

Earth Leakage Circuit Breakers

Metasol 30AF to 250AF Series

ELCB

| Frame Size (AF) | | | 30 | 50 | | |
|---|--|----------|--|--|--------|--|
| Type | | | S-Type | N-Type | S-Type | H-Type |
| Type and pole | | 2-pole | EBS32c | EBN52c | - | - |
| | | 3-pole | EBS33c | EBN53c | EBS53c | EBH53c |
| | | 4-pole | EBS34c | - | EBS54c | EBH54c |
| Protective function | | | Overload, Short-circuit and ground fault | Overload, Short-circuit and ground fault | | Overload, Short-circuit and ground fault |
| Rated current, I _n | | (A) | (5, 10) ^{Note 2)} , 15, 20, 30 | 15, 20, 30, 40, 50 | | 15, 20, 30, 40, 50 |
| Rated impulse withstand voltage, U _{imp} | | (kV) | 6 | 6 | | 6 |
| Instantaneous type | Rated residual current, I _{Δn} | (mA) | 30, 100, 100/200/500 100/300/500 | 30, 100, 100/200/500, 100/300/500 | | 30, 100, 100/200/500 100/300/500 |
| Time delay type | Residual current off-time at I _{Δn} | sec | ≤ 0.1 | ≤ 0.1 | | ≤ 0.1 |
| | Rated operational voltage, U _e | AC (V) | 220/460 | 220/460 | | 220/460 |
| | Rated residual current | 1A | 0.1/0.2/0.5/1 | 0.1/0.2/0.5/1 | | 0.1/0.2/0.5/1 |
| | Intentional time delay | 1s | 0/0.2/0.5/1 | 0/0.2/0.5/1 | | 0/0.2/0.5/1 |
| | Rated residual current | 2A | 0.1/0.4/1/2 | 0.1/0.4/1/2 | | 0.1/0.4/1/2 |
| | Intentional time delay | 2s | 0.5/1/1.5/2 | 0.5/1/1.5/2 | | 0.5/1/1.5/2 |
| Rated short-circuit breaking capacity (I _{cu}) kA (Sym), KSC8321, IEC 60947-2 | | | | | | |
| AC | | 460V | 14 (10) | 14 | 18 | 50 |
| | | 415V | 14 (10) | 14 | 18 | 50 |
| | | 220/250V | 30 (25) | 30 | 35 | 100 |
| Service breaking capacity(%I _{cu}), I _{cs} | | | 100 | 100 | 100 | 100 |
| Category of use | | | A | A | A | A |
| Endurance | Mechanical | | 20,000 | 20,000 | 20,000 | 20,000 |
| (Number of operations) | Electrical | | 5,000 | 5,000 | 5,000 | 5,000 |
| Type of trip unit | | | | | | |
| Overcurrent pick-up | | | Thermal-magnetic | Thermal-magnetic | | |
| Earth leakage pick-up | | | Electronic | Electronic | | |
| Accessories | | | | | | |
| Electrical auxiliaries | Auxiliary switch | | ● | ● | ● | ● |
| | Alarm switch | | ● | ● | ● | ● |
| External accessories | Insulation barrier | | ● | ● | ● | ● |
| | Terminal cover (Long) | | ● | ● | ● | ● |
| | Terminal cover (Short) | | ● | ● | ● | ● |
| | Rotary handle (Direct) | | ● | ● | ● | ● |
| | Rotary handle (Direct, Key lock) | | ● | ● | ● | ● |
| | Rotary handle (Extended) | | ● | ● | ● | ● |
| | Rear terminal (Bar) | | | | | ● |
| | Rear terminal (Round) | | ● | ● | ● | ● |
| | Pad handle lock | | ● | ● | ● | ● |
| | | | | | | |
| Dimensions (mm) | W×H×D (3P) | | 75×130×60 | 75×130×60 | | 90×155×60 |
| Weight(kg) | 2 pole | | - | 0.5 | - | - |
| | 3 pole | | 0.7 | 0.7 | 0.7 | 1 |
| | 4 pole | | 0.9 | - | 0.9 | 1.2 |

Note) 1. ● applicable or available

2. The short-circuit breaking capacities in () are applied to the rated current in (5, 10A)



| 60 | | 100 | 125 | | 250 | | |
|---|--------|--|---|---------|---|---------|---------|
| N-Type | S-Type | N-Type | S-Type | H-Type | N-Type | S-Type | H-Type |
| - | - | EBN102c | - | - | EBN202c | - | - |
| EBN63c | EBS63c | EBN103c | EBS103c | EBH103c | EBN203c | EBS203c | EBH203c |
| - | EBS64c | EBN104c | EBS104c | EBH104c | - | EBS204c | EBH204c |
| Overload, Short-circuit and ground fault | | Overload, Short-circuit and ground fault | Overload, Short-circuit and ground fault | | Overload, Short-circuit and ground fault | | |
| 60 | | 60, 75, 100 | 15, 20, 30, 40, 50, 60, 75, 100, 125 | | 100, 125, 150, 175, 200, 225, 250 | | |
| 6 | | 6 | 6 | | 6 | | |
| 30, 100, 100/200/500, 100/300/500 | | 30, 100, 100/200/500, 100/300/500 | 30, 100, 100/200/500, 100/300/500 | | 30, 100, 100/200/500, 100/300/500 | | |
| ≤ 0.1 | | ≤ 0.1 | ≤ 0.1 | | ≤ 0.1 | | |
| 220/460 | | 220/460 | 220/460 | | 220/460 | | |
| 0.1/0.2/0.5/1 | | 0.1/0.2/0.5/1 | 0.1/0.2/0.5/1 | | 0.1/0.2/0.5/1 | | |
| 0/0.2/0.5/1 | | 0/0.2/0.5/1 | 0/0.2/0.5/1 | | 0/0.2/0.5/1 | | |
| 0.1/0.4/1/2 | | 0.1/0.4/1/2 | 0.1/0.4/1/2 | | 0.1/0.4/1/2 | | |
| 0.5/1/1.5/2 | | 0.5/1/1.5/2 | 0.5/1/1.5/2 | | 0.5/1/1.5/2 | | |
| 14 | 18 | 18 | 37 | 50 | 26 | 37 | 50 |
| 14 | 18 | 18 | 37 | 50 | 26 | 37 | 50 |
| 30 | 35 | 35 | 85 | 100 | 65 | 85 | 100 |
| 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| A | A | A | A | A | A | A | A |
| 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 |
| 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 |
| Thermal-magnetic | | Thermal-magnetic | Thermal-magnetic | | Thermal-magnetic | | |
| Electronic | | Electronic | Electronic | | Electronic | | |
| • | • | • | • | • | • | • | • |
| • | • | • | • | • | • | • | • |
| • | • | • | • | • | • | • | • |
| • | • | • | • | • | • | • | • |
| • | • | • | • | • | • | • | • |
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| • | • | • | • | • | • | • | • |
| • | • | • | • | • | • | • | • |
| • | • | • | • | • | • | • | • |
| 75×130×60 | | 75×130×60 | 90×155×60 | | 105×165×60 | | |
| - | - | 0.5 | - | - | 1.1 | - | - |
| 0.7 | 0.7 | 0.7 | 1 | 1 | 1.2 | 1.2 | 1.2 |
| - | 0.9 | 0.9 | 1.2 | 1.2 | - | 1.5 | 1.5 |

Earth Leakage Circuit Breakers

Metasol 400AF to 1200AF Series

ELCB

| Frame Size (AF) | | | 400 | | | | |
|---|--|--------|--|-------------|-------------|-------------|--|
| Type | | | N-Type | S-Type | H-Type | L-Type | |
| Type and pole | 3-pole | | EBN403c | EBS403c | EBH403c | EBL403c | |
| | 4-pole | | EBN404c | EBS404c | EBH404c | EBL404c | |
| Protective function | | | Overload, Short-circuit and ground fault | | | | |
| Rated current, I _n | | (A) | 250, 300, 350, 400 | | | | |
| Rated impulse withstand voltage, U _{imp} | | (kV) | 6 | | | | |
| Rated operational voltage, U _e | | AC (V) | 220/460 | | | | |
| Instantaneous type | Rated residual current, I _{Δn} | (mA) | 30, 100/200/500 | | | | |
| | Residual current off-time at I _{Δn} | sec | ≤ 0.1 | ≤ 0.1 | ≤ 0.1 | ≤ 0.1 | |
| Time delay type | Rated residual current | A | 0.1/0.4/1/2 | 0.1/0.4/1/2 | 0.1/0.4/1/2 | 0.1/0.4/1/2 | |
| | Intentional time delay | s | 0.5/1/1.5/2 | 0.5/1/1.5/2 | 0.5/1/1.5/2 | 0.5/1/1.5/2 | |
| Rated short-circuit breaking capacity (I _{cu}) kA (Sym), KSC8321, IEC 60947-2 | | | | | | | |
| AC | 415/460V | | 37 | 50 | 65 | 85 | |
| | 220/250V | | 50 | 75 | 85 | 125 | |
| Service breaking capacity(%I _{cu}), I _{cs} | | | 100 | 100 | 100 | 100 | |
| Category of use | | | A | A | A | A | |
| Endurance | Mechanical | | 4,000 | 4,000 | 4,000 | 4,000 | |
| (Number of operations) | Electrical | | 1,000 | 1,000 | 1,000 | 1,000 | |
| Type of trip unit | | | | | | | |
| Overcurrent pick-up | | | Thermal-magnetic | | | | |
| Earth leakage pick-up | | | Electronic | | | | |
| Accessories | | | | | | | |
| Electrical auxiliaries | Auxiliary switch | | ● | ● | ● | ● | |
| | Alarm switch | | ● | ● | ● | ● | |
| | Shunt trip | | ● | ● | ● | ● | |
| | Undervoltage trip | | ● | ● | ● | ● | |
| External accessories | Insulation barrier | | ● | ● | ● | ● | |
| | Terminal cover (Long) - 2, 3 pole | | ● | ● | ● | ● | |
| | Terminal cover (Long) - 4 pole | | ● | ● | ● | ● | |
| | Rotary handle (Direct) | | ● | ● | ● | ● | |
| | Rotary handle (Extended) | | ● | ● | ● | ● | |
| | Mechanical interlock - 2, 3 pole | | ● | ● | ● | ● | |
| | Mechanical interlock - 4 pole | | ● | ● | ● | ● | |
| | Rear terminal - 2 pole | | ● | ● | ● | ● | |
| | Rear terminal - 3 pole | | ● | ● | ● | ● | |
| | Rear terminal - 4 pole | | ● | ● | ● | ● | |
| Dimensions (mm) | W×H×D (3P) | | 140×257×109 | | | | |
| Weight(kg) | 3 pole | | 7 | 7 | 7 | 7 | |
| | 4 pole | | 8.4 | 8.4 | 7 | 7 | |

Note) 1. ● applicable or available



| 800 | | | | 1000 | 1200 |
|--|-------------|-------------|--|--|-------------|
| N-Type | S-Type | L-Type | | S-Type | S-Type |
| EBN803c | EBS803c | EBL803c | | EBS1003b | EBS1203b |
| - | - | - | | - | - |
| Overload, Short-circuit and ground fault | | | | Overload, Short-circuit and Ground fault | |
| 500, 630, 700, 800 | | | | 1000 | 1200 |
| 6 | | | | - | - |
| 220/460 | | | | 220/460 | 220/460 |
| 30, 100/200/500 | | | | 100/200/500 | 100/200/500 |
| ≤ 0.1 | ≤ 0.1 | ≤ 0.1 | | ≤ 0.1 | ≤ 0.1 |
| 0.1/0.4/1/2 | 0.1/0.4/1/2 | 0.1/0.4/1/2 | | - | - |
| 0.5/1/1.5/2 | 0.5/1/1.5/2 | 0.5/1/1.5/2 | | - | - |
| 37 | 65 | 85 | | 85 | 85 |
| 50 | 85 | 125 | | 125 | 125 |
| 100 | 100 | 75 | | - | - |
| A | A | A | | - | - |
| 2,500 | 2,500 | 2,500 | | 2,500 | 2,500 |
| 500 | 500 | 500 | | 500 | 500 |
| Thermal-magnetic | | | | Thermal-magnetic | |
| Electronic | | | | Electronic | |
| • | • | • | | • | • |
| • | • | • | | • | • |
| • | • | • | | - | - |
| • | • | • | | - | - |
| • | • | • | | - | - |
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| • | • | • | | - | - |
| • | • | • | | - | - |
| 210×280×109 | | | | 220×565×105 | |
| 11.5 | 11.5 | 11.5 | | 27.1 | 27.1 |
| - | - | - | | - | - |