

TABLE 4
PHYSICAL CHARACTERISTICS OF THE COIL TC728.

RADIUS OF COIL WIRE	$r_{\text{wire}} = (A_1/\pi)^{0.5} = h/2N$	$2 * 10^{-4} \text{ m} = 200\mu\text{m}$
AREA OF COIL WIRE X-SECTION	$A_1 = \pi r_{\text{wire}}^2 = \pi h^2/4N^2$	$1.2566 * 10^{-7} \text{ m}^2$
VOLUME OF COILED WIRE	$V_{\text{OL1}} = A_1 * \ell_c$	$4.6018 * 10^{-5} \text{ m}^3$
LENGTH OF COIL	$\ell_c = N * 2\pi r_{\text{coil}} = W_{v2^\circ}/F_B = c/4 F_C$	366.2 m
RADIUS OF COIL SOLENOID	$r_{\text{coil}} = \ell_c/2\pi N = r_{\text{MF}} = (B_{2^\circ\text{MF}} * N)^{-1} =$ $= W_{v2^\circ}/N * 2\pi F_B$	0.08 m = 8 cm
AREA OF CYLINDRICAL SOLENOID X-SECTION	$A_2 = \pi r_{\text{coil}}^2 = \pi r_{\text{MF}}^2 = \ell_c^2/4\pi N^2 =$ $= \pi/B_{2^\circ\text{MF}}^2 * N^2$	$2.0106 * 10^{-2} \text{ m}^2$
VOLUME OF SOLENOID CYLINDER	$V_{\text{OL2}} = A_2 * h$	$5.855 * 10^{-3} \text{ m}^3 = 5.86 \text{ Liters}$
HEIGHT OF SOLENOID	$h = N * 2 r_{\text{wire}}$	0.2912 m
NUMBER OF TURNS	$N = \ell_c/2\pi r_{\text{coil}} = \ell_c/2\pi r_{\text{MF}}$	728 turns
'n'	N/ℓ_c	1.988 turns per meter
PERIMETER OF A TURN	$2\pi r_{\text{coil}} = 2\pi r_{\text{MF}}$	0.5026 m
DIAMETER OF A TURN	$2 r_{\text{coil}}$	0.16 m = 16 cm