TeSys protection components
TeSys D, 3-pole thermal overload relays

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LRD ●●

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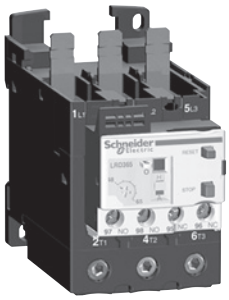

LRD 3●●

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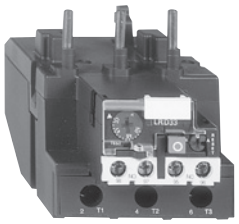

LRD 33●●

PF526203.eps

LRD 3●●6

Differential thermal overload relays
for use with fuses or magnetic circuit-breakers GV2 L and GV3 L

- Compensated relays with manual or automatic reset,
- with relay trip indicator,
- for a.c. or d.c.

Relay setting range (A)	Fuses to be used with selected relay aM (A)	gG (A)	BS88 (A)	For use with contactor LC1	Reference	Weight kg
Class 10 A (1) for connection by screw clamp terminals or connectors						
0.10…0.16	0.25	2	–	D09…D38	**LRD 01**	0.124
0.16…0.25	0.5	2	–	D09…D38	**LRD 02**	0.124
0.25…0.40	1	2	–	D09…D38	**LRD 03**	0.124
0.40…0.63	1	2	–	D09…D38	**LRD 04**	0.124
0.63…1	2	4	–	D09…D38	**LRD 05**	0.124
1…1.6	2	4	6	D09…D38	**LRD 06**	0.124
1.6…2.5	4	6	10	D09…D38	**LRD 07**	0.124
2.5…4	6	10	16	D09…D38	**LRD 08**	0.124
4…6	8	16	16	D09…D38	**LRD 10**	0.124
5.5…8	12	20	20	D09…D38	**LRD 12**	0.124
7…10	12	20	20	D09…D38	**LRD 14**	0.124
9…13	16	25	25	D12…D38	**LRD 16**	0.124
12…18	20	35	32	D18…D38	**LRD 21**	0.124
16…24	25	50	50	D25…D38	**LRD 22**	0.124
23…32	40	63	63	D25…D38	**LRD 32**	0.124
30…38	40	80	80	D32 and D38	**LRD 35**	0.124
Class 10 A (1) for connection by EverLink® BTR screw connectors (3)						
9…13	16	25	25	D40A…D65A	**LRD 313**	0.375
12…18	20	32	35	D40A…D65A	**LRD 318**	0.375
17…25	25	50	50	D40A…D65A	**LRD 325**	0.375
23…32	40	63	63	D40A…D65A	**LRD 332**	0.375
30…40	40	80	80	D40A…D65A	**LRD 340**	0.375
37…50	63	100	100	D40A…D65A	**LRD 350**	0.375
48…65	63	100	100	D50A and D65A	**LRD 365**	0.375
Class 10 A (1) for connection by screw clamp terminals or connectors						
17…25	25	50	50	D80 and D95	**LRD 3322**	0.510
23…32	40	63	63	D80 and D95	**LRD 3353**	0.510
30…40	40	100	80	D80 and D95	**LRD 3355**	0.510
37…50	63	100	100	D80 and D95	**LRD 3357**	0.510
48…65	63	100	100	D80 and D95	**LRD 3359**	0.510
55…70	80	125	125	D80 and D95	**LRD 3361**	0.510
63…80	80	125	125	D80 and D95	**LRD 3363**	0.510
80…104	100	160	160	D80 and D95	**LRD 3365**	0.510
80…104	125	200	160	D115 and D150	**LRD 4365**	0.900
95…120	125	200	200	D115 and D150	**LRD 4367**	0.900
110…140	160	250	200	D150	**LRD 4369**	0.900
80…104	100	160	160	(2)	**LRD 33656**	1.000
95…120	125	200	200	(2)	**LRD 33676**	1.000
110…140	160	250	200	(2)	**LRD 33696**	1.000
Class 10 A (1) for connection by lugs						

Select the appropriate overload relay with screw clamp terminals or connectors from the table above and add one of the following suffixes:

- figure **6** for relays LRD 01 to LRD 35 and relays LRD 313 to LRD 365.
- **A66** for relays LRD 3322 to LRD 3363.

Relays LRD 43●● are suitable, as standard, for use with lug-clamps.

Thermal overload relays for use with unbalanced loads
Class 10 A (1) for connection by screw clamp terminals or lugs

In the references selected above, change the prefix **LRD** (except **LRD 4●●●**) to **LR3 D**.
Example: **LRD 01** becomes **LR3 D01**.
Example with **Ever**Link®connectors: **LRD 340** becomes **LR3 D340**.
Example with lugs: **LRD 3406** becomes **LR3 D3406**.

(1) Standard IEC 60947-4-1 specifies a tripping time for 7.2 times the setting current I_R : class 10 A: between 2 and 10 seconds.
(2) Independent mounting of the contactor.
*(3) BTR screws: hexagon socket head. In accordance with local electrical wiring regulations, a size 4 insulated Allen key must be used (reference **LAD ALLEN4**, see page 5/85).*

Characteristics: pages 6/14 to 6/17
Dimensions: pages 6/26 to 6/28
Schemes: page 6/29

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LRD ●●3

Differential thermal overload relays
for use with fuses or magnetic circuit-breakers GV2 L and GV3 L

- Compensated relays with manual or automatic reset,
- with relay trip indicator,
- for a.c. or d.c.

Relay setting range (A)	Fuses to be used with selected relay			For use with contactor LC1	Reference	Weight kg
	aM (A)	gG (A)	BS88 (A)			
Classes 10 A (1) for connection by spring terminals (only for direct mounting beneath the contactor)						
0.10…0.16	0.25	2	–	D09…D38	**LRD 013**	0.140
0.16…0.25	0.5	2	–	D09…D38	**LRD 023**	0.140
0.25…0.40	1	2	–	D09…D38	**LRD 033**	0.140
0.40…0.63	1	2	–	D09…D38	**LRD 043**	0.140
0.63…1	2	4	–	D09…D38	**LRD 053**	0.140
1…1.6	2	4	6	D09…D38	**LRD 063**	0.140
1.6…2.5	4	6	10	D09…D38	**LRD 073**	0.140
2.5…4	6	10	16	D09…D38	**LRD 083**	0.140
4…6	8	16	16	D09…D38	**LRD 103**	0.140
5.5…8	12	20	20	D09…D38	**LRD 123**	0.140
7…10	12	20	20	D09…D38	**LRD 143**	0.140
9…13	16	25	25	D12…D38	**LRD 163**	0.140
12…18	20	35	32	D18…D38	**LRD 213**	0.140
16…24	25	50	50	D25…D38	**LRD 223**	0.140
Class 10 A with connection by EverLink® BTR screw connectors (2) and control by spring terminals						
9…13	16	25	25	D40A…D65A	**LRD 3133**	0.375
12…18	20	32	35	D40A…D65A	**LRD 3183**	0.375
17…25	25	50	50	D40A…D65A	**LRD 3253**	0.375
23…32	40	63	63	D40A…D65A	**LRD 3323**	0.375
30…40	40	80	80	D40A…D65A	**LRD 3403**	0.375
37…50	63	100	100	D40A…D65A	**LRD 3503**	0.375
48…65	63	100	100	D50A and D65A	**LRD 3653**	0.375

Thermal overload relays for use with unbalanced loads
Classes 10 A (1) for connection by BTR screw connectors (2) and control by spring terminals

In the references selected above, replace **LRD 3** with **LR3 D3**.
Example: **LRD 3653** becomes **LR3 D3653**.

Thermal overload relays for use on 1000 V supplies
Classes 10 A (1) for connection by screw clamp terminals

For relays LRD 06 to LRD 35 only, for an operating voltage of 1000 V, and only for independent mounting, the reference becomes **LRD 33●●A66**.
Order an **LA7 D3064** terminal block separately, see page 6/25.

Standard relay	Relay for 1000 V network
LRD06	LRD 3306A66
LRD07	LRD 3307A66
LRD08	LRD 3308A66
LRD10	LRD 3310A66
LRD12	LRD 3312A66
LRD14	LRD 3314A66
LRD16	LRD 3316A66
LRD21	LRD 3321A66
LRD22	LRD 3322A66
LRD32	LRD 3353A66
LRD35	LRD 3355A66

(1) Standard IEC 60947-4-1 specifies a tripping time for 7.2 times the setting current I_R: class 10 A: between 2 and 10 seconds.
(2) BTR screws: hexagon socket head. In accordance with local electrical wiring regulations, a size 4 insulated Allen key must be used (reference LAD ALLEN4, see page 5/85).

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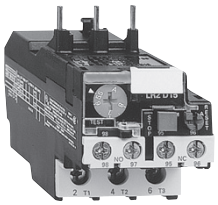

LRD 15●●

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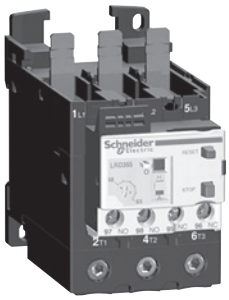

LRD 3●●L

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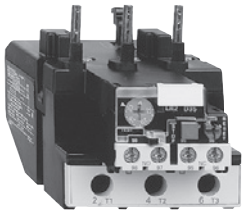

LR2 D35●●

Differential thermal overload relays

for use with fuses or magnetic circuit-breakers GV2 L and GV3 L

- Compensated relays with manual or automatic reset,
- with relay trip indicator,
- for a.c. or d.c.

Relay setting range (A)	Fuses to be used with selected relay aM (A)	gG (A)	BS88 (A)	For use with contactor LC1	Reference	Weight kg
Classes 20 (1) for connection by screw clamp terminals						
2.5…4	6	10	16	D09…D32	**LRD 1508**	0.190
4…6	8	16	16	D09…D32	**LRD 1510**	0.190
5.5…8	12	20	20	D09…D32	**LRD 1512**	0.190
7…10	16	20	25	D09…D32	**LRD 1514**	0.190
9…13	16	25	25	D12…D32	**LRD 1516**	0.190
12…18	25	35	40	D18…D32	**LRD 1521**	0.190
17…25	32	50	50	D25 and D32	**LRD 1522**	0.190
23…28	40	63	63	D25 and D32	**LRD 1530**	0.190
25…32	40	63	63	D25 and D32	**LRD 1532**	0.190
Class 20 (1) for connection by EverLink® BTR screw connectors (2)						
9…13	20	32	35	D40A…D65A	**LRD 313L**	0.375
12…18	25	40	40	D40A…D65A	**LRD 318L**	0.375
17…25	32	50	50	D40A…D65A	**LRD 325L**	0.375
23…32	40	63	63	D40A…D65A	**LRD 332L**	0.375
30…40	50	80	80	D40A…D65A	**LRD 340**	0.375
37…50	63	100	100	D40A…D65A	**LRD 350L**	0.375
48…65	80	125	125	D50A and D65A	**LRD 365L**	0.375
Classes 20 (1) for connection by screw clamp terminals						
17…25	32	50	50	D80 and D95	**LR2 D3522**	0.535
23…32	40	63	63	D80 and D95	**LR2 D3553**	0.535
30…40	40	100	80	D80 and D95	**LR2 D3555**	0.535
37…50	63	100	100	D80 and D95	**LR2 D3557**	0.535
48…65	80	125	100	D80 and D95	**LR2 D3559**	0.535
55…70	100	125	125	D80 and D95	**LR2 D3561**	0.535
63…80	100	160	125	D80 and D95	**LR2 D3563**	0.535

Class 20 (1) for connection by lugs

For relays LRD 1508 to LRD 1532 and relays LRD 313L to LRD 365L, select the appropriate overload relay with screw clamp terminals or connectors from the table above and add the suffixe **6**.
Example: **LRD 1508** becomes **LRD 15086**.

Thermal overload relays for use with unbalanced loads

Class 20 (1) for connection by screw clamp terminals or lugs

For relays LRD 1508 to LRD 1532 and relays LR2 D3522 to LR2 D3563, select the appropriate overload relay with screw clamp terminals or connectors from the table above and change the prefix LRD or LR2 D to **LR3 D**.
Example: **LRD 1508** becomes **LR3 D1508**.

(1) Standard IEC 60947-4-1 specifies a tripping time for 7.2 times the setting current I_R:
class 20: between 6 and 20 seconds
*(2) BTR screws: hexagon socket head. In accordance with local electrical wiring regulations, a size 4 insulated Allen key must be used (reference **LAD ALLEN4**, see page 5/85).*

Differential thermal overload relays
for use with fuses or magnetic circuit-breakers GV2 L and GV3 L

- Compensated relays with manual or automatic reset,
- with relay trip indicator,
- for a.c. or d.c.

Relay setting range (A)	Fuses to be used with selected relay aM (A)	gG (A)	BS88 (A)	For mounting beneath contactor LC1	Reference	Weight kg
Class 20 (1) with connection by EverLink® BTR screw connectors (2) and control by spring terminals						
9…13	20	32	35	D40A…D65A	**LRD 313L3**	0.375
12…18	25	40	40	D40A…D65A	**LRD 318L3**	0.375
17…25	32	50	50	D40A…D65A	**LRD 325L3**	0.375
23…32	40	63	63	D40A…D65A	**LRD 332L3**	0.375
30…40	50	80	80	D40A…D65A	**LRD 340L3**	0.375
37…50	63	100	100	D40A…D65A	**LRD 350L3**	0.375
48…65	80	125	125	D50A and D65A	**LRD 365L3**	0.375

Differential thermal overload relays
for use with fuses or magnetic circuit-breakers NSX

- Compensated relays, with relay trip indicator,
- for a.c.,
- for direct mounting on contactor or independent mounting (3).

Relay setting range (A)	Fuses to be used with selected relay aM (A)	gG (A)	For mounting beneath contactor LC1	Reference	Weight kg
Classes 10 or 10A (1) for connection using bars or connectors					
60…100	100	160	D115 and D150	**LR9 D5367**	0.885
90…150	160	250	D115 and D150	**LR9 D5369**	0.885
Classes 20 (1) for connection using bars or connectors					
60…100	125	160	D115 and D150	**LR9 D5567**	0.885
90…150	200	250	D115 and D150	**LR9 D5569**	0.885

Electronic thermal overload relays for use with balanced or unbalanced loads

- Compensated relays,
- with separate outputs for alarm and tripping.

Relay setting range (A)	Fuses to be used with selected relay aM (A)	gG (A)	For mounting beneath contactor LC1	Reference	Weight kg
Classes 10 or 20 (1) selectable, for connection using bars or connectors					
60…100	100	160	D115 and D150	**LR9 D67**	0.900
90…150	160	250	D115 and D150	**LR9 D69**	0.900

(1) Standard IEC 60947-4-1 specifies a tripping time for 7.2 times the setting current I_R:
class 10: between 4 and 10 seconds,
class 10 A: between 2 and 10 seconds,
class 20: between 6 and 20 seconds
(2) BTR screws: hexagon socket head. In accordance with local electrical wiring regulations, a size 4 insulated Allen key must be used (reference LAD ALLEN4, see page 5/85).
(3) Power terminals can be protected against direct finger contact by the addition of shrouds and/or insulated terminal blocks, to be ordered separately (see page 5/84).

Other versions

Thermal overload relays for resistive circuits in category AC-1.
Please consult your Regional Sales Office.

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