

A Trusted Name in Cables

Empire[®]
CABLES

एम्पायर | इमिप्रापुरी
केबल्स

WEATHER PROOF
SUBMERSIBLE CABLES

FIA
FIRE INSURANCE
APPROVED

TAC
TARIFF ADVISORY
COMMITTEE

FIRE
RETARDENT

ISO
CERTIFIED

GETL
CPRI

RTC
NTH

PWD



Empire Cables Industries Pvt. Ltd.

115, Phase IInd, Badli Ind. Area, Delhi-110042

e-mail : support@empirecables.net

Customer Care No. : 011-27893424

IS : 694



IS : 1554

IS : 7098

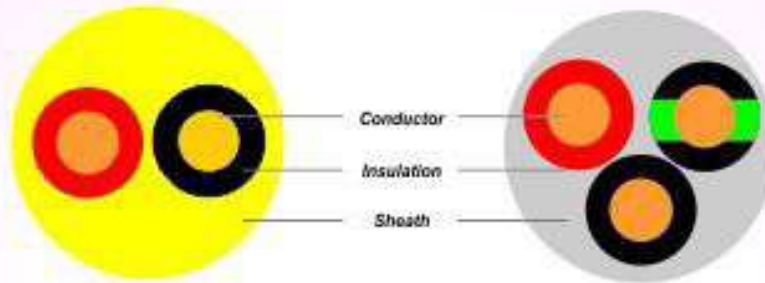
IS : 14255



www.empirecables.net

Technical Specification

TYPE OF INSULATION	TYPE OF SHEATHING	APPLICABLE STANDARDS	TYPICAL APPLICATIONS
Standards PVC	Standard PVC, HR PVC	IS 694, BS 6500, ICE 60227 DIN VDE - 0281	Power cords for appliance, temporary power supplies. 3 core flat cables are suitable for submersible pump applications.
Heat Resistant PVC up to 105°C	Standard PVC, HR PVC	IS 694, BS 6500, ICE 60227 DIN VDE - 0281	Ho-power appliances, ovens, temporary power supply in higher temperature areas.
Standard FRLS PVC	FRLS (Flame Retardant) Low Smoke)	IS 694, BS 6500, ICE 60227 DIN VDE - 0281, ICE 60754-1, IEC 60332-1, 85-4066-1, ASTM D 2843, ASTM D-2663	Power cords for application used in fire prone areas flame Proof equipment, machine tools used in critical Location and heat zones.



Empire® MULTICORE ROUND INSULATED COPPER CONDUCTOR AND SHEATHED FLEXIBLE CABLES FOR WORKING VOLTAGE UPTO 1100 VOLTS

NOMINAL CROSS AREA OF CONDUCTOR	NUMBER NOM. DIA OF COND. STRANDS*	THICKNESS OF INSULATION (NOM)	NOMINAL THICKNESS OF SHEATH			APPROX OVERALL DIAMETER			CURRENT RATING AC	VOLTAGE DROP/AMP/METRE		MAX. CONDUCTOR RESISTANCE PER KM AT 20° C
			TWO CORE	THREE CORE	FOUR CORE	TWO CORE	THREE CORE	FOUR CORE		DC OR SINGLE PHASE AC	3 PHASE AC	
sq. MM	MM	MM	MM	MM	MM	MM	MM	MM	AMPS	mv	mv	OHMS
0.5	16/0.20	0.6	0.9	0.9	0.9	6.2	6.6	7.2	5	83	72	39.0
0.75	24/0.20	0.6	0.9	0.9	0.9	6.5	6.9	7.6	8	56	48	26.0
1.0	32/0.20	0.6	0.9	0.9	0.9	6.9	7.3	8.2	13	43	37	19.6
1.5	30/0.25	0.6	0.9	0.9	1.0	7.6	8.2	9.3	18	31	26	13.3
2.5	50/0.25	0.7	1.0	1.0	1.0	9.0	9.6	10.5	24	18	16	7.96
4.0	56/0.30	0.8	1.0	1.0	1.0	10.3	10.9	12.3	31	11	9.6	4.95

NOTE : CONDUCTOR AS PER CLASS, SUPPLIED IN 100 METER LENGHT WITH BLACK OUTER SHEATH AND BIGGER PACKING ON REQUEST.

ANY COLOR ON SPECIFIC REQUEST CAN BE SUPPLIED, HIGHER SIZE OF NORMAL CROSS SECTIONAL AREA OF CONDUCTOR ARE ALSO AVAILABLE ON REQUEST,

*THE NUMBER AND DIAMETER OF CONDUCTOR STANDS ARE FOR REFERENCE ONLY.

Empire®
PVC Multicore Cables

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CM/L-2011621

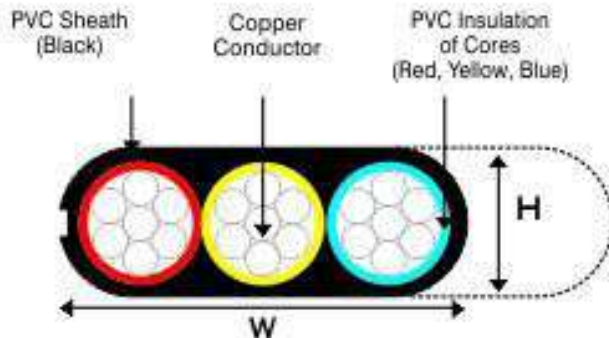
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All information given here is in good faith. Empire shall not be liable for damages arising out of incorrect use or interpretation, the company reserves the right to change any of above specifications without prior notice.

3-CORE FLAT SUBMERSIBLE CABLES

Empire Cable is India's Leading Manufacturing Of Wide Range Of Electrical Pvc Insulated Wires & Cables. Empire Wires & Cables Are Used By Quality Conscious Electrical Contractors And Recommended By Leading Consultants, Architects, Builders For Projects, Domestic, Industrial & Agricultural Wiring. For Trouble Free Working, This Connecting Cables Are Used For Submersible Pump Motors. Empire 3 Core Flat Cables Are Manufactured Keeping In Mind The Severe And Difficult Conditions In Which They Are Required To Perform. The Individual Conductors Are Made From Bright Electrolytic Grade Copper. These Wires Are Drawn, Annealed And Bunched Properly To Ensure Flexibility And Uniform Resistance. Each Of The 3 Copper Conductors Is Insulated With Special Pvc Compound, The Cores Are Laid Up In Flat Parallel Position. The Outer Sheath Of The Cable & Made From A Special Grade Of Abrasion Resistance Pvc Compound Imperious To Water, Grease, Oil Etc.

TECHNICAL DATA



NOTE:

The Strand Diameter Is Nominal However, Construction Of Conductor Is Design To Satisfy The Requirements Of Conductor Resistance As Per IS:8130:1984.

* as per Conductor Class 2 of IS:8130:1984

* as per Conductor Class 5 of IS:8130:1984

3 CORE FLAT CABLES AS PER IS:694:1990 WITH ISI MARK

CONDUCTOR		INSULATION		SHEATH OVERALL DIMENSIONS			CONDUCTOR RESISTANCE @20C (MAX) OHMS / KM.	CURRENT CARRYING CAPACITY @ 40°C (AMP)
AREA (NOM.) SQ. MM.	NOL./SIZE OF WIRES MM	THICKNESS (NOM) MM.	CORE DIA. (NOM) MM.	THICKNESS (NOM) MM.	WIDTH W MM	THICKNESS T MM.		
1.5	22/0.3	0.8	3.25	1.15	12.5	5.8	12.10	14
2.5	36/0.3	0.9	3.90	1.15	14.4	6.3	7.41	18
4.0	56/0.3	1.0	4.65	1.15	17.2	7.4	4.95	26

3 CORE FLAT CABLES GENERALLY CONFORMING TO IS:694:1990

CONDUCTOR		INSULATION		SHEATH OVERALL DIMENSIONS			CONDUCTOR RESISTANCE @20C (MAX) OHMS / KM.	CURRENT CARRYING CAPACITY @ 40°C (AMP)
AREA (NOM.) SQ. MM.	NOL./SIZE OF WIRES MM	THICKNESS (NOM) MM.	CORE DIA. (NOM) MM.	THICKNESS (NOM) MM.	WIDTH W MM	THICKNESS T MM.		
6.0	84/0.3	1.0	5.20	1.15	18.7	7.9	3.30	31
10.0	140/0.3	1.0	6.60	1.40	23.7	9.9	1.91	42
16.0	226/0.3	1.0	8.20	1.40	28.0	11.4	1.21	57

SELECTION GUIDE FOR 3 CORE FLAT CABLES

1) HP VS CURRENT

THE FULL LOAD CURRENT FOR SUBMERSIBLE PUMP MOTORS, 3 PHASE, 50 CYCLES, 415~425 V.

HP	5.0	7.5	10.0	12.5	15.0	17.5	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0
AMP	7.5	11.0	14.9	18.9	22.5	25.2	28.4	35.6	42.3	50.4	58.1	62.1	67.5	73.8	81.0	87.3	93.6	100.80	108.0

2) DERATING FACTORS

MULTIPLY THE CURRENT CARRYING CAPACITY OF THE CABLE BY FACTORS GIVEN BELOW FOR VARIOUS AMBIENT TEMPERATURES.

AMBIENT TEMPERATURE °C	30	35	40	45	50
OPERATING FACTOR	1.09	1.04	1.00	0.95	0.77

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Empire[®]

CABLES

Cables For Future

UV Protected
solar cable



PRODUCT RANGE

- Power & Control Cables.
- H.T. & L.T. Cables
- Multi-Core Flexible Wires...
- Instrumentation Cables.
- Computer Cables /Cat-6
- Co-axial Cables
- Shielded Cables and Submersible Cables.
- Telecommunication Cables
- Aerial Bunch Cables (ABC)
- Lan Cables.
- FR/FRLS PVC Cables.
- House Wiring and Industrial Cables
- PTFE (Teflon) Coated Wire & Cables.
- TRS / Rubber Cables.
- Moulded Plug.
- All Kinds of Other Special Cables

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PVC MULTISTRAND HR - FR & FRLS CABLES



OUR MAJOR CLIENTS : Uttar Pradesh P.W.D., Rajasthan P.W.D., Haryana P.W.D., Maharashtra P.W.D., Gujarat Electricity Board, Tamilnadu P.W.D., Kerala P.W.D., Airport Authority of India, L & T, Maharashtra Housing & Area Development Authority (MHADA), Military Engineer Services Pune, Centre for Fire, Explosive and Environmental Safety (Ministry of Defence), M.P. Electricity Board Rajasthan Electricity Board, Jawahar Lal Nehru Port Trust, Neelanchal Ispat Nigam Limited, SAIL, Haryana Police Housing Board, Punjab Police Housing Board

EMPIRE FR WIRES & CABLES ARE INSULATED WITH A FIRE RETARDANT (FR) PVC COMPOUND, SPECIALLY FORMULATED BY ONE OF OUR GROUP COMPANIES TO PROVIDE ADDED SAFETY. THIS FR PVC COMPOUND HAS A HIGH OXYGEN AND TEMPERATURE INDEX, THESE PROPERTIES HELP IN RESTRICTING THE SPREAD OF FIRE EVEN AT VERY HIGH TEMPERATURES. THIS SPECIAL COMPOUND ALSO OFFERS HIGH INSULATION RESISTANCE AND DIELECTRIC STRENGTH.

EMPIRE CABLES CARRIERS ISI STANDARDIZATION MARK QUALITY CERTIFICATION WHICH ASSURES COMPLETE SAFETY, RELIABILITY & CONSISTENCY IN PERFORMANCE.

LOOK FOR THE COMPANY NAME, SIZE, VOLTAGE GRADE AND LOGO PRINTED ON THE WIRE INSULATION EVERY METER. CHECK THE 3-D TAMPER PROOF HOLOGRAM ON THE CARTON PACK TO ENSURE GENUINENESS OF THE CABLES & WIRES.

TECHNICAL DATA

NOMINAL CROSS SECTIONAL AREA OF THE CONDUCTOR	NOS./NOMINAL DIA. OF STRAND	NOMINAL THICKNESS OF INSULATION	APPROX. OVERALL DIA.	MAX. CONDUCTOR RESISTANCE	CURRENT RATING (AMPS)	
					2 WIRES - SINGLE PHASE #	CLIPPED DIRECTLY TO SURFACE OR ON CABLE TRAY
SQ. MM	NO. / MM	MM	MM	Ω /KM AT 20°C	IN CONDUIT / TRUNKING	
0.75	**24/2	0.6	2.4	26.0	7	8
1.0	*14/3	0.7	2.8	18.0	11	12
1.5	*22/3	0.7	3.1	12.1	13	16
2.5	*36/3	0.8	3.8	7.41	18	22
4.0	**56/3	0.8	4.3	4.95	24	29
6.0	**84/3	0.8	5.2	3.30	31	37

NOTE : STD. COLOURS - RED, YELLOW, BLUE, BLACK & GREEN
NORMAL PACKING LENGTH - 90 METRS.

* CONDUCTOR : CLASS 2 AS PER IS 8130-1984
** CONDUCTOR CLASS 5 AS PER IS 8130-1984
AS PER IS : 3961 (PART V)- 1968

CONFIRM TO IS:694-1990. ISI LICENCE NO CM/L : 2011621

ADDITIONAL FR PROPERTIES

TEST	SPECIFICATION	SPECIFIED VALUES
CRITICAL OXYGEN INDEX	ASTM-d 2863	OXYGEN INDEX MINIMUM 29%
TEMPERATURE INDEX	ASTM-d 2863 & BICC HAND BOOK CHAPTER NO.6	MINIMUM TEMPERATURE INDEX 250°C

ALSO MEETS REQUIREMENTS OF FLAMMABILITY TEST AS PER IEC 332-1

FLAME RETARDANT WIRES HAVE HIGH OXYGEN AND TEMPERATURE INDEX, WHICH HELPS IN RESTRICTING THE SPREAD OF FIRE EVEN AT HIGH TEMPERATURE.

EMPIRE CABLE INDUSTRIES PVT. LTD.

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All Information Given Here Is In Good Faith. Empire Shall Not Be Liable For Any Damages Arising Out Of Incorrect Use Or Interpretation, The Company Reserves The Right To Change Any Of The Above Specifications Without Prior Notice.



**SAFETY
ASSURED**



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PVC MULTICORE CABLES

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