

Electronic Overload Relays

New complete range up to 1250A



ABB

A complete range from 0.1A ...1250A

- ### Electronic overload relays...

...are environmental friendly

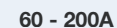
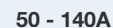
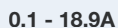
- Low power consumption saves energy
- Materials employed can be recycled

...are safe and flexible

- Better accuracy
- Digital evaluation
- Fewer current ranges

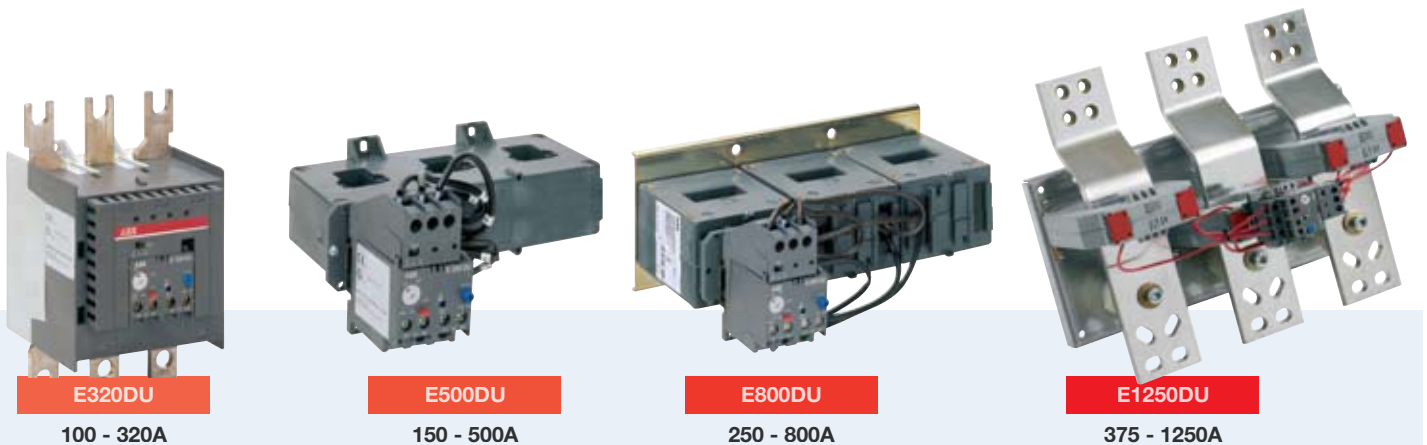
...save costs

- smaller cabinets due to less heat dissipation
- less inventory

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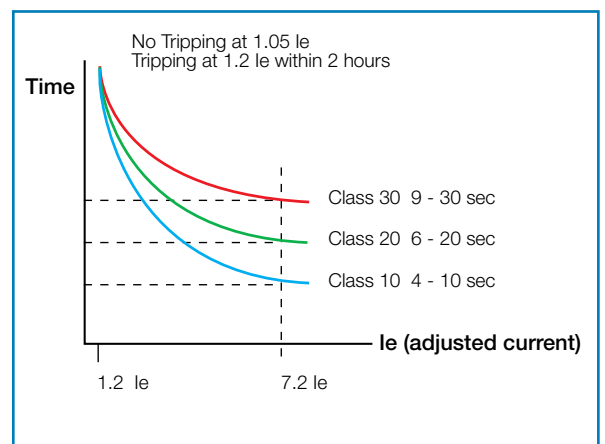
Cost savings

- ✓ The wide setting range and integrated tripping classes 10, 20, 30 substantially reduce the number of different types. This is a major benefit for planning, project implementation, inventory and logistics.
- ✓ The low power consumption saves energy costs
- ✓ The low level of heat dissipation reduces cost of cooling or ventilation
- ✓ Temperature compensation of -25 to +70 °C prevents nuisance shut-down in response to changes in temperature and assures high precision and reliability

[illegible]

Technical Features

- ✓ No external power supply needed
- ✓ Low energy consumption
- ✓ Low heat dissipation
- ✓ Wide setting range
- ✓ Wide temperature range from -25 ... +70 °C
- ✓ High safety standard
- ✓ Stable and precise trip curve throughout the entire life cycle
- ✓ Fast phase failure detection
- ✓ Test functions
- ✓ Manual and automatic reset
- ✓ Stop button



Selection by motor horsepower

Starter with electronic overload

Motor horsepower				Complete starter		Starter components			
3 Phase, 1800 RPM						Contactor		Overload relay	
200V	230V	460V	575V	Catalog number	List Price	Catalog number	List Price	Catalog number	List Price
			1/4	A9S-84B1	\$ 173	A9-30-10-84	\$ 78	E16DU1.0-10	\$ 71
		1/4,1/3	1/3						
			1/2						
		1/2	3/4	A9S-84C1		A9-30-10-84		E16DU2.7-10 (0.9-2.7)	
		3/4							
	1/2	1	1 1/2						
1/2		1 1/2	2	A9S-84D1		A9-30-10-84		E16DU6.3-10 (2.0-6.3)	
3/4	3/4	2							
	1		3						
1	1 1/2	3	5	A9S-84E1		A9-30-10-84		E16DU18.9-10 (5.7-18.9)	
2	2	5	7 1/2						
3	3	7 1/2	10		A12S-84E1	179	A12-30-10-84	84	
5	5	10	15	A16S-84E1	208	A16-30-10-84	102		
	7 1/2	15	20	A26S-84A1	347	A26-30-10-84	183	E45DU30 (9-30)	105
7 1/2	10	20	25						
10	10			A30S-84B1	416	A30-30-10-84	252	E45DU45 (15-45)	
		25	30						
10	15	30	40	A40S-84B1	468	A40-30-10-84	297	E45DU45 (15-45)	112
15	20	40	50	A50S-84A1	577	A50-30-11-84	330	E80DU80 (27-80)	188
20		50	60	A63S-84A1	619	A63-30-11-84	372		
25	30	60	75	A75S-84A1	660	A75-30-11-84	413		
30				A95S-84A1	770	A95-30-11-84	450	E140DU140 (50-140)	261
	40	75	100	A110S-84A1	800	A110-30-11-84	480		
4.0	50	100	125	A145S-84E2	1210	A145-30-11-84	825	E200DU200(60-200)	325
5.0	60	125	150	A185S-84E2	1675	A185-30-11-84	1290		
60	75	150	200	A210S-84E3	2135	A210-30-11-84	1635	E320DU320 (100-320)	775
75	100	200	250	A260S-84E3	2740	A260-30-11-84	1850		
100		250	300	A300S-84E3	2890	A300-30-11-84	1875		
12.5	5/6	35.0	40.0	A400S-70E5	4125	AF400-30-11-70	3120	E500DU500 (150-500)	865
150	200	400	500	A460S-70E5	5700	AF460-30-11-70	4425		
200	250	500	600	A580S-70E8	8346	AF580-30-11-70	6900	E800DU800 (250-800)	950
250	300	600	700	A750S70E8		AF750-30-11-70	7200		
	400	800	900	A1350S-70E12	11,578	AF1350-30-11-70	8490	E1250DU1250 (375-1250)	2790
	450	900	1000	A1650S-70E12	13,450	AF1650-30-11-70	10,230		

Electronic Overload Relays class 10, 20, 30



Catalog number	Setting range	Trip class	List price	Contactor	Suffix code
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Trip Class 10

E16DU0.32-10	0.1-0.32A	10	\$ 96	B...6-B...7 / A...9...A...16...	A1
E16DU1.0-10	0.3-1.0A	10		B...6-B...7 / A...9...A...16...	B1
E16DU2.7-10	0.9-2.7A	10		B...6-B...7 / A...9...A...16...	C1
E16DU6.3-10	2.0-6.3A	10		B...6-B...7 / A...9...A...16...	D1
E16DU18.9-10	5.7-18.9A	10		B...6-B...7 / A...9...A...16...	E1

Trip Class 20

E16DU0.32-20	0.1-0.32A	20	96	B...6-B...7 / A...9...A...16...	A2
E16DU1.0-20	0.3-1.0A	20		B...6-B...7 / A...9...A...16...	B2
E16DU2.7-20	0.9-2.7A	20		B...6-B...7 / A...9...A...16...	C2
E16DU6.3-20	2.0-6.3A	20		B...6-B...7 / A...9...A...16...	D2
E16DU18.9-20	5.7-18.9A	20		B...6-B...7 / A...9...A...16...	E2

Trip Class 30

E16DU0.32-30	0.1-0.32A	30	96	B...6-B...7 / A...9...A...16...	A3
E16DU1.0-30	0.3-1.0A	30		B...6-B...7 / A...9...A...16...	B3
E16DU2.7-30	0.9-2.7A	30		B...6-B...7 / A...9...A...16...	C3
E16DU6.3-30	2.0-6.3A	30		B...6-B...7 / A...9...A...16...	D3
E16DU18.9-30	5.7-18.9A	30		B...6-B...7 / A...9...A...16...	E3

Trip Class 10

E45DU30-10	9-30A	10	105	A...26 ... A...40	A1
E45DU45-10	15-45A	10	112	A...26 ... A...40	B1
E80DU80-10	27-80A	10	188	A...50 ... A...75	A1
E140DU140-10	50-140A	10	261	A...95 ... A...110	A1

Trip Class selectable

E45DU30	9-30A	10, 20, 30	105	A...26 ... A...40	E1
E45DU45	15-45A	10, 20, 30	112	A...26 ... A...40	E2
E80DU80	27-80A	10, 20, 30	188	A...50 ... A...75	E1
E140DU140	50-140A	10, 20, 30	261	A...95 ... A...110	E1
E200DU200	60-200A	10, 20, 30	325	A...145 ... A...185	E3
E320DU320	100-320A	10, 20, 30	775	A...210 ... A...300	E3
E500DU500	150-500A	10, 20, 30	865	AF...400 ... AF...460	E5
E800DU800	250-800A	10, 20, 30	950	AF...580 ... AF...750	E8
E1250DU1250	375-1250	10, 20, 30	2970	AF...1350 ... AF...1630	E12

Universal motor controller

Universal motor controller with thermal overload protection 0.24 - 63 A in a single device type. Bushing-type transformer, cable cross section 25mm² (max. diameter including insulation - 11mm). Integrated motor control functions: Direct starting, reverse starting, star-delta starting, servo-drive functions. Diagnostic functions: Overload phase failure, trip categories, 5, 10, 20, 30. Integrated storage of parameters and motor data. 6 digital inputs, 3 relay outputs. Fieldbus-independent interface for connection to FBP fieldbus connectors, interface to operating panel ACS100-PAN.

Description	Contactor	Setting range	Trip class	Catalog number	List price
UMC22-FBP.0	A9 - AF1650	0.63 - 63 A	5, 10, 20, 30	1SAJ510000R0400	\$ 689.50

Accessories



DB16E



Operating panel

Mounting kits

for direct mounting on contactors AF400 – AF750

For overload relays	On contactor	Catalog number	List price
E500DU	AF400 – AF460 AF400 – AF460 w/reversing kits	DT500/AF460S DT500/AF460L	\$ 395
E800DU	AF580 – AF750 AF580 – AF750 w/reversing kits	DT800/AF750S DT800/AF750L	415

Separate mounting kits

For overload relays	Catalog number	List price
E16DU	DB16E	\$ 15
E45DU	DB45E	39
E80DU	DB80E	48
E110DU	DB140E	70

Lug kits

Wire range	Electronic overload	Catalog number	List price
6 – 250 MCM	E200DU200	ATK185	\$ 45
4 – 400 MCM	E320DU320	ATK300	68
(2) 4 – 500 MCM	E320DU320	ATK300/2	110
(2) 2/0 – 500 MCM	E500DU500	ATK580/2HK	160
(3) 2/0 – 500 MCM	E800DU800	ATK750/3HK	235
(4) 1/0 – 750 MCM	E12150DU1250	ATK1350/4HK	275

Terminal shrouds

For overload relays	Catalog number	List price
E200DU E320DU	LT200E LT320E	\$ 41
E500DU E800DU	LT500E LT800E	52 56

Accessories for Universal Motor Controller UMC22-FBP

Operating, diagnostics and parameter setting panel for Universal Motor Controller UMC22-FBP.
Setting of motor and bus parameters.

Type	Designation	Usage with	Catalog number	List price
ACS100-PAN	Operating panel	UMC22-FBP	1SAJ510001R0001	\$ 100.60

Accessories for operating panel ACS100-PAN

Extension cable 3 m and door mounting set IP65 (front side) for ACS100-PAN operating panel.

Type	Designation	Usage with	Catalog number	List price
ACS100-CAB.300	Extension cable 3m with door mounting set	ACS100-PAN	1SAJ510002R0001	\$ 191.00
ACS100-CAB.070	Extension cable 3m with front mounting set	ACS100-PAN	1SAJ510003R0001	168.00

Current transformers for use with the Universal Controller UMC22-FBP

Secondary-linear transformer, 3-phase with terminal block, intended for conductors Cu 2.5mm².

Type	Designation	Current range recommended	Catalog number	List price
KORC 4L 185 R/4	Current transformer	60 - 185 A	1SCA022193R7830	\$ 600.00
KORC 4L 310 R/4	Current transformer	180 - 310 A	1SCA022181R0760	650.00
KORC 5L 500 R/4	Current transformer	300 - 500 A	1SCA022208R1010	700.00
KORC 5L 850 R/4	Current transformer	500 - 850 A	1SCA022208R1440	750.00

Connection kit for use with the KORC-current transformers

Connection kit for applications with KORC-current transformers with A-series contactors

Type	Designation	Appropriate for contactor type	Catalog number	List price
DT 450 / A185	Connection kit	AF145 - AF185	1SAZ501901R1001	\$ 225.00
DT 450 / A300	Connection kit	AF260 - AF300	1SAZ501902R1001	225.00
DT 500 / AF460L	Connection kit ①	AF400 - AF460	1SAX701902R1001	395.00
DT 800 / AF750L	Connection kit ①	AF580 - AF750	1SAX801902R1001	415.00

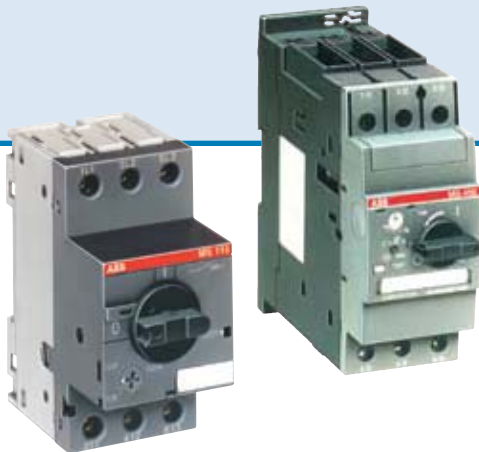
① Connection kit for Star-Delta-Starter

Motor protection from ABB

Thermal overload relays
0.1 – 310A
Tripping classes 10, 20, 30



Electronic overload relays
0.1 – 1250A
Tripping classes 10, 20, 30



Manual Motor Starters
0.1 – 100A
Tripping classes 10, 20
Integrated short circuit protection



Universal motor controller
0.16 – 850A
Tripping classes 5, 10, 20, 30
Integrated inputs/outputs
Motor control and diagnostic functions
Field bus connection