type		M10 Allen			
Conductor Connection 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 System	Screw Type			
Screw Type	- 53 ∏ - ∏	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 Philips				
Conductor Cross-Section						
Wire / Conductor With or Without Terminal/Ferrules		2 x (1-2.5 mm ²)				
Torque		1.5 N•m				

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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

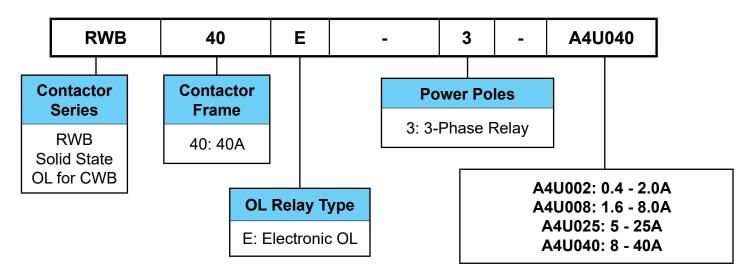


Table intended as reference only and not to create part numbers.

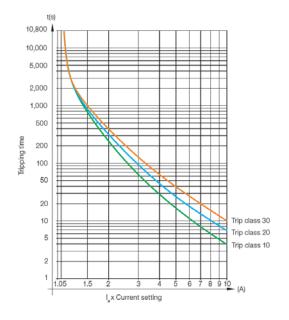


Suitable for a Wide Range of Applications

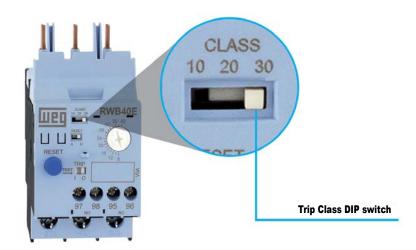
RW-E Series solid-state overload relays are suitable for protecting motors in a wide range of industrial applications including those where long starting time is required. Motors used in low, medium or heavy duty applications can be properly protected just by selecting the proper trip class (10, 20 or 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°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 Ologo	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-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		
RWB40E-3-A4U002	\$53.00		0.4-2	16	Test		<u>PDF</u>		
RWB40E-3-A4U008	\$53.00	CWB9 through CWB38	1.6-8	32	1L1 3L2 5L3 95 97 2T1 4T2 6T3 96 98	0.05 (0.55)	PDF		
RWB40E-3-A4U025	\$53.00		5-25	63		0.25 [0.55]	PDF		
RWB40E-3-A4U040	\$83.00		8-40	125			PDF		

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



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>	\$8.50	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

RW-E Series	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 Ui	IEC 60947-4-1	V	690
(Pollution Degree 3)	UL/CSA	V	600
Rated impulse withstand voltage U	imp	kV	6
Rated Operational Frequency (Sinu Networks)		Hz	50/60
	Three-phase lo	ads	Yes
Suitable for use	Single-phase/tv loads	vo-phase	No
	DC current load	ds	No
Trip class (IEC 60947-4-1)			10, 20 or 30, selectable
Additional featured protections	Phase-loss		Yes, <5s
Additional realured protections	Phase unbalance		Yes, >40%
Reset	Manual/minimum downtime for reset		Yes / instantaneous
Neset	Automatic/minimum downtime for reset		Yes / ≥90s
Maximum Operations Per Hour			30
Protection degree (IEC 60529)	Main contacts		IP10
Protection degree (IEC 00329)	Auxiliary contacts		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	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 compensation		-20°C to +60°C [-4°F to +140°F]
Altitude			2000m [6562ft]

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

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

RW-E Series Series Solid State Overload Relays Specifications Terminal Capacity and Tightening Torque – Main Contacts							
	RWB40E						
Turne of Corour			M3.5				
Type of Screw			Flat / Phillips #2				
Cable Size	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				

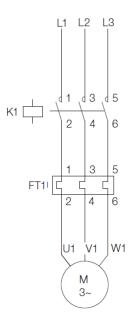
RW-E Series Series Solid State Overload Relays Specifications Terminal Capacity and Tightening Torque – Auxiliary Contacts							
	RWB40E						
Type of Screw			Flat / Phillips #1				
Cable Size							
Cable With or Without Terminal	mm ²		1 x 1-2.5				
Wire	AWG		16-12				
Tightening Torque	N•m [lb•ft]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



Technical Data

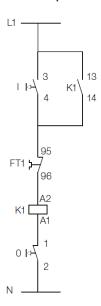
Motor Protection – Alternating Current

3-pole

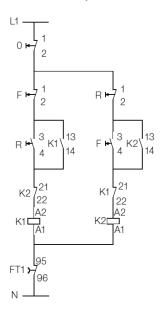


Typical Connection – Contactor + Overload Relay

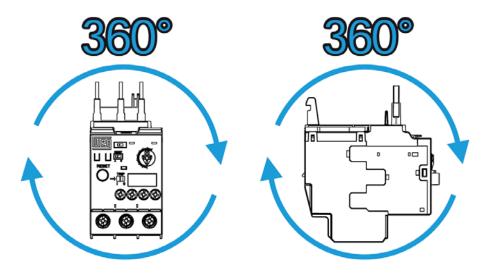
Direct On Line Starter (1 Direction of Rotation)



Direct On Line Starter (2 Directions of Rotation)



RWB40E Mounting Position



Mounting Position