



PRICE LIST

2020 / 2021



NEW

CBI Astute Range of IoT Products



ASC



ASI



Wi-Fi enabled
Scheduled energy management
Energy monitoring
Automation and IoT
Device automation sharing
CBI Home App and more

Features

- ▶ Wi-Fi enabled (2.4 GHz only with internet connection)
- ▶ Energy monitoring
- ▶ Energy control
- ▶ Application controlled (CBI Home App)
- ▶ Custom automation and custom scenarios
- ▶ Multiple ON / OFF programs
- ▶ Manual ON / OFF switch (Power Button)
- ▶ Scheduling function - week / day / minute
- ▶ No hub required

Applications

- ▶ Automation and IoT
- ▶ Residential
- ▶ Commercial
- ▶ Light industrial
- ▶ Agriculture
- ▶ Home / office automation
- ▶ And more

More information on
Page 6 or visit
www.cbi-lowvoltage.com/Astute



INDEX

Astute Range of IoT Products	
ASC	6
ASI	6
Wiring Accessories	
Wiring Accessories	7
Plastic Range	
Light switches and grid plates	8
Switched socket outlets and SA / Euro socket outlets, bell push and switch disconnectors	9
Switch Inserts	
Switch inserts, dimmer switch and dimmer module	11
Switch insert selection guide	12
Technical wiring diagrams	13
Brushed Stainless Steel Range	
Brushed stainless steel light switches, blanking plates, switched socket outlets, switch disconnectors	14
Brushed stainless steel phone & internet socket, TV & satellite outlet and bell switch module	15
Circuit Breakers for Equipment (CBE)	
DC range overview and QDC (80 / 125 V)	16
Surge Protection Devices	
Clip-in dual mount surge protection devices	17
Miniature Circuit Breakers (MCB), Earth Leakage Units (ELU)	
MCB Residential Circuit Breakers and Switch Disconnectors	
QA(13) - hydraulic-magnetic	18
MCB Commercial / Industrial Circuit Breakers and Switch Disconnectors and Earth Leakage Protection Devices	
QF(13) - hydraulic-magnetic MCBs	19
QF(13) - hydraulic-magnetic switch disconnectors	20
QF(26) - hydraulic-magnetic low rating	21
QF(26) - hydraulic-magnetic high rating	22
QF(18) DIN - hydraulic-magnetic	23
QF(18) DIN - thermal-magnetic	24
QF(18) DIN - thermal-magnetic switch disconnectors	25
QF(27) DIN - thermal-magnetic	26
QH(18) DIN - thermal-magnetic	27
QH(27) DIN - thermal-magnetic	28
Residential / Commercial / Industrial Clip-in Earth Leakage Protection Devices	
QF DIN - thermal-magnetic earth leakages, QH DIN - thermal-magnetic earth leakages, QF DIN - hydraulic-magnetic earth leakages	29
QA, QF and SF - hydraulic-magnetic earth leakages	30
Commercial / Industrial Earth Leakage Protection Devices	
SM non standard ratings	31
MCB Accessories and Auxiliary Products	
MCB accessories	32
MCB accessories and auxiliary products	33
Auxiliary products	34
Ready boards and distribution boards	35
Circuit breaker selection guide	36
Metering Products	
Rail mount meters	37
Rail mount meters diagrams	38
Rotating disc meters	39

INDEX

Moulded Case Circuit Breakers and Accessories

Thermal-Magnetic Range

Standard Global Range MCCBs and Switch Disconnectors (25 - 1200 A)

G37D / F37D / K50D / L65D standard MCCB fixed 4P	40
G37D / F37D / K50D / L65D accessories	42

Advanced Global Range MCCBs and Switch Disconnectors (16 - 1600 A)

G150D / F150D / K150D / L150D	43
GD / FD / KD / LD accessories	46
NDEV and accessories	47
MCCB electrical and mechanical change over system	48

Hydraulic-Magnetic Range

CBI MCCBs, Switch Disconnectors and Accessories

JS / JSN and accessories	49
LB / LBN and accessories	50
MB / MBN and accessories	51

Thermal-Magnetic Range

CBI MCCBs, Switch Disconnectors and Accessories (16 - 250 A)

GD / GDN / FD / FDN	52
GD /FD accessories	53
F65DV accessories	54

MCCBs and Accessories (250 - 1600 A)

KD / KDN (thermal-magnetic) and KDE (electronic)	55
KD accessories	56
LDE / LDN and accessories	57
NDE and NDN and accessories	58

Integral Earth Leakage Circuit Breakers 25 kA - 35 kA / Triple Pole DC MCCBs for Traction Control

ELFD and ELKD / DC MCCBs for traction control	59
---	----

Industrial and Mining Earth Leakage Relays

Earth leakage relays, hospital monitors and portable units	60
--	----

Mitsubishi Electric MCCBs, ELCBs, Switch Disconnectors and Accessories

V-series MCCBs and switch disconnectors	61
V-series ELCBs NV (16 - 250 A)	62
V-series MCCBs NF (150 - 400 A)	63
V-series MCCBs and switch disconnectors NF (200 - 1600 A)	65
WSS series ELCBs NV (250 - 800 A)	66
WSS accessories	67

Air Circuit Breakers and Accessories

Global Range Air Circuit Breakers

Global Range air circuit breakers, switch disconnectors and accessories	69
---	----

Mitsubishi Electric Air Circuit Breakers

Air circuit breakers and switch disconnectors	70
Accessories	71

INDEX

Motor Control	
Global Range Motor Thermal Contactors	
Global Range contactor product comparison	72
Global Range contactors	73
Global Range contactors accessories	74
Global Range thermal overload relays	75
Global Range manual motor starters	77
Global Range manual motor starter accessories	78
Mitsubishi Electric Magnetic Contactors	
Series ST / SN	79
Accessories	81
Mitsubishi Electric Thermal Overload Relays	
Series TH-T / THN	82
Accessories	84
Series ET-N	85
Mitsubishi Electric Medium Voltage Vacuum Contactors	
Series SH-V and spares & accessories	86
Series VZ-E	87
Terminal Blocks	
Terminal blocks	88
Technical Section: Circuit Breakers	
MCBs and accessories data	89
MCB dimensions	91
Motor starting guide	92
DOL starting - Global Range based	93
Star delta starting - Global Range based	94
Motor starting guide	95
Terminations	96
Cascading	97
Cascading table 1	98
Cascading table 2	99
Cascading table 3	100
Mitsubishi DOL starting	101
Torque settings MCCB	102
Agreed general terms and conditions of sales - Circuit Breaker Industries	103
Circuit Breaker Industries Product Warranty	105

Astute Range of IoT Products



Wi-Fi enabled
Scheduled energy management
Energy monitoring
Automation and IoT
Device automation sharing
CBI Home App and more



ASC



www.cbi-lowvoltage.co.za/ASC



ASI



www.cbi-lowvoltage.co.za/ASI



Astute Range			H2
Order No.	Description	Std. Pack	Price Ea.
ASC	Astute Smart Controller	1	R 547.00
ASI	Astute Smart Isolator	1	POR

General

- ▶ Monitor consumption
- ▶ Remotely control devices
- ▶ 7 Day timer function
- ▶ Family sharing
- ▶ Notifications to your smart device
- ▶ Safe return state

Applications

- ▶ Geyser
- ▶ Pool pumps
- ▶ Underfloor heating
- ▶ Stove
- ▶ Lighting
- ▶ Airconditioners
- ▶ School bells
- ▶ Hydra boils
- ▶ Hand dryers

CBI Home App Information

- ▶ Available on the App Store or on Google Play



- ▶ **Option 1:** Search for CBI Home on the App Store or on Google Play and install. See App icon below:



Requirements

- ▶ 2.4 GHz Wi-Fi with internet connection
- ▶ Smartphone or Tablet

Approvals

- ▶ SANS 60730-2-7
- ▶ ICASA (ASI pending)





Plastic
White



Plastic
Silver Shimmer



Brushed
Stainless Steel



Wiring Accessories

Enhancing your lifestyle

Plastic Range Wiring Accessories



L120-P / L121-P



L122-P / L123-P



L124-P



L125-P

Light Switches (2 x 4 - 250 Vac, 16 A, IP20)

WA

Order No.	Description	Price Ea.	Std. Pack	Order No.	Description	Price Ea.
L120-P	1 Lever 1 way light switch white	R 33.00	5	L120C03-T	1 Lever 1 way light switch silver shimmer	R 81.00
L121-P	1 Lever 2 way light switch white	R 37.00	5	L121C03-T	1 Lever 2 way light switch silver shimmer	R 85.00
L122-P	2 Lever 1 way light switch white	R 44.00	5	L122C03-T	2 Lever 1 way light switch silver shimmer	R 92.00
L123-P	2 Lever 2 way light switch white	R 58.00	5	L123C03-T	2 Lever 2 way light switch silver shimmer	R 106.00
L124-P	3 Lever 1 way light switch white	R 59.00	5	L124C03-T	3 Lever 1 way light switch silver shimmer	R 107.00
L125-P	4 Lever 1 way light switch white	R 67.00	5	L125C03-T	4 Lever 1 way light switch silver shimmer	R 117.00



L126-P



L127-P

Light Switches (4 x 4 - 250 Vac, 16 A, IP20)

WA

Order No.	Description	Price Ea.	Std. Pack	Order No.	Description	Price Ea.
L126-P	4 Lever 1 way light switch white	R 86.00	5	L126C03-T	4 Lever 1 way light switch silver shimmer	R 151.00
L127-P	6 Lever 1 way light switch white	R 110.00	5	L127C03-T	6 Lever 1 way light switch silver shimmer	R 174.00



G000-P



G001-P



G002-P



G003-P



G009-P



S013R-P

Blanking / Grid Plates 2 x 4

WA

Order No.	Description	Price Ea.	Std. Pack	Order No.	Description	Price Ea.
G000-P	Grid plate 1 Lever white	R 22.00	10	G000C03-T	Grid plate 1 Lever silver shimmer	R 70.00
G001-P	Grid plate 2 Lever white	R 22.00	10	G001C03-T	Grid plate 2 Lever silver shimmer	R 64.00
G002-P	Grid plate 3 Lever white	R 22.00	10	G002C03-T	Grid plate 3 Lever silver shimmer	R 64.00
G003-P	Grid plate 4 Lever white	R 22.00	10	G003C03-T	Grid plate 4 Lever silver shimmer	R 70.00
G009-P	Grid plate blank white	R 22.00	10	G009C03-T	Grid plate silver shimmer	R 66.00
S013R-P	2 piece top & bottom surround	R 10.00	10	N/A		



G004-P



G005-P



S014R-P



G010-P

Blanking / Grid Plates 4 x 4

WA

Order No.	Description	Price Ea.	Std. Pack	Order No.	Description	Price Ea.
G010-P	Grid plate blank white	R 26.00	10	G010C03-T	Blank silver shimmer	R 74.00
G004-P	Grid plate 1 Lever white	R 35.00	10	N/A		
G005-P	Grid plate 2 Lever white	R 35.00	10	N/A		
S014R-P	Surround 2 piece top & bottom	R 15.00	10	N/A		

Plastic Range Wiring Accessories



PS672-P



PS673-P



PS681-P

Switched Socket Outlets (2 x 4 - 250 Vac, 16 A, IP20)						WA
Order No.	Description	Price Ea.	Std. Pack	Order No.	Description	Price Ea.
PS672-P	Single switched socket outlet vertical standard white	R 67.00	5	PS672C03-T	Single switched socket outlet vertical silver shimmer	R 117.00
PS673-P	Single switched socket outlet standard horizontal white	R 67.00	5	PS673C03-T	Single switched socket outlet horizontal silver shimmer	R 117.00
PS681-P	SA/EU combined socket outlet vertical white	R 145.00	5	PS681C03-T	SA/EU combined socket outlet vertical silver shimmer	R 227.00



PS674R-P



PS675R-P



PS680-P



PS682R-P



PS683R-P



PS685USB-P

PS685USB-P:
Switched USB ports
Voltage: 5 Vdc
Power: 2000 mA

Switched Socket Outlets (4 x 4 - 250 Vac, 16 A, IP20)						WA
Order No.	Description	Price Ea.	Std. Pack	Order No.	Description	Price Ea.
PS674R-P	Single switched socket outlet white	R 81.00	5	PS674C03-T	Single switched socket outlet silver shimmer	R 145.00
PS675R-P	Double switched socket outlet white	R 110.00	5	PS675C03-T	Double switched socket outlet silver shimmer	R 174.00
PS680-P	SA/EU combined switched socket outlet white	R 110.00	5	PS680C03-T	SA/EU combined switched socket outlet silver shimmer	R 174.00
PS682R-P	6 Way Euro socket outlet	R 110.00	5	N/A		
PS683R-P	Single switched socket outlet with 3 x 5 A Euro sockets	R 162.00	5	N/A		
PS685USB-P	USB / SA / Euro switched socket outlet white	R 497.00	5	PS685USB C03-T	USB / SA / Euro switched socket outlet silver shimmer	R 591.00



PS679-P

Unswitched Socket Outlet (250 Vac, 6 A, IP20)				WA
Order No.	Description	Std. Pack	Price Ea.	
PS679-P	Unswitched socket outlet round white	10	R 34.00	



PS671-P



PS676R-P



PS677R-P

Dedicated Switched Socket Outlet (250 Vac, 16 A, IP20)				WA
Order No.	Description	Std. Pack	Price Ea.	
PS671-P	2 x 4 Single switched dedicated socket outlet horizontal red	5	R 86.00	
PS676R-P	4 x 4 Single switched dedicated socket outlet red	5	R 123.00	
PS677R-P	4 x 4 Double switched dedicated socket outlet red	5	R 167.00	

Plastic Range Wiring Accessories



OB690



OB878

Surface Mount Outlet Boxes			WA
Order No.	Description	Std. Pack	Price Ea.
OB690	Surface mount 2 x 4 outlet box (plastic)	10	R 22.00
OB878	Surface mount 4 x 4 outlet box (plastic)	10	R 26.00



I129-P / I131-P

Switch Disconnectors (4 x 4 - 2 and 3 Pole, 250 Vac, 60 A, IP20)						WA
Order No.	Description	Price Ea.	Std. Pack	Order No.	Description	Price Ea.
I129-P	Stove isolator 2P white	R 133.00	4	I129C03-T	Stove isolator 2P silver shimmer	R 198.00
I131-P	Stove isolator 3P white	R 263.00	4	I131C03-T	Stove isolator 3P silver shimmer	R 328.00



I130-P

Switch Disconnectors (2 x 4 - 2 Pole, 250 Vac, 30 A, IP20)						WA
Order No.	Description	Price Ea.	Std. Pack	Order No.	Description	Price Ea.
I130-P	Geyser isolator 2P white	R 117.00	5	I130C03-T	Geyser isolator 2P silver shimmer	R 165.00



TV678-P



B133-P



T686-P

TV & Telephone Socket Outlets and Bell Push (2 x 4 - 250 Vac, 16 A, IP20)						WA
Order No.	Description	Price Ea.	Std. Pack	Order No.	Description	Price Ea.
TV678-P	Single TV socket outlet white	R 125.00	5	TV678C03-T	Single TV socket outlet silver shimmer	R 173.00
B133-P	Bell push socket outlet white	R 55.00	5	B133C03-T	Bell push socket outlet silver shimmer	R 103.00
T686-P	Single telephone socket outlet (RJ11) white	R 107.00	5	T686C03-T	Single telephone socket outlet (RJ11) silver shimmer	R 155.00

Plastic Range Wiring Accessories



DI645-P



TI657-P



II662-P



TVI663-P



TVI664-P

Neon, TV, DSTV and Telephone Inserts						WA
Order No.	Description	Price Ea.	Std. Pack	Order No.	Description	Price Ea.
DI645-P	Data socket insert (RJ45)	R 106.00	10	N/A		
TI657-P	Telephone socket insert RJ11 white	R 86.00	10	TI657C03-T	Telephone socket insert RJ11 silver shimmer	R 100.00
II662-P	Indication light insert red	R 43.00	10	N/A		
TVI663-P	Standard TV connection insert white	R 100.00	10	TVI663C03-T	Standard TV connection insert silver shimmer	R 112.00
TVI664-P	DSTV connection insert white	R 99.00	10	TVI664C03-T	DSTV connection insert silver shimmer	R 111.00



LI659-P



LI660-P



LI661-P



LI662-P



LI663-P / II663-P



BI661-P

Switch Inserts (IP20)						WA
Order No.	Description	Price Ea.	Std. Pack	Order No.	Description	Price Ea.
LI659-P	Light switch insert 1 way 16 A white	R 18.00	10	LI659C03-T	Switch insert 1 way silver shimmer	R 30.00
LI660-P	Light switch insert 2 way 16 A white	R 25.00	10	LI660C03-T	Switch insert 2 way silver shimmer	R 37.00
LI661-P	Dimmer switch insert 16 A white	R 29.00	10	LI661C03-T	Dimmer switch insert 16 A silver shimmer	R 43.00
LI662-P	Blank switch insert white	R 5.00	10	LI662C03-T	Blank switch insert silver shimmer	R 18.00
LI663-P	2P switch insert 16 A white	R 51.00	10	LI663C03-T	2P switch insert 16 A silver shimmer	R 64.00
II663-P	2P switch insert 20 A white	R 70.00	10	II663C03-T	2P switch insert 20 A silver shimmer	R 84.00
LI664-P	Intermediate switch insert 16 A white	R 100.00	10	LI664C03-T	Intermediate switch insert 16 A silver shimmer	R 112.00
BI661-P	Bell push insert 4 A white	R 33.00	10	BI661C03-T	Bell push insert 4 A silver shimmer	R 45.00



D500LED-P



D500LEDC-P

Tactile Dimmer Module (LED & Halogen Compatible)					WA
Order No.	Description	Std. Pack	Price Ea.		
D500LED-P	Dimmer module (250 Vac, 500 W)	4	R 513.00		
D500LEDC-P	Complete dimmer unit (G000-P, LI661-P, D500LED-P)	4	R 547.00		

Plastic Range Grid Plate Selection Guide

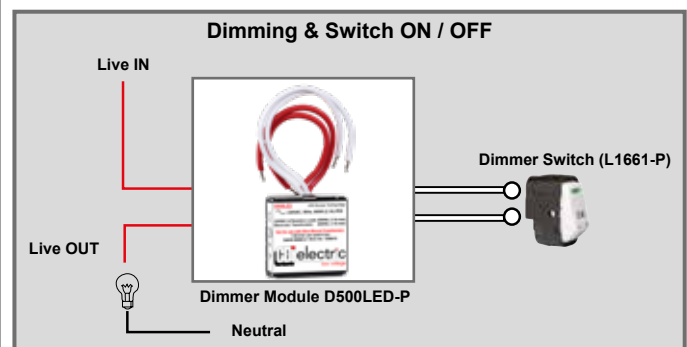
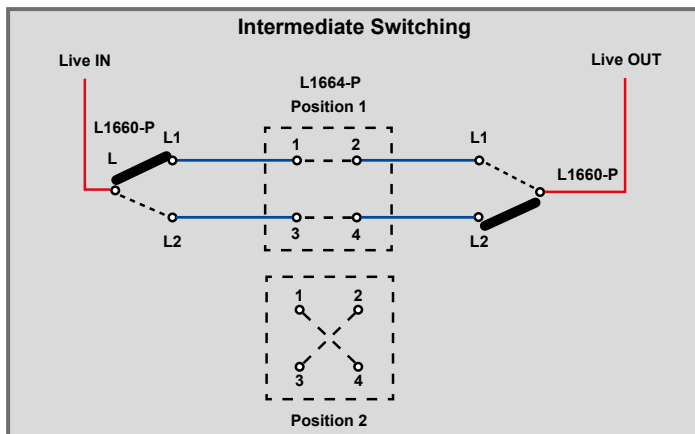
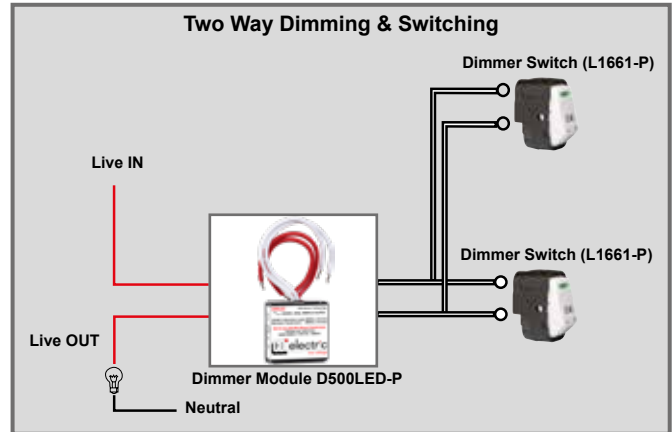
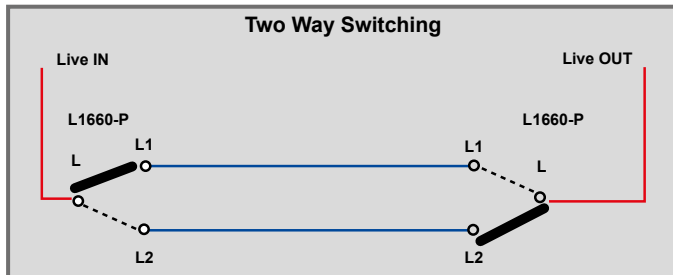
Switch to Flexibility...



Populate as needed starting from the grid plate as base

D500LED-P Dimmer Trailing Edge

Wiring diagrams



500 W Universal Dimmer (D500LED-P)		WA
Load Tables	Minimum Load	Maximum Load
12 V low voltage electronic transformer	3 W	500 W
230 Vac mains incandescent halogen		500 W
230 Vac mains LED lamps		500 "equivalent" W

Notes:

LED rating of load on dimmers:

Max Watts: Use max replacement wattage. E.g. 3 W LED = 40 W equivalent Watts

Brushed Stainless Steel Range Wiring Accessories



V1S/JOS42/SSGINT



V1S/JOS42/SS1G2W



V1S/JOS42/SS2G2W



V1S/JOS42/SS3G2W



V1S/JOS42/SS4G2W

Light Switches (2 x 4 - 250 Vac, 16 A, IP20)

WA

Order No.	Description	Std. Pack	Price Ea.
V1S/JOS42/SSGINT	1 Lever intermediate switch brushed stainless steel ¹	5	R 325.00
V1S/JOS42/SS1G2W	1 Lever 2 way light switch brushed stainless steel ²	5	R 270.00
V1S/JOS42/SS2G2W	2 Lever 2 way light switch brushed stainless steel ²	5	R 336.00
V1S/JOS42/SS3G2W	3 Lever 2 way light switch brushed stainless steel ²	5	R 401.00
V1S/JOS42/SS4G2W	4 Lever 2 way light switch brushed stainless steel ²	5	R 468.00

Notes:

1. Intermediate switch cannot be exchanged
2. 2-way can be wired for 1-way use



V1S/JOS42/SSBP



V1S/JOS44/SSBLANK

Blanking Plates

WA

Order No.	Description	Std. Pack	Price Ea.
V1S/JOS42/SSBP	Blanking plate 2 x 4 brushed stainless steel	10	R 226.00
V1S/JOS44/SSBLANK	Blanking plate 4 x 4 brushed stainless steel	10	R 311.00



V1S/JOS44/SSSSS



V1S/JOS44/SSDSS



V1S/JOS44/SSSSES

Switched Socket Outlets (4 x 4 - 250 Vac, 16 A, IP20)

WA

Order No.	Description	Std. Pack	Price Ea.
V1S/JOS44/SSSSS	Single switched socket outlet brushed stainless steel	5	R 391.00
V1S/JOS44/SSDSS	Double switched socket outlet brushed stainless steel	5	R 495.00
V1S/JOS44/SSSSES	Switched socket + Euro socket outlet brushed stainless steel	5	R 510.00



V1S/JOS44/SSSS60A3P

Switch Disconnectors (4 x 4 - 3 Pole, 250 Vac, 60 A, IP20)

WA

Order No.	Description	Std. Pack	Price Ea.
V1S/JOS44/SSSS60A3P	Stove isolator 60 A 3 pole switch brushed stainless steel	4	R 677.00

Brushed Stainless Steel Range Wiring Accessories



V1S/JOS42/SSDBS



V1S/JOS44/SSTVSAT

Bell Switch Module (2 x 4) Phone Socket & Internet Socket and TV & Satellite Outlet (4 x 4)			WA
Order No.	Description	Std. Pack	Price Ea.
V1S/JOS42/SSDBS	Bell switch / dimmer switch (2 x 4) brushed stainless steel	5	R 276.00
V1S/JOS44/SSRJ11/44	Single telephone socket outlet (RJ11) & internet socket (RJ45) 4 x 4 brushed stainless steel	5	R 528.00
V1S/JOS44/SSTVSAT	Single TV socket outlet & satellite outlet (4 x 4) brushed stainless steel	5	R 409.00



V1S/JOS42/SSDIM

Insert			WA
Order No.	Description	Std. Pack	Price Ea.
V1S/JOS42/SSDIM	Bell switch module / metal rocker / dimmer switch brushed stainless steel	5	R 78.00

DC Range Overview



DC Range			
MCCB	Voltages	Current	Fault Level
B-Frame	24, 48, 65, 80 Vdc (300 Vdc - switch only, 10 A)	up to 30 A	0.6 kA
C-Frame MKIV	65, 80 Vdc	up to 50 A	4 kA
DD-Frame * (RAU option available)	80 Vdc	up to 400 A	10 kA
QDC / QY (13) *	80, 125 Vdc (250 Vdc up to 50 A)	up to 200 A	10 kA
JS25	80 Vdc	80 to 250 A	25 kA
JS25S	80 Vdc	300 to 750 A	20 kA
L20B	125 Vdc	800 to 1500 A	20 kA
G37D	250, 500 Vdc	15 to 125 A	20 kA (at 500 Vdc)
F37D	250, 500 Vdc	150 to 250 A	20 kA (at 500 Vdc)
K50D	250, 500 Vdc	250 to 400 A	20 kA (at 500 Vdc)
L65D	250, 500 Vdc	500 to 800 A	20 kA (at 500 Vdc)
G150D	250, 500, 750, 1000 Vdc	16 to 160 A	100 kA (at 1000 Vdc)
F150D	250, 500, 750, 1000 Vdc	40 to 250 A	100 kA (at 1000 Vdc)
K150D	250, 500, 750, 1000 Vdc	300 to 630 A	100 kA (at 1000 Vdc)
L150D	250, 500, 750, 1000 Vdc	800 A	100 kA (at 1000 Vdc)

QDC Range (80 Vdc, 125 Vdc) 80 Vdc Circuit Breakers 10 kA Curve U2 Mini Rail Mounting, 57 mm Escutcheon and DIN Rail Mounting, 45 mm Escutcheon

Type	Poles	Voltage	kA	MCB Width (mm)	Std. Pack	Ratings (A)	Price Ea.
QDC -1 (13) (Grey Handle)	1	80 Vdc	10	13 (1 Module)	12	5, 10, 15, 20, 25, 30, 40 45, 50, 60	TBA TBA
QDC-2(13) (Grey Handle)	2	80 Vdc	10	26 (2 Modules)	6	5, 10, 15, 20, 25 30, 35, 40, 45, 50	TBA TBA
QDC-2(13) (Grey Handle)	2 (Parallel)	80 Vdc	10	26 (2 Modules)	6	80 100	TBA TBA
QDC-3(13) (Grey Handle)	3 (Parallel)	80 Vdc	10	39 (3 Modules)	4	125,150	TBA

125 Vdc Circuit Breakers 10 kA Curve U2 Mini Rail Mounting, 57 mm Escutcheon and DIN Rail Mounting, 45 mm Escutcheon

Type	Poles	Voltage	kA	MCB Width (mm)	Std. Pack	Ratings (A)	Price Ea.
QDC -1 (13) (Grey Handle)	1	125 Vdc	10	13 (1 Module)	12	5, 10, 15, 20, 25, 30 40, 45, 50, 60	TBA TBA
QDC-2(13) (Grey Handle)	2	125 Vdc	10	26 (2 Modules)	6	5, 10, 15, 20, 25 30, 40, 45, 50, 60	TBA TBA
QDC-2(13) (Grey Handle)	2 (Parallel)	125 Vdc	10	26 (2 Modules)	6	80 100	TBA TBA

Notes: Contact CBI for details. Full range's data sheets available on www.cbi-lowvoltage.com. Standard discounts are not applicable.
* DIN rail option available.

Surge Protection Devices



QFL-2(13)



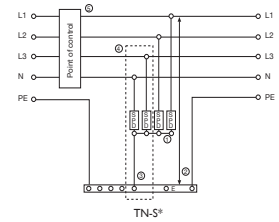
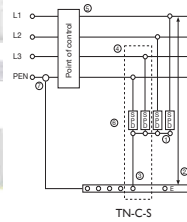
QFL-4(13)



QKL-2(13)D



QKL-4(13)D



Clip-in Dual Mounted Surge Protection Devices

Imax 10 kA (8 / 20 μ s) Surge Protection Devices¹: 275 V Mini Rail (57 mm Escutcheon) - Class II

H2

Product	Description	Width	Std. Pack	Price Ea.	Order No.
QFL-1(13)	1 pole 275 V, with indication	13 mm	12	R 254.00	QFLM0001
QFLN-2(13)	1 pole and neutral 275 V, with indication	26 mm	6	R 481.00	QFLM0002
QFL-3(13)	3 pole 275 V, with indication	39 mm	4	R 720.00	QFLM0003
QFLN-4(13)	3 pole and neutral 275 V, with indication	52 mm	3	R 961.00	QFLM0004

Imax 40 kA (8 / 20 μ s) Surge Protection Devices²: 275 V Mini Rail (57 mm Escutcheon) - Class II

H2

Product	Description	Width	Std. Pack	Price Ea.	Order No.
QKL-1(13)	1 pole 275 V, with indication	13 mm	12	R 632.00	QKLM0001
QKLN-2(13)	1 pole and neutral 275 V, with indication	26 mm	6	R 1 209.00	QKLM0002
QKL-3(13)	3 pole 275 V, with indication	39 mm	4	R 1 816.00	QKLM0003
QKLN-4(13)	3 pole and neutral 275 V, with indication	52 mm	3	R 2 418.00	QKLM0004

Imax 10 kA (8 / 20 μ s) Surge Protection Devices¹: 275 V DIN Rail (45 mm Escutcheon) - Class II

H2

Product	Description	Width	Std. Pack	Price Ea.	Order No.
QFL-1(13)D	1 pole 275 V, with indication	13 mm	12	R 254.00	QFLD0001
QFLN-2(13)D	1 pole and neutral 275 V, with indication	26 mm	6	R 481.00	QFLD0002
QFL-3(13)D	3 pole 275 V, with indication	39 mm	4	R 720.00	QFLD0003
QFLN-4(13)D	3 pole and neutral 275 V, with indication	52 mm	3	R 961.00	QFLD0004

Imax 40 kA (8 / 20 μ s) Surge Protection Devices²: 275 V DIN Rail (45 mm Escutcheon) - Class II

H2

Product	Description	Width	Std. Pack	Price Ea.	Order No.
QKL-1(13)D	1 pole 275 V, with indication	13 mm	12	R 632.00	QKLD0001
QKLN-2(13)D	1 pole and neutral 275 V, with indication	26 mm	6	R 1 209.00	QKLD0002
QKL-3(13)D	3 pole 275 V, with indication	39 mm	4	R 1 816.00	QKLD0003
QKLN-4(13)D	3 pole and neutral 275 V, with indication	52 mm	3	R 2 418.00	QKLD0004

Imax 10 kA (8 / 20 μ s) Surge Protection Devices¹: 130 V Dual Mounted - Class II

H2

Product	Description	Width	Std. Pack	Price Ea.	Order No.
QFL-1(13)	1 pole 130 V, 5 kA with indication mini rail (57 escutcheon)	13 mm	12	R 254.00	QFLM1001
QFL-1(13)D	1 pole 130 V, 5 kA with indication DIN rail (45 escutcheon)	13 mm	12	R 264.00	QFLD1001

Notes:

1. Required to be backed up by a QA MCB

2. Required to be backed up by a QF MCB

Class II SPDs are only to be used where items are not subjected to direct lightning strikes and the voltage / current surges are attenuated (reduced in magnitude)

Product Type	QFL	QKL
Maximum Continuous Operating Voltage (U_c)	275 Vac (RMS)	275 Vac (RMS)
Voltage Protection level (Peak) (U_p)	1.5 kV	1.5 kV
Nominal Discharge Current (I_{nom}) (I_n)	5 kA (8/20 μ s)	20 kA (8/20 μ s)
Maximum Discharge Current (I_{max})	10 kA (8/20 μ s)	40 kA (8/20 μ s)
Short Circuit Withstand*	2.5 kA (50 Hz)	5 kA (50 Hz)
Lightning Protection Zone	OB to 1 or 1 to 2	OB to 1 or 1 to 2
SPD Class	Class II	Class II

Certification: SANS 61643-1 Class II

QA Range Mini Rail 13 mm Hydraulic-Magnetic



QA-1(13)



QA-2(13)



QA-3(13)



QA-N-4(13)

Circuit Breakers 3 kA Curve 3 (Standard) Mini Rail Mounting, 57 mm Escutcheon								L1
Type	Poles	Voltage	kA	MCB Width (mm)	Std. Pack	Ratings (A)	Price Ea.	Order No.
QA-1(13) (White Handle)	1	240 Vac	3	13 (1 Module)	12	1, 2, 5	R 143.00	QAL183...
						10, 15, 20	R 145.00	
						25, 30, 35, 40	R 163.00	
						45, 50, 60	R 168.00	
QA-2(13) (White Handle)	2	415 Vac	3	26 (2 Modules)	6	1, 2, 5	R 546.00	QAL283...
						10, 15, 20	R 560.00	
						25, 30, 35, 40	R 576.00	
						45, 50	R 620.00	
QA-3(13) (White Handle)	3	415 Vac	3	39 (3 Modules)	4	5	R 806.00	QAL383...
						10, 15, 20	R 876.00	
						25, 30, 35	R 889.00	
						40, 45, 50	R 906.00	
QA-N-2(13) (White/Green Handle)	1 + N	240 Vac	3	26 (2 Modules)	6	1, 2, 5, 10, 15, 20	R 386.00	QAL213...
						25, 30, 35, 40, 45, 50	R 408.00	
						60	R 416.00	
QA-N-4(13) (White/Green Handle)	3 + N	415 Vac	3	52 (4 Modules)	3	5, 10, 20, 25	R 1 048.00	QAL413...
						30, 35, 40, 45, 50	R 1 072.00	

Switch Disconnectors 3 kA, Mini Rail Mounting 57 mm Escutcheon								L1
Type	Poles	Voltage	Withstand kA ¹	MCB Width (mm)	Std. Pack	Ratings (A)	Price Ea.	Order No.
QA-S-1(13) (Green Handle)	1	240 Vac	3	13 (1 Module)	12	63	R 141.00	QAL10063
QA-S-2(13) (Green Handle)	2	415 Vac	3	26 (2 Modules)	6	63	R 283.00	QAL20063
QA-S-3(13) (Green Handle)	3	415 Vac	3	39 (3 Modules)	4	63	R 436.00	QAL30063
QA-S-4(13) (Green Handle)	4	415 Vac	3	52 (4 Modules)	3	63	R 548.00	QAL40063

Notes:

Max cable size 25 mm²

The above Voltages and kA ratings are in accordance with SANS specifications (see side of product)

The front printing on the product refers to Voltages and kA ratings in accordance with IEC specifications

1. Required to be backed up by a suitable Short Circuit Protection Device (SCPD)

Please contact CBI for Amp Ratings not listed

QF Range Dual Mount 13 mm Hydraulic-Magnetic



QF-1(13) C1



QF-2(13) C1



QF-1(13)



QF-2(13)



QF-3(13)



QF-N-4(13)

Circuit Breakers 6 kA Curve 1 (Special) Mini and DIN Rail Mounting, 57 mm Escutcheon								L2
Type	Poles	Voltage	kA	MCB Width (mm)	Std. Pack	Ratings (A)	Price Ea.	Order No.
QF-1(13) (Orange Handle)	1	240 Vac	6	13 (1 Module)	12	5, 10, 15, 20, 25	R 221.00	QFA181...
QF-2(13) (Orange Handle)	2	415 Vac	6	26 (2 Modules)	6	15, 20	R 813.00	QFA281...
QF-3(13) (Orange Handle)	3	415 Vac	6	39 (3 Modules)	4	5, 10, 15, 20	R 1 220.00	QFA381...
						25	R 1 228.00	
QF-N-2(13) (Orange/Green Handle)	1 + N	240 Vac	6	26 (2 Modules)	6	5, 10, 15, 20	R 466.00	QFA211...
						25	R 472.00	

Circuit Breakers 6 kA Curve 2 (Standard) Mini and DIN Rail Mounting, 57 mm Escutcheon								L2
Type	Poles	Voltage	kA	MCB Width (mm)	Std. Pack	Ratings (A)	Price Ea.	Order No.
QF-1(13) (White Handle)	1	240 Vac	6	13 (1 Module)	12	1, 2	R 230.00	QFA182...
						5	R 157.00	
						10, 15, 20	R 160.00	
						25	R 178.00	
QF-2(13) (White Handle)	2	415 Vac	6	26 (2 Modules)	6	5	R 593.00	QFA282...
						10, 15, 20	R 610.00	
						25	R 665.00	
QF-3(13) (White Handle)	3	415 Vac	6	39 (3 Modules)	4	5	R 951.00	QFA382...
						10, 15, 20	R 951.00	
						25	R 967.00	
QF-N-2(13) (White/Green Handle)	1 + N	240 Vac	6	26 (2 Modules)	6	5, 10, 15, 20	R 419.00	QFA212...
						25	R 445.00	
QF-N-4(13) (White/Green Handle)	3 + N	415 Vac	6	52 (4 Modules)	3	5, 10, 15, 20, 25	R 1 140.00	QFA412...

Notes:

Max cable Size 25 mm²

The above Voltages and kA ratings are in accordance with SANS specifications (see side of product).

The front printing on the product refers to Voltages and kA ratings in accordance with IEC specifications.

1. Required to be backed up by a suitable Short Circuit Protection Device (SCPD)

Please contact CBI for Amp ratings not listed

QF Range Dual Mount 13 mm Hydraulic-Magnetic

Switch Disconnectors 6 kA, Mini and DIN Rail Mounting, 57 mm Escutcheon								L2
Type	Poles	Voltage	Withstand kA ¹	MCB Width (mm)	Std. Pack	Ratings (A)	Price ea.	Order No.
QF-S-1(13) (Green Handle)	1	240 Vac	6	13 (1 Module)	12	63	R 164.00	QFA10063
QF-S-2(13) (Green Handle)	2	415 Vac	6	26 (2 Modules)	6	63	R 308.00	QFA20063
QF-S-3(13) (Green Handle)	3	415 Vac	6	39 (3 Modules)	4	63	R 481.00	QFA30063
QF-S-4(13) (Green Handle)	4	415 Vac	6	52 (4 Modules)	3	63	R 617.00	QFA40063

Notes:

Max cable size 25 mm² - QF(13)

The above Voltages and kA ratings are in accordance with SANS specifications (see side of product).

The front printing on the product refers to Voltages and kA ratings in accordance with IEC specifications.

1. Required to be backed up by a suitable Short Circuit Protection Device (SCPD).

QF Range Dual Mount 26 mm Hydraulic-Magnetic

Circuit Breakers Curve 1 (Special) 6 kA, Dual Mounting, 57 mm Escutcheon								L2
Type	Poles	Voltage	kA	MCB Width (mm)	Std. Pack	Ratings (A)	Price ea.	Order No.
QF-N-2 (26)-DM (Orange/Green Handle)	2	240 Vac	6	26 (2 Modules)	12	63	R 567.00	QFE21163
						100	R 631.00	QFE211100
						125	R 631.00	QFE211125

Note:

Max cable size up to 50 mm²

QF Range Dual Mount Low Ratings 26 mm Hydraulic-Magnetic



QF-1(26)



QF-2(26)



QF-N-4(26)

Circuit Breakers 6 kA Curve 1 (Special) Mini and DIN Rail Mounting, 57 mm Escutcheon								L2
Type	Poles	Voltage	kA	MCB Width (mm)	Std. Pack	Ratings (A)	Price ea.	Order No.
QF-1(26) (Orange Handle)	1	240 Vac	6	26 (1 Module)	12	5, 10, 15, 20	R 223.00	QFE181...
						25, 30, 35, 40, 45, 50, 63	R 230.00	
QF-2(26) (Orange Handle)	2	415 Vac	6	52 (2 Modules)	6	10, 20	R 819.00	QFE281...
						25, 30, 40, 50, 63	R 823.00	
QF-3(26) (Orange Handle)	3	415 Vac	6	78 (3 Modules)	4	5	R 1 226.00	QFE381...
						10, 15, 20	R 1 229.00	
						25, 30, 35, 40, 45, 50, 63	R 1 232.00	

Circuit Breakers 6 kA Curve 2 (Standard) Mini and DIN Rail Mounting, 57 mm Escutcheon								L2
Type	Poles	Voltage	kA	MCB Width (mm)	Std. Pack	Ratings (A)	Price ea.	Order No.
QF-1(26) (White Handle)	1	240 Vac	6	26 (1 Module)	12	1, 2	R 242.00	QFE182...
						5, 10	R 152.00	
						15, 20, 25, 30	R 163.00	
						35, 40, 45, 50, 63	R 172.00	
QF-2(26) (White Handle)	2	415 Vac	6	52 (2 Modules)	6	5	R 600.00	QFE282...
						10, 15, 20	R 610.00	
						25, 30, 35, 40	R 673.00	
						45, 50, 63	R 682.00	
QF-3(26) (White Handle)	3	415 Vac	6	78 (3 Modules)	4	5, 10, 15, 20	R 876.00	QFE382...
						25, 30, 35, 40, 45, 50, 63	R 884.00	
QF-N-2(26) (White/ Green Handle)	1 + N	240 Vac	6	52 (2 Modules)	6	5, 10, 15, 20	R 404.00	QFE212...
						25, 30, 35, 40	R 422.00	
						45, 50, 63	R 470.00	
QF-N-4(26) (White/ Green Handle)	3 + N	415 Vac	6	104 (4 Modules)	3	5	R 964.00	QFE412...
						10, 20	R 1 142.00	
						25, 30, 35	R 1 209.00	
						40	R 1 327.00	
						45, 50, 63	R 1 226.00	

Notes:

- Required to be backed up by a suitable Short Circuit Protection Device (SCPD).
Max cable size up to 50 mm²

QF Range Dual Mount High Ratings 26 mm Hydraulic-Magnetic



QF-1(26)



QF-2(26)



QF-3(26)



QF-N-4(26)

Circuit Breakers 6 kA Curve 1 (Special) Mini and DIN Rail Mounting, 57 mm Escutcheon								L2
Type	Poles	Voltage	kA	MCB Width (mm)	Std. Pack	Ratings (A)	Price ea.	Order No.
QF-1(26) (Orange Handle)	1	240 Vac	6	26 (1 Module)	12	70, 80	R 370.00	QFE181...
						90, 100, 125	R 530.00	
QF-2(26) (Orange Handle)	2	415 Vac	6	52 (2 Modules)	6	70, 80	R 1 197.00	QFE281...
						90, 100, 125	R 1 303.00	
QF-3(26) (Orange Handle)	3	415 Vac	6	78 (3 Modules)	4	70, 80	R 1 798.00	QFE381...
						90, 100, 125	R 1 945.00	

Circuit Breakers 6 kA Curve 2 (Standard) Mini and DIN Rail Mounting, 57 mm Escutcheon								L2
Type	Poles	Voltage	kA	MCB Width (mm)	Std. Pack	Ratings (A)	Price ea.	Order No.
QF-1(26) (White Handle)	1	240 Vac	6	26 (1 Module)	12	70, 80	R 324.00	QFE182...
						90, 100, 125	R 375.00	
QF-2(26) (White Handle)	2	415 Vac	6	52 (2 Modules)	6	70, 80	R 1 127.00	QFE282...
						90, 100, 125	R 1 227.00	
QF-3(26) (White Handle)	3	415 Vac	6	78 (3 Modules)	4	70, 80	R 1 621.00	QFE382...
						90, 100, 125	R 1 945.00	
QF-N-2(26) (White/Green Handle)	1 + N	240 Vac	6	52 (2 Modules)	6	70, 80	R 704.00	QFE212...
						90, 100, 125	R 712.00	
QF-N-4(26) (White/Green Handle)	3 + N	415 Vac	6	104 (4 Modules)	6	70, 80	R 2 287.00	QFE412...
						90, 100, 125		

Switch Disconnectors 6 kA, Mini and DIN Rail Mounting, 57 mm Escutcheon								L2
Type	Poles	Voltage	Withstand kA ¹	MCB Width (mm)	Std. Pack	Ratings (A)	Price ea.	Order No.
QF-S-1(26) (Green Handle)	1	240 Vac	6	26 (1 Module)	12	63	R 182.00	QFE10063
						100, 125	R 308.00	QFE100...
QF-S-2(26) (Green Handle)	2	415 Vac	6	52 (2 Modules)	6	63	R 359.00	QFE20063
						100, 125	R 591.00	QFE200...
QF-S-3(26) (Green Handle)	3	415 Vac	6	78 (3 Modules)	4	63	R 559.00	QFE30063
						100, 125	R 977.00	QFE300...
QF-S-4(26) (Green Handle)	4	415 Vac	6	104 (4 Modules)	3	63	R 699.00	QFE40063
						100, 125	R 1 302.00	QFE400...

Notes:

Max cable size up to 50 mm²

1. Required to be backed up by a suitable Short Circuit Protection Device (SCPD).

QF Range DIN Rail 18 mm Hydraulic-Magnetic



QF-1(18)



QF-2(18)



QF-3(18)



QF-N-4(18)

Circuit Breakers 6 kA Curve 1 (Special) DIN Rail Mounting, 45 mm Escutcheon								L2
Type	Poles	Voltage	kA	MCB Width (mm)	Std. Pack	Ratings (A)	Price ea.	Order No.
QF-1(18)-D (Orange Handle)	1	240 Vac	6	18 (1 Module)	12	6, 10, 16, 20	R 222.00	QFD181...
						25, 32, 40, 50, 63	R 229.00	
QF-2(18)-D (Orange Handle)	2	415 Vac	6	36 (2 Modules)	6	6, 10, 16, 20	R 819.00	QFD281...
						25, 32, 40, 50, 63	R 822.00	
QF-3(18)-D (Orange Handle)	3	415 Vac	6	54 (3 Modules)	4	6, 10, 16, 20	R 1 228.00	QFD381...
						25, 32, 40, 50, 63	R 1 232.00	

Circuit Breakers 6 kA Curve 2 (Standard) DIN Rail Mounting, 45 mm Escutcheon								L2
Type	Poles	Voltage	kA	MCB Width (mm)	Std. Pack	Ratings (A)	Price ea.	Order No.
QF-1(18)-D (White Handle)	1	240 Vac	6	18 (1 Module)	12	1, 2	R 242.00	QFD182...
						6, 10, 16, 20	R 153.00	
						25, 32	R 173.00	
						35, 40, 50, 63	R 177.00	
QF-2(18)-D (White Handle)	2	415 Vac	6	36 (2 Modules)	6	6	R 600.00	QFD282...
						10, 16, 20	R 610.00	
						25, 32, 40	R 674.00	
						45, 50, 63	R 682.00	
QF-3(18)-D (White Handle)	3	415 Vac	6	54 (3 Modules)	4	6	R 883.00	QFD382...
						10, 16, 20	R 876.00	
						25, 32, 40, 45, 50, 63	R 884.00	
QF-N-2(18)-D (White / Green Handle)	1 + N	240 Vac	6	36 (2 Modules)	6	6, 10, 16, 20	R 408.00	QFD212...
						25, 32, 40	R 424.00	
						45, 50, 63	R 474.00	
QF-N-4(18)-D (White / Green Handle)	3 + N	415 Vac	6	72 (4 Modules)	3	10, 20	R 1 141.00	QFD412...
						25, 32, 40	R 1 208.00	
						50, 63	R 1 224.00	

Notes:

Max cable size up to 35 mm²

The above Voltages and kA ratings are in accordance with SANS specification (see side of product).

The front printing on the product refers to Voltages and kA ratings in accordance with IEC specifications.

Use curve 1 for motor protection.

QF Range DIN Rail 18 mm Thermal-Magnetic



Circuit Breakers 6 kA Curve 1 (Special) DIN Rail Mounting, 45 mm Escutcheon								L2
Type	Poles	Voltage	kA	MCB Width (mm)	Std. Pack	Ratings (A)	Price ea.	Order No.
QF-1(18)-D (Orange Handle)	1	240 Vac	6	18 (1 Module)	12	6	R 223.00	QFD181..1
						10, 16, 20	R 223.00	
						25, 32, 40, 50, 63	R 231.00	
QF-2(18)-D (Orange Handle)	2	415 Vac	6	36 (2 Modules)	6	6, 10, 16, 20	R 821.00	QFD281..1
						25, 32, 40, 50, 63	R 826.00	
QF-3(18)-D (Orange Handle)	3	415 Vac	6	54 (3 Modules)	4	6, 10, 16, 20	R 1 232.00	QFD381...1
						25, 32, 40, 50, 63	R 1 233.00	
QF-N-4(18)-D (Orange/ Green Handle)	3 + N	415 Vac	6	72 (4 Modules)	3	6, 10, 16, 20	R 1 463.00	QFD411..1
						25, 32, 40	R 1 557.00	
						50, 63	R 1 579.00	

Circuit Breakers 6 kA Curve 2 (Standard) DIN Rail Mounting, 45 mm Escutcheon								L2
Type	Poles	Voltage	kA	MCB Width (mm)	Std. Pack	Ratings (A)	Price ea.	Order No.
QF-1(18)-D (White Handle)	1	240 Vac	6	18 (1 Module)	12	6, 10, 16, 20	R 155.00	QFD182..1
						25, 32	R 177.00	
						40, 50, 63	R 181.00	
QF-2(18)-D (White Handle)	2	415 Vac	6	36 (2 Modules)	6	6	R 603.00	QFD282..1
						10, 16, 20	R 613.00	
						25, 32, 40	R 675.00	
						50, 63	R 684.00	
QF-3(18)-D (White Handle)	3	415 Vac	6	54 (3 Modules)	4	6	R 879.00	QFD382..1
						10, 16, 20	R 880.00	
						25, 32, 40, 50, 63	R 885.00	
QF-N-2(18)-D (White/ Green Handle)	1 + N	240 Vac	6	36 (2 Modules)	6	6, 10, 16, 20	R 411.00	QFD212..1
						25, 32, 40	R 427.00	
						50, 63	R 477.00	
QF-N-4(18)-D (White/ Green Handle)	3 + N	415 Vac	6	72 (4 Modules)	3	6, 10, 16, 20	R 1 142.00	QFD412..1
						25, 32, 40	R 1 209.00	
						50, 63	R 1 226.00	

Note:

Max cable size up to 25 mm²
Use curve 1 for motor protection.

QF Range DIN Rail 18 mm Thermal-Magnetic

Switch Disconnectors 6 kA, DIN Rail Mounting, 45 mm Escutcheon								L2
Type	Poles	Voltage	Withstand kA ¹	MCB Width (mm)	Std. Pack	Ratings (A)	Price ea.	Order No.
QF-S-1(18)-D	1	240 Vac	6	18 (1 Module)	12	63	R 182.00	QFD10063
						100	R 299.00	QFD100100
						125	R 416.00	QFD100125
QF-S-2(18)-D	2	415 Vac	6	36 (2 Modules)	6	63	R 358.00	QFD20063
						100	R 474.00	QFD200100
						125	R 591.00	QFD200125
QF-S-3(18)-D	3	415 Vac	6	54 (3 Modules)	4	63	R 559.00	QFD30063
						100	R 768.00	QFD300100
						125	R 978.00	QFD300125
QF-S-4(18)-D	4	415 Vac	6	72 (4 Modules)	3	63	R 735.00	QFD40063
						100	R 1 017.00	QFD400100
						125	R 1 302.00	QFD400125

Notes:

Max cable size up to 50 mm²

For non-standard Amp ratings, please contact CBI.

The above Voltages and kA ratings are in accordance with SANS specifications (see front printing of product).

1. Required to be backed up by a suitable Short Circuit Protection Device (SCPD).

QF Range DIN Rail 27 mm Thermal-Magnetic



QF-1(27)-D



QF-2(27)-D



QF-3(27)-D

Circuit Breakers 6 kA Curve 1 (Special) DIN Rail Mounting, 45 mm Escutcheon								L2
Type	Poles	Voltage	kA	MCB Width (mm)	Std. Pack	Ratings (A)	Price ea.	Order No.
QF-1(27)-D (Orange Handle)	1	240 Vac	6	27 (1 Module)	12	80	R 370.00	QFF181..1
						100	R 530.00	
QF-2(27)-D (Orange Handle)	2	415 Vac	6	54 (2 Modules)	6	80	R 1 197.00	QFF281..1
						100	R 1 303.00	
QF-3(27)-D (Orange Handle)	3	415 Vac	6	81 (3 Modules)	4	80	R 1 798.00	QFF381..1
						100	R 1 945.00	
QF-N-4(27)-D (Orange/Green Handle)	3 + N	415 Vac	6	108 (4 Modules)	3	80, 100	R 2 363.00	QFF411..1

Circuit Breakers 6 kA Curve 2 (Standard) DIN Rail Mounting, 45 mm Escutcheon								L2
Type	Poles	Voltage	kA	MCB Width (mm)	Std. Pack	Ratings (A)	Price ea.	Order No.
QF-1(27)-D (White Handle)	1	240 Vac	6	27 (1 Module)	12	80	R 324.00	QFF182..1
						100	R 370.00	
						125	R 572.00	
QF-2(27)-D (White Handle)	2	415 Vac	6	54 (2 Modules)	6	80	R 1 127.00	QFF282..1
						100	R 1 683.00	
						125	R 1 895.00	
QF-3(27)-D (White Handle)	3	415 Vac	6	81 (3 Modules)	4	80	R 1 621.00	QFF382..1
						100	R 1 945.00	
						125	R 2 187.00	
QF-N-4(27)-D (White/Green Handle)	3 + N	415 Vac	6	108 (4 Modules)	3	80, 100	R 2 150.00	QFF412..1
						125	R 2 361.00	

Notes:

Max cable size up to 50 mm²

For non-standard Amp ratings, please contact CBI.

The above Voltages and kA ratings are in accordance with SANS specifications (see front printing of product).

Use curve 1 for motor protection.

QH Range DIN Rail 18 mm Thermal-Magnetic



Circuit Breakers 10 kA Curve 1 (Special), DIN Rail Mounting, 45 mm Escutcheon								H2
Type	Poles	Voltage	kA	MCB Width (mm)	Std. Pack	Ratings (A)	Price ea.	Order No.
QH-1(18)-D (Orange Handle)	1	240 Vac	10	18 (1 Module)	12	6, 10, 16, 20	R 551.00	QHB181..
						25, 32, 40, 50, 63	R 657.00	
QH-2(18)-D (Orange Handle)	2	415 Vac	10	36 (2 Modules)	6	6, 10, 16, 20	R 1 254.00	QHB281..
						25, 32, 40, 50, 63	R 1 327.00	
QH-3(18)-D (Orange Handle)	3	415 Vac	10	54 (3 Modules)	4	6, 10, 16, 20	R 1 882.00	QHB381..
						25, 32, 40, 50, 63	R 1 995.00	
QH-N-4(18)-D (Orange/Green Handle)	3 + N	415 Vac	10	72 (4 Modules)	3	10, 16, 20	R 2 178.00	QHB411..
						25, 32, 40, 50, 63	R 2 240.00	

Circuit Breakers 10 kA Curve 2 (Standard) DIN Rail Mounting, 45 mm Escutcheon								H2
Type	Poles	Voltage	kA	MCB Width (mm)	Std. Pack	Ratings (A)	Price ea.	Order No.
QH-1(18)-D (White Handle)	1	240 Vac	10	18 (1 Module)	12	6, 10, 16, 20	R 332.00	QHB182..
						25, 32, 40, 50, 63	R 388.00	
QH-2(18)-D (White Handle)	2	415 Vac	10	36 (2 Modules)	6	6, 10, 16, 20	R 1 015.00	QHB282..
						25, 32, 40, 50, 63	R 1 144.00	
QH-3(18)-D (White Handle)	3	415 Vac	10	54 (3 Modules)	4	6, 10, 16, 20	R 1 374.00	QHB382..
						25, 32, 40, 50, 63	R 1 489.00	
QH-N-2(18)-D (White/Green Handle)	1 + N	240 Vac	10	36 (2 Modules)	6	10, 16, 20	R 884.00	QHB212..
						25, 32, 40, 50, 63	R 914.00	
QH-N-4(18)-D (White/Green Handle)	3 + N	415 Vac	10	72 (4 Modules)	3	6, 10, 16, 20	R 1 624.00	QHB412..
						25, 32, 40, 50, 63	R 1 805.00	

Switch Disconnectors 10 kA, DIN Rail Mounting, 45 mm Escutcheon								H2
Type	Poles	Voltage	Withstand kA ¹	MCB Width (mm)	Std. Pack	Ratings (A)	Price ea.	Order No.
QH-S-1(18)-D (Green Handle)	1	240 Vac	10	18 (1 Module)	12	63	R 309.00	QHB10063
						100	R 353.00	QHB100100
						125	R 465.00	QHB100125
QH-S-2(18)-D (Green Handle)	2	415 Vac	10	36 (2 Modules)	6	63	R 665.00	QHB20063
						100	R 702.00	QHB200100
						125	R 737.00	QHB200125
QH-S-3(18)-D (Green Handle)	3	415 Vac	10	54 (3 Modules)	4	63	R 955.00	QHB30063
						100	R 998.00	QHB300100
						125	R 1 040.00	QHB300125
QH-S-4(18)-D (Green Handle)	4	415 Vac	10	72 (4 Modules)	3	63	R 1 275.00	QHB40063*
						100	R 1 407.00	QHB400100
						125	R 1 539.00	QHB400125

Notes:

Max cable size 35 mm² - QH
Use curve 1 for motor protection
* While stocks last

QH Range DIN Rail 27 mm Thermal-Magnetic



QH-1(27)-D



QH-2(27)-D



QH-3(27)-D



QH-3(27)-D C1

Special Circuit Breakers 10 kA Curve 1, (Special) DIN Rail Mounting, 45 mm Escutcheon								H2
Type	Poles	Voltage	kA	MCB Width (mm)	Std. Pack	Ratings (A)	Price ea.	Order No.
QH-1(27)-D (Orange Handle)	1	240 Vac	10	27 (1 Module)	12	80	R 860.00	QHD181..
						100	R 936.00	
QH-3(27)-D (Orange Handle)	3	415 Vac	10	81 (3 Modules)	4	80	R 2 733.00	QHD381..
						100	R 2 764.00	
QH-N-4 (27)-D (Orange/Green Handle)	3 + N	415 Vac	10	108 (4 modules)	4	80	R 2 319.00	QHD411080

Standard Circuit Breakers 10 kA Curve 2, (Standard) DIN Rail Mounting, 45 mm Escutcheon								H2
Type	Poles	Voltage	kA	MCB Width (mm)	Std. Pack	Ratings (A)	Price ea.	Order No.
QH-1(27)-D (White Handle)	1	240 Vac	10	27 (1 Module)	12	80	R 505.00	QHD182..
						100	R 591.00	
						125	R 983.00	
QH-2(27)-D (White Handle)	2	415 Vac	10	54 (2 Modules)	6	80	R 1 505.00	QHD282..
						100	R 1 829.00	
QH-3(27)-D (White Handle)	3	415 Vac	10	81 (3 Modules)	4	80	R 1 970.00	QHD382..
						100	R 2 213.00	
						125	R 2 544.00	

Notes:

Max cable size up to 50 mm²
Use curve 1 for motor protection.
Contact CBI for delivery.

QF Range DIN Rail Thermal-Magnetic Earth Leakages (30 mA)



QF16C-D 100 A QF36C-D 100 A

Earth Leakage Module with Switch, Icw = 6 kA, DIN Rail Mounting, 45 mm Escutcheon - No Overload								L2
Type	Poles	Voltage	kA	MCB Width (mm)	Std. Pack	Ratings (A)	Price ea.	Order No.
QF16CD	1 + N	240 Vac	6	36	6	63, 100	R 1 267.00	QF16CD...
QF36CD	3 + N	415 Vac	6	72	3	63, 100	R 2 774.00	QF36CD...

QH Range DIN Rail Thermal-Magnetic Earth Leakages (30 mA)



QH16C-D QH36C-D

Earth Leakage Module with Switch, Icw = 6 / 10 kA, DIN Rail Mounting, 45 mm Escutcheon - No Overload								H2
Type	Poles	Voltage	kA	MCB Width (mm)	Std. Pack	Ratings (A)	Price ea.	Order No.
QH16CD	1 + N	240 Vac	10	36	6	40, 63	R 1 399.00	QH16CD...
						80, 100		
QH36CD	3 + N	415 Vac	10	72	3	40, 63	R 2 906.00	QH36CD...
						80, 100		

QF Range DIN Rail Hydraulic-Magnetic Earth Leakages (30 mA)



QF14AD

QF14CD

DIN Rail Mount									
Type	Poles	Voltage	kA	mA	Width (mm)	Std. Pack	Rating (A)	Price ea.	Order No.
DIN Commercial / Industrial Earth Leakage Protection Device Single Phase with Overload Protection (DIN Mount)									L2
QF14AD	1 + N	240 Vac	6	30	36	10	6, 10, 16, 20, 32, 40, 50, 63	R 1 835.00	QF14AD2...
DIN Commercial / Industrial Earth Leakage Protection Device Single Phase without Overload Protection (DIN Mount)									L2
QF14CD ¹	1 + N	240 Vac	6	30	36	10	63	R 1 267.00	QF14CD63

QA, QF & SF Range Earth Leakages - Hydraulic-Magnetic



1. Special Earth Leakage Protection Devices

All products manufactured by CBI to meet special non-standard requirements of customers will be quoted for (Price On Request).

2. Standard Current Ratings

Ampere ratings indicated are standard. Non-standard ratings can be provided (POR).

3. Earth Leakage Protection Devices Sensitivities

Sensitivities indicated are standard. Non-standard sensitivities can be provided (POR).

Earth Leakage Protection Devices Abbreviation Codes

Suffix A

Earth Leakage protection device with overload, Single pole and Neutral / 3 pole and Neutral versions.

Suffix C

Earth Leakage protection device (switch disconnecter, non overload), single pole and 3 pole versions.

Dual and Mini Rail Mount									
Type	Poles	Voltage	kA	mA	Width (mm)	Std. Pack	Rating (A)	Price ea.	Order No.
Residential / Commercial Earth Leakage Protection Device Single Phase with Overload Protection (Dual Mount)									L1
QA17A	1 + N	240 Vac	3	30	26	10	5, 10, 15, 20, 25, 30, 40, 50, 63	R 1 701.00	QA17A...
Residential / Commercial Earth Leakage Protection Device Single Phase without Overload Protection (Dual Mount)									L1
QA17C ¹	1 + N	240 Vac	3	30	26	10	63	R 884.00	QA17C63
Commercial / Industrial Earth Leakage Protection Device Single Phase with Overload Protection (Dual Mount)									L2
QF17A	1 + N	240 Vac	6	30	26	10	5, 10, 15, 20, 25, 30, 40, 50, 63	R 1 835.00	QF17A...
Commercial / Industrial Earth Leakage Protection Device Single Phase without Overload Protection (Dual Mount) ¹									L2
QF17C ¹	1 + N	240 Vac	6	30	26	10	63	R 1 267.00	QF17C63
Residential / Commercial Earth Leakage Protection Device Three Phase with Overload Protection (Dual Mount)									L1
QA36AW	3 + N	415 Vac	3	30	78	5	6, 10, 15, 20, 25, 30, 40, 50, 63	R 2 906.00	QA36AW2...
Residential / Commercial Earth Leakage Protection Device Three Phase without Overload Protection (Dual Mount) ¹									L1
QA36CW	3 + N	415 Vac	3	30	78	5	63	R 1 879.00	QA36CW63
Commercial / Industrial Earth Leakage Protection Device Single Phase with Overload Protection (Mini Rail & Front Mount)									L2
SF15A	1 + N	240 Vac	6	30	65	10	80, 100	R 2 509.00	SF15K...
Commercial / Industrial Earth Leakage Protection Device Single Phase without Overload Protection (Mini Rail & Front Mount) ¹									L2
SF15C ¹	1 + N	240 Vac	6	30	65	10	100	R 1 717.00	SF15A99
Commercial / Industrial Earth Leakage Protection Device Three Phase with Overload Protection (Mini Rail & Front Mount)									L2
SF36A	3 + N	415 Vac	6	30	117	5	15, 20, 30, 40, 50, 60, 70, 80	R 3 302.00	SF35K...
Commercial / Industrial Earth Leakage Protection Device Three Phase without Overload Protection (Mini Rail & Front Mount) ¹									L2
SF36C ¹	3 + N	415 Vac	6	30	117	5	80	R 2 774.00	SF35A80

Note:

- Required to be backed by suitable Short Circuit Protection Device (SCPD).

SM Range Earth Leakages



SM15



SM36

110 Vac Mining/Industrial Earth Leakage Protection Device, Single Phase with Overload Protection (Mini Rail & Front Mount)									L2
Type	Poles	Voltage	kA	mA	Width (mm)	Std. Pack	Rating (A)	Price ea.	Order No.
SM15A	1 + N	110 Vac	6	30 mA	65	10	10, 15, 20, 30, 40, 50, 60, 80, 100	R 2 509.00	SN15K...
SM15A	1 + N	110 Vac	6	50 mA	65	10	10, 15, 20, 30, 40, 50, 60, 80, 100	R 2 509.00	SN15L...
SM15A	1 + N	110 Vac	6	100 mA	65	10	10, 15, 20, 30, 40, 50, 60, 80, 100	R 2 509.00	SN15M...
SM15A	1 + N	110 Vac	6	250 mA	65	10	10, 15, 20, 30, 40, 50, 60, 80, 100	R 2 509.00	SN15N...
SM15A	1 + N	110 Vac	6	375 mA	65	10	10, 15, 20, 30, 40, 50, 60, 80, 100	R 2 509.00	SN15P...
SM15A	1 + N	110 Vac	6	500 mA	65	10	10, 15, 20, 30, 40, 50, 60, 80, 100	R 2 509.00	SN15Q...
SM15A	1 + N	110 Vac	6	1000 mA	65	10	10, 15, 20, 30, 40, 50, 60, 80, 100	R 2 509.00	SN15R...
240 Vac Mining / Industrial Earth Leakage Protection Device, Single Phase with Overload Protection (Mini Rail & Front Mount)									L2
Type	Poles	Voltage	kA	mA	Width (mm)	Std. Pack	Rating (A)	Price ea.	Order No.
SM15A	1 + N	240 Vac	6	50 mA	65	10	10, 15, 20, 30, 40, 50, 60, 80, 100	R 2 509.00	SM15L...
SM15A	1 + N	240 Vac	6	100 mA	65	10	10, 15, 20, 30, 40, 50, 60, 80, 100	R 2 509.00	SM15M...
SM15A	1 + N	240 Vac	6	250 mA	65	10	10, 15, 20, 30, 40, 50, 60, 80, 100	R 2 509.00	SM15N...
SM15A	1 + N	240 Vac	6	375 mA	65	10	10, 15, 20, 30, 40, 50, 60, 80, 100	R 2 509.00	SM15P...
SM15A	1 + N	240 Vac	6	500 mA	65	10	10, 15, 20, 30, 40, 50, 60, 80, 100	R 2 509.00	SM15Q...
SM15A	1 + N	240 Vac	6	1000 mA	65	10	10, 15, 20, 30, 40, 50, 60, 80, 100	R 2 509.00	SM15R...
110 Vac Mining / Industrial Earth Leakage Protection Device, Three Phase with Overload Protection (Mini Rail & Front Mount)									L2
Type	Poles	Voltage	kA	mA	Width (mm)	Std. Pack	Rating (A)	Price ea.	Order No.
SM36A	3 + N	110 Vac	6	30 mA	117	5	10, 15, 20, 30, 40, 50, 60, 80	R 3 302.00	SN35K...
SM36A	3 + N	110 Vac	6	50 mA	117	5	10, 15, 20, 30, 40, 50, 60, 80	R 3 302.00	SN35L...
SM36A	3 + N	110 Vac	6	100 mA	117	5	10, 15, 20, 30, 40, 50, 60, 80	R 3 302.00	SN35M...
SM36A	3 + N	110 Vac	6	250 mA	117	5	10, 15, 20, 30, 40, 50, 60, 80	R 3 302.00	SN35N...
SM36A	3 + N	110 Vac	6	375 mA	117	5	10, 15, 20, 30, 40, 50, 60, 80	R 3 302.00	SN35P...
SM36A	3 + N	110 Vac	6	500 mA	117	5	10, 15, 20, 30, 40, 50, 60, 80	R 3 302.00	SN35Q...
SM36A	3 + N	110 Vac	6	1000 mA	117	5	10, 15, 20, 30, 40, 50, 60, 80	R 3 302.00	SN35R...
415 Vac Mining / Industrial Earth Leakage Protection Device, Three Phase with Overload Protection (Mini Rail & Front Mount)									L2
Type	Poles	Voltage	kA	mA	Width (mm)	Std. Pack	Rating (A)	Price ea.	Order No.
SM36A	3 + N	415 Vac	6	50 mA	117	5	15, 20, 30, 40, 50, 60, 80	R 3 302.00	SM35L...
SM36A	3 + N	415 Vac	6	100 mA	117	5	15, 20, 30, 40, 50, 60, 80	R 3 302.00	SM35M...
SM36A	3 + N	415 Vac	6	250 mA	117	5	15, 20, 30, 40, 50, 60, 80	R 3 302.00	SM35N...
SM36A	3 + N	415 Vac	6	375 mA	117	5	15, 20, 30, 40, 50, 60, 80	R 3 302.00	SM35P...
SM36A	3 + N	415 Vac	6	500 mA	117	5	15, 20, 30, 40, 50, 60, 80	R 3 302.00	SM35Q...
SM36A	3 + N	415 Vac	6	1000 mA	117	5	15, 20, 30, 40, 50, 60, 80	R 3 302.00	SM35R...

Notes:

* Please contact CBI to determine the earth leakage configuration and availability.
Max cable size 50 mm² - SM.

MCB Accessories



Handle Lock



Safety Blank



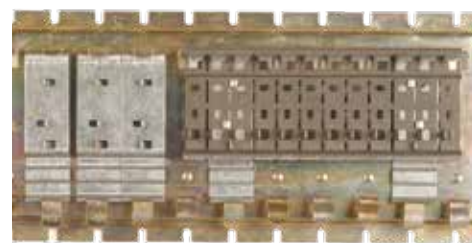
SAMR100



SAMR096



SAMR101



Mini Rail				H2
Product	Description	Std. Pack	Price Ea.	Order No.
QA, QF	Shroud - 2 x 13 mm / 1 x 26 mm, complete with surface mounting clip	10	R 66.00	3670093
QA, QF	Shroud - 4 x 13 mm / 2 x 26 mm, complete with surface mounting clip	10	R 111.00	3670095
QA, QF	Shroud - 6 x 13 mm / 3 x 26 mm, complete with surface mounting clip	10	R 137.00	3670097
QA, QF	Shroud - 8 x 13 mm / 4 x 26 mm, complete with surface mounting clip	10	R 152.00	3670099
QF High Rating	Shroud - 1 x 26 mm, complete with surface mounting clip	10	R 69.00	3670002
QF High Rating	Shroud - 2 x 26 mm (open / knockout) complete with surface mounting clip	10	R 115.00	3670004
QF High Rating	Shroud - 3 x 26 mm (open / knockout) complete with surface mounting clip	10	R 143.00	3670008
QF High Rating	Shroud - 4 x 26 mm (open / knockout) complete with surface mounting clip	10	R 152.00	3670006
QA, QF	Shroud - sealing screws	100	R 5.00	3670012
QA, QF	Shroud - insert nuts	100	R 3.00	2096000
QA, QF	Mini rail - 13 mm module, 96 modules	10	R 61.00	SAMR096
Adaptor Plate	Heinemann clip tray to Samite	400	R 20.00	SAMR100
QA, QF	Insulating clip-on / terminal cover	1	R 2.00	2156995
QA	Safety blank - 13 mm module, clips into mini rail	100	R 15.00	SAEB000
SF, QF	Escutcheon blank - 26 mm module, clips into DB aperture	500	R 8.00	SFEB000
SF	Dummy - 26 mm single pole	50	R 30.00	SF1002601
QF High Rating	Surface mounting clips MK1 - price per 4 - way strip	40	R 9.00	SAAX000
SF	Surface mounting clips MK11 - price per pair (excl. sealing screws and insert nuts)	40	R 7.00	SFAX001
SAK	Contactor paralleling bars	10	R 16.00	3670011
Rail to Rail	Fuchs clip tray to mini rail adaptor plate	50	R 8.00	SAMR101
QAN	Clip-in neutral bar (mini rail only)	50	R 83.00	SANB000
QF	Escutcheon blank (6.5 mm module) 12 x 6.5 mm way strip	10	R 28.00	2356208
QA, QF	Shroud mounting kit (black)	10	R 33.00	3670145
QA, QF	Handle lock	1	R 40.00	QFAP001
QFE	Handle lock high rating	1	R 45.00	SXAP001
DIN Rail				H2
QF DIN	Shroud - 2 x 13 mm / 1 x 18 mm / 1 x 27 mm *	10	R 66.00	3670094
QF DIN	Shroud - 4 x 13 mm / 2 x 18 mm / 2 x 27 mm *	10	R 111.00	3670096
QF DIN	Shroud - 6 x 13 mm / 4 x 18 mm / 3 x 27 mm *	10	R 137.00	3670098
QF DIN	Shroud - 8 x 13 mm / 5 x 18 mm / 4 x 27 mm *	10	R 152.00	3670100
QF DIN	Busbar - 18 mm modules, single phase 36 modules	50	R 141.00	2121363
QF DIN	Top busbar - 18 mm module, single phase 19 modules	50	R 102.00	2121381
QF DIN	Busbar - 18 mm module, three phase insulated metre lengths (16 x 3 phase)	1	R 1 156.00	3670121

MCB Accessories

Mini and DIN Rail				H2
Product	Description	Std. Pack	Price Ea.	Order No.
QA, QF	Busbar - 13 mm module, single phase 54 modules	50	R 143.00	SABBM54
QA, QF	Top busbar - 13 mm module, single phase 26 modules	50	R 111.00	2121380
QFE	Busbar 26 mm - modules, single phase 36 modules	50	R 303.00	SABBM36
QA, QF	Insulating busbar cover - single phase	1	R 37.00	2176081
QA, QF	Busbar - 13 mm module, three phase insulated metre lengths (25 x 3 - phase)	1	R 1 156.00	3670010
QF	Busbar - 26 mm module, three phase insulated metre lengths (13 x 3 - phase)	1	R 1 150.00	3670009
QA, QF	Busbar link	50	R 15.00	SABL000
SF	Extended lug terminal	50	R 17.00	3190166
SA, SF, SH	Handle locking mechanism (Heilock)	10	R 36.00	SAAP001
QA / QF	Busbar 13 mm single phase + neutral	1	R 803.00	3190858



Cascading Panel Labels				H2
Product	Description	Std. Pack	Price Ea.	Order No.
Small	Cascade panel label	1	R 10.00	2946A216
Large	Cascade panel label	1	R 43.00	2946A246

Auxiliary Products



Electronic Time Switch (Dual Mount)				H2
Product	Description	Std. Pack	Price Ea.	Order No.
QAT-TRDM	Standard touch screen electronic time switch with 24 hour reserve, dual mount 39 mm width, escutcheons: mini rail 57 mm and DIN rail 45 mm	10	R 547.00	QAT-TRDM
Energy Control Unit (Electronic)				H2
Product	Description	Std. Pack	Price Ea.	Order No.
SA-ECU	5, 10, 15, 20 A Units, switches 21 A* resistive load @ 240 Vac (5 kW)	10	R 580.00	SACU0...
	25, 30, 40, 60 A Units, switches 21 A resistive load @ 240 Vac (5 kW)	5	R 580.00	SACU0...

Note: * Amp rating is switching point

Domestic Contactor (4 Pole Bridged Unit)				H2
Product	Description	Std. Pack	Price Ea.	Order No.
SAK	Contactor 220 / 240 Vac - 4 Poles*	5	R 1 155.00	SAKR001
	AC3 (inductive load) - max 13 A (when bridged)			
	AC1 (resistive load) - max 40 A (when bridged)			

Note: * Bridge can easily be removed

Plastic Pole Mounting Box



SPB1



Plastic Pole Mounting Box



Operating Slide



Kit E - Non-ferrous



Kit H - Non-Ferrous



Kit G - Non-ferrous



Kit F - Ferrous



Kit D - Ferrous



Kit B - Ferrous

Plastic Pole Mounting Box				H2
Product	Description	Std. Pack	Price Ea.	Order No.
SPB1	Plastic pole mounting box complete with one operating slide (excludes mounting bracket MCBs, will accept 1, 2, 3 pole MCBs type QF, SF, and QH)	10	R 366.00	SPB1001
SPB1 Kit-B	Horizontal mounting bracket - ferrous	10	R 44.00	3674000
SPB1 Kit-D	Vertical mounting bracket - ferrous	10	R 54.00	3674001
SPB1 Kit-E	Vertical mounting bracket - non-ferrous	10	R 128.00	3670022
SPB1 Kit-F	Horizontal / vertical mounting bracket - non-ferrous	10	R 91.00	3674002
SPB1 Kit-G	Horizontal / vertical mounting bracket - non-ferrous	10	R 247.00	3670024
SPB1 Kit-H	Strapping bracket - non-ferrous	10	R 44.00	3670025
SPB1 Slide	Operating slide	10	R 30.00	2166100

Street Light Protection



On



Tripped



MCB not included - order separately

Street Light Protection				H2
Product	Description	Std. Pack	Price Ea.	Order No.
QAST001	Q-range, Polycarbonate actuator enclosure, with trip indication	1	R 40.00	QAST001

Distribution Boards



NRBCON003



NRBCON002

Ready Boards			L1
Order No.	Description	Std. Pack	Price Ea.
NRBCON002	1 x QA17C 63 A; 2 x QA-1(13) 20 A; 3 x 16 A switched sockets; 1 x 6 A Euro socket	1	R 1 039.00
NRBCON003	1 x QA17C 63 A; 2 x QA-1(13) 20 A; 3 x 16 A switched sockets; 1 x 6 A Euro socket; 1 x switched bulkhead	1	R 1 113.00

* Note: Other variations on request, including a CFL (energy saver) version bulkhead



12-Way Flush Mounted



20-Way Flush Mounted

Flush Mount Distribution Boards			H2
Order No.	Description	Std. Pack	Price Ea.
DBBOX12SP	12 - Way steel distribution board, complete with 1 plastic cover and 1 steel tray (mini rail)	1	R 241.00
3190796	12 - Way steel distribution board, complete with 1 steel cover and 1 steel tray (mini rail)	1	R 239.00
DBBOX20SP	20 - Way steel distribution, complete with 1 plastic cover and 1 steel tray (mini rail)	1	R 332.00
3670107	20 - Way front cover (including hinged dust cover)	1	R 69.00
3190795	20 - Way steel distribution board, complete with steel cover and 1 steel tray (mini rail)	1	R 373.00

Surface Mount Distribution Boards			H2
Order No.	Description	Std. Pack	Price Ea.
NDBC001	13 - Way surface mount plastic distribution board (CBI mini rail)	1	R 294.00
DBBOX12S	12 - Way steel distribution board, surface mount (CBI mini rail)	1	R 207.00
DBBOX20S	20 - Way steel distribution, surface mount (CBI mini rail)	1	R 235.00



40-Way



40-Way



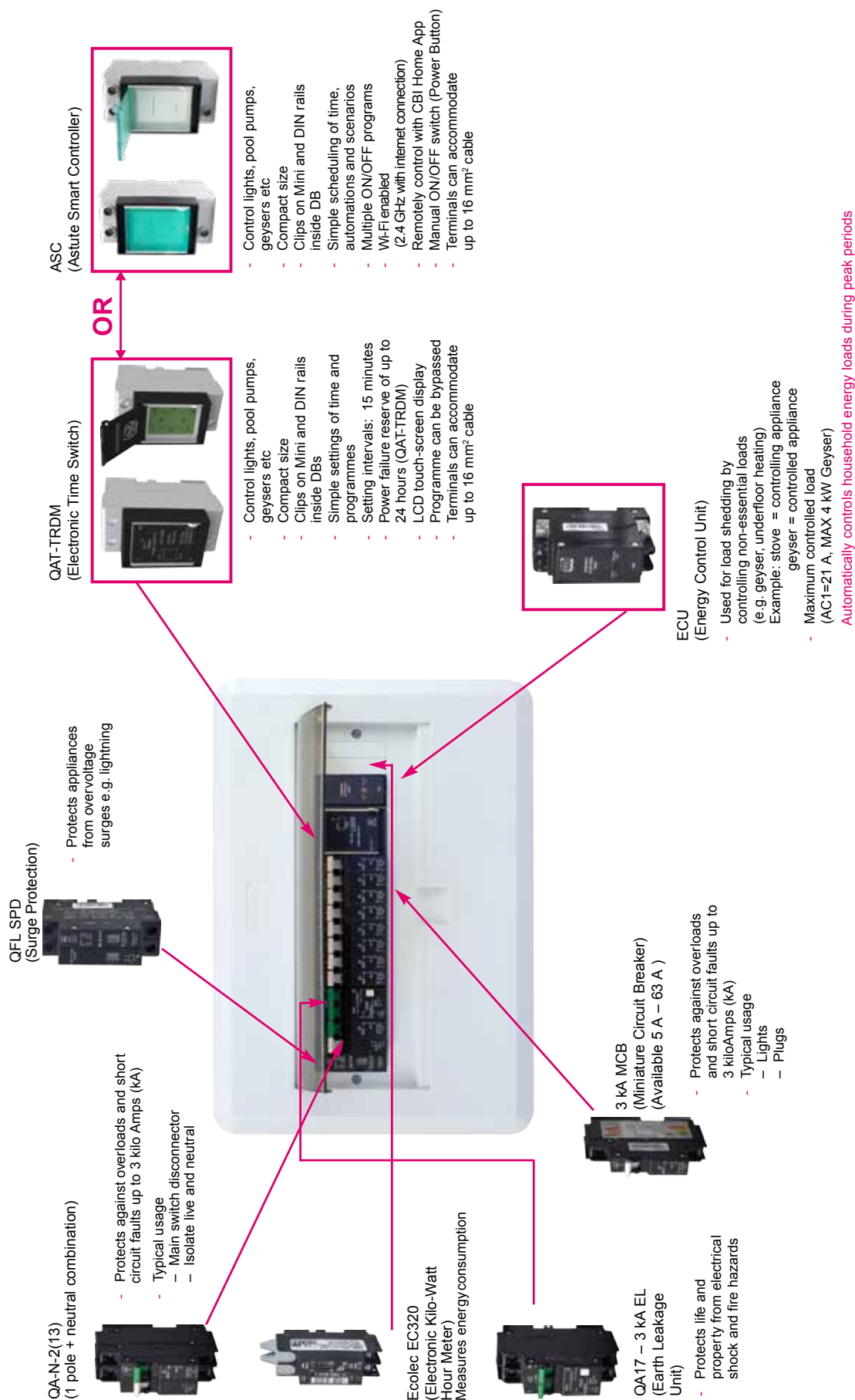
60-Way

Architrave Distribution Boards			H2
Order No.	Description	Std. Pack	Price Ea.
DBBOX40	40 - Way (2 x 20 - way and tray) ¹	1	R 1 473.00
DBBOX40S	40 - Way architrave board surface mount	1	R 1 309.00
DBBOX60	60 - Way (3 x 20 - way and tray) ¹	1	R 1 801.00
DBBOX60S	60 - Way architrave board surface mount	1	R 1 602.00

Note:

- Complete with reversible door, lockable metal latch, metal hinges, earth and neutral bars, mounting kit and manufacturing in 1.2 & 1.0 mm mild steel & powder coated white.

Circuit Breaker Selection Guide



Rail Mount Meters (Class 1)



EC320CM



EC330CM



EC320CD



EC330CD

Ecolec Rail Mount Meters									E2
Type	Phase	Voltage	Frequency	Max Rating*	Escutcheon	No. Of Modules	Std. Pack	Price ea.	Order No.
EC320CM	1 + N	230 V	50	80 A	57 mm	2	6	R 805.00	EC320CM
EC320CD	1 + N	230 V	50	80 A	45 mm	2	6	R 805.00	EC320CD
EC330CM	3 + N	415 V	50	80 A	57 mm	4	3	R 2 273.00	EC330CM
EC330CD	3 + N	415 V	50	80 A	45 mm	4	3	R 2 273.00	EC330CD

* Note: Anything above 80 A - CT needed

Rail Mount Meter

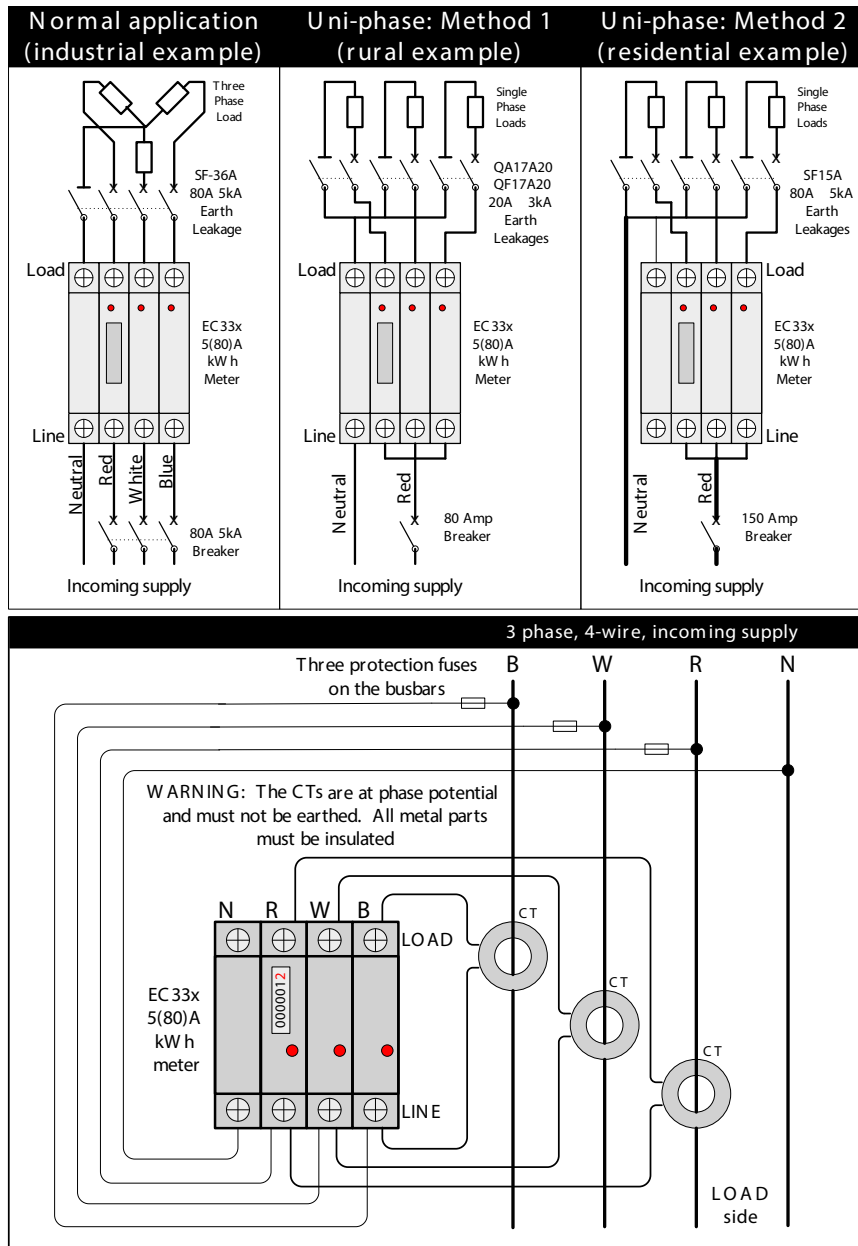
Rail mount meters are based on a meter module width of 13 mm with the single phase being 2 modules and the three phase 4 modules. The meter uses an integral current transformer as a measuring element and will count positive no matter from which direction the current is drawn. The display is a conventional cyclometer. The range included mini and DIN rail mounting, 230 V, 50 Hz.

Features

- SANS 1799 class 1 electricity meters
- Class 1: accuracy < 1%
- Single and three phase alternatives
- Fits all CBI mini and DIN rail distribution boards
- 7 Digit tamper-proof counter
- Anti-tamper terminal protection plugs
- Also available in 120 V / 60 Hz
- LED status and kWh consumption indicator
- Remote monitoring: LIN bus
- IP-45 rating
- 57 mm (dual mount) and 45 mm (DIN rail) escutcheon

LED Indications	
LED Indication	Reason / Description
Pulses RED	Normal consumption pulses (1000 pulses per kilo watt hour)
Pulses GREEN	Low load condition (consumption is less than 30 watts)
Solid GREEN	No load (meter is powered up)
Pulses ORANGE	Abnormal load (supply voltage is between 265 - 460 V or 60 - 90 Vac)
Solid ORANGE	Unsafe load condition (the current being drawn is greater than 125 A or the supply voltage is greater than 460 Vac)
Solid RED	Error condition (the meter's internal built in test has failed) / replace unit
No LED	No LED indication (insufficient supply voltage)

Wiring diagram



EC 300 series kWh consumption when using external CTs

There is a requirement to measure loads in excess of the meter's maximum current rating of 80 A. This can be done by using external CTs.

The actual kWh consumption per phase can be calculated as follows:

CT Ratio x Δ Counter Value (multiply the CT ratio being used by the difference between the current and the previous meter reading)

E.g.: For a 200/5 CT ratio the factor is 40.

Therefore the consumption per phase = 40 x kWh consumed.

For CT Selection, please refer to the NRS057 specification parts 1, 2 and 4.

NOTE: Do not earth CTs fitted above!

Product Approvals

- SANS IEC 61036 test report MTR/BB0630-SR
- 5(80)A
- SANS 1799

Rotating Disc Meters



Watt-Hour Meters			P
Description	Std. Pack	Price ea.	Order No.
1 Phase 2 wire 20 A to 80 A with encapsulated coils	1	R 739.00	BF36-20 /80
1 Phase 2 wire 20 A to 80 A with encapsulated coils (calibrated ¹)	1	R 813.00	BF36-20 /80-C
3 Phase 4 wire 40 A to 100 A (calibrated ¹)	1	R 2 621.00	MH36G-40-C
3 Phase 4 wire 80 A to 160 A (calibrated ¹)	1	R 2 760.00	MH36G-80CER
3 Phase 4 wire 5 A (calibrated ¹)	1	R 2 377.00	MH36-5A-C

Notes:

Certification only available on request
Class 1 meter



Global Range Standard MCCB Fixed 3P (Thermal-Magnetic)

H2

Type	Poles	Terminals	kA@			No. of Interphase Barriers	Rating (A)	Price each	Order No.
			415 V	500 V	525 / 550 V				
G37D	3	G1	37	25	25	2	15, 20, 30, 40, 50, 60, 75, 100, 125	R 2 569.00	G37D__
F37D	3	G1	37	25	25	2	150	R 3 451.00	F37D150
F37D	3	G1	37	25	25	2	175, 200, 225	R 5 755.00	F37D__
F37D	3	G1	37	25	25	2	250	R 6 292.00	F37D250
K50D	3	G4B	50	35	30	2	250	R 8 218.00	K50D250
K50D	3	G4B	50	35	30	2	300, 350, 400	R 9 847.00	K50D__
L65D	3	G1	65	45	35	2	500, 630	R 18 786.00	L65D__
L65D	3	G1	65	45	35	2	700, 800	R 26 561.00	L65D__
N65D	3	G4B	65	50	-	2	1000	R 33 976.00	N65D1000
N65D	3	G4B	65	50	-	2	1200	R 40 583.00	N65D1200

Global Range Standard MCCB Shunt Trip S2A 230 V + Aux (Thermal-Magnetic)

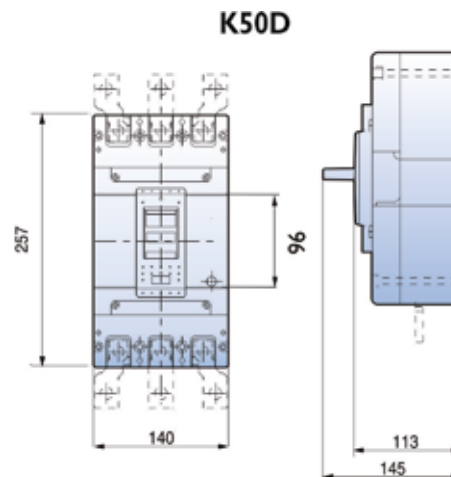
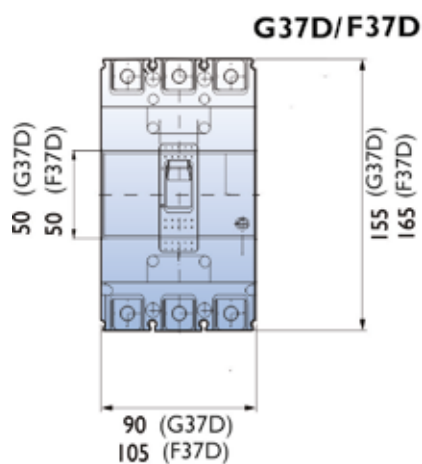
H2

Type	Poles	Terminals	415 V	kA@ 500 V	525 V	No. of Interphase Barriers	Rating (A)	Price each	Order No.
N65D	3	G4B	65	50	-	2	1000	R 36 261.00	N65D1000S2A
N65D	3	G4B	65	50	-	2	1200	R 42 867.00	N65D1200S2A

Global Range Standard MCCB Under Voltage Trip U4A 400 V + Aux (Thermal-Magnetic)

H2

Type	Poles	Terminals	415 V	kA@ 500 V	550 V	No. of Interphase Barriers	Rating (A)	Price each	Order No.
N65D	3	G4B	65	50	-	2	1000	R 36 329.00	N65D1000U4A
N65D	3	G4B	65	50	-	2	1200	R 42 936.00	N65D1200U4A

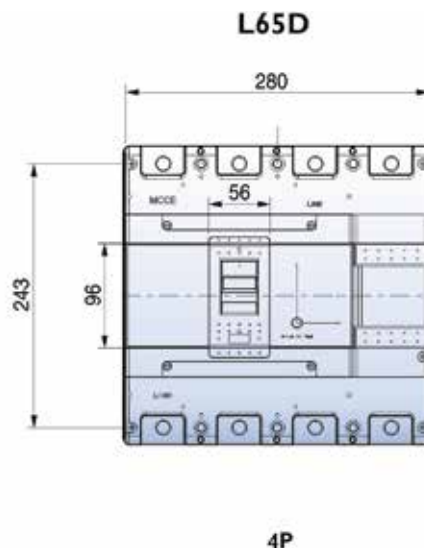
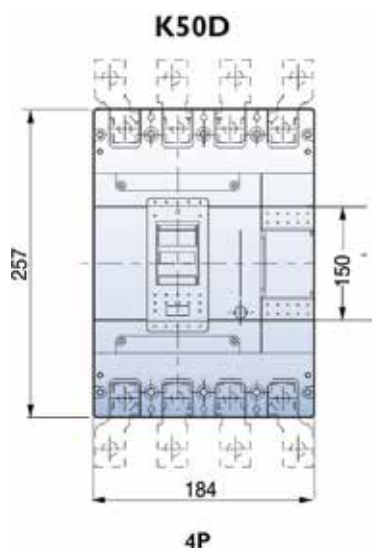
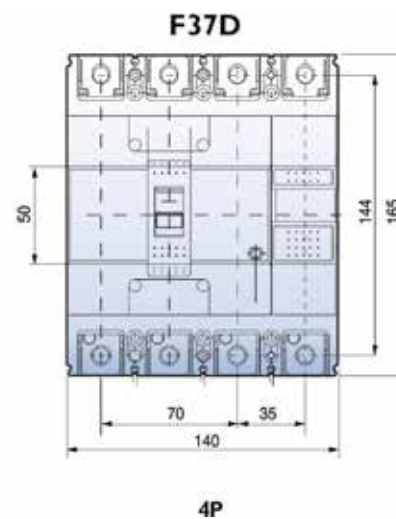
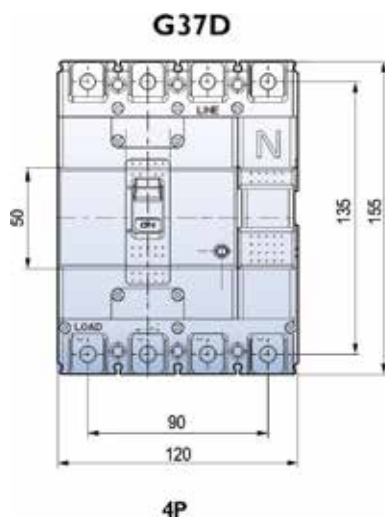




4 Pole

Global Range Standard MCCB Fixed 4P (Thermal-Magnetic)									H2
Type	Poles	Terminals	kA@			No. of Interphase Barriers	Rating (A)	Price each	Order No.
			415 V	500 V	525 / 550 V				
G37D*	4	G1	37	25	25	3	125	R 2 899.00	G37D1254P
F37D*	4	G1	37	25	25	3	250	R 7 955.00	F37D2504P
K50D	4	G4B	50	35	30	3	400	R 12 189.00	K50D4004P
L65D	4	G4B	65	45	25	3	630	R 23 765.00	L65D6304P
L65D	4	G4B	65	45	35	3	800	R 35 884.00	L65D8004P

Note:
Contact CBI for availability and alternative ratings



Global Range MCCB Standard Accessories GD / FD
H2

Description LH = Left Hand Side RH = Right Hand Side	Std. Pack	Voltage (AC / DC)	Price each	Order No.
Shunt trip 24 - 230 V	RH 1	24, 48, 110, 230 (AC / DC)	R 472.00	CM-SHT250-___
Shunt trip 415 - 525 V	RH 1	415, 525 (AC)	R 472.00	CM-SHT250-___
Undervoltage trip	RH 1	24, 48, 110, 230 (AC / DC)	R 992.00	CM-UVT250-___
Undervoltage trip	RH 1	415 (AC)	R 992.00	CM-UVT250-415
Auxiliary alarm	LH 1		R 674.00	CM-AUX-ALM-250
Auxiliary switch	LH 1		R 328.00	CM-AUX250L
Auxiliary switch	RH 1		R 328.00	CM-AUX250R
Insulation barriers	2		R 91.00	CM-BAR250
Terminal cover 3P (set of 2)	Each		R 413.00	CM-TC125-3
Terminal cover 3P (set of 2)	Each		R 413.00	CM-TC250-3
(G4B) Stub bar 3 Per Set line or load side	Set		R 228.00	FSAX001

Extension Handle
C2

Extension handle GD	1		R 1 611.00	CM-DH125
Extension handle FD	1		R 1 611.00	CM-DH250

Global Range MCCB Standard Accessories KD / LD / ND *
H2

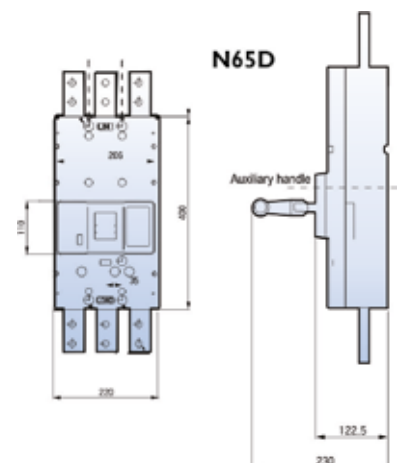
Description LH = Left Hand Side RH = Right Hand Side	Std. Pack	Voltage (AC / DC)	Price each	Order No.
Shunt trip 110 - 230 V	RH 1	110, 230 (AC / DC)	R 957.00	CM-SHT800-110, 230
Shunt trip 24 - 48 V	RH 1	24, 48 (AC / DC)	R 1 609.00	CM-SHT800-___
Shunt trip 415 - 525 V	RH 1	415, 525 (AC)	R 957.00	CM-SHT800-___
Undervoltage trip 24 - 230 V	RH 1	24, 48, 110, 230 (AC / DC)	R 1 722.00	CM-UVT800___
Undervoltage trip 415 V	RH 1	415, 525 (AC)	R 1 722.00	CM-UVT800___
Auxiliary alarm	LH 1		R 670.00	CM-AUXALM800
Auxiliary switch	LH 1		R 622.00	CM-AUX800L
Auxiliary switch	RH 1		R 622.00	CM-AUX800R
Terminal cover 400 A - 3P KD (set of 2)	Each		R 840.00	CM-TC400-3
Terminal cover 800 A - 3P LD (set of 2)	Each		R 1 050.00	CM-TC800-3
Insulation barriers 400 / 630 / 800 A	2		R 91.00	CM-BAR___
* S2A Shunt trip 230 V + auxiliary	1			
* U4A Undervoltage trip 415 V	1			

Extension Handle
C2

Extension handle KD400	1		R 1 725.00	CM-DH400
Extension handle LD800	1		R 2 245.00	CM-DH800
Extension handle ND1200	1		R 2 879.00	CM-DH1200

Note:

* Shunt trip, undervoltage trip and auxiliaries are already assembled and pre-fitted to circuit breaker





G150D

F85DV

F150D

K150D

Global Range Advanced MCCB Fixed G150D (Thermal-Magnetic)

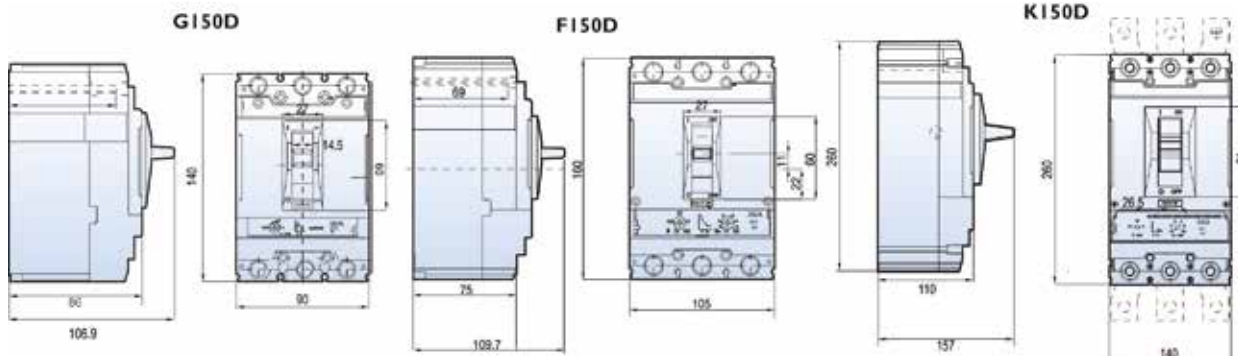
H2

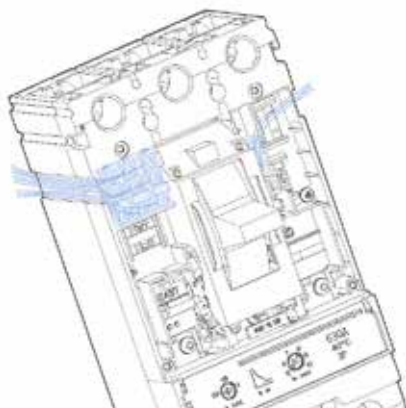
Type	Poles	Terminals	415 V	kA@ 500 V	690 V	No. of Interphase Barriers	Rating (A)	Price each	Order No.
G150D	3	G1	150	65	10	2	16, 20, 25, 32, 40 50, 63, 80	R 4 437.00	G150D____
G150D	3	G1	150	65	10	2	100	R 4 773.00	G150D100
G150D	3	G1	150	65	10	2	125	R 6 857.00	G150D125
G150D	3	G1	150	65	10	2	160	R 8 335.00	G150D160

Global Range Advanced MCCB Fixed F150D, K150D, L150D (Thermal-Magnetic)

H2

Type	Poles	Terminals	415 V	kA@ 500 V	690 V	No. of Interphase Barriers	Rating (A)	Price each	Order No.
F150D	3	G1	150	85	20	2	40, 50, 63, 80	R 4 437.00	F150D____
F150D	3	G1	150	85	20	2	100	R 4 773.00	F150D100
F150D	3	G1	150	85	20	2	125	R 6 857.00	F150D125
F150D	3	G1	150	85	20	2	160	R 8 335.00	F150D160
F150D	3	G1	150	85	20	2	200	R 9 949.00	F150D200
F150D	3	G1	150	85	20	2	250	R 9 949.00	F150D250
K150D	3	G4B	150	85	35	2	300, 400	R 17 535.00	K150D____
K150D	3	G4B	150	85	35	2	500, 630	R 22 327.00	K150D____
L150D	3	G4B	150	100	35	2	800	R 27 857.00	L150D800





L100DV



**GLOBAL
RANGE
ADVANCED**

Global Range Advanced MCCB Adjustable F85DV, K85DV, L100DV (Thermal-Magnetic) H2

Type	Poles	Terminals	415 V	kA@ 500 V	690 V	No. of Interphase Barriers	3 step adjustable 0.8 / 0.9 / 1.0 Rating (A)	Price each	Order No.
F85DV	3	G1	85	65	15	2	125	R 6 211.00	F85DV125
F85DV	3	G1	85	65	15	2	160	R 7 421.00	F85DV160
F85DV	3	G1	85	65	15	2	200	R 8 470.00	F85DV200
F85DV	3	G1	85	65	15	2	250	R 9 277.00	F85DV250
K85DV	3	G4B	85	65	20	2	400	R 21 234.00	K85DV400
L100DV	3	G4B	100	85	20	2	800	R 22 569.00	L100DV800

Global Range Advanced MCCB Electronically Adjustable (Thermal-Magnetic) H2

Type	Poles	Terminals	415 V	kA@ 500 V	690 V	No. of Interphase Barriers	3 step adjustable 0.4 to 1 x In Rating (A)	Price each	Order No.
F50DEV	3	G1	50	42	10	2	40	R 4 168.00	F50DEV040
F50DEV	3	G1	50	42	10	2	80	R 4 302.00	F50DEV080
F50DEV	3	G1	50	42	10	2	160	R 7 421.00	F50DEV160
F50DEV	3	G1	50	42	10	2	250	R 8 846.00	F50DEV250
K65DEV	3	G4B	65	42	10	2	630	R 25 598.00	K65DEV630

Global Range Advanced MCCB Electronically Adjustable + Comms (Thermal-Magnetic) H2

Type	Poles	Terminals	415 V	kA@ 500 V	690 V	No. of Interphase Barriers	3 step adjustable 0.4 to 1 In Rating (A)	Price each	Order No.
K65DEV	3	G4B	65	42	10	2	400	R 21 234.00	K65DEV400C
K150DEV	3	G4B	150	85	35	2	400	R 26 542.00	K150DEV400C
K150DEV	3	G4B	150	85	35	2	630	R 28 798.00	K150DEV630C
L65DEV	3	G4B	65	42	10	2	800	R 25 813.00	L65DEV800C
L150DEV	3	G4B	150	100	35	2	800	R 40 336.00	L150DEV800C

Global Range Advanced Switch Disconnecter (Thermal-Magnetic)

H2

Type	Poles	Terminals	Uimp	Icw (kA/Sec)	Ui	No. of Interphase Barriers	Rating (A)	Price each	Order No.
FDN160	3	G1	8	2.5/3	750	2	160	R 3 697.00	FDN160
FDN250	3	G1	8	3.5/3	750	2	250	R 5 985.00	FDN250
KDN400	3	G4B	8	3.5/3	750	2	400	R 8 524.00	KDN400
KDN630	3	G4B	8	3.5/3	750	2	630	R 10 400.00	KDN630
LDN800	3	G4B	8	3.5/3	750	2	800	R 18 535.00	LDN800
NDN1000	3	G4	8	2.5/3	1000	2	1000	R 32 757.00	NDN1000
NDN1250	3	G4	8	2.5/3	1000	2	1250	R 39 333.00	NDN1250
NDN1600	3	G4	8	2.5/3	1000	2	1600	R 42 508.00	NDN1600

Note:
Sizing as per MCCBs of the Global Advanced range

GLOBAL RANGE

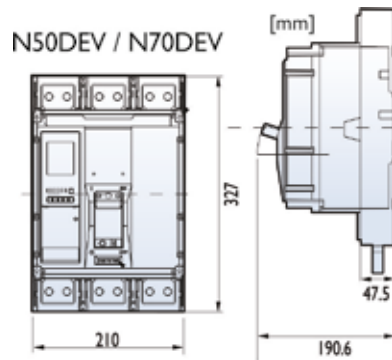


MCCB and Accessories



Global Range MCCB Advanced Accessories GD / FD / KD / LD					H2
Description LH = Left Hand Side RH = Right Hand Side	Std. Pack	Voltage (AC / DC)	Price each	Order No.	
Shunt trip LH	1	24, 48, 110, 230 (AC / DC)	R 723.00	CS-SHT800-___	
	1	415 AC	R 723.00	CS-SHT800-415	
Undervoltage release LH	1	24, 48, 110, 230 (AC / DC)	R 1 217.00	CS-UVT800-___	
	1	415 AC	R 1 217.00	CS-UVT800-415	
Auxiliary trip indicator 160 - 800 A LH/RH *	1		R 422.00	CS-AUXTRPIN800	
Auxiliary 160 - 800 A LH/RH	1		R 422.00	CS-AUX160-800	
Alarm 160 - 800 A LH/RH *	1		R 422.00	CS-ALM160-800	
Motor operator 1 (160 A)	1	110 - 230 (AC / DC)	R 4 383.00	CS-MOP160-110	
	1	24 DC	R 4 383.00	CS-MOP160-24	
Motor operator 2 (250 A)	1	110 / 230 (AC / DC)	R 7 698.00	CS-MOP250-___	
	1	24 DC	R 7 698.00	CS-MOP250-24	
Motor operator 3 (630 A)	1	110 / 230 (AC / DC)	R 7 698.00	CS-MOP630-___	
	1	24 DC	R 7 698.00	CS-MOP630-24	
Motor operator 4 (800 A)	1	110 / 230 (AC / DC)	R 9 861.00	CS-MOP800-___	
	1	24 DC	R 9 861.00	CS-MOP800-24	
Stub busbar (160 A) SP 13 A	Set		R 97.00	CS-STUB160	
Stub busbar (250 A) SP 23 A	Set		R 239.00	CS-STUB250	
Stub busbar (630 A) SP 33 A	Set		R 425.00	CS-STUB630	
Stub busbar (800 A) SPS 43	Set		R 782.00	CS-STUB800	
Handle lock PHL1 (160 A)	1		R 376.00	CS-HASP160	
Handle lock PHL2 (250 A)	1		R 376.00	CS-HASP250	
Handle lock PHL3 (630 A)	1		R 523.00	CS-HASP630	
Handle lock PHL4 (800 A)	1		R 523.00	CS-HASP800	
Handle lock PL1 (160 A)	1		R 914.00	CS-PAD160	
Handle lock PL2 (250 A)	1		R 914.00	CS-PAD250	
Handle lock PL3 (630 A)	1		R 565.00	CS-PAD630	
Handle lock PL4 (800 A)	1		R 643.00	CS-PAD800	
Box terminal (160 A) SBT 13	Set		R 269.00	CS-BOXT160	
Box terminal (250 A) SBT 23	Set		R 282.00	CS-BOXT250	
Box terminal (630 A) SBT 33	Set		R 469.00	CS-BOXT630	
Box terminal (630 A) EBT 33	Set		R 1 096.00	CS-BOXT-EXT630	
Box terminal (800 A) EBT 43	Set		R 2 034.00	CS-BOXT-EXT800	
Insulation barrier (160 - 250 A)	Set		R 91.00	CS-BAR250	
Insulation barrier (630 A)	Set		R 91.00	CS-BAR630	
Insulation barrier (800 A)	Set		R 91.00	CS-BAR800	
Extension Handle					C2
Extension handle GD	1		R 1 902.00	CS-DHGD	
Extension handle FD	1		R 1 967.00	CS-DHFD	
Extension handle KD	1		R 2 283.00	CS-DHKD	
Extension handle LD	1		R 2 347.00	CS-DHLD	

Note: * Rating specific



Global Range Advanced MCCB Electronically Adjustable + N Type (Thermal-Magnetic)

H2

Type	Poles	Terminals	380/ 415 V	kA@ 480/ 500 V	660/ 690 V	No. of Interphase Barriers	Rating (A)	Price each	Order No.
N150DEV	3	G4	150	100	-	2	400 - 800	R 56 547.00	N150DEV800
N150DEV	3	G4	150	100	-	2	500 - 1000	R 69 858.00	N150DEV1000
N50DEV	3	G4	50	40	35	2	500 - 1000	R 41 086.00	N50DEV1000
N50DEV	3	G4	50	40	35	2	600 - 1250	R 47 431.00	N50DEV1250
N50DEV	3	G4	50	40	35	2	800 - 1600	R 55 099.00	N50DEV1600
N70DEV	3	G4	70	50	45	2	600 - 1250	R 53 239.00	N70DEV1250
N70DEV	3	G4	70	50	45	2	800 - 1600	R 67 853.00	N70DEV1600

Global Range Advanced MCCB Electronically Adjustable + A Type + Comms (Thermal-Magnetic)

H2

Type	Poles	Terminals	380/ 415 V	kA@ 480/ 500 V	660/ 690 V	No. of Interphase Barriers	Rating (A)	Price each	Order No.
N150DEV	3	G4	150	100	-	2	400 - 800	R 58 571.00	N150DEV800C
N150DEV	3	G4	150	100	-	2	500 - 1000	R 71 448.00	N150DEV1000C
N70DEV	3	G4	70	50	45	2	600 - 1250	R 55 405.00	N70DEV1250C
N70DEV	3	G4	70	50	45	2	800 - 1600	R 70 104.00	N70DEV1600C

Global Range MCCB Advanced Accessories

H2

Description LH = Left Hand Side RH = Right Hand Side	Std. Pack	Voltage (AC / DC)	Price each	Order No.
Shunt trip RH	1	48, 110, 230 (AC / DC)	R 1 347.00	CS-SHT1600-__
	1	400, 525 AC	R 1 347.00	CS-SHT1600-__
	1	24 DC	R 1 347.00	CS-SHT1600-__
Undervoltage release LH	1	48, 110, 230 (AC / DC)	R 1 628.00	CS-UVT1600-__
	1	400, 525 AC	R 1 628.00	CS-UVT1600-__
	1	24 DC	R 1 628.00	CS-UVT1600-__
Auxiliary switch LH/RH *	1		R 972.00	CS-AUXTRPIN1600
	1		R 462.00	CS-AUX1600
Auxiliary switch LH/RH*	1		R 462.00	CS-ALM1600
Stub busbar (Qty 3)	Set		R 3 399.00	CS-STUBVERT1600
	Set		R 2 576.00	CS-STUB1600
Lug terminal (Std. shaft - 240 mm)	Set		R 1 180.00	CS-LUGB/B1250
Interlock	1		R 2 597.00	CS-MIT1600
Terminal cover 1600 3P	1		R 1 498.00	CS-TRMCOV1600-3
Handle lock HASP 1600	1		R 1 346.00	CS-HASP1600
Handle lock 1600	1		R 1 113.00	CS-PAD1600
Standard barriers 1600	2		R 188.00	CS-BAR1600
Extended barriers 1600	2		R 282.00	CS-BAR1600EXT
Extension handle	1		R 6 739.00	CS-DHND

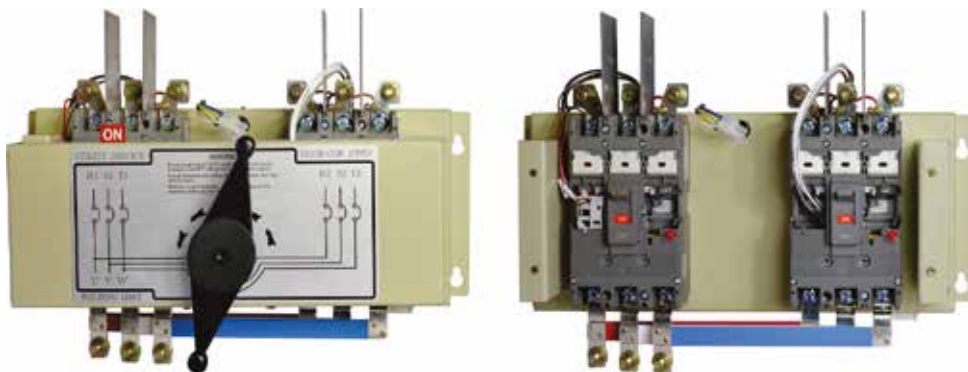
Note: * Rating specific

MCCB Electrical & Mechanical Change Over System

MCCB Mechanical Change Over System		NETT
Description	Price each	Order No.
125 AF Complete Assy 15 - 125 Amp - Busbars included (MCCBs not included)	R 9 857.00	CM-MI125
250 AF Complete Assy 150 - 250 Amp - Busbars included (MCCBs not included)	R 11 814.00	CM-MI250
400 AF Complete Assy 250 - 400 Amp - Busbars included (MCCBs not included)	R 14 199.00	CM-MI400
800 AF Complete Assy 500 - 800 Amp - Busbars included (MCCBs not included)	R 34 568.00	CM-MI800

MCCB Electrical Option		NETT
Description	Price each	Order No.
125 - 250 A Electrical conversion * (controller standard)	R 6 050.00	CM-MIMOT125-250
400 - 800 A Electrical conversion * (controller standard)	R 6 050.00	CM-MIMOT400-800

* Includes: controller, wiring harness & aux fitted into MCCB



CM-MI 125	G37D	15 - 125 A	System is frame & size dependant, eg. the selection must be from the same frame size. Select any MCCB combination 230 - 400 V Network
CM--MI 250	F37D	150 - 250 A	
CM-MI 400	K50D	250 - 400 A	
CM-MI 800	L65D	500 - 800 A	

- MCCB styled electrical change over with manual option
- Easy to read mechanical status. Compatible with most ATS controllers.
- Fully built and pre-wired to accept mains and controller interface
- Customer selected combinations
- Factory assembled and tested
- Factory fitted combined busbars on load side
- Electrical locking system with factory fitted MCCB, Aux Circuit
- 3P System standard
- Built according to customer specifications
- Tested before delivery
- Time delay and logistics of the change over sequence to be specified by the customer

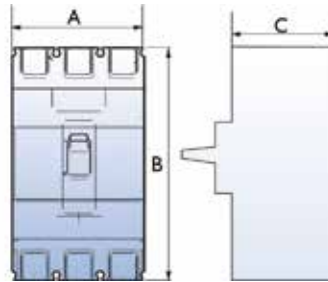
Motor specifications

200 - 240 Vac (50 / 60 Hz)
 Ui AC 750 V
 Ue 220 V

NB: MCCB cost additional to the above mentioned Change Over System pricing

JS / JSN Range (Hydraulic-Magnetic)

	1P	3P
A	50 mm	105 mm
B	210 mm	210 mm
C	100 mm	100 mm



Distribution Circuit Breakers (Mixed Load)										H2
Type	Barriers	Poles	Terminals	240 V	kA@ 415 V	525 V	Std. Pack	Rating (A)	Price each	Order No.
JS25 ²		1	G1	25	-	-	1	80, 100	R 1 972.00	JSS0__
			G4B	25	-	-	1	125	R 2 049.00	JSS0125
								150	R 2 225.00	JSS0150
								200	R 2 299.00	JSS0200
								250	R 2 549.00	JSS0250
J25S	4	3	G1	-	25	15	1	20, 30, 40, 50, 60	R 3 925.00	JSO0__
			G4B	-	25	15	1	80, 100	R 3 974.00	JSO0__
								125	R 4 170.00	JSO0125
								150	R 4 421.00	JSO0150
								160, 175, 200	R 5 267.00	JSO0__
								225	R 5 316.00	JSO0225
								250	R 6 246.00	JSO0250

Switch Disconnect ¹ Red Handle										H2
J25SN	4	3	G1	-	25++	15++	1	100	R 2 562.00	JSN0100
			G4B	-	25++	15++	1	150	R 3 337.00	JSN0150
								200	R 4 340.00	JSN0200
								250	R 5 076.00	JSN0250

JS Accessories							H2
Description LH = Left Hand Side RH = Right Hand Side		Factory Fitted	Std. Pack	Voltage - AC	Voltage - DC	Price each	Order No.
Shunt trip	RH	Yes	1	110 - 250	24	R 1 013.00	FSAA001
	RH		1	110 - 250		R 1 013.00	FSAA002
	RH		1	380 - 600		R 1 013.00	FSAA003
Undervoltage release	RH	Yes	1	220 - 250		R 1 282.00	FSAC220
	RH		1	380 - 440		R 1 282.00	FSAC380
Auxiliary Switch	LH		1			R 492.00	FSAH002
Trip alarm switch	LH		1			R 590.00	FSAF001
2 x Auxiliary switch	LH		1			R 973.00	FSAR001
1 x Auxiliary + 1 x trip alarm switch	LH		1			R 1 537.00	FSAV001
Handle lock plastic			1			R 96.00	FSAP001
Daros rotary handle (Std. shaft - 300 mm)			1			R 3 635.00	4470076
(G4B) Stub bar	} 3 per set line or load side		Set			R 228.00	FSAX001
(G5) Tandem box terminal (250 A Max)			Set			R 752.00	FSAX002
Phase barriers (Set of 2)			Set			R 88.00	FSAX004
Terminal covers (each) (line or load)			1			R 316.00	FSAX005

1. Notes: Withstand current must be backed up by suitable Short Circuit Protection Device (SCPD). ++To IEC 60947-3.

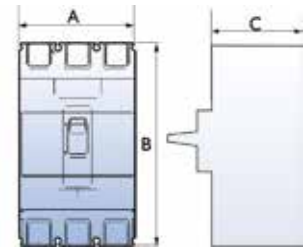
2. Accessories cannot be fitted to a single pole JS breaker

Note: please contact CBI for Amp Ratings not listed

LB / LBN Range (Hydraulic-Magnetic)



A	150 mm
B	300 mm
C	105 mm



Distribution Circuit Breakers (Mixed Load)

H2

Type	Barriers	Poles	Terminals	kA@ 415 V Icu Ics	Std. Pack	Rating (A)	Price each	Order No.
L20B	4	3	G1	20 20	1	100, 125, 150	R 6 555.00	L20B____
						175, 200, 225	R 8 041.00	L20B____
						250	R 8 501.00	L20B250
						300	R 10 103.00	L20B300
						350, 400	R 11 967.00	L20B____
						450, 500	R 17 250.00	L20B____
						600	R 18 068.00	L20B600
L40B	4	3	G1	40 20	1	100, 125, 150	R 7 250.00	L40B____
						175, 200, 225	R 8 847.00	L40B____
						250	R 9 392.00	L40B250
						300	R 11 115.00	L40B300
						350, 400	R 13 160.00	L40B____
						450, 500	R 18 975.00	L40B____
						600	R 19 874.00	L40B600

Switch Disconnect¹

H2

Type	Barriers	Poles	Terminals	Withstand kA @ 415 V	Std. Pack	Rating (A)	Price each	Order No.
L20BN	4	3	G1	20++	1	300	R 8 744.00	L20BN0300
						400	R 9 265.00	L20BN0400
						500	R 12 515.00	L20BN0500
						600	R 12 643.00	L20BN0600
L40BN	4	3	G1	40++	1	300	R 9 618.00	L40BN0300
						400	R 10 193.00	L40BN0400
						500	R 13 765.00	L40BN0500
						600	R 13 903.00	L40BN0600

LB Accessories

H2

Description	Factory Fitted	Std Pack	Voltage - AC	Price each	Order No.
Shunt trip	Yes	1	110	R 2 185.00	LBSHT110
Shunt trip			220 - 240	R 2 185.00	LBSHT220
Shunt trip*			380 - 415	R 2 185.00	LBSHT380
Auxiliary switch	Yes	1		R 973.00	LBAUX
Trip alarm switch	Yes	1		R 895.00	LBALARM
(G4B) Stub busbar 600 A Max		Set of 3		R 1 201.00	4120166
(G6) Rear connecting studs (up to 250 A max)		Set		R 1 726.00	4670038
Phase barriers (set of 4)		Set		R 111.00	LBKIT

Notes:

1. Withstand current must be backed up by suitable Short Circuit Protection Device. ++SABS / IEC 60947-3

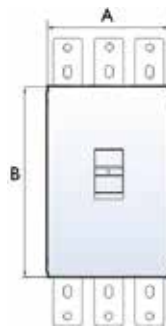
* Contact CBI for availability

All Accessories are factory fitted only

Please fill in required AMP rating on dotted line of order number column

MB / MBN Range (Hydraulic-Magnetic)

A	210 mm
B	280 mm
C	105 mm



M35B

Distribution Circuit Breakers (Mixed Load)								H2
Type	Barriers	Poles	Terminals	kA @ 415 V	Std. Pack	Rating (A)	Price each	Order No.
M25B	4	3	G4B	25++	1	700, 830	R 29 007.00	MB25__
M35B	4	3	G4B	35	1	700, 830	R 29 771.00	MB35__
M50B	4	3	G4B	50++	1	700, 830	R 30 382.00	MB50__

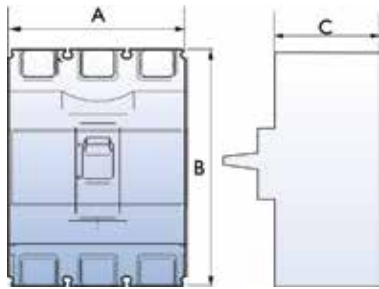
Triple Pole Switch Disconnect ¹								H2
M35BN	4	3	G4B	35++	1	830	R 25 191.00	MBN0830

MB Accessories					H2
Description	Std. Pack	Voltage - AC	Price each	Order No.	
Shunt trip with cut-out, both leads out	1	220	R 3 332.00	MBAA220	
	1	380	R 3 332.00	MBAA380	
Interphase barriers (set of 2)	Set		R 147.00	2176069	

Notes:

- Withstand current must be backed up by suitable short circuit protection device (SCPD)
- All MB type circuit breakers and switch disconnectors come complete with 4 phase barriers and mounting hardware
 All accessories are factory fitted only
 Please fill in required amp rating on dotted line of order number column

GD / GDN / FD / FDN Range (Thermal-Magnetic)



	G15D / G25D / F15D / F25D		G35D / F35D		F65DV
	16 - 125 A	150 - 250 A	16 - 100 A	125 - 250 A	16 - 250 A
A	90 mm	105 mm	90 mm	105 mm	105 mm
B	130 mm	165 mm	130 mm	165 mm	165 mm
C	68 mm	68 mm	68 mm	68 mm	68 mm



Triple Pole Circuit Breakers (Mixed Load)

H2

Type	Poles	Terminals	kA@ 415 V 525 V		No. of Interphase Barriers	Rating (A)	Price each	Order No.
G15D	3	G1	15	15	2	16, 20, 32, 40, 50, 63	R 2 621.00	G15D__
		G1	15	15		80, 100	R 2 994.00	G15D__
		G1	15	15		125	R 3 219.00	G15D125
F15D	3	G1	15	15	4	150, 160	R 3 521.00	F15D__
		G1	15	15		175, 200, 225	R 5 872.00	F15D__
		G4B	15	15		250	R 6 420.00	F15D250
G25D	3	G1	25	18	2	16, 20, 32, 40, 50, 63	R 3 174.00	G25D__
		G1	25	18		80, 100	R 3 271.00	G25D__
		G1	25	18		125	R 3 341.00	G25D__
F25D	3	G1	25	22	4	150, 160	R 3 871.00	F25D__
		G1	25	22		175, 200, 225	R 6 340.00	F25D__
		G4B	25	22		250	R 6 839.00	F25D250
G35D	3	G1	35	22	2	16, 20, 32, 40, 50, 63	R 3 646.00	G35D__
		G1	35	22		80, 100	R 4 313.00	G35D__
F35D	3	G1	35	22	4	125	R 4 448.00	F35D125
		G1	35	30		150, 160	R 4 565.00	F35D__
		G1	35	30		175, 200, 225	R 8 274.00	F35D__
		G4B	35	30		250	R 8 902.00	F35D250
F65DV ²	3	G1	65	35	4	20-25, 32-40, 45-63	R 5 448.00	F65DV__
		G1	65	35		70-100	R 5 794.00	F65DV70-100
		G1	65	35		90-125	R 5 995.00	F65DV90-125
		G1	65	35		125-160	R 6 639.00	F65DV125-160
		G1	65	35		175-250	R 8 939.00	F65DV175-250
		G4B	65	35				

Switch Disconnector¹

H2

Type	Poles	Terminals	Withstand kA@ 415 V 525 V		No. of Interphase Barriers	Rating (A)	Price each	Order No.
G35DN	3	G1	30++	18++	2	125	R 2 256.00	G35DN125
F35DN	3	G1	30++	22++	2	160	R 3 354.00	F35DN160
F35DN	3	G4B	30++	22++	2	250	R 4 485.00	F35DN250

Notes:

1. Withstand current must be backed up by suitable Short Circuit Protection Device (SCPD)

2. Thermal adjustable

FD 250 A breakers come complete with G4B stub busbars (set of 6)

++ To IEC 60947-3

Vins	690 V
Vimp	6 / 8 kV
Poles	3P

GD & FD Compatible Accessories



F65DV

G15D, G25D, G35D, F15D, F25D, F35D & F65DV					C
Description LH = Left Hand Side, RH = Right Hand Side		Std. Pack	Voltage - AC	Price each	Order No.
Shunt trip	RH	1	24 - 48	R 487.00	SHTA048-05SVRS
	RH	1	100 - 240	R 487.00	SHTA240-05SVRS
	RH	1	380 - 550	R 487.00	SHTA550-05SVRS
Undervoltage release	RH	1	24	R 1 022.00	UVTNA024-05SVRS
	RH	1	48	R 1 022.00	UVTNA048-05SVRS
	RH	1	100-110 / 120-130	R 1 022.00	UVTNA130-05SVRS
	RH	1	200-220 / 230-250	R 1 022.00	UVTNA250-05SVRS
	RH	1	380-415 / 440-480	R 1 022.00	UVTNA480-05SVRS
	RH	1	550-550 / 600	R 1 022.00	UVTNA600-05SVRS
Auxiliary switch	LH	1		R 337.00	AX-05SVLS
Double auxiliary switch	LH	1		R 893.00	AX2-05SVLS
Alarm auxiliary switch	LH	1		R 693.00	ALAX-05SVLS

GD Dedicated Accessories

G15D, G25D & G35D					C
Description LH = Left Hand Side, RH = Right Hand Side		Std. Pack	Voltage - AC	Price each	Order No.
Line and load shrouds		1		R 285.00	TCL-1SV3W
Motor operator 220 V 50 Hz		1	100-240 (AC / DC)	R 13 612.00	MDS240-1SV
(G4B) Stub busbar (Qty 3)		Set		R 237.00	FB-1SV
Handle lockout		1		R 357.00	HLS-1SW
Inter-phase barriers (Qty 1)		1		R 110.00	BAF-1SW

FD Dedicated Accessories

F15D, F25D, F35D & F65DV					C
Description LH = Left Hand Side, RH = Right Hand Side		Std. Pack	Voltage - AC	Price each	Order No.
Line and load shrouds		1		R 763.00	TCL-2SV3W
Motor operator 220 V 50 Hz		1	100-240 (AC / DC)	R 13 612.00	MDS240-2SV
Handle lockout		1		R 347.00	HLS-2SV
Inter-phase barriers (Qty 1)		1		R 113.00	BAF-2SV

Stub Bar F15D, F25D, F35D & F65DV					H2
(G4B) Stub busbar (Qty 3)		Set		R 228.00	FSAX001

Extension Handle G15D, G25D & G35D					C2
Extension handle (Std.shaft - 300 mm)		1		R 1 712.00	12MEC.1145

Extension Handle F15D, F25D, F35D & F65DV					C2
Extension handle (Std.shaft - 300 mm)		1		R 1 712.00	12MEC.1045

Note: MCCB with indicated profile must be fitted with the "compatible" accessory range

F65DV Accessories

F65DV Accessories C				
Description LH = Left Hand Side, RH = Right Hand Side	Std. Pack	Voltage - AC	Price each	Order No. F65DV
Motor operator 220 V 50 Hz	1	100-240 (AC / DC)	R 13 612.00	MDS240-2SV
Handle lockout	1		R 347.00	HLS-2SV
Inter-phase barriers (Qty 1)	1		R 113.00	BAF-2SV

Extension Handle C2				
Extension handle (Std.shaft - 300 mm)	1		R 1 712.00	12MEC.1045

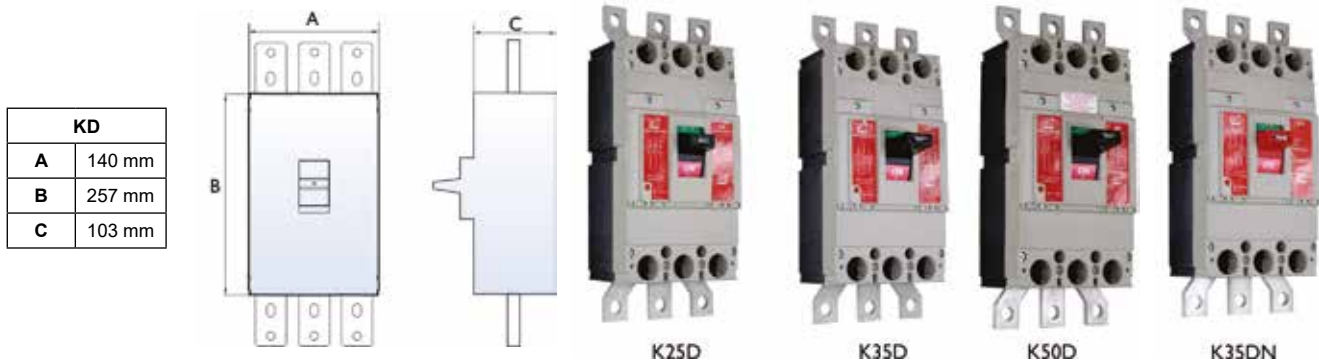
Thermal and Magnetic Adjustable Chart - FDV	
Type	Thermal ⁴
F65DV 20-25 A	20 - 25
F65DV 32-40 A	32 - 40
F65DV 45-63 A	45 - 63
F65DV 70-100 A	70 - 100
F65DV 90-125 A	90 - 125
F65DV 125-160 A	125 - 160
F65DV 175-250 A	175 - 250

Notes:

⁴ Thermals are adjustable in fixed steps as per adjustability chart

**** Note:** The Discount Structure Code on the Daros Handles is different from other accessories (C2)

KD / KDN Range (Thermal-Magnetic), KDE Range (Electronic)



KD Circuit Breakers (Mixed Load) H2

Type	Poles	Terminals	415 V	kA@ 500 V	525 V	No. of Interphase Barriers	Rating (A)	Price each	Order No.
K25D	3	G4B	25	22	-	4	250	R 8 385.00	K25D250
	3	G4B	25	22	-	4	300, 350, 400	R 10 046.00	K25D___
K35D	3	G4B	35	30	30	4	250	R 9 823.00	K35D250
	3	G4B	35	30	30	4	300, 350, 400	R 13 267.00	K35D___
	3	G4B	36	22	-	4	500, 630	R 17 261.00	K35D___X
K50D	3	G4B	50	40	35	4	500, 630	R 19 168.00	K50D___X

KDE Electronic Circuit Breakers (Adjustable) H2

Type	Poles	Terminals	415 V	kA@ 500 V	525 V	No. of Interphase Barriers	Rating (A)	Price each	Order No.
K35DE	3	G4B	35	30	30	4	200-400	R 16 083.00	K35DE400
K50DE	3	G4B	50	40	35	4	300-630	R 25 168.00	K50DE630X
K65DE	3	G4B	65	50	50	4	200-400	R 17 074.00	K65DE400
K70DE	3	G4B	70	50	-	4	300-630	R 28 198.00	K70DE630X

Switch Disconnect¹ H2

Type	Poles	Terminals	Withstand kA@			No. of Interphase Barriers	Rating (A)	Price each	Order No.
K35DN	3	G4B	415 V	500 V	525 V	4	300	R 9 145.00	K35DN300
	3	G4B	35++	22++	-	4	400	R 9 574.00	K35DN400
	3	G4B	36++	22++	-	4	630	R 12 209.00	K35DN630X
K50DN	3	G4B	50++	40++	35++	4	630	R 16 545.00	K50DN630X

Notes:

1. Backed up by suitable Short Circuit Protection Device (SCPD)

++ To IEC60947-2 / 3

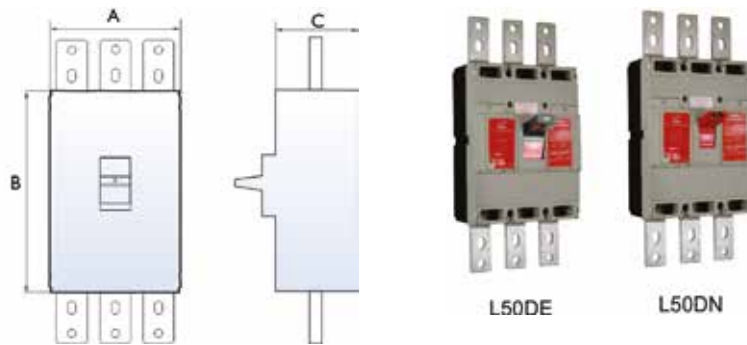
KD Accessories

KD Accessories					C
Description LH = Left Hand Side, RH = Right Hand Side		Std. Pack	Voltage - AC	Price each	Order No.
Shunt trip	RH	1	24-48 (AC / DC)	R 1 658.00	SHT48-4SWRS
	RH	1	100 - 450	R 986.00	SHT-4SWRS
	RH	1	380 - 550	R 986.00	SHTA550-4SWRS
Undervoltage release	RH	1	110-120	R 1 774.00	UVTA120-4SWS
	RH	1	220-240	R 1 774.00	UVTA240-4SWS
	RH	1	380-415	R 1 774.00	UVTA415-4SWS
	RH	1	500-550	R 1 774.00	UVTA550-4SWS
Auxiliary switch	LH	1		R 641.00	AX-4SWLS
Double auxiliary	LH	1		R 843.00	AX2-4SWLS
Alarm auxiliary switch	LH	1		R 838.00	ALAX-4SWLS
Motor operator		1	200-220	R 8 623.00	MDS-4SWA220
Interphase barriers (Qty 1)		1		R 127.00	BAF-4SW
Handle lockout		1		R 435.00	HLS-4SW
Cylindrical lock* (same key)		1		R 775.00	4470113
Cylindrical lock* (different key)		1		R 775.00	4470112
Line and load shroud (terminal cover)		2		R 865.00	TCL-4SW3

Extension Handle					C2
Extension handle (Std.shaft - 300 mm)		1		R 1 832.00	12MEC.0645

LDE / LDN Range

	LDE
A	210 mm
B	275 mm
C	103 mm



Triple Pole Circuit Breakers (Mixed Load) Adjustable in Fixed Steps									H2
Type	Poles	Terminals	415 V	kA@ 500 V	525 V	No. of Interphase Barriers	Rating (A)	Price each	Order No.
L35DE	3	G4B	36++	22++	-	2	400-800	R 27 099.00	L35DE800X
L50DE	3	G4B	50++	40++	25++	2	400-800	R 30 777.00	L50DE800X
L70DE	3	G4B	70++	50++	15++	2	400-800	R 33 853.00	L70DE800X

Triple Pole Switch Disconnect ¹									H2
Type	Poles	Terminals	415 V	Withstand kA@ 500 V	525 V	No. of Interphase Barriers	Rating (A)	Price each	Order No.
L35DN	3	G4B	35++	-	-	2	800	R 17 115.00	L35DN800X
L50DN	3	G4B	50++	40++	25++	2	800	R 20 024.00	L50DN800X

Notes:

1. Backed up by suitable Short Circuit Protection Device (SCPD)

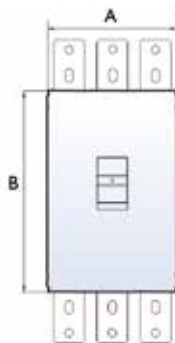
++To IEC 60947 - 2 / 3

LDE and LDN Accessories					C
Description LH = Left Hand Side, RH = Right Hand Side		Std. Pack	Voltage - AC	Price each	Order No.
Shunt trip	RH	1	24-48 (AC / DC)	R 1 658.00	SHT48-4SWRS
	RH	1	100 - 450	R 986.00	SHT-4SWRS
	RH	1	380 - 550	R 986.00	SHTA550-4SWRS
Undervoltage release	RH	1	110-120	R 1 774.00	UVTA120-4SWS
	RH	1	220-240	R 1 774.00	UVTA240-4SWS
	RH	1	380-415	R 1 774.00	UVTA415-4SWS
	RH	1	500-550	R 1 774.00	UVTA550-4SWS
Auxiliary switch (IN / 0 + IN / C)	LH	1		R 641.00	AX-4SWLS
Double auxiliary (2NO 2NC)	LH	1		R 843.00	AX2-4SWLS
Alarm auxiliary switch	LH	1		R 838.00	ALAX-4SWLS
Spring charge unit MDS type 220 Vac	LH	1	200-220	R 8 623.00	MDS-8SWA220
Key interlock - Cylindrical type		1		R 775.00	4470113
Phase barriers (Qty 1)		1		R 143.00	BAF-8SW
Terminal cover		1		R 1 081.00	TCL-8SW3

Extension Handle					C2
Extension handle (Std. shaft - 300 mm)		1		R 2 380.00	12MEC.0845

NDE / NDN Range

A	210 mm
B	406 mm
C	140 mm



N85DE1600X



N85DN1250X

Triple Pole Circuit Breakers (Mixed Load) Electronic Adjustable

H2

Type	Poles	Terminals	kA@ 415 V 500 V		No. of Interphase Barriers	Rating (A)	Price each	Order No.
N85DE	3	G4B	85++	65++	2	500-1000	R 34 666.00	N85DE1000X
	3				2	600-1250	R 41 406.00	N85DE1250X
	3				2	800-1600	R 59 843.00	N85DE1600X

Triple Pole Switch Disconnect¹

H2

Type	Poles	Terminals	kA@ 415 V 500 V		No. of Interphase Barriers	Rating (A)	Price each	Order No.
N85DN	3	G4B	85++	65++	2	1000	R 29 423.00	N85DN1000X
	3				2	1250	R 37 505.00	N85DN1250X

NDE and NDN Accessories

C

Description LH = Left Hand Side, RH = Right Hand Side		Factory Fitted	Std. Pack	Voltage - AC	Price each	Order No.
Shunt trip	RH	Yes	1	100 - 120	R 2 494.00	SHTA120-10SWRS
	RH	Yes	1	200 - 240	R 2 494.00	SHTA240-10SWRS
	RH	Yes	1	380 - 450	R 2 494.00	SHTA450-10SWRS
	RH	Yes	1	500 - 550	R 2 494.00	SHTA550-10SWRS
Undervoltage release	RH	Yes	1	100 - 120	R 2 614.00	UVTNA130-10SWRS
	RH	Yes	1	200 - 240	R 2 614.00	UVTNA240-10SWRS
	RH	Yes	1	380 - 450	R 2 614.00	UVTNA450-10SWRS
	RH	Yes	1	500 - 550	R 2 614.00	UVTNA550-10SWRS
Auxiliary switch (IN/0 + IN/C)	LH	Yes	1	-	R 890.00	AX-10SWLS
Alarm + auxiliary switch combined	LH	Yes	1	-	R 1 473.00	ALAX-10SWLS
Double auxiliary (2NO 2NC)	LH	Yes	1	-	R 3 391.00	AX2-10SWLS
Spring charge unit MDS type		Yes	1	220 - 220	R 44 721.00	MD-10SWA220
Key interlock - cylindrical type		Yes	1	-	R 775.00	4470113
Phase barriers (Qty 1)			1	-	R 143.00	BAF-10SW

Extension Handle

C2

Daros handle mechanism 12MEC0945 (Std. shaft - 300 mm)	1		R 3 059.00	12MEC.0945
--	---	--	------------	------------

Notes:

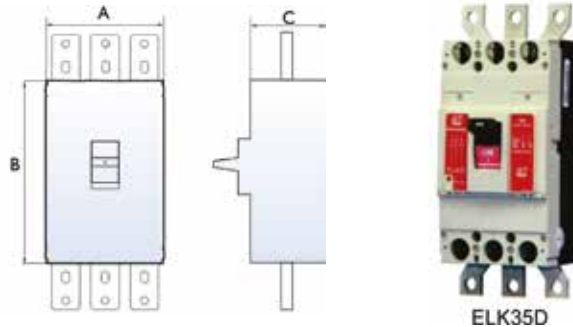
1. Backed up by Suitable Short Circuit Protection Device (SCPD)

++ To IEC 60947-2 / 3

Electronic Adjustable MCCBs are ideal for Tripping Co-ordination / Discrimination

ELFD / ELK Range (Thermal-Magnetic, Electronic)

	EL3G	EL3F	ELK
	3P	3P	3P
A	90 mm	105 mm	140 mm
B	130 mm	165 mm	257 mm
C	68 mm	68 mm	103 mm



Integral Earth Leakage Circuit Breakers (Mixed Load) not for 4-Wire systems											H2
Type	Poles		Terminals	kA@			Sensitivity mA	No. of Interphase Barriers	Rating (A)	Price each	Order No.
	CB	E/L		380 V	400 V	525 V					
EL3G25D	3	3	G1	25	25	15	30, 175, 250 ¹	2	16, 20, 32, 40, 50, 63	R 7 070.00	ELG25D3...
								2	80, 100, 125	R 7 474.00	
EL3F25D	3	3	G1	25	25	15	30, 250, 375 ¹	4	150, 175	R 9 304.00	ELF25D3...
								4	200, 225, 250	R 10 916.00	
EL3K35D	3	3	G4B	35	35	25	100, 300, 500 ²	4	250	R 14 543.00	ELK35D3...
								4	300	R 19 969.00	
								4	400	R 21 463.00	
								4	630	R 26 389.00	

Notes:

CB = Circuit Breaker Poles

E/L = Earth Leakage Poles

1. Sensitivity: Adjustable (instantaneous tripping time). Other units available on request (contact CBI for availability)
2. Sensitivity: Adjustable mA and time delay setting (0.45, 1.0 2.0 s)
3. Sensitivity: 30 mA fixed rating (instantaneous tripping time)

* For "EL3G/EL3F/EL3K" Accessories, refer to GD, FD and KD accessories (only the left hand cavity is available for fitting of accessories)

* Contact CBI for availability (Non Stock items)

Please fill in required Amp rating on dotted line of order number column

Technical

NB: Phase EL'S without Neutral are not suitable for all 4 wire systems

DC MCCBs for Traction Control

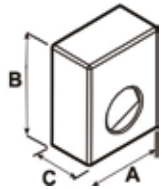
Triple Pole Circuit Breakers for DC Traction								H2
Type	Poles	Terminals	kA @ 440 Vdc	No. of Interphase Barriers	Rating (A)	Price each	Order No.	
F10DDC	3	G2	10	4	150	R 3 642.00	F10DDC150	
	3	G2	10	4	250	R 6 107.00	F10DDC250	

Triple Pole Circuit Breakers for DC Traction								H2
Type	Poles	Terminals	kA @ 440 Vdc	No. of Interphase Barriers	Rating (A)	Price each	Order No.	
K15DDC	3	G4B	15	4	300	R 11 237.00	K15DDC300	
	3	G4B	15	4	400	R 11 546.00	K15DDC400	

Earth Leakage Relays EL305 / EL306



A	105 mm
B	125 mm
C	57 mm
Ø	50 mm



Earth Leakages Relays EL305 include Mounting Plate

H2

Type	Sensitivity code	Standard Voltage	Sensitivity mA	Std. Pack	Remote Core if Required (mm)	Price each	Order No.
EL305 Complete with clip tray	Y	110, 220, 380, 525	30	1	Not available	R 3 517.00	QC5Y00...
	Z	110, 220, 380, 525	50	1	Not available	R 3 517.00	QC5Z00...
	AA	110, 220, 380, 525	125	1	Not available	R 3 074.00	QC5AA0...
	A	110, 220, 380, 525	250	1	70, 105	R 2 575.00	QC5A00...
	B	110, 220, 380, 525	500	1	70, 105, 152, 190	R 2 575.00	QC5B00...
	J	110, 220, 380, 525	1000	1	70, 105, 152, 190	R 3 122.00	QC5J00...
	L	110, 220, 380, 525	2000	1	70, 105, 152, 190	R 3 122.00	QC5L00...
	K	110, 220, 380, 525	5000	1	70, 105, 152, 190	R 3 122.00	QC5K00...

Inverse Definite Minimum Time (IDMT) Earth Leakage Relay EL306

H2

Type	Sensitivity code	Standard Voltage	Sensitivity mA	Std. Pack	Remote Core if Required (mm)	Price each	Order No.
EL306 Complete with clip tray	F	110 - 525	375	1	70, 105	R 3 091.00	QC06F00...
	C	110 - 525	500	1	70, 105	R 3 091.00	QC06C00...
	D	110 - 525	1000	1	70, 105, 152	R 3 269.00	QC06D00...
	E	110 - 525	2000	1	70, 105, 152, 190	R 3 611.00	QC06E00...
	H	110 - 525	5000	1	70, 105, 152, 190	R 3 048.00	QC06H00...

Notes:

Remote cores available, made to order only, contact CBI
Remote core and earth leakage must be a matched pair (factory calibrated)

If the sum of the conductor's outside diameter is greater than 50 mm, a remote must be purchased with the EL305 / 6

Hospital Earth Leakage Monitor (Early Bird)



Hospital Earth Leakage Monitor

H2

Type	Poles	Voltage	Std. Pack	Price each	Order No.
EB225H (Early bird)	1+N	230 V	1	R 10 569.00	EB99900



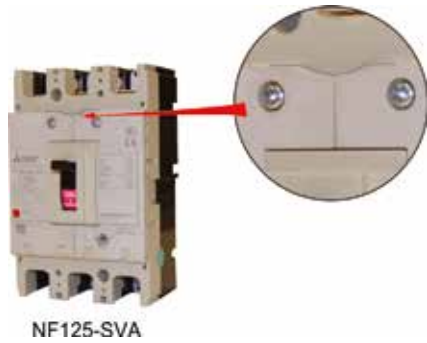
Portable Earth Leakage Units

Portable Earth Leakage Units AC 15 A 50 Hz, 6 kA @ 230 V, 30 mA

H2

Type		Std. Pack	Price each	Order No.
ELP15	Fitted with 3 standard 15 A round pin socket outlets & 15 A overload protection	1	R 3 589.00	LP36K15

V-Series - Circuit Breakers / Switch Disconnectors



Circuit Breakers V Series SVA / SGV										C
Type	Poles	Terminals	kA@			No. of Interphase Barriers	Rating (A)	Price each	Order No.	
			415 V	500 V	525 V					
NF125-SVA	3	G1	30	18	18	2	16, 20, 32, 40, 50, 63	R 3 313.00	NF125SVA...	
		G1	30	18	18		80, 100, 125	R 3 828.00	NF125SVA...	
NF250-SVA	3	G1	30	22	22	4	125	R 4 893.00	NF250SVA125	
		G1	30	22	22		150, 160	R 5 607.00	NF250SVA...	
		G1	30	22	22	4	175, 200, 225	R 6 724.00	NF250SVA...	
		G1	30	22	22		250	R 7 445.00	NF250SVA250	

Circuit Breakers V Series HVA / HGV										C
Type	Poles	Terminals	kA@			No. of Interphase Barriers	Rating (A)	Price each	Order No.	
			415 V	500 V	525 V					
NF63-HVA	3	G1	10	7.5	-	2	10, 16, 20, 32, 40, 50, 63	R 2 169.00	NF63HVA...	
NF125-HVA	3	G2	50	35	22	2	16, 20, 32, 40, 50, 63, 80, 100	R 5 330.00	NF125HVA...	
NF125-HGVA*	3	G1	75	50	35	4	20-25, 32-40, 45-63, 70-100, 90-125	R 5 330.00	NF125HGVA...	
NF160-HGVA*	3	G1	75	50	35	4	125-160	R 7 161.00	NF160HGVA125-160	
NF250-HVA	3	G1	50	35	35	4	125, 100, 160, 200, 225	R 8 164.00	NF250HVA...	
	3	G1	50	35	35	4	250	R 9 207.00	NF250HVA250	
NF250-HGVA*	3	G1	75	50	35	4	175-250	R 9 207.00	NF250HGVA175-250	

On Load Switch Disconnectors (Red Handle)										C
Type	Poles	Terminals	lcw kA	Sec.	No. of Interphase Barriers	Rating (A)	Price each	Order No.		
DSN125-SVA ¹	3	G1	4	1	2	125	R 2 165.00	DSN125SVA125		
DSN250-SVA ¹	3	G1	4	1	4	250	R 5 199.00	DSN250SVA250		
DSN250-CVA ²	3	G1	4	1	2	150	R 2 897.00	DSN250CVA150		
DSN250-CVA ²	3	G1	4	1	4	250	R 4 815.00	DSN250CVA250		

Notes:

1. Backed up by suitable Short Circuit Protection Device (SCPD)

2. Not suitable for 525 V / 550 V

* Contact CBI for more information and availability

NOTE: Please fill in required AMP rating on dotted line of order number column

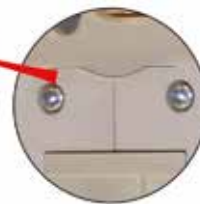
V-Series - Earth Leakage Circuit Breakers



NV125-SVA



NV250-SVA



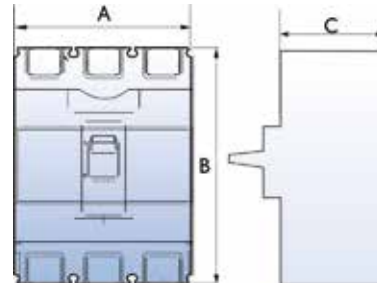
Earth Leakage Circuit Breakers													D
Type	Poles	Terminals			kA@			Sensitivity mA Selectable	Time Delay	No. of Interphase Barriers	Rating (A)	Price each	Order No.
			380 V	415 V	480 V	525 V	550 V						
NV63-HVA	3	G1	10	10	10	7.5	7.5	30,100,500	Inst	2	16,20,32,40,50,63	R 4 776.00	NV63HVA__
NV125-SVA	3	G1	25	25	15	18	10	30,175,250	Inst	2	16,20,32,40,50,63	R 6 428.00	NV125SVA__
	3	G1	25	25	15	18	10	30,175,250	Inst	2	80,100	R 6 820.00	NV125SVA__
NV125-HVA*	3	G1	50	50	30	22	18	30,175,250	Inst	2	16,20,32,40,50,63	R 12 646.00	NV125HVA__
	3	G1	50	50	30	22	18	30,175,250	Inst	2	80,100	R 12 646.00	
NV250-SVA	3	G1	25	25	15	18	10	30,250,375	Inst	4	125,150,175	R 9 795.00	NV250SVA__
	3	G1	25	25	15	18	10	30,250,375	Inst	4	200,225,250	R 11 005.00	NV250SVA__
NV250-SVA	3	G1	25	25	15	18	10	250,375,500	0.45,1,2	4	125,150,175	R 9 795.00	NV250SVA__TD
	3	G1	25	25	15	18	10	250,375,500	0.45,1,2	4	200,225,250	R 11 005.00	NV250SVA__TD
NV250-HVA	3	G1	50	50	30	22	18	30,250,375	Inst	4	150	R 23 726.00	NV250HVA150
	3	G1	50	50	30	22	18	30,250,375	Inst	4	175	R 23 726.00	NV250HVA175
	3	G1	50	50	30	22	18	30,250,375	Inst	4	200	R 23 726.00	NV250HVA200
	3	G1	50	50	30	22	18	30,250,375	Inst	4	225	R 23 726.00	NV250HVA225
NV250-HVA*	3	G1	50	50	30	22	18	250,375,500	0.45,1,2	4	125	R 23 726.00	NV250HVA125TD
	3	G1	50	50	30	22	18	250,375,500	0.45,1,2	4	150	R 23 726.00	NV250HVA150TD
	3	G1	50	50	30	22	18	250,375,500	0.45,1,2	4	175	R 23 726.00	NV250HVA175TD
	3	G1	50	50	30	22	18	250,375,500	0.45,1,2	4	200	R 23 726.00	NV250HVA200TD
	3	G1	50	50	30	22	18	250,375,500	0.45,1,2	4	225	R 23 726.00	NV250HVA225TD

* Contact CBI for availability

V-Series - Earth Leakage Circuit Breakers



V-Series - Dimensions			
Description	Dimensions (mm)		
	A	B	C
NF63 & NV63 (SVA / HVA)	75	130	68
NF125 & NV125 (SVA / HVA)	90	130	68
NF250 (SVA / HVA)	90	165	68
NF160 / 250 & NV250 (SVA / HVA)	105	165	68
DSN250 (SVA)	105	165	68
NF125 / 160 / 250 (HGVA)	105	165	68



Thermal Adjustable Chart - HGVA	
Type	Thermal ¹
NF125 HGVA 20 - 25 A	20 - 25
NF125 HGVA 32 - 40 A	32 - 40
NF125 HGVA 45 - 63 A	45 - 63
NF125 HGVA 70 - 100 A	70 - 100
NF125 HGVA 90 - 125 A	90 - 125
NF160 HGVA 125 - 160 A	125 - 160
NF250 HGVA 175 - 250 A	175 - 250

Notes:

1. Thermals are adjustable in fixed steps as per adjustability chart
Please fill in required AMP rating on dotted line of order number column

V-Series - Circuit Breakers DC Special use DC MCCBs

Circuit Breakers DC Locomotive Protection (Orange Handle)							C
Type	Poles	Terminals	kA @ 440 Vdc *	No. of Interphase Barriers	Rating (A)	Price each	Order No.
NF250-CVA (DC)	3	G1	10	4	150	R 4 006.00	NF250CVDC150
	3	G1	10	4	200	R 6 390.00	NF250CVDC200
	3	G1	10	4	250	R 6 390.00	NF250CVDC250

Note:

Also available with pre-fitted box terminals contact CBI

Circuit Breakers DC Locomotive Protection (Orange Handle)							C
Type	Poles	Terminals	kA @ 440 Vdc *	No. of Interphase Barriers	Rating (A)	Price each	Order No.
NF400-CWA (DC)	3	G4B	15	4	300	R 11 552.00	NF400CWDC300
	3	G4B	15	4	400	R 11 921.00	NF400CWDC400

Notes:

- NF250CVA: box terminal available as options 2 x per line / load (250 AF only)
Contact CBI for more information
- Magnetic settings at 50% of Standard MCCB
- Orange handle identification

* 400 Vdc using 3P in series
250 Vdc using 2P in series

V Series - Accessories



Undervoltage Release C

Type		Voltage Range	Std. Pack	Price each	Order No.
NF / NV 63 HVA	LH/RH	24 Vac / dc	1	R 1 022.00	UVTNA024-05SVLS/RS
NF / NV 125 SVA / HVA / HGVA	LH/RH	48 Vac / dc	1	R 1 022.00	UVTNA048-05SVLS/RS
	LH/RH	110 Vac / dc	1	R 1 022.00	UVTNA130-05SVLS/RS
NF / NV 250 SVA / HVA / HGVA	LH/RH	220 - 250 Vac	1	R 1 022.00	UVTNA250-05SVLS/RS
DSN125 / 250	LH/RH	380 - 440 Vac	1	R 1 022.00	UVTNA480-05SVLS/RS
	LH/RH	500 / 600 Vac	1	R 1 022.00	UVTNA600-05SVLS/RS

Shunt Trip C

NF / NV 63 HVA **	LH/RH	24 - 48 Vac	1	R 487.00	SHTA048-05SVRS
NF / NV 125 SVA / HVA HGVA	LH/RH	100 - 240 Vac	1	R 487.00	SHTA240-05SVRS
NF / NV 250 SVA / HVA / HGVA	LH/RH	380 - 550 Vac	1	R 487.00	SHTA550-05SVRS
DSN 125 / 250					

Auxiliary Switch C

NF63 (SVA / HVA)	LH		1	R 337.00	AX-05SVLS
	RH		1	R 337.00	AX-05SVRS
(NV63 = LH)	LH		1	R 893.00	AX2-05SVLS
AX2-05SVLS (Double)					
NF / NV 125 SVA / HVA / HGVA					
NF / NV 250 SVA / HVA / HGVA					
DSN 125 / 250					

Alarm / Auxiliary Switch C

NF63 (SVA / HVA)	LH		1	R 693.00	ALAX-05SVLS
NF / NV 125 SVA / HVA / HGVA					
NF / NV 250 SVA / HVA / HGVA					
DSN 125 / 250					

Terminal Covers (set) C

NF63 & NV63 (SVA / HVA)	2	R 116.00	TCL-05SV3W
NF125 & NV125 (CVA / SVA / HVA)	2	R 285.00	TCL-1SV3W
NF160 / 250 & NV250 (CVA / SVA / HVA)	2	R 763.00	TCL-2SV3W

Extension Handles C2

NF63 & NV63 (SVA / HVA) NF125 / NV125 / DSN125 (Std. shaft - 300 mm)	1	R 1 712.00	12MEC.1145
NF125HGVA / NF160HGVA / NF250HGVA & NV250 (CVA / SVA / HVA) DSN250 (Std. shaft - 300 mm)	1	R 1 712.00	12MEC.1045

Motor Operator C

NF125 (SVA / HVA)	100-240 Vac / 100-250 Vdc	1	R 13 612.00	MDS240-1SV ¹
NF250 (SVA / HVA)	100-240 Vac / 100-250 Vdc	1	R 13 612.00	MDS240-2SV ²

Notes:

- These units have mechanical trip indication on the operators
 - These units have electrical trip indication through an alarm switch
- * Contact CBI for availability
** NV only accessories for the left side only (LH)



DSN400-CWA NF400-SEW

Thermal-Magnetic Circuit Breakers (CWA) Compact Economy Class C

Type	Poles	Terminals	kA@		No. of Interphase Barriers	Rating (A)	Price each	Order No.
			400 V	500 V				
NF400-CWA	3	G4B	36	22	4	250	R 9 405.00	NF400CW250
		G4B	36	22	4	300	R 10 819.00	NF400CW300
		G4B	36	22	4	350, 400	R 11 343.00	NF400CW...
NF630-CWA	3	G4B	36	22	4	500, 630	R 17 593.00	NF630CW...

Note: Not certified for use at 525 / 550 V

Thermal-Magnetic Circuit Breakers (SWA) Standard Fixed Type C

Type	Poles	Terminals	kA@			No. of Interphase Barriers	Rating (A)	Price each	Order No.
			400 V	500 V	525 V				
NF400-SWA	3	G4B	50	40	35	4	250	R 12 635.00	NF400SW250
		G4B	50	40	35	4	300	R 12 741.00	NF400SW300
		G4B	50	40	35	4	350, 400	R 13 292.00	NF400SW...
NF630-SWA	3	G4B	50	40	35	4	500, 630	R 19 535.00	NF630SW...

Electronic Adjustable Circuit Breakers C

Type	Poles	Terminals	kA@				No. of Interphase Barriers	Rating (A)	Price each	Order No.
			380 V	400 V	500 V	525 V				
NF400-SEW	3	G4B	50	50	40	35	4	200-400	R 15 670.00	NF400SEW400
NF400-HEW	3	G4B	70	70	50	50	4	200-400	R 22 961.00	NF400HEW400
NF630-SEW	3	G4B	50	50	40	35	4	300-630	R 25 408.00	NF630SEW630
NF630-HEW	3	G4B	70	70	50	35	4	300-630	R 28 467.00	NF630HEW630
NF800-CEW	3	G4B	40	36	18	-	2	400-800	R 27 357.00	NF800CEW800
NF800-SEW	3	G4B	50	50	40	25	2	400-800	R 31 070.00	NF800SEW800
NF800-HEW	3	G4B	70	70	50	15	2	400-800	R 34 176.00	NF800HEW800

Electronic Adjustable Circuit Breakers C

Type	Poles	Terminals	kA@			No. of Interphase Barriers	Rating (A)	Price each	Order No.
			380 V	400 V	500 V				
NF1000-SEW	3	G4B	85	85	65	2	500-1000	R 34 996.00	NF1000SEW
NF1250-SEW	3	G4B	85	85	65	2	600-1250	R 41 800.00	NF1250SEW
NF1600-SEW	3	G4B	85	85	65	2	800-1600	R 60 413.00	NF1600SEW

On Load Switch Disconnectors (Red Handle) C

Type	Poles	Terminals	lcw kA	Sec.	Rating (A)	Price each	Order No.
DSN400-CWA	3	G4B	6	1	300, 400	R 7 397.00	DSN400CW...
DSN400-SWA	3	G4B	6	1	400	R 10 142.00	DSN400SW400
DSN630-CWA	3	G4B	8	1	630	R 12 443.00	DSN630CW630
DSN630-SWA	3	G4B	8	1	630	R 16 704.00	DSN630SW630
DSN800-CWA	3	G4B	10	1	800	R 17 278.00	DSN800CW800
DSN800-SWA	3	G4B	10	1	800	R 20 215.00	DSN800SW800
DSN1000-SW	3	G4B	15	1	1000	R 29 703.00	DSN1000SW
DSN1250-SW	3	G4B	15	1	1250	R 37 862.00	DSN1250SW

Notes:

Please fill in required AMP rating on dotted line of order number column

1. Backed up by suitable Short Circuit Protection Device (SCPD)

WSS - Earth Leakage Circuit Breakers



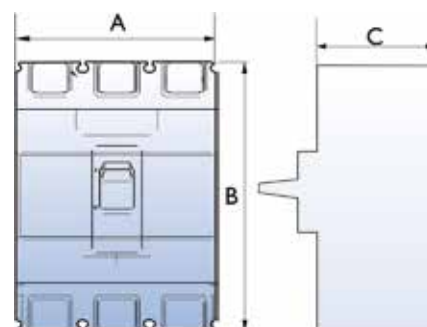
Earth Leakage Circuit Breakers Progressive Super Series

D

Type	Poles	Terminals	kA@				Sensitivity mA Selectable	Time Delay	No. of Interphase Barriers	Rating (A)	Price each	Order No.
			380 V	400 V	525 V	550 V						
NV400-SWA	3	G4B	50	50	15	15	100,300,500	0.45,1,2	4	250, 300, 350, 400	R 22 148.00	NV400SW...
NV400-SEW	3	G4B	50	50	15	15	100,300,500	0.45,1,2	4	200 - 400	R 23 801.00	NV400SEW400
NV630-SWA	3	G4B	50	50	25	15	100,300,500	0.45,1,2	4	500, 630	R 27 072.00	NV630SW....
NV800-SEW	3	G4B	50	50	25	15	100,300,500	0.45,1,2	2	400 - 800	R 30 634.00	NV800SEW800

WSS - Dimensions

Description	Dimensions (mm)		
	A	B	C
NF400 & NV400 (CWA / SWA / SEW / HEW)	140	257	103
DSN400 (CWA / SWA)	140	257	103
NF630 & N630 (SEW / HEW)	140	257	103
NF630 & NV630 (CWA / SWA / SEW / HEW)	140	257	103
DSN630 (CWA / SWA)	140	257	103
NF800 & NV800 (CWA / SWA / SEW / HEW)	210	275	103
DSN800 (CWA / SWA)	210	275	103
NF1000 & NV1250 & NF1600 (SEW)	210	406	140
DSN1000 & DSN1250 (SW)	210	406	140



WSS - Circuit Setting Range (Adjustable Breakers)

Type	Rating (A)	Setting Range (fixed and variable steps)
NF400-SEW (CEW / SEW / HEW)	200 - 400	200 / 225 / 250 / 300 / 350 / 400 A
NF630-SEW (CEW / SEW / HEW)	300 - 630	300 / 350 / 400 / 500 / 600 / 630 A
NF800-SEW (CEW / SEW / HEW)	400 - 800	400 / 450 / 500 / 600 / 700 / 800 A
NF1000-SEW	500 - 1000	500 / 600 / 700 / 800 / 900 / 1000 A
NF1250-SEW	600 - 1250	600 / 700 / 800 / 1000 / 1200 / 1250 A
NF1600-SEW	800 - 1600	800 / 1000 / 1200 / 1400 / 1500 / 1600 A

WSS - Accessories



Undervoltage Release C					
Type		Voltage Range	Std. Pack	Price each	Order No.
NF400 / 630 / 800 (NV400 / 630 / 800 = LH) (CW / SW / CEW / SEW / HEW)	RH	24 - 48 Vac / Vdc	1	R 2 897.00	UVTSD048-8SWRFS
	LH/RH	110 Vac / Vdc	1	R 2 897.00	UVTD110-4SWS
	LH/RH	110 - 120 Vac	1	R 1 774.00	UVTA120-4SWS
	LH/RH	220 - 240 Vac	1	R 1 774.00	UVTA240-4SWS
	LH/RH	380 - 415 Vac	1	R 1 774.00	UVTA415-4SWS
	LH/RH	500 - 550 Vac	1	R 1 774.00	UVTA550-4SWS
NF1000SEW & NF1250SEW & NF1600SEW	RH	100 - 120 Vac	1	R 2 614.00	UVTNA130-10SWRS
	RH	200 - 240 Vac	1	R 2 614.00	UVTNA240-10SWRS
	RH	380 - 450 Vac	1	R 2 614.00	UVTNA450-10SWRS
	RH	500 - 550 Vac	1	R 2 614.00	UVTNA550-10SWRS
Shunt Trip ¹ C					
NF400 / 630 / 800 (CW / SW / CEW / SEW / HEW) (NV400 / 630 / 800 = LH)	RH	24 - 48 Vac / Vdc	1	R 1 658.00	SHT48-4SWRS
	LH	100-450 Vac / 100-200 Vdc	1	R 986.00	SHT-4SWLS
	RH	100-450 Vac / 100-200 Vdc	1	R 986.00	SHT-4SWRS
	RH	380 - 550 Vac	1	R 986.00	SHTA550-4SWRS
NF1000SEW & NF1250SEW & NF1600SEW	RH	24 Vac	1	R 2 494.00	SHTA024-10SWRS
	RH	48 Vac	1	R 2 494.00	SHTA048-10SWRS
	RH	100 - 120 Vac	1	R 2 494.00	SHTA120-10SWRS
	RH	200 - 240 Vac	1	R 2 494.00	SHTA240-10SWRS
	RH	380 - 450 Vac	1	R 2 494.00	SHTA450-10SWRS
	RH	500 - 550 Vac	1	R 2 494.00	SHTA550-10SWRS
Auxiliary Switch C					
NF400 / 630 / 800 (CW / SW / CEW / SEW / HEW)	LH		1	R 641.00	AX-4SWLS
	RH		1	R 641.00	AX-4SWRS
Double Auxiliary	LH		1	R 843.00	AX2-4SWLS
NF1000SEW & NF1250SEW & NF1600SEW	LH		1	R 890.00	AX-10SWLS
	RH		1	R 890.00	AX-10SWRS

Alarm / Auxiliary Switch C					
NF400 / 630 / 800 & NV400 / 630 / 800	LH		1	R 838.00	ALAX-4SWLS
NF1000SEW & NF1250SEW & NF1600SEW	LH		1	R 1 473.00	ALAX-10SWLS

Motor Operator * C					
NF400 / 630 & NV400 / 630 (CW / SW / CEW / SEW / HEW)		200 - 220 Vac	1	R 8 623.00	MDS-4SWA220
NF800 & NV800 (CEW / SEW / HEW)		200 - 220 Vac	1	R 8 623.00	MDS-8SWA220
NF1000SEW & NF1250SEW & NF1600SEW		200 - 220 Vac	1	R 44 721.00	MD-10SWA220

Notes:

1. For shunt trip possibly on NV breaker, contact CBI

* Contact CBI for availability

WSS - Accessories



Terminal Covers *				C
Type	Std. Pack	Price each	Order No.	
NF400 / 630 & NV400 / 630 (CW / SW / CEW / SEW / HEW)	1	R 865.00	TCL-4SW3	
NF800 & NV800 (CEW / SEW / HEW)	1	R 1 081.00	TCL-8SW3	
NFI000SEW & NF1250SEW	1	R 1 681.00	TCL-10SW3	
Handle Locking Device (Metal)				C
NF400 / 630 & NV400 / 630 (CW / SW / CEW / SEW / HEW)	1	R 435.00	HLS-4SW	
NF1000 / 1250 1600 SEW	1	R 3 059.00	HLS-10SW	
Extension Handles				C2
NF400 / 630 & NV400 / 630 (CW / SW / CEW / SEW / HEW)	(Std. shaft - 300 mm)	1	R 1 832.00	12MEC.0645
NF800 & NV800 (CEW / SEW / HEW)	(Std. shaft - 300 mm)	1	R 2 380.00	12MEC.0845
NF1000SEW & NF1250SEW & NF1600SEW	(Std. shaft - 300 mm)	1	R 3 059.00	12MEC.0945

Note:

* Contact CBI for availability



**GLOBAL
RANGE**



CBI electric
low voltage

Global Range Air Circuit Breakers

C1

Type	Poles	Terminals	kA@		50 % Adjustable Rating (A)	Price each Fixed	Price each Draw out	Order No.
			415 / 500 V	550 / 600 / 690 V				
ACB630CM	3	Horizontal	65	50	315 - 630	R 40 348.00	R 49 131.00	ACB630CM(F/D)
ACB800CM	3	Horizontal	65	50	400 - 800	R 40 348.00	R 49 131.00	ACB800CM(F/D)
ACB1000CM	3	Horizontal	65	50	500 - 1000	R 40 348.00	R 49 131.00	ACB1000CM(F/D)
ACB1250CM	3	Horizontal	65	50	625 - 1250	R 40 348.00	R 49 131.00	ACB1250CM(F/D)
ACB1600CM	3	Horizontal	65	50	800 - 1600	R 46 383.00	R 58 557.00	ACB1600CM(F/D)
ACB2000CM	3	Vertical*	65	50	1000 - 2000	R 54 478.00	R 70 986.00	ACB2000CM(F/D)
ACB2500CM	3	Horizontal	85	85	1250 - 2500	R 66 603.00	R 78 060.00	ACB2500CM(F/D)
ACB3200CM	3	Horizontal	85	85	1600 - 3200	R 66 603.00	R 92 026.00	ACB3200CM(F/D)
ACB4000CM	3	Horizontal	85	85	2000 - 4000	R 125 180.00	R 140 022.00	ACB4000CM(F/D)

Global Range Switch Disconnectors

C1

Type	Poles	Terminals	Icw			Rating (A)	Price each Fixed	Price each Draw out	Order No.
			Uimp	(kA/3Sec)	Ui				
DIS1600CM	3	Horizontal	12	36	1000	1600	R 31 474.00	R 42 379.00	DIS1600CM(F/D)
DIS2000CM	3	Vertical*	12	50	1000	2000	R 44 554.00	R 55 256.00	DIS2000CM(F/D)
DIS2500CM	3	Horizontal	12	65	1000	2500	R 58 095.00	R 69 883.00	DIS2500CM(F/D)
DIS3200CM	3	Horizontal	12	65	1000	3200	R 60 212.00	R 83 892.00	DIS3200CM(F/D)
DIS4000CM	3	Horizontal	12	65	1000	4000	R 109 186.00	R 129 800.00	DIS4000CM(F/D)

Global Range ACB Accessories

C1

Description LH = Left Hand Side, RH = Right Hand Side	Std. Pack	** Factory Pre-fitted	Price each	Order No.
ACB shunt 48, 110, 230 Vac / Vdc	1	230 Vac / Vdc	R 1 412.00	CM-SHT-___
ACB shunt 24 Vdc	1		R 1 412.00	CM-SHT-24
ACB shunt 400, 525 Vac	1		R 1 412.00	CM-SHT-___
ACB UVT 48, 110, 230 Vac / Vdc	1		R 1 949.00	CM-UVT-___
ACB UVT 24 Vdc	1		R 1 949.00	CM-UVT-24
ACB UVT 400, 525 Vac	1		R 1 949.00	CM-UVT-___
ACB Auxiliary 5A5B	1	(3A3B STD)	R 1 343.00	CM-AUX5A5B
ACB Closing coil 48, 110, 230, 400 Vac / Vdc	1	230 Vac / Vdc	R 1 681.00	CM-CC-___
ACB Closing coil 24 Vdc	1		R 1 681.00	CM-CC-24
ACB Closing coil 525 Vac	1		R 1 681.00	CM-CC-525
ACB Counter	1	Yes	R 1 586.00	CM-COUNTER
ACB Cradle 2000 A	1	Yes	R 14 224.00	CM-CRADLE2000
ACB Cradle 2500, 3200 A	1	Yes	R 16 106.00	CM-CRADLE___
ACB Cradle 4000 A	1	Yes	R 36 165.00	CM-CRADLE4000
ACB Door frame D / F	1		R 268.00	CM-DOORD/F
ACB Inter lock 2 x 1600	1		R 6 077.00	CM-INTLOCK16-2
ACB Inter lock 3 x 1600	1		R 11 307.00	CM-INTLOCK16-3
ACB Inter lock 2 x 2000 A	1		R 6 077.00	CM-INTLOCK20-2
ACB Inter lock 3 x 2000 A	1		R 11 307.00	CM-INTLOCK20-3
CB Keylock 1X ACB	1		R 2 083.00	CM-KEYLOCK1
ACB key interlock 3X ACB	1		R 4 235.00	CM-KEYLOCK3
ACB ON-OFF Button lock	1		R 268.00	CM-LOCK
ACB Motor OP 24, 48, 110, 230, 400, 525 Vac / Vdc	1	230 Vac / Vdc	R 5 003.00	CM-MOT-___
ACB OCR AG5	1	Yes	R 5 848.00	CM-OCR

Notes:

* Also horizontal contact CBI for availability

** Included in supply price

ACBs and Accessories

AE World Super Series Low Voltage Air Circuit Breakers (CIF Approved)



AE1600-SW



Air Circuit Breakers ¹									C1
Type	Poles	Terminals	kA@		Std Pack	Rating (A)	Price each Fixed	Price each Draw out	Order No.
			415 / 500 / 525 V	550 / 600 / 690 V					
AE630-SW	3	Horizontal	65	65	1	315 - 630	R 41 731.00	R 56 511.00	AE630SW(F/D)
AE1000-SW	3	Horizontal	65	65	1	500 - 1000	R 43 861.00	R 59 459.00	AE1000SW(F/D)
AE1250-SW	3	Horizontal	65	65	1	625 - 1250	R 46 173.00	R 60 592.00	AE1250SW(F/D)
AE1600-SW	3	Horizontal	65	65	1	800 - 1600	R 48 759.00	R 61 726.00	AE1600SW(F/D)
AE2000-SW	3	Horizontal	85	75	1	1000 - 2000	R 58 051.00	R 76 004.00	AE2000SW(F/D)
AE2500-SW	3	Horizontal	85	75	1	1250 - 2500	R 66 984.00	R 80 402.00	AE2500SW(F/D)
AE3200-SW	3	Horizontal	85	75	1	1600 - 3200	R 84 480.00	R 100 437.00	AE3200SW(F/D)
AE4000-SWA	3	Vertical	75	75	1	2000 - 4000	R 135 581.00	R 165 149.00	AE4000SWA(F/D)

AE World Super Series Low Voltage Switch Disconnectors

Switch Disconnector ²							C1
Type	Poles	Terminals	Std. Pack	Rating (A)	Price each Fixed (F) ³	Price each Draw out (D) ³	Order No.
DSN 1600-SW	3	Horizontal	1	1600	R 41 640.00	R 54 424.00	DSN1600SW(F/D)
DSN 2000-SW	3	Horizontal	1	2000	R 51 856.00	R 72 000.00	DSN2000SW(F/D)
DSN 2500-SW	3	Horizontal	1	2500	R 59 049.00	R 72 512.00	DSN2500SW(F/D)
DSN 3200-SW	3	Horizontal	1	3200	R 74 734.00	R 90 739.00	DSN3200SW(F/D)
DSN 4000-SWA*	3	Vertical	1	4000	R 122 456.00	R 149 143.00	DSN4000SWA(F/D)

Notes:

Standard discounts are not applicable, contact CBI for discount structure.
For ACBs bigger than 4000 A (5000 A and 6300 A), contact CBI for price and availability.

- All ACBs come complete with thermal connectors, auxiliary (2A, 2B), door frame (draw out ACB also has safety shutters) and Electronic Trip Relays (WS-1). Accessories to be quoted separately.
- All switch disconnectors come complete with terminal connectors, auxiliary (2A, 2B) and door frame (draw out DSN also safety shutters).
- Ordering numbers:
Fixed = (F)
Draw out = (D)

* Contact CBI for availability

World Super Series Accessories - Air Circuit Breakers Type AE630-SW to AE4000-SWA
C1

Type	Voltage AC	Voltage DC	Std. Pack	Price each	Order No.
Door interlock* for all Draw out types	-	-	1	R 6 715.00	WS-DI-SAED
Door interlock* for all Fixed out types	-	-	1	R 7 224.00	WS-DI-SAEF
Cell Switch* (4 Contacts)	-	-	1	R 4 013.00	WS-CLCCELLS
Auxiliary Switch (5N/O + 5N/C)	-	-	1	R 2 567.00	WS-AXAESW5A5B
Shunt trip	100 - 250	100 - 250	1	R 1 822.00	WS-SHTAE110AC
Shunt trip*	-	24 - 48	1	R 1 822.00	WS-SHTAE24DC
Shunt trip	380 - 525		1	R 1 822.00	WS-SHTAE400AC
Motor charging device	100 - 125	100 - 125	1	R 5 452.00	WS-MDAESW110
Motor charging device	200 - 250	200 - 250	1	R 5 452.00	WS-MDAESW220
Closing coil unit	100 - 250	100 - 250	1	R 2 285.00	WS-CCAE025A
Closing coil unit	-	24 - 48	1	R 2 886.00	WS-CCAED048A
Cylinder lock mechanism with viro key (factory fitted)	-	-	1	R 3 056.00	WS-CYLAESW
Counter*	-	-	1	R 3 056.00	WS-CNTAESW
Undervoltage tripping device instantaneous (tripping coil included)	100 - 120	-	1	R 6 420.00	WS-UVT-A120-INS
Undervoltage tripping device instantaneous (tripping coil included)	200 - 240	-	1	R 6 420.00	WS-UVT-A240-INS
Undervoltage tripping device time delay (tripping coil included)	200 - 240	-	1	R 6 420.00	WS-UVT-A240-TD3
Undervoltage tripping device instantaneous (tripping coil included)	380 - 460	-	1	R 10 352.00	WS-UVT-A460-INS
Push button cover (for padlocking)	-	-	1	R 406.00	WS-BCL-SAE
Misinsertion preventer*	-	-	1	R 805.00	WS-MIPAESW
Terminal connectors on breakers	-	-	1	R 1 745.00	WS-ATC-SAEBKR
Terminal connectors on cradle	-	-	1	R 1 745.00	WS-ATC-SAECRL
Ground fault protection relay* (module must be fitted to ETR)	-	-	1	R 2 009.00	WS-G1
MCR Switch high inrush blocking	-	-	1	R 1 658.00	WS-MCR
Mechanical interlock device (draw out type only) (630SW-1600SW,2000SWA)	-	-	1	R 5 452.00	WS-MIAESW16D
Mechanical interlock device (fixed type only) (630SW-1600SW,2000SWA)	-	-	1	R 5 452.00	WS-MIAESW16F
Mechanical interlock device (draw out type only) (2000SW-3200SW,4000SWA)	-	-	1	R 5 452.00	WS-MIAESW32D
Mechanical interlock device (fixed type only) (2000SW-3200SW, 4000SWA)	-	-	1	R 5 452.00	WS-MIAESW32F
Mechanical interlock wire set* (used when 3 ACBs are interlocked)	-	-	1	R 2 691.00	WS-MI-IW
Shutter locking parts* (padlock excluded)	-	-	1	R 204.00	WS-SSTAESW
Safety shutter (AE630SW - AE1600SW, AE2000SWA)	-	-	1	R 1 698.00	WS-SSTAESW160
Safety shutter (AE2000SW - AE3200SW, AE4000SWA)	-	-	1	R 1 698.00	WS-SSTAESW400
Cradle* (AE630SW - AE1600SW) - (Safety shutters) included	-	-	1	R 10 409.00	WS-AE1600SSCR
Cradle* (AE2000SW - AE2500SW) - (Safety shutters) included	-	-	1	R 16 789.00	WS-AE2000SSCR
Cradle* (AE3200SW) (safety shutters) included	-	-	1	R 16 789.00	WS-AE3200SSCR
Vertical terminal adaptor* (Draw out) set of 3 (AE630SW-AE1600SW)	-	-	1	R 4 514.00	WS-VTA-02SAC
Vertical terminal adaptor* (Draw out) set of 3 (AE2000SW-AE2500SW)	-	-	1	R 7 968.00	WS-VTA-03SAC
Vertical terminal adaptor* (Draw out) set of 3 (AE3200SW)	-	-	1	R 9 556.00	WS-VTA-32SAE
Extension module (EX1)* (compulsory module for display and interface function)	-	-	1	R 5 089.00	WS-EX1
Display module (DP1)* (WS - EX1 is required)	-	-	1	R 5 621.00	WS-DISPLAY
VT Unit (VT)* (WS-EX1 is required)	-	-	1	R 3 613.00	WS-VT
CC - Link interface unit* (WS - EX1 is required)	-	-	1	R 10 031.00	WS-BIF-CC
Draw out position switch for network* (WS-BIF-IO is required)	-	-	1	R 3 213.00	WS-BIF-DO-POS
I/O Unit* (interface unit us required ex WS-BIF-PR)	-	-	1	R 4 816.00	WS-BIF-IO
PROFIBUS-DP Interface unit* (WS-EX1 is required)	-	-	1	R 10 031.00	WS-BIF-PR
Modbus interface unit* (WS-EX1 is required)	-	-	1	R 10 031.00	WS-BIF-MD
Neutral pole current transformer* (AE1600SW)	-	-	1	R 3 819.00	WS-NCTAESW16
Neutral pole current transformer* (AE2000SW, AE2000SWA)	-	-	1	R 3 819.00	WS-NCTAESW20
Neutral pole current transformer* (AE3200SW)	-	-	1	R 5 093.00	WS-NCTAESW32

Note: Standard discounts are not applicable, contact CBI for discount structure * Contact CBI for availability



Magnetic Contactors Coil Control Voltages and Overload Comparison																
AC / Contactors	CC18	CC22	CC40	CC50	CC65	CC85	CC100	CC130	CC150	CC185	CC225	CC265	CC330	CC400	CC630	CC800
24 Vac	•	•	•	•	•	•	•	•	•	•	•					
48 Vac	•	•	•	•	•	•	•	•	•	•	•					
110 Vac	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
230 Vac	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
415 Vac	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
525 Vac								•	•	•	•	•	•	•	•	•
550 Vac	•	•	•	•	•	•	•									
DC / Contactors	CC18	CC22	CC40	CC50	CC65	CC85	CC100	CC130	CC150	CC185	CC225	CC265	CC330	CC400	CC630	CC800
12 Vdc	•	•	•	•	•	•	•									
24 Vdc	•	•	•	•	•	•	•	•	•	•	•					
48 Vdc	•	•	•	•	•	•	•	•	•	•	•					
110 Vdc	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
220 Vdc	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
230 Vdc											•	•	•	•		
240 Vdc											•					
TOR	CMT12	CMT32	CMT32	CMT63	CMT63	CMT95	CMT95	CMT150	CMT150	CMT225	CMT225	CMT400	CMT400	CMT400	CMT800	CMT800

Contactors & Thermal Overload Relays Compatibility									
Contactor	CC18	CC22	CC40	CC50 ~ CC65	CC85 ~ CC100	CC130 ~ CC150	CC185 ~ CC225	CC265 ~ CC330 ~ CC400	CC630 ~ CC800
	CDC18	CDC22	CDC40	CDC50 ~ CDC65	CDC85 ~ CDC100	CDC130 ~ CDC150			
Thermal Overload Relay	CMT12	CMT32	CMT32	CMT63	CMT95	CMT150	CMT225	CMT400	CMT800

Vins	690 V
Vimp	6 / 8 kV
Poles	3P

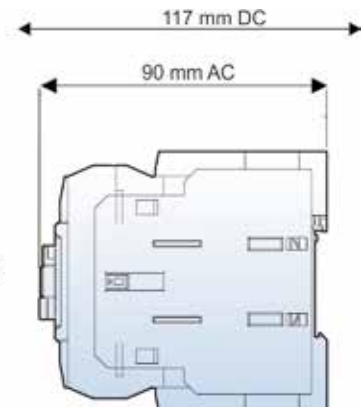
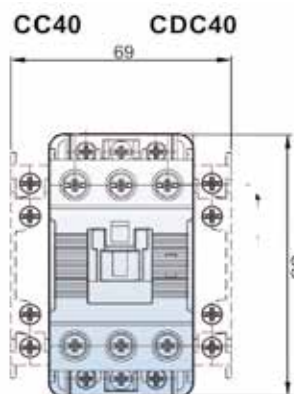
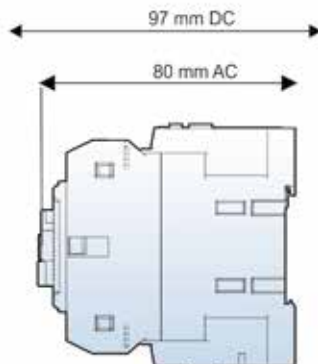
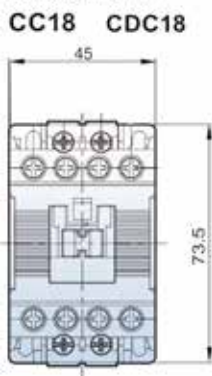
Global Range Contactors



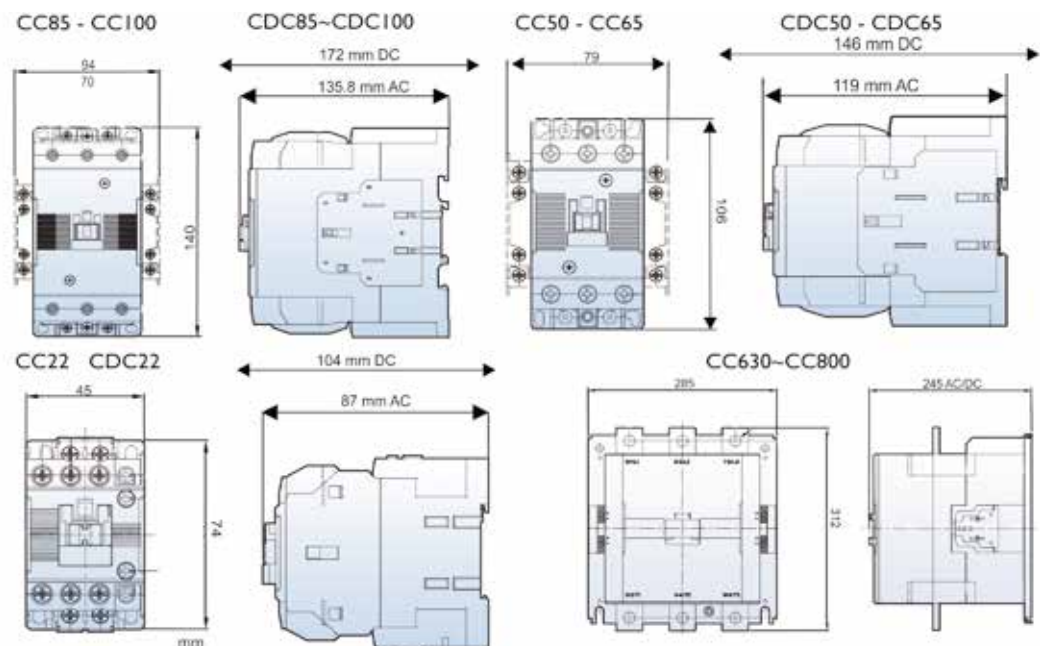
**GLOBAL
RANGE**

Global Range Contactors		CC - AC Coil		CDC - DC Coil				K3
Type	AC-1	AC-3			Standard Aux Contacts		Price Ea.	Order No.
	200 / 240 V	kW/A 380 / 440 V	kW/A 500 / 550 V	kW/A 1000 V	(a) Normally Open	(b) Normally Closed		
CC18	32	7.5 (18)	7.5 (13)	-	1	-	R 568.00	CC18-__
CDC18	32	7.5 (18)	7.5 (13)	-	1	-	R 1 034.00	CDC18-__
CC22	40	11 (22)	15 (20)	-	1	-	R 854.00	CC22-__
CDC22	40	11 (22)	15 (20)	-	1	-	R 1 908.00	CDC22-__
CC40	60	18.5 (40)	22 (32)	22 (17)	2	2	R 1 579.00	CC40-__
CDC40	60	18.5 (40)	22 (32)	22 (17)	2	2	R 2 177.00	CDC40-__
CC50	70	22 (50)	30 (43)	30 (23)	2	2	R 2 031.00	CC50-__
CDC50	70	22 (50)	30 (43)	30 (23)	2	2	R 3 818.00	CDC50-__
CC65	100	30 (65)	33 (60)	33 (26)	2	2	R 2 686.00	CC65-__
CDC65	100	30 (65)	33 (60)	33 (26)	2	2	R 6 163.00	CDC65-__
CC85	135	45 (85)	45 (75)	45 (33)	2	2	R 3 248.00	CC85-__
CDC85	135	45 (85)	45 (75)	45 (33)	2	2	R 6 861.00	CDC85-__
CC100	160	55 (105)	55 (85)	45 (33)	2	2	R 4 062.00	CC100-__
CDC100	160	55 (105)	55 (85)	45 (33)	2	2	R 9 798.00	CDC100-__
CC130	160	60 (130)	60 (90)	75 (60)	2	2	R 5 941.00	CC130-__
CDC130	160	60 (130)	60 (90)	75 (60)	2	2	R 14 700.00	CDC130-__
CC150	210	75 (150)	70 (100)	90 (65)	2	2	R 8 661.00	CC150-__
CDC150	210	75 (150)	70 (100)	90 (65)	2	2	R 18 436.00	CDC150-__
CC185	230	90 (185)	110 (180)	132 (90)	2	2	R 9 808.00	CC185-__
CC225	275	132 (225)	132 (200)	140 (100)	2	2	R 11 136.00	CC225-__
CC265	300	147 (265)	147 (225)	147 (105)	2	2	R 11 136.00	CC265-__
CC330	350	160 (330)	160 (300)	160 (115)	2	2	R 20 380.00	CC330-__
CC400	450	200 (400)	225 (350)	185 (140)	2	2	R 26 089.00	CC400-__
CC630	660	330 (630)	330 (500)	355 (262)	2	2	R 36 191.00	CC630-__
CC800	900	440 (800)	500 (720)	400 (288)	2	2	R 46 531.00	CC800-__

Please Note: Difference in dimension for AC and DC Contactors
Dimensions: mm



Global Range Contactor Accessories



Global Range Contactor Accessories

K

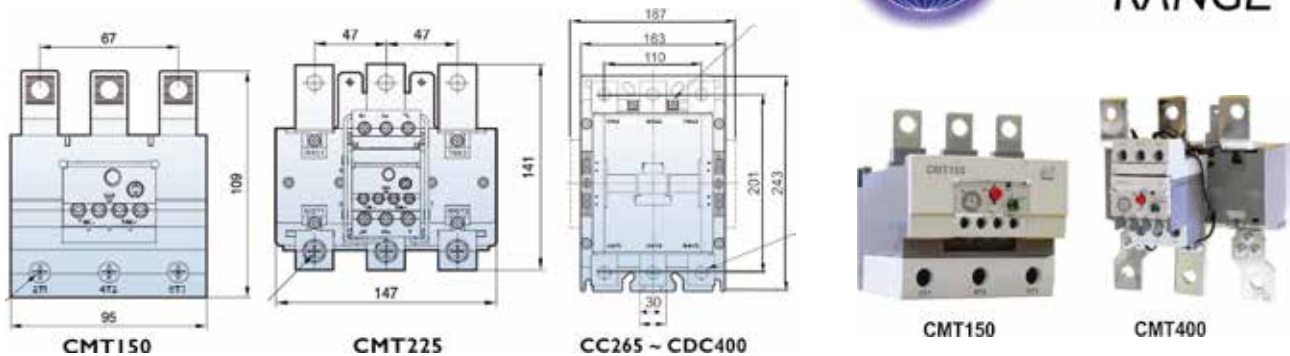
Description	Price Ea.	Order No.
Delay off - CC130 - 225 - 110 / 240 Vac	R 3 664.00	CCAD100-110
Delay off - CC265 - 400 - 110 / 240 Vac	R 7 384.00	CCAD300-110
Delay off - CC50 - 100 - 110 Vac	R 2 735.00	CCAD50-110
Delay off - CC50 - 100 - 220 Vac	R 2 735.00	CCAD50-220
Delay off - CC500 - 800 - 110 Vac	R 9 298.00	CCAD600-110
Delay off - CC500 - 800 - 220 Vac	R 9 298.00	CCAD600-220
Delay off - CC18 - 40 - 110 Vac	R 1 805.00	CCAD9-110
Delay off - CC18 - 40 - 220 Vac	R 1 805.00	CCAD9-220
Terminal Cover CC180 / 220	R 125.00	CCCT-AP220
Terminal Cover CC330 / 400	R 175.00	CCCT-AP400
Terminal Cover CC600 / 800	R 274.00	CCCT-AP800
E timer off delay 24 / 48 Vac / Vdc (1 - 30 Sec)	R 1 367.00	CCET-UT1F
E timer on delay 24 / 48 Vac / Vdc (1 - 30 Sec)	R 1 367.00	CCET-UT1N
E timer off delay 110 / 220 Vac / Vdc (1 - 30 Sec)	R 1 367.00	CCET-UT2F
E timer on delay 110 / 220 Vac / Vdc (1 - 30 Sec)	R 1 367.00	CCET-UT2N
Mech interlock CC180 / 400	R 942.00	CCMI-AR180
Mech interlock CC600H	R 9 275.00	CCMI-AR600H
Mech interlock CC600V	R 9 275.00	CCMI-AR600V
Mech interlock CC18 - 150	R 575.00	CCMI-UR02
Safety Cover CC18-85	R 5.00	CCSC-AP9
Aux side - 18-150 - 1NO / 1NC	R 148.00	CCUA-1AB
Aux side - 185-800 - 1NO / 1NC	R 386.00	CCUA-100
Aux top - 2NO	R 136.00	CCUA-2A
Aux top - 1NO / 1NC	R 136.00	CCUA-2AB
Aux top - 2NC	R 136.00	CCUA-2B
Aux top - 4NO	R 195.00	CCUA-4A
Aux top - 2NO / 2NC	R 195.00	CCUA-4AB
Aux top - 1NO / 3NC	R 195.00	CCUA-4A3B
Aux top - 3NO / 1NC	R 208.00	CCUA-43AB
Aux top - 4NC	R 195.00	CCUA-4B

Global Range Thermal Overload Relays



Global Range Thermal Overload Relays					K5	
Type	Contactor Size	Nominal Amps	Setting Amps	Price Ea.	Order No.	
CMT12-3H-0.14A	CC18 CDC18	0.14	0.1 ~ 0.16	R 422.00	CMT12-0.14	
CMT12-3H-0.21A		0.21	0.16 ~ 0.25	R 422.00	CMT12-0.21	
CMT12-3H-0.33A		0.33	0.25 ~ 0.4	R 422.00	CMT12-0.33	
CMT12-3H-0.52A		0.52	0.4 ~ 0.63	R 422.00	CMT12-0.52	
CMT12-3H-0.82A		0.82	0.63 ~ 1	R 422.00	CMT12-0.82	
CMT12-3H-1.3A		1.3	1 ~ 1.6	R 422.00	CMT12-1.3	
CMT12-3H-2.1A		2.1	1.6 ~ 2.5	R 422.00	CMT12-2.1	
CMT12-3H-3.3A		3.3	2.5 ~ 4	R 422.00	CMT12-3.3	
CMT12-3H-5A		5	4 ~ 6	R 422.00	CMT12-5	
CMT12-3H-6.5A		6.5	5 ~ 8	R 422.00	CMT12-6.5	
CMT12-3H-7.5A		7.5	6 ~ 9	R 422.00	CMT12-7.5	
CMT12-3H-8.5A		8.5	7 ~ 10	R 422.00	CMT12-8.5	
CMT12-3H-11A		CMT12 (Dimensions) 45 x 73.2 x 63.7 mm	11	9 ~ 13	R 422.00	CMT12-11
CMT12-3H-15A			15	12 ~ 18	R 422.00	CMT12-15
CMT32-3H-0.14A		CC22 CDC22 CC40 CDC40	0.14	0.1 ~ 0.16	R 547.00	CMT32-0.14
CMT32-3H-0.21A	0.21		0.16 ~ 0.25	R 547.00	CMT32-0.21	
CMT32-3H-0.33A	0.33		0.25 ~ 0.4	R 547.00	CMT32-0.33	
CMT32-3H-0.52A	0.52		0.4 ~ 0.63	R 547.00	CMT32-0.52	
CMT32-3H-0.82A	0.82		0.63 ~ 1	R 547.00	CMT32-0.82	
CMT32-3H-1.3A	1.3		1 ~ 1.6	R 547.00	CMT32-1.3	
CMT32-3H-2.1A	2.1		1.6 ~ 2.5	R 547.00	CMT32-2.1	
CMT32-3H-3.3A	3.3		2.5 ~ 4	R 547.00	CMT32-3.3	
CMT32-3H-5A	5		4 ~ 6	R 547.00	CMT32-5	
CMT32-3H-6.5A	6.5		5 ~ 8	R 547.00	CMT32-6.5	
CMT32-3H-7.5A	7.5		6 ~ 9	R 547.00	CMT32-7.5	
CMT32-3H-8.5A	8.5		7 ~ 10	R 547.00	CMT32-8.5	
CMT32-3H-11A	11		9 ~ 13	R 547.00	CMT32-11	
CMT32-3H-15A	15		12 ~ 18	R 547.00	CMT32-15	
CMT32-3H-19A	19		16 ~ 22	R 547.00	CMT32-19	
CMT32-3H-21.5A	21.5		18 ~ 25	R 547.00	CMT32-21.5	
CMT32-3H-27A	CMT32 (Dimensions) 45 x 75 x 90 mm		27	22 ~ 32	R 547.00	CMT32-27
CMT32-3H-34A			34	24 ~ 36	R 547.00	CMT32-34
CMT63-3H-5A	CC50 CDC50 CC65 CDC65		5	4 ~ 6	R 913.00	CMT63-5
CMT63-3H-6.5A		6.5	5 ~ 8	R 913.00	CMT63-6.5	
CMT63-3H-7.5A		7.5	6 ~ 9	R 913.00	CMT63-7.5	
CMT63-3H-8.5A		8.5	7 ~ 10	R 913.00	CMT63-8.5	
CMT63-3H-11A		11	9 ~ 13	R 913.00	CMT63-11	
CMT63-3H-15A		15	12 ~ 18	R 913.00	CMT63-15	
CMT63-3H-19A		19	16 ~ 22	R 913.00	CMT63-19	
CMT63-3H-21.5A		21.5	18 ~ 25	R 913.00	CMT63-21.5	
CMT63-3H-30A		30	22 ~ 32	R 913.00	CMT63-30	
CMT63-3H-34A		34	24 ~ 36	R 913.00	CMT63-34	
CMT63-3H-42A		CMT63 (Dimensions) 55 x 81 x 100 mm	42	34 ~ 50	R 913.00	CMT63-42
CMT63-3H-55A			55	45 ~ 65	R 913.00	CMT63-55

Global Range Thermal Overload Relays



Global Range Thermal Overload Relays					K5
Type	Contactor Size	Nominal Amps	Setting Amps	Price Ea.	Order No.
CMT95-3H-8.5A	CC85 CDC85 CC100 CDC100 CMT95 (Dimensions) 70 x 97 x 110 mm	8.5	7 ~ 10	R 1 141.00	CMT95-8.5
CMT95-3H-11A		11	9 ~ 13	R 1 141.00	CMT95-11
CMT95-3H-15A		15	12 ~ 18	R 1 141.00	CMT95-15
CMT95-3H-19A		19	16 ~ 22	R 1 141.00	CMT95-19
CMT95-3H-21.5A		21.5	18 ~ 25	R 1 141.00	CMT95-21.5
CMT95-3H-30A		30	24 ~ 36	R 1 141.00	CMT95-30
CMT95-3H-34A		34	28 ~ 40	R 1 141.00	CMT95-34
CMT95-3H-42A		42	34 ~ 50	R 1 141.00	CMT95-42
CMT95-3H-55A		55	45 ~ 65	R 1 141.00	CMT95-55
CMT95-3H-65A		65	54 ~ 75	R 1 141.00	CMT95-65
CMT95-3H-74A		74	63 ~ 85	R 1 141.00	CMT95-74
CMT95-3H-83A		83	70 ~ 95	R 1 141.00	CMT95-83
CMT95-3H-90A		90	80 ~ 100	R 1 141.00	CMT95-90
CMT150-3H-42A	CC130 CDC130 CC150 CDC150 CMT150 (Dimensions) 95 x 109 x 113 mm	42	34 ~ 50	R 1 546.00	CMT150-42
CMT150-3H-55A		55	45 ~ 65	R 1 546.00	CMT150-55
CMT150-3H-65A		65	54 ~ 75	R 1 546.00	CMT150-65
CMT150-3H-74A		74	63 ~ 85	R 1 546.00	CMT150-74
CMT150-3H-93A		93	80 ~ 105	R 1 546.00	CMT150-93
CMT150-3H-113A		113	95 ~ 130	R 1 546.00	CMT150-113
CMT150-3H-130A		130	110 ~ 150	R 1 546.00	CMT150-130
CMT225-3H-80A	CC185 CC225 CMT225 (Dimensions) 147 x 141 x 184 mm	80	65 ~ 100	R 3 669.00	CMT225-80
CMT225-3H-107A		107	85 ~ 125	R 3 669.00	CMT225-107
CMT225-3H-130A		130	100 ~ 160	R 3 669.00	CMT225-130
CMT225-3H-153A		153	120 ~ 185	R 3 669.00	CMT225-153
CMT225A-3H-200A		200	160 ~ 240	R 3 669.00	CMT225-200
CMT400-3H-107A	CC265 CC330 CC400 CMT400 (Dimensions) 151 x 171 x 198 mm	107	85 ~ 125	R 4 184.00	CMT400-107
CMT400-3H-130A		130	100 ~ 160	R 4 184.00	CMT400-130
CMT400-3H-153A		153	120 ~ 185	R 4 184.00	CMT400-153
CMT400-3H-200A		200	160 ~ 240	R 4 184.00	CMT400-200
CMT400-3H-265A		265	200 ~ 330	R 4 184.00	CMT400-265
CMT400-3H-350A		350	260 ~ 400	R 4 184.00	CMT400-350
CMT800-3H-265A	CC630 CC800 CMT800 (Dimensions) 360 x 530 x 212 mm	265	200 ~ 300	R 7 529.00	CMT800-265
CMT800-3H-350A		350	260 ~ 400	R 7 529.00	CMT800-350
CMT800-3H-515A		515	400 ~ 600	R 7 529.00	CMT800-515
CMT800-3H-660A		660	520 ~ 800	R 7 529.00	CMT800-660

Global Range Manual Motor Starters



CMS-63H

CMS-32H



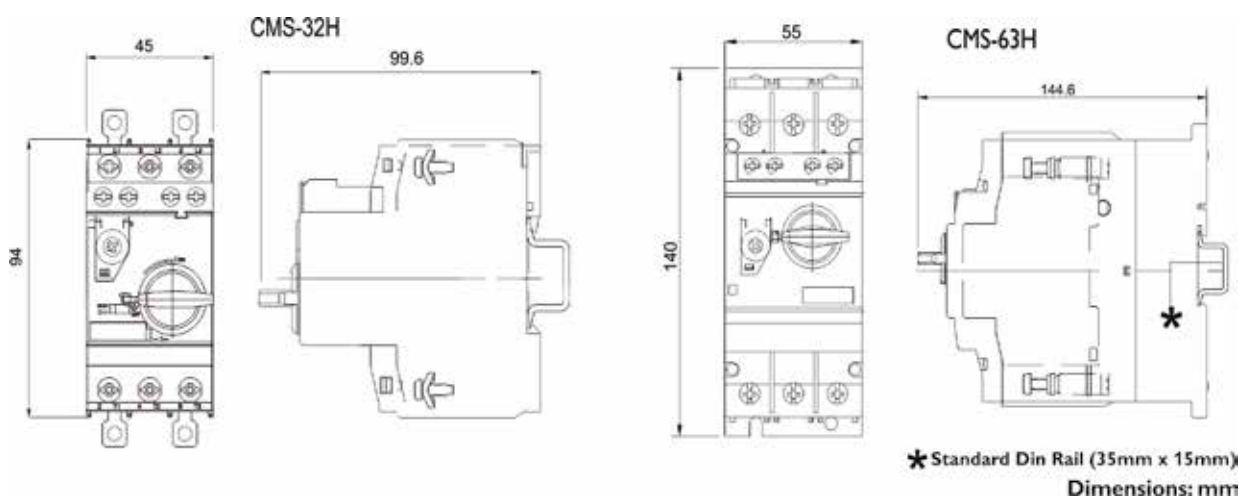
GLOBAL
RANGE

Global Range Manual Motor Starters											K
Type	Poles	Ui (V)	Uimp (kV)	Rating (kA)						Price Ea.	Order No.
				415 V		525 V		690 V			
				Icu	Ics	Icu	Ics	Icu	Ics		
Manual Motor Starter 32H - 0.16A	3	690	6	100	100	100	100	100	100	R 780.00	CMS-32H-0.16
Manual Motor Starter 32H - 0.25A	3	690	6	100	100	100	100	100	100	R 780.00	CMS-32H-0.25
Manual Motor Starter 32H - 0.4A	3	690	6	100	100	100	100	100	100	R 780.00	CMS-32H-0.4
Manual Motor Starter 32H - 0.63A	3	690	6	100	100	100	100	100	100	R 834.00	CMS-32H-0.63
Manual Motor Starter 32H - 1A	3	690	6	100	100	100	100	100	100	R 946.00	CMS-32H-1
Manual Motor Starter 32H - 1.6A	3	690	6	100	100	100	100	100	100	R 946.00	CMS-32H-1.6
Manual Motor Starter 32H - 2.5A	3	690	6	100	100	100	100	8	8	R 946.00	CMS-32H-2.5
Manual Motor Starter 32H - 4A	3	690	6	100	100	100	100	8	8	R 946.00	CMS-32H-4
Manual Motor Starter 32H - 6A	3	690	6	100	100	100	100	6	6	R 946.00	CMS-32H-6
Manual Motor Starter 32H - 8A	3	690	6	100	100	50	38	6	6	R 946.00	CMS-32H-8
Manual Motor Starter 32H - 10A	3	690	6	100	100	50	38	6	6	R 1 106.00	CMS-32H-10
Manual Motor Starter 32H - 13A	3	690	6	100	100	42	32	6	6	R 1 116.00	CMS-32H-13
Manual Motor Starter 32H - 17A	3	690	6	50	38	10	8	4	4	R 1 116.00	CMS-32H-17
Manual Motor Starter 32H - 22A	3	690	6	50	38	10	8	4	4	R 1 194.00	CMS-32H-22
Manual Motor Starter 32H - 26A	3	690	6	50	38	10	8	4	4	R 1 405.00	CMS-32H-26
Manual Motor Starter 32H - 32A	3	690	6	50	38	10	8	4	4	R 1 838.00	CMS-32H-32
Manual Motor Starter 63H - 10A	3	1000	8	100	100	50	38	6	5	R 2 151.00	CMS-63H-10
Manual Motor Starter 63H - 13A	3	1000	8	100	100	42	32	6	5	R 2 151.00	CMS-63H-13
Manual Motor Starter 63H - 17A	3	1000	8	50	50	12	9	5	5	R 2 151.00	CMS-63H-17
Manual Motor Starter 63H - 22A	3	1000	8	50	50	12	9	5	5	R 2 151.00	CMS-63H-22
Manual Motor Starter 63H - 26A	3	1000	8	50	50	12	9	5	5	R 2 518.00	CMS-63H-26
Manual Motor Starter 63H - 32A	3	1000	8	50	50	10	8	5	5	R 2 658.00	CMS-63H-32
Manual Motor Starter 63H - 40A	3	1000	8	50	50	10	8	5	5	R 3 500.00	CMS-63H-40
Manual Motor Starter 63H - 50A	3	1000	8	50	50	10	8	5	5	R 3 853.00	CMS-63H-50
Manual Motor Starter 63H - 63A	3	1000	8	50	50	10	8	5	5	R 4 049.00	CMS-63H-63

Global Range Manual Motor Starter Accessories



Global Range Manual Motor Starter Accessories		K
Description	Price Ea.	Order No.
Auxiliary top fit 1NO / 1NC	R 515.00	CMS-AUXT
Auxiliary side fit left 1NO / 1NC	R 605.00	CMS-AUXL
Trip all side 1NO / 1NC	R 767.00	CMS-ALL
Shunt trip 24 V right	R 1 295.00	CMS-SHTR-24
Shunt trip 110 V right	R 1 295.00	CMS-SHTR-110
Shunt trip 230 V right	R 1 295.00	CMS-SHTR-230
Shunt trip 415 V right	R 1 295.00	CMS-SHTR-415
Under voltage trip 24 V right	R 1 295.00	CMS-UVTR-24
Under voltage trip 110 V right	R 1 295.00	CMS-UVTR-110
Under voltage trip 230 V right	R 1 295.00	CMS-UVTR-230
Under voltage trip 415 V right	R 1 295.00	CMS-UVTR-415
Rotary handle 32H	R 1 529.00	CMS-H32H
Rotary handle 63H	R 1 529.00	CMS-H63H
3Ø busbar 32H	R 1 063.00	CMS-PB323
3Ø busbar 63H	R 1 165.00	CMS-PB633
Adaptor base 32H	R 443.00	CMS-MU45
Adaptor base 63H	R 739.00	CMS-MU55
Direct adaptor 32H	R 447.00	CMS-DA32H
Direct adaptor 63H	R 536.00	CMS-DA63H



Mitsubishi Series S-T New Models Launched

Mitsubishi Series S-N - AC Contactor, AC Coil ST + SN



Magnetic Contactors Series S-N											K
Type ²	Rated Continuous Current	AC-1		AC-3		AC-4		Standard Aux Contacts ¹		Price Ea.	Order No.
		380 V / 440 V (A)	525 V (A)	380 V / 440 V kW (A)	525 V kW (A)	380 V / 440 V kW (A)	525 V kW (A)	Normally Open	Normally Closed		
ST10	20	11	8	4 (9)	4 (7)	2.2 (6)	2.7 (6)	1	-	R 505.00	ST10__
ST12	20	13	11	5.5 (12)	5.5 (9)	4 (9)	5.5 (9)	1	1	R 694.00	ST12__
ST20	25	20	16	7.5 (18)	7.5 (17)	5.5 (13)	5.5 (10)	1	1	R 833.00	ST20__
ST21	32	32	32	11 (23)	11 (17)	5.5 (13)	5.5 (10)	2	2	R 1 130.00	ST21__
ST25	32	32	32	15 (30)	15 (24)	7.5 (17)	7.5 (12)	2	2	R 1 405.00	ST25__
ST35	60	60	60	18.5 (40)	18.5 (32)	11 (24)	11 (17)	2	2	R 1 809.00	ST35__
ST50	80	80	80	22 (50)	25 (38)	15 (32)	15 (24)	2	2	R 2 316.00	ST50__
ST65	100	100	100	30 (65)	37 (60)	22 (47)	22 (38)	2	2	R 2 850.00	ST65__
ST80	120	120	120	45 (85)	45 (75)	30 (62)	30 (45)	2	2	R 4 232.00	ST80__
ST100	150	150	150	55 (105)	55 (85)	37 (75)	37 (55)	2	2	R 5 427.00	ST100__
SN125	150	150	150	60 (120)	60 (90)	22 (90)	22 (90)	2	2	R 6 119.00	SN125__
SN150	200	200	200	75 (150)	90 (140)	30 (110)	37 (80)	2	2	R 8 921.00	SN150__
SN180	260	260	260	90 (180)	110 (180)	37 (150)	45 (140)	2	2	R 10 102.00	SN180__
SN220	260	260	260	132 (250)	132 (200)	45 (180)	55 (140)	2	2	R 11 470.00	SN220__
SN300	350	350	350	160 (300)	160 (250)	60 (220)	60 (200)	2	2	R 20 992.00	SN300__
SN400	450	450	450	220 (400)	225 (350)	75 (300)	90 (250)	2	2	R 26 871.00	SN400__
SN600	800	660	660	330 (630)	330 (500)	110 (400)	130 (350)	2	2	R 37 276.00	SN600__
SN800	1000	800	800	440 (800)	500 (720)	130 (630)	150 (500)	2	2	R 47 927.00	SN800__

Notes:

DIN rail mounting for all contactors up to ST-65

- Extra auxiliary contact blocks can be added (refer to contactor spares and accessories)
- When ordering please specify coil voltage e.g. ST10-400

Insulation Voltage: 690 V
Impulse Withstand: 6 kV
Poles: 3

Note: Ratings based on 1 x 10⁶ operations

These units have finger protection on terminals as standard

Standard coil voltages are 110 V, 220 V, 400 V and 525 V

Contactor Utilisation Categories (IEC 60947-4)	
Alternating Current	
AC-1	All AC loads with a power factor ≥ 0.80 heating resistive load
AC-3	Starting and stopping squirrel cage motors - starting ± 7 times rated motor current - stopping the voltage is at $\pm 20\%$ of mains supply voltage - lighting load
AC-4	Plugging and inching of squirrel cage - closing and operating at ± 7 times rated motor current - severe braking
AC-15	Control loads (72 VA) Aux contact ratings AC
Direct Current	
DC-13	Aux contact ratings DC

Mitsubishi Magnetic Contactor Series S-N Accessories



Magnetic Contactors Series S-N Contact Coils		K
Description	Price Ea.	Order No.
ST65*	R 504.00	SN50-__C
ST80*	R 850.00	SN80-__C
ST100*	R 850.00	SN80-__C
SN125	R 2 164.00	SN125-__C
SN150	R 2 164.00	SN125-__C
SN180	R 2 545.00	SN180-__C
SN220	R 2 545.00	SN180-__C
SN300	R 3 347.00	SN300-__C
SN400	R 3 347.00	SN300-__C
SN600	R 3 347.00	SN600-__C
SN800	R 3 347.00	SN600-__C

Notes:

* Only available while stocks last

New ST range has wider operating tolerances
ST range up to ST65 no coils available

Mitsubishi Accessories



Accessories													K
Order No	Mechanical Interlock					Front Clip-on Aux Contact Block		Side Clip-on Aux Contact Block		Side Clip-on Aux Contact Block			
	UTML11	UTML21	UTML80	UNML150	UNML220	UTAX2 (1A,1B) UTAX2CX2A (2A) UTAX2CX2B (2B)	UTAX4 (2A,2B) UTAX4CX3A (3A,1B) UTAX4CX4A (4A)	UNAX11 (1A, 1B)	UTAX11 (1A,1B)	UNAX80 (1A,1B)	UNAX150 (1A,1B)	UNAX600 (2A,2B)	
Type	Price Ea.												
ST10	R 592.00	-	-	-	-	R 283.00	R 372.00		R 384.00	-	-	-	
ST12	R 592.00	-	-	-	-	R 283.00	R 372.00		R 384.00	-	-	-	
ST20	R 592.00	-	-	-	-	R 283.00	R 372.00		R 384.00	-	-	-	
ST21	-	R 760.00	-	-	-	R 283.00	R 372.00		R 384.00	-	-	-	
ST25	-	R 760.00	-	-	-	R 283.00	R 372.00		R 384.00	-	-	-	
ST35	-	R 760.00	-	-	-	R 283.00	R 372.00		R 384.00	-	-	-	
ST50	-	R 760.00	-	-	-	R 283.00	R 372.00		R 384.00	-	-	-	
ST65	-	R 760.00	-	-	-	R 283.00	R 372.00	R 384.00	-	-	-	-	
ST80	-	R 760.00	-	-	-	-	-	R 384.00	-	R 371.00	-	-	
ST100	-	-	R 734.00	-	-	-	-		-	R 371.00	-	-	
SN125	-	-	R 734.00	-	-	-	-		-	R 371.00	-	-	
SN150	-	-	-	R 972.00	-	-	-		-	-	R 397.00	-	
SN180	-	-	-	-	R 972.00	-	-		-	-	R 397.00	-	
SN220	-	-	-	-	R 972.00	-	-		-	-	R 397.00	-	
SN300	-	-	-	-	R 972.00	-	-		-	-	R 397.00	-	
SN400	-	-	-	-	R 972.00	-	-		-	-	R 397.00	-	
SN600	-	-	-	-	-	-	-		-	-	-	R 2 819.00	
SN800	-	-	-	-	-	-	-		-	-	-	R 2 819.00	

Notes:

A N/O - Normally open contacts
B N/C - Normally closed contacts

Mitsubishi Series TH-T Thermal Overload Relays 3 Heater Type



THT18

Type	Contactor Size	Overload Size Amps	Nominal Range Amps	Price Ea.
TH-T18 ¹				K
THT18-0.17	ST10 ST12 ST20	0.17 A	0.14 A to 0.22 A	R 435.00
THT18-0.24		0.24 A	0.2 A to 0.32 A	R 435.00
THT18-0.35		0.35 A	0.28 A to 0.42 A	R 435.00
THT18-0.5		0.5 A	0.4 A to 0.6 A	R 435.00
THT18-0.7		0.7 A	0.55 A to 0.85 A	R 435.00
THT18-0.9		0.9 A	0.7 A to 1.1 A	R 435.00
THT18-1.3		1.3 A	1.0 A to 1.6 A	R 435.00
THT18-1.7		1.7 A	1.4 A to 2.0 A	R 435.00
THT18-2.1		2.1 A	1.7 A to 2.5 A	R 435.00
THT18-2.5		2.5 A	2.0 A to 3.0 A	R 435.00
THT18-3.6		3.6 A	2.8 A to 4.4 A	R 435.00
THT18-5		5 A	4.0 A to 6.0 A	R 435.00
THT18-6.6		6.6 A	5.2 A to 8.0 A	R 435.00
THT18-9		9 A	7.0 A to 11.0 A	R 435.00
THT18-11		11 A	9.0 A to 13.0 A	R 435.00
THT18-15	15 A	12.0 A to 18.0 A	R 435.00	
TH-T25 ²				K
THT25-0.24	ST21 ST25 ST35 ST50	0.24 A	0.2 A to 0.32 A	R 563.00
THT25-0.35		0.35 A	0.28 A to 0.42 A	R 563.00
THT25-0.5		0.5 A	0.4 A to 0.6 A	R 563.00
THT25-0.7		0.7 A	0.55 A to 0.85 A	R 563.00
THT25-0.9		0.9 A	0.7 A to 1.1 A	R 563.00
THT25-1.3		1.3 A	1.0 A to 1.6 A	R 563.00
THT25-1.7		1.7 A	1.4 A to 2.0 A	R 563.00
THT25-2.1		2.1 A	1.7 A to 2.5 A	R 563.00
THT25-2.5		2.5 A	2.0 A to 3.0 A	R 563.00
THT25-3.6		3.6 A	2.8 A to 4.4 A	R 563.00
THT25-5		5 A	4.0 A to 6.0 A	R 563.00
THT25-6.6		6.6 A	5.2 A to 8.0 A	R 563.00
THT25-9		9 A	7.0 A to 11.0 A	R 563.00
THT25-11		11 A	9.0 A to 13.0 A	R 563.00
THT25-15		15 A	12.0 A to 18.0 A	R 563.00
THT25-22	22 A	18.0 A to 26.0 A	R 563.00	

Notes:

1. For direct connection to contactors
2. For the correct connecting links to contactors see thermal overload accessories

Mitsubishi Series TH-T Thermal Overload Relays Heater Type



Type ¹	Contactor Size	Overload Size Amps	Nominal Range Amps	Price Ea.
TH-T50				K
THT50-29	ST35 ST50	29 A	24 A to 34 A	R 564.00
THT50-35		35 A	30 A to 40 A	R 564.00
THT50-42		42 A	34 A to 50 A	R 918.00
TH-T65				K
THT65-15	ST65 ST80	15 A	12 A to 18 A	R 941.00
THT65-22		22 A	18 A to 26 A	R 941.00
THT65-29		29 A	24 A to 34 A	R 941.00
THT65-35		35 A	30 A to 40 A	R 941.00
THT65-42		42 A	34 A to 50 A	R 941.00
THT65-54		54 A	43 A to 65 A	R 941.00
TH-T100				K
THT100-67	ST80 ST100	67 A	54 A to 80 A	R 941.00
THT100-82		82 A	65 A to 100 A	R 941.00
THT100-95		95 A	85 A to 105 A	R 941.00
TH-N120TP				K
THN120-42	SN125 SN150	42 A	34 A to 50 A	R 1 388.00
THN120-54		54 A	43 A to 65 A	R 1 388.00
THN120-67		67 A	54 A to 80 A	R 1 388.00
THN120-82		82 A	65 A to 100 A	R 1 388.00
TH-N120TAKP				K
THN120-105	SN125 SN150	105 A	85 A to 125 A	R 1 388.00
THN120-125		125 A	100 A to 150 A	R 1 388.00
TH-N220RHKP ⁴				K
THN220-82	SN180 SN220	82 A	65 A to 100 A	R 3 779.00
THN220-105		105 A	85 A to 125 A	R 3 779.00
THN220-125		125 A	100 A to 150 A	R 3 779.00
THN220-150		150 A	120 A to 180 A	R 3 779.00
THN220-180		180 A	140 A to 200 A	R 3 779.00
THN220-210 ³		210 A	170 A to 250 A	R 3 779.00
TH-N400RHKP ²				K
THN400-125	SN300 SN400	125 A	100 A to 150 A	R 4 833.00
THN400-150		150 A	120 A to 180 A	R 4 833.00
THN400-180		180 A	140 A to 220 A	R 4 833.00
THN400-250		250 A	200 A to 300 A	R 4 833.00
THN400-330		330 A	260 A to 400 A	R 4 833.00
TH-N600KP ⁴				K
THN600-500	SN600 SN800	500 A	400 A to 600 A	R 1 414.00

Current Transformer Specs for TH-N600kP/F⁵

Heater Designation (A)	Setting Range (A)	Current Transformer Ratio	Transformer Capacity
500 A	400 A to 600 A	750 / 5	15 VA or more

Notes:

- For the correct connecting links to contactors see thermal overload accessories
- Connecting links included
- For contactor size SN220 only
- Current transformers not included
CT Class to be class 1 or better
- Current transformer to be supplied by customer

Accessories



Connecting Links for TH-N Overloads & S-N + S-T Contactors		K
Type	Contactor Size	Price Ea.
UN-TH21	Connecting links THT25 & ST21 / ST25	R 197.00
UT-TH50	Connecting links THT25 & ST35 / ST50	R 230.00
4370000	Connecting links THT100 & ST100+Bracket	R 272.00
4370006	Connecting links THT65/THT100 & ST65 / ST80	R 212.00
BH579N355	Connecting links TH-N120KP & S-N125	R 312.00
BH589N355	Connecting links TH-N120TAKP & S-N150	R 312.00
UT-HZ18	Adaptor block for separate mounting of THT18	R 398.00



THT25



THT100

Mitsubishi Series ET-N



ET-N60

Electronic Motor Protection Relays Type ET-N				K2
Type	Control Voltage	Setting Range	Std. Pack	Price Ea.
ET-N60				K2
ETN60-1-110 or 220	110 / 220 V	0.25 A to 1 A	1	R 3 203.00
ETN60-4-110 or 220		1 A to 4 A	1	R 3 203.00
ETN60-8-110 or 220		2 A to 8 A	1	R 3 203.00
ETN60-20-110 or 220		5 A to 20 A	1	R 3 203.00
ETN60-60-110 or 220		15 A to 60 A	1	R 3 203.00
ET-N150				K2
ETN150-110 or 220	110 / 220 V 400 / 525 V*	40 A to 150 A	1	R 6 604.00
ET-N360				K2
ETN360-110 or 220	110 / 220 V 400 / 525 V*	110 A to 360 A	1	R 6 861.00

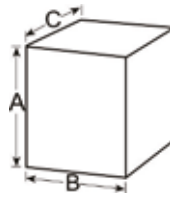
Notes:

Motor protection relays type ET-N feature selectable protection mode, i.e. overload, phase reversal protection with selectable tripping time 600 % of setting
Accessories factory fitted only
Remote reset

* Contact CBI for availability

Mitsubishi Series SH-V

	SH-V160	SH-V320	SH-V400	SH-V600
A		210 mm		290 mm
B		210 mm		285 mm
C		210 mm		225 mm



Medium Voltage Vacuum Contactors Series SH-V up to 1500 V									K1
Type ¹	AC-1	AC-3				Coil Voltage (V)	Standard Aux Contacts		Price Ea.
	Lth (A)	440 V kW (A)	660 V kW (A)	1000 V kW (A)	1500 V kW (A)		Normally Open	Normally Closed	
SH-V160	200	110 (180)	160 (180)	225 (160)	315 (160)	STD: 110 / 220 / 400 / 525	2	2	R 38 610.00
SH-V320	350	200 (320)	315 (320)	450 (320)	700 (320)	STD: 110 / 220 / 400 / 525	2	2	R 38 610.00
SH-V400	450	250 (400)	400 (400)	550 (400)	800 (400)	STD: 110 / 220 / 400 / 525	2	2	R 42 255.00
SH-V600	750	300 (630)	600 (600)	750 (600)	1000 (600)	STD: 110 / 220 / 400 / 525	2	2	R 76 551.00

Note:

- Specify coil voltages

Spares and Accessories

Medium Voltage Vacuum Contactors Series SH-V up to 1500 V						K1 / K	
Type	Order No.	Replacement Aux Contact		Add On Aux Contact		Price Ea.	Price Ea.
		UAXXV1 (1A,1B) (Fits MNTG Plate)	UAXXV2 (2A,2B)	UAXXV4 (2A,2B) (Fits MNTG Plate)			
SH-V160		R 860.00	R 1 408.00	R 2 293.00			
SH-V320		R 860.00	R 1 408.00	R 2 293.00			
SH-V400		R 860.00	R 1 408.00	R 2 293.00			
SH-V600		R 860.00	R 1 408.00	R 2 293.00			
K		Vacuum Tube Assembly (Set of 3)				Coils	K1
Type *	Order No.	SHV160TUBE	SHV320TUBE	SHV400TUBE	SHV600TUBE	SN180___C ¹ SHV160/320/400	SN300___C ² SHV600
		Price Ea.				Price Ea.	
SH-V160		R 21 959.00	-	-	-	R 2 545.00	-
SH-V320		-	R 23 718.00	-	-	R 2 545.00	-
SH-V400		-	-	R 23 718.00	-	R 2 545.00	-
SH-V600		-	-	-	R 24 966.00	-	R 3 347.00

Notes:

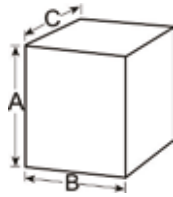
* Contact CBI for availability

A = Normal Open Contact
B = Normal Closed Contact

- SHV coils interchangeable with SN180 coils
- SHV coils interchangeable with SN300 coils

Mitsubishi Series VZ-E

	Series VZ-E
A	367 mm
B	361 mm
C	238 mm



Medium Voltage Vacuum Contactors Series VZ-D (Std. 2 No / 2NC Contactor)										K4
Type ^{1 & 2}	Lth (A)	3 Ph. Induction Motor Rating				Transformer Rating				Price Ea.
		3.3 kV kW	3.3 kV (A)	6.6 kV kW	6.6 kV (A)	3.3 kV kW	3.3 kV (A)	6.6 kV kW	6.6 kV (A)	
VZ2-PE-E10 (110 Vac / Vdc)	200	35 to 75	20	75 to 160	20	5 / 10	0.87 / 1.75	5 / 10	0.44 / 0.87	R 50 310.00
	200	90 to 200	50	185 to 400	50	20 / 30	3.5 / 5.25	20 / 30	1.75 / 2.62	
	200	220 to 400	100	450 to 800	100	50 / 75	8.75 / 13.1	50 / 75	4.37 / 6.56	
	200	450 to 630	150	900 to 1250	150	100 / 150	17.5 / 26.2	100 / 150	8.75 / 13.1	
	200	710 to 750	200	1500	200	200 / 300	35.0 / 52.5	200 / 300	17.5 / 26.2	
	200	-	-	-	-	500 / 750	87.5 / 13.1	500 / 750	43.7 / 65.6	
	200	-	-	-	-	1000	175	1000 / 1500	87.5 / 131	
	200	-	-	-	-	-	-	2000	175	
VZ4-PE-E10 (110 Vac / Vdc)	400	900 to 1250	300	2500	300	1500	262	3000	262	R 68 658.00
	400	1500	400	3000	400	2000	350	4000	350	
VZ2-PE-E20 (220 Vac / Vdc)	200	35 to 75	20	75 to 160	20	5 / 10	0.87 / 1.75	5 / 10	0.44 / 0.87	R 52 793.00
	200	90 to 200	50	185 to 400	50	20 / 30	3.5 / 5.25	20 / 30	1.75 / 2.62	
	200	220 to 400	100	450 to 800	100	50 / 75	8.75 / 13.1	50 / 75	4.37 / 6.56	
	200	450 to 630	150	900 to 1250	150	100 / 150	17.5 / 26.2	100 / 150	8.75 / 13.1	
	200	710 to 750	200	1500	200	200 / 300	35.0 / 52.5	200 / 300	17.5 / 26.2	
	200	-	-	-	-	500 / 750	87.5 / 13.1	500 / 750	43.7 / 65.6	
	200	-	-	-	-	1000	175	1000 / 1500	87.5 / 131	
	200	-	-	-	-	-	-	2000	175	
VZ4-PE-E20 (220 Vac / Vdc)	400	900 to 1250	300	2500	300	1500	262	3000	262	R 71 890.00
	400	1500	400	3000	400	2000	350	4000	350	

(All accessories are factory fitted only)

Addition of Auxiliary Contacts

Description of Additional Contactors that may be fitted to the Standard Products			K4
Type	Description	Price Ea.	
VZMOD1	Additional 2N/O and 2N/C contacts with external pre-wired terminal strip	R 4 907.00	
VZMOD2 (110 Vac)	Additional 4N/O and 4N/C contacts with external pre-wired terminal strip	R 7 730.00	
VZMOD3 (220 Vac)	Additional 2N/O and 2N/C contacts with external pre-wired terminal strip	R 7 730.00	

Notes:

- Available coil voltages are:
 - 110 Vac
 - 220 Vac
- Standard aux contacts fitted are 2N/O and 2N/C
Aux contact ratings are 1 A @ 220 Vac and 110 Vdc
Extra aux contacts can be fitted
All accessories are factory fitted only

VZ2 = 200 A
VZ4 = 400 A
E10 = 110 Vac / Vdc control
E10 = 220 Vac / Vdc control

Terminal Blocks

Terminal Blocks							E
Type	Current Rating (A) Normal vs Max	No. of Ways	Rated Voltage	Dielectric Strength (6 sec)	Max Wire Size mm2	Torque Nm	Price Ea.
SafeTek15-3	15 (16)	3	600 Vac	2500 Vac	2.5	0.5 - 1.0	R 35.00
SafeTek30-3	30 (40)	3			6	1.4 - 2.0	R 46.00
SafeTek60-1	60 (70)	1			16	2.5 - 3.5	R 29.00
SafeTek80-1	80 (94)	1			25	4.0 - 5.5	R 52.00
SafeTek120-1	120 (132)	1			35 - 70	0.5 - 1.0	R 80.00
SafeTek200-1	200 (240)	1			95 - 120	10 - 12	R 135.00
SafeTek400-1	370 (400)	1			180 - 240	21 - 28	R 364.00
Endcap-High						3.8 - 4.5	R 10.00
Endcap-Low						0.5 - 1.0	R 4.00

Notes:

Contact CBI for availability

Order number = type number



Adaptive Terminals

- Touch protected
- DIN rail mounting (35 mm)
- 600 Vac
- Secure end stops



Stackable

Build as you wish



MCBs and Accessories Data

1. Calibration

With CBI Hydraulic-Magnetic Miniature Circuit Breakers, there is no effect on the fixed trip point at ambient temperature ranges from -40°C to +85°C.

2. Products

Products comply to local and international standards (SANS, VC, IEC, etc.).

3. DC Voltage Rating

Please refer to CBI catalogues / leaflets for DC ratings.

4. For reverse connection

Contact CBI for details.

5. Module Width

CBI's MCB module widths are:

- 13 mm and 26 mm dual mounting (escutcheon height 57 mm).
- 13 mm, 18 mm and 27 mm in DIN rail mounting (escutcheon height 45 mm), Suffix "D"

6. Special Breakers

For all breakers manufactured to non-standard requirements, prices will be by quotation only

7. Standard Current Ratings

Ampere ratings as indicated are standard. Non-standard ratings can be provided – Prices on request (POR).

8. Switch Disconnectors

All switch disconnectors must be backed up by a suitable short circuit protection device (SCPD), having the same or lower current rating and the same interrupting capacity as the switch disconnector, unless otherwise stated. Contact CBI for availability of 4 Pole switch disconnector units.

9. Motor Starting

Information available in Technical Section

10. Time Delay Curves

Curve No.	Time Delay	Instantaneous (short circuit)	Non Tripping	Current Tripping Current
1	Long	High 10 – 20 x In	1.05 x In	1.30 x In
2	Medium	Medium 5 – 10 x I n	1.05 x In	1.30 x In
3	Short	Low 3 – 5 x In	1.05 x In	1.30 x In
2,3 (LL)	Medium	115 % Trip Point (Load Limiting)	1.05 x In	1.15 x In
9	Long	Medium 7 – 12 x In	1.05 x In	1.30 x In
B	Short	Low 3 5 x In	1.13 x In	1.45 x In
C	Medium	Medium 5 – 10 x In	1.13 x In	1.45 x In
D	Long	High 10 – 20 x In	1.13 x In	1.45 x In
OP (AC + DC)	Very short	Low 3 – 5 x In	1.05 x In	1.30 x In
U2 (DC)	Medium	Medium 6 – 11 x In	1.05 x In	1.30 x In
KM	Medium	Medium 6 – 12 x In	1.05 x In	1.25 x In

Note:
Other curves available on request.

MCBs and Accessories Data

1. Adjustable Current Ratings

From the FD range upwards, some breakers are fitted with adjustable magnetic trips. The suffix "V/E" types also have adjustable overload trips. "E" (electronic) types down to 50% of nominal rating and suffix "V" (mechanical) types down to 75% of nominal rating.

2. Calibration

CBI thermal breakers are calibrated at 40°C, unless otherwise stated. Derating for higher temperature environment to be done in accordance with derating curves.

3. Reverse Connection

Contact CBI for details. Units indicated line / load should not be reverse connected.

4. Special Breakers

Prices for all breakers made by CBI to meet non-standard rating requirements of customer will be by quotation only.

5. Standard Current Ratings

Ampere ratings indicated are standard. Non-standard can be provided, on application at a surcharge of up to 20% of the next standard rating price, depending on quantity, product type and acceptance by CBI.

6. Switch Disconnecter Fault Ratings

The fault current ratings of CBI switch disconnectors which are fitted with shunt trips and external tripping devices are the same as those of the corresponding circuit breakers. Additional of interface barriers is mandatory.

7. Terminations

Consult CBI Catalogues for details.

8. Transient Inrush and Close Co-ordination Protection

Higher transient motor starting current associated with some high efficiency motors have created nuisance tripping problems. Consult CBI when in doubt.

9. DC Interrupting Capacity

Refer to CBI DC Catalogue for details.

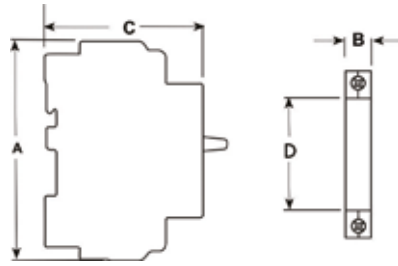
10. Motor Starting

In addition to cable protection functions, the CBI circuit breakers are designed for induction motor starting and protection duties. These breakers are particularly suited to direct-on-line starting applications for standard type motors in conjunction with a contactor overload combination or as a stand-alone unit.

For complete details, refer to the "Motor Starting and Protection Application Guide" and "Circuit Breaker Selection Guide for DOL Motor Starting".

Warranty Claims

Products may only be returned to CBI for warranty claims if all conditions under Section 7, Limitation of Liability, of CBI's General Terms and Conditions of Sale have been met (copy available upon request).



MCB Dimensions

MCB Dimensions				
Product	Height (A)	Width (B)	Depth (C)	Escutcheon (D)
QA - 1(13)	93	13	66	57
QA - 2(13)	93	26	66	57
QA - 3(13)	93	39	66	57
QF - 1(13)	93	13	66	57
QF - 2(13)	93	26	66	57
QF - 3(13)	93	39	66	57
QF - 4(13)	93	52	66	57
QF - 1(26)	93	26	66	57
QF - 2(26)	93	52	66	57
QF - 3(26)	93	78	66	57
QF - 4(26)	93	104	66	57
QF - 1(27)-D	97,5	27	65	45
QF - 2(27)-D	97,5	54	65	45
QF - 3(27)-D	97,5	81	65	45
QF - 4(27)-D	97,5	108	65	45
QH - 1(27)-D	97,5	27	65	45
QH - 2(27)-D	97,5	54	65	45
QH - 3(27)-D	97,5	81	65	45
QH - 4(27)-D	97,5	108	65	45
QF14 A/C - D	93	36	65	45
QA17 A/C	93	26	64,8	57
QF17 A/C	93	26	64,8	57
SM15A	122	65	66	57
SM36	122	117	66	57
Note: All measurements are in mm.				

Technical Section: Motor Starting Guide 230 - 400 V



Motor Size (kW)	Single Phase Voltage 230 Vac			Three Phase Voltage 400 Vac		
	5 kA	10 kA	15 kA	25 kA	35 kA	65 kA
0.12	QF1 (5 A)*	QH1 (5 A)*				
0.18	QF1 (5 A)*	QH1 (5 A)*	QF3 (1 A)*			
0.25	QF1 (5 A)*	QH1 (5 A)*	QF3 (2 A)*			
0.37	QF1 (5 A)*	QH1 (5 A)*	QF3 (2 A)*	QH3 (2 A)*		
0.55	QF1 (10 A)*	QH1 (10 A)*	QF3 (5 A)*	QH3 (5 A)*		
0.75	QF1 (10 A)*	QH1 (10 A)*	QF3 (5 A)*	QH3 (5 A)*		
1.1	QF1 (15 A)*	QH1 (15 A)*	QF3 (5 A)*	QH3 (5 A)*		
1.5	QF1 (15 A)*	QH1 (15 A)*	QF3 (5 A)*	QH3 (5 A)*		
1.8	QF1 (20 A)*	QH1 (20 A)*	QF3 (10 A)*	QH3 (10 A)*		
2.2	QF1 (20 A)*	QH1 (20 A)*	QF3 (10 A)*	QH3 (10 A)*		
3	QF1 (25 A)*	QH1 (25 A)*	QF3 (10 A)*	QH3 (10 A)*		
3.7	QF1 (30 A)*	QH1 (30 A)*	QF3 (15 A)*	QH3 (15 A)*		
4	QF1 (30 A)*	QH1 (30 A)*	QF3 (15 A)*	QH3 (15 A)*		
4.5	QF1 (35 A)*	QH1 (35 A)*	QF3 (20 A)*	QH3 (20 A)*		
5.2	QF1 (40 A)*	QH1 (40 A)*	QF3 (20 A)*	QH3 (20 A)*		
5.5	QF1 (45 A)*	QH1 (45 A)*	QF3 (20 A)*	QH3 (20 A)*		
6	QF1 (50 A)*	QH1 (50 A)*	QF3 (20 A)*	QH3 (20 A)*		
7	QF1 (60 A)*	QH1 (60 A)*	QF3 (20 A)*	QH3 (20 A)*		
7.5	QF1 (70 A)*	QH1 (70 A)*	QF3 (25 A)*	QH3 (25 A)*		
9.3	QF1 (80 A)*	QH1 (80 A)*	QF3 (30 A)*	QH3 (30 A)*		
11	QF1 (100 A)*	QH1 (100 A)*	QF3 (35 A)*	QH3 (35 A)*		
15			QF3 (45 A)*	QH3 (45 A)*		
18.5			QF3 (60 A)*	QH3 (60 A)*		
22			QF3 (70 A)*	QH3 (70 A)*		
26			QF3 (80 A)*	QH3 (80 A)*		
30			QF3 (100 A)*	QH3 (100 A)*		
37						
45						
55						
75						
90						
110						
132						
160						
200						
250						
315						
355						
450						
500						
560						
630						
710						

Note: * External overload protection required. Curve 1 circuit breakers only
 ** Locked motor protection only

- Notes:
- All information in this table is for reference and selection purposes only, and only direct line (DOL) starting
 - Breaker selection is based on 4 Pole three phase squirrel cage motors and certain deviations may be encountered for different motor manufacturers
 - Circuit breaker settings are based on rated motor current multiplied by 1.5 to prevent starting current from exceeding the instantaneous pick-up current of the circuit breaker
 - For complete details refer to the "Circuit Breaker Selection Guide for DOL Motor Starting"
- * These are adjustable breakers and the current in () is the Ampere value that these breakers must be set at
 * External overload protection required. Curve 1 circuit breakers only
 ** Locked motor protection only

DOL: Contactor - Overload - MCCB Selection

Note: Customer to confirm motor FLC on site and adapt where necessary

Motor Rating 3PH kW	400 V HP	FLC AC3 A	Contactor Type MCM	Rating AC3 A	OL Relay Type OR	Setting Range A	MCCB	Rating A	Cable Size mm ²
5.5	7.5	11.3	CC18	18	CMT12	9 to 13 A	G37D	20	2.5
7.5	10	15.2	CC18	18	CMT12	12 to 18 A	G37D	40	2.5
11	15	21.7	CC40	40	CMT32	18 to 25 A	G37D	40	4
15	20	29.3	CC40	40	CMT32	22 to 32 A	G37D	50	10
18.5	25	36	CC40	40	CMT32	24 to 36 A	G37D	63	10
22	30	41	CC50	50	CMT63	34 to 50 A	G37D	100	10
30	40	55	CC65	65	CMT63	45 to 65 A	G37D	100	16
37	50	68	CC85	85	CMT95	54 to 75 A	F37D	125	25
45	60	81	CC85	85	CMT95	70 to 95 A	F37D	125	35
55	75	99	CC100	100	CMT95	80 to 100 A	F37D	175	35
75	100	134	CC150	150	CMT150	110 to 150 A	F37D	225	50
90	125	161	CC185	185	CMT225	120 to 185 A	K50D	250	95
110	150	196	CC225	225	CMT225	160 to 240 A	K50D	350	95
132	180	231	CC225	225	CMT400	200 to 330 A	K50D	400	150
160	220	279	CC330	330	CMT400	260 to 400 A	L65D	500	185
200	270	349	CC400	400	CMT400	260 to 400 A	L65D	600	240
250	340	437	CC630	630	CMT800	400 to 600 A	L65D	700	300

Motor Rating 3PH kW	500 V HP	FLC AC3 A	Contactor Type MCM	Rating AC3 A	OL Relay Type OR	Setting Range A	MCCB	Rating A	Cable Size mm ²
5.5	7.5	9	CC18	13	CMT12	7 to 10 A	G37D	16	1.5
7.5	10	12.1	CC18	13	CMT32	9 to 13 A	G37D	20	2.5
11	15	17.4	CC40	32	CMT32	16 to 22 A	G37D	40	2.5
15	20	23.4	CC40	32	CMT32	18 to 25 A	G37D	40	6
18.5	25	28.9	CC40	32	CMT32	24 to 36 A	G37D	50	6
22	30	33	CC50	43	CMT63	24 to 36 A	G37D	50	10
30	40	44	CC65	60	CMT63	34 to 50 A	G37D	100	10
37	50	54	CC85	75	CMT95	45 to 65 A	G37D	100	16
45	60	65	CC85	75	CMT95	54 to 75 A	G37D	125	25
55	75	79	CC100	85	CMT150	63 to 85 A	G37D	125	35
75	100	107	CC150	100	CMT150	95 to 130 A	F37D	175	50
90	125	129	CC185	185	CMT225	120 to 185 A	F37D	200	50
110	150	157	CC185	180	CMT225	120 to 185 A	K50D	250	95
132	180	184	CC225	200	CMT400	160 to 240 A	K50D	300	95
160	220	224	CC330	280	CMT400	200 to 330 A	K50D	350	150
200	270	279	CC400	350	CMT400	260 to 400 A	K50D	400	185
250	340	349	CC630	500	CMT800	400 to 600 A	L65D	630	240

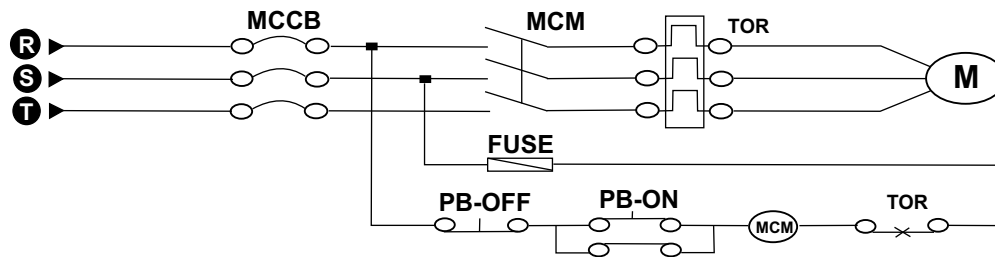
Star Delta Starting: Contactor - Overload - MCCB Selection

Note: Customer to confirm motor FLC on site and adapt where necessary

Motor Rating 3PH kW	400 V HP	FLC AC3 A	Main Contactor Type MCM	Rating AC3 A	Delta Contactor Type MCD	Star Contactor Type MCY	TOR OL Relay Type CMT	Setting Range A	MCCB	Rating A	Cable Size mm ²
5.5	7.5	11.3	CC18	18	CC18	CC18	CMT12-6.5	9 to 13 A	G37D	20	2.5
7.5	10	15.2	CC18	18	CC18	CC18	CMT12-8.5	12 to 18 A	G37D	40	2.5
11	15	21.7	CC18	18	CC18	CC18	CMT12-15	18 to 25 A	G37D	40	4
15	20	29.3	CC22	22	CC22	CC18	CMT32-19	22 to 32 A	G37D	50	10
18.5	25	36	CC22	22	CC22	CC18	CMT32-21.5	24 to 36 A	G37D	63	10
22	30	41	CC40	40	CC40	CC18	CMT32-27	34 to 50 A	G37D	100	10
30	40	55	CC40	40	CC40	CC22	CMT32-34	45 to 65 A	G37D	125	16
37	50	68	CC50	50	CC50	CC40	CMT63-42	54 to 75 A	G37D	125	25
45	60	81	CC65	65	CC65	CC40	CMT63-42	70 to 95 A	G37D	125	35
55	75	99	CC65	65	CC65	CC40	CMT63-55	80 to 100 A	F37D	175	35
75	100	134	CC85	85	CC85	CC40	CMT95-74	110 to 150 A	F37D	225	50
90	125	161	CC100	105	CC100	CC40	CMT95-90	120 to 185 A	K50D	250	95
110	150	196	CC130	130	CC130	CC50	CMT150-113	160 to 240 A	K50D	350	95
132	180	231	CC150	150	CC150	CC50	CMT150-130	200 to 330 A	K50D	400	150
160	220	279	CC185	185	CC185	CC65	CMT225-153	260 to 400 A	L65D	500	185

Motor Rating 3PH kW	500 V HP	FLC AC3 A	Contactor Type MCM	Rating AC3 A	Delta Contactor Type MCD	Star Contactor Type MCY	OL Relay Type OR	Setting Range A	MCCB	Rating A	Cable Size mm ²
5.5	7.5	9	CC18	13	CC18	CC18	CMT12-5	4 to 6 A	G37D	16	1.5
7.5	10	12.1	CC18	13	CC18	CC18	CMT12-6.5	5 to 8 A	G37D	20	2.5
11	15	17.4	CC40	20	CC22	CC18	CMT12-11	9 to 13 A	G37D	40	2.5
15	20	23.4	CC40	20	CC22	CC18	CMT32-15	12 to 18 A	G37D	40	6
18.5	25	28.9	CC40	32	CC40	CC18	CMT32-15	12 to 18 A	G37D	50	6
22	30	33	CC50	32	CC40	CC18	CMT32-19	16 to 22 A	G37D	50	10
30	40	44	CC65	32	CC40	CC22	CMT32-27	22 to 32 A	G37D	100	10
37	50	54	CC85	43	CC50	CC22	CMT32-34	24 to 36 A	G37D	100	16
45	60	65	CC85	43	CC50	CC40	CMT63-42	34 to 50 A	G37D	125	25
55	75	79	CC100	60	CC65	CC40	CMT63-42	34 to 50 A	G37D	125	35
75	100	107	CC150	75	CC85	CC40	CMT95-65	54 to 75 A	F37D	175	50
90	125	129	CC185	75	CC85	CC50	CMT95-74	63 to 85 A	F37D	200	50
110	150	157	CC185	100	CC150	CC65	CMT150-93	80 to 105 A	K50D	250	95
132	180	184	CC225	180	CC185	CC85	CMT225-107	85 to 125 A	K50D	350	95
160	220	224	CC330	225	CC265	CC100	CMT400-130	100 to 160 A	K50D	500	150

DOL Starting (Full Load)

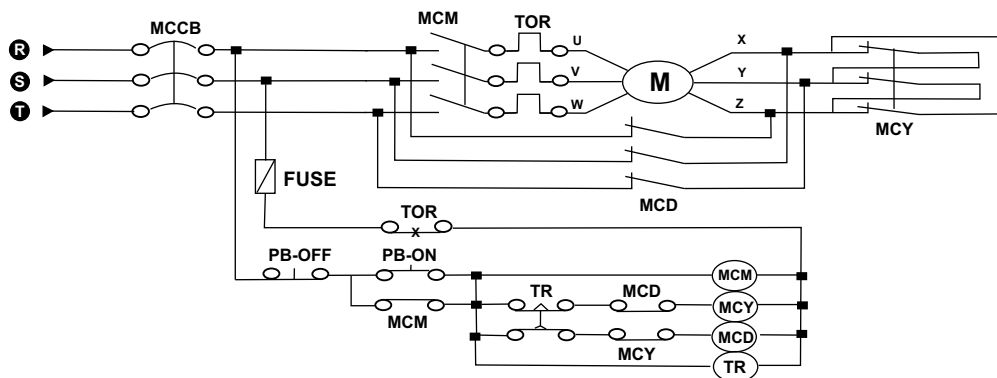


Conditions

1. The load shall be an Induction Motor with 3 phase and 4 poles
2. The overload relay setting range is selected according to the full load current of the motor
3. The cross-section area of the cable is within the value that is connectable to the motor starter
4. The circuit breaker (MCCB) is for cable protection

The breaking capacity of the MCCB should be reviewed according to the site conditions.

Star Delta Starting Y: Δ



Conditions

1. The load shall be a squirrel cage motor with 3 phase and 4 poles
2. The overload relay setting range is selected according to the full load current of the motor
3. When the Thermal Overload Relay (TOR) is placed in the area shown the setting range should be divided by $\sqrt{3}$ (0.58)
4. The cross-section area of the cable is within the value that is connectable to the motor starter.
5. Thermal Overload Relay (TOR) mounting:
 - Separately mountable with an optional mounting unit
 - Directly mountable when placed in the area shown in the dotted line

The breaking capacity of the MCCB should be reviewed according to the site conditions.

Note:

* Contact CBI for availability

Terminations

G1 Ratings 15 - 150 A 	G4B Supplied as Standard (No spares)  X3
JSO / J25S	K25D / K35D
G4B  X3 4120166	G4B Ratings 15 - 150 A  X1  X2 FSAX001
L20B / L40B	J25S/FD
G4 	G4B Supplied as Standard (No spares) 
N50D / N70D	K50D

Notes:

Refer to product specific pages for actual terminal types - may not be available as separate items if supplied as standard.

For relevant current carrying capacities, please refer to relevant products.

MCCB		MCCB Standard Range		MCCB Advanced Range	
Terminal Bolt Sizes		Terminal Bolt Sizes		Terminal Bolt Sizes	
J25S	M8	G37D	M8	G150D	M8
L20 / L40B	M12	F37D	M8	F50D	M8
G15D / 25D	M8	K50D	M10	F85D	M8
G35D	M8	L65D	M12	F150D	M8
F15 / 25D	M8	N65D	M12	K64D	M10
F35D	M8			K85D	M10
K25 / 35D	M12			K150D	M10
L35 / 40D	M12			L65D	M12
MB	M12			L100D	M12
N85D	M12			N150D	M10 x 2
				N70D	M10 x 2
				N50D	M10 x 2

**This is a series connected (cascading) system
Replacement of the circuit breakers other than those of identical types
and ratings should be referred to the circuit breaker manufacturer**

Cascading Tables

Note:

Any current limiting by the cables should be taken into account

The cascading table is applied in practice as follows:

1. Determine the maximum prospective short circuit fault current level at the point of installation of the upstream breaker in the cascade
2. Moving from the left side towards the right side of the cascading table, in the **top** row, select an upstream breaker whose breaking capacity is equal to or greater than determined by (1.) above
3. Determine the prospective short circuit current at the installation point of the **downstream** breaker, taking into account only the current limiting effect of any cable that is connected between the upstream and downstream breakers. Any current limiting by the upstream breaker should be ignored for this purpose.
4. From the first column on the left of the cascading table, select the **row** that represents a short circuit current that is equal to or higher than this latter short circuit current
5. The **downstream** breaker suitable for the cascading application will then be found at the intersection of the row from (2.) above, and the column from (4.) above

Due to constant research and development, CBI reserves the right to make changes, modifications and extensions to these cascading tables without prior notice.

No substitute of any alternative product is allowed

Care must be taken in replacing older product versions or obsolete ranges



Cascading, Network 380 V / 415 V

Technical Section: Cascading Tables
Cascading Table (CBI MCCBs) Global Range Based

Type	G37D 15 - 125 A			F37D 150 - 250 A			K50D 250 - 400 A			L65D 500 - 800 A				Busbar Rating kArms
No of Poles	3	3	3	3	3	3	3	3	3	3	3	3	3	
Fault Level kA	15	25	35	15	25	35	15	25	35	50	25	35	50	65
Downstream kA														
65											G37D/ F37D	G37D/ F37D	G37D/ F37D	G37D/ F37D
50											G37D/ F37D	G37D/ F37D	G37D/ F37D	G37D/ F37D
35											G37D/ F37D	G37D/ F37D	G37D/ F37D	G37D/ F37D
30											G37D/ F37D	G37D/ F37D	G37D/ F37D	G37D/ F37D
25											G37D/ F37D	G37D/ F37D	G37D/ F37D	G37D/ F37D
20											G37D/ F37D	G37D/ F37D	G37D/ F37D	G37D/ F37D
15											G37D/ F37D	G37D/ F37D	G37D/ F37D	G37D/ F37D
10											G37D/ F37D	G37D/ F37D	G37D/ F37D	G37D/ F37D

Cascading Table No. 2

Cascading Table (CBI MCBs and MCCBs)

Upstream Circuit Breakers

	G15D / F15D		G25D / F25D		G35D / F35D		F65DV		K25D	K35D	K50DE K65DE	L70DE L50DE L35DE	Busbar Rating kArms
	3		3		3		3		3	3	3	3	
	15		25		35		65		25	35	65	65	
Amp Rating	125	250	125	250	125	250	100	250	400	400	400	630	20
65							F15D	F15D					
50							F15D	F15D					
35					QH QF1	F15D	QH QF1	QH				G15D F15D	15
30					QH QF1	F15D	QH QF1	QH				G15D F15D	
25					QH QF1	F15D	QH QF1	QH				G15D F15D	
20					QH QF1	F15D	QH QF1	QH				G15D F15D	10
15					QH QF1	F15D	QH QF1	QH				G15D F15D	
10					QH QF1	F15D	QH QF1	QH				G15D F15D	

Protective Downstream Fault
Level kArms

Notes:

QF = QF(13), QF(18), QF(26)
QF1 = Single pole circuit breakers
QF, QH = Single, double or triple pole circuit breakers

Type	Mounting Type	Escutcheon, mm
QF /QH	Mini / DIN	57
	DIN	45

Review: June 2020

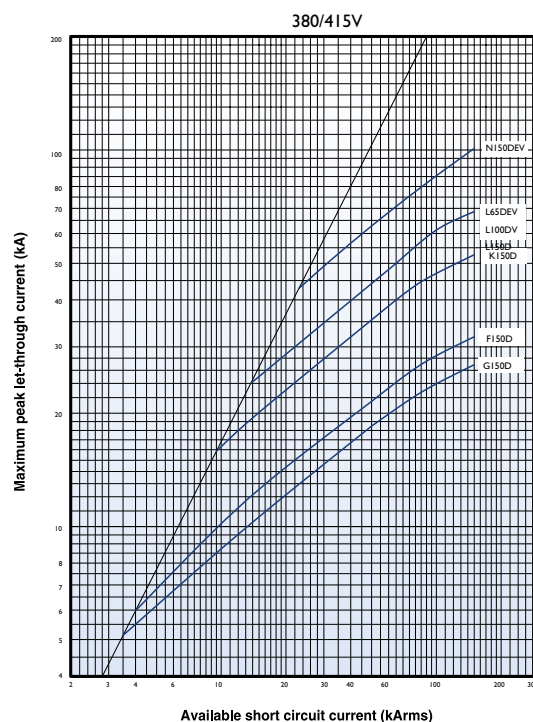
For more product information regarding cascading, please contact CBI

Cascading, Network 380 V / 415 V

Complimentary Technical Information

Main: Global Advanced Range Branch: Global Standard Range

Branch Breaker	Main Breaker	G150D 16 - 160 A	F50DEV 250 A	F150D 160 / 200 / 250 A	F50DEV 40 - 160 A	F85DV 125 - 250 A	K65DEV 400 A	K85DV 400 A	L65DEV 800 A	L1000DV 800 A	K150D 300 - 400 A	K150DEV 400 - 600 A	N70DEV 1250 - 1600 A
	Rated Breaking Capacity (kArms)	50	50	150	50	85	65	85	65	100	150	150	70
G37D	37	65	40	70	50	65	50	70			85	85	
F37D	37		40	70	50	65	50	70			85	85	
K50D	50							85		85	100	85	70
L65D	65								65	100			70
K65DEV	65							85			150		
F50DEV	50			150		85	65	85	65	100	150	150	70
F85DV	85			150						100	150	150	
K50DEV	50									100			
L65DEV	65									100	150		70
N50DEV	50												70



Mitsubishi DOL Starting

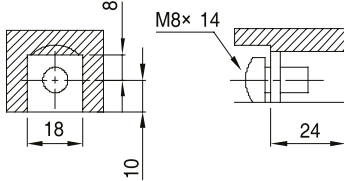
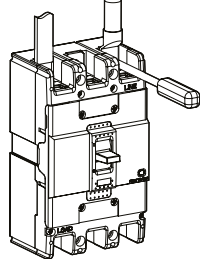
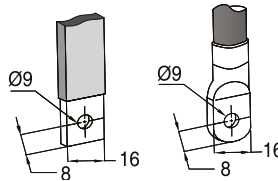
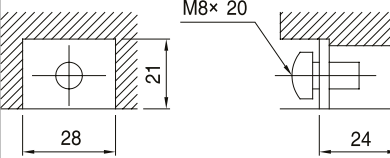
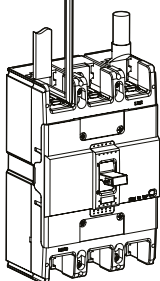
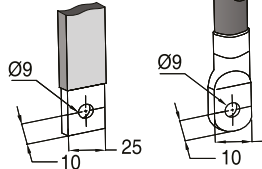
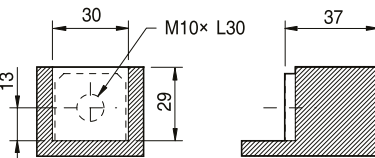
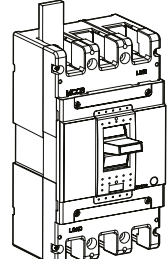
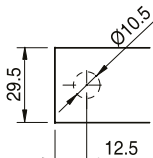
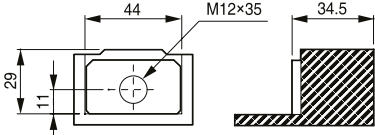
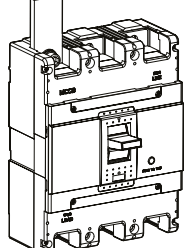
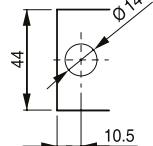
Mitsubishi DOL		
Motor Size (kW)	Three phase voltage - 400 Vac	Three phase voltage - 525 Vac
0.37	NF63-HVA 10 A, NV63-HVA 16 A, NV125-SVA/HVA 16 A	NF63-HVA 10 A, NV63-HVA 16 A, NV125-SVA/HVA 16 A
0.55	NF63-HVA 10 A, NV63-HVA 16 A, NV125-SVA/HVA 16 A	NF63-HVA 10 A, NV63-HVA 16 A, NV125-SVA/HVA 16 A
0.75	NF63-HVA 10 A, NV63-HVA 16 A, NV125-SVA/HVA 16 A	NF63-HVA 10 A, NV63-HVA 16 A, NV125-SVA/HVA 16 A
1.1	NF63-HVA 10 A, NV63-HVA 16 A, NV125-SVA/HVA 16 A	NF63-HVA 10 A, NV63-HVA 16 A, NV125-SVA/HVA 16 A
1.5	NF63-HVA 10 A, NV63-HVA 16 A, NV125-SVA/HVA 16 A	NF63-HVA 10 A, NV63-HVA 16 A, NV125-SVA/HVA 16 A
2.2	NF63-HVA 10 A, NV63-HVA 16 A, NV125-SVA/HVA 16 A	NF63-HVA 10 A, NV63-HVA 16 A, NV125-SVA/HVA 16 A
3	NF63-HVA 10 A, NV63-HVA 16 A, NV125-SVA/HVA 16 A	NF63-HVA 10 A, NV63-HVA 16 A, NV125-SVA/HVA 16 A
4	NF63-HVA 16 A, NF125-SVA/HVA 16 A, NV125-SVA/HVA 16 A	NF63-HVA 10 A, NV63-HVA 16 A, NV125-SVA/HVA 16 A
5.5	NF63-HVA 20 A, NF125-SVA/HVA 20 A, NV125-SVA/HVA 20 A	NF63-HVA 16 A, NF125-HVA 16 A, NV125-SVA/HVA 16 A
7.5	NF63-HVA 32 A, NF125-SVA/HVA 32 A, NV125-SVA/HVA 32 A	NF63-HVA20 A, NF125-HVA 20 A, NV125-SVA/HVA 20 A
11	NF63-HVA 40 A, NF125-SVA/HVA 40 A, NV125-SVA/HVA 40 A	NF63-HVA32 A, NF125-HVA 32 A, NV125-SVA/HVA 32 A
15	NF63-HVA 50 A, NF125-SVA/HVA 50 A, NV125-SVA/HVA 50 A	NF63-HVA40 A, NF125-HVA 40 A, NV125-SVA/HVA 40 A
18.5	NF63-HVA 63 A, NF125-SVA/HVA 63 A, NV125-SVA/HVA 63 A	NF63-HVA50 A, NF125-HVA 50 A, NV125-SVA/HVA 50 A
22	NF125-SVA/HVA 80 A, NV125-SVA/HVA 80 A	NF63-HVA50 A, NF125-HVA 50 A, NV125-SVA/HVA 50 A
30	NF125-SVA/HVA 100 A, NV125-SVA/HVA 100 A	NF125-SVA/HVA 80 A, NV125-SVA/HVA 80 A
37	NF250-SVA/HVA 125 A, NV125-SVA/HVA 125 A	NF125-SVA/HVA 80 A, NV125-SVA/HVA 80 A
45	NF250-SVA/HVA 125 A, NV125-SVA/HVA 125 A	NF125-SVA/HVA 100 A, NV125-SVA/HVA 100 A
55	NF250-SVA/HVA 175 A, NV250-SVA/HVA 175 A	NF250-SVA/HVA 125 A, NV250-SVA/HVA 125 A
75	NF250-SVA/HVA 225 A, NV250-SVA/HVA 225 A	NF250-SVA/HVA 175 A, NV250-SVA/HVA 175 A
90	NF250-SVA/HVA 250 A, NF400-SW 250 A, NV400-SW 250 A	NF250-SVA/HVA 200 A, NV250-SVA/HVA 200 A
110	NF400-CW/SW 350 A, NV400-SW 350 A	NF250-SVA/HVA 250 A, NF400-CW/SW 250 A, NV400-SW 250 A
132	NF400-CW/SW 400 A, NV400-SW 400 A	NF400-CW/SW 300 A, NV400-SW 300 A
160	NF630-CW/SW 500 A, NV630-SW 500 A	NF400-SW 350 A, NV400-SW 350 A
200	NF630-CW/SW 600 A, NV630-SW 600 A	NF630-CW/SW 500 A, NV630-SW 500 A
250	NF800-CEW/SEW (700 A)*, NV800-SEW (700 A)*	NF630-CW/SW 600 A, NV630-SW 600 A
315	NF1000-SEW (900 A)*, AE1000-SW (900 A)*	NF800-CEW/SEW (700 A)*, NV800-SEW (700 A)*
355	NF1000-SEW (1000 A)*, AE1000-SW (1000 A)*	NF800-CEW/SEW (800 A)*, NV800-SEW (800 A)*
400	NF1250-SEW (1200 A)*, AE1250-SW (1200 A)*	NF1000-SEW (900 A)*, AE1000-SW (900 A)*
450	NF1250-SEW (1250 A)*, AE1250-SW (1250 A)*	NF1000-SEW (1000 A)*, AE1000-SW (1000 A)*
500	NF1600-SEW (1400 A)*, AE1600-SW (1400 A)*	NF1250-SEW (1200 A)*, AE1250-SW (1100 A)*
560	NF1600-SEW (1600 A)*, AE1600-SW (1600 A)*	NF1250-SEW (1200 A)*, AE1250-SW (1200 A)*
630	AE2000-SW/SWA (1750 A)*	NF1600-SEW (1400 A)*, AE1600-SW (1300 A)*
710	AE2000-SW/SWA (1900 A)*	NF1600-SEW (1500 A)*, AE1600-SW (1500 A)*

Torque Settings MCCB

Terminal Screw	Screw Diameter	M5	M6	M8			M12
	Shape						
	Fastening Torque Nm	2 - 3	2.5 - 4.5	20.0 - 30.0	30.0 - 40.0	8.0 - 13.0	40.0 - 50.0

Solderless Terminal Screw	Screw Diameter	M5	M10	M16	M18	M20	M24
	Shape						
	Fastening Torque Nm	4.0 - 6.0	3.5 - 4.5	20.0 - 30.0	30.0 - 40.0	30.0 - 40.0	50.0 - 60.0

Connection and Torque Global Range Standard MCCB

MCCB	Terminal (mm)	Tightening Torque (Nm)	Conductor (mm)
G37D		M8 : 5.40 ~ 7.35 N-m 	
F37D		M8 : 7.84 ~ 12.7 N-m 	
K50D		M10 : 23.5~29 (Terminal)Nm M10 : 23.5~29 (Busbar) Nm 	
L65D		M12 : 39.2~49 Nm (Terminal, Busbar) 	

AGREED GENERAL TERMS & CONDITIONS OF SALES

This document is an abridged version of the general terms and conditions of sale of Circuit Breaker Industries (Pty) Ltd ("CBI") and serves only as a summary of the main provision of CBI's general terms and conditions of sale. The latter shall prevail in all circumstances should there be any conflict between them and this abridged version of the general terms and conditions of sale. A copy of the general terms and conditions of sale is available upon request.

1. DEFINITIONS

In this document, unless otherwise required by the context, the following words and expressions shall have the meaning ascribed to them below: Agreement: the agreement set out herein; Business Day: any day other than a Saturday, Sunday or a day on which banking institutions in the Republic of South Africa are customarily closed; CPA: the Consumer Protection Act, 68 of 2008;

2. INTERPRETATION

2.1 Clause headings in this Agreement are used for convenience only and shall be ignored in its interpretation.

2.2 In this Agreement, unless the contrary intention clearly appears:

2.2.1 any reference to an agreement or instrument is a reference to that or instrument as amended;

2.2.2 any reference to a Party shall include its successors in title, permitted assigns and permitted transferees;

2.2.3 any reference to an enactment is to that enactment as at the date of signature hereof and as amended or re-enacted from time to time;

2.2.4 any reference to the singular includes the plural and vice versa;

2.2.5 any reference to one gender includes the other gender; and

2.2.6 any reference to natural persons includes legal persons and vice versa.

2.3 When any number of days is prescribed in this Agreement same shall, unless otherwise specifically stated, be reckoned inclusively of the first and exclusively of the last day.

2.4 If any provision in a definition or in the recital to this Agreement is a substantive provision conferring rights or imposing obligations on any Party, then notwithstanding that it is only the definition clause or recital, effect shall be given to it as if it were a substantive provision in the body of this Agreement.

2.5 Where any matter is for the purposes of this Agreement to be to the satisfaction of or acceptable to a party, such party shall, in deciding whether such matter is to its satisfaction or acceptable, act reasonably. Where any matter requires the approval, consent or authority of a party, such approval, consent or authority shall not unreasonably be withheld or delayed.

2.6 Where words have been defined in the body of this Agreement, such words shall, unless otherwise required by the context, have the meanings so assigned to them throughout this Agreement.

2.7 The rule of construction that, in the event of ambiguity, the contract shall be interpreted against the Party responsible for the drafting thereof, shall not apply in the interpretation of this Agreement.

3. RECITAL

3.1 CBI electric low voltage agrees to sell the Goods to the Customer and the Customer agrees to purchase the Goods on the terms and conditions set out herein.

3.2 Unless otherwise specifically stipulated in writing to the contrary, the terms of this Agreement shall supersede and prevail over any terms and conditions contained in any documents submitted by the Customer.

4. THE CONSUMER PROTECTION ACT

4.1 The Customer warrants and represents that, to the extent that its activities are subject to the CPA, it shall ensure compliance with all provisions of the CPA in its dealings with consumers, irrespective of the provisions of this Agreement.

4.2 The Customer acknowledges and confirms that at the time of signing this Agreement, its annual turnover or asset value exceeds the threshold determination contemplated in section 6 of the CPA, meaning that the transaction contemplated in terms of this Agreement is exempt from the majority of the provisions of the CPA ("Threshold Amount"). The Customer undertakes to notify CBI electric low voltage, in writing, as soon as there is a material change to its business which results in it falling below the Threshold Amount so that this Agreement can be amended to ensure compliance with the CPA.

5. PRICE AND PAYMENT

5.1 The ownership of all Goods supplied by CBI electric low voltage to the Customer shall remain vested in CBI electric low voltage until the purchase price in respect thereof has been paid in full.

5.2 The purchase price of Goods supplied by CBI electric low voltage to the Customer shall be paid by the Customer to CBI electric low voltage without any deduction or set off within the period of the agreed credit terms allowed to the Customer after the date of the statement submitted by CBI electric low voltage.

5.3 CBI electric low voltage shall be entitled to charge interest on all overdue amounts at the maximum rate permissible from time to time for credit transactions in terms of the National Credit Act, 2005 or equivalent legislation, as amended. Such interest shall be calculated and payable monthly in advance on the first day of each and every successive month on the balance outstanding from time to time by the Customer to CBI electric low voltage, and shall be added to the amount due to CBI electric low voltage by the Customer in respect of the purchase price of the Goods. All payments shall be appropriated firstly in respect of such interest and thereafter in respect of capital amounts payable, it being recorded and agreed that CBI electric low voltage shall be entitled to appropriate payments received from the Customer to whichever of the Customer's debts as CBI electric low voltage may in its sole discretion elect.

5.4 Where any payment is effected by cheque or by electronic transfer or where any cheque is sent in the post, all risks arising from the use of a cheque, electronic transfer or the use of the post shall lie with the Customer who shall be liable for all damages/losses sustained as a result thereof. In the event that CBI electric low voltage shall agree to permit that payment be made by way of a letter of credit, such letter of credit shall be drawn on a bank acceptable to CBI electric low voltage and on terms and conditions as may be acceptable to CBI electric low voltage in its sole discretion.

5.5 The price of Goods sold to the Customer is strictly net and not subject to any discounts unless otherwise agreed upon in writing.

5.6 If any discount is agreed upon in writing it shall only be allowed if payment is received by CBI electric low voltage strictly by the due date and shall only apply to the actual price of the Goods themselves and not to any value added tax, transport costs, insurance, storage charges or other duties or taxes.

5.7 The price of Goods sold to customers includes the cost of packing the Goods for delivery.

5.8 Save where CBI electric low voltage furnishes the Customer with a quote for the price of the Goods in writing, the price of any Goods shall be the price stated in CBI electric low voltage's standard price list or export price list, as the case may be, in force at the date of delivery of the Goods.

6. DELIVERY

6.1 Goods sold for export shall be delivered FOB (Incoterms 2010) unless otherwise agreed between CBI electric low voltage and the Customer in writing.

6.2 Goods delivered in terms of CBI electric low voltage's local ordering policy within the Republic of South Africa, shall be delivered by CBI electric low voltage at CBI electric low voltage's cost, either by post to the Customer at the Customer's place of business, or delivered by road or rail to the Customer's place of business. Any other form of delivery shall be for the Customer's account. Delivery shall be completed on signing the respective delivery notes when Goods are off loaded at the Customer's place of business.

6.3 CBI electric low voltage is authorised to engage a carrier on such terms and conditions as it deems fit.

6.4 The risk in the Goods shall pass to the Customer on delivery of the Goods.

6.5 The signature of any employee or agent of the Customer which appears on CBI electric low voltage's official note or way-bill or the delivery note of any authorised independent carrier shall constitute conclusive evidence of delivery of Goods purchased.

6.6 If more than one delivery is to be made, then the provisions of this clause 6 shall apply to each delivery.

6.7 CBI electric low voltage shall endeavour, at all times, to deliver the Goods by the desired delivery date, however, the time of delivery shall not be of the essence of the contract and the Customer shall not be entitled to cancel any agreement of sale should CBI electric low voltage fail to deliver the Goods on the desired date.

6.8 The sale of the items reflected on the invoice in question does not include installation costs unless otherwise specifically referred to.

6.9 If Goods are mailed, delivery will take place upon posting, even if the use of post was not authorised by the Customer.

7. LIMITATION OF LIABILITY

7.1 CBI electric low voltage shall in no circumstances whatsoever be liable for any loss of profit or any damage, direct or indirect, consequential or otherwise sustained by the Customer whether or not caused by the negligence of CBI electric low voltage, its agents or employees.

7.2 The Customer shall not have any claim of any nature whatsoever against CBI electric low voltage for any failure by CBI electric low voltage to carry out any of its obligations as a result of causes beyond CBI electric low voltage's control, including but not limited to any strike, lockout, shortage of labour or materials, delays in transport, accidents of any kind, any default or delay by any sub-contractor or supplier of CBI electric low voltage, riot, political or civil disturbances, the elements, any act of any State or Government, any delay in securing any permit, consent or approval required by CBI electric low voltage for the supply of Goods or any other authority or any other cause whatsoever beyond CBI electric low voltage's absolute and direct control.

7.3 CBI electric low voltage shall not be liable to the Customer for any loss or damage sustained by the Customer whether such loss or damage be direct, indirect, consequential or otherwise arising as a result of: 7.3.1 incorrect or late deliveries; or

7.3.2 failure to deliver the items to which this invoice relates caused by breakdowns in/of machinery, strikes, labour disputes, riot, civil commotions, accidents, orders or regulations of any government or authority, shortage of material, acts of God or any other causes either wholly or partly beyond CBI electric low voltage's control, and a certificate signed by a director of CBI electric low voltage stating that a delay in delivery or a partial delivery was due to any cause beyond CBI electric low voltage's reasonable control or arising in the ordinary course of business and explaining the cause shall be prima facie proof that such cause existed.

7.4 Subject to the provisions of 7.5, all Goods are sold voetstoots (as it stands), and without any implied merchant's or manufacturer's warranties and the Customer shall have no claim whatsoever against CBI electric low voltage, whether in contract or in delict, for any loss or damage suffered by the Customer as a result of Goods being defective. The Customer indemnifies CBI electric low voltage against any loss or liability incurred by CBI electric low voltage as a consequence of a claim by any person in terms of sections 56 and/or 61 of the CPA.

7.5 Subject to the provisions of 7.6, in the event that any defects in workmanship or materials appear in any Goods within one year from date of purchase and provided that CBI electric low voltage is notified in writing of the defect within such relevant period, CBI electric low voltage shall, as soon as it is reasonably able, repair or, in its sole discretion, replace, the defective Goods against return of such Goods, without any further claim for loss or damages of any nature whatsoever.

7.6 The provisions of 7.5 shall however not apply where:

7.6.1 a defect in any Goods is, in CBI electric low voltage's reasonable opinion, due to the unauthorised breaking of seals on, or the changing or adjustments in, or any other unauthorised modifications of the Goods in question;

7.6.2 the order was for non-standard Goods and was not in writing or, if in writing, was not placed in accordance with the ordering procedure in operation at the time of purportedly placing the order; or

7.6.3 the defect arose, in CBI electric low voltage's reasonable opinion, as a result of lightning, water, electromagnetic disturbances, dust or other environmental conditions, unless CBI electric low voltage has warranted to the Customer that the Goods in question were specifically designed to cater for such conditions or contingencies.

7.7 Should any Goods not conform with the specifications, measurements or instructions that CBI electric low voltage has undertaken, in writing, will be conformed with or should CBI electric low voltage have warranted, in writing, that any Goods will be suitable for a specific purpose and such Goods are not suitable for such purpose, then and in either of the aforesaid events, CBI electric low voltage shall, as soon as it is reasonably able, repair or, in its sole discretion, replace such defective Goods or refund the purchase price of such defective Goods against return of such Goods, provided that CBI electric low voltage is notified of such failure within 14 (fourteen) days of delivery of the Goods, or in the case of exported Goods, within 14 (fourteen) days of receipt of the Goods, it being recorded and agreed that the Customer shall have no further claim for any loss or damages of whatsoever nature suffered by it arising out of the aforesaid circumstances.

7.8 In the event that CBI electric low voltage has undertaken to install the Goods and the installation is defective, then CBI electric low voltage shall, as soon as it is reasonably able, repair the defect in such installation, provided that CBI electric low voltage has been notified in writing of the defect in installation within 14 (fourteen) days of the date of completion of such installation, it being recorded and agreed that the Customer shall have no further claim for any loss or damages of whatsoever nature suffered by it arising out of such defective installation.

AGREED GENERAL TERMS & CONDITIONS OF SALES

7.9 Any advice or information (including drawings) relating to the Goods which are provided by CBI electric low voltage to the Customer must not be altered in any way by the Customer. The Customer undertakes to strictly adhere to all instructions by CBI electric low voltage regarding the transportation, storage and/or handling of the Goods.

7.10 If the Customer supplies Goods purchased from CBI electric low voltage without the necessary information or has altered the packaging and/or information in any way whatsoever without CBI electric low voltage's written consent, the Customer hereby indemnifies CBI electric low voltage against all claims which may arise as a result of any loss or damage whatsoever caused to the user of such Goods as a result thereof. CBI electric low voltage shall not be liable to the Customer, whether in contract or in delict for any loss or damage suffered by the Customer as a result of CBI electric low voltage furnishing to the Customer (whether by agreement or gratuitously) any incorrect advice or information in any form (including drawings), relating to the Goods.

7.11 In the event that CBI electric low voltage repairs or replaces any Goods or repairs any defective installation, it shall not incur a greater liability for such repaired or replacement Goods or repaired installation to the Customer than it would have incurred in respect of the original Goods or installation in accordance with these terms. The provisions of this clause 7.11 will apply, mutatis mutandis, in respect of repaired or replaced Goods which are not the original Goods but are themselves repaired or replacement Goods, irrespective of how many times an installation has been repaired before and irrespective of whether CBI electric low voltage is acting in terms of its contractual obligations or gratuitously.

7.12 In addition to clause 7.4, the Customer indemnifies and holds CBI electric low voltage harmless against:

7.12.1 any claim of any nature whatsoever by any third party for any loss or damage of any nature suffered by that person as a result of any Goods supplied by CBI electric low voltage being defective in any manner whatsoever; and

7.12.2 any costs incurred by CBI electric low voltage in dealing with such claim, including legal costs on the attorney and own client scale.

7.13 Where a benefit is conferred upon CBI electric low voltage in terms of this clause 7, the reference to CBI electric low voltage shall be deemed to include a reference to CBI electric low voltage's employees, servants, agents, sub-contractors and distributors, and CBI electric low voltage, on their behalf, accepts the benefits conferred upon them in terms of this clause 7.13.

8. DEFAULT

8.1 Should the Customer:

8.1.1 default in paying his/her/its account strictly on due date or commit a breach of any of the terms or conditions of this contract;

8.1.2 being an individual, die or be provisionally or finally sequestrated or surrender or make application to surrender his estate or commit any act of insolvency;

8.1.3 being a partnership, the partnership is dissolved;

8.1.4 being a company or close corporation, is placed under a provisional or final order or liquidation or judicial management;

8.1.5 have a judgment recorded against it which remains unsatisfied for seven days; or compromises or attempts to compromise generally with any of his/her/its creditors;

8.1.6 enter into any transaction which has the effect of changing the beneficial ownership of the Customer's business;

8.1.7 being a company or close corporation, enters into any transaction which has the effect of a change in the effective control of the company or corporation; or

8.1.8 to the extent that the CPA applies to its business, fails to comply with provision thereof; then, without prejudice to any other right it might have:

8.1.9 CBI electric low voltage shall be entitled, but not compelled, forthwith to demand that all amounts outstanding by the Customer from whatsoever cause arising, be paid immediately; and

8.1.10 CBI electric low voltage shall furthermore be entitled to cancel any agreement which exists between it and the Customer and suspend the carrying out of any of its then uncompleted obligations, in which event the Customer shall have no claim or claims of whatsoever nature against CBI electric low voltage arising out of such cancellation or the suspension by CBI electric low voltage to carry out any obligations.

8.2 CBI electric low voltage's rights in terms of 8.1 above shall not be exhaustive and shall be in addition to its common law rights.

8.3 No relaxation which CBI electric low voltage may have permitted on any occasion in regard to the carrying out of the Customer's obligations shall prejudice or be regarded as a waiver of CBI electric low voltage's rights to enforce its obligations on any subsequent occasion.

8.4 Upon the cancellation of any contract between CBI electric low voltage and the Customer for any reason whatsoever:

8.4.1 all amounts then owed by the Customer to CBI electric low voltage from any cause whatsoever shall become due and payable forthwith; and

8.4.2 CBI electric low voltage may retake possession of all Goods in respect of which ownership has not yet passed.

9. PERMITS

If any permit, licence or authorisation is required for the import of any Goods from the Republic of South Africa into the Customer's country or for the transport of such Goods then, subject to any terms of delivery which may be applicable, the Customer shall obtain the permit, licence or authorisation in question at its own cost.

10. PATENTS AND TRADEMARKS

CBI electric low voltage does not warrant that the use or sale by the Customer of any Goods supplied to the Customer by CBI electric low voltage will not infringe the rights of any person in respect of any patent, trademark, copyright or design used on or in connection with or existing in the Goods, and the Customer shall not have any claim against CBI electric low voltage, whether in contract or in delict (irrespective of the degree to which CBI electric low voltage may have been negligent) for loss or damage suffered by the Customer as a result of such infringement occurring.

11. RETURN OF GOODS

11.1 In the event that CBI electric low voltage shall in writing, in terms of an authorisation by a Director of CBI electric low voltage, agree to exchange any Goods or to examine any Goods to see whether CBI electric low voltage is prepared to exchange such Goods:

11.1.1 the Customer shall be liable to pay for the cost of delivering the Goods in question to CBI electric low voltage;

11.1.2 the Customer shall pay to CBI electric low voltage, in advance, a handling fee equal to 10% (ten percent) of the purchase price of such Goods, which handling fee shall also be payable in those circumstances where CBI electric low voltage shall refuse to repair or exchange such Goods; and

11.1.3 CBI electric low voltage shall not be liable to the Customer for any loss or damage of whatsoever nature suffered by the Customer in the event that any Goods are lost or damaged while in CBI electric low voltage's possession and under CBI electric low voltage's control in the above circumstances.

12. RETURN OF GOODS FOR CREDIT

If, in the exercise of its discretion, CBI electric low voltage shall agree, in terms of an authorisation by a Director of CBI electric low voltage, at the request of the Customer, to accept the return of any Goods for credit, which Goods were correctly supplied by CBI electric low voltage and are not faulty or subject to any claim, then CBI electric low voltage shall be entitled without the necessity of any further agreement to claim from the Customer a handling charge of 10% (ten percent) of the invoice price of the Goods so returned.

13. JURISDICTION

13.1 The Customer submits itself to the jurisdiction of the South Gauteng High Court in respect of any matter arising out of or in connection with a contract of sale governed by these General Terms and Conditions of Sale.

13.2 Notwithstanding the provisions of 13.1 above, CBI electric low voltage shall be entitled but not obliged to institute any proceedings against the Customer in any Magistrate's Court having jurisdiction over the Customer even if the claim or the value of the matter in dispute may exceed the jurisdiction of the Magistrate's Court. Further, the Customer agrees to be liable for all legal costs including costs on the scale as between attorney and his own client together with collection charges and tracing costs.

13.3 A certificate signed by any director or manager of CBI electric low voltage reflecting the amount due and owing by the Customer to CBI electric low voltage at any given time shall be prima facie evidence of the amount due by the Customer and such certificate shall be sufficient for purposes of judgment or provisional sentence or other legal proceedings.

14. DOMICILIA AND NOTICES

14.1 All notices to be given in connection with this Agreement shall be in writing and shall be delivered by hand, transmitted by facsimile or sent by prepaid registered post:

in the case of CBI electric low voltage at: Private bag 2016, Isando, 1600, facsimile number: (011) 392 2354, marked for the attention of: Financial Director

14.2 The notice shall be deemed to have been duly given on delivery, if delivered to a responsible person during normal business hours at the Party's physical address in terms of 14.1 unless the contrary is proved.

14.3 Either Party may change its address for this purpose to another physical address in the Republic of South Africa by notice in writing to the other Party, such address being effective on receipt by the addressee of such written notice.

14.4 Notwithstanding anything to the contrary contained or implied in this Agreement, a written notice or communication actually received by one of the Parties from the other Party shall be adequate written notice or communication to such Party.

15. NEGOTIABLE INSTRUMENTS

Any promissory note, bill of exchange or other negotiable instrument received by CBI electric low voltage from the Customer shall not be a novation of the debt for which it is given and the Customer waives presentment, notice of dishonour and protest where applicable.

16. INSURANCE

16.1 The Customer shall at all times, in relation to Goods supplied where ownership thereof has not passed, keep the Goods sold to it adequately insured against all forms of loss.

16.2 Pending payment to CBI electric low voltage for Goods purchased, all benefits in terms of the insurance policy relating to the insurance of such Goods are hereby ceded to CBI electric low voltage.

17. APPLICABLE LAW

This agreement is governed by the laws of the Republic of South Africa.

18. BREACH

18.1 If the Customer commits a breach of any contract entered into between it and CBI electric low voltage and fails to remedy such breach upon the giving to it of 7 (seven) days notice to remedy the breach, then CBI electric low voltage may, without prejudice to any other rights it may have:

18.1.1 cancel any or all agreements existing between it and the Customer (including any agreement to grant credit); and/or

18.1.2 claim all amounts owing by the Customer from any cause whatsoever, even if any portion/s of such amounts are not yet due for payment; and/or

18.1.3 keep possession of any assets belonging to the Customer as security for the fulfilment of the Customer's obligations.

18.2 If the Customer:

18.2.1 is an individual and he dies or is provisionally sequestrated or surrenders his estate;

18.2.2 is a partnership and the partnership is terminated;

18.2.3 is a company or a close corporation and is placed under a provisional or final order of liquidation or judicial management or passes a resolution for its voluntary winding up; or

18.2.4 commits an act of insolvency,

the Customer shall be deemed to have committed a breach as contemplated in 18.1, in which event, CBI electric low voltage shall be entitled to exercise the same rights as are set out in 18.1.

19. GENERAL

19.1 No variation, alteration or consensual cancellation of any of these terms and conditions, and/or of any contract entered into between CBI electric low voltage and the Customer, shall be of any force or effect, unless in writing and signed by a Director of CBI electric low voltage and the Customer.

19.2 No waiver or abandonment by CBI electric low voltage of any of its rights in terms of these terms and conditions, and/or in terms of any contract entered into between CBI electric low voltage and the Customer, shall be binding on it unless such waiver or abandonment is in writing and signed by it.

19.3 No indulgence, extension of time, relaxation or latitude which CBI electric low voltage may show, grant or allow to the Customer shall constitute a waiver by it of any of its rights and CBI electric low voltage shall not thereby be prejudiced or estopped from exercising any of its rights against the Customer which may have arisen in the past or which might arise in the future.

19.4 The provisions hereof shall prevail over any terms and conditions which the Customer may purport to impose or apply and which are contrary to the terms hereof.

19.5 The Customer hereby acknowledges and agrees that information concerning the credit worthiness of the Customer may be disclosed to any registered credit bureau.

19.6 Each Party shall bear such Party's own legal costs of and incidental to the negotiation, settling, signing and implementation of this Agreement.

19.7 CBI electric low voltage shall not be bound by any undertakings, warranties, representations or any other terms and conditions which are not recorded in writing and signed by CBI electric low voltage.

CIRCUIT BREAKER INDUSTRIES PRODUCT WARRANTY

All products sold are subject to the Circuit Breaker Industries General Terms and Conditions of Sale. The applicable product warranties are depicted in Table 1 below:

CIRCUIT BREAKER INDUSTRIES PRODUCT WARRANTIES				
Product Range	Type	Technology	Warranty	Note
QA / QF / QDC	MCB - Clip In	Hydraulic-Magnetic	60 Months	Warranty is from date of manufacture
QF / QH	MCB - Clip In	Hydraulic-Magnetic	24 Months	
GD / FD / KD / LD / ND / MB / NF / NV / DSN	MCCB	Thermal-Magnetic / Electronic	24 Months	
AE/ACB	ACB	Thermal-Magnetic / Electronic	24 Months	
LB / JSO	MCCB	Hydraulic-Magnetic	60 Months	
QA17 / QF17 / QA36 / SF15 / SF36 SM15 / SM36	Earth Leakages	Hydraulic-Magnetic	12 Months	
QF16CD / QF36CD / QH16CD / QH36CD	Earth Leakages	Thermal-Magnetic with Electronic	12 Months	
QAT-TRDM / ECU / SAK / ASC / ASI	Auxiliary Products	Various	12 Months	
All other products not specifically mentioned	Various	Various	12 Months	

Table 1: Product Warranties

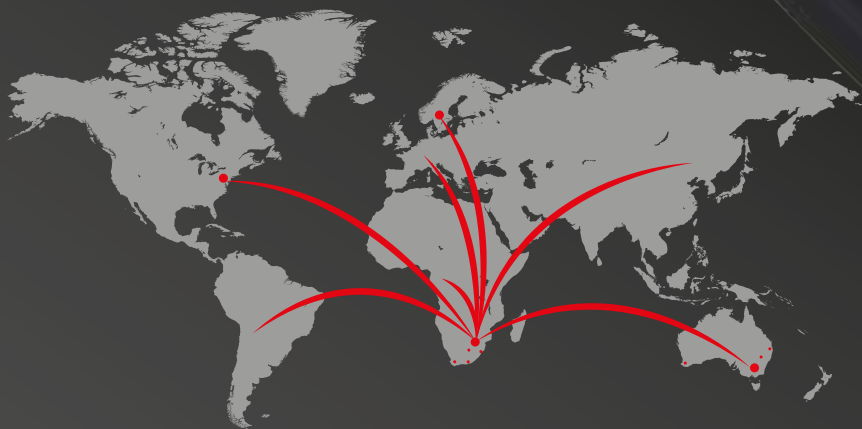
Exclusions

All products returned to Circuit Breaker Industries under warranty claim will be subject to a failure investigation to determine the validity of the communicated failure. The following conditions are not considered as a product failure, as such will not qualify as a warranty claim:

- Any unofficial Product Modification
- Any incorrect Product Application
- Any tampering with the Product Seal or Date Stamp / Coding
- Any damage resulting from Lightning, Water or Dust (Environmental Disturbances and Quality of Supply)
- Any failure caused as a result of VIZ MAJOR

SOUTH AFRICA **HEAD OFFICE** **CBI-electric: low voltage**

Tripswitch Drive, Elandsfontein
Gauteng, South Africa
Tel: +27 11 928 2000
Fax: + 27 11 392 2354
Email: cbi@cbi-electric.com
Website: www.cbi-lowvoltage.com



Branches:

BLOEMFONTEIN (Free State / Northern Cape)

PO Box 9719, Bloemfontein, 9300
6 AE Viljoen Square, Hilton,
Bloemfontein
Tel: (051) 430 8613/4
Fax: (051) 430 1141
E-mail: bfm@cbi-electric.com

CAPE TOWN (Western Cape)

PO Box 17055, Ravensmead
21 Radnor Road, Parow Industria
Tel: (021) 928 1388
Fax: (021) 928 1389
E-mail: ctn@cbi-electric.com

DURBAN (Kwazulu Natal)

PO Box 7, Durban, 4098
14 Heron Park, 80 Corobrick Road,
River Horse Valley, 4017
Tel: (031) 569 1087
Fax: (031) 569 6455
E-mail: dbn@cbi-electric.com

PORT ELIZABETH (Eastern Cape)

PO Box 3584, North End,
Port Elizabeth, 6056
45 Fettes Road, North End, 6001
Tel: (041) 374 1270/1/2
Fax: (041) 373 1919
E-mail: pe@cbi-electric.com

International Offices:

USA **CBI-electric: North America**

35 E. Uwchlan Ave Suite 328
Exton PA 19341 USA
Tel: +1 610 524 9949
Fax: +1 610 524 9945
E-mail: info@cbibreakers.com
Website: www.cbibreakers.com

AUSTRALIA **CBI-electric: Australia**

27 Wedgewood Rd, Hallam
Victoria 3803 Australia
Tel: +61 3 8752 9300
Fax: +61 3 9796 5407
Email: sales@cbi-electric.com.au
Website: www.cbi-electric.com.au



Website



LinkedIn



Facebook



YouTube



Twitter



Instagram



Pinterest

A member of the **REUNERT** Group

© 2020 CBI (Pty) Ltd. All Rights Reserved.

All rights reserved. Unless otherwise indicated, all materials on these pages are copyrighted by CBI (Pty) Ltd. No part of these pages, either text or image may be used for any purpose other than personal use. Therefore, reproduction, modification, storage in a retrieval system or retransmission, in any form or by any means, electronic, mechanical or otherwise, for reasons other than personal use, is strictly prohibited without prior written permission. CBI (Pty) Ltd reserves the right to alter any details of this document / agreement without notice and while every effort is made to ensure the accuracy of the content, no warranty is given as to the accuracy of this document and no responsibility will be accepted for error or misinterpretation and any resulting loss.