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Wall mounted switchgear Enclosed MCCBs 63 to 630A



Application

- For use in commercial and industrial applications, providing protection isolation and control of motors and power circuits
- MCCBs can be supplied with adjustable Vigi earth leakage module for improving disconnection times and providing personnel and fire protection
- Suitable for switching inductive loads, AC23 contact rating and high mechanical endurance
- Security of isolation, positive contact indication in accordance with BS 7671 and padlockable rotary handle or toggle padlocking options

Offer

- ASTA certification of breaking capacity to BS EN 60947-2
- Supplied with line and load terminal shields
- Removable front cover provides all round cabling access
- Removable gland plates with optional extension boxes
- Trip indication and test button
- Shrouded disconnectable neutral with 3 pole device
- Steelwork finished in polyester epoxy powder, cream colour RAL9001

Technical data

Enclosure ingress protection	IP42
Rated operational voltage	Ue 415V
Rated current	at 40°C
Rated ultimate short-circuit breaking capacity	Icu = 70kA 2 pole units 85kA@240V
Rated service short-circuit breaking capacity	I _{su} = 100% I _{cu}
Motor ratings	See Section 10
Voltage releases for remote tripping	24 to 415Vac
Auxiliary change over contacts for remote indication	ON, OFF Tripped
Connection accessories for ease of wiring	Cable clamps up to 185/240mm ² optional
Rotary handle provides padlocking and ease of operation	
Earth leakage	30mA to 30A See page 3/4

C-O operations in 000's	100A	160A	250A	400A	630A	
Mechanical endurance	50	40	20	15	15	
Electrical endurance	I _n /2	50	40	20	12	8
	I _n	30	20	10	6	4

Range

MCCB

Rating	Adjustment	Two Pole	3 pole + neutral	4 pole
63A	44 - 63	MGE0632X	MGE0633X	MGE0634X
100A	70 - 100	MGE1002X	MGE1003X	MGE1004X
125A	88 - 125	MGE1252X	MGE1253X	MGE1254X
160A	112 - 160	MGE1602X	MGE1603X	MGE1604X
200A	140 - 200		MGE2003X	MGE2004X
250A	175 - 250		MGE2503X	MGE2504X
400A	160 - 400		MGE4003X	MGE4004X
630A	250 - 630		MGE6303X	MGE6304X

MCCB + earth leakage

Rating	Adjustment	Sensitivity	4 pole
63A	44 - 63	30mA - 10A	MGE0634XE
100A	70 - 100	30mA - 10A	MGE1004XE
125A	88 - 125	30mA - 10A	MGE1254XE
160A	112 - 160	30mA - 10A	MGE1604XE
200A	140 - 200	30mA - 10A	MGE2004XE
250A	175 - 250	30mA - 10A	MGE2504XE
400A	160 - 400	300mA - 30A	MGE4004XE
630A	250 - 630	300mA - 30A	MGE6304XE

Wall mounted switchgear

Enclosed switch disconnectors

100 to 630A



Application

- For use in commercial and industrial applications, providing isolation and control of motors and power circuits
- Devices can be supplied with adjustable Vigi earth leakage module for personnel and fire protection
- Suitable for switching inductive loads, AC23 contact rating and high mechanical endurance
- Security of isolation, positive contact indication in accordance with BS 7671 and padlockable rotary handle

Offer

- Supplied with line and load terminal shields
- Removable front cover provides all round cabling access
- Removable gland plates and optional extension boxes
- Trip indication and test button
- Shrouded disconnectable neutral with 3 pole device
- Steelwork finished in polyester epoxy powder, cream colour RAL9001

Technical data

Enclosure ingress protection	IP42
Rated operational voltage	Ue 415V
Rated current	at 40°C
Voltage releases for remote tripping	24 to 415Vac
Auxiliary change over contacts for remote indication	ON, OFF, Tripped
Connection accessories for ease of wiring	Cable clamps up to 185/240mm ² optional
Rotary handle provides padlocking and ease of operation	
Earth leakage	30mA to 30A See page 3/4

C-O operations in 000's	100A	160A	250A	400A	630A	
Mechanical endurance	50	40	20	15	15	
Electrical endurance	In/2	50	40	20	12	8
	In	30	20	10	6	4

Range

Switch disconnector

Rating	3 pole + neutral	4 pole
100A	MGE1003XS	MGE1004XS
160A	MGE1603XS	MGE1604XS
250A	MGE2503XS	MGE2504XS
400A	MGE4003XS	MGE4004XS
630A	MGE6303XS	MGE6304XS

Switch disconnector + earth leakage (RCCB)

Rating	Sensitivity	4 pole
100A	30mA - 10A	MGE1004XSE
160A	30mA - 10A	MGE1604XSE
250A	30mA - 10A	MGE2504XSE
400A	300mA - 30A	MGE4004XSE
630A	300mA - 30A	MGE6304XSE

Wall mounted switchgear

Earth leakage

Extension boxes



Application

- The vigi earth leakage module option disconnects the circuit breaker when an electrical earth fault is detected
- Used to overcome high earth fault loop impedance and associated excessive disconnection times eg long cable runs
- Enhanced personal and equipment protection

Technical data

Adjustable sensitivity and time delay settings	For discrimination with other RCDs	
Protection against nuisance tripping due to transient overvoltages etc.	To IEC255-4 and IEC801-2 - 5	
Class A	Immunity to DC components of up to 6mA	
Remote indication of tripping	Using optional changeover contact SDV	
Rating	Sensitivity settings (A)	
	Up to 160A	0.03*, 0.3, 1, 3 and 10
	200 - 250	0.03*, 0.3, 1, 3, and 10
	400 - 630	0.3, 1, 3, 10 and 30
Time delay settings (ms)	0, 60, 150 and 310	

* If the sensitivity is set to 30mA there is no time delay whatever the time delay setting. For ordering references see previous pages.

Extension boxes

- Provide extra cabling space when using oversized cables. Colour RAL9001

Size	To fit rating	Part number
100mm	63 - 250A	MGEX160C
200mm	63 - 250A	MGEX250C
120mm	400 - 630A	MGEX630C

Intelligent Safepact

- The Safepact range has now been extended to include our new Micrologic control units up to 630 amp, each unit is supplied complete and ready to install all the customer has to do is connect the supply, load and interface to the modbus system.

Application

- The Individual protection or isolation of loads
- Monitoring of loads with Micrologic 5 control unit
- Separate incomer to distribution equipment
- Replacement to Fuse Switches

Technical data

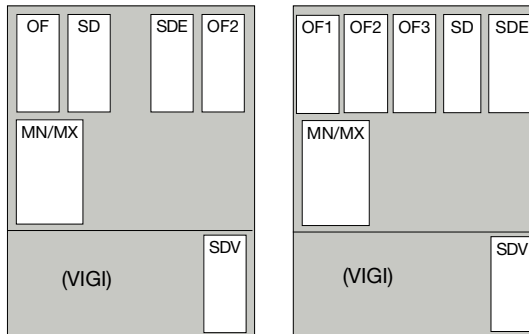
Ingress protection	IP42
Operational Voltage	415V
Ultimate breaking capacity	70kA
Rated service breaking capacity	100%
FDM module fitted and wired	
Modbus interface, power supply and protection fitted and wired	

Range Reference	Part number
Safepact 4 pole 40A mccb Micrologic 5	MGE0404M5
Safepact 4 pole 100A mccb Micrologic 5	MGE1004M5
Safepact 4 pole 160A mccb Micrologic 5	MGE1604M5
Safepact 4 pole 250A mccb Micrologic 5	MGE2504M5
Safepact 4 pole 400A mccb Micrologic 5	MGE4004M5
Safepact 4 pole 630A mccb Micrologic 5	MGE6304M5



Application

These diagrams show the position of auxiliaries when fitted inside the MCCB or switch disconnecter.



MGE 100/160/250

MGE 400/630



Changeover contact

Auxiliary switch used for remote indication, electrical interlocking etc. Function is dependent upon position fitted within device.

- OF indicates contact position 'ON' and 'OFF'
- SD indicates device is in trip position
- SDE indicates device has tripped due to overcurrent or earth fault (100/160/250 requires SDE adaptor **29451**)
- SDV indicates device has tripped due to earth fault

	Part number
OF/SD/SDE/SDV	29450
SDE adaptor for MGE 100/160/250	29451



Shunt trip (MX)

- Enables remote tripping on application of voltage from coil
- Coil permanently rated

Aux. supply voltage (V)	Part number
220/240	LV429387
380/415	LV429388



Undervoltage release (MN)

- Enables remote tripping on removal of voltage to coil
- Coil permanently rated
- Prevents reclosing of device before restoration of supply to undervoltage release

Aux. supply voltage (V)	Part number
220/240	LV429407
380/415	LV429408



Rotary handle

- Permits the device to be padlocked in OFF position by 1-3 padlocks, 5-8mm hasp
- Maintains indication of ON/OFF and TRIPPED positions
- Maintains access to 'push to trip' button
- Ronis/Profalux keylocks available on 400/630A

	Part number
For MGE 100/160/250	LV429337
For MGE 400/630	LV432597



Cable clamp

- For bare (uncrimped) cable connections
- See technical data for cable terminations in detail
- Other options available: refer to NS catalogue, or consult us

	Part number
For MGE 100/160 up to 95mm ² (set of 4)	LV429243
120 to 185mm ² (set of 4)	LV429260
For MGE 250 25 to 95mm ² (set of 4)	LV429228
120 to 185mm ² (set of 4)	LV429260
For MGE 400/630 up to 2x240mm ² (set of 4)	LV432482



Application

Heavy duty sheet steel enclosures for use in commercial and industrial applications, providing isolation and control of electrical loads. Suitable for switching highly inductive loads without derating. For use in environments where a superior degree of protection is required. Four pole isolation with positive contact indication. Padlockable handle. Alternative red/yellow handle for use in industrial applications. 480V 3 ph 4 wire 50/60Hz systems.

Technical data

Degree of protection	IP55 to BS EN 60529
Sheet steel	Epoxy/polyester powder coated, beige colour
Door interlocked rotary handle	Padlockable
Black handle as standard	With Red/yellow handle option
Removable bottom gland plate	
Switch disconnector manufactured and tested to	BS EN 60947-3
4 pole switching	With fully rated neutral
Rated operational current at AC23A	Nominal rating up to 480V
Rated operational voltage	690V 50/60Hz (500V for 63A)

For further details of the switch disconnectors refer to Interpact catalogue.

Terminations

63A	Clamp connections accepting 1.5 - 16mm ² rigid cable
100 - 630A	Flat pads for crimped lugs

Termination details are identical to those of the Compact MCCBs

References

Rating	Black rotary handle	Red rotary handle with yellow surround
	Part number	Part number
63A	MGES063	MGES063R
100A	MGES100	MGES100R
160A	MGES160	MGES160R
250A	MGES250	MGES250R
320A	MGES320	MGES320R
400A	MGES400	MGES400R
500A	MGES500	MGES500R
630A	MGES630	MGES630R

Accessories

Rating	63A	100-160A	250A	320-630A
Auxiliary switch	29450	29450	29450	29450
Pair long terminal shields	28957	28958	29324	32565
Set of 4 crimp cable lugs for Cu cables c/w 3 phase barriers				
	95mm ²	LV428952		
	120mm ²	LV429256		
	150mm ²	LV429257		
	185mm ²	LV429258		
	240mm ²	LV432501		
	300mm ²	LV432503		

Wall mounted switchgear

Switch disconnecter fuse

Switch disconnecter



Application

Heavy duty fuse products for use in commercial and industrial environments, providing isolation and traditional fuse protection for electrical loads.

Features

- Rated for 240/415V 50/60Hz
- Ratings 20A, 32A, 63A, 100A, SP&SwN, TP&N
- Utilisation category AC20A, AC21A, AC22A, AC23B at rated current
- Degree of protection IP41
- Handle position provides positive contact indication
- Door handle prevents door being opened when switch is ON or padlocked
- Handle padlockable in ON and OFF positions
- Fuse links supplied as standard
- Bottom feed only

Construction

- Live terminals fully shrouded
- Door interlock has integral defeat mechanism allowing door to be opened without switching OFF. This feature is not operable when the handle is padlocked
- Removable gland plates with cable knockouts
- Lift off door provides greater access for installation and cabling
- Door opens within the width of the unit allowing units to be mounted adjacent
- Neutral has disconnectable link and capacity for 3 outgoing cables
- Keyhole slots in the enclosure base allow easy installation
- Earthing kit provided as standard
- Easy access to fuse links
- Steelwork finished in polyester epoxy powder, cream colour RAL9001

Technical data

Standard BS EN 60947-3

Rated operational voltage 415V 50/60Hz

Rating	20A	32A	63A	100A
Rated current at 40°C, A	20	32	63	100
Rated impulse voltage	6kV	6kV	6kV	6kV
Rated short time withstand I _{cw} , A	416	416	756	1300
Rated short circuit making capacity I _{cm}	1.35kA	1.35kA	1.35kA	3.5kA
Rated short circuit breaking capacity I _{cn}	50kA	50kA	50kA	50kA
Utilisation category at rated current	AC-20A/ 21A/ 22A/ 23B			
Kilowatt rating	11kW	15kW	30kW	55kW
Cable size, maximum mm ² (tunnel lug)	10mm ²	10mm ²	25mm ²	50mm ²

References

Rating (A)	Switch disconnecter fuse Part number	Switch disconnecter Part number
Single pole and switched neutral		
20	MGFA0201C	MGFL0201C
32	MGFA0321C	MGFL0321C
63	MGFA0631C	MGFL0631C
100	MGFA1001C	MGFL1001C
Three pole and neutral		
20	MGFA0203C	MGFL0203C
32	MGFA0323C	MGFL0323C
63	MGFA0633C	MGFL0633C
100	MGFA1003C	MGFL1003C

Fuse link data

Rating (A)	BS88 reference	Bussman reference
20	A1, A2	NITD20
32	A1, A2	AA032
63	A2, A3	BA063
100	A2, A3, A4	CEO100

Wall mounted switchgear

Fuse switch disconnecter

Switch disconnecter



Application

Heavy duty fuse products for use in commercial and industrial environments, providing isolation and traditional fuse protection for electrical loads.

Features

- Rated for 240/415V 50/60Hz
- Ratings 100A, 160A, 200A, 250A, 315A, 400A, 500A, 630A TP&N
- Utilisation category AC20A, AC21A, AC22A, AC23B at rated current, AC23A for ratings up to 160A
- Handle position provides positive contact indication
- Door handle prevents door being opened when switch is ON or padlocked
- Handle padlockable in ON and OFF positions
- Device may be fed to either top or bottom terminals
- Fuse links or copper links supplied as standard

Construction

- All terminals are fully shrouded
- Quick make and break silver plated contacts
- Door interlock has defeat mechanism allowing switch to be closed with door open
- Removable plain gland plates are fitted at top and bottom
- Cabling space may be increased by the addition of the cable boxes
- Lift off door provides greater access for installation and cabling
- Door opens within the width of the unit allowing units to be mounted adjacent
- Neutral is fitted with disconnectable link
- Earthing kit provided as standard
- Easy access to fuse links
- Removable cross rails allow cables to be laid in easily
- Direct front access to terminals without dismantling the mechanism
- Clear shrouds allow easy access for inspection and visual indication of contact position
- Steelwork finished in polyester epoxy powder, cream colour RAL9001

Technical data

Standard BS EN 60947-3
 Rated operational voltage 415V 50/60Hz

Rating	100A	160A	200A	250A	315A	400A	500A	630A
Rated current at 40°C, A	100	160	200	250	315	400	500	630
Rated impulse voltage	8kV	8kV	8kV	8kV	8kV	8kV	8kV	8kV
Rated short time withstand I _{cw} , A	3.4kA	3.4kA	5.23kA	5.23kA	12kA	12kA	12kA	12kA
Rated short circuit making capacity I _{cm}	5kA	5kA	8kA	8kA	24kA	24kA	24kA	24kA
Rated short circuit breaking capacity I _{cn}	50kA	50kA	50kA	50kA	50kA	50kA	50kA	50kA
Utilisation category at rated current	AC-23A	AC-23A	AC-23B	AC-23B	AC-23B	AC-23B	AC-23B	AC-23B
Kilowatt rating	55kW	90kW	110kW	130kW	175kW	220kW	250kW	300kW
Terminal stud	M8	M8	M10	M10	M12	M12	M12	M12
Terminal lug, maximum palm width	20mm	20mm	30mm	30mm	50mm	50mm	50mm	50mm
Maximum cable size	50mm ²	50mm ²	120mm ²	120mm ²	400mm ²	400mm ²	400mm ²	400mm ²

References

Rating (A)	Fuse switch disconnecter Part number	Switch disconnecter Part number	Cable box Part number
Three pole and neutral			
100	MGFS1003C	MGFD1003C	MGFX100C
160	MGFS1603C	MGFD1603C	MGFX160C
200	MGFS2003C		MGFX250C
250	MGFS2503C	MGFD2503C	MGFX250C
315	MGFS3153C		MGFX500C
400	MGFS4003C	MGFD4003C	MGFX500C
500	MGFS5003C	MGFD5003C	MGFX500C
630	MGFS6303C	MGFD6303C	MGFX630C

Fuse link data

Rating (A)	BS88 reference	Bussman reference	Cu links (Set of 3)
100	B1	CD100	MGFQ100
160	B2	DD160	MGFQ160
200	B2	DD200	MGFQ250
250	B3	ED250	MGFQ250
315	C1	EF315	MGFQ400
400	C1	EF400	MGFQ400
500	C2	FF500	MGFQ630
630	C2	FF630	MGFQ630



Application

The wall mounting busbar chambers provide an easy means of mounting and interconnecting fusegear products.

Range

Three ratings and three busbar lengths are available. Connection kits enable busbar chambers to be linked and all devices connected to the bars.

Technical data

Manufactured to	BS EN 60439-1
Rated voltage	415V 50/60Hz
Solid copper busbars rated at	200, 400 and 630A
Neutral bar	Fully rated
Busbar chamber lengths	750, 1200 and 1800mm
Chambers dimensions	Common depth (200mm) Common height (450mm)
End plates, top plates and bottom plates	Are fully removable for connections and for access
Steelwork finished	In polyester epoxy powder, cream colour RAL9001

Rating	Length (mm)	Length (mm)	Length (mm)
	750 Part number	1200 Part number	1800 Part number
200	MGFB20007C	MGFB20012C	MGFB20018C
400	MGFB40007C	MGFB40012C	MGFB40018C
630	MGFB63007C	MGFB63012C	MGFB63018C

Busbar connection kits

Each kit comprises connections for three phases and neutral

Rating	Busbar interconnections to link busbar chambers*	Flexible busbar inter connections to link non Schneider Electric busbar chambers	Cable connections to connect to busbars**
	Part number	Part number	Part number
200	MGFK200		MGFC200
400	MGFK400	MGFJ400	MGFC400
630	MGFK630	MGFJ630	MGFC630

* The busbar connection kits allow 2 or more Schneider Electric busbar chambers to be electrically and mechanically joined together providing facilities for a greater number of outgoing circuits.

** The cable connection kits comprise 4 bolts, nuts and washers to connect a set of cables fitted with crimped lugs to the busbars.

Fuse switch connection kits

Each kit comprises connections for three phases and neutral

Rating	Top mounted Part number	Bottom mounted Part number
100, 160	MGFZ160	MGFZ160
200, 250	MGFZ250	MGFZ250
315 - 630	MGFZ630T	MGFZ630

Fuse switch connection kits comprise 4 copper links with connection hardware to connect a fuse switch to the busbars.

Note: the kit required for fitting devices of 315A or greater differs dependent on whether it is mounted above or below the busbar chamber.