

**TemBreak**

**Circuit Breaker with Integral Residual Current Protection (CBR)**

Safety and protection are the prime purposes of Terasaki products. You care about safety and protection. The users of products you specify care about safety and protection.

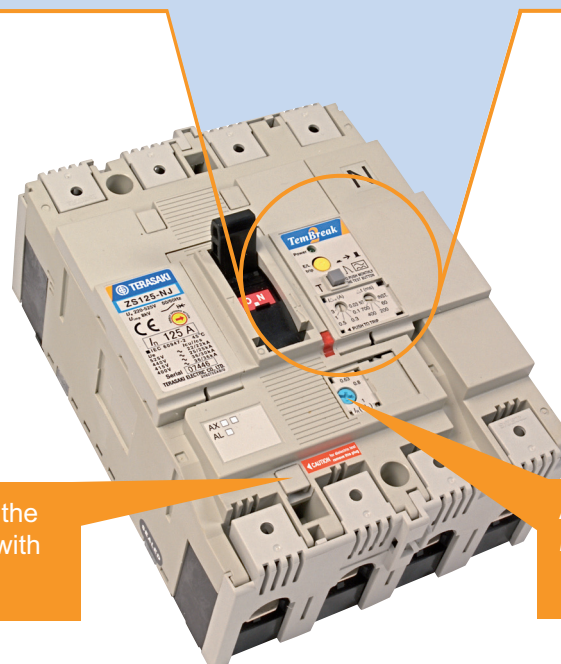
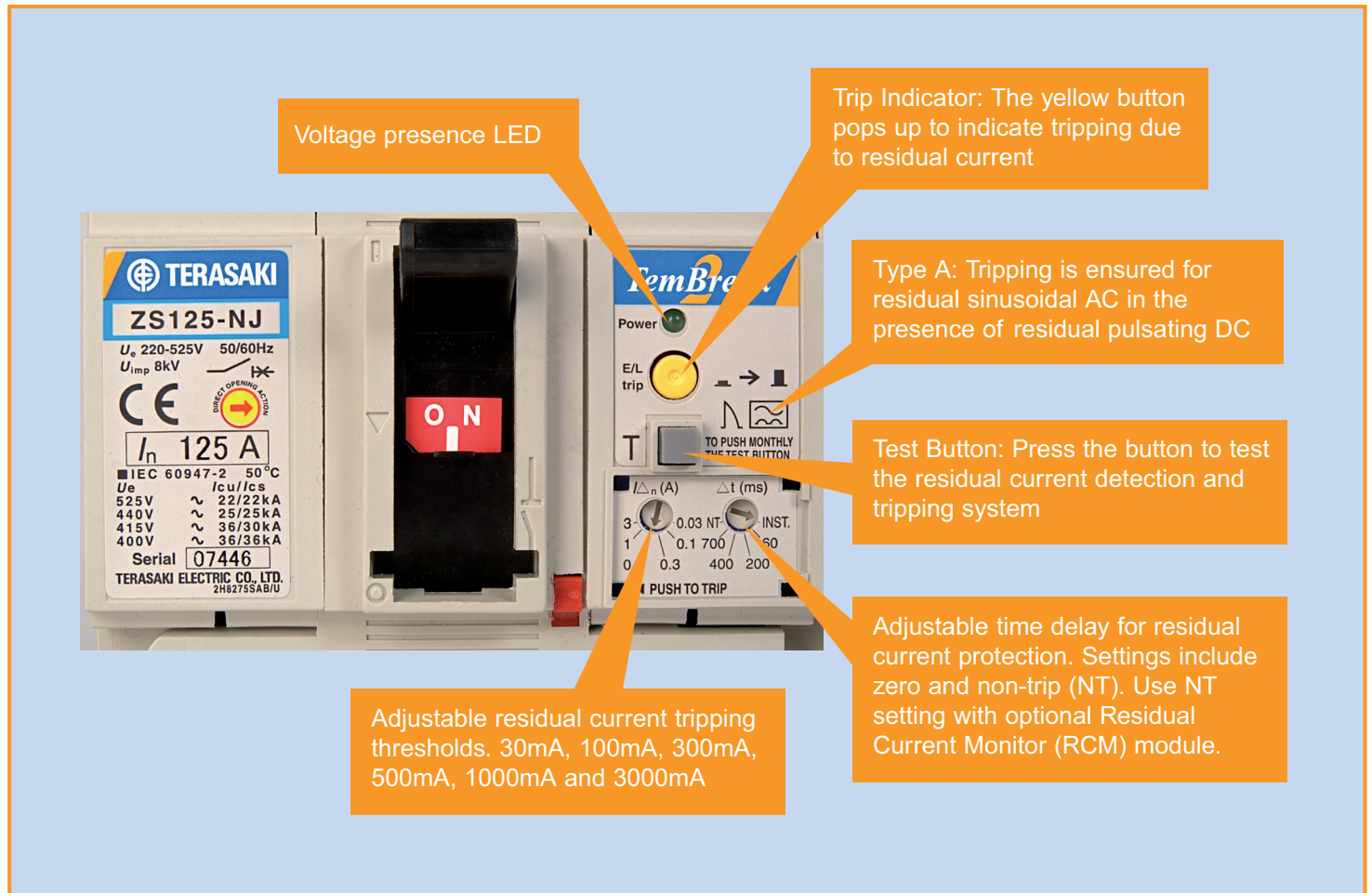
The new **TemBreak2** CBR (Circuit Breaker with Integral Residual current protection) provides protection from electric shock, overloads and short-circuits. Three types of protection are combined in a standard MCCB frame size. Read on to discover how to increase safety while saving space.

# THE NEW TEMBREAK 2 CBR

## HOW DOES THE TEMBREAK2 CBR SAVE SPACE?

1. The **TemBreak2** CBR has the same dimensions and fixings as the **TemBreak2** MCCB.
2. The **TemBreak2** CBR eliminates the need for either an external relay with current transformers or add-on block.

## FEATURES



# RATINGS AND SPECIFICATIONS

## CBR ELECTRICAL CHARACTERISTICS TO IEC 60947-1, IEC 60947-2, IEC 60947-2 ANNEX B, IEC 60755

Frame	Quantity	Unit	Condition	125			250		
Model				ZE125	ZS125	ZS125	ZE250	ZS250	ZS250
Type				NJ	NJ	GJ	NJ	NJ	GJ
Number of Poles				3, 4	3, 4	3, 4	3, 4	3, 4	3, 4
<b>Nominal current ratings</b>									
	$I_n$	(A)	50°C	20,32, 50,63, 100,125	20,32, 50,63, 100,125	20,32, 50,63, 100,125	160, 250	160, 250	160, 250
<b>Electrical characteristics</b>									
Rated operational voltage	$U_e$	(V)	AC 50/60 Hz	525	525	525	525	525	525
Rated impulse withstand voltage	$U_{imp}$	(kV)		8	8	8	8	8	8
Ultimate breaking capacity (IEC, JIS, AS/NZ)	$I_{cu}$	(kA)	525V AC	8	22	25	10	20	25
			440V AC	15	25	50	15	25	50
			400/415V AC	25	36	65	25	36	65
			220/240V AC	35	50	85	35	65	85
Service breaking capacity (IEC, JIS, AS/NZ)	$I_{cs}$	(kA)	525V AC	6	22	22	7.5	20	25
			440V AC	12	25	25	12	25	25
			400/415V AC	19	36/30	36/33	19	36	36
			220/240V AC	27	50	85	27	65	85
<b>Protection</b>									
TMD Adjustable thermal, fixed magnetic Residual current protection, Type A Utilisation category				A	A	A	A	A	A
<b>Installation</b>									
Front connection (FC)				•	•	•	•	•	•
Attached flat bar (FB)				•	•	•	•	•	•
Solderless terminal (cable clamp) (FW)				•	•	•	•	•	•
Rear connection (RC)				•	•	•	•	•	•
Plug-in (PM)				-	-	-	-	-	-
DIN rail mounting (DA)				•	•	•	•	•	•
Dimensions	height	(mm)		155	155	155	165	165	165
		(mm)	3 pole	90	90	90	105	105	105
	width	(mm)	4 pole	120	120	120	140	140	140
		(mm)		68	68	68	68	68	68
depth	(mm)								
	(mm)								
Weight	weight	(kg)	3 pole	1.1	1.1	1.1	1.5	1.5	1.5
		(kg)	4 pole	1.4	1.4	1.4	1.9	1.9	1.9
<b>Operation</b>									
Direct Opening Action				•	•	•	•	•	•
Toggle operation				-	-	-	-	-	-
Variable depth/direct mount operating handle (HB/HP)				•	•	•	•	•	•
Mechanical Interlocks				-	-	-	-	-	-
Motor Operator (MC)				•	•	•	•	•	•
<b>Insulation Accessories</b>									
Terminal covers and interpole barriers				•	•	•	•	•	•
<b>Switchboard Accessories</b>									
Door Flange				-	-	-	-	-	-
Toggle Lock				•	•	•	•	•	•
<b>Endurance</b>									
	Electrical	cycles	415V AC		30,000			30,000	
	Mechanical	cycles			30,000			30,000	

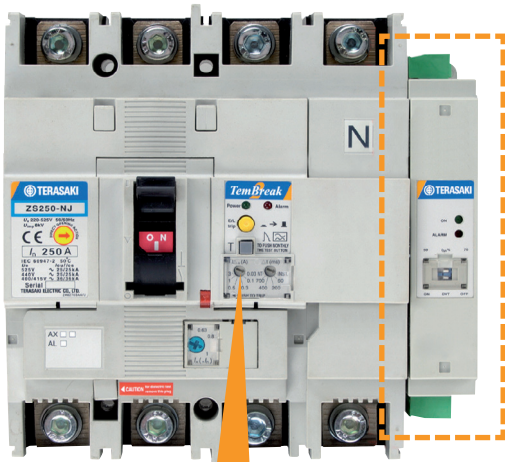
\* Supply voltage connected to bottom terminals

■ Standard • Optional - Not Available



# TEMBREAK 2 CBR

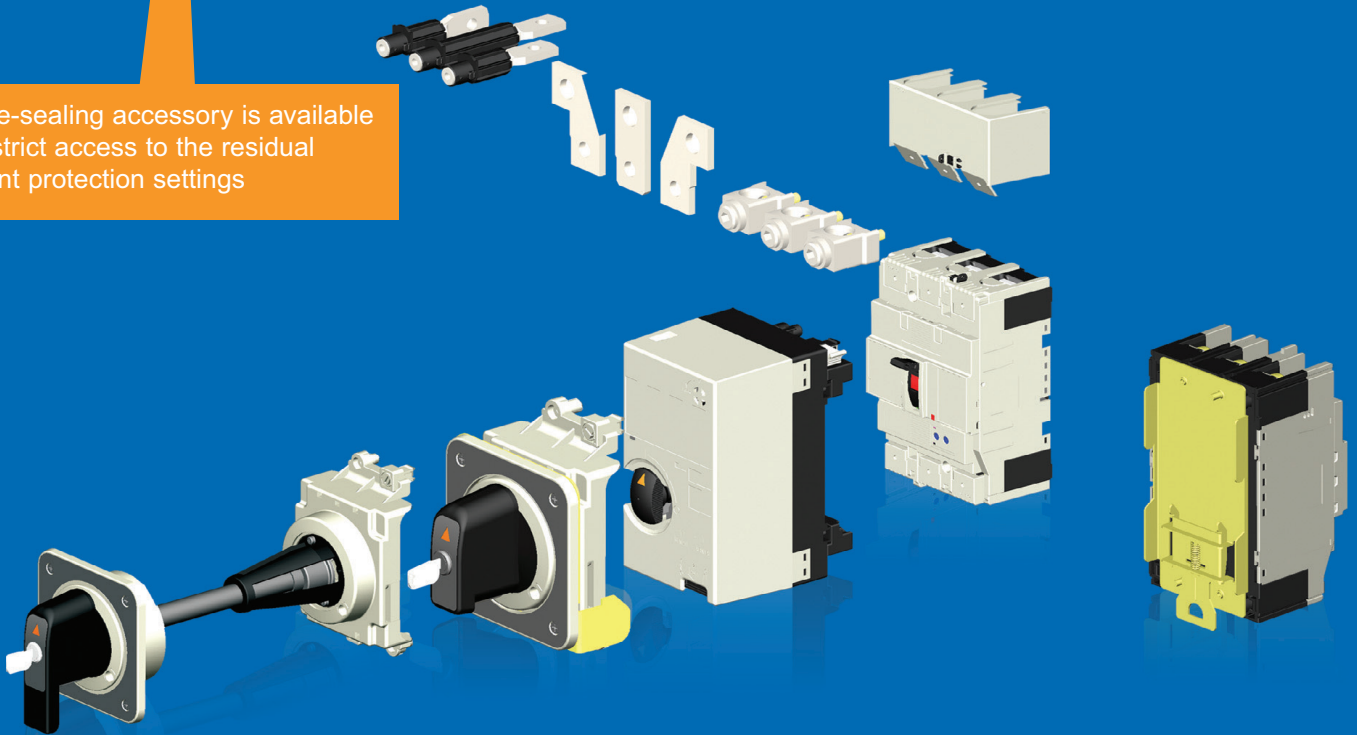
## ACCESSORIES



### RESIDUAL CURRENT MONITOR AND REMOTE TRIP MODULE.

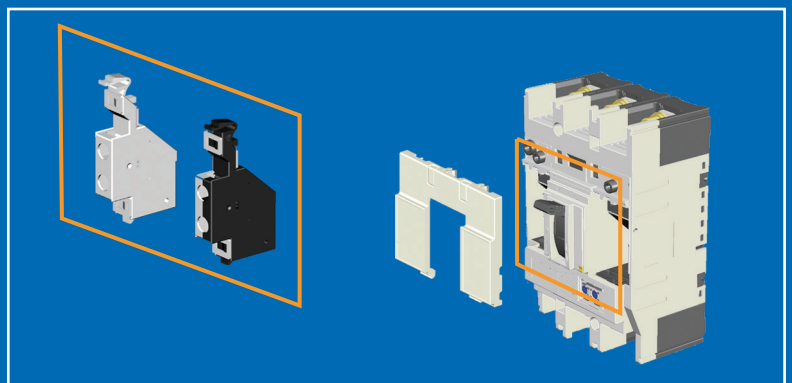
- \*Normally open alarm contact (2A, 250V AC) closes on detection of residual current. Alarm threshold is adjustable
- \*Green LED indicates voltage is present
- \*Red LED provides visual indication of residual current
- \*Can be configured to provide trip + alarm or alarm only
- \*Remote trip terminals allow tripping by pushbutton
- \*Can be configured to provide voltage drop protection

A wire-sealing accessory is available to restrict access to the residual current protection settings



The external accessories listed below are available for **TemBreak2** CBRs. They are common to **TemBreak2** MCCBs. For details and dimensions, refer to "**TemBreak2**, The Ultimate Safety Breaker, 16-161EU".

Terminal bars; cable clamps; rear connections; DIN rail mounting (ZE125 and ZS125 only); door-mounted handle; breaker-mounted handle; motor operator terminal covers for front connection; terminal covers for cable clamps; toggle lock.



The internal accessories listed below are available for **TemBreak2** CBRs. They are common to **TemBreak2** MCCBs. For details, refer to "**TemBreak2**, The Ultimate Safety Breaker, 16-161EU".

Auxiliary switch and alarm switch.



# ORDER CODES

## 125A FRAME CBRS



Model	I <sub>R</sub> (A)	3P	4P	3P	4P
				with residual current monitor and remote trip module	
ZE125-NJ I <sub>cu</sub> = 25kA	12.5-20	4547560 622106	4547560 622205	4547560 622700	4547560 622809
	20-32	4547560 622113	4547560 622212	4547560 622717	4547560 622816
	32-50	4547560 622120	4547560 622229	4547560 622724	4547560 622823
	40-63	4547560 622137	4547560 622236	4547560 622731	4547560 622830
	63-100	4547560 622144	4547560 622243	4547560 622748	4547560 622847
	80-125	4547560 622151	4547560 622250	4547560 622755	4547560 622854
ZS125-NJ I <sub>cu</sub> = 36kA	12.5-20	4547560 622502	4547560 622601	4547560 623103	4547560 623202
	20-32	4547560 622519	4547560 622618	4547560 623110	4547560 623219
	32-50	4547560 622526	4547560 622625	4547560 623127	4547560 623226
	40-63	4547560 622533	4547560 622632	4547560 623134	4547560 623233
	63-100	4547560 622540	4547560 622649	4547560 623141	4547560 623240
	80-125	4547560 622557	4547560 622656	4547560 623158	4547560 623257
ZS125-GJ I <sub>cu</sub> = 65kA	12.5-20	4547560 622304	4547560 622403	4547560 622908	4547560 623004
	20-32	4547560 622311	4547560 622410	4547560 622915	4547560 623011
	32-50	4547560 622328	4547560 622427	4547560 622922	4547560 623028
	40-63	4547560 622335	4547560 622434	4547560 622939	4547560 623035
	63-100	4547560 622342	4547560 622441	4547560 622946	4547560 623042
	80-125	4547560 622359	4547560 622458	4547560 622953	4547560 623059

## 250A FRAME CBRS



Model	I <sub>R</sub> (A)	3P	4P	3P	4P
				with residual current monitor and remote trip module	
ZE250-NJ I <sub>cu</sub> = 25kA	100-160	4547560 642807	4547560 642906	4547560 644009	4547560 644108
	160-250	4547560 642814	4547560 642913	4547560 644016	4547560 644115
ZS250-NJ I <sub>cu</sub> = 36kA	100-160	4547560 643002	4547560 643101	4547560 644207	4547560 644306
	160-250	4547560 643019	4547560 643118	4547560 644214	4547560 644313
ZS250-GJ I <sub>cu</sub> = 65kA	100-160	4547560 643200	4547560 643309	4547560 644405	4547560 644504
	160-250	4547560 643217	4547560 643316	4547560 644412	4547560 644511

## ACCESSORIES

Refer to "TemBreak 2, The Ultimate Safety Breaker",  
16 – I61EU for order codes for accessories

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