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# MULTICORE CABLES-3192Y PVC H05VVH2-F TWIN FLAT CABLE 300/500V

3192Y flexible twin flat PVC cable, H05VVH2-F harmonised cable.

Conductors: Plain annealed flexible copper

Insulation: PVC (Polyvinyl chloride)

Core identification: 2 core: brown & blue

Sheath/Jacket: PVC (Polyvinyl chloride)

Colour: White

Voltage: 300/500V

Operating temperature: Maximum 70°C. Minimum bending 0°C

**Standards:** BS6500: Electric Cables. Flexible cords rated up to 300/500V, for use with appliances and equipment intended for domestic, office and similar environments

Applications: suitable for household appliances for medium duties eg washing machine, fridge



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## **Specification**

Size sqmm			Nom diameter over laid up cores mm	Nom overall diameter mm		
0.5	2	0.5	2.2	3.9 x 6.1	-	37395
0.75	2	0.6	2.4	4.0 x 6.4	476	37291

### **Harmonised Codes-Technical Information**

#### Part 1 of the designation

Table 1a: Relationship to standards

Symbol	Relationship of cable to standards
Н	Cable conforming with harmonised
	standards
Α	Recognised National Type of cable listed in the relevantSupplement to harmonised standards

Table 1b: Rated voltage

Symbol	Value, U?/U*
01	=100/100V;
	(<300/300V)
03	300/300V
05	300/500V
07	450/750V

The rated voltages not yet harmonised are given in brackets

#### Part 2 of the designation

#### Table 2a: Insulating and non-metallic sheathing materials

Note: The descriptions given for the symbols are used in certain instances to cover a group of materials which have similar performance requirements for a given cable type will be found in the appropriate cable standard.

Symbol	Material
В	Ethylene-propylene
	rubber
G	Ethylene-vinyl-acetate
J	Glass-fibre braid
M	Mineral
N	Polychloroprene (or equivalent material)
N2	Special polychloroprene compound for covering of welding cables according to HD 22.6



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N4	Chlorosulfonated
	polyethylene or chlorinated polyethylene
N8	Special water resistant
	polychloroprene compound
Q	Polyurethane
Q4	Polyamide
R	Ordinary
	ethylene propylene rubber or equivalent synthetic elastomer for a continuous
	operating temperature of 60°C
S	Silicone
	rubber
Т	Textile
	braid, impregnated or not, on assembled cores
Т6	Textile
	braid, impregnated or not, on individual cores of a multi-core cable
V	Ordinary
	PVC
V2	PVC compound for a continuous
	operating temperature of 90°C
V3	PVC
	compound for cables installed at low temperature
V4	Cross-linked
	PVC
V5	Special
	oil resistant PVC compound
Z	Polyolefin-based cross-linked
	compound having low level of emission of corrosive gases and which is
	suitable for use in cables which, when burned, have
	low
	emission of smoke
<b>Z1</b>	Polyolefin-based
	thermoplastic compound having low level of emission of corrosive gases and
	which is suitable for use in cables which, when burned, have low emission of
	smoke

#### **Table 2b Metallic coverings**

Symbol	Sheath, concentric conductors and screens
С	Concentric copper conductor
C4	Copper screen as braid over the assembled cores

#### Table 2c: Special constructional components of a cable

Note: These symbols, when required, are to follow the symbols selected from any of the previous tables 2a and 2b.

Symbol	Constructional components
D3	Strain-bearing element consisting of one or more textile components, placed at the centre of a round cable or distributed inside a flat cable.
D5	Central heart (non strain-bearing for lift cables only)
D9	Strain-bearing element consisting of one or more metallic components, placed at the centre of a round cable or distributed inside a flat cable.

Table 2d: Special construction of cable



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Symbol	Special construction
No Symbol	Circular construction of cable
Н	Flat construction of "divisible" cables and cores, either sheathed or non-sheathed
H2	Flat construction of "non-divisible" cables and cores
Н6	Flat cable having three or more cores, according to DH 359 or EN 50214
H7	Cable having a double layer insulation applied by extrusion
Н8	Extensible lead

#### **Table 2e: Conductor material**

Note: These symbols, when required are to follow after a dash, the symbols selected from any previous tables 2a to 2d.

Symbol	Conductor material
No Symbol	Copper
-A	Aluminium

#### **Table 2f: Conductor form**

Note: These symbols are to follow after a dash (already included in the symbol –A, in the case of aluminium conductors) the symbols selected from any of the previous tables 2a to 2e. For cables containing two forms of conductors the symbol shall designate the form of the phase conductor only.

Symbol	Conductor form
-D	Flexible conductor for use in arc welding cables to HD 22 Part 6 (flexibility to different from class 5 of HD 383)
-E	Highly flexible conductor for use in arc welding cables to HD22 Part 6 (flexibility different from Class 6 of HD 383)
-F	Flexible conductor of a flexible cable or cord (flexibility according to Class 5 of HD 383)
-H	Highly flexible conductor of a flexible cable or cord (flexibility according to Class 6 of HD 383)
-K	Flexible conductor of a cable for fixed installations (unless otherwise specified, flexibility according to Class 5 of HD 383)
-R	Rigid, round conductor, stranded
-U	Rigid round conductor, solid
-Y	Tinsel conductor

#### Part 3 of the designation

Table 3: Number(s) of cores and nominal cross-section(s) of conductors

Symbol	Number and size of conductors
(number)	Number, n of cores
Х	Times, where a green/yellow core is not included
G	Times, when a green/yellow core is included
(number)*	Nominal cross-section, s, of conductor in mm <sup>2</sup>
Υ	For a tinsel conductor where the cross-section is not specified

Countries are free to assign the "N" (placed after the conductor cross-section) to indicate that the cores are identified by number.

#### **General Examples**

nXs or nGs	n cores of s mm² conductor cross-section



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nXs+n-Xs-	n cores of s mm² and n- cores of s- mm² conductor cross-section
nXs/s-	n cores of s mm <sup>2</sup> conductor cross-section and concentric conductor of s- mm <sup>2</sup> cross-section
nXs + n-Xs-/s®	n cores of s mm <sup>2</sup> + n- cores of s- mm <sup>2</sup> conductor cross-section + concentric conductor of s <sup>®</sup> mm <sup>2</sup> cross-section

#### **Particular Examples**

4 G 50	A cable with four cores having 50mm <sup>2</sup> conductor cross-section, one of the cored being green/yellow
4 X 50	A4-core cable without green/yellow core, all the cores having 50mm <sup>2</sup> conductor cross-section
3X50 + 1G25	A cable with four cores, three of which have 50mm <sup>2</sup> conductor cross-section, while the green/yellow core has a reduced
	conductor cross-section of 25mm <sup>2</sup>
3X70/35	A cable with three cores having 70mm <sup>2</sup> conductor cross-section and a concentric conductor of 35mm <sup>2</sup> cross-section
2 X Y	A2-core cord with tinsel conductors

Table 4: Survey of symbols and their sequence in cable designations (1)

1	2	3	4	5	6	7	8	9	10	11
Part 1	2	3	4	5	Part 2	7	8	9	Part 3	11
Related Standar d	Rated voltag e	Insulatin g material	Metalic covering s (s)	Non - metallic sheath (2)	Constructiona I components & special instructions	Conducto r material	Conducto r forms	No. of core s	Time s	Conducto r size mm
				Symbols accordin g to table (s)						
1a	1b	2a	2b	2c and 2d	2e	2f	3			
Н	01	В	С	В	D3	No	-D	1	Χ	Υ
					D5	Symbol:	-E	2		0.5
Α	03	G	C4	G	D9	Copper	-F	3	G	
						-H	4		0.75	
	05	J		J	No symbol:	-A	-K	5		
					Circular		-R	Etc		
	07	М			Construction		-U			
					Of cable		-Y			
		N, N4		N, N2, 4, 8						
					Н				2.5	
		R		Q, Q4	H2					
					Н6				4	
		S		R	H7					
					Н8				R	
				S						
		V, V2		T, T6						
		V3, V4							16	
				V, V1, V2						
		Z, Z1		V4, V5					25	
				Z, Z1					etc	



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- (1)If two or more symbols listed in the same column need to be used in a given designation, they shall follow each other in their radial sequence starting from the core axis to cable axis.
- (2) The symbols might change their position in the designation with respect to the construction of the cable.

# 4H3A,17th Edition-Technical Information

TABLE 4F3A Flexible cords, non-armoured (Copper Conductors)
CURRENT-CARRYING CAPACITY (amperes): and MASS SUPPORTABLE (kg):

Conductor cross- sectional area	single- phase a.c.	rying capacity three-phase a.c.	Maximum mass suporatble by twin flexible cord (see Regulations 522.7.2 & 559.6.1.5)
1	2	3	4
(mm²)	(A)	(A)	(kg)
0.5	3	3	2
0.75	6	6	3
1	10	10	5
1.25	13	-	5
1.5	16	16	5
2.5	25	20	5
4	32	25	5

Notes- Where cable is on a reel see the notes to Table 4F1A

#### Rating factor for ambient temperature

60°C thermoplastic or thermosetting insulated cords:							
Ambient Temp (°C)	35	40	45	50	55		
Rating Factor	0.91	0.82	0.71	0.58	0.41		

90°C thermoplastic or thermosetting insulated cords:							
Ambient Temp (°C)	35 to 50	55	60	65	70		
Rating Factor	1.0	0.96	0.83	0.67	0.47		

180°C thermosetting insulated cords:	:					
Ambient Temp (°C)	35 to 120	125	130	135	140	145
Rating	1.0	0.96	0.85	0.74	0.60	0.42
Factor						



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Glass fibre cords:						
Ambient Temp (°C)	35 to 150	155	160	165	170	175
Rating	1.0	0.92	0.82	0.71	0.57	0.40
Factor						

#### **TABLE 4F3B**

#### **VOLTAGE DROP** (per ampere per metre):Conductor operating temperature:60°C\*

Conductorcross-sectionalarea	d.c orsingle-phasea.c.	three-phasea.c.
1	2	3
(mm²)	(mV/A/m)	(mV/A/m)
0.5	93	80
0.75	62	54
1	46	40
1.25	37	-
1.5	32	27
2.5	19	16
4	12	10

#### Notes

The tabulated values above are for  $60^{\circ}$ C thermoplastic or thermosetting insulated flexible cords and for other types of flexible cords they are to be multiplied by the following factors:

90°C thermoplastic or thermosetting insula	ited 1.09
180°C thermosetting insulated	1.31
185°C glass fibre	1.43

# **Parts options**

Part No.	Core	Size	Colour/Reference
37395	2	0.5sqmm (Class 5)	White
37291	2	0.75sqmm (Class 5)	White



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