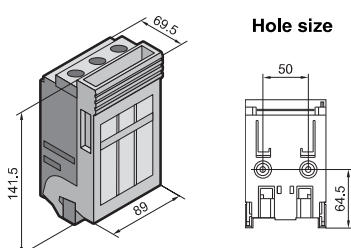
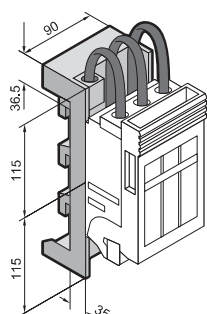


NH fuse-switch disconnectors, size 000 (3-pole)

Catalogue 33, page 296

Design	NH fuse-switch disconnectors for mounting plate assembly	
Note: – For the use of fuse inserts to EN 60 269-2. – Technical specifications to IEC/EN 60 947-3, see page 199. – Load factor, see page 149. – Current carrying capacity of connection cables, see page 150. – Use of semi-conductor fuses, see page 156.		
Rated operating current	100 A	
Rated operating voltage	690 V AC	
With connection cables mm²	–	
For bar systems mm	–	
For bar thickness mm	–	
Model No. SV	3431.000	
Assembly data for applications to IEC (EN)		
Tightening torque Nm – Terminal screw	3	
Type of connection	Box terminal	
Conductor connection Cu mm²	f with wire end ferrule re/rm	1.5 – 50 1.5 – 50
Clamping area for laminated copper bars W x H mm	10 x 10	
Minimum distance to conductive earthed parts mm	Side	30
	Top	80
	Rear	0
Material specifications		
Contact track	E-Cu, silver-plated	■
	E-Cu, nickel-plated	–

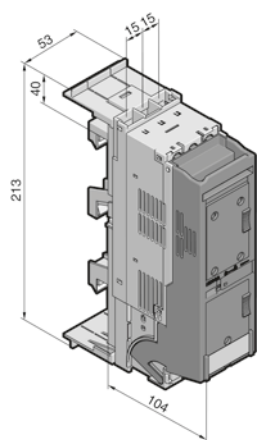
Busbar adaptor for SV 3431.000	
	
–	–
–	–
35	35
60	60
5	10
9320.040	9320.050
–	–
–	–
–	–
–	–
–	–
–	–
–	–
–	–
–	–
–	–
■	■

Power distribution

RiLine NH fuse elements

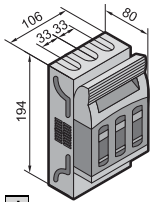
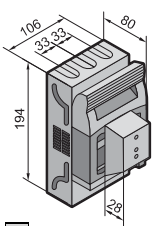
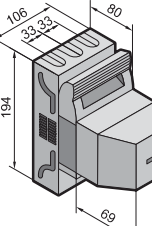
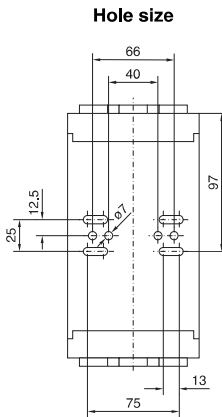
NH bus-mounting fuse-switch disconnectors, size 000 (3-pole)

Catalogue 33, page 297

For 60 mm busbar systems		
Note: – For the use of fuse inserts to EN 60 269-2. – Technical specifications to IEC/EN 60 947-3, see page 199. – Load factor, see page 149. – Current carrying capacity of connection cables, see page 150. – Use of semi-conductor fuses, see page 156.		
Rated operating current		100 A
Rated operating voltage		690 V AC
Cable outlet	Top	Bottom
Model No. SV	3431.020	3431.030
Assembly data for applications to IEC (EN)		
Tightening torque Nm	4.5	4.5
– Rail attachment	4.5	4.5
– Terminal screw	4.5	4.5
Type of connection	Box terminal	Box terminal
Conductor connection Cu f with wire end ferrule	2.5 – 50	2.5 – 50
mm² re/rm	2.5 – 50	2.5 – 50
Material specifications		
Contact track: E-Cu, silver-plated	■	■

NH fuse-switch disconnectors, size 00 (3-pole)

Catalogue 33, page 298/299

Design	NH fuse-switch disconnectors for mounting plate assembly	
Cable outlet top/bottom. Note: - For the use of fuse inserts to EN 60 269-2. - Technical specifications to IEC/EN 60 947-3, see page 199/200. - Load factor, see page 149. - Current carrying capacity of connection cables, see page 150. - Use of semi-conductor fuses, see page 156/157. Approvals: SV 9344.000/010 SV 9343.000/010  E235931 Applications to RU only in conjunction with "Special Purpose Fuses".	   	

Rated operating current	IEC	160 A
	UL	160 A
Rated operating voltage	IEC	690 V AC/400 – 690 V AC ¹⁾
	UL	600 V~
1 Model No. SV	9344.000 	9344.010 
2 With electronic fuse monitoring	9344.020	9344.030
3 With electromechanical fuse monitoring	9344.040	9344.050

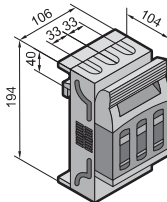
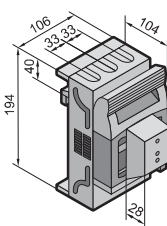
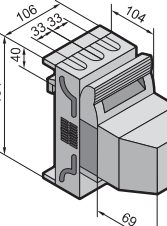
Assembly data for applications to IEC (EN)/UL

Tightening torque Nm		
– Rail attachment	–	–
– Terminal screw	4,5	12
Type of connection	Box terminal	Screw M8
Conductor connection re/rm	4 – 95	–
Cu/Al mm ² se/sm	–	–
Conductor connection with ring terminal mm ²	–	up to 95
Clamping area for laminated copper bars W x H mm	13 x 13	20 x 5
Minimum distance to conductive earthed parts mm		
Side	40	40
Top	100	100
Rear	0	0

Material specifications

Contact track: E-Cu, silver-plated	■	■
Terminal: Cast brass, nickel-plated	■	–

¹⁾ Rated operating voltage 400 – 690 V~ for NH disconnectors with electronic fuse monitoring.

NH bus-mounting fuse-switch disconnectors for 60 mm busbar systems	
  	

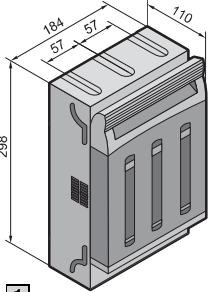
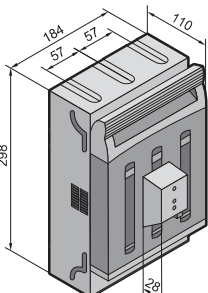
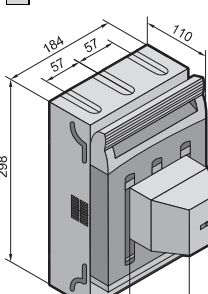
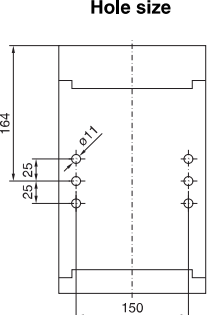
160 A	
160 A	
690 V AC/400 – 690 V AC ¹⁾	
600 V~	
9343.000 	9343.010 
9343.020	9343.030
9343.040	9343.050

6	6
4,5	12
Box terminal	Screw M8
4 – 95	–
–	–
–	up to 95
13 x 13	20 x 5
40	40
100	100
0	0

■	■
■	–

NH fuse-switch disconnectors size 1 (3-pole)

Catalogue 33, page 300/301

Design	NH fuse-switch disconnectors for mounting plate assembly	
Cable outlet top/bottom. Note: - For the use of fuse inserts to EN 60 269-2. - Technical specifications to IEC/EN 60 947-3, see page 199/200. - Load factor, see page 149. - Current carrying capacity of connection cables, see page 150. - Use of semi-conductor fuses, see page 156/157. Approvals: SV 9344.100/.110 SV 9343.100/.110  E235931 Applications to RU only in conjunction with "Special Purpose Fuses".	   	
Rated operating current	IEC	250 A
	UL	250 A
Rated operating voltage	IEC	690 V AC/400 – 690 V AC ¹⁾
	UL	600 V~
1 Model No. SV	9344.100 	9344.110 
2 With electronic fuse monitoring	–	9344.130
3 With electromechanical fuse monitoring	–	9344.150

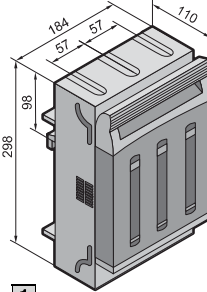
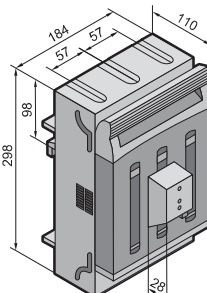
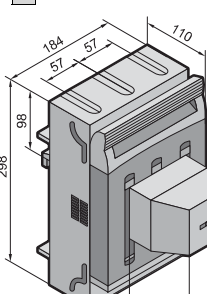
Assembly data for applications to IEC (EN)/UL

Tightening torque Nm		
– Rail attachment	–	–
– Terminal screw	12	20
Type of connection	Box terminal	Screw M10
Conductor connection	re/rm	35 – 150
Cu/Al mm ²	se/sm	50 – 150
Conductor connection with ring terminal mm ²	–	up to 150
Clamping area for laminated copper bars W x H mm	20 x 3 – 14	32 x 10
Minimum distance to conductive earthed parts mm	Side	40
	Top	100
	Rear	0

Material specifications

Contact track: E-Cu, silver-plated	■	■
Terminal: Cast brass, nickel-plated	■	–

¹⁾ Rated operating voltage 400 – 690 V~ for NH disconnectors with electronic fuse monitoring.

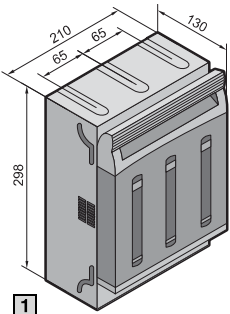
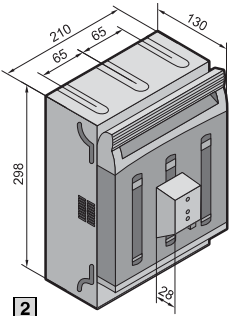
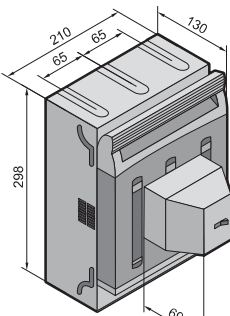
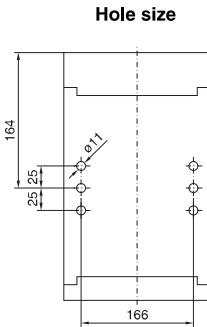
NH bus-mounting fuse-switch disconnectors for 60 mm busbar systems	
  	
250 A	
250 A	
690 V AC/400 – 690 V AC ¹⁾	
600 V~	
9343.100 	9343.110 
9343.120	9343.130
9343.140	9343.150

6	6
12	20
Box terminal	Screw M10
35 – 150	–
50 – 150	–
–	up to 150
20 x 3 – 14	32 x 10
40	40
100	100
0	0

■	■
■	–

NH fuse-switch disconnectors size 2 (3-pole)

Catalogue 33, page 302/303

Design	NH fuse-switch disconnectors for mounting plate assembly	
Cable outlet top/bottom. Note: - For the use of fuse inserts to EN 60 269-2. - Technical specifications to IEC/EN 60 947-3, see page 199/200. - Load factor, see page 149. - Current carrying capacity of connection cables, see page 150. - Use of semi-conductor fuses, see page 156/157. Approvals: SV 9344.200/.210 SV 9343.200/.210  E235931 Applications to RU only in conjunction with "Special Purpose Fuses".	   	
Rated operating current	IEC	400 A
	UL	400 A
Rated operating voltage	IEC	690 V AC/400 – 690 V AC ¹⁾
	UL	600 V~
1 Model No. SV	9344.200 	9344.210 
2 With electronic fuse monitoring	–	9344.230 
3 With electromechanical fuse monitoring	–	9344.250

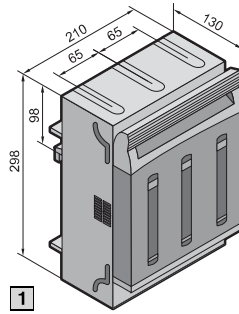
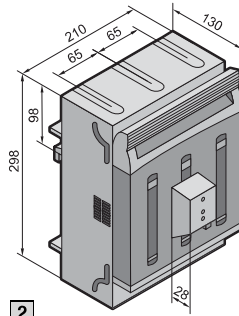
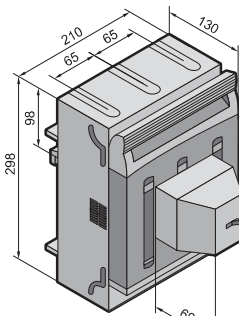
Assembly data for applications to IEC (EN)/UL

Tightening torque Nm	–	–
– Rail attachment	20	20
– Terminal screw	–	–
Type of connection	Box terminal	Screw M10
Conductor connection	re/rm	–
Cu/Al mm ²	95 – 300	–
	se/sm	–
	120 – 300	–
Conductor connection with ring terminal mm ²	–	up to 240
Clamping area for laminated copper bars W x H mm	32 x 10 – 20	50 x 10
Minimum distance to conductive earthed parts mm	Side	50
	Top	120
	Rear	0

Material specifications

Contact track: E-Cu, silver-plated	■	■
Terminal: Cast brass, nickel-plated	■	–

¹⁾ Rated operating voltage 400 – 690 V~ for NH disconnectors with electronic fuse monitoring.

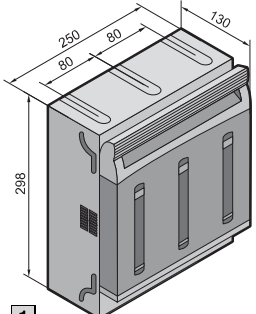
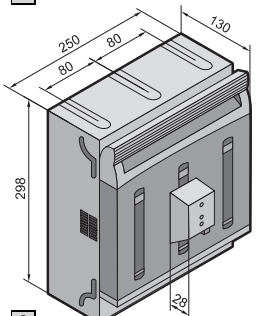
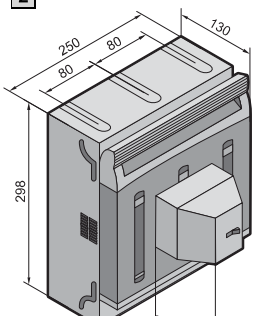
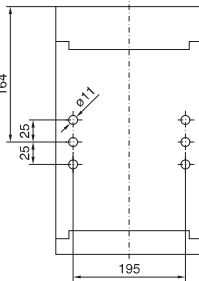
NH bus-mounting fuse-switch disconnectors for 60 mm busbar systems	
  	
400 A	
400 A	
690 V AC/400 – 690 V AC ¹⁾	
600 V~	
9343.200 	9343.210 
9343.220	9343.230
9343.240	9343.250

8	8
20	20
Box terminal	Screw M10
95 – 300	–
120 – 300	–
–	up to 240
32 x 10 – 20	50 x 10
50	50
120	120
0	0

■	■
■	–

NH fuse-switch disconnectors size 3 (3-pole)

Catalogue 33, page 304/305

Design		NH fuse-switch disconnectors for mounting plate assembly	
Cable outlet top/bottom. Note: - For the use of fuse inserts to EN 60 269-2. - Technical specifications to IEC/EN 60 947-3, see page 199/200. - Load factor, see page 149. - Current carrying capacity of connection cables, see page 150. - Use of semi-conductor fuses, see page 156/157. Approvals: SV 9344.300/.310 SV 9343.300/.310 RU E235931 Applications to RU only in conjunction with "Special Purpose Fuses".		 1  2  3  Hole size	
Rated operating current	IEC	630 A	
	UL	630 A	
Rated operating voltage	IEC	690 V AC/400 – 690 V AC ¹⁾	
	UL	600 V~	
1 Model No. SV		9344.300 	9344.310 
2 With electronic fuse monitoring		–	9344.330
3 With electromechanical fuse monitoring		–	9344.350

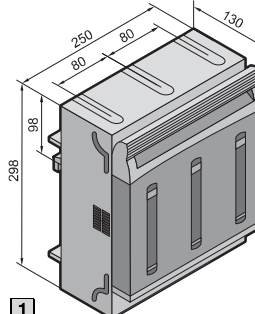
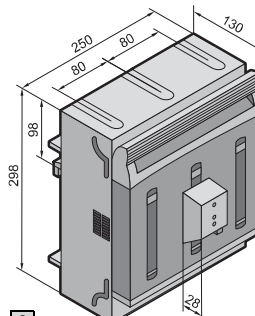
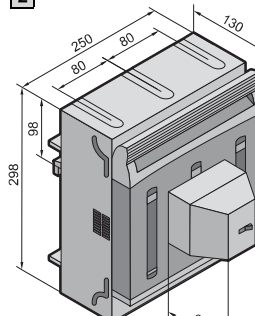
Assembly data for applications to IEC (EN)/UL

Tightening torque Nm		–	–
– Rail attachment		20	20
– Terminal screw			
Type of connection		Box terminal	Screw M10
Conductor connection	re/rm	95 – 300	–
Cu/Al mm ²	se/sm	120 – 300	–
Conductor connection with ring terminal mm ²		–	up to 300
Clamping area for laminated copper bars W x H mm		32 x 10 – 20	50 x 10
Minimum distance to conductive earthed parts mm	Side	60	60
	Top	140	140
	Rear	0	0

Material specifications

Contact track: E-Cu, silver-plated	■	■
Terminal: Cast brass, nickel-plated	■	–

¹⁾ Rated operating voltage 400 – 690 V~ for NH disconnectors with electronic fuse monitoring.

NH bus-mounting fuse-switch disconnectors for 60 mm busbar systems	
 1  2  3	
630 A	
630 A	
690 V AC/400 – 690 V AC ¹⁾	
600 V~	
9343.300 	9343.310 
9343.320	9343.330
9343.340	9343.350

8	8
20	20
Box terminal	Screw M10
95 – 300	–
120 – 300	–
–	up to 300
32 x 10 – 20	50 x 10
60	60
140	140
0	0

■	■
■	–

NH disconnectors, size 000 – 3

Catalogue 33, page 296 – 305

Technical specifications IEC/EN 60 947-3						
Size (NH fuse inserts to IEC/EN 60 269-1)		Size 000	Size 00	Size 1	Size 2	Size 3
Rated operating current I_e		100 A	160 A	250 A	400 A	630 A
Rated operating voltage U_e		690 V AC	690 V AC ¹⁾	690 V AC ¹⁾	690 V AC ¹⁾	690 V AC ¹⁾
Rated insulation voltage U_i		690 V AC	1000 V	1000 V	1000 V	1000 V
Rated surge voltage resistance U_{imp}		6 kV	8 kV ¹⁾	8 kV ¹⁾	8 kV ¹⁾	8 kV ¹⁾
Level of contamination		3	3	3	3	3
Overvoltage category		III	III	III	III	III
Rated frequency		50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Conditional rated short-circuit current (when protected with fuses)	at 690 V AC	80 kA	80 kA	80 kA	50 kA	80 kA
	at 500 V AC	80 kA	80 kA	80 kA	80 kA	80 kA
Utilisation category	400 V AC	AC-22B ($I_e = 100$ A)	AC-23B	AC-23B	AC-23B	AC-23B
	500 V AC	AC-22B ($I_e = 100$ A)	AC-22B	AC-23B	AC-22B (AC-23B ²⁾)	AC-22B (AC-23B ²⁾)
	690 V AC	AC-21B ($I_e = 100$ A)	AC-21B	AC-22B (AC-23B ²⁾)	AC-21B (AC-23B ²⁾)	AC-21B (AC-23B ²⁾)
	220 V DC ³⁾	–	DC-22B	DC-21B (DC-22B ²⁾)	DC-21B (DC-22B ²⁾)	DC-21B (DC-22B ²⁾)
	440 V DC ³⁾	DC-21B ($I_e = 100$ A)	–	DC-22B ²⁾	DC-22B ²⁾	DC-22B ²⁾
	1000 V DC ³⁾⁴⁾	–	DC-20B	DC-20B	DC-20B	DC-20B
Mechanical life (switching cycles)		2000	1400	1400	800	800
Electrical life (switching cycles)		200	200	200	200	200
Siting conditions	Interior siting: Relative humidity 50% at 40°C or 90% at 20°C (without condensation due to temperature fluctuations)					
Permissible ambient temperature		–25°C to +55°C	–20°C to +55°C			
$P_{Vmax}/\text{fuse insert}$		7.5 W	12 W	23 W	34 W	48 W

¹⁾ Reduction of the rated values for electronic fuse monitoring: Rated surge voltage resistance 3.5 kV, rated voltage 400 – 690 V AC.

Reduction of rated values for electromechanical fuse monitoring: Rated surge voltage resistance 6 kV.

²⁾ With arc chamber set (Model No. SV 9344.680) for increased switching capacity.³⁾ DC application with component mounting of phase L₁ and L₃ in series, electronic fuse monitoring function not supported.⁴⁾ For use as disconnector or fuse-switch disconnector.

The required creepage distances and clearances should be observed in the cable connection area.

NH disconnectors, size 00 – 3**Conductor connection of several ring terminals**

Catalogue 33, page 298 – 305

Size	Size 00	Size 1	Size 2	Size 3
Conductor cross-section (mm ²)	Number of ring terminals to DIN 46 235			
16	2	2	–	–
25	2	2	–	–
35	2	2	–	–
50	2	2	–	–
70	–	2	–	–
95	–	2	–	–
120	–	2	–	–
150	–	2	2	2
185	–	2	2	2
240	–	–	2	2
300	–	–	2	2

Note:The creepage distances and clearances to EN 60 664-1 should be checked and insulating plates be installed if necessary.
Fine-wire with wire end ferrule.

Power distribution

RiLine NH fuse elements

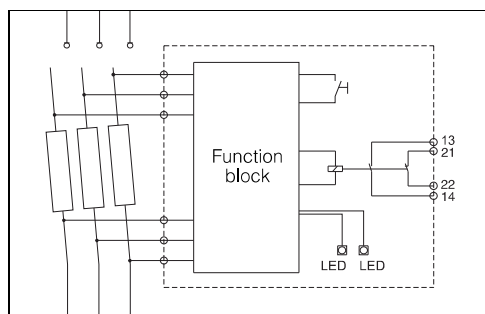
NH disconnectors, size 00 – 3

Electronic and electromechanical fuse monitoring

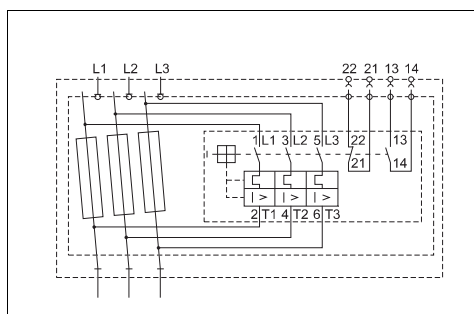
Catalogue 33, page 299 – 305

Technical specifications	Electronic fuse monitoring	Electromechanical fuse monitoring
Rated operating voltage U_o	400 V AC to 690 V AC	24 V AC to 690 V AC 24 V AC to 250 V DC
Tolerance	$\pm 10\%$ (400/500 V AC) $+5\%/-10\%$ (690 V AC)	$\pm 10\%$
Rated insulation voltage U_i	1000 V AC	690 V AC
Rated surge voltage resistance U_{imp}	8 kV	6 kV
Rated frequency	50 – 60 Hz	50 – 60 Hz
Response time	Max. 1.5 s	Max. 0,5 s
Auxiliary contacts	1 NO, 1 NC 250 V AC, 30 V DC, 5 A	1 NO, 1 NC 24 V AC, 2 A/ 230 V AC, 0,5 A/ 24 V DC, 1 A/ 60 V DC, 0,15 A
Load capacity of auxiliary contacts	5 A	4 A
Permissible ambient temperature	-20°C to $+55^\circ\text{C}$ (400/500 V AC), -20°C to $+45^\circ\text{C}$ (690 V AC)	-20°C to $+55^\circ\text{C}$
Display	LED flashing green (operational) 13/14: Open 21/22: Closed	Rocker switch position "1" (operational) 13/14: Closed 21/22: Open
	LED flashing red (error message) 13/14: Closed 21/22: Open	Rocker switch position "0" (error message) 13/14: Open 21/22: Closed
Connection of auxiliary contacts	Terminal up to 1.5 mm ²	Terminal up to 1.5 mm ²
NH fuse inserts to IEC/EN 60 269-3	With contacted, live puller lugs	
Material	Insulation-displacement contacts: E-Cu, tin-plated	
Function	Differential voltage	

Wiring diagram



Electronic fuse monitoring



Electromechanical fuse monitoring