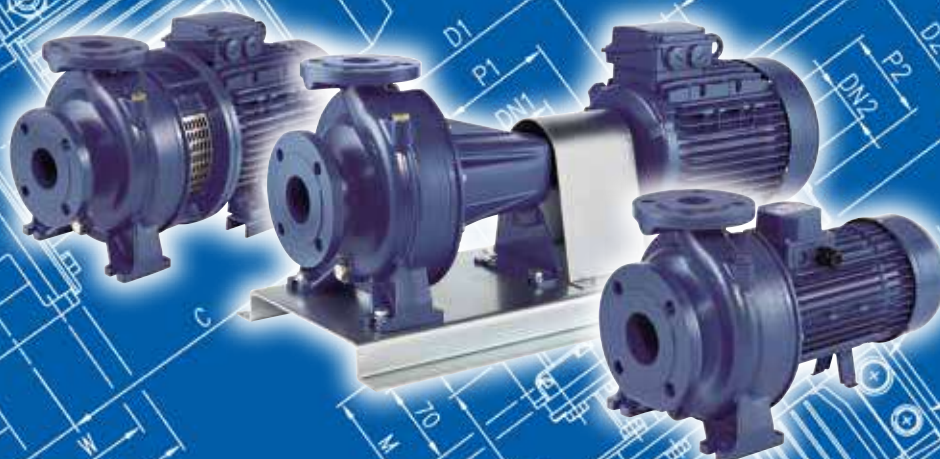




Japanese Technology since 1912

3D SERIES 4P

Data Book 50Hz



SPECIFICATION**50Hz**

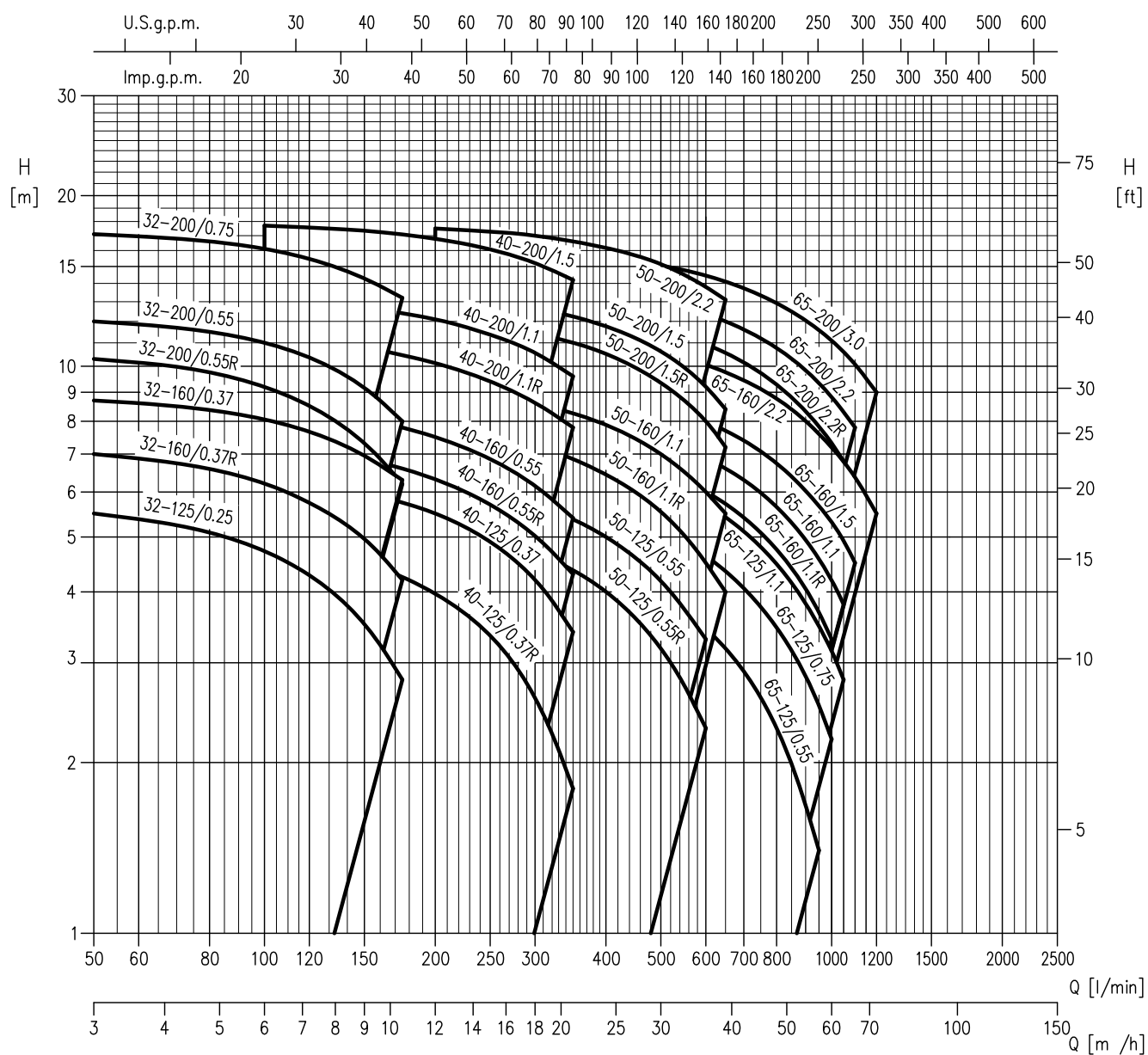
Rev. L

PUMP		
Liquid Handled	Type of liquid	Clean water
	Working temperature [°C]	min. -5 max. +120 For full details see section "FLUID TEMPERATURE RANGE" on pag. 307
Maximum working pressure [MPa]		1
Construction	Impeller	Closed centrifugal type for 32, 40, 50 version Reinforced laser welding for 40-200/1.5, 50-200/2.2 Closed centrifugal three dimensional blades for 65
	Shaft seal type	Mechanical seal
	Bearing	Bearing with contact seal
Pipe Connection	Suction	Flange DN 50, 65 according to EN 1092-2 Flange DN 80 according to UNI 2236-67 (4 holes)
	Discharge	Flange DN 32, 40, 50, 65 according to EN 1092-2
Material	Casing	Cast iron EN-GJL-250-EN 1561
	Impeller	EN 1.4301 (AISI 304) - 32, 40, 50 series EN 1.4401 (AISI 316) made by precision casting - 65 series
	Shaft seal	Ceramic/Carbon/NBR (see Optionals on pag. 306-307)
	Shaft / Coupling	EN 1.4301 (AISI 304) (wet extension)
Accessory	Bracket	Aluminium/Cast iron
	Counterflange	DN 32, 40, 50, 65, 80 (see pag. 311)
Applicable standard of test		ISO 9906:2012 – Grade 3B

MOTOR				
Type		3D4	3DS4	3DP4
		Electric - TEFC		
		Three Phase		
Efficiency (Reg. 1781/2019)		IE2 from 0.25 kW up to 0.55 Kw IE3 from 0.75 kW up to 3.0 kW		
No. of Poles		4		
Rotation speed	[min ⁻¹]	≈1400		
Insulation Class		F (class B for temperature rise)		
Protection degree		IP 55		
Power rating	[kW]	0.25 ÷ 3		
	[HP]	0.33 ÷ 4		
Frequency	[Hz]	50		
Voltage	[V]	230/400 ±10%	230/400 ±10%	
Over load protection		Provided by the user		
Casing material		Aluminium		
Motor support		Cast Iron - Aluminium		
Dimensions of cable entry		PG11, PG13.5, PG16	M10x15, M20x1.5, M25x1.5	
Flange mount (IEC motor)		/	IM B5 (up to 1.5 kW) IM B35 (2.2 kW and above)	IM B3

SELECTION CHART**50Hz**

Rev. L



SELECTION CHART

50Hz

Rev. L

3D4 SERIES 32 SIZE

Pump type	kW	HP	l/min 0	50	100	150	175
			m³/h 0	3	6	9	10.5
32-125/0.25	0.25	0.33	5.7	5.5	4.7	3.5	2.8
32-160/0.37R	0.37	0.5	7.3	7	6.2	5	4.2
32-160/0.37	0.37	0.5	9	8.7	8.1	7	6.3
32-200/0.55R	0.55	0.75	10.8	10.3	9.2	7.3	6.2
32-200/0.55	0.55	0.75	12.5	12	11	9.2	8
32-200/0.75	0.75	1	17.5	17.1	16.1	14.3	13.2

3D4 SERIES 40 SIZE

Pump type	kW	HP	l/min 0	100	150	175	200	250	300	350
			m³/h 0	6	9	10.5	12	15	18	21
40-125/0.37R	0.37	0.5	5.1	4.8	4.5	4.3	4	3.4	2.6	1.8
40-125/0.37	0.37	0.5	6.5	6.3	6	5.8	5.5	4.9	4.2	3.4
40-160/0.55R	0.55	0.75	7.7	7.3	6.9	6.6	6.3	5.7	5	4.3
40-160/0.55	0.55	0.75	9.1	8.6	8.1	7.8	7.5	6.9	6.2	5.4
40-200/1.1R	1.1	1.5	11.6	11.2	10.8	10.5	10.1	9.4	8.6	7.8
40-200/1.1	1.1	1.5	13.6	13.2	12.7	12.4	12.1	11.4	10.6	9.6
40-200/1.5	1.5	2	18	17.7	17.3	17.1	16.8	16.1	15.2	14.2

3D4 SERIES 50 SIZE

Pump type	kW	HP	l/min 0	200	250	300	350	400	500	600	650
			m³/h 0	12	15	18	21	24	30	36	39
50-125/0.55R	0.55	0.75	5.4	5.2	5	4.7	4.4	4	3.2	2.3	-
50-125/0.55	0.55	0.75	6.4	6.2	6	5.7	5.4	5	4.2	3.3	-
50-160/1.1R	1.1	1.5	8.2	7.8	7.6	7.2	6.9	6.4	5.5	4.5	4
50-160/1.1	1.1	1.5	9.5	9.1	8.9	8.6	8.3	7.9	7	6	5.5
50-200/1.5R	1.5	2	12.7	12.1	11.8	11.4	11	10.5	9.3	8	7.2
50-200/1.5	1.5	2	14	13.3	13	12.7	12.2	11.8	10.6	9.2	8.4
50-200/2.2	2.2	3	17.8	17.5	17.3	17	16.6	16.2	15.1	13.8	13.1

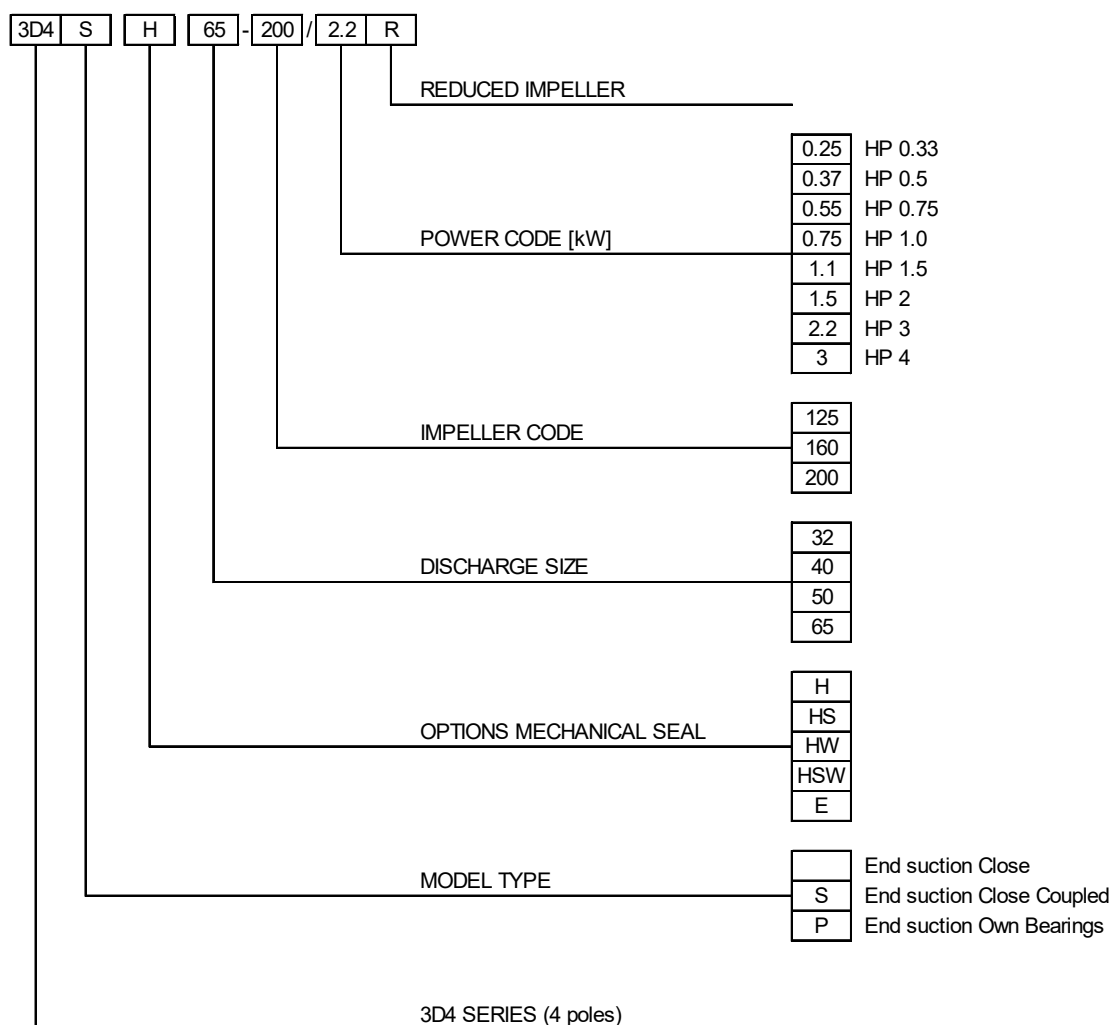
3D4 SERIES 65 SIZE

Pump type	kW	HP	l/min 0	300	350	500	600	800	950	1000	1050	1100	1200
			m³/h 0	18	21	30	36	48	57	60	63	66	72
65-125/0.55	0.55	0.75	5.3	4.8	4.6	4	3.5	2.3	1.4	-	-	-	-
65-125/0.75	0.75	1	6.4	6	5.8	5.2	4.6	3.5	2.5	2.2	-	-	-
65-125/1.1	1.1	1.5	7.7	7.2	7	6.3	5.7	4.5	3.5	3.2	2.8	-	-
65-160/1.1	1.1	1.5	8.6	-	8.1	7.4	6.9	5.7	4.6	4.2	3.8	-	-
65-160/1.5	1.5	2	9.7	-	9.2	8.5	8	6.7	5.7	5.3	4.9	4.5	-
65-160/2.2	2.2	3	11.8	-	11.3	10.6	10.1	8.8	7.6	7.2	6.8	6.4	5.5
65-200/2.2R	2.2	3	13	-	12.4	11.6	10.9	9.3	7.8	7.3	6.8	-	-
65-200/2.2	2.2	3	14.5	-	13.9	13	12.4	10.8	9.3	8.8	8.3	7.8	-
65-200/3	3	4	16.3	-	15.8	15.1	14.4	12.9	11.6	11.1	10.6	10.1	9

TYPE KEY AND CURVE SPECIFICATIONS

50Hz

Rev. L

TYPE KEY

MEI INDEX SPECIFICATION

The minimum efficiency index (MEI) is a measure of the quality of a pump size in respect to its mean efficiency. The minimum efficiency index is based on the hydraulic efficiency and on the head at the best efficiency point.

The efficiency of a pump with trimmed impeller is usually lower than that of a pump with the full impeller diameter. The trimming of the impeller will adapt the pump to a fixed duty point, leading to a reduced energy consumption. The minimum efficiency index (MEI) is based on the full impeller diameter.

The operation of these water pumps with variable duty points may be more efficient and economical when controlled, for example, by the use of a variable speed drive that matches the pump duty to the system.

