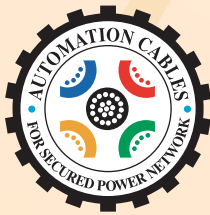




Automation
In partnership with the future



Automation Cables

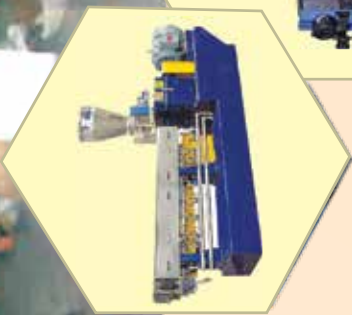
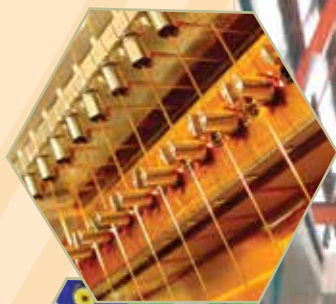
FOR SECURED POWER NETWORK



AUTOMATION CABLES & WIRES INDUSTRIES

An Enterprise of Automation Group

www.automation-bd.com



Preface

Automation Engineering & Controls Ltd. started trading of Electrical power distribution and control equipments in 1994. Through this business it had the opportunity to establish a good relationship with Fuji Electric, Japan. Soon Automation Engineering & Controls Ltd. was able to achieve the confidence of the Fuji Electric. Consequently, in 1996 Fuji Electric appointed Automation Engineering & Controls Ltd as a sole distributor of it's electrical power distribution & control devices and Factory automation equipments in Bangladesh. By hard labor, sincerity & dynamic marketing of Automation Engineering and controls Ltd. Fuji's products became popular in our country. During the components trading period, occasionally customers requested us to manufacture and supply complete sub-station equipments & panel boards also. Being inspired by the customers, a small workshop was established at Halishar, in the Chittagong city area to manufacture panel boards. This workshop was too small to meet the customers growing demand.

So in 2007 a factory, named Automation Engineering, was established at Banshbaria in Sitakunda Upazila, Chittagong. It was established to manufacture LT, HT Switchgear, MDB, DB, MCC, PFI Plant & Distribution Transformers (12 KV Class). This factory is 30 Km far from Chittagong city, by the side of Dhaka-Chittagong highway and railway.

Electrical cable is one of the most important materials of this panel board manufacturing factory. The factory used to buy cables from local manufacturers. But though there are about more than 100 cable industries in Bangladesh, yet there is a scarcity of quality cables. Actually, these bitter experiences lead the proprietor of Automation Engineering to set up a cable factory. This year he had the opportunity to procure & establish a modern full-fledged Cable Factory as a part of related business diversification.

From the past experience it is seen that in our country every year fire accident occurs in garments industries, Jute mills, multi-storied shopping malls, and other commercial buildings. These fire accidents take away many lives and properties. Occasionally investigations show that the causes in most of the cases is electrical short circuit, created from low grade cables and power distribution control equipments. Billions cores taka has been lost by those fire accidents.

Automation Cables and Wires Industries is committed to manufacture electrical Cables, Wires and Conductors by using raw materials of the highest grade, utilizing modern and latest technology, uncompromising quality control and also highly experienced technicians and engineers.

Our cables will confirm the latest version of National and International Standards i.e. BDS, IEC, VDE, BS, IS and also meet the specific need of customers.

Automation Cables & Wires Industries, has been manufacturing the following products: -Domestic Cables, LT, HT power (11Kv) Cables, Multi-core Control Cables, Telecommunication Cables, Flexible Cables, Welding cables, Aluminum cables, AAC, ACSR, Super Enameled copper wires etc. It has an enriched laboratory to test all vital parameters of cables and wires. Its annual capacity on a three shift basis is 3000 MT.

Trial production of our cable was started in July 2015. After several research & development official commercial production of Domestic & LT power cable has been launched in May 2016 after strictly ensuring our constant uncompromising attitude towards quality. HT power Cables, Welding and all other types of cables such as: - XLPE insulated, PVC Sheathed Cables and Industrial Cables will be produced gradually very soon. We are confident enough that automation cables is going to be a best choice for a secured power network.

CABLE CODES

As per BDS 900 & BS 6004

- | | | |
|----|-------|--|
| 1. | BYA | : PVC insulated non-sheathed Single Core Cable |
| 2. | BYM | : PVC insulated & PVC sheathed Cable |
| 3. | BYFY | : PVC insulated & PVC sheathed Flat Cable |
| 4. | BYFYE | : PVC insulated & PVC sheathed Flat Cable with earth continuity conductor. |

As per BDS 901 & VDE 0271

1. NYY : PVC insulated and PVC sheathed cable





Evidence of Quality

ক্রমিক নং- **40016** ফর্ম নং-২
[বিধিমা ১০ (৩) প্রকৃতি]
বাংলাদেশ স্ট্যান্ডার্ডস এন্ড টেস্টিং ইন্সটিটিউশন

মানসিক ব্যবহারের জন্য শাইসেল
শাইসেল নং: **সি-০৪৭২/১৭-১৭/২০১৩**

১। বাংলাদেশ স্ট্যান্ডার্ডস এন্ড টেস্টিং ইন্সটিটিউশন অধ্যাদেশ, ১৯৮৫ (১৯৮৫ সনের ৩৭ অধ্যাদেশ) ছাড়া ইহার উপর অর্পিত ক্ষমতা বলে ইন্সটিটিউশন এর দ্বারা **পারদেব সিস্টেমস প্রাইভেট লিমিটেড** কে (স্বতন্ত্র পরীক্ষক/প্রকৌশলী) নামে অধিষ্ঠিত অধ্যাপক এবং অফিসের প্রকৌশল/ইঞ্জিনিয়ার অথবা উপ-ইন্সপেক্টর কর্তৃক পরীক্ষিত ইলেক্ট্রিক্যাল উপকরণের (সহ) পরিমাপ করা হয়েছে।

২। এই শাইসেল উপ-ইন্সপেক্টর অধ্যাদেশ অনুযায়ী লিখিত পরিমাপের পরিবর্তিত অবস্থার ও মার-সার্ভিস হতে করে। এই মার-সার্ভিস অনুযায়ী শাইসেলের প্রকৌশল/অফিসের উপস্থিত অফিসিয়াল/অফিসিয়াল হিসেব উপস্থিত উপস্থিত ও সমস্ত পরিমাপ করতেন এবং টেস্টিং ও পরিমাপ কর্মসূচী, যাহার একটি অনুলিপি ইহার অর্পিত সকল্য করা হয়েছে, ইন্সটিটিউশন-এর সমস্তী মেমোরান্ডাম অনুসরণ করিলেন।

৩। শাইসেল **২৫/০৪/২০১৩** ইংরেজি তারিখ **০৫/০৫/২০১৩** পর্যন্ত বৈধ থাকিবে এবং প্রকৌশল/অফিসের উপস্থিত উপস্থিত করা যাবে।

প্রদত্ত তথ্য

স্ট্যান্ডার্ড চিহ্ন ১	প্রদত্ত/প্রকৌশলী ২	সংশ্লিষ্ট বাংলাদেশ স্ট্যান্ডার্ড নম্বর এবং নাম ৩
	পারদেব সিস্টেমস প্রাইভেট লিমিটেড পারদেব সিস্টেমস প্রাইভেট লিমিটেড আরও অফিসিয়াল জয়েন্ট ভোল্টেজ সিস্টেমস সিস্টেমস-ইলেক্ট্রিক্যাল	বি.ই.সি-IEC 60522 (সংশ্লিষ্ট) ১০০৫

দ্বিতীয় তথ্য

প্রদত্ত/প্রকৌশলী ১	ইন্সপেক্টর ২	প্রকৌশল/অফিসের উপস্থিত ৩	পরিশোধের প্রকৃতি ৪
পারদেব সিস্টেমস প্রাইভেট লিমিটেড	০.০১%	পারদেব সিস্টেমস প্রাইভেট লিমিটেড	০.০১%

২০১৩ সনের **১৫** মাসের **১৫** তারিখে যাকরিত ও সীলন করা হইল।

বাংলাদেশ স্ট্যান্ডার্ডস এন্ড টেস্টিং ইন্সটিটিউশনের পক্ষে
ইন্সটিটিউশনের সীল মোহর

শাইসেল নং: **সি-০৪৭২/১৭-১৭/২০১৩** এর বরাবর টেস্টিং ও পরিমাপের কর্মসূচীসম শর্তাবলী (স্বতন্ত্র পৃষ্ঠা)

BSTI

তত্ত্ব ও ইলেক্ট্রনিক কৌশল বিভাগ
বাংলাদেশ প্রকৌশল বিশ্ববিদ্যালয়, ঢাকা-১০০০
ফোন : ৮৬১১০৯৮ (সরাসরি)
ফ্যাক্স : ৮৮০-২-৮৬১০২০২৩
৮৮০-২-৮৬১১০৯৮

Department of Electrical & Electronic Engineering
Bangladesh University of Engineering and Technology
Dhaka-1000, Bangladesh
Phone : 8611594 (Direct), PABX : 966560-80/7113,7112
Fax : 880-2-8613026, 880-2-8611594
E-mail : headdee@eee.buet.ac.bd

TEST REPORT ON 1X4 RM BYA AND 1X16 RM NYL LT CABLES REQUESTED BY ASSISTANT ENGINEER, AUTOMATION CABLES & WIRES INDUSTRIES, BANGLADESH

BRIC REF. NO.: 1101-17070/EEE/2016-2017
CLIENT'S REF. NO.: Nil

Date: 10/08/2016
Date: 05/06/2016

Table 2: Test results of 1X16 rm NYL LT cable

Test Specifications	Unit	Test Results
Number of cores in the cable	No.	7
Number of copper strands in the core	No.	7
Average diameter of each strand in the core	mm	1.75
Average thickness of insulation	mm	0.99
Minimum thickness of insulation	mm	0.87
Average thickness of sheath	mm	1.95
Minimum thickness of sheath	mm	1.79
Average overall outer diameter of the cable (Insulation + Conductor)	mm	11.32
Average diameter of the cable without sheath	mm	7.01
Average diameter of bare conductor core	mm	4.89
Weight of the cable	kg/km	258
DC resistance of the conductor at 20° C	Ω/km	1.05
Insulation resistance between core and the body at ambient temperature	MΩ	>10,000
High voltage withstand test (4.0 kV rms, 5min)		Satisfactory
Heat run test		Satisfactory

4. Comments

- Physical dimensions of the supplied cables are within acceptable limits.
- DC resistances at 20° C of the supplied cables are less than the maximum allowable limits and hence satisfactory.
- Insulation resistances of the cables are satisfactory.
- The cable passed high voltage withstand test satisfactorily.
- The temperature rise under stable condition is within acceptable limit.

The overall performances of the supplied cables are satisfactory.

P. 4 / 4

BUET





AUTOMATION CABLES & WIRES INDUSTRIES

Price List of Cables

Effective from - 24th August, 2017

Domestic Cables

PVC insulated, non-sheathed FR cable, 450/750V. (BDS: 900/2010).

Single Core

Type BYA-FR

Sl. No.	Size Core x Area, mm ²	No. X Dia. of Strand	Current Rating at 35°C in Ground amps	Current Rating at 35°C in Air amps	Ex-Factory Price with VAT in TK Per 100 m
1	1X0.50 re	1x0.80	-	-	620
2	1x0.75 re	1x0.98	-	-	859
3	1x1.0 re	1x1.13	13	16	1,096
4	1x1.0 rm	3x0.65	13	16	1,136
5	1x1.3 rm(3/0.29)	3x0.74	15	19	1,433
6	1x1.5 re	1x1.38	16	20	1,587
7	1x1.5 rm	3x0.80	16	20	1,636
8	1x1.5 rm	7x0.52	16	20	1,644
9	1x2.0 rm(3/0.36)	3x0.91	20	25	2,174
10	1x2.5 re	1x1.78	22	28	2,587
11	1x2.5 rm	7x0.67	22	28	2,621
12	1x3.0 rm(7/1.29)	7x0.74	26	31	3,157
13	1x4.0 rm	7x0.85	30	37	4,081
14	1x4.5 rm(7/0.36)	7x0.91	32	39	4,650
15	1x6.0 rm	7x1.04	38	47	6,096
16	1x7.0 rm(7/0.44)	7x1.12	42	51	7,036
17	1x9.5 rm	7x1.32	50	61	9,599
18	1x10 rm	7x1.35	52	63	10,030
19	1x14.5 rm(7/0.64)	7x1.63	65	79	14,443
20	1x16 rm	7x1.70	70	85	15,836
21	1x16 rm	19x1.04	70	85	15,898

PVC insulated, PVC sheathed FR cable, 300/500 V. (BDS: 900/2010)

Single Core

Type BYM-FR

Sl. No.	Size Core x Area, mm ²	No. X Dia. of Strand	Current Rating at 35°C in Ground amps	Current Rating at 35°C in Air amps	Ex-Factory Price with VAT in TK Per 100 m
1	1x1.0 re	1x1.13	13	16	1,509
2	1x1.3 rm	3x0.74	15	19	1,991
3	1x1.5 re	1x1.38	16	20	2,119
4	1x1.5 rm	7x0.52	16	20	2,186
5	1x2.0 rm	3x0.91	20	25	2,804
6	1x2.5 re	1x1.78	22	28	3,223

7	1x2.5 rm	7x0.67	22	28	3,301
8	1x3.0 rm	7x0.74	26	31	3,953
9	1x4.0 rm	7x0.85	30	37	4,941
10	1x4.5 rm	7x0.91	32	39	5,546
11	1x6.0 rm	7x1.04	38	47	7,075
12	1x7.0 rm	7x1.12	42	51	7,977
13	1x9.5rm	7x1.32	50	61	10,920
14	1x10 rm	7x1.35	52	63	11,381
15	1x14.5 rm	7x1.63	65	79	16,161
16	1x16 rm	7x1.70	70	85	17,797
17	1x16 rm	19x1.04	70	85	17,924
18	1x25 rm	7x2.14	91	110	27,396
19	1x25 rm	19x1.30	91	110	27,537
20	1x35rm	19x1.53	112	136	37,490
21	1x50 rm	19x1.83	-	-	53,205
22	1x70 rm	19x2.17	-	-	73,398
23	1x95 rm	19x2.52	-	-	97,586

PVC insulated, PVC sheathed FR cable, 300/500 V. (BDS 900/2010)

Multi Core

Type BYM-FR

Sl. No.	Size Core x Area, mm ²	No. X Dia. of Strand	Current Rating at 35°C in Ground amps	Current Rating at 35°C in Air amps	Ex-Factory Price with VAT in TK Per 100 m
1	2x1.0 re	1x1.13	13	15	4,523
2	2x1.5 re	1x1.38	16	18	5,886
3	2x1.5 rm	7x0.52	16	18	6,401
4	2x2.5 re	1x1.78	22	26	8,808
5	2x2.5 rm	7x0.67	22	26	9,174
6	2x4.0 rm	7x0.85	30	33	12,888
7	2x6.0 rm	7x1.04	37	43	17,642
8	2x10 rm	7x1.35	50	60	28,742
9	2x16 rm	7x1.70	66	80	42,390
10	2x25 rm	7x2.14	75	88	65,401
11	2x35 rm	19x1.53	92	108	88,060
12	3x1.0 re	1x1.13	11	12	5,612
13	3x1.5 re	1x1.38	15	16	7,761
14	3x1.5 rm	7x0.52	15	16	8,180
15	3x2.5 re	1x1.78	20	22	11,644
16	3x2.5 rm	7x0.67	20	22	12,870
17	3x4.0 rm	7x0.85	27	30	17,995



18	3x6.0 rm	7x1.04	33	37	25,071
19	3x10 rm	7x1.35	46	51	39,289
20	3x16 rm	7x1.70	58	67	59,576
21	3x25 rm	7x2.14	66	77	91,788
22	3x35 rm	19x1.53	81	90	116,275
23	4x1.0 re	1x1.13	11	12	7,225
24	4x1.5 re	1x1.38	15	16	9,828
25	4x1.5 rm	7x0.52	15	16	10,147
26	4x2.5 re	1x1.78	20	22	14,653
27	4x2.5 rm	7x0.67	20	22	15,194
28	4x4.0 rm	7x0.85	27	30	22,418
29	4x6.0 rm	7x1.04	33	37	31,855
30	4x10 rm	7x1.35	46	51	50,329
31	4x16 rm	7x1.70	58	67	77,003
32	4x25 rm	7x2.14	66	77	119,501
33	4x25 rm	19x1.30	66	77	120,269
34	4x35 rm	19x1.53	81	90	158,401

PVC insulated, PVC sheathed FR cable, 300/500 V. (BDS: 900/2010)

Multi Core

Type BYFY-FR

Sl. No.	Size Core x Area, mm ²	No. X Dia. of Strand	Current Rating at 35°C in Ground amps	Current Rating at 35°C in Air amps	Ex-Factory Price with VAT in TK Per 100 m
1	2x1.0 re	1x1.13	13	15	3,001
2	2x1.3 rm	3x0.74	15	17	3,810
3	2x1.5 re	1x1.38	16	18	4,238
4	2x1.5 rm	7x0.52	16	18	4,263
5	2x2.0 rm	3x0.91	20	23	5,747
6	2x2.5 re	1x1.78	22	26	6,693
7	2x2.5 rm	7x0.67	22	26	6,729
8	2x3.0 rm	7x0.74	24	28	7,903
9	2x4.0 rm	7x0.85	30	33	10,098
10	2x4.5 rm	7x0.91	32	38	11,524
11	2x6.0 rm	7x1.04	37	43	14,538
12	2x7.0 rm	7x1.12	-	-	16,479
13	2x10 rm	7x1.35	-	-	23,610
14	2x14.5 rm	7x1.63	-	-	32,950
15	2x16 rm	7x1.70	-	-	35,796
16	3x1.0 re	1x1.13	11	12	4,343
17	3x1.5 re	1x1.38	15	16	6,276
18	3x2.5 re	1x1.78	20	22	9,798
19	3x4.0 rm	7x0.85	33	30	15,117
20	3x6.0 rm	7x1.04	37	37	21,702
21	3x10 rm	7x1.35	-	-	35,222
22	3x16 rm	7x1.70	-	-	53,983

LT Power Cables

PVC insulated, non-sheathed cable, 450/750V. (BDS: 900/2010)

Single Core

Type BYA

Sl. No.	Size Core x Area, mm ²	No. X Dia. of Strand	Current Rating at 35°C in Ground amps	Current Rating at 35°C in Air amps	Ex-Factory Price with VAT in TK Per 100 m
1	1x25 rm	7x2.14	91	110	24,844
2	1x25 rm	19x1.3	91	110	24,926
3	1x35 rm	19x1.53	112	136	34,326
4	1x50 rm	19x1.83	136	164	48,943
5	1x70 rm	19x2.17	173	207	68,249
6	1x95 rm	19x2.52	216	253	91,850
7	1x120 rm	37x2.03	244	291	115,478
8	1x150 rm	37x2.27	-	333	144,404
9	1x185 rm	37x2.52	-	381	178,006
10	1x240 rm	61x2.25	-	452	231,710
11	1x300 rm	61x2.52	-	526	288,217
12	1x400 rm	61x2.89	-	639	384,078
13	1x500 rm	61x3.23	-	752	479,099
14	1x630 rm	127x2.52	-	855	605,333

PVC insulated, PVC sheathed cable, Rated Voltage 600/1000 V Permissible Voltage 720/1200 V. (VDE 0271/3.69, BDS IEC: 60502/2005)

Single Core

Type NYY

Sl. No.	Size Core x Area, mm ²	No. X Dia. of Strand	Current Rating at 35°C in Ground amps	Current Rating at 35°C in Air amps	Ex-Factory Price with VAT in TK Per 100 m
1	1x1.5 re	1x1.38	27	22	3,072
2	1x1.5 rm	7x0.52	27	22	3,166
3	1x2.5 re	1x1.78	36	30	4,278
4	1x2.5 rm	7x0.68	36	30	4,398
5	1x4.0 rm	7x0.85	47	39	6,178
6	1x6.0 rm	7x1.04	59	50	8,615
7	1x10 rm	7x1.35	78	69	12,770
8	1x16 rm	7x1.70	100	94	19,053
9	1x16 rm	19x1.04	-	-	19,263
10	1x25 rm	7x2.14	130	125	28,874
11	1x25 rm	19x1.30	-	-	29,071
12	1x35 rm	19x1.53	155	160	38,775
13	1x50 rm	19x1.83	185	195	54,583



14	1x70 rm	19x2.17	225	245	74,876	26	3x70 sm	20 - wire	190	190	227,806
15	1x95 rm	19x2.52	270	300	99,890	27	3x95sm/50rm	20 - wire	225	230	306,788
16	1x120 rm	37x2.03	310	350	124,796	28	3x120 sm	20 - wire	260	270	382,395
17	1x150 rm	37x2.27	350	405	155,455	29	3x150 sm	39 - wire	295	305	475,371
18	1x185 rm	37x2.52	390	460	191,638	30	3x185 sm	39 - wire	330	350	588,261
19	1x240 rm	61x2.25	450	555	247,754	31	3x240 sm	39 - wire	385	410	759,853
20	1x300 rm	61x2.52	515	640	307,317	32	3x300 sm	39 - wire	425	470	947,872
21	1x400 rm	61x2.89	585	770	408,627	33	3x25 rm/16 rm	7/2.14	110	98	115,011
22	1x500 rm	61x3.23	680	900	509,499			7/1.71			
23	1x630 rm	127x2.52	800	1030	641,078	34	3x35sm/16rm	20 - wire	130	120	140,377
PVC insulated, PVC sheathed cable, Rated voltage 600/1000 V Permissible Voltage 720/1200 V. (VDE 0271/3.69, BDS IEC: 60502/2005)											
Multi Core											
Type NY Y											
Sl. No.	Size Core x Area, mm ²	No. X Dia. of Strand	Current Rating at 35 °C in Ground amps	Current Rating at 35 °C in Air amps	Ex-Factory Price with VAT in TK Per 100 m	35	3x50 sm/25rm	20 - wire	155	150	198,420
1	2x1.5 re	1x1.38	25	19	7,975			7 / 1.71			
2	2x1.5 rm	7x0.52	25	19	8,306	36	3x70 sm/35rm	20 - wire	190	190	278,318
3	2x2.5 re	1x1.78	34	27	10,994			7 / 2.41			
4	2x2.5 rm	7x0.67	34	27	11,223			7 / 2.53			
5	2x4.0 rm	7x0.85	44	35	15,583	37	3x95sm/50rm	39 - wire	225	230	377,531
6	2x6.0 rm	7x1.04	55	45	20,971			19 / 1.83			
7	2x10 rm	7x1.35	74	62	31,011	38	3x120 sm/70rm	39 - wire	260	270	473,841
8	2x16 rm	7x1.70	97	84	44,640			19 / 2.17			
9	2x16 rm	19x1.04	97	84	44,922	39	3x150sm/70rm	39 - wire	295	305	565,641
10	2x25 rm	7x2.14	125	110	68,173			19 / 2.17			
11	2x25 rm	19x1.30	125	110	68,668	40	3x185 sm/95rm	39 - wire	330	350	704,642
12	2x35 rm	19x1.53	150	140	90,969			37 / 2.52			
13	3x1.5 re	1x1.38	22	16	9,739	41	3x240 sm/120rm	39 - wire	385	410	911,804
14	3x1.5 rm	7x0.52	22	16	10,072			37 / 2.03			-
15	3x2.5 re	1x1.78	30	23	13,575	42	4x1.5 re	1x1.38	22	16	12,557
16	3x2.5 rm	7x0.67	30	23	14,039	43	4x1.5 rm	7x0.52	22	16	12,773
17	3x4.0 rm	7x0.85	38	32	20,095	44	4x2.5 re	1x1.78	30	23	17,708
18	3x6.0 rm	7x1.04	48	41	27,279	45	4x2.5 rm	7x0.67	30	23	18,665
19	3x10 rm	7x1.35	64	56	41,075	46	4x4.0 rm	7x0.85	38	32	26,098
20	3x16 rm	7x1.70	83	75	62,145	47	4x6.0 rm	7x1.04	48	41	36,351
21	3x16 rm-19w	19x1.05	83	75	62,552	48	4x10 rm	7x1.35	64	56	54,778
22	3x25 rm-7w	7x2.14	110	98	94,758	49	4x16 rm-7w	7x1.70	83	75	82,357
23	3x25 rm	19x1.30	110	98	95,002	50	4x16 rm	19x1.04	83	75	83,040
24	3x35 sm	20 - wire	130	120	117,339	51	4x25 rm	7x2.14	110	98	126,119
25	3x50 sm	20 - wire	155	150	165,891	52	4x25 rm-19w	19x1.30	110	98	126,545
						53	4x35 sm	20 - wire	130	120	160,287
						54	4x50 sm	20 - wire	155	150	224,220
						55	4x70 sm	20 - wire	190	190	308,916
						56	4x95 sm-19w	20 - wire	225	230	418,150
						57	4x120 sm	39 - wire	260	270	517,168
						58	4x150 sm	39 - wire	295	305	645,778
						59	4x185 sm	39 - wire	330	350	792,888
						60	4x240 sm	39 - wire	385	410	1,034,911
						61	4x300 sm	39 - wire	425	470	1,279,174



PVC insulated, PVC sheathed cable, Rated voltage 600/1000 V Permissible Voltage 720/1200 V. (VDE 0271/3.69)					
Multi Core					
Type NY-Y-I					
Sl. No.	Size Core x Area, mm ²	No. X Dia. of Strand	Current Rating at 35°C in Ground amps	Current Rating at 35°C in Air amps	Ex-Factory Price with VAT in TK Per 100 m
1	5x1.5 re	1x1.38	18	13	12,800
2	5x1.5 rm	7x0.52	18	13	13,188
3	5X4 rm	7x0.85	31	25	28,487
4	5x6 rm	7x1.04	-	-	47,691
5	5x10 rm	7x1.35	-	-	75,288
6	5x16 rm	7x1.70	-	-	116,117
7	6x1.5 re	1x1.38	-	-	15,084
8	7x1.5 re	1x1.38	16	12	16,462
9	7x1.5 rm	7x0.52	16	12	16,953
10	7x4 rm	7x0.85	27	22	37,685
11	8x1.5 re	1x1.38	-	-	19,450
12	8x1.5 rm	7x0.52	-	-	20,144
13	8x4 rm	7x0.85	-	-	44,863
14	10x1.5 re	1x1.38	13	10	22,924
15	10x1.5 rm	7x0.52	13	10	23,556
16	10x4 rm	7x0.85	23	19	52,958
17	12x1.5 re	1x1.38	12	9	26,577
18	12x4 rm	7x0.85	21	17	63,065
19	16x1.5 re	1x1.38	11	8	34,511
20	19x1.5 re	1x1.38	10	7	39,885
21	19x1.5 rm	7x0.52	10	7	41,575
22	20x1.5 re	1x1.38	-	-	42,107
23	21x1.5 re	1x1.38	9	7	43,865
24	24x1.5 re	1x1.38	9	7	49,792
25	27x1.5 rm	7x0.52	-	-	57,486
26	29x1.5 re	1x1.38	-	-	59,905
27	30x1.5 re	1x1.38	8	6	61,575
28	32x1.5 re	1x1.38	-	-	65,737
29	33x1.5 re	1x1.38	-	-	67,573
30	36x1.5 re	1x1.38	-	-	73,051
31	37x1.5 rm	7x0.52	-	-	76,641
32	40x1.5 re	1x1.38	-	-	80,378
33	5x2.5 re	1x1.78	24	19	18,854
34	7x2.5 re	1x1.78	21	17	24,713
35	8x2.5 re	1x1.78	-	-	29,264
36	10x2.5 re	1x1.78	18	14	34,545
37	12x2.5 re	1x1.78	16	13	40,419
38	12x2.5 rm	7x0.67	16	13	41,452
39	16x2.5 re	1x1.78	14	11	52,647
40	21x2.5 re	1x1.78	13	10	68,578
41	24x2.5 re	1x1.78	12	9	78,033
42	30x2.5 re	1x1.78	10	8	95,973

Flexible Cables					
PVC insulated, non-sheathed flexible FR Cable, 300/500V. (BDS: 899/2000, BS: 6500/69)					
Single Core					
Type Flexible-FR					
Sl. No.	Size Core x Area, mm ²	No. X Dia. of Strand	Current Rating at 35°C in Ground amps	Current Rating at 35°C in Air amps	Ex-Factory Price with VAT in TK Per 100 m
1	1X0.40 rm	14x0.19	2	3	556
2	1x0.50 rm	16x0.20	4	6	662
3	1x0.65 rm	23x0.19	5	5	821
4	1x0.75 rm	24x0.20	7	8	905
5	1x1.0 rm	32x0.20	12	13	1,166
6	1x1.13 rm	40x0.19	11	13	1,346
7	1x1.5 rm	30x0.25	15	17	1,702
8	1x2.0 rm	70x0.19	16	18	2,269
9	1x2.5 rm	50x0.25	21	24	2,750
10	1X3.0 rm	110x0.19	-	-	3,539
11	1x4.0 rm	56x0.30	28	30	4,256

PVC insulated, PVC sheathed flexible Flat Twin (F/T) Core FR Cable, 300/500V (BDS: 899/2000, BS: 6500/69)					
Type Flexible-FR					
Sl. No.	Size Core x Area, mm ²	No. X Dia. of Strand	Current Rating at 35°C in Ground amps	Current Rating at 35°C in Air amps	Ex-Factory Price with VAT,3 in TK Per 100 m
1	2x0.40	14x0.19	3	4	1,647
2	2x0.65	23x0.19	6	8	2,248

PVC insulated, non-sheathed flexible Twisted Twin (T/T) Core FR Cable, 300/500V (BDS: 899/2000, BS: 6500/69)					
Type Flexible-FR					
Sl. No.	Size Core x Area, mm ²	No. X Dia. of Strand	Current Rating at 35°C in Ground amps	Current Rating at 35°C in Air amps	Ex-Factory Price with VAT in TK Per 100 m
1	2x0.40	14x0.19	2	3	1,077
2	2X0.65	23x0.19	5	6	1,637
3	2X1.13	40x0.19	11	13	2,648



PVC insulated, PVC sheathed flexible (Circular) FR cable, 300/500 V. (BDS:899/2000, BS-6500/69)					
Multi Core					
Type Flexible-FR					
Sl. No.	Size Core x Area, mm ²	No. X Dia. of Strand	Current Rating at 35° C in Ground amps	Current Rating at 35° C in Air amps	Ex-Factory Price with VAT in TK Per 100 m
1	2x0.40 rm	14x0.19	3	4	2,037
2	2x0.50 rm	16x0.20	3	4	2,251
3	2x0.65 rm	23x0.19	6	7	2,888
4	2x0.75 rm	24x0.20	7	8	3,095
5	2x1.0 rm	32x0.20	10	11	3,744
6	2x1.2 rm	40x0.19	13	15	4,211
7	2x1.5 rm	30x0.25	15	17	4,970
8	2x2.0 rm	70x0.19	18	20	6,645
9	2x2.5 rm	50x0.25	20	22	7,800
10	2x3.0 rm	110x0.19	24	26	9,777
11	2x4.0 rm	56x0.30	25	27	11,650
12	3x0.4 rm	14x0.19	2	3	2,649
13	3x0.5 rm	16x0.20	3	4	2,967
14	3x0.65 rm	23x0.19	6	7	3,621
15	3x0.75 rm	24x0.20	7	8	3,972
16	3x1.0 rm	32x0.20	10	11	4,830
17	3x1.2 rm	40x0.19	13	15	5,668
18	3x1.5 rm	30x0.25	15	17	6,806
19	3x2.0 rm	70x0.19	18	20	9,395
20	3x2.5 rm	50x0.25	20	22	10,896
21	3x3.0 rm	110x0.19	24	26	13,592
22	3x4.0 rm	56x0.30	25	27	16,353
23	4x0.4 rm	14x0.19	2	3	3,272
24	4x0.5 rm	16x0.20	3	4	3,704
25	4x0.65 rm	23x0.19	6	7	4,540
26	4x0.75 rm	24x0.20	7	8	4,982
27	4x1.0 rm	32x0.20	10	11	6,207
28	4x1.2 rm	40x0.19	13	15	7,373
29	4x1.5 rm	30x0.25	15	17	8,915
30	4x2.0 rm	70x0.19	18	20	12,118
31	4x2.5 rm	50x0.25	20	22	13,917
32	4x3.0 rm	110x0.19	24	26	17,612
33	4x4.0 rm	56x0.30	25	27	21,057

PVC insulated, non-sheathed flexible FR Cable, 300/500V.					
Multi Core					
Type Flexible-FR					
Sl. No.	Size Core x Area, mm ²	No. X Dia. of Strand	Current Rating at 35° C in Ground amps	Current Rating at 35° C in Air amps	Ex-Factory Price with VAT in TK Per 100 m
1	2x0.40 rm	14x0.19	3	4	1,855
2	2x0.50 rm	16x0.20	3	4	2,035
3	2x0.65 rm	23x0.19	6	7	2,608
4	2x0.75 rm	24x0.20	7	8	2,783
5	2x1.0 rm	32x0.20	10	11	3,344
6	2x1.2 rm	40x0.19	13	15	3,752
7	2x1.5 rm	30x0.25	15	17	4,404
8	2x2.0 rm	70x0.19	18	20	5,857
9	2x2.5 rm	50x0.25	20	22	6,970
10	2x3.0 rm	110x0.19	24	26	8,581
11	2x4.0 rm	56x0.30	25	27	10,192
12	3x0.40 rm	14x0.19	2	3	2,390
13	3x0.50 rm	16x0.20	3	4	2,661
14	3x0.65 rm	23x0.19	6	7	3,228
15	3x0.75 rm	24x0.20	7	8	3,535
16	3x1.0 rm	32x0.20	10	11	4,263
17	3x1.2 rm	40x0.19	13	15	5,003
18	3x1.5 rm	30x0.25	15	17	5,984
19	3x2.0 rm	70x0.19	18	20	8,245
20	3x2.5 rm	50x0.25	20	22	9,545
21	3x3.0 rm	110x0.19	24	26	11,846
22	3x4.0 rm	56x0.30	25	27	14,225
23	4x0.40 rm	14x0.19	2	3	2,934
24	4x0.50 rm	16x0.20	3	4	3,307
25	4x0.65 rm	23x0.19	6	7	4,023
26	4x0.75 rm	24x0.20	7	8	4,404
27	4x1.0 rm	32x0.20	10	11	5,459
28	4x1.2 rm	40x0.19	13	15	6,498
29	4x1.5 rm	30x0.25	15	17	7,831
30	4x2.0 rm	70x0.19	18	20	10,611
31	4x2.5 rm	50x0.25	20	22	12,137
32	4x3.0 rm	110x0.19	24	26	15,312
33	4x4.0 rm	56x0.30	25	27	18,243



Telecommunication Cables

PE insulated & PVC sheathed house wiring telephone cable

Type Telephone Cable			
Sl. No.	Size Core x Area, mm ²	No. X Dia. of Strand	Ex-Factory Price with VAT in TK Per 100 m
1	2x0.125 (1 Pair)	1x0.4 mm	1,115
2	4x0.125 (2 Pair)	1x0.4 mm	1,812

PE insulated flat twin core telephone cable drop wire

Type Telephone Drop Wire			
Sl. No.	Size Core x Area, mm ²	No. X Dia. of Strand	Ex-Factory Price with VAT in TK Per 100 m
1	2x0.283	2x0.6 mm	844
2	2x0.636	2x0.9 mm	1653

FORMULA FOR ELECTRICAL CALCULATION

To Calculate	Given	D.C.	A.C. Single phase	A.C. Three phase
Current (A)	KW	$A = \frac{1000 \times KW}{V}$	$A = \frac{1000 \times KW}{V \times p.f}$	$A = \frac{1000 \times KW}{1.73 \times V \times p.f}$
Current (A)	KVA	—	$A = \frac{1000 \times KVA}{V}$	$A = \frac{1000 \times KVA}{1.73 \times V}$
Current (A)	HP	$A = \frac{746 \times HP}{V \times \text{eff.}}$	$A = \frac{746 \times HP}{V \times \text{eff.} \times p.f}$	$A = \frac{746 \times HP}{1.73 \times V \times \text{eff.} \times p.f}$
Power (KW)	VA	$KW = \frac{V \times A}{1000}$	$KW = \frac{V \times A \times p.f}{1000}$	$KW = \frac{1.73 \times V \times A \times p.f}{1000}$
Apparent Power (KVA)	VA	—	$KW = \frac{V \times A}{1000}$	$KVA = \frac{1.73 \times V \times A}{1000}$

P.f = Power factor of equipment or system under consideration

eff. = efficiency of motor or machinery

V = line voltage

AVERAGE INDUCTION MOTOR

PURE RESISTIVE LOAD

Nominal Motor Rating		Single Phase		Three Phase			Power	Single Phase		Three Phase		
		110v	230v	380v	415v	440v		110v	230v	380v	415v	440v
HP	KW	amp	amp	amp	amp	amp	KW	amp	amp	amp	amp	amp
1/2	0.37	7.8	3.7	1.2	1.1	1.0	1	9.1	4.3	1.5	1.4	1.3
3/4	0.55	10.4	5.0	1.6	1.5	1.4	2	18.2	8.7	3.0	2.8	2.6
1	0.74	13.2	6.3	2.0	1.9	1.8	3	27.3	13.0	4.6	4.2	3.9
1 1/2	1.11	19.2	9.2	3.0	2.8	2.6	4	36.4	17.4	6.1	5.6	5.3
2	1.49	25.0	12.2	3.9	3.6	3.4	5	45.5	21.7	7.6	7.0	6.6
3	2.2	37.0	17.9	5.8	5.3	5.0	6	54.6	26.1	9.1	8.4	7.9
5	3.7	59.0	28.0	9.2	8.4	7.9	7	63.6	30.4	10.6	9.7	9.2
7 1/2	5.5	84.0	40.0	13.1	11.9	11.3	8	72.7	34.8	12.2	11.1	10.5
10	7.5	109.0	52.0	16.8	15.4	14.5	9	81.8	39.1	13.7	12.5	11.8
15	11.0	157.0	75.0	24.0	22.0	21.0	10	91.0	43.5	15.2	13.9	13.1
20	15.0			32.0	29.0	27.0	20	182	87.0	30.4	27.9	26.3
30	22.0			46.0	42.0	40.0	40	364	170.0	60.8	55.7	52.5
50	37.0			75.0	69.0	65.0	60	545	261.0	91.3	83.6	78.8
75	55.0			111.0	102.0	96.0	80	727	348.0	122.0	111.0	105.0
100	75.0			146.0	134.0	126.0	100	909	435.0	152.0	139.0	131.0

Note: The Values tabulated are nominal values. Please refer to appropriate manufacture for different construction and condition.



AUTOMATION ENGINEERING & CONTROLS LTD.

[Sole Distributor of Fuji Electric FA Components & Systems Co. Ltd. Japan]

Automation Engineering & Controls Ltd. is a company backed by world famous Fuji Electric FA component & systems Co. Ltd, Japan for the past 22 years. We are pleased to introduce ourselves as the authorized sole distributor of world famous Fuji Electric co. in Bangladesh. With the acceleration of globalization in the power distribution and control area, we offer various power distribution & control equipments that can cover both Industrial & domestic sector through our wide range of products such as Air Circuit Breaker(ACB),Molded Case Circuit Breaker (MCCB), Miniature Circuit Breaker(MCB), Magnetic Contactor, Magnetic Motor Starter, Thermal Overload, Earth Leakage Circuit Breaker (ELCB), Industrial Relays,Online UPS etc that conforms to major standards in the world. Fuji Inverters are at leading position in both realstate & Industrial sectors. Its specially designed spinning inverters ensure optimum control by minimum thread breakage &10 stage change of spinning Speed/length.

Fuji Electric also brings world class Cast Resin Transformer to give you a real taste of innovating energy technology with its self extinguishing feature & slim architecture.



AUTOMATION DRIVES & CONTROLS

[Sole Distributor of Terasaki Electric Co. Ltd. Japan]

Automation Drives & Controls is also backed by world famous Terasaki Electric Co. Ltd,Japan since the very beginning of Industrial Evolution in Bangladesh with the accelerating demand of Japanese product in power distribution & control equipments field. Terasaki Air Circuit Breaker(ACB),Molded Case Circuit Breaker (MCCB), Miniature Circuit Breaker(MCB), Magnetic Contactor, Magnetic Motor Starter, Thermal Overload, Earth Leakage Circuit Breaker (ELCB), Industrial Relays have their uprising demand for adjustable current rating and high breaking capacity.



AUTOMATION ENGINEERING

[Your Trusted Electrical Switchgear & Transformer Manufacturer]

Automation Engineering & Controls Ltd. established its factory in her own land at Banshbaria, Sitakund in Chittagong. Dhaka-Chittagong highway & railway passes near by the place. This place is full of natural beauty. From every corner of the country the place is easily accessible. Our factory is ISO 9001:2008 certified. At present our factory has two different units. One is switchgear unit and another is transformer unit. Products assembled & manufactured in our factory are:

1. Distribution transformer.
2. HT Switchgear.
3. LT Switchgear.
4. PFI Plant.
5. Motor Control Center.
6. Main & Sub Distribution Boards.
7. Star-Delta Starter etc.

All Automation transformers & Switchgears are optimized to meet customers specification & manufacturing as per BNBC & IEC standards.



AUTOMATION CABLES & WIRES INDUSTRIES

[For Secured Power Network]

At the very beginning of 2015, due to increasing demand of quality cables, Automation decided to extend its era to cable sector in Bangladesh to provide safe industrial & Domestic cables with ensuring better quality also & finally established Automation Cables & Wires Industries. Because of Automation's brand value we are hopeful that it will take a remarkable place in Industrial & Domestic market.



OUR SISTER CONCERN



AUTOMATION ENGINEERING & CONTROLS LTD.
[Sole Distributor of Fuji Electric FA Components & Systems Co. Ltd. Japan]



AUTOMATION DRIVES AND CONTROLS
[Sole Distributor of Terasaki Electric Co. Ltd. Japan]



AUTOMATION ENGINEERING
[Your Trusted Switchgear and Transformer Manufacturer]

Head Office:

AKH Tower (3rd Floor), Plot # 10, Lane # 05, Road # 01, Block # L, Agrabad Access Road, Barapole, Halishahar Housing Estate, Chittagong-4216. Tel : 880-31-725750, 724259, 722312, Fax : 880-31-714128, E-mail : automation@colbd.com

Motijheel Office:

Modern Mansion (5th Fl.), 53 Motijheel C/A, Dhaka-1000. Tel: 88-02-9557519, 9563070, 9569223
Fax : 88-02-9585807, E-mail : automation@agni.com

Uttara Office:

Khan Tower (4th Floor), 51, Sonargaon janapath Road. Sector -7, Uttara, Dhaka. Tel # 02-48957504
48958764, Fax # 8961391. E-mail : automation_uttara@agni.com

Sylhet Office :

Sylhet Millennium (6th Floor) Office # 708/A, Zallarpar Road, Zindabazar, Sylhet. Tel # 01847-156875
01847-156865, E-mail: sylhet-aecl@automation-bd.com

Factory :

Mogh Pukur, Vill: Haji para, South Bashbariya, P.S: Sitakunda, Chittagong, Bangladesh.
Tel # 03042-51314-5, Mobile # 01713-103818, E-mail: automation.engg@yahoo.com

Chittagong Sales Center :

Shop No-4, Musafir Khana Shopping Complex, Ground Floor, Nandan Kanon, Kotwali, Chittagong.
Tel: 031-622279, Cell: 01844042060 E-mail: chittagong-sc@automation-bd.com

Nawabpur Sales Center:

Ishaat Electric & Trading, M.M.P Electric Market, Shop # 05, 122 Nawabpur Road, Dhaka-1100.
Tel # 02-7220666, 02-9590248, Cell # 01711-670906, 01978-771133, E-mail- nawabpur-sc@automation-bd.com

Gazipur Sales Center:

Quality Electric & Lighting Center Co. Haji Sunamuddin Wakf Estate (1st Floor), Shop # 98, Chandana Chowrasta
Gazipur, Tel # 02 – 9261474, Cell # 01844 042040, 01720 270492, 01788 707231, E-mail: gazipur-sc@automation-bd.com