

# Technical data

<b>IP</b>	1st numeral	2nd numeral
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1st numeral: conforming to AS1939 protection against ingress of solid bodies

2nd numeral: conforming to AS1939 protection against ingress of water

0 No protection.		0 No protection.	
1 Full penetration of 50mm diameter sphere not allowed. Contact with hazardous parts not permitted.		1 Protected against vertically falling drops of water. Limited ingress permitted.	
2 Full penetration of 12.5mm diameter sphere not allowed. The jointed test finger shall have adequate clearance from hazardous parts.		2 Protected against vertically falling drops of water with enclosure tilted 15° from the vertical. Limited ingress permitted.	
3 The access probe of 2.5mm diameter shall not penetrate.		3 Protected against sprays to 60° from the vertical. Limited ingress permitted.	
4 The access probe of 1.0mm diameter shall not penetrate.		4 Protected against water splashed from all directions. Limited ingress permitted.	
5 Limited ingress of dust permitted (no harmful deposit).		5 Protected against jets of water. Limited ingress permitted.	
6 Totally protected against ingress of dust.		6 Protected against strong jets of water. Limited ingress permitted.	
		7 Protected against the effects of immersion between 15cm and 1m.	
		8 Protected against long periods of immersion under pressure.	

IP69K for High temperature, high pressure wash down and steam clean.

3 Phase Current Ratings (AS/NZS3008.1.1:1998)

Table 6: Three single core V75 PVC or PVC/PVC 0.6/1kV cables

Current Carrying Capacity A						
Conductor Size	Unenclosed			Enclosed	Buried Direct	Underground Ducts
	Spaced	Spaced from surface	Touching	Conduit in air		
mm <sup>2</sup>	Cu	Cu	Cu	Cu	Cu	Cu
1	16	14	13	11	21	16
1.5	20	17	16	14	27	20
2.5	29	25	23	20	37	28
4	38	33	31	26	49	37
6	49	42	40	34	61	46
10	67	58	54	47	81	61
16	89	77	72	62	105	80
25	120	105	97	87	135	105
35	150	125	120	100	160	125
50	180	155	145	125	190	150
70	230	195	185	155	235	185
95	285	245	230	185	280	225
120	335	285	265	220	315	260
150	385	330	310	250	355	290
185	445	385	355	285	400	335
240	540	455	425	340	465	390

These ratings are based on 40°C ambient air temperature and 25°C ambient soil temperature.

The standard utilisation categories fix the current values which the switching device must make or break. They depend on:

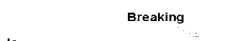
- the type of load being switched (squirrel cage or slip ring motor, resistors)
- the conditions under which opening and closing is performed (motor running or stalled or in the course of starting, reverse running).

Current

### Category AC-1

Applies to all AC machines (loads), whose power factor is at least equal to 0.95 (cos φ ≥ 0.95)

**Application Example:**  
Heating distribution.



### Category AC-2

Applies to starting, plugging and inching of slip ring motors. On closing, the contactor makes the starting current (approx 2.5xIe). On opening, it must break the starting current (voltage ≤ mains voltage). Breaking is severe.

**Application Example:**  
Lifting overhead cranes, gantries.



### Category AC-3

Applies to squirrel cage motors with breaking during normal running of the motor. On closing, the contactor makes the starting current, which is about 5 to 7 times the rated current of the motor. On opening, it breaks the rated current drawn by the motor.

**Application Example:**  
Conveyor belts, compressors, pumps, mixers, air conditioning units.



### Category AC-4

Applies to plugging and inching of squirrel cage motors. The contactor makes the starting current (approx 5 to 7xIe). On opening, it breaks this same current which varies according to motor speed. Breaking is severe.

**Application Example:**  
Hoists, printing machines, wire drawing machines.

Table 3: Two single core V75 PVC or PVC/PVC 0.6/1kV Cables

Current Carrying Capacity A						
Conductor Size	Unenclosed			Enclosed	Buried Direct	Underground Ducts
	Spaced	Spaced from surface	Touching	Conduit in air		
mm <sup>2</sup>	Cu	Cu	Cu	Cu	Cu	Cu
1	16	16	13	13	24	18
1.5	21	21	16	16	31	24
2.5	30	29	23	22	43	33
4	40	39	31	30	56	42
6	51	49	40	38	71	53
10	69	67	54	53	94	71
16	92	89	72	71	120	91
25	125	120	97	97	160	120
35	155	145	120	115	190	145
50	185	175	145	140	225	170
70	240	225	185	175	275	210
95	295	275	230	210	330	260
120	345	320	265	250	380	295
150	395	365	310	280	425	335
185	460	425	360	325	480	380
240	550	510	430	385	560	450