

C&S Electric offers innovative, intelligent,
integrated and intuitive solution

WiNbreak2

An Absolute solution for power distribution

Conforms to IS/IEC 60947-2

$I_{cs} = 100\% I_{cu}$

$I_{cw} = 25kA / 1s$

Range : 800A to 1600A, 3P & 4P

Breaking capacity : 50kA, 70kA & 150kA

$U_i : 1000V$

$U_{imp} : 8kV$



For power distribution

- The highest breaking capacity
- Optimum coordination Technique (cascading & discrimination)
- Powerful engineering tools

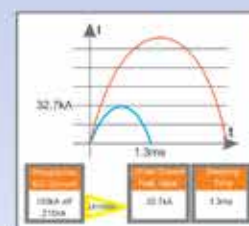
For protection of motor and its control device

- Optimal overload protection

For controlling & disconnecting circuits

For extensive application

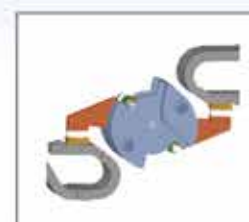
- wide range of optimized auxiliaries & accessories



Current Limiting



Tripping by Pressure



Double Contact Structure

INTELLIGENT RELEASE

Trip releases are classified according to their usages and functions to maximise customer's satisfaction. It makes the breaking capacity of circuit breaker improved and breaker's life enhanced and provides advanced functions – measurement, diagnosis, analysis and communication

N Type (Normal)



- L/S/I/G Thermal
- Self-Power
- RTC Timer
- Fault information (LED)

A Type (Ammeter)



- L/S/I/G Thermal
- ZSI (Protective Co-ordination)
- Earth Leakage
- Current Measurement
- Digital Output
- Modbus/RS-485
- Profibus-DP
- Self-Power
- RTC Timer
- Fault recording (10 Records)
- Fault information (LED)

P Type (Power Meter)



- L/S/I/G Thermal (continuous)
- ZSI (protective coordination)
- Earth Leakage
- Current / Voltage / RMS / Vector / Power/ Energy / Frequency measurement
- Pri-Trip Alarm
- IDML setting
- Digital output
- Modbus/RS-485
- Profibus-DP
- Self-power
- RTC Timer
- Event recording (256 records)
- Fault recording (256 records)
- Fault information (LED)

S Type (Supreme Meter)



- L/S/I/G Thermal (continuous)
- ZSI (protective coordination)
- Earth Leakage
- Current / Voltage / RMS / Vector / Power/ Energy / Frequency measurement
- Pri Trip alarm
- IDML setting
- Digital output
- Modbus/RS-485
- Profibus-DP
- Self-power
- RTC timer
- Harmonics (63th) ,Waveform
- Event recording (256 records)
- Fault recording (256 records)
- Fault information (LED)

WiNbreak2 MCCB (1600AF)

- LSI Protection
- Thermal Memory
- Current, Voltage, Power, Energy
- Frequency measurement
- Trip History
- Digital Display
- Fault recording
- Event Recording
- Communication
- Harmonics
- True RMS Sensing
- ZSI
- IDMTL Setting
- Self Power
- LED for Tripping Information
- RTC Timer
- Pre Trip Alarm

MCCB with Intelligent Release - N Type				
Size	Release Range (A)	Breaking Capacity @ 415VAC	3 Pole Reference	4 Pole Reference
Frame 5	400-800	50kA	CS1000NNG5800A3P	CS1000NNG5800A4P
	500-1000		CS1000NNG51000A3P	CS1000NNG51000A4P
	625-1250		CS1250NNG51250A3P	CS1250NNG51250A4P
	800-1600		CS1600NNG51600A3P	CS1600NNG51600A4P
	400-800	70kA	CS1000HNG5800A3P	CS1000HNG5800A4P
	500-1000		CS1000HNG51000A3P	CS1000HNG51000A4P
	625-1250		CS1250HNG51250A3P	CS1250HNG51250A4P
	800-1600		CS1600HNG51600A3P	CS1600HNG51600A4P

MCCB with high end release w.r.t "Intelligent release - N Type"	
Release	
Intelligent release - A Type*	ADD
Intelligent release - P Type*	ADD
Intelligent release - S Type*	ADD

Internal Accessories					
WB2 MCCBs	Shunt Trip (SHT)	Under Voltage Trip (UVT)	Auxiliary Switch (AX)	Alarm Switch (AL)	Fault Alarm Switch (FAL)*
CS1000-1600	SHT5-T(...V)	UVT5-T(...V)	AX5-T	AL5-T	FAL5-T
Note :					
1. Shunt Trip is available in 24-30V AC/DC, 48-60V DC, 100-130V AC/DC, 200-250V AC/DC & 380- 480V AC					
2. UVT is available in 24-30V AC/DC, 48-60V DC, 100-130V AC/DC, 200-250V AC/DC & 380-480V AC					

WB2 MCCBs	Direct Rotary Handle	Direct Rotary Handle (Keylock)	Extended Rotary Handle
CS1000-1600	DH5-S	DHK5-S	EH5-S

Mechanical Interlock		
WB2 MCCBs	Applied between two MCCBs	
	3 Pole Reference	4 Pole Reference
CS1000-1600	MIT53	MIT54

Padlocking Device		
WB2 MCCBs	Fixed Lock Reference	Removable Lock Reference
CS1000-1600	PHL5	PL5

WiNbreak2 MCCB

- Conforms to IS/IEC 60947-2
- Ics = 100% Icu
- Range: 16A-1600A, 3P & 4P
- Breaking capacity: 50kA, 65kA, 70kA, 85kA & 150kA
- Positive Isolation
- Trip Free Mechanism
- Double contact structure
- Communication compatible
- No Line-load Bias
- Neutral with 100% rated current
- Tripping by pressure
- Current limiting
- Manual, Rotary or Motorized available
- Wide range of internal & external accessories
- Standard packing includes spreaders terminals, insulating phase barriers and hardwares



A

FMU (Thermal Magnetic) Release ● Adjustable Overload 80-100% ● Fixed short circuit 10 In				
Size	Rated Current (A)	Breaking capacity Icu at 415V AC	3 Pole Reference	4 Pole Reference
Frame 1	16, 20, 25, 32, 40, 50, 63	50kA	CD100NFMU*3P	CD100NFMU*4P
	80, 100		CD100NFMU*3P	CD100NFMU*4P
Frame 3	300, 400	65kA	CS400NFMU*3P	CS400NFMU*4P
	500, 630		CS630NFMU*3P	CS630NFMU*4P
Frame 4	800	65kA	CS800NFMU*3P	CS800NFMU*4P

ATU (Thermal Magnetic) Release ● Adjustable Overload 80 - 100% ● Adjustable Short circuit 5 - 10 In				
Size	Rated Current (A)	Breaking capacity Icu at 415V AC	3 Pole Reference	4 Pole Reference
Frame 2	125	50kA	CS160NATU*3P	CS160NATU*4P
	160		CS160NATU*3P	CS160NATU*4P
	200		CS250NATU*3P	CS250NATU*4P
	250		CS250NATU*3P	CS250NATU*4P
Frame 3	300, 400	65kA	CS400NATU*3P	CS400NATU*4P
	500, 630		CS630NATU*3P	CS630NATU*4P
Frame 4	800	65kA	CS800NATU*3P	CS800NATU*4P

ETS (Microprocessor based) Release ● Adjustable Overload 40 - 100% ● Adjustable shortcircuit 1.5 - 10 In				
Size	Rated Current (A)	Breaking capacity Icu at 415V AC	3 Pole Reference	4 Pole Reference
Frame 2	40	50kA	CS160NETS*3P	CS160NETS*4P
	80, 160		CS160NETS*3P	CS160NETS*4P
	250		CS250NETS*3P	CS250NETS*4P
Frame 3	400	65kA	CS400NETS*3P	CS400NETS*4P
	630		CS630NETS*3P	CS630NETS*4P
Frame 4	800	65kA	CS800NETS*3P	CS800NETS*4P

WiNbreak2 MCCB

A

ETM (Microprocessor Release with in-built Earth fault Protection) ● Adjustable Overload 40 - 100% ● Adjustable shortcircuit 1.5 - 10 In				
Size	Rated Current (Amps)	Breaking capacity Icu at 415V AC	3 Pole Reference	4 Pole Reference
Frame 3	160	65kA	CS400NETM33160A3PE	CS400NETM33160A4PE
	250		CS400NETM33250A3PE	CS400NETM33250A4PE
	400		CS400NETM33400A3PE	CS400NETM33400A4PE
	630		CS630NETM33630A3PE	CS630NETM33630A4PE
Frame 4	800	65kA	CS800NETM43800A3PE	CS800NETM43800A4PE

Note :

1. While ordering replace ""**" by Current Rating
2. Spreader Terminals are not included MCCBs upto 63A
3. For 3 Pole ETM (Microprocessor) MCCB one Neutral CT will be required.
4. MCCB with Ammeter, ZSI & communication feature is also available.
5. MCCB for Motor Backup Protection is also available.



Accessories					
Suitable for use on WB2 MCCBs	Shunt Trip (SHT)	Under Voltage Trip (UVT)	Auxiliary Switch (AX)	Alarm Switch (AL)	Fault Alarm Switch (FAL)*
CD100-CS800	ST-T(..V)	UVT-T(..V)	AX-T	AL-T	FAL-T

Note :

1. The above accessories are common for CD100-CS800
2. FAL (Fault Alarm Switch)* It can be applied to only circuit breakers with electronic trip units
3. Shunt Trip is available in 12V DC, 24V AC/DC, 110-130V AC/DC, 250V DC & 380-500V AC
4. UVT is available in 24V AC/DC, 110-130V AC/DC, 220-240V DC & 380-440V AC & 440-480V AC
5. Maximum Possibilities for Internal Accessories

	Accessory	CD100	CS160/ 250	CS400 / 630	CS800
Left	AX	-	1	3	3
	AL	1	1	-	-
	SHT / UVT	1	1	1	1
Right	AX	2	1	-	-
	AL	-	-	1	2
	FAL	-	1	1	1



Rotary Handle			
Suitable for use on WB2 MCCBs	Direct Rotary Handle	Direct Rotary Handle with Keylock	Extended Rotary Handle
CD100	DH1-S	DHK1-S	EH1-S
CS160, CS250	DH2-S	DHK2-S	EH2-S
CS400, CS630	DH3-S	DHK3-S	EH3-S
CS800	DH4-S	DHK4-S	EH4-S



Mechanical Interlock (Used to prevent mechanically closing together)		
Suitable for use on WB2 MCCBs	Direct Rotary Handle	Direct Rotary Handle with Keylock
CD100	MIT13	MIT14
CS160, CS250	MIT23	MIT24
CS400, CS630	MIT33	MIT34
CS800	MIT44	MIT44

WiNbreak2 MCCB



Motor Operator - For remote "ON/OFF" operation only		
Suitable for MCCB Type	Control Voltage	Reference
CD100	24V DC, 100-240V AC & 100-220V DC	MOP1(..V)
CS160, CS250	24V DC, 110V AC/DC & 220V DC, 230V AC	MOP2(..V)
CS400, CS630	24V DC, 110V AC/DC & 220V DC, 230V AC	MOP3(..V)
CS800	24V DC, 110V AC/DC & 220V DC, 230V AC	MOP4(..V)

*Replace (....V) by require voltage.



Padlocking Device		
Suitable for use on WB2 MCCBs	Fixed Lock	Removable Lock
	Reference	Reference
CD100	PHL 1	PL 1
CS160, CS250	PHL 2	PL 2
CS400, CS630	PHL 3	PL 3
CS800	PHL 4	PL 4



Base for Plug-in MCCB	
Suitable for use on WB2 MCCBs	Reference (for 3 Pole)
CD100	PB13
CS160, CS250	PB23
CS400, CS630	PB33
CS800	PB43

NCT for WiNbreak2 ETM-Microprocessor (3 Pole MCCB if ground fault facility is required)

Description	Reference
160/0.1A	NCT-WB2-016
250/0.1A	NCT-WB2-025
400/0.1A	NCT-WB2-040
630/0.1A	NCT-WB2-063
800/0.1A	NCT-WB2-080

Panel Door Mounted Key Lock for Extended Rotary Handle

Suitable for WB2 MCCBs	Reference
CD100	EXTKLWB2-100AF-T1
CS160, CS250	EXTKLWB2-250AF-T1

ACE2 MCCB

- Conforms to IS/IEC 60947-2
- Ics = 100% Icu
- Range : 16A-1250A , 3P & 4P
- Breaking capacity : 36kA , 50kA & 70kA
- Positive Isolation
- Trip free mechanism
- Double contact structure
- No Line-load Bias
- Wide range of internal & external accessories
- Standard packing includes spreaders terminals, insulating phase barrier and hardware



Microprocessor Release ●LSIN protection ●Adjustable Overload 40~100% ●Neutral Protection 50% to 100%

Size	Rated Current (Amps)	Breaking Capacity Icu at 415V AC	3 Pole Reference	4 Pole Reference	
Frame 2	40	36kA	CSCN125EM*3P	CSCN125EM*4P	
	100		CSCN125EM*3P	CSCN125EM*4P	
	125		CSCN125EM*3P	CSCN125EM*4P	
	160		CSCN250EM*3P	CSCN250EM*4P	
	200		CSCN250EM*3P	CSCN250EM*4P	
	250		CSCN250EM*3P	CSCN250EM*4P	
	40		50kA	CSCS125EM*3P	CSCS125EM*4P
	100	CSCS125EM*3P		CSCS125EM*4P	
	125	CSCS125EM*3P		CSCS125EM*4P	
	160	CSCS250EM*3P		CSCS250EM*4P	
	200	CSCS250EM*3P		CSCS250EM*4P	
	250	CSCS250EM*3P		CSCS250EM*4P	
	Frame 3	315, 350, 400		50kA	CSCS400EM*3P
		500, 630	CSCS630EM*3P		CSCS630EM*4P
Frame 2	40	70kA	CSCH125EM*3P	CSCH125EM*4P	
	100		CSCH125EM*3P	CSCH125EM*4P	
	125		CSCH125EM*3P	CSCH125EM*4P	
	160		CSCH250EM*3P	CSCH250EM*4P	
	200		CSCH250EM*3P	CSCH250EM*4P	
	250		CSCH250EM*3P	CSCH250EM*4P	
	Frame 3		315, 350, 400	70kA	CSCH400EM*3P
500, 630		CSCH630EM*3P	CSCH630EM*4P		

Microprocessor Release●LSIN protection●Adjustable Overload 40~100%●Neutral Protection 50% to 100%●Ics=50% Icu

Size	Rated Current (Amps)	Breaking Capacity Icu at 415V AC	3 Pole Reference	4 Pole Reference
Frame 4	700, 800 ■	50kA	CSCS800EM*3P	CSCS800EM*4P
	1000 ■		CSCS1250EM*3P	CSCS1250EM*4P
	1250 ■		CSCS1250EM*3P	CSCS1250EM*4P
Frame 4	700, 800 ■	70kA	CSCH800EM*3P	CSCH800EM*4P
	1000 ■		CSCH1250EM*3P	CSCH1250EM*4P
	1250 ■		CSCH1250EM*3P	CSCH1250EM*4P

Notes :

1. While Ordering, Replace "*" by Current Rating
2. Spreader Terminal are not included for MCCBs upto 63A
3. ■ Spreader Terminal are not included.

ACE2 MCCB

FMU (Thermal Magnetic) Release ● Adjustable Overload 80-100% ● Fixed short circuit 10In				
Size	Rated Current (A)	Breaking Capacity Icu at 415V AC	3 Pole Reference	4 Pole Reference
Frame 1	16, 20, 25, 32, 40, 50, 63	36kA	CSCN125TM*3P	CSCN125TM*4P
	80, 100		CSCN125TM*3P	CSCN125TM*4P
	125		CSCN125TM*3P	CSCN125TM*4P
Frame 1	16, 20, 25, 32, 40, 50, 63	50kA	CSCS125TM*3P	CSCS125TM*4P
	80, 100		CSCS125TM*3P	CSCS125TM*4P
	125		CSCS125TM*3P	CSCS125TM*4P

Spreader Terminal are not included for MCCBs upto 63A

ATU (Thermal Magnetic) Release ● Adjustable Overload 80 - 100% ● Adjustable Short circuit 5 - 10 In				
Size	Rated Current (A)	Breaking Capacity Icu at 415V AC	3 Pole Reference	4 Pole Reference
Frame 2	160	36kA	CSCN250TM*3P	CSCN250TM*4P
	200		CSCN250TM*3P	CSCN250TM*4P
	250		CSCN250TM*3P	CSCN250TM*4P
Frame 3	315, 400	36kA	CSCN400TM*3P	CSCN400TM*4P
Frame 2	160	50kA	CSCS250TM*3P	CSCS250TM*4P
	200		CSCS250TM*3P	CSCS250TM*4P
	250		CSCS250TM*3P	CSCS250TM*4P
Frame 3	315, 400	50kA	CSCS400TM*3P	CSCS400TM*4P

Accessories

Spreader Terminals



Suitable for use on MCCBs	Pole	Reference	Std Pkg. (No's)
CSCS / CSCH 800EM CSCS / CSCH 1250EM	3 Pole	CSCET6063	Set of 3
CSCS / CSCH 800EM CSCS / CSCH 1250EM	4 Pole	CSCET6114	Set of 4

Extended Rotary Handle



Size	Suitable for use on ACE2 MCCBs	3 Pole Reference	4 Pole Reference
Frame 1	CSCN / CSCS 125TM	EC-55	EC-19
Frame 2	CSCN / CSCS 250TM / CSCN / CSCS / CSCH 125EM CSCN / CSCS / CSCH 250EM	EC-56	EC-20
Frame 3	CSCN / CSCS 400TM / CSCS / CSCH 400EM CSCS / CSCH 630EM	EC-57	EC-21
Frame 4	CSCS / CSCH 800EM / CSCS / CSCH 1250EM	EC-58	EC-58

ACE2 MCCB

Internal Accessories		
Description	Suitable for use on ACE2 MCCBs	Reference
Aux Switch (AX)	CSCN / CSCS / CSCH	AXC-*
Alarm Switch (AL)	CSCN / CSCS / CSCH	ALC
* Please replace "*" with L (Left), M (Middle) & R (Right)		

Description	Suitable for use on ACE2 MCCBs	Reference			
		220V AC	380/415V AC	24V DC	110V DC
Shunt Release (SHT)	CSCN / CSCS 125TM	STC92	STC95	STC98	-
	CSCN / CSCS 250TM CSCN / CSCS 400TM CSCN / CSCS / CSCH 250EM CSCS / CSCH 400EM CSCS / CSCH 630EM	STC93	STC96	STC99	-
	CSCS / CSCH 800EM / CSCS / CSCH 1250EM	STC94	STC97	STC00	STC01
Under Voltage Trip (UVT)	CSCN / CSCS 125TM	UVTC02	UVTC05	-	-
	CSCN / CSCS 250TM CSCN / CSCS 400TM CSCN / CSCS / CSCH 250EM CSCS / CSCH 400EM CSCS / CSCH 630EM	UVTC03	UVTC06	-	-
	CSCS / CSCH 800EM CSCS / CSCH 1250EM	UVTC04	UVTC07	-	-

Maximum Possibilities of Internal Accessories				
Description	Accessory	CSC*125 / CSC*250	CSC*400 / CSC*630	CSC*800 / CSC*1250
(Left)	AX	1	3	3
	AL	1	-	-
	UVT or SHT	1	1	1
(Right)	AX	1	-	-
	AX or AL	-	1	1