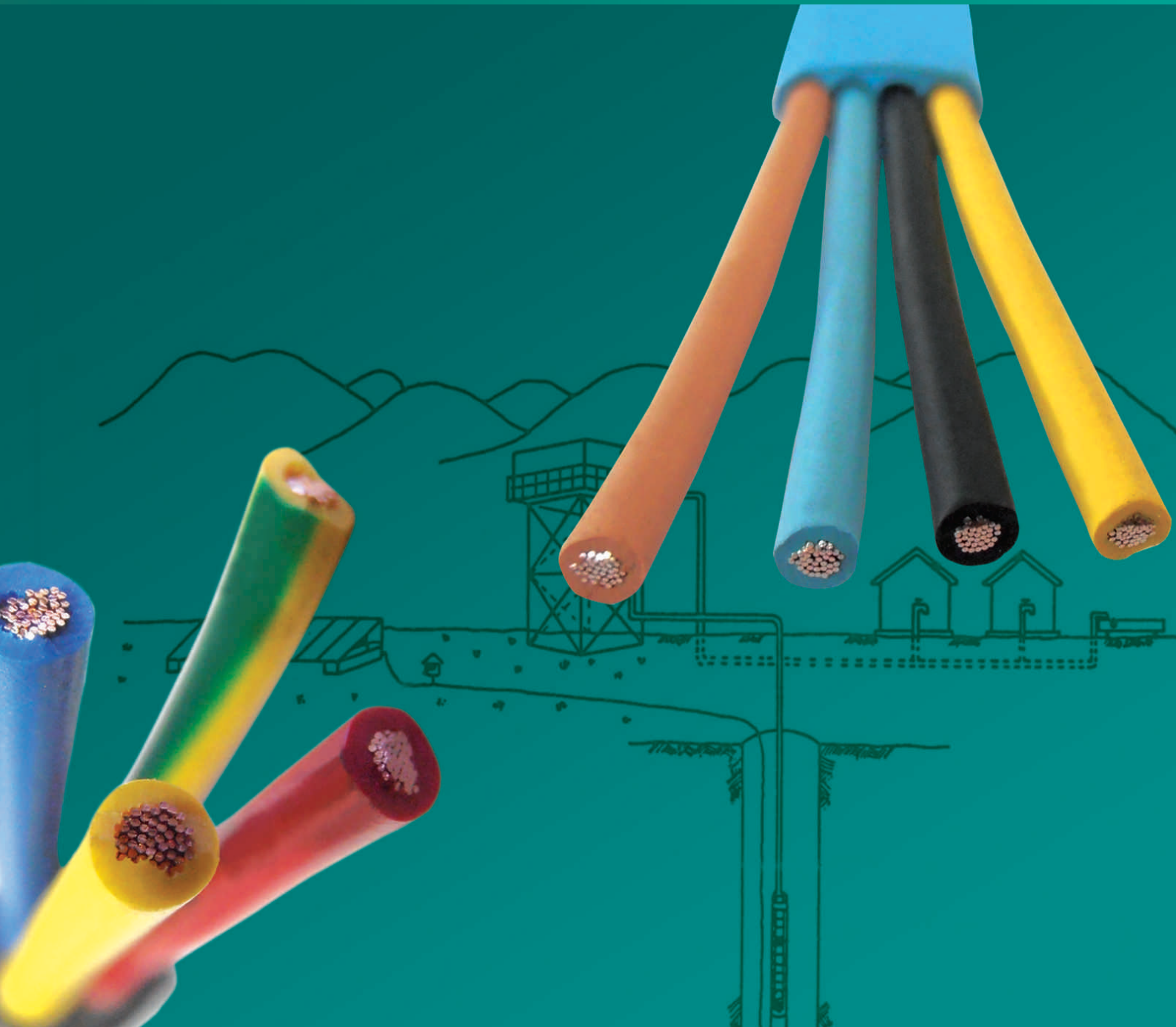




TRIED ~ TESTED ~ TRUSTED ~ TORMAC CABLES
The Power Performance



TORMAC SUBMERSIBLE CABLES Flat / Round > PVC / Rubber > 3/4 Core

Product from an ISO 9001 COMPANY

SUBMERSIBLE CABLES > Flat / Round > PVC / Rubber > 3/4 Core

Tormac cables are used as power supply cables for submersible pumpsets. These multi strand, multicore cables are in 3/4 core versions with Flat or Round type. These cables are suitable for installations in dry, moist & wet environments but however not suitable for explosive areas.

Specifications

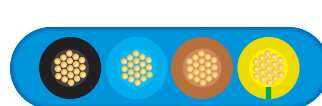
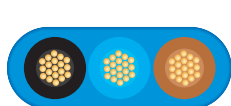
Operating temp.	-20°C to max. + 75°C
Working voltage	Upto 1100V
Test voltage	3000V
Specification	IS 694 / IEC 60227
Min bending radius	6 x Cable diameter
Conductor Material	Finely stranded bare copper flexible wire
Size	1.5, 2.5, 4, 6, 10, 16, 25, 35, 50, 70, 95 sqmm
Outer Sheath & Insulation	Special PVC / EPDM Rubber (Black / Blue)
Packing (Flat & Round)	In 500 metres / 1000 metres drum

Applications

- > Irrigation
- > Drinking water supply
- > Industrial
- > Mining & Dewatering
- > Sewage treatment plants
- > Sea water handling
- > Fire fighting

COLOR CODING > Flat / Round > PVC / Rubber > 3/4 Core

Color Coding	As per IEC 60227	As per IS 694
3 Core	Black, Blue & Brown	Red, Yellow & Blue
4 Core	Black, Blue, Brown, Yellow with Green line / Green with Yellow line	Red, Yellow, Blue Green / Black



3 CORE FLAT CABLE > PVC Insulated & Sheathed

Conductor Area (in Sq. mm) (Nominal)	No. of strands and Diameter (Nominal)	PVC Insulation in mm (Nominal)	Sheath Thickness in mm (Nominal)	Approx. Overall Dimensions (in mm)		Approx Conductor Resistance at 20°C Ω / km	Current Carrying Capacity at 40°C in Amps
				Width	Thickness		
1.5	22/0.30	0.80	1.15	12.60	6.00	12.10	14.0
2.5	36/0.30	0.90	1.15	14.45	6.40	7.41	18.0
4.0	56/0.30	1.00	1.15	16.60	7.40	4.95	26.0
6.0	84/0.30	1.00	1.15	18.15	7.90	3.30	31.0
10.0	140/0.30	1.00	1.40	23.20	9.90	1.91	42.0
16.0	226/0.30	1.00	1.40	27.20	11.40	1.21	57.0
25.0	354/0.30	1.20	2.00	35.20	14.70	0.780	72.0
35.0	495/0.30	1.20	2.00	39.20	16.20	0.554	90.0
50.0	703/0.30	1.40	2.20	45.50	18.30	0.386	115.0
70.0	988/0.30	1.40	2.20	51.00	20.00	0.272	143.0
95.0	1349/0.30	1.60	2.40	60.00	23.50	0.206	165.0

4 CORE FLAT CABLE > PVC Insulated & Sheathed

Conductor Area (in Sq. mm) (Nominal)	No. of strands and Diameter (Nominal)	PVC Insulation in mm (Nominal)	Sheath Thickness in mm (Nominal)	Approx. Overall Dimensions (in mm)		Approx Conductor Resistance at 20°C Ω / km	Current Carrying Capacity at 40°C in Amps
				Width	Thickness		
1.5	22/0.30	0.80	1.30	15.40	6.00	12.10	14.0
2.5	36/0.30	0.90	1.30	17.35	6.50	7.41	18.0
4.0	56/0.30	1.00	1.45	20.40	7.60	4.95	26.0
6.0	84/0.30	1.00	1.50	23.80	7.90	3.30	31.0
10.0	140/0.30	1.00	1.80	28.90	9.90	1.91	42.0
16.0	226/0.30	1.00	1.95	35.70	11.40	1.21	57.0
25.0	354/0.30	1.20	2.00	45.10	14.70	0.780	72.0
35.0	495/0.30	1.20	2.00	50.10	16.20	0.554	90.0
50.0	703/0.30	1.40	2.20	58.10	18.30	0.386	115.0
70.0	988/0.30	1.40	2.20	66.50	20.00	0.272	143.0
95.0	1349/0.30	1.60	2.40	77.30	23.50	0.206	165.0

Note : The number of strands are approximate and strands diameter is nominal ; Conductor resistance is as per Class 5 of IEC 60228 / DIN VDE 0295 / IS 8130 / BS 6360

* Company reserves the right to make any modification about descriptions / specifications without prior notice.



3 CORE ROUND CABLE > PVC Insulated & Sheathed

Conductor Area (in Sq. mm) (Nominal)	No. of strands and Diameter (Nominal)	PVC Insulation in mm (Nominal)	Sheath Thickness in mm (Nominal)	Approx. Overall Dimensions (in mm)	Approx Conductor Resistance at 20°C Ω / km	Current Carrying Capacity at 40°C in Amps
1.5	22/0.30	0.80	1.50	10.00	12.10	14.0
2.5	36/0.30	0.90	1.50	11.00	7.41	18.0
4.0	56/0.30	1.00	1.60	13.00	4.95	26.0
6.0	84/0.30	1.00	1.60	14.60	3.30	31.0
10.0	140/0.30	1.00	2.00	18.00	1.91	42.0
16.0	226/0.30	1.00	2.00	21.20	1.21	57.0
25.0	354/0.30	1.20	2.40	26.50	0.780	72.0
35.0	495/0.30	1.20	2.60	29.50	0.554	90.0
50.0	703/0.30	1.40	3.10	34.80	0.386	115.0
70.0	988/0.30	1.40	3.20	39.30	0.272	143.0
95.0	1349/0.30	1.60	3.50	45.70	0.206	165.0

4 CORE ROUND CABLE > PVC Insulated & Sheathed

Conductor Area (in Sq. mm) (Nominal)	No. of strands and Diameter (Nominal)	PVC Insulation in mm (Nominal)	Sheath Thickness in mm (Nominal)	Approx. Overall Dimensions (in mm)	Approx Conductor Resistance at 20°C Ω / km	Current Carrying Capacity at 40°C in Amps
1.5	22/0.30	0.80	1.50	10.80	12.10	14.0
2.5	36/0.30	0.90	1.65	12.50	7.41	18.0
4.0	56/0.30	1.00	1.65	14.10	4.95	26.0
6.0	84/0.30	1.00	1.65	16.00	3.30	31.0
10.0	140/0.30	1.00	2.00	20.35	1.91	42.0
16.0	226/0.30	1.00	2.00	23.40	1.21	57.0
25.0	354/0.30	1.20	2.40	29.20	0.780	72.0
35.0	495/0.30	1.20	2.60	32.40	0.554	90.0
50.0	703/0.30	1.40	3.10	38.25	0.386	115.0
70.0	988/0.30	1.40	3.20	43.30	0.272	143.0
95.0	1349/0.30	1.60	3.50	50.40	0.206	165.0

Note : The number of strands are approximate and strands diameter is nominal ; Conductor resistance is as per Class 5 of IEC 60228 / DIN VDE 0295 / IS 8130 / BS 6360

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3 CORE FLAT CABLE > EPDM Rubber Insulated & Sheathed

Conductor Area (in Sq. mm) (Nominal)	No. of strands and Diameter (Nominal)	PVC Insulation in mm (Nominal)	Sheath Thickness in mm (Nominal)	Approx. Overall Dimensions (in mm)		Approx Conductor Resistance at 20°C Ω / km	Current Carrying Capacity at 40°C in Amps
				Width	Thickness		
1.5	22/0.30	0.80	1.15	12.60	6.00	12.10	14.0
2.5	36/0.30	0.90	1.15	14.45	6.40	7.41	18.0
4.0	56/0.30	1.00	1.15	16.60	7.40	4.95	26.0
6.0	84/0.30	1.00	1.15	18.15	7.90	3.30	31.0
10.0	140/0.30	1.00	1.40	23.20	9.90	1.91	42.0
16.0	226/0.30	1.00	1.40	27.20	11.40	1.21	57.0
25.0	354/0.30	1.20	2.00	35.20	14.70	0.780	72.0
35.0	495/0.30	1.20	2.00	39.20	16.20	0.554	90.0
50.0	703/0.30	1.40	2.20	45.50	18.30	0.386	115.0
70.0	988/0.30	1.40	2.20	51.00	20.00	0.272	143.0
95.0	1349/0.30	1.60	2.40	60.00	23.50	0.206	165.0
120.0	608/0.50	1.80	2.80	65.00	25.00	0.161	188.0
150.0	760/0.50	2.20	4.00	76.10	30.70	0.129	216.0

4 CORE FLAT CABLE > EPDM Rubber Insulated & Sheathed

Conductor Area (in Sq. mm) (Nominal)	No. of strands and Diameter (Nominal)	PVC Insulation in mm (Nominal)	Sheath Thickness in mm (Nominal)	Approx. Overall Dimensions (in mm)		Approx Conductor Resistance at 20°C Ω / km	Current Carrying Capacity at 40°C in Amps
				Width	Thickness		
1.5	22/0.30	0.80	1.30	15.40	6.00	12.10	14.0
2.5	36/0.30	0.90	1.30	17.35	6.50	7.41	18.0
4.0	56/0.30	1.00	1.45	20.40	7.60	4.95	26.0
6.0	84/0.30	1.00	1.50	23.80	7.90	3.30	31.0
10.0	140/0.30	1.00	1.80	28.90	9.90	1.91	42.0
16.0	226/0.30	1.00	1.95	35.70	11.40	1.21	57.0
25.0	354/0.30	1.20	2.00	45.10	14.70	0.780	72.0
35.0	495/0.30	1.20	2.00	50.10	16.20	0.554	90.0
50.0	703/0.30	1.40	2.20	58.10	18.30	0.386	115.0
70.0	988/0.30	1.40	2.20	66.50	20.00	0.272	143.0
95.0	1349/0.30	1.60	2.40	77.30	23.50	0.206	165.0
120.0	608/0.50	1.80	3.50	87.00	27.40	0.161	188.0

Note : The number of strands are approximate and strands diameter is nominal ; Conductor resistance is as per Class 5 of IEC 60228 / DIN VDE 0295 / IS 8130 / BS 6360

* Company reserves the right to make any modification about descriptions / specifications without prior notice.



3 CORE ROUND CABLE > EPDM Rubber Insulated & Sheathed

Conductor Area (in Sq. mm) (Nominal)	No. of strands and Diameter (Nominal)	PVC Insulation in mm (Nominal)	Sheath Thickness in mm (Nominal)	Approx. Overall Dimensions (in mm)	Approx Conductor Resistance at 20°C Ω / km	Current Carrying Capacity at 40°C in Amps
1.5	22/0.30	0.80	1.50	10.00	12.10	14.0
2.5	36/0.30	0.90	1.50	11.00	7.41	18.0
4.0	56/0.30	1.00	1.60	13.00	4.95	26.0
6.0	84/0.30	1.00	1.60	14.60	3.30	31.0
10.0	140/0.30	1.00	2.00	18.00	1.91	42.0
16.0	226/0.30	1.00	2.00	21.20	1.21	57.0
25.0	354/0.30	1.20	2.40	26.50	0.780	72.0
35.0	495/0.30	1.20	2.60	29.50	0.554	90.0
50.0	703/0.30	1.40	3.10	34.80	0.386	115.0
70.0	988/0.30	1.40	3.20	39.30	0.272	143.0
95.0	1349/0.30	1.60	3.50	45.70	0.206	165.0
120.0	608/0.50	1.90	3.80	50.20	0.161	188.0
150.0	760/0.50	2.00	4.00	55.30	0.129	216.0

4 CORE ROUND CABLE > EPDM Rubber Insulated & Sheathed

Conductor Area (in Sq. mm) (Nominal)	No. of strands and Diameter (Nominal)	PVC Insulation in mm (Nominal)	Sheath Thickness in mm (Nominal)	Approx. Overall Dimensions (in mm)	Approx Conductor Resistance at 20°C Ω / km	Current Carrying Capacity at 40°C in Amps
1.5	22/0.30	0.80	1.50	10.80	12.10	14.0
2.5	36/0.30	0.90	1.65	12.50	7.41	18.0
4.0	56/0.30	1.00	1.65	14.10	4.95	26.0
6.0	84/0.30	1.00	1.65	16.00	3.30	31.0
10.0	140/0.30	1.00	2.00	20.35	1.91	42.0
16.0	226/0.30	1.00	2.00	23.40	1.21	57.0
25.0	354/0.30	1.20	2.40	29.20	0.780	72.0
35.0	495/0.30	1.20	2.60	32.40	0.554	90.0
50.0	703/0.30	1.40	3.10	38.25	0.386	115.0
70.0	988/0.30	1.40	3.20	43.30	0.272	143.0
95.0	1349/0.30	1.60	3.50	50.40	0.206	165.0
120.0	608/0.50	1.90	3.80	55.30	0.161	188.0
150.0	760/0.50	2.00	4.00	61.00	0.129	216.0

Note : The number of strands are approximate and strands diameter is nominal ; Conductor resistance is as per Class 5 of IEC 60228 / DIN VDE 0295 / IS 8130 / BS 6360

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C A B L E S E L E C T I O N C H A R T

For Single Phase 3 wire (D.O.L.) Motor Maximum Length of Copper Cable

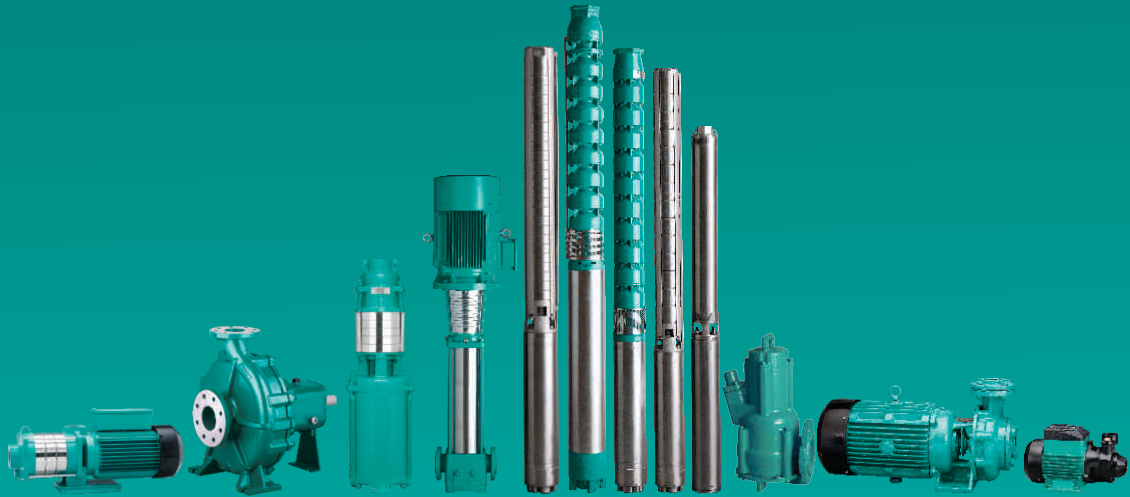
Motor Rating			CABLE SIZE IN SQUARE MILLIMETRES											MAXIMUM LENGTH IN METRES
VOLTS	kW	HP	1.5	2.5	4	6	10	16	25	35	50	70	95	
230 VOLT 50Hz	0.37	0.5	120	200	320	480	810	1260	1900	2590	3580	4770	5920	
	0.55	0.75	80	1030	220	320	550	850	1290	1760	2430	3230	4000	
	0.75	1.0	60	100	170	250	430	670	1010	1380	1910	2550	3460	
	1.1	1.5	40	70	120	180	300	470	710	980	1360	1850	2320	
	1.5	2.0	30	60	90	130	230	360	550	760	1060	1440	1820	
	2.2	3.0		40	60	90	150	230	350	490	680	920	1160	

For Three Phase 3 wire (D.O.L.) Motor Maximum Length of Copper Cable

Motor Rating			CABLE SIZE IN SQUARE MILLIMETRES												MAXIMUM LENGTH IN METRES
VOLTS	kW	HP	1.5	2.5	4	6	10	16	25	35	50	70	95	120	
380 - 415 VOLT 50Hz	0.37	0.50	810	1350	2160	3240	5500	8530							
	0.55	0.75	550	920	1480	2230	3780	5860	8890						
	0.75	1.0	410	680	1090	16940	2780	4330	6570	9010					
	1.1	1.5	300	500	810	1210	2060	3200	4850	6640	9220				
	1.5	2.0	220	370	590	880	1500	2340	3560	4890	6830	9230			
	2.2	3.0	150	250	400	600	1030	1600	2440	3350	4682	6340	7990		
	3	4.0	110	190	310	460	790	1230	1880	2590	3630	4930	6230		
	3.7	5.0	90	150	240	370	630	980	1490	2050	2870	3900	4920		
	4	5.5	80	140	230	340	590	920	1390	1910	2670	3600	4520		
	4.5	6.0	70	130	220	320	550	860	1310	1790	2510	3390	4260		
	5.5	7.5	60	110	170	260	440	690	1060	1450	2030	2750	3460		
	7.5	10	50	80	130	200	340	530	810	1110	1560	2120	2680		
	9.3	12.5		60	110	160	280	440	670	920	1310	1780	2250		
	11	15.0		50	90	130	230	360	550	750	1060	1440	1820		
	13	17.5			80	110	200	310	480	650	920	1250	1580		
	15	20.0			70	100	170	270	410	570	800	1080	1370		
	18.5	25.0				80	120	210	330	450	630	860	1090		
	22	30.0				70	100	180	280	380	540	740	930		
	26	35.0					90	150	230	310	440	610	770	870	
	30	40.0							130	210	280	400	540	680	780
37	50.0								110	170	230	320	440	550	700
45	60.0									140	190	260	360	460	560
55	75.0										160	220	290	380	480
75	100											160	220	300	370
93	125												170	220	260

For Three Phase 6 wire (S.D.) Motor Maximum Length of Copper Cable

Motor Rating			CABLE SIZE IN SQUARE MILLIMETRES														MAXIMUM LENGTH IN METRES
VOLTS	kW	HP	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	
380 - 415 VOLT 50Hz	5.5	7.5	100	165	255	390	660	1035	1590	2170	3040	4120					
	7.5	10	70	120	190	300	510	800	1210	1765	2340	3180					
	9.3	12.5		90	165	240	420	660	1000	1380	1930	2670					
	11	15		80	130	200	350	540	820	1130	1590	2160	2730				
	13	17.5		70	120	165	300	465	720	970	1380	1870	2370				
	15	20		60	100	150	250	400	610	855	1200	1620	2050				
	18.5	25			80	120	210	310	490	670	945	1290	1630	2030			
	22	30			70	105	180	270	420	570	810	1110	1395	1740			
	26	35					150	225	340	460	660	910	1160	1310		1760	
	30	40					135	190	315	420	600	810	1020	1260	1480	1430	
	37	50					100	160	250	345	480	660	825	1050	1200	1200	
	45	60						140	210	290	400	550	690	850	1000	1010	1460
	56	75						110	170	240	340	460	580	720	840	780	1230
	75	100						90	130	180	260	350	440	550	650	560	950
	93	125								140	190	260	330	400	470	480	680
	112	150								120	160	220	280	350	400	480	580
	130	175									140	190	250	300	360	430	520
150	200									130	170	220	270	320	380	460	



T H E P O W E R B E H I N D T H E F O R C E

Naargo Industries Private Limited, one of the leading manufacturers of latest state of art, large range of pumps and motors, is managed by veterans who are in the pump industry for almost half a century. The products are employed in various applications like irrigation, domestic, civil construction, de-watering etc; The Company has a strong distribution network in India for sales & service and a strong global presence.

Quality is the key factor in Naargo's products. The expansive infrastructure and environment accredited with ISO 9001 quality certification, latest engineering softwares, high-tech machinery, futuristic pumping technology and high caliber workforce facilitate the production of flawless and efficient products on par with international standards under the brand name of "Tormac". The well equipped R & D wing stays alive to the changing global trends and comes out with viable solutions for innovative product development and upgradation.

The Products currently available include Stainless Steel Submersible Pumps, 4" Thermoplastic Submersible Pumps, 6" & 8" Cast Iron Submersible Pumps, Submersible Motors and Controls, Centrifugal Pumps, Inline Booster Pumps, Jet Self-priming Pumps and Peripheral Pumps.

The power, performance and endurance of the products backed by the uncompromising teamwork and value systems will certainly propel the company's growth towards new horizons in the pump industry.

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Tormac
P U M P S